

The Standardised Impression Multiplier calculation for Digital Out of Home

Background

The “Impression multiplier” is a metric that accounts for the fact that a DOOH advert can be seen by multiple people. Digital Out of Home is a one-to-many advertising medium and standardising the calculation between each Ad played (impression) and the Audience who are likely to see it (impacts) is essential. The multipliers enables the calculation of *average audience per play*.

Impression: in online advertising (a 1-2-1 medium), an impression is the measurement of responses from a web server filtered from robotic activity and error codes, recorded at a point as close as possible to opportunity to see the page by the user. It is a count of how many ads are served.

For DOOH (a 1-2-Many medium) we must convert the online advertising ‘impression’ into a meaningful audience metric for DOOH. This metric is **Impacts**.

Impacts are measured by Route, the Joint Industry Currency providing out-of-home audience data for adults aged 15+. **Impacts** are **viewed impressions** (traffic within visibility areas, travelling towards the screen and who are likely to see the ads when they are being broadcast)

The process for calculating the DOOH impression multiplier is:

$$\text{Impacts [period]} / \text{spots [period]} = \text{impression multiplier}$$

Approach

Calculate at lowest time period possible (i.e. 15 mins) to give greatest scope for optimisation i.e. this is calculated by dividing the impacts for each 15-minute period by the number of spots that play on the screen during that time.

- For example: Frame 123456789 is running a 10/50 schedule and has 150 impacts between 8:45 and 09:00. This means they will have 15 spots for each time period (1 play per minute 15 mins)
- **Impression multiplier = 150 impacts / 15 plays = 10 impacts per play**

If the same frame generates 300 impacts between 09:00 and 09:15 but runs the same play schedule, this means they still have 15 plays during the period but would have a higher impression multiplier as there is a higher audience during that time.

- **Impression multiplier = 300 impacts / 15 plays = 20 impacts per play**

Process

Calculate the impression multiplier for all digital screens at a 15-minute level. Whereby each screen will have a separate multiplier for:

- Every 15-minute period of the day (96)
- For each day of the week (7)
- For each month of the year (12)

Each screen has 8,064 multipliers associated with it and a specific API call has been developed to output this directly from the Route API.

Standardising Multiplier Time Periods

Update the multipliers in accordance with the start of the Route Trading period for each release (c. 18 days post-publication).

The publication and trading dates are available on the Route website and also on the SPACE website.

For any campaigns running over the trading period end i.e. commencing in R56 and ending following the trading period for R57 then the recommendation is to use the start release as the active multiplier for the entire campaign.

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