Traffic allocation and distribution

This article will help you:

- Understand the Optimizely approach to traffic allocation and distribution
- Send traffic to a "winning" variation

Traffic allocation and distribution help you control how much of your site traffic enters an experiment or a variation.

In Optimizely, **traffic allocation** is the percentage of eligible traffic that enters your experiment. If you allocate 75% of your visitors who meet your audience conditions to an experiment, 25% of eligible visitors won't see the experiment at all.

**Traffic distribution** is the percentage of traffic that's split among different variations. A 50/50 split means that approximately 50% of your visitors will see the original and approximately 50% will see the variation. We recommend an even split for traffic distribution because external effects on traffic or conversions will disproportionately affect variations with less traffic.

For example, you might show an experiment to 80% of visitors (allocation), then divide those visitors so that 50% see the original site and 50% see the new variation (distribution). Of the visitors who come to your website, 20% won't see the experiment at all.

Traffic distribution expresses a **probability** that visitors will be placed into a particular variation. If you have four variations and the traffic is split equally, each new visitor has a 25% chance of being placed into each variation. The variation's **actual number of visitors shown on the Results page probably won't exactly match the 25% probability**, but over time, the number of visitors in each variation should approach 25%.

By default, Optimizely allocates 100% of visitors to experiments and distributes traffic equally among variations.
• Learn more about changing traffic allocation and distribution.

**Tips for traffic allocation and distribution:**

• Set a high traffic allocation (even as high as 100%) to gather data and reach statistical significance more quickly.

• Set a low traffic allocation to reduce the risk on bold experiments that affect revenue.

• Use traffic distribution to quickly send all visitors to the "winning" variation in your experiments.

• Let your experiment run for at least a week to account for fluctuations in traffic.

**What to watch out for:**

• Changes to traffic distribution among variations after you start an experiment can skew your results.

• Changes to traffic allocation and distribution only affect future visitors. Existing visitors will keep seeing the same variation, even after you change the traffic allocation. Visitors who are excluded from the experiment will always be excluded, even if you change the overall traffic allocation to 100%.

• Traffic distribution expresses a probability, so you probably won’t see exact distribution percentages in terms of actual visitors on your Results page.

Changing traffic distribution to 0% can affect how visitors are bucketed into variations of your Experiment. For example, changing traffic distribution from 33% / 33% / 34% (Original / Variation #1 / Variation #2) to 0% / 50% / 50% will prevent new visitors from being bucketed into the Original, but returning visitors that previously saw the Original will continue to see the Original and the Results Page will reflect these visitors.

Changing traffic distribution back to 33% / 33% / 34% from 0% / 50% / 50% will allow new visitors to see the Original once the settings are saved and changes are published and live. As such, changing traffic distribution for a variation to 0% is different than stopping a variation. Learn more about stopping a variation here.

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**Send all traffic to a winning variation**

If you see that one variation is performing better than the others on your Results page, you might decide to send all traffic to this "winning" variation. You can use Optimizely to send all traffic to the winning variation before implementing the changes permanently on your site.

It’s possible to stop all variations except the winner, but there are drawbacks to that approach. Returning visitors who were bucketed into the stopped variation will be excluded from the experiment altogether. You can restart the experiment when you stop the variation, but you’ll lose all of the results data for the experiment.

To send all visitors (returning and new) to a winning variation:

1. Pause the experiment.

2. Duplicate the experiment.
3. Reset the traffic allocation in the duplicated experiment.

To learn more, check out this article about **sending all traffic to a winning variation**.