

Bowen Basin resource industry workforce, 2022

Introduction

The Bowen Basin in Central Queensland (Figure 1) contains most of Australia's high quality metallurgical coal reserves, as well as significant deposits of thermal coal. Much of the coal produced in the region is transported by rail to coal terminals on the coast for export to overseas markets. In addition to coal mining, the region is home to other resource industries, including coal seam gas (CSG) and conventional gas operations, gold mines, renewable energy projects and resource industry infrastructure.

The Bowen Basin's resource industry workforce includes local residents who live in the same local government area (LGA) as their place of work, and others who live elsewhere and fly-in/fly-out or drive-in/drive-out (FIFO/DIDO) to work.

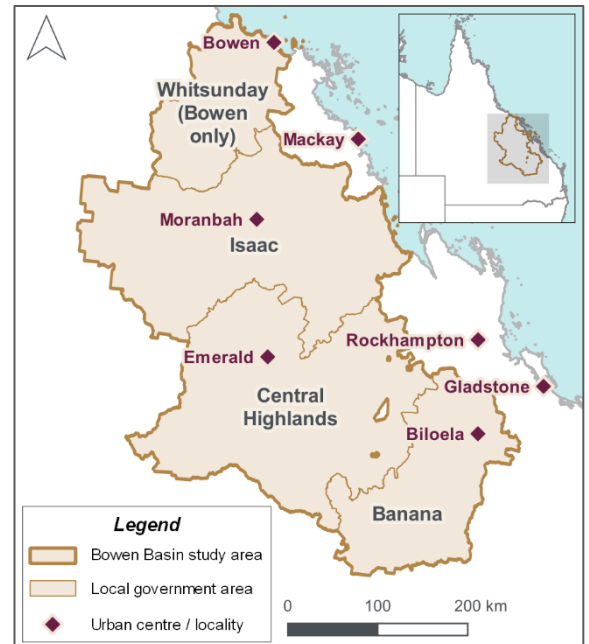
This report provides information on workforce characteristics and place of residence of the Bowen Basin's resource industry workforce. Data were derived from the Resource Employment Survey, conducted by Queensland Government Statistician's Office (QGSO), and other sources. The survey collected information from all resource industry companies with existing operations and projects under construction in the Bowen Basin in June 2022 (Figure 2).

Key findings

Key findings of this report include:

- In June 2022, the Bowen Basin had a resource industry workforce of around 39,400 persons.
- Most of the region's resource industry workers in June 2022 were engaged in coal mining (37,210 persons or 94%), with the balance (2,190 persons or 6%) in other resource industries.
- Around 6 in every 10 Bowen Basin resource industry workers in June 2022 were contractors (23,700 persons or 60%). The remainder were employees (15,710 persons or 40%).
- The LGA of Isaac had the largest number of workers, accounting for almost two-thirds of the region's total resource industry workforce in June 2022 (24,650 persons or 63%). The remainder worked in Central Highlands (9,390 persons or 24%), Banana (3,670 persons or 9%) and Whitsunday (Bowen only) (1,690 persons or 4%).
- The Bowen Basin's resource industry workforce includes local residents, who live in the same LGA as their place of work, and non-resident workers, who live outside the LGA where they work.
 - Place of residence was unknown for 39% (15,460 persons) of the workforce. Almost all of these workers were contractors (14,930 persons).
- Of the 23,950 workers in June 2022 whose place of residence was known:
 - 35% (8,300 persons) lived and worked in same LGA
 - 65% (15,650 persons) worked in a different LGA from where they lived
 - 7,600 of this group lived in an LGA in Central Queensland, including elsewhere in the Bowen Basin, or the regions of Mackay, Rockhampton and Gladstone.

Figure 1 Bowen Basin region



Source: QGSO, 2023

In this publication, the Bowen Basin comprises the LGAs of Banana, Central Highlands, Isaac and Whitsunday (Bowen only) (Figure 1).

Figure 2 Existing resource operations and projects under construction^(a), Bowen Basin, June 2022



(a) Coal mines by workforce size are based on numbers at June 2022 published by Resources Safety and Health Queensland (RSHQ), rather than confidential QGSO data. Operation and project locations shown in map are indicative only. See Table 9 (pages 11–12) for a full list of existing operations and projects by LGA.

Sources: RSHQ, 2022; QGSO, 2023

Workforce characteristics

In June 2022, the Bowen Basin had a resource industry workforce of around 39,400 persons (Table 1). Isaac had the largest number of workers, accounting for almost two-thirds of the region's total resource industry workforce (24,650 persons or 63%). The remainder worked in Central Highlands (9,390 persons or 24%), Banana (3,670 persons or 9%) and Whitsunday (Bowen only) (1,690 persons or 4%). As shown in Figure 2 and Table 9, the greatest concentration of resource operations and projects is in Isaac, including 7 of the 10 largest coal mines in the region.

Most of the region's resource industry workers reported in June 2022 were engaged in coal mining (37,210 persons or 94%) (Table 1). The balance (2,190 persons or 6%) worked in other resource industries, including gas operations, metalliferous mining, renewable energy projects and related infrastructure operations.

In June 2022, there were 50 coal mines in operation or under construction, four gas operations, two gold mines, two renewable energy projects under construction and six related infrastructure operations in the Bowen Basin (Figure 2, Table 9). At the time of QGSO's survey in June 2022, the majority of coal industry workers in the region were engaged at existing operations (QGSO, 2022). Other workers were at new or reopened mines and also in project construction.

At the LGA level, resource industry workers in Isaac and Central Highlands in June 2022 were predominantly engaged in coal mining (98% of each LGA's workforce). The LGAs of Banana and Whitsunday (Bowen only) had smaller proportions of coal mining workers, with around 7 in 10 in coal mining and the balance in other resource industries.

Table 1 Resource industry workforce by sector of employment, Bowen Basin LGAs, June 2022

| Place of work | Other resource industry ^(a) | | | Other resource industry ^(a) | | |
|--------------------------|--|--------------|---------------|--|----------|------------|
| | Coal mining | — persons — | Total | Coal mining | — % — | Total |
| Banana | 2,580 | 1,090 | 3,670 | 70 | 30 | 100 |
| Central Highlands | 9,220 | 180 | 9,390 | 98 | 2 | 100 |
| Isaac | 24,200 | 460 | 24,650 | 98 | 2 | 100 |
| Whitsunday (Bowen only) | 1,230 | 470 | 1,690 | 72 | 28 | 100 |
| BOWEN BASIN TOTAL | 37,210 | 2,190 | 39,400 | 94 | 6 | 100 |

(a) 'Other resource industry' includes gas operations, metalliferous mining, renewable energy projects and related infrastructure operations. Figures in tables in this report have been rounded to the nearest 10; see Notes at end of report for details.

Source: QGSO estimates

Employees are workers engaged directly by resource companies to carry out on-site production, maintenance, and operations.

Contractors are workers engaged by companies providing services at resource operations or projects under contractual arrangements. Contracted services range from specific project construction and scheduled maintenance events to full provision of mining operations services, and contract workforces may be temporary or ongoing.

Table 2 Resource industry workforce by employment status^(a), Bowen Basin, June 2022

| | persons | % |
|------------------------|---------------|------------|
| Employees | 15,710 | 40 |
| Contractors | 23,700 | 60 |
| TOTAL WORKFORCE | 39,400 | 100 |

(a) Refer to Notes at end of report for explanation of 'employees' and 'contractors'.

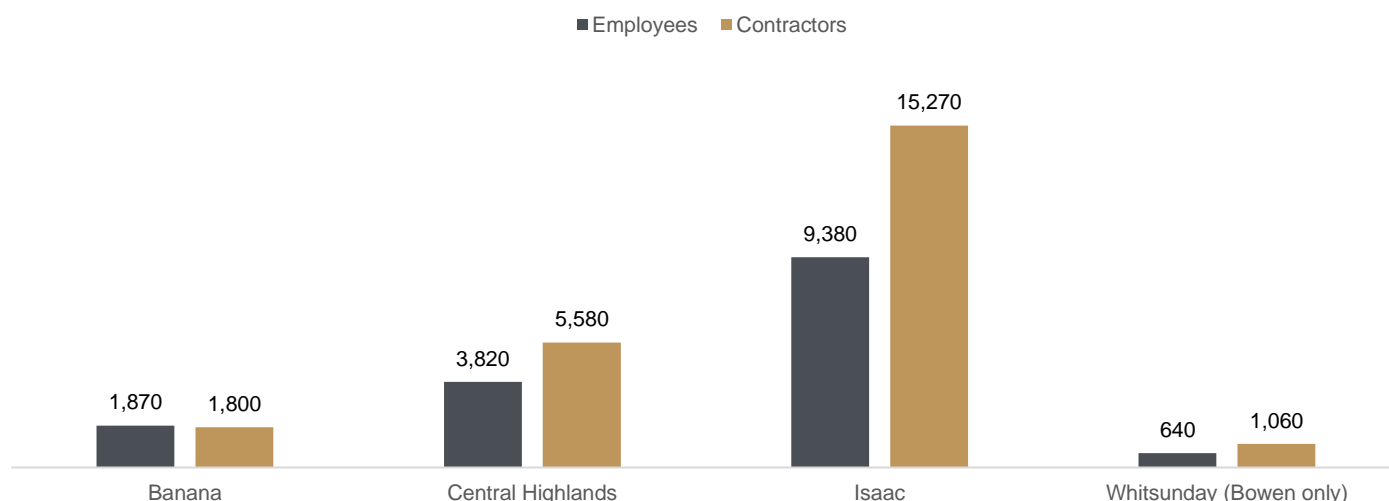
Source: QGSO estimates

According to their employment status, around 6 in 10 Bowen Basin resource industry workers in June 2022 were contractors (23,700 persons or 60%) (Table 2). The remainder were employees (15,710 persons or 40%). The majority of employees and contractors working in the region in June 2022 were involved in production and maintenance activities at existing operations. A smaller number of workers—predominantly contractors—were associated with project construction.

At the LGA level, in June 2022, contractors accounted for around 6 in 10 resource industry workers in Isaac (15,270 persons or 62%), Whitsunday (Bowen only) (1,060 persons or 62%) and Central Highlands (5,580 persons or 59%) (Figure 3). In Banana, just under half of all resource industry workers were contractors (1,800 persons or 49%).

As noted above, Isaac has the greatest concentration of coal operations and projects and the largest resource industry workforce in the region. Contractors in Isaac comprised the single largest group of resource industry workers in the Bowen Basin, accounting for around 4 in 10 workers in June 2022 (15,270 persons, or 39% of the region's workforce). Employees in Isaac were the second-largest group, contributing around one-quarter of the regional total (9,380 persons or 24%).

Figure 3 Resource industry workforce by employment status^(a), Bowen Basin LGAs, June 2022



(a) Refer to Notes at end of report for explanation of 'employees' and 'contractors'.

Source: QGSO estimates

The Bowen Basin's resource industry workforce includes local residents, who live in the same LGA as their place of work, and non-resident workers, who live outside the LGA where they work. These non-resident or FIFO/DIDO workers stay in the local area while rostered on, and return to their place of residence elsewhere when rostered off. Non-resident workers typically stay in dedicated worker accommodation villages or other commercial accommodation, such as hotels, motels and caravan parks, while rostered on.

The use of FIFO/DIDO labour is commonplace for resource operations and projects in the region. Temporary construction workforces for resource projects tend to be predominantly non-resident, while ongoing operational workforces are more likely to include local residents.

In June 2022, around 8,300 persons (or 21% of the region's resource industry workforce) were local residents who lived and worked in the same Bowen Basin LGA. A further 15,650 persons (or 40%) were non-residents who lived outside of the LGA where they worked (Table 3).

For another 15,460 persons (or 39%), place of residence was reported as unknown by survey respondents. While most resource industry companies were able to report the place of residence of their employees, they were less likely to know their contractors' place of residence.

Figure 4 illustrates these differences in reporting of residential status for employees and contractors in the Bowen Basin in June 2022. For employees, around 5,940 persons (or 38%) were reported to be local residents, while 9,230 persons (or 59%) were non-residents. Just 530 persons, or 3% of employees, were recorded as having an unknown place of residence. In contrast, place of residence was unknown for 14,930 persons or 63% of contractors. The under-reporting of place of residence of contractors means that the residential status of this group cannot be determined with the same degree of certainty as for employees.

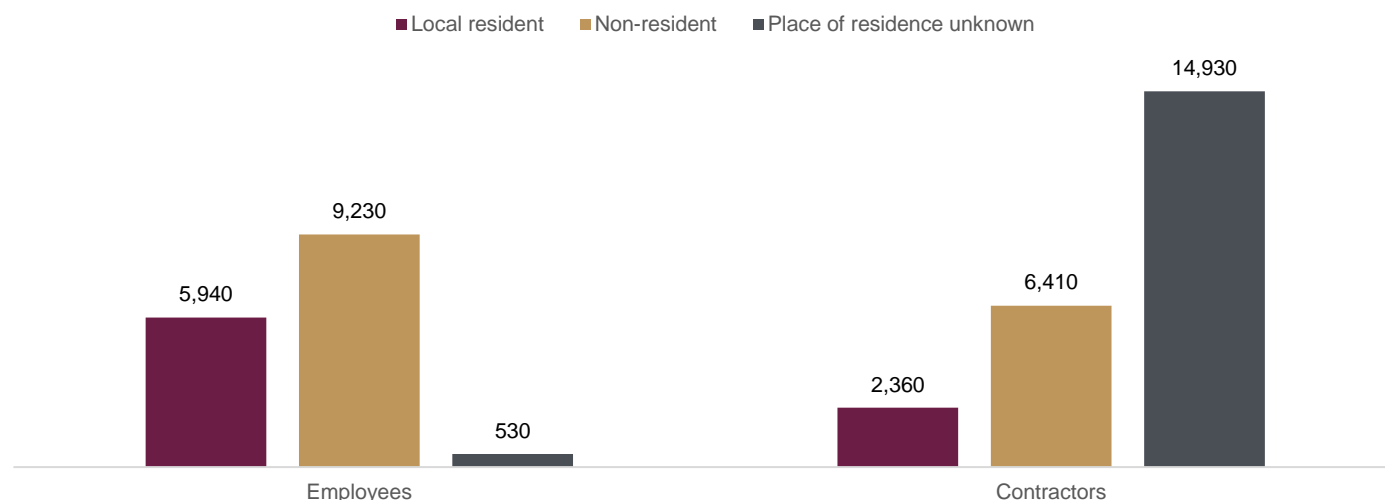
Table 3 Resource industry workforce by residential status^(a), Bowen Basin, June 2022

| | persons | % |
|----------------------------|---------------|------------|
| Local resident | 8,300 | 21 |
| Non-resident | 15,650 | 40 |
| Place of residence unknown | 15,460 | 39 |
| TOTAL WORKFORCE | 39,400 | 100 |

(a) Refer to Notes at end of report for explanation of 'local resident', 'non-resident' and 'place of residence unknown'.

Source: QGSO estimates

Figure 4 Resource industry workforce by employment status^(a) and residential status^(b), Bowen Basin, June 2022



(a) Refer to Notes at end of report for explanation of 'employees' and 'contractors'.

(b) Refer to Notes at end of report for explanation of 'local resident', 'non-resident' and 'place of residence unknown'.

Source: QGSO estimates

Place of residence

Detailed place of residence data in this section provides further information on where the Bowen Basin's resource industry workers live when not at work.

As noted above, the Bowen Basin's resource industry workforce includes a sizeable number of non-resident workers (Table 3), who live outside the LGA where they work. These non-resident, or FIFO/DIDO workers, stay in the local area while rostered on and return to their place of residence elsewhere when rostered off.

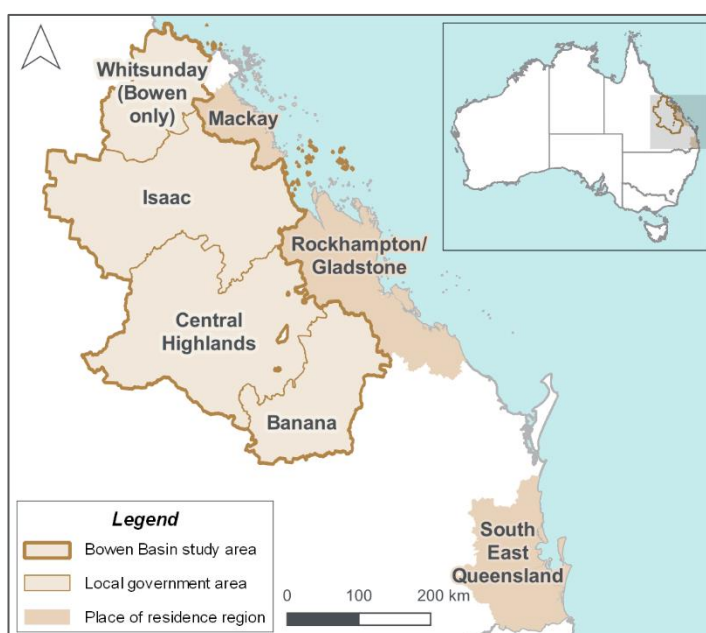
Many workers drive-in/drive-out to the region from coastal areas of Central Queensland such as Rockhampton/Gladstone and Mackay, while others fly-in/fly-out from South East Queensland and further afield (Figure 5).

In June 2022, place of residence was unknown for 15,460 persons (or 39%) of Bowen Basin resource industry workers, most of whom were contractors.

Of the 23,950 workers where place of residence was known, around 8,300 lived and worked in the same Bowen Basin LGA (Table 4, Figure 6). This equates to 35% of those with a known place of residence.

A further 7,600 persons (or 32% of those with a known place of residence) came from elsewhere in Central Queensland. This includes 1,390 persons (or 6%) from another Bowen Basin LGA, 2,270 persons (or 9%) from the Rockhampton/Gladstone region, and 3,940 persons (or 16%) from the Mackay region.

Figure 5 Bowen Basin and place of residence regions^(a)



(a) Refer to Notes at end of report for further information on regions.

Source: QGSO, 2023

Around 16% (3,930 persons) of Bowen Basin resource industry workers in June 2022, with a known place of residence, came from South East Queensland.

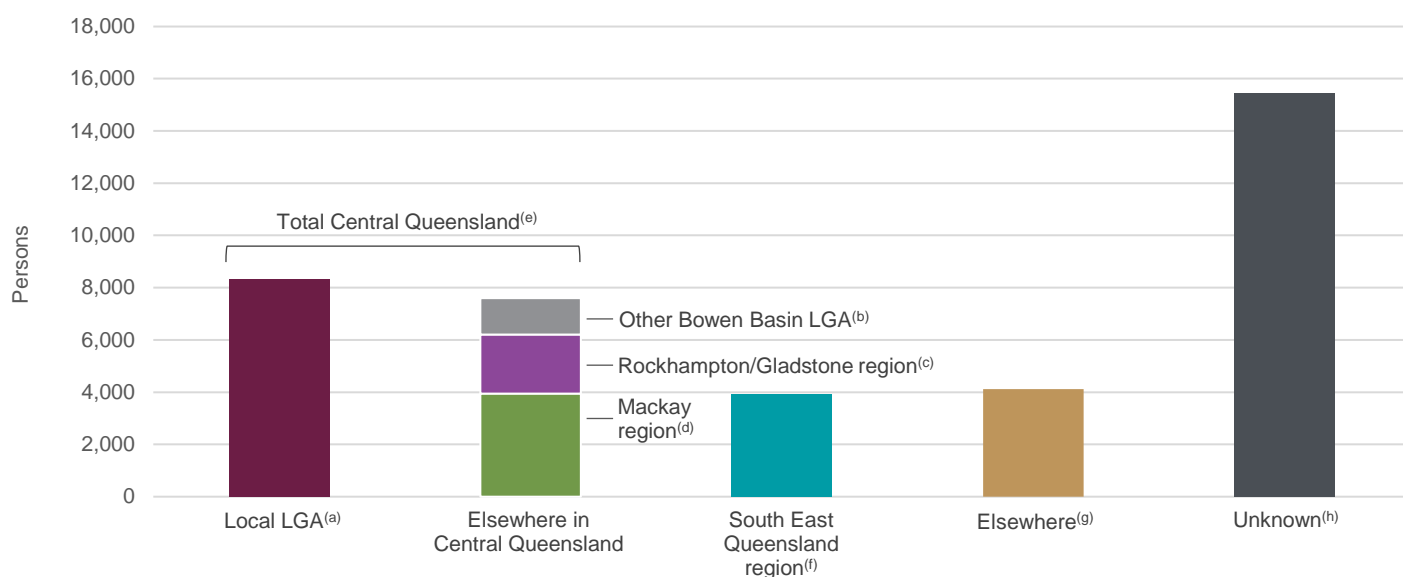
A further 4,120 persons (or 17%) lived 'Elsewhere', which refers to all other locations in Queensland, interstate or overseas. It is likely that some of these workers lived in nearby regions that were not identified separately in QGSO's 2022 Resource Employment Survey.

Table 4 Resource industry workforce by place of residence, Bowen Basin, June 2022

| Place of residence | Place of work – Bowen Basin |
|---|-----------------------------|
| | persons |
| Local LGA ^(a) | 8,300 |
| Other Bowen Basin LGA ^(b) | 1,390 |
| Rockhampton/Gladstone region ^(c) | 2,270 |
| Mackay region ^(d) | 3,940 |
| Total Central Queensland^(e) | 15,900 |
| South East Queensland region ^(f) | 3,930 |
| Elsewhere ^(g) | 4,120 |
| Total with place of residence known | 23,950 |
| Unknown ^(h) | 15,460 |
| TOTAL WORKFORCE | 39,400 |

Refer to footnotes below (Figure 6) for explanation of place of residence.

Figure 6 Resource industry workforce by place of residence, Bowen Basin, June 2022



- (a) Local LGA refers to the Bowen Basin LGA in which the resource operation or project is located.
- (b) Other Bowen Basin LGA refers to the three Bowen Basin LGAs other than the LGA in which the resource operation or project is located. The four LGAs in the Bowen Basin are Banana, Central Highlands, Isaac and Whitsunday (Bowen only).
- (c) Rockhampton/Gladstone region includes the urban centres of Rockhampton, Yeppoon and Gladstone.
- (d) Mackay region includes the urban centre of Mackay and hinterland areas.
- (e) Central Queensland comprises the Bowen Basin region, Rockhampton/Gladstone region and Mackay region.
- (f) South East Queensland region includes the major population centres of Brisbane, Gold Coast and Sunshine Coast.
- (g) 'Elsewhere' refers to all other locations not separately identified in Queensland, interstate or overseas.
- (h) 'Unknown' refers to employees and contractors whose place of residence was reported as unknown in QGSO's 2022 Resource Employment Survey.

Source: QGSO estimates

Banana

Banana is home to three coal mines, two gas operations, a gold mine and a coal-fired power station (Figure 2, Table 9). Moura Solar Farm was under construction in June 2022, with expected completion later in the same year (QGSO, 2022).

In June 2022, the LGA of Banana had a resource industry workforce of 3,670 persons, representing 9% of the Bowen Basin total. Around 7 in 10 resource industry workers in the LGA were in coal mining (70%), with the rest in other resource industries.

Place of residence was known for 2,510 resource industry workers in Banana in June 2022. Of these, half lived locally in towns such as Moura and Biloela (1,260 persons or 50%) (Table 5).

The top source region for non-resident workers in Banana in June 2022 was 'Elsewhere' (500 persons or 20% of those with a known place of residence) (Figure 7). Many workers who came from 'Elsewhere' are likely to drive-in/drive-out and live in the adjoining coastal region centred on Bundaberg (Figure 2), or in the Western Downs area south of Banana.

The Rockhampton/Gladstone region, which is connected to Banana via major roads, was the second-most common source region for non-resident workers in Banana (370 persons or 15%). South East Queensland, the third-most common source region, accounted for a further 290 persons or 12% of workers with a known place of residence.

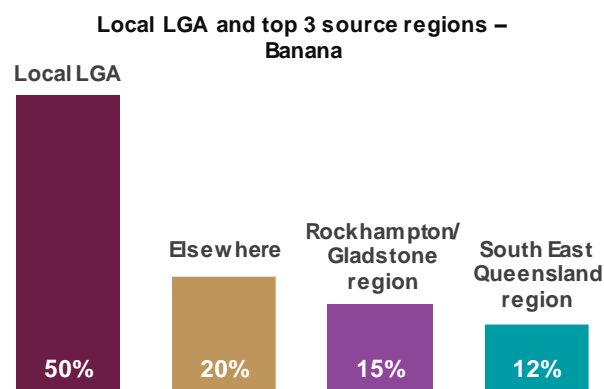
Banana at a glance

- Banana accounted for 9% of the Bowen Basin's resource industry workforce.
- Around 7 in 10 workers (70%) in the resource industry were in coal mining.
- Just over half the workforce (51%) were employees; just under half (49%) were contractors.
- Place of residence was known for 68% of the workforce. Of these:
 - 50% lived in the local LGA
 - 18% lived elsewhere in Central Queensland.
- Place of residence was unknown for 32% of the workforce.

Table 5 Resource industry workforce by place of residence, Banana, June 2022

| Place of residence | Place of work – Banana persons |
|---|--------------------------------------|
| Local LGA ^(a) | 1,260 |
| Other Bowen Basin LGA ^(b) | 90 |
| Rockhampton/Gladstone region ^(c) | 370 |
| Mackay region ^(d) | 0 |
| Total Central Queensland^(e) | 1,720 |
| South East Queensland region ^(f) | 290 |
| Elsewhere ^(g) | 500 |
| Total with place of residence known | 2,510 |
| Unknown ^(h) | 1,170 |
| TOTAL WORKFORCE | 3,670 |

Figure 7 Resource industry workforce by place of residence^(a), Banana, June 2022



(a) Percentages are based on those with a known place of residence.

- (a) Local LGA refers to the Bowen Basin LGA in which the resource operation or project is located.
- (b) Other Bowen Basin LGA refers to the three Bowen Basin LGAs other than the LGA in which the resource operation or project is located. The four LGAs in the Bowen Basin are Banana, Central Highlands, Isaac and Whitsunday (Bowen only).
- (c) Rockhampton/Gladstone region includes the urban centres of Rockhampton, Yeppoon and Gladstone.
- (d) Mackay region includes the urban centre of Mackay and hinterland areas.
- (e) Central Queensland comprises the Bowen Basin region, Rockhampton/Gladstone region and Mackay region.
- (f) South East Queensland region includes the major population centres of Brisbane, Gold Coast and Sunshine Coast.
- (g) 'Elsewhere' refers to all other locations not separately identified in Queensland, interstate or overseas.
- (h) 'Unknown' refers to employees and contractors whose place of residence was reported as unknown in QGSO's 2022 Resource Employment Survey.

Source: QGSO estimates

Central Highlands

There are 13 coal mines and two gas operations in Central Highlands LGA (Figure 2, Table 9). Bluff and Cook coal mines had recommenced operations by June 2022 following a period of care and maintenance (QGSO, 2022).

Central Highlands LGA had a resource industry workforce of 9,390 persons in June 2022, representing 24% of the Bowen Basin total (Table 6). Almost all (98%) of these workers were in coal mining.

In June 2022, place of residence was known for 5,340 of Central Highlands' resource industry workers, 57% of the total workforce. Of these, almost half (2,600 persons or 49%) lived locally in towns such as Emerald and Blackwater.

The top source region for non-resident workers in Central Highlands in June 2022 was the nearby Rockhampton/Gladstone region (970 persons or 18% of those with a known place of residence) (Figure 8). Central Highlands has strong links with the Rockhampton/Gladstone region, with much of the coal produced in the LGA exported via the Blackwater coal rail system through coal terminals near Gladstone. Many non-resident workers in Central Highlands live in coastal towns such as Gladstone and Yeppoon, and drive-in/drive-out for work via the Capricorn Highway (Figure 2).

South East Queensland (670 persons or 13%) and 'Elsewhere' (630 persons or 12%) were the second and third-largest source regions respectively for resource industry workers in Central Highlands.

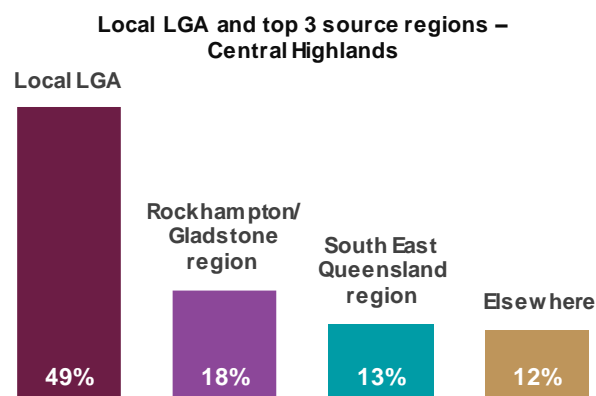
Central Highlands at a glance

- Central Highlands accounted for 24% of the Bowen Basin's resource industry workforce.
- Almost all (98%) workers in the resource industry were in coal mining.
- Around 4 in 10 (41%) were employees; around 6 in 10 (59%) were contractors.
- Place of residence was known for 57% of the workforce. Of these:
 - 49% lived in the local LGA
 - 27% lived elsewhere in Central Queensland
- Place of residence was unknown for 43% of the workforce.

Table 6 Resource industry workforce by place of residence, Central Highlands, June 2022

| Place of residence | Place of work – Central Highlands persons |
|---|--|
| Local LGA ^(a) | 2,600 |
| Other Bowen Basin LGA ^(b) | 240 |
| Rockhampton/Gladstone region ^(c) | 970 |
| Mackay region ^(d) | 230 |
| Total Central Queensland^(e) | 4,040 |
| South East Queensland region ^(f) | 670 |
| Elsewhere ^(g) | 630 |
| Total with place of residence known | 5,340 |
| Unknown ^(h) | 4,060 |
| TOTAL WORKFORCE | 9,390 |

Figure 8 Resource industry workforce by place of residence^(a), Central Highlands, June 2022



(a) Percentages are based on those with a known place of residence.

- (a) Local LGA refers to the Bowen Basin LGA in which the resource operation or project is located.
- (b) Other Bowen Basin LGA refers to the three Bowen Basin LGAs other than the LGA in which the resource operation or project is located. The four LGAs in the Bowen Basin are Banana, Central Highlands, Isaac and Whitsunday (Bowen only).
- (c) Rockhampton/Gladstone region includes the urban centres of Rockhampton, Yeppoon and Gladstone.
- (d) Mackay region includes the urban centre of Mackay and hinterland areas.
- (e) Central Queensland comprises the Bowen Basin region, Rockhampton/Gladstone region and Mackay region.
- (f) South East Queensland region includes the major population centres of Brisbane, Gold Coast and Sunshine Coast.
- (g) 'Elsewhere' refers to all other locations not separately identified in Queensland, interstate or overseas.
- (h) 'Unknown' refers to employees and contractors whose place of residence was reported as unknown in QGSO's 2022 Resource Employment Survey.

Source: QGSO estimates

Isaac

Isaac accounts for 32 coal mines, four related infrastructure operations and one gas operation (Figure 2, Table 9). The Clarke Creek Wind and Solar Farm and a number of new coal projects, including Broadmeadow East, Ironbark No.1 and Olive Downs, were under construction in Isaac in June 2022 (QGSO, 2022). Broadlea and Millennium coal mines had recommenced operations by June 2022, while three new mines (Aquila, Carmichael and Vulcan Mine Complex) had begun production.

There were 24,650 resource industry workers in the LGA of Isaac in June 2022, representing 63% of the Bowen Basin total (Table 7). Almost all (98%) of these workers were in coal mining.

In June 2022, place of residence was known for around 60% of Isaac's resource industry workforce. Of these 14,690 workers, 3,630 (or 25%) lived locally in towns such as Moranbah, Dysart and Middlemount.

The adjoining coastal region of Mackay was the top source region for non-resident workers whose place of residence was known, in Isaac in June 2022 (3,670 persons or 25%) (Figure 9). While the difference was small (40 persons), Isaac was the only LGA in the Bowen Basin where the top source region contributed more workers than the local LGA.

Mackay is an important mining services hub for the region and a popular place of residence for resource industry workers, who drive-in/drive-out for work via the Peak Downs Highway between Isaac and Mackay (Figure 2).

South East Queensland (2,950 persons or 20%) and 'Elsewhere' (2,470 persons or 17%), the second and third-largest source regions, also contributed sizeable numbers of resource workers to Isaac LGA. Isaac is serviced by regular commercial and charter flights from South East Queensland and other parts of the state.

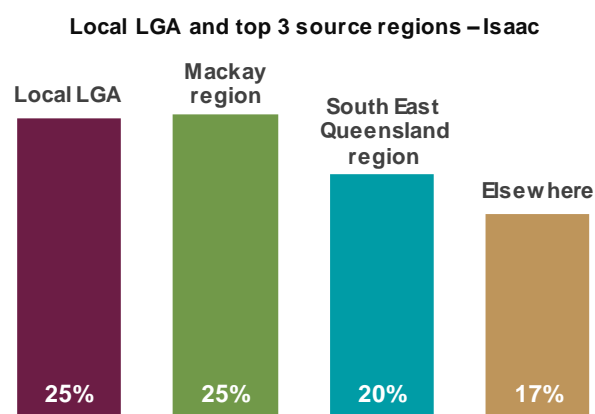
Isaac at a glance

- Isaac accounted for 63% of the Bowen Basin's resource industry workforce.
- Almost all (98%) workers in the resource industry were in coal mining.
- Almost 4 in 10 (38%) were employees; about 6 in 10 (62%) were contractors.
- Place of residence was known for 60% of the workforce. Of these:
 - 25% lived in the local LGA
 - 38% lived elsewhere in Central Queensland.
- Place of residence was unknown for 40% of the workforce.

Table 7 Resource industry workforce by place of residence, Isaac, June 2022

| Place of residence | Place of work – Isaac persons |
|---|----------------------------------|
| Local LGA ^(a) | 3,630 |
| Other Bowen Basin LGA ^(b) | 1,050 |
| Rockhampton/Gladstone region ^(c) | 920 |
| Mackay region ^(d) | 3,670 |
| Total Central Queensland^(e) | 9,270 |
| South East Queensland region ^(f) | 2,950 |
| Elsewhere ^(g) | 2,470 |
| Total with place of residence known | 14,690 |
| Unknown ^(h) | 9,960 |
| TOTAL WORKFORCE | 24,650 |

Figure 9 Resource industry workforce by place of residence^(a), Isaac, June 2022



(a) Percentages are based on those with a known place of residence.

- (a) Local LGA refers to the Bowen Basin LGA in which the resource operation or project is located.
- (b) Other Bowen Basin LGA refers to the three Bowen Basin LGAs other than the LGA in which the resource operation or project is located. The four LGAs in the Bowen Basin are Banana, Central Highlands, Isaac and Whitsunday (Bowen only).
- (c) Rockhampton/Gladstone region includes the urban centres of Rockhampton, Yeppoon and Gladstone.
- (d) Mackay region includes the urban centre of Mackay and hinterland areas.
- (e) Central Queensland comprises the Bowen Basin region, Rockhampton/Gladstone region and Mackay region.
- (f) South East Queensland region includes the major population centres of Brisbane, Gold Coast and Sunshine Coast.
- (g) 'Elsewhere' refers to all other locations not separately identified in Queensland, interstate or overseas.
- (h) 'Unknown' refers to employees and contractors whose place of residence was reported as unknown in QGSO's 2022 Resource Employment Survey.

Source: QGSO estimates

Whitsunday (Bowen only)

There are two coal mines and one gold mine in Whitsunday (Bowen only), as well as the port of Abbot Point, which exports coal produced from coal mines in the northern Bowen Basin (Figure 2, Table 9). By June 2022, the Carmichael Rail Network was completed and fully operational (QGSO, 2022).

In June 2022, there were 1,690 resource industry workers in the LGA of Whitsunday (Bowen only), representing 4% of the Bowen Basin total (Table 8). Around 7 in 10 workers (72%) in the resource industry were in coal mining.

In June 2022, place of residence was known for around 1,420 of the Whitsunday (Bowen only) LGA resource industry workforce. Of these, an estimated 830 workers (or 58%) lived locally in towns such as Bowen and Collinsville.

The top source region for non-resident workers in Whitsunday (Bowen only), of those with a known place of residence, was 'Elsewhere' (520 persons or 37%) (Figure 10). It is likely that many workers came from North Queensland, including the major regional city of Townsville, just to the north of the LGA (Figure 2).

Much smaller numbers of resource industry workers in Whitsunday (Bowen only) lived in the regions of Mackay (30 persons or 2%) and South East Queensland (20 persons or 1%).

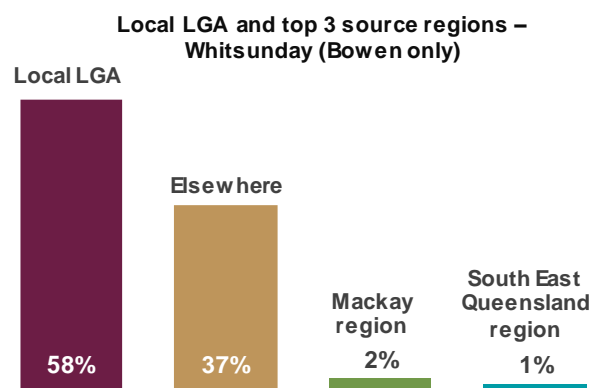
Whitsunday (Bowen only) at a glance

- Whitsunday (Bowen only) accounted for 4% of the Bowen Basin's resource industry workforce.
- About 7 in 10 workers (72%) in the resource industry were in coal mining.
- Almost 4 in 10 (38%) were employees; about 6 in 10 (62%) were contractors.
- Place of residence was known for 84% of the workforce. Of these:
 - 58% lived in the local LGA
 - 4% lived elsewhere in Central Queensland.
- Place of residence was unknown for 16% of the workforce.

Table 8 Resource industry workforce by place of residence, Whitsunday (Bowen only), June 2022

| Place of residence | Place of work – Whitsunday (Bowen only) persons |
|---|--|
| Local LGA ^(a) | 830 |
| Other Bowen Basin LGA ^(b) | 10 |
| Rockhampton/Gladstone region ^(c) | 10 |
| Mackay region ^(d) | 30 |
| Total Central Queensland^(e) | 880 |
| South East Queensland region ^(f) | 20 |
| Elsewhere ^(g) | 520 |
| Total with place of residence known | 1,420 |
| Unknown ^(h) | 280 |
| TOTAL WORKFORCE | 1,690 |

Figure 10 Resource industry workforce by place of residence^(a), Whitsunday (Bowen only), June 2022



(a) Percentages are based on those with a known place of residence.

- (a) Local LGA refers to the Bowen Basin LGA in which the resource operation or project is located.
- (b) Other Bowen Basin LGA refers to the three Bowen Basin LGAs other than the LGA in which the resource operation or project is located. The four LGAs in the Bowen Basin are Banana, Central Highlands, Isaac and Whitsunday (Bowen only).
- (c) Rockhampton/Gladstone region includes the urban centres of Rockhampton, Yeppoon and Gladstone.
- (d) Mackay region includes the urban centre of Mackay and hinterland areas.
- (e) Central Queensland comprises the Bowen Basin region, Rockhampton/Gladstone region and Mackay region.
- (f) South East Queensland region includes the major population centres of Brisbane, Gold Coast and Sunshine Coast.
- (g) 'Elsewhere' refers to all other locations not separately identified in Queensland, interstate or overseas.
- (h) 'Unknown' refers to employees and contractors whose place of residence was reported as unknown in QGSO's 2022 Resource Employment Survey.

Source: QGSO estimates



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Table 9 Existing resource operations and projects under construction^(a), Bowen Basin, June 2022

| Category | Operation / project name | Company name |
|--------------------------|-----------------------------------|-----------------------------|
| Banana | | |
| CM | Baralaba North | Baralaba Coal Company |
| CM | Callide | Batchfire Resources |
| RI | Callide Power Station | CS Energy |
| MM | Cracow Gold Mine | Aeris Resources |
| CM | Dawson | Anglo American |
| CSG | GLNG Operations and Development | GLNG ^(b) |
| CSG | Greater Meridian SeamGas | WestSide Corporation |
| RE | Moura Solar Farm | MYTILINEOS |
| Central Highlands | | |
| CM | Blackwater | BHP |
| CM | Bluff | Bowen Coking Coal |
| CM | Cook | Constellation Mining |
| CM | Curragh | Coronado Coal |
| CSG | Denison North (Rolleston) | Denison Gas |
| CM | Ensham | Ensham Resources |
| CSG | GLNG Operations and Development | GLNG |
| CM | Gregory Crinum | Sojitz Blue |
| CM | Jellinbah East | Jellinbah Group |
| CM | Kestrel | Kestrel Coal Resources |
| CM | Meteor Downs South | Sojitz Blue |
| CM | Minerva | Sojitz Blue |
| CM | Oaky Creek | Glencore Coal |
| CM | Rolleston | Glencore Coal |
| CM | Yarrabee | Yancoal Australia |
| Isaac | | |
| CM | Aquila | Anglo American |
| CM | Blair Athol | TerraCom |
| CM | Broadlea | Fitzroy Australia Resources |
| CM | Broadmeadow | BHP |
| CM | Broadmeadow East | Bowen Coking Coal |
| CM | Byerwen | QCoal Group |
| CM | Capcoal Surface Operations | Anglo American |
| CM | Carborough Downs | Fitzroy Australia Resources |
| CM | Carmichael | Bravus Mining and Resources |
| RI | Carmichael Rail Network | Bravus Mining and Resources |
| CM | Caval Ridge | BHP |
| RE | Clarke Creek Wind and Solar Farm | Squadron Energy |
| CM | Clermont | Glencore Coal |
| CM | Coppabella | Peabody Energy |
| RI | Coppabella Train Loadout Facility | Pacific National |
| CM | Daunia | BHP |
| CM | Foxleigh | Middlemount South |
| CM | Goonyella Riverside | BHP |
| CM | Grosvenor | Anglo American |
| CM | Hail Creek | Glencore Coal |
| CM | Ironbark No. 1 | Fitzroy Australia Resources |
| CM | Isaac Plains Complex | Stanmore Resources |
| CM | Lake Vermont | Jellinbah Group |



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| | | |
|--------------------------------|---|----------------------------------|
| CM | Middlemount | Middlemount Coal |
| CM | Millennium | MetRes |
| CM | Moorvale | Peabody Energy |
| RI | Moranbah Ammonium Nitrate Plant | Incitec Pivot |
| CSG | Moranbah Gas Project | Arrow Energy |
| CM | Moranbah North | Anglo American |
| RI | Nebo Train Support Facility | Pacific National |
| CM | Newlands | Glencore Coal |
| CM | North Goonyella | Peabody Energy |
| CM | Olive Downs | Pembroke Resources |
| CM | Peak Downs | BHP |
| CM | Poitrel | Stanmore Resources |
| CM | Saraji | BHP |
| CM | South Walker Creek | Stanmore Resources |
| CM | Vulcan Mine Complex | Vitrinite |
| Whitsunday (Bowen only) | | |
| RI | Carmichael Rail Network | Bravus Mining and Resources |
| CM | Collinsville | Glencore Coal |
| MM | Mt Carlton gold mine | Navarre Minerals |
| RI | North Queensland Export Terminal (Abbot Point Operations) | North Queensland Export Terminal |
| CM | QCoal Northern Hub | QCoal Group |

CM = coal mine CSG = coal seam / conventional gas MM = metalliferous mine RE = renewable energy RI = related infrastructure

(a) Includes coal mines, gas operations, metalliferous mines, renewable energy projects under construction, and resource industry-related infrastructure as at June 2022. Operations that have ceased production or were in care and maintenance, including Burton and Grasree in Isaac LGA, are not included in this list.

(b) Santos Gladstone LNG (GLNG) is a joint venture between Santos, PETRONAS, Total and KOGAS.

Source: QGSO 2023

Notes

LGA – local government area UCL – urban centre and locality

Geographies

The Bowen Basin region comprises the LGAs of Banana, Central Highlands, Isaac and Whitsunday (Bowen only). Whitsunday (Bowen only) comprises the statistical areas level 2 (SA2s) of Bowen and Collinsville, which cover the area of former Bowen Shire. Other regions cited in this report reflect places of residence as reported by survey respondents and are not based on defined statistical geographies.

Data coverage

Data in this report are derived from annual surveys conducted by QGSO in 2022 and other sources. The Resource Employment Survey collected workforce information from all resource industry companies with existing operations and projects under construction in the Bowen Basin as at June 2022. Mining and gas companies, related infrastructure operations and renewable energy projects under construction reported the characteristics and place of residence of their workforce. Reported data include all workers at resource operations, as well as workers engaged in project construction or outsourced maintenance activities such as major plant shutdowns.

A full list of operations and projects is available in Table 9 of this report.

Workforce estimates

Workforce estimates in this report represent the total resource industry workforce of the Bowen Basin. In contrast, the non-resident population measure presented in the *Bowen Basin population report, 2022* reflects the number of workers staying in the LGA of their workplace at a given point in time. Workers who are absent from work due to their shift arrangements are not included in the non-resident population even though they are part of the region's resource industry workforce.

Workforce estimates are based on the total number of workers reported at the time of the survey. Worker numbers may vary in response to a range of factors, including changing production demands, seasonal influences, adverse weather events and industrial action.



Employment status

The workforce of the resource industry in Queensland comprises employees, contractors and associated sub-contractors who work together at resource operations and projects and are engaged by different employers, either the owner/manager of the resource operation or a specialist contracting company. Employees are workers engaged directly by resource companies to carry out on-site production, maintenance and operations. Contractors are workers engaged by companies providing services at resource operations or projects under contractual arrangements. Contracted services range from specific project construction and scheduled maintenance events to full provision of mining operations services, and contract workforces may be temporary or ongoing.

Place of residence

In this report, 'local residents' are defined as workers who live in the same LGA as their place of work. 'Non-residents' are workers who live outside the LGA where they work. 'Place of residence known' refers to workers whose place of residence was reported by survey respondents. 'Place of residence unknown' refers to workers whose place of residence was reported as unknown by survey respondents.

In QGSO's Resource Employment Survey, most respondents are able to report the place of residence of their employees. Fewer can report this information for their contractors, as resource industry companies who engage contracting companies may not have oversight of contractors' place of residence. In the 2022 survey, place of residence was reported as unknown for 3% of employees and 63% of contractors. Users should consider the limitations of the data in interpreting these results.

Data confidentiality and rounding

Survey information reported by resource industry companies is confidential and not available for distribution. Data in this report have been aggregated to ensure that confidentiality of individual responses is preserved.

Figures in tables have been rounded to the nearest 10. As a result of rounding, discrepancies may occur between sums of the component items and totals. Percentages and other calculations are made prior to rounding of figures and discrepancies might therefore exist between these calculations and those that could be derived from the rounded figures.

References

Resources Safety & Health Queensland (RSHQ) (2022) *Qld quarterly mine and quarry worker numbers at 30 June 2022*
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