

Red meat processing cost to operate analysis

Project code
2026 1014

Prepared by
SG Heilbron Economic and Policy
Consulting

Published by
Australian Meat Processor Corporation

Date submitted
13/07/2026

Date published
07/08/26

Contents

Contents	2
1. Abstract	5
1 Executive summary	6
2 Introduction	11
3 Project objectives	12
4 Methodology	12
4.1 Australia and New Zealand	12
4.2 USA and Brazil	13
5 Results	15
5.1 Operational costs	15
5.2 Regulatory costs	32
6 Discussion	65
6.1 Australian and New Zealand	65
6.2 USA and Brazil	67
7 Conclusions	71
7.1 Australia and New Zealand	71
7.2 USA and Brazil	71
8 Recommendations	73
9 Project outputs	73
10 Bibliography	74
11 Appendices	76

Figures

Figure 1 beef processing costs, international comparison (AUD basis)	8
Figure 2 Sheepmeat processing costs, international comparison (AUD basis)	8
Figure 3 Proportion of operating costs subject to regulation, international comparison (AUD basis)	9

Tables

Table 1 Data collection methodology	6
Table 2 Processing cost per head excluding livestock (AUD)	7
Table 3 Operating costs structure beef processors, Australia	16
Table 4 Operating cost structure, subspecies beef processors, Australia	17
Table 5 Operating cost structure, beef processors, New Zealand	19
Table 6 Operating cost structure, Australian and New Zealand grassfed beef processors	20
Table 7 Key physical indicators beef and sheep Australia and New Zealand	21
Table 8 Operating cost structure, sheep meat processors, Australia	22
Table 9 Operating cost structure, sheep meat processors, New Zealand	23
Table 10 Operating cost structure, Australian and New Zealand sheep meat processors	24
Table 11 Operating costs structure beef processors, USA	25
Table 12 Operating costs structure beef processors, Brazil	26
Table 13 Operating cost structure, Australian and USA grainfed beef processors	28
Table 14 Key physical indicators beef Australia, USA, New Zealand and Brazil	29
Table 15 Operating cost structure, Australian, New Zealand and Brazil grassfed beef processors	30
Table 16 Labour costs and regulatory component, beef processors, Australia	32
Table 17 Labour costs and regulatory component, beef processors, New Zealand	33
Table 18 Labour costs and regulatory component, sheep processors, Australia	34
Table 19 Labour costs and regulatory component, sheep processors, New Zealand	35
Table 20 Regulatory labour-related cost structure, Australian and New Zealand grassfed beef processors	36
Table 21 Regulatory labour-related cost structure, Australian and New Zealand sheep processors	37
Table 22 Utilities-related costs and regulatory component, beef processors, Australia	38
Table 23 Utilities-related costs and regulatory component, beef processors, New Zealand	39
Table 24 Utilities-related costs and regulatory component, sheep processors, Australia	40
Table 25 Utilities-related costs and regulatory component, sheep processors, New Zealand	41
Table 26 Regulatory utilities-related cost structure, Australian and New Zealand grassfed beef processors	42
Table 27 Regulatory utilities-related cost structure, Australian and New Zealand sheep processors	43
Table 28 Registration/certification costs and regulatory component, beef processors, Australia	44
Table 29 Registration/certification costs and regulatory component, beef processors, New Zealand	46
Table 30 Registration/certification costs and regulatory component, sheep processors, Australia	47
Table 31 Registration/certification costs and regulatory component, sheep processors, New Zealand	48
Table 32 Registration/certification-related cost structure, Australian and New Zealand grassfed beef processors	50
Table 33 Registration/certification-related regulatory cost structure, Australian and New Zealand sheep processors	51
Table 34 Regulatory costs summary, Australian and New Zealand grassfed beef and sheep processors	54
Table 35 Labour costs and regulatory component, beef processors, USA	55
Table 36 Labour costs and regulatory component, beef processors, Brazil	56
Table 37 Regulatory labour-related cost structure, USA and Brazil beef processors	58
Table 38 Utilities-related costs and regulatory component, beef processors, USA	59
Table 39 Utilities-related costs and regulatory component, beef processors, Brazil	60
Table 40 Regulatory utilities-related cost structure, USA and Brazilian beef processors	61
Table 41 Regulatory costs summary, USA and Brazil beef processors	62

Table 42 Regulatory costs summary, Australian and USA grainfed processors	62
Table 43 Regulatory costs summary, Australian, New Zealand and Brazil grassfed beef processors	63

Appendices

Appendix A Template for Australian processors	80
Appendix B Template for New Zealand processors	81
Appendix C Operating cost structure change in costs for subspecies beef processors, Australia	82
Appendix D Operating cost structure, subspecies beef processors, New Zealand	83
Appendix E Operating cost structure for subspecies sheep processors, New Zealand	84

1. Abstract

This project entails the collection and analysis of data from processors and other sources to update the original cost to operate report that used data from nearly ten years ago. The data is used to calculate the operational costs for processing beef and sheep meat, and the regulatory component thereof, in several countries. This particular report covers the analysis of costs in Australia and New Zealand.

The results for Australia and New Zealand indicate significant increases in costs since the original analysis broadly in line with increases in the Producer Price indices for manufacturing inputs. The regulatory component has remained largely unchanged, with around half of the total operational costs being subject to material regulatory influence.

The results for the USA and Brazil indicate significant increases in costs since the original analysis, more so in terms of costs per head than in costs per kg reflecting increased slaughter weights in both countries. The key driver of these increases has been labour costs. The regulatory component has been largely stable except for a reduction in Brazil reflecting energy deregulation.

The research, like that undertaken in the original analysis will be used by industry for internal cost comparison analysis and strategy to improve productivity and competitiveness, and externally for engagement with stakeholders to improve the operating and regulatory environment facing the industry.

1 Executive summary

AMPC completed its first Cost to Operate analysis drawing on data from the 2015/16 financial year to determine the weighted average operational costs across the industry (Heilbron 2018). This original analysis provided a valuable benchmark for individual processors and the broader industry.

In late 2025 all Australian and New Zealand red meat processors were again invited to submit cost data to Dr Selwyn Heilbron via an excel template. Where necessary data was validated through follow up discussions. Data was similarly collected from a sample of USA and Brazil processors and validated using public sources and consultations. More information on the data collection methodology is provided below.

Table 1 Data collection methodology

Country	Data Collection Methodology
Australia	Data was received from 28 facilities, providing coverage of approximately 57% of the total cattle slaughter and 34% of the sheep/lamb slaughter. This provided a similar level of coverage as the previous analysis.
New Zealand	With assistance from New Zealand's Meat Industry Association (MIA) data was received from 31 plants representing 60 per cent of beef and 65 per cent of sheep slaughter. This was a 10-15% increase from the previous analysis.
USA	As in the original analysis, data was obtained from public and private sources including via in-person consultations.
Brazil	Public sources in the USA include the US Census which covers most meat processing operations, and in Brazil include the industry organisation (ABIEC) representing exporters where exports account for over 30 per cent of production. Data from private sources covered 13 facilities across the USA and Brazil of varying scales and locations.

Table 2 below summarises the overall findings from the study, including the weighted average per head processing costs, cost per kg carcass weight and percentage of cost which are regulated, with a comparison to the previous analysis.

For comparative purposes Australian grainfed beef can be compared with US grainfed beef, Australian grassfed beef can be compared against both New Zealand and Brazilian grassfed beef, and Australian sheepmeat can be compared with New Zealand sheepmeat.

Table 2 Processing cost per head excluding livestock (AUD)

Species	This Analysis 2024/25			Previous Analysis 2015/16	Nominal Increase per head (Real Increase) ¹
	Cost per head	Cost per kg (cwt)	% of costs which are regulated	Per head	Percent
Australia					
Beef - All	\$531.00	\$1.69	51%	\$360.63	+ 47% (+14%)
Beef - Grainfed	\$534.52	\$1.58	48%	\$383.51	+ 39% (+8%)
Beef – Grassfed	\$493.95	\$1.70	58%	\$297.71	+ 66% (+28%)
Sheepmeat	\$64.31	\$2.54	51%	\$40.67	+ 58% (+22%)
New Zealand					
Beef – Grassfed	\$518.93	\$2.28	38%	\$305.78	+ 70%
Sheepmeat	\$63.69	\$3.14	40%	\$39.82	+ 60%
USA					
Beef - Grainfed	\$526.52	\$1.29	31%	\$290.15	+ 81%
Brazil					
Beef - Grassfed	\$378.91	\$1.47	30%	\$172.28	+ 119%

Beef processing costs across Australia, New Zealand and USA have converged at around \$500 per head (AUD basis), with difference in average carcass weight generating cost variation when measured per kg. Brazilian beef processors continue to incur lower costs per head from increased carcass weight through supplementary feeding (Figure 1).

¹ After adjusting for domestic inflation (CPI) applied only to Australian processing.

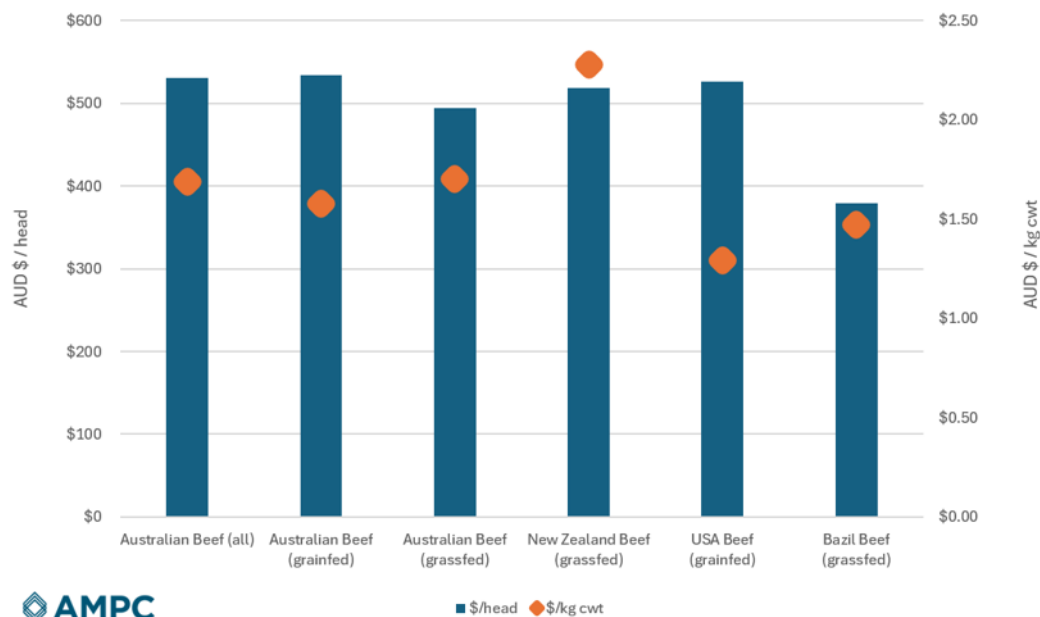


Figure 1 beef processing costs, international comparison (AUD basis)

Australia and New Zealand have similar sheepmeat processing costs per head, however with lighter carcass weights increasing costs per kg in New Zealand (Figure 2).

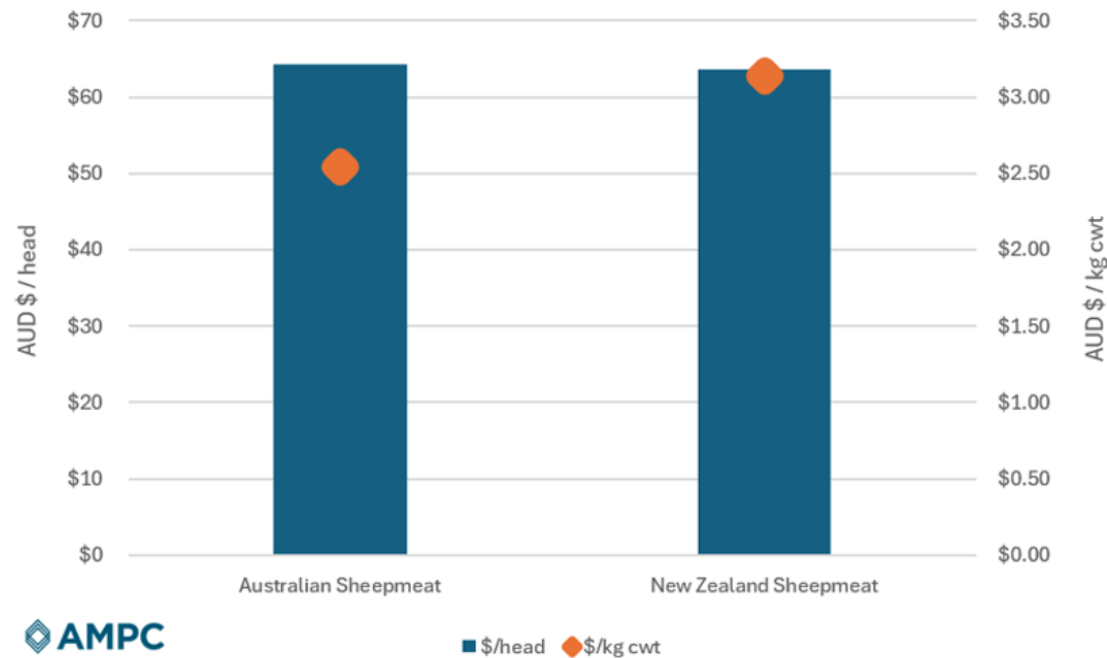


Figure 2 Sheepmeat processing costs, international comparison (AUD basis)

A comparison with international competitors (Figure 3) shows that Australian red meat processors are subject to higher regulatory costs overall, with around 50% of costs subject to regulation, compared to around 40% in New

Zealand and around 30% in USA and Brazil. Australian labour related costs in particular are more regulated than international competitors.

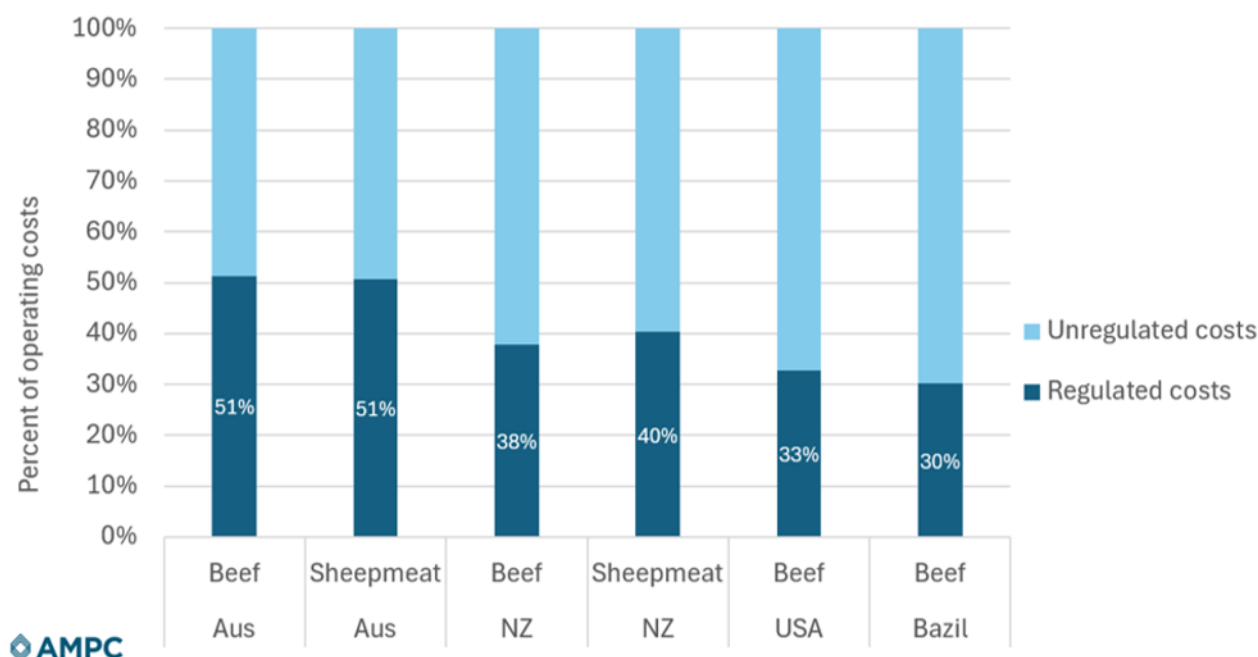


Figure 3 Proportion of operating costs subject to regulation, international comparison (AUD basis)

More detailed analysis for each country and species is provided below.

AUSTRALIA AND NEW ZEALAND

The results of the analysis produce a consistent message of substantial increases in the costs of operating red meat processing facilities in both Australia and New Zealand since the original analysis nearly a decade ago. The magnitude of these increases reflects rises in producer prices facing manufacturers in both countries since that time, which have been in the order of 60 per cent. The increases have been broadly based with increases in almost all categories of costs, and dramatic increases in some categories.

Red meat processors in both countries depend on export markets. They have been able to adjust to higher operating costs through their success in those markets. However, they need to remain competitive to succeed. In recent years firmness in those markets resulting from constraints in supply from competing countries has provided some respite. Even under these conditions the relentless increase in costs will inevitably have serious economic repercussions, especially in the context of volatile seasonal and broader economic conditions.

The analysis also covers the elements of costs that are influenced by governments, which can in turn help identify potential sources of cost relief.

On balance, and bearing in mind the caution that must be exercised in comparing estimates based on different processors and using different templates over a significant period of time, the regulatory burden has increased in Australian grassfed beef processing and remained largely unchanged in sheep processing. For New Zealand, the regulatory burden has increased for sheep processing and remained largely unchanged for beef compared with the original analysis.

In Australia, over half of the total operational costs of running a meat processing business is regulatory costs. Moreover, the burden has increased significantly in each of the main regulated categories examined – labour, utilities and registration/certification, for both grassfed beef and sheep. And the overall regulatory burden has not increased concomitantly compared with the original analysis because of the substantially higher increases

experienced in some important categories besides labour, utilities and registration/certification such as transport, repairs and maintenance, and other costs.

In New Zealand, the regulatory burden has increased in some categories such as labour-related and registration/certification costs for beef and sheep and declined in others such as utilities. Additional research should be considered on the regulatory burden in the now-significant categories of costs other than labour, utilities and registration/certification, especially transport.

USA AND BRAZIL

The USA beef processing industry is facing severe challenges resulting in major increases in operational costs in addition to the consequences of sustained droughts leading to record low cattle numbers. Labour costs have increased dramatically as a result of competition for labour, overall inflationary economic environment, and a crackdown by the authorities on immigration which has previously provided a key source of competitively priced labour. A major plant has closed and others are under threat.

USA operational costs per head as measured in this analysis are now approaching Australian costs, although USA costs per kg remain much lower because of a much greater increase in slaughter weights. The increase in US weights has ameliorated the decline in cattle numbers, and without it the industry would be facing an even more acute challenge. Demand for beef has also been strong so consumers have been able to absorb cost increases in production to some extent, although with a return to broader inflationary pressures resulting from the M. East war, it is questionable how long this demand can be sustained.

Brazil has maintained its position as a low-cost beef processing industry but it too has faced cost pressures since the original analysis. Lot feeding has increased in the industry and its access to world markets has made it an increasing, though still restricted competitor for the Australian, New Zealand and USA industries. In a sense, unlike New Zealand, the Brazilian beef industry is becoming less of a grassfed industry, and the same applies to the Australian industry. The New Zealand industry remains grassfed, the Brazilian around 80 per cent, the Australian industry around 50 per cent, and the USA industry is fully grainfed.

Increased lot feeding and supplementary feeding of animals has become an increasing requirement for constraining operational cost increases and producing red meat that is competitive in \$/kg terms. Access for a low-cost supplier like Brazil is growing, leading in turn to a convergence of costs through the forces of competition.

The analysis herein concludes that Brazil has lower absolute regulatory costs and percentage than the USA. Whilst Brazil has lower regulatory labour-related costs its regulatory percentage is higher than the USA because on-costs are more regulated in Brazil. The overall regulatory percentage has increased slightly in the USA compared with the original analysis owing to higher regulatory utility costs and has fallen in Brazil reflecting lower regulatory percentage in the same cost category following deregulation of the electricity market.

In comparing the regulatory burden by country and species, so that the US is compared with Australia with reference to grainfed beef, and Australia, New Zealand and Brazil are compared with reference to grassfed beef, the following are key findings:

- For Australian grainfed beef relative to USA grainfed beef, 48.1 per cent of Australian costs are regulated which is much higher than the 32.8 per cent in the USA. This largely reflects higher regulation of labour costs in Australia. However, US utilities costs are more regulated than in Australia despite being much lower in absolute cost terms. The high US regulation reflects the increased share of electricity (which tends to be more highly regulated as an energy source than gas) in the utilities mix in this analysis compared with the original analysis, and again points to the caution that must be exercised in comparing these estimates, comprised of different data sources, over a long period of time. Australian regulatory costs in the original analysis were 54.1 per cent (for all beef as distinct from for grainfed beef only) and US grainfed costs were 30.8 per cent regulated.

- For grassfed Australian and New Zealand beef, Australia has a far higher regulatory percentage of total costs at 58 per cent compared with 37.8 per cent. This reflects higher absolute costs and higher regulatory percentages in the labour and utilities categories. The regulatory percentages in these categories in both countries have increased for labour and utilities, but Australian costs are significantly higher in labour.
- The reverse situation applies in relation to registration/certification costs, with Australia having lower absolute costs and regulatory percentages than New Zealand in beef. However, the regulatory percentage in Australia has increased significantly since the original analysis based on more detailed data from processors. The regulatory percentage in Australia is now approaching the level of New Zealand. Australian regulatory costs in the original analysis were 54.1 per cent (for all beef) and New Zealand 38.8 per cent.
- For Brazil grassfed compared with Australia and New Zealand grassfed, Brazil has significantly lower regulatory costs and a lower regulatory percentage (around 30 per cent compared with 58 per cent in Australia and 38 per cent in New Zealand). Brazil has a lower labour-related costs regulatory percentage compared with Australia and about the same as New Zealand, and lower utilities regulation compared with both Australia and New Zealand.

RECOMMENDATIONS

One way of addressing the cost and regulatory results outlined in this report is through policy action to improve cost and regulatory outcomes. It should be noted that the scope of this project does not include the identification and analysis of policies to improve operational and regulatory outcomes.

Another way of addressing the results is through research and development. In this regards the following is recommended:

1. The analysis indicates that labour and transport are significant categories of cost. In relation to labour, the indication is that Australian red meat processors have done well to manage their labour costs relative to their international competitors. Nevertheless, consideration should be given to supporting research which identifies operational and regulatory pathways for the industry to advance its competitiveness further in this category, given its significance in the overall cost structure.
2. In relation to transport, the significant increase in this cost category is highlighted in the analysis. There is a need for research on transport costs in Australia to be considered beginning with a scoping review of the key transport issues facing red meat processing at the national and sub-national and regional levels. This is especially the case because considerable analysis and investigation have been undertaken by industry and government on the costs of transporting grain and the policy implications thereof, while apparently little has been done on the costs of transporting meat, despite the red meat industry's value being higher than grain.
3. Notwithstanding the challenges, the analysis of operational and regulatory costs should be extended to cover Argentina. Like Brazil, Argentina has secured significantly increased access in markets which Australia supplies with red meat. It would be valuable to know how Argentina's operational and regulatory costs have changed since the original CTO study and whether it, like Brazil, is increasing its grain feeding of animals.
4. The heightened international competition from countries like Argentina and Brazil as well as from traditional competitors like the USA and New Zealand, and the significant proportion of total operational costs that are subject to regulatory influence means that productivity-enhancing actions by processors are critical to their competitiveness. A consistent and integrated technical and economic strategy for enhancing productivity in red meat processing should be developed, encompassing existing research as well as new research where gaps are identified.

2 Introduction

The project addresses several industry-level knowledge gaps, including:

- The cost structure of processors, which identifies the major cost categories and potential areas for improvement
- The extent to which the categories of cost have increased since the original analysis, indicating areas where processors have been more or less successful in addressing operational cost challenges
- The element of regulatory influence in those costs, which suggests areas more or less out of processors' control
- Potential areas for improvement to improve the operational and regulatory outcomes for the industry.

The major target areas are processors and the industry's stakeholders, who require objective, independent cost data for rational operational and policy analysis. The research is unique and builds on the previous analysis, which was widely used and reported on.

3 Project objectives

- Understanding of key cost components in red meat processing both in Australia and in key international competitor countries
- Independent compilation of processing costs and analysis thereof to improve the basis for industry and individual processor initiatives aimed at addressing cost competitiveness hurdles and improving international cost competitiveness
- Report on the findings in an easy-to-use form.

4 Methodology

The methodology for Australia and New Zealand analysis is outlined first followed by that for the USA and Brazil.

4.1 Australia and New Zealand

In late 2025 all red meat processors in Australia and New Zealand were again invited to submit cost data to Dr Selwyn Heilbron via an excel template. The original template for collecting data from processors in Australia and New Zealand was amended only slightly to maximise comparability of the results with the 2018 report. There were some categories of costs for which more detail was requested, and the templates for Australian and New Zealand processors differed slightly to cater for different conditions e.g. labour cost components in each country.

For Australia, in the case of the previous cost to operate analysis, data was gathered covering 29 facilities representing 60 per cent of cattle and 35 per cent of sheep slaughtered nationally. The current project provided for analysis of private and public data from up to 20 plants, and at the time of writing this report, private and public data has been gathered covering 28 facilities, in whole or in part, providing coverage of 57 per cent of the total cattle slaughter and 34 per cent of the sheep slaughter, similar to the original report.

For New Zealand, the project provided for analysis of public and private data from up to 10 plants, and private data has been gathered covering 31 plants in whole or in part. In the previous cost to operate analysis, data gathered covered 18 beef and a similar number of sheep facilities representing 50 to 60 per cent of the cattle and sheep slaughtered nationally. The data received for this update provides coverage of 60 per cent of beef and 65 per cent of sheep slaughter.

The percentage of kill covered by the facilities from which data has been provided is very high by the standards of voluntary surveys. Some processors opted to provide data for a selected number of plants they considered representative of their species costs to operate rather than providing data on more or all of their facilities.

Significantly, the data that has been provided is for 2024/25 instead of 2023/24 so the analysis is more up to date than was originally envisaged.

Weighted averages by species (grainfed and grassfed beef, and sheep meat) showing numbers for \$/head and weight for \$/kg have been calculated for the purposes of this report. Averages for sub-species (where sufficient data has been provided to enable confidentiality to be protected) have also been calculated.

It should also be noted that whilst most processors provided data on all the cost categories in the template, some were only able or willing to provide partial data. The total costs calculated represent the weighted total of costs provided in each category. Where data has been provided by some processors in a particular template category it has in some instances been reallocated to another in order to maintain consistency of data categorization, and in some instance where data has been provided on non-operational costs outside of the scope of the analysis such as financial costs these have not been included in the analysis.

In relation to multi-species plants and allocation of costs, data was provided by some processors with costs allocated using various methods, and these allocations were used in the cost calculations. Where this was not the case, and where the numbers of animals slaughtered and the weights of the various species were not provided by processors, a separate calculation was made for mixed species facilities. In relation to beef, costs were calculated for grainfed, grassfed, and both beef facilities. In relation to sheep, costs were similarly calculated for lamb and mutton as well as both sheep facilities where no allocation was made for lamb and mutton.

Where the numbers of animals slaughtered and the weights of the various species were provided by processors an allocation was made of costs in Australian \$/head based on the relative numbers slaughtered and Australian \$/kg based on the relative weights of the animals slaughtered.

Additionally, because a far smaller number of processors provided a cost allocation by subspecies (lamb, mutton, cattle, calves) than by species, the species results are more representative than those for sub-species. It also means results for sub-species should not be added to produce results at the species level.

As was the case in the original analysis, the measurement of regulatory costs is undertaken below in respect to three key cost categories – labour, utilities and registration and certification costs, as these are considered to be the categories most significantly influenced by regulation. However other categories are also considered below given the passage of time since the original analysis. In each case, knowledge of the regulatory environment provides the basis for identifying key regulatory measures affecting the category, and the basis for calculating the regulatory cost component of the operational cost is outlined.

As was the case in the original analysis, the measurement of regulatory costs is undertaken below in respect to three key cost categories – labour, utilities and registration and certification costs, as these are considered to be the categories most significantly influenced by regulation. However other categories are also considered below given the passage of time since the original analysis. In each case, knowledge of the regulatory environment provides the basis for identifying key regulatory measures affecting the category, and the basis for calculating the regulatory cost component of the operational cost is outlined.

4.2 USA and Brazil

The original template for collecting data from processors in Australia and New Zealand formed the basis for the template for collecting data in the USA and Brazil. It differed only in respect of minor differences in terminology. In the event that processors were unable to provide the detailed information required, they were shown the tabular reporting templates used in the reporting of costs for Australia and New Zealand and asked to provide whatever data or information that they were able to, for the categories of costs identified in those tables. Initial estimates of costs

based on public data were also provided to some informants for their comments and insights. As was the case in the original analysis, data for both the USA and Brazil was in US dollars and converted to Australian currency.

As in the original analysis, data was obtained from private and public sources. As was also the case with the original analysis, in some instances work was required to disaggregate or allocate the data from public and private sources to make it as consistent as possible with the categories of costs for use in the current analysis. Data from private and public sources was checked against each other for consistency and blended to establish indicative average operational cost estimates for the countries concerned.

The request to processors for data was undertaken with the assistance of AMPC (via direct contact with potential sources in Australia) and internationally via industry and processor informants known to the Consultant, and in relation to Brazil those identified by the facilitator/translator utilised for the purpose of the visit.

As in the case of the original analysis, data was obtained from private and public sources.

As was also the case with the original analysis, in some instances work was required to disaggregate or allocate the data from public and private sources to make it as consistent as possible with the categories of costs for use in the current analysis.

Data from private and public sources are checked against one another for consistency and blended to establish cost indicative average operational costs estimates for the countries concerned. Public data was augmented by and cross-checked with, private data gathered by the consultant covering several individual facilities of varying scales of operation and locations in both countries.

For Brazil, private sources were individual processors and industry organisations. Individual processors were identified from companies known to the consultant and through intermediaries. The key industry organisation is ABIEC (the organisation covering beef exporters) which produces data on the expenditure along the beef supply chain. Public sources also included Government agencies engaged in meat inspection and utilities, and University researchers.

For the USA and Brazil, private sources were individual processors identified from companies known to the consultant and through intermediaries. Data from private sources covered 10 facilities across the USA and Brazil of varying scales and locations. Public sources included Government agencies and statistical services. Unlike in Australia and New Zealand, in both Brazil and the USA there were found to be very significant collections of publicly available data on meat processing costs. Data on costs from Government and industry organisation sources covers a significant portion of the entire industry in both countries. Public sources in the USA include the US Census which covers most meat processing operations, and in Brazil include the industry organisation representing exporters where exports account for over 30 per cent of production.

All sources were given assurances that their identity would not be divulged in any reporting and any data or information provided would be kept strictly confidential.

Facilitation and translation services were commissioned in Brazil using a specialist service provider. Field visits were undertaken during the period 11 to 25 April 2026 to meet with informants and to gather public data in both countries. Follow up was made with informants where necessary to secure and/or refine data.

At the time of writing this report, data from the very extensive public and industry data sources on processing expenses has been gathered along with private data covering several plants across the USA and Brazil. Information from public and private sources for the regulatory analysis has also been collected, including on labour, utilities and certification/registration. Overall, this constitutes more than sufficient data to commence the cost and regulatory analysis.

5 Results

5.1 Operational costs

This stage of the project entailed compilation of data (up to 10 facilities for USA and 10 for Brazil) and analysis of data by CTO category for 2024/25.

The discussion below represents the summary or 'headline' results for the major cost categories. Sub-category details will be provided where they are relevant in the next Milestone relating to the regulatory component of costs. It includes the findings of the analysis of Australia and New Zealand costs so that the findings for the USA and Brazil can more easily be compared with those in Australia and New Zealand.

5.1.1 Australia and New Zealand

The results for Australia and New Zealand are provided first followed by those for the US and Brazil, and then a comparison is made of the results for all four countries.

It should be noted that there is a limit to the extent that costs can be compared between different years. This reflects several factors:

- As noted above in the previous Milestone, there were some categories of costs for which more detail was requested in the current template compared with the original.
- Different processors have provided results in different years, and processors in different years may provide data for some parts of the template and not for others.
- Moreover, in the original analysis for beef in Australia plants were classified as grassfed or grainfed classifications, whereas in this analysis they have been classified as grassfed, grainfed and both beef types. In New Zealand, plants have similarly been classified as lamb, mutton and both. In the case of both countries, results have been aggregated to produce cost estimates for beef and sheep meat, and these results are indicated below.

In terms of comparisons between Australia and New Zealand, whereas beef in the latter is grassfed, in Australia most grassfed production also entails some supplementary grain feeding, so the grassfed beef processing costs in Australia and New Zealand are not entirely comparable.

Data provided has been reviewed and followed up with processors in both countries to clarify or refine the data, and no field visits have been required.

Results are provided below for Australia for beef and then sheep, and then New Zealand for beef and then sheep, and additionally comparative data is provided for the relevant species in Australia and New Zealand.

Table 3 Operating costs structure beef processors, Australia

	Australia			
Cost category	Cost per head (\$AU) 2024/25	As % of total costs	Cost per head (\$AU) 2015/16	As % of total costs
Processing wages (incl. paid leave)	190.00	35.8	166.91	46.3
Salaries	38.79	7.3	16.11	4.5
Workers Compensation premiums	20.04	3.8	12.59	3.5
Retirement benefits	19.72	3.7	14.93	4.1
<i>Sub-total - Labour-related costs</i>	268.55	50.6	210.94	58.5
Electricity	14.85	2.8	9.2	2.6
Other fuel	8.85	1.7	5.51	1.5
Water, sewerage, waste	10.08	1.9	6.92	2.0
<i>Sub-total - Utilities-related costs</i>	33.78	6.4	21.62	6.0
Registration/Certification	12.10	2.3	7.29	2.0
Packaging	33.79	6.4	26.8	7.4
Transport	94.11	17.7	54.01	15.0
Repairs & maintenance	34.77	6.5	14.76	4.1
Processing consumables	9.15	1.7	5.7	1.6
Other costs	44.73	8.4	19.9	5.5
Total (excl. livestock costs)	531.00	100.0	360.62	100.0
\$ per kg	1.69		1.22	

Note: totals may not add due to rounding

Some key features of the above results are:

- Total operating costs of \$531/head and \$1.69/kg have increased significantly since the original analysis – by 47 per cent in \$/head and 39 per cent in \$/kg. All cost categories have increased since the original analysis. The significant broad-based increase in costs affecting processors is a notable result of this analysis. These substantial increases are reflected in other data – for example, global transport costs have risen very significantly in the period analysed above (Li 2025).
- The major cost item in both analyses is labour related costs, although their share of total costs has declined by around 8 percentage points. This reduction in the labour share of total costs reflects the far larger increases in costs for the other cost categories, notably utilities, registration /verification, transport, repairs and maintenance, processing consumables and other costs.
- The 'other costs' category increase likely also reflects the open-ended nature of the concluding questions relating to this category in the template, which allows processors to identify additional operating costs not elsewhere indicated in the template. This also means there is reduced comparability of these costs with the original analysis. The major cost items in this category include cleaning costs, equipment hire, general insurance, security, fire safety, and cold storage.
- It should also be noted that, unlike in the original analysis, costs for water, sewerage and waste disposal have been aggregated owing to differences in reporting and allocation of costs by processors in this category some of whom only reported costs relating to water. As indicated above, there is a limit to the extent that costs can be compared between different years. This reflects the fact that different processors may provide results in different years, and that processors in different years may provide data for some parts of the template and not for others.

Table 4 Operating cost structure, subspecies beef processors, Australia

	Australia			
Cost category	Grainfed only plants: cost per head (\$AU) 2024/25	Grassfed only plants: cost per head (\$AU) 2024/25	Grainfed and grassfed plants: cost per head (\$AU) 2024/25	All beef cattle cost per head (\$AU) 2024/25
Processing wages (incl. paid leave)	203.61	214.33	169.59	190.00
Salaries	19.48	25.90	56.89	38.79
Workers Compensation premiums	17.01	16.77	23.13	19.86
Retirement benefits	16.06	20.17	21.71	19.72
<i>Sub-total - Labour-related costs</i>	256.81	277.17	271.31	268.55
Electricity	12.41	14.00	16.75	14.85
Other fuel	7.95	8.41	9.62	8.85
Water, sewerage, waste	10.99	11.52	8.81	10.08
<i>Sub-total - Utilities-related costs</i>	31.35	33.92	35.18	33.78
Registration/Certification	8.28	20.75	10.06	12.10
Packaging	35.07	24.69	37.59	33.79
Transport	110.14	44.83	109.18	94.11
Repairs & maintenance	24.48	27.40	44.96	34.77
Processing consumables	6.41	14.07	8.34	9.15
Other costs	61.98	51.11	31.14	44.73
Total (excl. livestock costs)	534.52	493.95	547.47	531.00
\$ per kg	1.58	1.70	1.77	1.69

Note: totals may not add due to rounding

Some key features of the above results are:

- Grainfed costs per head are significantly above those of grassfed which is similar to the findings of the original analysis. In this analysis the costs of plants that process both grass and grainfed product have been separately identified, and their costs per head are somewhat above those of grainfed plants (mainly reflecting higher labour-related costs).
- Other major differences between the different types of plants are in relation to transport costs (where several grassfed plants were less focussed on exports), and repairs and maintenance. Higher registration/certification costs per head appear to be the case for grassfed plants especially ones with smaller throughput and more of a focus on external standards costs.
- As above, the 'other costs' category increase especially for grainfed plants, likely also reflects the open-ended nature of the concluding questions relating to this category in the template, which allows processors to identify additional operating costs not elsewhere indicated in the template. The major cost items in this category include cleaning costs, equipment hire, general insurance, security, fire safety, and cold storage.
- Relative to the original analysis grainfed costs per head have increased by 39 per cent compared with 2015/16 (mainly reflecting increases in non-labour categories and 'other' costs), and grassfed by 65 per cent (for similar reasons), while all beef increased 47.2 per cent. This is consistent with increases in the Producer Price Index of (all) inputs into (all) manufacturing industries, which rose 61 per cent between the second quarter of 2016 and the second quarter of 2025 (ABS 2026). It is also consistent with reports of large multi-site beef processors indicating in September 2024 that processing costs (representing both grain and

grassfed) were closer to \$500 a head than \$450 (Condon 2024). From September quarter 2024 to September quarter 2025, the Producer Price Index increased 8 per cent, so on this basis processing costs would have increased since that time to be closer to \$540/head.

- Details of subspecies changes in costs are attached in Appendix C. The costs of plants processing both grainfed and grassfed animals have been separately identified in the current analysis but this was not done in the original one, so there are no calculated changes in the costs of these facilities. It should be noted that supplementary data, provided after the above results were calculated, indicated costs for both grainfed and grassfed facilities were marginally lower than those indicated above. The impact on all beef cattle cost as per the above partial sample was a negligible 1.75 per cent reduction. This is not considered material to the overall results of the analysis. The analysis of grainfed and grassfed costs reflect only part of the dataset by number of head and so should not be used to calculate an overall weighted average.

Table 5 Operating cost structure, beef processors, New Zealand

Cost category	New Zealand			
	Cost per head (\$AU) 2024/25	As % of total costs	Cost per head (\$AU) 2015/16	As % of total costs
Processing wages (incl. paid leave)	215.33	41.50	132.52	43.34
Salaries	26.76	5.16	26.56	8.68
Workers Compensation premiums	1.22	0.23	0.70	0.23
Retirement benefits	1.48	0.29	4.43	1.45
Sub-total - Labour-related costs	244.79	47.17	164.20	53.70
Electricity	17.52	3.38	9.03	2.95
Other fuel	6.77	1.30	4.07	1.33
Water, sewerage, waste	9.17	1.77	3.49	1.14
Sub-total - Utilities-related costs	33.46	6.45	16.59	5.43
Registration/Certification	21.05	4.06	12.95	4.24
Packaging	27.11	5.22	26.63	8.71
Transport	130.12	25.07	45.29	14.81
Repairs & maintenance	13.98	2.69	11.48	3.75
Processing consumables	2.89	0.56	6.18	2.02
Other costs	41.62	8.02	22.45	7.34
Total (excl. livestock costs)	518.93	100.00	305.78	100.00
\$ per kg	2.28		1.25	

Note: totals may not add due to rounding

Some key features of the above results are:

- Total operating costs of \$518.93/head and \$2.28/kg have increased significantly since the original analysis – by 70 per cent in \$/head and 82 per cent in \$/kg. All cost categories have increased since the original analysis. The significant broad-based increase in costs affecting processors is a notable result of this analysis. The major cost item in both analyses is labour related costs, although their share of total costs has declined by around 6 percentage points. This reduction in the labour share of total costs reflects the far larger increases in costs for the other cost categories, notably utilities, transport, and other costs. Transport costs in particular account for one quarter of total costs and, as in Australia, only more so, there have been dramatic increases in shipping costs (NZFAT 2024).
- It should also be noted that the 2015/16 transport costs identified in the above table for comparison with the current costs are from the published 2018 Cost to Operate report which related only to costs of finished goods, whereas the current analysis is not restricted to in this manner. Subsequent analysis prepared for the Meat Industry Association in 2019 identified inwards and finished good transport costs which are more comparable with the current costs. The total transport costs in the 2019 analysis for cattle, for example, were NZ\$110.37 in 2015/16 (equivalent to around AU\$103 then) and can be compared with the NZ\$156.84 in the current analysis identified in Appendix D below. This represents an increase of around 42 per cent and the percentage of total cattle costs has remained largely unchanged.
- As indicated above, there is a limit to the extent that costs can be compared between different years. This reflects the fact that different processors may provide results in different years, and that processors in different years may provide data for some parts of the template and not for others. The allocation of costs

between species will also affect the costs per head and per kg of the respective animals. This applies especially to allocation of costs between cattle and calves in multi-species operations. The 'other costs' category increase likely also reflects the open-ended nature of the concluding questions relating to this category in the template, which allows processors to identify additional operating costs not elsewhere indicated. This also means there is reduced comparability of these costs with the original analysis. The major cost items in this category include cleaning costs, equipment hire, general insurance, security, fire safety, and cold storage.

- Relative to the original analysis New Zealand beef costs per head have increased consistent with increases in the Producer Price Index of (all) inputs into (all) manufacturing industries in New Zealand, which rose 60 per cent between the second quarter of 2016 and the second quarter of 2025 (Stats NZ 2026). Additional detail on subspecies costs is provided in Appendix D where confidentiality allows this.

Table 6 Operating cost structure, Australian and New Zealand grassfed beef processors

Cost category	Australia		New Zealand	
	Cost per head (\$AU) 2024/25	As % of total costs	Cost per head (\$AU) 2024/25	As % of total costs
Processing wages (incl. paid leave)	214.33	43.39	215.33	41.50
Salaries	25.90	5.24	26.76	5.16
Workers Compensation premiums	16.77	3.39	1.22	0.23
Retirement benefits	20.17	4.08	1.48	0.29
<i>Sub-total - Labour-related costs</i>	<i>277.17</i>	<i>56.11</i>	<i>244.79</i>	<i>47.17</i>
Electricity	14.00	2.83	17.52	3.38
Other fuel	8.41	1.70	6.77	1.30
Water, sewerage, waste	11.52	2.33	9.17	1.77
<i>Sub-total - Utilities-related costs</i>	<i>33.92</i>	<i>6.87</i>	<i>33.46</i>	<i>6.45</i>
Registration/Certification	20.75	4.20	21.05	4.06
Packaging	24.69	5.00	27.11	5.22
Transport	44.83	9.08	130.12	25.07
Repairs & maintenance	27.40	5.55	13.98	2.69
Processing consumables	14.07	2.85	2.89	0.56
Other costs	51.11	10.35	41.62	8.02
Total (excl. livestock costs)	493.95	100.00	518.93	100.00
\$ per kg	1.70		2.28	

Note: totals may not add due to rounding

Some key features of the above results are:

- As noted above, costs of processing beef (grassfed) in New Zealand are \$518.93/head and \$2.28/kg in Australian dollars, and Australian grassfed beef costs \$493.95/head and \$1.70/kg. The main reason for significantly lower Australian costs/kg this is that Australian animals are heavier.
- Australian grassfed beef has an average slaughter weight of 293 kg/head (up from 271kg in the original analysis), whereas in New Zealand the average weight is 242kg (slightly down from 244kg in the original analysis, although this can reflect different facilities with different cattle/calf product mix in the two periods analysed - the costs of killing calves are lower in \$/head but higher in \$/kg). See Table below with key physical parameters of the processing facilities from which data was gathered in both countries. Hence the costs of New Zealand grassfed and Australian grassfed are not strictly comparable.

- Additionally, it is not possible to directly compare the percentage of the total New Zealand kill accounted for by cattle and calves in 2015/16 with that in 2024/25 because in the current analysis some of the data from processors was for plants which killed both types of animals and where the numbers and costs were not allocated to the respective types. In the original analysis most processors provided data which was allocated. Indeed, it may be considered more appropriate for New Zealand grassfed costs to be compared with those in Argentina or Brazil as in the original analysis – noting that in the original analysis those countries had similar slaughter weights to New Zealand.

Table 7 Key physical indicators beef and sheep Australia and New Zealand

	Australia				New Zealand	
	Grainfed	Grassfed	Beef	Sheep	Grassfed	Sheep
2024/25 Average head per day	959	735	1178	6184	297	2808
2015/16 Average head per day	842	815	1149	3978	297	2714
2024/25 Average kg per head	362	293	319	25	242	19
2015/16 Average kg per head	356	271	296	23	244	18

Table 8 Operating cost structure, sheep meat processors, Australia

	Australia			
Cost category	Cost per head (\$AU) 2024/25	As % of total costs	Cost per head (\$AU) 2015/16	As % of total costs
Processing wages (incl. paid leave)	24.85	38.64	16.89	41.53
Salaries	4.57	7.10	2.37	5.83
Workers Compensation premiums	1.69	2.63	1.80	4.43
Retirement benefits	2.45	3.81	1.39	3.42
<i>Sub-total - Labour-related costs</i>	33.55	52.17	22.45	55.20
Electricity	1.37	2.13	0.81	1.99
Other fuel	0.97	1.50	0.57	1.40
Water, sewerage, waste	0.45	0.70	1.02	2.51
<i>Sub-total - Utilities-related costs</i>	2.79	4.33	2.40	5.90
Registration/Certification	2.21	3.43	1.26	3.10
Packaging	4.38	6.82	3.66	9.00
Transport	8.37	13.02	6.10	15.00
Repairs & maintenance	5.01	7.79	1.91	4.70
Processing consumables	0.37	0.58	1.71	4.20
Other costs	6.85	10.65	1.18	2.90
Total (excl. livestock costs)	64.31	100.00	40.67	100.00
\$ per kg	2.54		1.74	

Note: totals may not add due to rounding

Some key features of the above results are:

- Total operating costs of \$64.31/head and \$2.54/kg have increased significantly since the original analysis – by 58 per cent in \$/head and 46 per cent in \$/kg. Most cost categories have increased since the original analysis. The significant broad-based increase in costs affecting processors is a notable result of this analysis. The major cost item in both analyses is labour related costs, although their share of total costs has declined by around 3 percentage points. This reduction in the labour share of total costs reflects the far larger increases in costs for the other cost categories, repairs and maintenance and other costs.
- The 'other costs' category increase likely also reflects the open-ended nature of the concluding questions relating to this category in the template. This also means there is reduced comparability of these costs with the original analysis. The major cost items in this category include cleaning costs, equipment hire, general insurance, security, fire safety, and cold storage and assorted professional fees and services.
- It should also be noted that, unlike in the original analysis, costs for water, sewerage and waste disposal have been aggregated owing to differences in reporting and allocation of costs by processors in this category some of whom only reported costs relating to water. As indicated above, there is a limit to the extent that costs can be compared between different years. This reflects the fact that different processors may provide results in different years, and that processors in different years may provide data for some parts of the template and not for others.

Table 9 Operating cost structure, sheep meat processors, New Zealand

Cost category	New Zealand			
	Cost per head (\$AU) 2024/25	As % of total costs	Cost per head (\$AU) 2015/16	As % of total costs
Processing wages (incl. paid leave)	28.83	45.27	17.12	42.98
Salaries	3.34	5.25	3.62	9.09
Workers Compensation premiums	0.79	1.24	0.08	0.21
Retirement benefits	0.24	0.38	0.57	1.43
<i>Sub-total - Labour-related costs</i>	33.20	52.13	21.40	53.74
Electricity	2.05	3.22	1.16	2.90
Other fuel	0.95	1.49	0.53	1.34
Water, sewerage, waste	0.88	1.38	0.50	1.26
<i>Sub-total - Utilities-related costs</i>	3.88	6.10	2.19	5.50
Registration/Certification	2.12	3.33	1.68	4.22
Packaging	4.79	7.53	3.43	8.60
Transport	11.74	18.44	6.12	15.37
Repairs & maintenance	2.19	3.44	1.46	3.68
Processing consumables	0.28	0.44	0.75	1.90
Other costs	5.47	8.59	2.79	7.00
Total (excl. livestock costs)	63.69	100	39.82	100
\$ per kg	3.14		2.16	

Note: totals may not add due to rounding

Some key features of the above results are:

- Total operating costs of \$63.69/head and \$3.14 /kg in \$AU terms have increased significantly since the original analysis – by 60 per cent in \$/head and 46 per cent in \$/kg. Most cost categories have increased since the original analysis. The significant broad-based increase in costs affecting processors is a notable result of this analysis. The lower rate of increase in costs per kg relative to costs per head reflects the significance of mutton animals in total numbers slaughtered.
- The major cost item in both analyses is labour related costs, although their share of total costs has declined slightly. This reduction in the labour share of total costs reflects the far larger increases in costs for the other cost categories, especially transport and other costs.
- The 'other costs' category increase likely also reflects the open-ended nature of the concluding questions relating to this category in the template, which allows processors to identify additional operating costs not elsewhere indicated in the template. This also means there is reduced comparability of these costs with the original analysis. The major cost items in this category include cleaning costs, equipment hire, general insurance, security, fire safety, and cold storage and assorted professional fees and services.
- As indicated above, there is a limit to the extent that costs can be compared between different years. This reflects the fact that different processors may provide results in different years, and that processors in different years may provide data for some parts of the template and not for others. Additional detail on the subspecies costs for sheep processors in New Zealand are provided in Appendix E.

Table 10 Operating cost structure, Australian and New Zealand sheep meat processors

Cost category	Australia		New Zealand	
	Cost per head (\$AU) 2024/25	As % of total costs	Cost per head (\$AU) 2024/25	As % of total costs
Processing wages (incl. paid leave)	24.85	38.64	28.83	45.27
Salaries	4.57	7.10	3.34	5.25
Workers Compensation premiums	1.69	2.63	0.79	1.24
Retirement benefits	2.45	3.81	0.24	0.38
<i>Sub-total - Labour-related costs</i>	33.55	52.17	33.20	52.13
Electricity	1.37	2.13	2.05	3.22
Other fuel	0.97	1.50	0.95	1.49
Water, sewerage, waste	0.45	0.70	0.88	1.38
<i>Sub-total - Utilities-related costs</i>	2.79	4.33	3.88	6.10
Registration/Certification	2.21	3.43	2.12	3.33
Packaging	4.38	6.82	4.79	7.53
Transport	8.37	13.02	11.74	18.44
Repairs & maintenance	5.01	7.79	2.19	3.44
Processing consumables	0.37	0.58	0.28	0.44
Other costs	6.85	10.65	5.47	8.59
Total (excl. livestock costs)	64.31	100.00	63.69	100
\$ per kg	2.54		3.14	

Note: totals may not add due to rounding

Some key features of the above results are:

- As noted above, costs of processing sheep in New Zealand are \$63.69/head and \$3.14/kg in Australian dollars, and Australian sheep costs \$64.31/head and \$2.54/kg. Whilst the costs per head in the two countries are similar, Australia has 20 per cent lower costs per kg. The main reason for this is that Australian animals are heavier (see Key Physical Indicators above) with Australian sheep having an average slaughter weight of 25kg per head compared with 19kg/head in New Zealand.
- Another factor is the considerably higher transport costs in New Zealand than in Australia. High transport costs have been mentioned above in relation to New Zealand beef processors.

5.1.2 USA and Brazil

Table 11 Operating costs structure beef processors, USA

	USA			
Cost category	Cost per head (\$AU) 2024/25	As % of total costs	Cost per head (\$AU) 2015/16	As % of total costs
Processing wages and salaries	211.38	40.15	97.50	33.6
Payroll taxes	10.21	1.94	8.50	2.90
Health care	22.62	4.30	13.57	4.70
Paid leave	20.27	3.85	5.67	2.00
Workers Compensation premiums	1.96	0.37	1.43	0.50
Retirement benefits	2.16	0.41	2.81	1.00
Sub-total - Labour-related costs	268.59	50.91	129.46	44.60
Electricity	10.14	1.92	7.07	2.40
Other fuel	4.81	0.91	3.08	1.10
Water, sewerage, waste	3.52	0.67	2.11	0.60
Sub-total - Utilities-related costs	19.03	3.61	12.26	4.20
Registration/Certification	1.61	0.31	1.49	0.5
Packaging	46.53	8.82	29.47	10.20
Transport	94.01	17.82	64.89	22.40
Repairs & maintenance	27.46	5.21	14.95	5.20
Processing consumables	18.73	3.55	14.49	5.00
Other costs	51.54	9.77	23.14	7.90
Total (excl. livestock costs)	526.52	100	290.15	100.00
\$ per kg	1.29		0.79	

Note: totals may not add due to rounding

Some key features of the above results are:

- Costs of processing beef in the USA are \$526.52/head and \$0.79/kg in Australian dollars. Labour-related costs comprise by far the biggest element in total costs at nearly 52 per cent, followed by transport costs at just under 18 per cent.
- In comparison with 2015/16 and bearing in mind the qualification noted above about the caution that must be exercised in comparing cost estimates with those of a decade ago having different data sources and coverage, costs per head have increased 81.4 per cent while costs per kg have only increased by 59.5 per cent. This is discussed further below in the context of the changes in key physical parameters of processing over the period concerned.
- The key element in the total operational cost increase has been labour-related costs. While total operational costs per head overall have increased by 81.4 per cent as noted above, labour-related costs have doubled. Labour costs were estimated using an average of census and private estimates. The census data is for 2022 so it was updated to 2024/25 using the Producer Price Index for manufacturing. The resulting census and private estimates were almost identical, being within 2 per cent of each other.
- There are several factors that have driven this dramatic increase. There has been severe competition for labour supplies in the context of a growing economy with many alternative sources of demand for workers

and strong price inflation. In addition, there has been a crackdown by the authorities on immigration affecting a labour-intensive industry which uses foreign labour. There has been a notable increase in paid leave costs, as several USA States have introduced mandatory paid leave schemes since the original analysis. Apart from labour-related costs most categories of cost have remained stable or declined as a percentage of total costs.

- It should also be noted that these cost estimates are in Australian dollars, which have fallen around 7 per cent against the US currency over the period concerned. This fall makes costs that were measured in US currency higher in Australian dollars. Movement in the Australian/US dollar exchange rate has been a relatively minor factor in the increased overall cost to operate in the USA, which have risen by 60-80 per cent (depending on whether they are measured in \$/kg or \$/head). The depreciation of the AUD has therefore accounted for only around 9-12 percent of the increase in USA operational costs. Whilst the exchange rate increase depends on the point in time at which the rate is selected for analysis, the point selected will not make a substantial difference to the exchange rate impact on overall costs, given the magnitude of the increase in those costs.

Table 12 Operating costs structure beef processors, Brazil

	Brazil			
Cost category	Cost per head (\$AU) 2024/25	As % of total costs	Cost per head (\$AU) 2015/16	As % of total costs
Processing wages and salaries	102.42	27.03	50.58	29.36
Payroll taxes	0.08	0.02	0.04	0.02
Health care payments	20.48	5.40	10.11	5.87
Paid leave	12.68	3.35	6.26	3.64
Workers compensation payments	3.07	0.81	1.51	0.88
Retirement benefits	14.14	3.73	6.98	4.05
<i>Sub-total - Labour-related costs</i>	152.87	40.34	75.62	43.89
Electricity	25.72	6.79	18.06	10.48
Other fuel	2.66	0.70	1.87	1.08
Water, sewerage, waste	NA	0	NA	0
<i>Sub-total - Utilities-related costs</i>	28.37	7.49	19.93	11.57
Registration/Certification	1.00	0.37	0.52	0.30
Packaging	26.83	7.08	18.06	10.48
Transport	112.06	29.57	51.91	30.13
Repairs & maintenance	17.40	4.59	4.01	2.33
Processing consumables	3.97	1.05	2.91	1.69
Other costs	36.01	9.50	0	0.00
Total (excl. livestock costs)	378.91	100.00	172.28	100.00
\$ per kg	1.47		0.70	

Note: totals may not add due to rounding

Some key features of the above results are:

- Costs of processing beef in Brazil are \$378.91/head and \$1.47/kg in Australian dollars. Labour-related costs comprise by far the biggest element in total costs at just over 40 per cent per cent, followed by transport costs at just under 30 per cent.
- In comparison with 2015/16 and bearing in kind the qualification noted above about the caution that must be exercised in comparing cost estimates with those of a decade ago having different data sources and coverage, costs per head have increased by more than double (119 per cent) while costs per kg have increased by slightly less (110 per cent). This is because of the increase in slaughter weights which is discussed below in the context of the changes in key physical parameters of processing over the period concerned.
- The key element in the total operational cost increase has been labour-related costs. Labour-related costs in Brazil have decreased as a percentage of total operational costs. This is because processing wages and salaries (combined in the data gathered) have not increased by as much as other cost items but also because the additional amounts paid by processors in on-costs identified above are collected as a percentage figure applied to wages and salaries, and these percentages have remained stable since the original analysis. This is remarkable given the increases in some on-cost items in for example Australia noted in the regulatory analysis above (e.g. for workers compensation payments).
- Unit costs per kg have not increased by as much as costs per head because, as is indicated in **Table 14** below showing the key physical parameters in Brazil, there has been an increase in slaughter weights in Brazil from 248 kg/head in the original analysis to 257 kg/head. It is estimated that around 20 per cent of cattle slaughtered currently come from confined premises (feedlots) whereas only around 13 per cent was the estimate for 2016 (ABIEC 2025). The increase in overall slaughter weights has been less dramatic than the increase in the proportion of cattle slaughtered that are sourced from feedlots because animals are generally only 'shortfed' for 90-120 days (see also Layton 2025).
- Most categories of cost have remained stable or declined as a percentage of total costs with the exception of repairs and maintenance and 'Other' costs (which were not estimated in the original analysis – again reiterating the caution that must be exercised in comparing such estimates over time). Transport costs were estimated by applying the increase in shipping costs from Shanghai to Santos since to original analysis to the costs estimated in that analysis (UNCTAD 2025). Certification and registration costs are negligible in Brazil as the Government pays for the costs on veterinary meat inspectors. And while processors pay for certification and registration costs other than veterinary meat inspectors, such as mandatory plant registration costs and voluntary standards such as Halal, these are considered by processors to be small, in the order of around \$1 per head. There is also a significant 'informal' beef processing sector in Brazil with smaller facilities catering to the domestic meat market, and these may avoid complying with government regulated costs.
- As noted above, Brazilian costs in both \$AU/head and \$AU/kg have more than doubled since the original analysis. Brazilian costs like those in the USA are reported in US dollars in the data gathered for this analysis and whilst the Australian dollar has depreciated by around 7 per cent against the US currency, and hence the Brazilian costs in Australian currency terms accounts for only a small proportion of the cost increases observed, costs within Brazil are incurred in local currency, the Real. The Brazilian Real has fallen by around 50 per cent against the US dollar since the original analysis, and this has the effect of reducing the US dollar equivalent of Brazilian costs incurred in Reais.

5.1.3 Grainfed beef comparison (Australian and USA)

Table 13 Operating cost structure, Australian and USA grainfed beef processors

	Australia		USA	
Cost category	Cost per head (\$AU) 2024/25	As % of total costs	Cost per head (\$AU) 2024/25	As % of total costs
Processing wages (incl. paid leave)	203.61	38.09	183.52	34.79
Salaries	19.48	3.64	27.84	5.27
Other	33.07	6.30	55.06	10.85
<i>Sub-total - Labour-related costs</i>	256.81	48.04	268.59	50.91
Electricity	12.41	2.32	10.14	1.92
Other fuel	7.95	1.49	4.81	0.91
Water, sewerage, waste	10.99	2.06	3.52	0.67
<i>Sub-total - Utilities-related costs</i>	31.35	5.86	19.03	3.61
Registration/Certification	8.28	1.55	1.61	0.31
Packaging	35.07	6.56	46.53	8.82
Transport	110.14	20.60	94.01	17.82
Repairs & maintenance	24.48	4.58	27.46	5.21
Processing consumables	6.41	1.20	18.73	3.55
Other costs	61.98	11.60	51.54	9.77
Total (excl. livestock costs)	534.52	100	526.52	100
\$ per kg	1.58		1.29	

Note: totals may not add due to rounding

Some key features of the above results are:

- Australian grainfed beef processing costs in Australian dollars are \$534.52/head only slightly (1.5 per cent) above \$526.52/head in the USA. However in terms of c/kg, Australian costs are 22.4 per cent above USA costs. The major factor in this is that the average slaughter weights in the USA are 12.4 per cent higher than in Australia. Significantly, while Australian slaughter weights have increased by 1.6 per cent since the original analysis, USA weights have risen by 11.5 per cent. Average head per day processed have gone up by similar percentages in both countries.
- In comparison with the original analysis, the total costs in Australia per head were nearly one-third higher than in the USA but are now almost equal, whereas costs per kg were 36 per cent higher and have now fallen but are still a significant 22 per cent higher.
- Significantly, labour-related costs in the USA are actually higher than in Australia. This represents a huge change from the original analysis, when USA costs were only 56 per cent of those in Australia. While labour costs as a percentage of total costs have fallen in Australia, they have risen in the USA.
- It should be noted that the 'Other' sub-category in labour-related costs above covers the supplementary costs paid by processors associated with labour in each country, many of which are not strictly comparable. For example in the USA health costs for employees are commonly paid by processors via payment for insurance premiums whereas this is not the case in Australia. This will be analysed further in the regulatory analysis of USA costs below. For the USA, these other costs comprise items as indicated in **Table 13** above. For Australia information on these other costs can be found in section 5.2.1 below which deals with

regulatory costs. In Table 2 above these costs for grainfed beef in Australia were included in the category of workers compensation costs.

Table 14 Key physical indicators beef Australia, USA, New Zealand and Brazil

	Australia	USA	Australia	New Zealand	Brazil
	Grainfed beef		Grassfed beef		
2024/25 Average head per day	959	2478	735	297	600-2000
2015/16 Average head per day	842	2200	815	297	1000-1500
2024/25 Average kg per head	362	407	293	242	257
2015/16 Average kg per head	356	365	271	244	248

5.1.4 Grassfed beef comparison (Australia, New Zealand, Brazil)

Table 15 Operating cost structure, Australian, New Zealand and Brazil grassfed beef processors

	Australia		New Zealand		Brazil	
Cost category	Cost per head (\$AU) 2024/25	As % of total costs	Cost per head (\$AU) 2024/25	As % of total costs	Cost per head (\$AU) 2024/25	As % of total costs
Processing wages (incl. paid leave)	214.33	43.39	215.33	41.50	102.42	27.03
Salaries	25.90	5.24	26.76	5.16		
Workers Compensation premiums	16.77	3.39	1.22	0.23	3.07	0.81
Retirement benefits	20.17	4.08	1.48	0.29	14.14	3.73
<i>Sub-total - Labour-related costs</i>	<i>277.17</i>	<i>56.11</i>	<i>244.79</i>	<i>47.17</i>	<i>152.87</i>	<i>40.34</i>
Electricity	14.00	2.83	17.52	3.38	25.72	6.79
Other fuel	8.41	1.70	6.77	1.30	2.66	0.70
Water, sewerage, waste	11.52	2.33	9.17	1.77		
<i>Sub-total - Utilities-related costs</i>	<i>33.92</i>	<i>6.87</i>	<i>33.46</i>	<i>6.45</i>	<i>28.37</i>	<i>7.49</i>
Registration/Certification	20.75	4.20	21.05	4.06	1.00	0.37
Packaging	24.69	5.00	27.11	5.22	26.83	7.08
Transport	44.83	9.08	130.12	25.07	112.06	29.57
Repairs & maintenance	27.40	5.55	13.98	2.69	17.40	4.59
Processing consumables	14.07	2.85	2.89	0.56	3.97	1.05
Other costs	51.11	10.35	41.62	8.02	36.01	9.50
Total (excl. livestock costs)	493.95	100.00	518.93	100.00	378.91	100.00
\$ per kg	1.70		2.28		1.47	

Note: totals may not add due to rounding and different cost categories being measured

Some key features of the above results are:

- Brazil has, unsurprisingly, the lowest total operating costs of the three grassfed industries in per head and per kg terms, mainly reflecting substantially lower labour costs. However, it is worth noting that costs in the countries have converged to some extent since the original analysis. For example, Brazilian costs in the original analysis were around 58 per cent of Australian costs per head (64 per cent per kg), and in the current analysis Brazilian costs are 76 per cent of Australian costs per head (86 per cent per kg). Here again, slaughter weights are a significant factor – slaughter weights have increased by over 8 per cent for Australian grassfed animals whereas the increase has been less than half of this for Brazil (3.6 per cent). However, if the increase in lot feeding in Brazil continues, one might expect this gap to reduce, all else remaining the same.
- It is also understandable that costs are converging for another reason. In 2025/16 the fact that Brazil had very much lower operating costs than Australia and New Zealand was somewhat academic, because Brazil did not really compete with Australia owing to its product not having access to key markets for Australia, New Zealand and USA beef on the basis of Sanitary restrictions. However, this has changed significantly and Brazil has gained meaningful (albeit still restricted) access to major markets like the USA and China (and the industry there anticipates access being granted to Japan and other Pacific markets in the near

future). Its low-cost product which benefits from the higher quality and lower per unit processing costs generated through lot feeding, has been able to compete with USA domestic beef and imported beef from competing countries like Australia and New Zealand, notwithstanding very high over-quota import tariff rates. As competition increases, it is not surprising that comparative costs between suppliers will converge. The implications of this are significant for the future prospects of the competing industries.

5.2 Regulatory costs

The previous Final Report milestone included the estimation of the regulatory cost component of the operational costs identified above. As was the case in the original analysis, regulatory costs here are considered to be those which are impacted by government regulation. This does not necessarily mean the costs are set by government, only that they are subject to government influence in a material sense. The key cost categories subject to regulatory influence are analysed in turn below for beef in Australia and New Zealand, and then sheep, and comparative data is provided for the relevant species in Australia and New Zealand. Then regulatory costs in the USA and Brazil are analysed.

5.2.1 Australia and New Zealand

5.2.1.1 Labour

Beef Processing

As is indicated in **Table 3** above for beef, labour-related costs are the single biggest cost component in processing (excluding livestock purchases). Data analysed for this Project indicates that labour costs approximate a weighted average of \$268.55/head for cattle (\$0.82/kg) accounting for 50.6 per cent of total operational costs. These include costs associated with processing wages \$190/head accounting for 35.8 per cent of operational costs), salaries (\$38.79/head or 7.3 per cent), workers compensation (\$20.04/head or 3.8 per cent) and retirement benefits (\$19.72/head or 3.7 per cent).

More detailed data on labour costs has been gathered in this analysis. **Table 16** below shows the costs for labour under mandated employment awards, labour under Enterprise Bargaining Agreements, (EBAs), salaried labour, superannuation, workers compensation, payroll tax, and additional visa-related supply costs (non-recuperable costs for administration, compliance and housing).

Table 16 Labour costs and regulatory component, beef processors, Australia

	Australia			
Cost category	All beef cattle cost per head (\$AU) 2024/25	Percent of total labour-related costs	Percent of category cost regulated	Regulated cost (\$AU)
Labour-under award	51.05	21.84	100	51.05
Labour on EBAs	107.42	46.07	100	107.42
Salaried labour	37.33	7.98	17	6.35
Superannuation	18.61	2.77	100	18.61
Workers compensation	6.46	2.77	100	6.48
Payroll tax	9.74	4.18	100	9.74
Visa-related	2.54	1.09	0	0
Total labour	233.16	100	86	199.63

Note: totals may not add due to rounding

Some key features of the above results are:

- The above costs should not be compared with the total labour costs identified in **Table 3** because not all processors who provided data on labour costs identified in that table also provided the more detailed data summarised in the table above. The sub-category total may be higher or lower than the category total given that different processors with different costs may be used to produce the totals.

- Moreover, the data on workers compensation and payroll tax separately identified in **Table 3** above was combined under the category of workers compensation for the purposes of **Table 3**, and the data on Visa-related costs was included in the costs of labour under awards or on EBAs respectively under the category of processing wages for the purposes of **Table 3**.
- In addition, the category of labour on EBAs includes the costs of labour procured from labour hire suppliers as it is considered that workers employed under these conditions receive at least award-level payments.
- Visa-related costs comprise a measurable \$2.54/head and account for around 1 per cent of labour-related costs. Employers are required to provide accommodation services under some visas for foreign workers but not all. The proportion of the costs identified above that relate to visas requiring accommodation is not known so they are not considered to be regulatory costs for the purposes of this analysis.
- With regard to the regulated component of labour-related costs, this effectively includes all costs with the exception of payments of salaries. Wages of processing workers on EBAs are considered to be regulated even though they may be paid above award wage rates, as their overall work conditions must be better overall than under the award in terms of the Better Off Overall Test, so they are effectively subject to regulation. Even within the salary component outlined above, there is a regulated component associated with leave allowances and associated loadings. Although only some processors provided estimates of leave costs within salaries, these indicated around 17 per cent of salaries were accounted for by leave costs.

Taking the above data into account, the regulated component of labour costs for beef processing in Australia is estimated to be almost \$200/head, equivalent to 86 per cent of labour-related costs. This is very similar to the 85.3 per cent of total costs that were estimated to be regulated in the original analysis. However, as is noted at several points in the discussion above, caution needs to be exercised in comparing the results herein with those of the original analysis.

Table 17 Labour costs and regulatory component, beef processors, New Zealand

	New Zealand			
Cost category	All beef cattle cost per head (\$AU) 2024/25	Percent of total labour-related costs	Percent of category cost regulated	Regulated cost (\$AU)
Processing wages (incl. paid leave)	215.33	87.96	71	152.88
Salaries	26.76	10.93	5	1.33
Workers Compensation premiums	1.22	0.55	100	1.22
Retirement benefits	1.48	0.55	100	1.48
Total labour	244.79	100.00	64.1	156.91

Note: totals may not add due to rounding

Some key features of the above results are:

- For New Zealand beef, no additional detail can be provided over and above that reported in **Table 6**. This partly reflects the fact that less detail was sought in the template because of different regulatory requirements (the absence of mandatory awards in New Zealand in particular) and the partial responses of respondents. In terms of analysis regulatory costs, the absence of mandated awards in New Zealand means that a different approach is required for measuring regulatory costs than in Australia.
- Similar to the approach adopted in the original analysis, the estimation of regulatory costs is based on the requirement to pay at least the minimum wage, an allowance for 4 weeks of annual leave, and 10 days of sick leave (which has doubled since the original analysis), as well as mandatory superannuation and workers compensation premium contributions (Employment New Zealand 2026). It should be noted that in New Zealand, mandatory superannuation contributions are facilitated through a voluntary workplace-based

savings scheme. While participation is not compulsory, if an employee is enrolled, both the employee and employer are required to make contributions based on a percentage of gross wage

The estimates of regulatory percentage above are based on data for mixed beef and sheep processing where the costs were not allocated by species, so the same regulatory percentages are applied to both beef and sheep labour costs. The regulatory percentages in the original study were almost the same for beef and sheep. On this basis, the proportion of regulated costs in labour-related costs is 64.09 per cent.

This estimate is somewhat higher than the 56.9 per cent for sheep reported in the original analysis. The increase in the number of days allowed for sick leave is a likely factor as well as the increase in the minimum wage over the period concerned. This percentage is consistent with the fact that the minimum wage represents around 64 per cent of the average wage in New Zealand. Again, there is caution needed in comparing results across years from different processors.

Sheep Processing

Table 18 Labour costs and regulatory component, sheep processors, Australia

	Australia			
Cost category	All sheep cost per head (\$AU) 2024/25	Percent of total labour-related costs	Percent of category cost regulated	Regulated cost (\$AU)
Labour-under award	19.41	56.09	100	19.41
Labour on EBAs	6.39	18.45	100	6.39
Salaried labour	4.57	13.19	12	0.54
Superannuation	2.45	7.08	100	2.45
Workers compensation	0.41	1.17	100	0.41
Payroll tax	0.80	2.30	100	0.80
Visa-related	0.19	0.54	0	0
Other	0.40	1.16	0	0
Total labour	34.61	100	87	30.00

Note: totals may not add due to rounding

Some key features of the above results are:

- The above costs should not be compared with the total labour costs identified in **Table 8** because not all processors who provided data on the costs identified in that table also provided the more detailed data summarised in the table above. The sub-category total may be higher or lower than the category total given that different processors with different costs may be used to produce the totals.
- Moreover, the data on workers compensation and payroll tax separately identified in **Table 8** above was combined under the category of workers compensation for the purposes of **Table 8**, and the data on Visa-related costs was included in the costs of labour under awards or on EBAs respectively under the category of processing wages for the purposes of **Table 8**. In addition, the category of labour on EBAs includes the costs of labour procured from labour hire suppliers as it is considered that workers employed under these conditions receive at least award-level payments. These arrangements are less significant in the sheep processing industry than for beef processing.
- Visa-related costs in sheep account for around half the percentage of labour-related costs compared with these costs for beef processors. The proportion of the costs identified above that relate to visas requiring

accommodation is not known so they are not considered to be regulatory costs for the purposes of this analysis.

- With regard to the regulated component of labour-related costs, this effectively includes all costs with the exception of payments of salaries. Wages of processing workers on EBAs are considered to be regulated even though they may be paid above award wage rates, as their overall work conditions must be better overall than under the award in terms of the Better Off Overall Test, so they are effectively subject to regulation. Even within the salary component outlined above, there is a regulated component associated with leave allowances and associated loadings.
- Although only some processors provided estimates of leave costs within salaries, these indicated around 12 per cent of salaries were accounted for by leave costs.
- The 'other' component of sheep costs includes unspecified human resources costs which are assumed to be non-regulatory.

Taking the above data into account, the regulated component of labour costs for sheep processing in Australia is estimated to be \$30/head, equivalent to 87 per cent of labour-related costs. This is very similar to the 83.1 per cent of total costs that were estimated to be regulated in the original analysis. However, as is noted at several points in the discussion above, caution needs to be exercised in comparing the results herein with those of the original analysis.

Table 19 Labour costs and regulatory component, sheep processors, New Zealand

	New Zealand			
Cost category	All sheep cost per head (\$AU) 2024/25	Percent of total labour-related costs	Percent of category cost regulated	Regulated cost (\$AU)
Processing wages (incl. paid leave)	28.83	86.83	71.00	20.46
Salaries	3.34	10.06	5.00	0.17
Workers Compensation premiums	0.79	2.38	100.00	0.79
Retirement benefits	0.24	0.72	100.00	0.24
Total labour	33.20	100.00	65.24	21.66

Note: totals may not add due to rounding

Some key features of the above results are:

- For New Zealand beef, no additional detail can be provided over and above that reported in **Table 5**. This partly reflects the fact that less detail was sought in the template because of different regulatory requirements (the absence of mandatory awards in New Zealand in particular) and the partial responses of respondents. In terms of analysis regulatory costs, the absence of mandated awards in New Zealand means that a different approach is required for measuring regulatory costs than in Australia.
- Similar to the approach adopted in the original analysis, the estimation of regulatory costs is based on the requirement to pay at least the minimum wage, an allowance for 4 weeks of annual leave, and 10 days of sick leave (which has doubled since the original analysis), as well as mandatory superannuation and workers compensation premium contributions (Employment New Zealand 2026). It should be noted that in New Zealand, mandatory superannuation contributions are facilitated through a voluntary workplace-based savings scheme. While participation is not compulsory, if an employee is enrolled, both the employee and employer are required to make contributions based on a percentage of gross wage

The estimates of regulatory percentage above are based on data for mixed beef and sheep processing where the costs were not allocated by species, so the same regulatory percentages are applied to both beef and sheep labour costs. The regulatory percentages in the original study were almost the same for beef and sheep. On this basis, the proportion of regulated costs in labour-related costs is 65.24 per cent.

This estimate is somewhat higher than the 56.4 per cent for sheep reported in the original analysis. The increase in the number of days allowed for sick leave is a likely factor as well as the increase in the minimum wage over the period concerned.

This percentage is consistent with the fact that the minimum wage represents around 64 per cent of the average wage in New Zealand. Again, there is caution needed in comparing results across years from different processors.

Comparison of Australia and New Zealand labour-related regulatory costs

Table 20 Regulatory labour-related cost structure, Australian and New Zealand grassfed beef processors

	Australia				New Zealand		
Cost category	Grassfed cost per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)	Cost category	All cattle cost per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)
Labour-under award	81.00	100.00	81.00	Processing wages (incl. paid leave)	215.33	71	152.88
Labour on EBAs	83.63	100.00	83.63				
Salaried labour	25.90	17.00	4.40	Salaried labour	26.76	5	1.33
Superannuation	20.17	100.00	20.17	Retirement benefits	1.48	100	1.48
Workers compensation	7.79	100.00	7.79	Workers Compensation	1.22	100	1.22
Payroll tax	7.78	100.00	7.78				
Visa-related	1.19	0.00	0				
Total labour	227.47	90.00	204.77	Total labour	244.79	64.1	156.91

Note: totals may not add due to rounding

Some key features of the above results are:

- Clearly the regulatory costs in Australia are higher than for New Zealand, essentially reflecting the regulated component of processing labour costs – despite having lower non-salaried labour costs than New Zealand, Australian processing labour costs are 100 per cent regulated in Australia whereas only around 71 per cent is the equivalent in New Zealand.
- Australian processors also pay far more in superannuation than New Zealand processors and also pay payroll taxes.

Table 21 Regulatory labour-related cost structure, Australian and New Zealand sheep processors

	Australia			New Zealand			
Cost category	Sheep cost per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)	Cost category	Sheep cost per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)
Labour-under award	19.41	100	19.41	Processing wages (incl. paid leave)	28.83	71.00	20.46
Labour on EBAs	6.39	100	6.39				
Salaried labour	4.57	12	0.54	Salaries	3.34	5.00	0.17
Superannuation	2.45	100	2.45	Retirement benefits	0.24	100.00	0.24
Workers compensation	0.41	100	0.41	Workers Compensation	0.79	100.00	0.79
Payroll tax	0.80	100	0.80				
Visa-related	0.19	0	0				
Other	0.40	0	0				
Total labour	34.61	87	30.00	Total labour	33.20	65.24	21.66

Note: totals may not add due to rounding

Some key features of the above results are:

- Clearly the regulatory labour-related costs in Australia are higher than for New Zealand, essentially reflecting the regulated component of processing labour costs – despite having lower non-salaried labour costs than New Zealand, Australian processing labour costs are 100 per cent regulated in Australia whereas only around 71 per cent is the equivalent in New Zealand.
- Australian processors also pay far more in superannuation than New Zealand processors and also pay payroll taxes.

5.2.1.2 Utilities

Beef Processing

As is indicated in **Table 3** above for beef, utilities costs are a significant component in the processing (excluding livestock purchases). Data analysed for this Project indicates that labour costs approximate a weighted average of \$33.78/head for cattle (\$0.11/kg) accounting for 6.4 per cent of total operational costs.

These include costs associated with electricity \$14.85/head accounting for 2.8 per cent of operational costs), other fuel (\$8.85/head or 1.7 per cent), water, sewerage and waste (\$10.08/head or 1.9 per cent).

More detailed data on energy costs has been gathered in this analysis. **Table 22** below shows the costs for electricity, coal, natural gas, woodchips and other fuel (mainly diesel), as well as water, sewerage and waste which have been combined.

Table 22 Utilities-related costs and regulatory component, beef processors, Australia

	Australia			
Cost category	All beef cattle cost per head (\$AU) 2024/25	Percent of total utilities costs	Percent of category cost regulated	Regulated cost (\$AU)
Electricity	14.90	43.88	57	8.49
Coal	4.82	14.19	0	0
Natural gas	3.40	10.01	36	1.22
Woodchips	0.40	1.17	0	0
Other fuel	0.36	1.06	0	0
Water, sewerage and waste	10.08	29.68	87.5	8.82
Total	33.96	100.00	54.6	18.53

Note: totals may not add due to rounding

Some key features of the above results are:

- The above costs should not be compared with the total utilities costs identified in **Table 3** because not all processors who provided data on the costs identified in that table also provided the more detailed data summarised in the table above. The sub-category total may be higher or lower than the category total given that different processors with different costs may be used to produce the totals. The more detailed data has been analysed for energy costs only and water, sewerage and waste costs have been taken from **Table 3**.
- In the above table, electricity is by far the biggest energy source, followed by coal and natural gas, and accounts for 43.88 per cent of all utilities costs.
- With regard to the regulated component of utilities costs, this varies according to the type of utility concerned. Around 50 per cent of the electricity price is the cost of grid transmission and distribution which is regulated by the Commonwealth; while around 33 per cent is the cost of wholesale power which is a largely competitive market, with regulation restricted to safety, security of supply and market access; around 10 per cent is retailer cost which is subject to regulation in some States through default offers but largely competitive; and around 7 per cent is government fees and taxes (Evans 2021). This suggests at least 57 per cent is considered regulatory, and this estimate is used for the purpose of this analysis. The ACCC estimated around 54 per cent of small business retail prices were comprised of network and environmental requirement costs (ACCC 2023).
- For coal, while large-scale generation is heavily regulated and transitioning toward closures by 2035, private, smaller-scale, or industrial use of coal for on-site power is only subject to state-based environmental

and safety regulations – the costs of these for processors are not known so coal costs are not considered to be regulated for the purpose of this analysis.

- For gas, around 36 per cent of the retail price is transport and distribution network costs (AEP 2026) and considered regulated for the purpose of this analysis. For other fuels, the costs of diesel are around one-third regulated (ACCC 2023) but these fuels account for only a minor percentage of utilities costs so are considered unregulated.
- Costs of water and sewerage are fully regulated and around 50 per cent of the cost of waste disposal is regulated (NSW Government 2020). For those processors that provided data on waste disposal, around 25 per cent of total water, sewerage and waste costs were waste, but in some cases data for this category included costs of environmental services. For the purpose of this analysis water, sewerage and waste costs are considered to be 87.5 per cent regulated.

Taking the above data into account, the regulated component of utilities costs for beef processing in Australia is estimated to be almost \$34/head, equivalent to 54.6 per cent of utilities costs. This is somewhat increased compared to the 48.6 per cent of total costs that were estimated to be regulated in the original analysis. Higher regulatory percentages have been applied in the case of the major utilities above in the current analysis, based on additional updated information being available. However, as is noted at several points in the discussion above, caution needs to be exercised in comparing the results herein with those of the original analysis.

Table 23 Utilities-related costs and regulatory component, beef processors, New Zealand

	New Zealand			
Cost category	All beef cattle cost per head (\$AU) 2024/25	Percent of total utilities costs	Percent of category cost regulated	Regulated cost (\$AU)
Electricity	11.69	50.40	40	4.68
Coal	0.00	0.00	0	0
Natural gas	2.51	10.81	33	0.83
Woodchips	0.00	0.00	0	0
Other fuel	0.73	2.86	0	0
Water, sewerage and waste	8.27	35.65	87.5	7.24
Total	23.19	100.00	54.9	12.75

Note: totals may not add due to rounding

Some key features of the above results are:

- The above costs should not be compared with the total utilities costs identified in **Table 5** because not all processors who provided data on the costs identified in that table also provided the more detailed data summarised in the table above. The sub-category total may be higher or lower than the category total given that different processors with different costs may be used to produce the totals. The more detailed data has been analysed for energy costs only and water, sewerage and waste costs have been taken from **Table 5**.
- In the above table, electricity is by far the biggest energy source and accounts for 50.40 per cent of all utilities costs. Coal costs have been deleted from this analysis because of confidentiality, but only account for a minor share of overall utilities costs. With regard to the regulated component of utilities costs, this varies according to the type of utility concerned. Around 40 per cent of the electricity price is the cost of grid transmission and distribution which is regulated by the New Zealand Government (Meade and Soderberg (2025)). For coal, industrial use for on-site power is only regulated in regard to its sourcing, environmental impact, and future availability. The costs of these for processors are not known so coal costs are not considered to be regulated for the purpose of this analysis. For gas, around one third of the retail price is transport and distribution network costs and considered regulated for the purpose of this analysis (Nova

Energy 2026). For other fuels, the costs of diesel are 19 per cent regulated (Money Hub 2026) but these fuels account for only a minor percentage of utilities costs so are considered unregulated.

- Costs of water and sewerage are fully regulated and an unknown per cent of the cost of waste disposal is regulated in New Zealand. For those processors that provided data on waste disposal, around 30 per cent of total water, sewerage and waste costs were waste, but in some cases data for this category included costs of environmental services. For the purpose of this analysis water, sewerage and waste costs are considered to be the same as Australia at 87.5 per cent regulated.

Taking the above data into account, the regulated component of utilities costs for beef processing in New Zealand is estimated to be AU\$12.74/head, equivalent to 54.9 per cent of utilities costs. This is lower than the 56.7 per cent of total costs that were estimated to be regulated in the original analysis. Lower regulatory percentages have been applied in the case of the major utilities above in the current analysis, based on additional updated information being available. However, as is noted at several points in the discussion above, caution needs to be exercised in comparing the results herein with those of the original analysis.

Sheep Processing

As is indicated in **Table 7** above for sheep in Australia, utilities costs are a significant component in the processing (excluding livestock purchases). Data analysed for this Project indicates that utilities costs approximate a weighted average of AU\$2.79/head for sheep (AU\$0.11/kg) accounting for 4.3 per cent of total operational costs. These include costs associated with electricity \$AU1.37/head accounting for 2.1 per cent of operational costs), other fuel (AU\$0.97/head or 1.5 per cent), water, sewerage and waste (AU\$0.45/head or 0.7 per cent). More detailed data on energy costs has been gathered in this analysis. **Table 24** below shows the costs for electricity, coal, natural gas, woodchips and other fuel (mainly diesel), as well as water, sewerage and waste which have been combined.

Table 24 Utilities-related costs and regulatory component, sheep processors, Australia

	Australia			
Cost category	Sheep cost per head (\$AU) 2024/25	Percent of total utilities costs	Percent of category cost regulated	Regulated cost (\$AU)
Electricity	1.37	49.17	57	0.78
Coal	0.00	0.00	0.00	0.00
Natural gas	0.89	32.05	36	0.32
Woodchips	0.07	2.65	0.00	0.00
Other fuel	0.00	0.00	0.00	0.00
Water, sewerage and waste	0.45	16.19	87.5	0.39
Total	2.78	100.00	53.7	1.49

Note: totals may not add due to rounding

Some key features of the above results are:

- The above costs should not be compared with the total utilities costs identified in **Table 9** because not all processors who provided data on the costs identified in that table also provided the more detailed data summarised in the table above. The sub-category total may be higher or lower than the category total given that different processors with different costs may be used to produce the totals.
- The more detailed data has been analysed for energy costs only and water, sewerage and waste costs have been taken from **Table 9**. In the above table, electricity is by far the biggest energy source, and accounts for 49.17 per cent of all utilities costs. With regard to the regulated component of utilities costs, this varies

according to the type of utility concerned. The same regulatory percentages calculated for beef in Australia have been applied to sheep.

Taking the above data into account, the regulated component of utilities costs for sheep processing in Australia is estimated to be AU\$1.49/head, equivalent to 53.7 per cent of utilities costs. This is significantly increased compared to the 38.9 per cent of total costs that were estimated to be regulated in the original analysis. Increased regulatory percentages have been applied to the major categories reflecting additional and updated data and sheep processing now has a utilities profile dependent on electricity and natural gas, which are relatively heavily regulated compared to the percentages applied in the original analysis – electricity now 57 per cent compared with 45 per cent, gas now 36 per cent compared with 20 per cent.

However, as is noted at several points in the discussion above, caution needs to be exercised in comparing the results herein with those of the original analysis.

Table 25 Utilities-related costs and regulatory component, sheep processors, New Zealand

Cost category	New Zealand			
	Sheep cost per head (\$AU) 2024/25	Percent of total utilities costs	Percent of category cost regulated	Regulated cost (\$AU)
Electricity	1.50	51.96	40	0.60
Coal	0.00	0.00	0	0.00
Natural gas	0.44	15.25	33	0.15
Woodchips	0.00	0.00	0	0.00
Other fuel	0.08	2.60	0	0.00
Water, sewerage and waste	0.88	29.98	87.5	0.76
Total	2.89	100.00	52.0	1.50

Note: totals may not add due to rounding

As is indicated in **Table 9** above for sheep in New Zealand, utilities costs are a significant component in the processing (excluding livestock purchases). Data analysed for this Project indicates that utilities costs approximate a weighted average of AU\$3.88/head for sheep (AU\$0.21/kg) accounting for 6.1 per cent of total operational costs. These include costs associated with electricity AU\$2.05/head accounting for 3.2 per cent of operational costs), other fuel (AU\$0.95/head or 1.5 per cent), water, sewerage and waste (AU\$0.88/head or 1.38 per cent).

More detailed data on energy costs has been gathered in this analysis. **Table 25** above shows the costs for electricity, coal, natural gas, woodchips and other fuel (mainly diesel), as well as water, sewerage and waste which have been combined.

Some key features of the above results are:

- The above costs should not be compared with the total utilities costs identified in **Table 9** because not all processors who provided data on the costs identified in that table also provided the more detailed data summarised in the table above. The sub-category total may be higher or lower than the category total given that different processors with different costs may be used to produce the totals. The more detailed data has been analysed for energy costs only and water, sewerage and waste costs have been taken from **Table 9**. In the above table, electricity is by far the biggest energy source, followed by natural gas, and accounts for 52 per cent of all utilities costs. In addition, the costs of coal have been deleted owing to confidentiality but only account for a minor percentage of total utilities costs.
- With regard to the regulated component of utilities costs, this varies according to the type of utility concerned. The same regulatory percentages calculated for beef in New Zealand have been applied to sheep.

Taking the above data into account, the regulated component of utilities costs for sheep processing in New Zealand is estimated to be AU\$1.50/head, equivalent to 52 per cent of utilities costs. This is decreased compared to the 57.70 per cent of total costs that were estimated to be regulated in the original analysis. Lower regulatory percentages have been applied in the case of the major utilities above in the current analysis, based on additional updated information being available. However, as is noted at several points in the discussion above, caution needs to be exercised in comparing the results herein with those of the original analysis.

Comparison of Australia and New Zealand utilities regulatory costs

Table 26 Regulatory utilities-related cost structure, Australian and New Zealand grassfed beef processors

	Australia			New Zealand		
Cost category	Grassfed cost per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)	All cattle cost per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)
Electricity	14.18	57	8.08	11.69	40	4.68
Coal	1.05	0	0.00	0.00	0	0.00
Natural gas	7.06	36	2.84	2.51	33	0.83
Woodchips	0.66	0	0.00	0.00	0	0.00
Other fuel	0.14	0	0.00	0.73	0	0.00
Water, sewerage and waste	11.52	87.5	10.08	8.27	87.5	7.24
Total	34.61	59.81	20.70	23.19	54.9	12.75

Note: totals may not add due to rounding

Some key features of the above results are:

- The regulatory costs in Australia for grassfed beef are somewhat higher than for New Zealand, reflecting the higher absolute values of key utilities costs and higher regulatory percentages applied to the major utilities especially electricity in Australia.
- New Zealand beef processors are more dependent on electricity than their Australian counterparts, and electricity has a far lower regulatory component in New Zealand than in Australia.
- Grassfed beef processors in Australia have higher water, sewerage and waste costs than in New Zealand, and the differential is even higher for grainfed processors than the grassfed ones indicated above. As noted above, many grassfed animals are also grainfed to some extent, and so could be expected to have higher water, sewerage and waste costs.

Table 27 Regulatory utilities-related cost structure, Australian and New Zealand sheep processors

	Australia			New Zealand		
Cost category	Sheep cost per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)	Sheep cost per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)
Electricity	1.37	57	0.78	1.50	40	0.60
Coal	0.00	0.00	0.00	0.00	0	0.00
Natural gas	0.89	36	0.32	0.44	33	0.15
Woodchips	0.07	0.00	0.00	0.00	0	0.00
Other fuel	0.00	0.00	0.00	0.08	0	0.00
Water, sewerage and waste	0.45	87.5	0.39	0.88	87.5	0.76
Total	2.78	53.7	1.49	2.89	51.1	1.50

Note: totals may not add due to rounding

Some key features of the above results are:

- Utilities-related regulatory costs for sheep in Australia are similar to New Zealand. The situation is different to that applying to grassfed beef above because Australian sheep processors are less dependent than their beef processing compatriots on electricity (which has a far higher regulatory percentage at 57 per cent in Australia than the 40 per cent in New Zealand) and more dependent than their beef processing compatriots on natural gas (which has only a slightly higher regulatory component in Australia than in New Zealand). New Zealand sheep processors have however much higher water, sewerage and waste costs than in Australia.

5.2.1.3 Registration/certification

Beef Processing

Data analysed for this Project indicates in **Table 3** that registration and certification costs for beef processing in Australia approximate a weighted average of AU\$12.10/head for cattle (AU\$0.4/kg) accounting for 2.3 per cent of total operational costs.

More detailed data on registration/certification costs has been gathered in this analysis. **Table 28** below shows the costs for registration/certification under the various sub-categories for which data was requested in the template.

Table 28 Registration/certification costs and regulatory component, beef processors, Australia

	Australia			
Cost category	All beef cattle cost per head (\$AU) 2024/25	Percent of total registration etc costs	Percent of category cost regulated	Regulated cost (\$AU)
Federal/national licences/permits				
DAWR certification	1.75	15.61	100	15.61
AUSMEAT accreditation	0.30	2.64	100	2.64
Approved arrangement certificate	0.32	2.85	100	0.32
NLIS	0.00	0.00	100	0.00
Slaughter levy	3.07	27.39	100	3.07
Meat inspection fees	2.55	22.80	100	2.55
Other (e.g. MSA, AQIS audit)	0.01	0.12	100	0.01
Other (documentation, Halal)	0.47	4.18	100	0.47
Other (registration)	0.03	0.23	100	0.03
State licences/permits				
State licences/permits				
Other	0.00	0.00	100	0.00
Local rates and charges				
Municipal rates	1.04	9.28	100	1.04
Other (land tax, permits)	0.25	2.27	100	0.25
Third party providers Federal requirements	0.04	0.32	100	0.04
Other private standards				
Audits for external standards (e.g. BRC, SQF)	0.86	7.66	0	0
Audits for other private standards (e.g. customers)	0.01	0.02	0	0
Other (testing, inspection)	0.52	4.65	0	0
Total	11.22	100.00	87.6	9.83

Note: totals may not add due to rounding

Some key features of the above results are:

- The above costs should not be compared with the total registration/certification costs identified in **Table 3** because not all processors who provided data on the costs identified in that table also provided the more detailed data summarised in the table above. The sub-category total may be higher or lower than the category total given that different processors with different costs may be used to produce the totals.
- The estimated costs of registration/certification based on the above analysis is AU\$11.20/head. By far the biggest components of these costs are Federal in origin – they account for over 75 per cent of the total

registration/certification costs. Nearly 50 per cent of the total costs are just two items – slaughter levy and meat inspection costs. Third party providers of services required by Governments are a minor component.

- Audit costs for private standards are a major component of total costs totalling 7.68 per cent of the total – mainly for external standards like BRC or SQF rather than those undertaken to meet the requirements of individual customers. With regard to the regulated component of registration/certification, all costs at all levels of government are considered to be regulated. Only private standards are not considered to be regulated. The residual sub-category of Other Federal Government requirements that includes assorted documentation requirements but some processors have included Halal certification here. Whilst such certification for exports is strictly regulated, it is not for domestic sales. Given that the costs reports were not disaggregated into those associated with exports or domestic sales, it is not possible to determine how much of the Halal costs were regulated. They are not considered a major component of total costs and so the Other sub-category is considered to be regulated. Equally, the Other component of private standards includes unspecified testing and inspection costs some of which are likely to be government-required. They are not a considered a major component of total costs so this Other sub-category is not considered to be regulated.

Taking the above data into account, the regulated component of registration/certification for beef processing in Australia is estimated to be almost \$9.83/head, equivalent to 87.6 per cent of total registration/certification costs. This is significantly higher than the 70 per cent of total costs that were estimated to be regulated in the original analysis. The estimate in the original analysis was based on macro-level information gathered from public and private sources, it was restricted to Federal government regulated costs, and the assumption was made that any costs incurred for third-party suppliers of services for requirements like meat inspection and audits were not regulated.

The current estimate includes costs incurred in meeting the requirements of all levels of government, and the costs of third party providers of regulated services are considered regulated (as the identity of the service provider is not material if the service being provided is required by government). However, as is noted at several points in the discussion above, caution needs to be exercised in comparing the results herein with those of the original analysis.

Data analysed for this Project indicates in **Table 9** that registration and certification costs for beef processing in New Zealand approximate a weighted average of AU\$21.05/head for cattle (AU\$0.9/kg) accounting for 4.6 per cent of total operational costs.

More detailed data on registration/certification costs has been gathered in this analysis. **Table 29** shows the costs for registration/certification under the various sub-categories for which data was requested in the template.

Table 29 Registration/certification costs and regulatory component, beef processors, New Zealand

Cost category	New Zealand			
	All beef cattle cost per head (\$AU) 2024/25	Percent of total registration etc costs	Percent of category cost regulated	Regulated cost (\$AU)
MPI certification	6.09	36.87	100	6.09
Government-related certification	0.08	0.46	100	0.08
NAIT	0.00	0	100	0.00
Slaughter levy	1.09	6.58	100	1.09
Meat inspection fees	8.20	49.65	100	8.20
Other central government	0.54	3.26	100	0.54
Audits for external standards (e.g. Halal)	0.20	1.24	0	0
Audits for private standards	0.05	0.32	0	0
Other (e.g. regional governments)	0.27	1.62	100	0.27
Total	16.50	100.00	98.44	16.27

Note: totals may not add due to rounding

Some key features of the above results are:

- The above costs should not be compared with the total registration/certification costs identified in **Table 5** because not all processors who provided data on the costs identified in that table also provided the more detailed data summarised in the table above. The sub-category total may be higher or lower than the category total given that different processors with different costs may be used to produce the totals.
- For New Zealand beef, the estimated costs of registration/certification based on the above analysis is AU\$16.50/head. By far the biggest components of these costs are meat inspection fees which account for nearly 50 per cent of total certification/registration costs. Together with MPI certification and slaughter levy, they account for 93 per cent of category costs.

With regard to the regulatory component of certification/registration costs, all costs except audit costs for external industry standards and private customer standards are considered regulatory costs. Regulatory costs are estimated at AU\$16.27/head equivalent to 98.44 per cent of the total costs. This is slightly higher than the 97.5 per cent estimated in the original analysis, reflecting the more detailed data gathered for the purpose of the above analysis. Again, there is caution needed in comparing results across years from different processors.

Sheep Processing

Data analysed for this Project indicates in **Table 9** that registration and certification costs for sheep processing in Australia approximate a weighted average of AU\$2.21/head for cattle (AU\$0.09/kg) accounting for 3.4 per cent of total operational costs.

More detailed data on registration/certification costs has been gathered in this analysis. **Table 30** below shows the costs for registration/certification under the various sub-categories for which data was requested in the template.

Table 30 Registration/certification costs and regulatory component, sheep processors, Australia

	Australia			
Cost category	Sheep cost per head (\$AU) 2024/25	Percent of total registration etc costs	Percent of category cost regulated	Regulated cost (\$AU)
Federal/national licences/permits				
DAWR certification	0.38	20.44	100	0.38
AUSMEAT accreditation	0.01	0.79	100	0.01
Approved arrangement certificate	0.04	2.37	100	0.04
NLIS	0.00	0.00	100	0.00
Slaughter levy	0.59	31.30	100	0.59
Meat inspection fees	0.16	8.54	100	0.16
Other (e.g. MSA, AQIS audit)	0.02	0.83	100	0.02
Other (documentation, Halal)	0.55	29.40	100	0.55
Other (registration)	0.00	0.00	100	0.00
State licences/permits				
State licences/permits	0.00	0.00	0	0.00
Other	0.00	0.00	100	0.00
Local rates and charges				
Municipal rates	0.03	1.75	100	0.03
Other (land tax, permits)	0.04	2.09	100	0.04
Third party providers Federal requirements	0.00	0.00	100	0.00
Other private standards				
Audits for external standards (e.g.BRC, SQF)	0.04	2.16	0	0.04
Audits for other private standards (e.g. customers)	0.00	0.00	0	0.00
Other (testing, inspection)	0.00	0.00	0	0.00
Total	1.88	100.00	87.6	1.84

Note: totals may not add due to rounding

Some key features of the above results are:

- The above costs should not be compared with the total registration/certification costs identified in **Table 8** because not all processors who provided data on the costs identified in that table also provided the more detailed data summarised in the table above. The sub-category total may be higher or lower than the category total given that different processors with different costs may be used to produce the totals.
- The estimated costs of registration/certification based on the above analysis is AU\$1.88/head. By far the biggest components of these costs are Federal in origin – they account for over 94 per cent of the total registration/certification costs. Nearly 50 per cent of the total costs are just two items – slaughter levy and DAWR certification costs.

- With regard to the regulated component of registration/certification, all costs at all levels of government are considered to be regulated. Only private standards are not considered to be regulated. The residual sub-category of Other Federal Government requirements that includes assorted documentation requirements but some processors have included Halal certification here. Whilst such certification for exports is strictly regulated, it is not for domestic sales. Given that the costs reports were not disaggregated into those associated with exports or domestic sales, it is not possible to determine how much of the Halal costs were regulated. They are a major component of total costs which is not surprising given the significance of exports of sheep meat to the Middle East and Asian markets where Halal certification is required. They have been considered to be regulated given the significance of exports in sheep meat production (with around 90 per cent of mutton production being exported).

Taking the above data into account, the regulated component of registration/certification for beef processing in Australia is estimated to be AU\$1.84/head, equivalent to 97.8 per cent of total registration/certification costs. This is significantly higher than the 70 per cent of total costs that were estimated to be regulated in the original analysis. The estimate in the original analysis was based on macro-level information gathered from public and private sources for beef processing, it was restricted to Federal government regulated costs, and the assumption was made that any costs incurred for third-party suppliers of services for requirements like meat inspection and audits were not regulated.

The current estimate includes costs incurred in meeting the requirements of all levels of government, and the costs of third-party providers of regulated services are considered regulated (as the identity of the service provider is not material if the service being provided is required by government). However, as is noted at several points in the discussion above, caution needs to be exercised in comparing the results herein with those of the original analysis.

Data analysed for this Project indicates in **Table 9** that registration and certification costs for sheep processing in New Zealand approximate a weighted average of AU\$2.12/head for cattle (AU\$0.10/kg) accounting for 3.3 per cent of total operational costs.

More detailed data on registration/certification costs has been gathered in this analysis. **Table 31** shows the costs for registration/certification under the various sub-categories for which data was requested in the template.

Table 31 Registration/certification costs and regulatory component, sheep processors, New Zealand

	New Zealand			
Cost category	Sheep cost per head (\$AU) 2024/25	Percent of total registration etc costs	Percent of category cost regulated	Regulated cost (\$AU)
MPI certification	0.66	34.10	100	0.66
Government-related certification	0.01	0.57	100	0.01
NAIT	0.00	0.00	100	0.00
Slaughter levy	0.06	3.35	100	0.06
Meat inspection fees	1.07	55.54	100	1.07
Other central government	0.02	0.97	100	0.02
Audits for external standards (e.g. Halal)	0.03	1.52	0	0.00
Audits for private standards	0.03	1.51	0	0
Other (e.g. regional governments)	0.05	2.43	100	0.05
Total	1.92	100.00	97.23	1.87

Note: totals may not add due to rounding

Some key features of the above results are:

- The above costs should not be compared with the total registration/certification costs identified in **Table 9** because not all processors who provided data on the costs identified in that table also provided the more detailed data summarised in the table above. The sub-category total may be higher or lower than the category total given that different processors with different costs may be used to produce the totals.
- For New Zealand sheep, the estimated costs of registration/certification based on the above analysis is AU\$1.92/head. By far the biggest components of these costs are meat inspection fees which account for 55 per cent of total certification/registration costs.

With regard to the regulatory component of certification/registration costs, all costs except audit costs for external industry standards and private customer standards are considered regulatory costs. In New Zealand, Halal costs were included in the Audits for external standards category, unlike in Australia where some processors reported Halal requirements as part of 'Other' government sub-category given that Halal for export products is regulated and most production is exported. Given that the percentage of Hala costs in external standards costs is not known, the external standards costs have been considered to be non-regulated.

Regulatory costs are estimated at AU\$1.87/head equivalent to 97.23 per cent of the total costs. This is slightly higher than the 95.0 per cent estimated in the original analysis, reflecting the more detailed data gathered for the purpose of the above analysis. Again, there is caution needed in comparing results across years from different processors.

Comparison of Australia and New Zealand registration/certification regulatory costs

Table 32 Registration/certification-related cost structure, Australian and New Zealand grassfed beef processors

Cost category	Australia			Cost category	New Zealand		
	Grassfed cost per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)		All cattle cost per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)
Federal/national licences/permits				MPI certification	6.09	36.87	6.09
DAWR certification	1.90	11.19	1.90	Government-related certification	0.08	0.46	0.08
AUSMEAT accreditation	0.00	0.03	0.00	NAIT	0.00	0	0.00
Approved arrangement certificate	0.00	0.00	0.00	Slaughter levy	1.09	6.58	1.09
NLIS	0.00	0.00	0.00	Meat inspection fees	8.20	49.65	8.20
Slaughter levy	8.67	51.09	8.67	Other central government	0.54	3.26	0.54
Meat inspection fees	1.21	7.16	1.21	Audits for external standards (e.g. Halal)	0.20	1.24	0
Other (e.g. MSA, AQIS audit)	0.00	0.00	0.00	Audits for private standards	0.05	0.32	0
Other (documentation, Halal)	1.97	11.59	1.97	Other (e.g. regional governments)	0.27	1.62	0.27
Other (registration)	0.00	0.00	0.00				
State licences/permits							
State licences/permits	0.00	0.00	0.00				
Other	0.15	0.88	0.15				
Local rates and charges							
Municipal rates	0.39	2.31	0.39				
Other (land tax, permits)	1.07	6.30	1.07				
Third party providers Federal requirements	0.02	0.13	0.02				
Other private standards							
Audits for external standards (e.g. BRC, SQF)	0.01	0.05	0.00				
Audits for other private standards (e.g. customers)	1.57	9.25	0.00				
Other (testing, inspection)	0.00	0.00	0.00				
Total	16.96	90.7	15.39	Total	16.50	98.6	16.27

Note: totals may not add due to rounding

Some key features of the above results are:

- The registration/certification regulatory costs in Australia for grassfed beef are almost identical to those in New Zealand, and in both cases these costs are around 97 per cent regulatory costs. Meat inspection fees in Australia are much lower and slaughter levy costs are much higher.

- Data from processors has included Halal certification costs as government regulated whereas in New Zealand, they have been included in Audits for external standards which are not considered regulated. However the much very smaller magnitude of the New Zealand category that includes Halal costs suggests a reallocation of the costs associated with Halal certification for exports to a regulatory category would not materially affect the regulated percentage of registration/certification costs in New Zealand.
- In comparison with the original analysis, registration/certification costs have increased much more rapidly in Australia than in New Zealand. In the original analysis, New Zealand costs were over 80 per cent more expensive than in Australia and in the current analysis they are almost on a par.

Table 33 Registration/certification-related regulatory cost structure, Australian and New Zealand sheep processors

	Australia			New Zealand			
Cost category	Sheep cost per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)	Cost category	Sheep cost per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)
Federal/national licences/permits							
DAWR certification	0.38	100	0.38	MPI certification	0.66	100	0.66
AUSMEAT accreditation	0.01	100	0.01	Government-related certification	0.01	100	0.01
Approved arrangement certificate	0.04	100	0.04	NAIT	0.00	100	0.00
NLIS	0.00	100	0.00	Slaughter levy	0.06	100	0.06
Slaughter levy	0.59	100	0.59	Meat inspection fees	1.07	100	1.07
Meat inspection fees	0.16	100	0.16	Other central government	0.02	100	0.02
Other (e.g. MSA, AQIS audit)	0.02	100	0.02	Audits for external standards (e.g. Halal)	0.03	0	0.00
Other (documentation, Halal)	0.55	100	0.55	Audits for private standards	0.03	0	0
Other (registration)	0.00	100	0.00	Other (e.g. regional governments)	0.05	100	0.05
State licences/permits							
State licences/permits	0.00	0	0.00				
Other	0.00	100	0.00				
Local rates and charges							
Municipal rates	0.03	100	0.03				
Other (land tax, permits)	0.04	100	0.04				

	Australia			New Zealand			
Cost category	Sheep cost per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)	Cost category	Sheep cost per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)
Third party providers	0.00	100	0.00				
Federal requirements							
Other private standards							
Audits for external standards (e.g. BRC, SQF)	0.04	0	0.04				
Audits for other private standards (e.g. customers)	0.00	0	0.00				
Other (testing, inspection)	0.00	0	0.00				
Total	1.88	87.6	1.84	Total	1.92	97.23	1.87

Note: totals may not add due to rounding

Some key features of the above results are:

- The registration/certification regulatory costs in Australia for sheep are slightly lower than those in New Zealand, and in Australia the regulatory percentage of total costs is slightly lower at 87 per cent compared with 97 per cent in New Zealand. Meat inspection costs in Australia are much lower than New Zealand and the slaughter levy costs are higher.
- Data from processors has included Halal certification costs as government regulated whereas in New Zealand, they have been included in Audits for external standards which are not considered regulated. However the much very smaller magnitude of the New Zealand category that includes Halal costs suggests a reallocation of the costs associated with Halal certification for exports to a regulatory category would not materially affect the regulated percentage of registration/certification costs in New Zealand.

In comparison with the original analysis, certification costs have increased much more rapidly in Australia than New Zealand. In the original analysis, New Zealand costs were a third more expensive than Australia and in the current analysis they are almost on a par.

5.2.1.4 Transport

Transport costs account for the second largest category of costs after processing wages in the analysis above. In most cases, the proportion of transport costs in total costs has increased since the original analysis. In that analysis, transport costs were not subject to investigation as to the percentage of regulatory costs because these costs were assumed to be negligible. However, with the increase in costs that has taken place since the original analysis, and the significance to this category in total operational costs, an investigation has been done into the regulatory component.

Data was sought from processors in the templates for both Australia and New Zealand on the components of transport costs namely road, rail, sea and air. Unfortunately, only a few processors provided this detail. For Australia (both species) road and rail costs combined accounted for around 42 per cent of total transport costs, sea about 56 per cent and air about 2 per cent. For New Zealand, road was about 50 per cent, rail around 2 per cent, sea around 47 per cent and air 1 per cent.

Unfortunately it has not been possible to determine the regulatory percentage of the costs in this category for the different species in either Australia or New Zealand. This is not to say that transport is not regulated.

In Australia:

- Road transport (heavy transport being relevant in this case) is regulated in Australia covering areas like safety, mass, dimension and loading. Australia uses a pay-as-you-go model for determining annual registration and fuel based road user charges. Around 40 per cent of heavy vehicle costs are recovered as state and territory registration fees, with the balance paid through the fuel-based road charge collected by the Commonwealth. However, there is no information available on the percentage of operational costs borne by meat processors arising from these charges.
- Rail is also regulated. This includes through fuel excise charges and through infrastructure access fees paid to governments. A significant portion of these charges are in the form of access fees paid to state-owned track owners to run trains. No public information is available on the percentage of the operational costs borne by meat processors that is accounted for by these access fees. There is also no information on the economic costs (as distinct from financial costs) which such rail service providers incur. These could include inefficiencies resulting from economic inefficiencies in the access regimes.
- Sea transport is also subject to regulation in many forms, including regulations on the movement of cargo between ports within Australia as well as biosecurity, customs and border control. However again there is no analysis of the percentage of operational costs borne by meat processors as a result of sea freight regulations.
- Air freight is also subject to regulation in the form of mandatory security screening, documentation, export controls and airport charges. Commercial air freight costs are subject to the impact of controls over routes, but again there is no information to determine the proportion of freight costs to processors that are accounted for by these regulations.

In New Zealand:

- A similar situation exists to Australia regarding the extent of transport regulation and the lack of information on its impacts on meat processors' operational costs.
- A comprehensive study of the surface transport system in New Zealand (Wallis and Chandler 2005) pointed out that almost 90% of the total economic costs associated with the road system are paid directly by users, with the remaining 10% funded by public agencies and recovered through user charges or borne by society at large. However, a large proportion of the 90% is fixed charges associated with vehicle ownership; and hence user charges represent considerably more than 10% of user variable costs, which are relevant to decision-making on particular trips. Plausible changes in user charges may thus have quite substantial effects on the choice between modes, and rather lesser effects on total travel demand. Unfortunately, even this analysis of the percentage of charges in user variable costs was done over two decades ago.

The absence of information on the regulatory percentage of such a significant component of meat processors' operational costs in both countries suggests that processors could consider investing in research in this areas. Further information could be sought from processors about the composition of their transport costs to augment that gathered for the purposes of this project.

5.2.1.5 Regulatory costs summary

Table 34 Regulatory costs summary, Australian and New Zealand grassfed beef and sheep processors

	Australia			New Zealand			
Cost category	Grassfed regulated costs/ head (\$AU) 2024/25	Percent of category cost regulated	Grassfed regulated cost percentage 2015/16	Cost category	Cattle regulated cost per head (\$AU) 2024/25	Percent of category cost regulated	Cattle regulated cost percentage 2015/16
Labour-related costs	249.45	90.00	85.3	Labour-related costs	156.91	64.1	56.9
Utilities-related costs	20.28	59.8	48.6	Utilities-related costs	18.37	54.9	56.7
Registration/ certification-related	18.82	90.7	70.0	Registration/ certification-related	20.75	98.6	97.5
Total costs	286.55	58.0	56.7	Total operational costs	196.03	37.8	38.8
	Australia			New Zealand			
Cost category	Sheep regulated costs/ head (\$AU) 2024/25	Percent of category cost regulated	Sheep regulated cost percentage 2015/16	Cost category	Sheep regulated cost per head (\$AU) 2024/25	Percent of category cost regulated	Sheep regulated cost percentage 2015/16
Labour-related costs	29.18	87.0	83.1	Labour-related costs	21.64	65.2	56.4
Utilities-related costs	1.49	53.7	38.9	Utilities-related costs	1.98	51.1	57.7
Registration/ certification-related	1.93	87.6	70.00	Registration/ certification-related	2.06	97.2	95.0
Total costs	32.60	50.7	50.4	Total costs	25.68	40.3	37.5

Note: totals may not add due to rounding

The above table summarises the regulatory cost totals and their percentages of total operational costs. It uses the regulatory percentages calculated above using the more detailed data provided by processors and applies them to the total operational costs produced by analysis of the broader data set (in Tables 4 and 8), in order to produce a comparison with the regulatory costs results in the original analysis.

Some key features of the above results are:

- For Australian grassfed and New Zealand beef, Australia has a far higher regulatory percentage of total costs at 58 per cent compared with 37.8 per cent. This reflects higher absolute costs and higher regulatory percentages in the labour and utilities categories. The regulatory percentages in these categories in both countries have increased for labour and utilities, but Australian costs are significantly higher in labour.
- For Australian and New Zealand sheep, a similar situation applies, with Australia having a higher regulatory percentage of total costs at 50.7 per cent compared with 40.3 percent. This reflects higher absolute costs

and higher regulatory percentages in the labour and utilities categories. The regulatory percentages in these categories in both countries have increased for labour and utilities, but Australian costs are significantly higher in labour.

- The reverse situation applies in relation to registration/certification costs, with Australia having lower absolute costs and regulatory percentages in both beef and sheep. However, the regulatory percentage in Australia has increased significantly since the original analysis based on more detailed data from processors. The regulatory percentage in Australia is now approaching the level of New Zealand.
- Finally it should be noted that the regulatory percentage of all Australian beef is lower at 51.3 per cent than the figure for grassfed beef, reflecting the lower per head absolute costs for labour-related and registration/certification-related costs for all beef than grassfed.

5.2.2 USA and Brazil

5.2.2.1 Labour

As is indicated in **Table 11** above for USA beef, labour-related costs are the single biggest cost component in processing (excluding livestock purchases). Data analysed for this Project indicates that labour costs approximate a weighted average of \$268.59/head for cattle (\$0.66/kg) accounting for 50.9 per cent of total operational costs. These include costs associated with processing wages and salaries combined \$211.38/head accounting for 40.1 per cent of operational costs) and assorted supplementary costs totalling \$57.21/head (\$0.63/kg) or 49.09 per cent of operational costs).

The composition of data on labour costs in this analysis contained in **Table 11** is repeated below. It was generated as an average of data from the Census on meat processing expenses for 2022 updated by the Producer Price Index as described above for **Table 11**, and private data for beef processing facilities. The Census estimates include pork, so the percentage of beef production volume in total beef and pork production was applied to the total Census estimate to produce an estimate of beef only expenses).

Table 35 Labour costs and regulatory component, beef processors, USA

	USA			
Cost category	Beef cost per head (\$AU) 2024/25	Percent of total labour-related costs	Percent of category cost regulated	Regulated cost (\$AU)
Processing wages and salaries	211.38	40.15	67.00	140.88
Payroll taxes	10.21	1.94	100.0	10.21
Health care	22.62	4.30	0.00	0.00
Paid leave	20.27	3.85	33.00	6.69
Workers Compensation premiums	1.96	0.37	0.00	0.00
Retirement benefits	2.16	0.41	0.00	0.00
Sub-total - Labour-related costs	268.59	50.91	58.74	157.78

Note: totals may not add due to rounding

Some key features of the above results are:

- Processing wages and salaries are combined in the above because they are not separated in the Census data. Based on private data processing wages represent around 90 per cent of the combined total and 10 per cent are salaries costs.
- Similar to the approach adopted in the original analysis, the estimation of regulatory costs in processing wages and salaries is based on the requirement to pay at least the minimum wage. The minimum wage

varies by State in the USA but the wage applying in the State of Nebraska is used for the purpose of this analysis as it is the location of several beef processing facilities (Paycor 2026). It is also very similar to that in Colorado, another State with several processing facilities, but higher than that in Kansas and Iowa. The minimum wage is calculated as a percentage of the typical wage for a meat processing labourer (Careeronestop 2026) and this percentage is applied to the processing wages costs (which represent around 90 per cent of total wages and salaries as noted above) to produce the regulatory percentage of 67 per cent.

- Another regulated component of labour-related costs in the USA is payroll taxes which are mainly used for contributions to social security and accordingly 100% of payroll taxes are calculated as being regulatory costs in this analysis.
- In recent times several US states have introduced mandatory paid leave deductions and rates have increased significantly. It is reported one third of US workers are subject to mandatory paid leave deductions, and this is the figure applied to the total payroll tax costs identified above to estimate the regulatory component.

Taking the above data into account, the regulated component of labour costs for beef processing in USA is estimated to be around \$157/head equivalent to nearly 59 per cent of labour-related costs. This is slightly lower than the 61 per cent of total labour-related costs that were estimated to be regulated in the original analysis. However, as is noted at several points in the discussion above, caution needs to be exercised in comparing the results herein with those of the original analysis.

Table 36 Labour costs and regulatory component, beef processors, Brazil

	Brazil			
Cost category	All beef cattle cost per head (\$AU) 2024/25	Percent of total labour-related costs	Percent of category cost regulated	Regulated cost (\$AU)
Processing wages and salaries	102.42	67.00	48.20	49.38
Payroll taxes	0.08	0.00	100	0.08
Health care payments	20.48	13.40	100	20.48
Paid leave	12.68	8.30	100	12.68
Workers compensation payments	3.07	2.00	100	3.07
Retirement benefits	14.14	9.30	100	14.14
Sub-total - Labour-related costs	152.87	100.00	65.30	99.83

Note: totals may not add due to rounding

Some key features of the above results are:

- For Brazil beef, no additional detail can be provided over and above that reported in **Table 12**. This partly reflects the fact that less detail was sought in the template because of different regulatory requirements and the partial responses of respondents.
- As noted above, labour-related costs in Brazil have decreased as a percentage of total operational costs. This is because processing wages and salaries (combined in the data gathered) have not increased by as much as other cost items but also because the additional amounts paid by processors in on-costs identified above are collected as a percentage figure applied to wages and salaries, and these percentages have remained stable since the original analysis. This is remarkable given the percentage rate increases in some

on-cost items in for example Australia, as noted in the regulatory analysis above (e.g. for workers compensation payments).

- Similar to the approach adopted in the original analysis, the estimation of regulatory costs in processing wages and salaries is based on the requirement to pay at least the minimum wage which is regulated. To the average wage paid, percentages are applied for various on-costs which are also considered regulated. The table above shows the percentage of each cost item that is regulated.

Taking the above data into account, the regulated component of labour costs for beef processing in Brazil is estimated to be around \$100/head equivalent to around 65 per cent of labour-related costs. This is almost identical to the 66.6 per cent of total labour-related costs that were estimated to be regulated in the original analysis. However, as is noted at several points in the discussion above, caution needs to be exercised in comparing the results herein with those of the original analysis.

Comparison of USA and Brazil labour-related regulatory costs

Table 37 Regulatory labour-related cost structure, USA and Brazil beef processors

	USA			Brazil			
Cost category	Beef cost per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)	Cost category	All cattle cost per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)
Processing wages and salaries	211.38	67.00	140.88	Processing wages and salaries	102.42	48.20	49.38
Payroll taxes	10.21	100.0	10.21	Payroll taxes	0.08	100	0.08
Health care	22.62	0.00	0.00	Health care payments	20.48	100	20.48
Paid leave	20.27	33.00	6.69	Paid leave	12.68	100	12.68
Workers Compensation premiums	1.96	0.00	0.00	Workers compensation payments	3.07	100	3.07
Retirement benefits	2.16	0.00	0.00	Retirement benefits	14.14	100	14.14
Sub-total - Labour-related costs	268.59	58.74	157.78	Sub-total - Labour-related costs	152.87	65.30	99.83

Note: totals may not add due to rounding

Some key features of the above results are:

- Whilst labour-related costs in Brazil are substantially lower than in the USA in Australian dollar terms (\$152.87 compared with \$268.59, the regulatory percentage is higher in Brazil (65.3 per cent compared with 58.7 per cent). This is not due to the regulated percentage of processing wages and salaries being higher (the percentage in Brazil is 48.2 percent compared with 67 per cent in the USA). Rather it is because the on-costs in Brazil are both higher as a percentage of labour-related costs (33 per cent compared with 22 per cent in the USA) and they are all 100 per cent regulated, whereas only payroll taxes and paid leave are regulated in the USA.

5.2.2.2 Utilities

As is indicated in **Table 11** above for USA beef, utilities costs are a significant component in the processing (excluding livestock purchases). Data analysed for this Project indicates that utilities costs approximate a weighted average of \$19.03/head for cattle (\$0.05/kg) accounting for 3.61 per cent of total operational costs. These include costs associated with electricity \$10.01/head accounting for 1.9 per cent of operational costs), other fuel (\$4.81/head or 0.9 per cent), water, sewerage and waste (\$3.52/head or 0.6 per cent). Based on public and private data, most of the 'other fuel' category used in beef processing is natural gas.

Table 38 Utilities-related costs and regulatory component, beef processors, USA

	USA			
Cost category	Beef cost per head (\$AU) 2024/25	Percent of total utilities costs	Percent of category cost regulated	Regulated cost (\$AU)
Electricity	10.14	53.28	80.00	8.11
Other fuel	4.81	25.27	40.00	1.92
Water, sewerage and waste	3.52	18.49	100.00	3.52
Total utilities	19.03	100.00	71.20	13.55

Note: totals may not add due to rounding

Some key features of the above results are:

- With regard to the regulated component of utilities costs, this varies according to the type of utility concerned and the State of consumption. Different States have different regulatory regimes. State public utility commissions generally approve utility rates, capital recovery plans, and allowable returns. At the federal level, the Federal Energy Regulatory Commission (FERC) oversees interstate transmission and wholesale rules.
- For electricity, regulation varies very widely in the main beef processing States. In Nebraska, the electricity supply is totally publicly owned and regulated (McKeever 2025). By contrast in Texas (BVK Energy 2025) around 30 to 40 per cent of the electricity costs to industry consists of transmission and distribution utility (TDU) charges, which are heavily regulated by the Public Utility Commission of Texas (PUCT). There are also a few regulated areas: for industrial customers located outside the Electric Reliability Council of Texas (ERCOT) region or in municipal/co-op areas (e.g., San Antonio, Austin, El Paso), 100% of their electricity rates are regulated.
- For the purpose of this analysis, it has been assumed that 80 per cent of electricity costs are regulated. In the original analysis the figure used was 90 per cent but since then there have been some moves towards deregulation in States like Texas.
- For gas, in most States only a portion of the gas price is regulated, mainly the network distribution component. These percentages in states like Nebraska, Iowa and Kansas are around 30-40 per cent. For the purpose of this analysis 40 per cent has been used as the regulated percentage.
- Costs of water and sewerage are fully regulated, and waste disposal is generally regulated. For the purpose of this analysis water, sewerage and waste costs are considered to be 100 per cent regulated.

Taking the above data into account, the regulated component of utilities costs for beef processing in USA is estimated to be almost \$13.55/head, equivalent to 71.2 per cent of utilities costs. This is somewhat increased compared to the 67.4 per cent of total costs that were estimated to be regulated in the original analysis. This largely reflects the increased percentage of electricity, which tends to be more highly regulated than gas, in the utilities mix used by processors. However, as is noted at several points in the discussion above, caution needs to be exercised in comparing the results herein with those of the original analysis.

Table 39 Utilities-related costs and regulatory component, beef processors, Brazil

	Brazil			
Cost category	All beef cattle cost per head (\$AU) 2024/25	Percent of total utilities costs	Percent of category cost regulated	Regulated cost (\$AU)
Electricity	25.72	90.63	51.6	13.27
Other fuel	2.66	9.37	NA	NA
Water, sewerage, waste	NA	0	NA	NA
<i>Sub-total - Utilities-related costs</i>	28.37	100.00	46.78	13.27

Note: totals may not add due to rounding

Some key features of the above results are:

- Brazilian beef processors use overwhelmingly electricity for power, with some use of bio-mass to power boilers. The total Brazilian electricity market is mostly renewable (Perez 2024). The market has a regulated and an unregulated component (Global Legal Insights 2026). The deregulation of the market began in the early 2000's but accelerated around the time of the original cost to operate analysis. In the deregulated portion, large businesses (typically demand of greater than 30kW, as of 2024/2025 can negotiate the purchase of energy directly with generators or traders, avoiding the higher tariffs of local distribution companies. However, they are still required to pay network charges, which account for around 16.5 per cent of the total bill (PSR 2025). In the regulated portion, businesses must still pay regulated charges, which include: regulated tariffs for the use of distribution and transmission systems; systemic costs, including subsidies for renewable energy and social programs, which are applied to all consumers, though large consumers often have discounts on transmission charges (50% or more) if they buy from renewable sources; and Federal and state taxes.
- As of 2024–2025, approximately 58% of all electricity consumed in Brazil was considered technically non-regulated (the "free market" or ACL), meaning about 42% of consumption still fell under the regulated environment (captive market or ACR). Based on this, with all of the regulated component being considered as regulated, and 16.5 per cent of the non-regulated component being regulated network charges, the regulated percentage of electricity in Brazil is 51.6 per cent. Other fuels are considered to be unregulated and there is no information on other utilities costs.

Taking the above data into account, the regulated component of utilities costs for beef processing in Brazil is estimated to be AU\$13.27/head, equivalent to just under 47 per cent. This is lower than the 55 per cent estimated in the original analysis, reflecting the deregulation of the electricity market that has gathered pace since the original work. However, as is noted at several points in the discussion above, caution needs to be exercised in comparing the results herein with those of the original analysis.

Comparison of USA and Brazil utilities regulatory costs

Table 40 Regulatory utilities-related cost structure, USA and Brazilian beef processors

Cost category	USA			Brazil		
	Beef cost per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)	Beef per head (\$AU) 2024/25	Percent of category cost regulated	Regulated cost (\$AU)
Electricity	10.14	80.00	8.11	25.72	51.6	13.27
Other fuel	4.81	40.00	1.92	2.66	NA	NA
Water, sewerage and waste	3.52	100.00	3.52	NA	NA	NA
Total	19.03	71.20	13.55	28.37	46.78	13.27

Note: totals may not add due to rounding

Some key features of the above results are:

- Total utilities-related costs are lower in the USA than in Brazil but the regulated percentage in Brazil is lower than in the USA.
- This reflects the dominance of electricity in the utilities costs in Brazil and the lower regulatory percentage for electricity there, resulting from the deregulation of electricity markets that has taken place in Brazil.

5.2.2.3 Registration/certification

For both the USA and Brazil, certification and registration costs are negligible (in Australian dollars around \$1.61 in the USA and \$1 in Brazil). The USA figure is considered regulated as it comprises overtime user fees charged by the USDA, and the Brazil figure is not considered regulated as processors do not pay for veterinary inspection but do pay a small amount for voluntary certifications and registrations as well as a small (unquantified) amount for mandatory plant registration). These regulated percentages are the same as in the original analysis, indicating how little regulation has changed in this area in both countries.

5.2.2.4 Transport

Transport accounts for a significant percentage of operational costs in both the USA (17.82 per cent) and Brazil (29.52 per cent).

Unfortunately, it has not been possible to determine the regulatory percentage of the costs in this category for the in either the USA or Brazil. This is not to say that transport is not regulated. For example, in the USA Federal regulations, such as the Hours of Service (HOS) rules and food safety mandates, significantly increase transport costs in the US meat industry by limiting driving ranges, dictating specialized equipment, and requiring strict temperature controls. In addition, diesel fuel is taxed in the USA and diesel trucks used to transport livestock and meat on public highways is subject to both federal and state excise taxes. However, the proportion of transport costs attributable to these various regulations is not known.

By contrast in Brazil, while diesel fuel used in the Brazilian meat and agricultural sectors is subject to taxation, it has been subject to government relief measures. While diesel is theoretically taxed, the meat and agricultural industries benefit from significant federal tax exemptions and subsidies to offset the high costs of logistical transport.

5.2.2.5 Regulatory costs summary

Table 41 Regulatory costs summary, USA and Brazil beef processors

	USA			Brazil		
Cost category	Cattle regulated costs/ head (\$AU) 2024/25	Percent of category cost regulated	Cattle regulated cost percentage 2015/16	Cattle regulated cost per head (\$AU) 2024/25	Percent of category cost regulated	Cattle regulated cost percentage 2015/16
Labour-related costs	157.78	58.74	61.5	99.83	65.30	66.60
Utilities-related costs	13.55	71.20	67.4	13.27	46.78	55.00
Registration/ certification-related	1.61	100.00	100.00	1.00	0.00	0.00
Total costs	172.94	32.84	30.80	114.10	30.11	35.60

Note: totals may not add due to rounding

The above table summarises the regulatory cost totals and their percentages of total operational costs. It uses the regulatory percentages calculated above and applies them to the total operational costs in order to produce a comparison with the regulatory costs results in the original analysis.

Some key features of the above results are:

- Brazil has lower absolute regulatory costs and percentage than the USA. Whilst Brazil has lower regulatory labour-related costs its regulatory percentage is higher than the Usa because on-costs are more regulated in Brazil. The overall regulatory percentage has increased slightly in the USA compared with the original analysis owing to higher regulatory utility costs and has fallen in Brazil reflecting lower regulatory percentage is the same cost category following deregulation of the electricity market. processors.
- Again, caution should be exercised in making comparisons of these costs over time.

5.2.3 Regulatory costs summary

Table 42 Regulatory costs summary, Australian and USA grainfed processors

	Australia			USA		
Cost category	Cattle regulated costs/ head (\$AU) 2024/25	Percent of category cost regulated	Cattle regulated cost percentage 2015/16	Cattle regulated cost per head (\$AU) 2024/25	Percent of category cost regulated	Cattle regulated cost percentage 2015/16
Labour-related costs	231.13	90.00	85.3	157.78	58.74	61.5
Utilities-related costs	18.70	59.8	48.6	13.55	71.20	67.4
Registration/ certification-related	7.51	90.7	70.0	1.61	100.00	100.00
Total costs	257.34	48.14	56.7	172.94	32.84	30.80

Note: totals may not add due to rounding

Table 43 Regulatory costs summary, Australian, New Zealand and Brazil grassfed beef processors

	Australia		
Cost category	Cattle regulated costs/ head (\$AU) 2024/25	Percent of category cost regulated	Cattle regulated cost percentage 2015/16
Labour-related costs	249.45	90.00	85.3
Utilities-related costs	20.28	59.8	48.6
Registration/ certification-related	18.82	90.7	70.0
Total costs	286.55	58.0	56.7
	New Zealand		
Cost category	Cattle regulated costs/ head (\$AU) 2024/25	Percent of category cost regulated	Cattle regulated cost percentage 2015/16
Labour-related costs	156.91	64.1	56.9
Utilities-related costs	18.37	54.9	56.7
Registration/ certification-related	20.75	98.6	97.5
Total costs	196.03	37.8	38.8
	Brazil		
Cost category	Cattle regulated costs/ head (\$AU) 2024/25	Percent of category cost regulated	Cattle regulated cost percentage 2015/16
Labour-related costs	99.83	65.30	66.60
Utilities-related costs	13.27	46.78	55.00
Registration/ certification-related	1.00	0.00	0.00
Total costs	114.10	30.11	35.60

Note: totals may not add due to rounding

The above table summarises the regulatory cost totals and their percentages of total operational costs. For Australia and New Zealand it uses the regulatory percentages calculated above using the more detailed data provided relating to costs provided by processors and applies them to the total operational costs produced by analysis of the broader data set in order to produce a comparison with the regulatory costs results in the original analysis. For USA and Brazil, it uses the same data produced for grainfed beef in the USA and grassfed beef in Brazil and applies the percentages regulated to the total costs in key regulated cost categories.

Some key features of the above results are:

- For Australian grainfed beef relative to USA grainfed beef, 48.1 per cent of Australian costs are regulated which is much higher than the 32.8 per cent in the USA. This largely reflects higher regulation of labour

costs in Australia. However, US utilities costs are more regulated than in Australia despite being much lower in absolute cost terms. The high US regulation reflects the increased share of electricity (which tends to be more highly regulated as an energy source than gas) in the utilities mix in this analysis compared with the original analysis, and again points to the caution that must be exercised in comparing these estimates, comprised of different data sources, over a long period of time. Australian regulatory costs in the original analysis were 54.1 per cent (for all beef as distinct from for grainfed beef only) and US grainfed costs were 30.8 per cent regulated.

- For grassfed Australian and New Zealand beef, Australia has a far higher regulatory percentage of total costs at 58 per cent compared with 37.8 per cent. This reflects higher absolute costs and higher regulatory percentages in the labour and utilities categories. The regulatory percentages in these categories in both countries have increased for labour and utilities, but Australian costs are significantly higher in labour.
- The reverse situation applies in relation to registration/certification costs, with Australia having lower absolute costs and regulatory percentages than New Zealand in beef. However, the regulatory percentage in Australia has increased significantly since the original analysis based on more detailed data from processors. The regulatory percentage in Australia is now approaching the level of New Zealand. Australian regulatory costs in the original analysis were 54.1 per cent (for all beef) and New Zealand 38.8 per cent.
- For Brazil grassfed compared with Australia and New Zealand grassfed, Brazil has significantly lower regulatory costs and a lower regulatory percentage (around 30 per cent compared with 58 per cent in Australia and 38 per cent in New Zealand). Brazil has a lower labour-related costs regulatory percentage compared with Australia and about the same as New Zealand, and lower utilities regulation compared with both Australia and New Zealand.

6 Discussion

6.1 Australian and New Zealand

For Australia, in the case of the previous cost to operate analysis, data was gathered covering 29 facilities representing 60 per cent of cattle and 35 per cent of sheep slaughtered nationally. The current project provided for analysis of private and public data from up to 20 plants, and at the time of writing this report, private and public data has been gathered covering 28 facilities, in whole or in part, providing coverage of 57 per cent of the total cattle slaughter and 34 per cent of the sheep slaughter, similar to the original report.

For New Zealand, the project provided for analysis of public and private data from up to 10 plants, and private data has been gathered covering 31 plants in whole or in part. In the previous cost to operate analysis, data gathered covered 18 beef and a similar number of sheep facilities representing 50 to 60 per cent of the cattle and sheep slaughtered nationally. The data received for this update provides coverage of 60 per cent of beef and 65 per cent of sheep slaughter.

The key results for Australia are:

- Total operating costs of \$531/head and \$1.69/kg have increased significantly since the original analysis – by 47 per cent in \$/head and 39 per cent in \$/kg.
- Grainfed costs per head are significantly above those of grassfed which is similar to the findings of the original analysis, but the grainfed costs in \$/kg are significantly lower owing to the higher average slaughter weights.
- All cost categories have increased since the original analysis. The significant broad-based increase in costs affecting processors is a notable result of this analysis. Increases in costs reflect those indicated by the manufacturing producer price index for inputs, which has risen around 60 per cent over the period being analysed here.
- The major cost item in both analyses is labour related costs, although their share of total costs has declined by around 8 percentage points. This reduction in the labour share of total costs reflects the far larger increases in costs for the other cost categories, notably utilities, registration /verification, transport, repairs and maintenance, processing consumables and other costs.
- Sheep total operating costs of \$64.31/head and \$2.54/kg have increased significantly since the original analysis – by 58.14 per cent in \$/head and 45.88 per cent in \$/kg. Most cost categories have increased since the original analysis.
- The major cost item in both analyses is labour related costs, although their share of total costs has declined by around 3 percentage points. This reduction in the labour share of total costs reflects the far larger increases in costs for the other cost categories, repairs and maintenance and other costs.

The key results for New Zealand are:

- Beef total operating costs of \$518.93/head and \$2.28/kg have increased significantly since the original analysis – by 70 per cent in \$/head and 82 per cent in \$/kg.
- All cost categories have increased since the original analysis. The significant broad-based increase in costs affecting processors is a notable result of this analysis. The major cost item in both analyses is labour related costs, although their share of total costs has declined by around 6 percentage points. This reduction in the labour share of total costs reflects the far larger increases in costs for the other cost categories, notably utilities, transport, and other costs. As in Australia, only more so, there have been dramatic increases in shipping costs.
- Sheep total operating costs of \$61.65/head and \$3.43 /kg in \$AU terms have increased significantly since the original analysis – by 54.83 per cent in \$/head and 40.74 per cent in \$/kg. Most cost categories have increased since the original analysis.

- The major cost item in both analyses is labour related costs, although their share of total costs has declined slightly. This reduction in the labour share of total costs reflects the far larger increases in costs for the other cost categories, especially transport and other costs.

The key results for comparison between Australia and New Zealand in relation to the grassfed beef and sheep are:

- As noted above, costs of processing beef (grassfed) in New Zealand are \$518.93/head and \$2.28/kg in Australian dollars, and Australian grassfed beef costs \$493.95/head and \$1.70/kg. The main reason for significantly lower Australian costs/kg is that Australian animals are heavier.
- Australian grassfed beef has an average slaughter weight of 293 kg/head (up from 271kg in the original analysis), whereas in New Zealand the average weight is 242kg (slightly down from 244kg in the original analysis, although this can reflect different facilities with different cattle/calf product mix in the two periods analysed).
- Indeed, it may be considered more appropriate for New Zealand grassfed costs to be compared with those in Argentina or Brazil as in the original analysis – noting that in the original analysis those countries had similar slaughter weights to New Zealand.
- For sheep, costs of processing in New Zealand are \$63.69/head and \$3.14/kg in Australian dollars, and Australian sheep costs \$64.31/head and \$2.54/kg. Whilst the costs per head in the two countries are similar, Australia has 20 per cent lower costs per kg.
- The main reason for this is that Australian animals are heavier (see Key Physical Indicators above) with Australian sheep having an average slaughter weight of 25kg per head compared with 19kg/head in New Zealand. Another factor is the considerably higher transport costs in New Zealand than in Australia.

The analysis herein calculates the regulatory costs for the key beef and sheep cost categories in Australia and New Zealand. It uses the regulatory percentages calculated above using the more detailed data provided by processors and applies them to the total operational costs produced by analysis of the broader data set in order to produce a comparison with the regulatory costs results in the original analysis.

Some key features of the results are:

- For Australian grassfed and New Zealand beef, Australia has a far higher regulatory percentage of total costs at 58 per cent compared with 37.8 per cent. This reflects higher absolute costs and higher regulatory percentages in the labour and utilities categories. The regulatory percentages in these categories in both countries have increased for labour and utilities, but Australian costs are significantly higher in labour.
- For Australian and New Zealand sheep, a similar situation applies, with Australia having a higher regulatory percentage of total costs at 50.7 per cent compared with 40.3 percent. This reflects higher absolute costs and higher regulatory percentages in the labour and utilities categories. The regulatory percentages in these categories in both countries have increased for labour and utilities, but Australian costs are significantly higher in labour.
- The reverse situation applies in relation to registration/certification costs, with Australia having lower absolute costs and regulatory percentages in both beef and sheep. However, the regulatory percentage in Australia has increased significantly since the original analysis based on more detailed data from processors. The regulatory percentage in Australia is now approaching the level of New Zealand.
- It should be noted that the regulatory percentage of all Australian beef is lower at 51.3 per cent than the figure for grassfed beef, reflecting the lower per head absolute costs for labour-related and registration/certification-related costs for all beef than grassfed.
- Finally, the regulatory percentage for all beef in Australia is around 51 percent which is slightly lower than the 54 per cent in the original analysis. This reflects the decreasing proportion of total costs accounted for by labour (which is heavily regulated) compared with the original analysis. Nevertheless, the conclusion that over half of the total costs of beef processing in Australia are regulatory costs applies in this analysis as it did in the case of the original.

This Milestone reports on the results of the analysis of costs in the USA and Brazil.

6.2 USA and Brazil

The original template for collecting data from processors in Australia and New Zealand formed the basis for the template for collecting data in the USA and Brazil. It differed only in respect of minor differences in terminology. In the event that processors were unable to provide the detailed information required, they were shown the tabular reporting templates used in the reporting of costs for Australia and New Zealand and asked to provide whatever data or information that they were able to, for the categories of costs identified in those tables. Initial estimates of costs based on public data were also provided to some informants for their comments and insights. As was the case in the original analysis, data for both the USA and Brazil was in US dollars and converted to Australian currency.

As in the original analysis, data was obtained from private and public sources. As was also the case with the original analysis, in some instances work was required to disaggregate or allocate the data from public and private sources to make it as consistent as possible with the categories of costs for use in the current analysis. Data from private and public sources was checked against each other for consistency and blended to establish indicative average operational cost estimates for the countries concerned.

The request to processors for data was undertaken with the assistance of AMPC (via direct contact with potential sources in Australia) and internationally via industry and processor informants known to the Consultant, and in relation to Brazil those identified by the facilitator/translator utilised for the purpose of the visit. As in the case of the original analysis, data was obtained from private and public sources.

As was also the case with the original analysis, in some instances work was required to disaggregate or allocate the data from public and private sources to make it as consistent as possible with the categories of costs for use in the current analysis.

Data from private and public sources are checked against one another for consistency and blended to establish cost indicative average operational costs estimates for the countries concerned. Public data was augmented by and cross-checked with, private data gathered by the consultant covering several individual facilities of varying scales of operation and locations in both countries.

For Brazil, private sources were individual processors and industry organisations. Individual processors were identified from companies known to the consultant and through intermediaries. Public sources also included Government agencies engaged in meat inspection and utilities, and University researchers.

For the USA and Brazil, private sources were individual processors identified from companies known to the consultant and through intermediaries. Data from private sources covered 13 facilities across the USA and Brazil of varying scales and locations. Public sources included Government agencies and statistical services. Unlike in Australia and New Zealand, in both Brazil and the USA there were found to be very significant collections of publicly available data on meat processing costs. Data on costs from Government and industry organisation sources covers a significant portion of the entire industry in both countries.

The key industry source of data in Brazil was ABIEC (the organisation covering beef exporters) which produces data on the expenditure along the beef supply chain, including detailed estimates of the expenses of the beef processing industry (ABIEC 2025). The industry organisation represents beef exporters where exports account for over 30 per cent of production. Public sources in the USA include the US Census (US Census 2022) which covers most meat processing operations. Where data from the census has been used, it has been updated to 2024/25 by applying the US Producer Price Index for manufacturing (USFR 2026).

For the USA and Brazil, private sources were individual processors identified from companies known to the

All sources were given assurances that their identity would not be divulged in any reporting and any data or information provided would be kept strictly confidential.

Facilitation and translation services were commissioned in Brazil using a specialist service provider. Field visits were undertaken during the period 11 to 25 April 2026 to meet with informants and to gather public data in both countries. Follow up was made with informants where necessary to secure and/or refine data.

At the time of writing this report, data from the very extensive public and industry data sources on processing expenses has been gathered along with private data covering several plants across the USA and Brazil, and data covering more plants has been promised. Information from public and private sources for the regulatory analysis has also been collected, including on labour, utilities and certification/registration. Overall, this constitutes more than sufficient data to commence the cost and regulatory analysis.

The key results for the USA are:

- Costs of processing beef in the USA are \$526.52/head and \$0.79/kg in Australian dollars. Labour-related costs comprise by far the biggest element in total costs at nearly 52 per cent, followed by transport costs at just under 18 per cent.
- In comparison with 2015/16 and bearing in kind the qualification noted above about the caution that must be exercised in comparing cost estimates with those of a decade ago having different data sources and coverage, costs per head have increased 81.4 per cent while costs per kg have only increased by 59.5 per cent. This is discussed further below in the context of the changes in key physical parameters of processing over the period concerned.
- The key element in the total operational cost increase has been labour-related costs. While total operational costs per head overall have increased by 81.4 per cent as noted above, labour-related costs have doubled. Labour costs were estimated using an average of census and private estimates. The census data is for 2022 so it was updated to 2024/25 using the Producer Price Index for manufacturing. The resulting census and private estimates were almost identical, being within 2 per cent of each other.
- There are several factors that have driven this dramatic increase. There has been severe competition for labour supplies in the context of a growing economy with many alternative sources of demand for workers and strong price inflation. In addition, there has been a crackdown by the authorities on immigration affecting the labour-intensive industry of beef processing which uses foreign labour. There has been a notable increase in paid leave costs, as several USA States have introduced mandatory paid leave schemes since the original analysis.
- Apart from labour-related costs most categories of cost have remained stable or declined as a percentage of total costs.

The key results for Brazil are:

- Costs of processing beef in Brazil are \$378.91/head and \$1.47/kg in Australian dollars. Labour-related costs comprise by far the biggest element in total costs at just over 40 per cent per cent, followed by transport costs at just under 30 per cent.
- In comparison with 2015/16 and bearing in kind the qualification noted above about the caution that must be exercised in comparing cost estimates with those of a decade ago having different data sources and coverage, costs per head have increased by more than double (119 per cent) while costs per kg have increased by slightly less (110 per cent). This is because of the increase in slaughter weights which is discussed below in the context of the changes in key physical parameters of processing over the period concerned.
- The key element in the total operational cost increase has been labour-related costs. Labour-related costs in Brazil have decreased as a percentage of total operational costs. This is because processing wages and salaries (combined in the data gathered) have not increased by as much as other cost items but also because the additional amounts paid by processors in on-costs identified above are collected as a percentage figure applied to wages and salaries, and these percentages have remained stable since the original analysis. This is remarkable given the increases in some on-cost items in for example Australia noted in the regulatory analysis above (e.g. for workers compensation payments).

- Unit costs per kg have not increased by as much as costs per head because, as is indicated in **Table 14** showing the key physical parameters in Brazil, there has been an increase in slaughter weights in Brazil from 248 kg/head in the original analysis to 257 kg/head. It is estimated that around 20 per cent of cattle slaughtered currently come from confined premises (feedlots) whereas only around 13 per cent was the estimate for 2016 (ABIEC 2025). The increase in overall slaughter weights has been less dramatic than the increase in the proportion of cattle slaughtered that are sourced from feedlots because animals are generally only 'shortfed' for 90-120 days (see also Layton 2025).
- Most categories of cost have remained stable or declined as a percentage of total costs with the exception of repairs and maintenance and 'Other' costs (which were not estimated in the original analysis – again reiterating the caution that must be exercised in comparing such estimates over time). Transport costs were estimated by applying the increase in shipping costs from Shanghai to Santos since to original analysis to the costs estimated in that analysis (UNCTAD 2025). Certification and registration costs are negligible in Brazil as the Government pays for the costs on veterinary meat inspectors. And while processors pay for certification and registration costs other than veterinary meat inspectors, such a mandatory plant registration costs and voluntary standards such as Halal, these are considered by processors to be small, in the order of around \$1 per head. There is also a significant 'informal' beef processing sector in Brazil with smaller facilities catering to the domestic meat market, and these may avoid complying with government regulated costs.

The key results for comparison between Australia and USA in relation to the grainfed beef are:

- Australian grainfed beef processing costs in Australian dollars are \$534.52/head only slightly (1.5 per cent) above \$526.52/head in the USA. However, in terms of c/kg, Australian costs are 22.4 per cent above USA costs. The major factor in this is that the average slaughter weights in the USA are 12.4 per cent higher than in Australia. Significantly, while Australian slaughter weights have increased by 1.6 per cent since the original analysis, USA weights have risen by 11.5 per cent. Average head per day processed have gone up by similar percentages in both countries.
- In comparison with the original analysis, the total costs in Australia per head were nearly one-third higher than in the USA but are now almost equal, whereas costs per kg were 36 per cent higher and have now fallen but are still a significant 22 per cent higher. Significantly, labour-related costs in the USA are actually higher than in Australia. This represents a huge change from the original analysis, when USA costs were only 56 per cent of those in Australia. While labour costs as a percentage of total costs have fallen in Australia, they have risen in the USA.
- It should be noted that the 'Other' sub-category in labour-related costs above covers the supplementary costs paid by processors associated with labour in each country, many of which are not strictly comparable. For example, in the USA health costs for employees are commonly paid by processors via payment for insurance premiums whereas this is not the case in Australia. This will be analysed further in the regulatory analysis of USA costs below. For the USA, these other costs comprise items as indicated in **Table 11** above. For Australia information on these other costs can be found in section 5.2.1 below which deals with regulatory costs. In **Table 4** above these costs for grainfed beef in Australia were included in the category of workers compensation costs.

The key results for comparison between Australia, New Zealand and Brazil in relation to the grassfed beef are:

- Brazil has, unsurprisingly, the lowest total operating costs of the three grassfed industries in per head and per kg terms, mainly reflecting substantially lower labour costs. However, it is worth noting that costs in the countries have converged to some extent since the original analysis. For example, Brazilian costs in the original analysis were around 58 per cent of Australian costs per head (64 per cent per kg), and in the current analysis Brazilian costs are 76 per cent of Australian costs per head (86 per cent per kg). Here again, slaughter weights are a significant factor – slaughter weights have increased by over 8 per cent for Australian grassfed animals whereas the increase has been less than half of this for Brazil (3.6 per cent). However, if the increase in lot feeding in Brazil continues, one might expect this gap to reduce, all else remaining the same.

- It is also understandable that costs are converging for another reason. In 2025/16 the fact that Brazil had very much lower operating costs than Australia and New Zealand was somewhat academic, because Brazil did not really compete with Australia owing to its product not having access to key markets for Australia, New Zealand and USA beef on the basis of Sanitary restrictions. However, this has changed significantly and Brazil has gained meaningful (albeit still restricted) access to major markets like the USA and China (and the industry there anticipates access being granted to Japan and other Pacific markets in the near future). Its low-cost product which benefits from the higher quality and lower per unit processing costs generated through lot feeding, has been able to compete with USA domestic beef and imported beef from competing countries like Australia and New Zealand, notwithstanding very high over-quota import tariff rates. As competition increases, it is not surprising that comparative costs between suppliers will converge. The implications of this are significant for the future prospects of the competing industries.

7 Conclusions

7.1 Australia and New Zealand

The results of the analysis produce a consistent message of substantial increases in the costs of operating red meat processing facilities in both Australia and New Zealand since the original analysis nearly a decade ago. The magnitude of these increases reflects rises in producer prices facing manufacturers in both countries since that time, which have been in the order of 60 per cent. The increases have been broadly based with increases in almost all categories of costs, and dramatic increases in some categories.

Red meat processors in both countries depend on export markets. They have been able to adjust to higher operating costs through their success in those markets. However, they need to remain competitive to succeed. In recent years firmness in those markets resulting from constraints in supply from competing countries has provided some respite. Even under these conditions the relentless increase in costs will inevitably have serious economic repercussions, especially in the context of volatile seasonal and broader economic conditions.

The analysis also covers the elements of costs that are influenced by governments, which can in turn help identify potential sources of cost relief.

On balance, and bearing in mind the caution that must be exercised in comparing estimates based on different processors and using different templates over a significant period of time, the regulatory burden has increased in Australian grassfed beef processing and remained largely unchanged in sheep processing. For New Zealand, the regulatory burden has increased for sheep processing and remained largely unchanged for beef compared with the original analysis.

In Australia, over half of the total operational costs of running a meat processing business is regulatory costs. Moreover, the burden has increased significantly in each of the main regulated categories examined – labour, utilities and registration/certification, for both grassfed beef and sheep. And the overall regulatory burden has not increased concomitantly compared with the original analysis because of the substantially higher increases experienced in some important categories besides labour, utilities and registration/certification such as transport, repairs and maintenance, and other costs.

In New Zealand, the regulatory burden has increased in some categories such as labour-related and registration/certification costs for beef and sheep and declined in others such as utilities. Additional research should be considered on the regulatory burden in the now-significant categories of costs other than labour, utilities and registration/certification, especially transport.

7.2 USA and Brazil

The USA beef processing industry is facing severe challenges resulting in major increases in operational costs in addition to the consequences of sustained droughts leading to record low cattle numbers. Labour costs have increased dramatically as a result of competition for labour, overall inflationary economic environment, and a crackdown by the authorities on immigration which has previously provided a key source of competitively priced labour. A major plant has closed and others are under threat.

USA operational costs per head as measured in this analysis are now approaching Australian costs, although USA costs per kg remain much lower because of a much greater increase in slaughter weights. The increase in US weights has ameliorated the decline in cattle numbers, and without it the industry would be facing an even more

acute challenge. Demand for beef has also been strong so consumers have been able to absorb cost increases in production to some extent, although with a return to broader inflationary pressures resulting from the M. East war, it is questionable how long this demand can be sustained.

Brazil has maintained its position as a low-cost beef processing industry but it too has faced cost pressures since the original analysis. Lot feeding has increased in the industry and its access to world markets has made it an increasing, though still restricted competitor for the Australian, New Zealand and USA industries. In a sense, unlike New Zealand, the Brazilian beef industry is becoming less of a grassfed industry, and the same applies to the Australian industry. The New Zealand industry remains grassfed, the Brazilian around 80 per cent, the Australian industry around 50 per cent, and the USA industry is fully grainfed.

Increased lot feeding and supplementary feeding of animals has become an increasing requirement for constraining operational cost increases and producing red meat that is competitive in \$/kg terms. Access for a low-cost supplier like Brazil is growing, leading in turn to a convergence of costs through the forces of competition.

The analysis herein concludes that Brazil has lower absolute regulatory costs and percentage than the USA. Whilst Brazil has lower regulatory labour-related costs its regulatory percentage is higher than the USA because on-costs are more regulated in Brazil. The overall regulatory percentage has increased slightly in the USA compared with the original analysis owing to higher regulatory utility costs and has fallen in Brazil reflecting lower regulatory percentage is the same cost category following deregulation of the electricity market.

In comparing the regulatory burden by country and species, so that the US is compared with Australia with reference to grainfed beef, and Australia, New Zealand and Brazil are compared with reference to grassfed beef, the following are key findings:

- For Australian grainfed beef relative to USA grainfed beef, 48.1 per cent of Australian costs are regulated which is much higher than the 32.8 per cent in the USA. This largely reflects higher regulation of labour costs in Australia. However, US utilities costs are more regulated than in Australia despite being much lower in absolute cost terms. The high US regulation reflects the increased share of electricity (which tends to be more highly regulated as an energy source than gas) in the utilities mix in this analysis compared with the original analysis, and again points to the caution that must be exercised in comparing these estimates, comprised of different data sources, over a long period of time. Australian regulatory costs in the original analysis were 54.1 per cent (for all beef as distinct from for grainfed beef only) and US grainfed costs were 30.8 per cent regulated.
- For grassfed Australian and New Zealand beef, Australia has a far higher regulatory percentage of total costs at 58 per cent compared with 37.8 per cent. This reflects higher absolute costs and higher regulatory percentages in the labour and utilities categories. The regulatory percentages in these categories in both countries have increased for labour and utilities, but Australian costs are significantly higher in labour.
- The reverse situation applies in relation to registration/certification costs, with Australia having lower absolute costs and regulatory percentages than New Zealand in beef. However, the regulatory percentage in Australia has increased significantly since the original analysis based on more detailed data from processors. The regulatory percentage in Australia is now approaching the level of New Zealand. Australian regulatory costs in the original analysis were 54.1 per cent (for all beef) and New Zealand 38.8 per cent.
- For Brazil grassfed compared with Australia and New Zealand grassfed, Brazil has significantly lower regulatory costs and a lower regulatory percentage (around 30 per cent compared with 58 per cent in Australia and 38 per cent in New Zealand). Brazil has a lower labour-related costs regulatory percentage compared with Australia and about the same as New Zealand, and lower utilities regulation compared with both Australia and New Zealand.

8 Recommendations

This report includes the results of the analysis of operational and regulatory costs for Australia and New Zealand, the USA and Brazil.

One way of addressing the cost and regulatory results outlined in this report is through policy action to improve cost and regulatory outcomes. It should be noted that the scope of this project does not include the identification and analysis of policies to improve operational and regulatory outcomes.

Another way of addressing the results is through research and development. In this regards the following is recommended:

5. The analysis indicates that labour and transport are significant categories of cost. In relation to labour, the indication is that Australian red meat processors have done well to manage their labour costs relative to their international competitors. Nevertheless, consideration should be given to supporting research which identifies operational and regulatory pathways for the industry to advance its competitiveness further in this category, given its significance in the overall cost structure.
6. In relation to transport, the significant increase in this cost category is highlighted in the analysis. There is a need for research on transport costs in Australia to be considered beginning with a scoping review of the key transport issues facing red meat processing at the national and sub-national and regional levels. This is especially the case because considerable analysis and investigation have been undertaken by industry and government on the costs of transporting grain and the policy implications thereof, while apparently little has been done on the costs of transporting meat, despite the red meat industry's value being higher than grain.
7. Notwithstanding the challenges, the analysis of operational and regulatory costs should be extended to cover Argentina. Like Brazil, Argentina has secured significantly increased access in markets which Australia supplies with red meat. It would be valuable to know how Argentina's operational and regulatory costs have changed since the original CTO study and whether it, like Brazil, is increasing its grain feeding of animals.
8. The heightened international competition from countries like Argentina and Brazil as well as from traditional competitors like the USA and New Zealand, and the significant proportion of total operational costs that are subject to regulatory influence means that productivity-enhancing actions by processors are critical to their competitiveness. A consistent and integrated technical and economic strategy for enhancing productivity in red meat processing should be developed, encompassing existing research as well as new research where gaps are identified.

9 Project outputs

During the project to date, dissemination of the analysis has already commenced with circulation of previous Milestone reports within industry and preparation of a summary for use by the industry in its communication with stakeholders.

10 Bibliography

ABIEC (ABIEC 2025), *Beef Report 2025*, (retrieved from <https://abiec.com.br/en/publicacoes/beef-report-2025-brazilian-beef-profile/>)

Australian Bureau of Statistics (ABS 2026), Stat Data Explorer, *Producer Price Indexes by Industry*, retrieved from [https://dataexplorer.abs.gov.au/vis/?fs\[0\]=ABS%20Topics%2C1%7CECONOMY%23ECONOMY%23%7CPrice%20Indexes%20and%20Inflation%23PRICE_INDEX_INFLATION%23&pg=0&fc=ABS%20Topics&df\[ds\]=ABS_ABS_TOPICS&df\[id\]=PPI&df\[ag\]=ABS&df\[vs\]=&pd=2016-Q2%2C2025-Q2&dq=1.7011001%2B7013001%2B7013002%2B7013003%2B7013004%2B7013005%2B7013006%2B7013007%2B7013010%2B7015231%2B7015232%2B7015233%2B7015234%2B7015240%2B7015241%2B7015243%2B7015244%2B7015245%2B7015246%2B7015247%2B7015248%2B7015250%2B7015252%2B7015255%2B7015256%2B7015257%2B7015258%2B7015259%2B7015262%2B7015263%2B7071001%2B7081001%2B7101001%2B7111001%2B7121001%2B7131001%2B7141001%2B7151001%2B7161001%2B7171001%2B7181001%2B7191001%2B7222001%2B7222002%2B8127546%2B8127772%2B8127969%2B8128375%2B8132989%2B8132999%2B8133017%2B8133201%2B8133232%2B8133257%2B8133344%2B8133366%2B8133475%2B8133486%2B8133487%2B8133630%2B8133631%2B8133665%2B8133686%2B8133730%2B8133842%2B8133866%2B8133887%2B8133903%2B8133910%2B8133916%2B8133922.INPUT.Q&ly\[cl\]=TIME_PERIOD&ly\[rw\]=INDEX&to\[TIME_PERIOD\]=false&vw=tb](https://dataexplorer.abs.gov.au/vis/?fs[0]=ABS%20Topics%2C1%7CECONOMY%23ECONOMY%23%7CPrice%20Indexes%20and%20Inflation%23PRICE_INDEX_INFLATION%23&pg=0&fc=ABS%20Topics&df[ds]=ABS_ABS_TOPICS&df[id]=PPI&df[ag]=ABS&df[vs]=&pd=2016-Q2%2C2025-Q2&dq=1.7011001%2B7013001%2B7013002%2B7013003%2B7013004%2B7013005%2B7013006%2B7013007%2B7013010%2B7015231%2B7015232%2B7015233%2B7015234%2B7015240%2B7015241%2B7015243%2B7015244%2B7015245%2B7015246%2B7015247%2B7015248%2B7015250%2B7015252%2B7015255%2B7015256%2B7015257%2B7015258%2B7015259%2B7015262%2B7015263%2B7071001%2B7081001%2B7101001%2B7111001%2B7121001%2B7131001%2B7141001%2B7151001%2B7161001%2B7171001%2B7181001%2B7191001%2B7222001%2B7222002%2B8127546%2B8127772%2B8127969%2B8128375%2B8132989%2B8132999%2B8133017%2B8133201%2B8133232%2B8133257%2B8133344%2B8133366%2B8133475%2B8133486%2B8133487%2B8133630%2B8133631%2B8133665%2B8133686%2B8133730%2B8133842%2B8133866%2B8133887%2B8133903%2B8133910%2B8133916%2B8133922.INPUT.Q&ly[cl]=TIME_PERIOD&ly[rw]=INDEX&to[TIME_PERIOD]=false&vw=tb)

Australian Competition and Consumer Commission (ACCC 2023), *Inquiry into the national electricity market*.

Australian Energy Producers (AEP 2026), 'Fact Sheet – spot and contract markets and prices', retrieved from https://energyproducers.au/fact_sheets/spot-and-contract-markets-and-prices/

Condon, J. (2024), 'Beef processing costs lift 25pc in eight years, exposing Australia's lack of competitiveness', Beef Central, 13 September 2024, retrieved from <https://www.beefcentral.com/news/beef-processing-costs-lift-25pc-in-eight-years-exposing-australias-lack-of-competitiveness/>

Employment New Zealand (2026) retrieved from <https://www.employment.govt.nz/leave-and-holidays/sick-leave/managing-sick-leave>

Evans, O. (2021), 'How electricity prices are determined and why it's important', Institute for Energy Economics and Financial Analysis, retrieved from <https://ieefa.org/resources/how-electricity-prices-are-determined-and-why-its-important>

Global Legal Insights (2026), ' Energy laws and regulations – Brazil', retrieved from <https://www.globallegalinsights.com/practice-areas/energy-laws-and-regulations/brazil/>

Heilbron, S.G. (2018), *Cost to operate and processing cost competitiveness – a combined report*, Australian Meat Processor Corporation.

Layton, E., (2025), 'Behind the scenes of a Brazilian beef finishing unit', Farmers Guardian 9 October, Retrieved from <https://www.farmersguardian.com/feature/4519881/scenes-brazilian-beef-finishing-unit>

Li, V. (2025), 'How do changes in global shipping costs affect Australian inflation?', Reserve Bank of Australia Bulletin, July 2025, 19-31.

Meade, R., and M. Soderberg (2025), 'Winter electricity prices are rising how do we know we're getting value for money?' The Conversation, April 15, retrieved from <https://theconversation.com/winter-electricity-prices-are-rising-how-do-we-know-were-getting-value-for-money-254198>

Money Hub, (2026), 'Electricity and natural gas price change information' retrieved from <https://www.novaenergy.co.nz/news/electricity-and-natural-gas-price-change-information>

New Zealand Foreign Affairs and Trade (NZFAT 2024), *Global shipping costs are rising once again – July 2024*, retrieved from <https://www.mfat.govt.nz/en/trade/mfat-market-reports/global-shipping-costs-are-rising-once-again-july-2024>

New South Wales Government (NSW 2020), 'Domestic waste management charges – discussion paper' retrieved from <https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.ipart.nsw.gov.au/sites/default/files/documents/online-submission-waste-wise-environmental-a.-zammit-6-oct-2020-104645614.pdf&ved=2ahUKEwiSrZjLoOSSAxVAU2wGHSGFCscQFnoECBcQAQ&usg=AOvVaw33y15Glt4eZM2hYgs1KDWT>

Nova Energy (2026), 'Electricity and natural gas price information', retrieved from <https://www.novaenergy.co.nz/news/electricity-and-natural-gas-price-change-information>

PSR (2025), 'Pathways to tariff justice in the Brazilian energy sector', May, retrieved from https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://energyalliance.org/wp-content/uploads/2025/05/ENG-14.05.2025-Pathways-to-Tariff-Justice-in-the-Brazilian-Electricity-Sector.pdf&ved=2ahUKEwi6_InS_7KUAXVMiUQIHdo7FpgQFnoECB0QAQ&usg=AOvVaw39X0_1e2zkSLBrGk3VOqfQ

Stats NZ (Stats NZ 2026), Producer Price Index, retrieved from <https://infoshare.stats.govt.nz>

United Nations Conference on Trade and Development (UNCTAD 2025), *Review of Maritime Transport*, retrieved from <https://unctad.org/publication/review-maritime-transport-2025>

US Census Bureau (US Census 2022), Manufacturing: Summary Statistics for the U.S., States, and Selected Geographies: 2022, retrieved from <https://data.census.gov/>

US Federal Reserve Producer Price Index (USFR 2026), Producer Price Index by Industry: Total Manufacturing Industries, Retrieved from <https://fred.stlouisfed.org/series/PCUOMFGOMFG>

Wallis, I.P. and N. Chandler, (2005), *The New Zealand Surface Transport Costs and Charges Study*, 28th Australasian Transport Research Forum, retrieved from <https://trid.trb.org/view/788811#:~:text=This%20paper%20reports%20on%20the%20methodology%20and,2002%2D04%2C%20and%20publicly%20released%20in%20March%202005.>

11 Appendices

Appendix A Template for Australian processors

Appendix B Template for New Zealand processors

Appendix C Operating cost structure, change in costs for subspecies beef processors, Australia

Appendix D Operating cost structure, change in costs for subspecies sheep processors, New Zealand

Appendix E Operating cost structure, subspecies sheep processors, New Zealand

APPENDIX A TEMPLATE FOR AUSTRALIAN PROCESSORS

Red Meat Processing Cost to Operate Analysis			
FACILITY CHARACTERISTICS & PRODUCTION 2024-25		Units	Value
Facility name			
State			
Local Government Area			optional
Operation			
No. of operating days 2024-25		No.	
No. of shifts per day (average)		No.	
(shifts per year)			0
Throughput and Production		Select Type	
Livestock species or category		No. of head	
Total livestock processed (purchase and service kill)		tonne HSCW	
Production volume			
COST ITEMS 2024-25		Units	Value
Labour			
Labour under award wages			
Number of FTEs		FTEs	
Wages incl. overtime		\$'000	
Allowances		\$'000	
Leave & leave loading		\$'000	
Superannuation		\$'000	
Total		\$'000	\$ -
Labour on ESAs, TSMIT or other collective agreements above award wages			
Number of FTEs		FTEs	
Wages incl. overtime		\$'000	
Allowances		\$'000	
Leave & leave loading		\$'000	
Superannuation		\$'000	
Total		\$'000	\$ -
Salaried labour (under individual employment agreements)			
Number of FTEs		FTEs	
Total salaries		\$'000	
Leave		\$'000	
Superannuation		\$'000	
Total		\$'000	\$ -
Other labour costs			
Workers Compensation Premiums		\$'000	
Payroll tax		\$'000	
Other visa related labour costs e.g. non-recoverable administration costs, compliance, housing etc.)		\$'000	
Total		\$'000	\$ -
Power			GJ (optional)
Electricity		\$'000	
Coal		\$'000	
Natural gas		\$'000	
Other (please specify)		\$'000	
Other (please specify)		\$'000	
Total		\$'000	\$ -
Water, environmental			MI (optional)
Water disposal		\$'000	
Water input		\$'000	
Solid waste disposal		\$'000	
Other including environmental compliance costs (please specify)		\$'000	
Total		\$'000	\$ -
Registration and certification			
National/federal Government licenses/permits			
Dept. of Agriculture & Water Resources Certification		\$'000	
AUS-MEAT accreditation		\$'000	
Approved Arrangement Certificate		\$'000	
NLS		\$'000	
Slaughter levy		\$'000	
Meat inspection fees		\$'000	
Other (please specify)		\$'000	
Other (please specify)		\$'000	
Other (please specify)		\$'000	
Total		\$'000	\$ -
State government licenses / permits			
Other (please specify)		\$'000	
Other (please specify)		\$'000	
Total		\$'000	\$ -
Local government rates & charges			
Municipal rates		\$'000	
Other (please specify)		\$'000	
Other (please specify)		\$'000	
Costs of third party providers of services required by Federal/State/Local governments		\$'000	
Total		\$'000	\$ -
Other private standards rates & charges			
Audits for external standards certification (e.g. BRC, SQF, AAFCO, MSA, Halal)		\$'000	
Audits for private standards (i.e. customer requirements) not covered by the above		\$'000	
Other (please specify)		\$'000	
Total		\$'000	\$ -
Other costs			
Packaging - paper, cardboard		\$'000	
Packaging - plastics		\$'000	
Packaging - other (please specify)		\$'000	
Packaging - other (please specify)		\$'000	
Packaging - other (please specify)		\$'000	
Packaging - other (please specify)		\$'000	
Transport - road		\$'000	
Transport - rail		\$'000	
Transport - sea		\$'000	
Transport - air		\$'000	
Buying commissions paid		\$'000	
Accounting / audit fees		\$'000	
Legal fees		\$'000	
Telecommunications		\$'000	
Employment placement & labour hire services ¹		\$'000	
Equipment hire		\$'000	
Repairs & maintenance (external provider)		\$'000	
Laundry services		\$'000	
Chemicals		\$'000	
General insurance (excluding WHS-related)		\$'000	
Training costs		\$'000	
Bank fees & charges (excluding interest)		\$'000	
Processing consumables		\$'000	
Travel		\$'000	
Security		\$'000	
Protective clothing		\$'000	
First aid / medical		\$'000	
Other (please specify)		\$'000	
Other (please specify)		\$'000	
Other (please specify)		\$'000	
Other (please specify)		\$'000	
Total		\$'000	\$ -
Total Annual Operating Cost (excluding livestock)		\$'000	\$ -
Cost per head processed (excluding livestock)		\$/head	#DIV/0!
Cost per kg processed (excluding livestock)		\$/kg (HSCW)	#DIV/0!

APPENDIX B TEMPLATE FOR NEW ZEALAND PROCESSORS			
FACILITY CHARACTERISTICS & PRODUCTION 2024-25			
Facility name			
State			
Local Government Area			
No. of operating days 2024-25		optional	
No. of shifts per day (average)			
(shifts per year)		0	
Units			
Throughput			
Total Livestock processed (purchased and service kill)		No.	
Production			
Production volume		tonne HSCW	
Labour costs			
Process workers (or labour paid on hourly/weekly rates)			
Slaughter	FTEs		
Boning	FTEs		
Hides	FTEs		
Packing	FTEs		
Other	FTEs		
Total	FTEs		-
Non-salaried labour			
Wages incl. overtime	\$'000		
Allowances	\$'000		
Leave & leave loading	\$'000		
Superannuation	\$'000		
Total	\$'000	\$	-
Salaried labour			
# FTE	FTEs		
Total salaries	\$'000		
Leave	\$'000		
Superannuation	\$'000		
Total	\$'000	\$	-
Other labour costs			
Workers Compensation Premiums	\$'000		
Payroll tax	\$'000		
Total	\$'000	\$	-
Power			
Electricity	\$'000		G.J (optional)
Coal	\$'000		
Natural gas	\$'000		
Other (please specify)	\$'000		
Other (please specify)	\$'000		
Total	\$'000	\$	-
Water, environmental			
Water disposal	\$'000		MI (optional)
Water input			
Solid waste disposal	\$'000		
Other including environmental compliance costs (please specify)	\$'000		
Total	\$'000	\$	-
Expenditure - Registration and certification			
Ministry of Primary Industries Certification	\$'000		
Government-related certification audits	\$'000		
NAIT	\$'000		
Slaughter levy	\$'000		
Meat inspection fees	\$'000		
Other Central Government licenses/permits	\$'000		
Audits for external standards certification (e.g. BRC, SQF, Halal)	\$'000		
Audits for private standards (i.e. customer requirements) not covered by the above	\$'000		
Other Regional / Territorial government rates & charges	\$'000		
Other (please specify)	\$'000		
Other (please specify)	\$'000		
Other (please specify)	\$'000		
Other (please specify)	\$'000		
Total	\$'000	\$	-
Other costs			
Packaging - paper, cardboard	\$'000		
Packaging - plastics	\$'000		
Packaging - other (please specify)	\$'000		
Packaging - other (please specify)	\$'000		
Packaging - other (please specify)	\$'000		
Packaging - other (please specify)	\$'000		
Transport - road	\$'000		
Transport - rail	\$'000		
Transport - sea	\$'000		
Transport - air	\$'000		
Buying commissions paid	\$'000		
Accounting / audit fees	\$'000		
Legal fees	\$'000		
Telecommunications	\$'000		
Employment placement & labour hire services ¹	\$'000		
Equipment hire	\$'000		
Repairs & maintenance (external provider)	\$'000		
Laundry services	\$'000		
Chemicals	\$'000		
General insurance (excluding WHS-related)	\$'000		
Training costs	\$'000		
Bank fees & charges (excluding interest)	\$'000		
Processing consumables	\$'000		
Travel	\$'000		
Security	\$'000		
Protective clothing	\$'000		
First aid / medical	\$'000		
Other (please specify)	\$'000		
Other (please specify)	\$'000		
Other (please specify)	\$'000		
Other (please specify)	\$'000		
Other (please specify)	\$'000		
Total	\$'000	\$	-
Total Annual Operating Cost (excluding livestock)		\$'000	#REF!
Cost per head processed (excluding livestock)		\$/head	#REF!
Cost per kg processed (excluding livestock)		\$/kg (HSCW)	#REF!

APPENDIX C Operating cost structure, change in costs for subspecies beef processors, Australia

Cost category	Australia		
	% change in Grainfed cost per head (\$AU) 2024/25 c.f. 2015/16	% change in Grassfed cost per head (\$AU) 2024/25 c.f. 2015/16	% change in Beef cost per head (\$AU) 2024/25 c.f. 2015/16
<i>Processing wages (incl. paid leave)</i>	1.27	49.62	6.89
<i>Salaries</i>	12.48	21.73	140.76
<i>Workers Compensation premiums</i>	42.45	110.37	57.73
<i>Retirement benefits</i>	-9.87	90.10	32.11
Sub-total - Labour-related costs	3.41	51.40	21.73
<i>Electricity</i>	7.18	47.55	61.45
<i>Other fuel</i>	6.84	3.79	60.66
<i>Water, sewerage, waste</i>	81.91	379.80	45.66
Sub-total - Utilities-related costs	24.14	69.79	56.25
<i>Registration/Certification</i>	-32.95	190.20	65.98
<i>Packaging</i>	3.86	-3.46	26.10
<i>Transport</i>	151.40	31.03	74.25
<i>Repairs & maintenance</i>	68.71	77.94	135.55
<i>Processing consumables</i>	Na	Na	60.60
<i>Other costs</i>	215.05	268.80	182.51
Total (excl. livestock costs)	39.21	65.92	47.17
\$ per kg	46.75	54.45	38.77

Note: totals may not add due to rounding

APPENDIX D Operating cost structure, subspecies beef processors, New Zealand

Cost category	New Zealand			
	Cattle Cost per head (\$NZ) 2024/25	Calves Cost per head (\$NZ) 2024/25	Beef Cost per head (\$NZ) 2024/25	Beef Cost per head (\$AU) 2024/25
<i>Processing wages (incl. paid leave)</i>	251.12	44.37	238.80	215.33
<i>Salaries</i>	30.81	4.77	26.98	26.76
<i>Workers Compensation premiums</i>	1.39	0.84	1.35	1.22
<i>Retirement benefits</i>	1.80	0.27	1.77	1.48
Sub-total - Labour-related costs	285.13	50.25	271.48	244.79
<i>Electricity</i>	20.13	3.44	19.43	17.52
<i>Other fuel</i>	7.74	1.54	7.51	6.77
<i>Water, sewerage, waste</i>	10.55	1.40	10.16	9.17
Sub-total - Utilities-related costs	38.42	6.38	37.10	33.46
<i>Registration/Certification</i>	24.22	3.29	23.34	21.05
<i>Packaging</i>	30.45	7.54	30.05	27.11
<i>Transport</i>	156.84	20.69	144.30	130.12
<i>Repairs & maintenance</i>	15.88	2.84	15.50	13.98
<i>Processing consumables</i>	3.22	0.52	3.20	2.842.89
<i>Other costs</i>	51.53	12.25	46.15	41.62
Total (excl. livestock costs)	605.59	104.02	575.49	518.93
\$ per kg	2.36	6.15	2.53	2.28

Note: totals may not add due to rounding

APPENDIX E Operating cost structure, subspecies sheep processors, New Zealand

Cost category	New Zealand				
	Lamb Cost per head (\$NZ) 2024/25	Mutton Cost per head (\$NZ) 2024/25	Both Cost per head (\$NZ) 2024/25	Sheep Cost per head (\$NZ) 2024/25	Sheep Cost per head (\$AU) 2024/25
<i>Processing wages (incl. paid leave)</i>	33.58	31.90	24.82	31.43	28.83
<i>Salaries</i>	3.88	4.25	2.60	3.64	3.34
<i>Workers Compensation premiums</i>	0.96	1.42	0.25	0.86	0.79
<i>Retirement benefits</i>	0.18	0.21	0.54	0.26	0.24
Sub-total - Labour-related costs	38.60	37.78	28.22	36.19	33.20
<i>Electricity</i>	2.46	2.51	1.41	2.23	2.05
<i>Other fuel</i>	1.08	1.29	0.78	1.04	0.95
<i>Water, sewerage, waste</i>	0.77	1.01	1.50	0.96	0.88
Sub-total - Utilities-related costs	4.31	4.81	3.68	4.23	3.88
<i>Registration/Certification</i>	4.31	2.86	1.51	2.31	2.12
<i>Packaging</i>	5.07	5.38	5.59	5.22	4.79
<i>Transport</i>	14.59	17.15	5.18	12.80	11.74
<i>Repairs & maintenance</i>	1.96	2.24	3.67	2.39	2.19
<i>Processing consumables</i>	0.23	0.23	0.54	0.30	0.28
<i>Other costs</i>	5.36	5.36	8.08	5.97	5.47
Total (excl. livestock costs)	72.64	78.85	56.46	69.42	63.69
\$ per kg	3.81	2.96	2.68	3.43	3.14

Note: totals may not add due to rounding