

Regeneration & Culture

Report



Date: 20th August 2008
To: Bus Information Strategy Task Group
From: Philip Knott
Tel/Ext: 0116 2232195 / 392195
RE: Analysis of Early Departures of Buses at Timing Points

Background

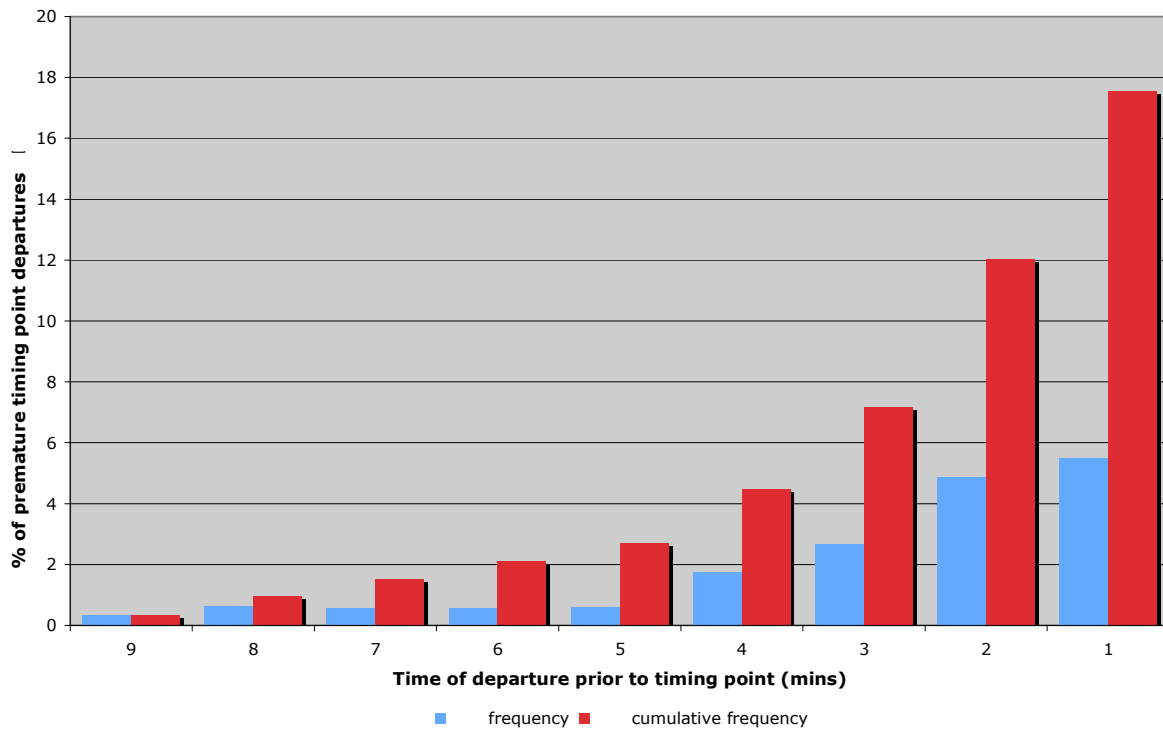
1. A presentation to Councillors, Campaign for Better Transport and other invited guests took place on 26th June 2008 at Area Traffic Control, York House to give an overview of the Star-trak real-time bus information system.
2. Some external criticism of the system had already been received and the presentation also served to respond to these and provide explanations of their cause. The presentation showed that the overall performance accuracy of the system was very good but the information presented to the public was in some cases misleading.
3. Central to this misleading information is the issue of timing points. It was shown that the bus operators deal with this in different ways, some choosing to mention it in their literature at bus stops and others not. It was generally accepted that bus users have little or no understanding of a timing point but the way that they are interpreted and modelled in the star-trak system is critical to its accurate predicting of times on signs.
4. The Traffic Commissioner, who regulates the bus industry and monitors operator performance, expects bus operators to achieve 95% of departures at timing points of between 1 minute early and 5 minutes late. A copy of the Vehicle & Operator Services Agency (VOSA) document – Practise Direction: Standards for Local Bus Services is also included with this report.
5. With regards to the Star-trak system, it is expected that a bus will wait at a timing point and only depart when that stated time is reached. In some instances, it has been shown that buses have been leaving before their due time. When this occurs, the information presented on signs (as far as the general public is concerned) is incorrect. This scenario goes some way to explaining why users report seeing 1, 2 or 3 minutes displaying on a sign as the bus passes. This also has the added disadvantage of affecting all the signs downstream of the timing point stop as well as helping to undermine users' confidence in the system.

Report

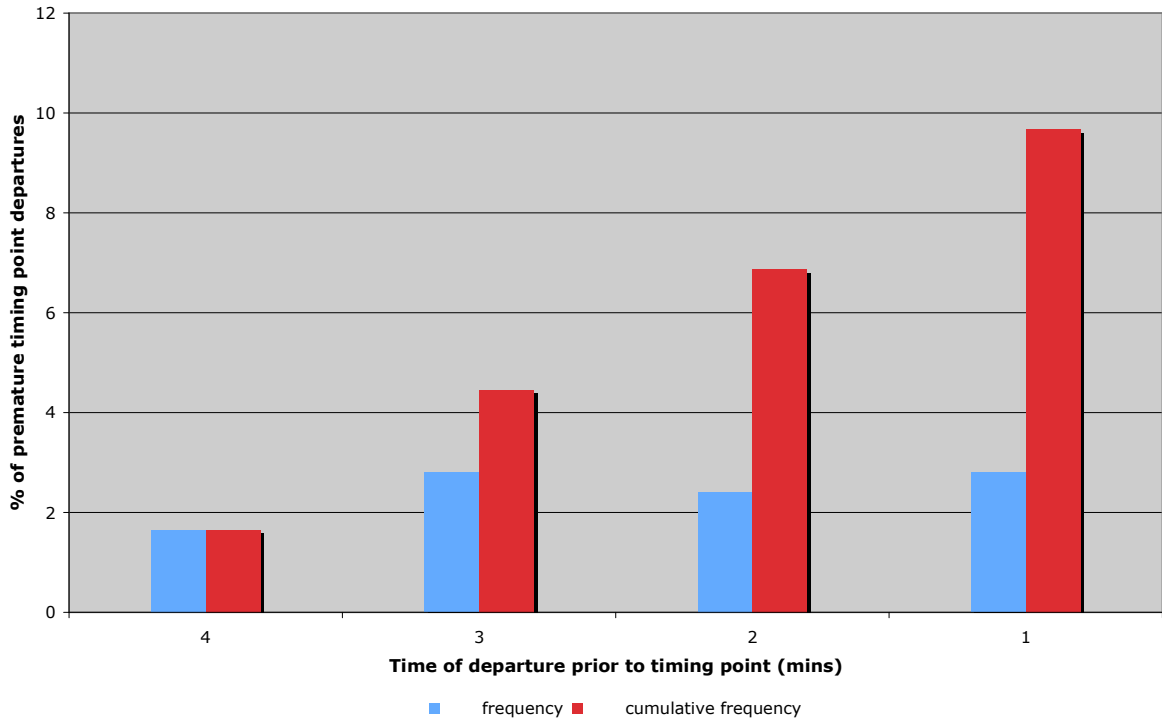
1. Analysis of the statistical data archived by the star-trak system was undertaken to ascertain the extent of early departures at timing points.
2. Although the Traffic Commissioner defines the acceptable departure window as between 1 minute early and 5 minutes late, for the purposes of this report, an early departure of 1 minute or greater has been used. This was chosen because all early departures from a timing point will negatively effect the information provided on signs.
3. It was decided to focus at this initial stage on four random routes, two from each operator over the calendar month of July 2008. The services chosen for analysis were Arriva Leicester routes 152/3 and 85 and First Leicester routes 22 and 38.
4. For purposes of the analysis, only the true timing points defined by each operator were used in the assessment. All other stops were excluded from calculations. Both combined inbound and outbound journeys were also used.
5. All early departures were included, whereas all on-time or late departures were excluded. In addition, data presented is based upon a 95th percentile range.

Results

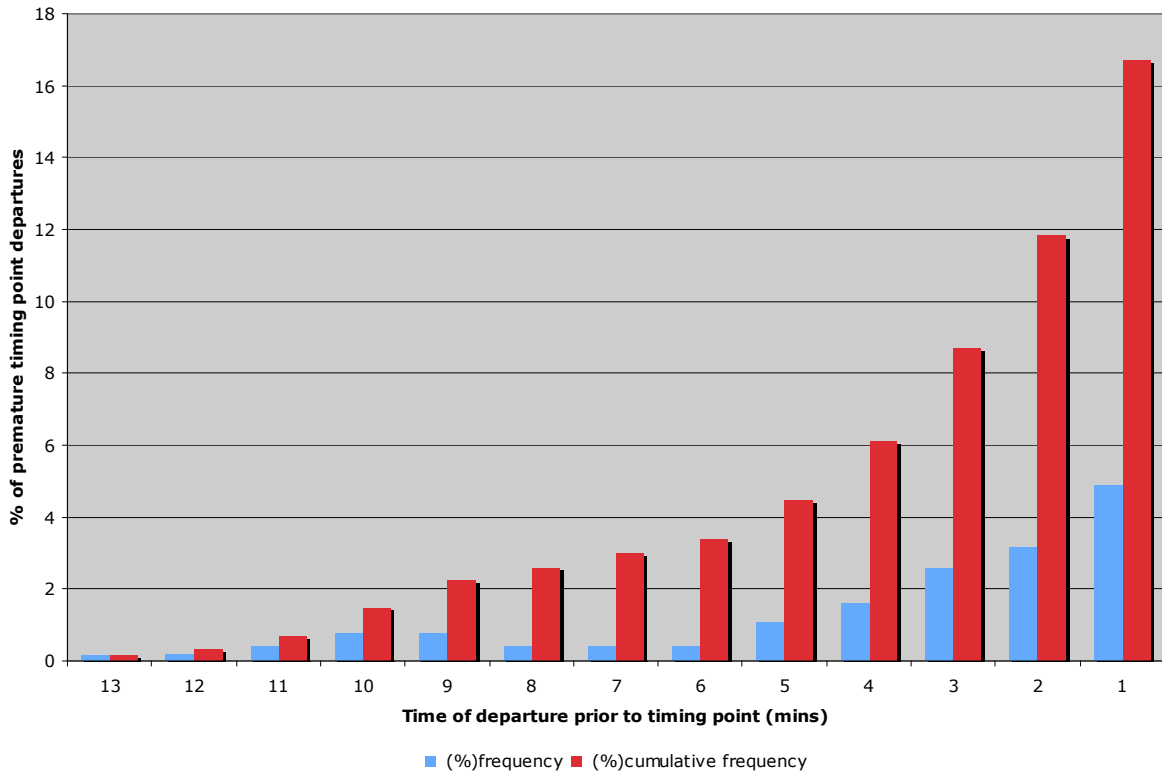
Arriva Leicester Services 152 & 153



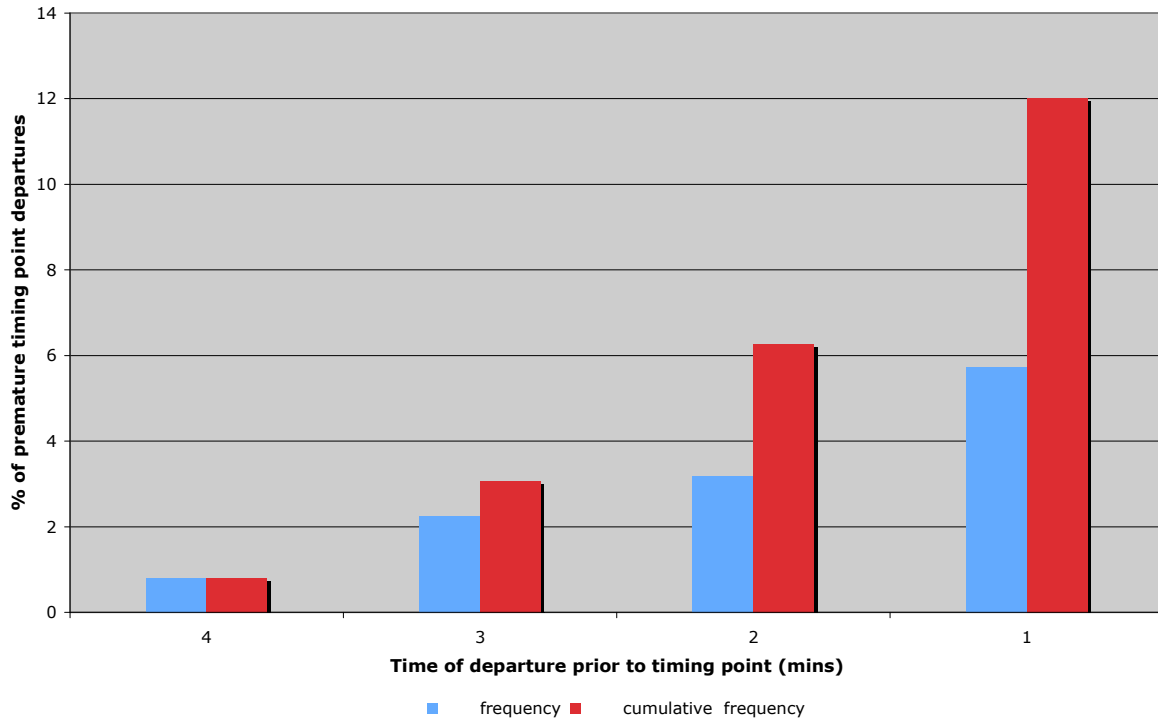
Arriva Leicester Service 85



First Leicester Service 22



First Leicester Service 38



Conclusions

1. It can be seen from the results that across the four routes, early departures from timing points account for 14% of all journeys made during the period of July 2008. In practical terms, for the First Leicester service 22 this accounted for over 1,800 trips out of a total of 10,980.
2. Whilst there is no agreed figure for acceptable performance between the Authority and the Bus Operators, it has been shown that any early departure from a timing point adversely affects the users' perception of the systems performance.
3. Even when observing the Traffic Commissioners standards and removing the 1 minute early column, the results still show an unacceptable level of early departures with cumulative results for 2 minutes and greater averaging 9% across the four routes.

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