

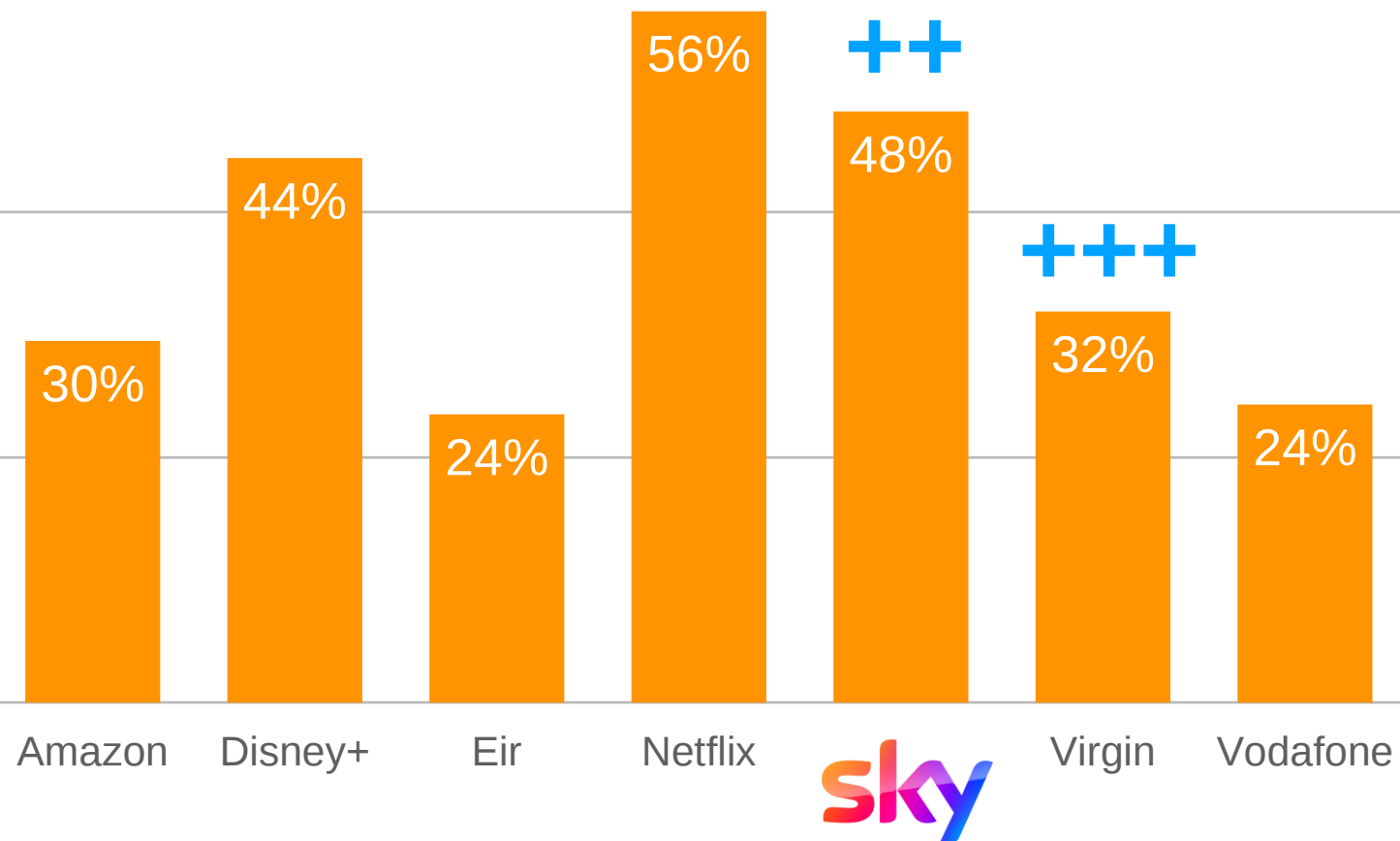
Radiocentre Ireland

Web attribution for radio

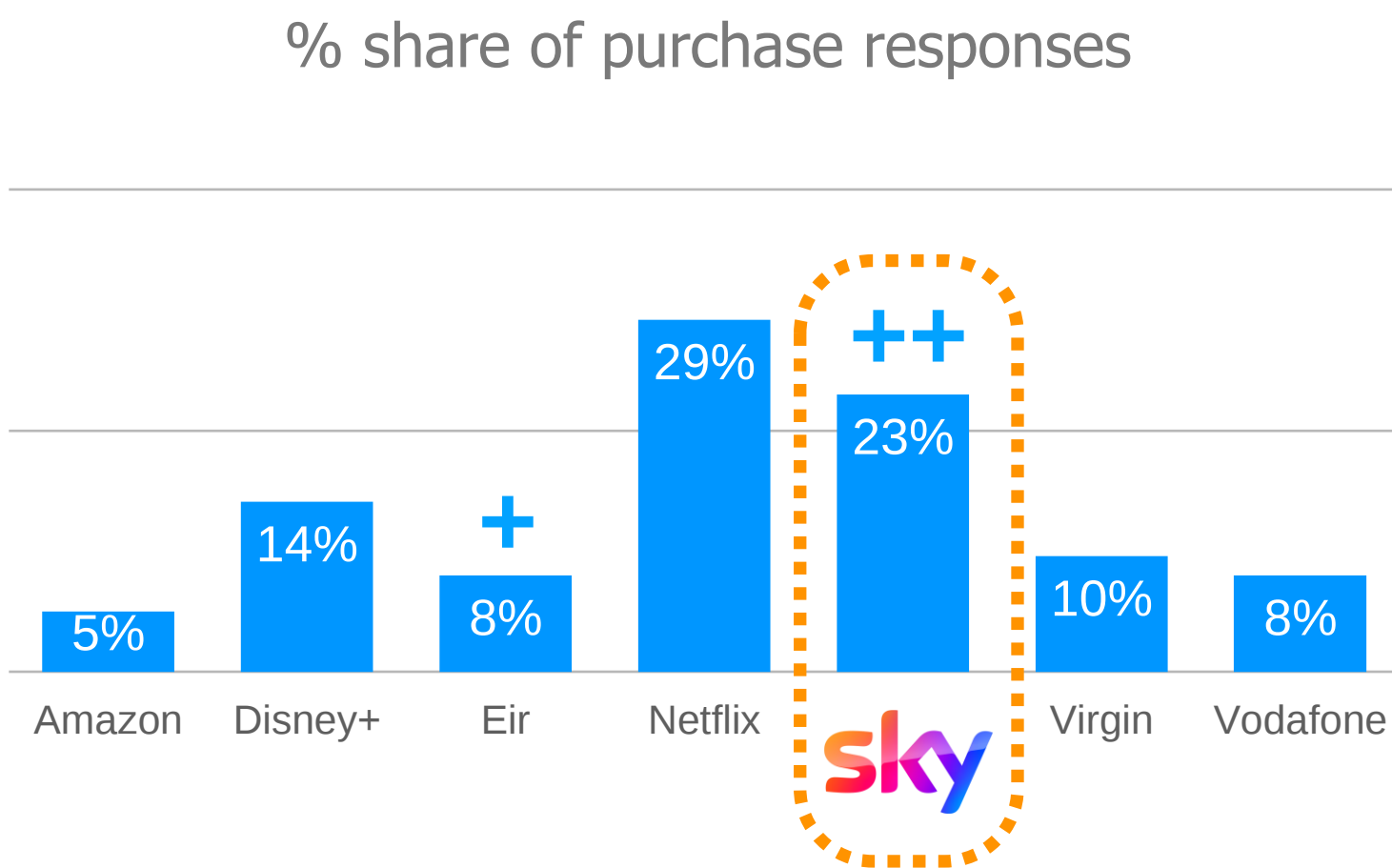
Sky CampaignFX Survey: Brand Purchase Metrics

Uplift Rates (Test versus Control)
+++ Very Significant ++ Significant + Almost Significant

■ A: Test - 2.1 Brand Consideration



■ A: Test - 3.3 Brand Purchase (last 2 weeks: share %)



- Radio has a long heritage of using classic upper-funnel metrics to evaluate advertising performance
- This is important data that brands really value
- But debates around attribution have also raised expectations about the data brand should receive about lower-funnel ad response
- This research responds to that demand by considering a specific question



Can website visits be attributed to radio advertising?

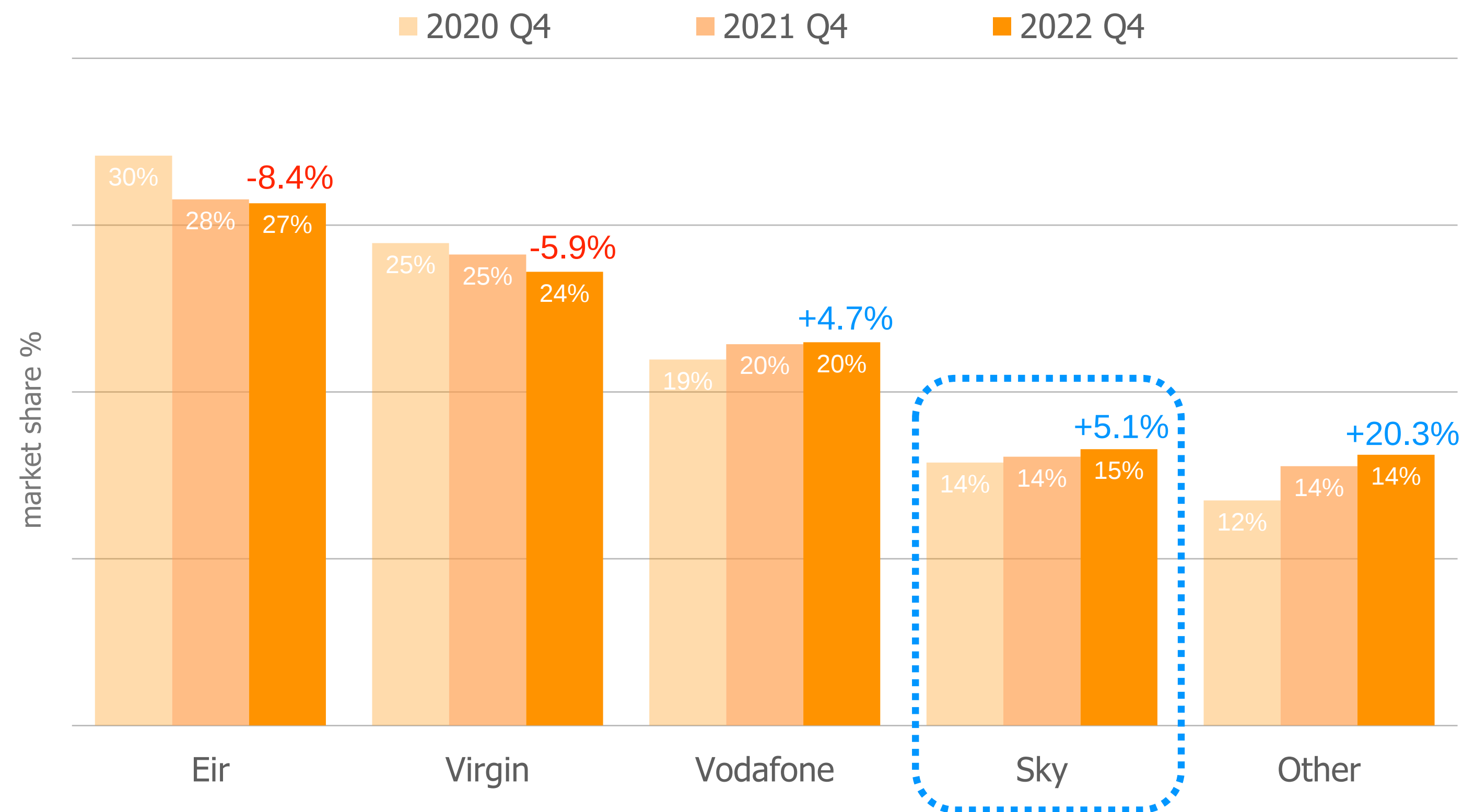
Radio web response & attribution:

Key findings

- #1: Radio can have a profound effect upon online search behaviour
- #2: Short-term attribution windows struggle to see radio's ad response
- #3: Secondary radio listening patterns generate a delayed ad response
- #4: We may have to re-think how we plan and optimise radio schedules

Sky Radio Campaign Schedule & creative

Ireland's fixed broadband market: % Share of subscriptions



Source: <https://www.comreg.ie/media/2023/03/ComReg-2321.pdf>

- Sky is a market-leading provider of TV content services in Ireland but a relatively minor player in the provision of fixed broadband internet
- However, this seems to be changing
- Over the last few years Sky has successfully increased its share of broadband subscriptions at the expense of established providers like Eir and Virgin Media

Radio web response & attribution: Sky TV & Broadband radio campaign

The screenshot displays the 'Sky Deals' website interface. At the top, there's a navigation bar with 'Glass', 'TV', 'TV & Broadband' (selected), and 'Broadband'. Below this, the heading 'TV & Broadband Deals' is prominent, followed by the tagline 'Save big on Sky TV and Ultrafast Broadband. All the best entertainment with Sky's best ever WiFi.' Three deal cards are featured:

- Deal 1:** 'Sky TV, Ultrafast Broadband & Netflix at no extra cost'. It highlights 'Award winning entertainment and stay connected with super reliable broadband' and includes a '€50 Gift Card & Free Set-Up'. The price is '€50 a month for 12 months'. The card features images of Sky TV boxes, a Netflix logo, and a '€50 Pre-paid Mastercard'.
- Deal 2:** 'Sky TV, Sky Sports & Ultrafast Broadband with Netflix at no extra cost'. It mentions 'Epic Sky TV with all 8 Sky Sports channels & Ultrafast broadband' and includes a '€50 Gift Card & Free Set-Up'. The price is '€65 a month for 6 months'. The card shows images of Sky Sports, Malice, and Formula 1.
- Deal 3:** 'Sky Q & Sky Broadband'. It offers '100+ free-to-air channels on Sky Q box and download speeds of 500Mbps' and includes a '€50 Gift Card'. The price is '€45 a month for 12 months'. The card displays images of Sky Q boxes, Sky News, and Roku.

Each deal card has a 'Get started' button at the bottom.

- Renewing a broadband subscription tends to be an annual, low-interest event that few people genuinely look forward to
- Advertising in this and similar 'utility-style' categories tends to have very strong 'recency' effects
- This means buyers show little or no interest until they actively start searching for a new subscription deal

Radio web response & attribution: Sky TV & Broadband radio campaign

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- Card 1:** 'Sky TV, Ultrafast Broadband & Netflix at no extra cost'. It highlights 'Award winning entertainment and stay connected with super reliable broadband' and includes a '€50 GIFT CARD & FREE SET-UP'. The price is '€50 a month for 12 months'. The visual shows a Sky TV box, a Netflix logo, and a Sky Q box.
- Card 2:** 'Sky TV, Sky Sports & Ultrafast Broadband with Netflix at no extra cost'. It highlights 'Epic Sky TV with all 8 Sky Sports channels & Ultrafast broadband' and includes a '€50 GIFT CARD & FREE SET-UP'. The price is '€65 a month for 6 months'. The visual shows a Sky TV box, a Sky Sports logo, and a Sky Q box.
- Card 3:** 'Sky Q & Sky Broadband'. It highlights '100+ free-to-air channels on Sky Q box and download speeds of 500Mbps' and includes a '€50 GIFT CARD'. The price is '€45 a month for 12 months'. The visual shows a Sky Q box, a Sky Broadband logo, and a Sky Q box.

- However, when customers are close to the point of contract renewal, we become dramatically more receptive to advertising as we dive into an active search for the best deals on offer
- This is the moment when advertising by broadband providers has its most immediate and significant impact
- This context is useful for understanding our analysis of this specific Sky TV & Broadband campaign

Radio web response & attribution: Sky TV & Broadband radio campaign

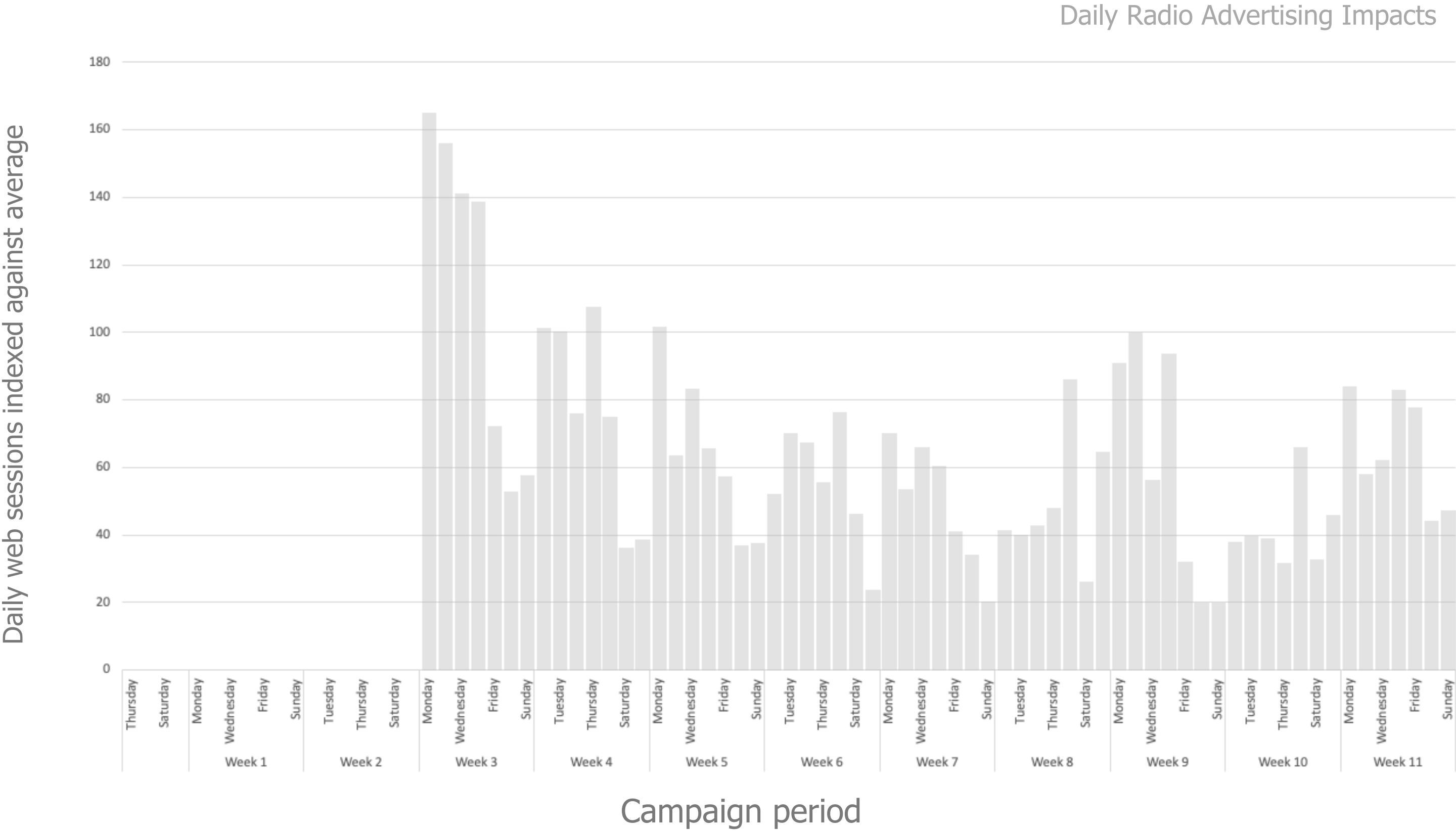
The screenshot displays the 'Sky Deals' website interface. At the top, there's a navigation bar with 'Glass', 'TV', 'TV & Broadband' (selected), and 'Broadband' buttons. Below this is the 'TV & Broadband Deals' section, which includes a sub-header 'Save big on Sky TV and Ultrafast Broadband. All the best entertainment with Sky's best ever WiFi.' Three promotional cards are featured:

- Card 1 (Left):** 'Sky TV, Ultrafast Broadband & Netflix at no extra cost'. It highlights 'Award winning entertainment and stay connected with super reliable broadband' and 'INCLUDES €50 GIFT CARD & FREE SET-UP'. The price is '€50 a month for 12 months'. A 'Get started' button is at the bottom.
- Card 2 (Middle):** 'Sky TV, Sky Sports & Ultrafast Broadband with Netflix at no extra cost'. It highlights 'Epic Sky TV with all 8 Sky Sports channels & Ultrafast broadband' and 'INCLUDES €50 GIFT CARD & FREE SET-UP'. The price is '€65 a month for 6 months'. A 'Get started' button is at the bottom.
- Card 3 (Right):** 'Sky Q & Sky Broadband'. It highlights '100+ free-to-air channels on Sky Q box and download speeds of 500Mbps' and 'INCLUDES €50 GIFT CARD'. The price is '€45 a month for 12 months'. A 'Get started' button is at the bottom.

Each card features a countdown timer at the top (05 14 27 08 days hrs mins secs) and a 'Pre-paid Mastercard' icon. The cards also include images of Sky TV boxes, Netflix logos, and various Sky TV content.

- A tactical, offer-led campaign - 'Sky Sale - €38 a month'
- Used a 'Search Sky Sale' call-to-action to drive traffic towards a campaign-specific landing page (see image)
- Ad copy word count = 95 (190 words per minute)

Sky TV & Broadband radio campaign: Total daily website visits

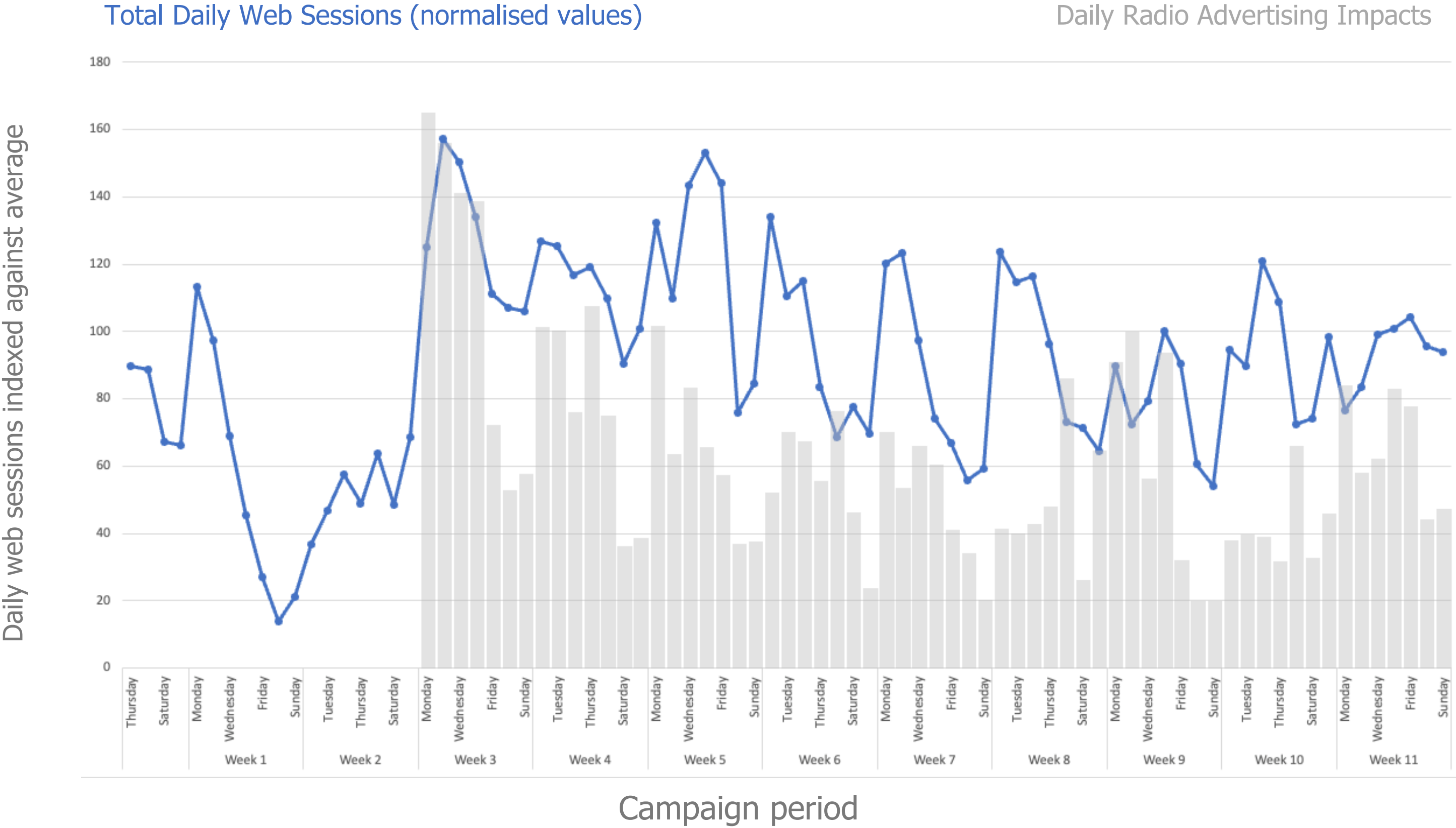


Source: Sky Google Analytics / Colourtext 2023

- The campaign ran nationally from 2nd January - 31st March 2023
- Radio spot schedule 1,760 GRPs / 72.1M impacts / 48% share of impacts
- TV spot schedule has 2,077 TVRS / 76.6M impacts / 52% share of impacts
- The TV activity was more branded-focused in nature than the radio ad copy



Sky TV & Broadband radio campaign: Total daily website visits



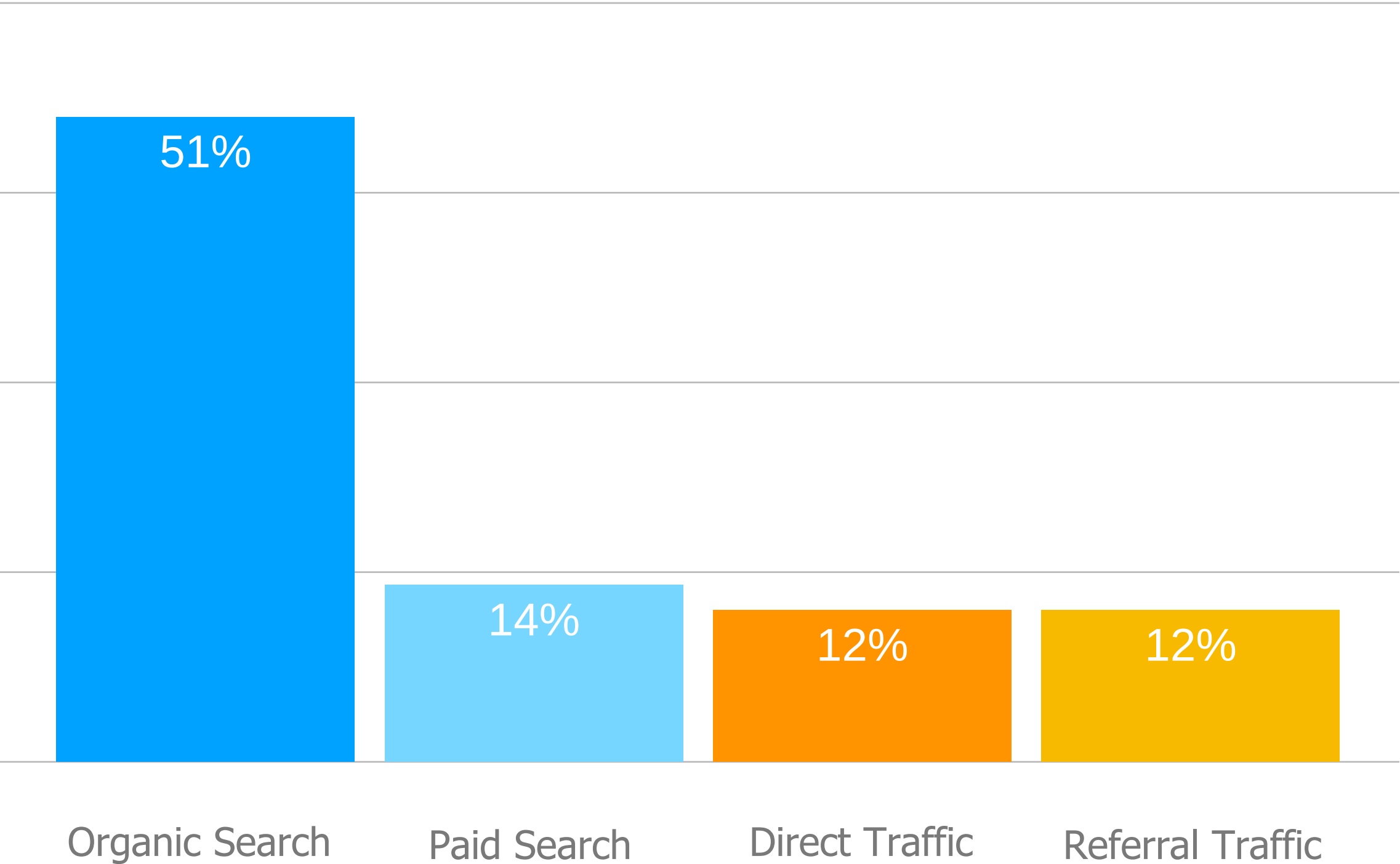
- Web traffic data for the campaign landing page was very kindly provided by Sky’s marketing team via their Google Analytics account

Source: Sky Google Analytics / Colourtext 2023



Radio web response & attribution: Sky TV & Broadband radio campaign

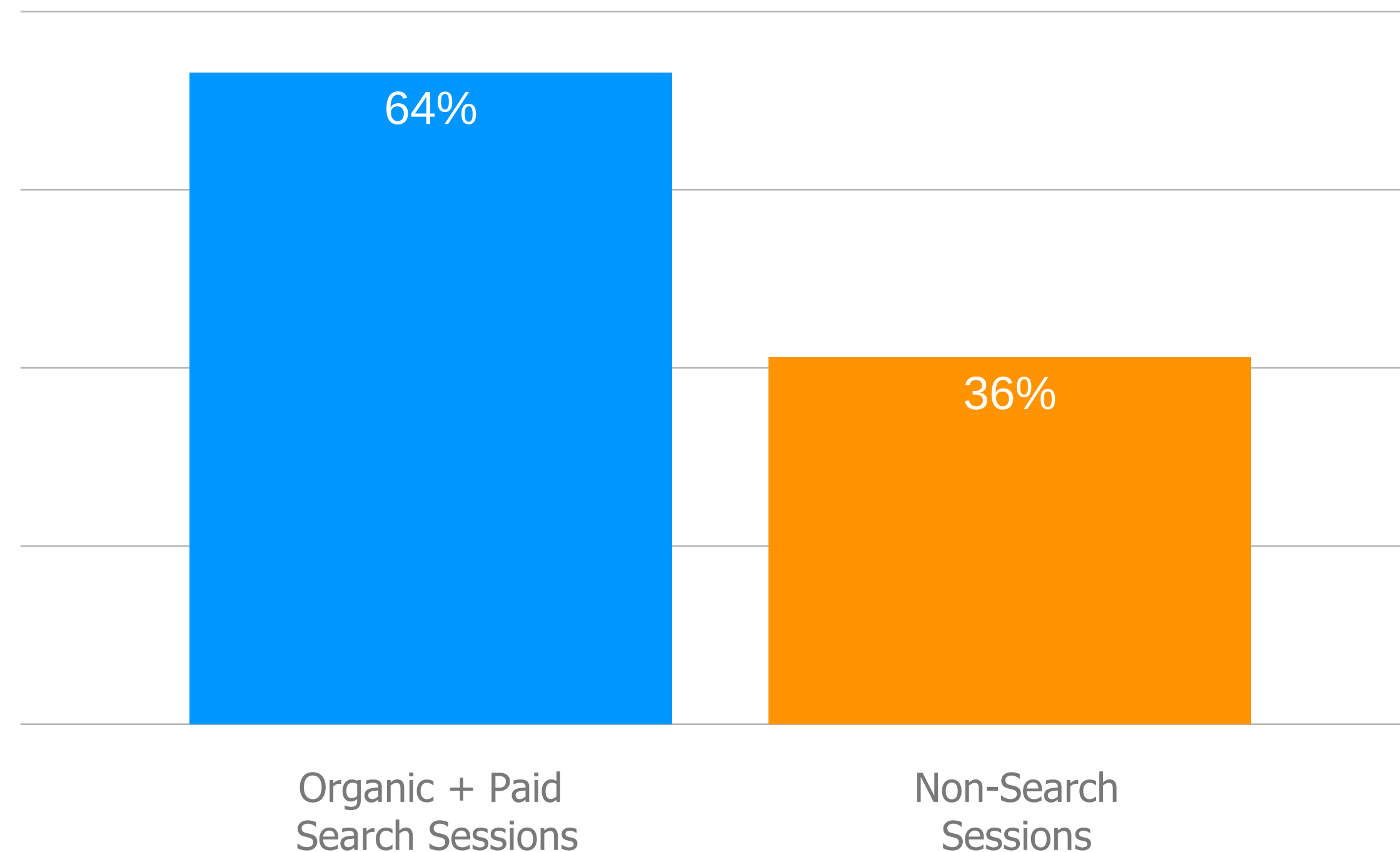
Share (%) of Total Web Sessions by Traffic Source



- We analysed various sources of web traffic to the campaign landing page
- The four main sources were organic search, paid search, direct and referral traffic

Radio web response & attribution: Sky TV & Broadband radio campaign

Share (%) of Total Web Sessions by Traffic Source

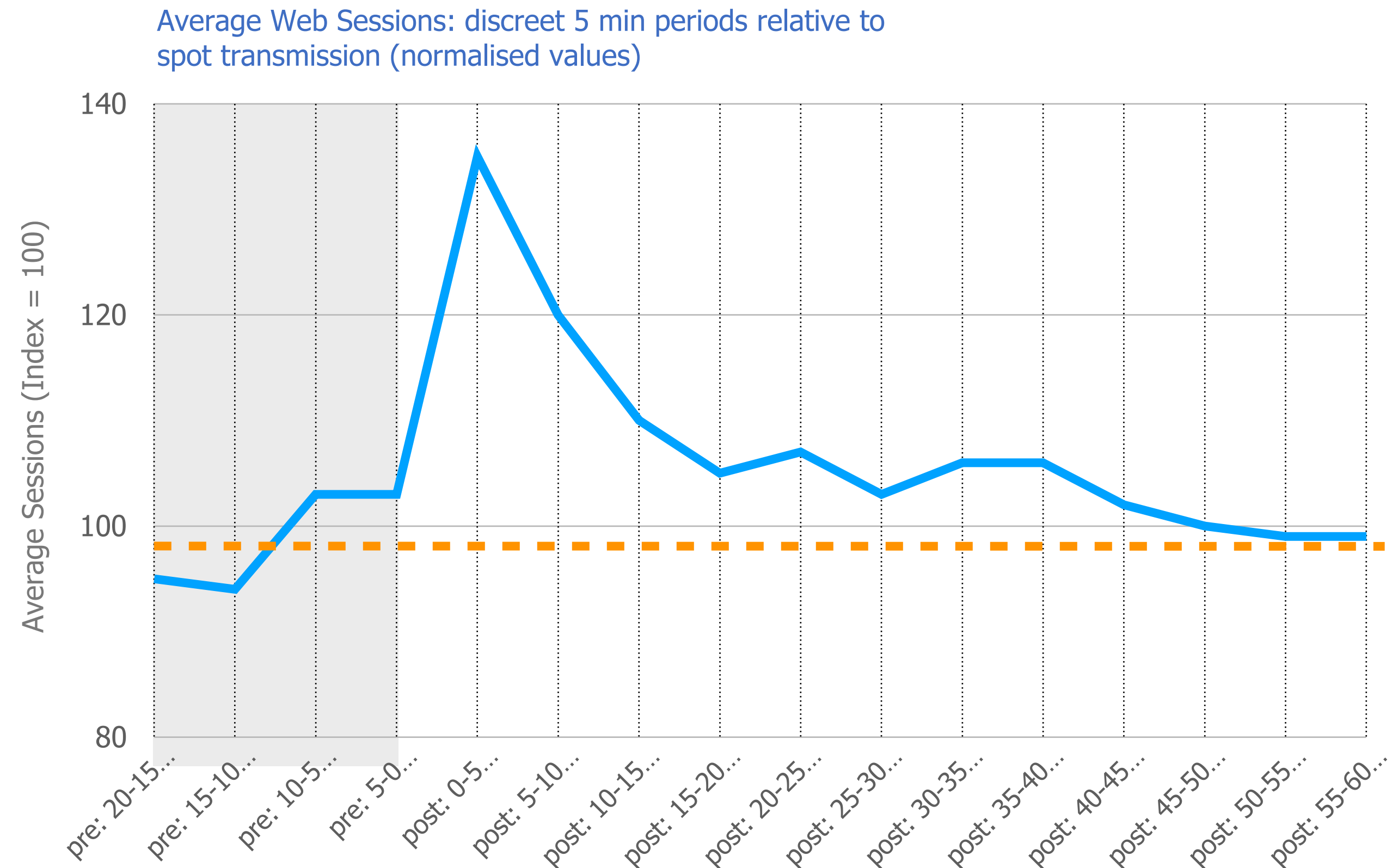


- Organic and Paid Search referrals accounted for almost two-thirds of all traffic to the campaign landing page
- This suggested that looking at the effect of radio advertising on search versus non-search traffic might prove interesting
- This turned out to be the case.

Sky Radio Campaign

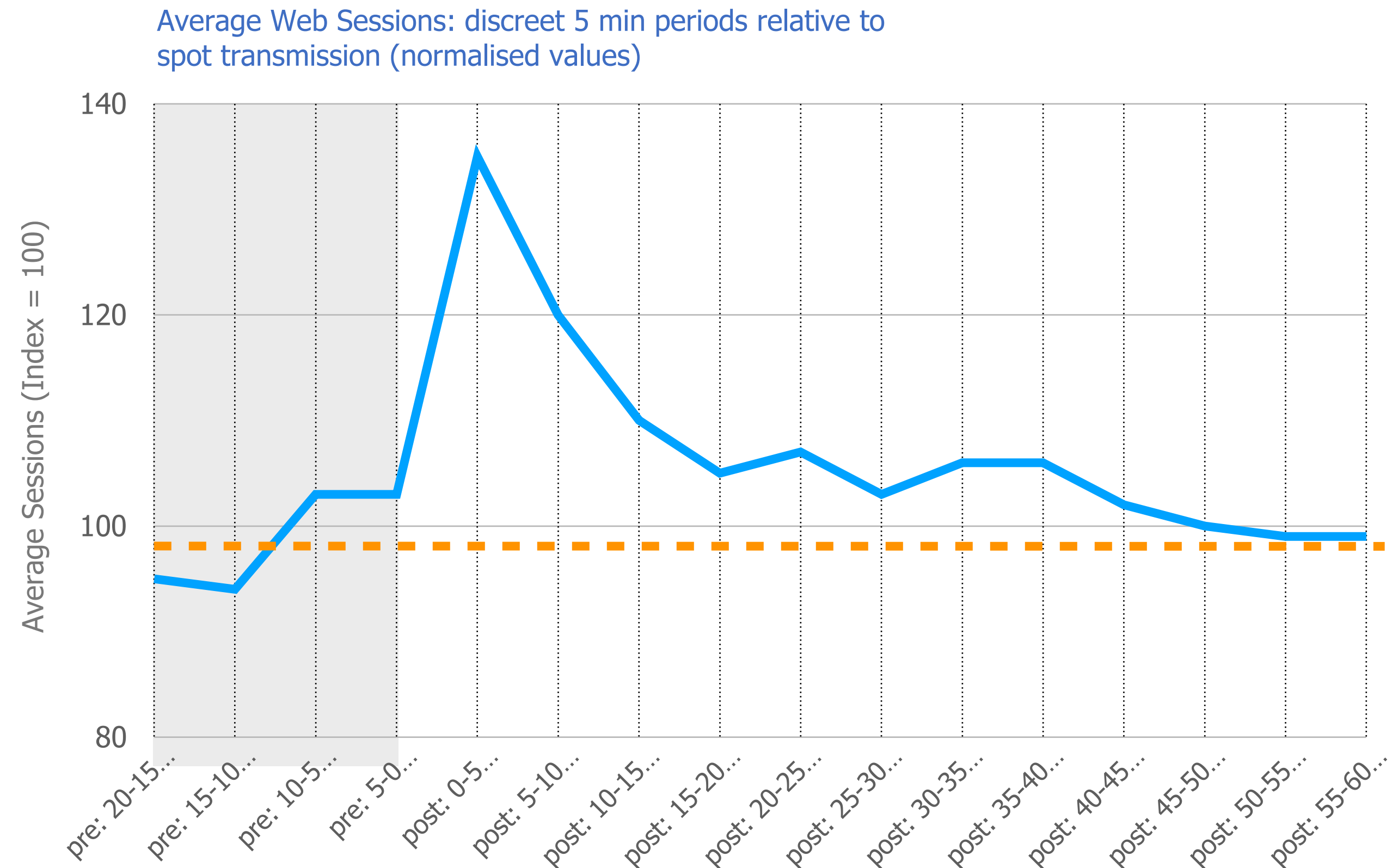
Short term ad response

Short term ad response: Organic Search Referrals



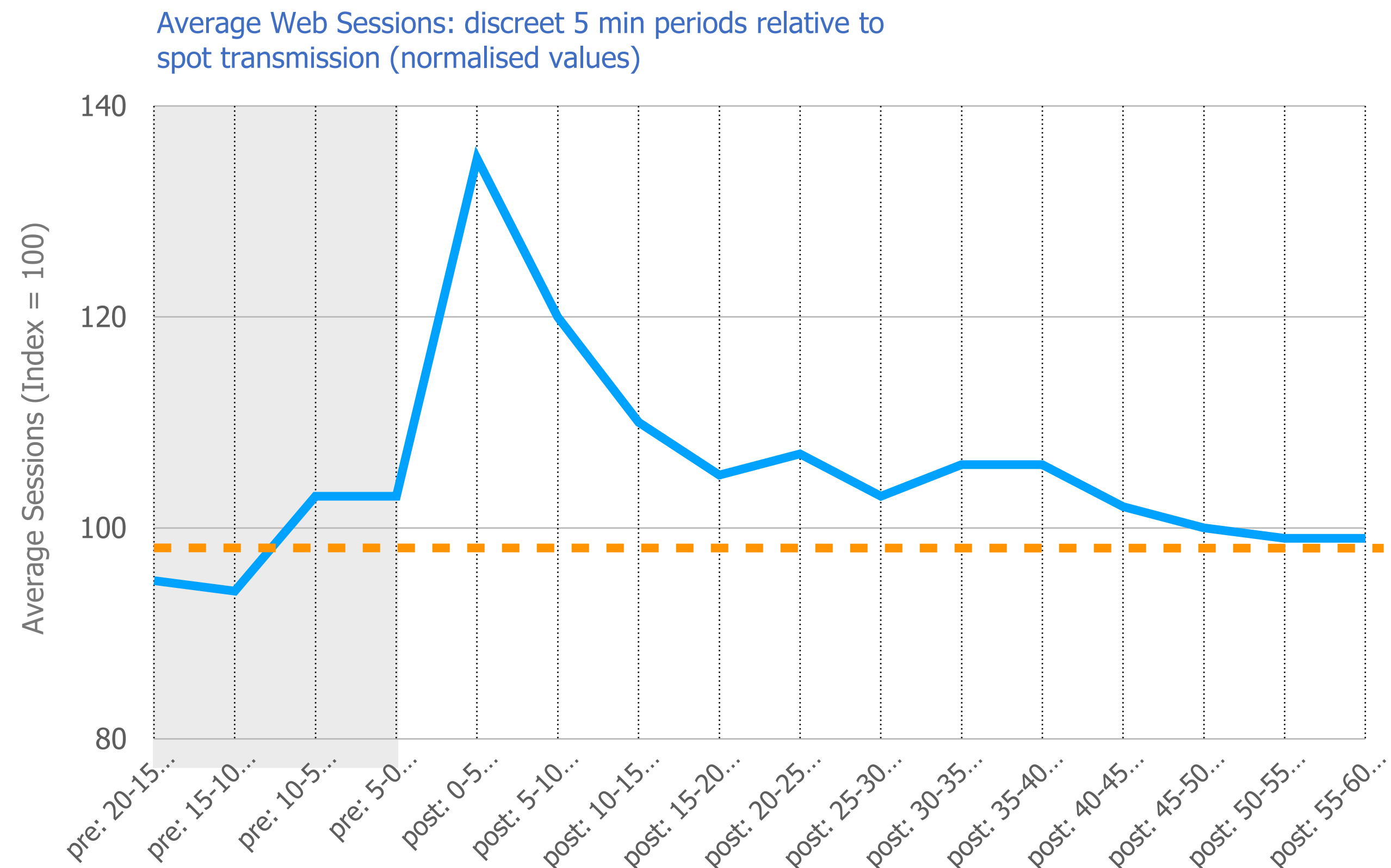
- We began by looking at the short-term effects of radio exposure by using a method we call Spot-Relative Traffic Analysis
- This technique searches for spikes in the number of website visits that occur within discrete 5 minute periods before and after each ad spot on a schedule has been transmitted
- In theory we should see higher levels of web traffic in periods immediately after ad spots have played out compared to the periods that precede them

Short term ad response: Organic Search Referrals



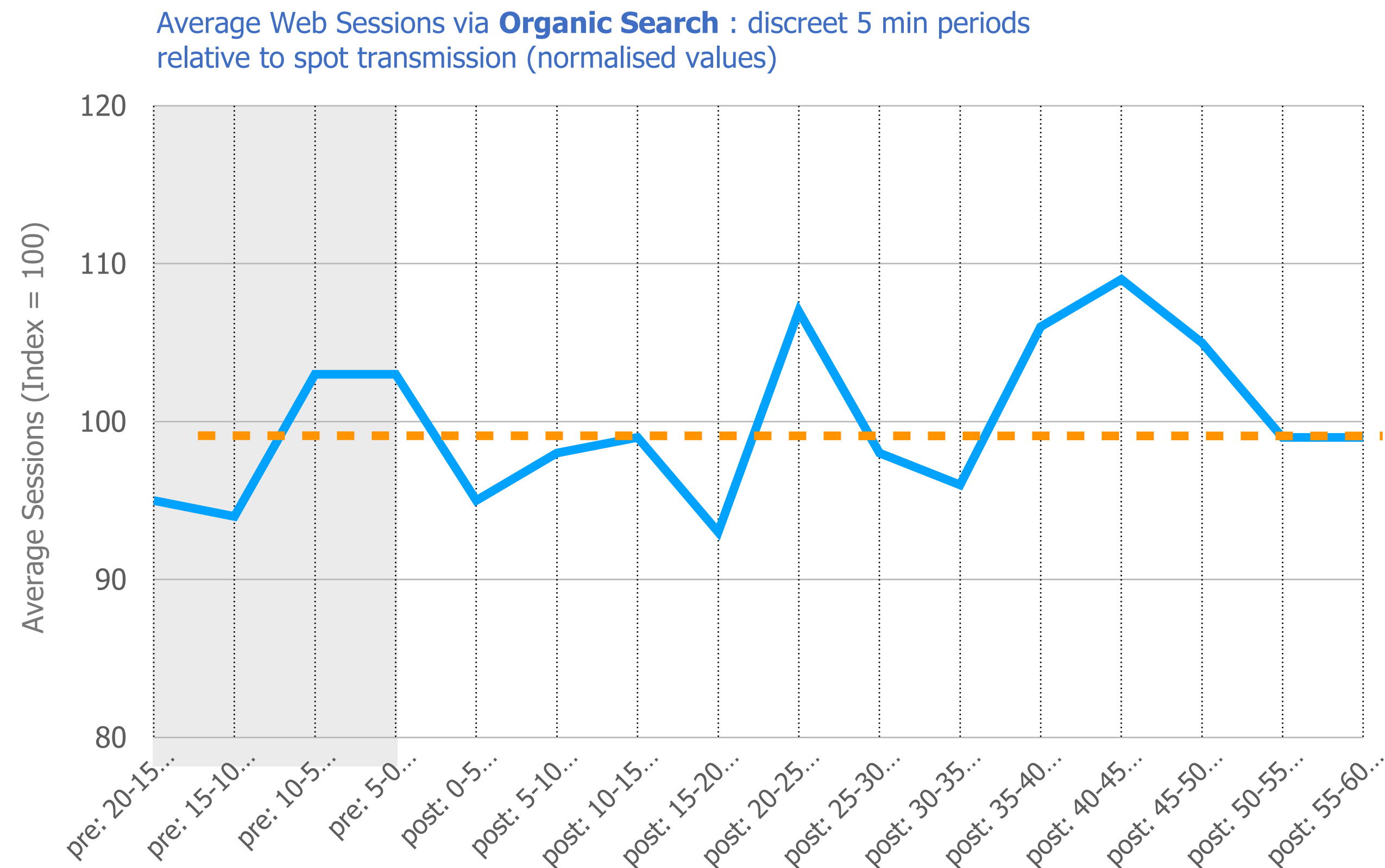
- In a TV context, visitor traffic tends to peak sharply at around 50-60 seconds after a spot is broadcast
- This clear response spike is usually over by about 10 minutes and is generally understood as the classic short-term direct response window.
- This is what direct spot attribution measurement and campaign performance metrics tend to focus on

Short term ad response: Organic Search Referrals



- Our initial guess was that running attribution studies for radio was likely to be harder than for TV due to the often passive and secondary nature of radio listening
- e.g. people don't usually break away from a primary task like driving, cooking or working in order to respond immediately to a radio ad by going online
- Our hypothesis was that radio effects would be more likely to manifest as ad responses that occur much longer after exposure

Radio web response & attribution: Short-term effects

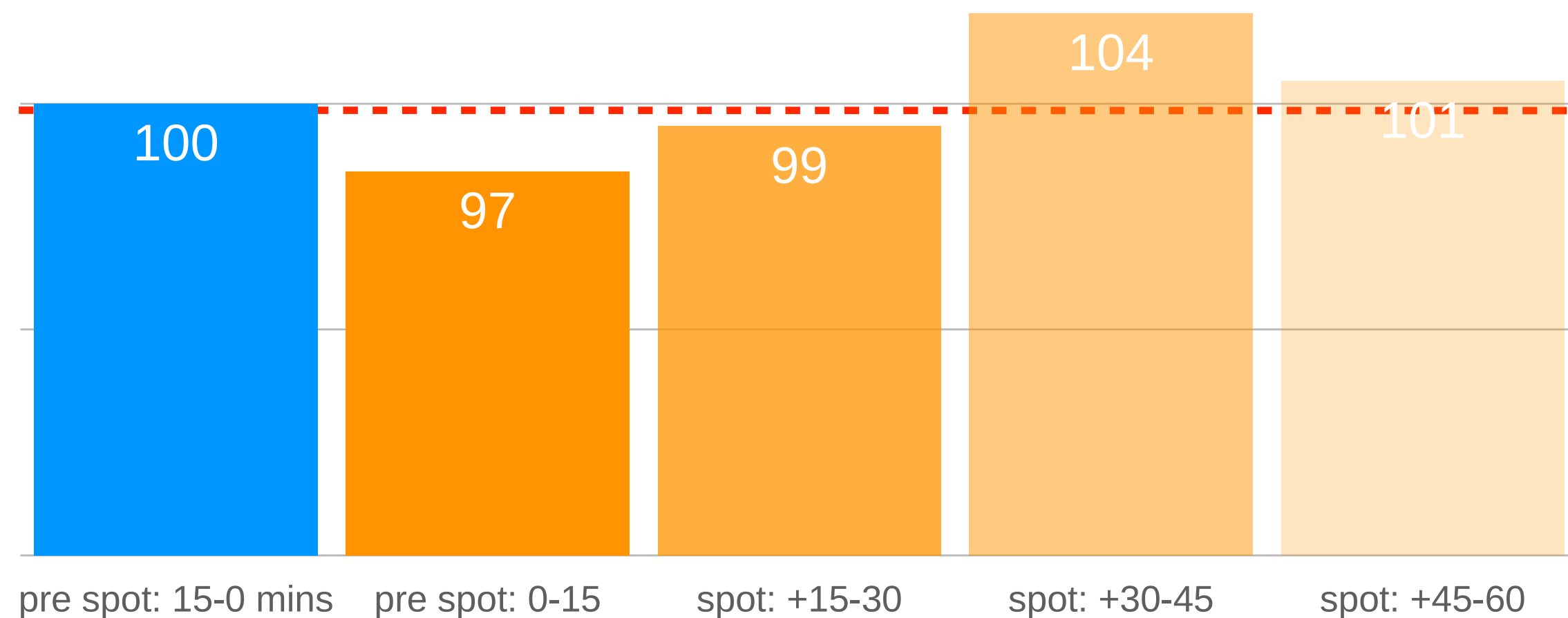


- The results of the Spot-Relative Traffic Analysis seem to bear out our initial concern
- In general we found no short-term peak in web response after a radio ad plays out
- However, there are two important caveats to this finding - the first is hinted at by this chart

Short term ad response: Organic Search Referrals

Average Web Sessions via **Organic Search**: discreet 15 min periods
relative to spot transmission (normalised values)

Organic Sessions

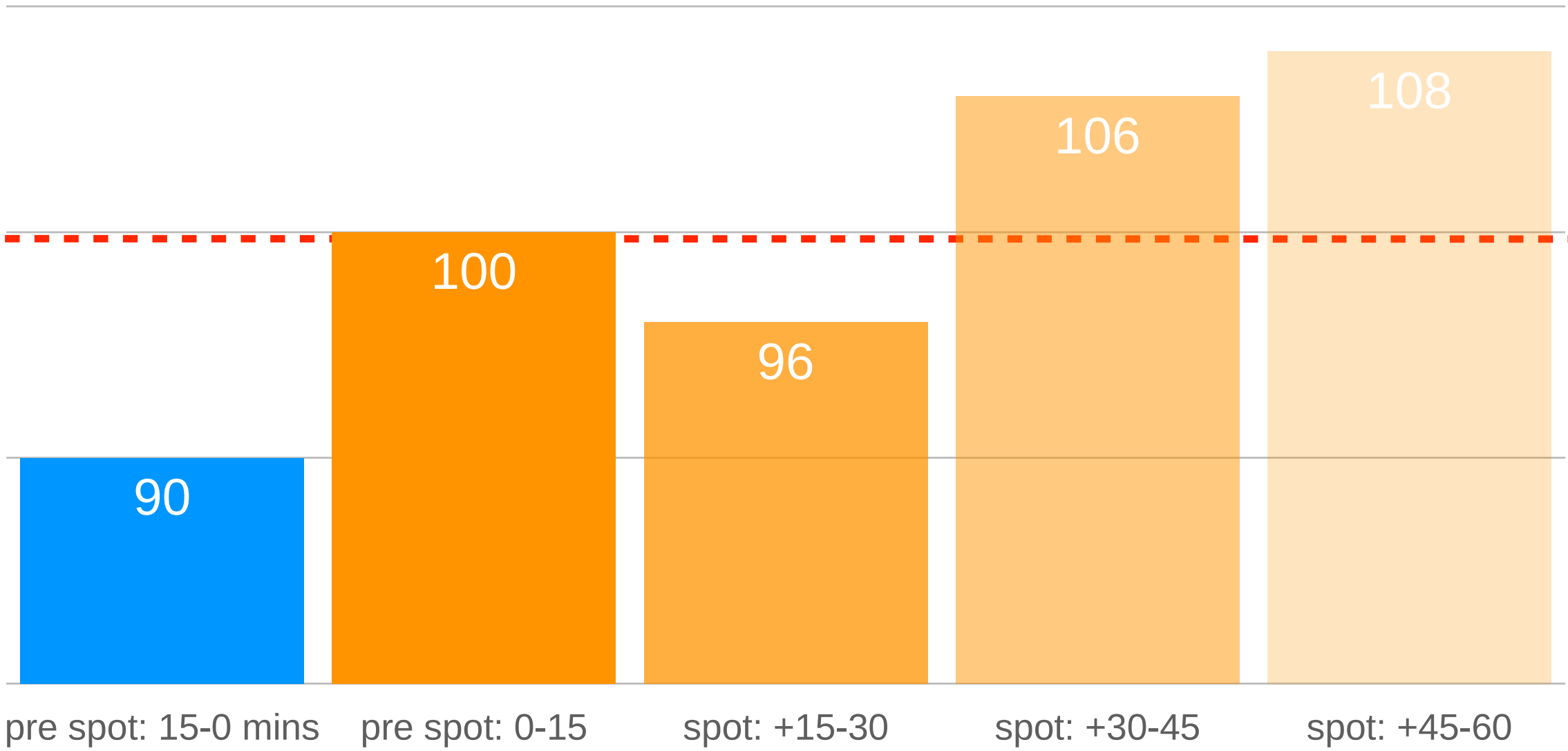


- Firstly, when we focus on organic search traffic a measurable increase in ad response does occur
- But it appears to be delayed - during the first 30 minutes after ad transmission nothing much seems to happen
- However, during the second half hour after radio ad exposure we see a small increase in web response
- (about 4% above baseline for organic search referrals)

Short term ad response: Paid Search Referrals

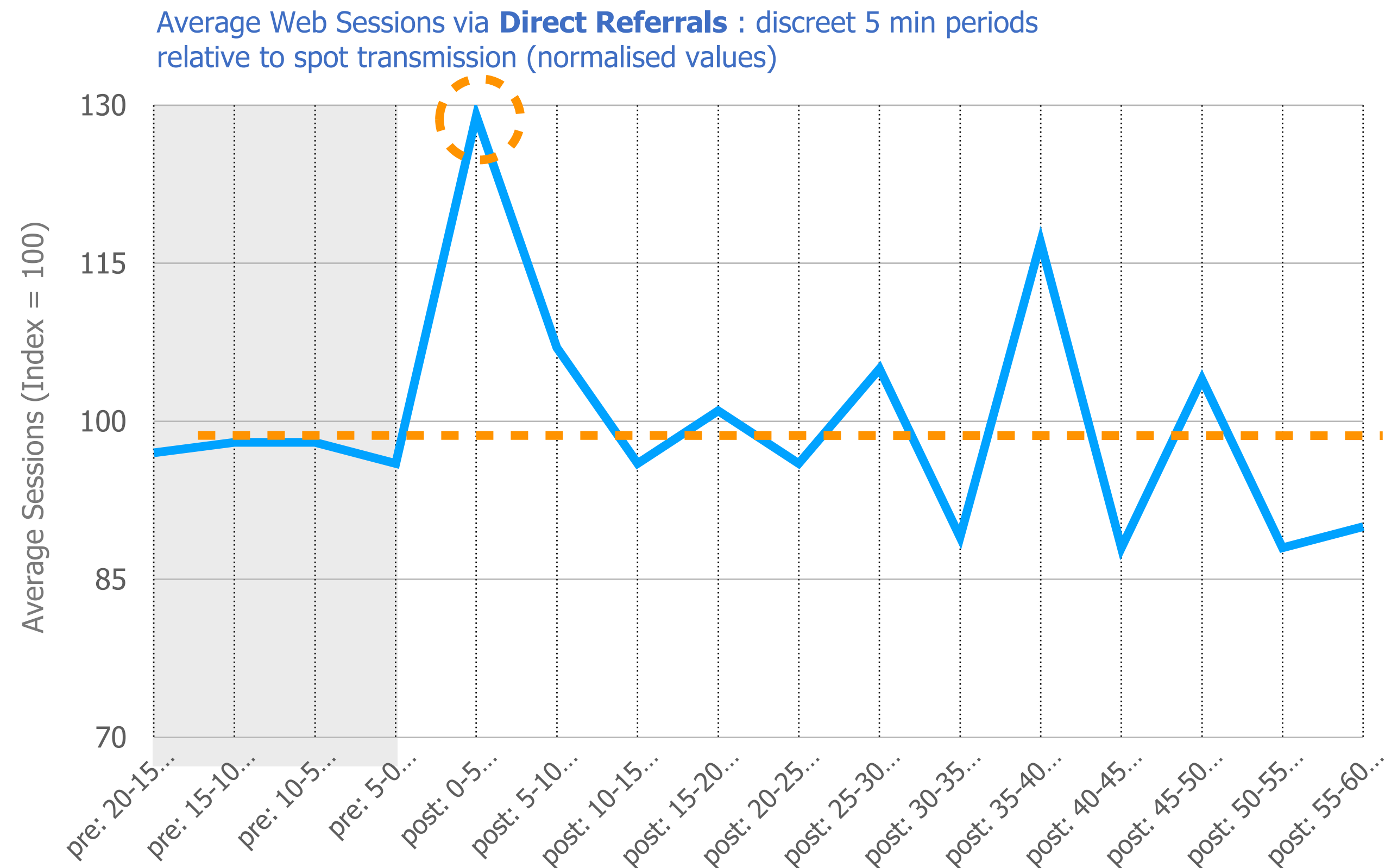
Average Web Sessions via **Paid Search**: discreet 15 min periods
relative to spot transmission (normalised values)

Paid Sessions



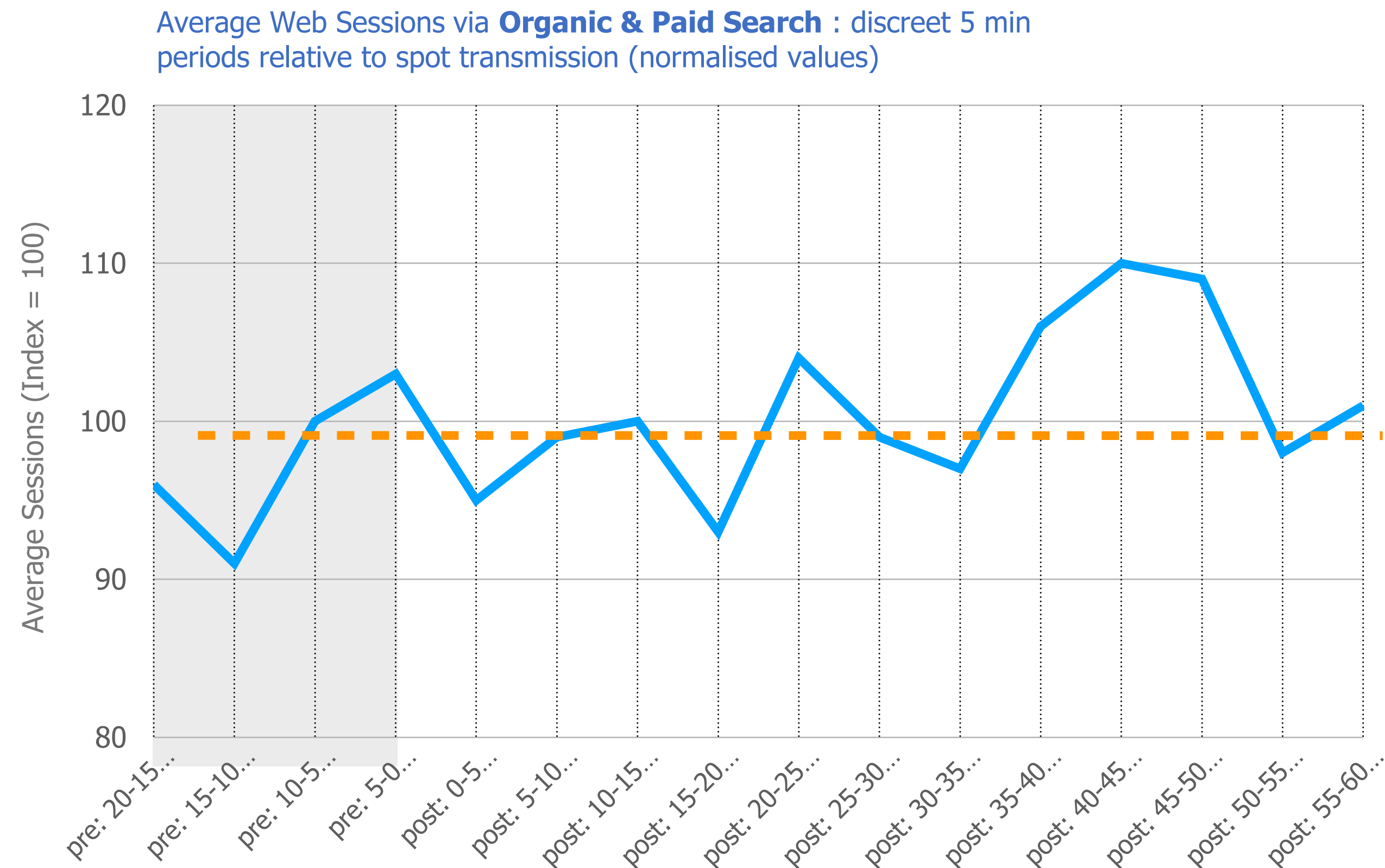
- The same pattern is apparent for paid search referrals, but perhaps slightly more pronounced
- (about 7% above baseline for paid search referrals)

Radio web response & attribution: Short-term effects



- The second caveat concerns web sessions originating via Direct referrals (e.g. people typing directly into a browser bar that auto-fills a URL)
- Direct referrals actually do respond strongly within the classic short-term response period (i.e. the first 5 to 15 minutes after ad exposure) and then tail off again quickly
- However, direct referrals are a relatively minor element within the overall traffic mix for this campaign landing page (12% of traffic)

Radio web response & attribution: Short-term effects



- Direct Referrals appear to be an exception to the more general rule
- Web sessions stimulated by radio ads in this test study are generally delayed and do not cluster within a traditional direct response peak
- This probably explains why regular 'deterministic' attribution methodologies that focus on **short-term attribution windows** often struggle to capture radio ad response

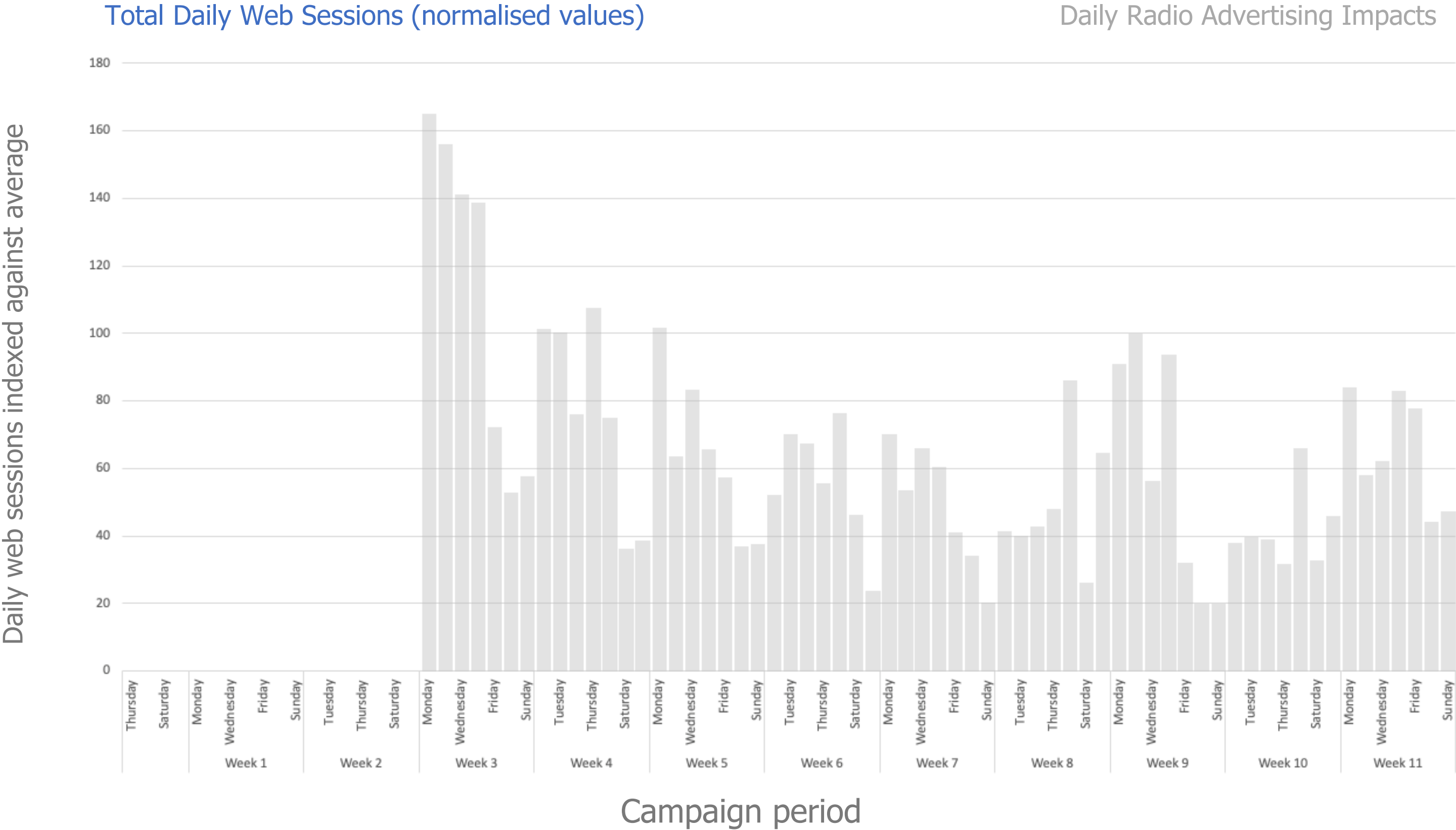
A close-up, low-angle shot of a driver's hands on a steering wheel at night. The driver is wearing a dark jacket with a red ribbed cuff and a silver-toned watch with a blue dial. The steering wheel has green-lit buttons. The dashboard and center console are visible, featuring a digital display showing '10:48' and 'Radio 2'. The background is a blurred cityscape with warm, bokeh-style lights from buildings and streetlights.

**Secondary radio listening patterns
generate a delayed ad response**

Sky Radio Campaign

Delayed ad response

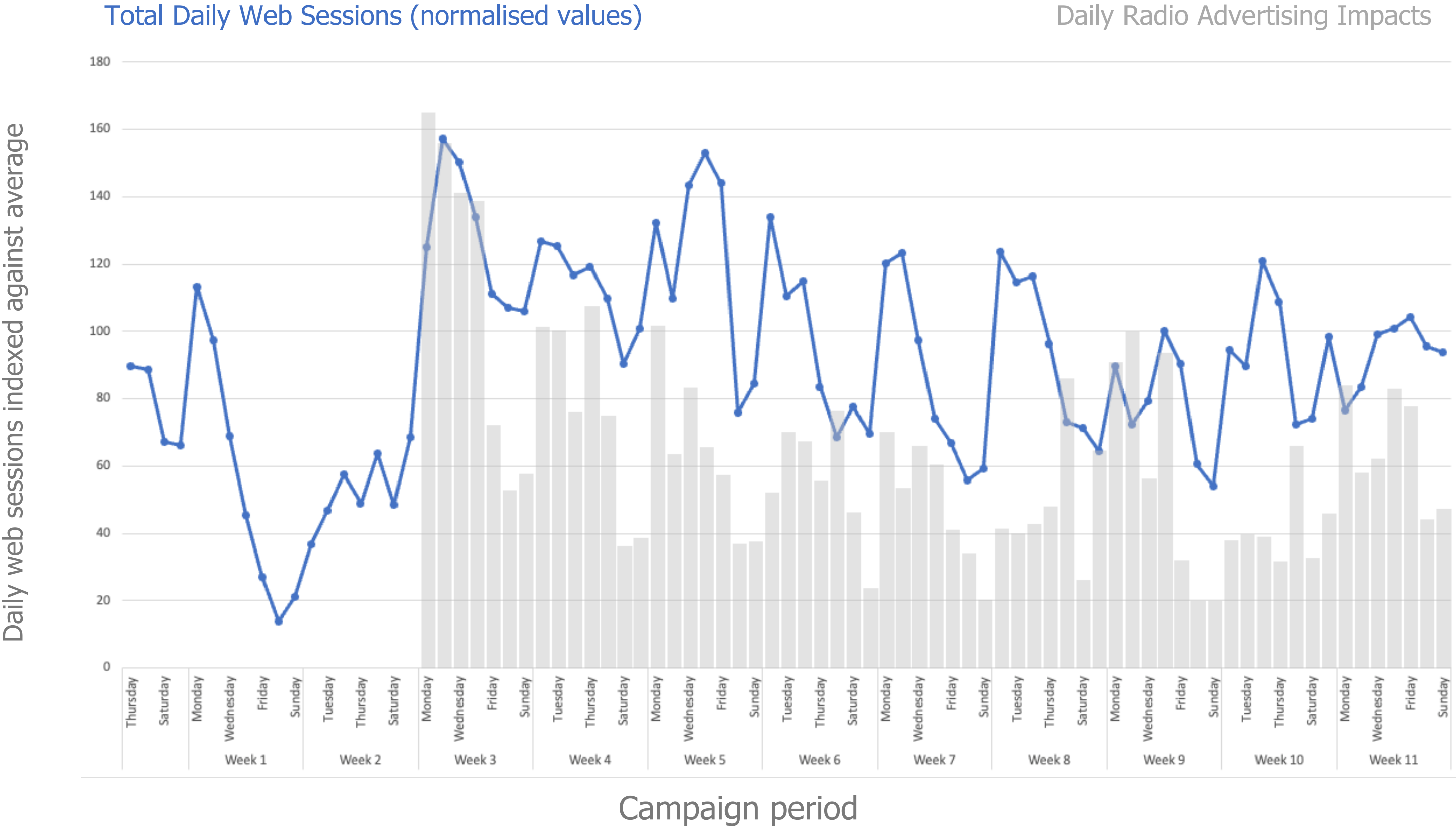
Sky TV & Broadband radio campaign: Total daily website visits



Source: Sky Google Analytics / Colourtext 2023

- The picture of radio ad response emerging from the Regression Analysis was entirely different
- We began by comparing the weight of *daily* schedule impacts with the *daily* volume of web traffic

Sky TV & Broadband radio campaign: Total daily website visits

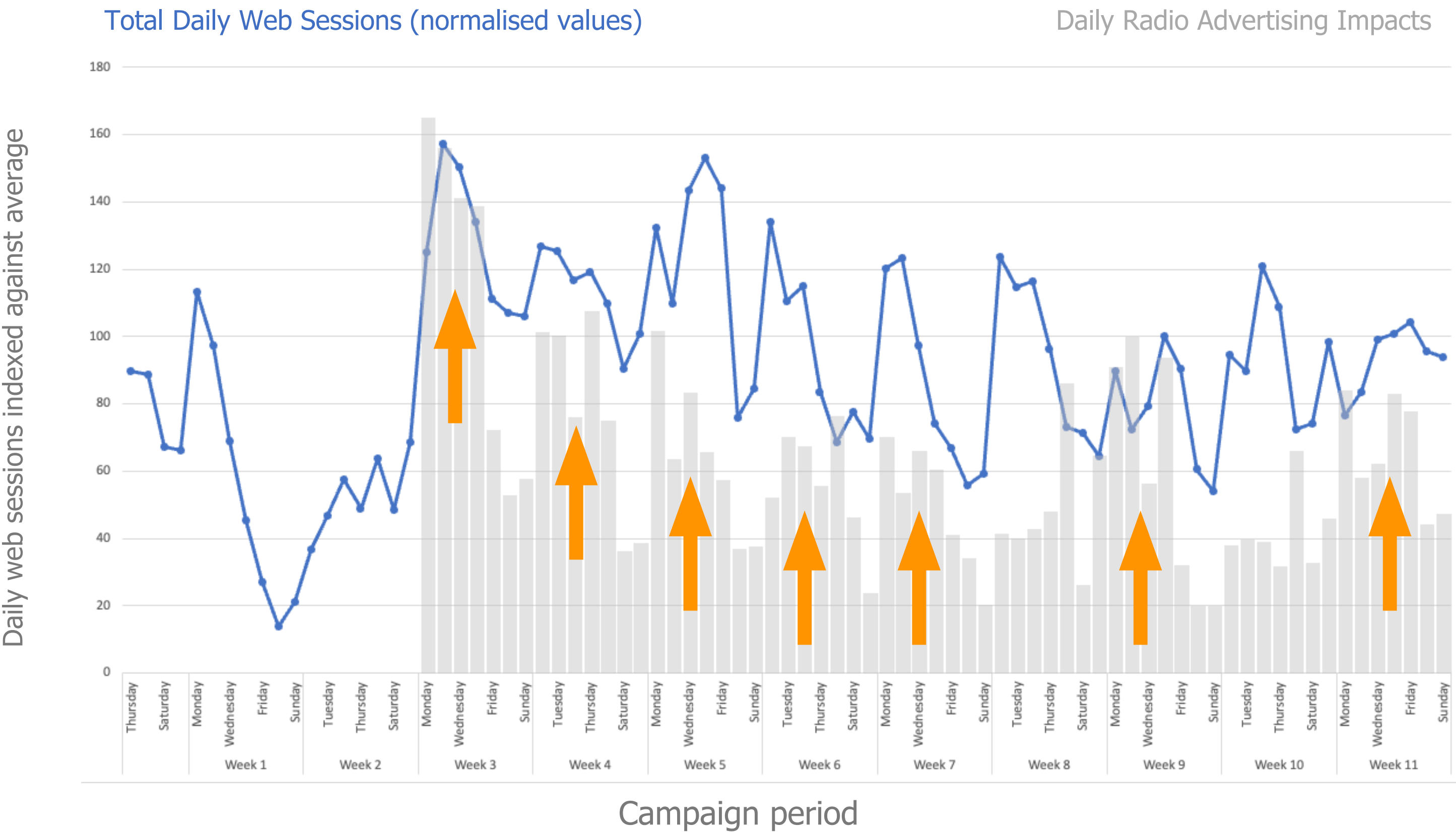


- First results were very encouraging
- We saw an immediate visual fit between all visits to the campaign landing page and the radio schedule lay down

Source: Sky Google Analytics / Colourtext 2023



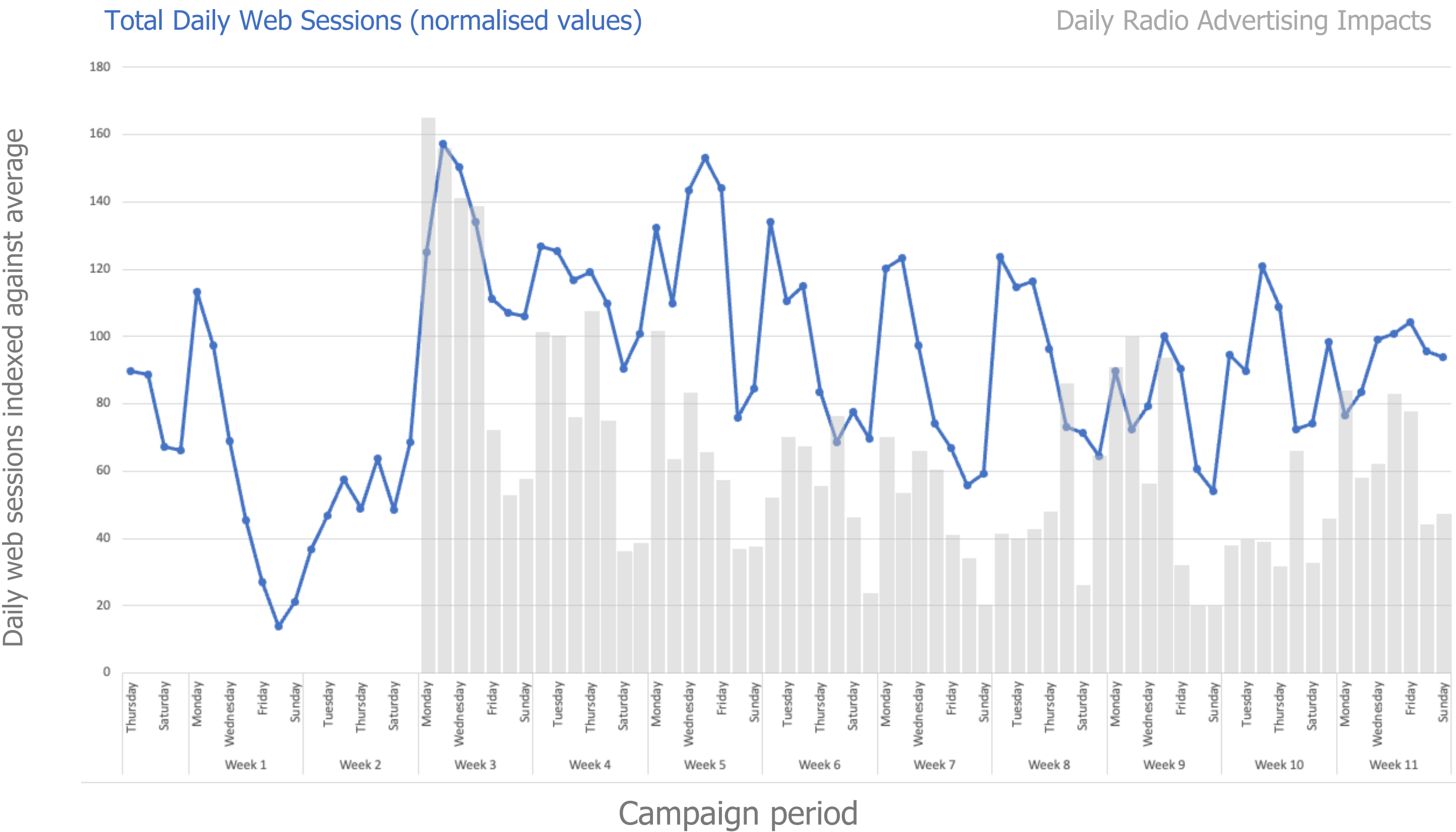
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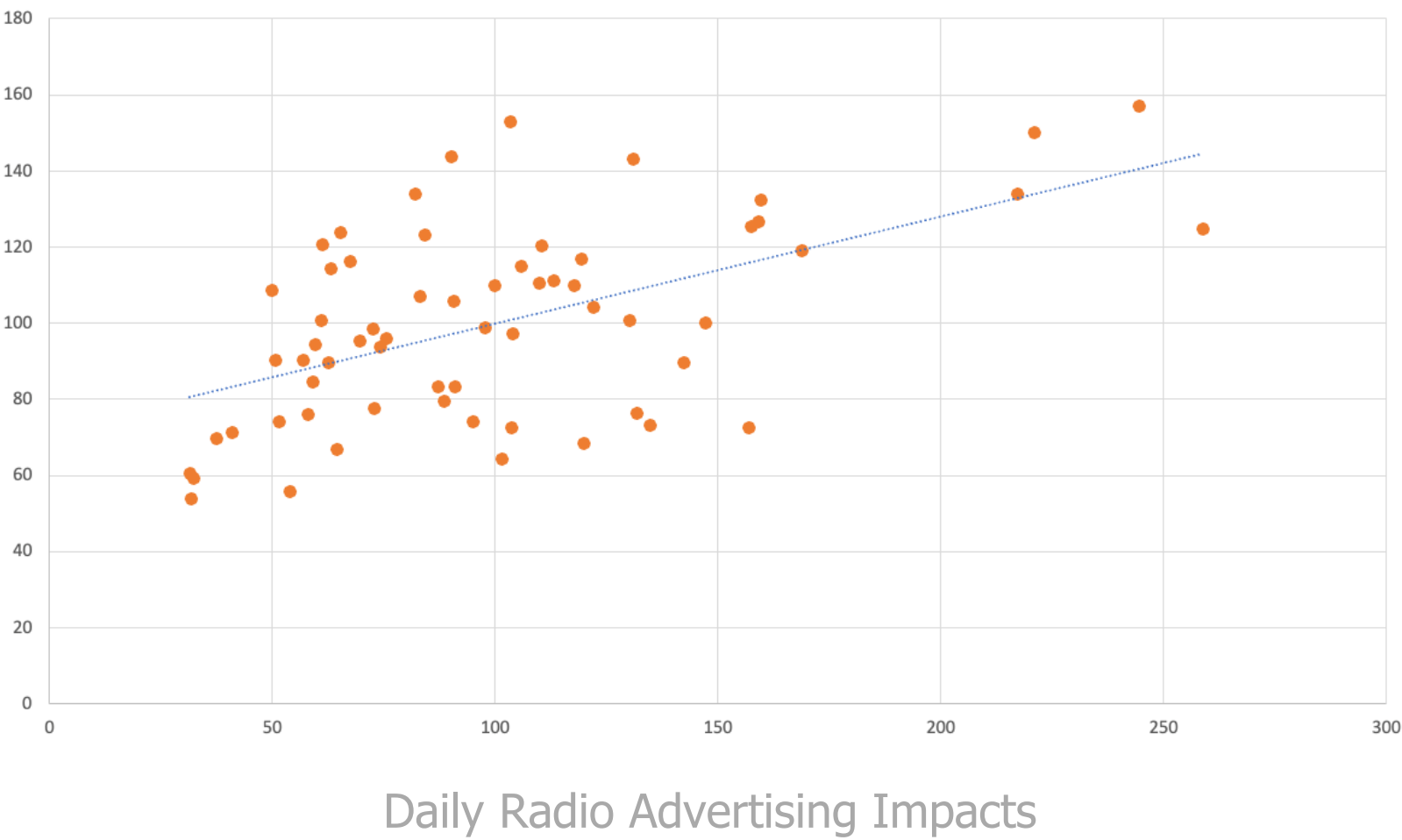
Source: Sky Google Analytics / Colourtext 2023

Sky TV & Broadband radio campaign: Total daily website visits



Source: Sky Google Analytics / Colourtext 2023

Radio impacts & web visits / $R^2 = 0.30$



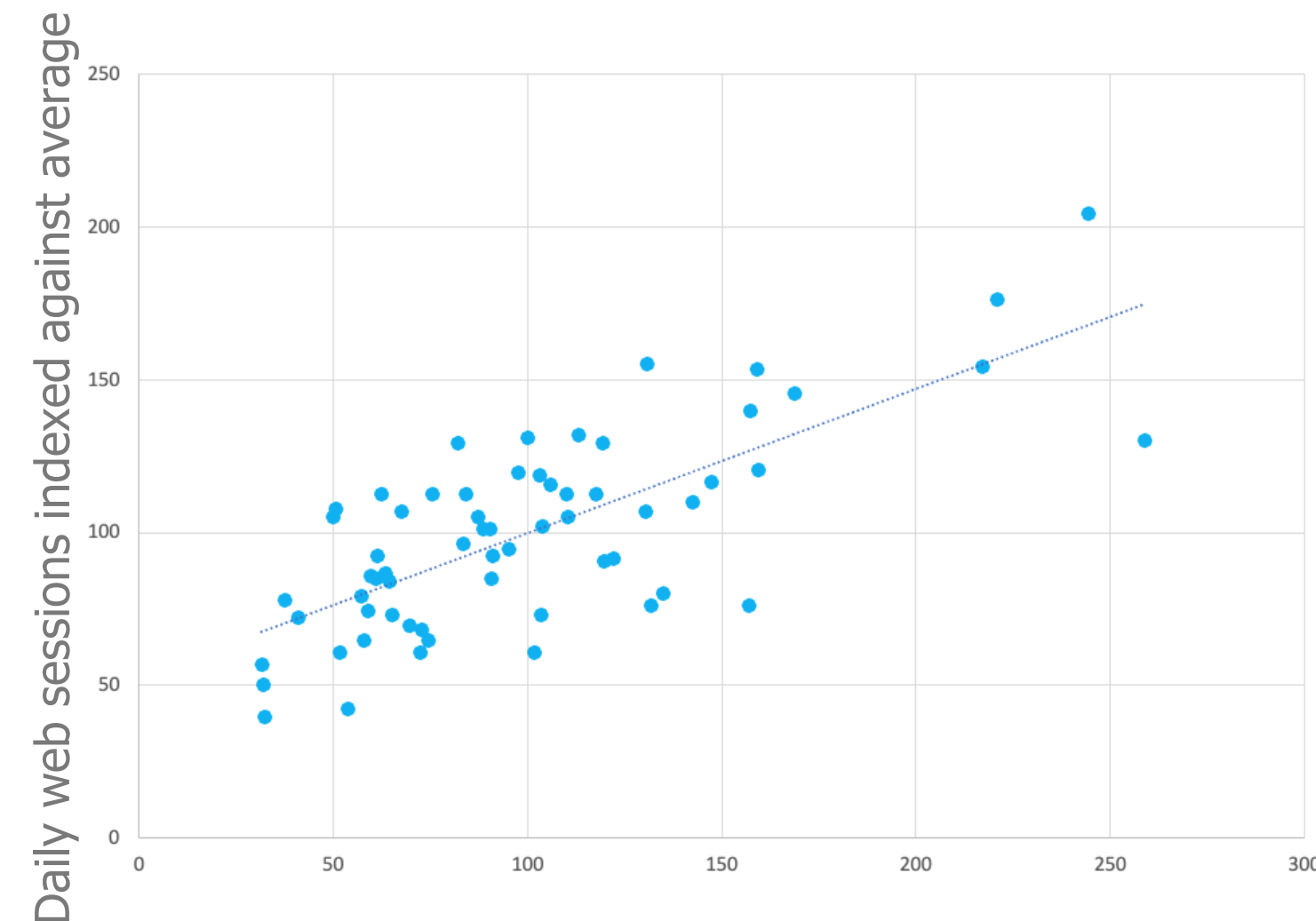
- This was confirmed by an R^2 value of 0.30 from the regression model, which is significant if not an outright slam-dunk
- Why didn't we pick this up from the short-term attribution analysis?

A photograph of a person driving a car, viewed from the side. The driver's hand is on the steering wheel. The car's interior, including the rearview mirror and dashboard, is visible. The scene is illuminated by the warm, golden light of a setting or rising sun, creating a strong lens flare effect. The background shows a blurred view of a road and other vehicles.

**Short-term attribution windows
struggle to see radio ad response**

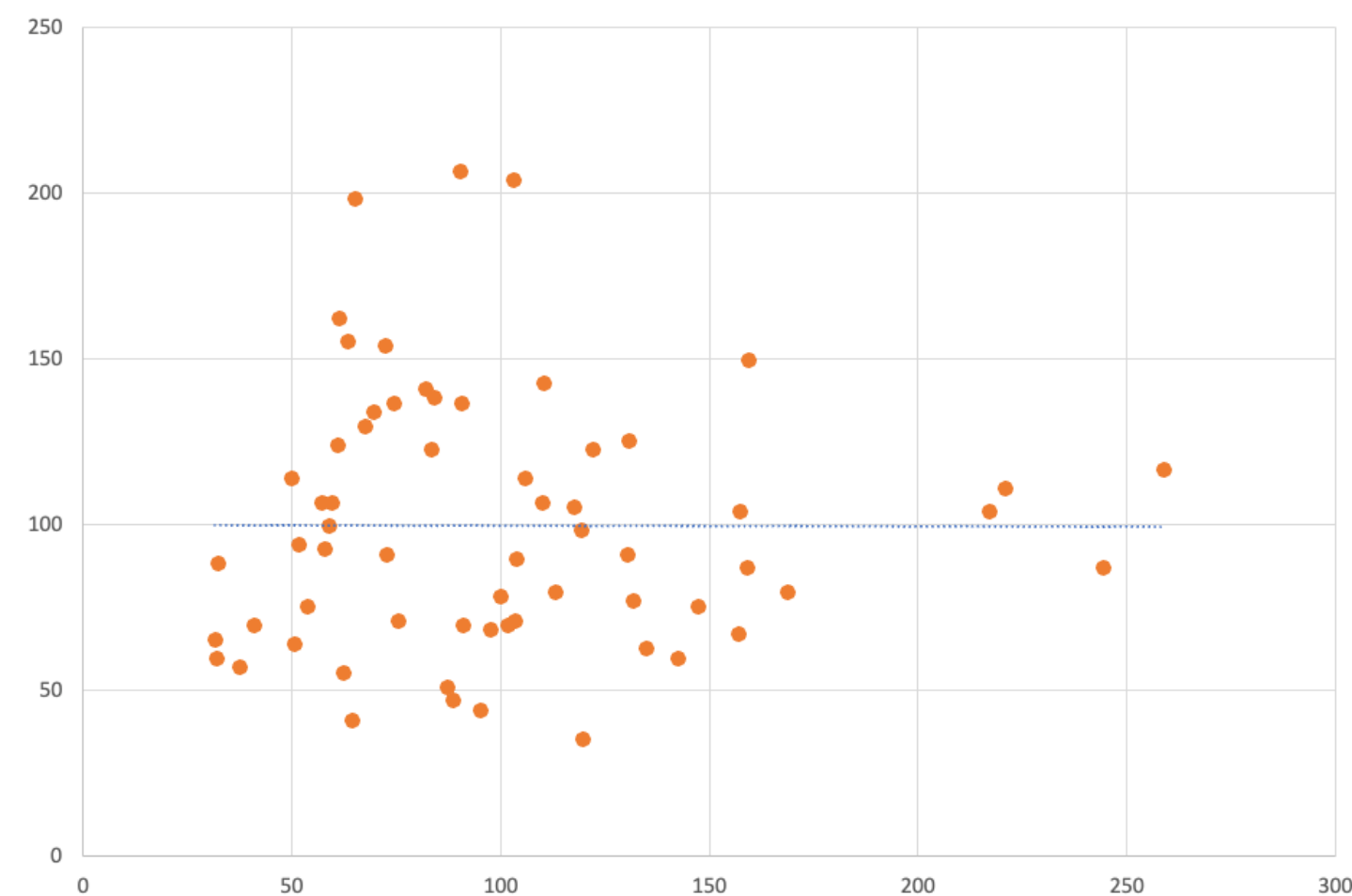
Sky TV & Broadband radio campaign: Search vs Non-Search

Radio Impacts & **ALL-Search** Daily Web Sessions
 $R^2 = 0.54$ (normalised values)



Daily Radio Advertising Impacts Indexed against Average

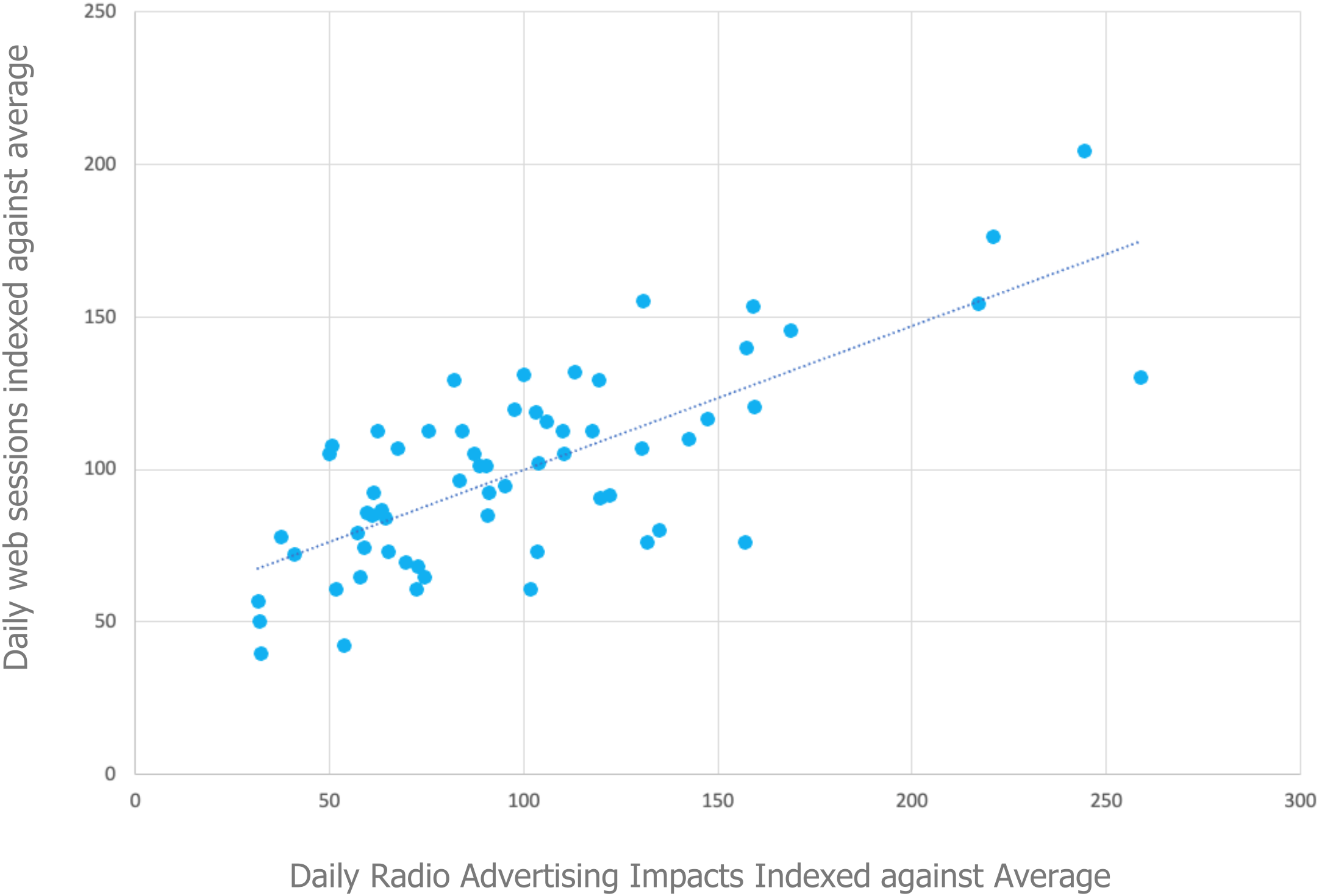
Radio Impacts & **NON-Search** Daily Web Sessions
 $R^2 = 0.00$ (normalised values)



- We combined both types of search referral together, accounting 64% of campaign landing page visits
- Suddenly, the relationship between weight of daily radio impacts and visits from online referrals turned out to be very strong
- In contrast, the regression found no relationship between daily radio impacts and web visits coming from non-search referral sources

Sky TV & Broadband radio campaign: Radio ads stimulate search traffic

Radio Impacts & ALL-Search Daily Web Sessions
 $R^2 = 0.54$ (normalised values)



54%

54% of the variance in online search visits can be predicted by the volume of daily radio ad impacts

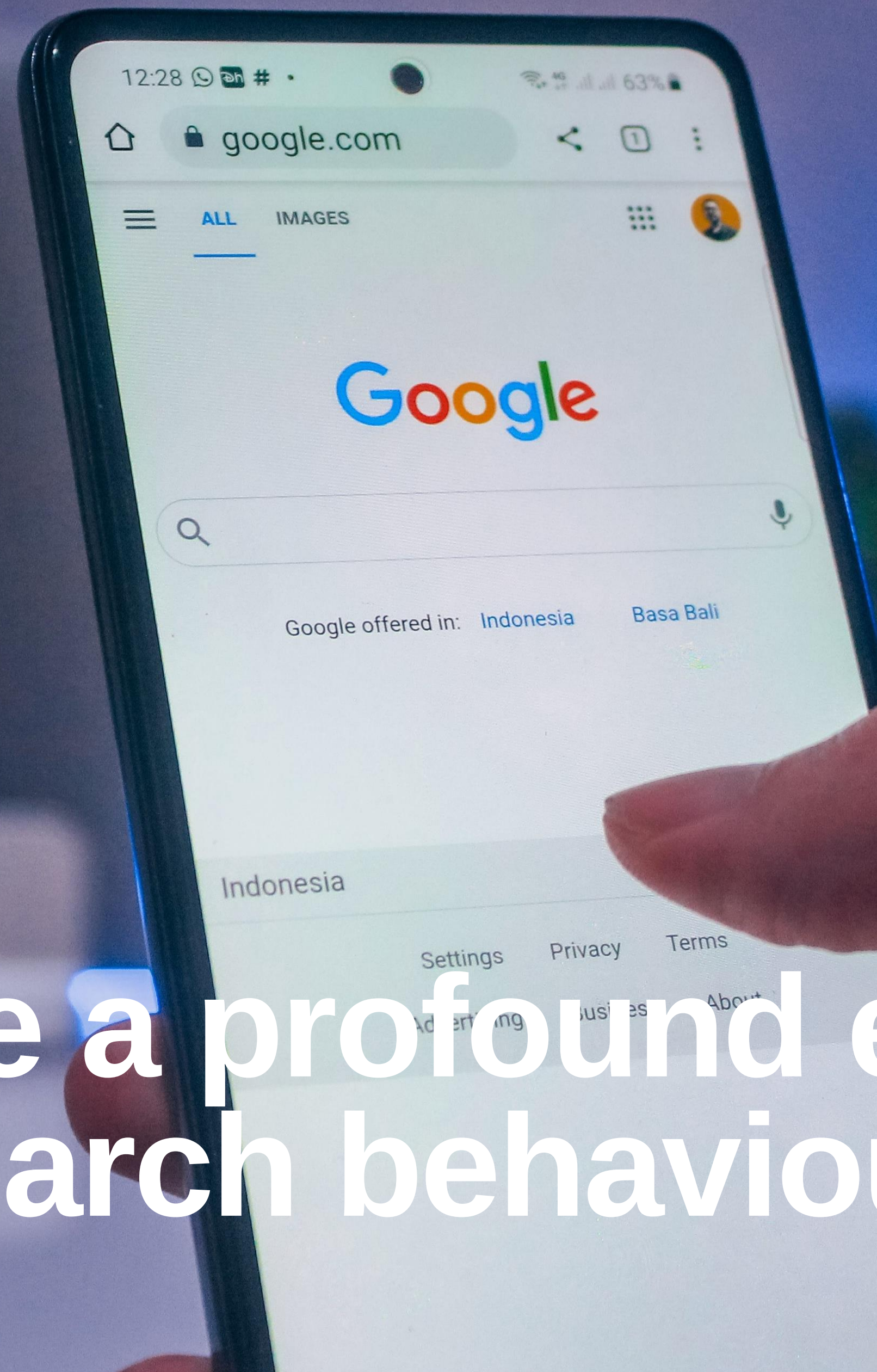
+100k

For each additional 100,000 radio ad impacts scheduled each day...

+6.6%

...the daily search visits to this campaign landing page increased by an average of 6.6%

Source: Sky Google Analytics / Colourtext 2023

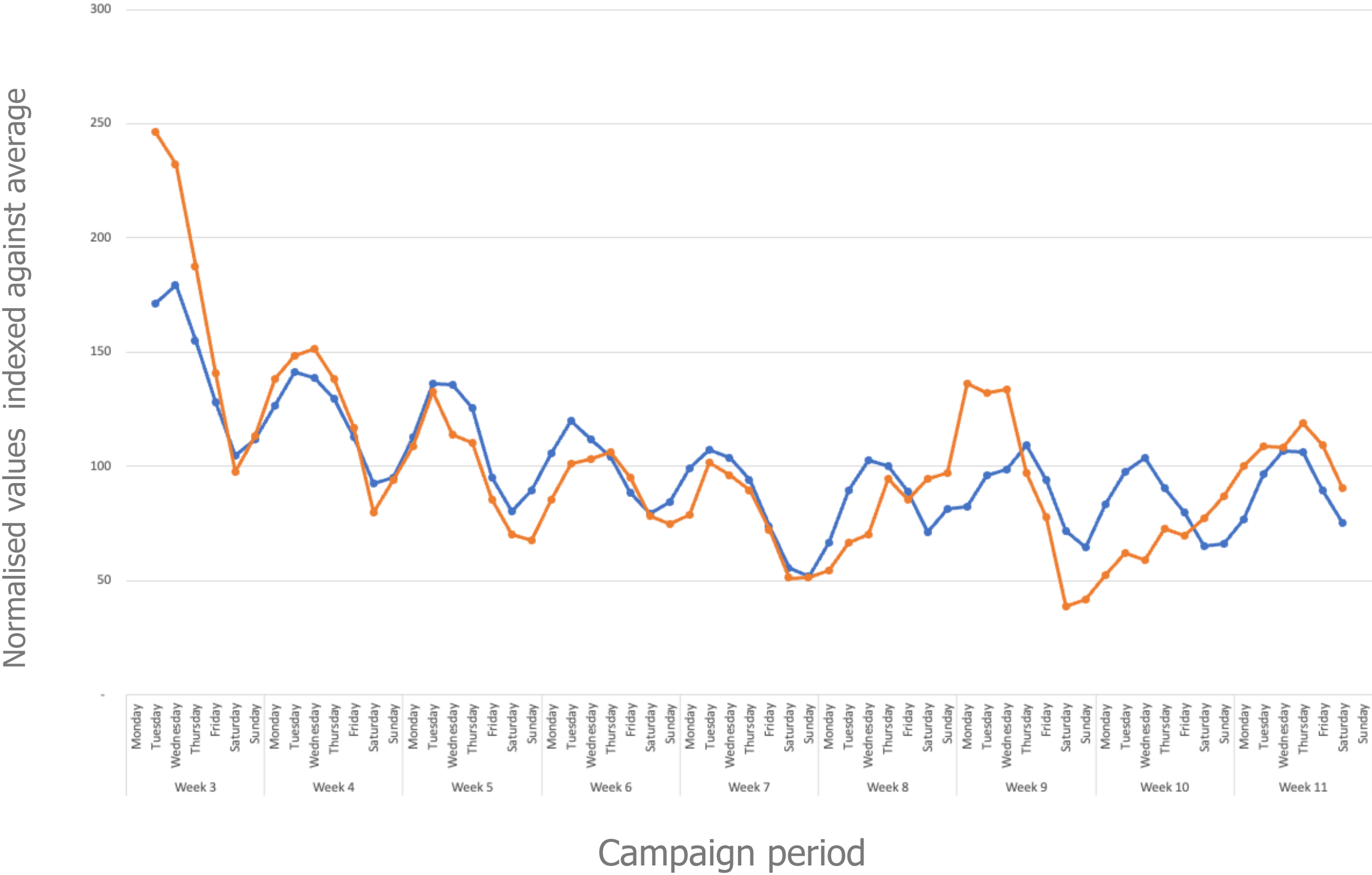


Radio can have a profound effect upon online search behaviour

Sky TV & Broadband radio campaign: Testing different attribution periods

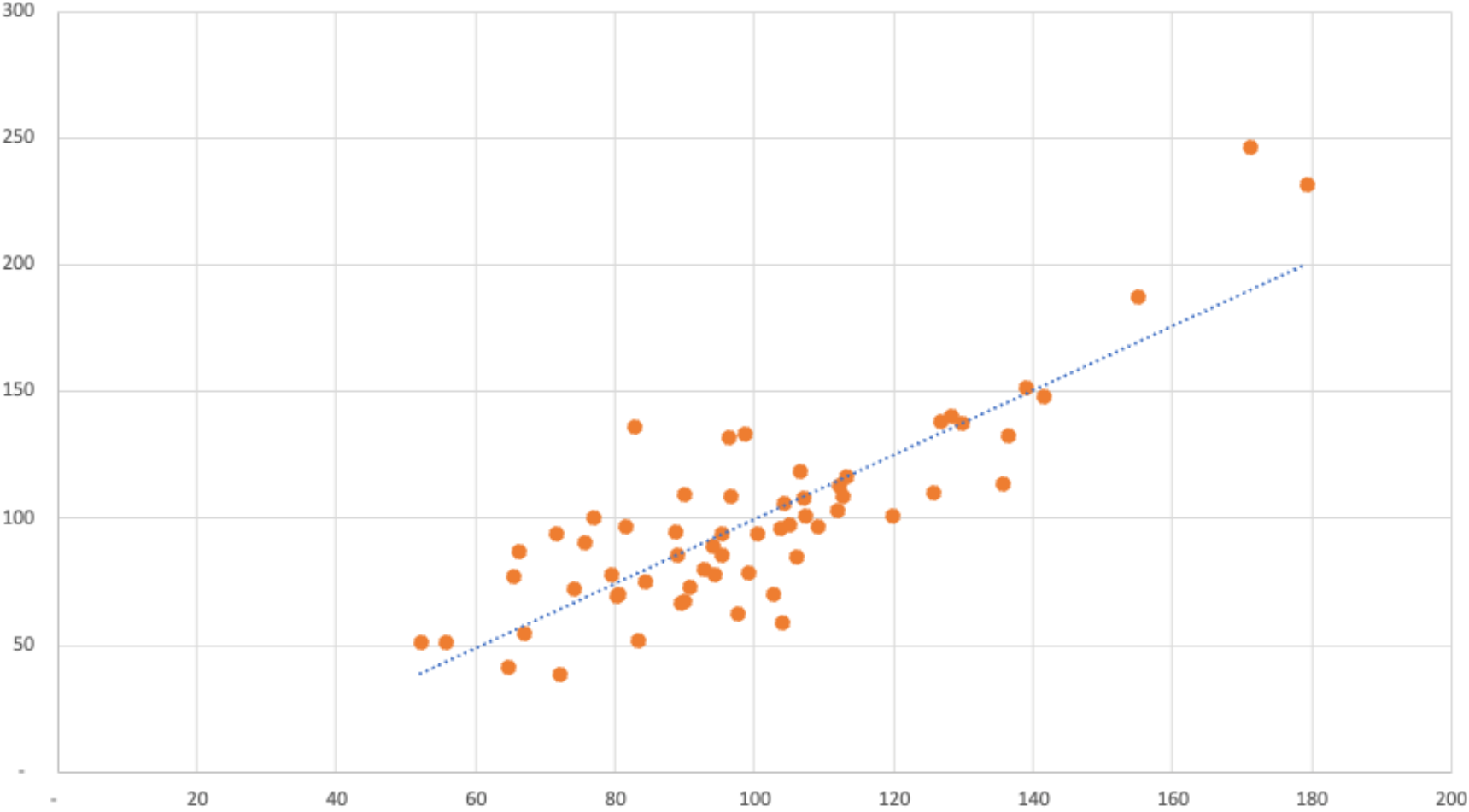
Organic & Paid Search Referrals (3-day moving average / normalised values)

Daily Radio Impacts (3-day moving average / normalised values)



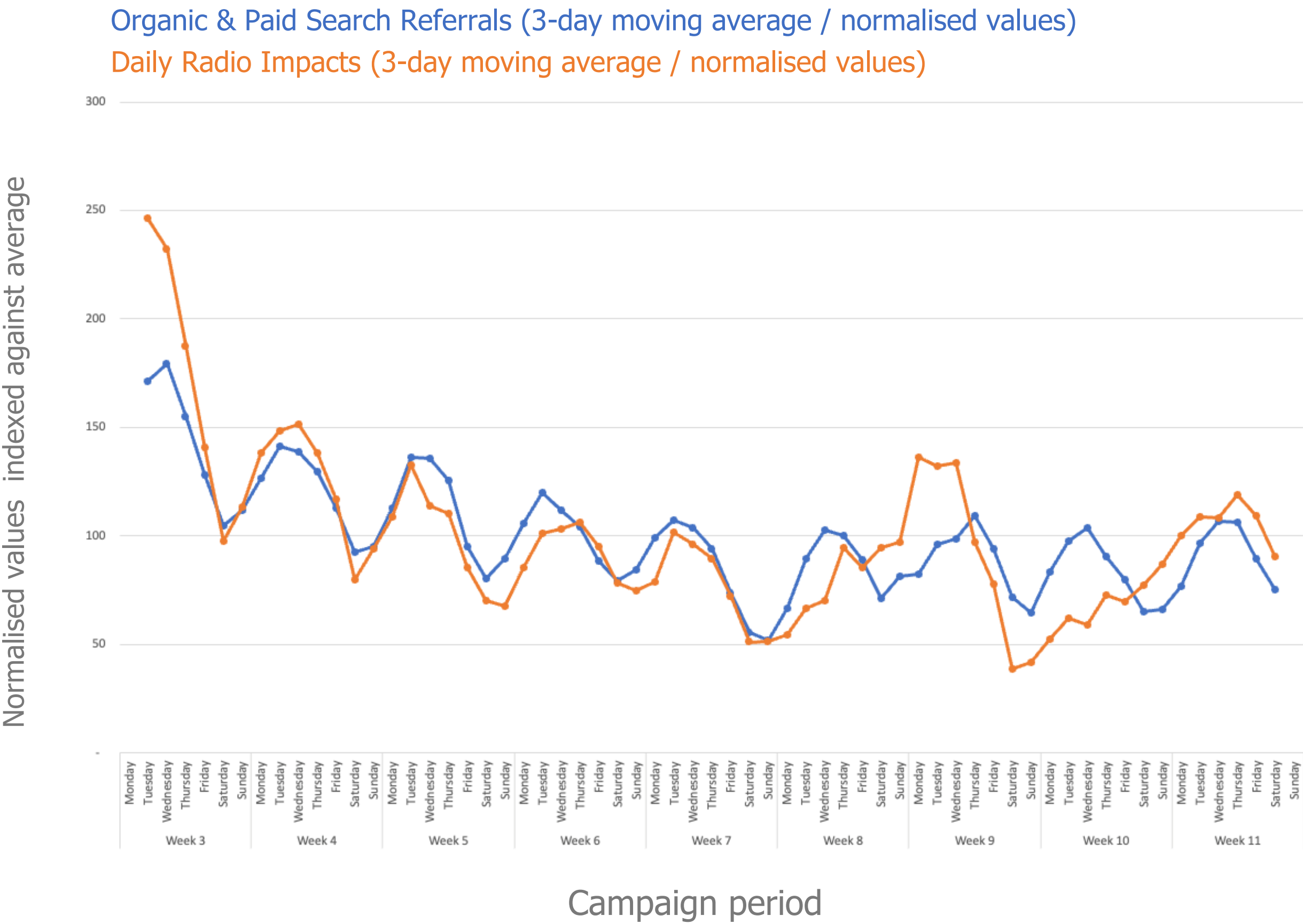
x = Radio impacts / y = Search Referrals (3-day moving average)

$R^2 = 0.72$



- The relationship between radio impacts and online search referrals becomes even stronger when we use a 3-day moving average baseline

Sky TV & Broadband radio campaign: Testing different attribution periods



72%

- 72% of the variance in website visits that arrived via search could be predicted by the 3-day moving average of daily radio ad impacts

24/72

- This further suggests radio ad response tends to be delayed, will not usually be directly attributable to individual spots but will have measurable effects over a 24-72hr period

Halo

- BOOM - we think of this as the radio advertising 'Attribution Halo'

**Plan radio campaigns around the
24 to 72 hour 'Attribution Halo'**



Radio attribution measurement

What have we learnt?

Key finding #1: Radio can have a profound effect upon online search behaviour

- This study discovered a strong relationship between radio advertising and online search behaviour - this is excellent news for advertisers
- Our data shows that the weight of daily radio impacts can usefully predict how much search traffic will find its way to a website
- The relationship between weight of radio impacts and online search referrals strengthens even further on the basis of a 3-day moving average (72% model efficiency)
- This raises interesting questions about the specific dynamics of online search behaviour and how radio's 'attribution halo' acts upon or synergises with it

Key finding #2: Short-term attribution windows struggle to see radio's ad response

- Regression analysis revealed a clear and responsive relationship between the weight of daily radio impacts and the amount of web traffic that hits a site within the same 24 hour period
- What's really interesting is that short term attribution measurement did not pick up on the strength of this relationship when looking through a narrow 5 - 60 minute post-transmission window
- The effect of radio only became apparent as we zoomed out to a broader 24-hour attribution window, and then became even more apparent in the 3-day moving average data
- We believe this is a significant finding

Key finding #3: Secondary listening generates a delayed response

- A lot of radio listening, perhaps as much as 50%, occurs when people are busy with primary tasks like driving, cooking or working, which gives rise to the delayed characteristics of radio ad response
- As this study shows, radio will stimulate classic short-term peaks in Direct web referrals, but this turns out to be just the tip of a much larger iceberg
- The more general rule for radio seems to be a delayed ad response that occurs within the broader 24-72 hour attribution halo
- That's what our campaign measurement technologies have to try to capture

Key finding #4: Re-thinking how we plan and optimise radio schedules

- Delayed ad response raises questions about the principles of spot optimisation and how this affects radio planning strategy
- Our findings suggest the weight of a radio schedule, in terms of daily ratings, may be a more important factor than the timing of individual ad spots in the pursuit of 'efficiency'
- This suggests that radio campaigns should focus on achieving a sufficiently high level of reach every single week rather than over-optimising individual spots
- This in turn implies it might be necessary for planners to prioritise the weight of the schedule, rather than individual spot optimisation, to fully capitalise on the delayed nature of radio ad response

Our final headlines

