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Event Measurement

Destination Perth

Localis believes that combining datasets together is the best way to get the most accurate understanding of events.

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Why is it important to measure events?

Understand your audience

Measuring event data helps operators and local governments understand their audience, tailor marketing campaigns to specific demographics, and identify new target markets.

Economic Growth & Development

Event data allows governments to quantify the economic impact of events, attract future events by showcasing past successes, and develop targeted strategies to support local businesses and tourism.

Performance Optimisation

Data on event attendance can help refine event logistics and demonstrate return on investment to stakeholders. Understanding what works and what doesn't leads to better, more successful events.

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What are the different types of event data?

Mobility Data

What is it?

- Data is collected from applications installed on a user's phone.
- A user must first opt in to have their data collected and shared. Even then the data is never personally identifiable.
- Collects a time stamp, a hashed device ID and a latitude and longitude.
- Rules are then created to infer what suburb a person lives and works in.

How do we use it?

- Estimate visitor attendance to a specific area/precinct. This is achieved using ground truth data such as stadiums, zoos and road counters.
- Provide visitor source markets down to a local government area and suburb level.
- Understand how far visitors are travelling to attend your event.

Minimum requirements

- Minimum attendance of 2,000 to gather a large enough sample size.
- Area to be analysed must be at least the size of a football field.
- Demographic attending needs to have mobile phones, difficult to measure events which are mostly young or old attendees.
- Requires a reasonable level of cellular coverage so the device can be tracked.

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Mobility Data

Pros

- Customisable boundaries which allow you to clearly define your event space.
- Always on monitoring, if there is event that has happened anytime between 2023 and the current period data, will be available.
- Clear source markets across local governments and suburbs.
- Flexibility around the information that is provided (for example mapping).

Cons

- Needs a large sample size to have effective estimations on attendance and source markets.
- Can pick up interference from visitors who didn't attend the event if roads are included in the boundary.
- Consistent cellular coverage is required.

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Examples

Visitor Origins

This section examines the unique devices that were observed at the [redacted] between the 1st and 4th of November 2024. The **estimated unique attendance** to [redacted] between **7,979 - 10,194, with 65.73% of visitation coming from outside** [redacted] This is a **8.5% increase in visitation** when compared to a non-event period.

Top 10 Local Government Areas & Suburbs during Non Event Period: 25 Oct - 28 Oct 2024

Estimated unique attendance
6,251 - 7,314

Local Government Area	Percentage
Shoalhaven	39.08%
Wollongong	5.38%
Canberra (Grouped LGAs)	5.06%
Sutherland	4.36%
Shellharbour	2.88%
Canterbury-Bankstown	2.69%
Blacktown	2.51%
Liverpool	2.41%
Penrith	2.32%
Northern Beaches	2.27%

Suburb/Postcode	Percentage
Vincentia	6.22%
Huskisson	5.23%
Sanctuary Point	4.83%
St Georges Basin	3.71%
North Nowra	1.53%
Nowra	1.21%
Woollamia	1.11%
Bomaderry	1.02%
Falls Creek	0.97%
Tomerong	0.97%

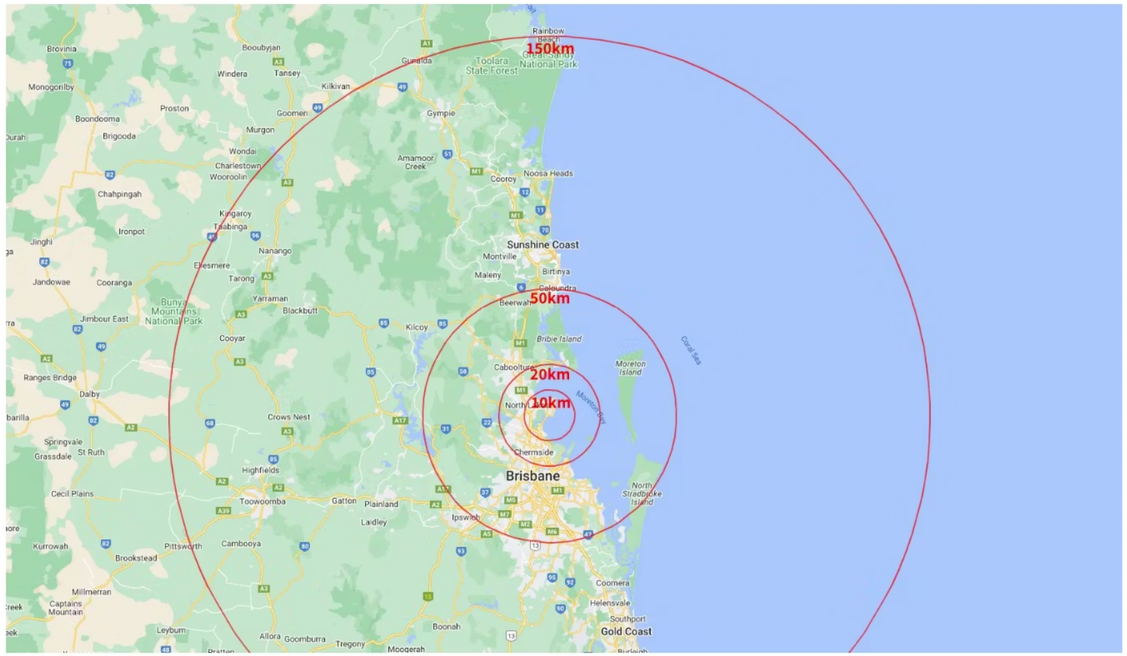
Top 10 Local Government Areas & Suburbs during [redacted] 01 Nov - 04 Nov 2024

Estimated unique attendance
7,979 - 10,194

Local Government Area	Percentage
Shoalhaven	34.27%
Canberra (Grouped LGAs)	4.03%
Wollongong	3.94%
Sutherland	3.57%
Canterbury-Bankstown	3.15%
Camden	2.45%
Shellharbour	2.45%
Liverpool	2.32%
Penrith	2.27%
Blacktown	2.08%

Suburb/Postcode	Percentage
Huskisson	5.79%
Vincentia	5.47%
Sanctuary Point	4.86%
St Georges Basin	3.33%
Nowra	2.52%
Woollamia	1.48%
North Nowra	1.39%
Basin View	1.11%
South Nowra	0.79%
Falls Creek (NSW)	0.74%

Examples



Distance	Percentage of visitation
Lives within 3km	4.92%
Lives between 3km and 5km	4.55%
Lives between 5km and 10km	6.82%
Lives between 10km and 20km	20.45%
Lives between 20km and 50km	31.06%
Lives between 50km and 150km	15.91%
Lives beyond 150km+	16.29%

Visitor Origins

The table on the left shows the percentage of visitation broken down by how far people live from the event. It can be seen that **32.2% of visitation came from beyond 50km of Woody Point.**

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Accommodation Data

What is it?

- Data is collected from major OTA platforms and direct where possible.
- Data is regularly benchmarked and tested against direct hotel and motel data to ensure accuracy.
- Can be viewed at monthly and daily level.
- We are able to breakdown the data to a suburb or local government level.
- Data is collected from over 190,000 listings.

How do we use it?

- Understand if there was an uptick of your event in comparison to a non-event period.
- Compare to the same event in previous years.
- Visualise the daily trends and check for peak periods.

Minimum requirements

- Suburb/local government area must have a minimum supply of 50 properties (this can be adjusted by increasing the grouping of suburbs)

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Accommodation Data

Pros

- Large sample size of properties allows for reporting in the majority of regions.
- Updated on a weekly basis.
- Flexible boundaries around suburbs and local government areas.
- Ability to break down to a daily level and compare to previous periods going back to 2019.

Cons

- Only accounts for online booking market and doesn't include direct bookings.

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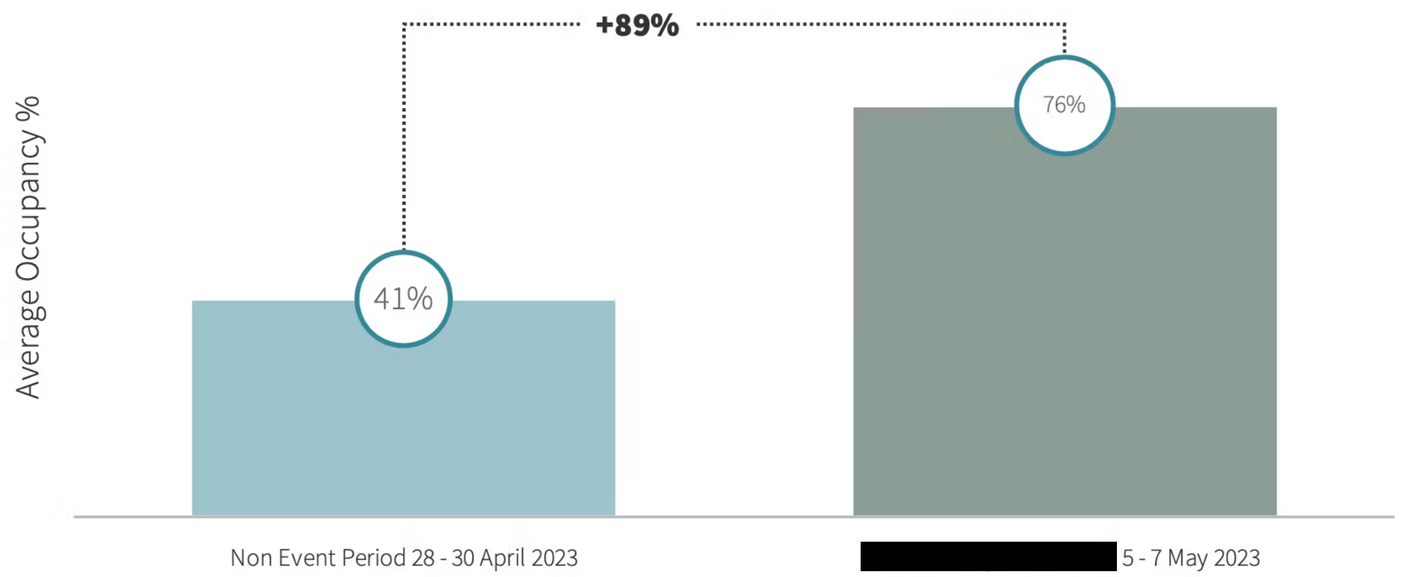
Examples

89% increase in occupancy

Those who visited the [redacted] on the main event day contributed to the dramatic increase in non local spend, also booked accommodation for the whole weekend period. An analysis into 105+ hotels, motels and sharing economy properties in the Town of [redacted] showed that during the event there was an **average occupancy of 76%**, which was a **89% increase** when compared to the non event period.



+89%

When compared to non event period

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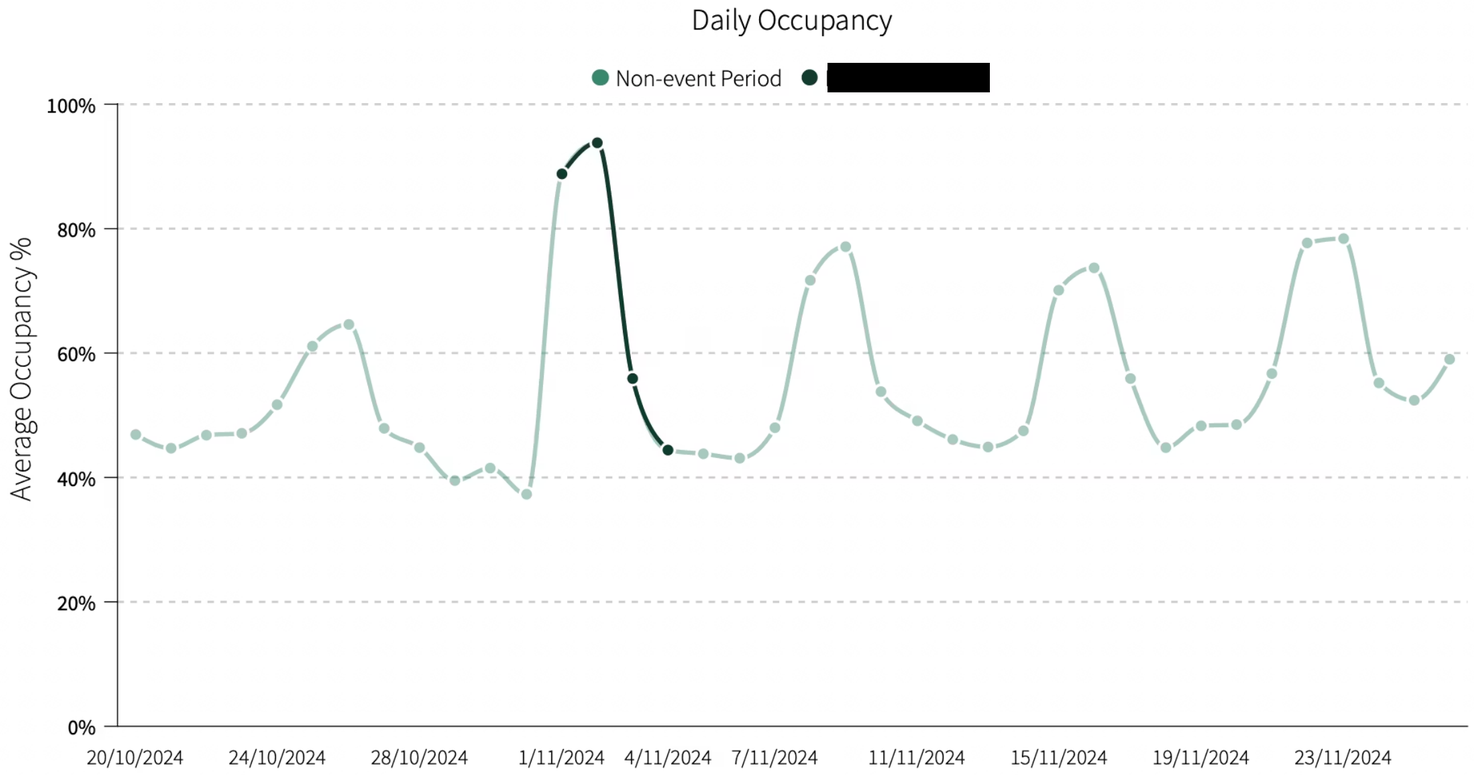
Examples

Daily Accommodation

The below graph shows daily accommodation for the suburb of [redacted] It can be seen that there was a significant spike on the Friday and Saturday of the triathlon, considerably higher than the average weekend occupancy for October and November.



93.8%

Peak Occupancy during the [redacted], was on the 2nd November 2024.

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Transaction Data

What is it?

- Data is collected from Visa credit/debit cardholders whenever a purchase is made at point of sale (doesn't track online purchases).
- Data is aggregated at a monthly and daily level, updated monthly.
- Includes domestic and international spend source markets
- Possible to drill down as granular as a postcode or as broad as a local government area.
- Source markets are viewed at an SA3 level with 358 domestic source markets available.
- Visa has 20+ categories available to see where visitors/locals are spending.
- No personal data is collected

How do we use it?

- Understand the impact of visitor/local spend as a result of the event.
- Measure source market changes and compare with other events.
- View the uptick in different categories of spend, did your event increase markets that you didn't expect? Retail, restaurants, bars, etc.

Minimum requirements

- This dataset works best when measuring events that have the potential to greatly outperform the average spend ie. if the area we are analysing typically has 30,000 visitors daily - an event which attracted 1,000 people may be difficult to analyse.
- Minimum of 20 transactions recorded from a source market to view that spend.
- To view category level spend, this requires a minimum of 3 merchants from a single category and one merchant cannot contribute more than 75% of the total spend for that category.

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Transaction Data

Pros

- Ability to customise boundaries of the analysis area to allow for the highest chance of capturing data.
- Updated on a monthly basis.
- Granular source market breakdown for domestic visitors and the ability to see international spend.
- Has the ability to go back in time and compare against any date/time from the past 5 years.

Cons

- Ability to use for smaller scale events is difficult, the event needs to have a considerable impact on what is normally measured in the region.
- Source market level data may not be available if visitor thresholds are not passed.
- Variability in tracking "Tile" point of sales systems ie. food truck vendors that use point of sales systems may have the location of their business set in another region.

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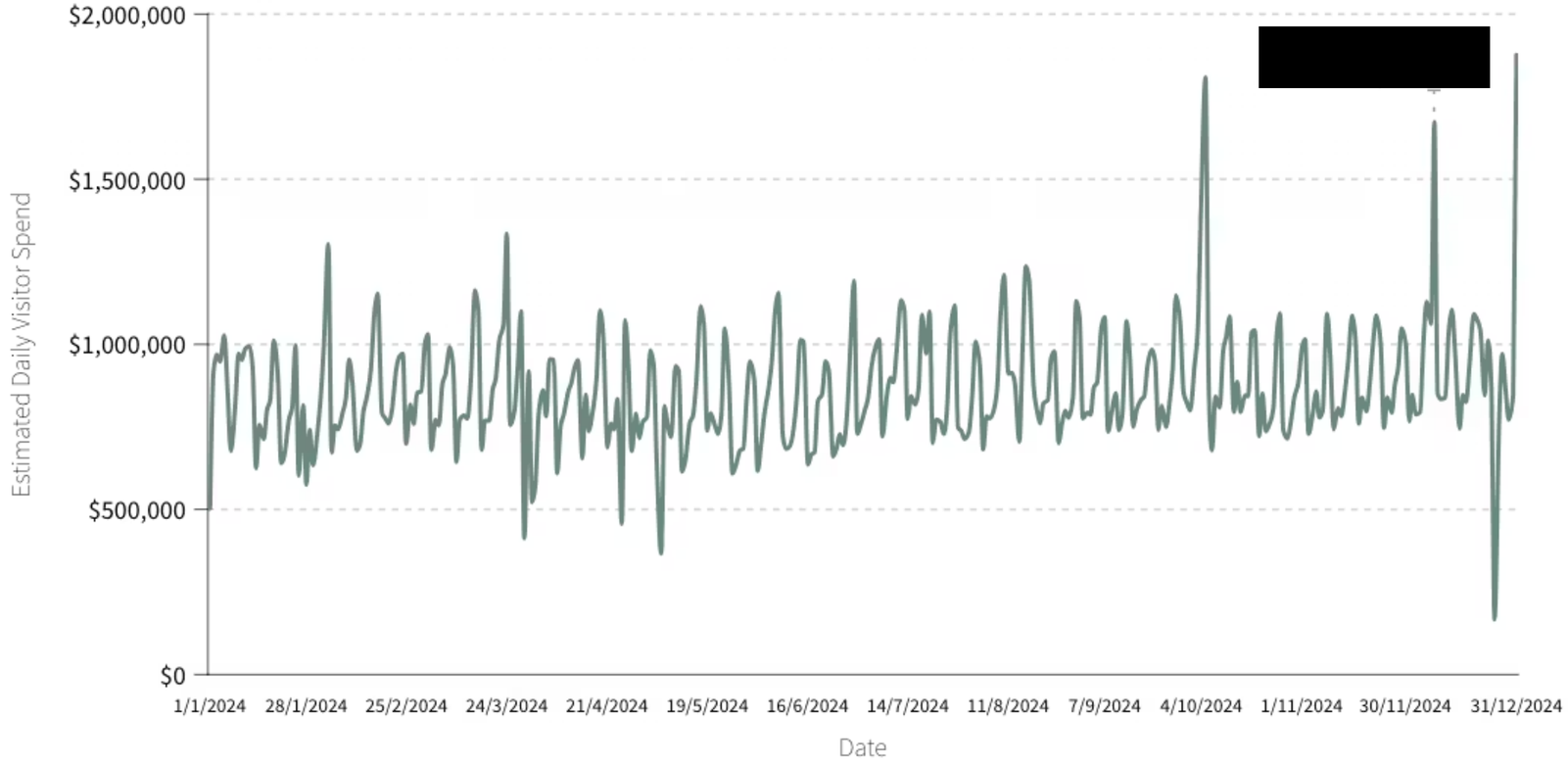
Examples

Daily **Visitor** Spend

Visitors from outside the [redacted] region **spent an estimated $1,700,000 on the day of the event,** making it the 3rd highest of day of visitor spending for 2024. This is also a 131% increase when compared to the average Sunday visitor spend for the area.



$1.7m

Estimated Visitor Spend

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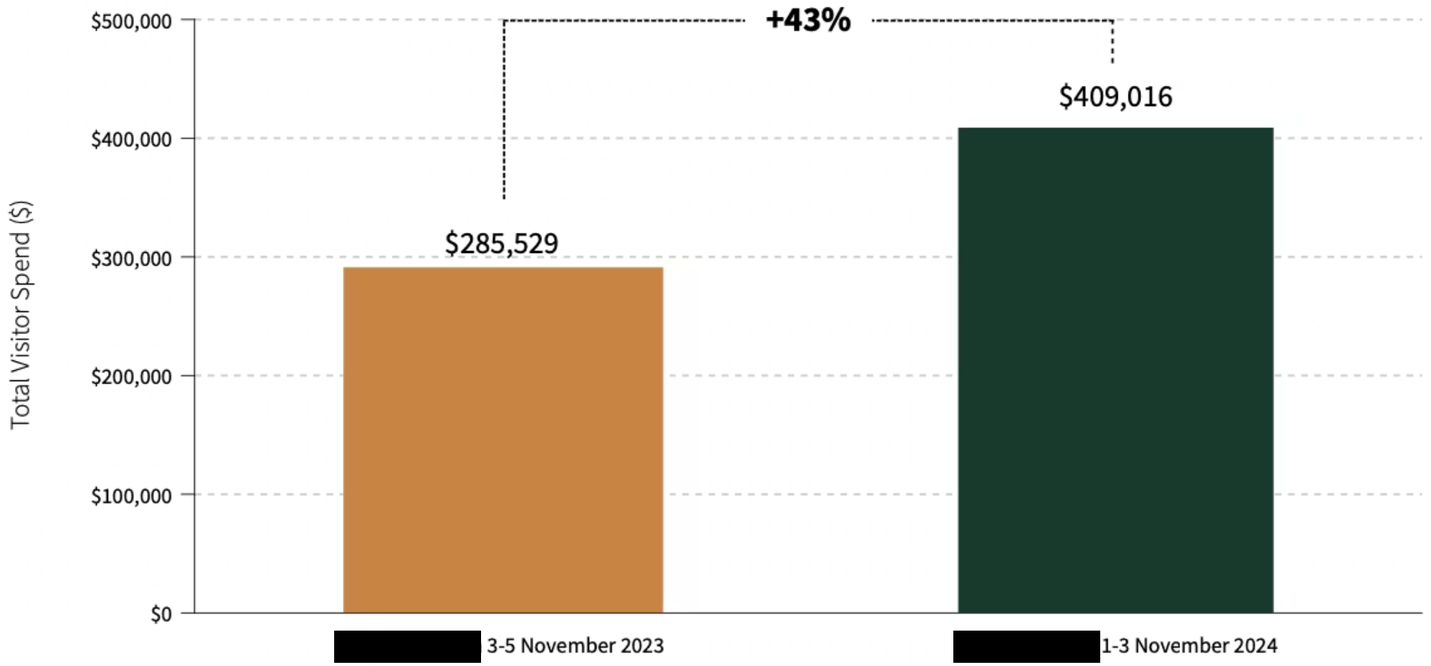
Examples

Visitor Spend (Fri - Sun)

Visitor spend for the [redacted] saw a total **increase of +43%** during the [redacted] event, when compared to the same event in 2023.



+$123,487

Spend difference for visitors when compared to the same event in 2023.

+43%

Visitor spend increase when compared to the same event in 2023.

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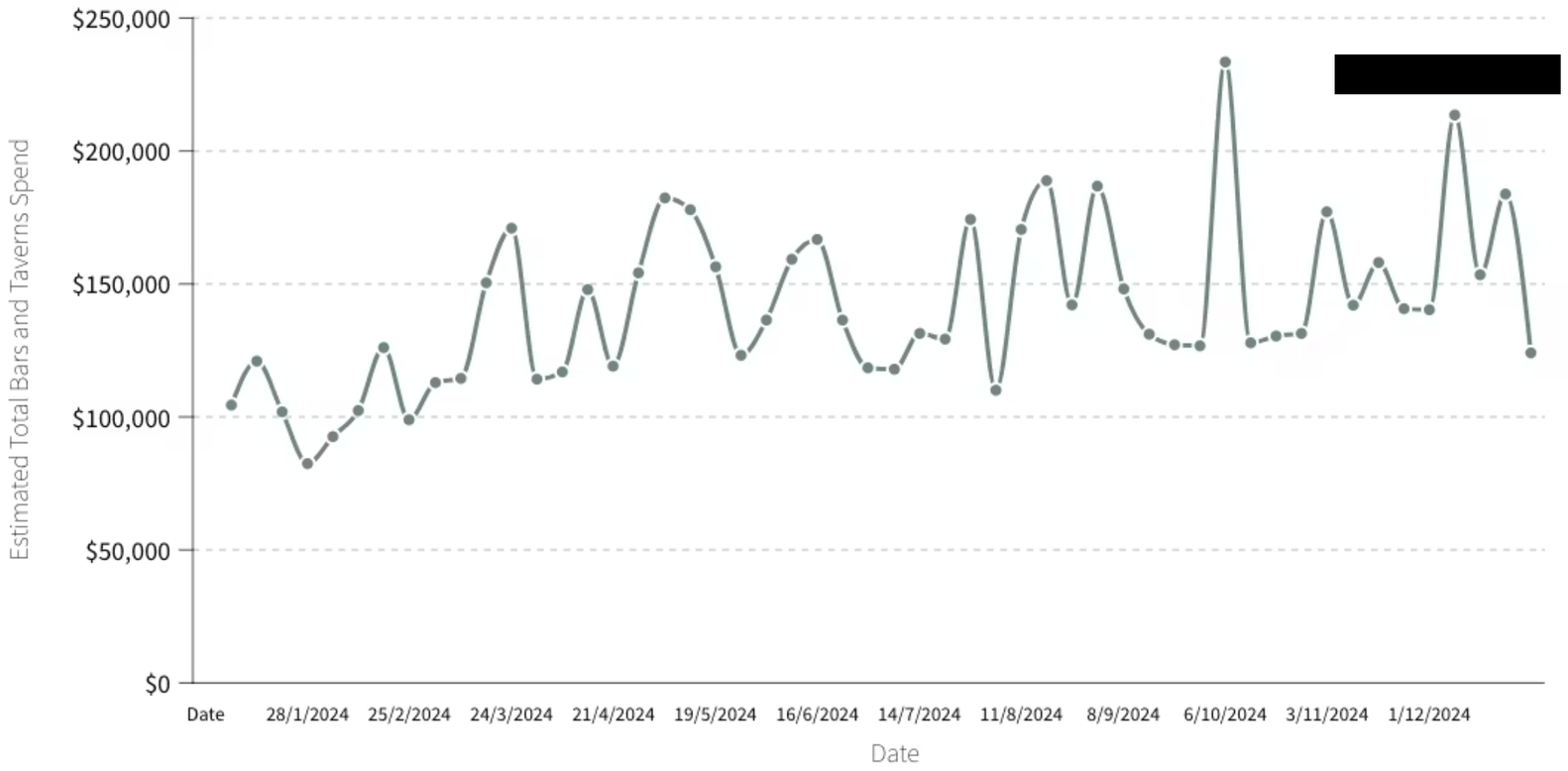
Examples

Total Sunday Spend - Bars and Taverns

Total spending on at bars and taverns experienced a 53% increase when compared to the average Sunday spend for 2024, totalling an estimated $210,000.



53%

Percent Increase

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People Counters - Meshed

What is it?

- Stationary people counting device, which uses LorRaWAN technology to count smart phones that have a wifi signal available.
- Can cover a radius between 3 to 50 metres.
- Offers it's own platform to view the data
- Fully anonymised, no personal data is collected at any point

How do we use it?

- Measure the total number of visitors within range of the device at any given time.
- Understand how long people dwell within a space.
- Check what the peak times of visitation were for the event.

Minimum requirements

- Connection to a power source for the counting device.
- Connection to The Things Network (TTN), if this is unavailable Meshed can provide at an extra cost.

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People Counters

Pros

- Very easy to setup.
- Precise visitor numbers attending the event in at specific points in time, as granular to see visitation down to the minute.
- Doesn't rely on app permissions or personalised data, high potential for capturing a visitor.
- Low upkeep costs after initial hardware purchasing.
- Able to cover a large event space.

Cons

- Doesn't retain unique visitor numbers (this can be elevated with the combination of mobility data).
- Constrained to one area with a limited geographic boundary

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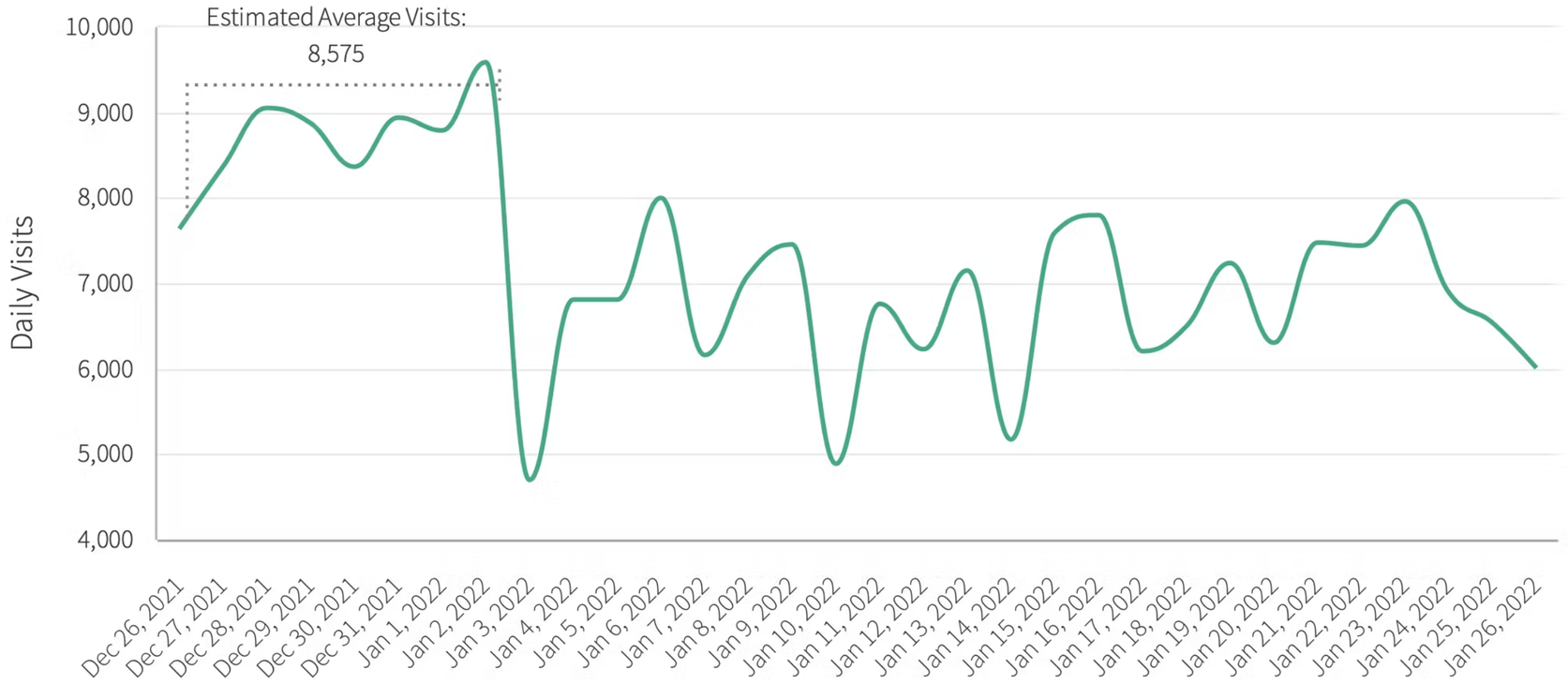
Examples

Daily Visit Count

This graph shows the daily visit count that was collected from the Lorawan device over the duration of the festival. The average estimated non unique visitation over the whole of the event was 6,810 per day, with peak visitation occurring on the 2nd of January at 9,589 visits. The first week had the highest visitation numbers with an average of 8575 visits, this was 26% higher than the average for the whole event. After this initial rush at the beginning of the festival, visitation began to normalise with small spikes on occurring on the weekends.



Estimated Non Unique Devices in Area Per Day

6,810

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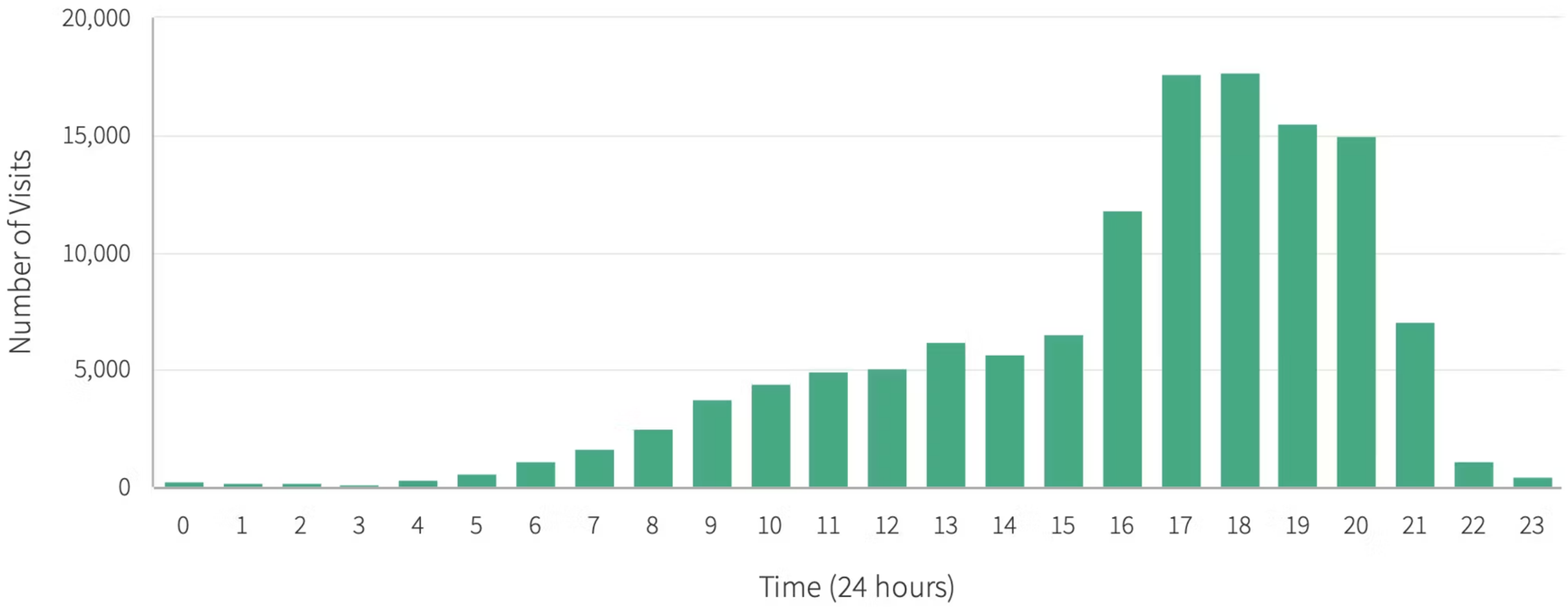
Examples

Hourly Visits

This graph shows total visitation to the carnival by the hour captured by the Lorawan device. The most popular time of the day to visit was between 5pm and 6pm, which was 27% of the total visitation. From 8pm to 9pm there was a decrease of 53%, which was when most people left.



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Survey Data

What is it?

- In person post event surveys collected from a sample of attendees who were at the event.

How do we use it?

- Used to understand customer satisfaction around the event, for example: engagement, event expectations, likelihood of attending the event
- Useful for understanding customer segmentation, who are the type of people that attended your event, what are events do they attend?

Minimum requirements

- No minimum requirements.

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Survey Data

Pros

- Best to measure qualitative metrics. For example, Nett Promoter Score or "what did you like the event?"

Cons

- Doesn't retain unique visitor numbers (this can be elevated with the combination of mobility data).
- Expensive upfront cost

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Economic Modelling

What is it?

- Economic impact report based on modelled custom inputs that are gathered from your data and Localis data.
- Modelled on ABS and Census data.
- Measures inter-industry relationships in an economy, depicting how the output of one industry is influenced by other industries, households, the government and external parties.
- Can demonstrate the economic contribution of a sector on the overall economy and how much the economy relies on the sector.

How do we use it?

- This model allows you to understand the potential economic contribution of a project or event to your economy across 115-sectors.

Minimum requirements

- No minimum requirements.

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Economic Modelling

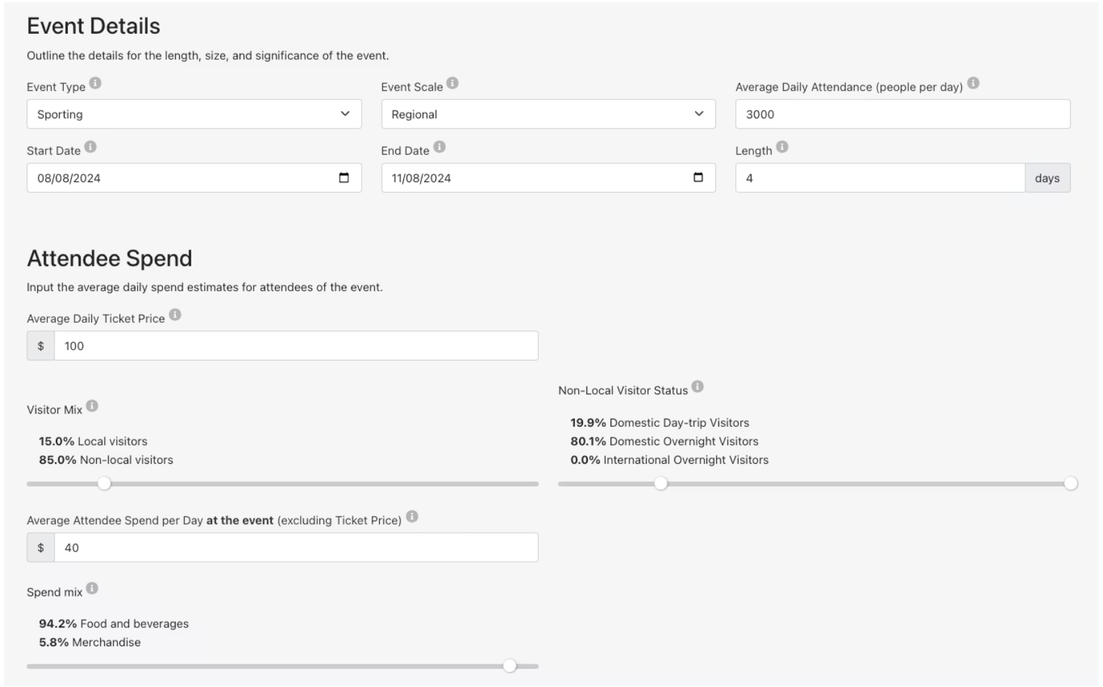
Pros

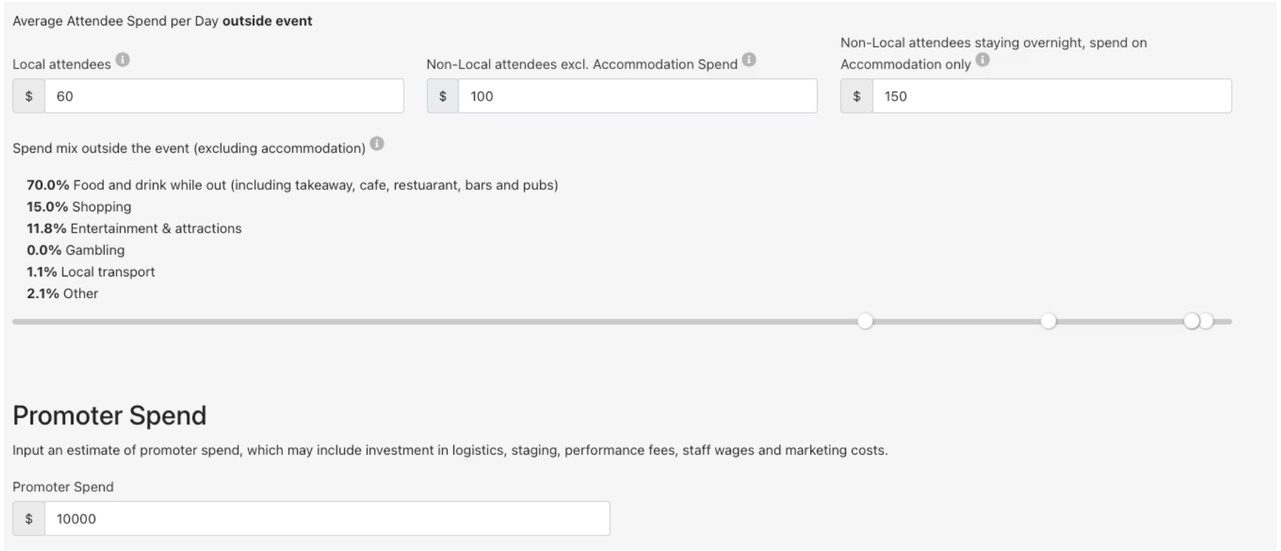
- Doesn't require a minimum level of attendance to run reports.
- Simple process to enter inputs and gain insight.

Cons

- Need other data sources to create the report (this is what we can provide!)

Examples





Examples

Event 1 is planned to start on 8 August 2024 and run for 4 days until 11 August 2024. It is a Sporting event of regional significance and is estimated to attract 3,000 attendees per day.

A total of $2.833m in attendee expenditure is estimated to be delivered by the event, including spend of $480.0k at the event on food and beverages/ merchandise (excluding entry), as well as $2.353m in spend in the local economy outside the event.

The event will include an additional $10.0k in promoter spend, which is expected to cover facilitation, management, and event overhead costs. With a ticket price of $100 per person, $1.200m in ticket revenue will be generated.

Note: Data/ shock entered by Robbie Dalton on 3 February 2025 2:15pm.

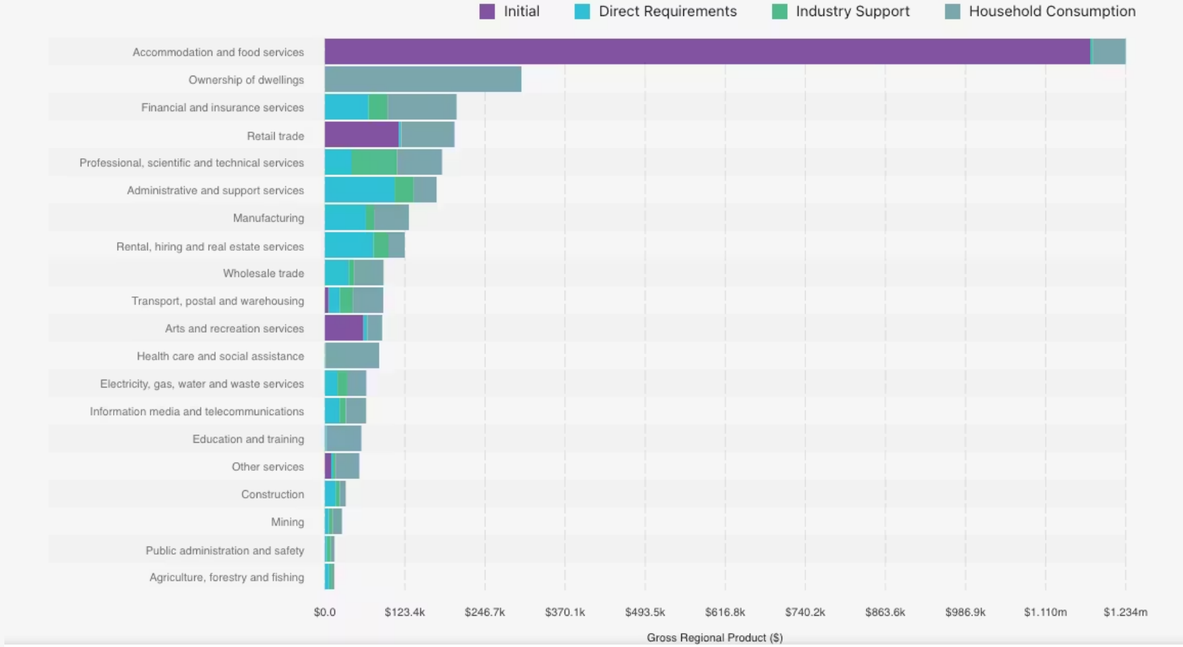
The impacts resulting from this stimulus to the Brisbane economy are outlined in the following table and include:

- Total output of $7.658m (including $4.033m in initial activity)
- Total Gross Regional Product (GRP) of $4.412m (including $2.558m in initial activity)
- Total employment of 27.2 full time equivalent (FTE) jobs (including 17.4 FTE positions in initial activity), paying a total of $2.153m in wages and salaries (including $1.095m in initial activity).

	Output ($)	GRP ($)	Incomes ($)	Jobs (FTE)
Initial Stimulus in Local Economy	$4.033m	$2.558m	$1.095m	17.4
Direct Requirements First Round Type I	$1.117m	$495.6k	$337.9k	3.0
Industry Support Subsequent Round Type I	$519.6k	$251.9k	$171.7k	1.4
Household Consumption Impacts Indirect Type II	$1.988m	$1.106m	$547.8k	5.4
TOTAL	$7.658m	$4.412m	$2.153m	27.2

Key GRP impacts locally at a 1-Digit ANZSIC level are indicated in the image below. The top three impacted sectors as measured by GRP are:

- **Accommodation and food services** - $1.2m in total GRP generated (28% of total GRP)
- **Ownership of dwellings** - $302.9k in total GRP generated (7% of total GRP)
- **Financial and insurance services** - $203.0k in total GRP generated (5% of total GRP)



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Ticketing - Oztix

What is it?

- Online and onsite ticketing for all types of events.
- Geolocated customer data, down to a postcode.
- Online platform for event and marketing analytics.
- Self service DIY and full service ticketing options available.
- Extensive marketing and partnership support

How do we use it?

- Ticketing data is the ultimate source of truth to understand how many people attended your event!
- Compare against transaction data to understand what source markets are high value.

Minimum requirements

- No minimum requirements.

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Ticketing

Pros

- Simple process to setup
- Best source of truth for attendance numbers

Cons

- Not suitable for every style of event ie. free entry

Your Data

Localis can take any data that you have collected to enrich the report - we are data agnostic

- Merchants sales data
- Online purchases
- Other data subscriptions (Spendmapp, Commbank, STR, etc)

What data works best?

Data Type	Small (1k - 2k visitors)	Medium (2k - 10k visitors)	Large (10k+ visitors)
Mobility	✘	✓	✓
Accommodation	Dependant on area of analysis	✓	✓
Transaction	Dependant on area of analysis	Dependant on area of analysis	✓
People Counters	✓	✓	✓
Survey Data	✓	✓	✓
Economic Modelling	✓	✓	✓
Ticketing	✓	✓	✓

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