

# New analyses of Glasgow cycling data

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# Context and work undertaken



1. Cycle journeys on the Anderston-Argyle Street footbridge (part of West City Way)
2. Cycle journeys on the South West City Way
3. Glasgow's public cycle hire scheme – usage between July 2014 and July 2016
4. Travel to School in Glasgow – results of the Hands Up Survey

“To create a vibrant Cycling City where cycling is accessible, safe and attractive to all.”

# Anderston-Argyle Street Footbridge

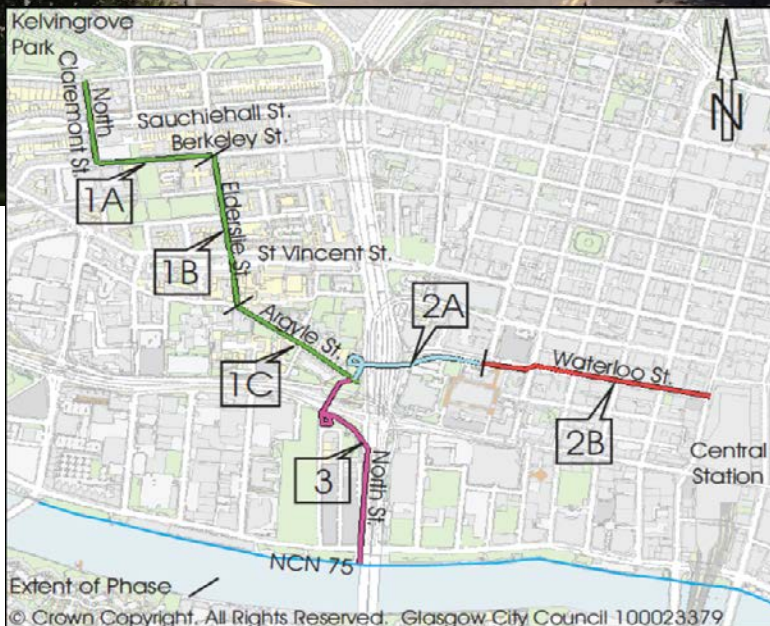


Image: Joe Crossland, GCPH

# Cycle counts – Aug 2014 to July 2016

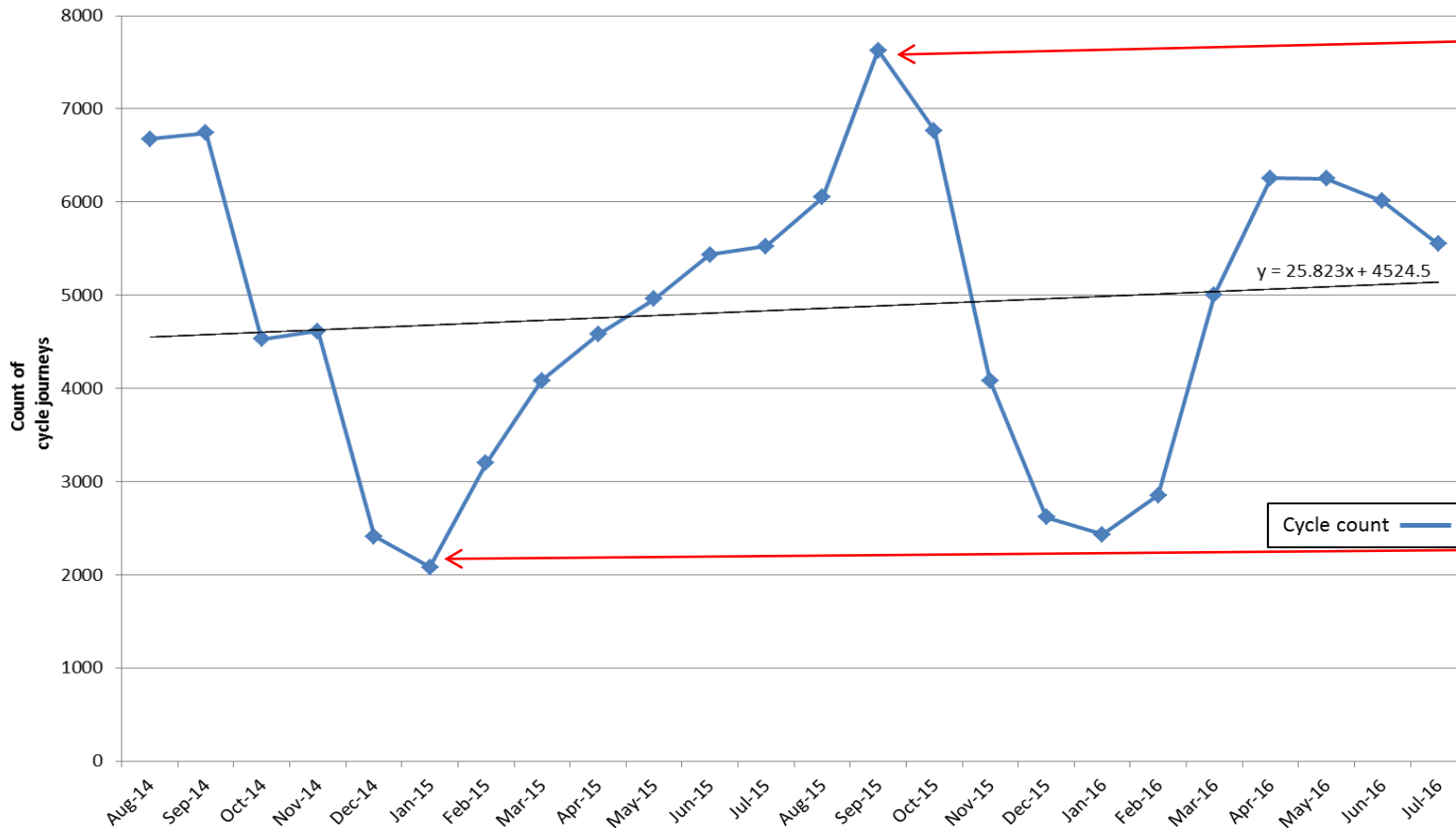
- 116,334 cycle journeys on Anderston-Argyle Street bridge
- 53,115 eastbound; 63,219 westbound (Cordon Count – similar difference)
- Average number of journeys per day was 159
- Range 3 to 1,210 journeys per day

Entry/exit points at west side of city	Glasgow City Cordon Count 2016 (6 <sup>th</sup> /7 <sup>th</sup> Sep)
Renfrew Street, East of St George's Road	109
Sauchiehall Street, East of Charing Cross	495
Bath Street, East of Newton Street/West of Elmbank Street	248
St Vincent Street, South of India Street	160
<b>Anderston- Argyle Street bridge</b>	<b>236</b>
Bishop Street at Glasgow Hilton	52
Argyle Street, West of Oak Street	227
Broomielaw West of Washington Street	1,806

# Monthly cycle counts

Monthly cycle counts on Anderston-Argyle Street route, August 2014 to July 2016

Source: Glasgow City Council



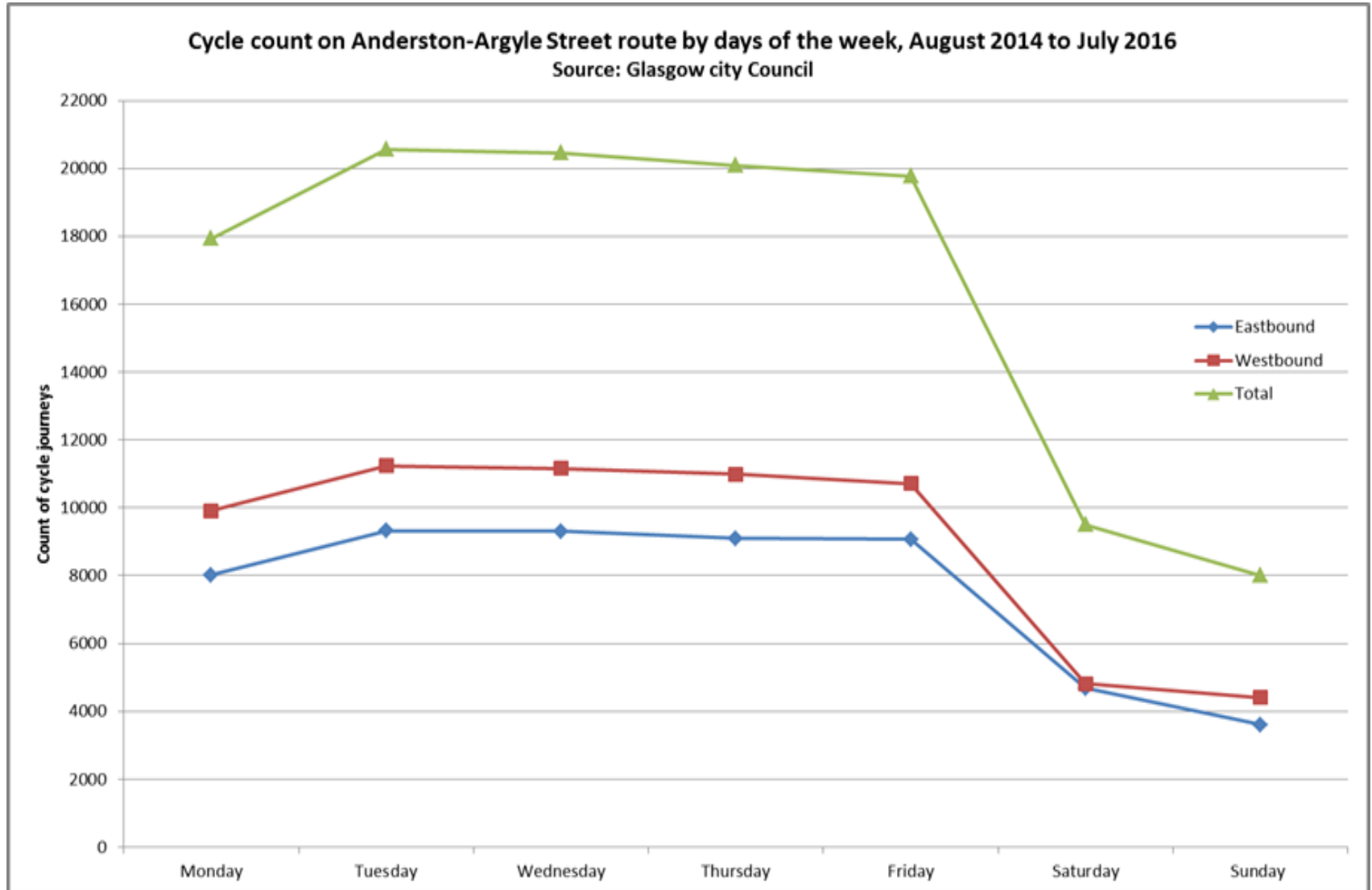
7,628 (Sep 15)

2,082 (Jan 15)

- Large seasonal variation
- Trend of increasing numbers of journeys (approx. 26 per month)



# Daily patterns of use



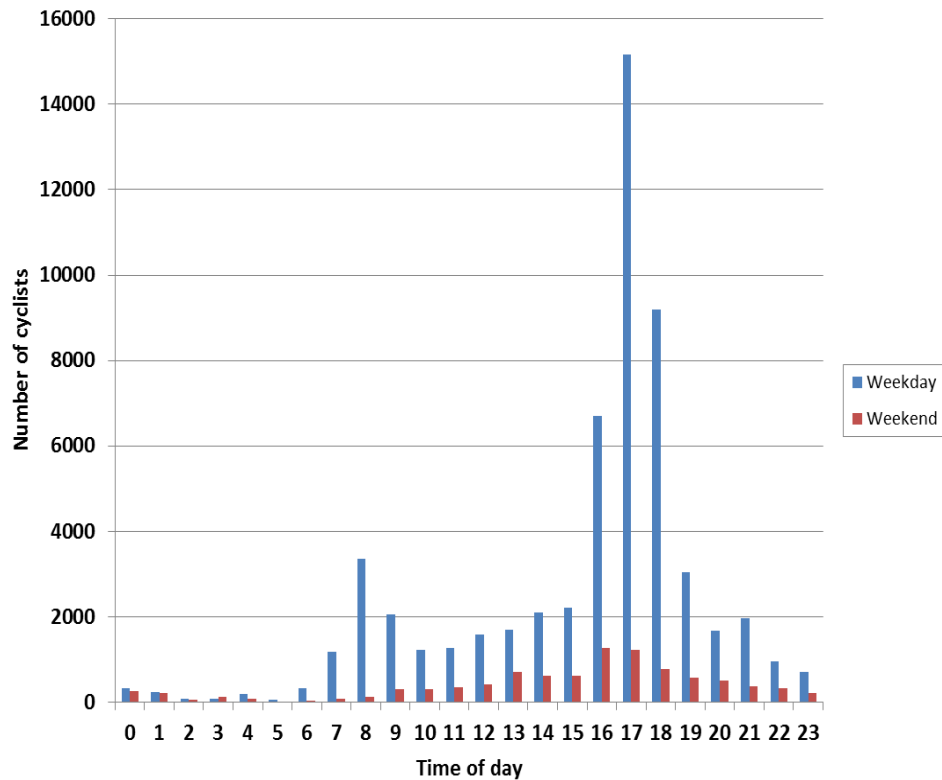
# Hourly cycle counts

## westbound

## eastbound

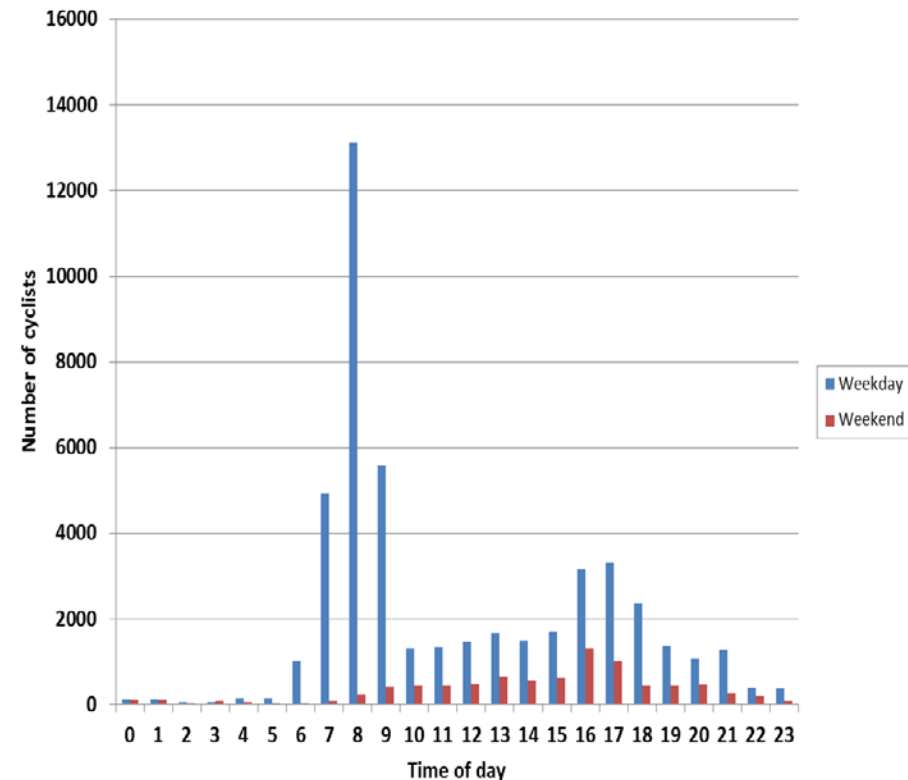
Hourly westbound cycle counts for Anderston-Argyle St route from 28th July 2014 to August 2016

Source: Glasgow City Council



Hourly eastbound cycle counts for Anderston-Argyle St route from 28th July 2014 to August 2016

Source: Glasgow City Council



- Peaks at standard commuting hours
- Largest numbers of journeys eastbound in morning and westbound in evening

# South West City Way



Image: Glasgow City Council

Cycle counter



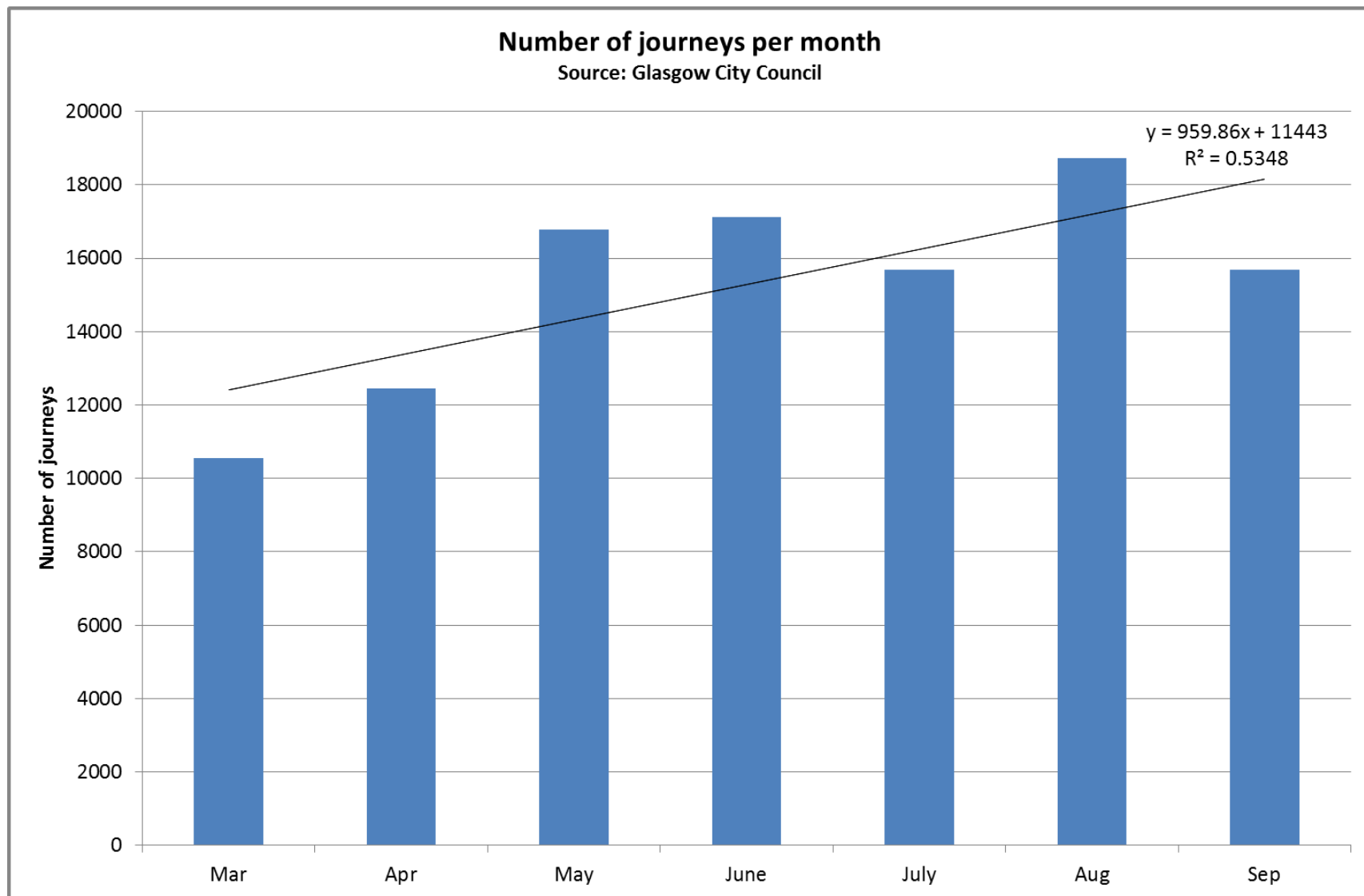
Image: Joe Crossland, GCPH



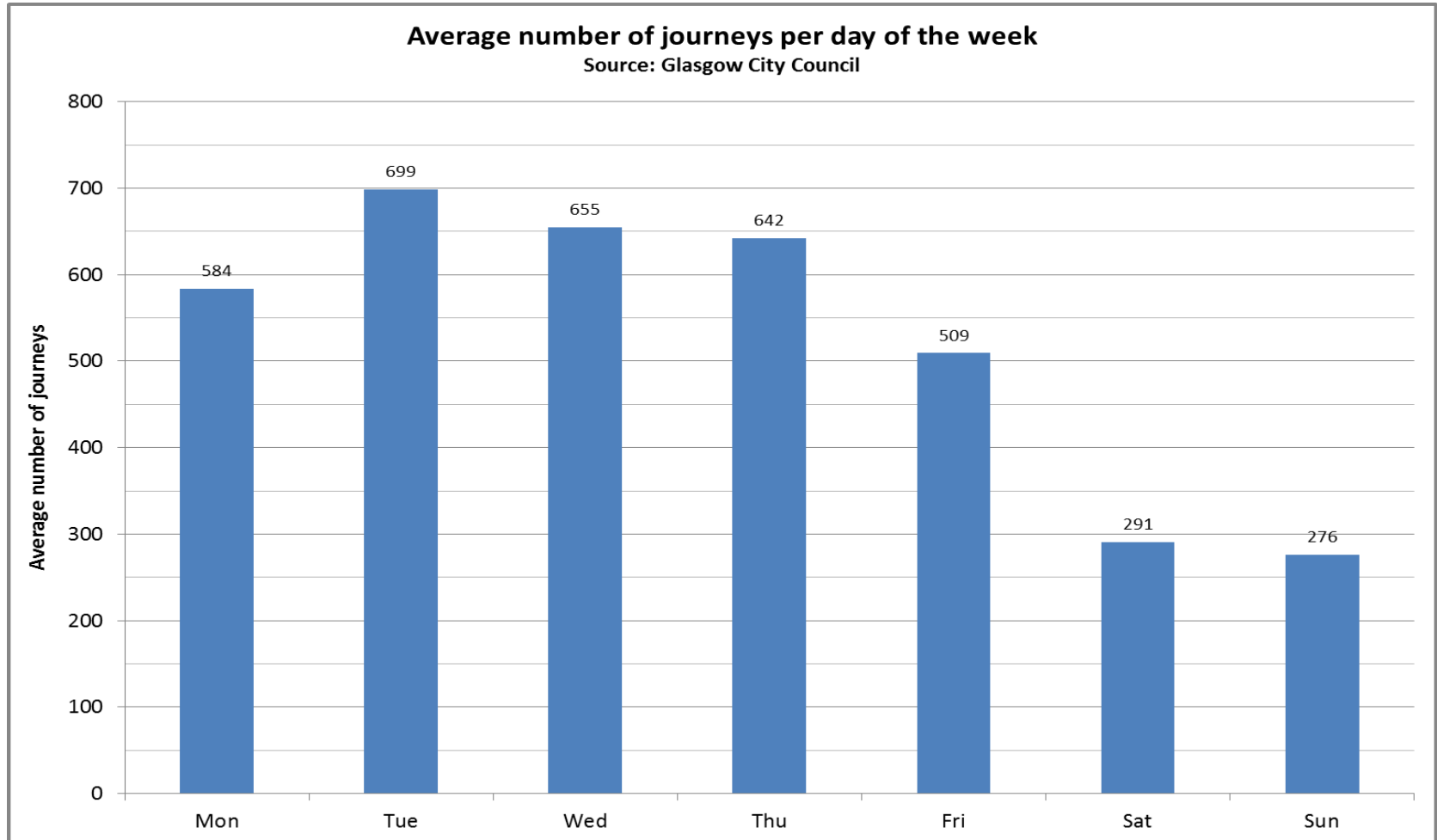
# Cycle counts – Mar 2016 to Sep 2016

- 106,980 journeys made on the route
- Average of **519** journeys per day
- Higher usage seen at this point of route than Anderston-Argyle bridge (equivalent period approximate average daily journeys = **211**)
- Glasgow cordon count reported growth in cycling on Tradeston bridge from 2015 to 2016 of 57.2% towards and 44.5% away from city

# Cycle count – March to September 2016

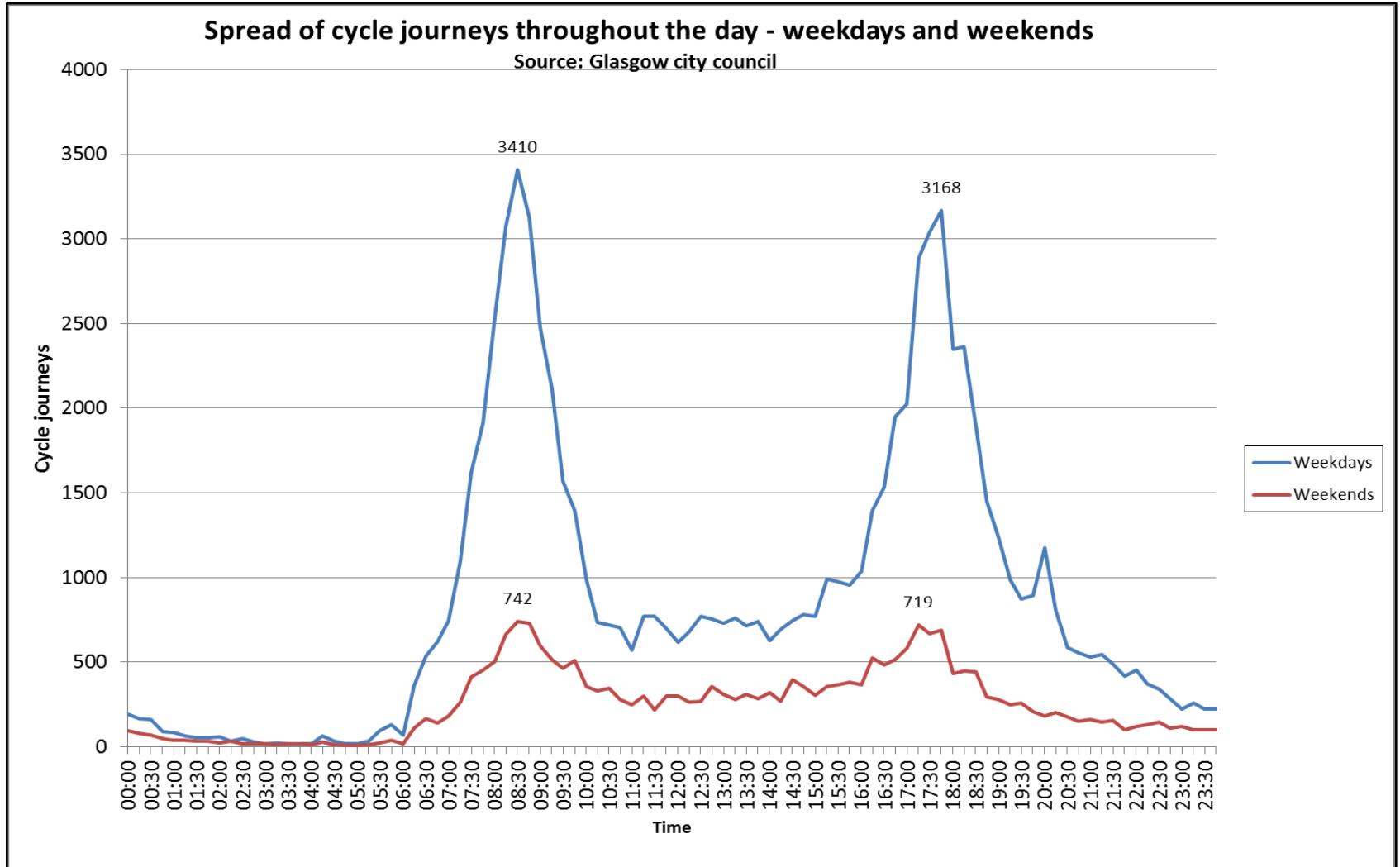


# Daily patterns of use



- More journeys made on weekdays (average 616) than weekends (average 283)

# Hourly patterns of use



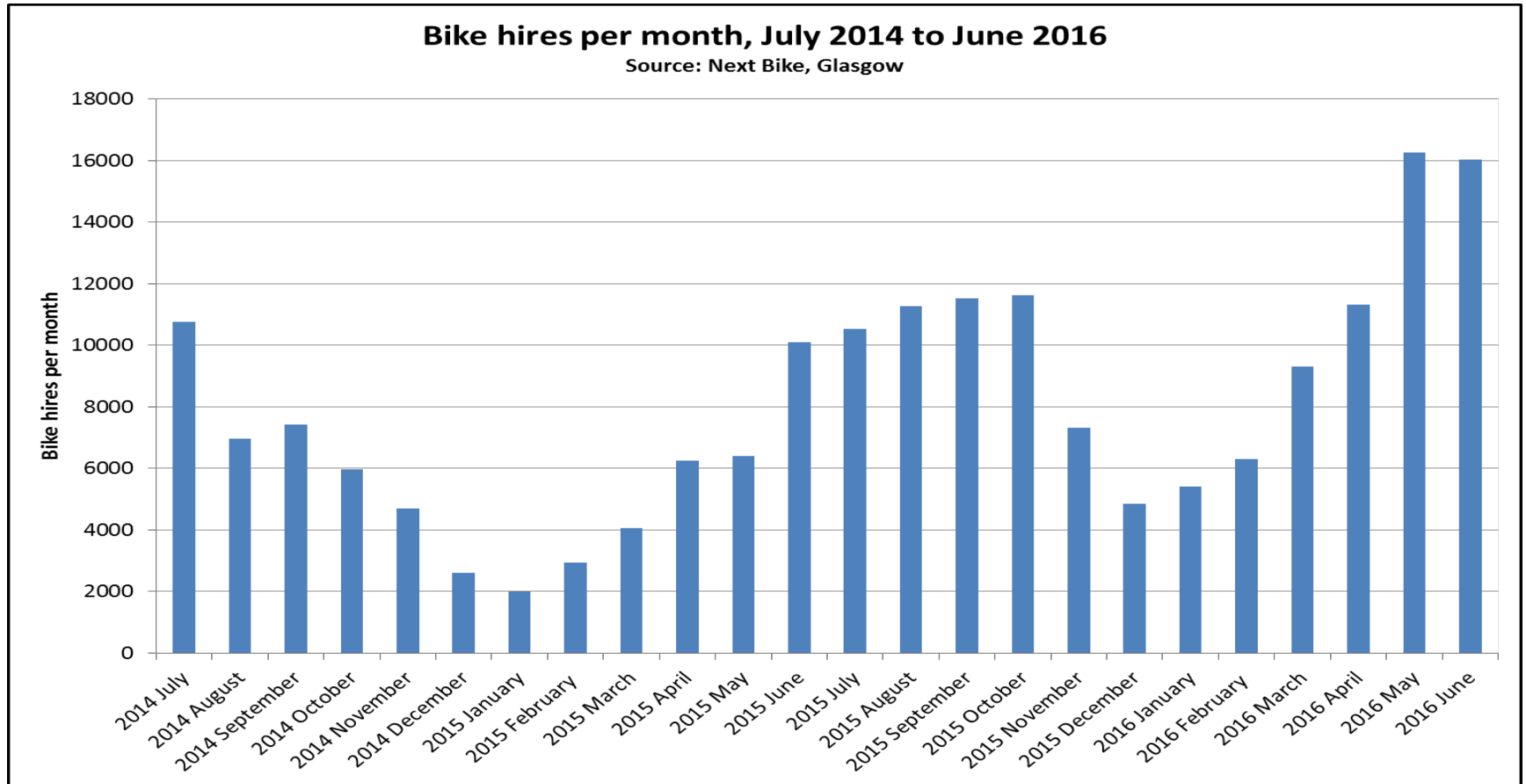
- Peaks in usage at standard commuting times

# Glasgow's public bike hire scheme



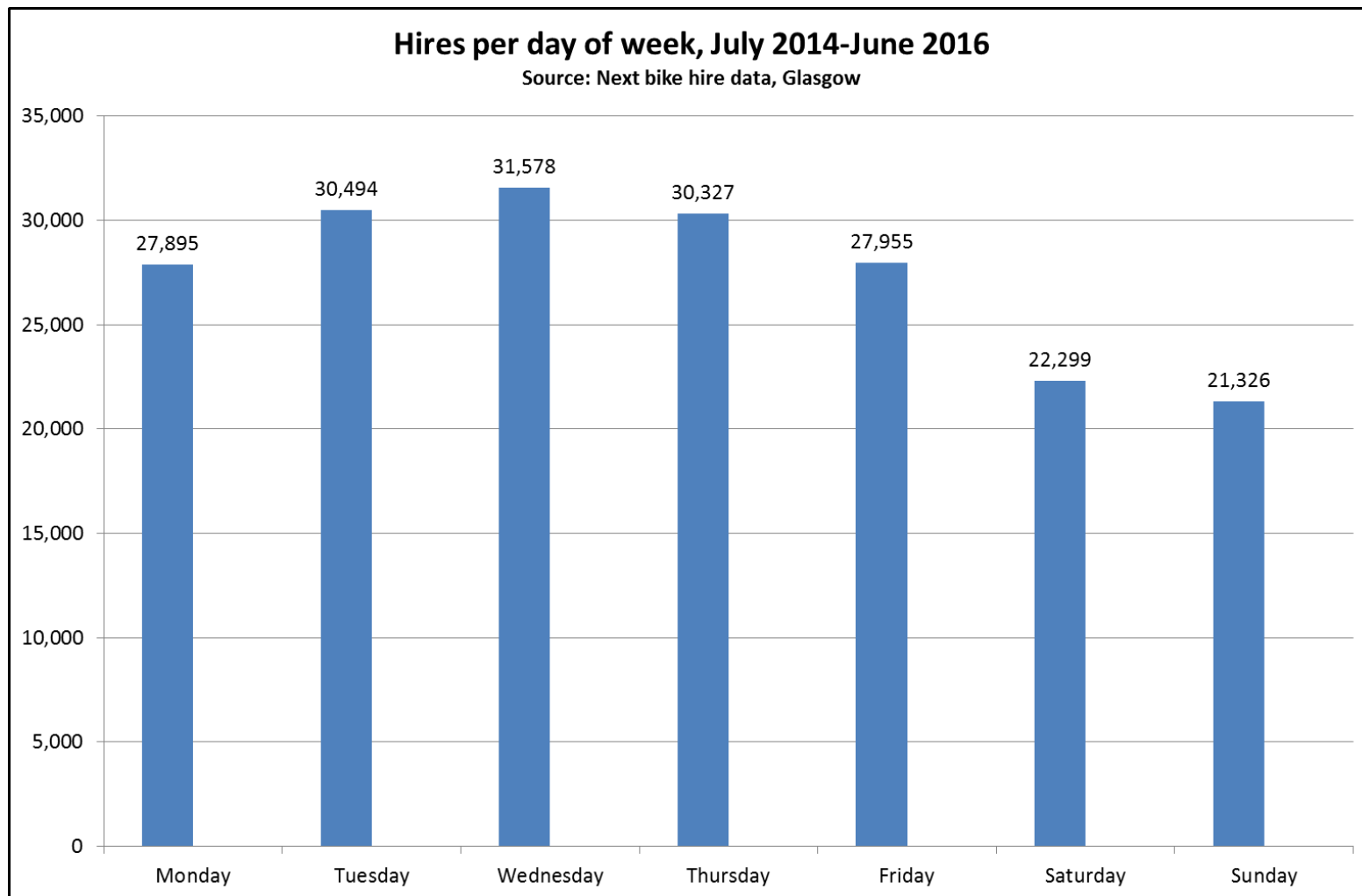
Image: Joe Crossland, GCPH

# Bike hires – July 1<sup>st</sup> 2014 to June 30<sup>th</sup> 2016



- 191,874 hires with complete data available
- Average of 262 hires per day
- Seasonal variation
- Steady growth seen. 2014/15: 70,131 hires; 2015/16: 121,743 hires

# Daily patterns of hires

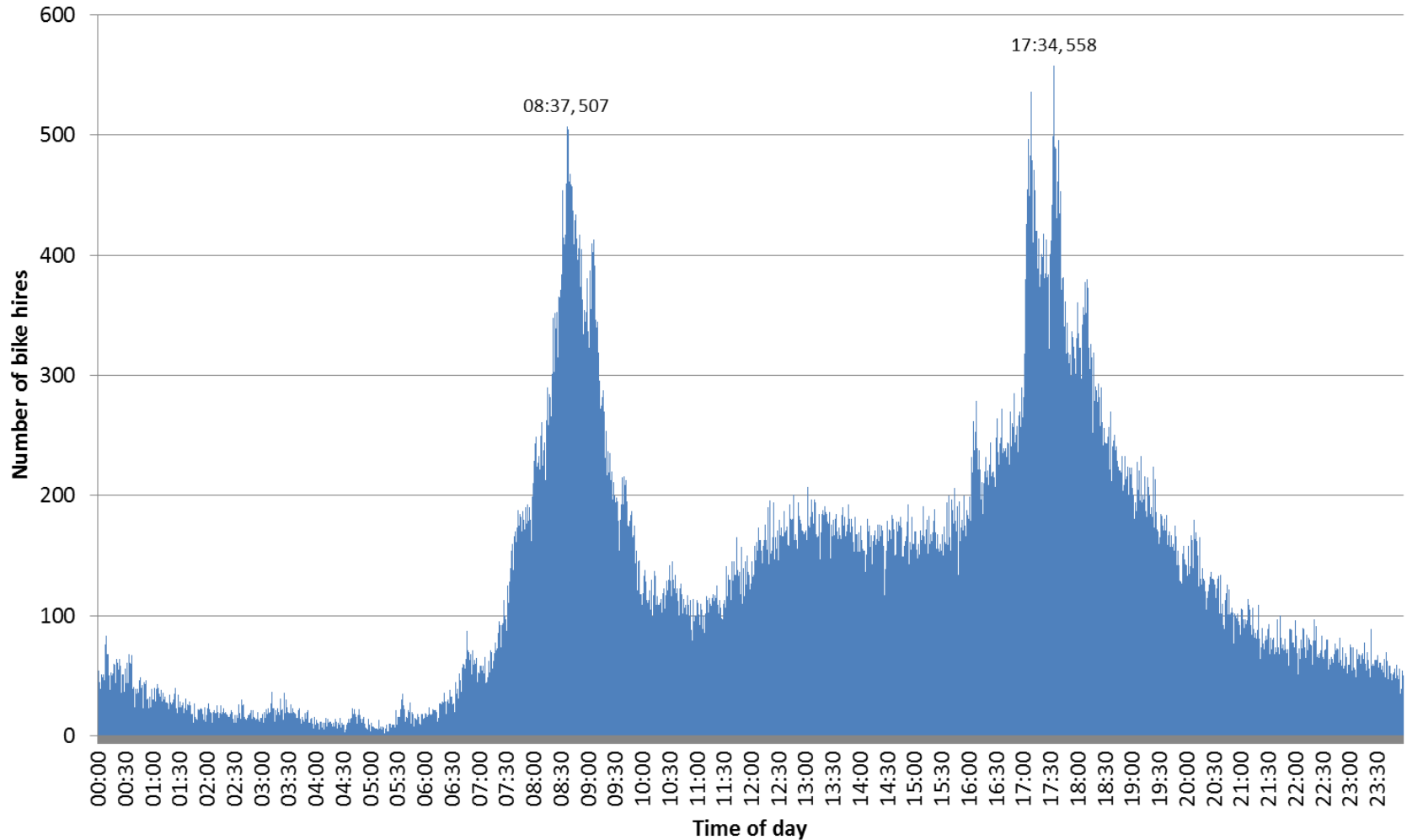


- More hires made on weekdays than weekends

# Daily patterns of use

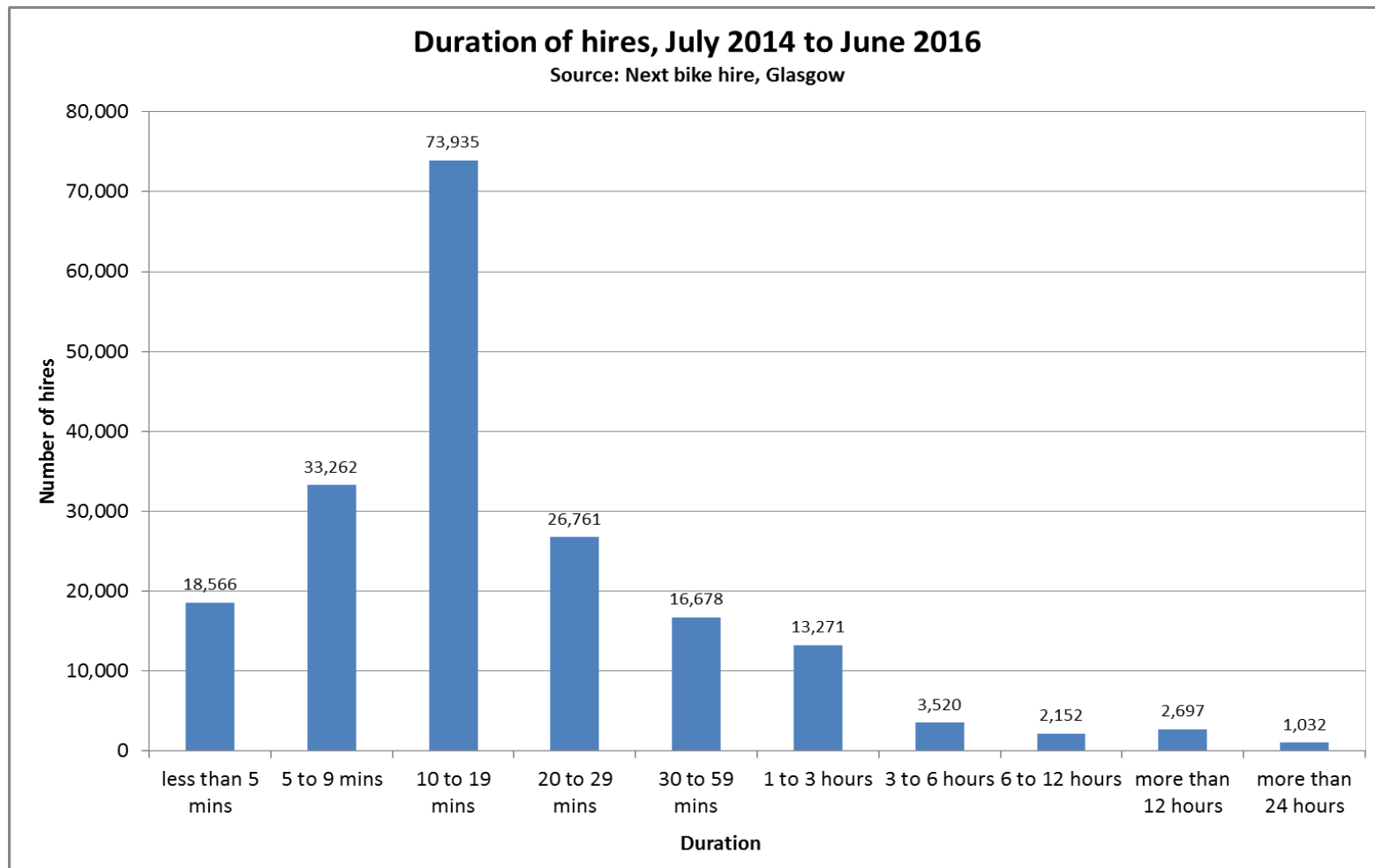
Number of hires throughout the day, July 2014 to June 2016

Source: Next Bike, Glasgow



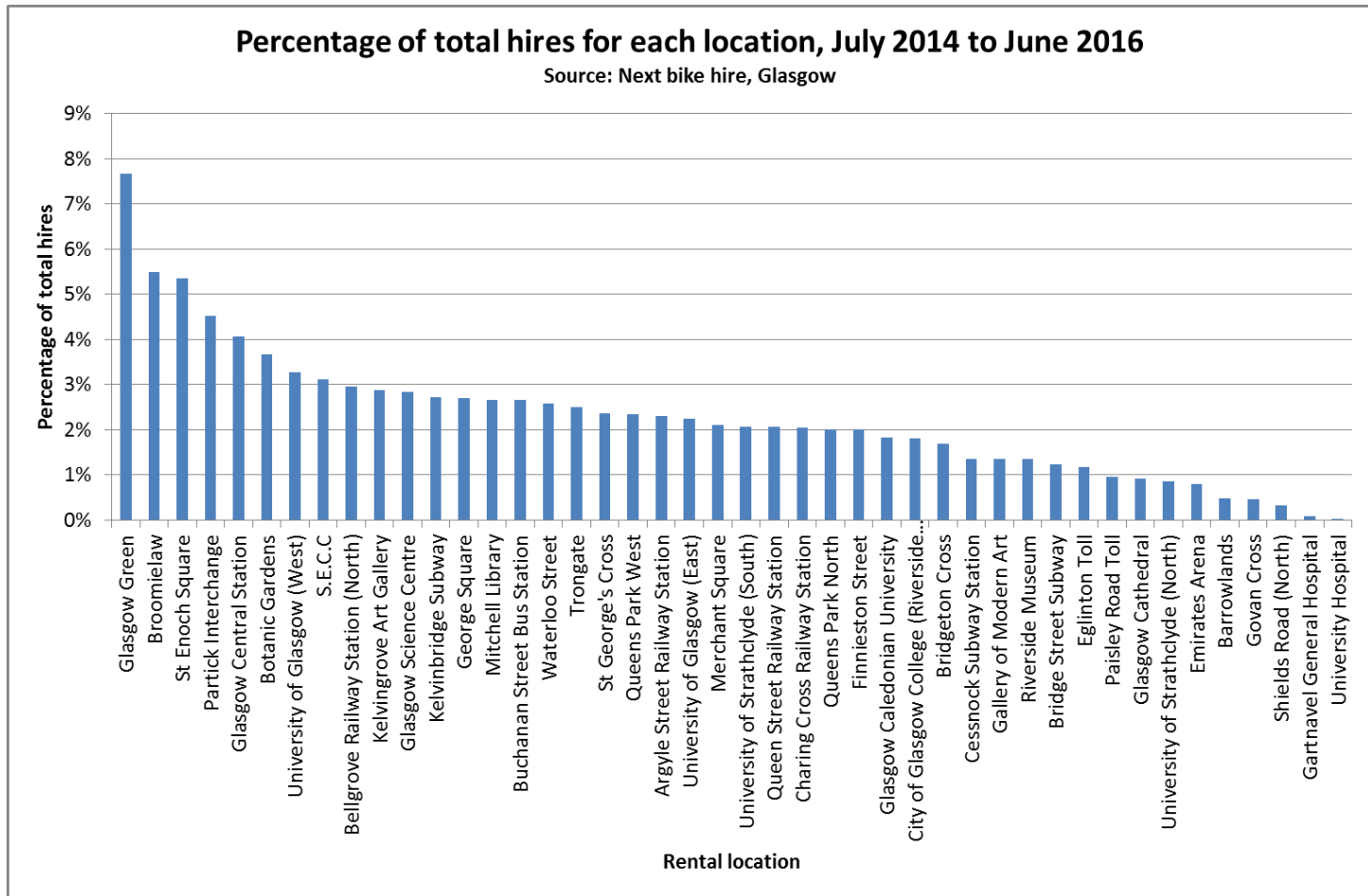


# Duration of hires



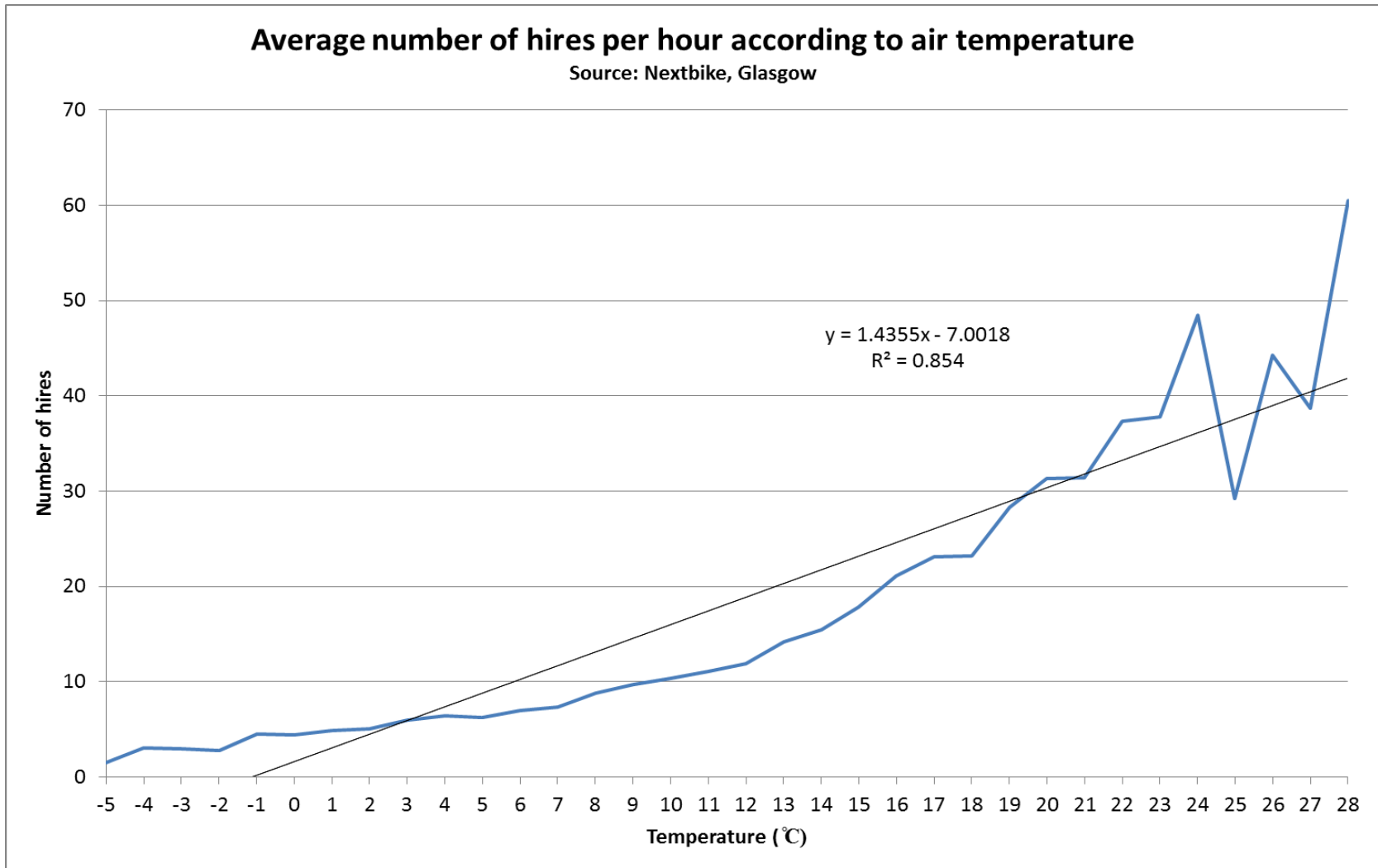
- The majority of hires (79%) are for less than 30 minutes
- Most common hire duration is between 10 and 19 minutes
- Only 14% of hires are for longer than 1 hour

# Most popular rental locations

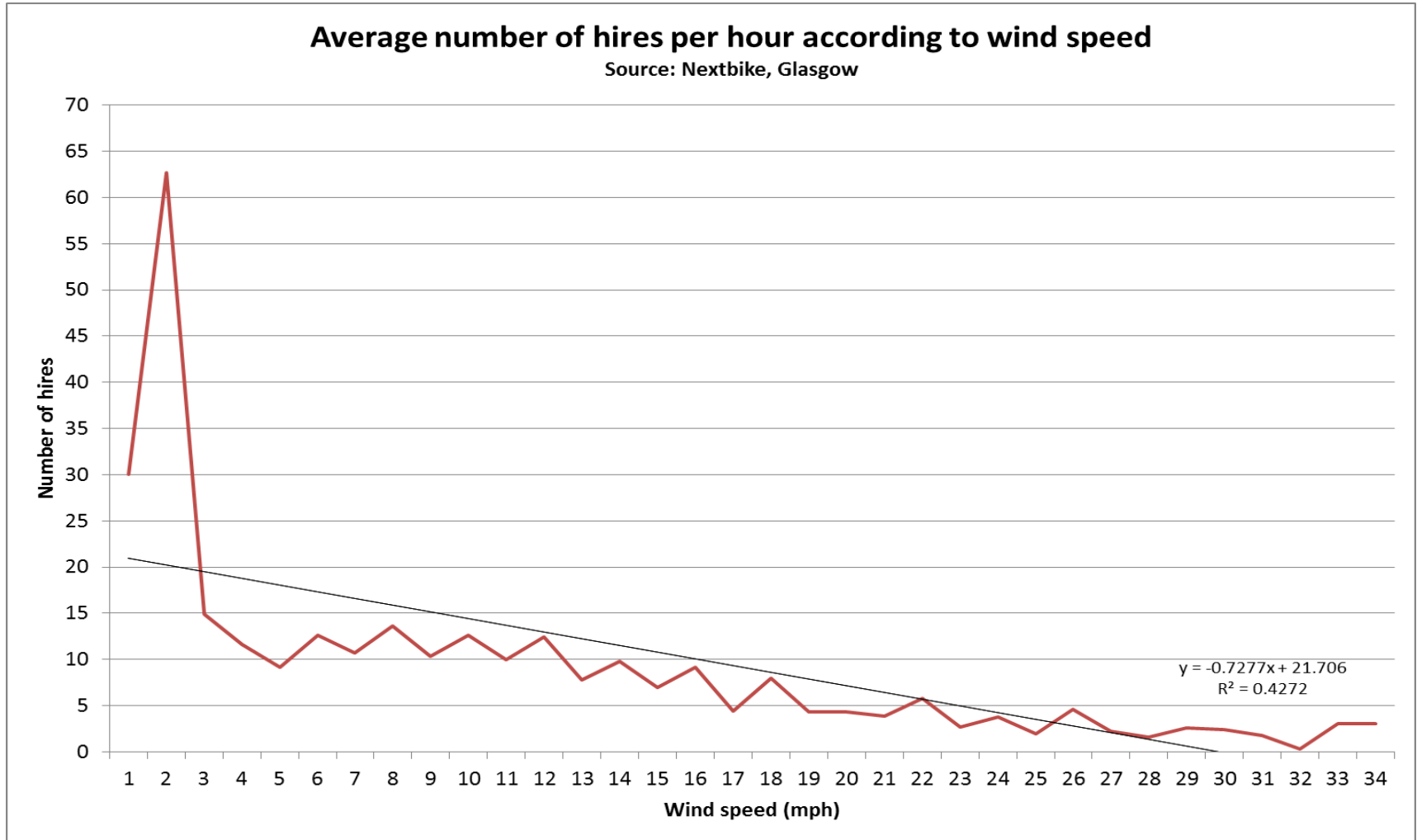


NB Some stations have not been in operation as long as others

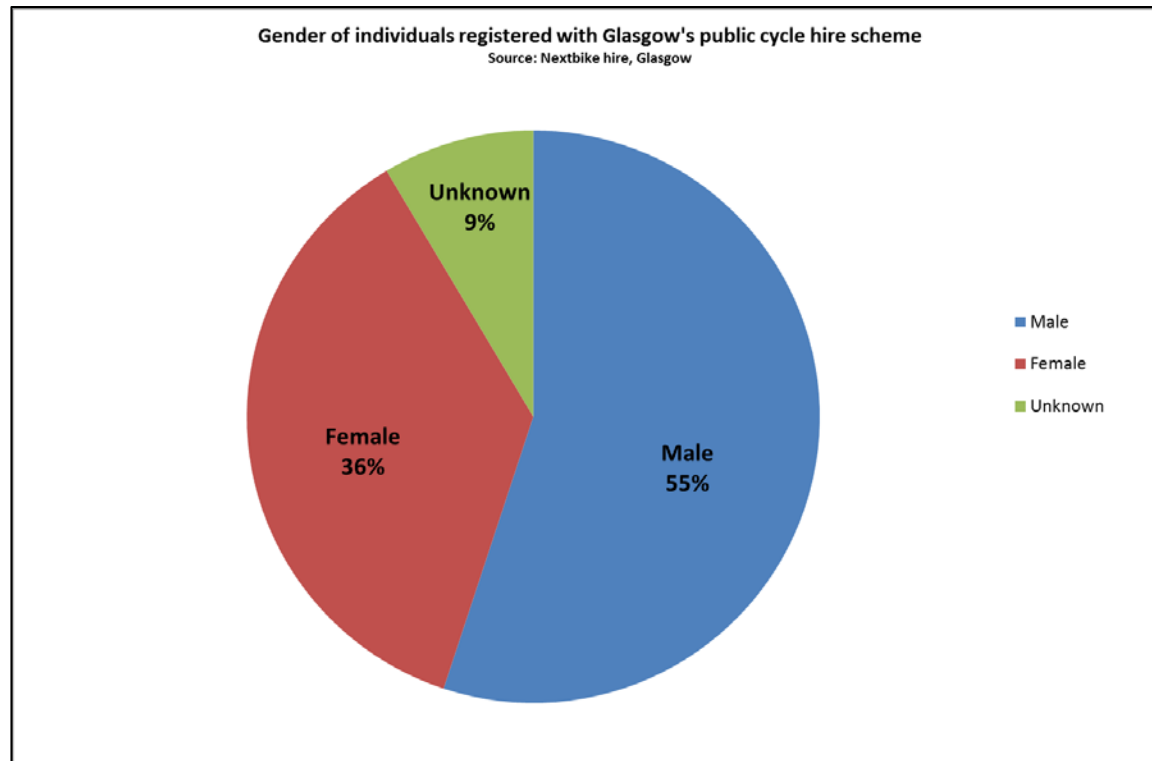
# Impact of air temperature on numbers of hires



# Impact of wind speed on numbers of hires

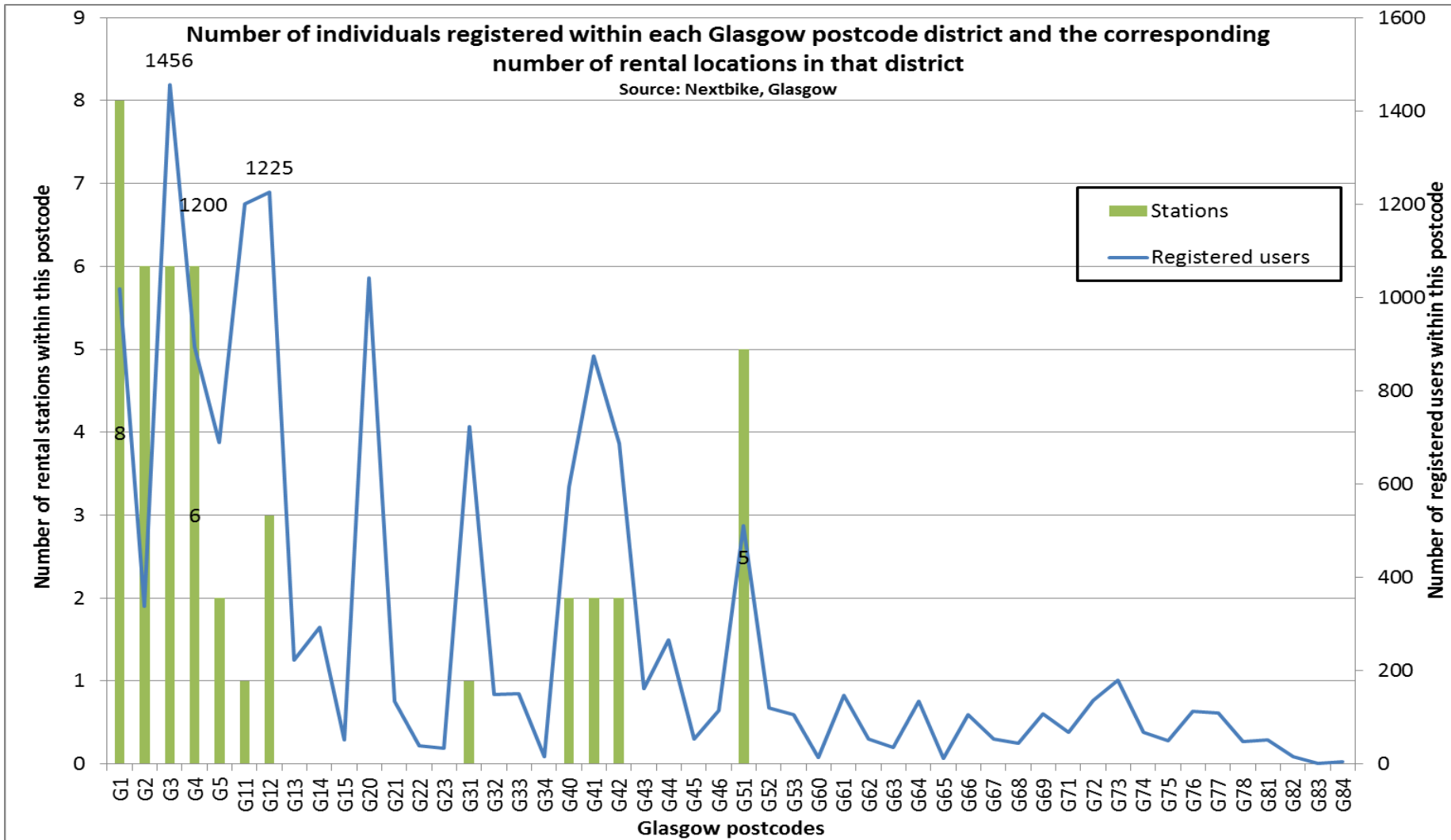


# Characteristics of individuals registered for cycle hire scheme

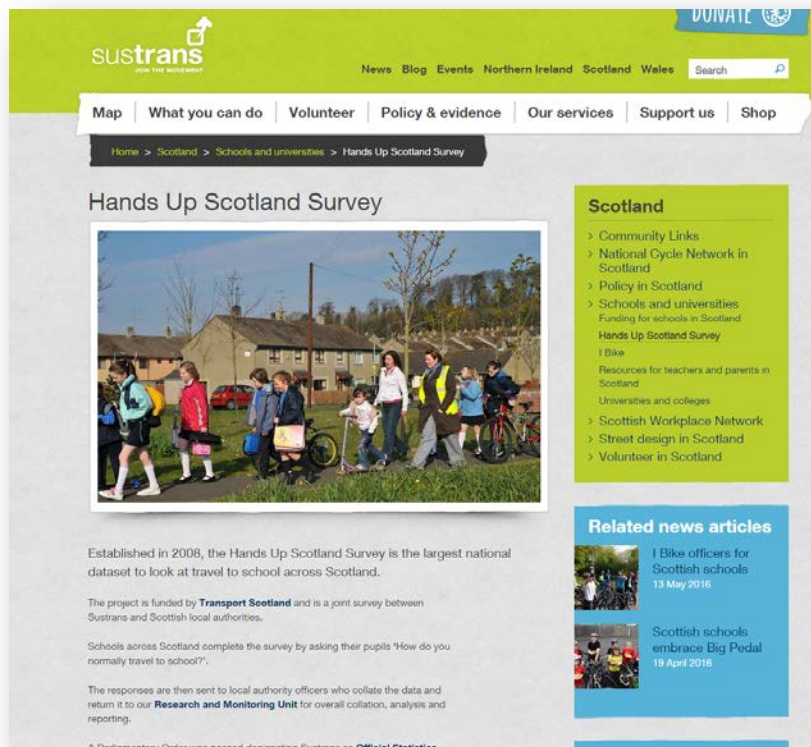


- 16,122 individuals registered with scheme
- 55% males; 36% females; gender could not be assigned by name for 9%
- Ratio of males to females of approximately 3:2
- 91% of users had Glasgow area postcodes

# Distributions of home address of registered users and rental locations



# Hands Up Scotland Survey 2015



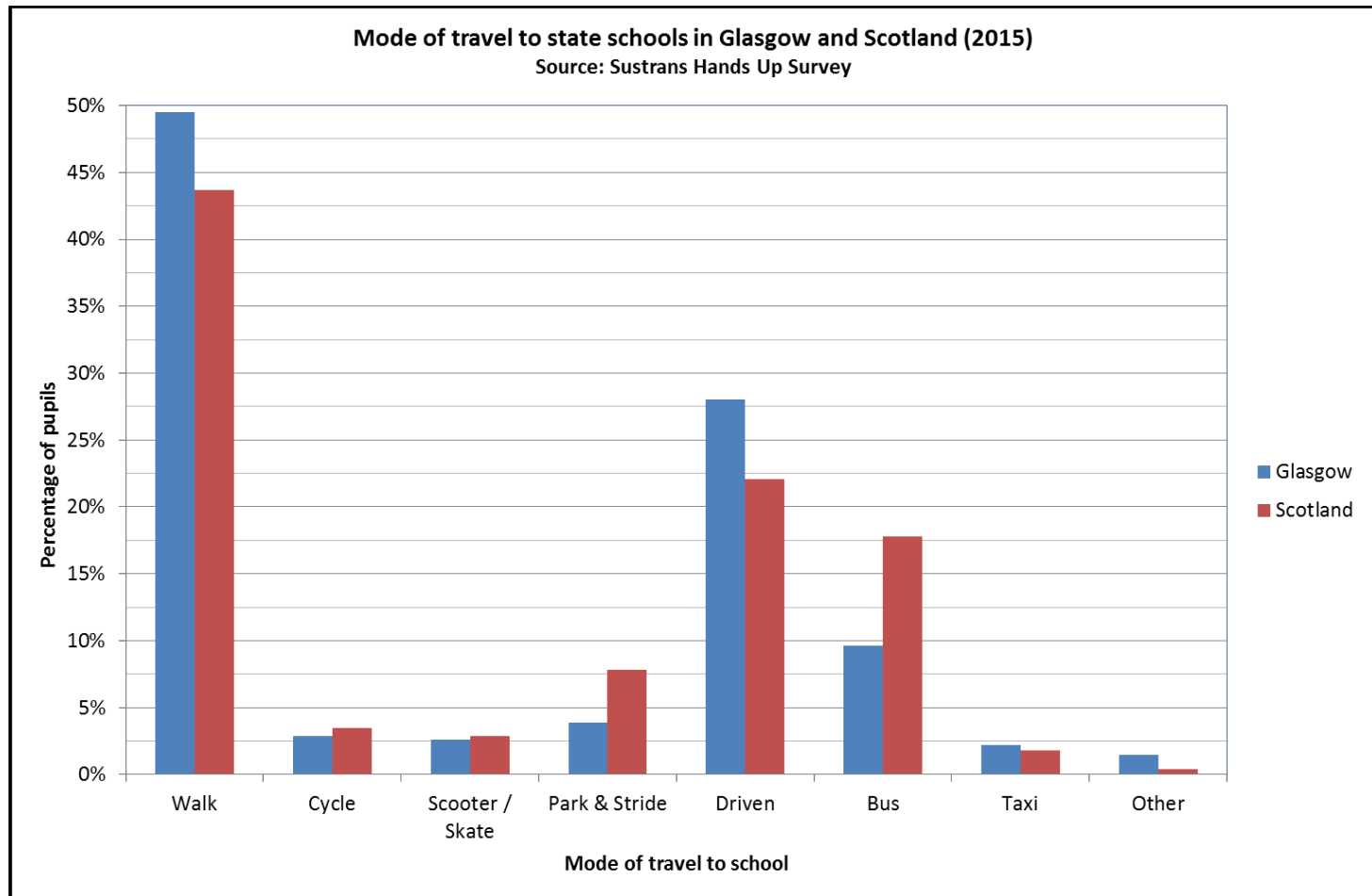
How do you normally travel to school?

Walk/Cycle/Scooter or skate/Park and stride/Driven/Bus/Taxi/Other



- All Glasgow primary and secondary schools in state sector invited to participate
- Responses from:
  - 101/139 primary schools, 21,477 pupils (53.65% of Glasgow primary pupils)
  - 15/31 secondary schools, 7,254 pupils (28% of Glasgow secondary pupils)

# Mode of travel to state schools in Glasgow and Scotland (2015)



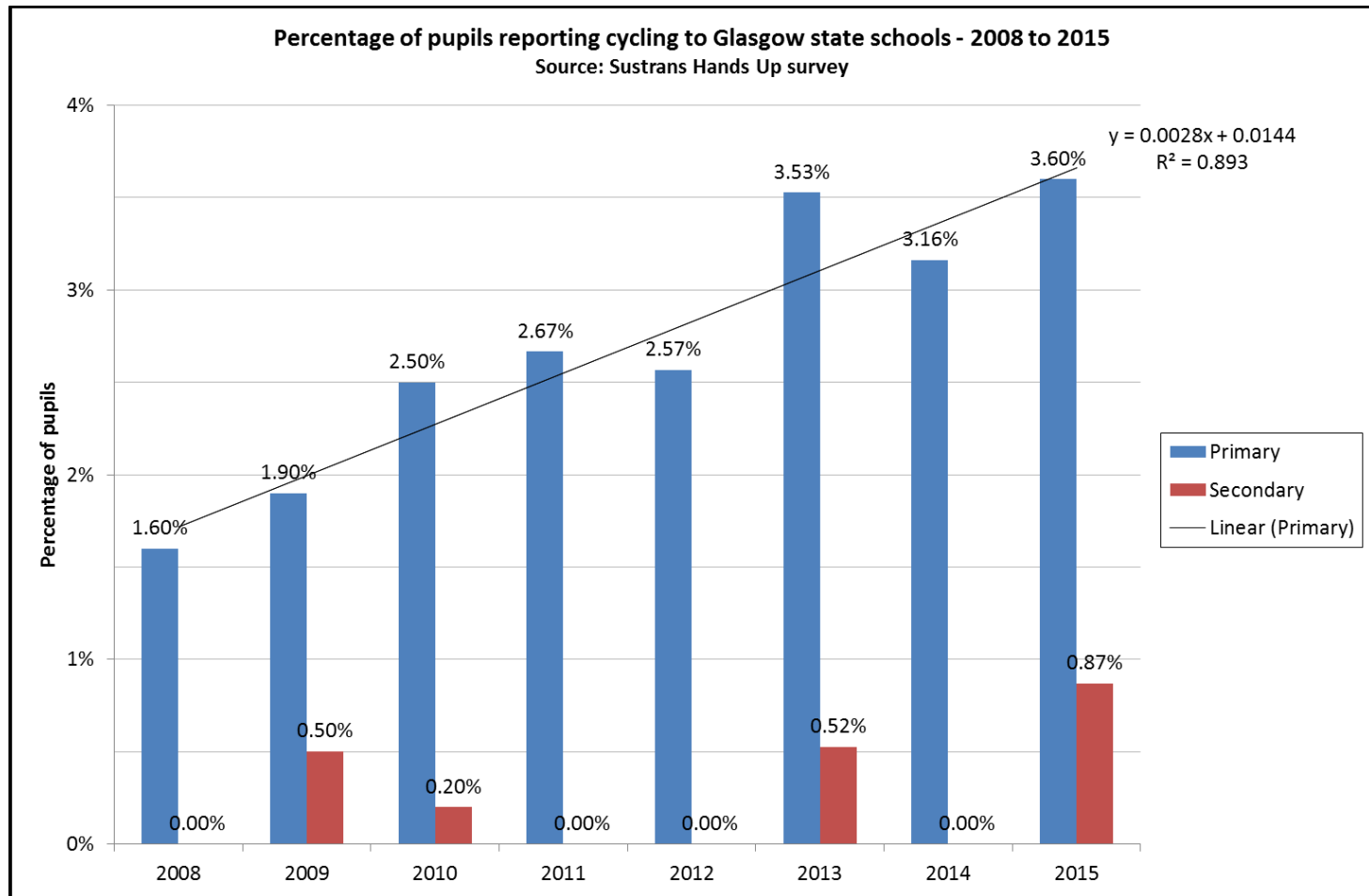


# Comparison of Glasgow with other urban centres (2015)

	Walk	Cycle	Scooter / skate	Total active travel	Park & stride	Driven	Bus	Taxi	Other
<b>Aberdeen</b>	52.0%	2.8%	1.9%	56.7%	7.5%	21.1%	13.0%	1.6%	0.1%
<b>Dundee</b>	48.0%	2.4%	2.2%	52.6%	10.0%	24.5%	11.5%	1.3%	0.1%
<b>Edinburgh</b>	54.4%	5.0%	6.2%	65.6%	7.3%	13.8%	12.7%	0.4%	0.3%
<b>Glasgow</b>	49.5%	2.9%	2.6%	55%	3.9%	28.0%	9.6%	2.2%	1.5%

- Glasgow is broadly comparable with Aberdeen and Dundee in terms of active travel, but levels are lower than in Edinburgh.
- Cycle levels are low in all cities, but Edinburgh has higher levels of cycling than the other cities

# Trends in percentages of pupils cycling to primary and secondary schools(2008-15)



# Children cycling to primary school(2015)

2015 data	Number of schools
No data reported	36
Reporting zero pupils cycling	14
Reporting between 1 and 4 pupils cycling	34
Reporting between 1 % and 5% of pupils of cycling	33
Reporting >5% of pupils cycling	20

School (area)	% cycling
St George's Primary School (North Cardonald & Penilee)	16.3
Battlefield Primary School (Langside & Battlefield)	10.0
Knightswood Primary School (Temple & Anniesland)	9.7
St Bridget's Primary School & Nursery Class (Baillieston & Gallowhill)	8.5
Carmyle Primary School & Nursery Class (Mount Vernon & East Shettleston)	8.4
Garscadden Primary School (Knightswood)	7.8
St Ninian's Primary School (Temple & Anniesland)	7.7
St Maria Goretti Primary School (Riddrie & Cranhill)	7.7
St Paul's (Whiteinch) Primary School (Anniesland, Jordanhill & Whiteinch)	7.6
St Fillan's Primary School & Nursery Class (Cathcart & Simshill)	6.5
Merrylee Primary School (Newlands & Cathcart)	6.4
St Philomena's Primary School (Blackhill and Hogganfield)	6.1
Mosspark Primary School & Nursery Class (Bellahouston, Craigton and Mosspark)	5.9
Hillhead Primary School (Hillhead & Woodlands)	5.6
Broomhill Primary School (Broomhill & Partick West)	5.4
St Vincent's Primary School (Arden & Carnwadric)	5.3
St Martha's Primary School (Springburn)	5.3
Sandwood Primary School (North Cardonald & Penilee)	5.2
Bankhead Primary School (Knightswood)	5.2
St Mirin's Primary School (Cathcart & Simshill)	5.1

# Children cycling to secondary school (2015)

2015 data	Number of schools
No data reported	14
Reporting zero pupils cycling	5
Reporting between 1 and 4 pupils cycling	7
Reporting between 1% and 5% of pupils cycling	2
Reporting >5% of pupils cycling	1



School	% cycling
Glasgow Gaelic School	6.6%
Hillhead High School	3.7%
Holyrood Secondary School	0.6%

# Summary

- Cycleways and the bike hire scheme – usage for commuting, number of journeys increasing.
- Interactions between these initiatives impacting on numbers?
- Glasgow cordon count shows increases in number of journeys overall, suggesting new infrastructure attracting new users.
- Growth in cycling among primary children but further work required in relation to secondary school pupils - addressed in Glasgow's strategic plan for cycling.



# Future research

- Further work needed to monitor cycleway usage over a longer period of time.
- Qualitative research required to understand who are the users and non users of the bike hire scheme, what are their views and perspectives of the scheme, and to find out more about the reasons for journeys being made and the routes taken.
- Work with individual schools to better understand HandsUp results. Look at what is influencing higher levels of cycling and consider feasibility for spread to other schools.



- Reports available from GCPH website  
<http://www.gcph.co.uk/publications>

- Further information:

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