

InfoSheet: Estimating audience size

This InfoSheet covers why and when you might need to estimate audience size, looks at different methods of doing so, and highlights the importance of robust figures. Visitor estimates can be split into two types – predictions of how many people will attend and estimates of how many people actually attended – both of which are discussed here.

There is real value in being as accurate as possible in estimating audience size, and to do it well requires thought and planning. It is important to consider why you need to do it, what resources you have to hand, and which approach will give you results a good level of clarity.

If you're coming to estimating audience size for the first time, we recommend reading through this whole InfoSheet first, reflecting on what you really need and then looking back at the document to choose the best approach.

1. Why do I need to estimate audience size?

For outdoor events and festivals (and indeed events full stop) the size of the audience is usually a key piece of data – for planning your event, evaluating its success, and reporting to funders and partners.

Planning

Estimating the number of people you expect to attend your event or festival is a key part of the planning process. Not only will you usually be expected to give an indication of numbers of attendees when applying for licenses, funding, sponsorship and so on, but it's vital in planning facilities, staff requirements, transport needs etc. Getting this estimate as accurate as possible is really important: If the number you estimate is lower than actually happens, facilities may be over-subscribed, your event may be too crowded or you may have to turn people away; if your estimate is too high you may have spent money on facilities you didn't need and it could be difficult to show the success of your event, from an audience-size point of view. Either way, in logistical and financial terms, it pays to accurately calculate expected audience size. Some tips on how to do this are in the next section 'Estimating before the event'.

Evaluating and reporting

Any estimate of audience size is a good start, but it's important to be able to describe why you chose that method. If you can show that you have used a robust method for estimating the size of the audience, your evaluation and reporting as a whole will be much stronger, and so be much more useful for planning future events and demonstrating the success of your event.

Beyond estimating a number as an end in itself, one area of evaluation which depends on having an accurate audience size estimate is surveying your audience. It's important to a) make sure you are speaking to enough people to get a representative sample of the audience and b) be able to give margins of error in any of your findings¹. See [InfoSheet: Sampling](#) for more information.

¹ For example, if you surveyed 200 people from an estimated audience of 500 your results will be accurate to within about $\pm 5\%$. But if your event had an estimated audience of 2,000 your margin of error would be around $\pm 7\%$, and your findings would therefore be less robust.



2. Estimating before the event

In the planning stages of your event, consider the following when estimating your likely audience size:

- **Previous events** – if you’ve put on the event in previous years, how might this one compare? Think about content (likely to be more popular? More specialist or niche?), timing (does it clash with any other events? Could it capitalise on warmer weather?), marketing spend, retention of audience from previous events etc.
- **Similar events** – if you have not put on this event before, think about other similar events. How many people did they attract? What elements do they share with your event? The organisers of other events may be able to help with your estimates.
- **Capacity** – if you have determined the location of your event, what is its capacity? If you expect the audience churn to be low, your audience size is unlikely to be larger than your capacity.
- **Churn** – over the course of your event, will visitors be likely to stay for the whole event or just 20 minutes? If a high churn of audience members means more people can attend over the course of the day than the capacity of your venue holds at any one time, you will have a larger audience than the capacity of your venue might suggest.

As well as being a key part of your planning, having a good idea of expected audience numbers will also help plan the best way to estimate on the day/sample on the day etc. For instance, if you are expecting lots of people you might need to allocate more people to carry out headcounts.

3. Estimating during the event

It can be difficult to get a good estimate of your audience size whilst your event is underway, so it’s vital that you choose the most appropriate method for your event, based on the nature of your event, the resources you have available, and how accurate your estimate needs to be. Not only will this ensure you come away with the most accurate estimate possible, but you will also be able to explain how you came up with your estimate to funders or other bodies – this in turn will make your results much more credible.

Method	Pros	Cons
Stickers Hand a sticker to each person entering your event. At the end of the day see how many stickers remain.	<ul style="list-style-type: none"> • Easy to administer • Fun for your audience • Can brand stickers to enhance event identity • Small margin of error 	<ul style="list-style-type: none"> • Only suitable if your site has defined entrance points • Can cause congestion if lots of people arriving at same time

Method	Pros	Cons
<p>Clickers Have counters on each entrance point counting people entering the site. These could either be manual clickers or automated counters.</p>	<ul style="list-style-type: none"> Fairly easy to administer May already have to do this for health and safety reasons Unambiguous, doesn't rely on other information sources such as surveys, crowd density or churn 	<ul style="list-style-type: none"> Only suitable if your site has defined entrance points If you are using automated counters, be aware of over-counting Can be difficult to count if lots of people arriving at same time People leaving the site and re-entering may be counted as two audience members
<p>Exit count Rather than counting the numbers of people entering your site, count the number of people leaving, using stickers or clickers</p>	<ul style="list-style-type: none"> Useful if you expect lots of people to arrive at the same time, but to exit over a longer period of time Reduce double-counting by asking people if they plan on coming back in later 	<ul style="list-style-type: none"> Only suitable if your site has defined entrance points If you are using automated counters, be aware of over-counting Can be difficult to count if lots of people leaving at same time
<p>Headcounts At key points in the day, do a headcount of the site. Combine this with your average dwell time (either from a survey or from estimates based on observation.)</p>	<ul style="list-style-type: none"> Useful where site doesn't have defined entrances and exits Relatively simple to brief staff or volunteers to do 	<ul style="list-style-type: none"> Quite time intensive Only suitable if your site has defined entrance points Relatively large margin of error Need to know dwell time for best estimates
<p>People per square meter Estimate the density of people at your event, and then times it by the size of your site. You will need to take into account density at different points and churn.</p>	<ul style="list-style-type: none"> Useful where site doesn't have defined entrances and exits Very simple if you have a good idea of crowd density and site size Crowd density estimates already exist for scenarios such as concerts and parades 	<ul style="list-style-type: none"> Need to have an accurate estimate of density; any errors magnified once multiplied across the site Density may vary throughout your site and throughout your event's duration Doesn't work well when density is low
<p>Photographs Similar to doing a head count, take photographs throughout the event from a good vantage point.</p>	<ul style="list-style-type: none"> Useful where site doesn't have defined entrances and exits May be better than a headcount if there are lots of people in a small space 	<ul style="list-style-type: none"> Good if you have multiple entrance points Photographs have to be of good quality

Method	Pros	Cons
<p>Sales Record the number of drinks (for example) sold and combine this with how many drinks the average survey respondent had – which you would find out from an audience survey</p>	<ul style="list-style-type: none"> • Useful where site doesn't have defined entrances and exits • Requires little additional time or resources if a survey is already being done 	<ul style="list-style-type: none"> • Depends on a good number of responses to the survey (typically at least 250) and a representative sample
<p>Programmes Keep a record of how many programmes are distributed and ask on your survey if people received a programme.</p>	<ul style="list-style-type: none"> • Good if you have multiple entrance points • Little extra resource needed • Programmes can be distributed at entrances or throughout the site • Can still be used without a survey by assuming a certain % of visitors received a programme 	<ul style="list-style-type: none"> • Need to note when groups share a programme • Helps to have an idea of the average number of 'users' a programme has throughout the day i.e. how many people shared or passed on programmes

Calculating churn on the day

By counting the number of people who leave per hour as well as the number who enter, you can work out the churn. This can help with better estimates, especially if you use headcounts, people per square meter or photographs.

Extra tips

If you are using a methodology which depends on defined entrances/exits and don't have enough staff or volunteers to have people on every entrance/exit, you might still be able to get a good estimate. If you know, for instance that the entrance on which you have someone (let's call it entrance A) tended to be about twice as busy as the other two entrances (B and C), the total audience size can be calculated as follows:

$(\text{Number through entrance A}) + (\text{number through entrance A divided by 2}) + (\text{number through entrance A divided by 2}) = \text{total audience}$

Of course, to know that entrances B and C tend to be half as busy as A would need some observation, but perhaps would not require someone on these entrances for the duration of the event.

Managing the process

Although some of these techniques are less time-intensive than others, it's important in all cases that the person or people responsible for carrying out the estimation are properly briefed and given the necessary time and equipment. It may be asking too much of staff or volunteers to collect good quality estimates whilst carrying out other duties, so make sure you dedicate enough people to the task.



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