

# FIFA Women's World Cup 2023 Impact Evaluation for Hamilton

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December 2023

**FRESH INFO**



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# Glossary

Term	Definition
<b>AFC</b>	Asian Football Confederation.
<b>Avoided future costs</b>	Costs that do not need to be borne in the future because they have already been incurred to host the event.
<b>Benefit-cost ratio (BCR)</b>	The gross benefit divided by the gross cost.
<b>CAF</b>	Confederation of African Football.
<b>Carbon emissions</b>	The volume of greenhouse gas emissions produced by the event, measured in terms of carbon dioxide equivalent (CO <sub>2</sub> e).
<b>CONCACAF</b>	Confederation of North, Central America and Caribbean Association Football.
<b>CONMEBOL</b>	Confederación Sudamericana de Fútbol (South American Football Confederation).
<b>Cost-benefit analysis (CBA)</b>	A well-established evaluation framework that governments and businesses use to make and/or evaluate investment decisions. Any type of cost or benefit can be included in a CBA if it can be given a credible value.
<b>CO<sub>2</sub>e</b>	Carbon dioxide equivalent – a measure used by scientists to convert different greenhouse gas emissions into a single unit with the same global warming properties as carbon dioxide.
<b>Consumer surplus</b>	The difference between the price that consumers pay and the price they are willing to pay.
<b>Counterfactual</b>	The alternative scenario against which the results are compared.
<b>Day visitor</b>	A visitor who does not stay overnight in a destination.
<b>Equivalent Advertising Value (EAV)</b>	An approach to valuing media exposure that involves estimating the cost of buying the same amount of coverage at retail prices using industry 'rate cards'. Multipliers may also be applied in cases where 'earned' media is believed to be worth more than 'purchased' media.
<b>Event attendee</b>	Anyone in the following groups who attended FWWC 2023 in-person: FIFA staff and contractors, teams, broadcast/media staff and contractors, volunteers, spectators.
<b>FIFA Fan Festival (FFF)</b>	Official fan zones providing entertainment and activities in Auckland, Hamilton, Wellington, and Dunedin.
<b>FIFA Zurich</b>	FIFA, headquartered in Zurich, Switzerland.
<b>Financial cost or benefit</b>	A cost or benefit represented by an actual or expected financial transaction.
<b>FWWC 2023</b>	FIFA Women's World Cup 2023, co-hosted by New Zealand.
<b>FWWC 2023 Draw</b>	The final draw for the FWWC 2023 co-hosted in Auckland on 22 October 2022.
<b>FWWC 2023 Play-Off Tournament (POT)</b>	The final stage of the qualification process for FWWC 2023 in which 10 teams competed for the final three places in the FWWC 2023. The FWWC 2023 Play-Off



	Tournament was hosted in Hamilton and Auckland between 18 February and 23 February 2023.
<b>Global warming potential (GWP)</b>	The heat absorbed by any greenhouse gas in the atmosphere, as a multiple of the heat that would be absorbed by the same mass of carbon dioxide (CO <sub>2</sub> ). GWP is 1 for CO <sub>2</sub> . For other gases, it depends on the gas and the time frame.
<b>Hamilton resident</b>	A person who usually lives in the Hamilton city.
<b>Spectator</b>	A person not involved in the delivery of the event who attended a FWWC 2023 match and/or visited a FIFA Fan Festival site in Hamilton.
<b>International visitor</b>	A person whose usual residence is outside New Zealand.
<b>LFS Australia</b>	Local FIFA Subsidiary Australia – a temporary organisation established to deliver the FWWC 2023 in Australia.
<b>LFS New Zealand</b>	Local FIFA Subsidiary New Zealand – a temporary organisation established to deliver the FWWC 2023 in New Zealand.
<b>MBIE</b>	Ministry of Business, Innovation and Employment.
<b>MBIE's event evaluation framework</b>	The methodology used by MBIE to evaluate the costs and benefits of events that it funds.
<b>Media exposure benefits</b>	The projected net benefit to Hamilton of future tourism income that can be directly attributed to media exposure caused by FWWC 2023.
<b>Net benefit</b>	Total benefit less total cost.
<b>Net Promoter Score (NPS)</b>	A Net Promoter Score is a widely used customer loyalty and satisfaction measurement that lies between -100 and 100. A score of 100 indicates that 100% of people are likely to recommend the good, service, or experience to others.
<b>New Zealand resident</b>	A person who usually lives in New Zealand.
<b>Non-financial cost or benefit</b>	A cost or benefit that is unpriced or of a social, cultural, or environmental nature.
<b>OFC</b>	Oceania Football Confederation.
<b>Overnight visitor</b>	A visitor who stays overnight in a destination.
<b>Producer surplus</b>	The difference between what price producers are willing and able to supply a good for and what price they actually receive from consumers.
<b>Social Cost of Carbon (SCC)</b>	An estimate, in dollars, of the economic damages that would result from emitting one additional ton of carbon dioxide into the atmosphere.
<b>Total benefit</b>	Total gross benefit generated by FWWC 2023.
<b>Total cost</b>	Total gross cost generated by FWWC 2023.
<b>UEFA</b>	Union of European Football Associations
<b>Unique attendee</b>	A person who attended FWWC 2023 in-person (counted only once).
<b>Visitor night</b>	One visitor staying one night in a destination in any form of private or commercial accommodation.



# 1 Executive summary

**FIFA had not released its carbon audit or audience estimates at the time of writing so the results in this report are best estimates based on available information and may be subject to change.**

This evaluation has identified a net benefit to Hamilton of hosting the FIFA Women’s World Cup 2023 (FWWC 2023) of **\$6.4 million** and a benefit-cost ratio of **1.33**. These figures are based on financial impacts (represented by actual or expected financial transactions) and non-financial impacts (unpriced social, cultural, or environmental effects). In addition to strong economic results, this evaluation finds that hosting the FWWC 2023 delivered a wide range of intangible benefits for football and women in Hamilton and New Zealand including achievement of the key objective of “increasing the visibility of, and value placed on, women in sport and wider society”.

Other key results for Hamilton include:

- Co-hosting of the Play-Off Tournament in February 2023.
- Five FWWC 2023 matches hosted in Hamilton in July/August 2023 out of 29 hosted in New Zealand.
- A total of 67,489 tickets were issued across the 5 matches played in Hamilton at an average of 13,498 per match. This is equivalent to 0.38 tickets per capita – the third highest rate across all Host Cities in New Zealand and Australia and almost twice the rate of 0.21 achieved in Auckland.
- 31,136 unique attendees (counting each person only once) comprising:
  - 10,841 Hamilton residents
  - 15,165 domestic visitors
  - 5,130 international visitors.
- 288 volunteers, 203 of whom lived in Hamilton.
- 18,349 visitors attracted to Hamilton by the FWWC 2023 (not all the domestic and international FWWC 2023 attendees above were attracted to Hamilton by the event).
- 15,034 visitor nights in Hamilton attributable to the FWWC 2023.
- Around 7,200 fan visits to the FIFA Fan Festival.
- \$2.7 million investment by Hamilton City Council and its subsidiaries.
- \$17.3 million of additional expenditure in Hamilton across FWWC 2023 event operations and tourism.
- Around \$1.4 million worth of media exposure for Hamilton.
- 98% of spectators were satisfied or very satisfied with their FWWC 2023 experience in Hamilton.
- 90% of Hamilton resident spectators reported enhanced regional pride as a result of FWWC 2023.
- 91% of Hamilton resident spectators reported enhanced liveability as a result of FWWC 2023.
- 70% of Hamilton residents agreed that the FWWC 2023 has increased the visibility of women's sport in New Zealand.

## Introduction

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Australia and New Zealand were awarded co-hosting rights to the FWWC 2023 on 26 June 2020 following a formal bidding process that began in 2020.

New Zealand’s co-hosting of the FWWC 2023 involved three distinct events:

1. **FWWC 2023 Draw** in Auckland on 22 October 2022.



2. **FWWC Play-Off Tournament (inter-confederation play-offs)**, hosted in Hamilton and Auckland between 18 February and 23 February 2023.
3. **FWWC 2023**, co-hosted in New Zealand and Australia between 20 July and 20 August 2023, with 32 teams playing 64 games over 32 days in nine Host Cities.

New Zealand hosted 16 teams for the group stage of the tournament (including the Football Ferns) and 29 matches across the Host Cities of Auckland, Hamilton, Wellington, and Dunedin. Hamilton was awarded 5 of the 24 Group Stage matches played in New Zealand.

This evaluation focuses on the costs and benefits to Hamilton of co-hosting FWWC 2023 in New Zealand relative to the counterfactual of the event being hosted in another country. Economic, social, cultural, and environmental impacts are considered in the evaluation to capture the wide range of impacts caused by the event.

The evaluation includes relevant costs and benefits in the lead up to the event, including the Draw and Play-Off Tournament, as well as the FIFA Women’s World Cup tournament.

The Ministry of Business, Innovation, and Employment’s (MBIE’s) event evaluation framework has been used as the foundation for this evaluation. This is the same evaluation framework that Hamilton City Council uses (Event Economics). The framework is based on cost-benefit analysis (CBA) which is a well-established evaluation method used by government agencies and businesses.

### FWWC 2023 attendance in Hamilton

FIFA issued 67,489 tickets to the five matches in Hamilton at an average of 13,498 per match. This is equivalent to 0.38 per capita compared with 0.21 for Auckland, 0.15 for New Zealand, and 0.05 for Australia. In addition, there were around 7,200 fan visits to the FIFA Fan Festival in Hamilton, most of whom also attended matches.

It is estimated that these match and FIFA Fan Festival visits were generated by 31,136 people. This figure counts each attendee only once, even if they interacted with the event multiple times, and includes those involved in the event (FIFA staff and contractors, teams, broadcast/media staff and contractors, volunteers).

Around 96% (29,985) of the 31,136 FWWC 2023 attendees were spectators, with teams being the next largest group at 430.

Of the 31,136 overall attendees, 34.8% were from Hamilton, 48.7% were from elsewhere in New Zealand, and the remaining 16.5% were from overseas (international visitors).

**Table 1: Count and composition of FWWC 2023 attendees in Hamilton (counting each person only once)**

Sources: Surveys of spectators and volunteers, FWWC 2023 stakeholder surveys and interviews

Attendee group	Hamilton residents	Domestic visitors	International visitors	TOTAL	Share
FIFA	9	32	57	98	0.3%
Teams	0	0	430	430	1.4%
Broadcast & media	5	31	299	335	1.1%
Volunteers	203	79	6	288	0.9%
Spectators	10,624	15,023	4,338	29,985	96.3%
<b>TOTAL</b>	<b>10,841</b>	<b>15,165</b>	<b>5,130</b>	<b>31,136</b>	<b>100.0%</b>
Share	34.8%	48.7%	16.5%	100.0%	



## Engagement by Hamilton residents

A total of 10,827 Hamilton residents experienced FWWC 2023 in person as spectators or volunteers. This figure counts each attendee only once, even if they interacted with the event multiple times. In aggregate, spectators and volunteers committed 93,676 hours of time to FWWC 2023, valued at \$0.97 million using value-of-time estimates provided by Waka Kotahi NZ Transport Agency. Hamilton residents also spent around \$0.37 million on event-related goods and services, excluding FWWC 2023 tickets and merchandise, which are considered elsewhere.

The total value of the time and money invested in FWWC 2023 by Hamilton resident spectators and volunteers was therefore \$1.34 million. This is the cost that Hamilton resident spectators and volunteers incurred to access the benefits of attending FWWC 2023, in addition to FWWC 2023 tickets and merchandise which are considered elsewhere. These costs are included in 'Event attendee costs' in the CBA. The associated benefits are included in 'Event attendee benefits'.

**Table 2: Engagement by Hamilton resident spectators and volunteers**

Source: Surveys of spectators and volunteers

Measure	Spectators	Volunteers	TOTAL
Hamilton residents	10,624	203	10,827
Average time commitment per NZ resident (hours)	7.8	54.3	8.7
Total time commitment by NZ residents (hours)	82,655	11,021	93,676
Value of time and money commitment by NZ residents (\$m)	\$1.21	\$0.12	\$1.34
Value of time commitment by NZ residents	\$0.86	\$0.11	\$0.97
Value of expenditure by NZ residents	\$0.36	\$0.01	\$0.37

## Visitation caused by FWWC 2023

FWWC 2023 attracted 18,349 visitors to Hamilton across the various attendee groups. This figure excludes visitors who attended FWWC 2023 but were not attracted to Hamilton by the event. The exclusion of these attendees means that the visitor numbers attributable to FWWC 2023 are lower than the gross attendee estimates presented in Table 1.

The visitation attributable to FWWC 2023 generated 15,034 visitor nights in Hamilton at an average of 0.8 nights per visitor (due to day tripping from adjacent regions by many volunteers and spectators).

**Table 3: Visitation to Hamilton attributable to FWWC 2023**

Source: Surveys of spectators and volunteers, FWWC 2023 stakeholder surveys and interviews

Attendee group	Visitors to Hamilton	Visitor nights in Hamilton	Average nights in Hamilton per visitor
FIFA	89	1,283	14.4
Teams	430	2,365	5.5
Broadcast & media	330	752	2.3
Volunteers	81	46	0.6
Spectators	17,419	10,587	0.6
<b>TOTAL</b>	<b>18,349</b>	<b>15,034</b>	<b>0.8</b>



## Government investment

Planning and delivering the New Zealand component of FWWC 2023 required a considerable investment of time and money from a wide range of central and local government agencies. This investment began soon after New Zealand was awarded co-hosting rights in 2020 and extended beyond the conclusion of FWWC 2023 in August 2023. In aggregate, these agencies invested \$101.1 million in FWWC 2023-related initiatives.

Hamilton’s direct contribution to government investment in FWWC 2023 was \$2.7 million through initiatives funded by Hamilton City Council and its subsidiaries. For the purposes of the CBA, \$2.3 million of central government’s investment in FWWC 2023 has been allocated as a cost to Hamilton taxpayers based on Hamilton’s share of national population. Hamilton’s overall contribution to local and central government investment in FWWC 2023 for the purposes of this evaluation was therefore \$5 million. This cost is included in ‘Government costs’ in the CBA.

**Table 4: Hamilton contribution to government investment in FWWC 2023**

Source: Relevant central and local government agencies

	Central government	Local government	TOTAL	Share
Hamilton contribution	\$2.3	\$2.7	\$5.0	4.9%
Rest of NZ contribution	\$62.6	\$33.4	\$96.1	95.1%
<b>TOTAL</b>	<b>\$64.9</b>	<b>\$36.1</b>	<b>\$101.1</b>	<b>100.0%</b>
Hamilton share	3.5%	7.5%	4.9%	

## Additional expenditure in Hamilton

FWWC 2023 created an additional \$17.3 million of expenditure in Hamilton through three main channels:

- \$13.8 million through domestic event operations. This was driven by new money introduced into the economy to deliver the event (funds sourced from outside Hamilton).
- \$3.1 million through purchases of tourism goods and services by domestic and international event attendees.
- \$0.4 million through purchases of non-tourism goods and services by domestic and international organisations e.g., FIFA partners and sponsors, teams.

This expenditure is included in ‘Business benefits’ in the CBA. The associated costs are included in ‘Business costs’.

**Table 5: Additional expenditure in Hamilton attributable to FWWC 2023 (\$m)**

Source: Surveys of spectators and volunteers, FWWC 2023 stakeholder surveys and interviews

Measure	Additional expenditure in Hamilton (\$m)
Event operations	\$13.8
Purchases of tourism goods & services	\$3.1
Purchases of non-tourism goods & services	\$0.4
<b>TOTAL</b>	<b>\$17.3</b>





## Other monetised costs and benefits to Hamilton

Other monetised impacts on Hamilton include:

- \$0.2 million of unpriced **carbon emissions** attributable to FWWC 2023. These were mainly driven by international and domestic transport.
- \$1.4 million of **media exposure benefits** attributable to the coverage generated by FWWC 2023.
- \$2.6 million of **non-attendee benefits** accruing to Hamilton residents. This is the amount Hamilton residents who did not attend FWWC 2023 would be willing to pay to host another FWWC in New Zealand (around \$15.5 per non-attendee on average).
- \$0.9 million of **avoided future costs** due to planned maintenance and development projects being brought forward for FWWC 2023 and \$0.1 million of **other benefits**.

The cost-benefit analysis for Hamilton has identified a gross monetised cost of **\$19.6 million** and a gross monetised benefit of **\$26 million**. The net monetised benefit is therefore **\$6.4 million** and the benefit-cost ratio (gross benefit divided by gross cost) is **1.33**. This means that every \$1 of cost incurred by Hamilton returned a benefit of \$1.33 (a net benefit of \$0.33 per dollar).

**Table 6: Monetised costs and benefits to Hamilton of hosting FWWC 2023**

Source: All sources listed in Table 11 in Section 2.2

Measure	Value (\$m)	Description
Government costs	\$5.0	Local government expenditure + population share of central government expenditure
Public funds cost	\$1.0	Redistribution of public funds cost @ 20% as per Treasury guidelines
Event attendee costs	\$2.1	Value of time and money devoted to FWWC 2023 by attendees
Business costs	\$11.3	Value of the resources consumed by businesses to service the additional demand caused by FWWC 2023
Carbon costs	\$0.2	Value of unpriced carbon production attributable to FWWC 2023
Other costs	\$0.0	Other monetised costs
<b>Total cost</b>	<b>\$19.6</b>	<b>Total gross cost generated by FWWC 2023</b>
Event attendee benefits	\$3.1	Social value to FWWC 2023 attendees (event attendee cost + estimated consumer surplus)
Business benefits <sup>1</sup>	\$17.8	Value of additional business demand (revenue) caused by FWWC 2023
Media benefits	\$1.4	Value of media exposure generated by FWWC 2023 (estimated future value of tourism generated)
Non-attendee benefits	\$2.6	Social value accruing to non-attendees (option value/existence value/national pride)
Avoided future costs	\$0.9	Avoided future infrastructure costs due to projects being brought forward for FWWC 2023
Other benefits	\$0.1	Other monetised benefits
<b>Total benefit</b>	<b>\$26.0</b>	<b>Total gross benefit generated by FWWC 2023</b>
<b>Net benefit</b>	<b>\$6.4</b>	<b>Total benefit less total cost</b>
<b>Benefit-cost ratio</b>	<b>1.33</b>	<b>Total benefit divided by total cost</b>

<sup>1</sup> Includes 10% of event income sourced from, and spent in, Hamilton, as per MBIE's event evaluation guidelines.



## Non-monetised costs and benefits

The major non-monetised costs and benefits for Hamilton of hosting FWWC 2023 included:

- **Increased visibility and perception of women’s sport in Hamilton and New Zealand.** The long-term legacy of these visibility and perception impacts will depend on the extent to which they are leveraged and built upon in future years.
- **Improved infrastructure.** Significant investments were made in stadium and football club infrastructure in Hamilton to comply with FIFA’s requirements. Many of these changes will be long-lived, resulting in better facilities for football clubs and safer and more appropriate environments for women.
- **Potential growth in football participation.** Survey results indicate that around 23% of Hamilton residents were inspired by FWWC 2023 to increase their participation in football, although actual changes are likely to be lower than intended changes. Early evidence of these changes will not be available until early/mid 2024 when registrations for the 2024 club season are complete.
- **Enhanced event delivery capability.** The knowledge and experience gained from hosting the FWWC 2023 will enhance Hamilton’s major event capacity and capability, and the success of the event will enhance Hamilton’s reputation as a safe and capable host for global events.
- **Enhanced research capability.** Several innovations were developed within the post-event evaluation process for FWWC 2023 that could be applied to future major events including development of a shared research platform for the five government stakeholders (MBIE, Auckland Council, Hamilton City Council, WellingtonNZ, and Dunedin City Council), development of a shared funding model across the five government stakeholders that resulted in savings for all funders, and the development of new survey techniques which are in the public domain and could be applied to future events involving multiple Host Cities.

## Monetised costs and benefits to Host Regions

Independent impact evaluations were commissioned and paid for by each Host Region (Auckland, Hamilton, Wellington, and Dunedin). These regional evaluations leveraged the research platforms funded by MBIE and used the same methodology and research provider as the national evaluation. The high-level results for each Host Region are presented in the table below. Note that the regional evaluations will not sum to the national results for two reasons:

1. The national evaluation includes costs and benefits across the whole country, whereas the regional evaluations only consider the costs and benefits to the four Host Regions.
2. Inter-regional transfers (e.g., domestic tourism expenditure) are included in the regional evaluations but excluded from the national evaluation.

**Table 7: Summary of impacts on Host Regions**

Source: Independent evaluations commissioned by Host Regions

Region	Auckland	Hamilton	Wellington	Dunedin
Gross cost (\$m)	\$154.8	\$19.6	\$59.0	\$27.3
Gross benefit (\$m)	\$203.6	\$26.0	\$83.6	\$34.1
Net benefit (\$m)	\$48.9	\$6.4	\$24.6	\$6.8
Benefit-cost ratio	1.32	1.33	1.42	1.25
Visitor nights	175,279	15,034	100,124	39,793



## Monetised costs and benefits to New Zealand

A national impact evaluation was commissioned by MBIE that used the same research platforms, methodology, and research provider as the regional evaluation for Hamilton. The high-level results for New Zealand are presented in the table below.

**Table 8: Estimated costs and benefits to New Zealand of hosting FWWC 2023**

Source: National impact evaluation commissioned by MBIE

Measure	Value (\$m)	Description
Government costs	\$101.1	Total cost to central and local government
Public funds cost	\$20.2	Redistribution of public funds cost @ 20% as per Treasury guidelines
Event attendee costs	\$80.3	Value of time and money devoted to FWWC 2023 by attendees
Business costs	\$118.6	Value of the resources consumed by businesses to service the additional demand caused by FWWC 2023
Carbon costs	\$3.0	Value of unpriced carbon production attributable to FWWC 2023
Other costs	\$0.0	Other monetised costs
<b>Total cost</b>	<b>\$323.2</b>	<b>Total gross cost generated by FWWC 2023</b>
Event attendee benefits	\$117.8	Social value to FWWC 2023 attendees (event attendee cost + estimated consumer surplus)
Business benefits <sup>2</sup>	\$191.6	Value of additional business demand (revenue) caused by FWWC 2023
Media benefits	\$22.5	Value of media exposure generated by FWWC 2023 (based on estimated future value of tourism generated)
Non-attendee benefits	\$78.6	Social value accruing to non-attendees (option value/existence value/national pride)
Avoided future costs	\$18.5	Avoided future infrastructure costs due to projects being brought forward for FWWC 2023
Other benefits	\$3.8	Other monetised benefits
<b>Total benefit</b>	<b>\$432.6</b>	<b>Total gross benefit generated by FWWC 2023</b>
<b>Net benefit</b>	<b>\$109.5</b>	<b>Total benefit less total cost</b>
<b>Benefit-cost ratio</b>	<b>1.34</b>	<b>Total benefit divided by total cost</b>

<sup>2</sup> Includes 10% of event income sourced from, and spent in, New Zealand, as per MBIE's event evaluation guidelines.



## 2 Introduction

### 2.1 Background

Australia and New Zealand were awarded co-hosting rights to the FWWC 2023 on 26 June 2020 following a formal bidding process that began on 19 February 2019. The decision came after a vote by the FIFA Council, with the Australia/New Zealand bid (“As One”) earning 22 votes out of 35. Neither country had previously hosted a senior Tier 1 FIFA tournament.

In July 2019, midway through the bidding process, FIFA proposed an expansion of the Women's World Cup from 24 to 32 teams, starting with the 2023 edition. The proposal came following the success of the FIFA Women's World Cup 2019 and the prior edition of the tournament in 2015, which after increasing from 16 to 24 teams set an attendance record for all FIFA competitions besides the men's FIFA World Cup. The expansion proposal was unanimously adopted by the FIFA Council on 31 July 2019.

In addition to being the first 32-team Women's World Cup, FWWC 2023 was the first Women's World Cup to be hosted in multiple countries, and only the second World Cup tournament to do so following the FIFA Men's World Cup 2002 held in Japan and South Korea. It was also the first FIFA Women's World Cup to be held in the southern hemisphere, the first senior FIFA tournament to be held in Oceania, and the first FIFA tournament to be hosted across multiple confederations (with Australia in the AFC and New Zealand in the OFC). In addition, FIFA introduced the first-ever Play-Off Tournament.

New Zealand's co-hosting of the FWWC 2023 involved three distinct events:

1. **FWWC 2023 Draw** in Auckland on 22 October 2022.
2. **FWWC 2023 Play-Off Tournament (inter-confederation play-offs)**, hosted in Hamilton and Auckland between 18 February and 23 February 2023.
3. **FWWC 2023**, co-hosted in Aotearoa New Zealand and Australia between 20 July and 20 August 2023, with 32 teams playing 64 games over 32 days in nine Host Cities.

New Zealand hosted 16 teams for the group stage of the tournament (including the Football Ferns) and 29 matches across the Host Cities of Auckland, Hamilton, Wellington, and Dunedin. Hamilton was awarded 5 of the 24 Group Stage matches hosted in New Zealand, all of which were played at Waikato Stadium (FMG Stadium Waikato).

Fresh Information Limited (Fresh Info) was commissioned by Hamilton City Council to evaluate the costs and benefits to Hamilton of hosting FWWC 2023. This evaluation focuses on the costs and benefits to Hamilton of co-hosting FWWC 2023 in New Zealand relative to the counterfactual<sup>3</sup> of the event being hosted in another country. Economic, social, cultural, and environmental impacts are considered in the evaluation to capture the wide range of impacts caused by the event.

The evaluation includes relevant costs and benefits in the lead up to the event, including the Draw and Play-Off Tournament, as well as the FIFA Women's World Cup tournament.

Independent impact evaluations were commissioned and paid for by MBIE (national impact evaluation) and each Host Region (regional impact evaluations). These evaluations were all conducted using the same research

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<sup>3</sup> The alternative scenario against which the results are compared.



platforms, methodology, and research provider, and are therefore consistent with one another and directly comparable.

## 2.2 Methodology

MBIE's event evaluation framework has been used as the foundation for this evaluation. This is the same evaluation framework that Hamilton City Council uses (Event Economics). The framework is based on cost-benefit analysis (CBA) which is a well-established evaluation method used by government agencies and businesses.

A CBA is based on welfare economics which is concerned with maximising societal wellbeing in the broadest possible terms. What this means in practice is that any type of cost or benefit can be included in a CBA if it can be given a credible monetary value. The main benefit of CBA is that it treats market and non-market costs and benefits equally, which means that non-financial<sup>4</sup> outcomes are given the same status as financial outcomes in the evaluation process.

There are three broad steps in the CBA process:

1. Identify all the relevant costs and benefits associated with the event. There are no restrictions on what can be included, but for practical reasons only material costs and benefits should be carried forward.
2. Assign a monetary value to each of the relevant costs and benefits. This is relatively easy in cases where there is an observable market price or financial transaction. It is more difficult when there are no market valuations to take guidance from, but various methods exist to assign monetary values to non-market costs and benefits.
3. Add up all the costs and benefits. If the gross benefit exceeds the gross cost, then the event has increased societal wellbeing, relative to the counterfactual of not investing in the event.

Table 9 on the next page provides an overview of the evaluation framework that has been applied to FWWC 2023.

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<sup>4</sup> This includes social, cultural, and environmental outcomes as outlined in Table 9.



**Table 9: FWWC 2023 Evaluation Framework**

Source: MBIE, Fresh Info

Evaluation component	Gross Cost (GC)	Gross Benefit (GB)	Net Benefit
<b>Government</b>			
Cost to central and local government agencies	100%	As measured	GB – GC
Redistribution of public funds cost <sup>5</sup>	20%	Nil	GC
<b>Social</b>			
Value of time and money devoted to the event by Hamilton resident attendees	100%	100% + CS	CS
Benefits accruing to Hamilton resident non-attendees	0%	100%	GB
<b>Economic</b>			
Additional consumption of Hamilton goods and services	100% x (1-PS)	100%	PS
Externally sourced funds spent in Hamilton by FIFA	100% x (1-PS)	100%	PS
Commercial sponsorship by Hamilton resident companies	100%	100% + ROI	ROI
Value of time and money devoted to FWWC 2023 by Hamilton resident businesses	100%	100% + ROI	ROI
Event profit accruing to Hamilton	0%	100%	GB
Event income sourced from, and spent in, Hamilton <sup>6</sup>	0%	10%	GB
Value of media exposure to Hamilton (conversion model)	0%	100%	GB – GC
<b>Cultural</b>			
Māori outcomes	As measured	As measured	GB – GC
<b>Environmental</b>			
Environmental costs and benefits	As measured	As measured	GB – GC

GC = gross cost; GB = gross benefit; CS = consumer surplus; PS = producer surplus; ROI = return on investment

<sup>5</sup> Equivalent to 20% of public sector investment, as per Treasury guidelines.

<sup>6</sup> Already counted as a cost elsewhere in the model. This line acknowledges the marginal value of internal expenditure relative to external (out of region) expenditure.



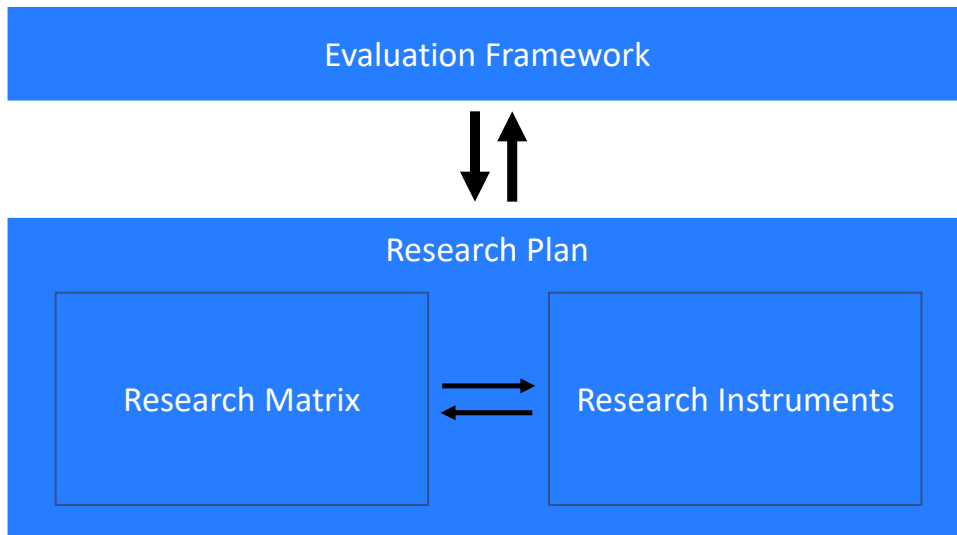
## 2.2.1 Research Plan

A comprehensive research plan was developed at the outset of the project in consultation with MBIE and Hamilton to identify the research processes and instruments required to inform the evaluation. The Research Plan had two components:

1. A Research Matrix – a table showing how each component of the Evaluation Framework would be informed. The table included the source(s) of information (respondents) for each evaluation component in Table 9, as well as the specific research instruments used to collect the information.
2. Research Instruments – a description of the specific research instruments used to collect information from respondents.

**Figure 1: Relationship between FWWC 2023 Evaluation Framework and FWWC 2023 Research Plan**

Source: FWWC 2023 Research Plan



The Research Matrix in Table 10 shows the evaluation components as rows, the information sources (respondents) as columns, and the specific research instruments used to collect the information as cells.

The information in Table 11 describes the specific research instruments used to collect information from respondents, who the respondents were, and what sample sizes were achieved (where applicable). The final Research Plan was provided to MBIE as a separate PDF document entitled “*Research Plan for FIFA Women’s World Cup 2023 Impact Evaluation*”.



**Table 10: FWWC 2023 Research Matrix**

Source: FWWC 2023 Research Plan

Evaluation component	Central and local government agencies	FIFA	Teams	Event sponsors and partners	Volunteers	Spectators	NZ resident non-attendees	Sport NZ and football organisations
<b>Government</b>								
Cost to central and local government agencies	S1							S1
<b>Social</b>								
Value of personal time & money devoted to the event by Hamilton residents					S5	S6		
Benefits accruing to Hamilton resident non-attendees							S7	
<b>Economic</b>								
Additional consumption of Hamilton goods & services		S2	S3	S4	S5	S6		
Externally sourced funds spent in Hamilton		S2						
Value of time & money devoted to the event by Hamilton resident businesses				S4				
Event profit accruing to Hamilton		S2						
Event income sourced from, and spent in, Hamilton	S1							
Value of media exposure to Hamilton		D1						
<b>Environmental</b>								
Value of unpriced carbon emissions	D2	D3	S4	S4	S5	S6		
Other environmental indicators (non- $\$$ )	D4	D5						
Awareness and perception of sustainability initiatives (non- $\$$ )					S5	S6		
<b>Cultural</b>								
Perceptions of Māori cultural content and representation (non- $\$$ )					S5	S6		





**Table 11: FWWC 2023 Research Instruments**

Source: FWWC 2023 Research Plan

ID	Description of research instruments	Respondents/source	Sample <sup>7</sup>	Draw Nov 2022	Play-Off Mar 2023	FWWC Aug 2023
S1	Survey of central and local government agencies	Central and local government agencies	36			✓
S2	Survey of FIFA	FIFA	n/a	✓	✓	✓
S3	Survey of teams	FIFA teams	14			✓
S4	Survey of event sponsors & partners	Event sponsors & partners	3			✓
S5	Survey of volunteers	FIFA & host city volunteers	421		✓	✓
S6	Survey of spectators	Match attendees	6,438		✓	✓
S7	Survey of NZ resident non-attendees	NZ resident non-attendees	1,504			✓
D1	Media distribution data	FIFA	n/a			✓
D2	Carbon emissions data	Public sector agencies	n/a			✓
D3	Carbon emissions data	FIFA	n/a			✓
D4	Data on other environmental indicators	Public sector agencies	n/a			✓
D5	Data on other environmental indicators	FIFA	n/a			✓

<sup>7</sup> For FWWC Aug 2023.



## 3 The event

### 3.1 Structure of FWWC 2023

New Zealand's co-hosting of the FWWC 2023 involved three distinct events:

1. **FWWC 2023 Draw** in Auckland on 22 October 2022.
2. **FWWC 2023 Play-Off Tournament (inter-confederation play-offs)**, hosted in Hamilton and Auckland between 18 February and 22 February 2023.
3. **FWWC 2023**, co-hosted in New Zealand and Australia between 20 July and 20 August 2023, with 32 teams playing 64 games over 32 days in nine Host Cities.

#### 3.1.1 FWWC 2023 Draw

The Draw took place at the Aotea Centre in Auckland on 22 October 2022, prior to the completion of qualification. The three winners of the first ever FIFA Play-Off Tournament (POT) were not known at the time of the Draw.

The 32 teams were allocated into four pots based on the FIFA Women's World Rankings as at 13 October 2022. Pot One contained co-hosts New Zealand and Australia (both automatically placed in positions A1 and B1, respectively) along with the best six teams. Pot Two contained the next best eight teams, with the next best eight teams being allocated into the following pot (Pot Three). Pot Four contained the lowest ranked teams, along with the placeholders for the three inter-confederation play-off winners. The pots for the draws are shown below (the figures in parentheses are world rankings).

**Table 12: Pots for FWWC 2023 Draw**

Source: FIFA

Pot 1	Pot 2	Pot 3	Pot 4
New Zealand (22)	Canada (7)	Denmark (18)	Nigeria (45)
Australia (13)	Netherlands (8)	Switzerland (21)	Philippines (53)
United States (1)	Brazil (9)	Republic of Ireland (24)	South Africa (54)
Sweden (2)	Japan (11)	Columbia (27)	Morocco (76)
Germany (3)	Norway (12)	Argentina (29)	Zambia (81)
England (4)	Italy (14)	Vietnam (34)	Portugal <sup>8</sup>
France (5)	China (15)	Costa Rica (37)	Haiti <sup>9</sup>
Spain (6)	South Korea (17)	Jamaica (43)	Panama <sup>10</sup>

<sup>8</sup> Play-off Group A winner.

<sup>9</sup> Play-off Group B winner.

<sup>10</sup> Play-off Group C winner.



With the exception of UEFA<sup>11</sup>, teams from the same confederation could not be drawn in the same group. However, since each inter-confederation play-off group contained multiple confederations, the placeholders were identified by the seeded teams in their respective play-off pathways to avoid any draw constraints.

The Draw started with Pot One and ended with Pot Four, with the team selected being allocated to the first available group alphabetically. Pot One teams were automatically drawn to position one of each group, with the following positions drawn for the remaining pots.

The 32 teams were drawn into eight groups (A – H) of four teams. Groups A, C, E, and G played all their group matches in New Zealand, and Groups B, D, F, and H played all their group matches in Australia.

**Table 13: Teams based in New Zealand for group stage**

Source: FIFA

Group A	Group C	Group E	Group G
New Zealand	Spain	United States	Sweden
Norway	Costa Rica	Vietnam	South Africa
Philippines	Zambia	Netherlands	Italy
Switzerland	Japan	Portugal	Argentina

**Table 14: Teams based in Australia for group stage**

Source: FIFA

Group B	Group D	Group F	Group H
Australia	England	France	Germany
Republic of Ireland	Haiti	Jamaica	Morocco
Nigeria	Denmark	Brazil	Columbia
Canada	China	Panama	South Korea

### 3.1.2 FWWC 2023 Play-Off Tournament

The POT determined the final three qualification spots for the FWWC 2023. New Zealand was confirmed as the sole host nation for the POT on 4 July 2022, with Auckland and Hamilton selected as the host regions. The POT took place from 18 to 23 February 2023 and featured ten teams from six confederations, as shown in Table 15 below.

**Table 15: Teams contesting the FWWC 2023 Play-Off Tournament**

Source: FIFA

Region	Confederation	Teams
Asia	AFC	Chinese Taipei, Thailand
Africa	CAF	Cameroon, Senegal
North and Central Americas	CONCACAF	Haiti, Panama
South America	CONMEBOL	Paraguay, Chile
Oceania	OFC	Papua New Guinea
Europe	UEFA	Portugal

<sup>11</sup> Union of European Football Associations.



The 10 teams were split into three groups of three (Group A and B) or four (Group C). The winner of each group qualified for the 2023 FIFA Women's World Cup.

Four teams were seeded into groups based on the FIFA Women's World Rankings. In Groups A and B, two unseeded teams faced each other in a semi-final. The winner of the semi-final advanced to the POT final, playing against the seeded team for a spot in the 2023 FIFA Women's World Cup. In Group C, the two seeded teams faced an unseeded team in the semi-finals. The winners of the semi-finals faced each other in the POT final for a spot in the Women's World Cup.

New Zealand and Argentina (confirmed as guests on 8 December 2022) participated in friendly matches as part of the event, first against one of the seeded teams in Groups A and B, and then twice against each other. Friendly matches also took place between the semi-final loser of Groups A and B, as well as the two semi-final losers of Group C, thereby ensuring that all play-off teams played two matches at the event.

The three teams that qualified for FWWC 2023 were:

- Portugal – winners of Group A
- Haiti – winners of Group B
- Panama – winners of Group C

### 3.1.3 FWWC 2023

The FWWC 2023 started on 20 July 2023 and finished on 20 August 2023 (32 days). The opening match was contested between New Zealand and Norway at Eden Park in Auckland, and the final was played at Stadium Australia in Sydney. A total of 64 matches were played across the tournament including 48 group stage matches (round robin format) and 16 knock out matches. New Zealand hosted 29 matches including 24 group stage matches and 5 knock out matches. A full match schedule is provided in Appendix 1.

**Table 16: FWWC 2023 tournament schedule**

Source: FIFA

	Start	End	Matches played in New Zealand	Matches played in Australia	Total matches played
Group stage	20 Jul 2023	3 Aug 2023	24	24	48
Round of 16	5 Aug 2023	8 Aug 2023	2	6	8
Quarterfinals	11 Aug 2023	12 Aug 2023	2	2	4
Semifinals	15 Aug 2023	16 Aug 2023	1	1	2
Third place play-off	19 Aug 2023	19 Aug 2023	0	1	1
Final	20 Aug 2023	20 Aug 2023	0	1	1
TOTAL	20 Jul 2023	20 Aug 2023	29	35	64



The 29 FWWC 2023 matches played in New Zealand were allocated by FIFA to four Host Cities through a bidding process coordinated by MBIE with Football Australia and New Zealand Football:

- Auckland (Eden Park, ticketed capacity 43,217)
- Hamilton (Waikato Stadium, ticketed capacity 18,009)
- Wellington (Wellington Regional Stadium, ticketed capacity 33,132)
- Dunedin (Forsyth Barr Stadium, ticketed capacity 25,947)

Auckland hosted 9 matches (6 group stage matches and three knock out matches), Hamilton hosted 5 group stage matches, Wellington hosted 9 matches (7 group stage matches and 2 knock out matches) and Dunedin hosted 6 group stage matches.

**Table 17: Allocation of FWWC 2023 matches played in New Zealand**

Source: FIFA

	Auckland	Hamilton	Wellington	Dunedin	TOTAL
Group stage	6	5	7	6	24
Round of 16	1	0	1	0	2
Quarterfinals	1	0	1	0	2
Semifinals	1	0	0	0	1
TOTAL	9	5	9	6	29

The first match hosted in Hamilton was between Zambia and Japan on 22 July and the final match was between Argentina and Sweden on 2 August. A full match schedule for FWWC 2023 is provided in Appendix 1.

**Table 18: Schedule of FWWC matches played in Hamilton**

Source: FIFA

Group	Date	Team 1	Team 2
Group C	22/07/2023	Zambia	Japan
Group A	25/07/2023	Switzerland	Norway
Group E	27/07/2023	Portugal	Vietnam
Group C	31/07/2023	Costa Rica	Zambia
Group G	2/08/2023	Argentina	Sweden



### 3.2 Team base camps

Base camps were used by all FWWC 2023 teams to stay and train before and during the tournament. FIFA announced the hotels and training sites for the 29 qualified participating nations on 11 December 2022 and the three Play-off Tournament winners on 21 March 2023. It was the first World Cup to have dedicated base camps for the 32 participating nations. The hotels and training sites used by teams hosted in New Zealand are shown in Table 19.

**Table 19: Team base camps in New Zealand**

Source: FIFA

City	Team	Hotel	Training sites
Auckland	Argentina	Novotel Auckland Ellerslie	Michaels Avenue Reserve
	Italy	Grand Millennium Auckland	Shepherds Park
	New Zealand	Pullman Auckland	Keith Hay Park
	Norway	M Social Auckland	Seddon Fields
	Philippines	Mövenpick Hotel	Olympic Park Auckland
	Portugal	Waipuna Hotel & Conference Centre	Māngere Centre Park
	United States	Sofitel Auckland Viaduct Harbour	Bay City Park
	Vietnam	Rydges Auckland	Fred Taylor Park
Hamilton	Zambia	Novotel Hamilton Tainui	Korikori Park
Tauranga	Netherlands	Trinity Wharf	Bay Oval
Palmerston North	Spain <sup>12</sup>	Copthorne Palmerston North	Massey Sport Institute
Wellington	South Africa	InterContinental Hotel Wellington	Porirua Park
	Sweden	NZCIS Accommodation Wellington	NZ Campus of Innovation & Sport
Christchurch	Costa Rica	Distinction Christchurch Hotel	Ngā Puna Wai Sports Hub
	Japan	Rydges Latimer Christchurch	Christchurch Stadium
Dunedin	Switzerland	Distinction Dunedin Hotel	Tahuna Park

<sup>12</sup> Spain relocated to Wellington midway through the tournament.



### 3.3 Ticketing

A total of 2.04 million match tickets were issued across the tournament at an average of 31,814 tickets per match. The 29 matches hosted in New Zealand accounted for 37% of ticket issuances (744,236) and the 35 matches hosted in Australia accounted for the remaining 63% (1,291,861). The average number of tickets issued per match in New Zealand was 25,663 compared with 36,910 in Australia.

**Table 20: Summary of FWWC 2023 ticketing**

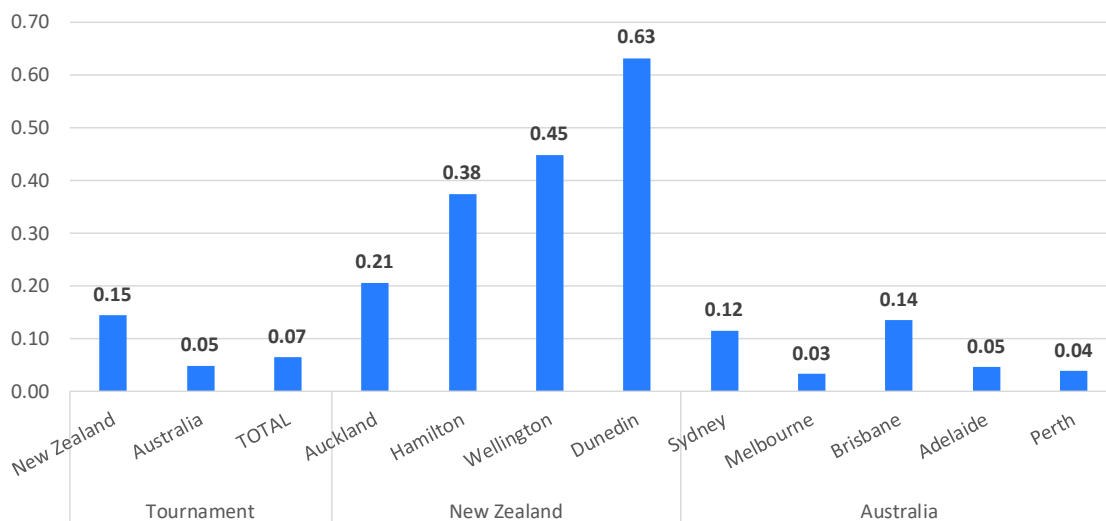
Source: FIFA

Host Region	Matches	Tickets issued	Share of tickets issued	Average tickets issued per match
Auckland	9	350,719	17%	38,969
Hamilton	5	67,489	3%	13,498
Wellington	9	243,645	12%	27,072
Dunedin	6	82,383	4%	13,731
<b>New Zealand</b>	<b>29</b>	<b>744,236</b>	<b>37%</b>	<b>25,663</b>
Sydney	11	611,818	30%	55,620
Melbourne	6	167,700	8%	27,950
Brisbane	8	357,580	18%	44,698
Adelaide	5	66,977	3%	13,395
Perth	5	87,786	4%	17,557
<b>Australia</b>	<b>35</b>	<b>1,291,861</b>	<b>63%</b>	<b>36,910</b>
<b>Tournament</b>	<b>64</b>	<b>2,036,097</b>	<b>100%</b>	<b>31,814</b>

The number of tickets issued per capita was 0.15 for New Zealand matches compared with 0.05 for Australian matches. The per capita issuance rates in New Zealand ranged between 0.21 in Auckland and 0.63 in Dunedin, as shown in Figure 2. The highest per capita issuance rate in Australia was Brisbane at 0.14.

**Figure 2: Number of tickets issued per capita**

Source: FIFA, Stats NZ, Australian Bureau of Statistics





### 3.4 Government investment

Planning and delivering FWWC 2023 required a considerable investment of time and/or money from a wide range of central and local government agencies. This investment began soon after New Zealand was awarded co-hosting rights in 2019 and extended beyond the conclusion of FWWC 2023 in August 2023. The following central and local government agencies played some role in the planning and/or delivery of FWWC 2023.

**Table 21: Central and local government agencies involved in FWWC 2023 planning and/or delivery**

Source: MBIE, Fresh Info

Central government agencies	Local government agencies
Aviation Security Service	
CERT NZ	<b>Auckland</b>
Civil Aviation Authority	Auckland Council
Combined Threat Assessment Group	Tātaki Auckland Unlimited
Department of Conservation	Auckland Transport
Department of Internal Affairs	Eke Panuku
Department of the Prime Minister and Cabinet	
Fire and Emergency New Zealand	<b>Hamilton</b>
Ministry of Business, Innovation and Employment	H3 Group
Ministry for Culture and Heritage	Hamilton City Council
Ministry for Ethnic Communities	
Ministry for Pacific Peoples	<b>Tauranga</b>
Ministry for Women	Tauranga City Council
Ministry of Education	
Ministry of Foreign Affairs and Trade	<b>Palmerston North</b>
Ministry of Health	Palmerston North City Council
Ministry of Primary Industries	
Ministry of Transport	<b>Wellington</b>
Ministry of Youth Development	WellingtonNZ
National Emergency Management Agency	Wellington City Council
New Zealand Customs Service	
New Zealand Defence Force	<b>Christchurch</b>
New Zealand Police	ChristchurchNZ
New Zealand Story	Christchurch City Council
New Zealand Trade and Enterprise	
Sport NZ	<b>Dunedin</b>
Te Taura Whiri I te reo Māori	Dunedin City Council
Te Whatu Ora	
Tertiary Education Council	
Tourism New Zealand	
Waka Kotahi	
WorkSafe New Zealand	





In aggregate these agencies invested \$101.1 million in FWWC 2023-related initiatives with central government agencies contributing \$64.9 million (64.2%) and local government agencies the remaining \$36.1 million (35.8%).

Around 73.5% of government investment was directed to core delivery expenses and 26.5% to leverage and legacy initiatives.

**Table 22: Central and local government investment in FWWC 2023**

Source: All relevant central and local government agencies

	Central government	Local government	TOTAL	Share
Core delivery expense	\$42.1	\$32.1	\$74.3	73.5%
Leverage and legacy	\$22.8	\$4.0	\$26.8	26.5%
<b>TOTAL</b>	<b>\$64.9</b>	<b>\$36.1</b>	<b>\$101.1</b>	<b>100.0%</b>
Share	64.2%	35.8%	100.0%	

Hamilton's direct contribution to government investment in FWWC 2023 was \$2.7 million through initiatives funded by Hamilton City Council and its subsidiaries. For the purposes of the CBA, \$2.3 million of central government's investment in FWWC 2023 has been allocated as a cost to Hamilton taxpayers based on Hamilton's share of national population. Hamilton's overall contribution to local and central government investment in FWWC 2023 for the purposes of this evaluation was therefore \$5 million. This cost is included in 'Government costs' in the CBA.

**Table 23: Hamilton contribution to government investment in FWWC 2023**

Source: Relevant central and local government agencies

	Central government	Local government	TOTAL	Share
Hamilton contribution	\$2.3	\$2.7	\$5.0	4.9%
Rest of NZ contribution	\$62.6	\$33.4	\$96.1	95.1%
<b>TOTAL</b>	<b>\$64.9</b>	<b>\$36.1</b>	<b>\$101.1</b>	<b>100.0%</b>
Hamilton share	3.5%	7.5%	4.9%	



## 4 Event attendance

### 4.1 Attendance profile

This section presents estimates of the number of people who attended FWWC events in person in New Zealand and Hamilton. This includes people attended a FWWC 2023 match and/or visited a FIFA Fan Festival site in New Zealand. Each attendee is counted only once, even if they interacted with the event multiple times. All FWWC attendees have been allocated to one of the following groups for presentation purposes:

- FIFA – FIFA Zurich staff and contractors, Local FIFA Subsidiary New Zealand (LFS New Zealand) staff and contractors, Local FIFA Subsidiary Australia (LFS Australia), and match officials;<sup>13</sup>
- Teams – FWWC 2023 players and team staff;
- Broadcast and media staff and contractors – Media Rights Licensees and independent media;
- Volunteers – all FIFA and Host City volunteers; and
- Spectators - people not involved in the delivery of the event who attended a FWWC 2023 match and/or visited a FIFA Fan Festival site in New Zealand.

#### 4.1.1 National attendance profile

A total of 258,527 people attended FWWC 2023 in person in New Zealand. Over 98% (254,753) of the 258,527 FWWC 2023 attendees were spectators, with volunteers being the next largest group at 1,582.

Of the 258,527 attendees, 87.5% were New Zealand residents and the remaining 12.5% were international visitors.

It is important to note that not all international visitors who attended FWWC 2023 travelled to New Zealand because of FWWC 2023 – some were visiting New Zealand for other reasons and chose to experience FWWC 2023 while they were here.

**Table 24: Count and composition of unique FWWC 2023 attendees (counting each person only once)**

Source: Surveys of spectators and volunteers, FWWC 2023 stakeholder surveys and interviews

Attendee group	New Zealand residents	International visitors	TOTAL	Share
FIFA	260	328	588	0.2%
Teams	45	816	861	0.3%
Broadcast & media	136	607	743	0.3%
Volunteers	1,543	39	1,582	0.6%
Spectators	224,286	30,467	254,753	98.5%
<b>TOTAL</b>	<b>226,270</b>	<b>32,257</b>	<b>258,527</b>	<b>100.0%</b>
Share	87.5%	12.5%	100.0%	

<sup>13</sup> FIFA pre-visits are included in these counts but were lower than expected due to COVID-19.



### 4.1.2 Attendance profile for Hamilton

A total of 31,136 people attended FWWC 2023 in person in Hamilton. Around 96% (29,985) of the 31,136 FWWC 2023 attendees were spectators, with teams being the next largest group at 430.

Of the 31,136 overall attendees, 34.8% were from Hamilton, 48.7% were from elsewhere in New Zealand, and the remaining 16.5% were from overseas (international visitors).

It is important to note that not all domestic and international visitors who attended FWWC 2023 travelled to Hamilton because of FWWC 2023 – some were visiting Hamilton for other reasons and chose to experience FWWC 2023 while they were there. This is discussed further in Section 5.2.

**Table 25: Count and composition of FWWC 2023 attendees in Hamilton (counting each person only once)**

Sources: Surveys of spectators and volunteers, FWWC 2023 stakeholder surveys and interviews

Attendee group	Hamilton residents	Domestic visitors	International visitors	TOTAL	Share
FIFA	9	32	57	98	0.3%
Teams	0	0	430	430	1.4%
Broadcast & media	5	31	299	335	1.1%
Volunteers	203	79	6	288	0.9%
Spectators	10,624	15,023	4,338	29,985	96.3%
<b>TOTAL</b>	<b>10,841</b>	<b>15,165</b>	<b>5,130</b>	<b>31,136</b>	<b>100.0%</b>
Share	34.8%	48.7%	16.5%	100.0%	

## 4.2 Spectators

Spectators accounted for over 96% of all FWWC 2023 attendees in Hamilton and were therefore an important segment from an evaluation perspective. Hosting five matches gave local, domestic, and international spectators multiple opportunities to attend matches in Hamilton. The results below are based on a post-event online survey of 719 spectators.

### 4.2.1 Value received by FWWC 2023 spectators

Understanding the value to Hamilton residents of being able to experience FWWC 2023 in person is a critical part of estimating the social impact of FWWC 2023. This was estimated by including the following question in the post-event survey of spectators:

*“How would you describe the value you gained from your FIFA Women’s World Cup 2023 experiences relative to the time and money you committed to them?”*

Respondents who attended a FWWC 2023 event in Hamilton were presented with a value scale of 0 – 10 where:

- 0 is equivalent to “very low value”
- 5 is equivalent to “fair value”
- 10 is equivalent to “very high value”.

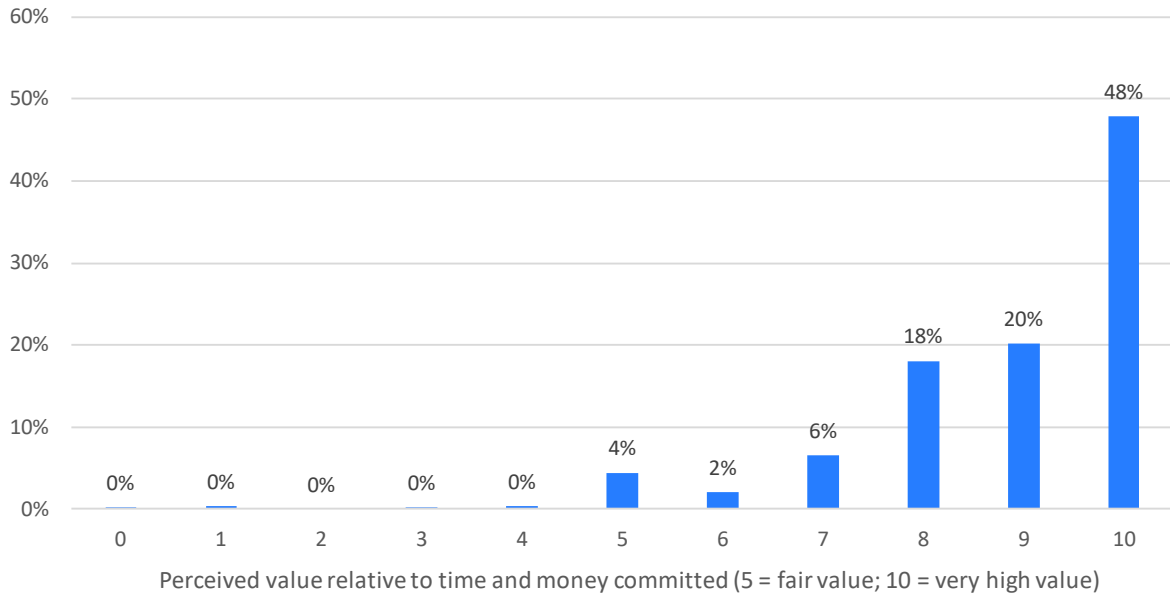
Almost 100% of respondents who attended a FWWC 2023 event in Hamilton reported receiving “fair value” (5) or higher and 48% reported “very high value” (10), with an average score of 8.9 out of 10. This indicates that the value derived by an average spectator comfortably exceeded the value of the time and money they



invested in the event and provides strong evidence of a positive and significant social value (consumer surplus) for spectators. These results are used to estimate the social value accruing to spectators in Section 6.

**Figure 3: Perceived value to spectators relative to the time and money committed to FWWC 2023**

Source: Post-event survey of spectators



#### 4.2.2 Spectator satisfaction

A series of satisfaction questions were included in the post-event survey of spectators to determine the effectiveness of various components of the event. Respondents were presented with the list of responses shown in Figure 4 below and were asked:

*“How satisfied were you with the following aspects of the FIFA Women’s World Cup 2023?”*

The results in Figure 4 show the percentage of respondents who attended a FWWC 2023 event in Hamilton who were satisfied or very satisfied with each component of the event.

Overall satisfaction was very high, with 98% of respondents being satisfied or very satisfied with their overall FWWC 2023 experience. The components respondents were most satisfied with were:

- ease of getting to and from FWWC 2023 matches (94%)
- safety and security in and around FWWC 2023 venues (91%).

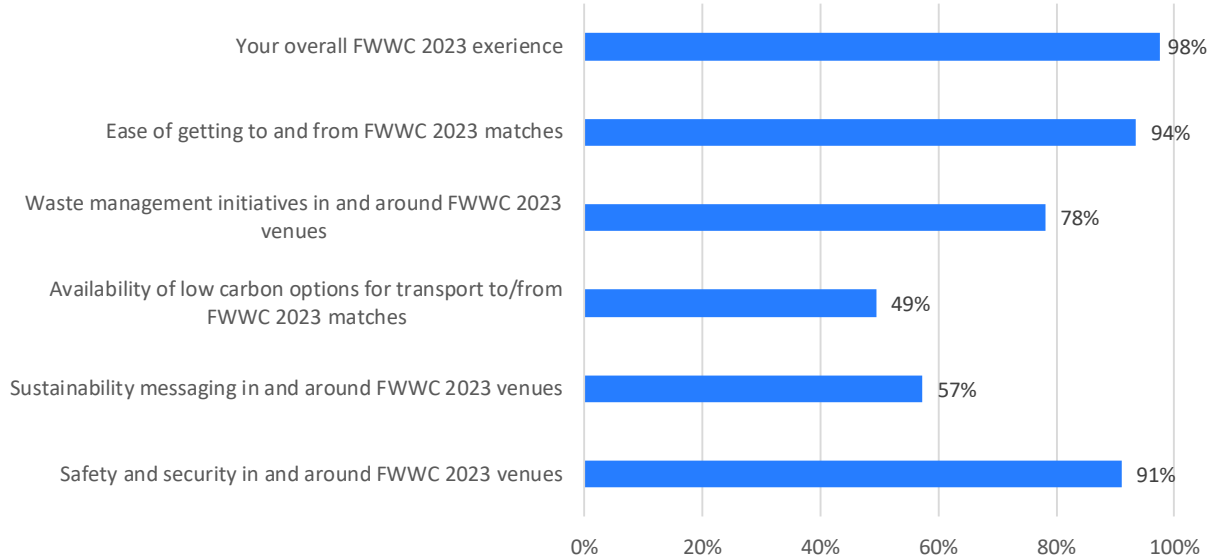
The components respondents were least satisfied with were:

- availability of low carbon options for transport to/from FWWC 2023 venues (49%).
- sustainability messaging in and around FWWC 2023 venues (57%)



**Figure 4: Spectator satisfaction with key elements of FWWC 2023**

Source: Post-event survey of spectators



The following question was included in the post-event survey of spectators to calculate a Net Promoter Score<sup>14</sup>:

*“How likely would you be to recommend the FIFA Women’s World Cup 2023 to other people?”*

Respondents who attended a FWWC 2023 event in Hamilton were presented with an 11-point scale of 0 (extremely unlikely) to 10 (extremely likely). Those scoring 6 or less are classified as “Detractors”, 7 or 8 as “Neutrals”, and 9 or 10 as “Promoters”. The Net Promoter Score of 78 was calculated by subtracting the percentage of respondents who were Detractors (2%) from the percentage who were Promoters (80%).

A Net Promoter Score of 78 would be considered very high in the commercial world and benchmarks well against companies like Apple (50) and Google (45).<sup>15</sup> It also benchmarks well against events in New Zealand which have a median Net Promoter Score of 43 (based on events evaluated using Event Economics<sup>16</sup>).

<sup>14</sup> A Net Promoter Score is a widely used customer loyalty and satisfaction measurement that lies between -100 and 100. A score of 100 indicates that 100% of people are likely to recommend the good, service or experience in question to others.

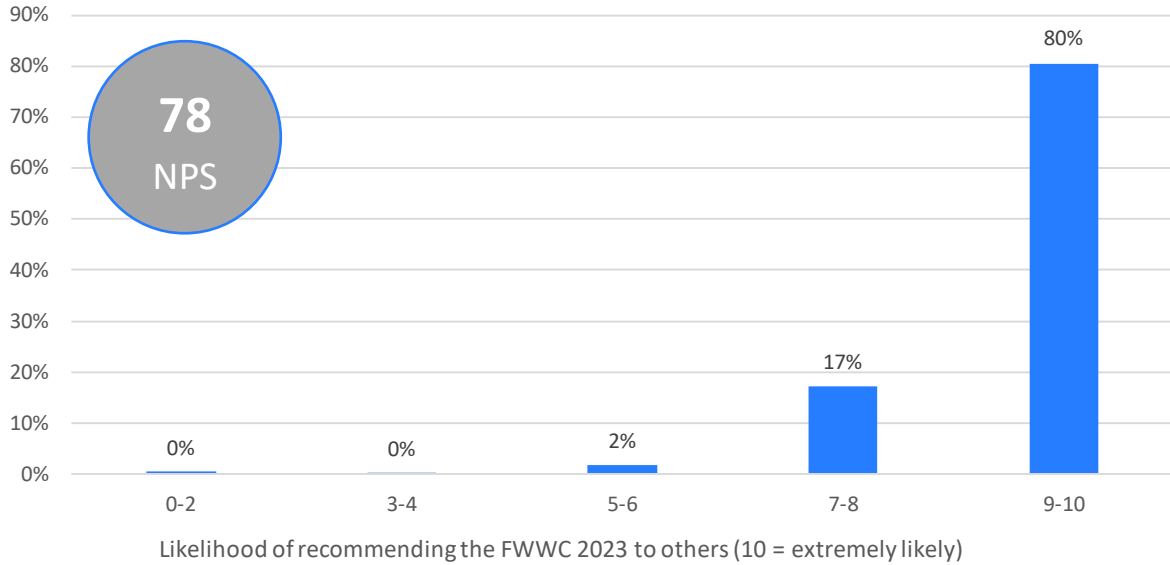
<sup>15</sup> Net Promoter Scores sourced from <https://www.comparably.com/brands/google>.

<sup>16</sup> Event Economics is a proprietary event evaluation model developed by Fresh Info that is used by many councils in New Zealand ([www.eventeconomics.com](http://www.eventeconomics.com)).



**Figure 5: Spectator likelihood of recommending FWWC 2023 matches to other people**

Source: Post-event survey of spectators



#### 4.2.3 Impact on spectator civic pride and liveability

Questions were included in the post-event survey of spectators to assess the impact of hosting FWWC 2023 on Hamilton residents’ pride and liveability. Respondents who lived in Hamilton were asked how strongly they agreed with the statements presented in Table 26. The results showed that:

- 90% of spectators living in Hamilton thought that hosting FWWC 2023 increased their pride in Hamilton
- 91% of spectators living in Hamilton thought that hosting FWWC 2023 made Hamilton a more enjoyable place to live.

**Table 26: Impact of hosting FWWC 2023 on resident pride and liveability**

Source: Post-event survey of spectators

Statements presented to respondents	Share of respondents who agreed or strongly agreed
Hosting the FWWC 2023 increases my pride in Hamilton	90%
Hosting the FWWC 2023 makes Hamilton a more enjoyable place to live	91%



## 4.3 Volunteers

Volunteers played a critical role in the delivery of FWWC 2023 in Hamilton despite only accounting for 0.9% of event attendees. The results below are based on a post-event online survey of 57 people who volunteered in Hamilton.

### 4.3.1 Value received by FWWC 2023 volunteers

Understanding the value to Hamilton residents of being able to experience FWWC 2023 in person is a critical part of estimating the social impact of FWWC 2023. This was estimated by including the following question in the post-event survey of volunteers:

*“How would you describe the value you gained from your FIFA Women’s World Cup 2023 experiences relative to the time and money you committed to them?”*

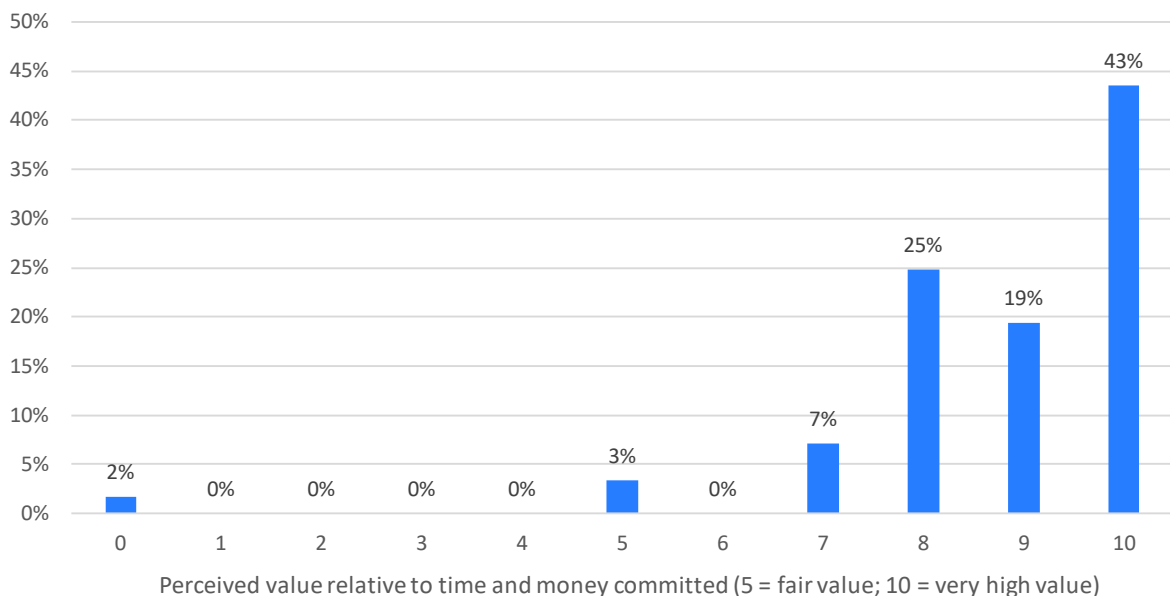
Respondents who volunteered in Hamilton were presented with a value scale of 0 – 10 where:

- 0 is equivalent to “very low value”
- 5 is equivalent to “fair value”
- 10 is equivalent to “very high value”.

Around 98% of respondents who volunteered in Hamilton reported receiving “fair value” (5) or higher and 43% reported “very high value” (10), with an average score of 8.8 out of 10. This indicates that the value derived by an average volunteer comfortably exceeded the value of the time and money they invested in the event and provides strong evidence of a positive and significant social value (consumer surplus) for spectators. These results are used to estimate the social value accruing to spectators in Section 6.

**Figure 6: Perceived value to volunteers relative to the time and money committed to FWWC 2023**

Source: Post-event survey of volunteers





### 4.3.2 Volunteer satisfaction

A series of satisfaction questions were included in the post-event survey of volunteers to determine the effectiveness of various aspects of their volunteering experience. Respondents were presented with the list of responses shown in Figure 7 below and were asked:

*“How satisfied were you with the following aspects of your volunteering experience at the FWWC 2023?”*

The results in Figure 7 show the percentage of people who volunteered in Hamilton who were satisfied or very satisfied with each aspect of their volunteering experience.

Overall satisfaction was very high, with 98% of respondents being satisfied or very satisfied with their overall FWWC 2023 volunteering experience. The components respondents were most satisfied with were:

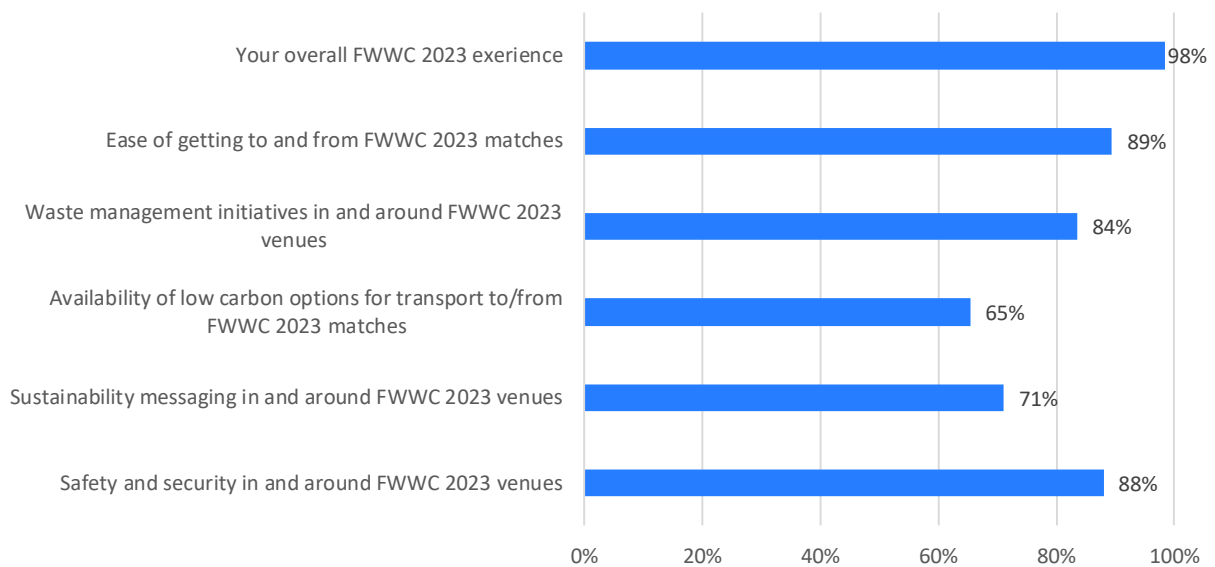
- ease of getting to and from volunteering shifts (89%)
- safety and security in and around FWWC 2023 events (88%).

The components respondents were least satisfied with were:

- availability of low carbon options for transport to/from FWWC 2023 events (65%)
- sustainability messaging in and around FWWC 2023 venues (71%).

**Figure 7: Volunteer satisfaction with key elements of FWWC 2023**

Source: Post-event survey of volunteers







A question was included in the post-event survey of volunteers to calculate a Net Promoter Score (see definition of page 25). Respondents were asked on a scale of 0 – 10:

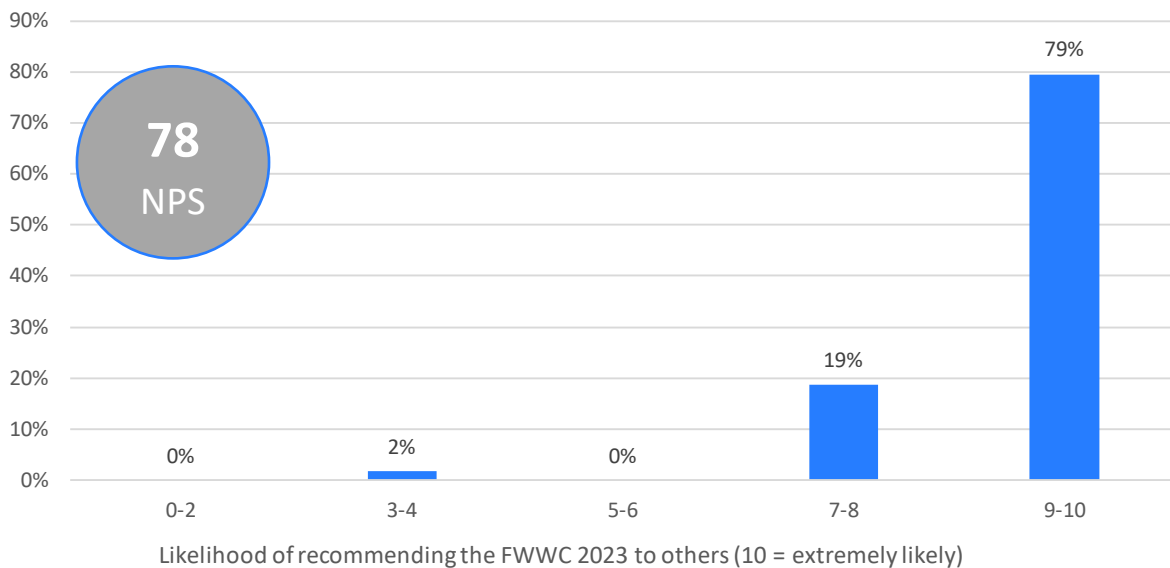
*“How likely would you be to recommend volunteering at the FWWC 2023 to other people?”*

Those scoring 6 or less were classified as “Detractors”, 7 or 8 as “Neutrals”, and 9 or 10 as “Promoters”. The Net Promoter Score of 78 was then calculated by subtracting the percentage of respondents who were Detractors (1.8%) from the percentage who were Promoters (79.5%).

A Net Promoter Score of 78 would be very good for a business (Apple’s Net Promoter Score is 50 and Google’s is 45), but there is insufficient benchmark data available to know whether this is a good score for a volunteer programme.

**Figure 8: Likelihood of recommending volunteering at a FWWC to others**

Source: Post-event survey of volunteers



### 4.3.3 Impact on volunteer civic pride and liveability

Questions were included in the post-event survey of volunteers to assess the impact of hosting FWWC 2023 on their civic pride and liveability. Respondents who lived in Hamilton were asked how strongly they agreed with the statements presented in Table 27. The results showed that:

- 98% of volunteers living in Hamilton thought that hosting FWWC 2023 increased their pride in Hamilton
- 95% of volunteers living in Hamilton thought that hosting FWWC 2023 made Hamilton a more enjoyable place to live.



**Table 27: Impact of hosting FWWC 2023 on volunteer pride and liveability**

Source: Post-event survey of volunteers

Statements presented to respondents	Share of Volunteer respondents who agreed or strongly agreed
Hosting the FWWC 2023 increases my pride in Hamilton	98%
Hosting the FWWC 2023 makes Hamilton a more enjoyable place to live	95%

#### 4.3.4 Accessibility of volunteer programmes

Accessibility was an important consideration when designing the volunteer programmes, so a question was included in the post-event volunteer survey asking respondents:

*“Do you have a long-term physical, mental, intellectual or sensory impairment/disability?”*

Around 10% of respondents who volunteered in Hamilton answered ‘Yes’ to this question. A follow-up question was then presented to these respondents asking them:

*“Were your impairment/disability needs met as a volunteer?”*

Around 82% of respondents who reported having a long-term physical, mental, intellectual, or sensory impairment/disability said their needs were met as a volunteer.

**Table 28: Accessibility of volunteer programmes**

Source: Post-event survey of volunteers

Measure	Share of respondents
Share of respondents with a long-term physical, mental, intellectual, or sensory impairment/disability	10%
Share of respondents whose impairment/disability needs were met as a volunteer	82%



## 5 Impact on Hamilton

This section presents data and commentary on the social, cultural, environmental, and economic impacts of FWWC 2023 on Hamilton. It is intended to be as comprehensive as possible, subject to data constraints. The results in this section provide the building blocks for the cost-benefit analysis for Hamilton presented in Section 6.

### 5.1 Event attendance by Hamilton residents

One of the key drivers of the social benefit to Hamilton of hosting FWWC 2023 is the level of in-person engagement Hamilton residents had with the event.

The purpose of this section is to identify the number of Hamilton residents who engaged with the event as spectators or volunteers and to understand how much time and money these groups committed to FWWC 2023. This is used to inform the cost-benefit analysis in Section 6.

A total of 10,841 Hamilton residents attended FWWC 2023 in person. This figure counts each attendee only once, even if they interacted with the event multiple times, and includes those involved in the event (FIFA staff and contractors, teams, broadcast/media staff and contractors, volunteers) and spectators (people not involved in the delivery of the event who attended a FWWC 2023 match and/or visited the FIFA Fan Festival site in Hamilton).

**Table 29: Count and composition of unique Hamilton resident FWWC 2023 attendees**

Source: Surveys of spectators and volunteers, FWWC 2023 stakeholder surveys and interviews

Attendee group	Hamilton residents	Share
FIFA	9	0.1%
Teams	0	0.0%
Broadcast & media	5	0.0%
Volunteers	203	1.9%
Spectators	10,624	98.0%
<b>TOTAL</b>	<b>10,841</b>	<b>100.0%</b>



### 5.1.1 Hamilton resident spectators

Spectators accounted for around 98% of all Hamilton resident FWWC 2023 attendees and were therefore an important segment from an evaluation perspective. The long duration of FWWC 2023 gave spectators many opportunities to interact with the event.

The average time commitment to in-person FWWC 2023 experiences by Hamilton residents was 7.8 hours across the entire event. This excludes time spent watching matches on television.

This is a significant amount of time when scaled across the event population (82,655 person hours) that had an estimated value of \$0.86 million when combined with value-of-time estimates provided by Waka Kotahi NZ Transport Agency. This is a critical data point for estimating the social value Hamilton residents derived from attending FWWC 2023 because it is one of the costs that Hamilton resident spectators incurred to access the benefits of attending FWWC 2023.

Another critical data point for estimating social value is the amount of money Hamilton resident public match attendees spent on event-related goods and services. This was estimated by asking respondents in the post-event survey of spectators:

- which event-related goods and services they spent money on
- how much money they spent on those goods and services
- how many people their reported expenditure covered (to avoid double-counting).

The methodology used to collect this information was consistent with the methodology used by MBIE to collect expenditure information from international visitors in its International Visitor Survey. The results showed that Hamilton residents spent around \$0.36 million on event-related goods and services excluding FWWC 2023 tickets and merchandise, which are considered elsewhere.

The total value of the time and money invested in FWWC 2023 by Hamilton resident spectators was therefore \$1.21 million, comprising a value-of-time cost of \$0.86 million and an event-related expenditure cost (excluding FWWC 2023 tickets and merchandise) of \$0.36 million. Collectively these represent the costs that Hamilton resident spectators incurred to access the benefits of attending FWWC 2023, in addition to FWWC 2023 tickets and merchandise which are considered elsewhere.

**Table 30: In-person engagement with FWWC 2023 by Hamilton resident spectators**

Source: Post-event survey of spectators

	Value
Hamilton residents	10,624
Average time commitment per resident (hours)	7.8
Total time commitment by residents (hours)	82,655
Value of time and money commitment by residents (\$m)	\$1.21
Value of time commitment by residents	\$0.86
Value of expenditure by residents	\$0.36



### 5.1.2 Hamilton resident volunteers

Volunteers played a critical role in the delivery of FWWC 2023 in Hamilton, and over 70% (203) of these people were Hamilton residents. The average time commitment to volunteering by Hamilton residents was 54.3 hours across the entire event. This is a significant amount of time when scaled across the volunteer population (11,021 person hours) that had an estimated value of \$0.11 million when combined with value-of-time estimates provided by Waka Kotahi NZ Transport Agency. This is a critical data point for estimating the social value Hamilton residents derived from volunteering at FWWC 2023 because it is one of the costs that Hamilton resident volunteers incurred to access the benefits of hosting FWWC 2023.

Volunteers were also asked how much money they spent on volunteering at FWWC 2023 using the same methodology applied to spectators. The results show that volunteers from Hamilton spent around \$0.01 million on event-related goods and services excluding FWWC 2023 tickets and merchandise, which are considered elsewhere.

The total value of the time and money invested in FWWC 2023 by Hamilton resident volunteers was therefore \$0.12 million, comprising a value-of-time cost of \$0.11 million and an event-related expenditure cost (excluding FWWC 2023 tickets and merchandise) of \$0.01 million. Collectively these represent the costs that Hamilton resident volunteers incurred to access the benefits of hosting FWWC 2023, in addition to FWWC 2023 tickets and merchandise which are considered elsewhere.

**Table 31: Engagement by Hamilton resident volunteers**

Source: Post-event survey of volunteers

	Value
Hamilton residents	203
Average time commitment per resident (hours)	54.3
Total time commitment by residents (hours)	11,021
Value of time and money commitment by residents (\$m)	\$0.12
Value of time commitment by residents	\$0.11
Value of expenditure by residents	\$0.01

## 5.2 Tourism activity in Hamilton attributable to FWWC 2023

One of the key drivers of the financial benefit to Hamilton of hosting FWWC 2023 was the amount of additional tourism expenditure the event created. Estimating this required a detailed understanding of the domestic and international tourism activity created by FWWC 2023 in Hamilton. The visitor activity created by FWWC 2023 was also an important input into the carbon emission estimates in Section 5.4.

The purpose of this section is to identify the number, composition, and tourism behaviour of domestic and international visitors whose main reason for travelling to Hamilton was attending FWWC 2023. This excludes domestic and international visitors who attended FWWC 2023 but were not attracted to Hamilton by the event. The exclusion of these attendees means that the visitor numbers presented below are in some cases lower than the attendee estimates presented in Section 5.1.

The results of the tourism analysis showed that FWWC 2023 attracted 18,349 visitors to Hamilton, comprising 13,801 domestic visitors and 4,547 international visitors. Around 95% of FWWC 2023 visitors to Hamilton were spectators.

It is important to note that some visitors travelled to Hamilton more than once to attend FWWC 2023. In such cases the visitor is only counted once (because it is the same visitor each time), but their visitor nights and



expenditure are determined cumulatively across the duration of the event (total visitor nights and expenditure across all their visits).

**Table 32: Number of people who visited Hamilton to attend FWWC 2023**

Source: Surveys of spectators and volunteers, FWWC 2023 stakeholder surveys and interviews

Attendee group	Domestic visitors	International visitors	TOTAL	Share
FIFA	32	57	89	0.5%
Teams	0	430	430	2.3%
Broadcast & media	31	299	330	1.8%
Volunteers	75	6	81	0.4%
Spectators	13,663	3,755	17,419	94.9%
<b>TOTAL</b>	<b>13,801</b>	<b>4,547</b>	<b>18,349</b>	<b>100.0%</b>
Share	75.2%	24.8%	100.0%	

Of the 18,349 people who visited Hamilton to attend FWWC 2023, it is estimated that 7,721 stayed one or more nights in the region. The remaining visitors made day trips, predominantly from adjacent regions. This day tripping behaviour was primarily observed among spectators and volunteers.

**Table 33: Number of people who stayed overnight in Hamilton to attend FWWC 2023**

Source: Surveys of spectators and volunteers, FWWC 2023 stakeholder surveys and interviews

Attendee group	Domestic visitors	International visitors	TOTAL	Share
FIFA	32	57	89	1.2%
Teams	0	430	430	5.6%
Broadcast & media	31	299	330	4.3%
Volunteers	11	6	17	0.2%
Spectators	3,099	3,755	6,854	88.8%
<b>TOTAL</b>	<b>3,173</b>	<b>4,547</b>	<b>7,721</b>	<b>100.0%</b>
Share	41.1%	58.9%	100.0%	

The 7,721 people who stayed overnight in Hamilton to attend FWWC 2023 generated 15,034 visitor nights in the region. A visitor night is equivalent to one person staying one night in Hamilton in any form of private or commercial accommodation.

**Table 34: Number of visitor nights spent in Hamilton to attend FWWC 2023**

Source: Surveys of spectators and volunteers, FWWC 2023 stakeholder surveys and interviews

Attendee group	Domestic visitors	International visitors	TOTAL	Share
FIFA	75	1,208	1,283	8.5%
Teams	0	2,365	2,365	15.7%
Broadcast & media	59	694	752	5.0%
Volunteers	34	12	46	0.3%
Spectators	4,090	6,497	10,587	70.4%
<b>TOTAL</b>	<b>4,258</b>	<b>10,776</b>	<b>15,034</b>	<b>100.0%</b>
Share	28.3%	71.7%	100.0%	



On average, the 7,721 people who stayed overnight in Hamilton to attend FWWC 2023 spent an average of 1.9 nights in Hamilton. However, there was wide variance in average length of stay across attendee groups with attendees from the 'FIFA' segment staying the longest at 14.4 nights – compared with 1.5 nights for spectators.

**Table 35: Average length of stay in Hamilton per overnight visitor (nights)**

Source: Surveys of spectators and volunteers, FWWC 2023 stakeholder surveys and interviews

Attendee group	Domestic visitors	International visitors	TOTAL
FIFA	2.3	21.2	14.4
Teams	0.0	5.5	5.5
Broadcast & media	1.9	2.3	2.3
Volunteers	3.0	2.0	2.7
Spectators	1.3	1.7	1.5
<b>TOTAL</b>	<b>1.3</b>	<b>2.4</b>	<b>1.9</b>

Questions were included in the post-event surveys of spectators and volunteers to assess the impact of hosting FWWC 2023 on visitor perceptions of Hamilton as a place to live, visit and work. Respondents were asked how strongly they agreed with the statements presented in Table 36. The results showed that:

- 25% of visiting FWWC 2023 spectators and 5% of visiting volunteers agreed or strongly agreed that attending FWWC 2023 improved their perception of Hamilton as a place to live.
- 36% of visiting FWWC 2023 spectators and 35% of visiting volunteers agreed or strongly agreed that attending FWWC 2023 improved their perception of Hamilton as a place to visit.
- 19% of visiting FWWC 2023 spectators and 27% of visiting volunteers agreed or strongly agreed that attending FWWC 2023 improved their perception of Hamilton as a place to do business.

**Table 36: Impact of hosting FWWC 2023 on visitor perceptions**

Source: Post-event surveys of spectators and volunteers

Attending FWWC 2023 has improved my perception of Hamilton as.....	Spectators who agreed or strongly agreed	Volunteers who agreed or strongly agreed
A place to live	25%	5%
A place to visit	36%	35%
A place to do business	19%	27%



### 5.3 Additional expenditure in Hamilton attributable to FWWC 2023

This section estimates the amount of additional expenditure that occurred in Hamilton due to the hosting of FWWC 2023. Expenditure by Hamilton residents and businesses is not considered to be additional unless there is a high likelihood it would have been spent outside Hamilton in the absence of the event.

Additional expenditure was generated in Hamilton through two main channels:

1. The expenditure required to plan and deliver the event (Event Operations). This includes expenditure by central and local government agencies, and LFS New Zealand. LFS New Zealand’s expenditure was funded through various channels including ticketing revenue, sponsorship revenue, government funding, and direct investment by FIFA Zurich.
2. Expenditure in Hamilton by international FWWC 2023 attendees (International Visitors). This includes expenditure on traditional tourism goods and services (accommodation, meals, transport, retail shopping etc) as well as expenditure on big-ticket items and/or goods and services that were of a business nature or not for personal consumption.

The estimates of additional expenditure in Hamilton due to the hosting of FWWC 2023 are presented below.

#### 5.3.1 Event operations

Financial data provided by FIFA have been combined with expenditure data provided by central and local government agencies to construct the estimates in Table 37. These estimates show that \$193.7 million was spent on the planning and delivery of the New Zealand component of FWWC 2023, with \$18.8 million of this being spent in Hamilton.

Analysis of income sources shows that Hamilton was the source of \$5.0 million of the income required to fund this expenditure, so event operations resulted in a net inflow of expenditure to Hamilton of \$13.8 million (the difference between what it contributed to income and what it received in expenditure).

**Table 37: Additional expenditure in Hamilton attributable to FWWC 2023 event operations (\$m)**

Source: LFS New Zealand, relevant central and local government agencies

	Hamilton	Rest of New Zealand	Overseas	TOTAL
Source of event operations income	\$5.0	\$85.9	\$102.8	\$193.7
Destination of event operations expenditure	\$18.8	\$174.2	\$0.7	\$193.7
<b>Net inflow/outflow</b>	<b>\$13.8</b>	<b>\$88.3</b>	<b>-\$102.1</b>	<b>\$0.0</b>

#### 5.3.2 Visitors to Hamilton

The other major source of financial benefit for Hamilton was expenditure by visiting FWWC 2023 attendees. This included FIFA, teams, independent broadcast and media staff, volunteers, and spectators.

Total expenditure in Hamilton by visiting FWWC 2023 attendees was \$3.5 million. This included \$3.1 million on traditional tourism goods and services (accommodation, meals, transport, retail shopping etc) and \$0.4 million on goods and services that were of a business nature or not for personal consumption. Spectators were the largest source of expenditure in Hamilton at \$2.6 million (75.4% of total expenditure by visiting attendees), followed by FIFA at \$0.4 million (10.5%).





**Table 38: Additional expenditure in Hamilton by visiting FWWC 2023 attendees (\$m)**

Source: Surveys of spectators and volunteers, FWWC 2023 stakeholder surveys and interviews

Attendee group	Tourism goods & services	Non-tourism goods & services	TOTAL	Share
FIFA	\$0.1	\$0.3	\$0.4	10.5%
Teams	\$0.2	\$0.1	\$0.3	7.5%
Broadcast & media	\$0.2	\$0.0	\$0.2	6.3%
Volunteers	\$0.0	\$0.0	\$0.0	0.3%
Spectators	\$2.6	\$0.0	\$2.6	75.4%
<b>TOTAL</b>	<b>\$3.1</b>	<b>\$0.4</b>	<b>\$3.5</b>	<b>100.0%</b>
Share	89.9%	10.1%	100.0%	

## 5.4 Impact on Hamilton’s environment

This section presents indicators of the environmental impact of hosting FWWC 2023 including the amount and value of additional carbon emissions produced, and attendee perceptions of environmental performance. **FIFA had not published its carbon audit at the time of writing so the results in this section are best estimates based on available information and may be subject to change.**

### 5.4.1 Carbon emissions attributable to FWWC 2023

An unintended consequence of a major event like FWWC 2023 is the production of additional greenhouse gases through the travel, tourism, and operational activity they create. Research was conducted to measure the volume and monetary value of additional greenhouse gases caused by FWWC 2023 so they could be included in the cost-benefit analysis in Section 6.

Carbon dioxide (CO<sub>2</sub>) is the most prevalent greenhouse gas after water vapour and has therefore become the proxy measure for greenhouse gas emissions. However, CO<sub>2</sub> is only one of many greenhouse gases that are emitted when humans undertake certain activities.<sup>17</sup> To consider the emission of other greenhouse gases, scientists have developed a measure called carbon dioxide equivalent, or CO<sub>2</sub>e. CO<sub>2</sub>e allows other greenhouse gas emissions to be expressed in terms of CO<sub>2</sub>, based on their relative global warming potential (GWP) e.g., CO<sub>2</sub> has a GWP of 1 and methane has a GWP of approximately 25.

Some would argue that the cost of greenhouse gas emissions is already fully internalised in the prices paid for goods and services in New Zealand, because there is a market price for carbon established through New Zealand’s Emissions Trading Scheme. At the time of writing, the cost of one tonne of carbon was around NZ\$50.<sup>18</sup>

It is widely accepted that NZ\$50 per tonne is insufficient to cover the actual long-term cost of emitting an additional tonne of CO<sub>2</sub>e, otherwise referred to as the Social Cost of Carbon (SCC).<sup>19</sup> Work undertaken by the New Zealand government indicates that the SCC in 2023 was around \$93.<sup>20</sup>

<sup>17</sup> Other greenhouse gases are methane, nitrous oxide, and ozone – all of which occur naturally in the atmosphere.

<sup>18</sup> Based on the average price observed between 1 July 2023 and 15 August 2023.

<sup>19</sup> The SCC is an estimate, in dollars, of the economic damages that would result from emitting one additional ton of carbon dioxide into the atmosphere.

<sup>20</sup> Based on the central case and expressed in 2023-dollar terms.



This suggests that each additional tonne of carbon produced by FWWC 2023 imposed \$43 of unpriced detriment on society (the SCC of \$93 less the price paid of \$50). This figure was used to estimate the unpriced cost of additional carbon produced by the FWWC 2023.

It is important to note that the impacts of carbon production are not confined to the geographies in which the carbon is produced, i.e., carbon produced within Hamilton's geographic boundary has an impact beyond that boundary. The analysis therefore focused on estimating the total amount of additional CO<sub>2</sub>e produced by the New Zealand component of FWWC 2023 and allocating it on a pro rata basis to the four Host Regions based on ticket sales.

The volume of additional CO<sub>2</sub>e produced by FWWC 2023 was estimated in two stages:

1. Estimating the gross amount of CO<sub>2</sub>e produced by each attendee group in relation to FWWC 2023 based on various data sources including surveys, interviews, the Ministry for the Environment's (MfE's) emissions factors and general research. The approach involved translating specific event-related activities into relevant units (e.g., person kilometres travelled for transport-related activities, visitor nights for tourism-related activities, kWh of energy use etc) and then combining these with MfE's emissions factors (estimates of CO<sub>2</sub>e produced per unit of various activities) to estimate the total amount of CO<sub>2</sub>e produced.
2. Estimating the percentage of gross CO<sub>2</sub>e that can be considered 'additional', to avoid attributing emissions to FWWC 2023 that would have been produced anyway. There was no scientific way of doing this so reasonable assumptions were applied.

The results of the analysis show that FWWC 2023 attendees produced around 79,411 tonnes of CO<sub>2</sub>e across four activities:

- Event operations – the emissions created by the activities required to deliver the event, e.g., energy consumption and waste created at match venues and FFF sites.
- International transport – the emissions created by the transportation of event-related people and equipment to/from New Zealand.
- Domestic transport – the emissions created by the transportation of event-related people and equipment within New Zealand.
- Other activity – mainly the emissions created by FWWC 2023-related tourism activity, e.g., accommodation, meals, entertainment etc.

International transport was the largest source of CO<sub>2</sub>e due to the emissions caused by long-haul air travel.

Of the 79,411 tonnes of CO<sub>2</sub>e produced by FWWC 2023 attendees, it is estimated that 88% or 69,879 tonnes can be directly attributed to FWWC 2023. It is assumed that the remaining 12% would have been produced by FWWC 2023 attendees anyway through the everyday activities they would have undertaken had they not attended FWWC 2023 e.g., 'normal' living and tourism activities.

Applying the unpriced cost of CO<sub>2</sub>e of \$43 per tonne results in a total cost attributable to FWWC 2023 of \$3 million. Transport to/from New Zealand was the largest contributor to the \$3 million cost at \$2.58 million, followed by transport within New Zealand at \$0.31 million.



**Table 39: Production of CO2e by FWWC 2023 functional areas**

Source: FIFA, surveys of spectators and volunteers, FWWC 2023 stakeholder surveys and interviews, general research

Functional area	Tonnes of CO2e produced by FWWC 2023 attendees	Share of CO2e that is incremental	Tonnes of CO2e attributable to FWWC 2023	Cost per tonne of CO2e (unpriced)	Cost of CO2e attributable to FWWC 2023 (\$m)
Event operations	267	100%	267	\$43	\$0.01
Transport to/from NZ	60,063	100%	60,063	\$43	\$2.58
Transport within NZ	9,557	75%	7,168	\$43	\$0.31
Other	9,524	25%	2,381	\$43	\$0.10
<b>TOTAL</b>	<b>79,411</b>	<b>88%</b>	<b>69,879</b>	<b>\$43</b>	<b>\$3.00</b>

Segmenting carbon emissions by attendee group shows that spectators were the dominant source of carbon emissions. This was mainly due to transport-related carbon emissions.

**Table 40: Production of CO2e by FWWC 2023 attendee group**

Source: FIFA, surveys of spectators and volunteers, FWWC 2023 stakeholder surveys and interviews, general research

Attendee group	Tonnes of CO2e produced by FWWC 2023 attendees	Share of CO2e that is incremental	Tonnes of CO2e attributable to FWWC 2023	Cost per tonne of CO2e (unpriced)	Cost of CO2e attributable to FWWC 2023 (\$m)
FIFA	1,615	86%	1,384	\$43	\$0.06
Teams	3,628	83%	3,005	\$43	\$0.13
Broadcast & media	2,347	90%	2,105	\$43	\$0.09
Volunteers	122	63%	77	\$43	\$0.00
Spectators	71,699	88%	63,309	\$43	\$2.72
<b>TOTAL</b>	<b>79,411</b>	<b>88%</b>	<b>69,879</b>	<b>\$43</b>	<b>\$3.00</b>

#### 5.4.2 CO2e allocated to Hamilton

Around 8% of the CO2e attributable to FWWC 2023 has been allocated to Hamilton based on ticketing data provided by FIFA. This is equivalent to 5,578 tonnes of CO2e which has a net (unpriced) cost to society of \$0.24 million.

**Table 41: Allocation of CO2e costs across Host Regions**

Source: FIFA, surveys of spectators and volunteers, FWWC 2023 stakeholder surveys and interviews, general research

Host Region	Share of tickets	Tonnes of CO2e attributable to FWWC 2023	Cost per tonne of CO2e (unpriced)	Cost of CO2e attributable to FWWC 2023 (\$m)
Auckland	50%	34,651	\$43	\$1.49
Hamilton	8%	5,578	\$43	\$0.24
Wellington	32%	22,373	\$43	\$0.96
Dunedin	10%	7,277	\$43	\$0.31
<b>New Zealand</b>	<b>100%</b>	<b>69,879</b>	<b>\$43</b>	<b>\$3.00</b>



### 5.4.3 Satisfaction with environmental initiatives in Hamilton

Questions were included in the post-event surveys of spectators and volunteers to understand how satisfied respondents were with:

- Waste management initiatives in and around FWWC 2023 events in Hamilton
- Availability of low carbon options for transport to/from FWWC 2023 events in Hamilton
- Sustainability messaging in and around FWWC 2023 events in Hamilton

The results of this research showed that:

- 78% of spectators and 84% of volunteers were satisfied or very satisfied with waste management initiatives in and around FWWC 2023 events in Hamilton.
- 49% of spectators and 65% of volunteers were satisfied or very satisfied with the availability of low carbon options for transport to/from FWWC 2023 events in Hamilton.
- 57% of spectators and 71% of volunteers were satisfied or very satisfied with the sustainability messaging in and around FWWC 2023 events in Hamilton.

**Table 42: Satisfaction with environmental initiatives in Hamilton**

Source: Post-event surveys of spectators and volunteers

Environmental initiative	Spectators	Volunteers
Waste management initiatives in and around FWWC 2023 events	78%	84%
Availability of low carbon options for transport to/from FWWC 2023 events	49%	65%
Sustainability messaging in and around FWWC 2023 events	57%	71%

## 5.5 Media exposure for Hamilton

FWWC 2023 generated a significant amount of positive media exposure for Hamilton and New Zealand. Determining the value of media exposure is difficult because the true value depends on the long-term outcomes generated by the exposure. The traditional approach to media valuation involves estimating what it would cost to buy the same amount of coverage at retail prices using industry 'rate cards'. Multipliers are often applied to these rates based on the belief that 'earned' media is worth more than 'purchased' media (up to four times according to some practitioners). This approach, known as Equivalent Advertising Value (EAV), is convenient because it can be calculated in a transparent manner, but may not bear any resemblance to the actual outcomes delivered by the exposure because it is based on cost rather than benefit principles.

The media valuation methodology used in this evaluation involved estimating the expected future tourism benefits caused by the media exposure using a conversion-based approach which considered:

- the markets that the media exposure occurred in
- the underlying probability of someone in that market visiting Hamilton (based on observed pre-COVID-19 visitation/population ratios)
- the value of an additional visitor from that market to Hamilton (based on MBIE expenditure statistics)
- the extent to which the media coverage showcased Hamilton
- the level of viewer engagement with the content.

This approach is based on sales funnel logic which maps the steps involved in winning a new customer. The diagram below shows the progression from 'awareness' at the top of the funnel through to 'action' at the



bottom. In practice the top of the funnel (the number of people made aware of something) is generally much wider than the bottom of the funnel (the number of people who actually do something).

**Figure 9: The sales funnel**

Source: Mailmunch.com



**FIFA had not released its audience estimates for FWWC 2023 at the time of writing. The results in this section are therefore based on the dedicated audience estimates for FWWC 2019 in France, inflated by 25%, and will be updated when FIFA releases its dedicated audience estimates for FWWC 2023.** The dedicated audience includes those who watched live coverage, delayed coverage, or highlights of FWWC 2023 on television or through FWWC 2023’s digital channels.

The co-hosting arrangement effectively divided the tournament into a New Zealand component and an Australian component. Only the 16 teams that were based in New Zealand for the pool phase ended up playing matches in New Zealand i.e., no teams based in Australia travelled to New Zealand for pool phase or play-off matches. This had the effect of creating a sub-audience for matches played in New Zealand driven largely by the teams that were based here. A detailed analysis of viewership by market suggests that the sub-audience for matches played in New Zealand was around 597.5 million unique viewers.

The high quality, visual impact, and excitement of the media content generated by FWWC 2023 is expected to have raised awareness of, and interest in, Hamilton as a place to visit among this audience. This is likely to have the effect of growing visitation to Hamilton in future years. Using the conversion-based model described above, the net benefit of this future visitation to Hamilton is estimated to be \$1.4 million in 2023-dollar terms. This represents the value of additional tourism expenditure in Hamilton in the future caused by FWWC 2023 media exposure less the cost of the resources required to service the extra demand. This figure is included in the cost-benefit analysis in Section 6.

**Table 43: Value of FWWC 2023 media exposure to Hamilton**

Source: FIFA, Fresh Info Media Value Calculator

Market	Estimated audience (million)	Estimated value of media exposure to Hamilton (\$m)
New Zealand	2.5	\$0.0
Australia	2.4	\$0.2
Asia	154.5	\$0.3
Americas	220.5	\$0.5
UK & Europe	178.6	\$0.5
Rest of World	39.0	\$0.0
<b>TOTAL</b>	<b>597.5</b>	<b>\$1.4</b>



## 5.6 Avoided future costs for Hamilton

The investment by central and local government agencies in infrastructure to enable or support FWWC 2023 resulted in several planned maintenance projects or developments being brought forward. The full cost of FWWC 2023 infrastructure is included in the cost-benefit analysis, so any offsetting benefits (avoided future costs) need to be estimated and included in the analysis. A line-item analysis of the costs incurred by central and local government agencies revealed around \$0.9 million of avoided future costs in Hamilton due to planned maintenance projects or developments being brought forward. This is included as a benefit in the cost-benefit analysis in Section 6.

## 5.7 Hamilton resident non-attendees

Non-attendee benefits are benefits accruing to Hamilton residents who did not attend FWWC 2023, but nevertheless derived value from the event being hosted in New Zealand. The source of this value is personal and therefore difficult to define, but may include:

- enjoying the general atmosphere/vibrancy created by FWWC 2023
- knowing that people you care about had the ability to attend FWWC 2023, e.g., family and friends
- deriving a financial benefit from FWWC 2023, e.g., as the owner of a business directly or indirectly impacted by the event
- seeing familiar people and scenery in the television coverage
- knowing they could attend the event if they wanted to (option value)
- just knowing and appreciating that FWWC 2023 is being held in Hamilton (existence value).

A randomised online survey was conducted of 1,504 New Zealand residents who did not attend FWWC 2023 to learn more about their interest in FWWC 2023 and the importance of it being hosted in New Zealand. The following questions were used to collect this information:

- *Were you aware that New Zealand recently co-hosted the FIFA Women's World Cup 2023 with Australia?*
- *How would you describe your level of interest in the FIFA Women's World Cup 2023?*
- *New Zealand and Australia had to bid against other countries to co-host the FIFA Women's World Cup 2023. How important is it to you that New Zealand was chosen to co-host the FIFA Women's World Cup 2023?*
- *How strongly do you agree with the following statements?*
  - *The FIFA Women's World Cup 2023 has inspired me to increase my participation in football.*
  - *The FIFA Women's World Cup 2023 has increased the visibility of women's sport in New Zealand.*
  - *Hosting events like the FIFA Women's World Cup 2023 increases my pride in New Zealand.*
  - *Hosting events like the FIFA Women's World Cup 2023 makes New Zealand a more enjoyable place to live.*
  - *It is important to continue supporting and showcasing women's sport in New Zealand.*

The resulting data was segmented by home region to estimate the non-attendee benefits accruing to Hamilton residents.



### 5.7.1 Awareness of FWWC 2023 among non-attendees

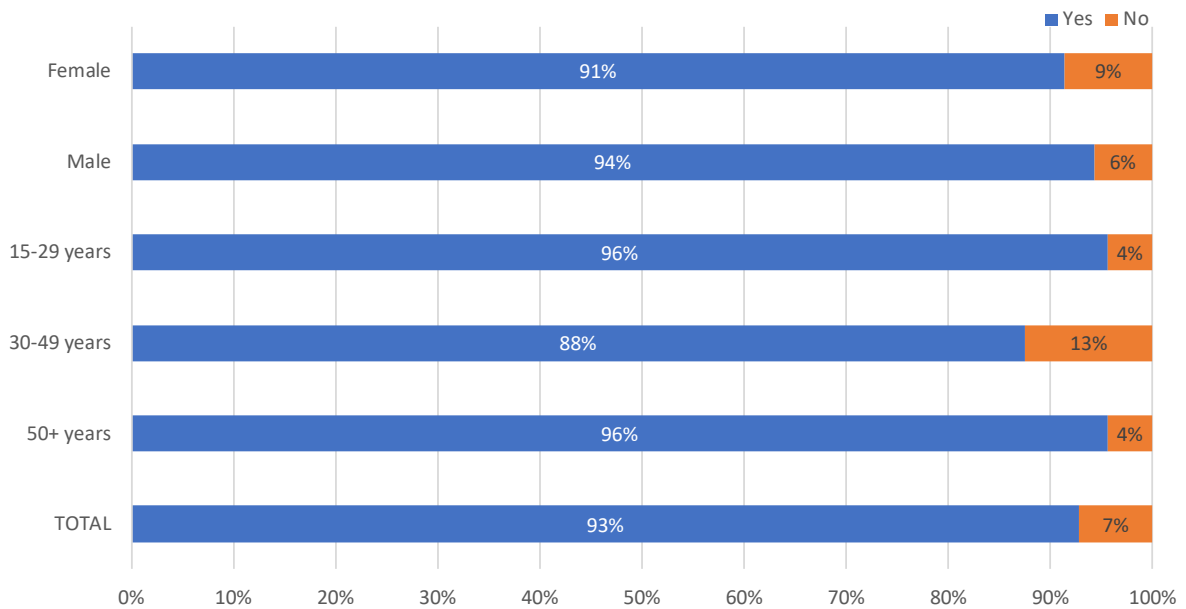
**Research question: Were you aware that New Zealand recently co-hosted the FIFA Women's World Cup 2023 with Australia?**

The results of the non-attendee survey showed that:

- Around 93% of respondents from Hamilton reported being aware that New Zealand recently co-hosted the FWWC 2023 with Australia.
- Awareness was highest amongst:
  - Males (94% awareness)
  - Those aged 50 years or older (96% awareness).

**Figure 10: Awareness of FWWC 2023 among non-attendees**

Source: Survey of FWWC 2023 non-attendees





## 5.7.2 Level of interest in the FWWC 2023 among non-attendees

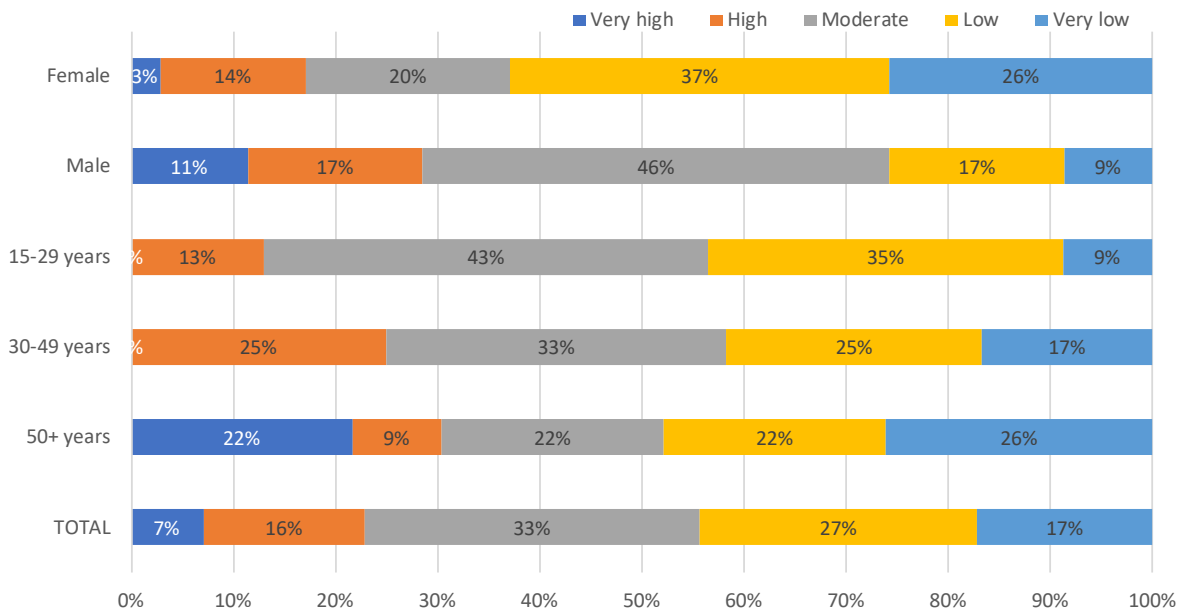
**Research question: How would you describe your level of interest in the FIFA Women's World Cup 2023?**

The results of the non-attendee survey showed that:

- Around 23% of respondents from Hamilton reported having 'high' or 'very high' levels of interest in the FWWC 2023.
- Interest in the FWWC 2023 was highest amongst:
  - Males (28% high or very high levels of interest)
  - Those aged 50 years or older (31% high or very high levels of interest).

**Figure 11: Level of interest in the FWWC 2023 among non-attendees**

Source: Survey of FWWC 2023 non-attendees







### 5.7.3 Importance to non-attendees of New Zealand co-hosting the FWWC 2023

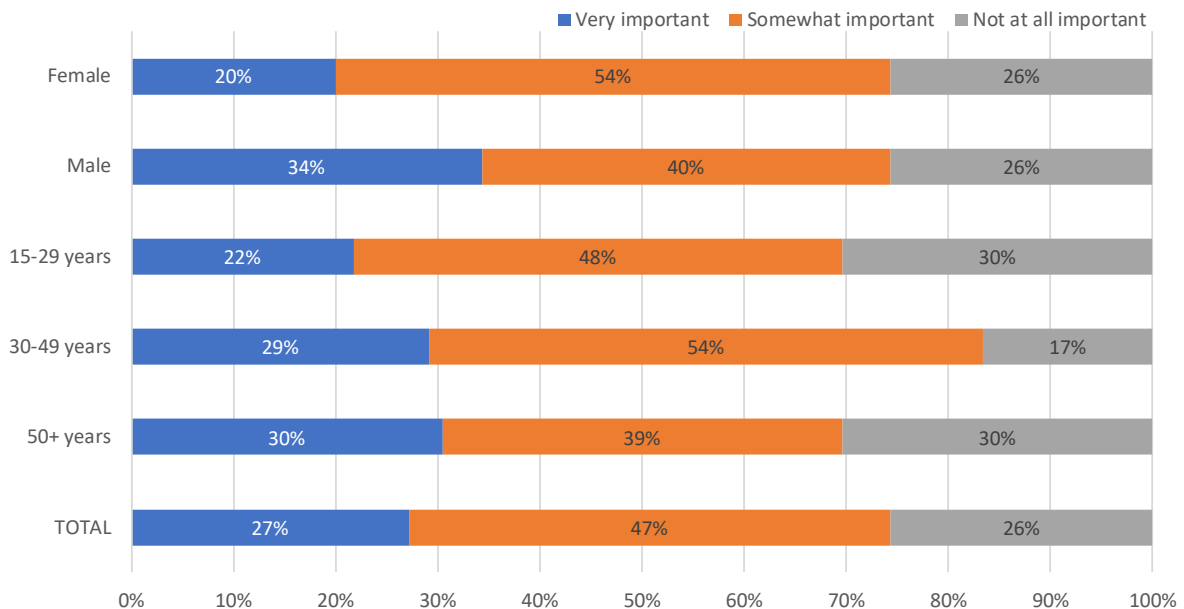
**Research question: New Zealand and Australia had to bid against other countries to co-host the FIFA Women's World Cup 2023. How important is it to you that New Zealand was chosen to co-host the FIFA Women's World Cup 2023?**

The results of the non-attendee survey showed that:

- Around 27% of respondents from Hamilton thought it was 'very important' for New Zealand to co-host the FWWC 2023, 47% thought it was 'somewhat important', and 26% thought that it was not at all important.
- The perceived importance of co-hosting the FWWC 2023 in New Zealand was highest amongst:
  - Males (74% somewhat important or very important)
  - Those aged 30-49 years of age (83% somewhat important or very important).

**Figure 12: Importance to non-attendees of New Zealand co-hosting the FWWC 2023**

Source: Survey of FWWC 2023 non-attendees





### 5.7.4 Potential impact of co-hosting the FWWC 2023 on football participation

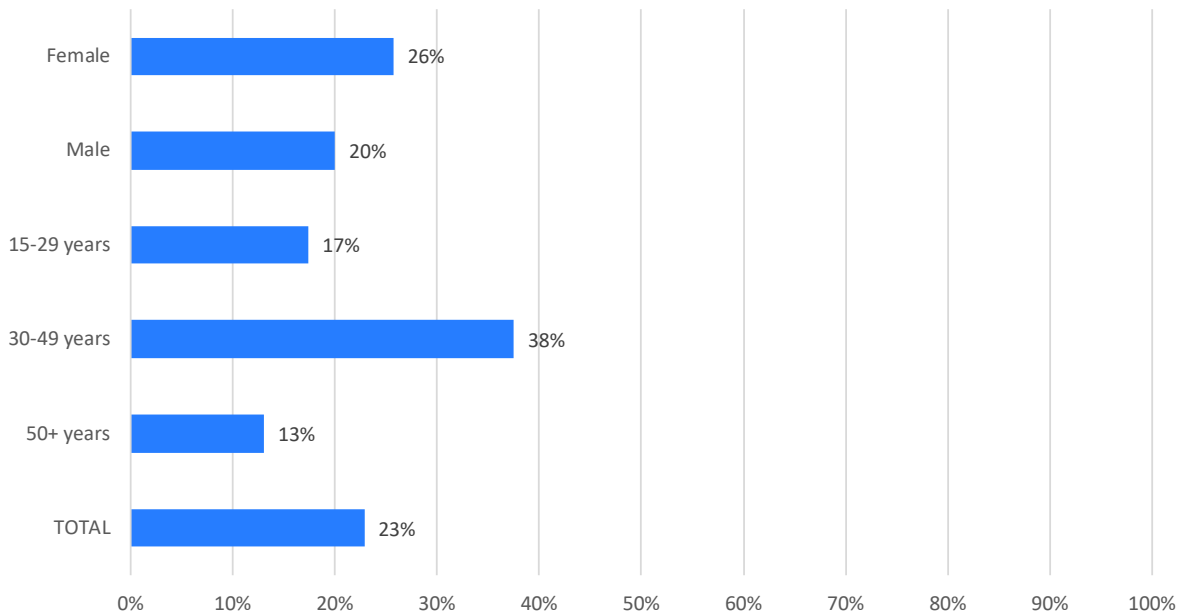
**Research question: How strongly do you agree with the following statement? The FIFA Women's World Cup 2023 has inspired me to increase my participation in football.**

The results of the non-attendee survey showed that:

- Around 23% of respondents from Hamilton agreed or strongly agreed that co-hosting the FWWC 2023 in Hamilton had inspired them to increase their participation in football.
- The intention to increase participation in football was highest amongst:
  - Females (26% agreed or strongly agreed)
  - Those 30-49 years of age (38% agreed or strongly agreed).

**Figure 13: Share of respondents who agree that FWWC 2023 has inspired them to increase their participation in football**

Source: Survey of FWWC 2023 non-attendees





### 5.7.5 Impact of co-hosting FWWC 2023 on visibility of women's sport in Hamilton

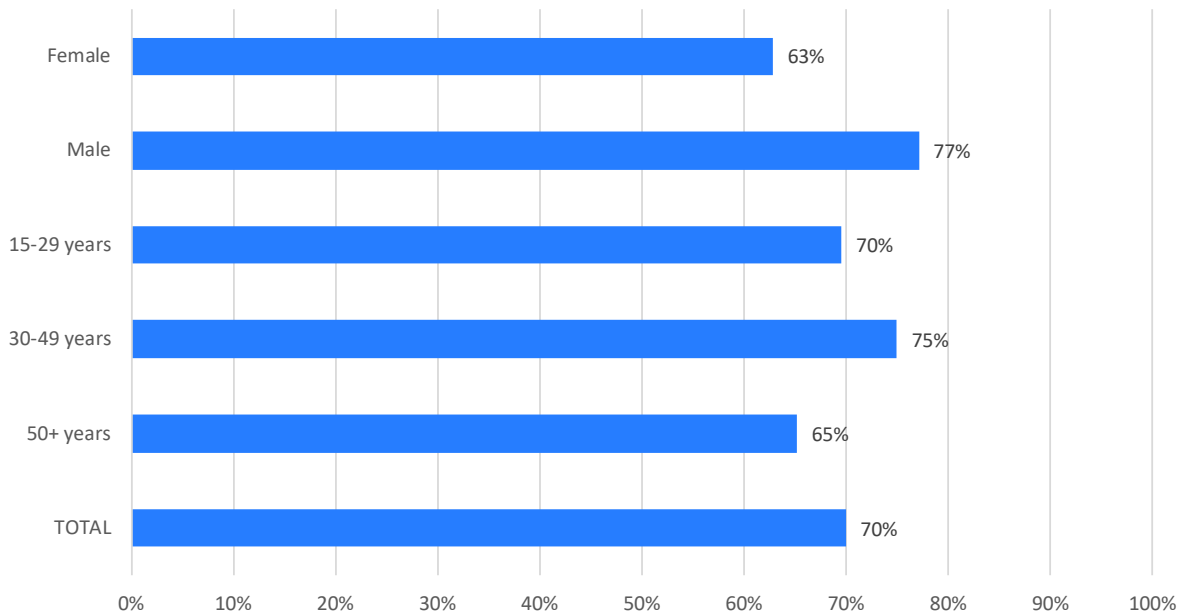
**Research question: How strongly do you agree with the following statement? The FIFA Women's World Cup 2023 has increased the visibility of women's sport in New Zealand.**

The results of the non-attende survey showed that:

- Around 70% of respondents from Hamilton agreed or strongly agreed that co-hosting the FWWC 2023 in New Zealand had increased the visibility of women's sport in New Zealand.
- The perception of increased visibility was highest amongst:
  - Males (77% agreed or strongly agreed)
  - Those aged 30-49 years of age (75% agreed or strongly agreed).

**Figure 14: Share of respondents who agree that FWWC 2023 has increased the visibility of women's sport in New Zealand**

Source: Survey of FWWC 2023 non-attendees





### 5.7.6 Impact of co-hosting FWWC 2023 on national pride

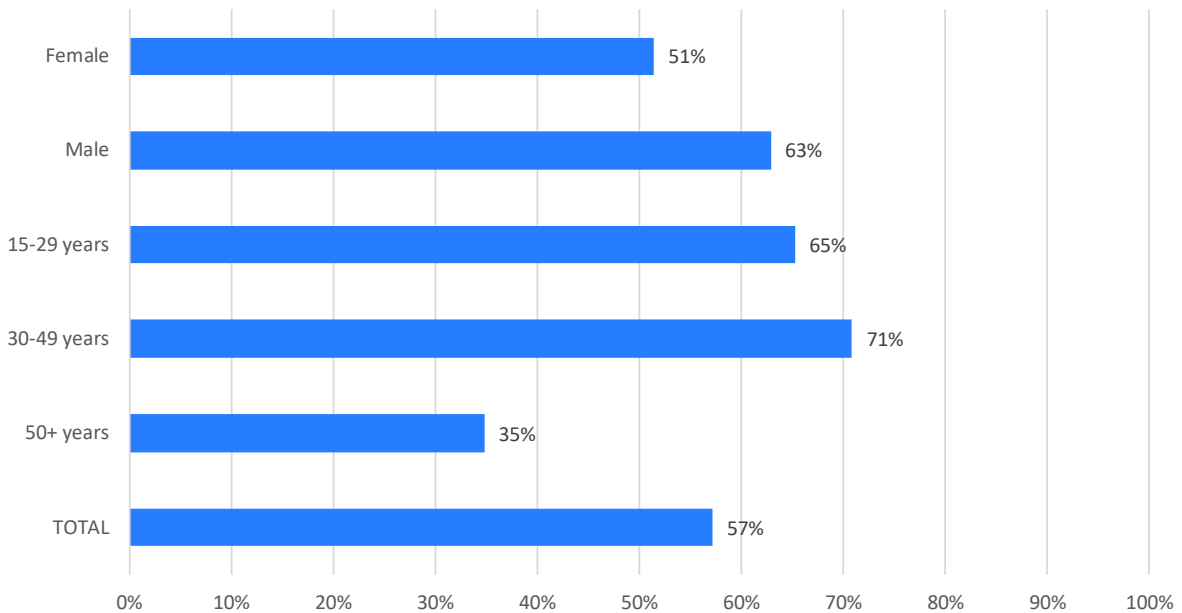
**Research question: How strongly do you agree with the following statement? Hosting events like the FIFA Women's World Cup 2023 increases my pride in New Zealand.**

The results of the non-attende survey showed that:

- Around 57% of respondents from Hamilton agreed or strongly agreed that co-hosting events like the FWWC 2023 in New Zealand increases their pride in New Zealand.
- The increase in national pride was highest amongst:
  - Males (63% agreed or strongly agreed)
  - Those 30-49 years of age (71% agreed or strongly agreed).

**Figure 15: Share of respondents who agree that hosting events like FWWC 2023 increases their pride in New Zealand**

Source: Survey of FWWC 2023 non-attendees





### 5.7.7 Impact of co-hosting FWWC 2023 on liveability

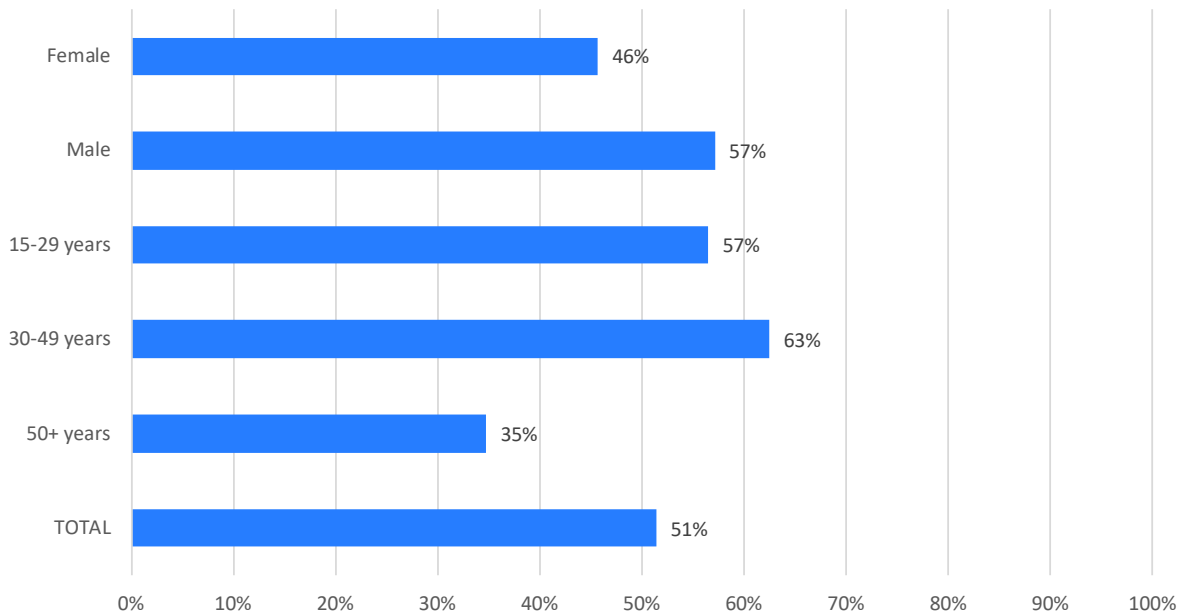
**Research question: How strongly do you agree with the following statement? Hosting events like the FIFA Women's World Cup 2023 makes New Zealand a more enjoyable place to live.**

The results of the non-attende survey showed that:

- Around 51% of respondents from Hamilton agreed or strongly agreed that co-hosting events the FWWC 2023 in New Zealand makes New Zealand a more enjoyable place to live.
- The perceived increase in liveability was highest amongst:
  - Males (57% agreed or strongly agreed)
  - Those aged 30-49 years (63% agreed or strongly agreed).

**Figure 16: Share of respondents who agree that hosting events like FWWC 2023 makes New Zealand a more enjoyable place to live**

Source: Survey of FWWC 2023 non-attendees





### 5.7.8 Importance of continuing to support and showcase women's sport in Hamilton

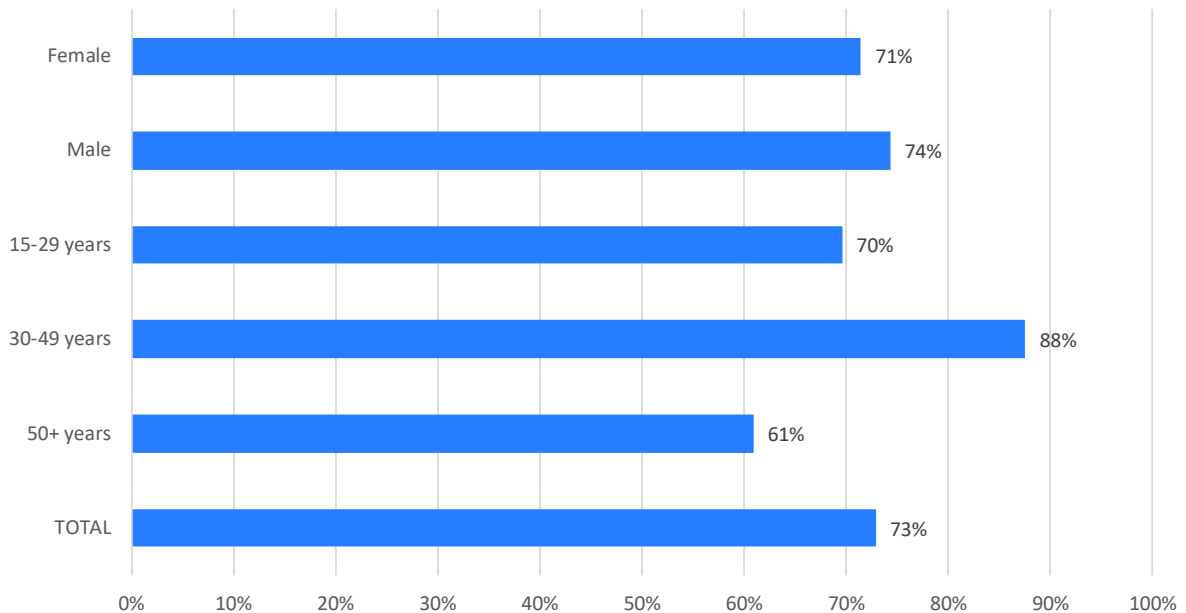
**Research question: How strongly do you agree with the following statement? It is important to continue supporting and showcasing women's sport in New Zealand.**

The results of the non-attendee survey showed that:

- Around 73% of respondents agreed or strongly agreed that it is important to continue supporting and showcasing women's sport in New Zealand.
- The perceived importance was highest amongst:
  - Males (74% agreed or strongly agreed)
  - Those aged 30-49 years (88% agreed or strongly agreed).

**Figure 17: Share of respondents who agree that it is important to continue supporting and showcasing women's sport in New Zealand**

Source: Survey of FWWC 2023 non-attendees





### 5.7.9 Value to non-attendees

These results indicate that many Hamilton residents who did not attend FWWC 2023 still retained a high level of interest in the event and assigned a reasonable level of importance to New Zealand winning the right to co-host FWWC 2023 with Australia. This provides strong evidence of an underlying value to some Hamilton residents of hosting FWWC 2023, even though they did not attend the event. The following question was included in the survey of non-attendees to estimate this value:

- *We are interested in understanding how much personal value you gained from the FIFA Women’s World Cup 2023 being co-hosted in New Zealand. This value may have been driven by the opportunity to participate in the event, and/or the feeling of pride you got from knowing it was being co-hosted in New Zealand. Please answer the following question to help us with this. **What is the maximum amount of money you would personally be willing to contribute to host a future FIFA Women’s World Cup event in New Zealand?***

The responses to this question allowed us to estimate the percentage of Hamilton resident non-attendees that would be willing to pay something to host a future FWWC 2023 in New Zealand, as well as the average amount of money those people would be willing to pay. Combining these findings with previous results indicates that around 85,345 Hamilton resident non-attendees would be willing to pay an average of \$30.7<sup>21</sup> each to host a future FWWC 2023 in New Zealand, while the remaining 83,714 non-attendees would be willing to pay nothing. The total non-attendee value for Hamilton residents is therefore estimated to be \$2.6 million (85,345 x \$30.6). This figure is included in the cost-benefit analysis in Section 6.

**Table 44: Count of FWWC 2023 attendees and non-attendees**

Source: Surveys of spectators and volunteers, FWWC 2023 stakeholder surveys and interviews, Statistics NZ

	Hamilton residents
FWWC 2023 attendees	10,841
FWWC 2023 non-attendees	169,059
<b>TOTAL</b>	<b>179,900</b>

**Table 45: Willingness to pay of Hamilton resident non-attendees to host a future FWWC in New Zealand**

Source: Survey of FWWC 2023 non-attendees

	Number of Hamilton residents	Average willingness to pay per resident	Total willingness to pay to host a future FWWC event in NZ
Willing to pay to host a future FWWC event in NZ	85,345	\$30.7	\$2.6
Not willing to pay to host a future FWWC event in NZ	83,714	\$0.0	\$0.0
<b>TOTAL</b>	<b>169,059</b>	<b>\$15.5</b>	<b>\$2.6</b>

<sup>21</sup> This value is 70% of the value derived from survey responses to control for the likely delta between notional and actual willingness to pay.



## 5.8 Cultural outcomes

Having a strong Māori cultural theme running through FWWC 2023 was a shared objective between LFS New Zealand, MBIE, Host Cities, and mana whenua. A key feature of this intent was the adoption of dual (English with Reo and First Nations) naming of the host cities and countries for the first time in a FIFA event. This was evident across all major touchpoints including stadia, FFF sites, and media content delivered to domestic and international audiences. More generally, cultural diversity and inclusion were key pillars of FIFA’s sustainability platform and FIFA is expected to publish its own report on the initiatives within its programme and the outcomes observed in late 2023 or early 2024. These initiatives were funded by various central and local government agencies and are incorporated in the costs reported in Section 3.4.

To evaluate the effectiveness of these initiatives, questions were included in the post-event surveys of spectators and volunteers to determine whether respondents felt there was a strong Māori cultural theme within the event.

The survey results showed that 74% of respondents who attended a FWWC 2023 event in Hamilton, and 73% of respondents who volunteered in Hamilton, felt there was a strong Māori cultural theme running through the event.

**Table 46: Awareness of Māori cultural themes within the event**

Source: Post-event surveys of spectators and volunteers

	Spectators	Volunteers
Share who felt there was a strong Māori cultural theme within the event	74%	73%

## 5.9 Legacy benefits for Hamilton of hosting FWWC 2023

Legacy benefits are long-term benefits that extend well beyond the event period. The legacy of co-hosting FWWC 2023 was an important consideration for central and local government stakeholders during the due diligence and planning phases.

Some of the legacy benefits of co-hosting FWWC 2023 are immediately visible and highly certain, such as the upgrades to stadiums and sports facilities, while others are less visible (e.g., changes in perceptions regarding women’s sport) or certain (e.g., changes in football participation rates).

Discussions with key FWWC 2023 stakeholders including FIFA, Sport NZ, New Zealand Football, and Hamilton City Council have identified a range of actual or expected legacy benefits that can be organised under the following headings:

- Visibility and perception of women’s sport in New Zealand and Hamilton
- Football outcomes in Hamilton
- Infrastructure outcomes in Hamilton
- Event delivery capability in Hamilton
- Research capability

The specific actual or expected legacy benefits are described below.





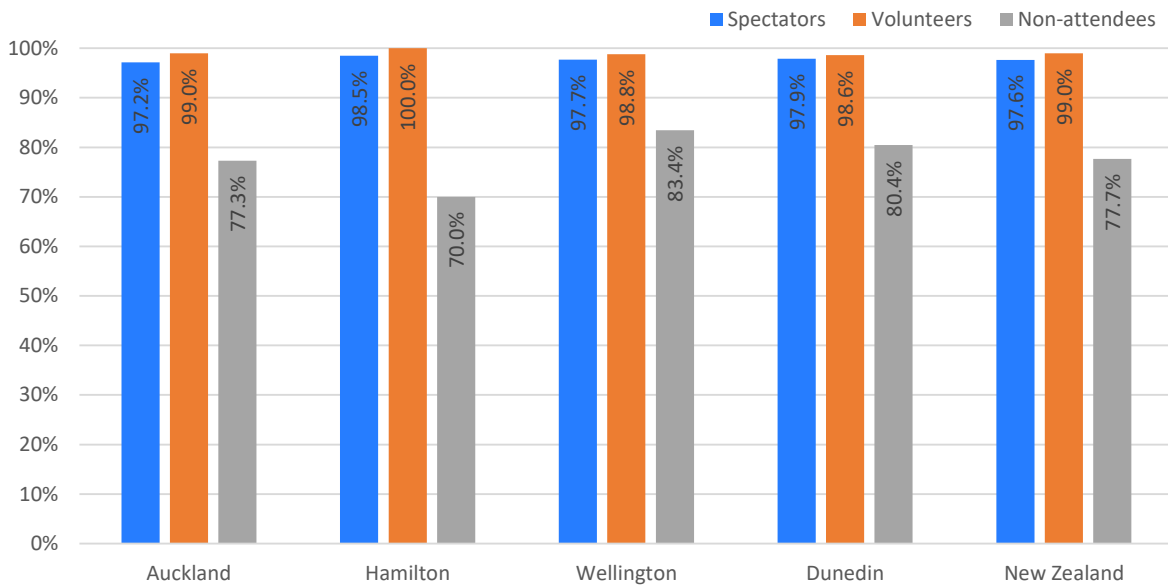
### 5.9.1 Visibility and perception of women’s sport in New Zealand and Hamilton

A key government objective of co-hosting the FWWC 2023 was “increasing the visibility of, and value placed on, women in sport and wider society”.<sup>22</sup> Evidence from post-event surveys of spectators, volunteers, and non-attendees indicates that this objective was achieved:

- 99% of spectators, 100% of volunteers, and 70% of non-attendees felt that FWWC 2023 increased the visibility of women’s sport in New Zealand.
- 86% of spectators and 90% of volunteers felt that FWWC 2023 had improved their understanding and appreciation of women’s sport.

**Figure 18: Share of respondents who agreed or strongly agreed that “FWWC 2023 has increased the visibility of women’s sport in New Zealand”**

Source: Post-event surveys of spectators, volunteers, and non-attendees

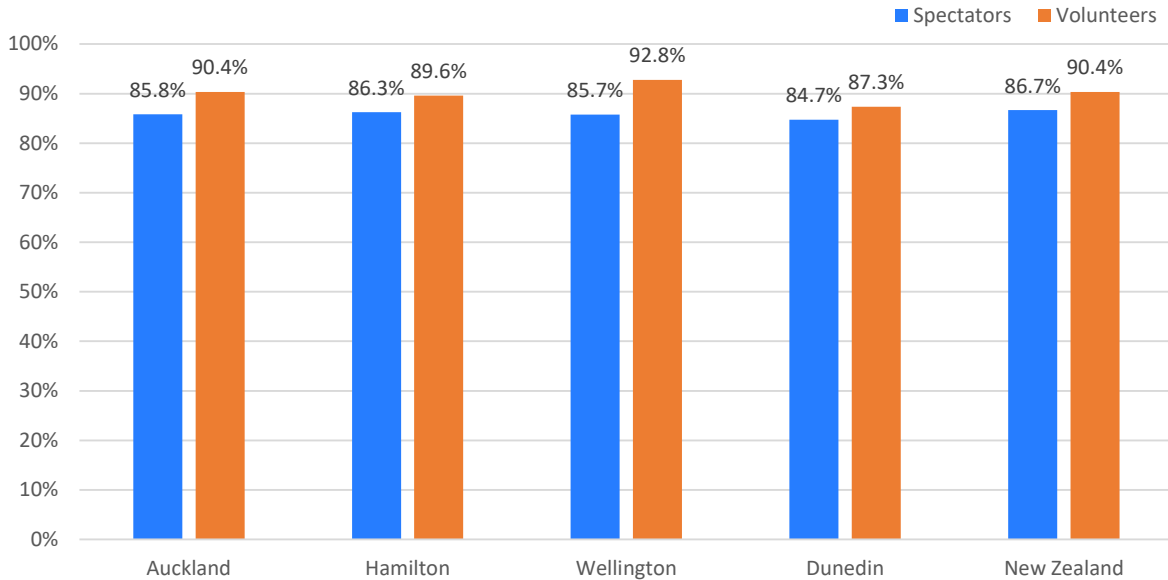


<sup>22</sup> Puawananga Outcomes Framework, Maximizing the impacts and benefits of FIFA Women’s World Cup 2023 for Aotearoa New Zealand.



**Figure 19: Share of respondents who agreed or strongly agreed that “FWWC 2023 has improved my understanding and appreciation of women’s sport”**

Source: Post-event surveys of spectators, volunteers, and non-attendees



Independent research conducted by Sport NZ also found evidence of greater public awareness, interest and engagement in women’s sport following New Zealand’s co-hosting of the FWWC 2023.

Sport NZ conducted baseline research in June 2022 which showed that awareness of female athletes was significantly lower than comparable male athletes, particularly in team sports. It also showed that the more visible female athletes were, the more New Zealanders were likely to know them by name, follow their journeys and become fans.

The research was repeated in August 2023 to understand how sentiment has changed since June 2022. This year’s research shows that viewership of women’s sport has grown by 29%, with the Rugby and Football World Cups generating significant interest for each sport, national team, and athletes.

Other key findings include:

- 45% of existing sports fans are watching women’s sport, up from 35% in 2022.
- The marketability of female athletes and teams has risen by 21%, driven by increased awareness.
- 87% of New Zealanders heard or saw something about the FWWC 2023, with nearly 60% watching a game during the tournament.
- Following the FWWC 2023, over half of New Zealand indicated they were more interested in women’s football.
- 50% of New Zealanders said they had recently advocated for or encouraged others to watch women’s sport, up from 38% in 2022.
- Significantly more New Zealanders perceive women’s sport as exciting (27% up from 21%) and having a positive influence on society (36% up from 31%).
- Three women’s national teams are now in the top 5 for popularity (up from only one in 2022).

The infographic that Sport NZ released with this research is provided in Appendix 2.



It is important to note that the FWWC 2023 was the third of three women's world cup events hosted in New Zealand in an 18-month period, following the successful delivery of the 2022 ICC Women's Cricket World Cup in March/April 2022<sup>23</sup> and Rugby World Cup 2021 in October/November 2022<sup>24</sup>. Hosting these three events in quick succession was a deliberate strategy to elevate women's sport in New Zealand and provide a platform for gender equality in sport and society more generally. While the results in this evaluation relate primarily to FWWC 2023, they are likely to be influenced by the successful delivery of previous women's world cup events and other gender equality initiatives in New Zealand.

The long-term legacy of these visibility and perception impacts will depend on the extent to which they are leveraged and built upon, but are likely to include:

- Greater respect for women's sport, and women generally
- Improved attitudes towards women's sport at all levels of competition
- More resources being directed towards women's sport by government agencies and national sports organisations
- Women's sport becoming a stronger proposition for media, broadcasters, and commercial sponsors
- Higher levels of participation in women's sport, leading to better social, cultural, and health outcomes for women

### 5.9.2 Football outcomes in Hamilton

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Co-hosting the FWWC 2023 showcased not only women's football in New Zealand, but football more generally. Matches were attended or watched on television by a large, diverse, engaged, and highly satisfied audience. Among other things, the enjoyment and goodwill surrounding FWWC 2023 has resulted in greater awareness of, and interest in, football in New Zealand and Hamilton.

The results of the non-attendee survey indicate that 23% of respondents who live in Hamilton reported being inspired by FWWC 2023 to increase their participation in football. While actual changes in participation are likely to be lower than intended changes (not all intentions come to fruition), it is likely that the changes in awareness and perception created by the FWWC 2023 will have long-term benefits for football in Hamilton at social, club, and high-performance levels.

Early evidence of these benefits will not be available until early/mid 2024 when registrations for the 2024 club season are complete. Regular monitoring thereafter will determine the extent to which co-hosting FWWC 2023 has caused a step-change in the number and composition of people playing football in Hamilton.

### 5.9.3 Infrastructure outcomes in Hamilton

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Significant investments were made in stadium and football club infrastructure in Hamilton to comply with FIFA's requirements. This included improvements to playing surfaces and clubrooms, and major upgrades to changing rooms to comply with FIFA's strict gender equality standards. Many of these changes will be long-lived, resulting in better facilities for football clubs and safer and more appropriate environments for women. The following facilities benefitted from FWWC 2023 upgrades:

- Waikato Stadium (FMG Stadium)
- Porritt Park

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<sup>23</sup> Originally scheduled for February/March 2021 but moved to March/April 2022 due to COVID-19.

<sup>24</sup> Originally scheduled for October/November 2021 but moved to October/November 2022 due to COVID-19.



#### 5.9.4 Event delivery capability in Hamilton

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The FWWC 2023 was one of the largest and most complex sports events ever hosted in Hamilton. The Hamilton components of the event were largely planned and delivered by Hamilton residents, many of whom were drawing on previous major event experience, but also being exposed to new systems and processes that could be applied to future events.

The knowledge and experience gained from hosting the FWWC 2023 will enhance Hamilton's major event capacity and capability, and the success of the event will enhance Hamilton's reputation as a safe and capable host for global events.

#### 5.9.5 Research capability

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Several innovations have been developed within the post-event evaluation process that could be applied to future major events:

- **Development of a shared research platform.** Five government stakeholders had an interest in the outcomes of hosting FWWC 2023 – MBIE, Auckland Council, Hamilton City Council, WellingtonNZ, and Dunedin City Council. The typical approach would be for each stakeholder to commission its own research, resulting in duplication of effort, inconsistent methods, high respondent burden, and high overall cost. The approach for FWWC 2023 was to design a single research platform that met the evaluation needs of all government stakeholders. This involved the development of data collection tools that collected national data (to meet MBIE's evaluation requirements) and regional data (to meet Host City requirements) and was facilitated by a mixed funding model which is described below. This approach delivered consistent data for all government stakeholders and ensured that data only had to be collected once from each respondent group. The system of data collection tools developed for the FWWC 2023 is presented in a separate document entitled "Research Plan for FIFA Women's World Cup 2023".
- **Development of a mixed funding model.** The shared research plan described above was facilitated by a mixed funding model whereby MBIE contracted with the research provider to deliver a national evaluation and each Host City contracted independently with the research provider to deliver an evaluation for their region. The contract with MBIE covered the development of a research platform to meet national evaluation requirements. This allowed the Host City contracts to be priced on a marginal cost basis i.e., regions only had to pay for additions to the research platform to meet their evaluation needs. This approach resulted in much lower costs for Host Cities relative the alternative of commissioning stand-alone research.
- **Development of new survey techniques.** Collecting enough data to support a national evaluation and four regional evaluations is challenging both from a survey design perspective, and in terms of respondent burden. Most data collection forms are designed for single-destination events and can't be easily scaled to accommodate multiple Host Cities. New data collection forms therefore had to be developed for FWWC 2023 that collected the necessary data points in the most efficient way possible. This involved the use of innovative logic flows and question structures that haven't previously been used in New Zealand. The data collection forms developed for FWWC 2023 are presented in a separate document entitled "Research Plan for FIFA Women's World Cup 2023". These forms are in the public domain and could be applied to future events involving multiple Host Cities.



## 6 Cost-benefit analysis

This section uses the results reported in previous sections to conduct a cost-benefit analysis for Hamilton. The cost-benefit analysis has been designed to estimate the value of the resources consumed by FWWC 2023, including opportunity costs when market prices are not available. Benefits have also been estimated at an overall level so that the gross benefit can be subtracted from the gross cost to reveal the net benefit. This approach ensures that the full cost of the event is considered while also producing an accurate benefit-cost ratio (gross benefit divided by gross cost). All costs and benefits presented in this section are expressed in 2023-dollar terms.

### 6.1 Monetised costs and benefits to Hamilton

The analysis presented in this section focuses on the costs and benefits to Hamilton that can be monetised. Efforts have been made to monetise as many of the costs and benefits as possible to ensure that financial effects have the same standing as non-financial effects (social, cultural, and environmental) in the overall evaluation process. Material effects that have not been monetised are also noted in Section 6.2.

The **gross monetised cost** in the analysis represents the total value of financial and non-financial resources in Hamilton consumed by FWWC 2023. This includes:

- 100% of local government investment in FWWC 2023 infrastructure and operating expenses. The resulting investment has been inflated by 20% to reflect deadweight loss, as per Treasury guidelines.
- Around 3.5% of central government investment in FWWC 2023 infrastructure and operating expenses. The resulting investment has been inflated by 20% to reflect deadweight loss, as per Treasury guidelines.
- Event attendee cost – the value of the time and money invested in the event by Hamilton resident attendees.
- Business costs – the value of the resources required to service additional demand in Hamilton caused by FWWC 2023.
- Carbon cost – the unpriced cost of the additional CO<sub>2</sub>e that can be attributed to FWWC 2023.

The **gross monetised benefit** in the analysis represents the total value that accrued to Hamilton businesses and consumers due to the hosting FWWC 2023. This includes:

- Event attendee benefit – the gross social value accruing to Hamilton resident event attendees, which is equivalent to the event attendee cost plus the consumer surplus derived from their investment of time and money.
- Business benefits – the value of additional business demand (revenue) for Hamilton businesses caused by FWWC 2023.
- Media benefits – the value of the media exposure generated by FWWC 2023 to Hamilton. This is based on the estimated value of future tourism flows caused by the exposure and therefore represents an “outcomes” driven value rather than a traditional “Equivalent Advertising Value”.
- Non-attendee benefits – the gross social value accruing to Hamilton resident non-attendees, delivered through option values, existence values, and national pride.
- Avoided future costs – the value of the planned infrastructure projects in Hamilton that were brought forward because of FWWC 2023. These offset some of the government costs attributable to FWWC 2023.



The cost-benefit analysis for Hamilton has identified a gross monetised cost of **\$19.6 million** and a gross monetised benefit of **\$26 million**. The net monetised benefit is therefore **\$6.4 million** and the benefit-cost ratio (gross benefit divided by gross cost) is **1.33**. This means that every \$1 of cost incurred by Hamilton returned a benefit of \$1.33 (a net benefit of \$0.33 per dollar).

**Table 47: Monetised costs and benefits to Hamilton of hosting FWWC 2023**

Source: All sources listed in Table 11 in Section 2.2

Measure	Value (\$m)	Description
Government costs	\$5.0	Local government expenditure + population share of central government expenditure
Public funds cost	\$1.0	Redistribution of public funds cost @ 20% as per Treasury guidelines
Event attendee costs	\$2.1	Value of time and money devoted to FWWC 2023 by attendees
Business costs	\$11.3	Value of the resources consumed by businesses to service the additional demand caused by FWWC 2023
Carbon costs	\$0.2	Value of unpriced carbon production attributable to FWWC 2023
Other costs	\$0.0	Other monetised costs
<b>Total cost</b>	<b>\$19.6</b>	<b>Total gross cost generated by FWWC 2023</b>
Event attendee benefits	\$3.1	Social value to FWWC 2023 attendees (event attendee cost + estimated consumer surplus)
Business benefits <sup>25</sup>	\$17.8	Value of additional business demand (revenue) caused by FWWC 2023
Media benefits	\$1.4	Value of media exposure generated by FWWC 2023 (estimated future value of tourism generated)
Non-attendee benefits	\$2.6	Social value accruing to non-attendees (option value/existence value/national pride)
Avoided future costs	\$0.9	Avoided future infrastructure costs due to projects being brought forward for FWWC 2023
Other benefits	\$0.1	Other monetised benefits
<b>Total benefit</b>	<b>\$26.0</b>	<b>Total gross benefit generated by FWWC 2023</b>
<b>Net benefit</b>	<b>\$6.4</b>	<b>Total benefit less total cost</b>
<b>Benefit-cost ratio</b>	<b>1.33</b>	<b>Total benefit divided by total cost</b>

## 6.2 Non-monetised costs and benefits to Hamilton

The following impacts are noted as non-monetised costs or benefits to Hamilton and New Zealand of hosting FWWC 2023. Additional details are provided in Section 5.9.

- **Visibility and perception of women’s sport in Hamilton and New Zealand.** A key government objective of co-hosting the FWWC 2023 was “increasing the visibility of, and value placed on, women in sport and wider society”. Evidence from post-event surveys of spectators, volunteers, and non-attendees indicates that this objective was achieved. The long-term legacy of these visibility and perception impacts will depend on the extent to which they are leveraged and built upon in future years.

<sup>25</sup> Includes 10% of event income sourced from, and spent in, Hamilton, as per MBIE’s event evaluation guidelines.



- **Infrastructure outcomes.** Significant investments were made in stadium and football club infrastructure in Hamilton to comply with FIFA's requirements. Many of these changes will be long-lived, resulting in better facilities for football clubs and safer and more appropriate environments for women. The following facilities benefitted from FWWC 2023 upgrades:
  - Waikato Stadium (FMG Stadium)
  - Porritt Park
- **Football outcomes.** Co-hosting the FWWC 2023 showcased not only women's football in Hamilton and New Zealand, but football more generally. Survey results indicate that around 23% of Hamilton residents were inspired by FWWC 2023 to increase their participation in football. While actual changes in participation are likely to be lower than intended changes (not all intentions come to fruition), it is likely that the changes in awareness and perception created by the FWWC 2023 will have long-term benefits for football in Hamilton at social, club, and high-performance levels. Early evidence of these benefits will not be available until early/mid 2024 when registrations for the 2024 club season are complete.
- **Event delivery capability.** Co-hosting the FWWC 2023 was one of the largest and most complex sports events ever hosted in Hamilton. The knowledge and experience gained from hosting the FWWC 2023 will enhance Hamilton's major event capacity and capability, and the success of the event will enhance Hamilton's reputation as a safe and capable host for global events.
- **Research capability.** Several innovations were developed within the post-event evaluation process for FWWC 2023 that could be applied to future major events:
  - **Development of a shared research platform.** A single research platform was designed to meet the evaluation requirements of five government stakeholders: MBIE, Auckland Council, Hamilton City Council, WellingtonNZ, and Dunedin City Council. The resulting system of data collection tools is presented in a separate document entitled "Research Plan for FIFA Women's World Cup 2023".
  - **Development of a shared funding model.** The research platform described above was facilitated by a shared funding model whereby MBIE contracted with the research provider to deliver a national evaluation and each Host City contracted independently with the research provider to deliver an evaluation for their region. This approach resulted in much lower costs for all government stakeholders relative the alternative of commissioning stand-alone research.
  - **Development of new survey techniques.** Most data collection forms are designed for single-destination events and can't be easily scaled to accommodate multiple Host Cities. New data collection forms therefore had to be developed for FWWC 2023 that collected the necessary data points in the most efficient way possible. These forms are in the public domain and could be applied to future events involving multiple Host Cities.



### 6.3 Monetised costs and benefits to New Zealand

A national impact evaluation was commissioned by MBIE that used the same research platforms, methodology, and research provider as the regional evaluation for Hamilton. The high-level results for New Zealand are presented in the table below.

The cost-benefit analysis for New Zealand has identified a gross monetised cost of **\$323.2** million and a gross monetised benefit of **\$432.6** million. The net monetised benefit is therefore **\$109.5 million** and the benefit-cost ratio (gross benefit divided by gross cost) is **1.34**. This means that every \$1 of cost incurred by New Zealand returned a benefit of \$1.34 (a net benefit of \$0.34 per dollar).

**Table 48: Estimated costs and benefits to New Zealand of hosting FWWC 2023**

Source: National impact evaluation commissioned by MBIE

Measure	Value (\$m)	Description
Government costs	\$101.1	Total cost to central and local government
Public funds cost	\$20.2	Redistribution of public funds cost @ 20% as per Treasury guidelines
Event attendee costs	\$80.3	Value of time and money devoted to FWWC 2023 by attendees
Business costs	\$118.6	Value of the resources consumed by businesses to service the additional demand caused by FWWC 2023
Carbon costs	\$3.0	Value of unpriced carbon production attributable to FWWC 2023
Other costs	\$0.0	Other monetised costs
<b>Total cost</b>	<b>\$323.2</b>	<b>Total gross cost generated by FWWC 2023</b>
Event attendee benefits	\$117.8	Social value to FWWC 2023 attendees (event attendee cost + estimated consumer surplus)
Business benefits <sup>26</sup>	\$191.6	Value of additional business demand (revenue) caused by FWWC 2023
Media benefits	\$22.5	Value of media exposure generated by FWWC 2023 (based on estimated future value of tourism generated)
Non-attendee benefits	\$78.6	Social value accruing to non-attendees (option value/existence value/national pride)
Avoided future costs	\$18.5	Avoided future infrastructure costs due to projects being brought forward for FWWC 2023
Other benefits	\$3.8	Other monetised benefits
<b>Total benefit</b>	<b>\$432.6</b>	<b>Total gross benefit generated by FWWC 2023</b>
<b>Net benefit</b>	<b>\$109.5</b>	<b>Total benefit less total cost</b>
<b>Benefit-cost ratio</b>	<b>1.34</b>	<b>Total benefit divided by total cost</b>

<sup>26</sup> Includes 10% of event income sourced from, and spent in, New Zealand, as per MBIE's event evaluation guidelines.





## 6.4 Monetised costs and benefits to Host Regions

Independent impact evaluations were commissioned and paid for by each Host Region (Auckland, Hamilton, Wellington, and Dunedin). These regional evaluations leveraged the research platforms funded by MBIE and used the same methodology and research provider as the national evaluation. The high-level results for each Host Region are presented in the table below. Note that the regional evaluations will not sum to the national results for two reasons:

1. The national evaluation includes costs and benefits across the whole country, whereas the regional evaluations only consider the costs and benefits to the four Host Regions.
2. Inter-regional transfers (e.g., domestic tourism expenditure) are included in the regional evaluations but excluded from the national evaluation.

**Table 49: Summary of impacts on Host Regions**

Source: Independent evaluations commissioned by Host Regions

Region	Auckland	Hamilton	Wellington	Dunedin
Gross cost (\$m)	\$154.8	\$19.6	\$59.0	\$27.3
Gross benefit (\$m)	\$203.6	\$26.0	\$83.6	\$34.1
Net benefit (\$m)	\$48.9	\$6.4	\$24.6	\$6.8
Benefit-cost ratio	1.32	1.33	1.42	1.25
Visitor nights	175,279	15,034	100,124	39,793



## 7 Appendices





## Appendix 2: Sport NZ Research Infographic

# 2023 Women's Sporting Landscape

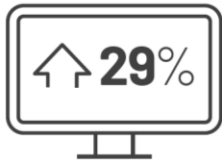
The recent Rugby and Football World Cups in Aotearoa New Zealand drove big increases in interest and engagement with women's sport, according to our recent Sport NZ/Gemba research.

Gemba



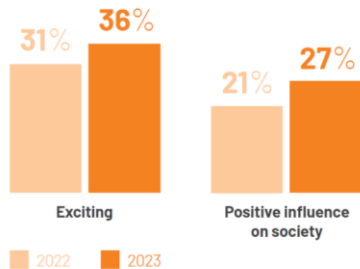
### Consumption of women's sport

Since July 2022, viewership of women's sport has increased by 29%.



### Perceptions of women's sport

Significantly more New Zealanders perceive women's sport as exciting and having a positive influence on society.



### Athlete Awareness

Marketability of female athletes and teams has risen, driven by increased awareness.



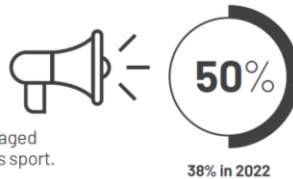
### National team interest

Three women's national teams are now in the top five most popular in New Zealand, up from only one in 2022.

- 1 The All Blacks (Men's Rugby Union)
- 2 The Black Ferns (Women's Rugby Union) 
- 3 Men's Rugby Sevens Team
- 4 The Silver Ferns (Women's Netball) 
- 5 Women's Rugby Sevens Team

### Advocacy for women's sport

Half of New Zealanders said they had recently advocated for or encouraged others to watch women's sport.

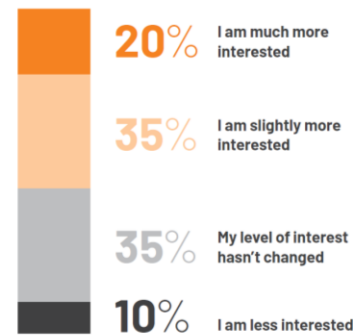


### FIFA Women's World Cup Impact

The majority of New Zealanders heard or saw something about the FIFA Women's World Cup 2023 and watched a game during the tournament.



Following the FIFA Women's World Cup 2023, over half of New Zealand indicated they were more interested in women's football.



Survey conducted in September 2023 based on a representative sample of 1007 New Zealanders. All increases displayed are statistically significant.

[sportnz.org.nz/its-time](https://sportnz.org.nz/its-time)

