

QUEENSLAND Alcohol-related violence and Night Time Economy Monitoring (QUANTEM)

APPENDICES (April 2019)

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1. APPENDIX 1: DIFFERENCES BETWEEN ID SCANNER DATA SOURCES

OLGR data (which contains Scantek and QikID data) was reliable from October 2017 onwards. Prior to that time, we had access to Scantek data only. Figure 1 shows the difference between Scantek data only and Scantek + QikID data (from OLGR) from October 2017. The use of OLGR data added an average of 82,568 scans per month (representing 7.36% of the data per month).

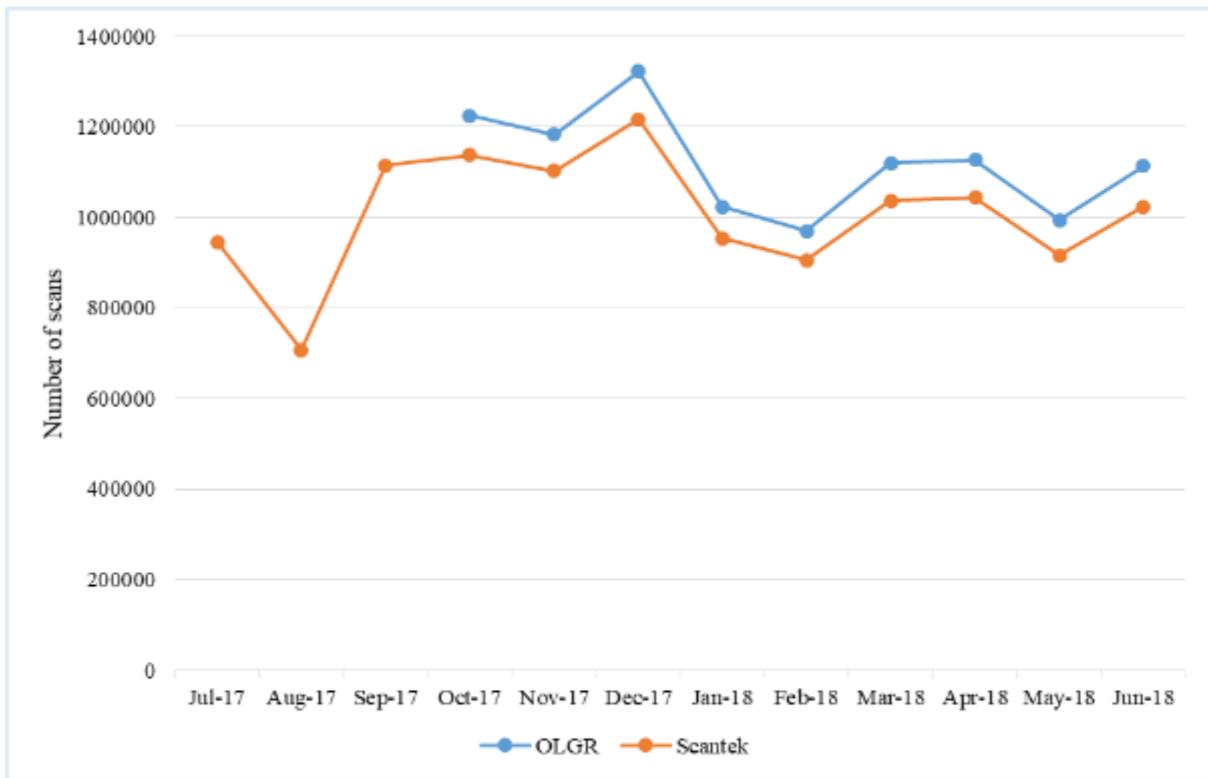


Figure 1 Difference between ID scanner data sources

Note – Scantek data missing for Ipswich in August and September 2017

2. APPENDIX 2: PATRON INTERVIEWS – WEST END COMPARISON SITE

The following section details results from patrons in West End, including patron demographics, levels of intoxication, pre-drinking behaviour, drug consumption patterns and experiences of aggression and harm.

2.1. PATRON DEMOGRAPHICS

Three hundred and forty-six patrons that were interviewed in West End. Over 76% of patrons ($N = 265$) participated in the full interview, while 81 patrons (23.4%) responded to the brief interview. There was no significant difference in the sex ($\chi^2 = 0.52, p = .472$) or age ($z = -1.57, p = .115, r = -.06, p = .284$; Table 1)¹ of participants who participated in the brief or full interview.

Table 1 Participants' sex and age in West End by interview type (brief/full)

Variable	Total	Brief	Full
	$n = 346$	$n = 81$	$n = 265$
Male, n (%)	219 (63.3)	54 (66.7)	165 (62.3)
	$n = 343$	$n = 81$	$n = 262$
Median age (range)	25 (18-69)	24 (18-62)	25.5 (18-69)

Note. Age was missing for 3 cases.

Over 60% ($n = 221$) of the overall sample was male, with a median age of 25 years (range 18-69). There was no significant difference in the average age of females ($Mdn = 25.0$) compared to male participants ($Mdn = 25.0$; $z = -.96, p = .339$). Figure 2 shows the age distribution of interviewees.

¹ Mann-Whitney U tests were conducted to assess differences in skewed variables.

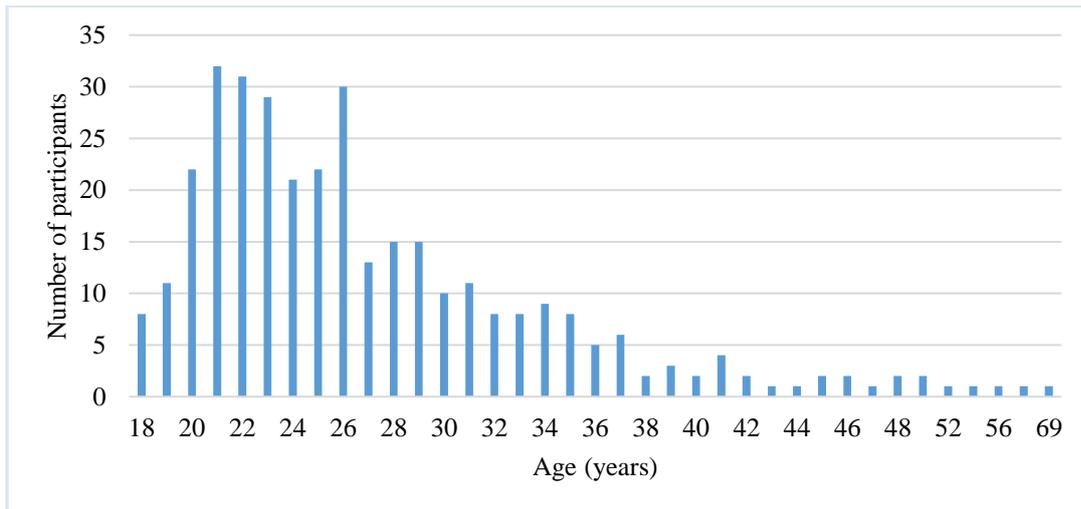


Figure 2 Age distribution of participants in West End

The number of interviews completed by hour is presented in Figure 3. The majority of interviews occurred between 10pm to 1:59am. Only four participants were interviewed between 8pm and 9:59pm (3.1%).

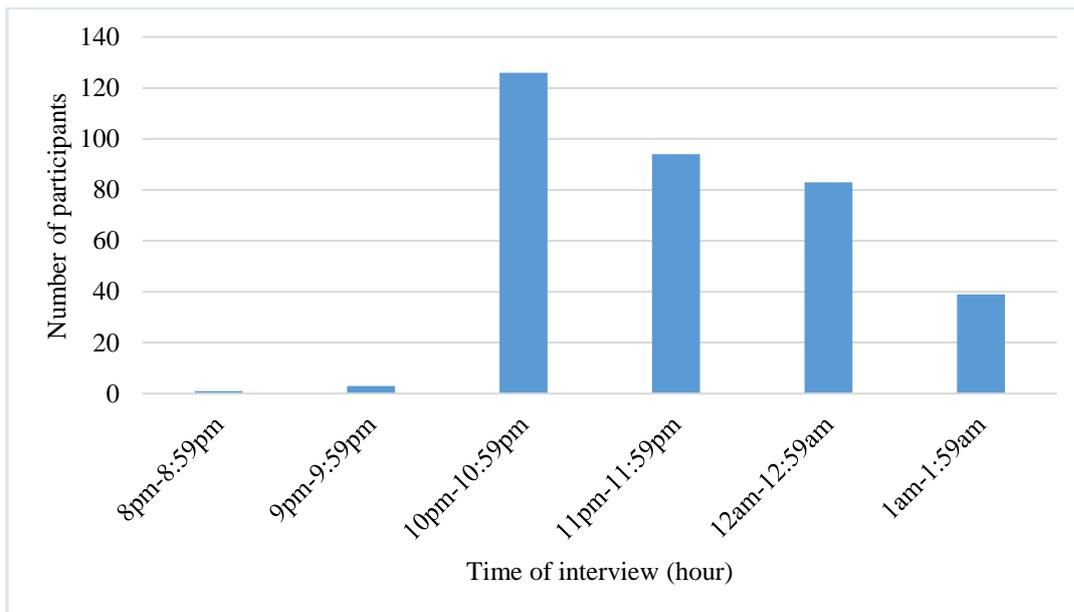


Figure 3 Number of interviews completed in West End by time (hours)

2.2. LEVELS OF INTOXICATION (BAC READING AND BAC ESTIMATE)

Of patrons who had completed the brief or full interview in West End, 293 patrons completed BAC readings² (84.7%), and 211 patrons (61.0%) provided an estimated BAC reading³. The median and range of patrons' BAC readings and BAC estimates are presented across each age group in Table 2. There was a significant difference in median BAC reading between different age groups, $\chi^2(4) = 10.07, p = .039^4$. No significant difference was observed in the median BAC estimate between age groups, $\chi^2(4) = 4.06, p = .398$.

Table 2 BAC reading and estimates among participants in West End by age groups

Variable	Age groups					
	Total	18-19	20-24	25-29	30-39	40+
BAC reading ^a						
<i>n</i>	291	16	112	81	63	19
Median (range)*	.065 (.000-.279)	.068 (.000-.185)	.067 (.000-.246)	.084 (.000-.279)	.041 (.000-.259)	.051 (.000-.213)
Estimated BAC reading ^a						
<i>n</i>	209	14	74	55	50	16
Median (range)	.060 (.000-.400)	.055 (.000-.150)	.050 (.000-.200)	.060 (.000-.300)	.060 (.000-.400)	.045 (.000-.400)

Note. ^a Age groups missing 2 cases.

The median and range of patrons BAC reading and BAC estimate across males and females are presented in Table 3. There was no significant difference in median BAC reading ($z = -1.07, p = .285$) among male and female participants. However, males median BAC estimate was significantly higher than females BAC estimate ($z = -2.33, p = .020$).

Table 3 BAC reading and estimate among participants in West End by sex

Variable	Total	Male	Female
BAC reading			
<i>n</i>	293	184	109
Median (range)	.065 (.000-.279)	.072 (.000-.279)	.051 (.000-.259)
BAC estimate			
<i>n</i>	211	137	74
Median (range)	.060 (.000-.400)	.060 (.000-.400)	.050 (.000-.200)

Note. Bolded values indicate statistical significance ($p < .05$).

² This excluded BAC readings above .30 which excluded due to error in entry or breathalyser calibration

³ This excluded BAC estimates above .40 and patrons who indicated that they were unsure of BAC reading

⁴ Kruskal-Wallis H tests were conducted to assess differences in skewed variables when there were more than two independent groups

Figure 4 shows the BAC distribution for patrons by hour of interview⁵. A gradual increasing trend occurred in the median BAC throughout the evening, with the median BAC ranging from .049 at 10pm-10:59pm to .088 at 1am-1:59am.

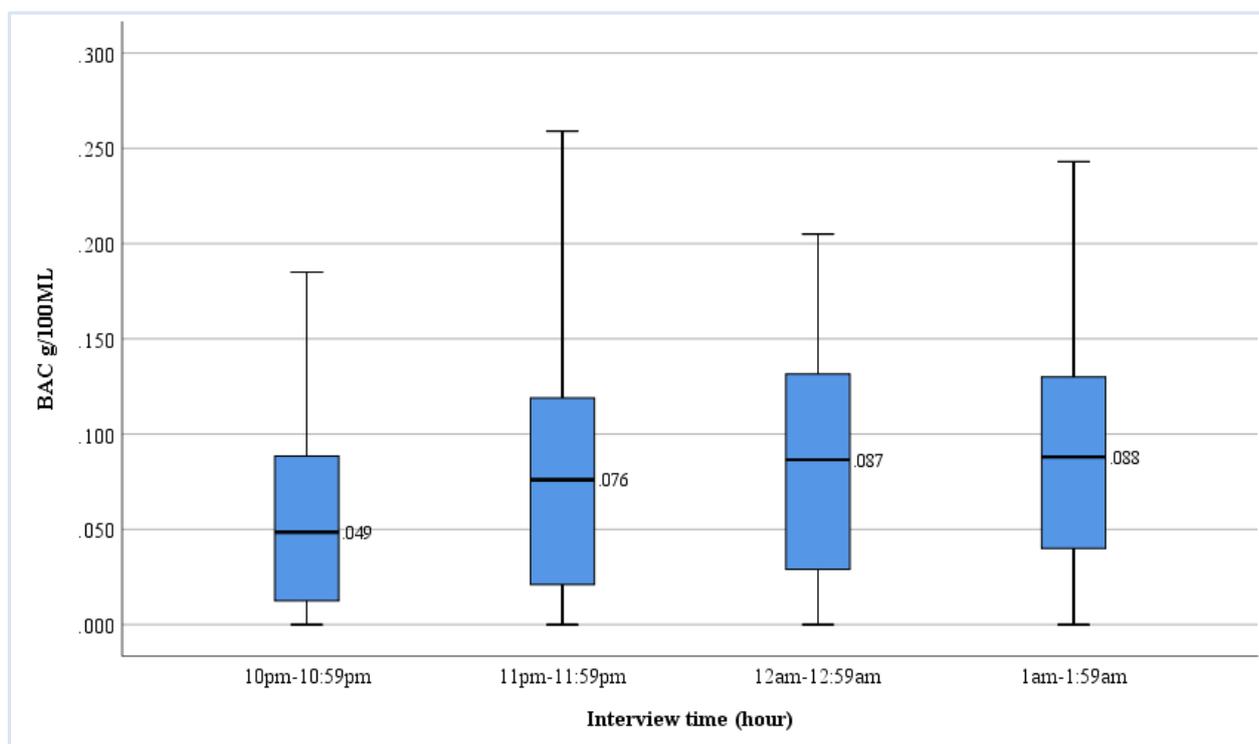


Figure 4 BAC distribution by interview hour – West End

BAC level was categorised into four BAC groups: .000 (no alcohol detected), .001 to .049 (low BAC), .050 to .100 (moderate BAC) and more than .100 (high BAC). There was no significant difference in BAC groupings across sex ($\chi^2(3) = 3.49, p = .322$; Table 4).

Table 4 BAC thresholds by sex – West End

Sex	BAC groups				Total
	.000	.001-.049	.050-.100	>.100+	
Male, <i>n</i> (%)	29 (15.8)	43 (23.4)	51 (27.7)	61 (33.2)	184 (100.0)
Female, <i>n</i> (%)	21 (19.3)	33 (30.3)	22 (20.2)	33 (30.3)	109 (100.0)
Total, <i>n</i> (%)	50 (17.1)	76 (25.9)	73 (24.9)	94 (32.1)	293 (100.0)

Figure 5 shows BAC threshold groups by interview hour⁶. The frequency of low BAC per hour declined throughout the evening, with a small increase at 1am. There was also a gradual decline in the percentage of patrons with no alcohol detection per hour throughout the evening. A moderate BAC reading declined at 11pm then gradually increased per hour throughout the night. Generally, the

⁵ Outliers were excluded from figure. 9pm-9:59pm was also excluded due to the small number of BAC readings obtained at this time (*n* = 2 cases)

⁶ 8pm-8:59pm (*n* = 1) and 9pm-10pm (*n* = 2) was not presented in figure given low numbers

percentage of participants with high BAC readings increased within each hour throughout the night, with a slight decline at 1am.

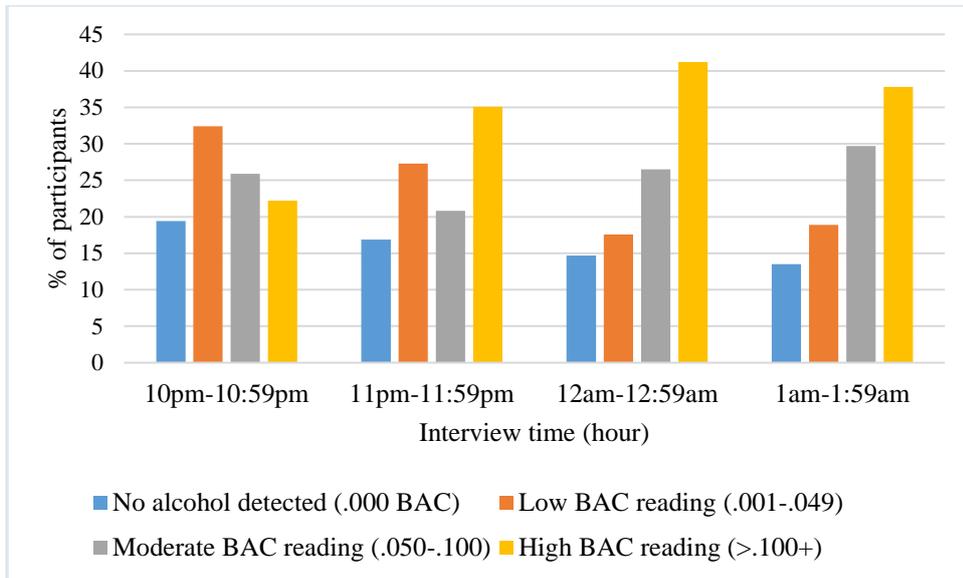


Figure 5 Participant percentage within BAC thresholds by interview hour - West End (N = 293)

Figure 6 presents the BAC distribution by month and year⁷. There was a fluctuating trend in the median BAC over time, though the median BAC reading remained predominately in the moderate BAC range. However, the median BAC for February 2018 declined to .000. These trends should be interpreted with caution as only 11 patrons recorded a BAC reading during February 2018.

⁷ Outliers were excluded from figure

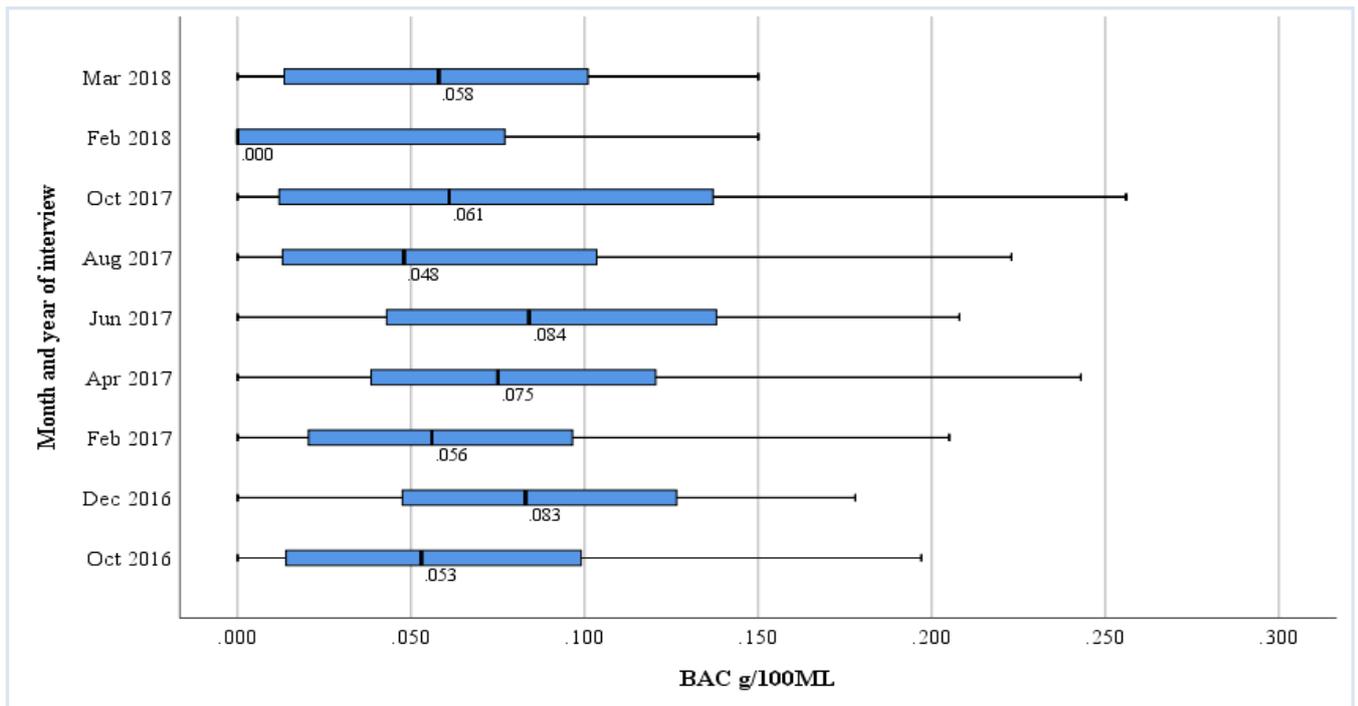


Figure 6 BAC distribution by month and year of interview – West End

2.3. PRE-DRINKING BEHAVIOUR

Over 60% ($n = 211$) of patrons in West End reported pre-drinking during their current night out (i.e. consuming alcohol before attending licensed venues/‘going out’⁸; see Table 5). There was no statistically significant difference in the reporting of pre-drinking between male and female participants ($\chi^2 = 3.61, p = .058$), though male participants did report consuming significantly greater amounts of alcohol when pre-drinking, compared to female participants ($z = -2.87, p = .004$). People from younger age groups were significantly more likely to report a higher consumption of a pre-drinks compare to older patrons ($\chi^2(4) = 14.69, p = .005$).

Table 5 Pre-drinking behaviours by sex and age in West End

Variable <i>n</i> (%)	Pre-drink ^a <i>n</i> (%)	Pre-drinks ^a Consumed Median (range)
Sex		
Male ($n = 211$)	141 (66.8)	2.5 (0-30)
Female ($n = 124$)	70 (56.5)	1 (0-15)
Total ($n = 335$)	211 (63.0)	2 (0-30)

⁸ Pre-drinking was missing for 11 cases.

Variable <i>n</i> (%)	Pre-drink ^a <i>n</i> (%)	Pre-drinks ^a Consumed Median (range)
Age ^b		
18-19 (<i>n</i> = 19)	15 (78.9)	5 (0-20)
20-24 (<i>n</i> = 131)	85 (64.9)	2.4 (0-21)
25-29 (<i>n</i> = 90)	61 (67.8)	2.8 (0-17)
30-39 (<i>n</i> = 69)	34 (49.3)	0 (0-30)
40+ (<i>n</i> = 23)	14 (60.9)	2 (0-30)

Note. ^a Pre-drinking was missing 11 cases. ^b Age groups were missing 2 cases. Chi-square analyses were not undertaken on observations with < 5 cases. Bolded values indicate statistical significance ($p < .05$).

Pre-drinking by alcohol consumption patterns are presented in Table 6. Participants who reported pre-drinking before attending licensed venues were more likely to engage in heavier alcohol consumption patterns. Specifically, those who reported pre-drinking versus those who had not recorded a higher BAC ($z = -5.83, p < .001$) and a reported higher BAC estimate ($z = -5.49, p < .001$). Further, participants who had been pre-drinking had been drinking/partying for longer than participants who did not report pre-drinking ($z = -3.78, p < .001$). There was no significant difference in the number of energy drinks consumed in participants who reported pre-drinking, compared to those that reported no pre-drinking ($z = -.604, p = .546$).

Table 6 Pre-drinking by current night alcohol consumption in West End

Variable	Pre-drink		
	Total ^a	Yes	No
BAC reading			
<i>n</i>	285	184	101
Median (range)	.068 (.000-.279)	.085 (.000-.279)	.028 (.000-.165)
BAC estimate			
<i>n</i>	206	133	73
Median (range)	.060 (.000-.400)	.070 (.000-.400)	.020 (.000-.200)
Hours drinking/partying			
<i>n</i>	329	207	122
Median (range)	4 (0-30)	5 (0-30)	3.75 (0-30)
Qty energy drinks consumed ^b			
<i>n</i>	212	129	83
Median (range)	0 (0-2)	0 (0-1)	0 (0-2)

Note. ^a Sample who responded to alcohol consumption and pre-drinking variables. ^b Full interview variable only. Bolded values indicate statistical significance ($p < .05$)

Generally, participants who reported pre-drinking were not more likely to experience harm or engage in other risky or offending behaviours, compared to participants who reported no alcohol consumption

prior to going out (see Table 7). Specifically, participants who reported pre-drinking were not significantly more likely to report:

- Consumption of illicit drugs pre-interview ($\chi^2 = 1.58, p = .209$)
- Driving with under the influence of alcohol in the past three months ($\chi^2 = .00, p = 1.00$)
- An experience of alcohol-related injury or accident in the past three months ($\chi^2 = .22, p = .637$)
- Experiencing any aggression or unwanted sexual attention in the past three months ($\chi^2 = .49, p = .485$)

However, Fisher's exact test revealed participants who reported pre-drinking were significantly more likely to report being refused entry into a licensed venue in the past three months ($p = .011$).

Table 7 Pre-drinking by consumption patterns and risk behaviour in West End

Variable (n) ^a	Pre-drink		
	Total n (%)	Yes n (%)	No n (%)
Consumed illicit drugs (n = 319)	42 (13.2)	30 (15.0)	12 (10.1)
Experienced any aggression or unwanted sexual attention in the past 3 months (n = 297)	123 (41.4)	75 (39.9)	48 (44.0)
Any alcohol related injuries or accidents ^b (n = 286)	39 (13.6)	26 (14.4)	13 (12.4)
Full interview variables			
Consumed energy drinks (n = 212)	13 (6.1)	9 (7.0)	4 (4.8)
Damaged property (n = 209)	10 (4.8)	6 (4.7)	4 (4.9)
Drove a vehicle (n = 208)	26 (12.5)	16 (12.5)	10 (12.5)
Refused service at venue (n = 207)	14 (6.8)	11 (8.7)	3 (3.8)
Refused entry at venue (n = 202)	19 (9.4)	17 (13.6)	2 (2.6)
Ejected from venue (n = 200)	12 (6.0)	8 (6.5)	4 (5.2)

Note. ^a Sample who responded to alcohol consumption and pre-drinking variables. ^b Full interview variable only. Chi-square analyses were not undertaken on observations with < 5 cases. Bolded values indicate statistical significance ($p < .05$).

Figure 7 presents the percentage of self-reported pre-drinking by month and year. The total rate of pre-drinking fluctuated across time increasing in December 2016 (77.1%) and February 2017 (77.6%) and declining again in April 2017 (62.9%). There was a general decline in the rate of pre-drinking by month from August 2017 to March 2018, before increasing to a peak of 86.7% in June 2018. These

trends do not account for possible seasonality or other mitigating factors and should be interpreted with caution.

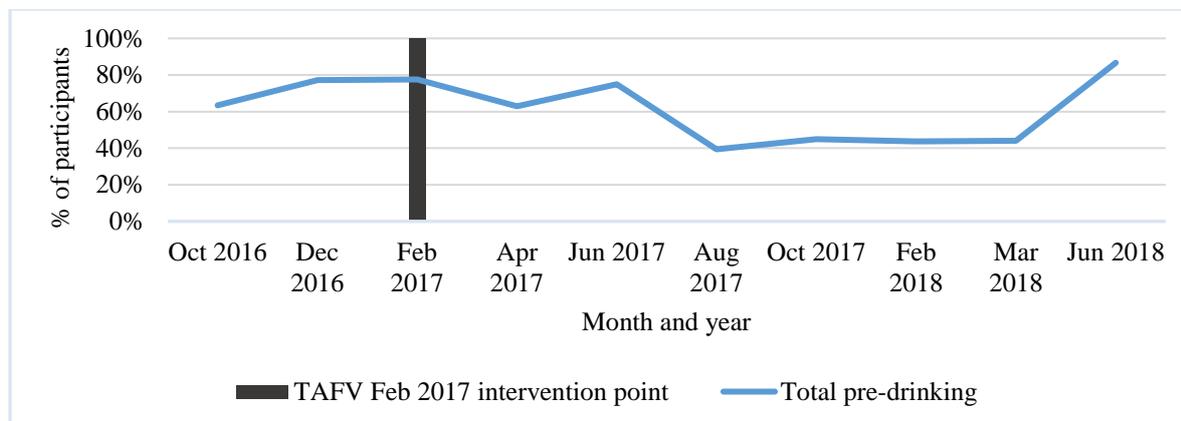


Figure 7 Frequency of pre-drinking across time – West End

2.4. DRUG CONSUMPTION PATTERNS

Approximately 14% ($n = 48$) of the participants in West End reported using substances other than alcohol during their current night out (prior to interview). Over 12% of participants ($n = 42$) reported using illicit or pharmaceutical drugs during their current night out. A small number of participants ($n = 16$, 4.6%) refused to answer interview questions about other substance use.

Table 8 presents the percentage of drug use by type across males and females. There was no significant difference between the number of males and females who reported illicit drug use ($\chi^2 = 3.28$, $p = .070$) and cannabis use ($\chi^2 = .017$, $p = .896$). A Fisher’s exact test found that there was a significant difference in the number of males and females that reported ecstasy use ($p = .016$) on the night they were interviewed.

Table 8 Self-reported substance use during the night of the interview by sex – West End

Drug ^a	Total $N = 330$ n (%)	Male $n = 120$ n (%)	Female $n = 210$ n (%)
Ecstasy	10 (3.0)	10 (4.8)	0 (0.0)
Cocaine	2 (0.6)	2 (1.0)	0 (0.0)
Methamphetamine	4 (1.2)	3 (1.4)	1 (0.8)
Pharmaceutical stimulants	1 (0.3)	0 (0.0)	1 (0.8)
Ketamine	0 (0.0)	0 (0.0)	0 (0.0)
LSD	2 (0.6)	1 (1.0)	0 (0.0)

Drug ^a	Total	Male	Female
	<i>N</i> = 330	<i>n</i> = 120	<i>n</i> = 210
	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)
GHB	0 (0.0)	0 (0.0)	0 (0.0)
Benzodiazepines	0 (0.0)	0 (0.0)	0 (0.0)
Opiates	1 (0.3)	1 (0.5)	0 (0.0)
Cannabis	20 (6.1)	13 (6.2)	7 (5.8)
Mephedrone	0 (0.0)	0 (0.0)	0 (0.0)
Polydrug use	3 (0.9)	3 (1.4)	0 (0.0)
Other	3 (0.9)	3 (1.4)	0 (0.0)
ANY illicit/pharmaceutical drug ^b	42 (12.7)	32 (15.2)	10 (8.3)

Note. ^a Unavailable for 16 cases. ^b ANY illicit/pharmaceutical drug includes participants who indicated illicit drug use but did not specify drug. Chi-square analyses were not undertaken on observations with ≤ 5 cases.

Table 9 shows reported aggressive incidents, experiences of unwanted sexual attention, harms and offending behaviour in and around licensed venues in the three months prior to the interview according self-report of illicit drugs on the night of interview; there were no significant differences by use of illicit drugs. A Fisher's exact test indicated that participants who reported driving while under the influence of alcohol in the past three months ($p = .007$) or being refused service at a licensed venue ($p = .043$) were significantly more likely to report illicit drug consumption on the night they were interviewed.

Table 9 Aggression, harm, and offending in the past 3 months according to self-report illicit drug use on the night of the interview – West End

Variable (<i>n</i>) ^a	Illicit drug use			χ^2 (df = 1)
	Total <i>n</i> (%)	Yes <i>n</i> (%)	No <i>n</i> (%)	
Experienced aggression in or around licensed venue in the past three months				
Any aggression or unwanted sexual attention (<i>n</i> = 292)	124 (42.5)	17 (44.7)	107 (42.1)	0.09
Physical (<i>n</i> = 282)	53 (18.8)	9 (23.7)	44 (18.0)	0.67
Verbal (<i>n</i> = 277)	67 (24.2)	9 (26.5)	58 (23.9)	0.11
Unwanted sexual attention (<i>n</i> = 274)	60 (21.9)	7 (21.2)	53 (22.0)	0.01
Any alcohol related injuries or accidents ^b (<i>n</i> = 280)	34 (12.1)	6 (16.2)	28 (11.5)	0.66
Full interview:				
Risk or offending while under the influence of alcohol ^b				
Property damage (<i>n</i> = 207)	10 (4.8)	2 (7.1)	8 (4.5)	-
Drove a vehicle ^c (<i>n</i> = 206)	24 (11.7)	8 (28.6)	16 (9.0)	-

Variable (<i>n</i>) ^a	Illicit drug use			χ^2 (df = 1)
	Total <i>n</i> (%)	Yes <i>n</i> (%)	No <i>n</i> (%)	
Refused service at venue ^c (<i>n</i> = 205)	15 (7.3)	5 (17.2)	10 (5.7)	-
Refused entry at venue (<i>n</i> = 199)	20 (10.1)	3 (11.1)	17 (9.9)	-
Ejected from venue (<i>n</i> = 197)	12 (6.1)	2 (7.4)	10 (5.9)	-

Note. ^a (*n*) = sample who responded to harm and offending variable and illicit drug consumption ^b Involvement in the past three months. ^c Chi-square analysis was not undertaken as the expected count was less than < 5 cases. Chi-square analyses were not undertaken on observations with < 5 cases. Bolded values indicate statistical significance ($p < .05$).

2.4.1. DRUG SWABS

Thirty-three participants in West End were invited to be tested for the use of amphetamine, methamphetamine, cocaine, opiates, and cannabis via a saliva drug swab. Over 57% of respondents ($n = 19$) agreed to the test. Among participants who completed drug swabs, 31.6% returned a positive result. Most commonly participants tested positive for cannabis (31.6%, $n = 6$). Table 10 lists the prevalence of positive drug test findings for respondents according to sex.

Table 10 Positive drug swabs by sex – West End

Drug	Positive swab result		
	Total <i>n</i> (%)	Male <i>n</i> (%)	Female <i>n</i> (%)
<i>N</i> = 19 ^a			
Amphetamine	0 (0.0)	0 (0.0)	0 (0.0)
Methamphetamine	2 (10.5)	2 (11.8)	0 (0.0)
Cocaine	0 (0.0)	0 (0.0)	0 (0.0)
Opiates	0 (0.0)	0 (0.0)	0 (0.0)
Cannabis	5 (26.3)	4 (23.5)	1 (50.0)
ANY	6 (31.6)	5 (29.4)	1 (50.0)

Note. ^a Total sample that were invited and agreed to complete drug swab

Of the 42 participants who self-reported illicit drug use, seven completed a drug swab (71.4% tested positive for any drug). Table 11 presents the self-report responses of participants regarding the use of illicit drugs prior to interview according to positive drug swab results for each drug type. Given the low numbers, chi-square analyses were not conducted. A Fisher's exact test revealed that participants who self-reported illicit drug use were significantly more likely to obtain positive drug swab for any drug ($p = .010$).

Table 11 Drug swab result by self-reported drug use pre-interview – West End

Drug swab <i>N</i> = 19 ^a	Self-reported drug use Yes/No <i>n</i>	Positive Drug Result <i>n</i> (%)
Methamphetamine	Yes (<i>n</i> = 1)	1 (100.00)
	No (<i>n</i> = 18)	1 (5.6)
Cocaine	Yes (<i>n</i> = 0)	0 (0.0)
	No (<i>n</i> = 0)	0 (0.0)
Opiates	Yes (<i>n</i> = 1)	0 (0.0)
	No (<i>n</i> = 18)	0 (0.0)
Cannabis	Yes (<i>n</i> = 5)	3 (60.0)
	No (<i>n</i> = 14)	2 (14.3)
ANY	Yes (<i>n</i> = 7)	5 (71.4)
	No (<i>n</i> = 12)	1 (8.3)

Note. ^aTotal sample that were invited and agreed to complete drug swab. Chi-square analyses were not undertaken on observations with < 5 cases. Bolded values indicate statistical significance ($p < .05$).

2.5. EXPERIENCES OF AGGRESSION AND HARM

Over 40% of patrons in West End ($n = 131$, 43.0%) reported that they had been involved in a form of verbal aggression, physical aggression or experienced unwanted sexual attention in or around licensed venues in the three months prior to the interview. Unwanted sexual attention (22.0%, $n = 63$) and verbally aggressive incidents (24.9%, $n = 72$) were reported to be the most common types experienced by participants during the three months prior to the interview, followed closely by reports of involvement in physical aggression (18.6%, $n = 55$).

Table 12 lists the prevalence of each type of aggression according to sex. Females were significantly more likely to report having experienced unwanted sexual attention ($\chi^2 = 37.53$, $p < .001$) in or around a licensed venue in the past three months. However, there were no significant differences between males and females reported involvement in verbal ($\chi^2 = 2.37$, $p = .124$), physical ($\chi^2 = 3.03$, $p = .082$), or any type of aggression ($\chi^2 = 3.49$, $p = .062$). Table 12 also presents the percentage of participants who reported being involved in aggressive incidents by age. Given the low numbers of participants in older age groups, chi-square analyses were only examined for any aggressive type behaviours. No significant difference in the reporting of any aggressive behaviour was evident across age ($\chi^2(4) = 1.23$, $p = .873$). There was a significant difference in the percentage of patrons who experienced physical aggression across age groups ($\chi^2(4) = 11.63$, $p = .020$).

Table 12 Self-reported involvement in aggression by sex and age – West End

Variable <i>n</i> (%)	Physical <i>N</i> = 295 ^a	Verbal <i>N</i> = 289 ^a	Unwanted Sexual attention <i>N</i> = 287 ^a	Any <i>N</i> = 305 ^a
Sex				
Male	41 (21.6)	52 (27.8)	19 (10.5)	76 (39.0)
Female	14 (13.3)	20 (19.6)	44 (41.5)	55 (50.0)
Total	55 (18.6)	72 (24.9)	63 (22.0)	131 (43.0)
Age ^b				
18-19	6 (37.5)	7 (43.8)	4 (25.0)	8 (50.0)
20-24	18 (15.7)	31 (27.2)	28 (24.6)	52 (44.1)
25-29	18 (20.9)	19 (22.9)	18 (22.5)	39 (44.8)
30-39	5 (9.1)	13 (23.2)	12 (21.4)	23 (38.3)
40+	7 (35.0)	2 (11.8)	1 (5.6)	8 (38.1)

Note. ^a Sample who responded to harm variable. ^b Age was missing for 3 cases. Chi-square analyses were not undertaken on observations with < 5 cases. Bolded values indicate statistical significance ($p < .05$)

Participants who completed the full interview also indicated if they had been involved in other alcohol-related incidents, risky behaviours or harms in the past three months. Table 13 presents the number and percentage of other incidents and risky behaviours across sex and age groups. There was no significant difference in the number of males and females that reported experiencing alcohol-related injury ($\chi^2 = 0.42, p = .519$) or driving while intoxicated ($\chi^2 = 2.34, p = .126$) in the past three months. A Fisher's exact test found that males were significantly more likely to be refused entry into a licensed venue than females, $p = .008$.

Table 13 Experience of harm of risky behaviours by sex – West End

Experience of harm or risky behaviour in the past three months	Total <i>n</i> (%)	Male <i>n</i> (%)	Female <i>n</i> (%)
Committed property damage while intoxicated ^a (<i>n</i> = 214)	10 (4.7)	9 (6.8)	1 (1.2)
Driven a vehicle while intoxicated (<i>n</i> = 213)	26 (12.2)	20 (14.8)	6 (7.7)
Refused service at licensed venue ^a (<i>n</i> = 213)	15 (7.0)	12 (9.0)	3 (3.8)
Refused entry to licensed service ^a (<i>n</i> = 207)	20 (9.7)	18 (13.7)	2 (2.6)
Ejected from licensed venue ^a (<i>n</i> = 205)	12 (5.9)	10 (7.8)	2 (2.6)
Experienced alcohol-related injury or accident ^b (<i>n</i> = 294)	40 (13.6)	27 (14.6)	13 (11.9)

^a Chi-square analyses were not reported due to the low number of cases. ^b Included in the full and brief interview.

3. APPENDIX 3: PATRON INTERVIEWS – PLANNED AND PAST MOVEMENTS

The following section details the hours of reported drinking and partying, where patrons were going next and their planned method of getting home for participants in Cairns, Fortitude Valley and Surfers Paradise.

3.1. CAIRNS

Participants ($N = 1,087$) reported that they had been drinking for a median of 4 hours at the time of interview (range: 0–50 hours). There was no significant difference in the time males ($n = 626$, $Mdn = 4$) and females ($n = 46$, $Mdn = 4$) had spent partying/drinking prior the interview ($z = -1.01$, $p = .313$). Older participants were significantly more likely to report drinking/partying for a greater number of hours when interviewed ($r = 0.12$, $p < .001$), and a Kruskal-Wallis H test found that the median hours spent drinking/partying differed between age groups ($\chi^2(4) = 27.71$, $p < .001$).

A total of 1,024⁹ participants reported where they were going next. Most commonly, participants reported that they were on their way home after the interview ($n = 439$, 39.9%), followed by participants who were heading to a licensed venue ($n = 362$, 32.9%). Figure 8 shows the percentage of participants heading to each location across the interview time (hour)¹⁰. The percentage of participants going home increased each hour throughout the night. The percentage of participants heading to a venue was highest at 9pm (50%) and 11pm (48.6%), slowly tapering off thereafter. Similarly, participants who indicated that they were heading to their first venue for the evening was highest in the early evening at 9pm (27.8%) and 10pm (43.8%). Other referred to other destinations specified by participants, such as going to get food, to a hotel or to work. Going to ‘other’ destinations most commonly occurred at 9pm (11.1%) and 10pm (6.2%).

⁹ Where the participant was going next was missing for 76 cases.

¹⁰ 4am-4:59am ($n = 1$) was excluded from the figure

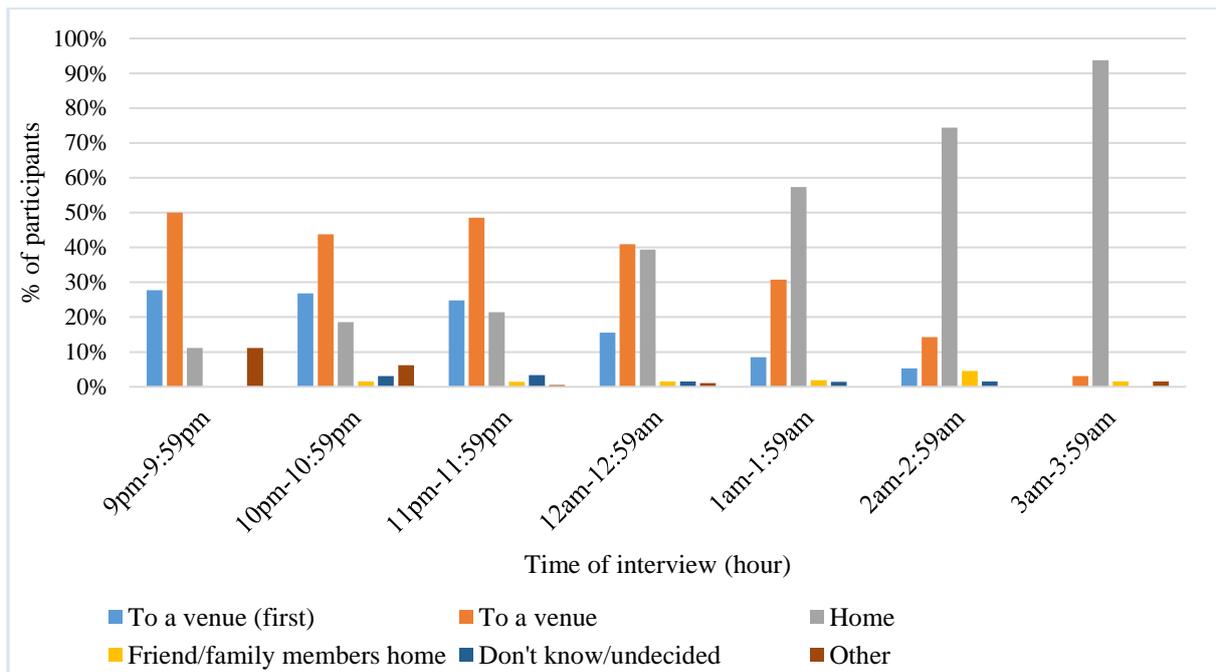


Figure 8 Where participants were going at time of interview - Cairns

Figure 9 shows participants' self-reported intended methods of getting home post-interview ($N = 1,059^{11}$). Participants most commonly reported planning to catch a taxi (29.7%) or planned to walk home (25.2%). A smaller percentage planned to get a lift with family or friends (12.5%) or to catch an Uber (16.3%), while only 3.1% did not know how they would get home.

¹¹ Self-report method of getting home was missing for 41 cases

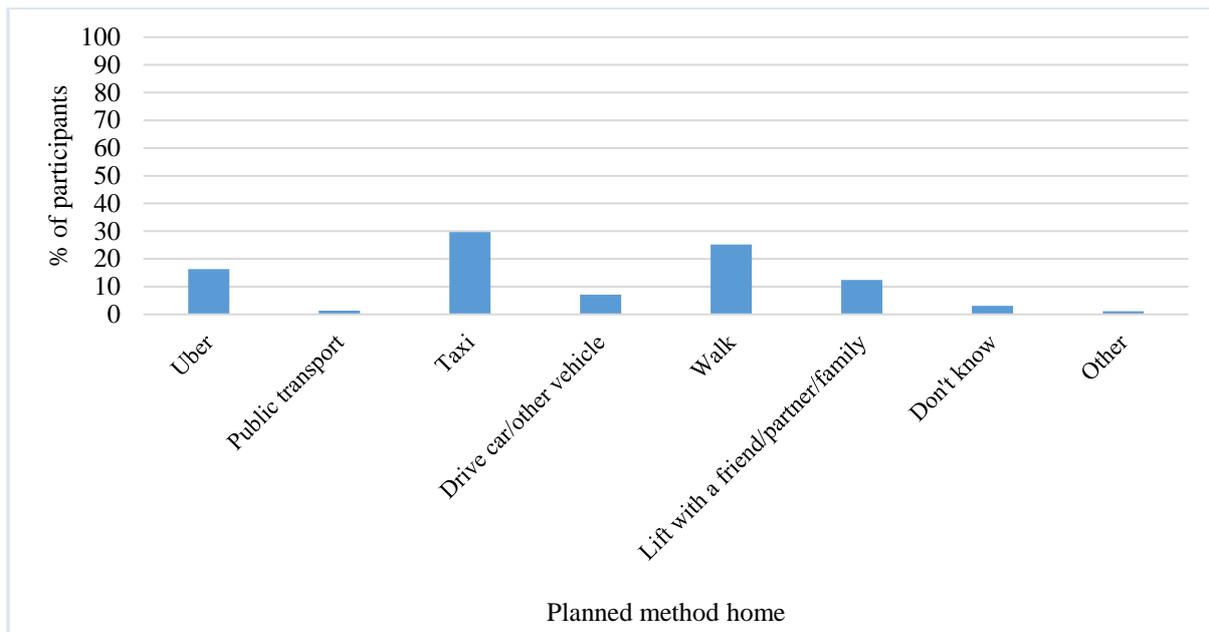


Figure 9 Planned method of getting home – Cairns

3.2. FORTITUDE VALLEY

Participants ($N = 2,631$) reported that they had been drinking/partying for a median of five hours at the time of interview (range: 0-40 hours). Males reported spending significantly more time partying/drinking ($n = 1497$, $Mdn = 5$) than females ($n = 1133$, $Mdn = 5$; $z = -2.14$, $p = .032$). Older participants were significantly more likely to report drinking for a greater number of hours when interviewed ($r = 0.10$, $p < .001$), and a Kruskal-Wallis H test found that the median hours spent drinking/partying differed between age groups ($\chi^2(4) = 45.86$, $p < .001$).

Participants ($N = 2,406^{12}$) reported where they were heading after completing the interview. The majority of participants were on their way to a venue when interviewed ($n = 132$, 45.4%), followed by participants who were heading home for the evening ($n = 107$, 36.8%). Figure 10 shows the percentage of participants heading to each location across the interview time (hour)¹³. The percentage of participants going home increased each hour throughout the night. The percentage of participants heading to a venue declined throughout the night, with patrons who indicated that they were heading to their first venue peaking at 11pm (21.1%).

¹² Where the participant was going next was missing for 258 cases

¹³ 9pm-9:59pm ($n = 1$) and 5am-5:59am ($n = 4$) was excluded from the figure due to the small number of participants

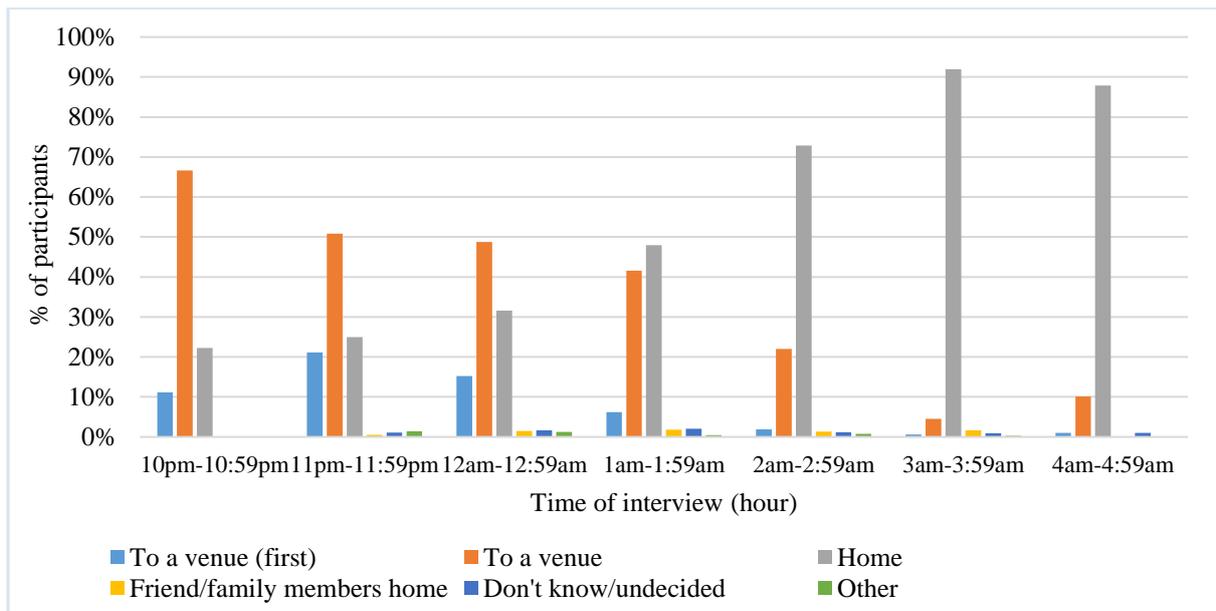


Figure 10 Where participants were going at time of interview – Fortitude Valley

Figure 11 shows participants’ self-reported intended methods of getting home post-interview ($N = 2,570^{14}$). Participants most commonly reported planning to catch an Uber (51.4%) or a taxi (15.4%). A smaller percentage planned to walk (8.9%) or to get a lift with family or friends (7.8%), while only 1.3% did not know how they would get home.

¹⁴ Self-report method of getting home was missing for 94 cases

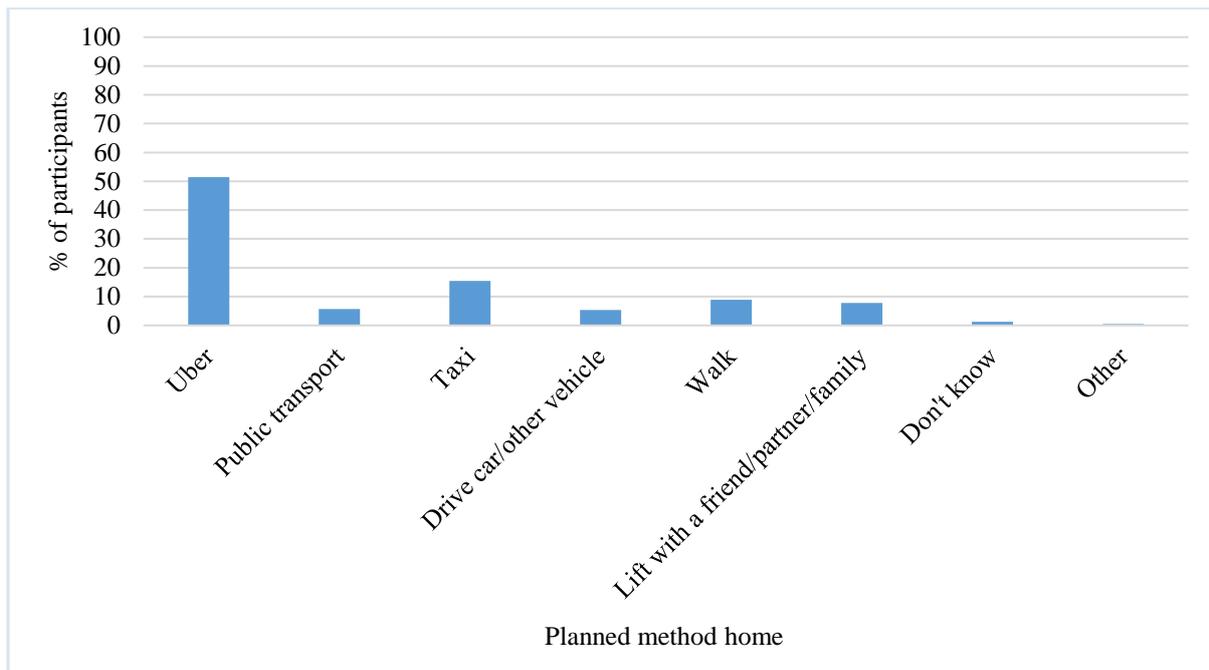


Figure 11 Planned method of getting home – Fortitude Valley

3.3. SURFERS PARADISE

Participants ($N = 286$) reported that they had been drinking for a median of five hours at the time of interview (range: 0-24 hours). There was no significant difference in the number of hours males ($n = 156$, $Mdn = 5.5$) and females ($n = 130$, $Mdn = 5$; $z = -1.78$, $p = .075$) reported drinking/partying. The correlation between age and the number of hours drinking/partying was not statistically significant ($r = -0.03$, $p = .590$), and a Kruskal-Wallis H test found that there was no statistically significant difference between the median hours spent drinking/partying and age groups ($\chi^2(4) = 2.07$, $p = .723$).

Participants ($N = 288^{15}$) reported where they were going after completing the interview. Most commonly, participants were either on their way to a venue when interviewed ($n = 132$, 45.4%) or heading home for the evening ($n = 107$, 36.8%). Figure 12 shows the percentage of participants heading to each location across the interview time (hour)¹⁶. The percentage of participants that reported that they were going home generally increased throughout the night, peaking at 3am (87.1%). The percentage of participants heading to a venue was highest at 12am (64%), slowly tapering off thereafter.

¹⁵ Where the participant was going next was missing for 3 cases

¹⁶ 9pm-9:59pm ($n = 1$) was excluded from the figure

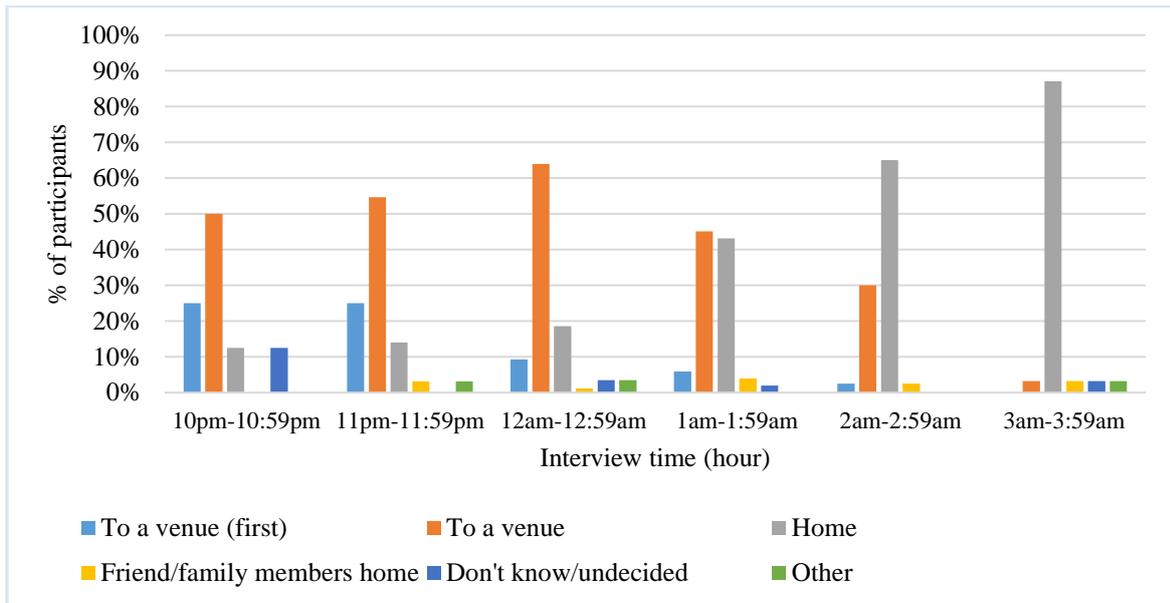


Figure 12 Where participants were going at time of interview – Surfers Paradise

Figure 13 shows participants' self-reported intended methods of getting home post-interview ($N = 2570^{17}$). Participants most commonly reported planning to catch an Uber (40.2%), or to walk home (22.0%). A smaller percentage planned to get a lift with family/friends (12.4%) or to catch a taxi (6.2%), while only 4.5 % did not know how they would get home.

¹⁷ Self-report method of getting home was missing for 19 cases

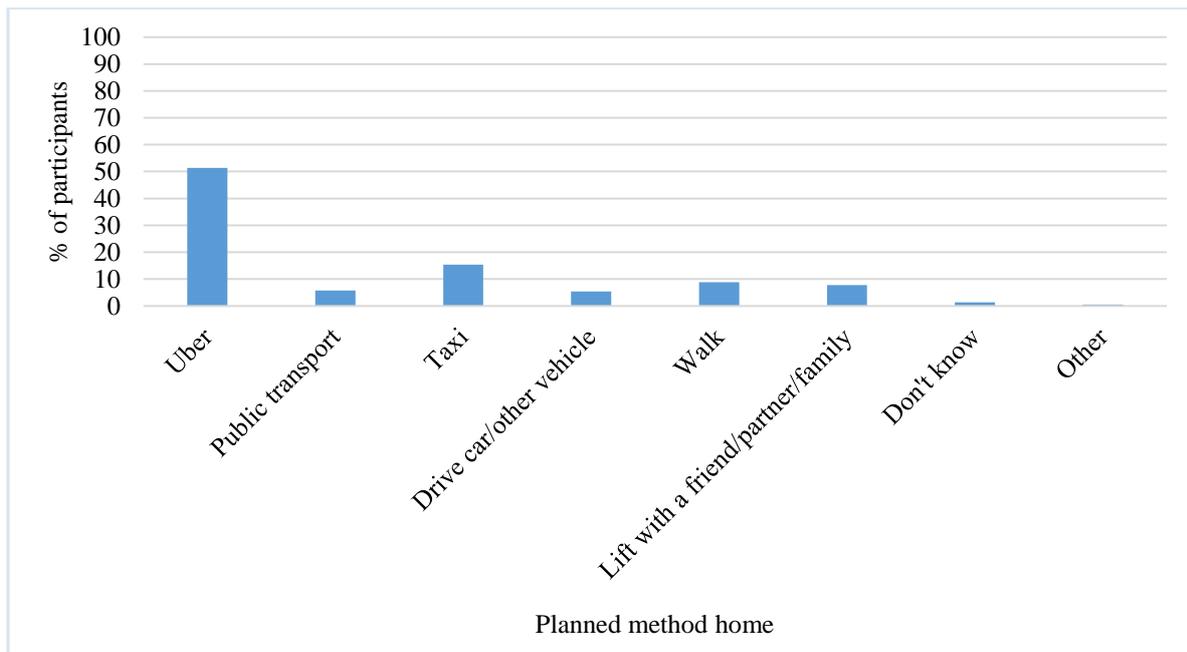


Figure 13 Planned method of getting home – Surfers Paradise

4. APPENDIX 4: PATRON INTERVIEWS – SIGNS OF INTOXICATION

Interviewers recorded visible signs of intoxication for all participants based on both a standard checklist of intoxication signs and a list of signs which they were able to add to. Signs of intoxication are presented for each SNP below.

4.1. CAIRNS

Just under half of all participants were reported to show some sign of being intoxicated ($n = 517$; 47%). Intoxication signs included slurred speech, spilling drinks, staggering/falling over, glassy/red eyes, loss of coordination, an indication of illicit drug use and other signs (e.g., slowed responses, confusion). The presence of any interviewer-recorded intoxications signs (yes/no) did not vary significantly across the sex of respondents ($\chi^2 = .31, p = .577$). The percentage of participants who were reported to demonstrate signs of intoxication are reported by sex and intoxication sign in Table 14. Interviewers were more likely to report females (30.5%) exhibiting other signs of intoxication, compared to males (24.6%; $\chi^2 = 4.78, p = .029$). Males were significantly more likely to be reported having glassy/red eyes (28.2%), compared to females (22.4%; $\chi^2 = 4.77, p = .029$).

Table 14 Interviewer recorded intoxications signs by sex and age - Cairns

Variable <i>n</i> (%)	Showed sign of intoxication					
	Loss of coordination	Staggering or falling over	Slurred speech	Had glassy/red eyes	Indicated illicit drug use	Other signs
Sex						
Male ($n = 631$)	60 (9.5)	40 (6.3)	156 (24.7)	178 (28.2)	20 (3.2)	155 (24.6)
Female ($n = 469$)	51 (10.9)	39 (8.3)	106 (22.6)	105 (22.4)	15 (3.2)	143 (30.5)
Total ($n = 1100$)	111 (10.1)	79 (7.2)	262 (23.8)	283 (25.7)	35 (3.2)	298 (27.1)
Age ^a						
18-19 ($n = 246$)	22 (8.9)	11 (4.5)	51 (20.7)	63 (25.6)	8 (3.3)	65 (26.4)
20-24 ($n = 389$)	47 (12.1)	36 (9.3)	84 (21.6)	91 (23.4)	17 (4.4)	102 (26.2)
25-29 ($n = 222$)	24 (10.8)	16 (7.2)	61 (27.5)	55 (24.8)	5 (2.3)	65 (29.3)
30-39 ($n = 140$)	10 (7.1)	7 (5.0)	36 (25.7)	41 (29.3)	3 (2.1)	37 (26.4)
40+ ($n = 89$)	8 (9.0)	9 (10.1)	29 (32.6)	33 (37.1)	2 (2.2)	29 (32.6)

Note. ^a Age groups were missing 14 cases. Chi-square analyses were not undertaken on observations with < 5 cases. Bolded values indicate statistical significance ($p < .05$).

Those showing any intoxication signs were significantly more likely to: record a higher BAC ($z = -13.89, p < .001$), estimate a higher BAC ($z = -10.37, p < .001$), report drinking/partying for more

hours ($z = -8.65, p < .001$) and report consuming more standard drinks prior to going out ($z = -8.40, p < .001$) compared to participants who did not demonstrate any signs of intoxication (Table 15). Participants who showed intoxication signs were also more likely to report consuming drugs pre-interview (57.5%; $\chi^2 = 7.03, p = .008; N = 1018$), compared to those who do not show intoxication signs (42.5%).

Table 15 Indicators of intoxication by signs of intoxication identified by the interviewer - Cairns

Variable	Showed sign/s of intoxication		
	Total ^a	Yes	No
BAC reading			
<i>n</i>	964	466	498
median (range)	.087 (.000-.289)	.118 (.000-.289)	.054 (.000-.289)
BAC estimate			
<i>n</i>	828	408	420
median (range)	.070 (.000-.400)	.090 (.000-.400)	.051 (.000-.400)
Hours drinking/partying			
<i>n</i>	1087	510	577
median (range)	4 (0-50)	5 (0-50)	4 (0-20)
Qty of pre-drinks			
<i>n</i>	1004	479	525
median (range)	4 (0-40)	5 (0-40)	3 (0-25)

Note. ^a Sample who responded to alcohol consumption variables and intoxication signs. Bolded values indicate statistical significance ($p < .05$).

4.2. FORTITUDE VALLEY

Interviewers recorded visible signs of intoxication for all participants based on both a standard checklist of intoxication signs and a list of signs which they were able to add to. Approximately 57% of participants were reported showed some sign of being intoxicated ($n = 1,523$). Intoxication signs included slurred speech, spilling drinks, staggering/falling over, glassy/red eyes, loss of coordination, an indication of illicit drug use and other signs (e.g., slowed responses, confusion). The presence of any interviewer-recorded intoxications signs (yes/no) did not significantly vary across sex of respondent ($\chi^2 = .99, p = .321$). The percentage of participants who were reported to demonstrate signs of intoxication are reported by sex and intoxication sign in Table 16. Interviewers were significantly more likely to report females staggering and falling over compared to males ($\chi^2 = 5.85, p = .016$). In contrast, interviewers were significantly more likely to report males having slurred speech (20.3%; χ^2

= 8.72, $p = .003$), glassy/red eyes (39.7%; $\chi^2 = 5.58$, $p = .018$) and indicated illicit drug use (5.7%; $\chi^2 = 6.37$, $p = .012$), compared to females (15.9%; 35.2%; 3.6%; respectively).

Table 16 Interviewer recorded intoxications signs by sex and age – Fortitude Valley

Variable <i>n</i> (%)	Showed sign of intoxication					
	Loss of coordination	Staggering or falling over	Slurred speech	Had glassy/red eyes	Indicated illicit drug use	Other signs
Sex						
Male (<i>n</i> = 1515)	143 (9.4)	89 (5.9)	308 (20.3)	601 (39.7)	86 (5.7)	490 (32.3)
Female (<i>n</i> = 1148)	89 (7.8)	95 (8.3)	182 (15.9)	404 (35.2)	41 (3.6)	374 (32.6)
Total (<i>n</i> = 2649)	232 (8.7)	184 (6.9)	490 (18.4)	1005 (37.7)	127 (4.8)	864 (32.4)
Age ^a						
18-19 (<i>n</i> = 829)	69 (8.3)	56 (6.8)	130 (15.7)	289 (34.9)	36 (4.3)	287 (34.6)
20-24 (<i>n</i> = 1154)	107 (9.3)	94 (8.1)	224 (19.4)	445 (38.6)	59 (5.1)	382 (33.1)
25-29 (<i>n</i> = 392)	27 (6.9)	19 (4.8)	74 (18.9)	156 (39.8)	22 (5.6)	112 (28.6)
30-39 (<i>n</i> = 181)	16 (8.8)	8 (4.4)	33 (18.2)	70 (38.7)	8 (4.4)	57 (31.5)
40+ (<i>n</i> = 93)	12 (12.9)	7 (7.5)	25 (26.9)	42 (45.2)	2 (2.2)	24 (25.8)

Note. ^a Age groups were missing 14 cases. Chi-square analyses were not undertaken on observations with < 5 cases. Bolded values indicate statistical significance ($p < .05$).

Those showing intoxication signs were significantly more likely to: record a higher BAC ($z = -15.57$, $p < .001$), estimate a higher BAC ($z = -7.84$, $p < .001$), report drinking/partying for more hours ($z = -6.17$, $p < .001$) and report consuming standard drinks prior to going out ($z = -13.04$, $p < .001$), compared to participants who did not demonstrate any signs of intoxication (Table 17). Participants who showed intoxication signs were also more likely to report consuming drugs pre-interview (72.6%; $\chi^2 = 30.08$, $p < .001$; $N = 2499$), compared to those who do not show intoxication signs (27.4%).

Table 17 Indicators of intoxication by signs of intoxication identified by the interviewer – Fortitude Valley

Variable	Showed sign/s of intoxication		
	Total ^a	Yes	No
BAC reading			
<i>n</i>	2359	1381	978
median (range)	.077 (.000-.300)	.091 (.000-.271)	.054 (.000-.300)
BAC estimate			
<i>n</i>	978	535	443
median (range)	.070 (.000-.400)	.070 (.000-.370)	.050 (.000-.400)
Hours drinking/partying			
<i>n</i>	2631	1507	1124
median (range)	5 (0-40)	5 (0-30)	4 (0-40)
Qty of pre-drinks			
<i>n</i>	2586	1479	1107
median (range)	5 (0-40)	6 (0-40)	4 (0-30)

Note. ^a Sample who responded to alcohol consumption variables and intoxication signs. Bolded values indicate statistical significance ($p < .05$).

4.3. SURFERS PARADISE

Interviewers recorded visible signs of intoxication for all participants based on both a standard checklist of intoxication signs and a list of signs which they were able to add to. One hundred and seventy-four participants were reported to show some sign of being intoxicated (59.8%). Intoxication signs included slurred speech, spilling drinks, staggering/falling over, glassy/red eyes, loss of coordination, an indication of illicit drug use and other signs (e.g., slowed responses, confusion). The presence of any interviewer-recorded intoxications signs (yes/no) did not vary significantly vary across the sex of respondents ($\chi^2 = .72, p = .397$). The percentage of participants who were reported to demonstrate signs of intoxication are reported by sex and intoxication sign in Table 18. Interviewers were significantly more likely to report males staggering and falling over (12.0%; $\chi^2 = 5.19, p = .023$) who indicated illicit drug use (15.2%; $\chi^2 = 4.12, p = .042$), compared to females (4.5%; 7.5%; respectively).

Table 18 Interviewer recorded intoxications signs by sex and age – Surfers Paradise

Variable <i>n</i> (%)	Showed sign of intoxication					
	Loss of coordination	Staggering or falling over	Slurred speech	Had glassy/red eyes	Indicated illicit drug use	Other signs
Sex						
Male (<i>n</i> = 158)	13 (8.2)	19 (12.0)	38 (24.1)	77 (48.7)	24 (15.2)	56 (35.4)
Female (<i>n</i> = 133)	12 (9.0)	6 (4.5)	36 (27.1)	50 (37.6)	10 (7.5)	38 (28.6)
Total (<i>n</i> = 291)	25 (8.6)	25 (8.6)	74 (25.4)	127 (43.6)	34 (11.7)	94 (32.3)
Age ^a						
18-19 (<i>n</i> = 119)	8 (6.7)	8 (6.7)	32 (26.9)	51 (42.9)	16 (13.4)	40 (33.6)
20-24 (<i>n</i> = 121)	9 (7.4)	12 (9.9)	28 (23.1)	51 (42.1)	14 (11.6)	36 (29.8)
25-29 (<i>n</i> = 26)	6 (23.1)	4 (15.4)	10 (38.5)	11 (42.3)	2 (7.7)	8 (30.8)
30-39 (<i>n</i> = 19)	1 (5.3)	1 (5.3)	2 (10.5)	10 (52.6)	2 (10.5)	7 (36.8)
40+ (<i>n</i> = 3)	1 (33.3)	0 (0.0)	2 (66.7)	2 (66.7)	0 (0.0)	2 (66.7)

Note. ^a Age groups were missing 3 cases. Chi-square analyses were not undertaken on observations with < 5 cases. Bolded values indicate statistical significance ($p < .05$).

Those showing any intoxication signs were significantly more likely to: record a higher BAC ($z = -5.22, p < .001$), estimate a higher BAC ($z = -4.24, p < .001$), report drinking/partying for more hours ($z = -3.50, p < .001$) and report consuming more standard drinks prior to going out ($z = -5.28, p < .001$), compared to participants who did not demonstrate any signs of intoxication (Table 19).

Participants who showed intoxication signs were also more likely to report consuming drugs pre-interview (71.2%; $\chi^2 = 4.81, p = .028; N = 283$), compared to those who do not show intoxication signs (28.8%).

Table 19 Indicators of intoxication by signs of intoxication identified by the interviewer – Surfers Paradise

Variable	Showed sign/s of intoxication		
	Total	Yes	No
BAC reading			
<i>n</i>	260	162	98
median (range)	.086 (.000-.290)	.098 (.000-.280)	.048 (.000-.290)
BAC estimate			
<i>n</i>	219	131	88
median (range)	.070 (.000-.300)	.075 (.000-.300)	.050 (.000-.290)
Hours drinking/partying			
<i>n</i>	286	170	116
median (range)	5 (0-24)	6 (0-24)	4.5 (0-21)
Qty of pre-drinks			

Variable	Showed sign/s of intoxication		
	Total	Yes	No
<i>n</i>	277	165	112
median (range)	6 (0-25)	6 (0-25)	4 (0-25)

Note. ^a Sample who responded to alcohol consumption variables and intoxication signs. Bolded values indicate statistical significance ($p < .05$).

5. APPENDIX 5: LIST OF SIGNS OF INTOXICATION

The list of ‘noticeable’ signs of intoxication from the Office of Liquor, Gaming and Racing Intoxication Guidelines (2007) is detailed in Table 20.

Table 20 Signs of intoxication

Speech	Balance	Coordination	Behaviour
<ul style="list-style-type: none"> • Slurring words • Rambling or unintelligible conversation • Incoherent or muddled speech • Loss of train of thought • Not understanding normal conversation • Difficulty in paying attention 	<ul style="list-style-type: none"> • Unsteady on feet • Swaying uncontrollably • Staggering • Difficulty walking straight • Cannot stand or falling down • Stumbling • Bumping into or knocking over furniture or people 	<ul style="list-style-type: none"> • Lack of coordination • Spilling of drinks • Dropping drinks • Fumbling change • Difficulty counting money or paying • Difficulty opening or closing doors • Inability to find one’s mouth with a glass 	<ul style="list-style-type: none"> • Rude • Aggressive • Belligerent • Argumentative • Offensive • Bad tempered • Physically violent • Loud/boisterous • Disorderly • Confused • Exuberant • Using offensive language • Annoying/pestering others • Overly friendly • Loss of inhibition • Inappropriate sexual advances • Inappropriate sexual advances • Drowsiness or sleeping at a bar or table • Vomiting • Drinking rapidly

Note. An additional sign of intoxication not included in the guidelines includes having glassy/red eyes.

6. APPENDIX 6: PATRON INTERVIEWS - PERCEIVED EFFECT OF GOVERNMENT POLICY

The following section presents patrons perceived impact of the TAFV Policy across SNPs (i.e., Cairns, Fortitude Valley, and Surfers Paradise). While it is important to canvas the views of patrons, it is equally important to consider that many of the patrons regarded the interview as a platform in which they could voice their opinion to the political class and gave responses in that politicised perspective. Based on current calculations, people attending venues after 10pm represent around 2.5% of the population.

CAIRNS

Participants were asked about their opinion regarding the last drinks laws that were introduced in Queensland on July 1st, 2016. Thirty-eight percent of participants ($n = 413^{18}$) felt that the laws had affected their nights out or changed the precinct. The perceived impact of Policy on the SNP and participants' nights out is detailed in Table 21 by gender. A small percentage of participants reported increasing their pre-drinking (14.2%), going out earlier (10.4%) and going home earlier (10.0%). Despite specific measures around ceasing service of alcohol at 3am, the vast majority of people did not report experiencing a worsened atmosphere (89.1%). However, ceasing alcohol service at 3am may have been neutralised by the number of extended trading permits in place. Other perceived effects were also reported by participants 5.2% and included, but were not limited to, choosing different alcoholic beverages after 12am (i.e., beer or wine instead of shots), the casino becoming more popular, drinking earlier, drinking at home, drinking less, helping reduce the number of intoxicated people later in the night, and a perceived negative impact on tourism. Females were significantly more likely to go out later ($\chi^2 = 6.18, p = .013$) feel safer ($\chi^2 = 5.91, p = .015$) and report an improved atmosphere in Cairns ($\chi^2 = 8.24, p = .004$) as a result of Policy, compared to males.

Table 21 Perceived impact of Policy by gender – Cairns

Impact of policy ^a	Sex			
	Total <i>n</i> (%)	Male <i>n</i> (%)	Female <i>n</i> (%)	χ^2 (df = 1)
Go out earlier (<i>n</i> = 1090)	113 (10.4)	60 (9.6)	53 (11.4)	0.89
Go out later (<i>n</i> = 1090)	20 (1.8)	6 (1.0)	14 (3.0)	6.18
Pre-drink more (<i>n</i> = 1090)	155 (14.2)	86 (13.8)	69 (14.8)	0.23

¹⁸ *n* missing 12 cases

Impact of policy ^a	Sex			χ^2 (df = 1)
	Total <i>n</i> (%)	Male <i>n</i> (%)	Female <i>n</i> (%)	
Look for venues open until 5am (<i>n</i> = 1086)	63 (5.8)	31 (5.0)	32 (6.9)	1.82
Go home earlier (<i>n</i> = 1086)	109 (10.0)	66 (10.6)	43 (9.3)	0.50
Feel less safe (<i>n</i> = 1089)	60 (5.5)	33 (5.3)	27 (5.8)	0.13
Feel safer (<i>n</i> = 1089)	22 (2.0)	7 (1.1)	15 (3.2)	5.91
Witness less violence (<i>n</i> = 1090)	27 (2.5)	12 (1.9)	15 (3.2)	1.85
Witness more violence (<i>n</i> = 1090)	67 (6.1)	40 (6.4)	27 (5.8)	0.18
Improved atmosphere (<i>n</i> = 1090)	22 (2.0)	6 (1.0)	16 (3.4)	8.24
Worsened atmosphere (<i>n</i> = 1089)	119 (10.9)	74 (11.9)	45 (9.7)	1.35
Other (<i>n</i> = 1087)	56 (5.2)	32 (5.1)	24 (5.2)	0.02
ANY change to behaviour or precinct (<i>n</i> = 1088)	413 (38.0)	236 (37.9)	177 (38.1)	0.04

Note. ^a Questions on the perceived impact of Policy were not included in the first version of the brief survey. Bolded values indicate statistical significance ($p < .05$).

FORTITUDE VALLEY

Participants were asked about their opinion regarding the last drinks laws that were introduced in Queensland on 1 July 2016. Over 51.1% of participants ($n = 826^{19}$) felt that the laws had affected their nights out and changed the precinct. The perceived impact of Policy on participants' nights out and the SNP is detailed in Table 22 by gender. Although the majority of participants (79.1%) reported no change in pre-drinking, over 20% reported an increase in their pre-drinking. Other participants reported going out earlier (12.5%), going home earlier (10.7%), a worsened atmosphere (12.8%) and other (9.0%) effects. Other perceived effects included, but were not limited to, being unable to get shots after a certain time, a larger police presence, a more boring environment, not being able to get as intoxicated, people getting intoxicated earlier, more fights observed, being more organised and aware of the time, the club being less packed and more controlled, feeling more rushed, greater difficulty in changing venues, dislikes of lining up in queues to have ID scanned, less fun, longer lines, difficulties getting a taxi at 3am, and a quieter precinct. Interestingly, despite specific measures around ceasing service of alcohol at 3am, the vast majority of people (89.3%) did not report going home earlier.

¹⁹ *n* missing 1047 cases

Ceasing alcohol service at 3am may have been neutralised by the number of extended trading permits operating within Fortitude Valley. Females were significantly more likely to report looking for venues that were open until 5am ($\chi^2 = 6.09, p = .014$) as a result of Policy, compared to males.

Table 22 Perceived impact of Policy by gender – Fortitude Valley

Impact of policy ^a	Sex ^b			χ^2 (df =1)
	Total n (%)	Male n (%)	Female n (%)	
Go out earlier (n = 1627)	204 (12.5)	105 (12.4)	99 (12.7)	0.03
Go out later (n =1627)	60 (3.7)	28 (3.3)	32 (4.1)	0.71
Pre-drink more (n = 1620)	339 (20.9)	162 (19.3)	177 (22.7)	2.92
Look for venues open until 5am (n = 1571)	123 (7.8)	51 (6.2)	72 (9.6)	6.09
Go home earlier (n = 1571)	168 (10.7)	77 (9.4)	91 (12.1)	2.99
Feel less safe (n = 1622)	93 (5.7)	47 (5.6)	46 (5.9)	0.08
Feel safer (n = 1622)	62 (3.8)	32 (3.8)	30 (3.8)	0.02
Witness less violence (n = 1621)	44 (2.7)	26 (3.1)	18 (2.3)	0.91
Witness more violence (n = 1621)	110 (6.8)	55 (6.5)	55 (7.1)	0.19
Improved atmosphere (n = 1623)	64 (3.9)	28 (3.3)	36 (4.6)	1.79
Worsened atmosphere (n = 1623)	208 (12.8)	111 (13.2)	97 (12.4)	0.19
Other (n = 1572)	141 (9.0)	75 (9.2)	66 (8.8)	0.07
ANY change to behaviour or precinct (n = 1617)	826 (51.1)	425 (50.7)	401 (51.5)	0.13

Note. ^a Questions on the perceived impact of Policy were not included in the first version of the brief survey. ^b Sex was missing for 1 case. Bolded values indicate statistical significance ($p < .05$).

6.1.1. WEST END COMPARISON

In West End, 346 participants responded to questions regarding the perceived impact of the TAFV Policy. The perceived impact of the Policy was compared across participants from Fortitude Valley and West End (see Table 23). It was theorised that participants within an SNP where the Policy was implemented would report a greater level of impact compared to patrons within the non-SNP comparison site. However, only three effects were found to differ across sites significantly; participants in Fortitude Valley were significantly more likely to report looking for venues that were open until 5am ($\chi^2 = 9.42, p = .002$) and to go home earlier ($\chi^2 = 4.43, p = .035$) than participants in West End. A Fisher's exact test also revealed that a significantly higher portion of participants reported in Fortitude Valley felt safer as a result of the Policy, compared to West End ($p = .008$).

Table 23 Perceived impact of Policy by site – Fortitude Valley and West End

Impact of policy ^a	Site ^b			χ^2 (df =1)
	Total <i>n</i> (%)	Fortitude Valley <i>n</i> (%)	West End <i>n</i> (%)	
Go out earlier (<i>n</i> = 1974)	236 (12.0)	204 (12.5)	32 (9.2)	2.92
Go out later (<i>n</i> = 1974)	67 (3.4)	60 (3.7)	7 (2.0)	2.41
Pre-drink more (<i>n</i> = 1967)	397 (20.2)	339 (20.9)	58 (16.8)	3.05
Look for venues open until 5am (<i>n</i> = 1918)	134 (7.0)	123 (7.8)	11 (3.2)	9.42
Go home earlier (<i>n</i> = 1918)	192 (10.0)	168 (10.7)	24 (6.9)	4.43
Feel less safe (<i>n</i> = 1969)	120 (6.1)	93 (5.7)	27 (7.8)	2.14
Feel safer (<i>n</i> = 1969)	66 (3.4)	62 (3.8)	4 (1.2)	-
Witness less violence (<i>n</i> = 1968)	52 (2.6)	44 (2.7)	8 (2.3)	0.18
Witness more violence (<i>n</i> = 1968)	136 (6.9)	110 (6.8)	26 (7.5)	0.24
Improved atmosphere (<i>n</i> = 1970)	73 (3.7)	64 (3.9)	9 (2.6)	1.44
Worsened atmosphere (<i>n</i> = 1970)	262 (13.3)	208 (12.8)	54 (15.6)	1.94
Other (<i>n</i> = 1919)	183 (9.5)	142 (9.0)	41 (11.8)	2.62
ANY change to behaviour or precinct (<i>n</i> = 1964)	986 (50.2)	827 (51.1)	159 (46.0)	3.03

Note. ^a Questions on the perceived impact of Policy were not included in the first version of the brief survey. Chi-square analyses were not undertaken on observations with < 5 cases. Bolded values indicate statistical significance ($p < .05$).

SURFERS PARADISE

Participants were asked about their opinion regarding the last drinks laws that were introduced in Queensland on July 1st, 2016. Just over 68% of participants ($n = 198^{20}$) felt that the laws had affected their nights out and changed the precinct. The perceived impact of Policy on participants' nights out and the SNP is detailed in Table 24 by gender. Most commonly participants reported increased pre-drinking (44.8%) and going out earlier (28.3%). However, despite specific measures around ceasing service of alcohol at 3am, the majority of people (85.2%) did not report going home earlier. Ceasing alcohol service at 3am may have been neutralised by the number of extended trading permits operating within Surfers Paradise. 'Other' perceived effects were also reported by participants (9.0%) and included but were not limited to, increased drug use, security being more aggressive, going out less, fewer people drinking, venues being more strict and more shots being consumed before 12am.

²⁰ *n* missing 1 case

Females were significantly more likely to report witnessing less violence ($\chi^2 = 4.40, p = .036$) as a result of Policy, compared to males. A Fisher's exact test also indicated that females were significantly more like to go out later in Surfers Paradise due to the Policy, compared to males ($p = .019$).

Table 24 Perceived impact of Policy by gender – Surfers Paradise

Impact of policy (<i>N</i> = 290)	Sex			χ^2 (df = 1)
	Total <i>n</i> (%)	Male <i>n</i> (%)	Female <i>n</i> (%)	
Go out earlier	82 (28.3)	45 (28.5)	37 (28.0)	0.01
Go out later	16 (5.5)	4 (2.5)	12 (9.1)	-
Pre-drink more	130 (44.8)	64 (40.5)	66 (50.0)	2.62
Look for venues open until 5am	33 (11.4)	16 (10.1)	17 (12.9)	0.54
Go home earlier	43 (14.8)	22 (13.9)	21 (15.9)	0.22
Feel less safe	41 (14.1)	18 (11.4)	23 (17.4)	2.16
Feel safer	39 (13.4)	19 (12.0)	20 (15.2)	0.60
Witness less violence	28 (9.7)	10 (6.3)	18 (13.6)	4.40
Witness more violence	43 (14.8)	22 (13.9)	21 (15.9)	0.22
Improved atmosphere	23 (7.9)	14 (8.9)	9 (6.8)	0.41
Worsened atmosphere	46 (15.9)	24 (15.2)	22 (16.7)	0.12
Other	26 (9.0)	12 (7.6)	14 (10.6)	0.80
ANY change to behaviour or precinct	198 (68.3)	104 (65.8)	94 (71.2)	0.96

Note. Perceive impact of Policy missing for 1 case. Chi-square analyses were not undertaken on observations with < 5 cases. Bolded values indicate statistical significance ($p < .05$).

7. APPENDIX 7: PATRON INTERVIEWS – PERCEIVED SAFETY RATING

Participants who completed the full interview were asked to rate their perceived safety levels for how safe they normally feel, how safe they feel currently, and how safe they felt at the previous licensed venue on a scale of 0-10 (0 ‘very unsafe’ to 10 ‘very safe’). Perceived safety ratings are presented for each SNP below.

7.1. CAIRNS

Table 25 shows participants’ rating of safety for the night and at the previous venue across age and sex. There was no significant difference between males and females rating of safety for evening ($z = -.92, p = .358$) or at their last venue ($z = -.48, p = .634$). A Kruskal-Wallis H test showed that there was a statistically significant difference in participants safety rating for the evening across age groups ($\chi^2(4) = 15.28, p = .004$), where younger participants generally reported a lower level of safety. There was also a significant difference in the safety rating of the last venue across age groups across ($\chi^2(4) = 15.56, p = .004$), again with younger participants reporting lower levels of safety. Notably, the median safety rating of the night out and the previous venue was still relatively high in younger patrons (i.e., aged 18-19 years; $Mdn = 9$), comparative to older age groups ($Mdn = 10$).

Table 25 Self-reported safety rating by sex and age - Cairns

Variable	Safety rating of night out (0-10) $N = 427$		Safety rating from previous venue (0-10) $N = 399$	
	<i>n</i>	Median (range)	<i>n</i>	Median (range)
Sex				
Male	234	10 (0-10)	219	10 (0-10)
Female	193	10 (0-10)	180	10 (0-10)
Total	427	10 (0-10)	399	10 (0-10)
Age ^a				
18-19	89	9 (0-10)	80	9 (0-10)
20-24	155	10 (0-10)	146	10 (0-10)
25-29	84	10 (0-10)	79	10 (2-10)
30-39	62	10 (0-10)	60	10 (0-10)
40+	29	10 (4-10)	27	10 (4-10)

Note. ^a Age groups were missing 9 cases in safety rating of night out, and 7 cases in safety rating from previous venue. Bolded values indicate statistical significance ($p < .05$).

7.2. FORTITUDE VALLEY

Table 26 shows participants' rating of safety for the night and at the previous venue across age and sex. Males were significantly more likely to rate a higher level of safety for the evening ($z = -2.42, p = .015$) and at the last venue ($z = -3.46, p = .001$). A Kruskal-Wallis H test showed that there was a statistically significant difference in participants safety rating for the evening across age groups ($\chi^2(4) = 32.57, p < .001$), where younger participants reported a lower level of safety. There was also a significant difference in the safety rating of the last venue across age groups across ($\chi^2(4) = 30.72, p < .001$), again with a lower rating reported in younger age groups.

Table 26 Self-reported safety rating by sex and age – Fortitude Valley

Variable	How safe do you feel tonight? (0-10) <i>N</i> = 1207		How safe did you feel at the previous venue? (0-10) <i>N</i> = 1093	
	<i>n</i>	Median (range)	<i>n</i>	Median (range)
Sex				
Male	628	9 (0-10)	548	9 (0-10)
Female	579	9 (0-10)	545	9 (1-10)
Total	1207	9 (0-10)	1093	9 (0-10)
Age ^a				
18-19	374	8 (0-10)	343	9 (0-10)
20-24	528	9 (0-10)	482	9 (0-10)
25-29	187	9 (3-10)	164	10 (0-10)
30-39	73	10 (4-10)	60	10 (5-10)
40+	39	10 (3-10)	36	10 (1-10)

Note. ^a Age groups were missing 6 cases in safety rating of night out and 8 cases in safety rating from previous venue. Bolded values indicate statistical significance ($p < .05$).

7.2.1. WEST END COMPARISON

Table 27 compares the safety rating for the night and the previous venue. The median safety rating for the evening was significantly higher in West End ($z = -7.16, p < .001$) and at their last venue ($z = -5.71, p < .001$), compared to Fortitude Valley.

Table 27 Self-reported safety rating by site

Variable	How safe do you feel tonight? (0-10)		How safe did you feel at the previous venue? (0-10)	
	<i>n</i>	Median (range)	<i>n</i>	Median (range)
Site				
Fortitude	1208	9 (0-10)	1093	9 (0-10)
Valley				
West End	252	10 (0-10)	235	10 (0-10)
Total	1460	9 (0-10)	1328	9 (0-10)

Note. Bolded values indicate statistical significance ($p < .05$).

7.3. SURFERS PARADISE

Table 28 shows participants rating of safety for the night and at the previous venue across age and sex. Males were more likely to rate a higher level of safety for the evening ($z = -3.26, p = .001$) and at their last venue ($z = -2.74, p = .006$).

Table 28 Self-reported safety rating by sex and age – Surfers Paradise

Variable	How safe do you feel tonight? (0-10) <i>N</i> = 173		How safe did you feel at the previous venue? (0-10) <i>N</i> = 165	
	<i>n</i>	Median (range)	<i>n</i>	Median (range)
Sex				
Male	86	9 (0-10)	80	9 (0-10)
Female	87	8 (3-10)	85	8 (2-10)
Total	173	9 (0-10)	165	9 (0-10)
Age ^a				
18-19	67	8 (3-10)	64	8 (2-10)
20-24	77	9 (0-10)	75	8 (0-10)
25-29	14	9 (2-10)	12	9.5 (6-10)
30-39	10	9.5 (6-10)	9	10 (6-10)
40+	2	10 (10-10)	2	10 (10-10)

Note. ^a Age groups were missing 3 cases. Bolded values indicate statistical significance ($p < .05$).

APPENDIX 8: VENUE OBSERVATIONS DATA

Table 29 Continuously measured observation variables per hour of observation - Mean (SD)

	Range	Hour of Observation				
		2200-2259	2300-2359	0000-0059	0100-0159	0200-0259
Patron Characteristics						
Maximum number of patrons	10 - 500	125.00 (115.25)	116.52 (117.09)	153.00 (133.53)	240.00 (282.92)	178.50 (148.58)
Percentage (%) of venue capacity	5 - 100	51.33 (24.01)	50.00 (27.59)	57.17 (29.34)	61.67 (29.38)	58.00 (25.05)
Percentage (%) of patrons male	20 - 85	55.67 (12.80)	55.36 (15.03)	58.96 (9.32)	57.14 (12.51)	64.25 (12.06)
Percentage (%) of patrons aged <25	0 - 100	38.93 (24.73)	44.54 (28.25)	62.79 (28.17)	71.57 (20.93)	58.42 (27.34)
Percentage (%) patrons showing any signs of intoxication	1-100	38.93 (32.71)	49.82 (33.01)	64.17 (29.28)	73.68 (20.47)	80.00 (20.26)
Percentage (%) patrons too intox to remain in the venue	0-80	0.71 (1.33)	1.32 (2.46)	6.09 (16.82)	9.21 (10.44)	10.11 (14.58)
Percentage (%) patrons showing sign of illicit drug use	0-90	0	0	3.00 (4.76)	0	21.00 (38.63)
Bar Staff Characteristics						
Number of bar staff	1 - 12	4.27 (2.74)	4.29 (2.37)	3.96 (1.80)	4.00 (2.26)	4.75 (3.35)
Number of female bar staff	0 - 6	1.87 (1.51)	2.59 (5.66)	3.78 (9.21)	3.35 (9.89)	1.20 (1.40)
Percentage (%) of staff aged <21	0 - 100	10.69 (23.50)	15.00 (25.69)	19.39 (29.10)	13.75 (20.64)	17.53 (26.62)
Average age of bar staff	20 - 35	25.79 (3.02)	24.89 (2.97)	24.41 (2.48)	24.90 (2.47)	25.37 (1.89)
Bar manager age (if present)	25 - 35	29.25 (3.01)	29.44 (3.17)	27.00 (2.45)	27.33 (2.52)	28.43 (3.26)

	Range	Hour of Observation				
		2200-2259	2300-2359	0000-0059	0100-0159	0200-0259
Patron Characteristics						
Bar Security Characteristics						
Number of security at bar	0 - 6	1.80 (1.61)	1.64 (1.19)	1.73 (1.24)	2.10 (1.80)	1.80 (1.44)
Percentage (%) of security male	66 - 100	97.57 (9.09)	100	100	93.75 (25.00)	99.41 (2.43)
"Extra" Bar Characteristics*						
Number of bar staff	1 - 12	3.00 (0)	3.81 (3.53)	2.83 (1.47)	2.93 (2.67)	2.14 (2.12)
Number of female bar staff	0 - 4	0	1.06 (1.47)	0.86 (1.07)	0.96 (0.93)	0.68 (1.00)
Percentage (%) of staff aged <21	0 - 100	0	12.50 (19.74)	10.00 (17.48)	9.62 (24.57)	17.41 (32.71)
Average age of bar staff	20 - 35	29.00 (1.41)	27.18 (2.10)	25.92 (3.37)	26.67 (2.66)	25.52 (2.87)
Bar manager age (if present)	25 - 45	-	34.00 (6.52)	26.67 (2.89)	26.67 (2.89)	35.00 (0)
Number of security at bar	0 - 5	0.67 (0.58)	0.78 (0.81)	1.70 (1.34)	0.88 (0.67)	0.75 (1.21)
Percentage (%) of security male	-	100	100	100	100	100

Note. *where venues had more than one bar service area

Table 30 Continuously measured observation variables per date of observation - Mean (SD)

Patron Characteristics	Range	Date			
		26 - 27 Nov '16 (6 venues)	22-23 Jul '17 (8 venues)	25-26 Nov '17 (8 venues)	24-25 Mar '18 (6 venues)
Maximum number of patrons	10 - 1000	147.59 (135.76)	74.75 (67.36)	214.05 (140.91)	209.07 (331.10)
Percentage (%) of venue capacity	5 - 100	55.96 (22.94)	37.97 (23.21)	72.43 (21.65)	42.81 (30.11)
Percentage (%) of patrons male	20 - 85	60.37 (12.32)	57.34 (12.64)	58.92 (11.73)	52.50 (14.38)
Percentage (%) of patrons aged <25	0 - 100	75.77 (20.28)	45.56 (31.64)	60.54 (23.56)	42.27 (29.77)
Percentage (%) patrons showing any signs of intoxication	1-100	60.74 (25.93)	46 (30.35)	80.57 (26.00)	58.67 (30.27)
Percentage (%) patrons too intoxicated to remain in the venue	0-80	2.17 (3.77)	6.23 (15.76)	6.51 (11.79)	4.44 (5.39)
Percentage (%) patrons showing sign of illicit drug use	0-90	15.29 (33.02)	0	5.00 (7.07)	0
Bar Staff Characteristics					
Number of bar staff	1 - 12	4.81 (2.65)	3.5 (1.70)	4.28 (2.95)	4.31 (2.02)
Number of female bar staff	0 - 6	1.30 (1.61)	1.41 (1.01)	1.68 (1.47)	-
Percentage (%) of staff aged <21	0 - 100	17.92 (32.25)	18.5 (26.94)	18.64 (29.27)	9.33 (11.93)
Average age of bar staff	20 - 35	24.27 (1.95)	25.48 (3.45)	25.09 (2.36)	25.25 (1.84)
Bar manager age (if present)	25 - 35	26.14 (1.07)	31 (2.56)	29.25 (2.86)	26.67 (1.36)
Bar Security Characteristics					
Number of security at bar	0 - 6	2.22 (1.25)	1.56 (0.76)	1.5 (1.52)	2.50 (2.25)
Percentage (%) of security male	66 - 100	98.85 (4.32)	100	98.74 (6.54)	92.31 (27.73)
"Extra" Bar Characteristics*					

Patron Characteristics	Range	Date			
		26 - 27 Nov '16 (6 venues)	22-23 Jul '17 (8 venues)	25-26 Nov '17 (8 venues)	24-25 Mar '18 (6 venues)
Number of bar staff	1 - 12	1.91 (1.24)	2.13 (0.84)	3.38 (3.04)	3.29 (3.02)
Number of female bar staff	0 - 4	0.61 (0.72)	0	1.10 (1.30)	-
Percentage (%) of staff aged <21	0 - 100	19.23 (35.29)	0	15.64 (25.81)	1.92 (6.93)
Average age of bar staff	20 - 35	24.65 (2.72)	29.13 (2.95)	26.00 (2.57)	26.62 (2.18)
Bar manager age (if present)	25 - 45	25.00 (0)	25.00 (0)	33.57 (5.56)	30.00 (-)
Number of security at bar	0 - 5	0.91 (1.02)	0.38 (0.52)	0.81 (1.06)	1.67 (2.23)
Percentage (%) of security male	-	100	100	100	100

Note. *where venues had more than one bar service area

Table 31 Categorically measured observation variables per date of observation - Frequency (%)

Patron Characteristics	Date			
	26 - 27 Nov '16 (6 venues)	22-23 Jul '17 (8 venues)	25-26 Nov '17 (8 venues)	24-25 Mar '18 (6 venues)
Patrons observed buying >4 drinks at once	0	7 (21.9%)	3 (7.9%)	5 (50%)
Patrons observed stockpiling drinks	2 (7.4%)	2 (6.3%)	5 (13.2%)	5 (50%)
Drug use observed	5 (18.5%)	0	1 (2.6%)	3 (21.4%)
Overall patron intoxication level - -				
none	1 (3.8%)	2 (6.9%)	0	1 (6.3%)
slight	6 (23.1%)	9 (31.0%)	6 (15.8%)	3 (20%)
medium	17 (63.0%)	12 (41.4%)	18 (47.4%)	5 (33.3%)
high	2 (7.4%)	6 (20.7%)	13 (43.2%)	6 (40%)
Venue Characteristics				
Free water available	21 (77.8%)	26 (80.2%)	26 (68.4%)	13 (81.2%)
Venue selling food	3 (11.1%)	7 (21.9%)	5 (13.2%)	7 (43.7%)
Atmosphere "Macho"	0	4 (12.9%)	3 (7.9%)	5 (31.3%)
Atmosphere "Hostile"	0	0	3 (7.9%)	0
Bar manager present	7 (25.9%)	9 (30%)	12 (31.6%)	4 (25%)
Bar crowding - - -				
none	10 (37%)	14 (43.8%)	6 (15.8%)	6 (37.5%)
1 deep	10 (37%)	13 (40.6%)	15 (39.5%)	4 (25.0%)
2 deep	6 (22.2%)	4 (12.5%)	6 (15.8%)	4 (25.0%)
3 deep	1 (3.7%)	1 (3.1%)	6 (15.8%)	2 (12.5%)
4 deep	0	0	1 (2.6%)	
Bar crowding - - - "Extra Bars"*				
none	11 (45.8%)	4 (50%)	9 (22.5%)	2 (15.4%)
1 deep	7 (29.2%)	3 (37.5%)	8 (20.0%)	7 (53.8%)
2 deep	2 (8.3%)	1 (12.5%)	9 (22.5%)	1 (7.1%)
3 deep	0	0	5 (12.5%)	3 (23.1%)
4 deep	0	0	4 (10.0%)	0
Venue Entertainment Provided				
Pool or bar games	0	10 (31.3%)	5 (13.2%)	4 (25%)
Dancing	22 (81.5%)	11 (34.4%)	23 (60.5%)	3 (18.8%)
Video games/Pinball	0	9 (28.1%)	3 (7.9%)	0

Patron Characteristics	Date			
	26 - 27 Nov '16 (6 venues)	22-23 Jul '17 (8 venues)	25-26 Nov '17 (8 venues)	24-25 Mar '18 (6 venues)
Live DJ	19 (70.4%)	9 (28.1%)	27 (71.1%)	3 (18.8%)
Mechanical DJ	2 (7.4%)	4 (12.5%)	7 (18.4%)	2 (12.5%)
Original band	5 (18.5%)	10 (31.3%)	1 (2.6%)	0
Cover band	1 (3.7%)	1 (3.1%)	2 (5.3%)	5 (31.3%)
Genre band	3 (11.1%)	2 (6.3%)	2 (5.3%)	1 (6.3%)
Transport and Other Services				
Professional Photographer				5 (31.2%)
present	10 (37.0%)	4 (12.5%)	3 (7.9%)	
Security assist with transport	4 (14.8%)	1 (3.1%)	4 (10.5%)	3 (18.8%)
Venue advertise designated				4 (25%)
driver program	0	0	5 (13.2%)	
Staff call taxi	0	3 (9.4%)	1 (2.6%)	0
Venue provides courtesy				0
transport	0	2 (6.3%)	0	

Note. *where venues had more than one bar service area

APPENDIX 9: PRECINCT MAPPING

7.4. FORTITUDE VALLEY

Table 32 to Table 37 document venues observed trading after 4am in Fortitude Valley on each of the five audits.

Table 32. Adult Businesses observed open after 4am in Fortitude Valley

Name	24/07/2016	01/04/2017	28/10/2017	17/02/2018	28/07/2018
Candy Club	Y	Y			Y
Eye Candy	Y	Y	Y	Y	
Love And Rockets	Y	Y	Y	Y	Y
OMFG					Y
Tony's On Brunswick	Y			Y	Y

Table 33. Bars observed open after 4am in Fortitude Valley

Name	24/07/2016	01/04/2017	28/10/2017	17/02/2018	28/07/2018
Viva La Vodka			Y		

Table 34. Bar and Dining Businesses observed open after 4am in Fortitude Valley

Name	24/07/2016	01/04/2017	28/10/2017	17/02/2018	28/07/2018
Alfred & Constance			Y		
La Ruche Bar	Y	Y	Y		Y

Table 35. Clubs observed open after 4am in Fortitude Valley

Name	24/07/2016	01/04/2017	28/10/2017	17/02/2018	28/07/2018
Brunswick And Ann	Y	Y	Y		
Bunk (Trades As Birdees)			Y		
Famous			Y		
Lost Bar And Nightclub	Y	Y			Y
Our Place			Y		
Prohibition Brisbane	Y	Y	Y	Y	
Sky And Lotus					Y
The Beat Cabaret	Y	Y	Y	Y	

Name	24/07/2016	01/04/2017	28/10/2017	17/02/2018	28/07/2018
The GPO Hotel	Y	Y	Y	Y	Y
The Met	Y	Y	Y	Y	Y

Table 36. Live Music Venues observed open after 4am in Fortitude Valley

Name	24/07/2016	01/04/2017	28/10/2017	17/02/2018	28/07/2018
Crow Bar Brisbane			Y		
Ric's	Y	Y			
Woolly Mammoth Alehouse			Y		

Table 37. Pubs observed open after 4am in Fortitude Valley

Name	24/07/2016	01/04/2017	28/10/2017	17/02/2018	28/07/2018
ROYAL GEORGE HOTEL (RGs)	Y	Y			

Table 38 and Table 39 display nightclubs open after 12am and after 2am on each audit in Fortitude Valley.

Table 38. Clubs observed open after 12am in Fortitude Valley

Name	24/07/2016	01/04/2017	28/10/2017	17/02/2018	28/07/2018
Brunswick and Ann	Y	Y	Y	Y	
Bunk (Trades as Birdees)	Y	Y	Y	Y	Y
Capulet		Y	Y	Y	Y
Cloudland	Y	Y	Y	Y	Y
Club Fusion	Y				Y
Famous					Y
Hot Gossip.CC	Y			Y	
Hotel Wickham	Y	Y	Y	Y	Y
Lost Bar and Nightclub	Y	Y	Y		Y
Oh Hello!	Y	Y	Y	Y	Y
Our Place	Y	Y	Y	Y	Y
Prohibition Brisbane	Y	Y	Y	Y	Y
Sky and Lotus	Y	Y	Y	Y	Y
The Beat Cabaret	Y	Y	Y	Y	Y
The Bowler Club / TBC		Y	Y	Y	
The Brightside	Y	Y	Y	Y	Y

Name	24/07/2016	01/04/2017	28/10/2017	17/02/2018	28/07/2018
The Family Nightclub	Y	Y	Y	Y	Y
The Fringe Bar	Y				
The GPO Hotel	Y	Y	Y	Y	Y
The Met	Y	Y	Y	Y	Y
XY2 Bar	Y	Y	Y	Y	Y

Table 39. Clubs observed open after 2am in Fortitude Valley

Name	24/07/2016	01/04/2017	28/10/2017	17/02/2018	28/07/2018
Brunswick and Ann	Y	Y	Y	Y	
Bunk (Trades as Birdees)	Y	Y	Y	Y	Y
Capulet			Y	Y	Y
Cloudland	Y	Y		Y	Y
Club Fusion	Y				Y
Famous					Y
Hot Gossip.CC	Y				
Hotel Wickham					Y
Lost Bar and Nightclub	Y	Y	Y	Y	Y
Oh Hello!	Y	Y	Y	Y	Y
Our Place	Y	Y	Y		Y
Prohibition Brisbane	Y	Y	Y	Y	Y
Sky and Lotus	Y	Y	Y	Y	Y
The Beat Cabaret	Y	Y	Y	Y	Y
The Bowler Club / TBC		Y	Y	Y	
The Brightside	Y	Y			Y
The Family Nightclub	Y	Y	Y		Y
The Fringe Bar	Y				
The GPO Hotel	Y	Y	Y	Y	Y
The Met	Y	Y	Y		Y
XY2 Bar	Y	Y		Y	Y

Table 40 and Table 41 display live music venues open after 12am and after 2am on each audit in Fortitude Valley.

Table 40. Live Music Venues observed open after 12am in Fortitude Valley

Name	24/07/2016	01/04/2017	28/10/2017	17/02/2018	28/07/2018
Black Bear Lodge	Y	Y	Y	Y	Y

Name	24/07/2016	01/04/2017	28/10/2017	17/02/2018	28/07/2018
Crow Bar Brisbane	Y	Y	Y	Y	Y
Ric's	Y	Y	Y	Y	Y
The Foundry	Y	Y	Y	Y	Y
The Zoo			Y	Y	
Woolly	Y	Y	Y	Y	Y
Mammoth Alehouse					

Table 41. Live Music Venues observed open after 2am in Fortitude Valley

Name	24/07/2016	01/04/2017	28/10/2017	17/02/2018	28/07/2018
Black Bear Lodge	Y	Y	Y	Y	Y
Crow Bar Brisbane	Y	Y	Y	Y	Y
Ric's	Y	Y	Y	Y	Y
The Foundry				Y	Y
The Zoo				Y	
Woolly	Y	Y	Y	Y	Y
Mammoth Alehouse					

7.5. WEST END

Table 42 to Table 46 illustrate the venues observed after 10pm in West End on each of the audits.

Table 42. Bars observed open in West End after 10pm

Name	13/08/2016	06/05/2017	16/09/2017	10/03/2018	14/07/2018
Archive	Y	Y	Y	Y	Y
Bosc	Y	Y	Y		
Brisbane Brewing	Y		Y	Y	
Catchment Brewing	Y		Y	Y	Y
Lychee Lounge	Y	Y	Y	Y	Y
Maker		Y		Y	Y
Rumpus Room	Y	Y	Y	Y	Y
The Bearded Lady	Y	Y	Y	Y	Y
The Cobbler	Y			Y	Y
The End	Y	Y	Y	Y	Y
The Margarita Bar			Y	Y	Y
The Milk Factory				Y	

Table 43. Bar & Dining businesses observed open in West End after 10pm

Name	13/08/2016	06/05/2017	16/09/2017	10/03/2018	14/07/2018
Barbossa					Y
Brooklyn Depot					Y
Copper Face Jacks					Y
Cowch	Y	Y	Y	Y	Y
Habitat	Y	Y	Y		
Hoo Ha Bar	Y				
Hop & Pickle					Y
Lock 'N' Load Bistro	Y	Y			
London Fields					Y
Next Door					Y
Ole		Y	Y		Y
Saccharomyces				Y	Y
The Manhattan Line			Y	Y	Y

Table 44. Dining businesses open in West End after 10pm

Name	13/08/2016	06/05/2017	16/09/2017	10/03/2018	14/07/2018
Ahmet's Turkish		Y	Y	Y	Y
Baba Ganouj	Y				Y
Bamboo Basket		Y			
Beach Burrito	Y				
Beach House Southbank				Y	
Billykart Kitchen		Y	Y		
Bird's Nest Restaur..	Y				
Burger Urge	Y				
Chop Chop Chang's	Y	Y	Y	Y	
Copper Face Jacks				Y	
Covent Garden				Y	Y
Cucina					Y
Denim & Co					Y
French Martini					Y
Gauge			Y		
Ghandi Indian					Y
Grill'd	Y		Y		
Grill'd West End	Y	Y	Y	Y	
Guzman Y Gomez	Y	Y	Y	Y	Y

Name	13/08/2016	06/05/2017	16/09/2017	10/03/2018	14/07/2018
Harajuku Gyoza		Y			
Julius Pizzeria		Y			
Jungle	Y	Y	Y	Y	Y
Messina		Y	Y	Y	Y
Mister Paganini		Y			Y
New York Slice		Y		Y	Y
Pj's Steaks	Y	Y	Y	Y	Y
San Kai Japanese		Y			
The Burrow		Y			
The Coffee Club	Y				
The Spaghetthouse		Y	Y	Y	Y
The Yiros Shop		Y			
Torba Restaurant		Y		Y	

Table 45. Live music venues observed open in West end after 10pm

Name	13/08/2016	06/05/2017	16/09/2017	10/03/2018	14/07/2018
Max Watt's Brisbane		Y	Y		

Table 46. Pubs observed open in West End after 10pm

Name	13/08/2016	06/05/2017	16/09/2017	10/03/2018	14/07/2018
Boundary Hotel	Y		Y	Y	
Hotel West End					Y
Melbourne Hotel	Y	Y			Y
Pig N Whistle	Y	Y	Y	Y	Y
Plough Inn	Y			Y	Y
Ship Inn Tavern					Y
The Charming Squire	Y	Y	Y	Y	Y
The Fox Hotel		Y	Y	Y	Y

Table 47 illustrates the venues observed open after 12am in West End on each of the audits.

Table 47. Venues observed open after 12am in West End

Name	Category	13/08/2016	06/05/2017	16/09/2017	10/03/2018	14/07/2018
Archive	Bar	Y	Y	Y	Y	Y
Brisbane Brewing	Bar			Y	Y	Y

Name	Category	13/08/2016	06/05/2017	16/09/2017	10/03/2018	14/07/2018
Catchment Brewing	Bar				Y	Y
Lychee Lounge	Bar		Y	Y	Y	Y
Maker	Bar				Y	
Rumpus Room	Bar	Y	Y	Y	Y	Y
The Bearded Lady	Bar	Y	Y	Y	Y	Y
The Cobbler	Bar					Y
The End	Bar				Y	
The Margarita Bar	Bar			Y	Y	
The Milk Factory	Bar				Y	
Cowch	Bar & Dining			Y	Y	
Lock 'N' Load Bistro	Bar & Dining	Y	Y			
Saccharomyces	Bar & Dining				Y	
The Manhattan Line	Bar & Dining				Y	
Beach House Southbank	Dining				Y	
Chop Chop Chang's	Dining				Y	
Covent Garden	Dining				Y	
Jungle	Dining				Y	
Messina	Dining				Y	
New York Slice	Dining				Y	
The Spaghetthouse	Dining				Y	
Torba Restaurant	Dining				Y	
Boundary Hotel	Pub				Y	
Hotel West End	Pub				Y	Y
Melbourne Hotel	Pub					Y
Pig N Whistle	Pub	Y	Y	Y	Y	Y
Plough Inn	Pub				Y	Y
The Charming Squire	Pub	Y	Y	Y	Y	Y
The Fox Hotel	Pub				Y	Y

7.6. SURFERS PARADISE

Table 48 and Table 49 demonstrate that no venues appear to begin closing earlier in Surfers Paradise since 2016.

Table 48. Venues observed open after 2am in Surfers Paradise

Venue	Category	30/07/2016	11/03/2017	16/12/2017	17/03/2018	04/08/2018
Hollywood Showgirls	Adult	Y	Y		Y	Y
Players	Adult	Y	Y		Y	Y
The Toy Box	Adult	Y	Y		Y	Y
Avenue	Bar & Dining				Y	Y
Charlies	Bar & Dining				Y	
Gilley	Bar & Dining				Y	Y
Kitty O'Sheas	Bar & Dining				Y	
Melba's On The Park	Bar & Dining	Y	Y			Y
The Island Rooftop	Bar & dining				Y	
Tune Up	Bar & Dining	Y	Y	Y	Y	Y
Vegas Gaming Lounge	Bar			Y	Y	Y
Bedroom Lounge Bar	Club	Y	Y	Y	Y	Y
Cocktails And Dreams	Club	Y	Y		Y	Y
Elsewhere Bar	Club	Y	Y	Y	Y	Y
Escape Bar	Club	Y	Y	Y		
Hennessy Lounge Bar & Nightclub	Club					Y
Retros	Club				Y	Y
Shooters Saloon Bar	Club				Y	Y
Sincity The Nightclub	Club	Y	Y	Y	Y	Y
The Underground	Club	Y	Y		Y	Y
Central Lounge	Dining				Y	

Venue	Category	30/07/2016	11/03/2017	16/12/2017	17/03/2018	04/08/2018
Domino's Pizza	Dining (fast food)	Y	Y	Y		
Fiddlers Green	Dining	Y	Y	Y	Y	Y
Kebab Krew	Dining (fast food)					
Montmartre French Patisserie	Dining					
House Of Brews Taphouse	Dining				Y	
Surfers Paradise Tavern	Pub			Y	Y	Y
Waxy's	Pub	Y	Y	Y	Y	Y

Table 49. Venues observed open after 4am in Surfers Paradise

Venue	Categories	30/07/2016	11/03/2017	16/12/2017	17/03/2018	04/08/2018
Hollywood Showgirls	Adult	Y	Y		Y	Y
Players	Adult	Y	Y		Y	Y
The Toy Box	Adult					Y
Vegas Gaming Lounge	Bar				Y	Y
Bedroom Lounge Bar	Club	Y	Y		Y	Y
Cocktails And Dreams	Club				Y	Y
Shooters Saloon Bar	Club				Y	Y
Sincity The Nightclub	Club	Y	Y		Y	Y
The Underground	Club				Y	Y
Surfers Paradise Tavern	Pub				Y	Y

7.7. CAIRNS

Table 50 and Table 51 illustrate the venues observed after 2am and 4am in Cairns on each of the audits.

Table 50. Venues observed open in Cairns after 2am

Venue	Category	30/07/2016	04/03/2017	16/09/2017	07/04/2018	04/08/2018
Covergirls Bar & Lounge	Adult	Y	Y	Y	Y	Y
Kezz	Bar			Y		

Venue	Category	30/07/2016	04/03/2017	16/09/2017	07/04/2018	04/08/2018
Lilo	Bar	Y				
McGinty's	Bar			Y		
P J O'Briens	Bar	Y	Y	Y	Y	Y
Vertigo	Bar			Y	Y	
Pier Tavern	Bar & Dining	Y		Y	Y	Y
Rattle and Hum	Bar & Dining	Y				
The Courtyard	Bar & Dining		Y			
The Heritage Cairns	Bar & Dining	Y	Y			
The Reef Hotel Casino	Casino	Y	Y	Y	Y	Y
Empire	Club			Y		
Gilligan's Backpackers	Club	Y	Y	Y	Y	Y
Luxx	Club		Y			
Lyquid Nightclub	Club	Y				
The Woolshed Char Grill	Club	Y	Y	Y	Y	Y
The Casbah Lounge	Live Music	Y				
The Downunder	Pub	Y				

Table 51. Venues observed open in Cairns after 4am

Venue	Category	30/07/2016	04/03/2017	16/09/2017	07/04/2018	04/08/2018
Lilo	Bar	Y				
Pier Tavern	Bar & Dining				Y	
Rattle and Hum	Bar & Dining	Y				
The Reef Hotel Casino	Casino	Y		Y	Y	Y
Gilligan's Backpackers	Club		Y			
Luxx	Club		Y			

7.8. TOWNSVILLE

Table 52 and Table 53 illustrate the venues observed after 12am and 2am in Townsville on each of the audits.

Table 52. Venues observed open after 12am in Townsville

Business Name	Category	24/07/2016	25/02/2017	02/09/2017	03/03/2018	28/07/2018
Santa Fe Gold	Adult			Y	Y	Y
Exchange Hotel	Bar	Y	Y	Y	Y	Y
Hooch And Fellow	Bar		Y	Y	Y	
Kryptic Lounge Bar and Restaurant	Bar		Y	Y	Y	Y
Wild Goose Brews & Chews	Bar	Y	Y	Y	Y	Y
The Ville Resort - Casino	Casino	Y	Y	Y	Y	Y
Cowboys Leagues Club	Bar & Dining	Y	Y	Y	Y	Y
Bullwinkle's Cabaret	Club		Y			
Cactus Saloon	Club	Y	Y	Y	Y	Y
Flinders HQ	Club	Y	Y	Y	Y	Y
Mad Cow Tavern	Club	Y	Y	Y	Y	Y
The Bank	Club	Y				
The Great Jewel Of India Restaurant	Dining	Y	Y	Y	Y	Y
The Office @ Watermark	Dining				Y	
Zambrero Townsville	Dining	Y	Y			
The Basement Bar	Live Music					Y
Australian Hotel - Townsville	Pub	Y		Y	Y	Y
Flynn's Irish Bar & Bistro	Pub	Y	Y	Y	Y	Y
Molly Malones Irish Pub	Pub	Y	Y	Y	Y	Y
Seaview Hotel	Pub				Y	
Shamrock Hotel	Pub			Y	Y	
Sovereign Hotel	Pub	Y	Y	Y	Y	
Townsville Motor Boat & Yacht Club	Pub			Y	Y	Y

Table 53. Venues observed open after 2am in Townsville

Business Name	Category	24/07/2016	25/02/2017	02/09/2017	03/03/2018	28/07/2018
Santa Fe Gold	Adult			Y	Y	Y
Exchange Hotel	Bar	Y	Y	Y	Y	Y
Hooch And Fellow	Bar		Y	Y		
Kryptic Lounge Bar and Restaurant	Bar		Y		Y	
Wild Goose Brews & Chews	Bar		Y			
The Ville Resort - Casino	Casino	Y	Y	Y	Y	Y
Cowboys Leagues Club Limited	Bar & Dining		Y			Y
Bullwinkle's Cabaret	Club		Y			
Cactus Saloon	Club	Y			Y	
Flinders HQ	Club	Y	Y	Y	Y	Y
Mad Cow Tavern	Club	Y	Y	Y	Y	Y
The Bank	Club	Y				
Flynn's Irish Bar & Bistro	Pub	Y	Y	Y	Y	Y
Molly Malones Irish Pub	Pub	Y			Y	Y
Sovereign Hotel (Townsville)	Pub		Y			

The late-trading venues on Flinders Street were the only ones in Townsville frequently observed with a queue (see Table 54 below).

Table 54: Late-trading Flinders Street venues observed with queues after midnight

Business Name	24/07/2016	25/02/2017	02/09/2017	03/03/2018	28/07/2018
Exchange Hotel		Y			Y
Mad Cow	Y	Y	Y	Y	Y
Flinders HQ	Y	Y	Y	Y	Y
Flynn's Irish Bar			Y	Y	Y
Molly Malone's Irish Pub					Y

7.9. TOOWOOMBA

Table 55 to Table 57 display the number of venues observed open in Toowoomba after 10pm, 12am, and 2am.

Table 55. Venues observed open after 10pm in Toowoomba

Name	Category	20/08/2016	04/03/2017	02/12/2017	31/03/2018	18/08/2018
The Vault On Ruthven	Adult	Y	Y	Y	Y	Y
Fitzzy's Toowoomba	Bar & Dining	Y	Y	Y	Y	Y
Agenda	Dining		Y			
Downs Club	Dining	Y				
Encores	Dining	Y	Y			Y
Kajoku	Dining	Y				
Toowoomba Sports Club	Dining	Y	Y			
Zacks	Dining					Y
Zev's Bistro	Dining	Y		Y		
Society	Club			Y	Y	Y
Burke And Wills Hotel	Pub	Y	Y			Y
Cube Hotel	Pub	Y	Y	Y	Y	Y
Gladstone Hotel	Pub	Y	Y			
Hotel Norville	Pub	Y	Y	Y	Y	Y
Irish Club Hotel	Pub	Y	Y	Y	Y	Y
Muller Brothers	Pub	Y		Y		
National Hotel	Pub	Y	Y	Y	Y	Y
Toowoomba						
Shamrock Hotel Motel	Pub	Y	Y	Y	Y	Y
Tattersalls Hotel - Toowoomba	Pub	Y	Y	Y	Y	Y
The Spotted Cow	Pub			Y		

Table 56. Venues observed open after 12am in Toowoomba

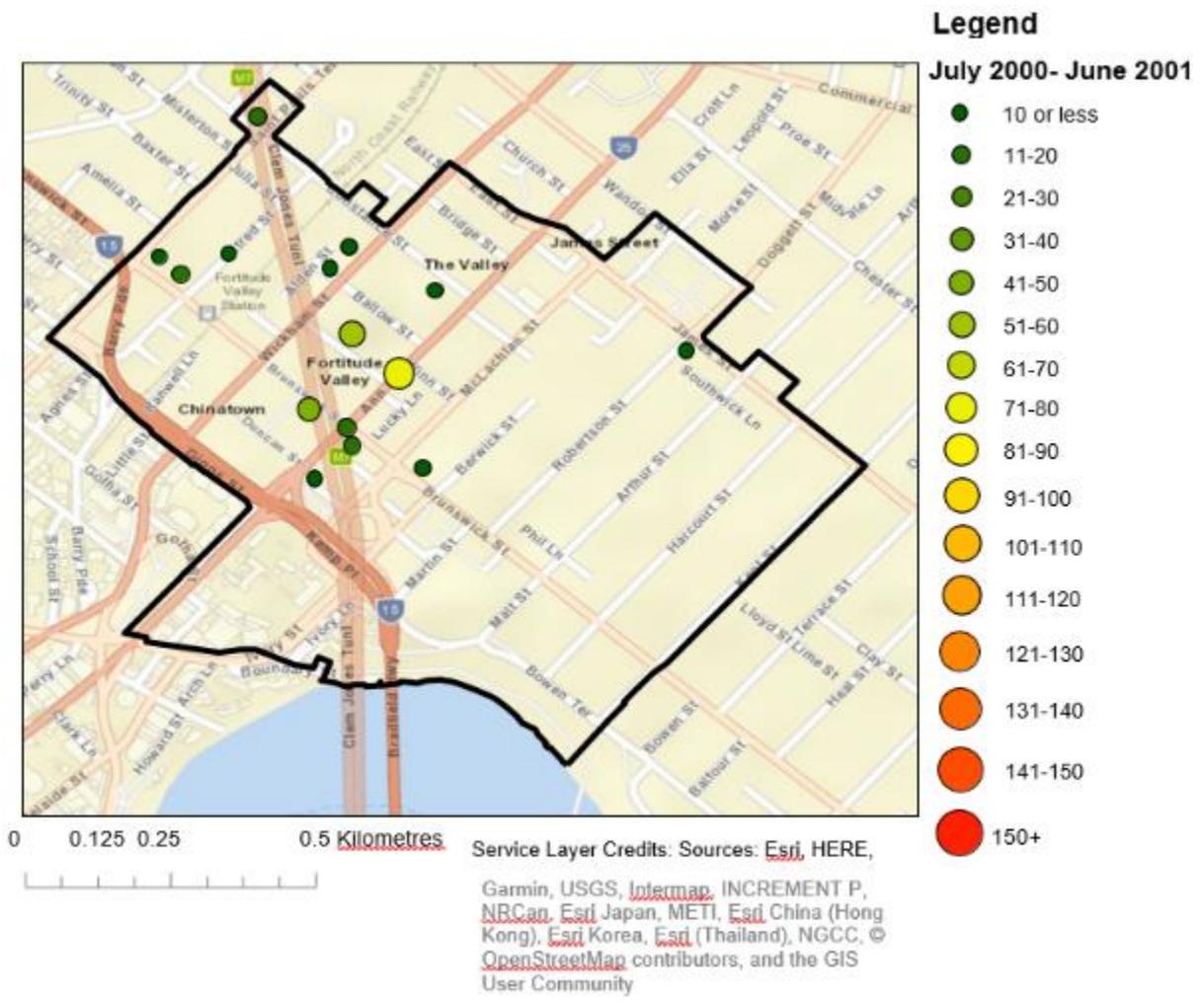
Name	Category	20/08/2016	04/03/2017	02/12/2017	31/03/2018	18/08/2018
The Vault on Ruthven	Adult	Y	Y	Y	Y	Y
Fitzzy's Toowoomba	Bar & Dining	Y		Y		Y

Name	Category	20/08/2016	04/03/2017	02/12/2017	31/03/2018	18/08/2018
Agenda	Dining		Y			
Society	Club			Y	Y	Y
Zacks	Dining					Y
Cube Hotel	Pub	Y	Y	Y	Y	Y
Gladstone Hotel	Pub		Y			
Hotel Norville	Pub	Y				
Irish Club Hotel	Pub	Y	Y	Y	Y	Y
Muller Brothers	Pub	Y		Y		
Shamrock Hotel Motel	Pub	Y	Y	Y	Y	Y
Toowoomba						
Tattersalls Hotel - Toowoomba	Pub	Y	Y	Y	Y	Y
The Spotted Cow	Pub			Y		

Table 57. Venues observed open after 2am in Toowoomba

Name	Category	20/08/2016	04/03/2017	02/12/2017	31/03/2018	18/08/2018
The Vault on Ruthven	Adult	Y	Y	Y	Y	Y
Fitzzy's Toowoomba	Bar & Dining	Y		Y	Y	Y
Society	Club			Y		Y
Zacks	Dining					Y
Cube Hotel	Pub	Y	Y	Y	Y	Y
Shamrock Hotel	Pub	Y	Y	Y	Y	Y
Tattersalls Hotel	Pub	Y	Y	Y	Y	Y

APPENDIX 10: MAPS SHOWING THE TEMPORAL AND SPATIAL CHANGE OF LIVE MUSIC PERFORMANCES IN FORTITUDE VALLEY FOR THE 2001-2018 FINANCIAL YEARS



Legend

July 2001- June 2002



- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

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Legend

July 2002- June 2003



- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Legend

July 2003- June 2004



- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Legend

July 2004- June 2005



- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Legend

July 2005- June 2006



- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, [Intermap](#), INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © [OpenStreetMap](#) contributors, and the GIS User Community

Legend

July 2006- June 2007



- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Legend

July 2007- June 2008



- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Legend

July 2008- June 2009



- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

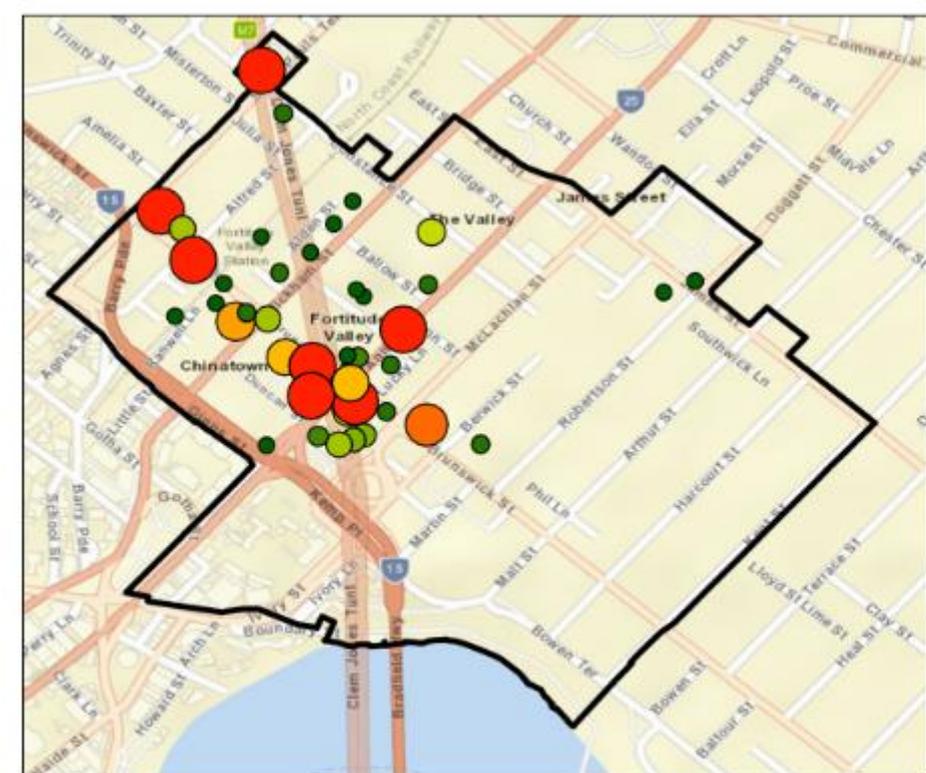
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Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, [Intermap](#), INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © [OpenStreetMap](#) contributors, and the GIS User Community

Legend

July 2009- June 2010

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

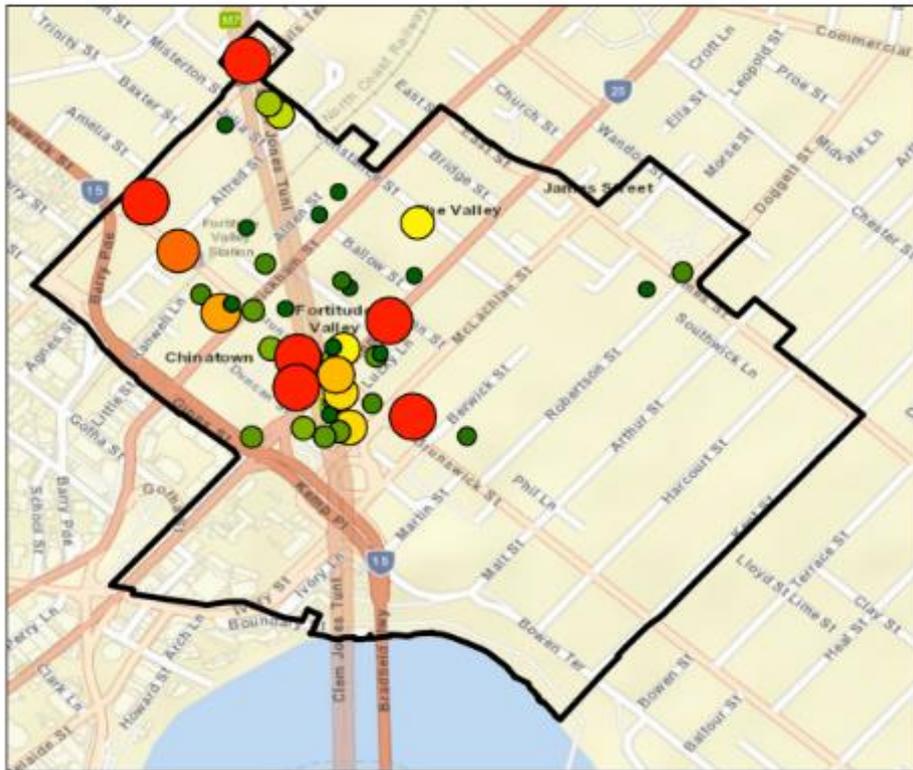


0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Legend

July 2010- June 2011



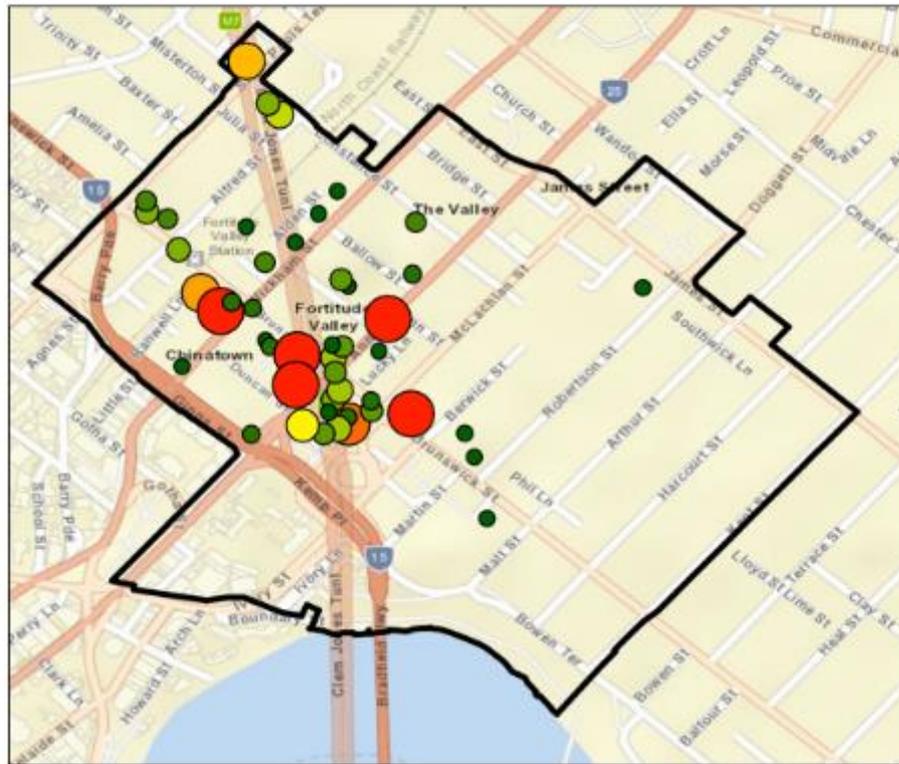
- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Legend

July 2011- June 2012



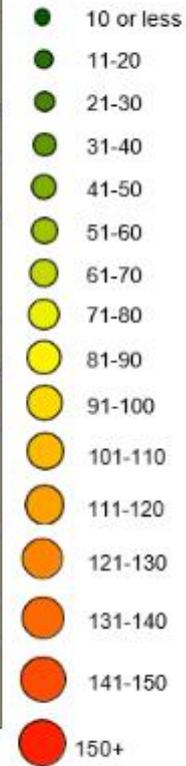
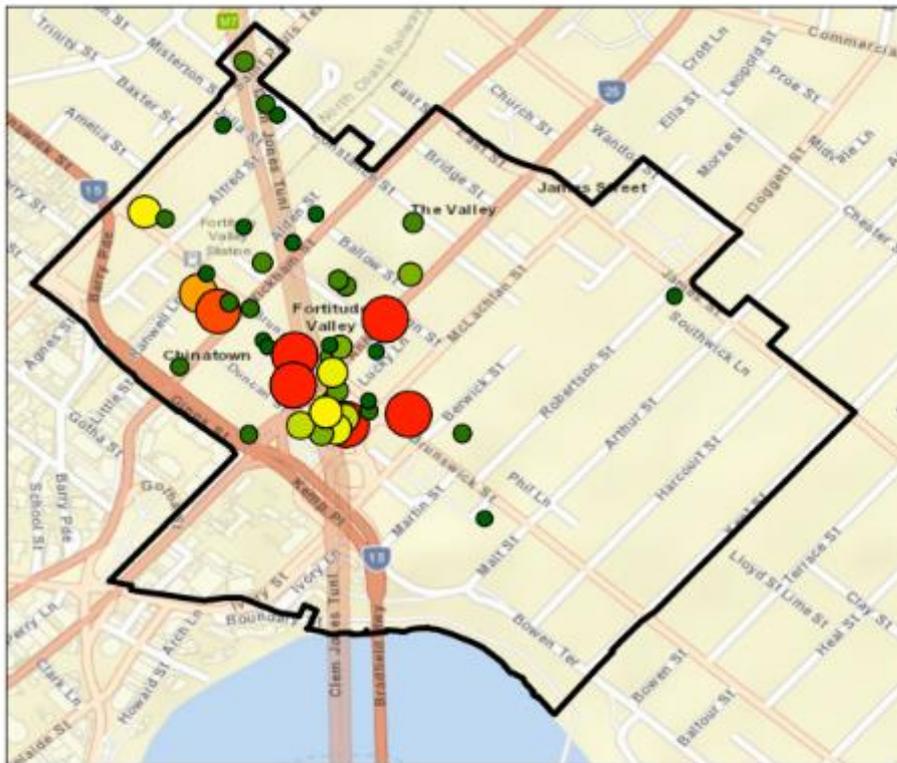
- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

Legend

July 2012- June 2013

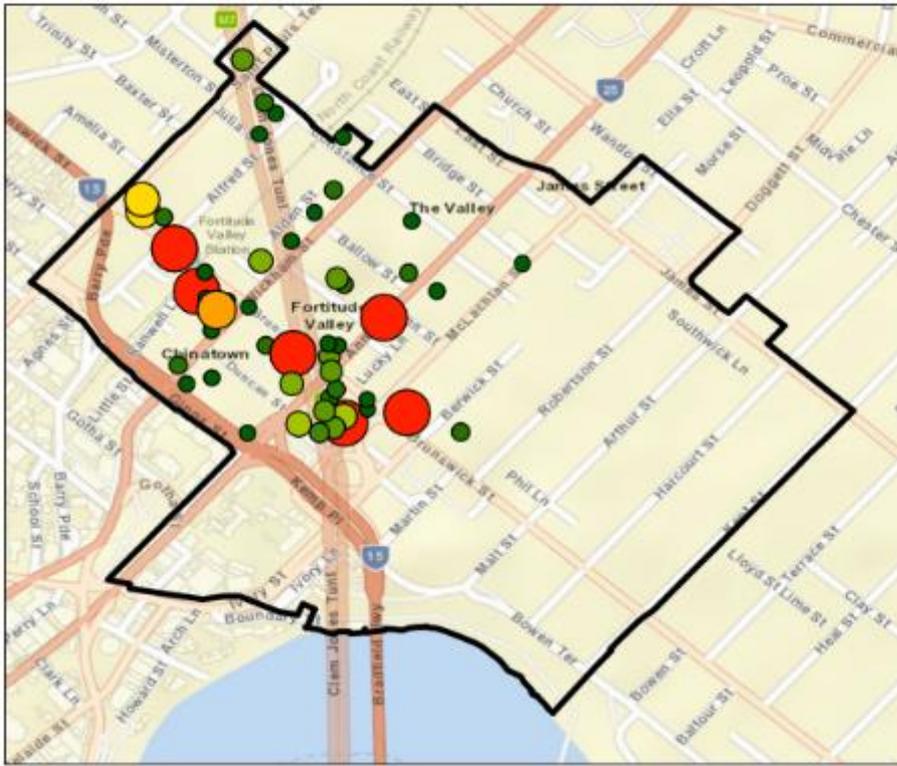


0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Legend

July 2013- June 2014



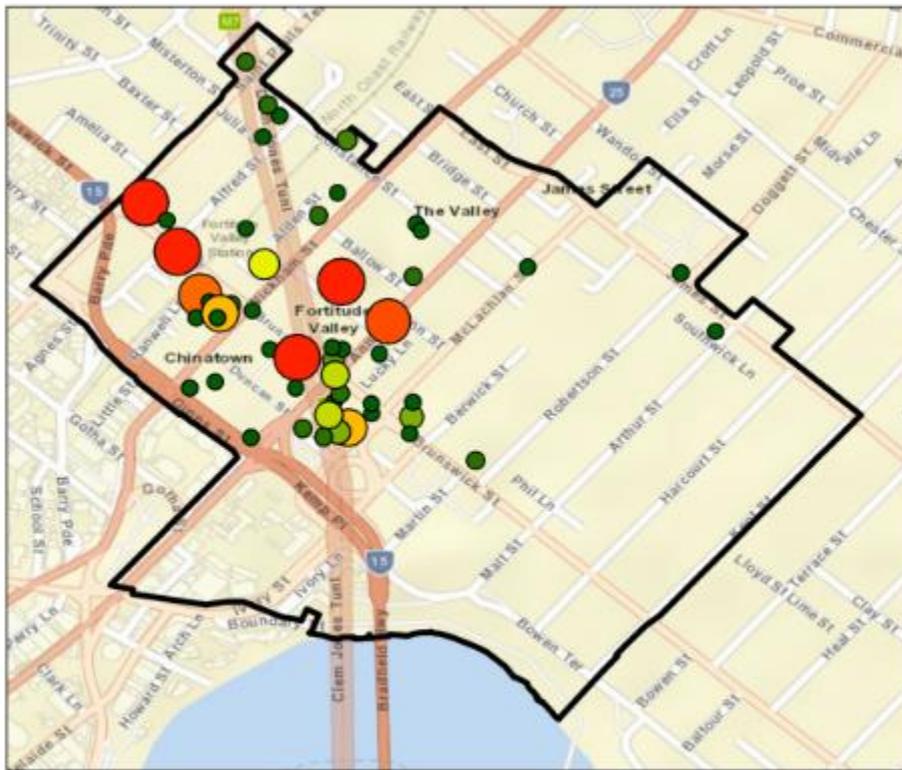
- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Legend

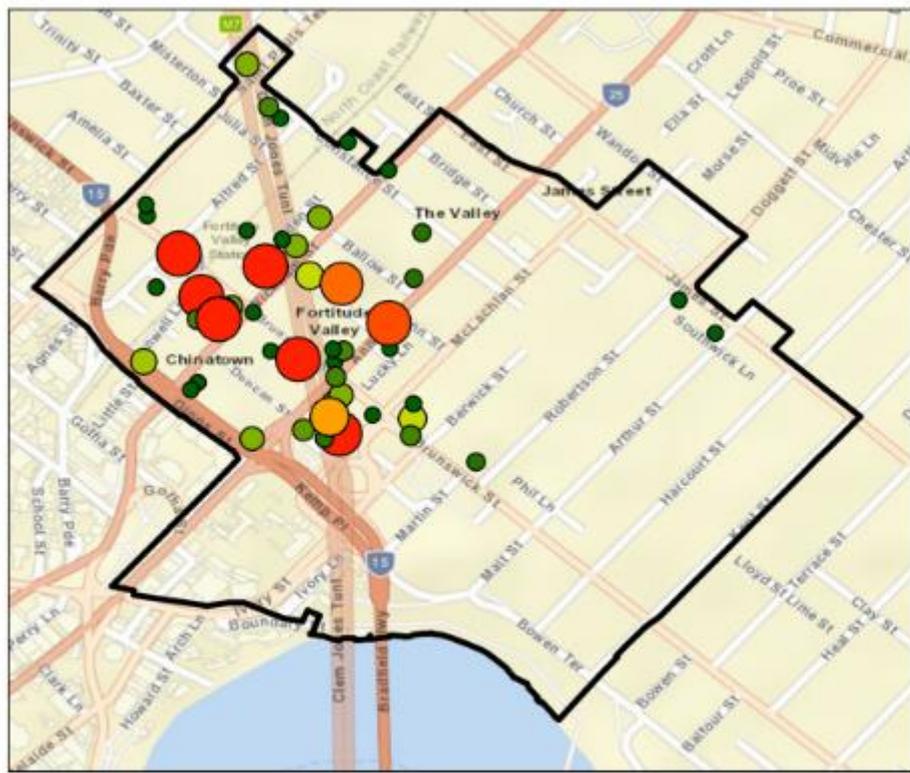
July 2014- June 2015



- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometres

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Legend

July 2015- June 2016

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

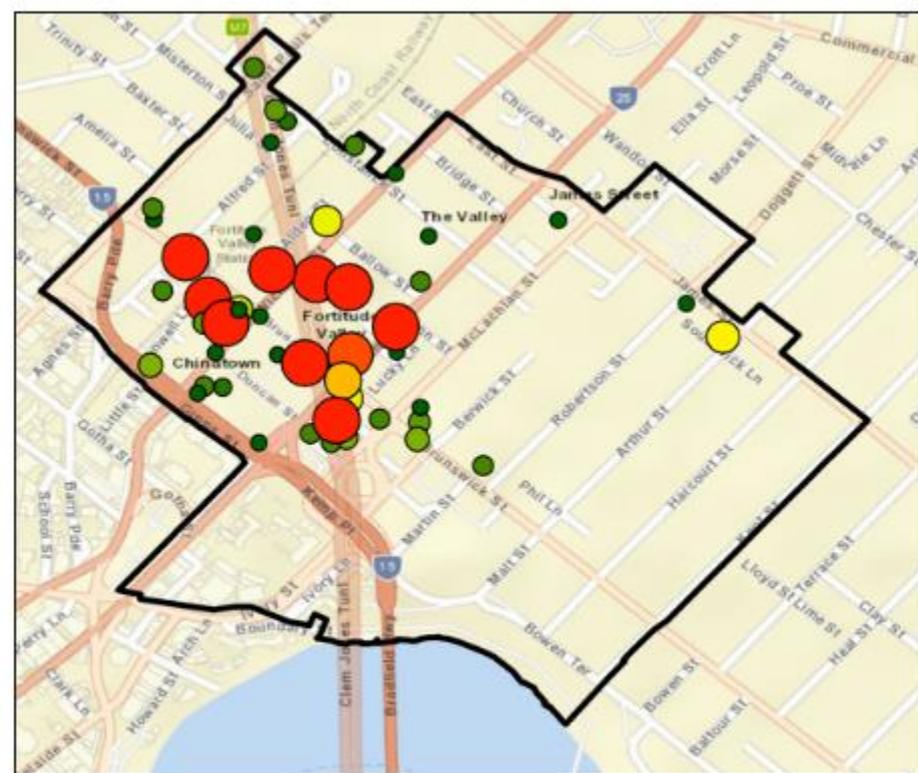
0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NBCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

Legend

July 2016- June 2017

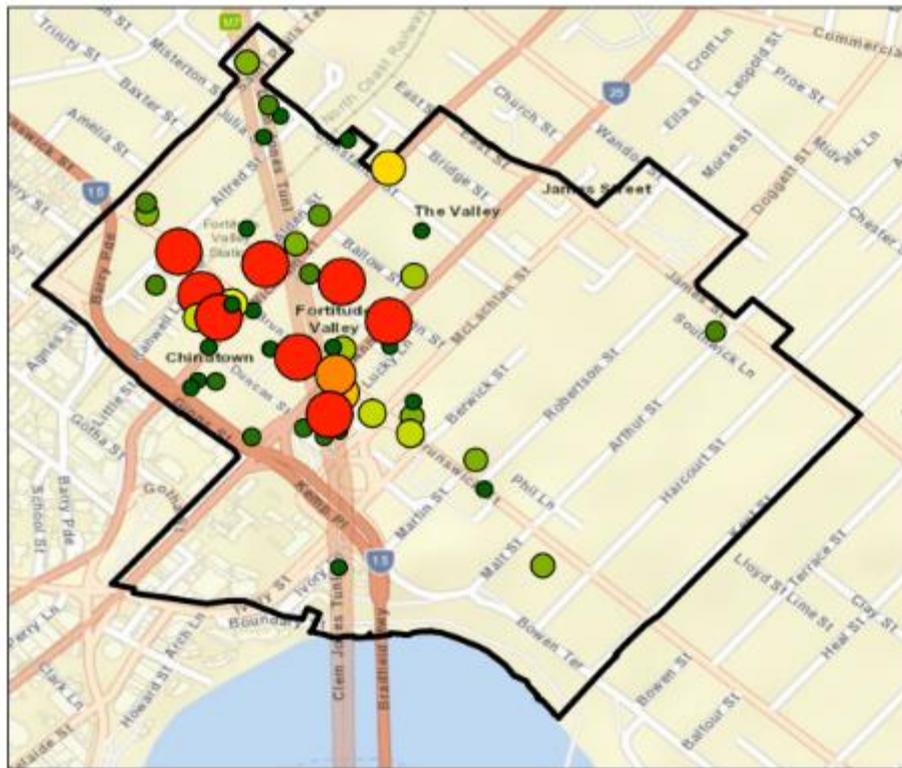
- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+



Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the [GIS User Community](#)

Legend

July 2017- June 2018

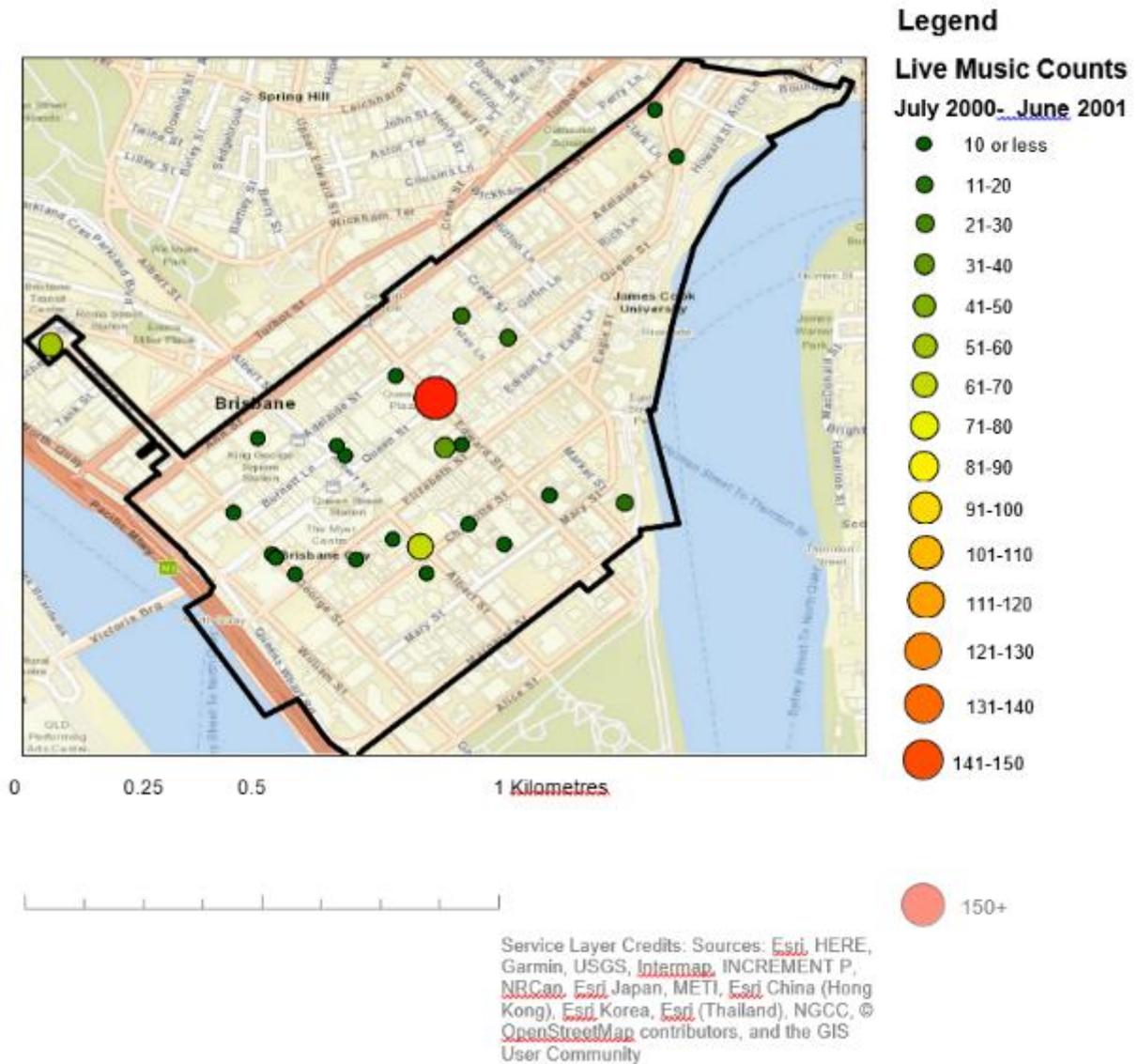


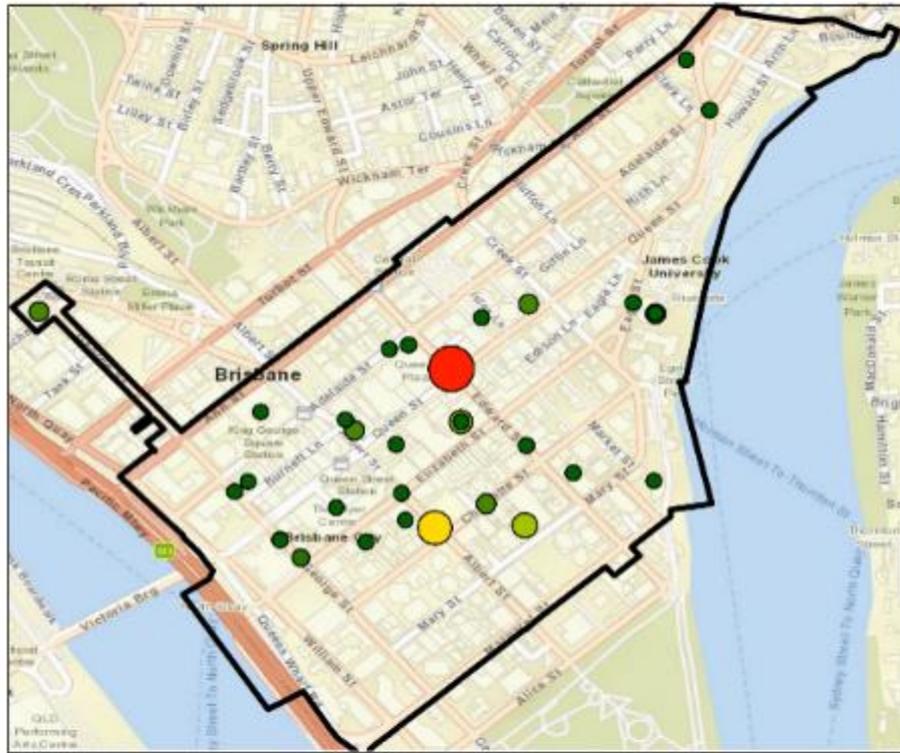
- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

APPENDIX 11: MAPS SHOWING THE TEMPORAL AND SPATIAL CHANGE OF LIVE MUSIC PERFORMANCES IN BRISBANE FOR THE 2001-2018 FINANCIAL YEARS

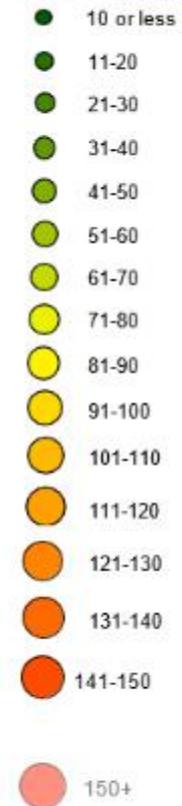




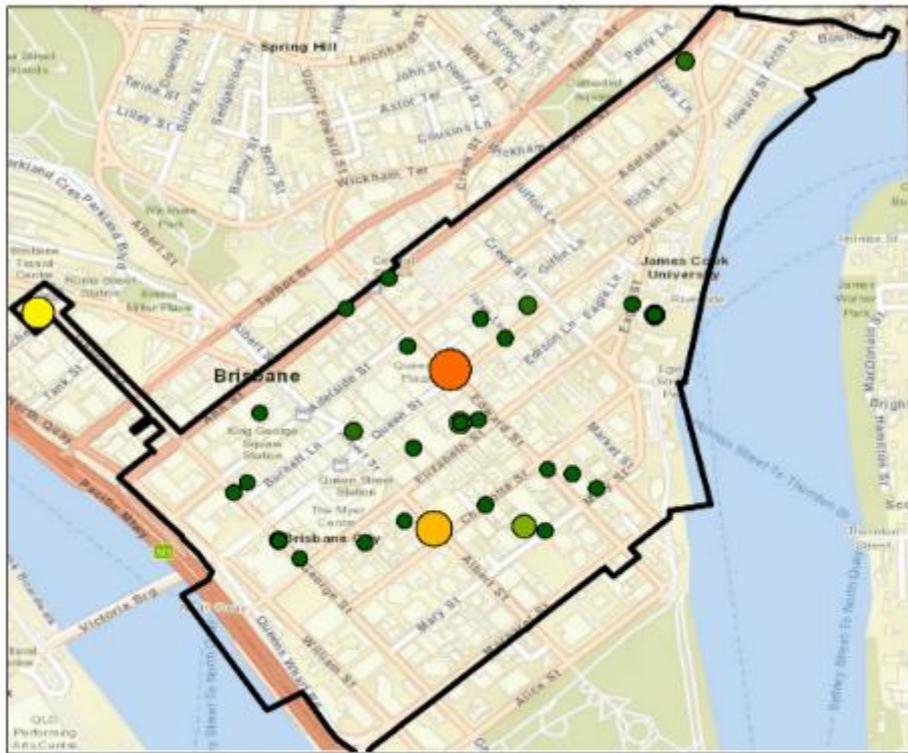
Legend

Live Music Counts

July 2001- June 2002



Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

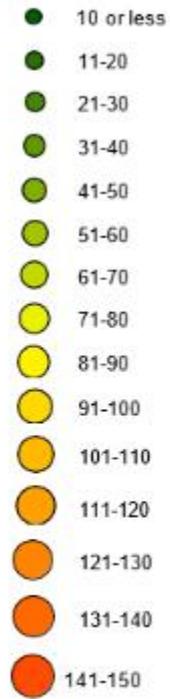


0 0.25 0.5 1 Kilometres

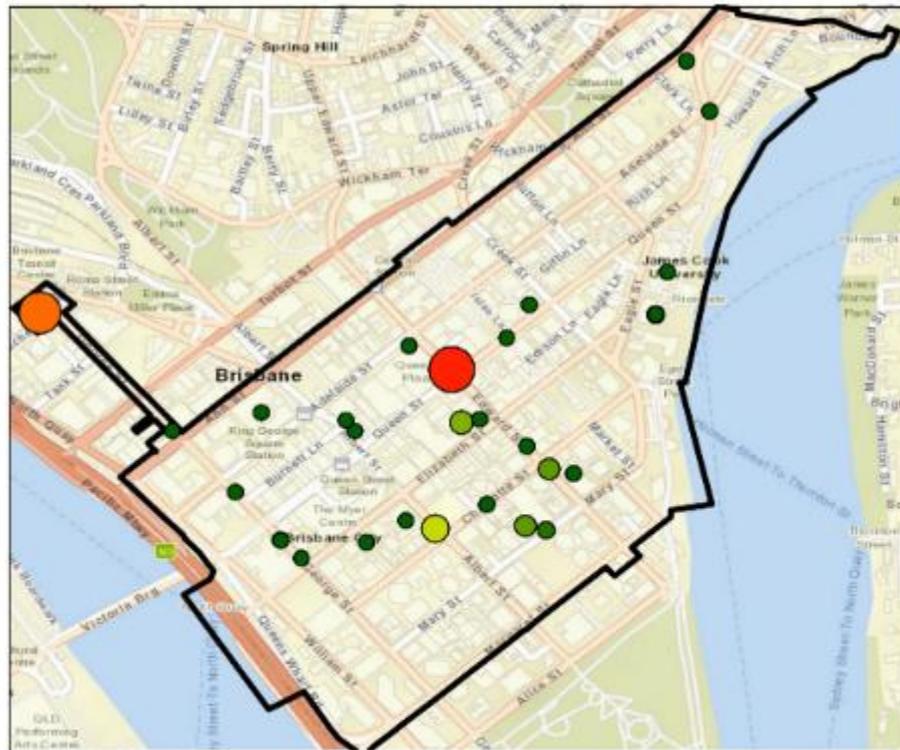


Legend

Live Music Counts July 2002- June 2003

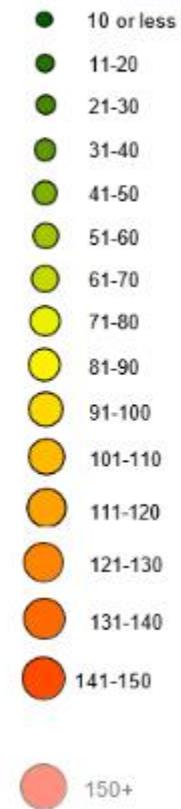


Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

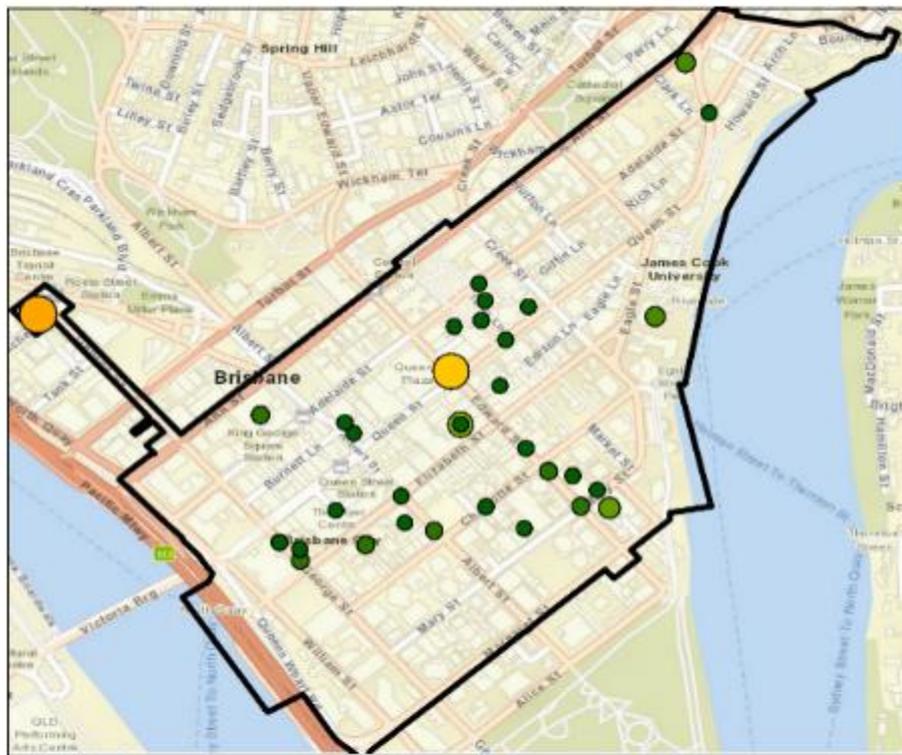


Legend

Live Music Counts July 2003- June 2004



Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community



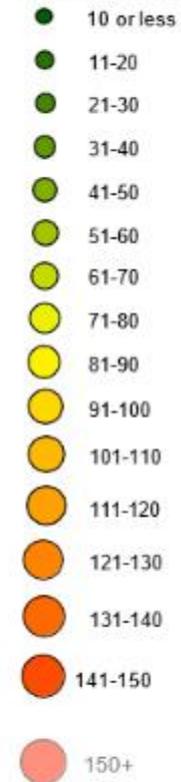
0 0.25 0.5 1 Kilometres

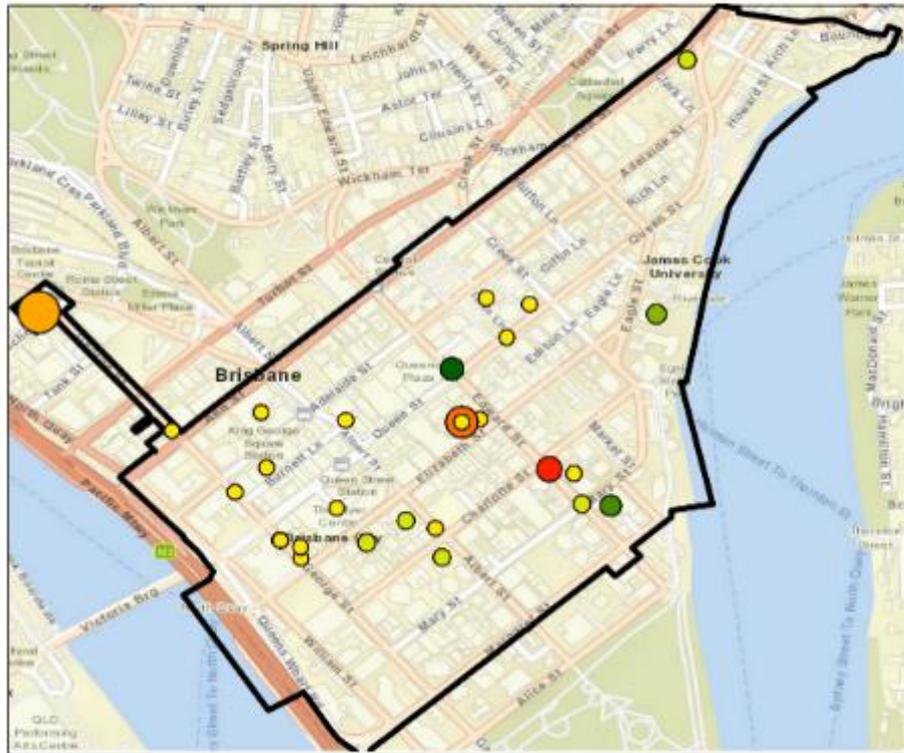


Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

Legend

Live Music Counts July 2004- June 2005





Legend

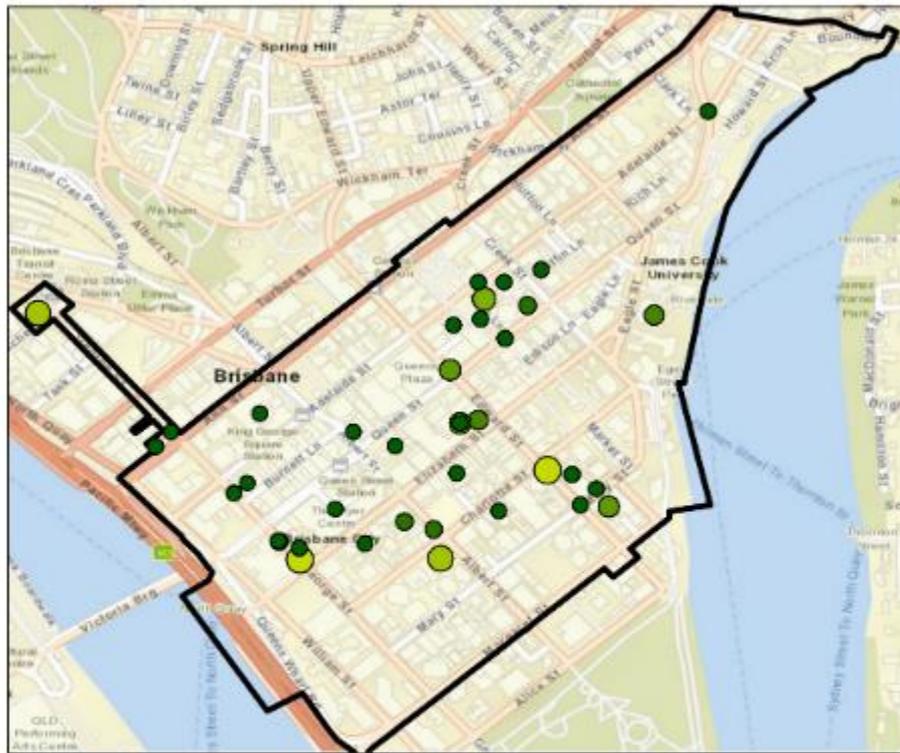
Live Music Counts

July 2005 - June 2006

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

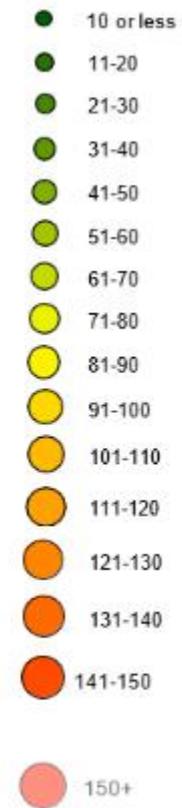


Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community



Legend

Live Music Counts July 2006- June 2007

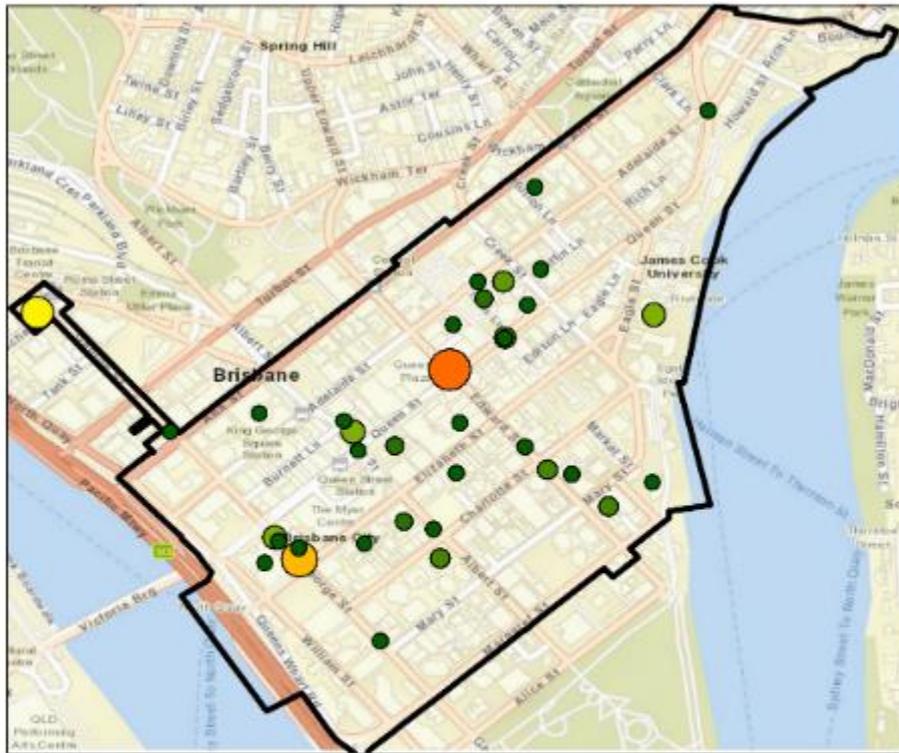
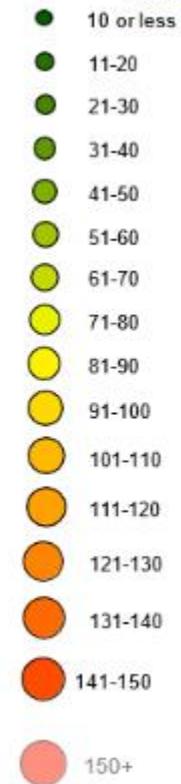


Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

Legend

Live Music Counts

July 2007- June 2008



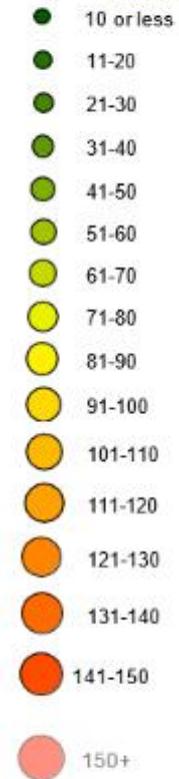
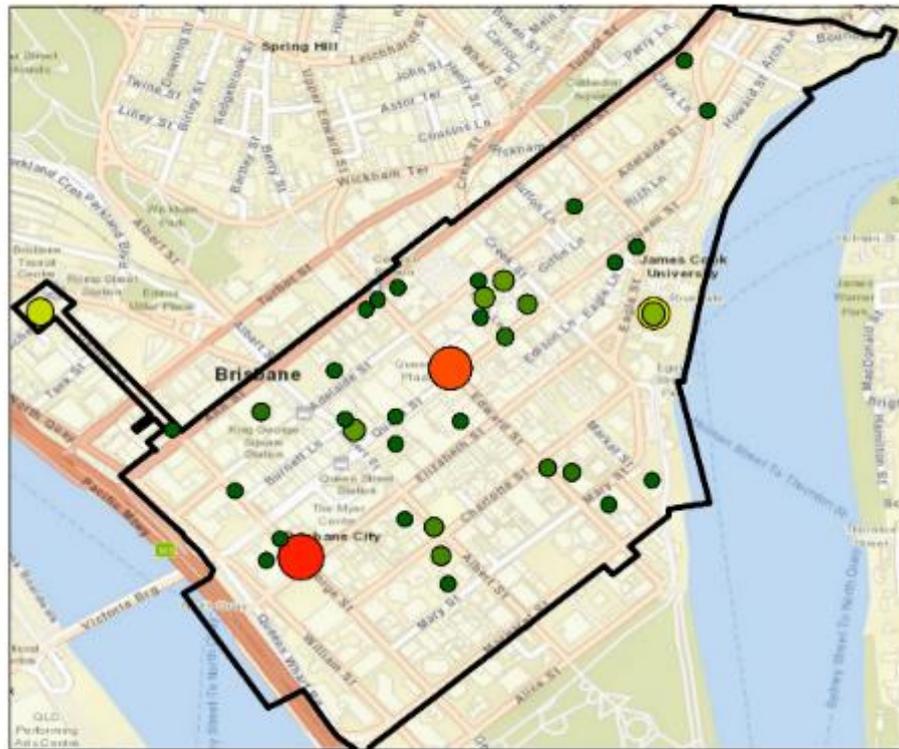
0 0.25 0.5 1 Kilometres

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

Legend

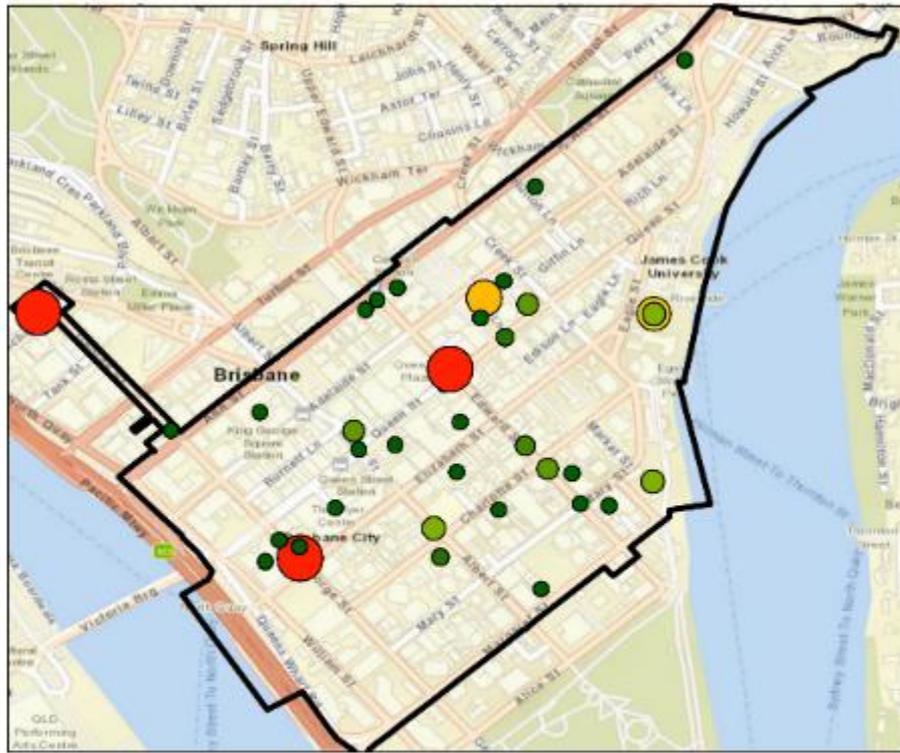
Live Music Counts

July 2008- June 2009



0 0.25 0.5 1 Kilometres

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P.](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community



0 0.25 0.5 1 Kilometres

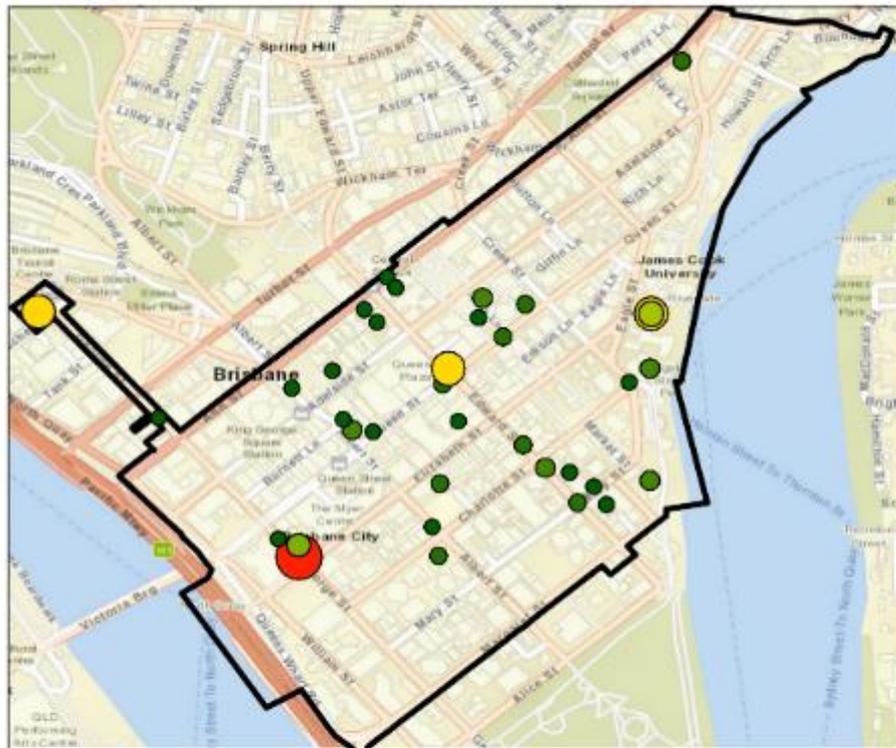
Legend

Live Music Counts

July 2009 - June 2010

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCao](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community



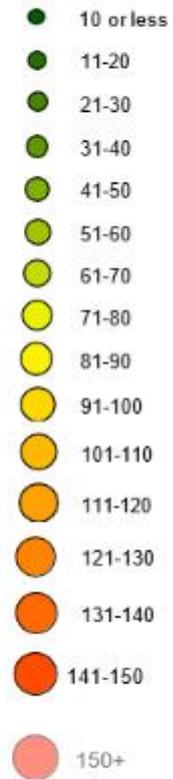
0 0.25 0.5 1 Kilometres

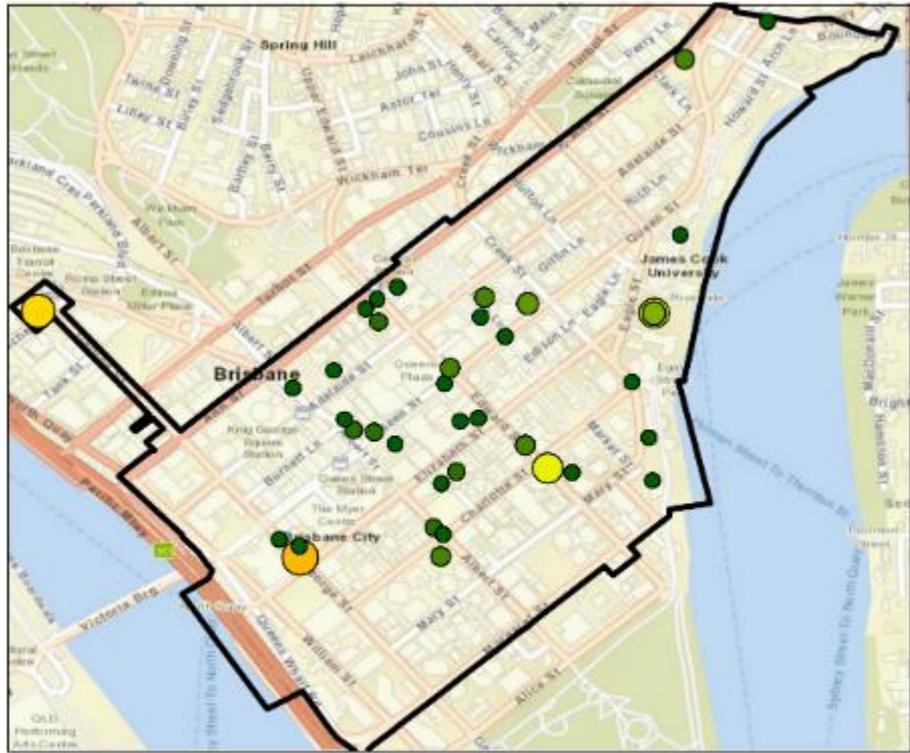


Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri](#) Japan, [METI](#), [Esri](#) China (Hong Kong), [Esri](#) Korea, [Esri](#) (Thailand), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

Legend

Live Music Counts July 2010- June 2011

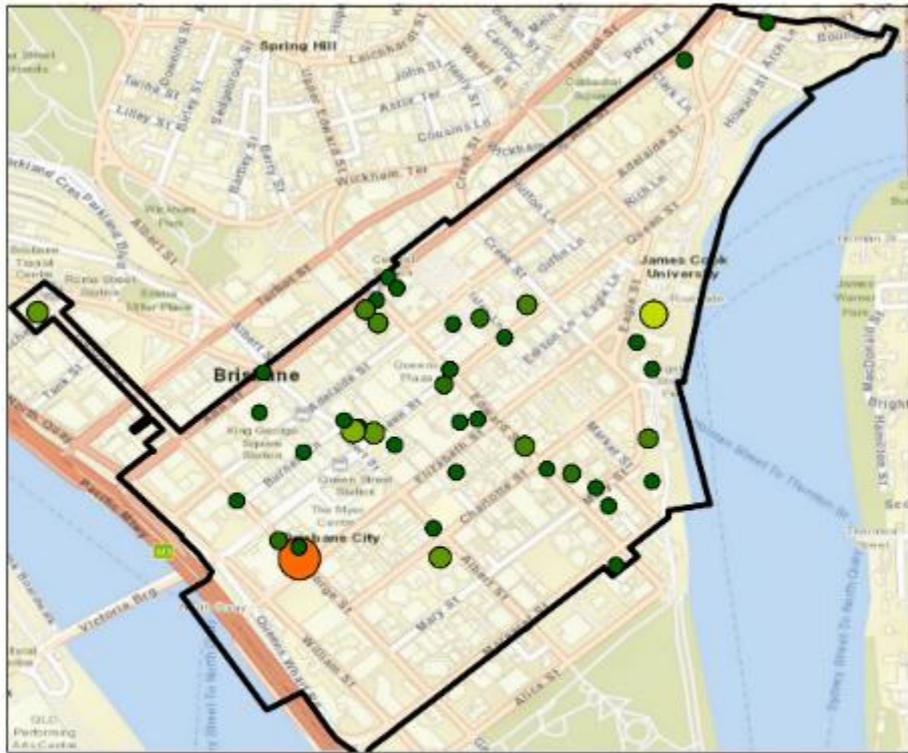




Legend
Live Music Counts
 July 2011- June 2012

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community



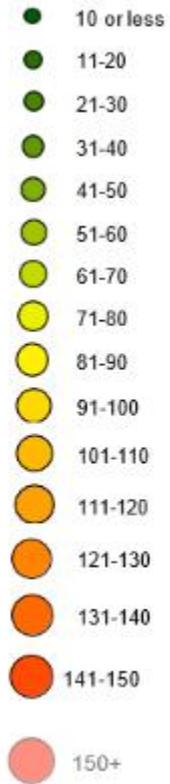
0 0.25 0.5 1 Kilometres



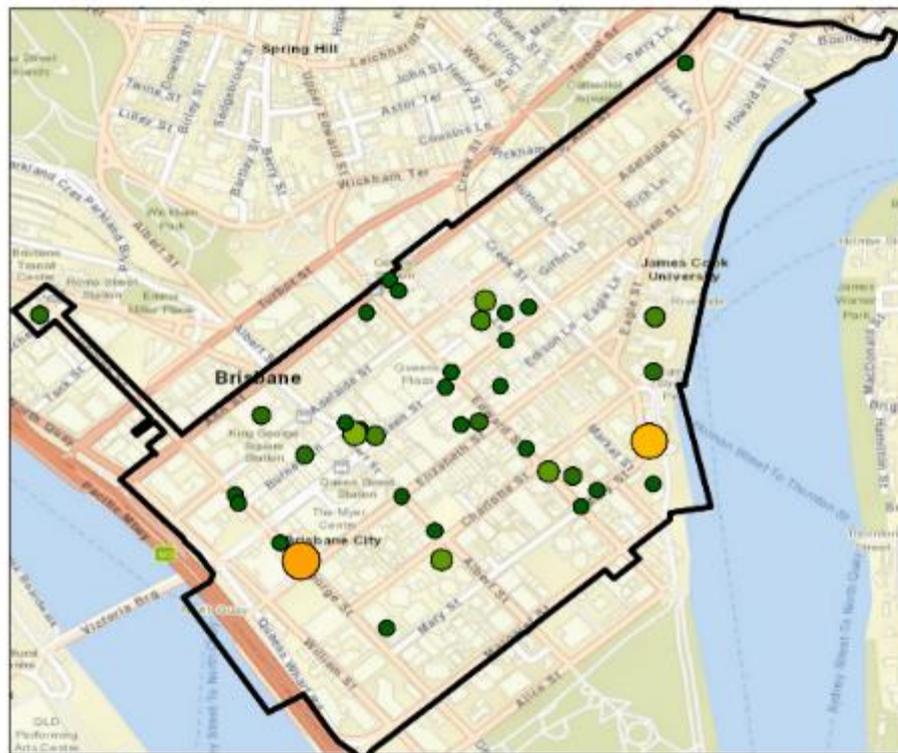
Legend

Live Music Counts

July 2012- June 2013

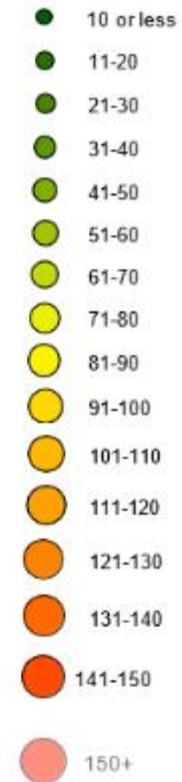


Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NBCap](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community



Legend

Live Music Counts July 2013- June 2014

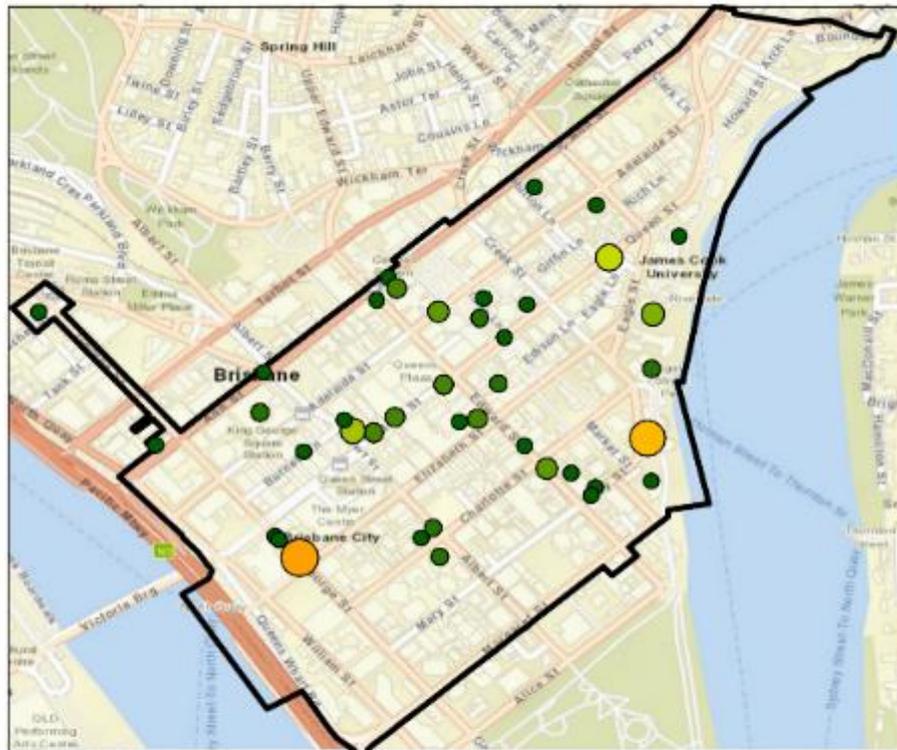
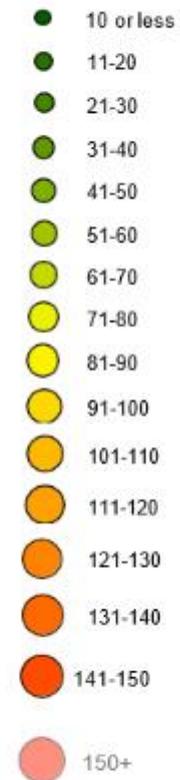


0 0.25 0.5 1 Kilometres

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCap](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

Legend

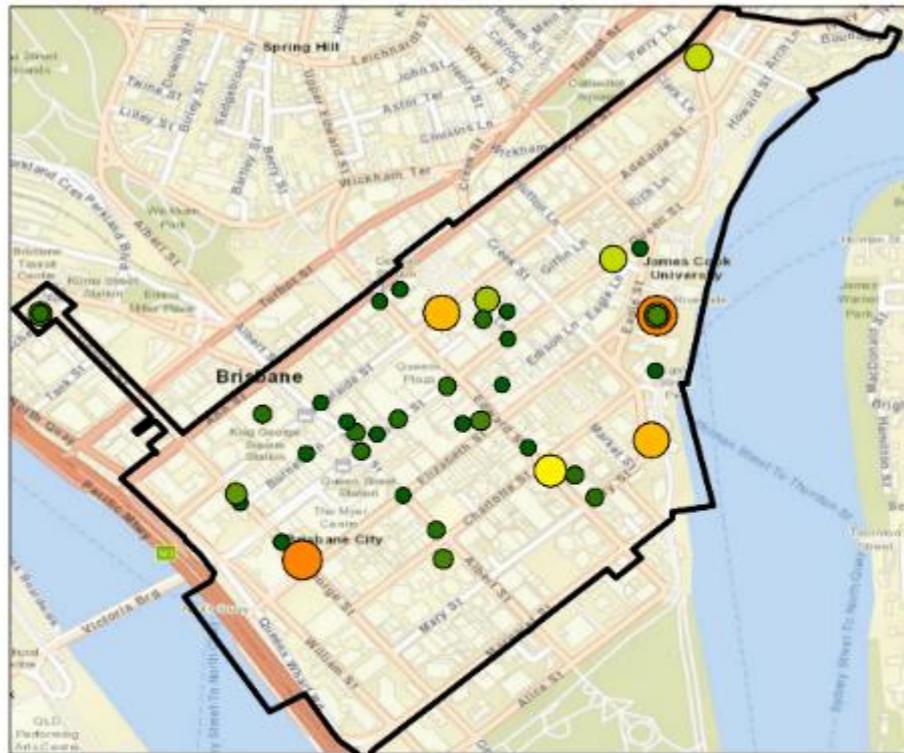
Live Music Counts July 2014- June 2015



0 0.25 0.5 1 Kilometres



Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P.](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community



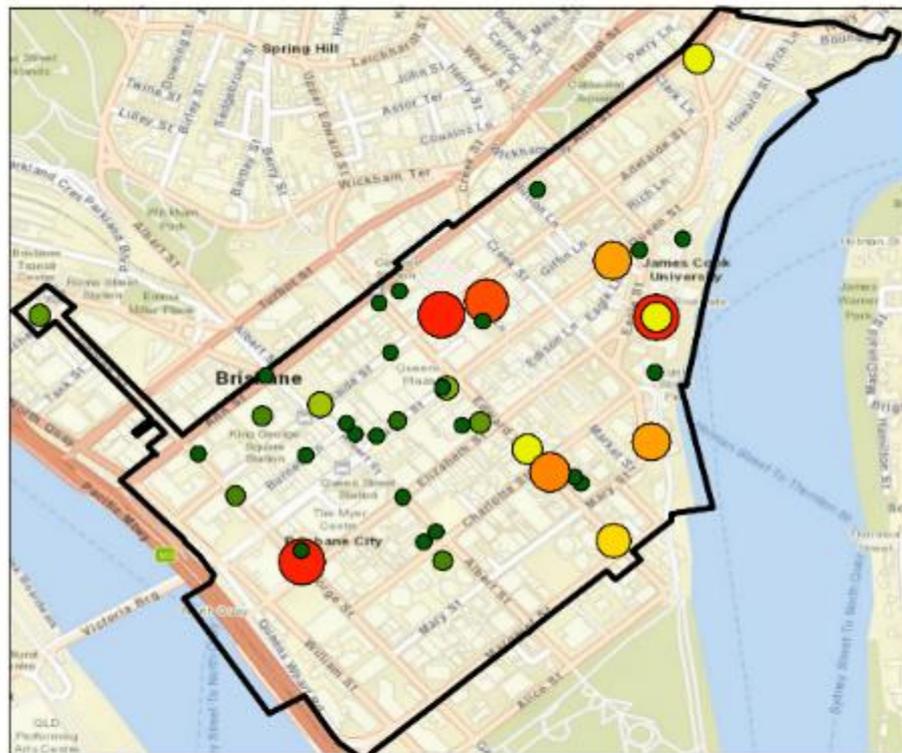
Legend

Live Music Counts

July 2015- June 2016

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community



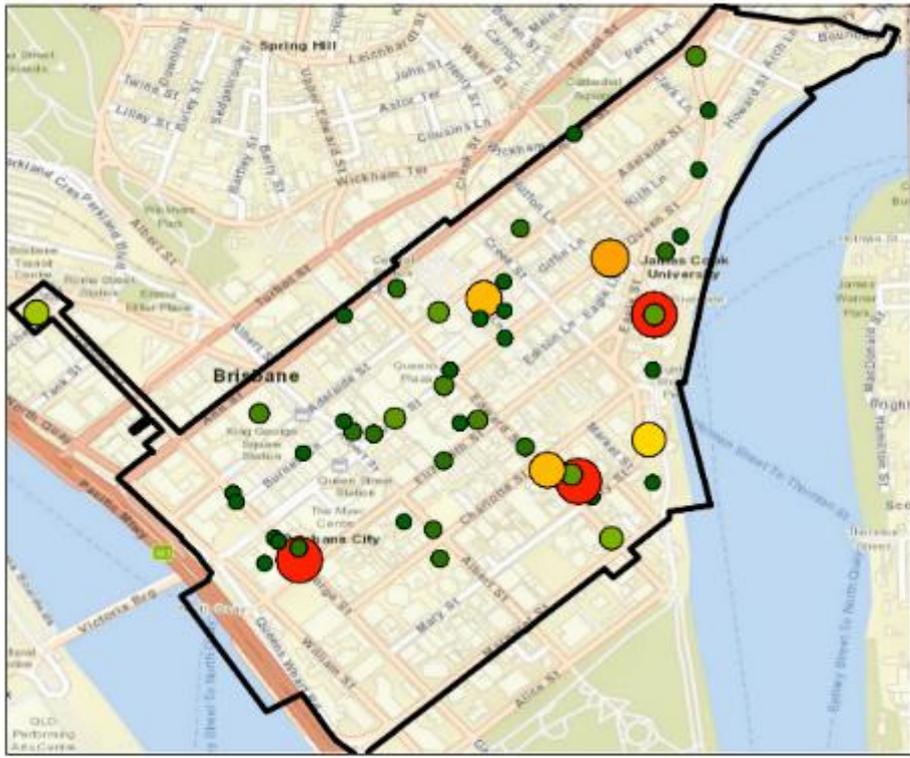
Legend

Live Music Counts July 2016- June 2017

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.25 0.5 1 Kilometres

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCap](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

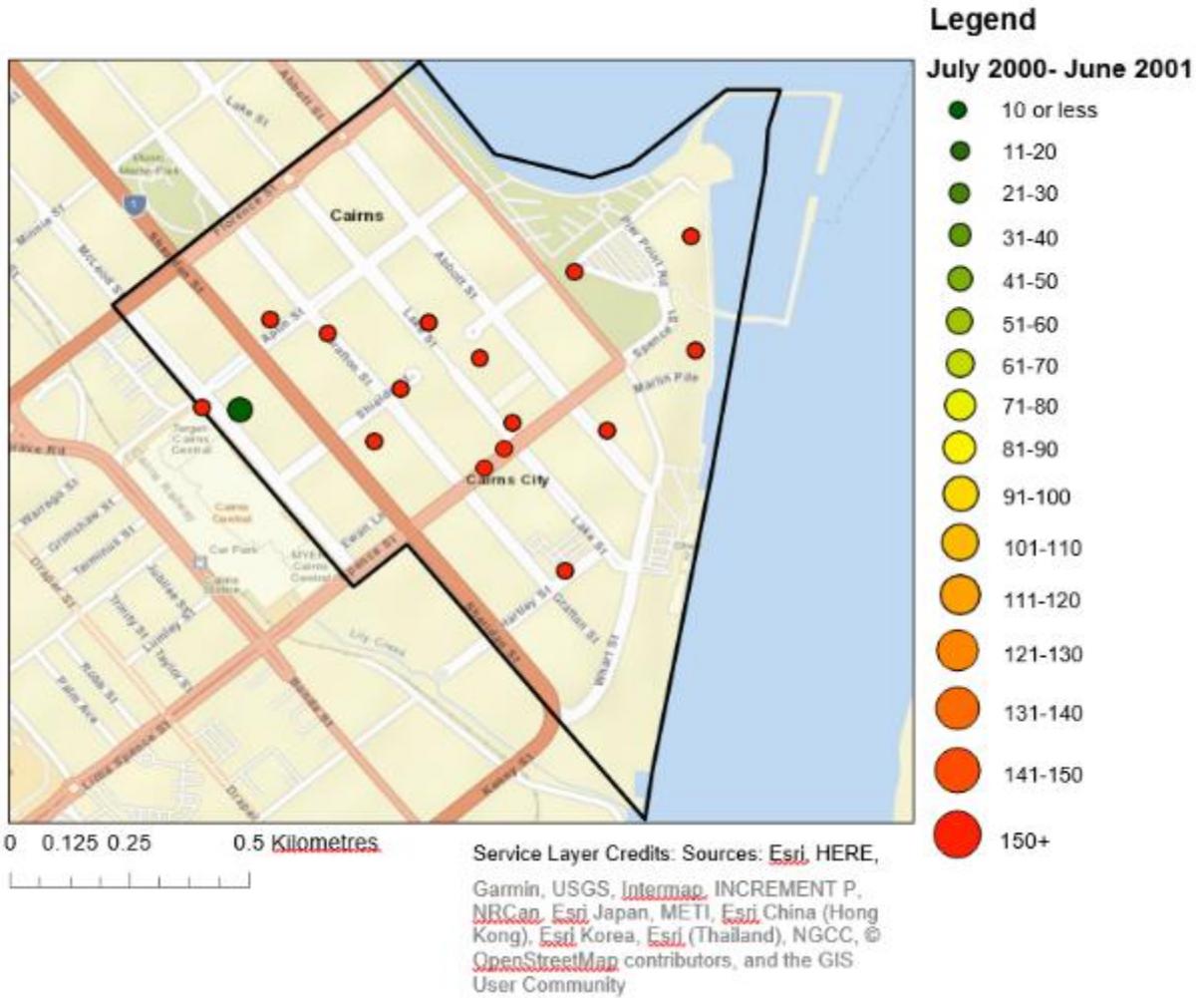


Legend
Live Music Counts
July 2017- June 2018

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

APPENDIX 12: MAPS SHOWING THE TEMPORAL AND SPATIAL CHANGE OF LIVE MUSIC PERFORMANCES IN CAIRNS FOR THE 2001-2018 FINANCIAL YEARS



Legend

July 2001- June 2002

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+



0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community



Legend

July 2002- June 2003

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



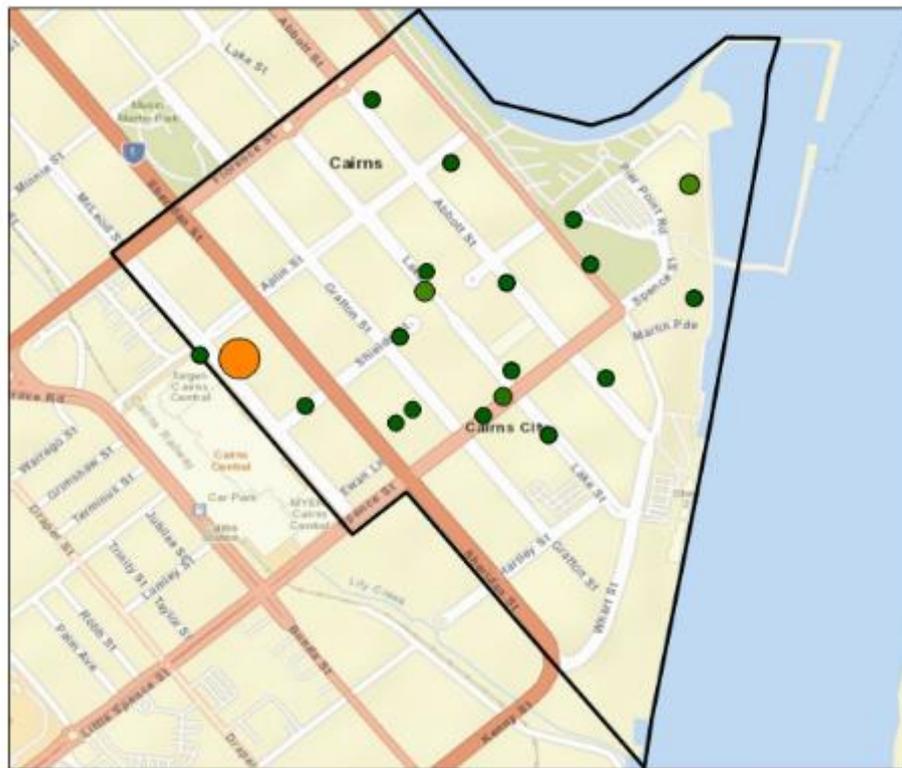
0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Legend

July 2003- June 2004

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+



Legend

July 2004- June 2005

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometres

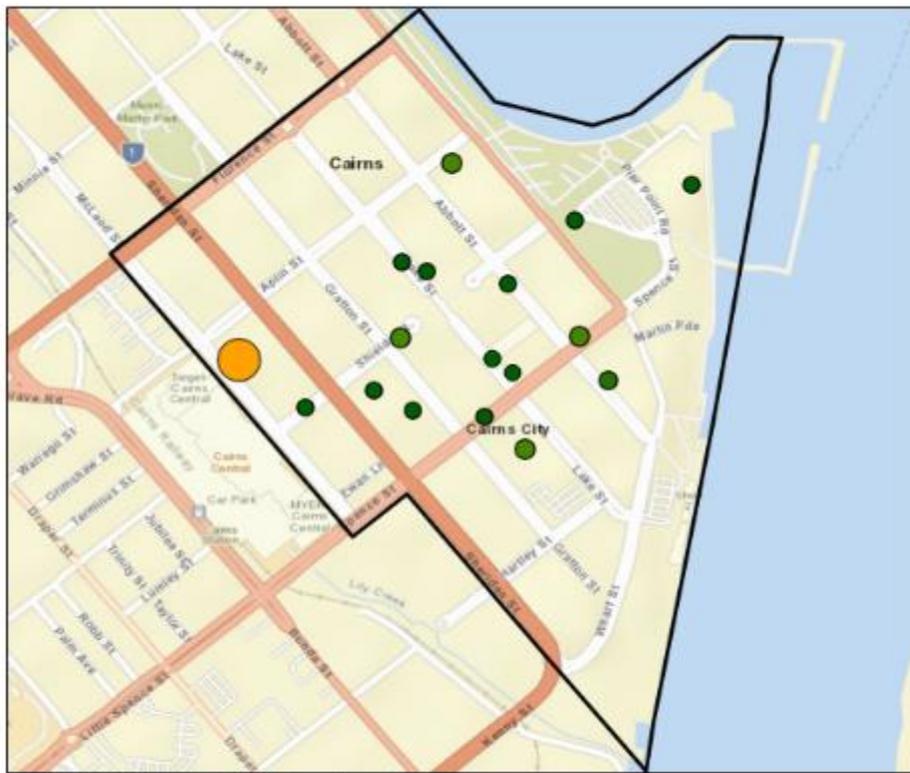
Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the [GIS User Community](#)



Legend
July 2005- June 2006

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



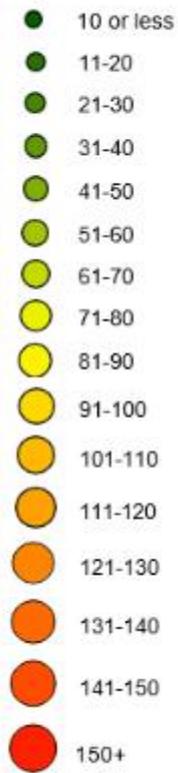
Legend
July 2006- June 2007

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

Legend

July 2007- June 2008

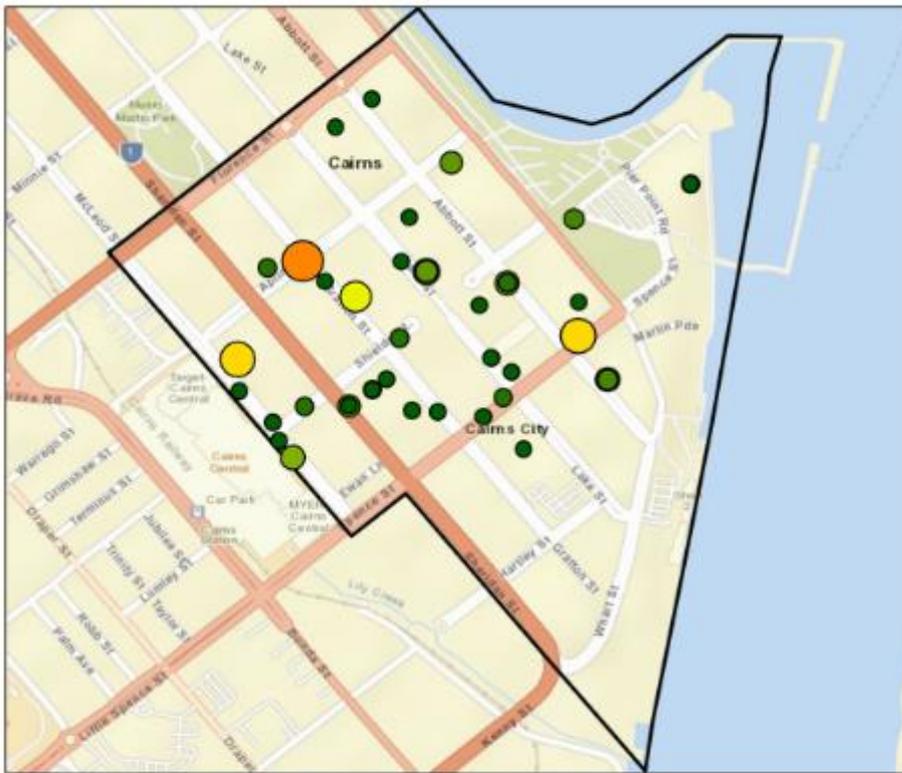


0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

Legend

July 2008- June 2009



- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community



Legend

July 2009- June 2010

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community



0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCap](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the [GIS User Community](#)

Legend

July 2010- June 2011

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

Legend

July 2011- June 2012



0 0.125 0.25 0.5 Kilometres

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Legend

July 2012- June 2013

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



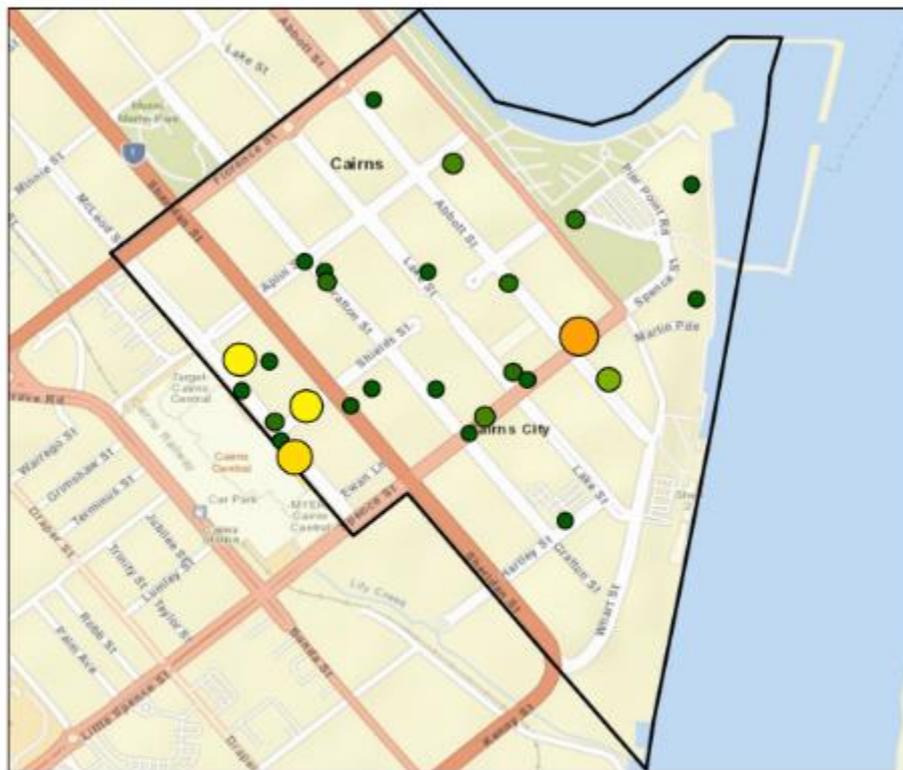
Legend

July 2013- June 2014

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community



Legend

July 2014- June 2015

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

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Legend

July 2015- June 2016

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the [GIS User Community](#)



Legend

July 2016- June 2017

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometres

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NBCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community



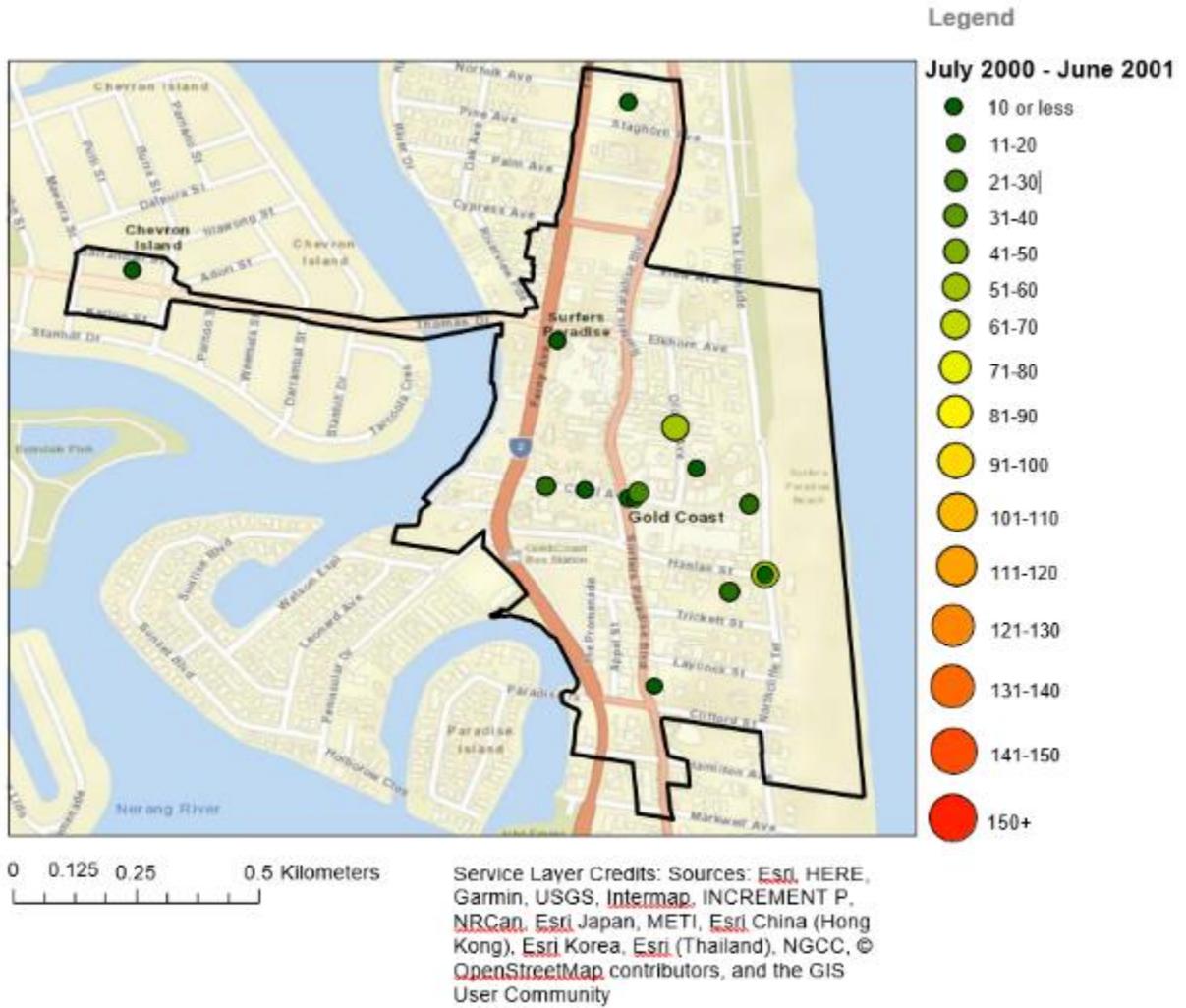
Legend

July 2017- June 2018

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

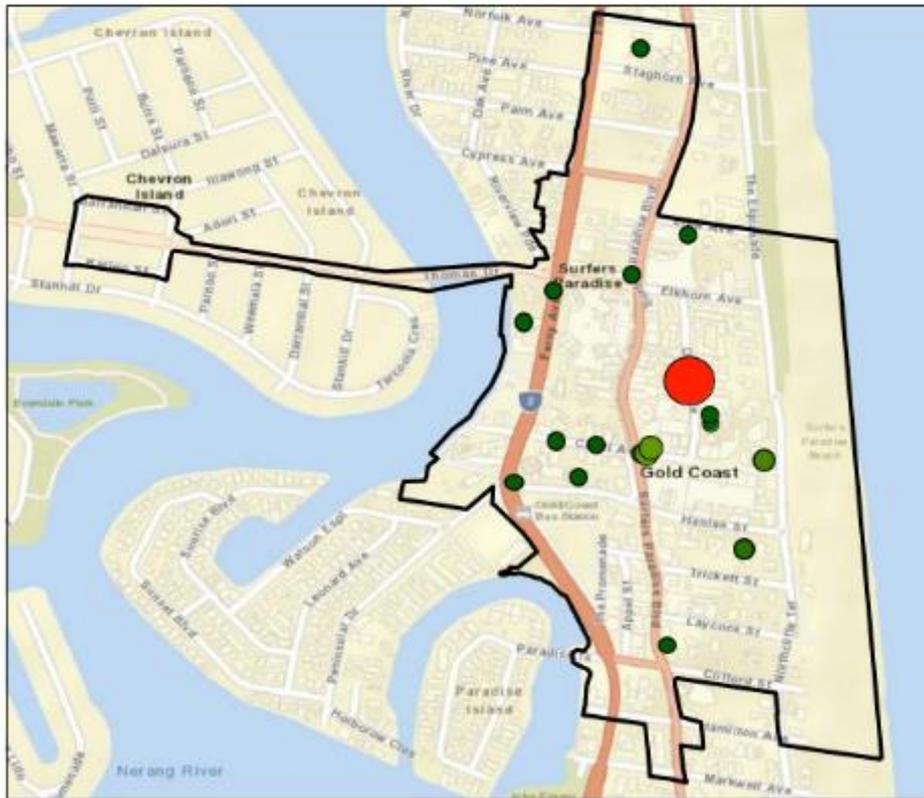
Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

APPENDIX 13: MAPS SHOWING THE TEMPORAL AND SPATIAL CHANGE OF LIVE MUSIC PERFORMANCES IN SURFERS PARADISE FOR THE 2001-2018 FINANCIAL YEARS



Legend

July 2001 - June 2002



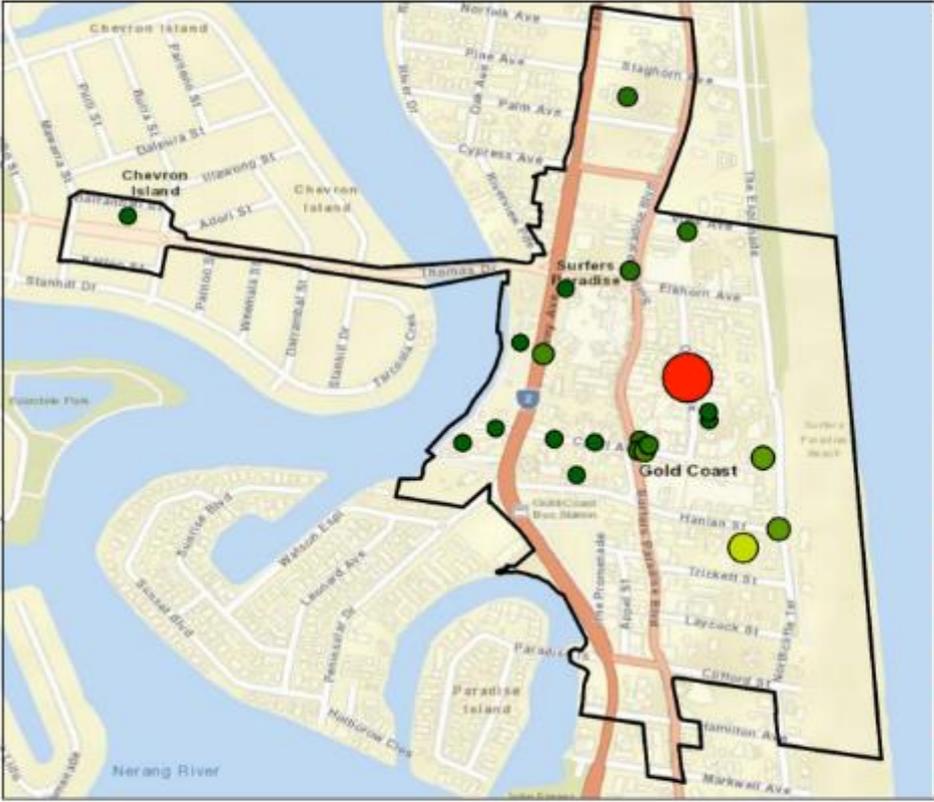
- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometers

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

Legend

July 2002 - June 2003



- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometers

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCap](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the [GIS User Community](#)

Legend

July 2003 - June 2004



0 0.125 0.25 0.5 Kilometers

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

Legend

July 2004 - June 2005



- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometers

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the [GIS User Community](#)

Legend

July 2005 - June 2006



0 0.125 0.25 0.5 Kilometers

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

Legend

July 2006 - June 2007



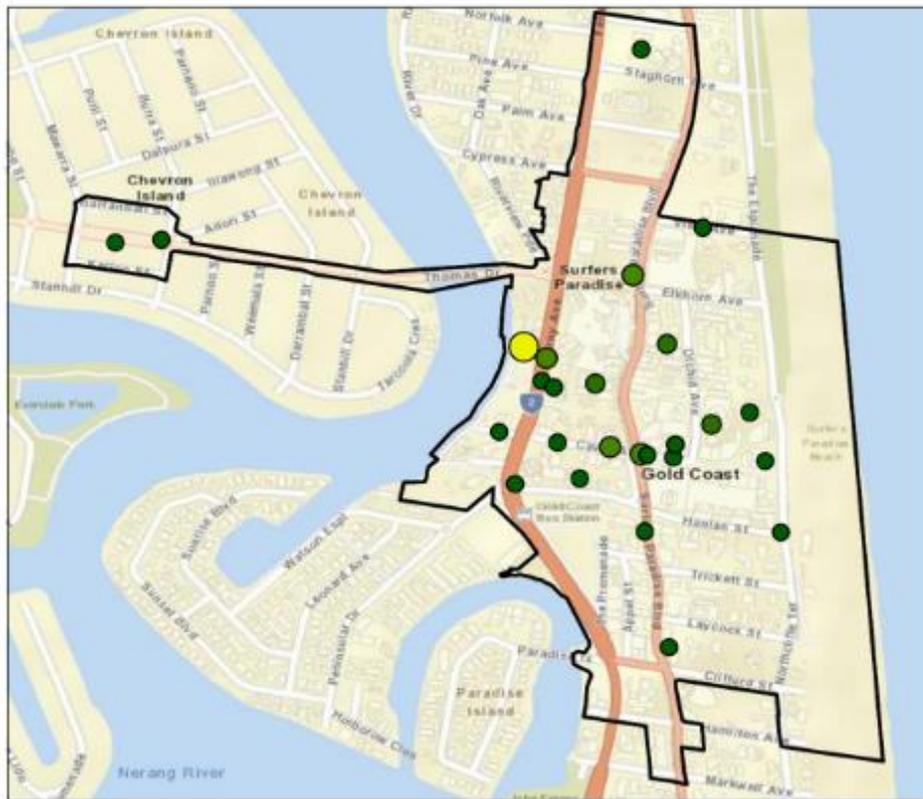
- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometers

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the [GIS User Community](#)

Legend

July 2007 - June 2008



- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometers

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

Legend

July 2008 - June 2009



- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

0 0.125 0.25 0.5 Kilometers

Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

Legend

July 2009 - June 2010

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+

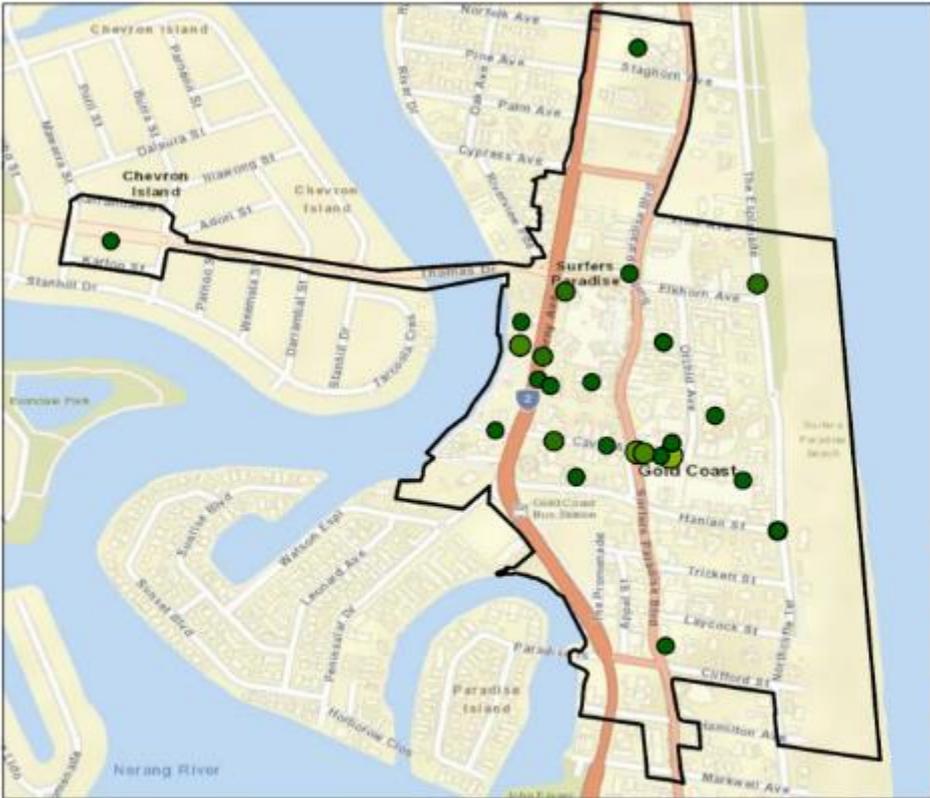


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Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCap](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the [GIS User Community](#)

Legend

July 2010 - June 2011



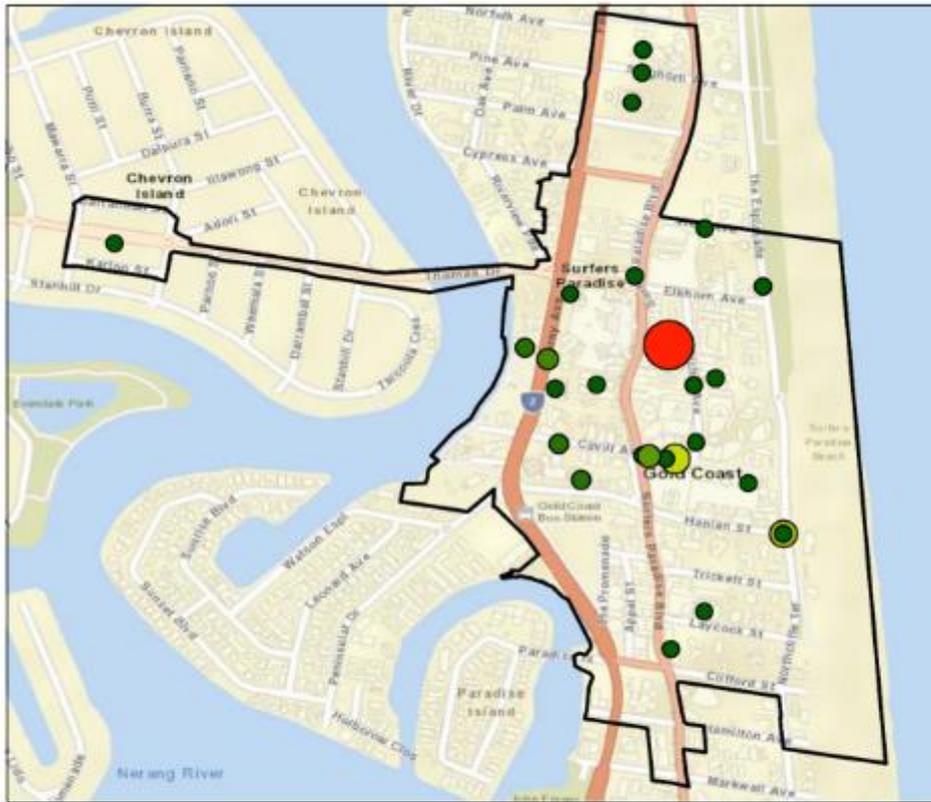
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July 2011 - June 2012



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Legend

July 2012 - June 2013

- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
- 150+



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Legend

July 2013 - June 2014



- 10 or less
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120
- 121-130
- 131-140
- 141-150
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Service Layer Credits: Sources: [Esri](#), [HERE](#), [Garmin](#), [USGS](#), [Intermap](#), [INCREMENT P](#), [NRCan](#), [Esri Japan](#), [METI](#), [Esri China \(Hong Kong\)](#), [Esri Korea](#), [Esri \(Thailand\)](#), [NGCC](#), © [OpenStreetMap](#) contributors, and the GIS User Community

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July 2014 - June 2015

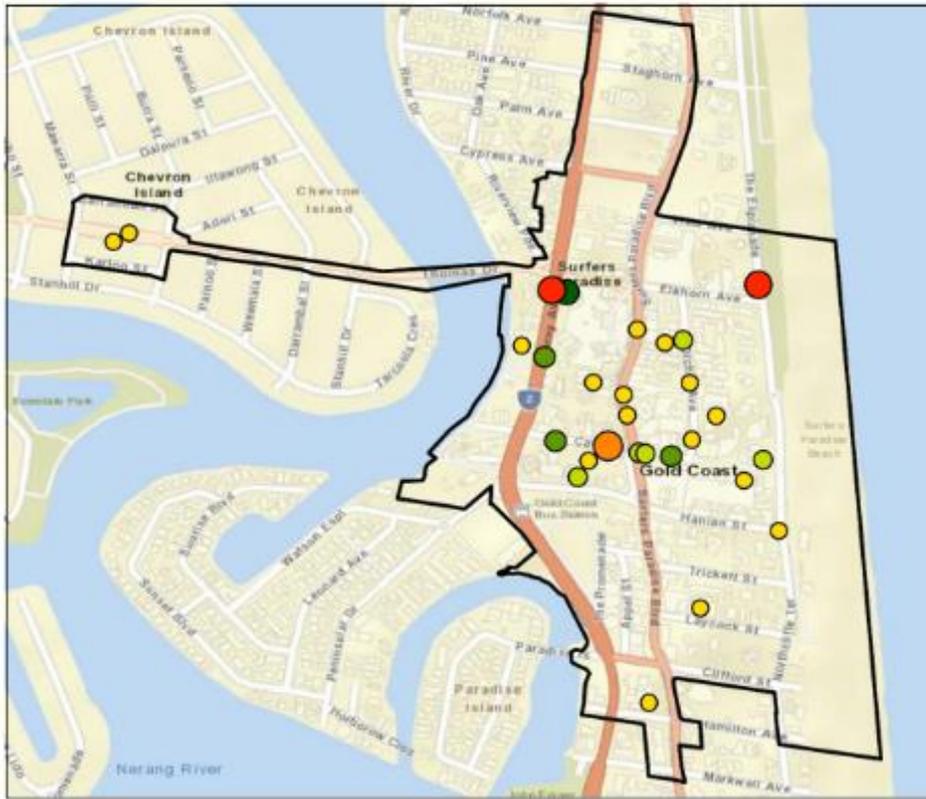


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July 2015 - June 2016



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July 2016 - June 2017



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July 2017 - June 2018



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APPENDIX 14. COMMUNICATION FROM QGSO REGARDING QUEENSLAND PREVENTATIVE HEALTH SURVEY

Email communication from The Preventative Health Branch: 21/3/2019

The Preventative Health Branch has advised that it classifies calls and calculates response rates and contact rates using the same methodology as reported by Australian Institute of Health and Welfare and described on **page 138** of the National Drug Strategy Household Survey report 2016 (available publicly).

The Preventative Health Branch Methods report also documents sample size and includes descriptors of collection including response and contact rate pages 18-20. That report is available at

<https://www.health.qld.gov.au/research-reports/population-health/methods>

Response from DPC on interim report: 4/1/2019

The Interim Report also notes that the current government-led Preventative Health Survey does not collect sufficiently in-depth quantitative and qualitative data on alcohol use and misuse to enable the impact of policy changes on Queensland's drinking culture to be measured.

It is understood that data regarding alcohol consumption is collected through a number of existing national surveys, such as Cancer Council Victoria's three-yearly nationwide survey and the Australian Institute of Health and Welfare's National Drug Strategy Household Survey. We trust the final evaluation report is able to draw on a range of sources to address the identified data gaps.

Email communication received from QGSO: 27/3/2019

The two issues addressed for the survey are:

- 1) Interpreting representativeness of a survey sample
- 2) Confirming that the QPHS is not fit for purpose for this evaluation's purpose

We have also provided (at the end of this email) further information to respond to queries you had provided on the Department of Education material.

1) Response rate and representativeness

Throughout the draft TAFV evaluation report, when commenting on data sources, the evaluators commonly associate response rate with representativeness. The response rate provides one measure of the quality of response. There are many functions of the survey collection process that contribute to an understanding of representativeness including the survey frame, sample design and types of bias associated with respondents.

What the Queensland Government Statisticians Office (QGSO) call the cooperation rate (which QH have published as the response rate) is a function of the interviewer's skills, pre-survey communication effects, sentiment towards the survey topic and motivation of a potential respondent to participate.

What QGSO says about representativeness in the QPHS survey review (provided to QH) is as follows:

“Although the survey was designed to maximise the representativeness of the results, it is not possible to be perfectly representative. Estimation of population characteristics from a random sample entails some imprecision as a result of sampling and non-sampling error.

Sampling errors occur because estimates based on information obtained from a sample of adult Queensland residents may differ from statistics that would have been produced if all adult Queensland residents had been included in the survey.

The size of the sampling error is determined by the sampling scheme used, the method used to calculate a value for the estimate, and the size of the sample. Other factors being equal, sampling error may be reduced arbitrarily by increasing the sample size.

Non-sampling errors may occur due to non-response to the survey, inadequacies of the sampling frame, inaccuracies in reporting by respondents and processing errors.

QGSO strategies designed to minimise *non-sampling* errors include:

- use of an up-to-date and accurate list of contact information
- testing the questionnaire for ease of understanding and completion
- sending written communication to households about the survey prior to interviewing
- providing clear interviewer instructions, appropriate training and field supervision
- emphasising the legal provisions for protecting confidentiality under the Statistical Returns Act with respondents.

An additional strategy used by QGSO that may reduce sampling error is calibration to population benchmarks. Calibration is a process that makes use of variables that are collected in the survey and for which population level totals (benchmarks) are known. Where suitable additional information about the population of interest is known, calibration can reduce non-response bias and/or increase precision.”

2) Fit for purpose

The QPHS is a population-based survey, designed to provide reliable information on the characteristics of usual residents of Queensland on a range of preventive health indicators for state level reporting annually, and regional reporting every two years (ie Hospital and Health Services and Local Government Areas). It is certainly not designed to be representative of alcohol consumption by persons aged between 18-24 years in Safe Night Precincts (entertainment precincts), particularly at night, on weekends.

Hence, the draft report acknowledges that it is “not well suited to measure behavioural change resulting from interventions over short periods or for specific demographic groups.”

It should be acknowledged that the Qld Govt did not assert, and has never asserted, that the survey is the perfect tool for this purpose. It is noted that Quantem agreed to include the survey as a measure in the evaluation framework under the contract, with that proviso.

Because of these inherent limitations in the survey for this purpose, it is our view that providing the further information that you have sought would not assist in answering the questions in the evaluation about cultural changes in drinking practices as a result of the Queensland Government’s Tackling Alcohol Fuelled Violence Policy.

As a result, other than making that statement that the survey is not well suited to measure behavioural change resulting from interventions over short periods or for specific demographic groups, further discussion about this data source and its survey methodology in the draft report is misleading and incorrect in parts. This is reinforced by the provision of data already provided by QH on survey samples and trend analysis.

In particular, we recommend that the following sections in italics should be removed from the draft report:

However, Queensland Health refused to release basic scientific information such as:

- 1. what denominator was used for determining the response rate;*
- 2. the number of people who answered the phone*
- 3. the number of people that didn’t answer the phone (many people screen calls).*
- 4. The number of incomplete calls*

There is also a lack of detailed demographic and geographic information to compare the 2016 sample to the 2018 sample, although it is acknowledged that the data is population weighted.

Further, the lack of reporting of key information about the sample of the survey and the lack of reporting of results from previous years represents poor scientific practice and creates substantial doubt around the validity of the findings reported.

Without supplying the basic information about these patterns, the public and current research team are unable to discern what really happened in the data. Such a lack of transparency represents extremely poor scientific and public service practice.

Because of these practices, and the decision to omit alcohol questions in 2017, the research team is unable to make any conclusions about the trends described in the Queensland health annual ‘Preventive Health Survey’, but strongly recommend a review of the data collection and transparency protocols within Queensland Health.

APPENDIX 15. ECONOMIC EVALUATION SURVEY RESULTS AND DETAILED CALCULATION METHOD OF COST PER INCIDENT

7.10. IMPACT ON THE LICENSED PREMISES

The survey invite was sent by the Office of Liquor and Gaming Regulation (OLGR) to 1,985 on-premise licence venues' managers or owners. There were 190 participants entered the survey and only 61 completed the survey in full (response rate is 3%). We conducted a brief analysis based on the available survey data as below:

Overall impact on business performance in licensed premises in both SNPs and non-SNPs was presented in Table 58, which shows 28% of 98 licensed premises reported the introduction of policy has generated negative impact on their business performance and 78% reported no impact or the impacts were positive.

Table 58 Overall impact on business performance in licensed premises in both SNPs and non-SNPs (n=98)

Licensed venues location	Overall impact of the policy on business performance during 2016-2018			Total
	Negative	No impact	Positive	
SNPs	13	12	8	33
non-SNPs	14	41	10	65
Total	27	56	18	98

About half of the 44 licensed premises reported there were changes in staffing due to the introduction of the policy in 2016-17 (Table 59). Staff numbers include both full-time and part-time employees in the licensed premises.

Table 59 Overall impact on staffing in licensed premises in both SNPs and non-SNPs (n=44)

Licensed venues location	Change in staff numbers due to the policy during 2016-2018			Total
	Decrease	No change	increase	
SNPs	6	9	3	18
non-SNPs	2	14	10	26
Total	8	23	13	44

Less than 10 licensed premises reported the changes in their annual turnover, costs of insurance and other operations during 2014 and 2018. Due to the very low response rate and low quality of data collected, the changes in business of turnover and costs of operation are not calculated and involved in our cost-benefit analysis.

7.11. COSTS OF SERIOUS ASSAULTS IN THE CRIMINAL JUSTICE SYSTEM IN QUEENSLAND

The majority (97%) of Queensland’s defendants were finalised in the Magistrates or County and Children’ Courts and 3% were finalised in the Higher Courts (Australian Bureau of Statistics, 2018a). There 3% and 0.1% of assaults offenders were put in prison and served for community corrections orders, respectively. The average length of time in custody in Queensland was 17 hours in 2002 (Taylor & Bareja, 2005), and this length of time was used in our calculation to calculate staff costs per occasion of custody. The expected time to serve for acts intended to cause serious injury is estimated as one year.

The average specific cost for assaults in the criminal justice system in Queensland were summarized in Table 60 (Australian Government, 2019). The average cost per serious assault in the criminal justice system was calculated as 3%* higher court cost + 97%* lower court cost + police staff cost + non-police staff cost + 3%*365 days* cost of prison service + 0.1%*356 days*cost of offender’s community correction service.

Table 60 Average cost for serious assaults in the criminal justice system in Queensland (2017–18 dollars)

Year	Net expenditure per finalisation in court		Average staff cost in the justice system per assault incident		Cost of corrective services per day	
	Higher court	Lower court	Police staff	Non-police staff	Prisoner	Offender
2016-17	\$6,139	\$411	\$1,522	\$1,097	184.74	12.46
2017-18	\$6,109	\$373	\$1,575	\$1,226	181.55	13.79

7.12. COSTS OF HOSPITAL ADMISSIONS AND EMERGENCY DEPARTMENT SERVICES IN QUEENSLAND

The average cost for ocular floor fracture hospital admissions was calculated as \$7,115 and \$7,361 per patient in 2017 and 2018 respectively, based on the mean values of healthcare costs of acute inpatient across 63 public hospitals in Queensland (Queensland Government - WorkCover, 2018). The average cost for alcohol intoxication hospital admissions was calculated as \$5,301 and \$5,483 per patient in 2017 and 2018 respectively with the diagnosis-related group (DRG) cost weight of 0.745 (The Independent Hospital Pricing Authority, 2013). The healthcare and medical costs include: appropriate accommodation; shared ward, or single room if deemed clinically necessary; hospital hotel services, e.g., meals; and medical care provided by public hospital doctors.

The average costs for injury and poisoning-related ED presentation was calculated as \$1,017 and \$1,073 per ED presentation in 2017 and 2018 respectively (Queensland Government - WorkCover, 2016, 2018). Emergency department service fees include radiology, pathology and pharmacy costs linked to the emergency department attendance.

7.13. COSTS OF AMBULANCE CALL-OUTS IN QUEENSLAND

In 2016-17 the Queensland Government expenditure on ambulance services was \$683.1 million dollars, while there were 1,040,072 incidents in 2016-17 in Queensland (Australian Government, 2018). Thus, the average cost per ambulance call-outs was \$656.80 in 2016-17.

7.14. COSTS OF TRAFFIC CRASHES IN QUEENSLAND

In order to avoid double counting the cost of traffic crashes, we only include non-medical costs here (Australian Transport Assessment and Planning, 2016). We used 2% inflation rate to calculate the cost of traffic crashes in 2017 and 2018 (Table 61).

Table 61 Cost of traffic crashes per crash (2013 dollar)

Cost items	Costs per crash (\$)
Human costs	
Quality of life	3,836
Insurance claims	1,948
Workplace disruptions	829
Vehicle costs	
Repairs	11,202
Unavailability of vehicles	808
Towing	109
General costs	
Travel delays	116
Insurance administration	74
Police	49
Property	3
Fire	244
Total combined costs	19,218

APPENDIX 16: EVALUATION FRAMEWORK

Table 62 ‘Tackling Alcohol-fuelled Violence’ measures and corresponding studies to evaluate impact

Policy measure	Study element
Changes to very-late-night liquor trading hours	
Wind back of alcohol service hours for late night liquor trading venues	<ul style="list-style-type: none"> Analysis of administrative data (eg. Ambulance, Police, Hospital, Courts, Coroner, OLGR) Entertainment precinct foot-traffic/enforcement counts ID scanner data Streetscapes, shopfronts survey, employment survey, cultural mapping Patron interviews In venue observations Key informant interviews Economic Evaluation
Temporary permits for extended liquor trading hours	<ul style="list-style-type: none"> Analysis of administrative data (eg. Ambulance, Police, Hospital, Courts, Coroner, OLGR) Entertainment precinct foot-traffic/enforcement counts ID scanner data In venue observations Key informant interviews
1 am lock out	<ul style="list-style-type: none"> Analysis of administrative data (eg. Ambulance, Police, Hospital, Courts, Coroner, OLGR) Entertainment precinct foot-traffic/enforcement counts ID scanner data Streetscapes, shopfronts survey, employment survey, cultural mapping Patron interviews In venue observations Key informant interviews Economic Evaluation
A ban on the sale of rapid intoxication drinks after midnight	<ul style="list-style-type: none"> Patron interviews In venue observations Key informant interviews

Policy measure	Study element
No further late night approvals for takeaway liquor trade	Analysis of administrative data (eg. Ambulance, Police, Hospital, Courts, Coroner, OLGR) Entertainment precinct foot-traffic/enforcement counts Streetscapes, shopfronts survey, employment survey, cultural mapping Key informant interviews
Targeted policing activities	
Intelligence-led policing	Analysis of administrative data (eg. Ambulance, Police, Hospital, Courts, Coroner, OLGR) In venue observations Key informant interviews
Breathalysing intoxicated or disorderly patrons for the possible prosecution of licensees	Analysis of administrative data (eg. Ambulance, Police, Hospital, Courts, Coroner, OLGR) Key informant interviews
Paramedics in watch-houses initiative	Analysis of administrative data (eg. Ambulance, Police, Hospital, Courts, Coroner, OLGR) Key informant interviews
Education	
Community education about safe drinking practices	Analysis of administrative data (eg. Ambulance, Police, Hospital, Courts, Coroner, OLGR) Patron interviews Population survey data (existing)
Support for Mr Danny Green's coward's punch campaign	Analysis of administrative data (eg. Ambulance, Police, Hospital, Courts, Coroner, OLGR) Patron interviews
Education in schools	Analysis of administrative data (eg. Ambulance, Police, Hospital, Courts, Coroner, OLGR) School students study
Liquor licensing and compliance	
Increased compliance activity by liquor licensing officers to address alcohol-fuelled violence	Analysis of administrative data (eg. Ambulance, Police, Hospital, Courts, Coroner, OLGR) In venue observations Patron interviews Key informant interviews
Increased licence fees for high risk venues	Analysis of administrative data (eg. Ambulance, Police, Hospital, Courts, Coroner, OLGR)
Publishing information on liquor licensing, compliance and enforcement activity	Analysis of administrative data (eg. Ambulance, Police, Hospital, Courts, Coroner, OLGR)
Precinct management	

Policy measure	Study element
Safe Night Precincts	Analysis of administrative data (eg. Ambulance, Police, Hospital, Courts, Coroner, OLGR) Entertainment precinct foot-traffic/enforcement counts ID scanner data Patron interviews In venue observations Key informant interviews Economic evaluation
Mandatory networked ID scanners	ID scanner data In venue observations Key informant interviews
Strategies to ensure industry staff are safe when travelling to and from work in the early hours	Analysis of administrative data (eg. Ambulance, Police, Hospital, Courts, Coroner, OLGR) Key informant interviews
Police and court powers	
Targeted referrals to drug and alcohol information and counselling	Analysis of administrative data (eg. Ambulance, Police, Hospital, Courts, Coroner, OLGR)
Banning troublemakers from pubs, clubs and precincts	Analysis of administrative data (eg. Ambulance, Police, Hospital, Courts, Coroner, OLGR) ID scanner data Key informant interviews

APPENDIX 17: TWO INDEPENDENT REVIEWS OF QUANTEM EVALUATION REPORT

Coordinated by Professor Michael Farrell, NDARC, UNSW Sydney

Responses to reviewer comments are provided in bold text.

7.15. REVIEWER NUMBER 1

The Quantum project reports a comprehensive evaluation the Queensland Government's Tackling Alcohol-Fuelled Violence Policy (TAFV) policy that was implemented in a series of stages in 2016 and 2017. The TAFV had three broad aims:

1. to encourage more responsible drinking within Safe Night Precincts (SNP) in Queensland;
2. to create a safer night time environment in these entertainment precincts; and
3. to develop a regulatory framework that balanced the interests of the liquor industry with the community's interest in reducing alcohol-fuelled violence.

The evaluation reports analyses of a breadth of data sources in order to provide a comprehensive set of perspectives on the effects of the TAFV. These data sets included multiple administrative data sources and a combination of mixed methods social research such as interviews with patrons and key informants and systematic observations of venues and SNPs.

- Administrative data analysis (harm outcomes, transport, live music, and licensing);
- Patron interviews (including follow-up surveys);
- Key stakeholders interviews;
- Structured venue observations;
- Precinct streetscape and business mapping;
- Foot traffic counting;
- ID scanner data, and;
- An economic evaluation.

The evaluation attempted to identify (i) initiatives or combinations that contributed to intended outcomes; and (ii) those that were not effective.

The study evaluated the effects of the TAFV statewide and five safe night precincts established in Queensland in 2014 under the Government's Safe Night Out Strategy. These included four SNPs that have received considerable media attention because of high levels of alcohol-related violence, and another SNP located close to a member of the research team. The SNPs were in: Cairns, Fortitude Valley, Surfers Paradise, Toowoomba, and Townsville.

A number of comparison sites were also included in the study. Some were located elsewhere in Queensland and were not designated as SNPs and a number of interstate sites were used to compare trends in ambulance, emergency department, and police data.

Administrative data sources

The evaluation used a variety of administrative data sets to comprehensively assess the impact of the TAFV. These included:

- Ambulance attendance and call-out data from Queensland Ambulance Service (QAS)
- Injury presentations and alcohol intoxication presentations in EDs of Queensland Health
- Hospital admissions for alcohol-related injury and intoxication from Queensland Health
- Police records for assaults, call outs, tasking, and banning from QPS
- Court data on breaches of liquor licences and court invoked patron bans from Magistrates Court and the Office of Liquor Gaming and Racing (OLGR)
- Licensed venue data
- Australian Business Registry data
- School alcohol and other drug (AOD) education audit of Queensland secondary schools

The team used the administrative and survey data sets to assess trends in alcohol consumption and alcohol-related harms during high-alcohol hours (HAH), the hours when the policy was designed to reduce alcohol related harm, viz Friday and Saturday nights, 8pm to 6am.

Ambulance attendance data from could not be included from October 2017 to June 2018 because the reporting forms were changed and in the transition data were lost or multiple records made of the same events. They used ambulance call-out data instead.

ED attendances

Emergency department (ED) records were used to identify alcohol-related injuries (e.g., minor fractures from falls and assaults, along with alcohol poisoning) not serious enough to require hospital admission. They analysed injury presentations during HAH focussing on: 1) presentations related to injury or poisoning and 2) presentations related to alcohol intoxication or harmful use. They also did additional analyses of injuries relating to fights in young men (aged 18-40) and of presentations at the two major hospitals likely to treat persons injured in Fortitude Valley (Royal Brisbane and Princess Alexandra).

Hospital admissions

Hospital admissions data were used to assess changes in more serious viz hospitalisations related to alcohol intoxication, fractured mandible, nose, orbit of the eye, hand or wrist, and intracranial injury. Self-harm admissions were also examined.

Police assaults data

They obtained police assaults data on three offense types (serious assault, common assault, and public nuisance (violent)) in public places during HAH. Because of a change in the way data on assaults in domestic settings were coded the analysis excluded violence cases that occurred in private premises.

Police call out to assist data.

They also analysed Queensland Call-Out to assist data to assess whether restrictions on alcohol availability in nightlife areas increased complaints and other troubles related to alcohol outside these districts.

Police tasking data

They used police tasking data to assess whether changes in crimes recorded by police reflected changes in crime as against changes in police numbers or police practice.

They also obtained data on the number of Police Banning Notices.

Licensed venue data

They obtained data on liquor licences granted in Queensland from 30 June 2013 to 30 June 2018 and data on extended trading permits that allowed venue in SNPs to trade until 5am ‘for special occasion’ up to six times in a calendar year.

Courts data

Courts data were examined for numbers of case finalised for serious assault, common assault, and/or drunkenness over the study period.

Coronial data

Data were obtained from the National Coronial Information System (NCIS) on the number of alcohol related deaths in Queensland between 1 July 2005 and 30 June 2018.

Crash data

They obtained data on alcohol-related crashes from the Queensland Department of Transport and Main Roads, fatal and non-fatal, reported by the Queensland Police Service from 1 January 2009 to 31 December 2017. Data for 2018 were incomplete and so not included in the analyses. They focused on crashes that occurred during alcohol-related hours viz Friday 10pm-6am, Saturday 6pm-6am, Sunday 6pm-6am, Tuesday 10pm-2am, Wednesday 10pm-2am and Thursday 6pm-2am.

Health Survey data

The Queensland preventative health survey has collected alcohol consumption data from 2010 to 2016 and in 2018 using a general population survey of participants aged 18 years or older.

Transport data

Taxi rank information and statistics for Queensland were obtained across the five SNP sites for June 1 2009 to 30 June 2018. This included number of passengers recorded at each secure taxi rank..

They obtained Department of Transport & Main Roads data on numbers of persons boarding and alighting from trains in the SNP sites for which these data were available to map changes in the total number of passengers boarding from these SNPs over time. These data was not available for Cairns, Toowoomba or Townsville.

Data were obtained from Uber on the number of passengers picked up and dropped off in Fortitude Valley, Sunshine Coast, Gold Coast, and Cairns for periods during the evaluation period when the data were available. These captured all pickup and drop-offs on Friday and Saturday nights from 8pm to 6am.

Tourism data

Data were obtained on number of international and national tourists. Estimated the economic value of tourism using Gross Value Added (GVA) and persons employed data from TRA.

Street-intercept, patron interviews were conducted in October 2018 in key tourist hot spots of Cairns. The aim of the survey was to supply insight into trends in tourism patterns in Cairns. The survey data collected also provides some insight on the impact of the policy on tourism in Queensland.

Patron interviews

Surveys of patrons inside and outside licensed venues were conducted on a random sample (every third person) of people attending night-time entertainment in Fortitude Valley, Cairns, and Surfers Paradise. Interviews were also conducted in the comparison site of the non-SNP night-time entertainment district of West End.

Foot traffic in SNPs

Foot traffic counts were made at the Fortitude Valley and Cairns SNP using mobile phone data to assess trends over time and measure person density in each location.

Key findings

The main findings on the extent of alcohol-related harm in Queensland were:

- BAC levels among patrons in Queensland SNPs were substantially higher than those among patrons in other Australian cities,
- There were high levels of pre-drinking among Queensland SNP patrons (80%);
- Self-reported physical assaults occurred at twice the rate in other Australian cities,
- In Fortitude Valley, women experienced unwanted sexual attention.

The evidence of the impact of the TAFV legislation on alcohol use and alcohol-related harm was as follows:

- There were no deaths recorded around licensed venues in any safe night precinct;
- There were significant reductions across the state in ambulance call outs;
- There was a reduction across the state in serious assaults during 3am-6am that was partially offset by small increases in assaults occurring earlier in the night (8pm –midnight),
- There were significant reductions in serious assaults in Fortitude Valley and Toowoomba and stable trends in all other SNPS for other police-recorded assaults,
- There were significant reductions across the state in hospital admissions for alcohol intoxication and ocular bone fractures;
- There were stable trends in emergency department attendances;
- Levels of violence outside SNPs remained very low,
- There has been no significant displacement of violence outside SNPs for most of the state;
- There were no changes in pre-drinking levels of SNP patrons,
- Education/awareness campaigns were ineffective at reducing intoxication and violence.

ID scanners stopped 14,795 banned patrons from entering venues and at least one serious crime (e.g. rape and GBH) was solved per week in Qld using scanner data.

In terms of the impact of the TAFV on businesses

- There were very few successful prosecutions of venues for serving intoxicated patrons
- No impact on licensed venues as indicated by stable licence numbers, and a steady number of new venues opening in SNPs and no changes in the number and type of nightlife venues in the Fortitude Valley;
- There has been no reductions in in the number of people attending Fortitude Valley detected by foot traffic counting,
- There was an increased use of public transport, taxis, and Uber during weekend nights in Fortitude Valley,
- Tourism has continued to grow strongly, and;
- 60% of late-trading¹ venues remained open after 4am.

The team summed up the findings as promising reductions in key measures of alcohol-related harm across Queensland, but levels of harm still high and the TAFV was in need of further refinement and regulation to ensure that people in Queensland return home safely from nights out in SNPs.

They team argues that the ‘Newcastle intervention’ (on which the TAFV was modelled) was not in fact implemented. Specifically, venues did not close at 3:30am, as in Newcastle, where this policy produced steady reductions in alcohol-related harm over time. In Queensland this policy was subverted by licensees in two ways, namely, (i) a large proportion of licensed venues remained open (but not serving alcohol) after 3am; and (ii) licensees made a strategic use of special exemptions from trading restrictions to ensure that on many weekends one or more licensed premises remained open until 5.00 am.

Suggestions for improving the report

The evaluation report provides a thorough and comprehensive evaluation of Queensland government’s TAFV policy. It collected and used administrative data from health, law enforcement, tourism, transport and licensing; interview data from patrons and key informants; observations in venues; and data on the night-time economy. The major problem for the reader of the current omnibus report is seeing the wood for the trees, namely discerning the logic of the evaluation and how the main findings emerge from it and inform the evaluation conclusions.

The following suggestions are made with to improve the presentation and impact of an impressive piece of multidisciplinary social science evaluation of an alcohol policy.

1. The executive summary needs to be expanded. The current executive summary is too brief and schematic to be useful. It goes straight from stating the goals of the Queensland TAFV policy to the study findings and recommendations. It provides limited information on the research design and how the findings related to the design. This makes it difficult for the reader to understand the logic of the evaluation and the relevance of the measures used to evaluate the policy’s impacts.

In line with the reviewer’s comments, we have now added a substantive summary report (in addition to the full report), although we have retained the executive summary to allow people to have a very brief highlights version.

There is, for example, no description of the quasi-experimental design that was used in the evaluation. This was a pre-post evaluation of the effects of the primary goals of the policy,

namely to reduce alcohol-related assaults and injuries in key target areas for the policy in Queensland, with selected comparisons of changes in these outcomes in non-target areas of Queensland and in entertainment precincts in other Australian states to assess the specificity of changes in the Queensland SNPs. There is also no short description of what measures were used to assess the degree to which these key goals of the policy were achieved.

A better executive summary move the summary and discussion section (pp 662-680) to the front of the report and provide a little more detail on the logic and design of the evaluation and the measures used.

As above, the development of a summary report has addressed some of these issues, although there is a fundamental difficulty in finding the balance between the right amount of information on elements, such as methods, when representing such a huge study and trying to provide key findings to the public. For the most part, we have assumed that people who would be interested in methods would go to the main report, or the peer-reviewed publication, to find more details.

2. It would help the reader if the introduction included a simple diagram of the logic of the TAFV policy, namely, that reducing alcohol trading hours and increasing the regulation of licensed premises (e.g. by use of ID checks, enforcing laws against serving intoxicated patrons, enhanced compliance checks by the OLGR) would reduce patrons' alcohol use and level of intoxication and thereby reduce the prevalence of alcohol-related assaults and injuries in and around licensed premises. The policy also assumed that these intended changes in alcohol-related violence could be achieved while minimising adverse effects on the liquor and entertainment industries and avoiding the displacement of alcohol-related violence to other areas in Queensland.

This is an interesting proposition from the reviewer. While this would be a standard operating process for the development of the research protocol, we are not aware of any such document or logic process behind the development of the TAFV policy. As evaluators, we are not confident that we should be retrospectively applying logic model to the policy. On the other hand, there is certainly logic behind the application of evidence based measures such as trading hours restrictions to reduce alcohol-related violence. Further, the wide range of new and existing measures included in legislation make it difficult to make a clear logic model.

3. A clearer statement of the policy logic would enable readers to better follow how the objectives of the government policy were evaluated (viz reducing alcohol-related assaults and injuries in and around SNPs) and not reducing business in or patronage of the NSPs. It would easily lead into a description of the measures that were used to test the effects of the intervention and evaluate plausible mechanisms for any policy effects (or the failure to see them).

Please see the previous response.

4. The body of the report presents the findings of each component of the overall evaluation in too much detail (e.g. the patron interviews; key informant interviews; analyses of ID scan data etc). These components would be better presented either in appendices to the report or in online appendices. Their key findings could be summarised in the body of the report. For example:
 - a. The detailed analyses of data on ED attendances, hospital visits and arrest data in each of the individual SNPs and in the other locations could be moved to the appendices. The base rates for these more serious adverse outcomes were too low and hence too variable to allow meaningful statistical analyses for the effects of the TAFV in many of the smaller SNPs. Only the analyses of data from the larger SNPs (and perhaps for all SNPs aggregated) should be reported in the body of the report.

We appreciate the reviewer’s perspective on this. However, we believe that the purpose of this report is to provide information to the Queensland community and government about the harms associated with alcohol consumption, and the impact of the policy measures. It is not that we disagree with the reviewers, rather that we see the purpose of the document in a different light and would therefore prefer to retain much of this information within the report. However, in line with comments from this reviewer and reviewer 2, we have decided to restructure the report so that the above-mentioned data is presented together for each SNP, rather than the current structure which reflected our data collection and analysis process.

- b. Radically abbreviate the analysis and reporting of data on the ID scans. There is no need for these very detailed analyses to be presented by site given the smaller numbers of patrons in some of the SNPs. Only data for Fortitude Valley and larger SNPs should be included in the body of the report and again in summary form.

As above, it is our position that smaller SNPs should be included in a report, rather than being relegated to appendices. However, to facilitate targeted reading by various stakeholders, and we

will move the relevant ID scanning data to the restructured administrative data results section, thereby presenting ID scanning data by SNP.

5. My overall impression of the evaluation findings was that the TAFV had, at best, a very modest effect on alcohol related violence, namely, it produced small reductions in some alcohol-related EDs attendances and arrests in Fortitude Valley. Given these modest effects, there is little surprise that the TAFV had no effects on liquor trading or entertainment precincts as measured by the patronage of clubs, volumes of pedestrian traffic, or numbers of licensed premises and entertainment venues in these SNPs.

We agree with the reviewer's conclusion, but would note the benefit of being able to document all of the subsequent data they mention for the first time. Previous interventions have been plagued by industry and interest group claims in the absence of data on these elements.

6. The team needs to more convincingly exclude chance as a potential explanation for the apparent effects. The small number of apparently positive effects could, for example, be chance findings from the very large number of pre-post comparisons of the multiple measures of alcohol-related harm outcomes of the TAFV undertaken by individual SNPs.

The reviewer correctly identifies that chance is always a potential explanation for apparent effects. As far as we know, the only way to control for such potential explanations is to conduct experimental or pseudo-experimental designs, such as randomised control trials, cluster randomised control trials, or stepped wedge trials. As researchers, we would have loved to have had such designs available, but the reality of policy interventions is that this is extremely rare. However, while the scientific need for controlling for possible other explanations is acknowledged, the current design allows us greater insight into what was effective and we have been able to identify and describe virtually every confounder. For example, analyses conducted did consider elements such as disposable income, but found no effect and in the context of an already huge report are not presented. In this context, while chance is always a potential influence, the analysis used have been conservative in their assumptions and we are confident that the associations described are robust.

7. In so far as chance can be ruled out as an explanation of these changes, more discussions is needed of how one can confidently attribute these changes to the TAFV policy. Some improvements in alcohol-related harm, for example, occurred across the state. This is not what one would expect for policy measures primarily directed at reducing alcohol-related harm in a limited number of SNPs. One would expect more localised effects from these

interventions. This raises the possibility of broader economic effects, e.g. wage stagnation, the end of mining boom etc that needs more discussion.

The reviewer would be correct if the interventions put in place were only in SNPs. However, there was a reduction in trading hours statewide to 2am outside SNPs, and they were also subject to other elements such as the education campaigns, increased licensing etc. Thus we need to report statewide data as well, even though the vast majority of harm occurs within SNPs, and this, of course, influences statewide trends.

In terms of accounting for other trends, we did modelling to test the impact of wage change in young males in Queensland and found no impact or correlation. In regards to the end of the mining boom, we also investigated this, though less rigorously, as the mining boom was identified as starting to decline in 2013, and while some of the decline may still have been impacting trends, it was three years after the decline commenced that the policies were implemented. There were no obvious changes in the data prior to that period in most areas of Queensland. While it is tempting to hypothesise on the impact of lots of other variables, we could find no impact of the two identified by the reviewer, or any impact of changing demographics due to interstate and international immigration.

8. The specific changes that seem to have occurred in some of the SNPs are open to other explanations e.g. a decline in disposable income among young men as a result of a reduction in employment in the mining industry; or even an increased use of Uber to travel home after a night out may have reduced the congregation and interaction between intoxicated patrons at taxi queues after venues closed.

The above discussion covered off most of this issue. However, we also analysed the data from Uber and investigated the trends associated with the introduction. We found no relationship between the increase in Uber patronage and any changes in recorded harms. The main increase in Uber patronage occurred before the introduction of the TAFV legislation.

9. The discussion should also consider in a little more detail possible explanations for the limited impact of the TAFV policy on alcohol-related harm. These include:
 - a. A lack of statistical power and insensitivity of evaluation to policy effects. This is a plausible explanation for a lack of any effect at the smaller SNPs. It is, as the authors argue, a less likely explanation for the modest policy impacts in Fortitude Valley and the Gold Coast because evaluations of similar policy changes in Newcastle and Sydney did find reductions in alcohol-related violence that increased over time.

The reviewer is possibly correct regarding the lack of effect in smaller SNPs, they may not have noticed that we attempted to address this by combining the assault categories which allowed us to do more robust analyses, although this meant a small compromise in terms of data reliability.

- b. An entrenched culture of heavy drinking and drunken comportment involving violence among young men who frequented the SNPs in Queensland. The team provide support for this hypothesis with the BAC data and self-reported experiences of violence among interviewed patrons which shows high rates of intoxication and pre-drinking in Queensland patrons compared to patrons in similar night time precincts in other Australian cities.

We agree with the reviewer and have discussed this at a level which we believe is appropriate to the report.

- c. The most plausible explanation is arguably the one offered by the authors, namely, that the implementation of the TAFV was subverted by licensees and patrons. Licensees have made strategic use of late-night trading exemptions to ensure that at least one venue remained open for drinkers until 5.00 am most weekends. They also allowed patrons to remain on their premises for some hours after they stopped serving alcohol, which meant that tired and intoxicated patrons remained in situations where assaults were likely to occur. There were also problems experienced by for OLGR in enforcing policies that discouraged bar staff from serving unduly intoxicated patrons. Patrons subverted the effects of these policies by a continuation the common practice of pre-drinking large amounts of cheap alcohol before they came to venues in these SNPs.

We agree with the reviewer that in those SNPs where venues made a strategic decision to stay open later at night, there is a strong likelihood that the individuals who choose to stay out later are more likely to be using drugs, other stimulants such as energy drinks, and will definitely being more fatigued. All these factors have been found in previous research to be strong predictors of increased aggression and harm. We thank the reviewer for this suggestion and have expanded the discussion in relevant spots.

- d. The report recommendations are on the whole sensible and evidence-based viz enforced closing of venues at 3.30 am; limiting the capacity of licensees to use the special exemptions and setting minimum legal prices for alcohol in order to reduce the prevalence of pre-drinking among the patrons of SNPs. I haven't been through these in any detail.

OVERARCHING COMMENTS

Structure

It is clear that a huge amount of work has been conducted to a generally high standard and the authors should be commended for this. However, the report is currently extremely difficult to read up until the discussion chapters, and I found it difficult to extract the key information from each section.

The key problems are that it is over-long, there is a large amount of extraneous material and information is often not presented in an easily digestible way. Examples of these problems include:

- Presenting similar results across many separate tables rather than compiling them into a small number of larger tables;
- Presenting similar results separately with repetitious text rather than presenting and describing these results jointly;
- Presenting large numbers of similar graphs across separate pages rather than condensing them onto a single page for easy comparison or moving them to an appendix for reference;
- A lack of concision in places, often relating to background information being presented at length rather than in summary form.

We hope that the restructuring of the report around SNPs has addressed most of this.

The structure and content of the report is also inconsistent, both across and within chapters, suggesting a need for greater editorial control. Examples of this include:

- No clear mapping between the stated objectives, the material presented in the Executive Summary and the overall structure of the methods and results;
- A claimed focus on key outcomes that are never explicitly listed, are only discussed intermittently in the methods and are largely absent from the results;
- Some methods being presented at great length and others being brief descriptions of data;
- Background context, methods and data limitations being included in some results sections;
- Details of model specifications being described in some results sections but not others.

I strongly recommend a significant restructuring to ensure readers are able to make sense of the work described rather than being overwhelmed by it. In addition to addressing the point above, a more radical revision would be to structure the report as a series of discrete studies (e.g. Study 1: Time series analyses; Study 2: Descriptive analyses of licensing data and practice; Study 3: Patron interviews). This would allow the background, methods, results and conclusions of each study to be read in full and in isolation from the other studies. The introductory chapter(s) might still provide an overview of these studies. In my view, this would lead to a report that is much easier to read and from which key messages relating to particular aspects of the evaluation can be straightforwardly extracted.

While we appreciate the suggestion, we decided to restructure in a more location-focussed way. The reviewer's suggestion makes sense for an academic report, but this report is aimed at government/public readers, so we have opted for the suggestion of Reviewer 1.

Repetition across precincts

One of the biggest problems from a reader's perspective is the decision to present results for each precinct separately. This leads to an extremely repetitive report. If the authors are obliged to take this approach, a better structure may be to produce a separate chapter for each precinct so that readers can easily locate the material that is relevant to them and avoid the rest. Summaries of findings comparing across all SNPs could still be presented in the main results chapter(s).

As above

Evaluative framework

The report would benefit from a clearer evaluation framework. It is an evaluation of multiple interventions, introduced across several geographic areas, with a large number of outcomes of interest and many research studies providing evidence. The introduction to the report briefly alludes to these problems and mentions complex interventions but it does not adopt any of the specific solutions available in the complex intervention and programme theory literature. As a result, the reader is left unsure how all of the evidence presented fits together and a coherent narrative does not emerge.

This is a difficult suggestion to respond to. The reality of a policy intervention across such a huge state as Queensland that deals with so many different types of nightlife precincts means that a central narrative is not only impossible, but unrealistic.

The evaluation was started at the same time as the intervention came into place, and there was no option of being involved in the design or implementation. Thus, the most appropriate analysis is to measure change over time in the same population. ARIMA analyses are the appropriate analyses for archival datasets in this case. We also used inter-state comparison sites where possible, but are honestly not convinced that this strategy was successful as most other sites had other interventions and confounders occurring over the study period. However, we also had some in-state comparisons, for which the analyses have been presented.

It may not be possible to retrofit an evaluation framework, but some steps could be taken in this direction by, for example, developing a logic model of the intervention components, their hypothesised effects, the key outcomes and the contribution of each study to evidencing those outcomes. It would also be useful to include a discussion of how the findings from multiple studies

are to be synthesised in line with that logic model. Overall, a clearer evaluative framework would help in revising the structure of the report to be more reader-friendly.

We agree with the reviewer that it was not possible to retrofit an evaluation framework. The evaluation framework that was negotiated with government is outlined in Appendix 14. As with our response to reviewer 1, the notion of a different evaluation framework for a policy that was implemented over different timelines and in many different locations does not fit with the reality of evaluating the impact of the current policy.

Typos

Data is inconsistently used as plural and singular (sometimes in the same sentence).

This has been corrected

VOLUME 1²¹: Executive Summary

Page 1: It would be helpful to state the aims and objectives before introducing the key findings. Readers unfamiliar with the policies in question would also benefit from a description of what policy measures were included in TAFV and what a Safe Night Precinct is. This will help to address some of the points I raise about the Key Findings below.

Thank you for the suggestion. We included this description in the summary report.

Page 1: It would be helpful to structure the presentation of the key findings around the aims and objectives as, currently, the intended structure is not clear.

Thank you for the suggestion. We have now structured the executive summary around the aims and objectives.

Page 1: Clarify why the key findings are up to July 2018 when the report is, presumably, being published in mid-2019.

This has now been clarified in the timeline section, reported in both the summary report on the full report.

Page 1: Are the first three bullet points under 'Key findings' baseline data? The presentation suggests these are the key findings and the subsequent bullets describing the impact of TAFV are secondary matters. I suspect that is not the case.

²¹ The reviewer requested the full report document be broken into smaller files for ease of reading

The first three bullet points out demonstrate the ongoing context of alcohol-related harm in Queensland nightlife. It is not suggesting that the impact of the TAFV is less important, but aims to provide a frame through which readers can interpret the observed changes described.

Page 1: The bullet ‘No deaths around licensed venues...’ is difficult to interpret in isolation. Were there deaths beforehand? Is this an improvement?

Thank you for the suggestion. This has now been clarified.

Page 1: The bullet beginning ‘Significant reductions in serious assaults....’ could clarify that this is the *overall* serious assault rate, given that the previous bullet discusses assaults at different time points. It may make sense to swap these two bullets around as the overall rate seems more important than matters of timing.

Thank you for the suggestion. This has now been clarified.

Page 1: The ordering and presentation of the key findings bullets could be improved. It might help to break them up with headings (e.g. Violence and assaults, ID scanners, Impacts on business). This would help readers draw key messages from each theme. It would also avoid the problem on page 1 where the bullets jump around a little between violence, injury and other matters rather than taking each in turn. (See also my comments above on the need for a logic model, which may guide the presentation of the key findings).

Done

Page 1: The language of the bullets is inconsistent. Sometimes it refers to significance and other times to descriptive terms (e.g. stable trends, remains low). I found this disconcerting as I was unsure which findings were and were not robust from a statistical perspective. I appreciate this reflects the diverse nature of the evaluation but many people will not read beyond the Executive Summary so this needs clarifying.

Thank you for the suggestion. This has now been clarified in the summary report. There was not space in the executive summary.

Page 1: ‘No significance displacement of issues...’ The word ‘issues’ could be replaced with something more specific.

Done. Issues was replaced with assaults

Page 2: Is it a positive or negative finding that the scanners take 13 or 20 seconds?

This is somewhat up to the perspective of the reader. We have aimed to avoid a values-based perspective on this, but would suggest that 13 seconds is not a long time for someone to engage with front-of-house staff before entering a venue. However, there have been complaints about how long scanning takes in the media, and we seek only to introduce some facts to the discussion.

Page 2: I suspect the phrase ‘At least one serious crime...per week...’ refers to an average over time but it reads as though there is actually one crime being solved each week.

Yes, the wording is difficult. In the study period one or more crimes was solved using the scanners every week.

Page 2: The phrases ‘License numbers are generally stable...and there has been a steady number of new venues’ seems contradictory. I assume this is due to turnover of venues but this could be made clearer.

This is been clarified; the new licence element has been removed.

Page 2: ‘Further refinement and regulation...’ Refinement of what?

We have reviewed the wording to state ” refinement of the regulation”

Page 2: What is the observed or potential consequence of poor fidelity to Newcastle measures?

Thank you for the suggestion. This has now been clarified

All: Chapter 7 describes the success of each measure and it may be useful to include a summary table containing that information in the Executive Summary.

We have added a summary table in the Summary report.

Typos

Page 1: ‘*between 3am-6am*’

Page 2: ‘Some smaller venues have *experienced*’.

Page 2: ‘All *live* music performances’ (capitalisation?)

Fixed.

Recommendations part 1

Recommendation part 2

Page 3: The purpose of many recommendations and the responsible organisation is often unclear. It would be helpful if each recommendation or group of recommendation is in the format: To achieve X, organisation Y should do Z. This will make it far easier for those unfamiliar with aspects of the topic to grasp the significance of each recommendation.

These justifications are made in the full report. This is explained at the top of the recommendations. To highlight this, we have put the link to the supporting text in bold.

R4: There is a general inconsistency as to whether recommendations are explained or not (e.g. R8 gets an explanation but others that are equally opaque do not).

As explained above

R12: Is this being recommended or not? The language is uncertain.

This has been corrected.

R14 and R29 : These recommendations are both broken into multiple parts but the formatting is different with R14 being a series of recommendations and R29 being one recommendation with multiple parts.

This has been corrected

R31: Authoritative reviews of what?

This has been removed

Page 7: What are SNP support services? The recommendations cannot be understood without this information.

We have added a description of them.

Typos

R25: ‘...the need *for* timely...’

R29g: ‘what works in school-based drug education’

Done

Introduction

Page 8: The figure of \$311 for alcohol-related violence is 14 years old. It may be helpful to note this and suggest what is likely to have changed in the meantime.

Done

Page 8: Reference needed for the claim that the effectiveness of education campaigns is unclear.

Done

Page 8: The paragraph noting the problems posed for evaluation when multiple policies are implemented simultaneously lacks a conclusion. There is a large amount of literature on this (e.g. guidance on evaluating complex interventions or work on programme theory).

The reviewer seems mistaken in understanding the process through which this evaluation occurred. Which was not clearly explained and we have now outlined in the Introduction. The legislation was put into law in February 2016. The evaluation was awarded in May 2016, one month before the legislation came into effect (1 July 2016). Contracts were signed much later.

This process did not allow for the evaluation team to engage in any of the practices outlined in such literature, such as designing staged interventions or cluster randomised trials. We agree with the reviewer that such a process would have been ideal, but have been unable to convince governments to introduce alcohol policy in such a fashion.

Page 10: There is little relationship between the objectives in 4.1.1 and the Executive Summary. I would expect a clear read across but, when reading the summary, I struggled to grasp easily the report's answer to the implied research questions. I also could not see clear findings from the economic evaluation in the Executive Summary.

The reviewer raises a good point and we have now restructured the Executive Summary to address this.

Page 11: 'The report will focus on key outcomes...' What are these key outcomes and where are they listed in the report? Do they map onto the Executive Summary? What is the rationale for their selection? How do they relate to particular policy objectives or measures? What are the research questions and/or hypotheses associated with them? Readers would benefit from the report summarising this information in a table and discussing it in the text.

Done

All: Safe Night Precincts are referred to repeatedly but are never clearly defined beyond noting they were established in 2014 as part of a Government strategy.

The report provided a link to the finer details. Describing the SNPs would add substantial length.

Typos

Page 8: ‘...*estimates of* the costs attributable to alcohol range from’ (there are a range of estimates not an estimated range)

Done

Page 8: ‘...such as decreasing late night trading hours decreases the rate of alcohol injuries and assaults’ (not sure what this was meant to say).

Done

Methods

Page 18: Clarify why ‘components of data collection varied across each site’.

While archival data were available for each SNP, other data, such as patron interviews, precinct mapping, and venue observations were only collected in key sites. This is outlined in the method for each study component.

Table 3: Why is ‘All SNP sites’ sometimes ticked but the focal SNP sites are unticked? What is the significance of Brisbane? At this point in the narrative, it appears to be just one of several control sites.

We have now updated this table to address the reviewer concerns.

Page 23: Is the postcode in the ED data the patient’s residential postcode?

Yes.

Page 28: ‘...used to estimate the influence of the ban...’ What ban is being referred to?

Done

Page 42: This section might usefully refer to the ‘Bar Bars’ literature when explaining the measures.

We were not able find the literature the reviewer refers to.

Page 43: The two sentences beginning ‘Shifts lasted approximately 4 hours...’ are unclear. They seem to suggest teams both stayed in one venue and moved between venues.

The teams observed two venues per night, with each shift within a venue lasting approximately 4 hours. This section has been updated for clarity.

Page 48: How would the ratio between HAH and LAH cope with changes in the age structure of the population, an important consideration for analyses of alcohol-related violence. If LAH are associated with older people and HAH are associated with younger people, changes in the age structure of the population will translate to changes in the HAH-LAH ratio. An explanation of why this approach is preferred to the more usual use of age-standardised rates would be helpful.

HAH/LAH is the most robust method available to deal with population changes and is recommended by the World Health Organisation as the gold standard. Issues during HAH generally represent a tiny proportion of those during the rest of the week, and as such, are normally a good reflection of overall demographic changes. In the specific case of Queensland, there has not been any substantive demographic changes over the past years.

World Health Organization (2000), *International Guide for Monitoring Alcohol Consumption and Related Morbidity* (Geneva: Department of Mental Health and Substance Dependence, Non-Communicable Diseases and Mental Health Cluster) 1-380.

Page 48: The analytical approach appears to only detect step changes in the outcome time series. Is it possible that the policies changed the trend of the series and, if so, can the analyses test for this?

Our tests also considered slope changes. The models presented are testing for immediate impacts at each of the three policy intervention points. This approach was based on the findings of previous studies (e.g. Kypri et al., Menendez et al) that found immediate ‘step’ changes in assault rates following interventions like the Queensland one. We did run sensitivity analyses where slope change parameters were included in some models and found no significant effects.

Page 48: There are a very large number of outcome measures; do the analyses correct for multiple testing?

No. If the analyses were on the same set of data, correcting using techniques such as Bonferroni adjustment would be appropriate. However, the analyses are using different datasets based on analyses that were agreed upon by the whole research team prior to analysis being conducted. Therefore, adjustment is not required.

Page 48: The analyses test for effects at three intervention time points and for the overall effect; however, the text does not explain which effect the reader should prioritise. For example, what should the reader think if the analyses detect a significant change at the first intervention point but not in the overall effect? Was the policy effective or not? This is particularly important as the report correctly notes it is difficult to separate the effects of the three interventions as they are temporally proximal. (See comments above on the need for a clearer evaluative framework).

We do not believe it is appropriate for us, as evaluators, to try and go beyond the scope of the data and analyses available to make broad statements of effectiveness. The temporal proximity of the different interventions is a complicating factor, but more broadly, there is clearly an interaction between different elements of the legislation and a different research design would have been required to determine the answers for this, although we suspect that there would still be different impacts in different sites.

All: The structure of this chapter is not very reader-friendly. The information contained in each subsection is inconsistent – outcome measures, research questions, missingness, sample sizes, data collection periods and various other pieces of information are present in some sections and absent in others. Some sections are also unnecessarily long and provide too much information of secondary importance that could be relegated to appendices (e.g. the full list of measures collected in venue observations and the detailed procedures of both venue observations and patron interviews). I suggest the authors agree a set of key pieces of information required for each section and state these clearly.

We have substantially restructured the report and created more summary tables.

All: The previous chapter referred to a focus on key outcomes (page 11). These are not identified consistently across the sections of this chapter. It would also be helpful to gather these key outcomes in a table and present them as outcomes measures (e.g. serious assaults during HAH per 100,000 population).

As requested, we have added a summary Table in the Summary report.

All: The lack of a clear set of research questions or hypotheses to be tested is a significant problem. This might usefully be combined with a table of key outcomes measures.

We agree with the reviewer that this would be a problem for an academic paper; but for the purpose of an evaluation, specific hypotheses might be misinterpreted, and don't feel like an honest representation of the commissioning and evaluation process.

Typos

Page 22: 'QACIR provides a mechanism to replicate ambulance data daily and a timely statistical analysis and performance reporting' (unclear how this was supposed to read).

Page 28: 'In cases *where* a SNP had multiple grants'.

Page 30: 'Total *numbers* of boardings *were* recorded' and late 'Total *numbers* of *boardings*'.

Page 31: ‘The total number (*or numbers*) of...tourists...*was* (or *were*) obtained’

VOLUME 2:

Results

Injury results: I was unsure why admissions for injuries were disaggregated into types, rather than being aggregated and analysed as a single time series. It is difficult to judge as the analysed time series are not presented descriptively but, looking at the confidence intervals, I suspect some of the analyses are under-powered. Aggregating would help with this.

We thank the reviewer for the suggestion and have now aggregated injury types, reporting them as well.

Table 66: It would be helpful to include a ‘total’ row.

Done

Page 209: The discussion of extended trading permits feels simplistic. There may still be substantial numbers of permits but: (a) does the suggestion that there are an average of three venues per weekend serving until 5am ignore that ETPs may be concentrated on particular days of the year (Vol 3, Page 109 says that venues find it easier to get ETPs on nights when other venues have them) and (b) Does the reduced number of ETPs not mean that there is reduced total capacity so that, although patrons may ‘need to hunt around’, they may not gain access even if their hunt is successful?

We thank the reviewer for the suggestion and have now expanded this section and added detail.

Page 213: The section on ‘Increased compliance activity by liquor licensing...’ is almost entirely discursive and appears not to contain any results at all. Similar problems arise with other sections and add to the general inconsistency of the report’s structure. See my comments above about restructuring to present each study in full as a separate chapter.

We have now added a statement explaining that the response for this section came from OLGR. The reality of the intervention and implementation is that little can be said about its impact on outcome measures.

Pages 220-229: The ID Scanner data are generally interesting, but I was unsure what much of this told me about the effectiveness of TAFV. This is an example of the report becoming over-long by the inclusion of large amounts of material that is not directly relevant to the matter at hand. A more selective approach would help readers focus on the key messages. The problem is compounded by

then repeating the material for each of the focal SNPs, rather than presenting all results for each SNP in a separate chapter.

We have now done this as requested by the reviewer.

All: The results are extremely difficult for a reader to grasp as they are presented in a piecemeal fashion over a large number of pages with no coherent narrative thread. It is unclear which findings are of primary and secondary importance and the structure prevents easy comparison across results.

We understand that the size of the report and range of findings is overwhelming, but believe that we draw the narrative together in the discussion and conclusion. We do not believe it is desirable or possible to create a narrative in the results sections. Similarly, with results across such a large state, there is simply no ‘easy comparison’

I would like to see this restructured to allow the reader to easily answer questions including: Which areas saw significant results and which did not? Which outcomes were consistently affected by the policies and which were not? This could be facilitated by presenting the results in a smaller number of larger tables, reducing the repetitive nature of the text by describing the results as a whole rather than each one separately, ensuring key information (e.g. model specifications) is presented consistently, and condensing graphs onto a small number of pages (i.e. multiple graphs per page) or relegating non-essential graphs to the appendices.

This has been done by both adding a Summary report, and also by restructuring.

All: Where graphs are included, the LAH/HAH ratio should be presented if this is the time series analysed. It would also be helpful to include the fitted line on the graphs, if possible.

The LAH/HAH ratio was used wherever possible. For police-recorded assaults the numbers occurring during LAH were much too low to be used reliably. For hospital admission, HAH were not used as time of admission is based on admission to hospital, not time of injury (e.g., there could be some time elapsed between presenting at an ED and then admission to the hospital ward). Therefore, we selected injury types more likely to have alcohol as a contributing factor and narrowed down the age range to 16-65 year olds.

All: It is unclear to me how the controls are being used or the analytical approach used to compare control and intervention sites. There does not seem to be any kind of difference-in-difference model or similar and the text of the report does not consistently draw comparisons between control and intervention sites when presenting the results. Often the control sites seem to only be analysed by making broad brush statements based on the ‘eye-balling’ of descriptive data. It would be helpful to

readers to present a clear description of the analytical approach to control sites, indicate the extent to which that approach adds robustness to the findings, and indicate how the results can be interpreted. (See earlier comments about a clearer evaluative framework).

The reviewer is correct that we have not conducted extensive analyses on the ratios presented. The reasons for this are explained within the chapter. Essentially, we do not believe that comparing these very different cities, with multiple and variable social and political influences acting on outcomes including policy changes in some site, can be used as reliable comparators. Thus, we have not emphasised the findings, but were required to present them as a part of the contract.

All: There are a large number of data sources, outcomes and analyses conducted, but many of these appear of very low quality and their contribution to the evaluation is unclear.

We agree with the reviewer on a number of levels. As a report to government, we had an agreed set of data to describe. While some of these datasets have been ultimately found to be of little of any use, it was felt by the contract managers that all datasets should be reported for the sake of transparency; and limitations noted. We have moved more data into the appendices to assist with readability.

The analysis of crash data from page 182 is a good example of this. There are two descriptive graphs that tell us the background trend but nothing about the effectiveness of TAFV (Figure 164-5), a graph that is too busy to be readable (Figure 166), two graphs showing trends in particular areas with no clear explanation for why these areas were selected and no insight offered into TAFV's effectiveness (Figures 167-8) and then a graph showing the severity of crashes (Figure 169). Finally, we get a summary which gives no indication of what the preceding information might mean in relation to TAFV. I could not understand what the reader was supposed to take from this section, or others like it, with reference to the objectives of the report. The evaluation has clearly sought to take a comprehensive approach but the excessive volume and often low quality of information presented tends to weaken rather than strengthen the report as no strong narrative is sustain and the key messages that do emerge become diluted.

We have removed Figure 166. Statewide figures have now been updated to show monthly, rather than yearly, trends. An ARIMA model has now been conducted on the overall statewide trend during the hours identified in the NAIP report as alcohol-related.

Page 187: The *results* section on coronial data begins with a discussion of the limitations of the data. It is unclear why this is in the results rather than the methods or discussion. The information is also

stated without context or any indication of what the reader is supposed to take from it. Nor is it clear from the subsequent pages whether most of the information was necessary to understand the results.

We respectfully disagree with the reviewer regarding the placement of the limitations section. While a few academic publications place limitations within methods sections, the practice varies widely. Within the context of this report, we felt it was necessary for the constraints of the data to be front of mind for the reader when reading the coronial data, as they are important. We have not changed the structure.

Typos:

Page 190: Something seems to go wrong with the positioning of the tables and text here and one table appears to be duplicated.

Fixed

Page 193: ‘A range *of* transport data’

VOLUME 3

Table 1: Is it necessary to present each SNP separately rather than presenting them all in a single table? This would greatly reduce the length and allow easy comparison across SNPs. It looked to me like there were interesting differences across the SNPs (e.g. Fortitude Valley appeared to have a lower proportion of participants with high BAC readings) but this was difficult to judge due to the way the information was presented.

A summary table of key patron interview outcome measures is now included in the summary report.

Figure 1: Is it necessary to include a graph of the age distribution as well as including the median age and range in Table 1? In my view, the table is sufficient.

We have removed the Table.

Table 32: Given the mismatch between the self-reported and objective drug use data, it would be helpful to clarify the sensitivity and specificity of the drug swab tests to understand whether this is purely misreporting or if there is error on the objective side as well.

The mismatch between self-report and testing has been described in our previous studies, and is the subject of a peer-reviewed paper. For the most part, it is the difference between the substance being used not being detectable by the test, either because the substance purchased was not actually what the person was told it was, or because the amount used was no longer

detectable. It is often the case that the amount used was simply not enough to show up hours later.

Page 66: Is the median the appropriate measure when scoring perceived safety out of 10? Would it not be more informative to use the mean to see the impact of the minority of people who may have had bad experiences?

We report the median due to heavily skewed distributions; this is standard practice for such data distributions.

Page 79-80: Some of the information here seems to repeat material from the methods chapter.

We have removed the duplicated material.

Page 83-92: I was unsure why these tables were presented when much of the same data are subsequently presented in graphs. There is value in provided the absolute values but these could be placed in the appendix to avoid duplication in the main report.

These tables have been shifted to the Appendices.

Page 99: If the June 2017 and March 2018 timeslots are not comparable with each other (and presumably not comparable with the two November timeslots), should they be presented for comparison in the preceding graphs and should the report make comparisons in the accompanying text? A similar point can be made in relation to different venues being observed at each time point – are the comparisons over time in the preceding section actually meaningful or do they risk misleading readers? At the least, the limitations section should be more specific in the nature of comparisons that can and cannot legitimately be made. Also, the text on limitations refers to June 2017 but the preceding section refers to July 2017.

The June/July typo has been corrected.

Discussion on the lack of comparability between March and July data, and comparison of those months to November data, has been included in the discussion of limitations of the venue observation data, and it is intended that the results be considered with these limitations in mind.

“The observations conducted in July 2017 and March 2018 time periods are not directly comparable in the same way that those conducted during November 2016 and November 2017 are, therefore limiting inference that can be drawn for those two “off-peak” timeslots.”

Page 99: The introduction to the venue observation results states that its purpose is to assess fidelity to the legislation in Fortitude Valley vs. West End. Yet, there is nothing in the results that directly

discusses fidelity and there is no summary interpreting what the results might mean with regard to fidelity.

This passage has been clarified and now reads:

“The observations arm of the evaluation was primarily focussed on observing venue practices in response to to the new legislation in Fortitude Valley, and in West End as a comparative non-SNP site.”

Page 99-100: It is helpful that the section on precinct mapping has a clearer statement of purpose, including research questions, but much of this material is repeated from the Methods.

We have removed the methods related text from this chapter.

Table 61: The text states that there is no substantial change in the number of venues, but the table seems to show a 10-20% reduction in the number of venues between April and October 2018, which only recovers after a change to the methodology in July 2018. There is mention of changes being due to irregular use of ETP, but the decline seems present at 10pm and 12am as well as later in the night. Indeed, it is later suggested that the October 2017 audit was conducted during the Valley Fiesta and this inflated the number of venues trading, suggesting the reduction would otherwise have been even greater.

This was due to an error in the Table and figure numbers. We have now updated these tables (e.g. Table 61) to reflect accurate figures.

Table 72-76: If the purpose of this section is to understand change over time, the tables should be redesigned to allow the reader to easily see change over time.

These tables are now presented by venue type so that change over time can be easily observed.

Page 118: Can the bulleted data for Queensland as a whole be incorporated into Table 77 for easier comparison?

The Table now compares the Fortitude Valley and ABS entry/exit rates. It should be noted that we have used ANZSIC 4251 Clothing retail as a point of comparison, but we group together here from the valley all lifestyle, homewares and clothing retailers. We now provide all the relevant ANZSIC codes below in the text.

Figures 66-70: Is it possible to put these on a single page? This would aid comparison over time. Similar efforts could be made to help the reader with the other Figures presented in this section.

The maps have been put onto a single page.

Table 79: Why are totals not presented in this table as was the case in Table 61? See also tables for other precincts.

The Tables report counts of businesses observed open on each audit; there is no point adding them together.

All: The patron interview data are interesting but I was unclear what the research question related to the evaluation was. Most of these data are treated cross-sectionally and, where time trends are presented, there is often no significant discussion of intervention effects. Therefore, it would be helpful if the report included a clearer explanation of the purpose of this work with regard to understanding the effects of TAFV. This links back to my earlier comments regarding how the objectives of the report, key outcomes and the (largely absent) research questions for each study link together.

We have added in discussions in the relevant section regarding the trends over time.

Typos:

Page 112: 'Table 70 and Table 71' (extra paragraph break)

This has been amended.

VOLUME 4

Page 16: The ARIMA analysis showed no change in foot traffic post-intervention in Fortitude Valley. Was there a test for a lagged effect given the indication in the graph that foot traffic did decline from November? A lagged effect seems plausible as people will only gradually change their behaviour, the trend seems disrupted by a spike in one(?) week in October 2017, and a similar reduction seems to be present in Cairns (missing data notwithstanding).

The foot traffic models presented have a lag of 2 specified. This is due to the cross-correlograms indicating the strongest impact would be at this lag (so an effect is starting 2 weeks after the policy point). We did run sensitivity analyses where slope change parameters were included in some models and found no significant effects.

Pages 19-21: Methods are presented in the Results chapter here and this problem persists through later sections.

We have moved the methods elements to the Results sections.

Pages 50-54: The summary of the key informant interviews could do more to synthesise the findings and draw out some key messages. At the moment, it is too close to a restatement of those findings.

We have edited accordingly.

Page 81: Additional methodological information is needed to explain how the projected 2018 consumption data were calculated (e.g. is this a fitted linear trend).

We agree with the review and had requested more detail from the Department of Health, but this information was not provided.

Tables 3-5: I was unclear what the last three columns of these tables relate to. If the comparison is whether the observed and projected 2018 consumption levels differ, what is the relevance of the per year change, the change between 2010 and 2018 and the trend p-value? Shouldn't the p-value of interest be the difference between the projected and observed 2018 value?

We agree with the reviewer that this information is sub-standard, and have commented on this extensively

Page 83: If the health survey data are 'not enough for the purposes of measuring the impact of policy change' should they still be included in the evaluation?

The contract managers required us to include the data in the report, but it plays no part in our conclusions.

Page 84: Are the volume of sales natural volume or ethanol volume?

Natural volume, we have added this information.

Page 113: 'There were only two key measures put in place that have been tested and found to have benefit....there was often a combined effect observed, which means the design can't separate the two interventions for the purpose of the economic evaluation'. This statement seems problematic. On the one hand, it selects two interventions as important on the basis of effectiveness evidence from analyses that seek to evaluate each intervention in isolation. On the other, it claims a combined effect of these interventions without clear evidence to support this and without considering whether interventions which were not found to be effective in isolation may be contributing to the claimed overall combined effect. This problem appears to stem from the lack of a clear evaluation framework that handles the complex nature of the intervention, as discussed above. With no clear understanding of how the different elements are working in combination, it seems inappropriate to be selective in which are included in the economic evaluation, particularly as this seems only to impact the cost side of the equation, thus inflating the benefits.

We agree to a degree with the reviewer that there is always a difficulty identifying which element of multi-level interventions have had an impact, especially where they act on different

elements of the issue. However, our data and analyses allows us to differentiate temporally between the introduction of different elements that were likely to be impactful. Because of different implementation dynamics in different sites (eg some sites did not change trading hours, but has drinks restrictions and ID scanners put in place, we have been able to gain greater insight). While we have some findings which are able to identify impact controlling for other known factors, there is always a small element of chance. However, such in-depth specification for the purposes of perfect science does not help inform policy discussions in the real world, but we plan to explore them in more detail in academic journal articles. Further, we would note strongly that we have supplied the data for all costs, and only offer the projected costs of the two key interventions as an additional analysis, though we still believe it is the most relevant.

All: The qualitative key informant data is interesting but some of it is difficult to interpret as slightly different trends were seen across the precincts (e.g. stronger evidence of harm reductions in some precincts than others) and no indication is given as to which precincts informants are speaking about. This links back to my over-arching point about the need for a clearer strategy for synthesising findings across multiple studies.

The reviewer is correct, but there is an ethical consideration: most of the informants would be easily identifiable if their jurisdiction was named. Thus, we had to choose to keep them de-identified.

All: The section on live music venues could be more concise. While the history and context is interesting in a general sense, the detail provided is often peripheral to the questions at hand. The results are engagingly written, but could also be made more concise, particularly where presenting context, rather than discussing the TAFV, and where the findings largely replicated those from the other key informant interview section (although it would be interesting to highlight where findings differed or were specific to music venues). Also, the inclusion of large numbers of venue names in the text of the introductory sections makes the narrative difficult to follow for those unfamiliar with these venues (note this problem was also present in earlier sections when discussing bars).

This section has now been extensively revised; the text is much more concise and several tables (e.g. Tables 68, 69, 70 and 71 showing the lists of venues open on an hourly basis) have been moved to appendices.

All: As above, the section on live music venues provides a large amount of background, contextual and methodological information in what is supposed to be the results chapter.

This chapter has been substantially edited / reduced to make it more concise and focussed more on the TAFV, but in places historical and contextual background is still included.

The value of providing historical and contextual background is that it helps to:

- **Make clear that the TAFV has been implemented in an SNP where there are also cultural policy frameworks and priorities relating to live music, over a long period of time.**
- **Set the observations made following the introduction of TAFV in relation to this longer history of live music culture and policy in the valley.**
- **Describe the ‘tension’ between the cultural policy objective of supporting live music and the public health and safety objective of reducing harmful alcohol consumption, especially where business models have emerged that ‘integrate’ live music with late-night clubbing.**
- **Understand that the venues were there before the area was a dense nightlife precinct. This is critical for two reasons: (1) they remain there because this is the part of the city where they have a policy framework that protects them from noise complaints, and (2) there was a period in which the venues were viable without being interdependent with late-trading clubs. Their history represents the possibility of a different kind of nightlife precinct.**

Typos:

Page 24: ‘Perception *of* a safe venue’

Page 31: ‘Consistent *with* most other emergent themes...’

Page 106: ‘*Young* males aged 18-40’

Page 114: ‘Police *tasking* data’

Corrected

Summary and Discussion of Trends

Page 128: Stockwell’s studies of minimum pricing have looked at the impact of price changes in the context of changes in outlet density. For example:

<https://onlinelibrary.wiley.com/doi/abs/10.1111/add.12139>

It is unclear what this refers to.

Page 143: The one sentence on positive rapport with licensees appears strange and might best be absorbed into the preceding section. The following section on breathalysation appears to be a possible intervention rather than one that has happened, which is what this section is supposed to be about.

This was the material supplied by QPS.

Pages 150-154: The discussion of ID scanners is a little longer than necessary and it is not beneficial to reintroduce lengthy quotes when summarising the results (see also section on banning orders).

We have removed the quotes.

All: It would be useful in the discussion section to provide a concise visual summary of the key findings – both for the three key objectives and for the individual measures. This might be a table listing the outcomes for which significant effects were and were not found and other key messages. This would be assisted by the logic model suggested in my over-arching comments. These visual summaries should be a key reference point for anyone using the report, particularly when considering policy options for another jurisdiction. As such, they might also be worth considering for inclusion in the Executive Summary.

We have created a Table based on the reviewer’s recommendation and included it in the Summary report.

All: In general, the discussion chapter is far more readable and easier to digest than earlier chapters. However, greater uniformity of information could be imposed on the policy options as some discuss supporting evidence, information from the evaluation or previous examples and others do not. It seems appropriate to provide additional information for new, nuanced or controversial options, but this does not seem to be the case currently.

We have tried to add further information, but for many options, there is little information available.

Key findings and policy options

Page 162: The lengthy discussion of the high risk venues schemes seems out of kilter with the brief discussion of other options. It is reasonable to explain important details of the policy, but the structure of the text could be changed to be less of a narrative discussion of evidence and considerations relating to previous models and more of a summary of current best practice as learned from those models.

We appreciated the reviewer’s point of view, but note that we are describing a complex piece of legislation with multiple elements and potential models and decline to make substantial changes, but have edited for readability.

Page 168: ‘[Minimum unit pricing] has been found to be associated with a 10.4% reduction in violence when implemented in Canada.’ The Canadian policy is a minimum price but not a minimum *unit* price. I could not see the 10.4% figure in the article referenced but, either way, it is the estimated effect of a 10% increase in existing minimum prices, not the effect of introducing the policy, as implied by the text of the report.

We have changed to ‘minimum price’.

We have updated the reference and figure reported to a more recent finding. “has been found to be associated with a 18.2% reduction in violence after 6 months implemented in Saskatchewan, Canada (98).

Page 168: The \$1.50 minimum unit price has now been implemented in the Northern Territory.

The minimum unit price in the Northern Territory is \$1.30.

Page 173: I was unclear how the proposed ‘harm test’ would operate. The report cites literature showing that each additional outlet increases harm. In this context, how could it ever be argued that an additional outlet will not increase harm? Presumably an ‘acceptable’ level of harm or a non-linear relationship between outlet density and harm is envisaged. The report makes reference to family violence rates as a benchmark for capping new licenses, but a clearer explanation is needed of how this would operate in the context of the proposed test.

This recommendation has been removed

Page 174: What must the license applicant prove if the onus of proof is switched to them?
Presumably that the new outlet will not increase rates of harm.

This recommendation has been removed

Page 177: The phrase ‘strong messaging’ is ambiguous in the heading for Option 30. It would be helpful to use wording that clarifies what a strong message is (i.e. hard-hitting/shocking, well-evidenced, theory-based). A similar problem affects Option 31. It is not clear what an ‘authoritative review’ would entail in this context. The subsequent text offers no indication and only highlights a failed campaign rather than explaining the option.

We have substantially revised the recommendations and supporting text.

Page 177-178: In general, Options 30-32 read more like recommendations than policy options. None of them is a policy per se. Instead, they are recommendations on how best to develop and evaluate messaging campaigns.

We have substantially revised the Options and supporting text.

All: The summary of policy options is generally succinct and useful.

Typos:

Page 141: ‘At this stage, *the* research team’

Page 146: ‘The evidence *from* other public health campaigns’

Page 147 ‘That this had allowed has made’ (unclear which is intended)

Page 155: ‘...no systematic record has been *kept*’

Page 159: ‘...that undermine the successful *prosecution* of venues’

Page 174: ‘...where potential exist to *add* to alcohol-related harm’

Page 174: ‘...public health data, proximity to schools’ (missing comma)

Throughout this chapter, times (e.g. 7am) are run together with the next word (e.g. 7amon, 3amat)

These have been fixed

Recommendations

Page 181: I am not fully up-to-speed on the evidence relating to last drinks questions but is there a risk that problems are linked to one type of (late night) venue when, in reality, much of the drinking that led to intoxication happened at another (earlier night) venue?

While this might occasionally happen, the reality is that the question asks ‘last drink’, and if an intoxicated person was served a drink, that venues is still responsible. Regardless, the main thing is that venues do not receive attention unless they appear repeatedly. Thus, occasions such as this are unlikely to be an issue on an ongoing basis.

Page 183: In other jurisdictions, very detailed alcohol sales data are available for purchase through market research companies. Is this the case in Queensland? Could the compulsion be placed on such companies rather than on individual producers, distributors and retailers?

Our understanding is that while the reviewer is correct, the data is similarly reliant on voluntary information and has the same limitations as the currently available data.

Page 186: See comments above on minimum pricing in Canada.

These have been addressed.

Table 26: While I appreciate the point being made, considering whether there are children, young people or people of lower socioeconomic status in an area seems strange. In almost all cases where there is residential accommodation, the answer to all three will be yes. Therefore, the consideration risks losing force due to lack of specificity. It may be better to reword to identify communities where there are large numbers of people within these at-risk groups.

This recommendation has been removed

Page 190: See comments above about the ‘harm test’ (confusingly, referred to here as the community impact test) and (on page 191) also about the changing the onus of proof, including the typo.

This recommendation has been removed

Page 194: See comments above on campaign messaging.

Modified as above.

Page 194: The recommendation for publicly-funded research to be made available is appropriate. However, it could also state that this is done in a timely fashion (i.e. Government cannot sit on inconvenient research).

We have amended this recommendation as per the reviewer’s comment.

Typos:

Page 182: ‘...because *up* to 30% of emergency department attendances’

Done