

## Operational Taxi Data

### About This Reference Sheet

This Reference Sheet is for taxi companies in BC that:

- (a) are assembling materials for an [additional vehicles application](#); or
- (b) expect to make an additional vehicles application in the future.

The document describes the kinds of reports and information that may help applicants show whether a public need exists for more taxis. It includes information on data-reporting spreadsheets that the PT Board produced to assist applicants.

Taxi companies can also use this document to set up a system for collecting, storing and reporting data in a way that is beneficial and cost efficient for their business operations.

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## A. Data-Reporting Basics

### *What public need indicators are required for my application?*

Applicants must include evidence of public need for more taxis in their applications. See [Application Guide 3: I want to add more taxis to my fleet](#), for a full description of public need indicators that must be included. This Reference Sheet discusses operational taxi data, one of several types of public need indicators.

### *What spreadsheets are required for my application?*

For taxi licensees in urban areas with a population of 10,000 or more, the Board requires that applicants use the [Board taxi data spreadsheets](#) that includes a cover sheet and three data-reporting spreadsheets:

- Spreadsheet A: Trip Volume Report
- Spreadsheet B: Vehicles On-Shift Report
- Spreadsheet C: Response Time Report *(If your company does not have a computerized dispatch system with response time statistics, Spreadsheet C is not required.)*

The Board encourages licensees in smaller communities to use the spreadsheets too. Spreadsheets for Trip Volumes and Vehicle Usage can be completed with data that is collected manually. A computerized dispatch system is not required to collect this kind of data.

### *Can I use my own report instead of the Board spreadsheets?*

You can design and submit other reports **in addition to** the required spreadsheets, **not instead of them.**

### *What does the Board expect when it reviews the public need indicators I submit?*

The Board expects applicants to provide data and information:

- **That Shows the Big Picture** Include reports that show *overall* changes in your business. This may be total fleet statistics for trip volumes, changes in vehicle usage, customer service levels (e.g. response times), and other indicators.

- **That is Relevant to Your Specific Request** Include data that relates directly to the number and type of vehicles you are applying for (e.g. 2 wheelchair accessible taxis) and the rationale (e.g. inability of wheelchair accessible taxis to meet all requests).
- **That Shows Year-Over-Year Trends** Data of less than 24 consecutive months is not very meaningful because it does not show the full year-over-year trend. The Board expects 24-36 months of data. Applicants are responsible for supplying enough data to indicate a need for the fleet expansion they seek.

### *Do I just need to submit data?*

Data is important, but numbers alone do not tell the whole story. The Board expects applicants to explain how the data was collected and what it means. Include:

- **Background Information about Data Collection** Tell the Board about the computerized or manual systems you use to collect data, and how you convert raw data into summary reports. You are expected to disclose limitations or issues that are necessary in order to interpret the data accurately. For example, if data is not available for 1 week in March the prior year, note that in your application.
- **An Explanation of What Your Data Means** Better than anyone, you know what your statistics mean for your business and the market you operate in. Tell the Board about the changes that stand out in the data and what they say about your operation or market.
- **Raw Data for 1 Month** For each data report in your application, include raw data for one month so the Board can assess the validity and reliability of your summary reports. Keep raw data for other months in case the Board requests it later.
- **Calculations to Quantify the Number of Vehicles you are Requesting** State how you decided to apply for the number of vehicles you are requesting. If you used a calculation, include the formula in your application. This will help the Board understand your rationale.
- **Information That Connects Service Targets and Actual Performance** If your company has measurable performance targets, tell the Board and include the data you use to monitor performance.  
Spreadsheet C (Response Times report) helps applicants do this. Figure I shows options available for reporting the response time standard your company adopted. Appendix A provides more information about this performance target and how to report actual performance.

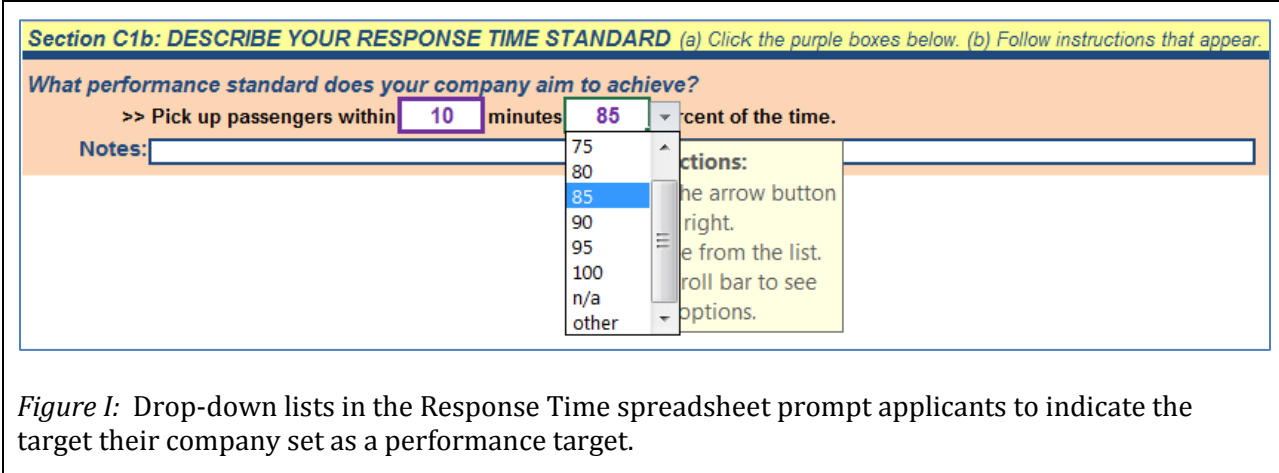


Figure I: Drop-down lists in the Response Time spreadsheet prompt applicants to indicate the target their company set as a performance target.

### B. PT Board Spreadsheets

What PT Board tools can I use to report my company’s operational data?

[Download the Board’s taxi data spreadsheet.](#) When you open this Excel workbook, you will find four tabs at the bottom (as shown in Figure II). Each tab opens one spreadsheet.

Labels for the tables (and spreadsheets) are listed below:

- Cover: Instructions & data information
- A. Trip Volumes
- B. Vehicles On Shift
- C. Response Times

Other 1**	150	155	160	165	170								
Other 2**	1,750	1,795	1,840	1,885	1,930	0	0	0	0	0	0	0	
Total	1,750	1,795	1,840	1,885	1,930	0	0	0	0	0	0	0	
2015	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	12 Month Total
Dispatch	940	960	980	980	1,000	980	1,030	1,020	1,040	1,060	1,050	1,080	12,120
Flag	470	480	490	490	500	490	510	510	520	530	520	540	6,050
No Loads**	70	80	90	90	100	90	110	110	120	130	120	140	1,250
Other 1**	135	140	145	145	150	145	155	155	160	165	160	170	1,825

Figure II: Use the tabs shown at the bottom of this excel workbook to access each spreadsheet.

What is the purpose of each spreadsheet?

The four spreadsheets are introduced below.

## **1<sup>st</sup> Spreadsheet: Instructions & Info**

This spreadsheet includes the following:

- Basic instructions on how the spreadsheets are organized and how to use them.
- Links to documents (including this one) about applying for additional taxis.
- Disclosure of changes, if any, that are made to calculations embedded in the spreadsheet.
- A space to input your company name and provide information about your dispatch system and the completeness of data you are reporting in your application.

## **2<sup>nd</sup> Spreadsheet: A. Trip Volumes**

The Trip Volume spreadsheet reports trip statistics for business volumes in different months and years. Data includes two types of trips:

- Completed trips (or ‘serviced trips’)
- Non-serviced trips (no shows or cancellations after a taxi is dispatched)

Trip Volume reports include the number of trips that were provided by vehicles whether or not the trip was completed with a passenger. This is because fleet resources have been used that would otherwise be used to provide passenger transportation.

## **3<sup>rd</sup> Spreadsheet: B. Vehicles ‘On Shift’ Report**

Spreadsheet B reports the number of vehicles that are used from one month to the next. As monthly vehicle usage statistics can be reported in different ways, you need to tell the Board when your report counts a vehicle “in use” for a particular month. Vehicles that are operated for 10 minutes on one day in the month should not be counted as “in use” for either the day or the month. The following method is suggested as a reasonable approach:

1. For each day, total the number of vehicles operated for 5 hours or more.
2. For each month, average the daily totals from Step 1.
3. Report the average for each month in Spreadsheet B.

This method shows changes in the number of vehicles used during a core period of the day. It excludes vehicles that are used only for a brief peak period that may not indicate need for more taxis. Spreadsheet B prompts applicant to declare the method of calculating vehicles on shift.

#### **4<sup>th</sup> Spreadsheet: C. Response Time Report**

The Response Time spreadsheet is not required if your taxi company does not use a computerized dispatch system.

Spreadsheet C reports the time it takes for taxis to respond to dispatch requests. The report includes requests that passengers make by phone or app. It excludes the following:

- non-serviced trips (cancellations and no-shows)
- flags or hails from the street
- trips originating from taxi stands (e.g. at airports or a cruise ship terminal)

As well, you need to know how your dispatch system records response times when a trip is booked in advance. If response times are measured from the time an advance booking is requested (e.g. 12 hours in advance), this will skew the results in your response time report. For this reason, Spreadsheet C asks when the dispatch system starts (and stops) measuring response time.

As noted above, Appendix A (“Measuring Response Time Performance”) provides guidance for reporting response time targets and calculating actual performance.

#### ***Can I Use the Board Spreadsheets More Than Once?***

Yes.

Spreadsheets have drop down menus that let you describe the data you are reporting. This means you can use the same spreadsheet to create a report for your whole fleet, one type of vehicles in your fleet, or operation at a defined time of the day or week.

### *What is needed to create a report with the Board spreadsheets?*

- Microsoft Excel (2003 or later) and basic familiarity with excel spreadsheets
- A source of reliable data about your operation (e.g. computerized dispatch system or accurate trip sheets)
- Moderate or advanced skills and tools (e.g. dispatch systems and/or Excel) for converting raw data into monthly totals or averages. These skills may exist inside your company or require outside help (e.g. a contractor or services provided by the dispatch company).

### *How are the Board spreadsheets organized?*

The first spreadsheet provides basic instructions for inputting information and data. This part of this Reference Sheet introduces the four sections of Spreadsheets A, B and C.

#### **Section 1: Data Description**

At the top of page 1, use the drop-down lists and written-notes section to describe the data you are presenting. For example, the drop down lists can specific that the data is for the “full taxi fleet,” “all types of passengers,” at “peak periods,” “Friday to Sunday” at times specified in the notes.

#### **Section 2: Data Input**

Also on page 1, input the monthly data you have in Section 2.

Annual totals or averages will appear only after you input 12 months of data for the same calendar year. However, there is no requirement to start in January and end in December each year.

After you complete Sections 1 and 2, you will notice that Sections 3 and 4 update automatically.



### Section3: Automatic Data Summaries & Analysis

This section generates a summary for each type of data you report (e.g. flag trips). It converts monthly numbers to percentages. And it makes year-over-year comparisons of same-month data (e.g. March 2014 and March 2015) to avoid distortions caused by seasonal changes in the taxi business.

The spreadsheets use all the data you provide whether it is 26 months or 39 months. Calculations in this Section, as well as Section 4, count as 1/12 of a year.

### Section 4: Automatic Overview & Analysis

Section 4 gives you an overall summary of data in the report. Depending on the data and application, the Board may focus on this section when it reviews your application.

Figure III provides an example of Section 4 of the Trip Volumes spreadsheet.

Section 4: AUTOMATIC OVERVIEW & ANALYSIS													
Total Trip Volumes													
Summary of Monthly Data													
Total	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	12 Month Total
2015	1,750	1,795	1,840	1,885	1,930	0	0	0	0	0	0	0	0
2014	1,615	1,660	1,705	1,705	1,750	1,705	1,805	1,795	1,840	1,885	1,850	1,930	21,245
2013	1,525	1,525	1,570	1,615	1,705	1,705	1,660	1,615	1,660	1,745	1,700	1,810	19,835
2012	0	0	0	0	0	0	1,700	1,660	1,620	1,660	1,620	1,700	
2011	0	0	0	0	0	0	0	0	0	0	0	0	
2010	0	0	0	0	0	0	0	0	0	0	0	0	
Same Month Comparisons (Year-Over-Year)													
Total	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Weighted Totals
2014 to 2015	8%	8%	8%	11%	10%								3.8%
2013 to 2014	6%	9%	9%	6%	3%	0%	9%	11%	11%	8%	9%	7%	7.1%
2012 to 2013							-2%	-3%	2%	5%	5%	6%	1.2%
2011 to 2012													
2011 to 2012													
Months of Data:		<b>35</b>		Same-Month Comparisons:		<b>23</b>		Overall Trip Volume Increase:				<b>12.1%</b>	

Figure III: The Automatic Overview & Analysis is found at the bottom of the Excel reports. This section may be a focal point when the Board reviews your application. In this example, monthly year-over-year changes (shown as 23 percentages) are each given a weighting of 1/12 to calculate the overall change in trip volume (12.1% in this example).

### Can I customize the spreadsheets?

Yes. There are two ways to make changes:

1. **Customize Data Labels** Spreadsheets allow you to change data labels to suit your operation and the data you have, Simply change any of the black text in section 2 of

any of the spreadsheets. For example, airport trips can be added to the trip volume report (in addition to “flag” and “dispatch” trips).

2. **Modify Cells** You can modify content and underlying calculations in the cells. However, this requires advanced skills in Excel and is not recommended. Also, if you change the calculations, you must identify the changes (on the first spreadsheet) and give your reason for the change.

### ***Can I view the formulas in spreadsheet cells?***

Yes.

Spreadsheets are protected to prevent inadvertent changes. This means you must “unprotect” the spreadsheet before you can view the formulas. To do this, click the following: Home > Format > Protection > Unprotect Sheet.

Leave the password blank as the spreadsheets are not password protected.

## **C. Other Types of Reports**

Applicants may supplement PT Board spreadsheets with their own reports. This section describes some reports you may consider or create.

### ***Trips Per Vehicle Report***

Statistics reported in the Trip Volume and Vehicles On Shift spreadsheets can be combined to calculate *average trips per vehicle per hour*. This type of report may be used to indicate fleet usage and productivity.

### ***Driver Sign On Report***

A Driver Sign On report can show the hours that drivers are signed into the dispatch system in a day or month. It can show changes in fleet usage (e.g. hours per day) to supplement a Vehicles ‘On Shift’ report (e.g. number of vehicles per day). A Driver Sign On report may help identify time periods when your taxi fleet is operating at full capacity.

Comparing this data for different years may show changes in fleet usage and the duration of periods when requests exceeds the number of drivers and vehicles available.

If you produce this type of report, tell the Board whether all drivers are required to sign on to the dispatch system when they are working. Without this information, the Board cannot assess the usability of a Driver 'Sign On' report. For example, the report may not be reliable if drivers are picking up flags only and not signing on to the dispatch system.

### ***On Time Report for Pre-Booked Trips***

Pre-booked trips usually represent a small portion of taxi trips. However, a company can monitor its on-time performance with a report designed specifically for pre-booked trips. If a customer pre-books a pickup at 10:00 am, the taxi should arrive at 10:00 a.m. or earlier. This would register a 0 second delay and indicate excellent on-time performance. A 5-minute delay may be considered poor for a pre-booked trip, but good for a dispatched trip.

An on-time report will be affected by whether your dispatch system records "arrival" events. If not, the "meter on" event would be used. The use of this event limits your ability to measure on-time performance because the "meter on" event includes the time it takes passengers to enter the taxi. If you produce this type of report, disclose the event that the dispatch system uses to mark the taxi's arrival.

### ***Fare Revenue Reports***

Generally, the Board does not accept taxi fare revenue reports as a public need indicator. This is because revenues that taxi licensees receive are often based on flat fees for leases or dispatch services, or only a portion of fare revenues (e.g. debit and credit card receipts only). Applicants who want the Board to consider fare revenue as a public need indicator need to describe in detail how the fare revenue information was gathered and how it indicates public need.

### ***Call Taker and Phone Data Report***

Call taker reports show the number of calls that are received or dropped during defined periods (e.g. one hour bands, or for core periods of a shift). They are not the same as trip volumes and may include duplicate call backs as well as administrative calls that are unrelated to need for taxis.

However, a spike in caller wait times at a particular time of the day may help identify periods when company resources cannot handle the requests for taxicabs. Potentially, an hour-by-hour comparison of call-taker statistics and trip volume statistics could identify the duration and frequency of periods when taxicab use is maximized.

## **D. Setting Up a Data Collection System**

Dispatch systems are mainly used to connect drivers and passengers. They are often sophisticated and well-tuned for this purpose. The collection of statistics about an operation's longer-term performance is usually secondary. To access the full informational potential of existing or new systems, some optimization is usually required.

Use this section as a guide for proactive steps that your company can take to ensure the dispatch system is collecting the performance data you are likely to use in the future. This section emphasizes steps that can enhance efficiency and effectiveness when preparing additional taxi applications.

### ***Does my company need to keep statistics?***

For most companies, the answer is yes. If your company applies for additional taxis in the future, you need to collect reliable statistics about your operation far in advance.

### ***Can data be collected manually?***

Yes. Most taxis in BC are connected to a company's central dispatch system that automatically collects taxi data. However, a number of small operators do not. These companies may be in smaller communities or larger cities. Whether data is collected automatically or manually, the same principles apply. Applicants are expected to describe how data is collected, provide samples of original data, and report the data in an

understandable, usable way. The Board needs enough information about the data and its collection to assess its reliability.

### *How can I be sure that my dispatch system collects data I need?*

Optimize your system by taking these steps:

- Configure dispatch system attributes so you are measuring the most important segments of your operation
- Set up a cost-efficient way to access summary statistics or archived data over multiple years
- Familiarize yourself with standardized definitions the Board uses to describe taxi operations and performance

These steps are discussed in the remainder of this section.

### *Dispatch System Attributes*

Dispatch systems use data-collection attributes to identify particular services for statistical collection purposes. This enables taxi companies to track changes in services it manages as part of the overall operation. Most dispatch system have built-in attributes and capacity for companies to set custom attributes. To ensure that attributes are used consistently, attributes should be:

- associated with significant transportation services
- well defined
- few in number
- implemented with sufficient training for call takers

The integration of central dispatch systems and new dispatch technologies (e.g. mobile apps and interactive voice recognition) often requires synchronization of attributes.

Table I describes attributes that are relevant to additional vehicles applications. Taxi companies with dispatch systems should review the list and adjust its custom attributes as needed.

***Table I: Common Dispatch System Attributes Relevant to Additional Taxi Applications***

<b>Name</b>	<b>Description</b>	<b>Type</b>
Airport	Trips originating at the airport	Flag
Crew Transportation	Crew transportation provided under contract.	Dispatch
Freight or Cargo	A vehicle is requested to transport large items	Dispatch
Pre-Booked	A passenger requests pickup at a specified time (at least 30 minutes in the future).	Dispatch
“Van” or “5-Seater”	A vehicle is requested with extra seating capacity.	Dispatch
Wheelchair Van	A person requires a wheelchair accessible van to travel in their wheelchair or scooter.	Dispatch

### ***Long-Term Storage of Statistics***

Central dispatch systems tend to retain collected data for 3, 6 or 12 months. Afterwards, data is usually over-written. It can be expensive to retain a large volume of raw data for longer periods. When applying for additional taxis, data is needed for longer periods to show year-over-year trends. This means that taxi companies usually need to take proactive steps to set up an archive system, either manually or automatically. As an option, storing monthly statistics or a monthly summary report can cost less than keeping raw data.

Taxi companies can take the following steps:

1. Contact your dispatch company or a consultant to archive raw data on a periodic basis (e.g. monthly or quarterly).
2. Contact your dispatch system or a consultant to save or archive monthly statistics that can be used to generate reports later.
3. Manually print a set of monthly statistical reports at the end of each month and save them for use later.

### ***Data Definitions***

Standardized definitions are listed in Table II to enable more precise communication between the Board and applicants about taxi data. Definitions are limited to terms that describe data reported in applications for additional taxis.

**Table II: Taxi Data Definitions**

<b>Term</b>	<b>Definition</b>
<b>Arrival Event</b>	<b>The time when the taxi arrives at the customer's pick-up location.</b> <i>Note: Some dispatch systems that record arrival time also record GPS location information.</i>
<b>Dispatch Event</b>	<b>The time when a customer's request for a taxi is entered into the central dispatch system.</b> <i>Note: The event described above is sometimes referred to as the <b>call-out</b>. Central dispatch systems often use a dispatch event to start measuring response time. Spreadsheet C (Response Times) asks applicants to indicate when its system starts (and stops) measuring response times.</i>
<b>Dropped Request</b>	<b>A trip request that is cancelled or terminated before "trip acceptance" by a driver.</b>
<b>Meter-On Event</b>	<b>The time when passengers are securely seated in the taxi and the taxi meter is activated.</b>
<b>Non-Service Trip</b>	<b>A dispatch trip that a driver accepted that did not result in a meter-on event.</b> <i>Note: Non-service trips include <b>no-shows</b> and <b>cancelled trips</b>. They are sometimes called '<b>no loads</b>.'</i>
<b>Pre-booked Trip</b>	<b>A customer request for a trip with a specified pick-up time that is booked at least 30 minutes in advance.</b>
<b>Response Time</b>	<b>The time between the <i>dispatch event</i> and either the <i>arrival</i> or <i>meter-on event</i>.</b> <i>Note: It is preferable to mark the end of a trip's response time by the arrival event. However, only some dispatch systems record this event. The Response Time spreadsheet asks applicants to indicate which event marks the end of the response time.</i>
<b>Serviced Trip</b>	<b>A trip that results in a meter-on event.</b> <i>Note: Serviced trips are sometimes called '<b>completed trips</b>.'</i>

## **E. More Info**

### ***Is my data confidential?***

Generally, the Board does not require data to be disclosed to submitters or other people unless the Board:

- is responding to a request made pursuant to the Freedom of Information and Protection of Privacy Act,
- sets the application down for a public hearing, or

- views disclosure as necessary as part of its review of an application.

If operational data is disclosed, Board policy is to regard data related to actual number of trips as proprietary and, therefore, confidential. Data about numbers of vehicles on or off shift is not confidential and may be disclosed. Data submitted as percentages may be disclosed and included in published decisions.

### ***Can I submit my data electronically?***

Yes. If you have a large volume of data or documents, the Board encourages electronic submission. Depending on the size of your files, you may [email](#) them or courier a USB drive to the [Passenger Transportation Branch](#) in Coquitlam.

Use common file formats such as Excel, Word, or PDF. We recommend that files be labelled with the name or initials of your company. If you are sending other application documents separately, please note that in your cover letter.

### ***Where can I get more information about applying for more taxis?***

See the [Add Vehicles to a Taxi Fleet](#) web page. In particular, see [Application Guide 3, I want to apply for more taxis](#).

### ***Can I suggest improvements?***

Yes. We welcome feedback that can help us improve this guide and the data reporting tools. Feel free to send corrections, critiques or suggestions to Board staff at [ptboard@gov.bc.ca](mailto:ptboard@gov.bc.ca). The Board reviews its application materials periodically and feedback from people who used them is very helpful.

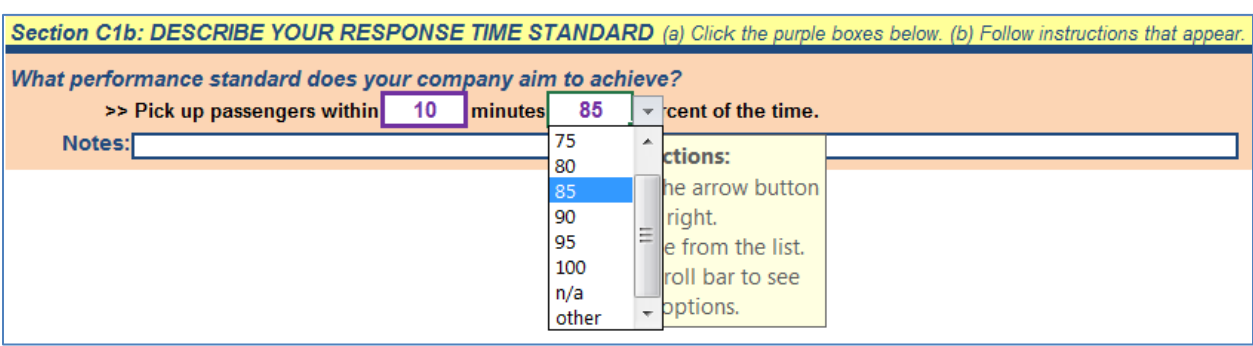


## Appendix A: Measuring Response Time Performance

Spreadsheet C (Response Time Report) prompts you to report your company's response time target and past performance on response times. This Appendix shows you how to use Spreadsheet to report your target and actual performance.

### Response Time Target

Let's say your company aims to pick up passengers within 10 minutes or less 85 percent of the time. Figure I is reprinted below to show the drop down lists you can use to report your company's performance target.



**Section C1b: DESCRIBE YOUR RESPONSE TIME STANDARD** (a) Click the purple boxes below. (b) Follow instructions that appear.

What performance standard does your company aim to achieve?

>> Pick up passengers within **10** minutes **85** percent of the time.

Notes: \_\_\_\_\_

75  
80  
**85**  
90  
95  
100  
n/a  
other

Instructions:  
The arrow button  
right.  
Click the  
roll bar to see  
options.

Figure I: Drop-down lists in the Response Time spreadsheet prompt applicants to indicate the target their company set as a performance target.

### Actual Response Time

To report actual performance, complete Sections 1 and 2 of Spreadsheet C. But first you need to find out the maximum response time for the shortest 85% of your trips. To do this, you can use your own Excel spreadsheet to calculate the 85<sup>th</sup> percentile for each month of data.

For example, your company completed 1000 trips in March 2015. What is the 85<sup>th</sup> percentile for those 1000 trips?

First, export the response times for those 1000 trips from your dispatch system to a blank Excel spreadsheet. You could sort the response times from the fastest response time to the

slowest. The 85<sup>th</sup> percentile would be the response time for trip number 850. If that trip took 16:30 (16 minutes, 30 seconds), the response time for 85 percent of the trips would be 16:30 or less. This is your company’s 85<sup>th</sup> percentile for March 2015.

However, Excel gives you an easier way to calculate the 85<sup>th</sup> percentile in a list. Let’s say that you listed trip response times in cells D1 through D1000. You would enter the following formula in Cell D1001:

=PERCENTILE(D1:D1000,0.85)

The selected percentile must be entered as a decimal (e.g. “0.85”)<sup>1</sup>. The result is 16:30.

After calculating percentiles for each month, enter the data in the spreadsheet as shown in Figure IV. Please note that trip times are reported in minutes using a decimal (e.g. 16.5 minutes).

<b>Section C2: INPUT YOUR DATA.</b> Type data in blank cells. If you want to customize the report, overwrite the black text.													
<b>2015</b>	<b>Jan.</b>	<b>Feb.</b>	<b>Mar.</b>	<b>Apr.</b>	<b>May</b>	<b>Jun.</b>	<b>Jul.</b>	<b>Aug.</b>	<b>Sep.</b>	<b>Oct.</b>	<b>Nov.</b>	<b>Dec.</b>	<b>12 Mo. AVG.</b>
Average Time	15.0	14.0	13.5	14.2	13.7								
<b>85th Percentile</b>	<b>19.0</b>	<b>18.0</b>	<b>16.5</b>	<b>17.2</b>	<b>16.8</b>								
Trips 0 - 10 min.	500	510	520	530	540								
Trips 10 - 15 min.	100	110	120	130	140								
Trips > 15 min.	150	155	160	165	170								
<b>Monthly Totals</b>	<b>750</b>	<b>775</b>	<b>800</b>	<b>825</b>	<b>850</b>								

*Figure IV:* In this example, the Response Time spreadsheet automatically displays the data label “85<sup>th</sup> Percentile” to match the response time target you choose in Spreadsheet C (See Figure I.)

<sup>1</sup> Excel 2007 (or later) or Excel for Mac 2011 (or later) may be required to use the PERCENTILE function. In more recent versions of Excel, the PERCENTILE.EXC may be used instead. Use “Excel Help” (accessible from Excel) to get more information about the use of percentile functions.