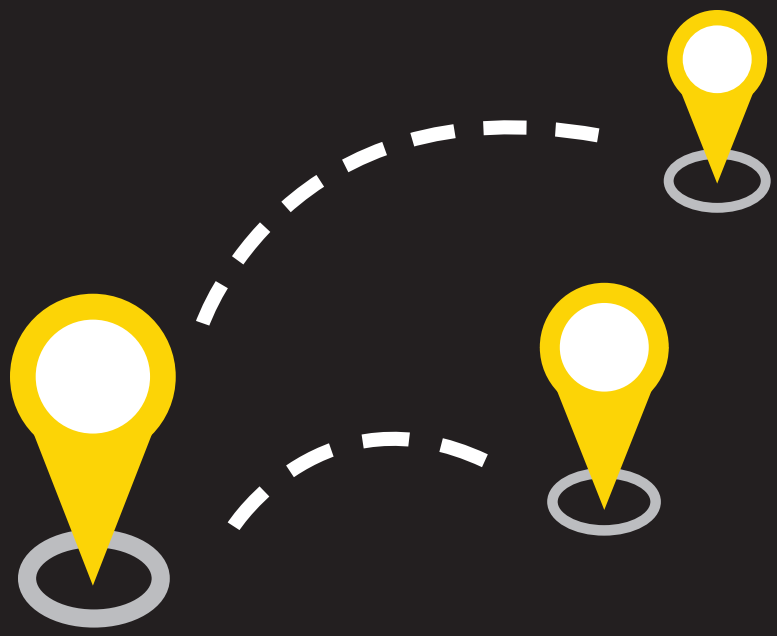

YP℠ Location-Based Mobile Advertising Insights Report

2015

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YP's location-based mobile advertising business is growing fast.

+390%

The number of bid requests processed by YP in Q2 2015 vs. Q2 2014

+99%

The number of campaign impressions served in Q2 2015 vs. Q2 2014

+59%

Predicted growth of U.S. mobile advertising spend[1]

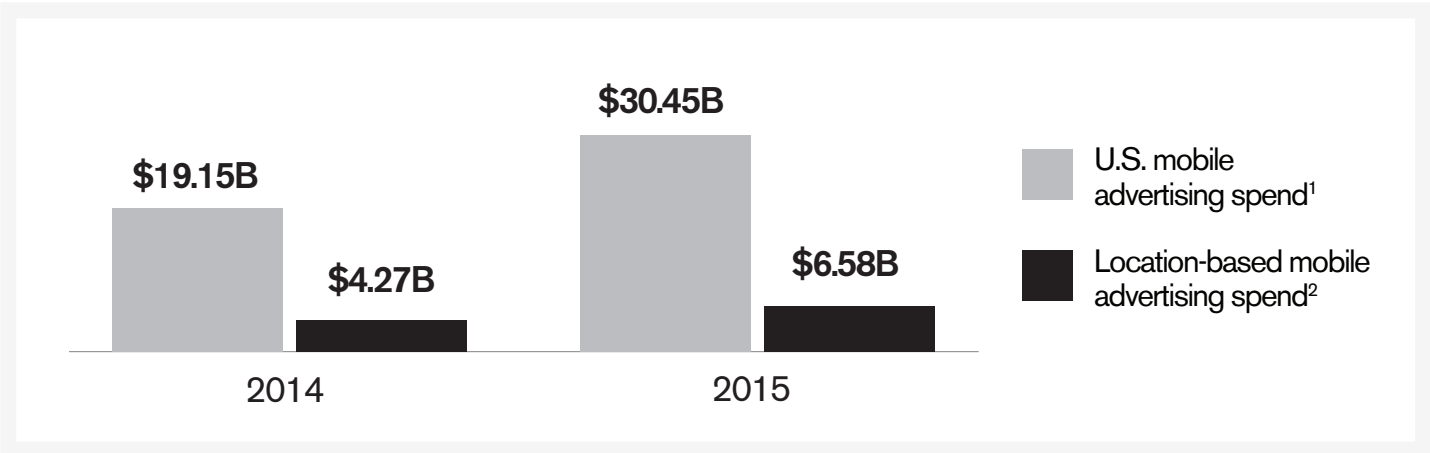
+54%

Predicted growth of location-based advertising spend[2]

+88%

YP's business from location-based mobile advertising Q2 2015 vs. Q2 2014

Strong Growth in Mobile Advertising and Location-Based Mobile Advertising Spend



1. eMarketer, US Mobile Ad Spending 2014-2019, Sep 2015
2. BIA/Kelsey "Think Global, Target Local: Multi-Location Advertising in the Mobile Age," Jan 2015

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Location-based mobile impression analysis

YP℠ takes location data quality very seriously. One of the benefits of location-based targeting is the increased relevance of ads to consumers. That relevance is dependent on accurate data.

YP serves its location-based mobile advertising ads on third-party mobile applications. These mobile applications send YP requests for bidding on impressions that they have via mobile ad exchanges. YP Mobile Labs team determines the quality of location data in each bid request for an impression and either rejects the bid request, or bids on it if it finds the location information provided by the app to be accurate.

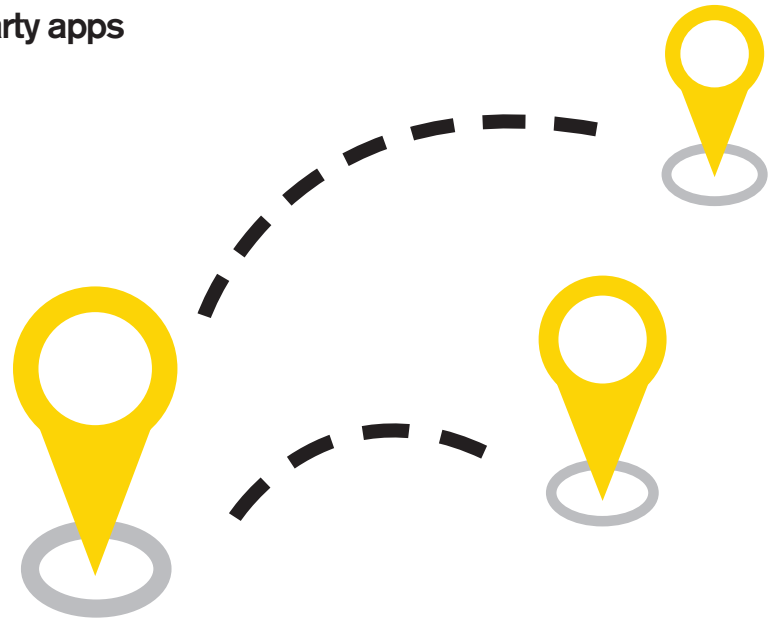
Our Mobile Labs team has been working with mobile location data since pre-iPhone days and holds multiple patents in the field.

While the number of impressions YP processed in Q2 2015 has increased over Q2 2014, **the percentage of accurate location data provided by third party apps has decreased.**

- YP filtered out 49% of location-enabled bid requests due to location quality issues in Q2 2015
- The quantity of bad location data provided by third-party mobile apps, which YP filtered out increased by 81% compared to Q2 2014
- After filtering by Mobile Labs, YP had access to 308.8 billion bid requests with good quality location data in Q2 2015 that it could bid on

Indicators of bad location data include:

- Centered location points
- Lat/long pairs with insufficient precision
- Clustered location points
- Exact lat/long repetitions



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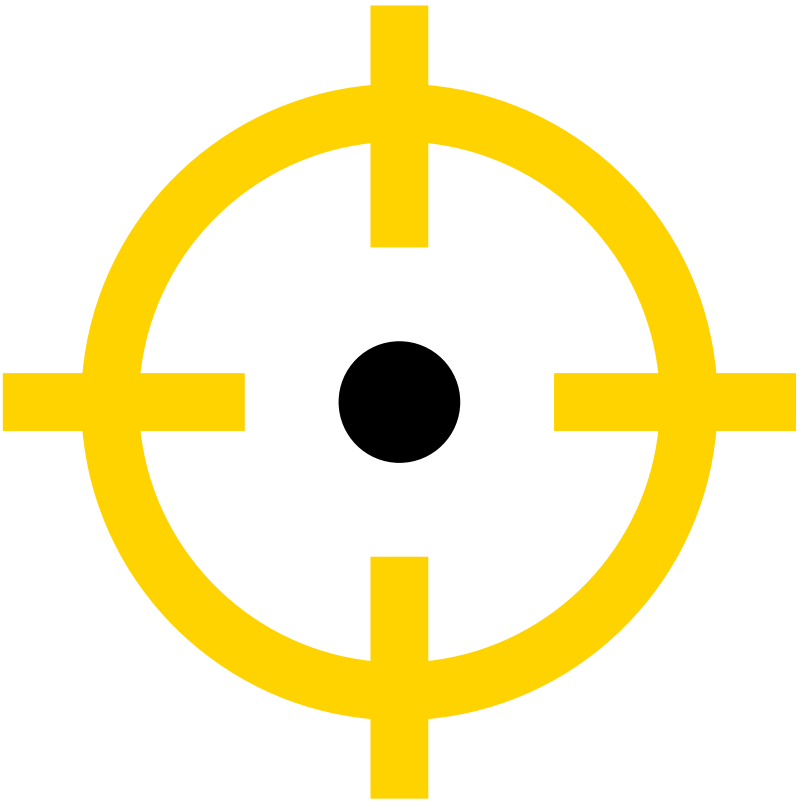
Accuracy vs. Precision

Accuracy trumps precision when it comes to determining the quality of a location point. Accuracy is the degree to which a location measurement conforms to the correct value, while precision is the refinement of that measurement.

When working with location data, if the reported location has poor accuracy, extra digits of precision in the lat/long are useless.

Check out our whitepaper on **Location Data Accuracy** to learn more.



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YP[SM] bid requests and location data in Q2 2014 vs. Q2 2015

Q2 2014	vs.	Q2 2015
124.3 Billion bid requests processed	↑ 390% YoY	**609.4 Billion** bid requests processed
123.6 Billion bid requests with location data	↑ 315% YoY	**513.3 Billion** bid requests with location data
90.8 Billion bid requests with good location data	↑ 240% YoY	**308.8 Billion** bid requests with good location data

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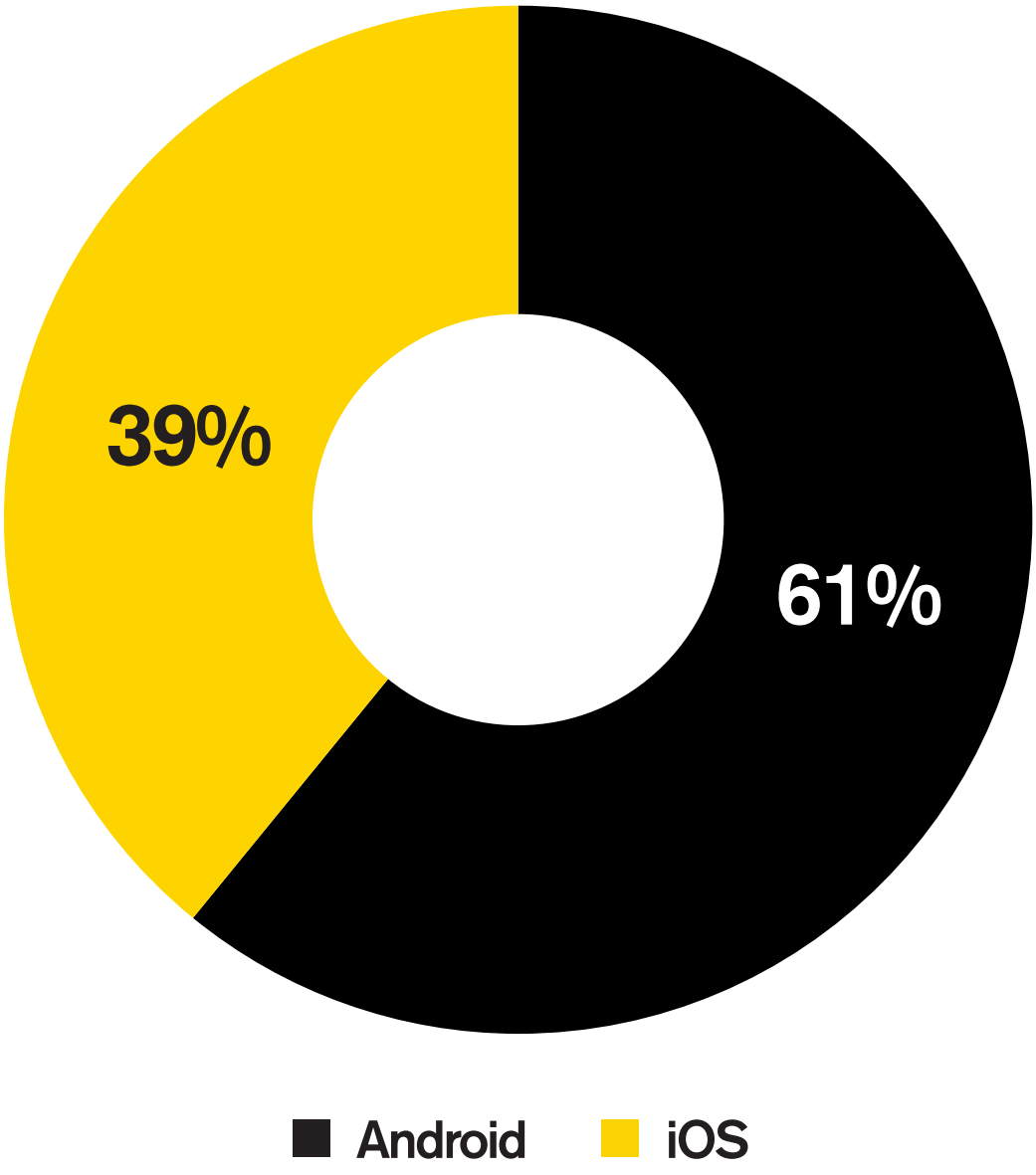
Impressions by operating system YTD Q2 2015

YP[SM] served **56% more impressions** on mobile devices with Android operating system.



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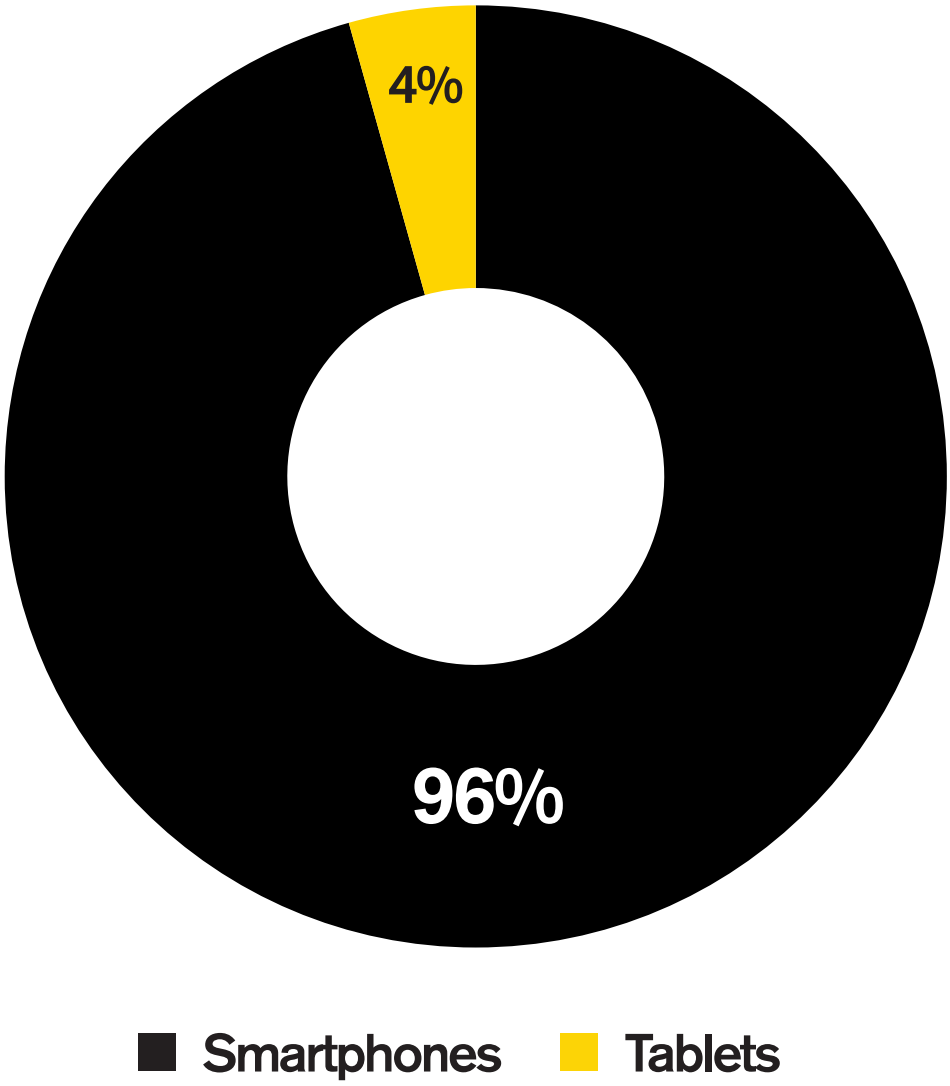
Impressions served on smartphones vs tablet Q3 2014 – Q2 2015

YP℠ served the majority of impressions on smartphones. Smartphones offer more ad inventory than tablets, and **more location-enabled impressions.**



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Campaign performance

Every location-based mobile ad campaign is optimized by the YP Mobile Labs team. Performance will vary based on client campaign objectives and campaign parameters.

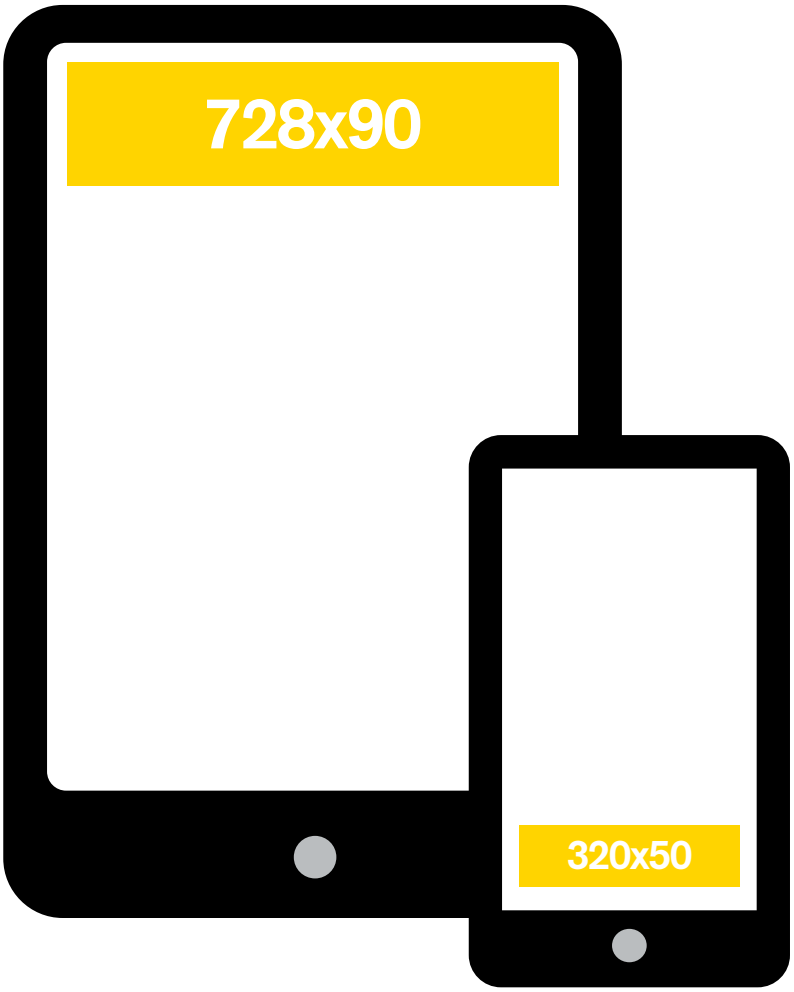
Average Q2 2015 CTR across all campaigns:

0.70%

Smartphone display banner CTR

0.80%

Tablet display banner CTR



Tablet: 728x90
Mobile: 320x50
YP Internal Data, Q2 2015

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Average click-through rates for top verticals

Retail and **Automotive** had the highest average click-through rates in Q2 2015.

Vertical	Click-through rate
Automotive	1.00%
Financial services	0.70%
Insurance	0.56%
Retail	0.81%
Travel and lodging	0.74%

CTR for Automotive

CTR for Retail

* Internal YP data Q2 2015 from across different verticals

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Store visit measurement by vertical

YP℠ – Mobile Labs team has been using location data to measure consumer store visits since **March 2013.**

YP measures store visits from mobile campaigns across its 150 million proprietary user profiles.

To measure **store visit lift**, our Mobile Labs team compares a control group of users in the target audience who went to the advertiser's store without seeing an ad, to the group of users who clicked on an ad and then went to the advertiser's store.

YP reports actual store visits based on measured location data and does not use sampling or extrapolation. We can also provide store visits by individual stores.

Vertical	Store visit average lift Q3 2014 - Q2 2015*
Auto parts and services	23x
Automotive	9.8x
Business services	9.3x
Casual dining	10.4x
Financial services	8.2x
Home and garden	4.7x
Insurance	6.3x
Retail	7x
Travel and lodging	21x

*Internal YP data from selected campaigns across different verticals. Results will vary dependent upon individual campaigns, categories and geographies. Past performance is no guarantee of future results. Under no circumstances may this data be used to project individual results, which will vary depending on factors like category and geography, as well as factors unique to each business and/or advertising campaign.

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Foot traffic change in Q2 2015 vs. Q2 2014

Mobile location data can be used to measure overall retail foot traffic in addition to store visits resulting from campaigns. The following data shows changes in aggregate store foot traffic of some of the larger retail store chains.

-18%

Best Buy

+19%

Home Depot

+10%

Target

+41%

Walmart

+29%

Sam's Club

+56%

Clinics and Pharmacies

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Shifts in retail foot traffic

Changes in our ability to measure foot traffic due to lcoation-based mobile ads have occured for various reasons. **Location-based mobile advertising** relies on apps installed on mobile devices for location data. The number of users with mobile devices, the number of apps they interact with and time spent on apps have all increased steadily in recent years.

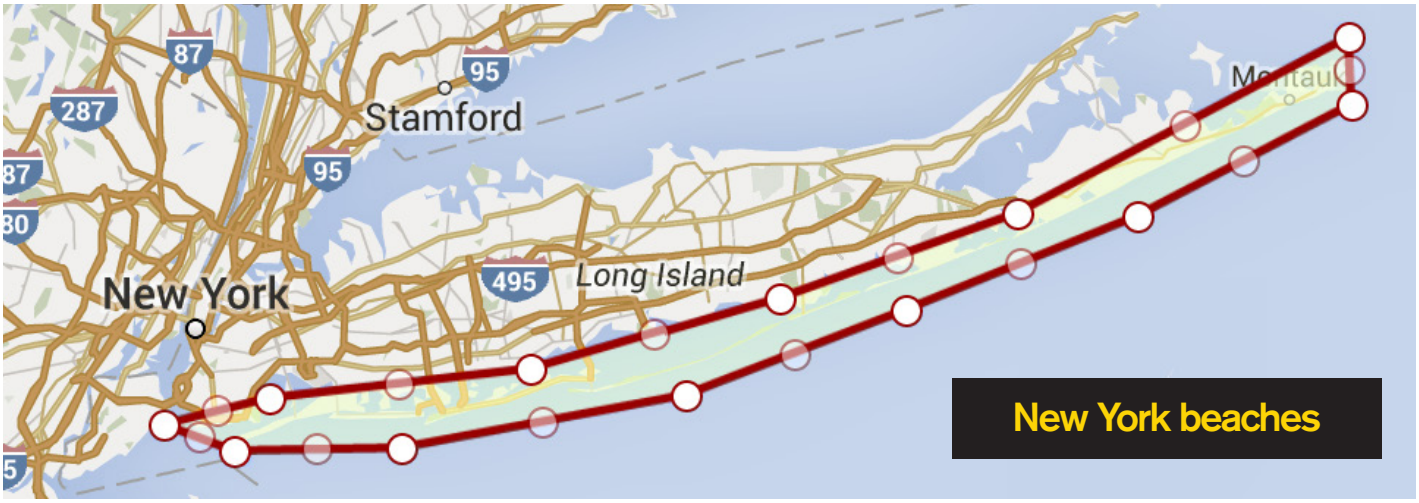
Also, many retailers have added more features to their mobile apps and marketed them more aggressively, allowing for more accurate reporting of store visits.

> “Marketers have been trying to connect their online advertising spend with the activity in brick and mortar stores for a long time. YP’s proprietary store visit measurement technology enables advertisers to correlate the increase in foot traffic in their stores to their mobile advertising spend, and it also enables YP to see underlying foot traffic trends at major brand retail chains over time.”
>
> Alan Lang, VP, Mobile Labs Engineering

Highlight of the quarter

Using data to understand the demographics, needs and behaviors of an audience is essential to serving them relevant, useful ads. The data below was collected by YP[SM] during **Memorial Day weekend 2015**, and compares demographics, brand preferences, and lifestyle choices of east coast beach visitors to west coast visitors.

We used **point-in-polygon targeting** and **mobile location data** to anonymously determine visitors to New York and LA beaches. We then applied our proprietary data science to uncover demographic, lifestyle, and behavioral insights. The results revealed some interesting bi-coastal differences.



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How do New York beach visitors differ from Los Angeles beach visitors?

Demographic & lifestyle

East coast

- 118% higher millennial visitors when compared to the percentage of millennial visitors in LA beaches
- Less love for coffee by 9%
- 5% more attending college/universities

West coast

- 37% higher visitors who were 45 years or older when compared to the percentage of visitors in NYC beaches
- 60% higher visitors who earned $150,000 or more when compared to the percentage of visitors in NYC beaches
- 9% more health conscious; frequented spas and gyms
- 6% more were motorcyclists

NYC beach visitors vs. LA beach visitors

	Beach visitor's lifestyle	East coast	West coast
1.	Beauty conscious	42%	44%
2.	Fitness seekers	38%	45%
3.	Pet owners	28%	30%
4.	Coffee lovers	28%	37%
5.	Bookworms	27%	24%
6.	Art connoisseurs	25%	29%
7.	College students	13%	8%
8.	Motorcyclists	8%	14%
9.	Golfers	5%	5%

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East coast vs. west coast brand preference

Mobile location data revealed a difference in inferred brand preferences by coast through consumer foot traffic analysis.

Top 20 brand preferences of NYC beach visitors vs. LA beach visitors[1]

	East Coast	West Coast
1.	Subway	Starbucks Coffee
2.	Dunkin Donuts	Subway
3.	Verizon Wireless	Verizon Wireless
4.	Starbucks Coffee	7-Eleven
5.	McDonald's	Farmers Insurance
6.	Bank of America	State Farm Insurance
7.	7-Eleven	Bank of America
8.	H&R Block	McDonald's
9.	Capital One	Wells Fargo Bank
10.	Citi Bank	CVS Pharmacy
11.	T-Mobile	The UPS Store
12.	All State Insurance	All State Insurance
13.	Chase Bank	Shell
14.	AT&T	Jack in the Box
15.	CVS Pharmacy	US Bank
16.	Rite-Aid	Chevron
17.	GNC	H&R Block
18.	Baskin Robins	T-Mobile
19.	Liberty Tax Services	Taco Bell
20.	Sleepy's	Baskin Robbins

- **Regional Banking:** Wells Fargo dominates in LA, Citibank in NYC
- **Taxes:** H&R Block was popular in LA, while Liberty Tax Service ranked highly for NYC beach visitors
- **Automotive:** No surprise here - Los Angeles has more car owners than New York City. More automotive-related brands, such as gas stations and auto insurance companies, made the Top 20 List for LA beach visitors than NY beach visitors

1. Brand preferences are inferred from measured mobile consumer behavior through location data

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YP[SM] thinks nationally and acts locally.

YP has mastered nationwide mobile location data analytics, but its corporate mission is grounded in local relationships with local businesses and communities. YP is fundamentally dedicated to helping local businesses and communities grow, while connecting national brands to these local consumers.

Thus for YP, individuals and communities are not stores of data to be mined, but complex human networks that need to be handled with care and supported.

Our interaction with these local networks respects how people desire their information to be used. YP follows industry-standard privacy practices and our website and apps are TRUSTe certified.

Please contact us with any questions about our location-based mobile advertising at **NationalMarketing@yp.com.**

national.yp.com/mobile

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