Māori and Pacific peoples employment in the steel industries

Final report to the Sustainable Steel Council

December 2021

Making sense of the numbers

Authors: Mark Cox, Hugh Dixon and Connor McIndoe

Contents

Tables

Figures

1 Introduction

1.1 Overview

The purpose of this report is to answer a series of questions about the employment of Māori and Pacific peoples employed in the New Zealand steel industry. The following questions have been answered in this document:

- Are Māori and Pacific peoples underrepresented in the New Zealand steel industry, compared to their share of total employment in New Zealand?
    - And, how has this representation changed overtime?
- Are Māori and Pacific peoples underrepresented in any steel sub-industries in New Zealand?
- What is the pattern of representation in the steel industry regionally?
- What is the current occupational pattern of Māori and Pacific people's employment in the steel industry?
    - E.g. are they in lower skilled occupations compared to other ethnicities?
    - And, how has the occupational pattern changed overtime?

1.2 Steel industry definition and data included

To obtain the data needed to answer the questions above, Business and Economic Research Limited (BERL) adopted a definition of the steel industry that is based on The Australian and New Zealand Standard Industrial Classification (ANZSIC).[1]

To understand the New Zealand steel industry in detail, sub-industries were analysed at a four digit class level. Included in 'Division C Manufacturing', the following lists subdivisions, groups, and then classes, of which was used for sub-industry analysis, for steel related ANZSIC classifications:

- Subdivision 21 Primary Metal and Metal Product Manufacturing
    - Group 211 Basic Ferrous Metal Manufacturing, comprising:
        - Class 2110 Iron Smelting and Steel Manufacturing
    - Group 212 Basic Ferrous Metal Product Manufacturing, comprising:
        - Class 2121 Iron and Steel Casting
        - Class 2122 Steel Pipe and Tube Manufacturing
- Subdivision 22 Fabricated Metal Product Manufacturing
    - Group 221 Iron and Steel Forging, comprising:
        - Class 2210 Iron and Steel Forging
    - Group 222 Structural Metal Product Manufacturing, comprising:
        - Class 2221 Structural Steel Fabricating
        - Class 2222 Prefabricated Metal Building Manufacturing

[1] https://www.abs.gov.au/ausstats/abs@.nsf/0/9148F27F324E911BCA25711F00146E35?opendocument

        - Class 2224 Metal Roof and Guttering Manufacturing (except Aluminium)
        - Class 2229 Other Structural Metal Product Manufacturing
    - Group 223 Metal Container Manufacturing, comprising:
        - Class 2231 Boiler, Tank and Other Heavy Gauge Metal Container Manufacturing
        - Class 2239 Other Metal Container Manufacturing
    - Group 224 Sheet Metal Product Manufacturing (except Metal Structural and Container Products), comprising
        - Class 2240 Other Sheet Metal Product Manufacturing
    - Group 229 Other Fabricated Metal Product Manufacturing' comprising
        - Class 2291 Spring and Wire Product Manufacturing
        - Class 2292 Nut, Bolt, Screw and Rivet Manufacturing
        - Class 2293 Metal Coating and Finishing
        - Class 2299 Other Fabricated Metal Product Manufacturing n.e.c.

All of the data was supplied by Statistics New Zealand and was derived from the three latest Censuses. Census data was used because it includes information on individuals' ethnicity, location, industry of employment and occupation. No other single source of data does this.

1.3 Structure of the report

The report begins by providing a profile of employment in the New Zealand steel industry in 2018, with a breakdown of total employment by fifteen sub-industries, nine occupation groups and then provides a regional breakdown of employment.

Following this, Section 3 outlines the changes in total steel industry employment across three Census years; 2006, 2013 and 2018. It provides the changes in sub-industry employment, occupational group employment, and regional employment of the steel industry in New Zealand.

Section 4 outlines the current composition of Māori and Pacific people's employment in the New Zealand steel industry in 2018. This is once again by, sub-industry employment, occupational employment, and regional employment. This section will outline whether Māori or Pacific peoples are under or overrepresented in particular variables.

The following section, Section 5, provides the change and growth of Māori and Pacific people's employment in the New Zealand steel industry across three Census years; 2006, 2013 and 2018. It highlights particular growth in sub-industries, transitions in skilled employment and movement away from particular regions for Māori and Pacific peoples in the New Zealand steel industry.

The final section of the report, is a summary, it aims to provide brief answers to the questions posed in Section 1.1.

2 Profile of steel industry employment in 2018

In 2018, total employment in the New Zealand steel industry was 24,123, which was equivalent to ten percent of the wider manufacturing sector. This section breaks down this total by sub-industries, occupations and regions.

2.1 Sub-industry breakdown

Based on the definition in Section 1.2, total steel industry employment in 2018 was spread across 15 sub-industries in New Zealand, with three sub-industries accounting for a combined 60 percent of the total workforce. In 2018, the leading steel sub-industry was other fabricated metal product manufacturing n.e.c[2]., which employed 6,912 people, or 29 percent of the steel industry workforce, as shown in Table 1.

Table 1: Steel sub-industry employment, 2018[3]

Sub-industry (Four digit class), 2018	Total	Share (%)
Iron smelting and steel manufacturing	2,016	8
Iron and steel casting	270	1
Steel pipe and tube manufacturing	150	1
Iron and steel forging	156	1
Structural steel fabricating	4,524	19
Prefabricated metal building manufacturing	387	2
Metal roof and guttering manufacturing (except aluminium)	1,146	5
Other structural metal product manufacturing	1,815	8
Boiler, tank and other heavy gauge metal container manufacturing	354	1
Other metal container manufacturing	669	3
Other sheet metal product manufacturing	3,141	13
Spring and wire product manufacturing	873	4
Nut, bolt, screw and rivet manufacturing	117	0
Metal coating and finishing	1,590	7
Other fabricated metal product manufacturing n.e.c.	6,912	29
Total	24,120	

Following this was structural steel fabricating, which accounted for 4,524 people, or 19 percent of total steel industry employment in 2018. Furthermore, other sheet metal product manufacturing employed 3,141 people, or 13 percent of the workforce. The high concentration of employment in the top three steel sub-industries likely reflects high global and domestic demand.

The following sub-industries accounted for notable amounts of total steel industry employment in 2018:

- Iron smelting and steel manufacturing, which employed 2,016 people
- Other structural metal product manufacturing, which employed 1,815 people

[2] n.e.c. is an abbreviation for not elsewhere classified. As its name suggests, this sub-industry involves the manufacture of a diverse range of ferrous metal products, including such things as awnings, door handles, garden hand tools, knives and pipe fittings.

[3] Due to data suppression rules, totals may vary slightly between datasets.

- Metal coating and finishing, which employed 1,590 people
- Metal roof and guttering manufacturing (except aluminium), which employed 1,146 people.

2.2 Occupational group

The Australian and New Zealand Standard Classification of Occupations (ANZSCO) allocates occupations into one of nine occupational classifications at a major group level.

In 2018, a large proportion of the New Zealand steel industry workforce was made up of technicians and trades workers (34 percent), as presented in Table 2.

This occupational major group can be further broken down into occupations at a minor grouping level. The majority of technicians and trades workers in 2018 were:

- Fabrication engineering trades workers, with a total of 4,314 employed
- Mechanical engineering trades workers, with a total of 1,722 employed.

Table 2: Steel industry employment by occupation group, 2018

Occupation group	Total	Share (%)
Managers	3,840	16
Professionals	2,697	11
Technicians and trades workers	8,166	34
Community and personal service workers	180	1
Clerical and administrative workers	2,277	9
Sales workers	762	3
Machinery operators and drivers	3,117	13
Labourers	3,051	13
Total	24,123	

High-skilled employment

Managers, professionals, and technicians and trades workers are classified as high-skilled occupation groups, and represent a combined 61 percent of the steel industry workforce in 2018.

Managers were the second most common occupation, behind technicians and trades workers, in the steel industry in 2018, accounting for 16 percent of the workforce. The majority of managers in the steel industry were either:

- Chief executives, general managers and legislators, with a total of 1,257 employed, or
- Construction, distribution and production managers, with a total of 1,113 employed.

Low-skilled employment

Machinery operators and drivers, and labourers are classified as low-skilled occupation groups, and represent 26 percent of the steel industry workforce in 2018.

2.3 Regional breakdown

Auckland is the most populated city in New Zealand, and holds the largest regional steel industry operations in New Zealand, in terms of Gross Domestic Product (GDP) and employment. In 2018, Auckland accounted for 35 percent of total steel industry employment, as presented in Table 3.

Additionally, in 2018, primary metal and metal product manufacturing and fabricated metal product manufacturing GDP in Auckland was $1.4 billion (2019$m), the highest of every region in New Zealand.

Table 3: Steel industry employment by region, 2018

Region	Total	Share (%)
Auckland	8,403	35
Canterbury	3,090	13
Wellington	1,266	5
Waikato	2,373	10
Bay of Plenty	1,173	5
Otago	813	3
Rest of New Zealand	7,008	29
Total	24,126	

The rest of New Zealand, which covers all but six regions, accounted for the second largest proportion of steel industry employment in 2018, with a total of 7,008 people employed.[4] This large number of employment is likely spread throughout New Zealand, across numerous different regions.

The remainder of steel industry employment in 2018 was spread between Canterbury (13 percent), Waikato (ten percent), Wellington (five percent), Bay of Plenty (five percent) and Otago (three percent).

[4] 'Rest of New Zealand' includes all regions in New Zealand except for Auckland, Canterbury, Wellington, Waikato, Bay of Plenty, and Otago.

3 Changes in steel industry employment

3.1 Total employment

The New Zealand steel industry has changed significantly between 2006 and 2013, after a notable dip in 2013, total steel industry employment reached a peak of 24,123 people in 2018, as shown in Table 4.

Table 4: Changes in steel industry employment

Employment	2006	2013	2018
Total	21,192	18,837	24,123
Change (%)	N/A	-11	28

Between 2006 and 2013, there was a significant drop in the total number of people employed in the steel industry, dropping to 18,837 in 2013, an eleven percent decrease. This decrease can mostly be explained by a combination of the global financial crisis (GFC) in 2007/08, and a shift towards more importation of finished products and equipment in New Zealand manufacturing.

The GFC had a major impact on the New Zealand economy as a whole, and also the steel industry. Pre-GFC, GDP in primary metal and metal product manufacturing, and fabricated metal product manufacturing was high, at a combined total of $4.7 billion in 2006.[5] After the crisis, the combined GDP of these two steel sub-industries dropped to $3.7 billion in 2009, and further to $3.3 billion in 2013. With this, the steel industry, as with many other industries, experienced a decrease in employment as a result of the crisis. By 2018, GDP in the two steel sub-industries had recovered, and reached a combined total of $3.7 billion.

Additionally, in New Zealand manufacturing there has been a shift towards more importation of finished products, or processing equipment, reducing the need for the same number of workers. New Zealand's very open market has enabled the importation of either finished products, or equipment relatively easy, which has had a negative impact on domestic manufacturing. For example, in 2012, the Dunedin steel manufacturing workshops were partially closed after an overall reduction of work, which included losing out on a bid to a Chinese manufacturer, worth an estimated $29 million.[6]

The GFC, and the shift towards more importation of finished products and equipment, led to a decrease in steel industry employment. But, following this, there has been a large increase in the scale of manufacturing operations overall in New Zealand, and thus steel operations too. Between 2013 and 2018, steel employment increased by 28 percent, up to 24,123.

Steel's share of employment in the wider manufacturing sector

Across the three Census periods, total steel industry employment as a proportion of total manufacturing employment remained very steady, at ten percent.

[5] All GDP totals are 2019$m.

[6] Otago Daily Times (2012). *Hillside – End of an era*. Retrieved from; https://www.odt.co.nz/news/dunedin/hillside-end-era

Table 5: Changes in steel and manufacturing employment

Employment	2006	2013	2018
Steel	21,189	18,834	24,126
Manufacturing	217,755	188,286	238,410
Steel as a proportion of manufacturing (%)	10	10	10

As occurred in the steel industry, employment in the manufacturing sector decreased between 2006 and 2013, before increasing again by 2018.

3.2 Changes in sub-industry employment

From 2006 to 2018, there was significant developments and changes in demand, not only in the steel industry, but the wider economy as a whole. Eight of the fifteen steel sub-industries suffered a decrease in employment between 2006 and 2018, while the remaining seven experienced growth in employment.

Table 6: Changes in steel sub-industry employment

Sub-industry (Four digit class)	2006	2013	2018	Change 2006-2013 (%)	Change 2013-2018 (%)	Change 2006-2018 (%)
Iron smelting and steel manufacturing	1,446	1,395	2,016	-4	45	39
Iron and steel casting	642	426	270	-34	-37	-58
Steel pipe and tube manufacturing	114	144	150	26	4	32
Iron and steel forging	210	171	156	-19	-9	-26
Structural steel fabricating	2,757	2,883	4,524	5	57	64
Prefabricated metal building manufacturing	333	252	387	-24	54	16
Metal roof and guttering manufacturing (except aluminium)	840	888	1,146	6	29	36
Other structural metal product manufacturing	2,370	1,473	1,815	-38	23	-23
Boiler, tank and other heavy gauge metal container manufacturing	420	429	354	2	-17	-16
Other metal container manufacturing	1,002	672	669	-33	0	-33
Other sheet metal product manufacturing	2,463	2,319	3,141	-6	35	28
Spring and wire product manufacturing	1,017	657	873	-35	33	-14
Nut, bolt, screw and rivet manufacturing	147	147	117	0	-20	-20
Metal coating and finishing	1,419	1,266	1,590	-11	26	12
Other fabricated metal product manufacturing n.e.c.	6,015	5,718	6,912	-5	21	15
Total	21,195	18,840	24,120	-11	28	14

Leading growth in employment

As depicted in Table 6, structural steel fabricating experienced the largest increase in total employment, increasing from 2,757 in 2006 to 4,524 in 2018, a 64 percent increase. Aside from structural steel fabricating, and metal roof and guttering manufacturing, almost all of the larger steel sub-industries suffered decreases in employment between 2006 and 2013. Before experiencing relatively large increases to employment between 2013 and 2018, which outweighed the initial decrease.

Biggest decline in employment

On the contrary, the sub-industry which suffered the biggest decline in total employment between 2006 and 2018 was iron and steel casting. Employment within this sub-industry dropped significantly, decreasing by 58 percent. The impacts mentioned in Section 3.1, may have had a larger negative effect on this steel sub-industry in comparison to others, explaining the much larger decrease in employment. Additionally, this decrease could be explained by a decrease in demand, or an uptake of better technology available reducing the need for as much physical labour. Iron and

steel casting was the only steel sub-industry which experienced a decrease in both periods, suggesting a serious decrease in the scale of operations and demand for this sub-industry.

3.3 Regional breakdown of employment change

Auckland, Wellington, and Waikato all suffered decreases to steel industry employment between 2006 and 2018, as presented in Table 7. After large decreases in employment between 2006 and 2013, the increases to employment which followed between 2013 and 2018, were still outweighed by the initial decrease in these three regions.

Table 7: Changes in steel industry employment by region

Region	2006	2013	2018	Change 2006-2013 (%)	Change 2013-2018 (%)	Change 2006-2018 (%)
Auckland	8,631	7,350	8,403	-15	14	-3
Canterbury	2,724	2,595	3,090	-5	19	13
Wellington	1,644	1,101	1,266	-33	15	-23
Waikato	2,463	2,271	2,373	-8	4	-4
Bay of Plenty	969	909	1,173	-6	29	21
Otago	807	807	813	0	1	1
Rest of New Zealand	3,954	3,801	7,008	-4	84	77
New Zealand	21,192	18,837	24,126	-11	28	14

Throughout the rest of New Zealand, steel industry operations have increased significantly between 2006 and 2018, increasing by 77 percent. As a proportion of total steel industry employment, the rest of New Zealand has grown from 19 percent of the workforce in 2006, to 29 percent of the workforce in 2018. This reflects a significant emergence of steel operations outside of the main regions in New Zealand.

Not a single region experienced an increase in steel industry employment across both periods, with essentially all suffering an initial decrease, which was then followed by an increase. Only four regions experienced a total increase in employment between 2006 and 2018, with relatively larger increases between 2013 and 2018 offsetting earlier decreases.

Regions which suffered greater losses to steel industry employment between 2006 and 2013, may have been more susceptible to the impacts of the GFC, and the transition to more imported finished products and processing equipment.

4 Māori and Pacific people in the steel industry

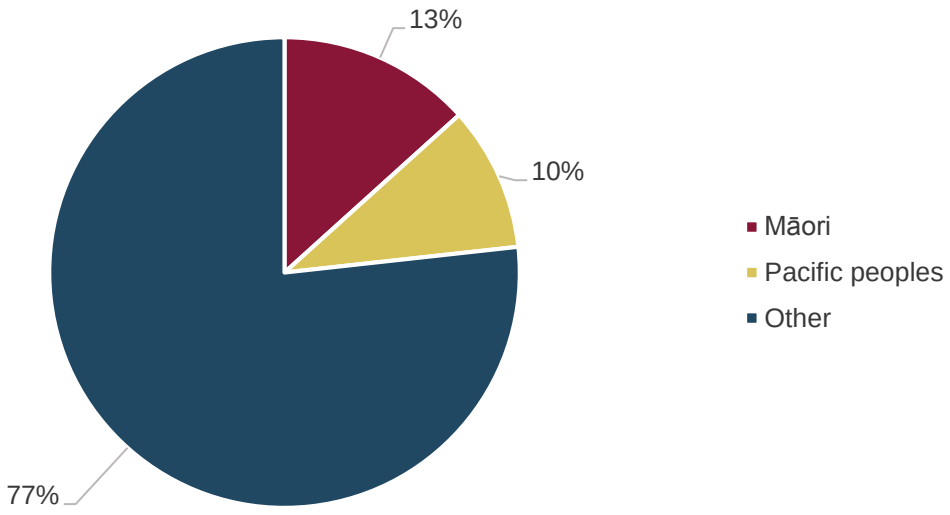
In New Zealand, Māori represented 14 percent and Pacific peoples represented seven percent of total employment in 2018. As a part of the New Zealand steel industry, Māori accounted for 13 percent and Pacific peoples accounted for ten percent of total steel industry employment in 2018, as depicted in Figure 1.

Table 8: Steel industry employment by ethnicity, 2018

Ethnicity	Employment	Share (%)
Māori	3,213	13
Pacific peoples	2,397	10
Other	18,516	77
Total	24,126	

In comparison to the proportion of total Māori employment in New Zealand, Māori are relatively well represented in the steel industry. However, Pacific peoples are notably overrepresented in the steel industry, as they accounted for ten percent of employment in the steel industry, but only seven percent of New Zealand's total employment in 2018.

Figure 1: Proportion of steel industry employment by ethnicity, 2018



4.1 Sub-industry employment

As expected, the two leading sub-industries for total steel industry employment, are also the two leading sub-industries for employment of Māori and Pacific people's. Māori represented 16 percent of the structural steel fabricating workforce in 2018, while Pacific people accounted for eight percent of the workforce. For other fabricated metal product manufacturing (n.e.c.) Māori accounted for eleven percent, and Pacific people accounted for eight percent of the workforce in 2018.

Table 9: Steel sub-industry employment by ethnicity, 2018

Sub-industry (Four digit class), 2018	Māori	Pacific peoples	Other	Total	Māori share of total (%)	Pacific peoples share of total (%)
Iron smelting and steel manufacturing	276	111	1,629	2,016	14	6
Iron and steel casting	30	45	189	270	11	17
Steel pipe and tube manufacturing	12	15	123	150	8	10
Iron and steel forging	15	24	117	156	10	15
Structural steel fabricating	744	357	3,426	4,524	16	8
Prefabricated metal building manufacturing	72	30	285	387	19	8
Metal roof and guttering manufacturing (except aluminium)	198	129	819	1,146	17	11
Other structural metal product manufacturing	234	156	1,419	1,815	13	9
Boiler, tank and other heavy gauge metal container manufacturing	36	9	312	354	10	3
Other metal container manufacturing	123	120	426	669	18	18
Other sheet metal product manufacturing	312	348	2,481	3,141	10	11
Spring and wire product manufacturing	93	195	585	873	11	22
Nut, bolt, screw and rivet manufacturing	15	9	93	117	13	8
Metal coating and finishing	270	303	1,017	1,590	17	19
Other fabricated metal product manufacturing n.e.c.	771	549	5,592	6,912	11	8
Total	3,201	2,400	18,513	24,120	13	10

Māori representation in sub-industries

Across all 15 steel sub-industries Māori are relatively well represented, with the Māori population proportionately more well spread around New Zealand, in comparison to the Pacific people's population. This minimises Māori who are employed in steel, being strongly concentrated in steel sub-industries which tend to be located in only one region.

However, with this in mind, the following sub-industries held large proportions of Māori in 2018:

- 19 percent of prefabricated metal building manufacturing employment was Māori
- 18 percent of other metal container manufacturing employment was Māori
- 17 percent of metal coating and finishing employment was Māori
- 17 percent of metal roof and guttering manufacturing (except aluminium) employment was Māori.

These steel sub-industries may be more strongly located in regions which hold relatively larger proportions of the Māori population, such as Auckland, which accounted for 23 percent of the Māori population in 2018. Similarly, if there is an underrepresentation of Māori, the steel sub-industry may be located in regions which have relatively less Māori.

Industries, such as metal roofing and guttering manufacturing, which are evenly spread around New Zealand accounted for larger proportions of Māori, in comparison to Pacific people, who were less evenly spread around New Zealand. In 2018, Māori accounted for 17 percent, and Pacific people accounted for eleven percent of metal roofing and guttering manufacturing industry employment.

Representation of Pacific people in sub-industries

In comparison to the Māori population, the Pacific people's population is much more densely located in Auckland, with Auckland accounting for 63 percent of their population in 2018. With a much more concentrated population, the representation of Pacific people in steel sub-industries

varied greatly. The following sub-industries accounted for notable proportions of Pacific people in 2018, with these three sub-industries most likely located in Auckland:

- 22 percent of spring and wire product manufacturing employment was Pacific peoples
- 19 percent of metal coating and finishing employment was Pacific peoples
- 18 percent of other metal container manufacturing employment was Pacific peoples.

With New Zealand's main spring and wire product manufacturer operating out of Auckland, it is understandable why such a large proportion of the sub-industry workforce were Pacific people.

On the contrary, Pacific people were significantly underrepresented in boiler, tank, and other heavy gauge metal container manufacturing, with this industry most likely operating in a region with a small Pacific people's population.

4.2 Occupational breakdown

Across each ethnicity, technicians and trades workers are the most common occupations within the steel industry in 2018. This occupation group represented 33 percent of both the Māori and Pacific people's steel industry workforce in 2018.

Table 10: Steel industry occupational group employment by ethnicity, 2018

Occupation group	Māori	Pacific peoples	Other	Total	Māori share of total (%)	Pacific peoples share of total (%)
Managers	321	147	3,366	3,840	8	4
Professionals	228	120	2,313	2,697	8	4
Technicians and trades workers	1,053	783	6,291	8,166	13	10
Community and personal service workers	15	0	117	180	8	0
Clerical and administrative workers	228	141	1,884	2,277	10	6
Sales workers	81	48	618	762	11	6
Machinery operators and drivers	495	633	1,986	3,117	16	20
Labourers	693	441	1,908	3,051	23	14
Total	3,210	2,397	18,516	24,123	13	10

Māori and Pacific people are overrepresented in low-skill occupations

Māori and Pacific people are overrepresented in low-skilled occupations like machinery operators and drivers, and labourers, within the New Zealand steel industry. In 2018, Māori accounted for 16 percent of all machinery operators and 23 percent of labourers, while only accounting for 13 percent of the total steel industry workforce.

Similarly, Pacific peoples accounted for 20 percent of machinery operators and drivers and 14 percent of labourers, while only accounting for ten percent of total steel industry employment in 2018.

These two occupational groups represented a combined 37 percent of the Māori steel industry workforce, and 45 percent of the Pacific people's steel industry workforce. This reflects a significantly large proportion of their respective steel industry workforces in low-skilled occupations, while only 22 percent of the other ethnicities employment were in those low-skilled occupational groups.

Correspondingly, Māori and Pacific people are underrepresented in high-skill occupations

Managers and professionals are classified as high-skilled occupations that require experience and provide high-income opportunities. In 2018, these two occupational groups accounted for the following proportions of each ethnicities total employment in the steel industry:

- 17 percent of Māori employed were managers or professionals
- 11 percent of Pacific peoples employed were managers or professionals
- 30 percent of the remaining ethnicities were managers or professionals.

Additionally, Māori and Pacific people only represented eight percent and four percent of all steel industry managers and professionals in 2018, respectively. Therefore, Māori and Pacific people are not only overrepresented in low-skilled occupations but also underrepresented in high-skilled occupations within the steel industry.

4.3 Regional breakdown

Regional employment of Māori and Pacific people in steel strongly reflects the population concentration of the two ethnicities. With a strong Māori and Pacific people's population, and the large scale steel operations in Auckland, this region accounted for the largest number of Māori and Pacific people employed in steel in 2018, as shown in Table 11.

Table 11: Steel industry employment by ethnicity and region, 2018

Region	Māori	Pacific peoples	Other	Total	Māori share of total (%)	Pacific peoples share of total (%)
Auckland	879	1,410	6,111	8,403	10	17
Canterbury	228	111	2,751	3,090	7	4
Wellington	162	138	966	1,266	13	11
Waikato	354	84	1,938	2,373	15	4
Bay of Plenty	279	30	864	1,173	24	3
Otago	48	30	738	813	6	4
Rest of New Zealand	1,263	594	5,148	7,008	18	8
New Zealand	3,213	2,397	18,516	24,126	13	10

Given the large concentration of Pacific people in Auckland, just over half of Pacific people employed in steel, were located in Auckland in 2018. Similarly, Pacific people accounted for eleven percent of total steel employment in Wellington in 2018, resulting from the large numbers of the population located there.

With a more spread out population, Māori employed in the steel industry were relatively more spread out across New Zealand than Pacific people in 2018. The Bay of Plenty population has a strong representation of Māori, and from this, nearly a quarter of the steel industry workforce there was Māori in 2018.

The rest of New Zealand, outside of the regions listed, accounted for large amounts of Māori and Pacific peoples in 2018. There was 1,263 Māori and 594 Pacific people employed throughout the rest of New Zealand in 2018, most likely spread out across a variety of regions.

5 Changes in Māori and Pacific people's employment

Māori and Pacific people are accounting for increasingly large shares of the wider New Zealand economy. With much younger populations, the number of Māori and Pacific people entering the workforce is continuously increasing, and increasing at a rapid pace.

5.1 Significant growth in total employment

After a dip in employment between 2006 and 2013, the number of Māori and Pacific people employed in the steel industry changed significantly between 2013 and 2018, as depicted in Table 12. Between 2013 and 2018, Māori employed in the steel industry grew by 58 percent, while Pacific peoples employed in the steel industry grew by 55 percent.

Table 12: Changes in steel industry employment by ethnicity

Ethnicity	2006	2013	2018	Change 2006-2013 (%)	Change 2013-2018 (%)	Change 2006-2018 (%)
Other	16,698	15,255	18,516	-9	21	11
Māori	2,505	2,031	3,213	-19	58	28
Pacific peoples	1,986	1,548	2,397	-22	55	21
Total	21,189	18,834	24,126	-11	28	14

Disproportionate impact of economic shocks

The drop in total employment within the steel industry between 2006 and 2013, disproportionately impacted Māori and Pacific people. This is a factor in every economic shock, across all industries in New Zealand.

During this period, the number of Māori employed in the steel industry decreased by 19 percent and Pacific people employed in the steel industry decreased by 22 percent. This compares with other ethnicities, which only suffered a nine percent decrease during this time, as depicted in Table 12. This difference in declines of employment highlights the disproportionate impact that economic shocks have on indigenous economies, at all levels of employment.

Small increases in share of total steel industry employment

Between 2006 and 2018, there wasn't much change in the representation of Māori and Pacific people employed in the steel industry, with only a slight increase, as depicted in Table 13. This increase was driven by an increase in their representations between 2013 and 2018, after being disproportionately impacted by decreases in employment between 2006 and 2013, compared to other ethnicities.

Table 13: Changes in share of total steel employment by ethnicity

Share of total (%)	2006	2013	2018
Other	79	81	77
Māori	12	11	13
Pacific peoples	9	8	10

Steel employment as a proportion of total manufacturing employment

The employment of Māori and Pacific people in the steel industry as a proportion of Māori and Pacific people employment in total manufacturing has remained relatively steady across the three Census years.

Table 14: Changes in steel employment as a proportion of total manufacturing employment

Ethnicitiy, (%)	2006	2013	2018
Other	10	10	11
Māori	8	8	8
Pacific peoples	11	10	10
Total	10	10	10

Across all three Census years, Māori employment in steel as a proportion of total Māori employment in manufacturing has remained at eight percent. For Pacific people in the steel industry, they decreased from eleven percent of total manufacturing employment in 2006 to ten percent in 2018.

5.2 Changes in sub-industry employment

Change in Māori employment in steel sub-industries

Between 2006 and 2018, the number of Māori employed in the New Zealand steel industry increased greatly, and this growth was reflected across eight of the steel sub-industries, as depicted in Table 15.

Table 15: Changes in Māori employment in steel sub-industries

Māori employment in steel sub-industries	2006	2013	2018	Change 2006-2013 (%)	Change 2013-2018 (%)	Change 2006-2018 (%)
Iron smelting and steel manufacturing	210	180	276	-14	53	31
Iron and steel casting	72	42	30	-42	-29	-58
Steel pipe and tube manufacturing	12	9	12	-25	33	0
Iron and steel forging	24	18	15	-25	-17	-38
Structural steel fabricating	405	378	744	-7	97	84
Prefabricated metal building manufacturing	36	21	72	-42	243	100
Metal roof and guttering manufacturing (except aluminium)	99	129	198	30	53	100
Other structural metal product manufacturing	240	135	234	-44	73	-3
Boiler, tank and other heavy gauge metal container manufacturing	45	39	36	-13	-8	-20
Other metal container manufacturing	204	147	123	-28	-16	-40
Other sheet metal product manufacturing	228	204	312	-11	53	37
Spring and wire product manufacturing	93	45	93	-52	107	0
Nut, bolt, screw and rivet manufacturing	12	12	15	0	25	25
Metal coating and finishing	168	168	270	0	61	61
Other fabricated metal product manufacturing n.e.c.	663	504	771	-24	53	16
Total	2,511	2,031	3,201	-19	58	27

As seen with wider steel employment, essentially all steel sub-industries suffered decreases in Māori employment between 2006 and 2013, then bounced back between 2013 and 2018.

Structural steel fabricating, which employed the largest number of Māori in 2018, suffered a relatively small decrease in Māori employment between 2006 and 2013, before a significantly large increase in the following period.

Only three sub-industries suffered consecutive decreases in Māori employment across the two periods. While only one sub-industry experienced two consecutive increases to Māori employment, with this being metal roof and guttering manufacturing.

Change in Pacific people's employment in steel sub-industries

Between 2006 and 2018, the number of Pacific people's employed in the steel industry increased in six of the 15 steel sub-industries, as depicted in Table 16.

Table 16: Changes in Pacific people's employment in steel sub-industries

Pacific people's employment in steel sub-industries	2006	2013	2018	Change 2006-2013 (%)	Change 2013-2018 (%)	Change 2006-2018 (%)
Iron smelting and steel manufacturing	132	129	111	-2	-14	-16
Iron and steel casting	105	51	45	-51	-12	-57
Steel pipe and tube manufacturing	15	18	15	20	-17	0
Iron and steel forging	36	21	24	-42	14	-33
Structural steel fabricating	183	174	357	-5	105	95
Prefabricated metal building manufacturing	12	15	30	25	100	150
Metal roof and guttering manufacturing (except aluminium)	84	69	129	-18	87	54
Other structural metal product manufacturing	156	90	156	-42	73	0
Boiler, tank and other heavy gauge metal container manufacturing	9	9	9	0	0	0
Other metal container manufacturing	135	99	120	-27	21	-11
Other sheet metal product manufacturing	237	195	348	-18	78	47
Spring and wire product manufacturing	231	132	195	-43	48	-16
Nut, bolt, screw and rivet manufacturing	15	9	9	-40	0	-40
Metal coating and finishing	216	165	303	-24	84	40
Other fabricated metal product manufacturing n.e.c.	423	381	549	-10	44	30
Total	1,989	1,557	2,400	-22	54	21

Similarly to changes in Māori employment in steel sub-industries, the majority of the larger sub-industries suffered decreases in Pacific people's employment between 2006 and 2013. This decrease was then outweighed by a notable increase between 2013 and 2018, with the following three large sub-industries all bouncing back:

- Other fabricated metal product manufacturing (n.e.c.)
- Structural steel fabricating
- Other sheet metal product manufacturing.

Only two steel sub-industries suffered two consecutive decreases to Pacific people's employment across both periods, while only prefabricated metal building manufacturing experienced two consecutive increases.

5.3 Shift towards more high-skilled employment

In 2018, Māori and Pacific people employed in the steel industry were proportionately overrepresented in low-skilled occupations and underrepresented in high-skilled occupations (see Section 4.2). However, between 2006 and 2018, there has been a significant shift towards more high-skilled employment for Māori and Pacific people in the steel industry.

Table 17: Changes in steel industry occupation group employment by Māori and Pacific people

Ethnicity	Occupation group	2006	2013	2018	Change 2006-2013 (%)	Change 2006-2013 (%)	Change 2006-2018 (%)
Māori	Managers	144	180	321	25	78	123
	Professionals	78	51	228	-35	347	192
	Technicians and trades workers	972	762	1,053	-22	38	8
	Community and personal service workers	0	0	15	N/A	N/A	N/A
	Clerical and administrative workers	141	129	228	-9	77	62
	Sales workers	39	54	81	38	50	108
	Machinery operators and drivers	471	330	495	-30	50	5
	Labourers	465	375	693	-19	85	49
	Total	2,505	2,031	3,210	-19	58	28
Pacific peoples	Managers	51	63	147	24	133	188
	Professionals	18	15	120	-17	700	567
	Technicians and trades workers	852	600	783	-30	31	-8
	Community and personal service workers	0	0	0	N/A	N/A	N/A
	Clerical and administrative workers	39	57	141	46	147	262
	Sales workers	24	27	48	13	78	100
	Machinery operators and drivers	495	381	633	-23	66	28
	Labourers	303	243	441	-20	81	46
	Total	1,986	1,548	2,397	-22	55	21

Shift towards more high-skilled employment

Between 2006 and 2018, the growth of Māori in high-skilled occupations like managers and professionals within the New Zealand steel industry has grown exponentially. Most notably, between 2013 and 2018, there was significant increases in the number of Māori professionals, and a lesser, but still significant, increase of Māori managers.

Similarly, the number of Pacific people employed in high-skilled occupations increased, but even more-so than Māori. Between 2013 and 2018, the number of Pacific people who were employed as managers and professionals increased by 133 percent and 700 percent, respectively.

This shift to more high-skilled employment is greatly beneficial for the wider Māori and Pacific people's economy, as improved skilled labour can lead to great income opportunities for individuals.

Much slower growth in low-skilled occupations

As the total growth of Māori and Pacific peoples employed in the New Zealand steel industry has been significant, there was still growth in the number of Māori and Pacific people employed in low-skilled occupations. But, the growth of low-skilled occupations was much slower than the growth in high-skilled occupations.

Māori employed as machinery operators and drivers within the steel industry increased by five percent between 2006 and 2018. Furthermore, Māori employed as labourers increased by 49 percent during the same period.

For Pacific people, there was a 28 percent increase in the number of machinery operators and drivers in the steel industry between 2006 and 2018. While the number of Pacific people as labourers increased by 46 percent.

These two occupational groups are more weighted to being low-skilled occupations, and will tend to require less experience at first. Which means, although they are low-skilled, they present valuable employment opportunities for the much younger Māori and Pacific people's populations in New Zealand. So growth in these occupations is not necessarily always negative.

6 Summary

The following provides a summary of answers to the questions posed in Section 1.1.

- **Are Māori and Pacific peoples underrepresented in the New Zealand steel industry, compared to their share of total employment in New Zealand?**
    - **And, how has this representation changed overtime?**

In 2018, Māori represented 13 percent and Pacific peoples represented ten percent of the total New Zealand steel industry workforce. When comparing the proportion of Māori and Pacific people employed in the steel industry to their total employment in New Zealand in 2018, Māori were relatively well represented, while Pacific peoples were relatively overrepresented in the steel industry. This was the case in the New Zealand steel industry in 2006 and 2013 too.

- **Are Māori and Pacific peoples underrepresented in any steel sub-industries in New Zealand?**

Māori were represented well across all steel sub-industries in 2018, with particularly strong representation in:

- Prefabricated metal building manufacturing (19 percent)
- Other metal container manufacturing (18 percent)
- Metal roof and guttering manufacturing except Aluminium (17 percent).

While Pacific peoples were particularly strongly represented in:

- Spring and wire product manufacturing (22 percent)
- Metal coating and finishing (19 percent)
- Other metal container manufacturing (18 percent).

Unlike, Māori employed in steel sub-industries, Pacific people were relatively underrepresented in two sub-industries, these being; boiler, tank and other heavy gauge metal container manufacturing (three percent), and iron smelting and steel manufacturing (six percent).

- **What is the pattern of representation in the steel industry regionally?**

Between 2006 and 2018, there was significant growth in steel operations outside of Auckland, Canterbury, Wellington, Waikato, Bay of Plenty and Otago, with the rest of New Zealand experiencing a 77 percent increase in steel industry employment during this time. This was reflective across all ethnicities.

- **What is the current occupational pattern of Māori and Pacific people's employment in the steel industry?**
    - **E.g. are they in lower skilled occupations compared to other ethnicities?**
    - **And, how has the occupational pattern changed overtime?**

In 2018, Māori and Pacific peoples were overrepresented in low-skilled occupations and were also underrepresented in high-skilled occupations. However, between 2006 and 2018, there was a significant transition to more-skilled employment for Māori and Pacific people employed in the New Zealand steel industry.