



Transport
for NSW

Bureau of Transport Statistics

Ferry Load Census Data

August 2015 Release

Database Documentation

Contents

- 1 Methodology 3
- 2 Notes about the data..... 4
- 3 Dataset Description..... 7
 - 3.1 Data Item List 8
- 4 Survey Dates 14

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1 Methodology

Patronage data is collected in a week long census of all Inner Harbour and Parramatta River services twice a year in May and November. Passenger counts for Manly services are derived from barrier gate counts. As passengers do not re-validate tickets on disembarkation, exit counts are inferred from Manly Entry Counts.

The census is conducted by a contracted survey company, which deploys survey staff on board vessels to manually count passengers boarding and disembarking at each service stop.

2 Notes about the data

1. The accuracy of the data is aided by the fact that the collection is conducted as a census rather than a sample survey. However, the counting is manual and subject to human error such as miscounting, misreporting, and occasional gaps in the data due to some services being missed. Where possible, CCTV footage is used to capture counts if the survey company has missed a service.
2. Patronage is significantly affected by weather conditions, especially on weekends and day time weekday off peak services.
3. The total number of passengers boarding a service does not necessarily equal the number disembarking. This is due to two main reasons:
 - The Darling Harbour and Neutral Bay services are partial loop services. Ferries stop at Pyrmont Bay (Darling Harbour route) and Kurraba Point (Neutral Bay route) on the inbound service only. Ferries stop at North Sydney wharf (Neutral Bay route) on the outbound service only. This means, for example, that passengers travelling from Circular Quay to Pyrmont Bay wharf remain on board the vessel at the termination of the outbound service at King Street wharf, before disembarking at Pyrmont Bay on the inbound service.
 - It is common on some routes for passengers to stay on board a vessel at the terminating wharf and to return to the wharf they boarded from without disembarking. For this reason, checks only apply to the entire run – i.e. the total number of boardings on the outbound and inbound legs of the run are equal to (or nearly equal to) the sum of the disembarkations of the two legs.
4. The normal pattern for patronage numbers is for Monday to Wednesday to be very similar, then to increase on Thursday and increase again on Friday (excluding the effects of confounders such as public holidays and weather impact). Sunday is typically the highest patronage day of the week.
5. Peak and off peak business rules:
 - Morning peak (AM peak)
 - inbound services arriving in Circular Quay/Darling Harbour from 07:01 to 09:00 on weekdays
 - the services travelling between Circular Quay and Darling Harbour from 07:01 to 09:00 on weekdays
 - Afternoon peak (PM peak)
 - outbound services departing Circular Quay/Darling Harbour from 16:31 to 19:00 on weekdays
 - the services travelling between Circular Quay and Darling Harbour from 16:31 to 19:00 on weekdays

- Off Peak: all other periods on weekdays and all weekends/public holidays.
6. The load percentage calculations business rules are:
 - Assume all passengers get off the ferry after arriving in Circular Quay following a full outbound and inbound run (with the exception of Darling Harbour services).
 - Circular Quay – Manly route, assume all passengers get off the ferry in Manly for outbound services and Circular Quay for inbound services.
 - Passengers may board outbound services but disembark on the return inbound service. Where the same ferry continues the inbound service the load counts are not set to zero at the destination of the outbound service.
 - If the total exits at any wharf are greater than the total onboard then the ferry has no passengers (i.e. load set to zero).
 7. As Manly patronage is derived from barrier gate validations the vessel name on these services is not captured.
 8. Effective 10 October 2010 scheduled services ceased stopping at Darling Harbour Aquarium and Birkenhead Point. Since October 2010 all ferry services to Darling Harbour now stop at Darling Harbour King Street and Pyrmont Bay wharves only.
 9. Prior to the 10 October 2010 ferry timetable change, ferry services stopped at Taronga Zoo wharf for the Mosman Bay route and Cremorne Point wharf for the Taronga Zoo route on Sundays only and was discontinued in the following timetable so there is no data for the November 2010 survey onwards.
 10. Prior to the 10 October 2010 ferry timetable change, a single weekday service for the Balmain to Woolwich route stopped at Drummoyne at 8:12am. Demand for this service at Drummoyne was extremely low and was discontinued in the following timetable so there is no data for the November 2010 survey onwards.
 11. Prior to the 10 October 2010 ferry timetable change, there were multiple services stopping at Balmain East on the Balmain to Woolwich route on each day of the week. After the timetable change there is only one single weekday service stopping at Balmain East at 9:31am which shows reduced boardings from the November 2010 survey onwards.
 12. The Outpost 2011 Festival at Cockatoo Island, from 4 November to 11 December 2011, had significant impact on numbers for the Woolwich-Balmain service during November 2011 survey.
 13. The Vivid Festival started on 25 May and resulted in higher than usual boarding on Saturday night on 26 May 2012.
 14. Neutral Bay wharf was closed throughout the May 2012 survey for upgrade. This explains why there was no boarding or alighting at this wharf. Kurraba Point wharf, which was not very far from Neutral Bay, consequently had a lift in numbers.

15. The Sydney Ferries timetable changed on 20 October 2013, which increased ferries services with a corresponding increase in boardings in the November 2013 surveys.
16. The change in ticketing to withdraw MyMulti 1 ferry travel on 20 October 2013 is the likely cause of a decrease in boardings in November 2013 for the following wharfs. Ferry passengers who previously used these wharfs can still use MyMulti 1 to take the bus and/or rail to the CBD:
 - Cremorne Point
 - Darling Point
 - Kurraba Point
 - Manly
 - Milsons Point
 - Pyrmont Bay
 - South Mosman
17. The Sydney Ferries timetable change on 20 October 2013, resulted a change in the Balmain-Woolwich route timetable which ceased services to Milsons Point, McMahon, Balmain East and Balmain West, with a corresponding decrease in boardings in the November 2013 surveys on the Balmain-Woolwich route.
18. With the 20 October 2013 ferry timetable change, Taronga Zoo route had four weekday morning and four afternoon peak services added to Mosman Bay and Cremorne Point wharfs. Mosman Bay route peak hours had two services removed, one in the morning and the other in the afternoon. The November 2013 boardings show an increase for Taronga Zoo route and a decrease for Mosman Bay route as a result.
19. With the 20 October 2013 ferry timetable change, Parramatta River route and Eastern Suburbs route have more schedule services which resulted in an increase in boardings in the November 2013 survey.
20. Effective 20 October 2013 scheduled services ceased at Bayview Park and Balmain West wharfs.
21. Mosman Bay and Drummoyne wharfs were closed throughout the May 2014 survey for upgrades. This explains why there was no boarding or alighting at these wharfs.
22. Cremorne Point wharf was closed throughout the November 2014 survey for upgrade, the Taronga Zoo route ferry services stopped at Old Cremorne wharf during the Cremorne Point upgrade.
23. Pyrmont and Balmain East wharfs were closed throughout the May 2015 survey for upgrades, the Darling Harbour route ferry services stopped at Casino and Balmain wharfs during the upgrades.
24. Sydney Olympic Park wharf was closed throughout the May 2015 survey for upgrade, the Parramatta route ferry services at Armory wharf during the upgrade.

3 Dataset Description

Data set name

Ferry Load Census

Scope

Sydney Ferries Network

Frequency

6 Monthly

Reference period

One week period each in May and November starting in 2010

Data producer

Harbour City Ferries

Unit(s) of measurement

Patronage counts (by day, route, and wharf)

Key Variables/Indicators

- Route
- Sub_Route
- Direction
- Survey_Period
- Run_Date
- Day of Week (DOW)
- Day_Type
- Run
- Vessel
- Wharf
- Time
- Hour
- Peak_Offpeak
- Entry_Exit
- Passengers
- Load
- Ferry_Seat_Capacity
- Load_Percentage
- Load_Percentage_Grouping
- Sort_Order

3.1 Data Item List

Variable	Description	Permitted Values	Type
Route	Major route name	Balmain-Woolwich Darling Harbour Eastern Suburbs Manly Mosman Neutral Bay Parramatta River Taronga Zoo	Varchar (30)
Sub_Route	Sub route name	Balmain East to Circular Quay Balmain to Circular Quay Balmain West to Circular Quay Balmain Yard to Rydalmere Balmain Yard to Woolwich Bayview Park to Circular Quay Bayview Park to Darling Harbour King St *Birkenhead to Circular Quay Cabarita to Balmain Yard Cabarita to Darling Harbour King St Circular Quay to Balmain Circular Quay to Balmain East Circular Quay to Balmain West Circular Quay to Bayview Park *Circular Quay to Birkenhead Circular Quay to Cockatoo Island *Circular Quay to Darling Harbour Aquarium Circular Quay to Darling Harbour King St Circular Quay to Double Bay Circular Quay to Manly Circular Quay to Meadowbank Circular Quay to Mosman Bay Circular Quay to Neutral Bay Circular Quay to Parramatta Circular Quay to Rose Bay Circular Quay to Rydalmere	Varchar (60)

Variable	Description	Permitted Values	Type
		Circular Quay to Sydney Olympic Park Circular Quay to Taronga Zoo Circular Quay to Watsons Bay Circular Quay to Woolwich Cockatoo Island to Circular Quay *Darling Harbour Aquarium to Circular Quay Darling Harbour King St to Bayview Park Darling Harbour King St to Cabarita Darling Harbour King St to Circular Quay Darling Harbour King St to Meadowbank Darling Harbour King St to Parramatta Darling Harbour King St to Rydalmere Darling Harbour King St to Sydney Olympic Park Double Bay to Circular Quay Drummoyne to Parramatta Drummoyne to Rydalmere Manly to Circular Quay Meadowbank to Circular Quay Mosman Bay to Circular Quay Neutral Bay to Circular Quay Parramatta to Circular Quay Parramatta to Darling Harbour King St Rose Bay to Circular Quay Rydalmere to Circular Quay Rydalmere to Darling Harbour King St Sydney Olympic Park to Circular Quay Sydney Olympic Park to Darling Harbour King St Taronga Zoo to Circular Quay Watsons Bay to Circular Quay Woolwich to Circular Quay	
Direction	Travel direction	Inbound (services terminating in Sydney CBD) Outbound (services originating at Sydney CBD)	Varchar (10)

Variable	Description	Permitted Values	Type
		<p>Note that:</p> <ul style="list-style-type: none"> • Sydney CBD includes Circular Quay and King Street Wharfs • Darling Harbour services that commence at Circular Quay and terminate at King Street Wharf Darling Harbour are coded as Outbound. • Darling Harbour services that commence at King Street Wharf Darling Harbour and terminate at Circular Quay are coded as Inbound. 	
Survey_Period	Survey Period	May and November each year	Text
Run_Date	Survey date	Day-Month-Year (dd-mmm-yyyy)	Varchar (12)
DOW	Day of Week	Mon Monday Tue Tuesday Wed Wednesday Thu Thursday Fri Friday Sat Saturday Sun Sunday	Text
Day_Type	Day Type	M-F Weekdays Sat Saturday Sun Sunday	Text
Run	Run number	Name, e.g. Bal 06:35 Ex Wlch 08:48 WB 1640Sun River_51	Varchar (30)
Vessel	Vessel name	Alexander Anne Sargeant Betty Cuthbert Borrowdale Charlotte Charter Vessel Dawn Fraser Evonne Goolagong	Varchar (20)

Variable	Description	Permitted Values	Type
		Fantasea Crystal Fantasea Escapade Fantasea Sensation Fantasea Spirit Fishburn Friendship Golden Grove Lady Herron Lady Northcott Louise Sauvage Marjorie Jackson Marlene Mathews Mary MacKillop Nicole Livingstone Pam Burrige Rocket Jillian Scarborough Shane Gould Silver Spirit Sirius SuperCat 4 Supply Susie O'Neill Unknown	
Wharf	Wharf Name	Abbotsford ^Armory Balmain Balmain East Balmain West Bayview Park Birchgrove *Birkenhead Cabarita ^Casino Chiswick Circular Quay Cockatoo Island Cremorne Point	Varchar (30)

Variable	Description	Permitted Values	Type
		*Darling Harbour Aquarium Darling Harbour King St Darling Point Double Bay Drummoyne Garden Island Greenwich Huntleys Point Kirribilli Kissing Point Kurraba Point Manly McMahon's Point Meadowbank Milsons Point Mosman Bay Neutral Bay North Sydney Old Cremorne Parramatta Pyrmont Bay Rose Bay Rydalmere South Mosman Sydney Olympic Park Taronga Zoo Watsons Bay Woolwich	
Time	Timetable time	Hour: Minute (hh:mm)	Varchar (5)
Hour	Hour	Hour	Numeric (2)
Peak_Offpeak	Peak Off-peak	AM peak =Morning Peak PM peak = Afternoon Peak Off-peak	Varchar (8)
Entry_Exit	Categorisation of passenger embarkations and passenger disembarkations	Entry Exit	Varchar (5)

Variable	Description	Permitted Values	Type
Passengers	Patronage counts	Numeric	Numeric (18)
Load	Patronage on board	Numeric	Numeric (18)
Ferry_Seat_Capacity	Ferry Seat Capacity	Numeric	Numeric (4)
Load_Percentage	Load Percentage	Percentage	Varchar(50)
Load_Percentage_Grouping	Load Percentage Grouping	0-5 =Less than or equal to 5% 6-10 = 10% 11-20 =20% 21-30 =30% 31-40 =40% 41-50 =50% 51-60 =60% 61-70 =70% 71-80 =80% 81-90 =90% 91-100 =100% 100 plus= More than 100%	Varchar(50)
Sort_Order	Wharf Number	Numeric	Numeric (4)

* May 2010 survey only

^ May 2015 survey only

4 Survey Dates

Survey	Survey Dates
May 2010	24-30 May 2010
Nov 2010	22-28 November 2010
May 2011	23-29 May 2011
Nov 2011	21-27 November 2011
May 2012	21-27 May 2012
Nov 2012	26 November-2 December 2012
May 2013	27 May-2 June 2013
Nov 2013	25 November-1 December 2013
May 2014	12-18 May 2014
Nov 2014	24-30 November 2014
May 2015	11-17 May 2015