Sensor Tower

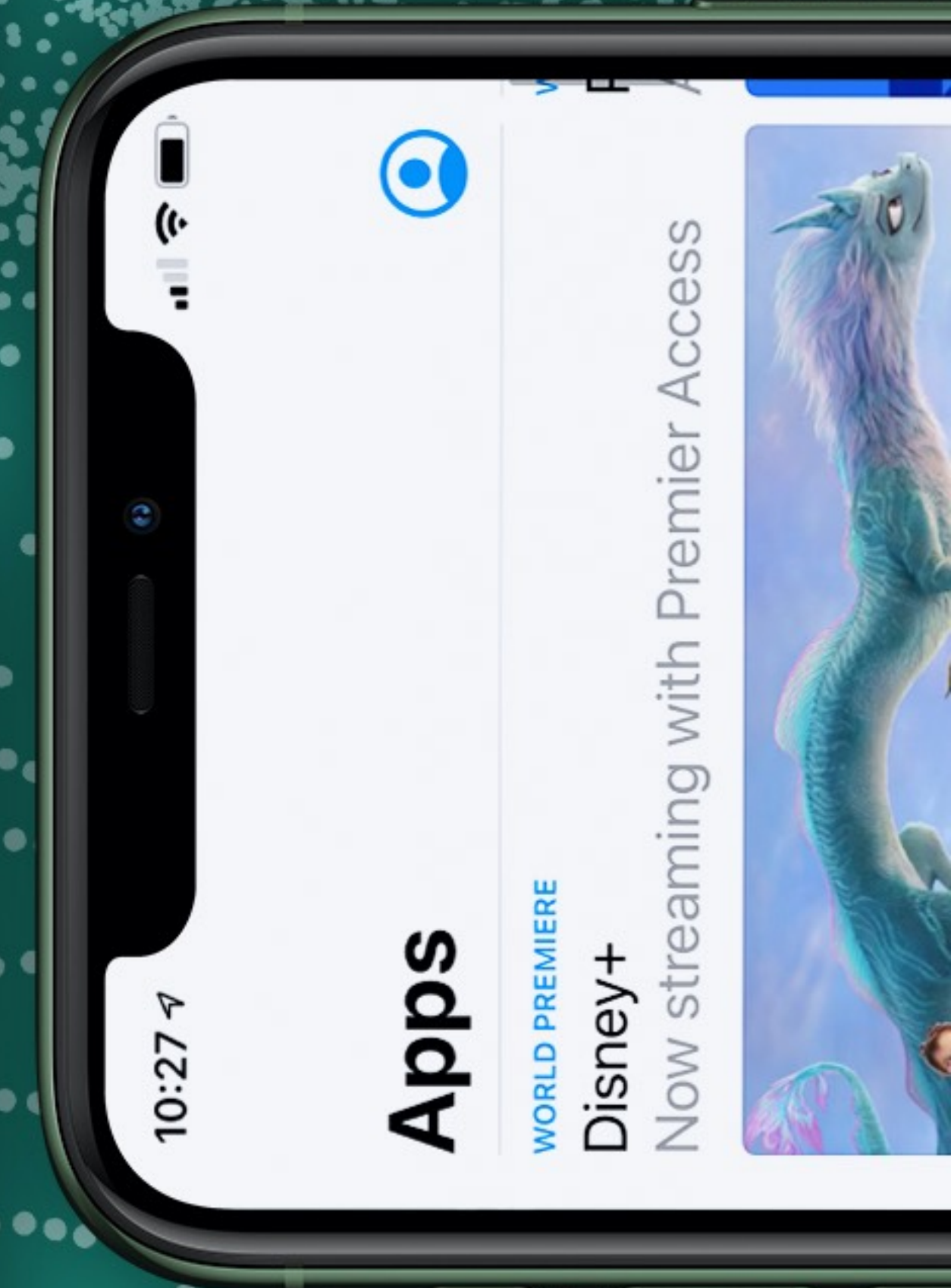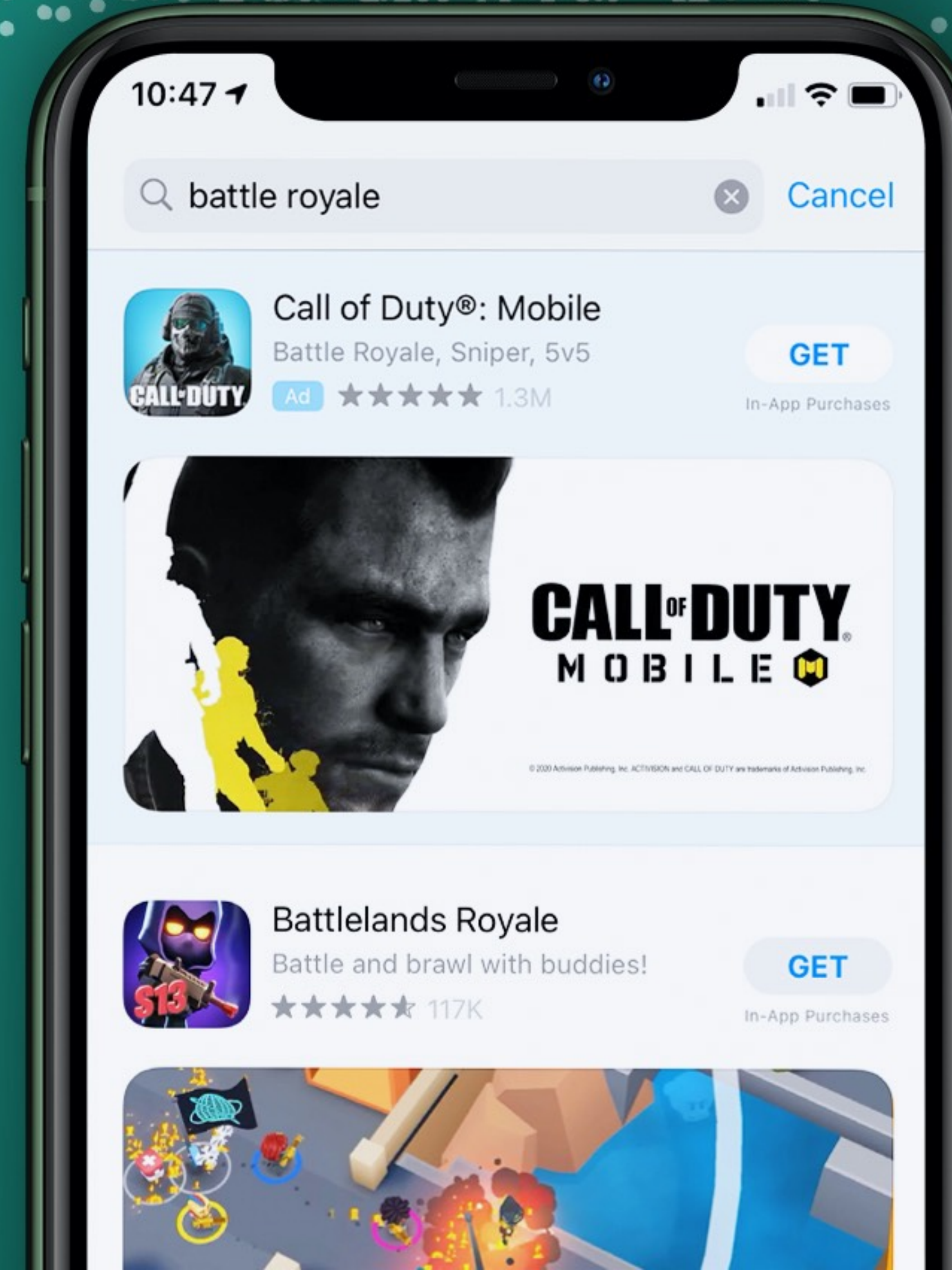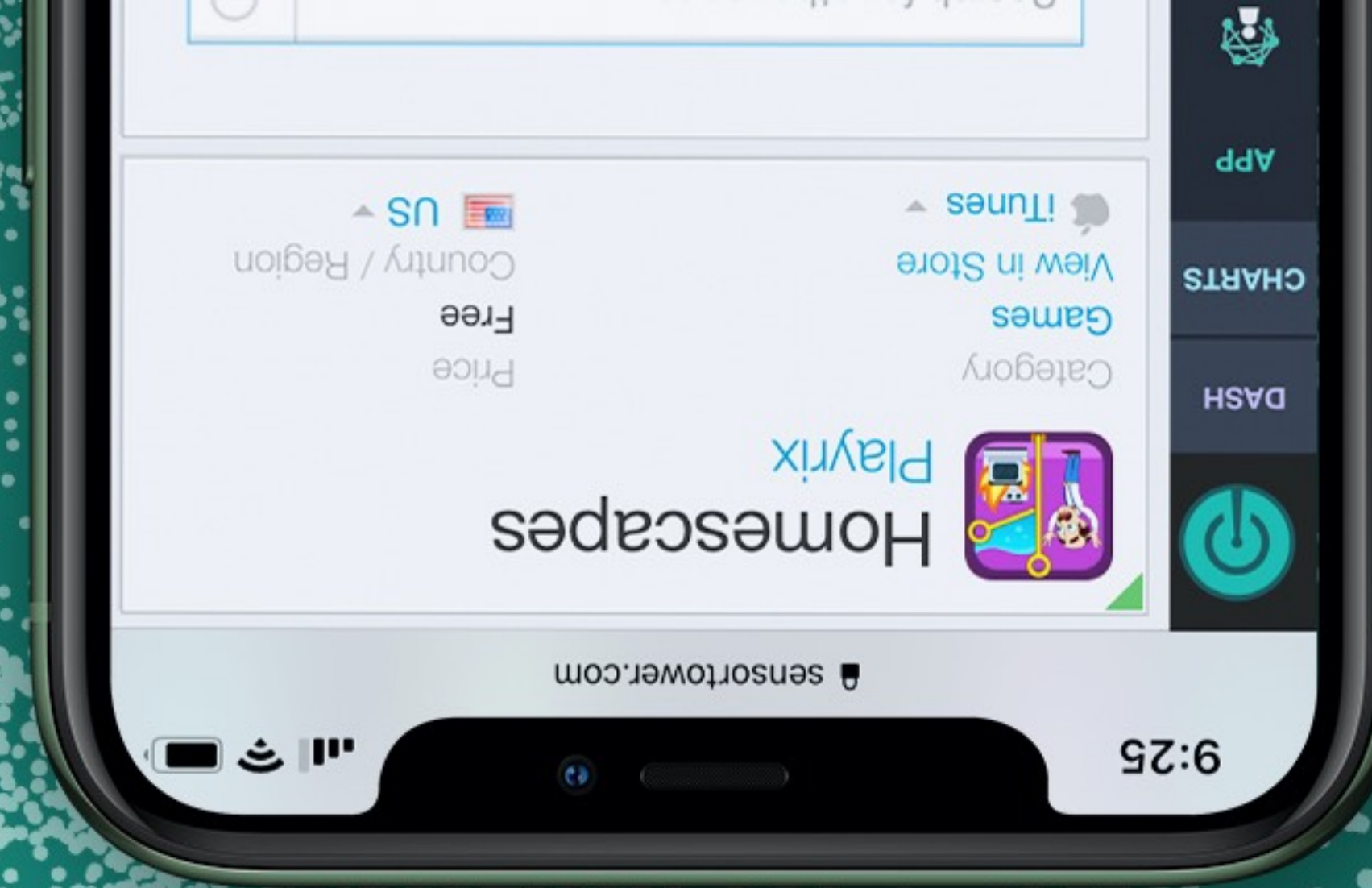# App Store Download Sources 2021

An Analysis of Download Sources
on Apple's App Store

Report:
Table of Contents

Summary:
Definition of Sources

This report investigates the sources of first-time app downloads made on the App Store. App downloads come from a variety of sources, including:

1. **Browse:** Downloads that come from browsing the App Store, such as from the Today Tab or the Top Charts section.

2. **Search:** Customers tapped to download the app after using the Search feature in the App Store.

3. **App Referral:** Customers tapped a link in an app that brought them to the App Store to download the app. Many App Referrals come from advertisements. For example, a game publisher may create a game with links to its other titles or include advertisements for other apps.

4. **Web Referral:** Downloads from tapping a link on a website that brought the user to the app's page in the App Store. *Note that referrals from browsers other than Safari (such as Google Chrome) are attributed as an App Referral for the web browser's app.*

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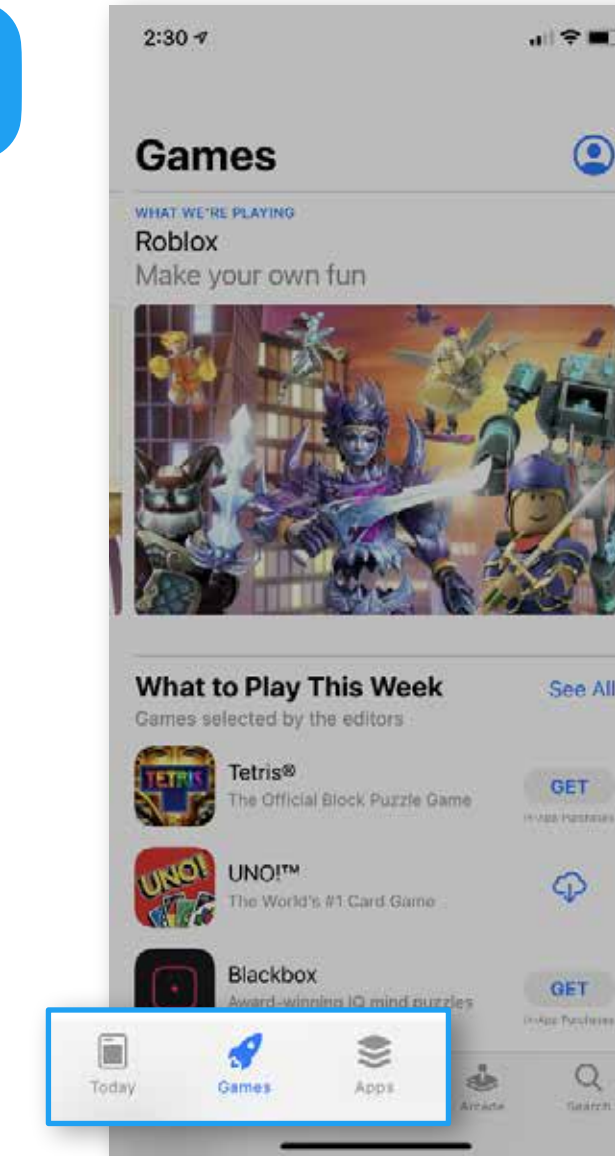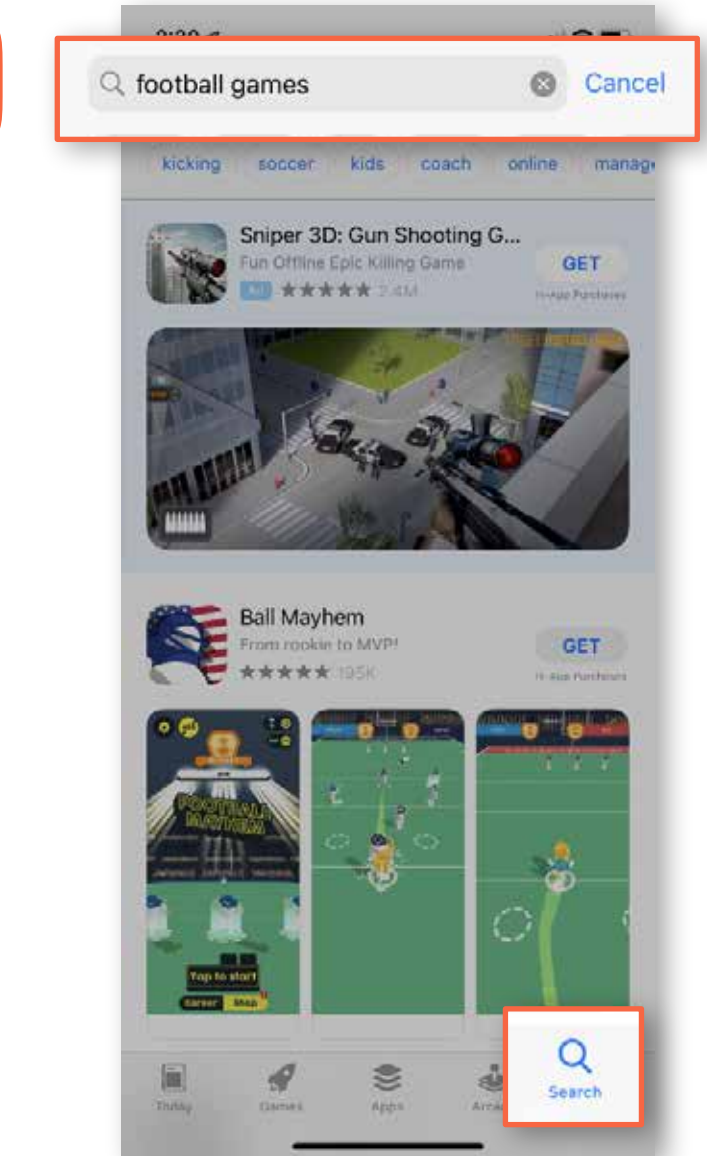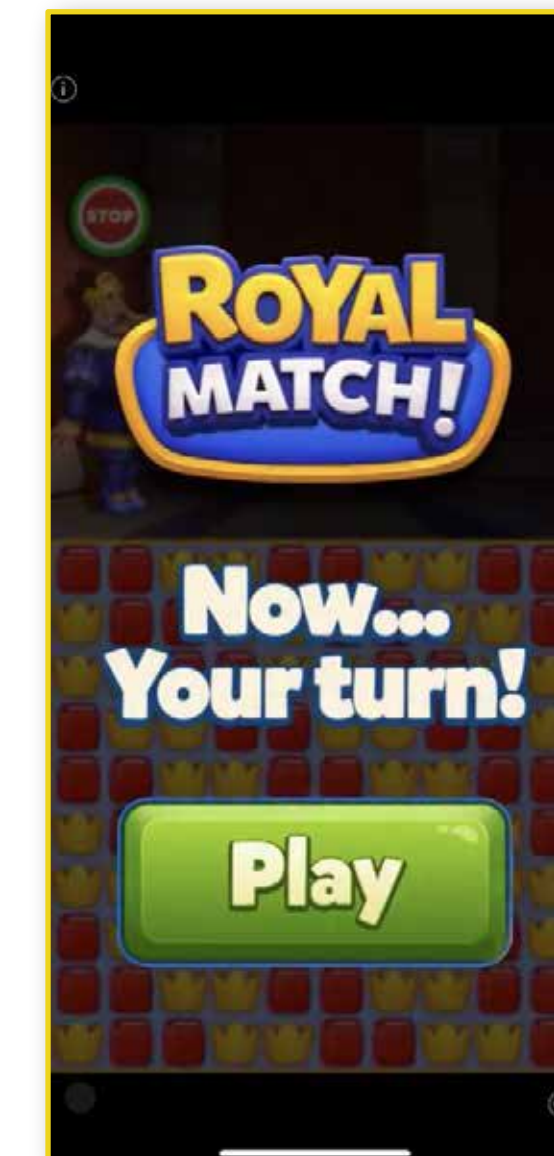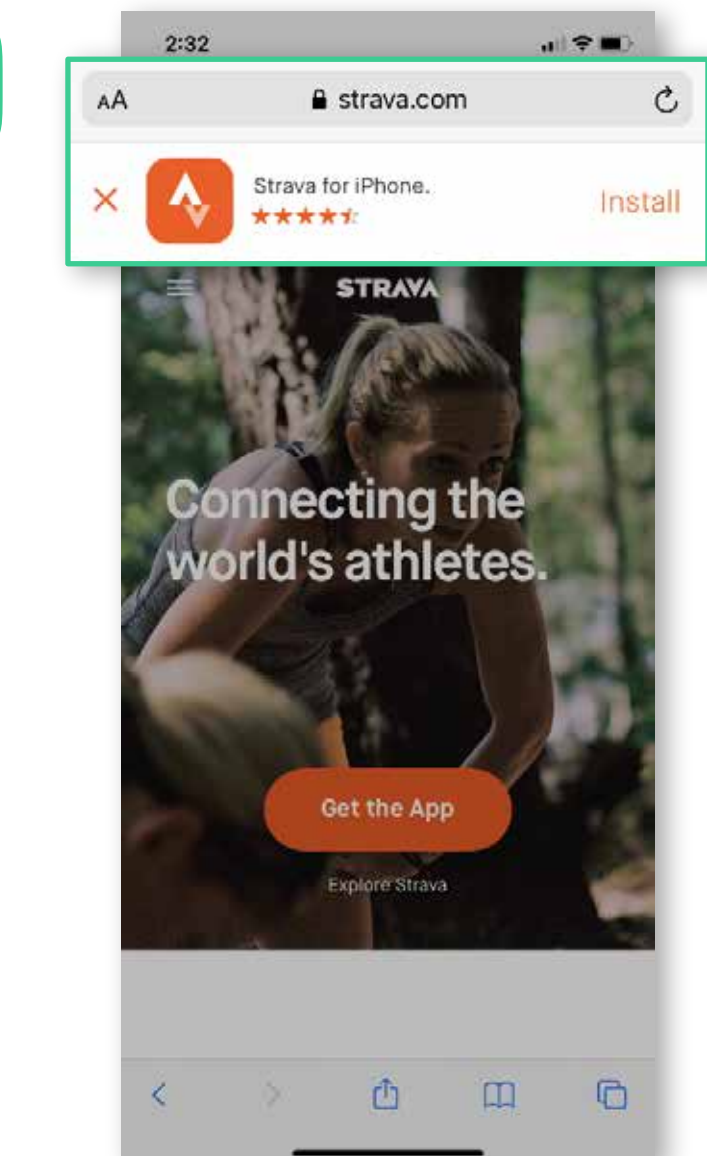
Methodology:
Data in the Report

The data in this report is from a sample of apps.

Characteristics of our population:

- 54% are games, 46% are non-game apps
- 90% are free, 10% are paid
- 49% are free games, 41% are free apps, 5% are paid apps, 5% are paid games

All distributions, with the exception of category distributions, are **normalized by the characteristics of the overall App Store**, including:

- Apps/Games
- Free/Paid
- All-Time Worldwide Downloads
- Months Since Release

Sensor Tower

App
Characteristics

Sensor Tower
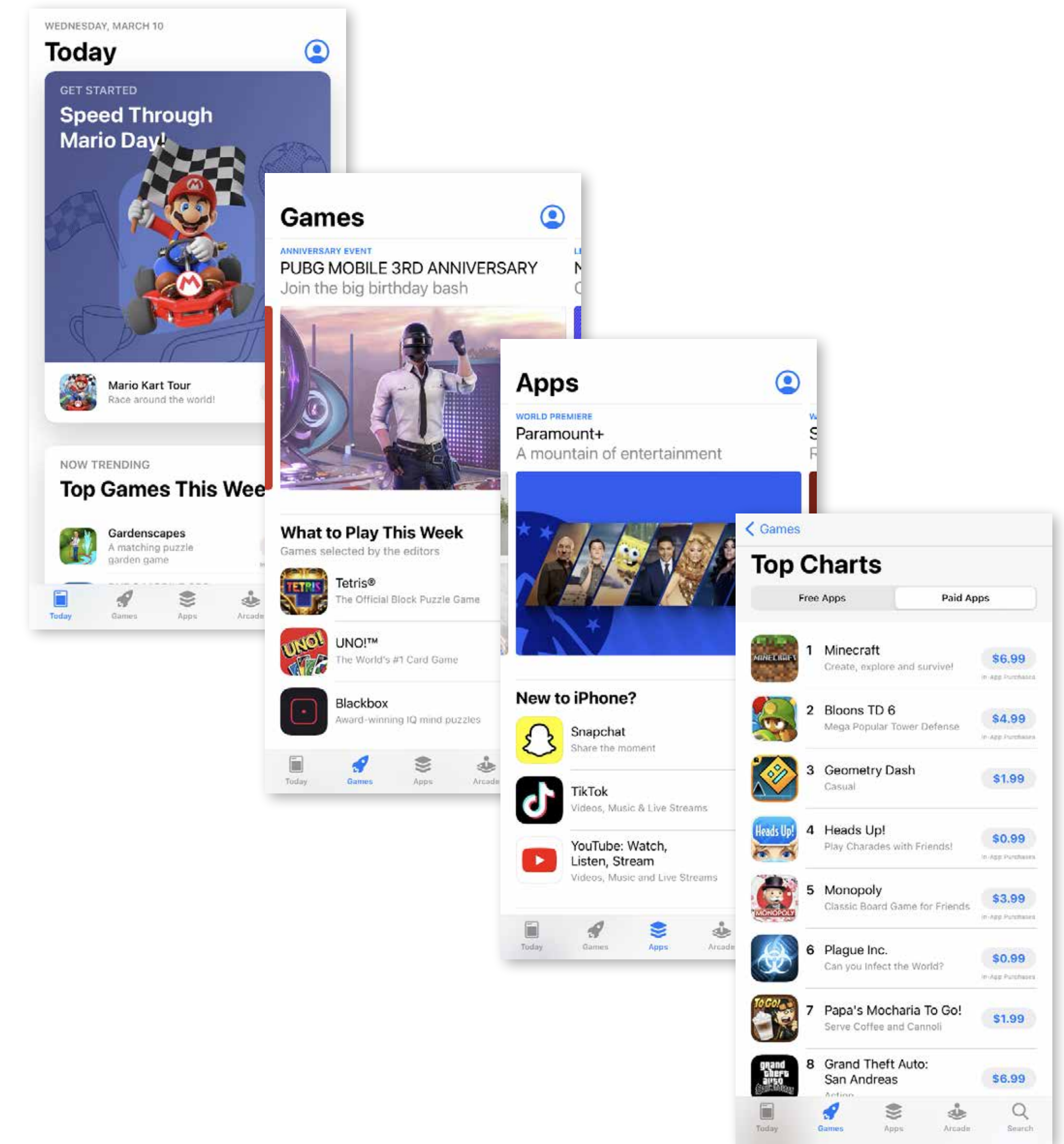
Nearly 60 Percent of Downloads are From Search

Share of App Store downloads by source in 2020

Legend:
- Search
- App Referral
- Browse
- Web Referral
- Unknown
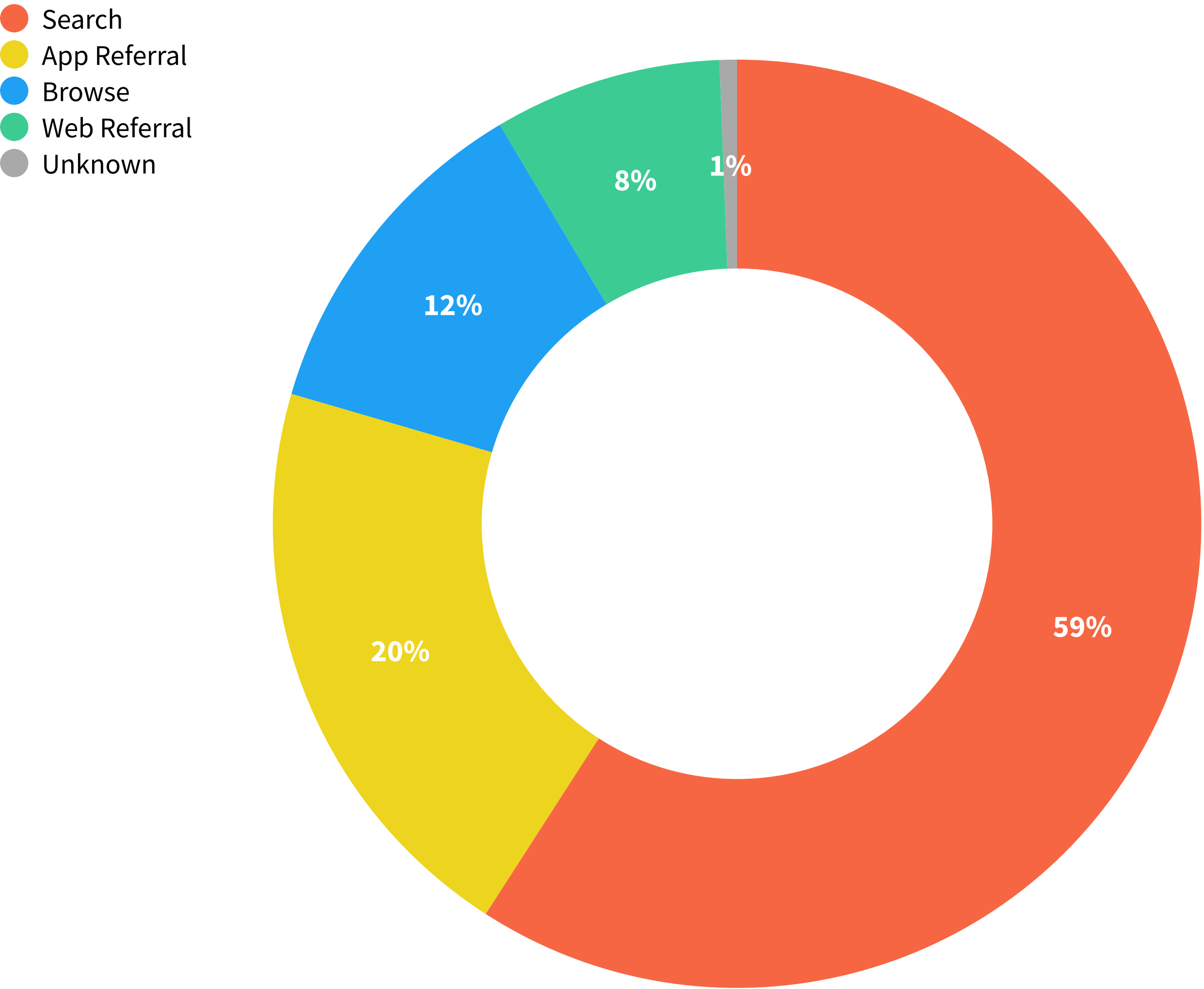
In 2020, 59 percent of App Store downloads came following a search. While the share from search has dropped in the recent years, it still accounted for more than half of all downloads.

Browse, the other organic download channel besides search, took 12 percent of downloads. **App referral emerged as the second largest download source with 20 percent.**

App Characteristics

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Sensor Tower

App Referral Was the Top Source for Games

Games vs. Non-Games share of App Store downloads by source in 2020

Browse ■   Search ■   App Referral ■   Web Referral ■   Unknown ■

	Browse	Search	App Referral	Web Referral
Game	24%	35%	38%	3%
Non-Game	7%	70%	13%	10%

0%   25%   50%   75%   100%
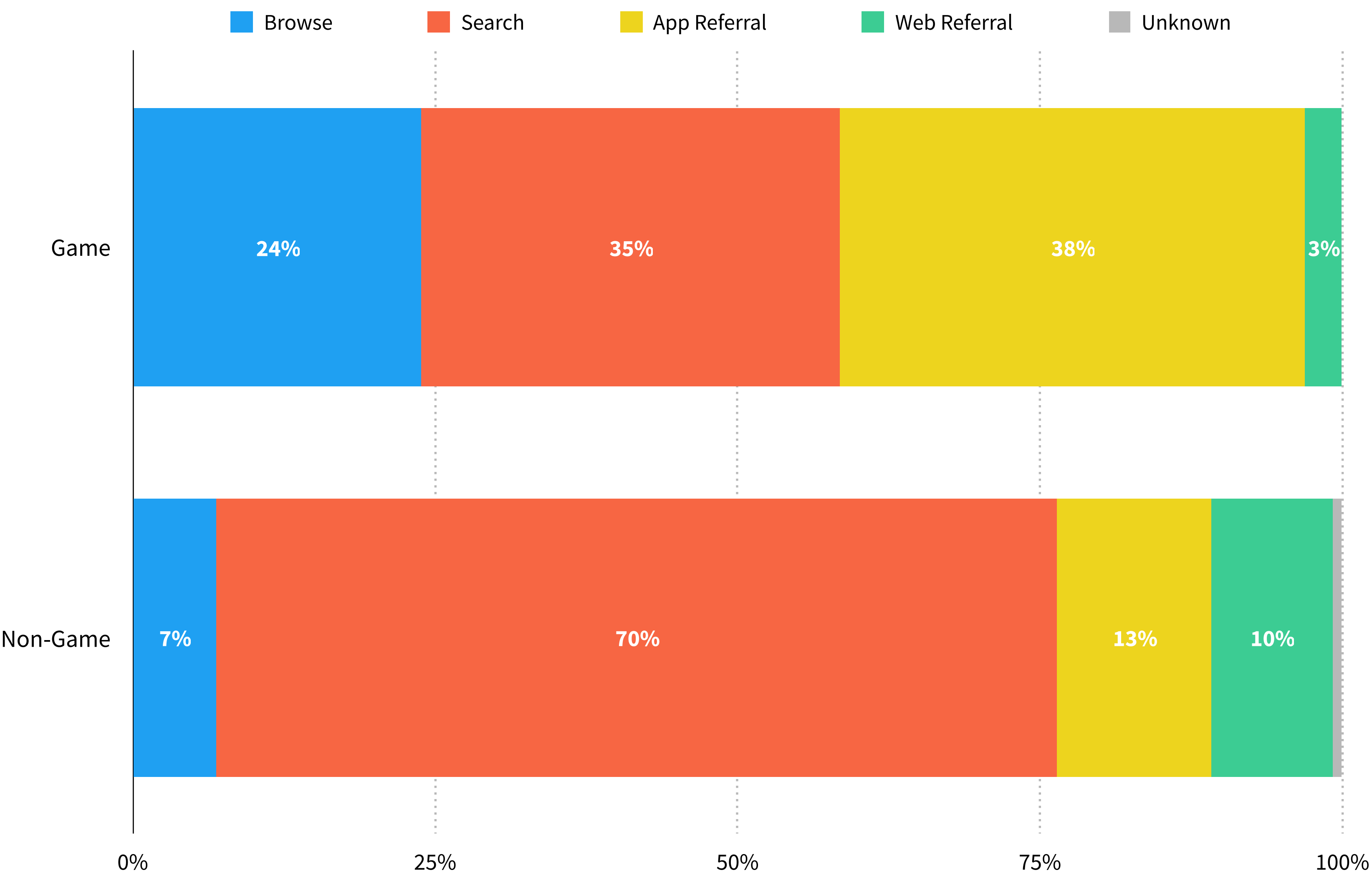
The source of downloads varied substantially between games and non-game apps. **App referral was the top source for games at 38 percent.** This was driven in large part by the rise of hypercasual games which typically monetize through showing ads. **Browse was also a much more popular source for game installs than for non-games.**

Organic downloads took a larger share for non-games than for games. **Search and browse combined for 77 percent of non-game downloads compared to just 59 percent for games.** Search remained the main source for non-games, accounting for 70 percent.

App Characteristics

Sensor Tower

Paid Apps Focus on Organic Growth

Free vs. Paid share of App Store downloads by source in 2020

Legend: ■ Browse ■ Search ■ App Referral ■ Web Referral ■ Unknown

Free
- 12% (Browse)
- 59% (Search)
- 20% (App Referral)
- 8% (Web Referral)

Paid
- 28% (Browse)
- 61% (Search)
- 7% (App Referral)
- 5% (Web Referral)

X-axis: 0% — 25% — 50% — 75% — 100%
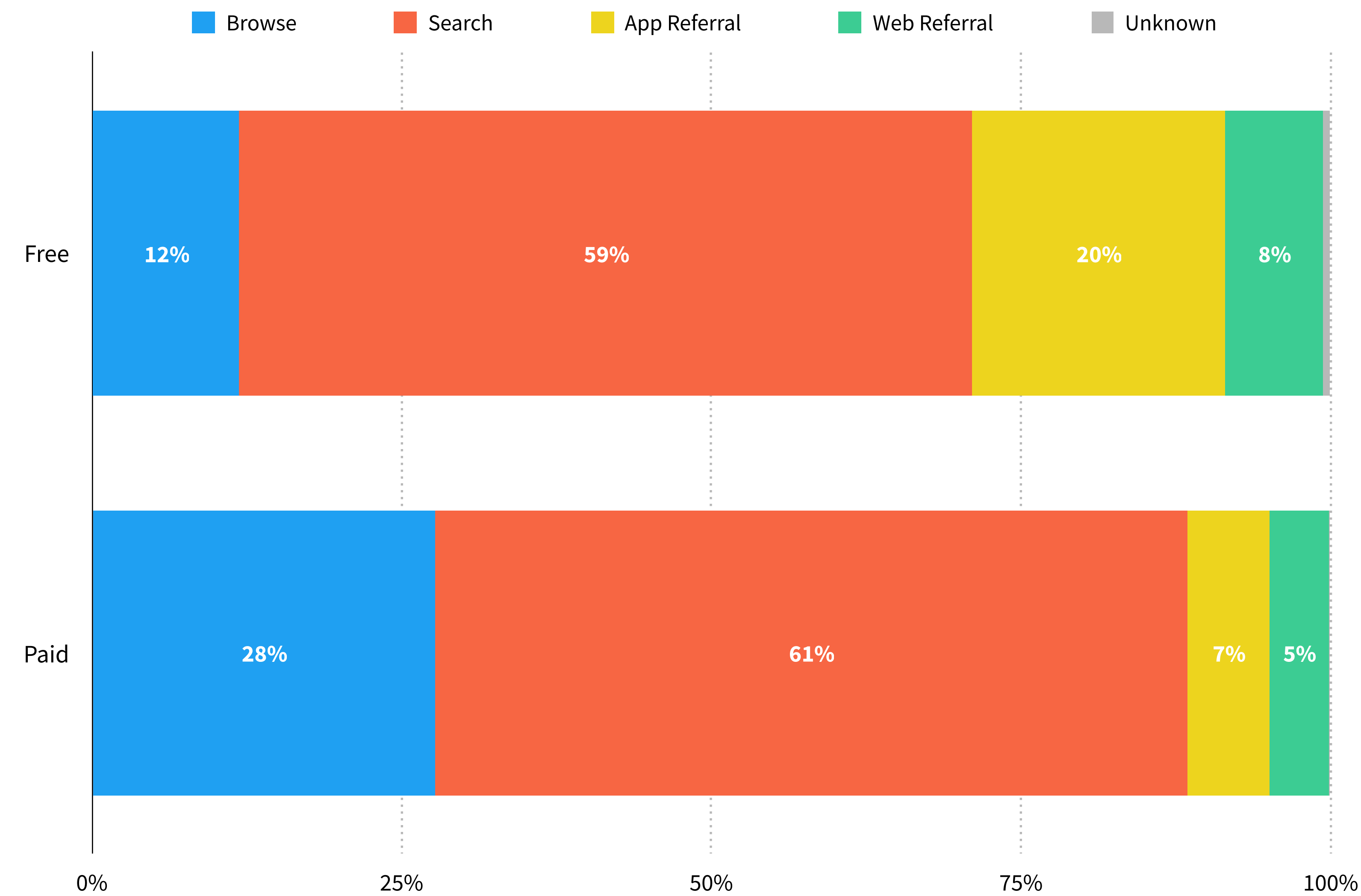
Paid apps relied on organic downloads for growth. More than a quarter of downloads came from browse and another 61 percent came from search. The prominence of paid apps in features on the App Store likely helps drive this larger share from browse.

Since the vast majority of app downloads are for free apps, the download source breakdown for free apps are very close to that of the overall population. App and web referrals took a much larger share for free apps than for paid apps.

App Characteristics

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Sensor Tower

Free Games Drive App Referrals

Share of App Store downloads by source in 2020

Legend: ■ Browse ■ Search ■ App Referral ■ Web Referral ■ Unknown

Free App: Browse 7%, Search 70%, App Referral 13%, Web Referral 10%

Paid App: Browse 16%, Search 63%, App Referral 12%, Web Referral 8%

Free Game: Browse 24%, Search 34%, App Referral 39%, Web Referral 3%

Paid Game: Browse 38%, Search 59%, App Referral 1%, Web Referral 1%

X-axis: 0% 25% 50% 75% 100%
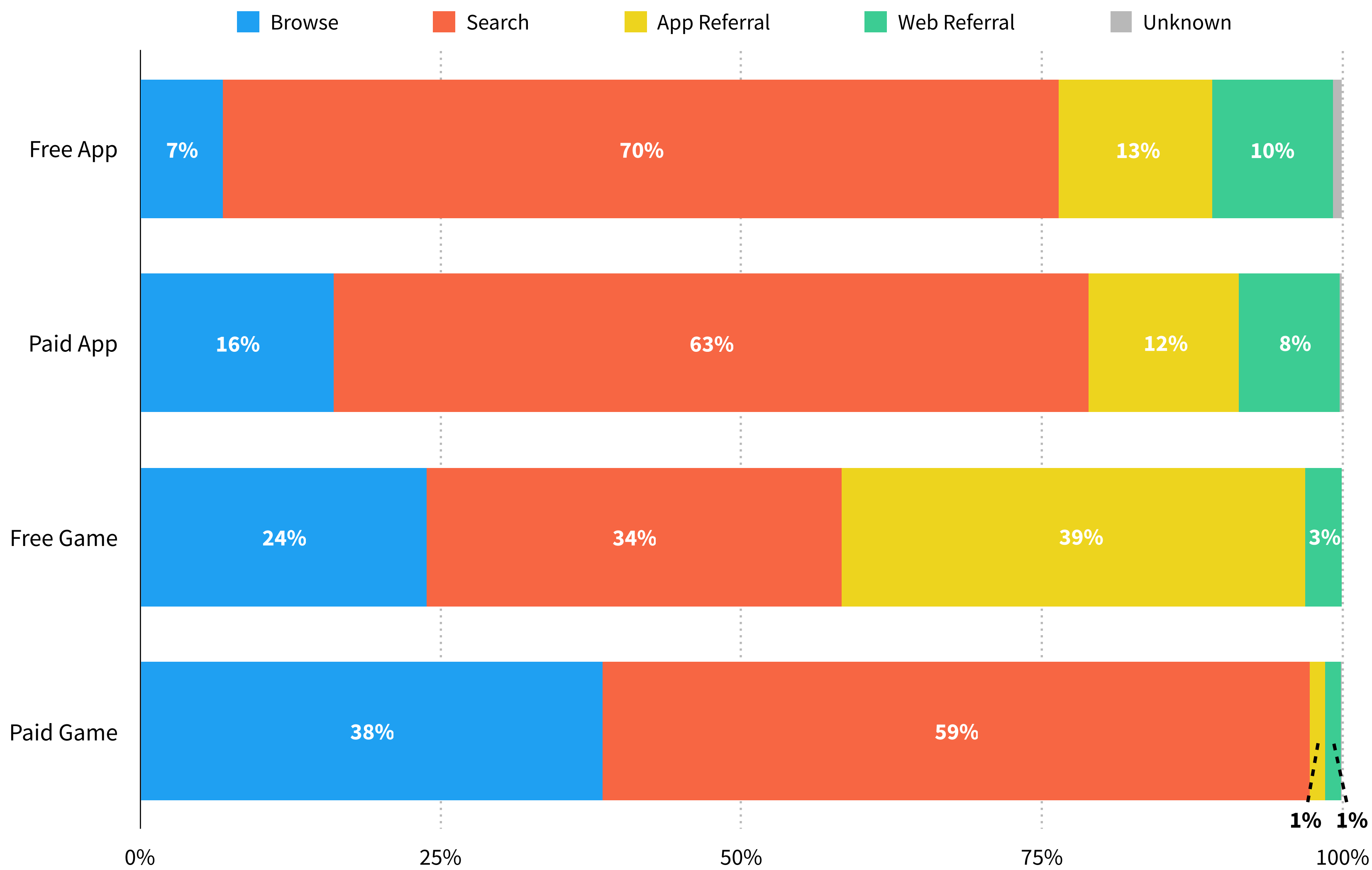
Free games are the only app type that had less than 59 percent of downloads from search. This was due to an outsized share coming from app referrals. Games have turned to advertising and cross promotion in recent years as a major source driving adoption.

Paid apps and games relied more on organic growth, including significant differences in browse. Paid games had 14 percentage points more of their downloads from browse than free games, and the gap between paid apps and free apps was 9 percentage points.

App Characteristics

Sensor Tower

Search Grows Following App Launch

Share of App Store downloads by source in 2020 by months since release

■ Browse ■ Search ■ App Referral ■ Web Referral ■ Unknown

0-6 Months: 19% | 37% | 41% | 4%

7-12 Months: 15% | 47% | 32% | 5%

13-24 Months: 16% | 55% | 23% | 6%

25+ Months: 10% | 66% | 14% | 9%

0%   25%   50%   75%   100%
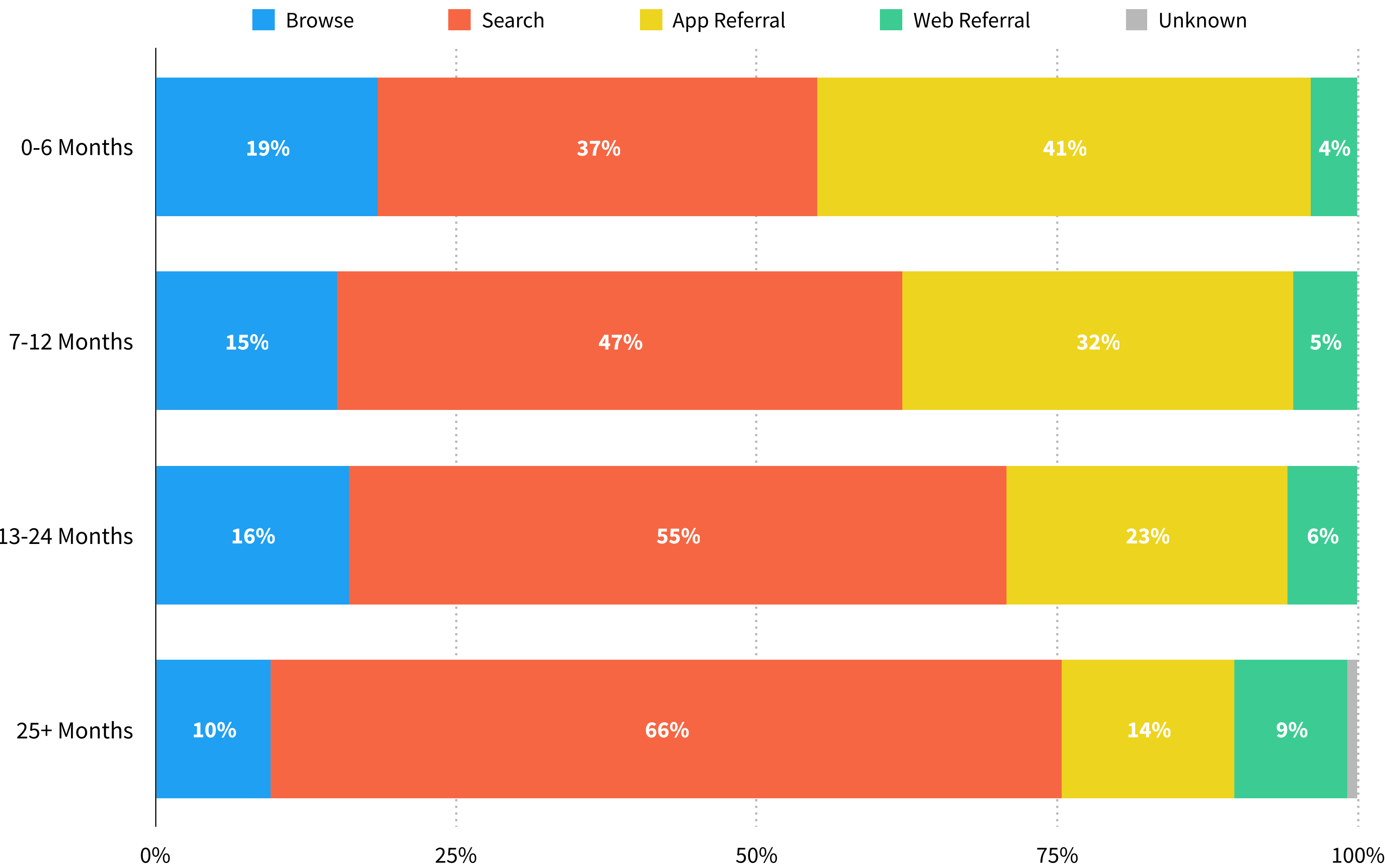
App referrals and browse are at their most important in the first six months following the launch of an app. App referrals were responsible for 41 percent of all downloads in the first six months. By two years or more since launch, this share fell to 14 percent.

The longer it has been since an app has launched, the more important search becomes as a download source. Apps that maintain success for a long time are able to achieve high name recognition and can shift resources away from advertising campaigns as a result. Web referrals also take a larger share for apps that are 2+ years from launch.

App Characteristics

Sensor Tower

Download
Source Trends

Sensor Tower

Search Bounced Back in 2020

Share of App Store downloads by source over time

Legend: ■ Browse ■ Search ■ App Referral ■ Web Referral ■ Unknown

Year	Browse	Search	App Referral	Web Referral
2018	14%	58%	19%	7%
2019	13%	56%	22%	7%
2020	12%	59%	20%	8%

x-axis: 0% 25% 50% 75% 100%
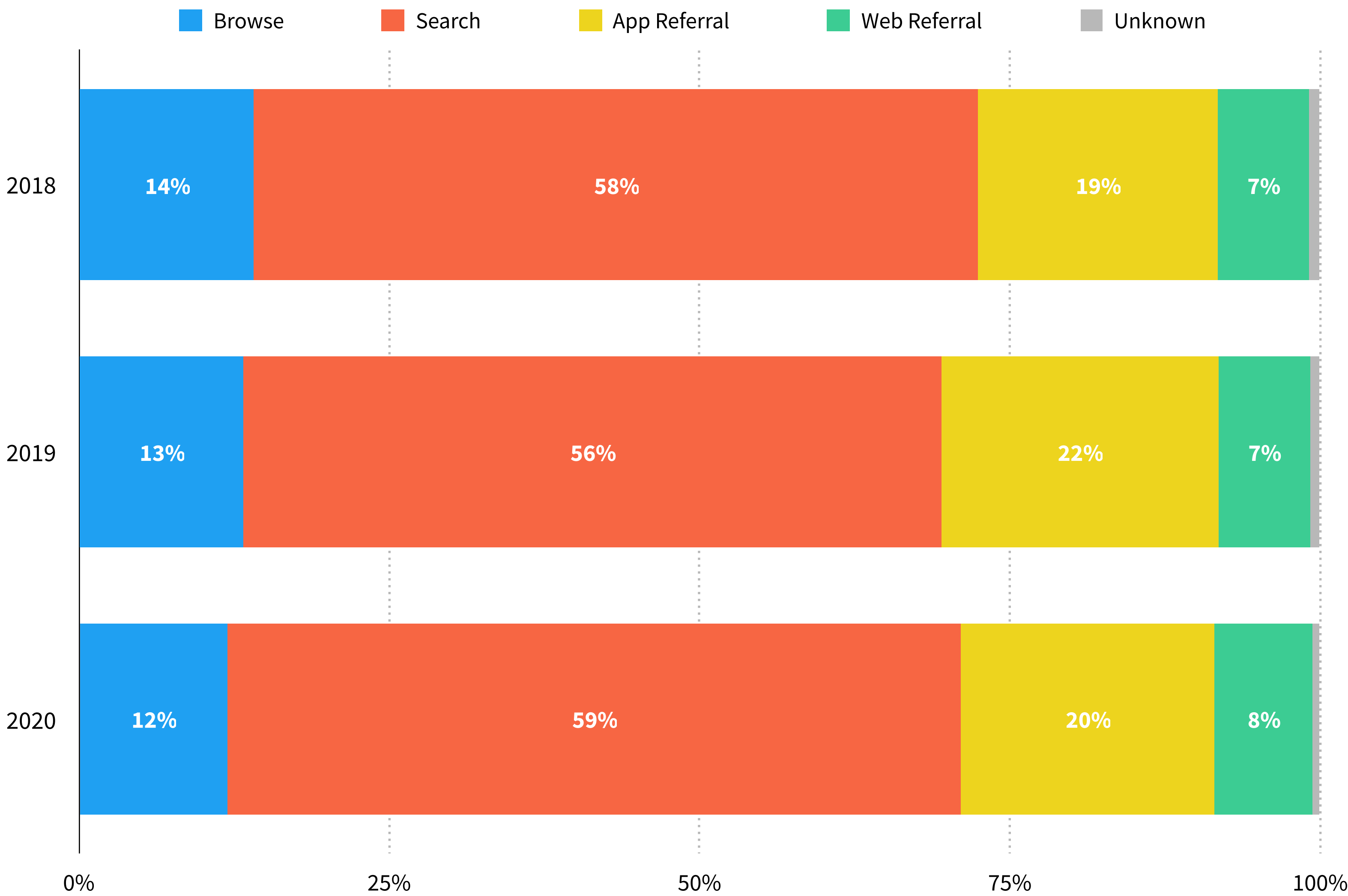
The share from app referrals increased three percentage points between 2018 and 2019, with games responsible for most of this growth. Search, still by far the largest source, saw its share fall two points as a result.

Trends reversed slightly in 2020, with the share from search rising back to 58 percent and app referral's share falling to 21 percent. This reversal may be due to changing conditions during the COVID-19 pandemic, as consumers suddenly needed new resources to adapt to working from home (that they could likely find using a search).

Download Source Trends

SensorTower

Search Remains Key for Non-Games

Non-game share of App Store downloads by source over time

■ Browse ■ Search ■ App Referral ■ Web Referral ■ Unknown

	Browse	Search	App Referral	Web Referral
2018	8%	65%	16%	10%
2019	8%	63%	18%	10%
2020	7%	70%	13%	10%

0% 25% 50% 75% 100%
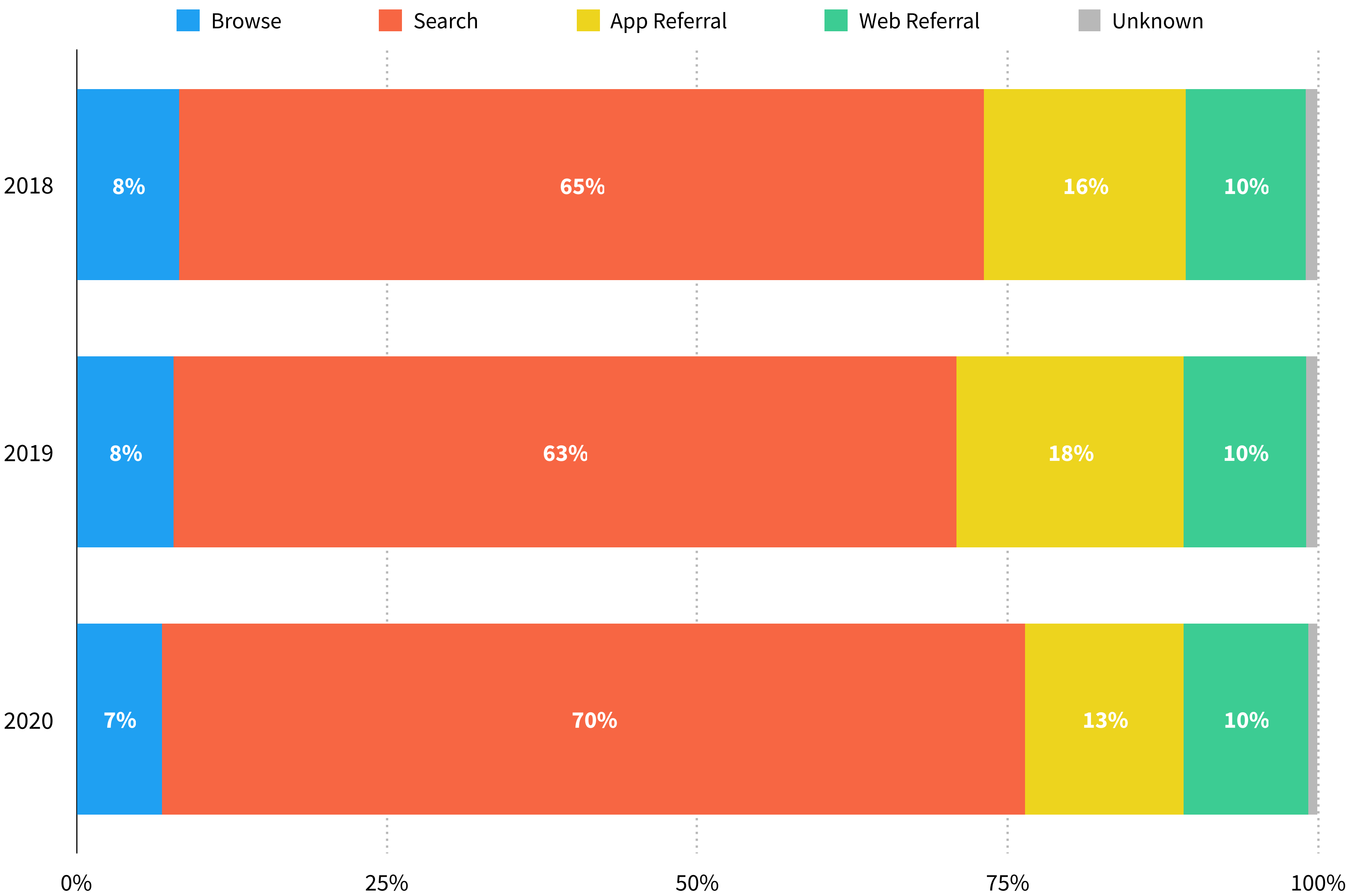
The share of downloads from search for non-games bounced back in 2020 to 70 percent. Market conditions during COVID-19 likely played a role, with consumers relying on search to find the right apps for business, education, health and fitness, and more.

Non-game downloads appeared to be shifting towards app referrals prior to the pandemic. It will be interesting to see if this trend continues once countries begin to reopen.

Download Source Trends

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Sensor Tower

App Referrals Now the Top Source for Games

Game share of App Store downloads by source over time

Legend: ■ Browse   ■ Search   ■ App Referral   ■ Web Referral   ■ Unknown

2018
- Browse: 26%
- Search: 44%
- App Referral: 26%
- Web Referral: 2%

2019
- Browse: 24%
- Search: 42%
- App Referral: 31%
- Web Referral: 2%

2020
- Browse: 24%
- Search: 35%
- App Referral: 38%
- Web Referral: 3%

X-axis: 0% · 25% · 50% · 75% · 100%
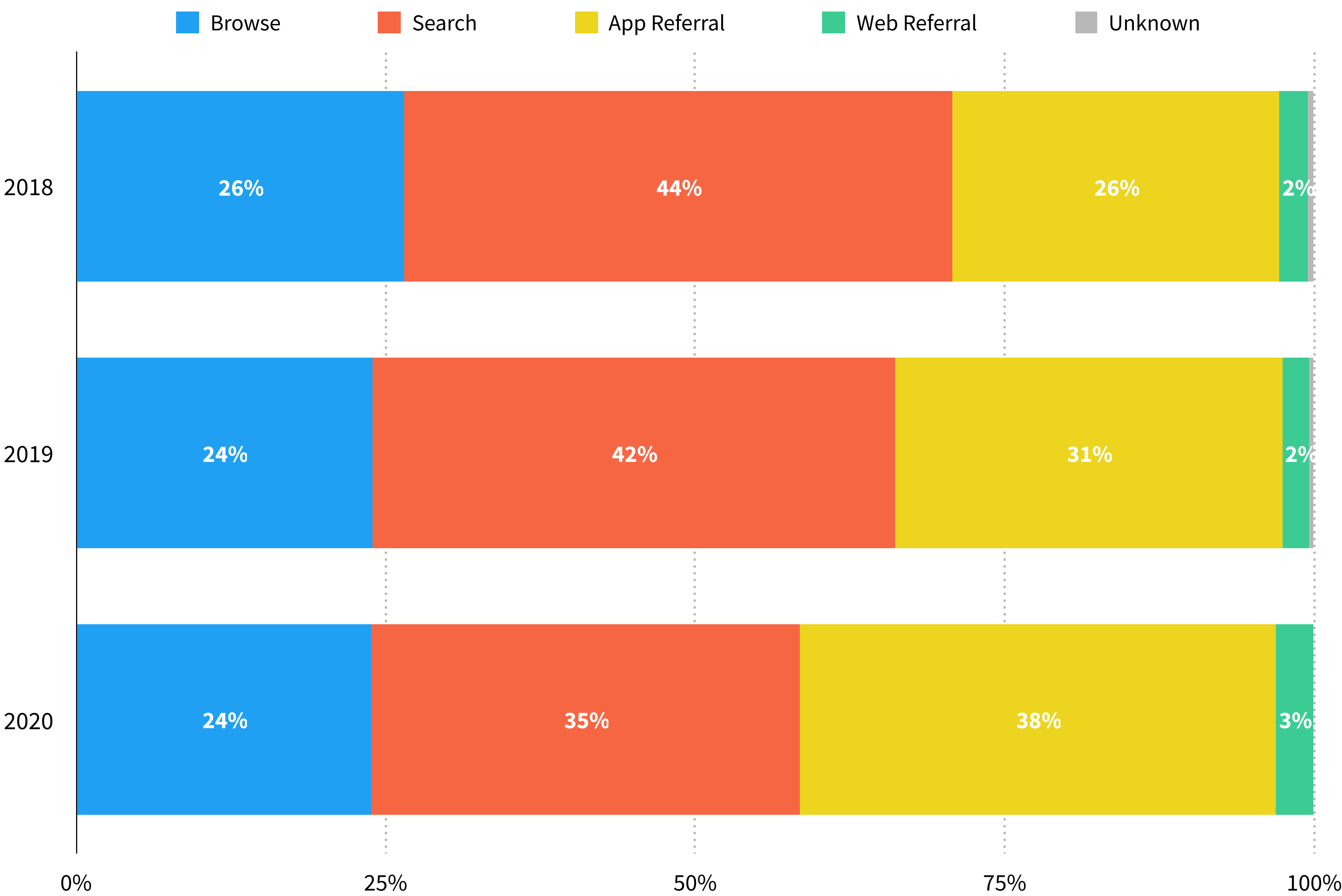
The importance of app referrals for mobile games increased between 2018 and 2020. The share of game downloads from app referrals climbed from 26 percent in 2018 to 38 percent in 2020.

Search's share fell from 44 percent in 2018 to 35 percent in 2020. Browse also saw a decrease, though it was less pronounced than it was for search. Overall, organic downloads decreased from 70 percent in 2018 to 59 percent in 2020. Paid user acquisition has become more and more important for mobile games.

Download Source Trends

Sensor Tower

Hypercasual Drove App Referral Growth

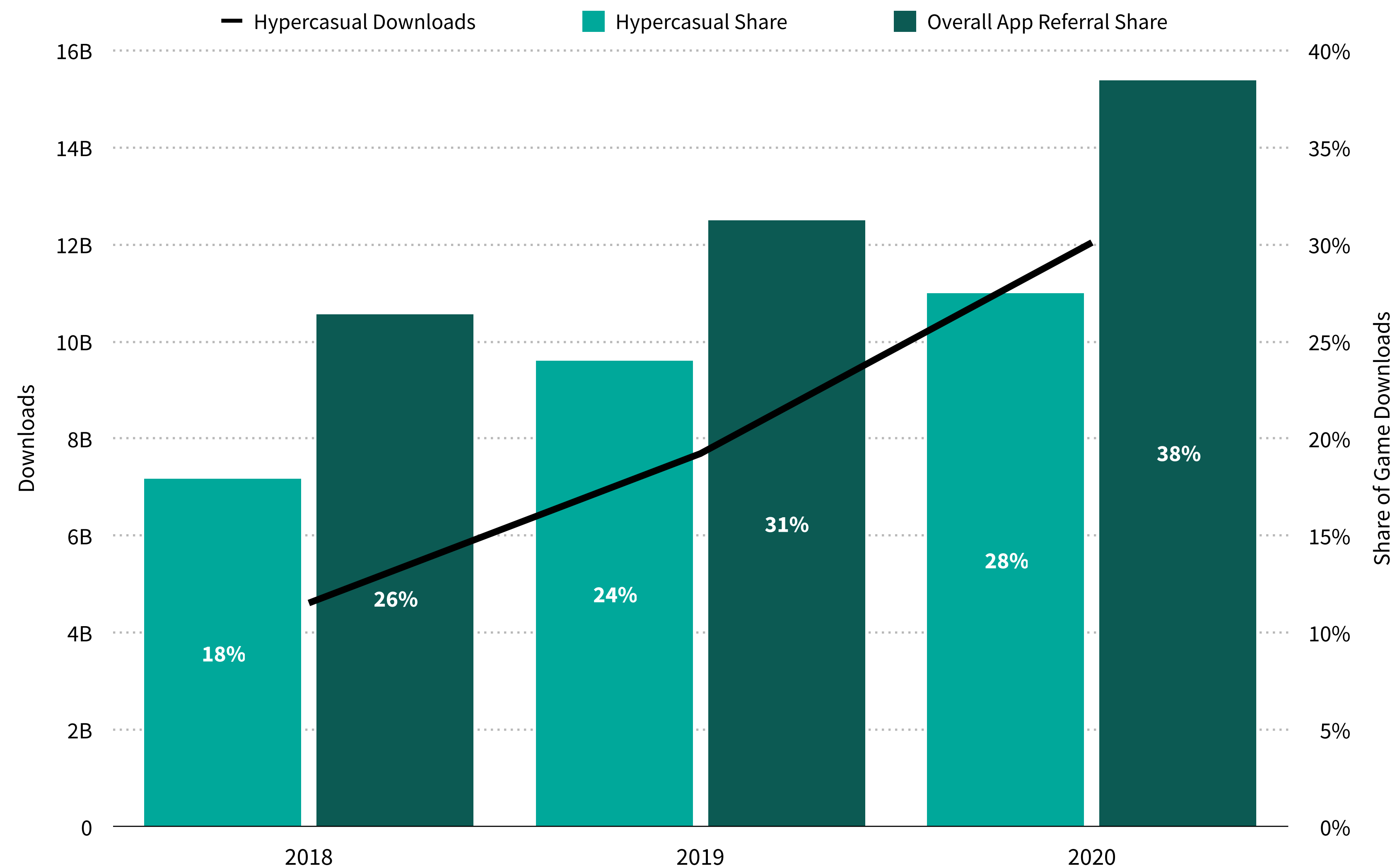*App referral share of App Store game downloads over time*
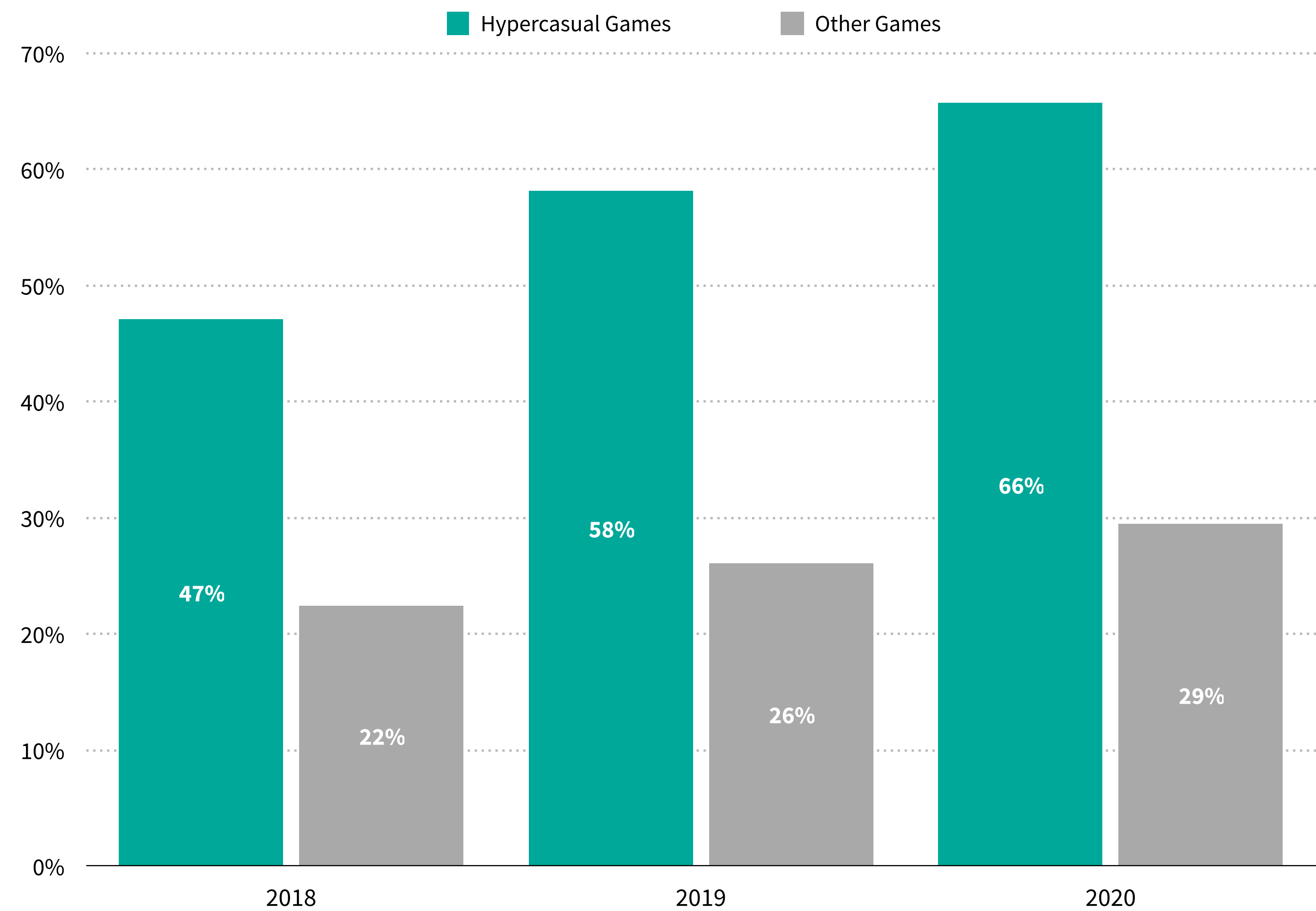
Hypercasual games relied on app referrals more than ever in 2020. App referrals accounted for 66 percent of hypercasual game installs in 2020 compared to less than half of the installs in 2018.

While non-hypercasual games have contributed less to this growth, they've seen app referral's share increase as well. App referrals were responsible for 29 percent of downloads for games other than hypercasual, up seven percentage points from 2018.

Download Source Trends

Sensor Tower

Hypercasual Market Share has Increased

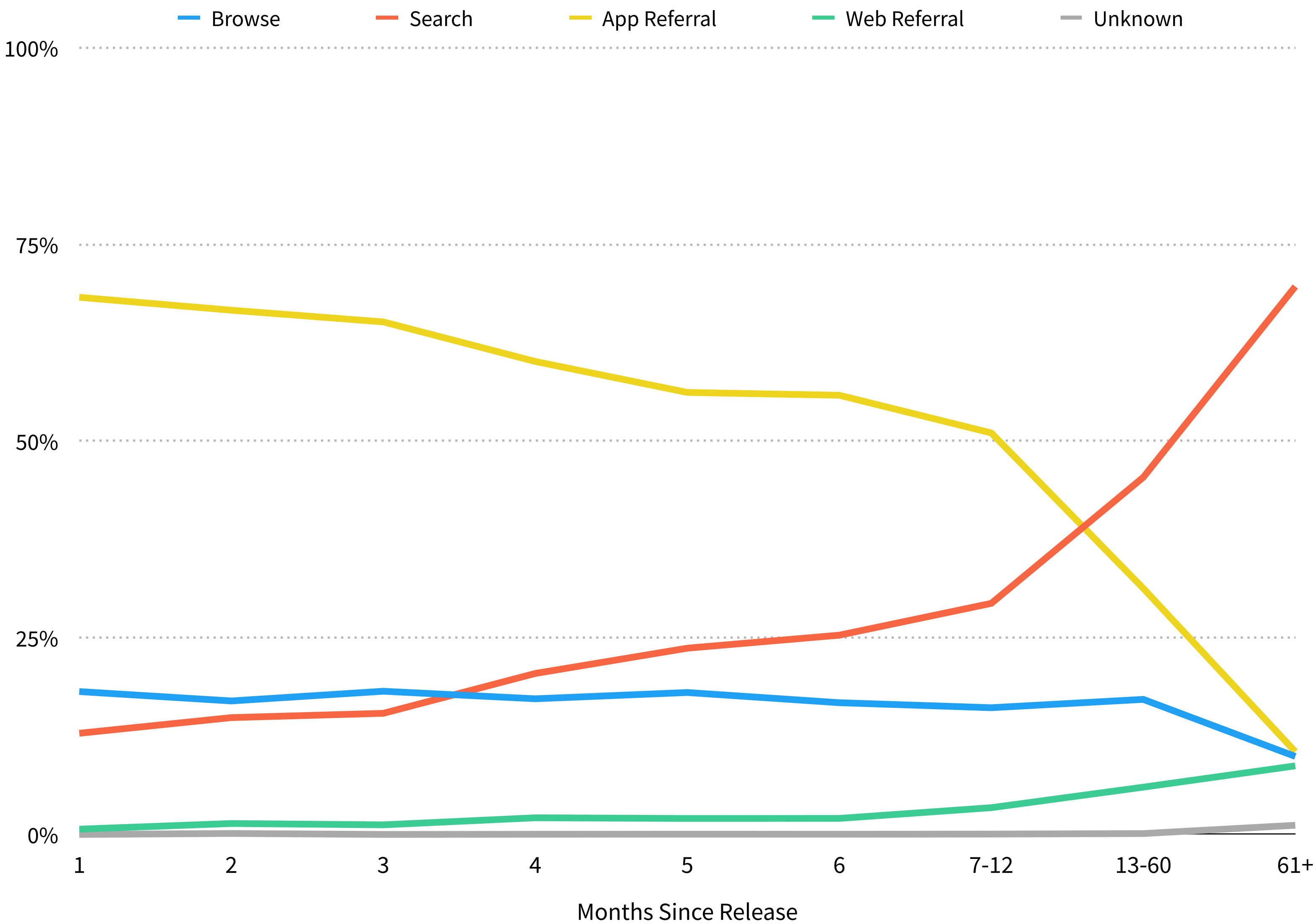*Worldwide hypercasual downloads and share of game downloads vs. game app referral share*

The rising share of app referral downloads in games has also been driven by increased demand for hypercasual games. These games rely heavily on in-app advertisements, and their share of the mobile game market has grown from 18 percent in 2018 to 28 percent in 2020.

The combined effects of 1) games across genres relying more on app referrals and 2) more downloads for hypercasual games resulted in a huge surge in the share from app referrals in 2020. Overall, app referrals accounted fro 38 percent of all game downloads in 2020 compared to 26 percent in 2018.

Download Source Trends

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SensorTower

Search Becomes the Top Source a Year After Launch

Share of App Store downloads by months since release

Legend: — Browse — Search — App Referral — Web Referral — Unknown

X-axis (Months Since Release): 1, 2, 3, 4, 5, 6, 7-12, 13-60, 61+
Y-axis: 0%, 25%, 50%, 75%, 100%

App referral accounts for nearly 70 percent of downloads in the first month following an app's launch, and more than 50 percent of downloads for the rest of the first year. This trend is driven by hypercasual games, which tend to see the majority of their downloads in the first few months following launch.

Search becomes the most important source for apps that are more than a year old. Search accounted for 45 percent of downloads for apps that are one to five years post-launch, and 70 percent of downloads for apps that are more than five years post-launch.

Download Source Trends

SensorTower

Non-Game Sources Remain Steady Following Launch

Non-game share of App Store downloads by months since release
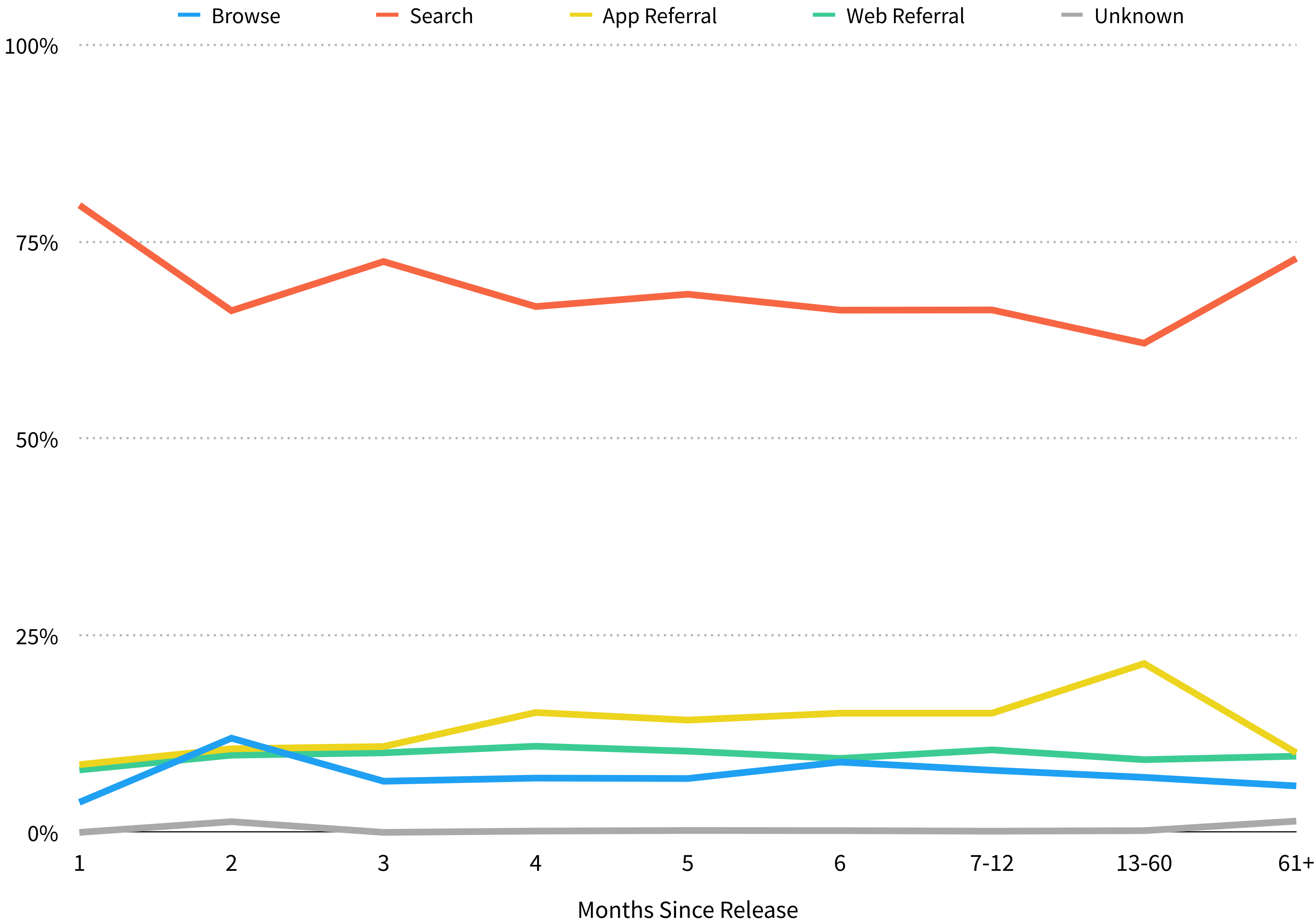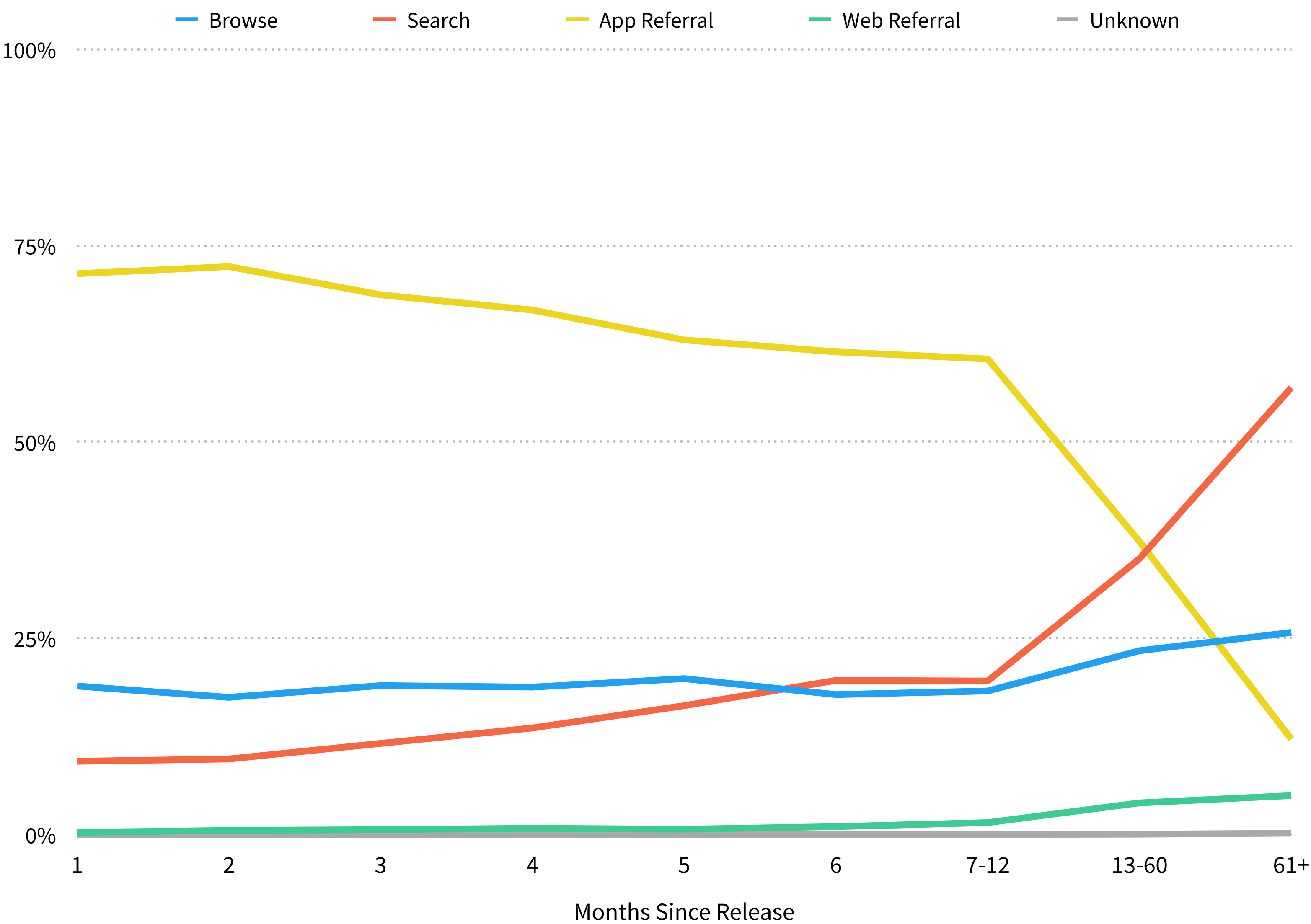
Download sources for non-games are more stable following launch. Search consistently accounted for at least 60 percent of downloads

App referrals are responsible for the second most downloads following search, followed by web referrals and browse. This was generally true for apps in the first year following launch as well as for older apps.

Download Source Trends

18

App Referrals for Games Peak in First Two Months

Game share of App Store downloads by months since release

Legend: Browse — Search — App Referral — Web Referral — Unknown

Y-axis: 100%, 75%, 50%, 25%, 0%

X-axis (Months Since Release): 1, 2, 3, 4, 5, 6, 7-12, 13-60, 61+

Among games that are within a year of their launch, more than 60 percent of downloads come from app referrals. The top downloaded new games tend to include a significant number of hypercasual games which rely heavily on app referrals to drive growth.

Hypercasual games typically have shorter retention than other games and their downloads often drop off within the first year. Other genres that have long lasting success get most of their downloads organically from search and browse. Despite this, app referrals are still the largest source of downloads among apps one to five years after launch.

Download Source Trends

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Sensor Tower

Non-Hypercasual Games Show More Balance

Game share of App Store downloads by months since release, excluding hypercasual games

— Browse — Search — App Referral — Web Referral — Unknown

Months Since Release
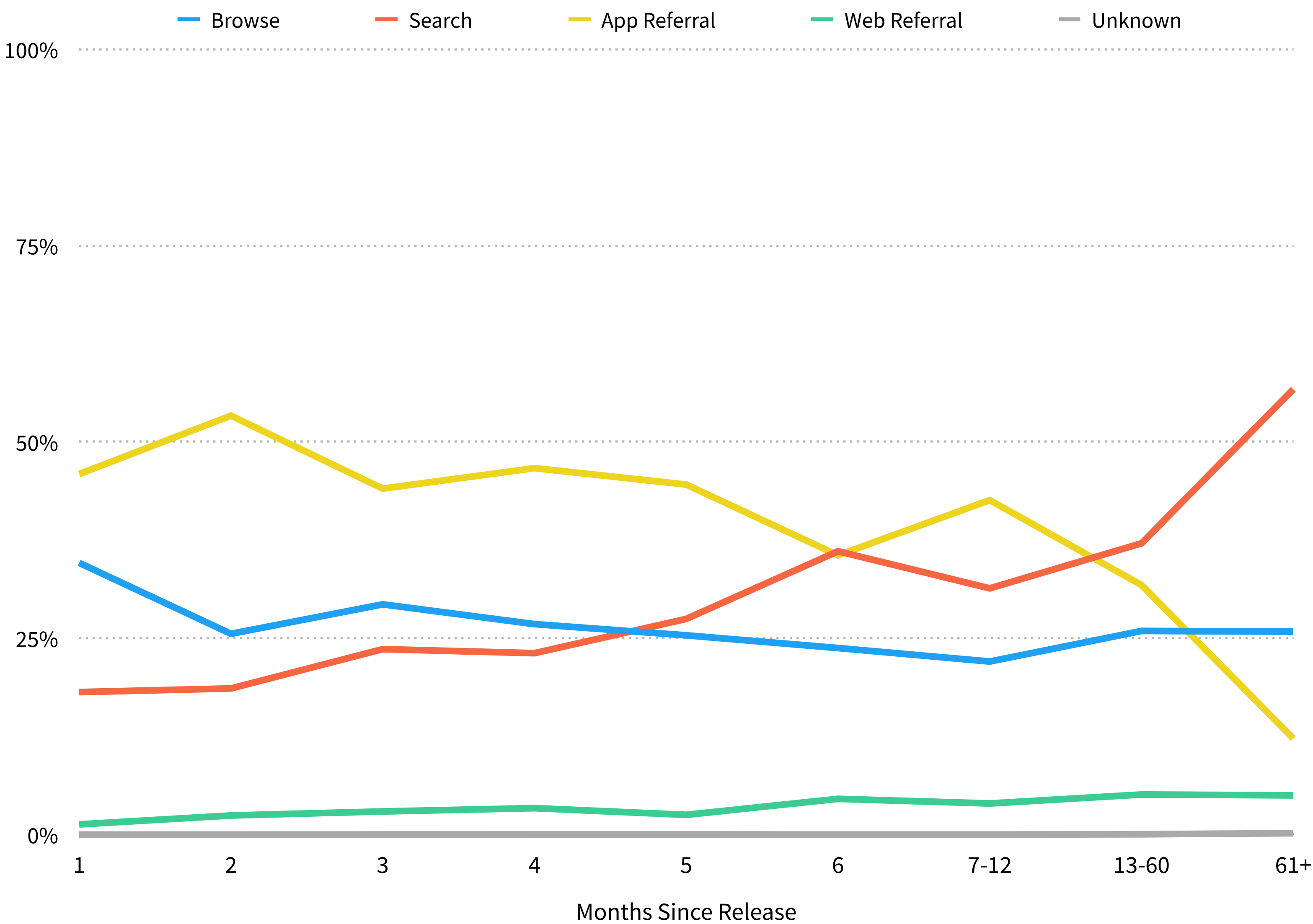
Excluding hypercasual games, other games have a balance of downloads from app referrals, browse, and search. App referrals take a much smaller share than for hypercasual games but still are the top source for the first year after a game launch. This suggests that in-app advertising remains an effective way for games to attract new users.
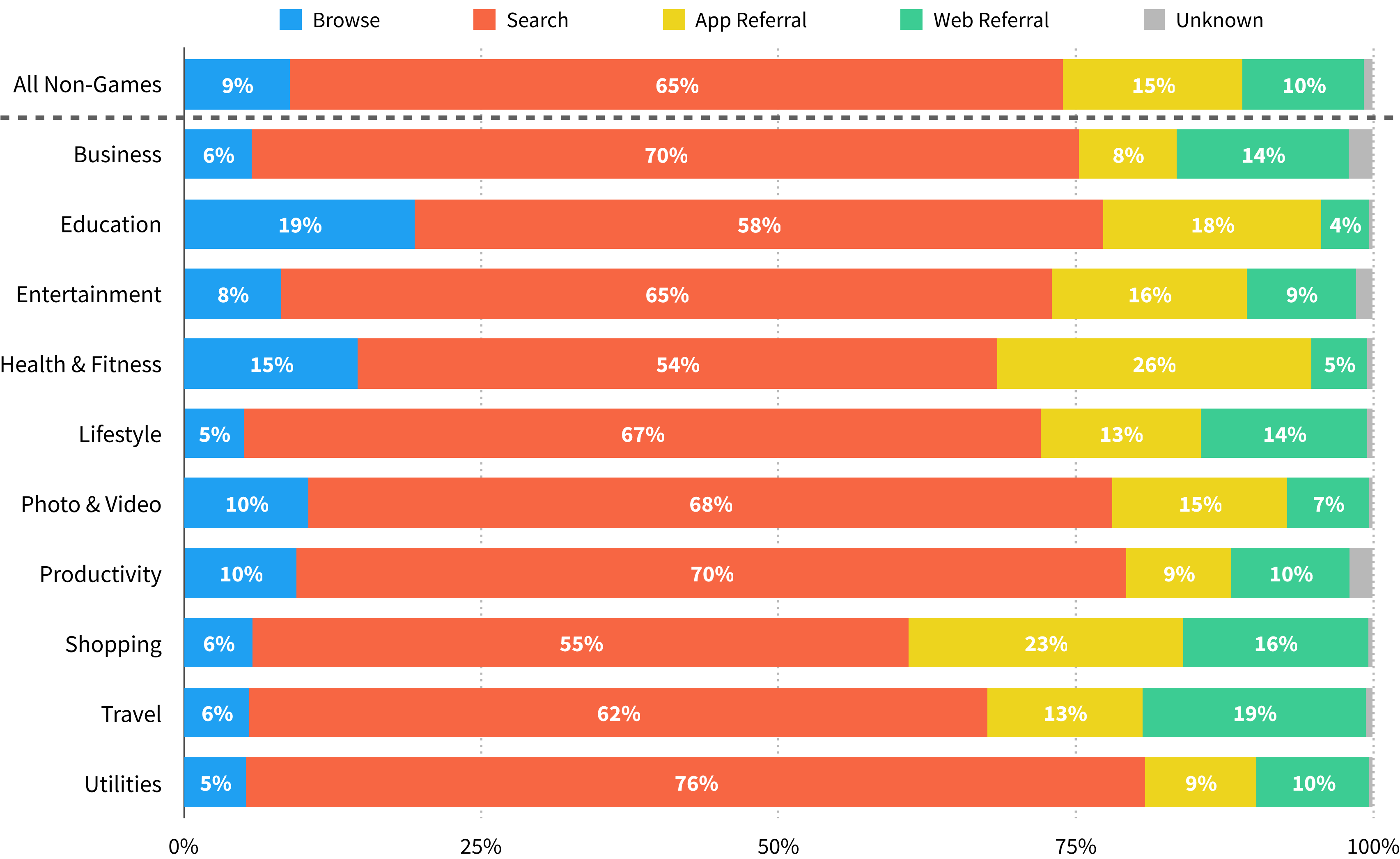
Search becomes the top download source for non-hypercasual games after the first year. Approximately 83 percent of downloads for games that are more than five years old are from search or browse.

Download Source Trends

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SensorTower
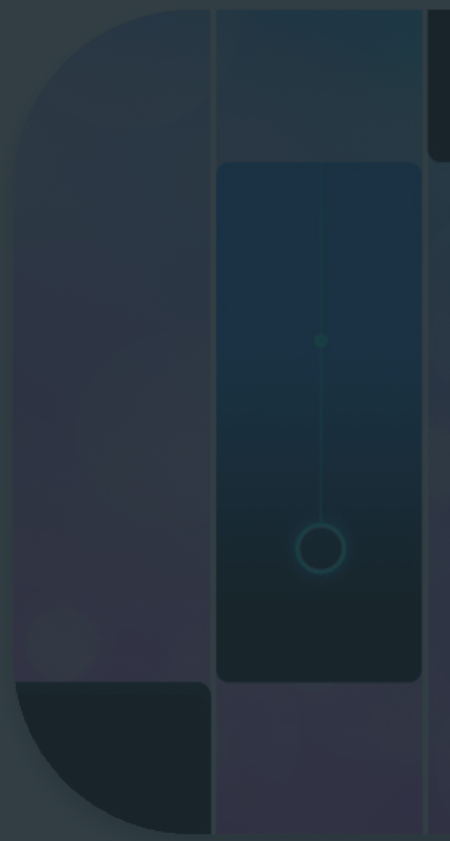
App Categories

Non-Games Rely on Search as Primary Source

Average share of App Store downloads by source between 2018 and 2020 by category

Legend: **Browse** · **Search** · **App Referral** · **Web Referral** · **Unknown**

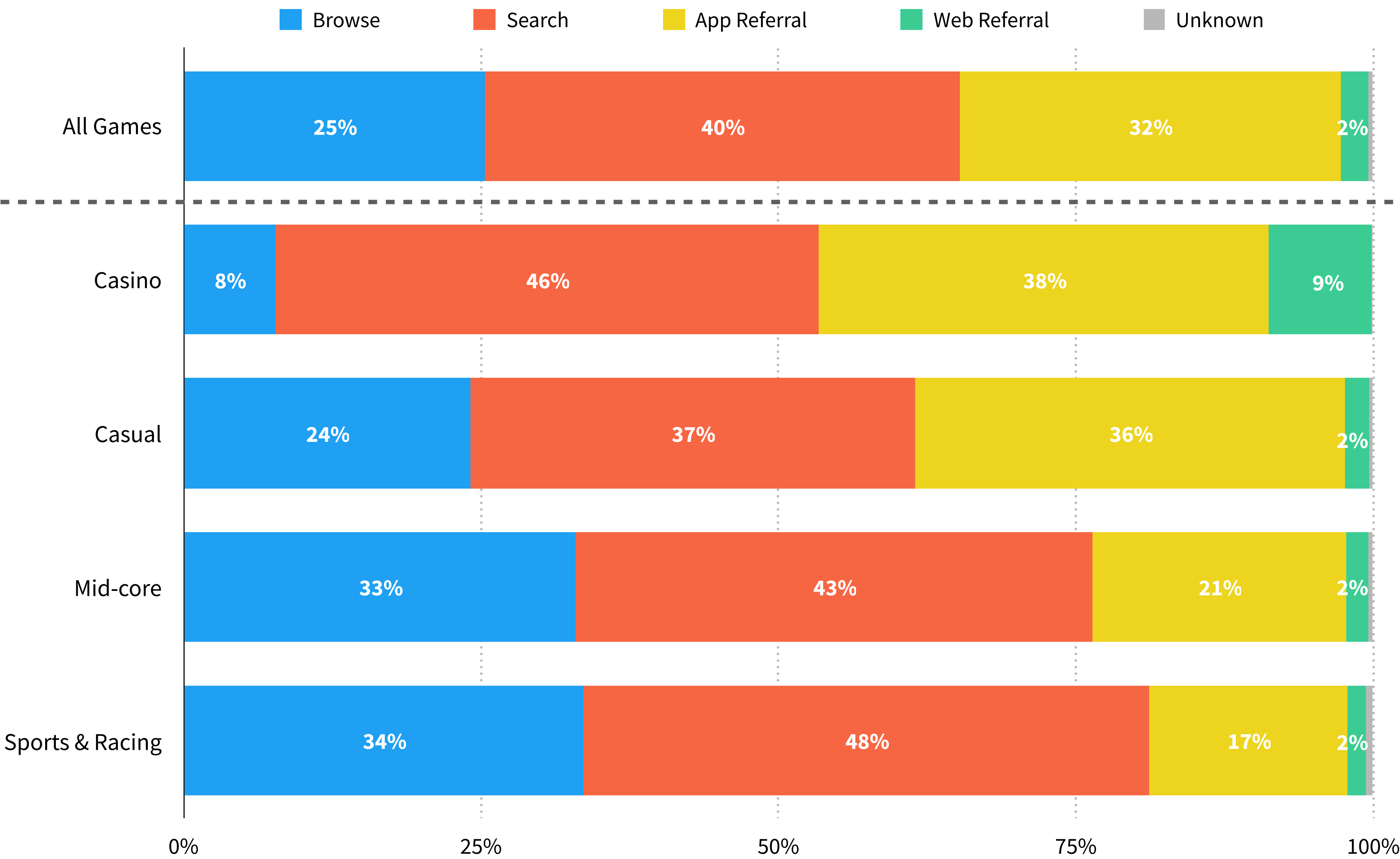| Category	Browse	Search	App Referral	Web Referral
All Non-Games	9%	65%	15%	10%
Business	6%	70%	8%	14%
Education	19%	58%	18%	4%
Entertainment	8%	65%	16%	9%
Health & Fitness	15%	54%	26%	5%
Lifestyle	5%	67%	13%	14%
Photo & Video	10%	68%	15%	7%
Productivity	10%	70%	9%	10%
Shopping	6%	55%	23%	16%
Travel	6%	62%	13%	19%
Utilities	5%	76%	9%	10%

Search was responsible for most non-game app downloads across categories, ranging from 55 percent on the low end (Shopping) to 76 percent on the high end (Utilities). Organic downloads from browse and search were responsible for roughly 75 percent of installs from most categories.

App referrals took the largest share for Health & Fitness at 26 percent, followed by Shopping at 23 percent. This suggests that apps in these categories may need to invest more in advertising to compete.

Note Regarding Source Estimates:
Download source estimates are calculated from a sample of apps. Category shares are calculated as the mean download source share across the apps in the category with at least 100K downloads with source data in the study period.

App Categories

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App Referrals are Important for Casino and Casual

Average share of App Store downloads by source between 2018 and 2020 by game category

Legend: ■ Browse ■ Search ■ App Referral ■ Web Referral ■ Unknown

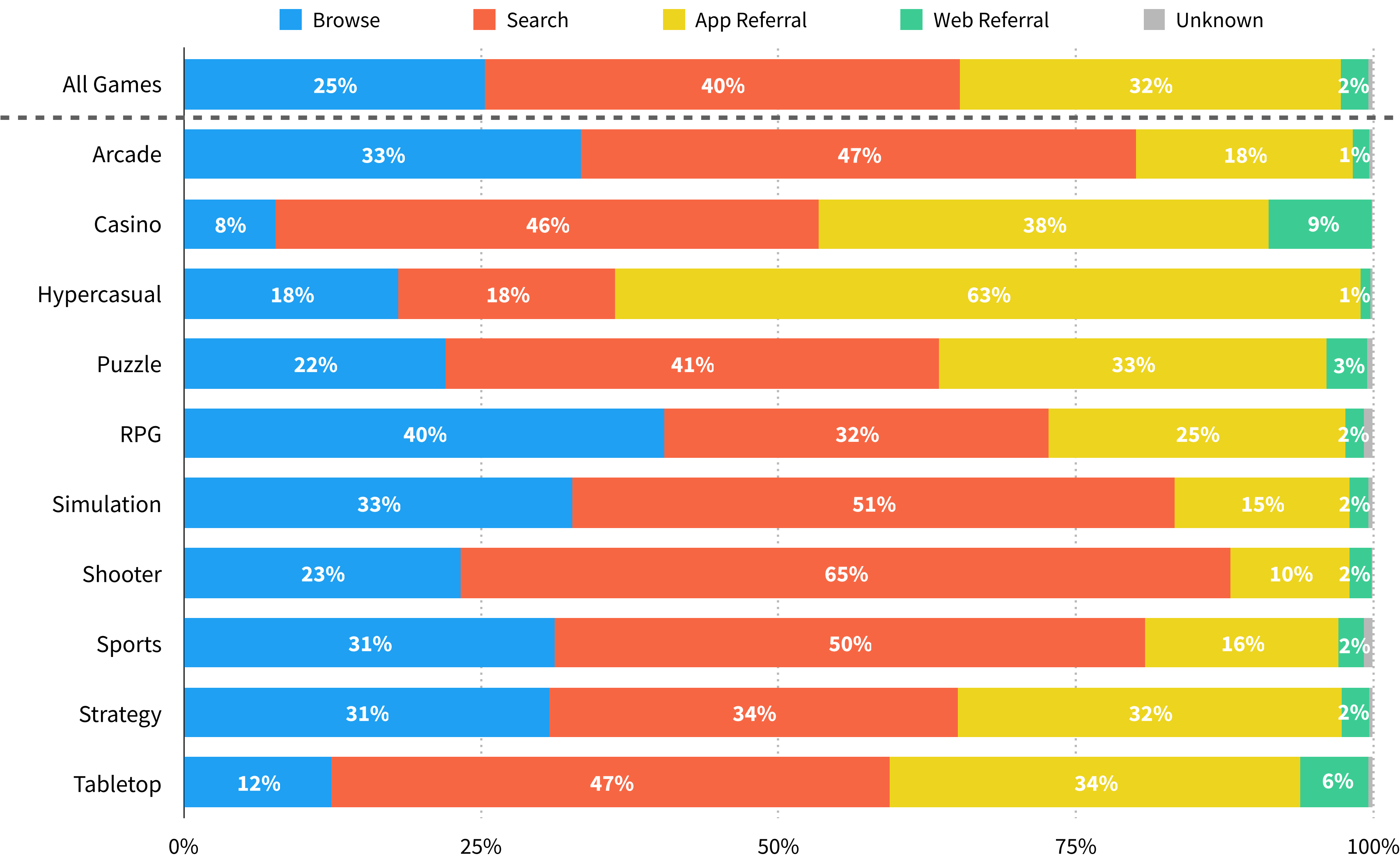| Category	Browse	Search	App Referral	Web Referral
All Games	25%	40%	32%	2%
Casino	8%	46%	38%	9%
Casual	24%	37%	36%	2%
Mid-core	33%	43%	21%	2%
Sports & Racing	34%	48%	17%	2%

Mid-core and Sports & Racing games have similar download sources, with search as the top source followed by browse, app referral, and web referral. Casual games rely more on app referrals than the other game categories.

Casino games have a lower share of downloads from browse, with browse accounting for less than 10 percent. These games need to rely more on the other three sources as a result.

Note Regarding Source Estimates:
Download source estimates are calculated from a sample of apps. Category shares are calculated as the mean download source share across the apps in the category with at least 100K downloads with source data in the study period.

App Categories

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SensorTower

App Referrals Drive 63 Percent of Hypercasual Installs

Average share of App Store downloads by source between 2018 and 2020 by game genre

Legend: ■ Browse ■ Search ■ App Referral ■ Web Referral ■ Unknown

Genre	Browse	Search	App Referral	Web Referral
All Games	25%	40%	32%	2%
Arcade	33%	47%	18%	1%
Casino	8%	46%	38%	9%
Hypercasual	18%	18%	63%	1%
Puzzle	22%	41%	33%	3%
RPG	40%	32%	25%	2%
Simulation	33%	51%	15%	2%
Shooter	23%	65%	10%	2%
Sports	31%	50%	16%	2%
Strategy	31%	34%	32%	2%
Tabletop	12%	47%	34%	6%

When analyzing by game genre, Hypercasual sets itself apart with 63 percent of its downloads from app referrals. Hypercasual game publishers monetize through showing ads and rely on their own advertising and cross promotion to gain new users.

Casino again stands out with its low share of browse downloads, and Tabletop had the second lowest share at just 12 percent. The Tabletop genre includes many card games, suggesting that browse is not a large source for games across the casino and card App Store game subcategories.

Note Regarding Source Estimates:
Download source estimates are calculated from a sample of apps. Genre shares are calculated as the mean download source share across the apps in the genre with at least 100K downloads with source data in the study period.

App Categories

Sensor Tower

Conclusion

Conclusion

- Search remained the top source of downloads in 2020 at 59 percent. Search's share increased year-over-year in 2020, reversing the recent trends away from search and towards app referrals. Non-games were responsible for this bounce back, with the changing lifestyles amidst COVID-19 increasing demand for these apps. This shift in demand yielded increased reliance on search as consumers looked for what they needed to adapt.

- App referrals in games continued to rise, with their share of the download sources increasing from 26 percent in 2018 to 38 percent in 2020. The increasing reliance on app referrals amongst hypercasual games (as well as increased demand for hypercasual games overall) drove much of this growth, though other genres outside of hypercasual also saw app referrals rise.

- For apps that have achieved long-lasting success, search was the most important source of acquiring new users. Search was far-and-away the top source for non-games, including newly launched apps as well as well-established apps. App referrals was the top source for games in the first year of launch, but search was the top source for games that were more than a year post-launch. While the increasing prominence of hypercasual games highlights the value of in-app advertising and cross promotions, most apps with long-lasting popularity still rely on search as the main source of installs.
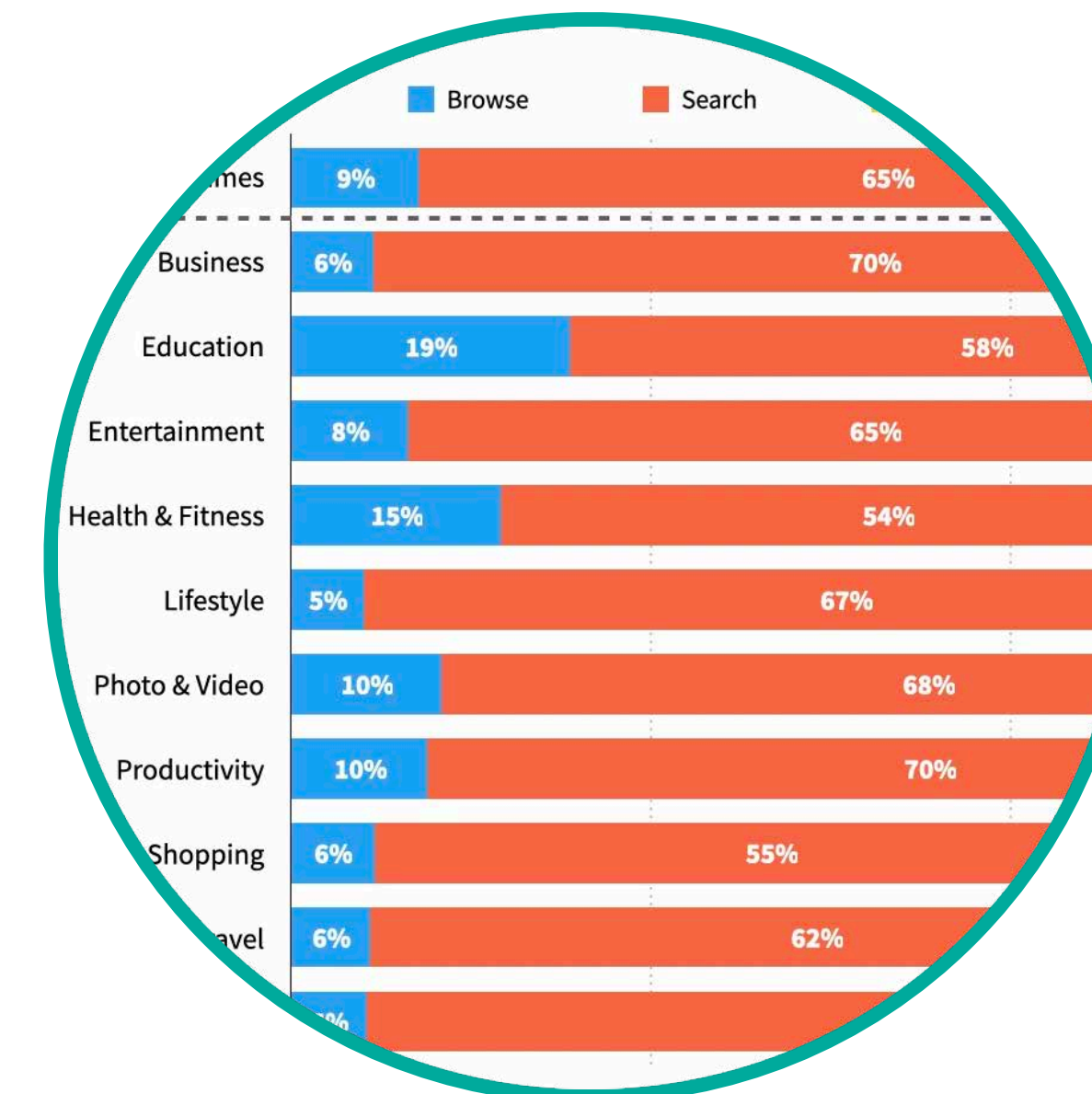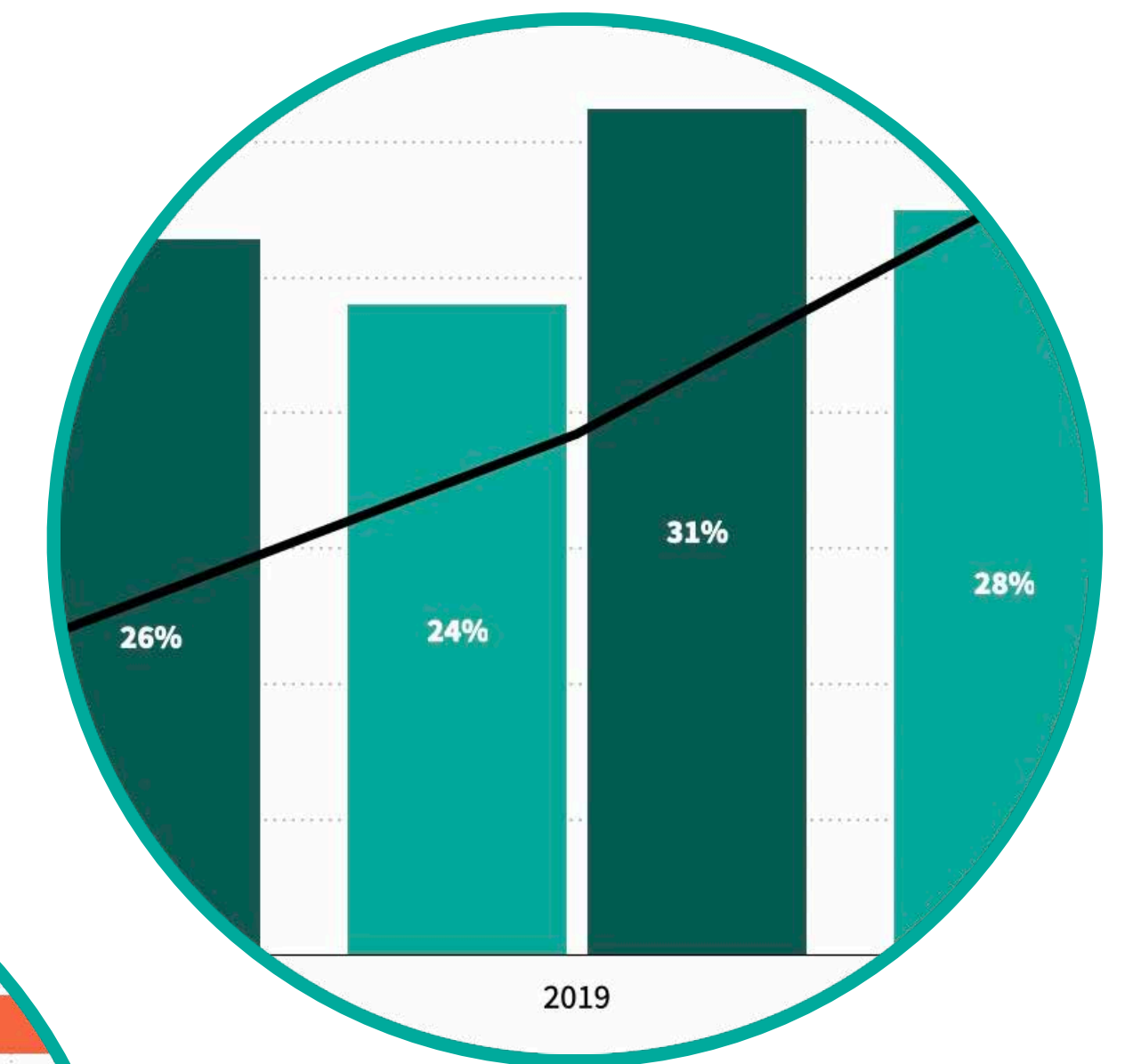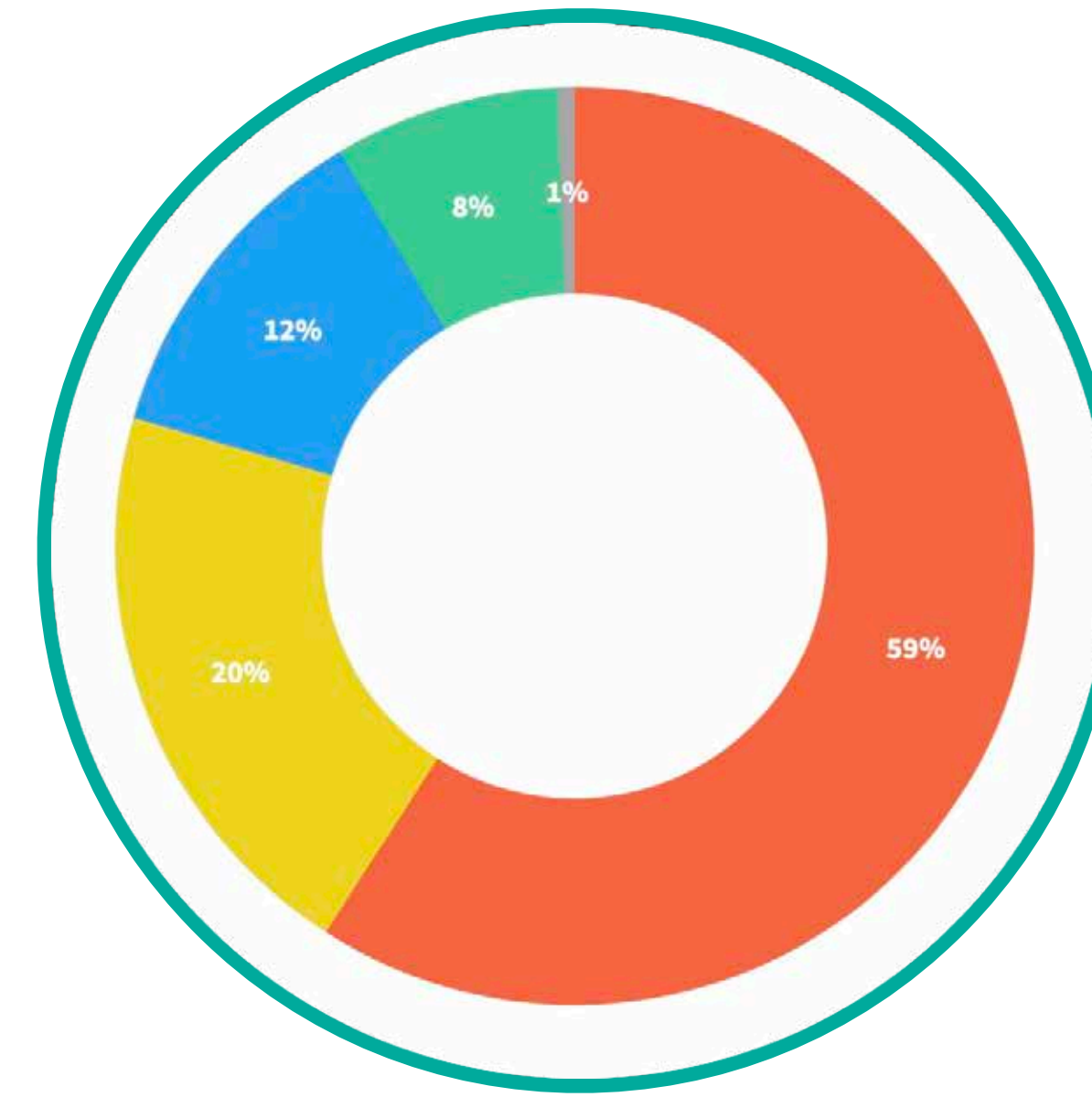
Sensor Tower
Solutions
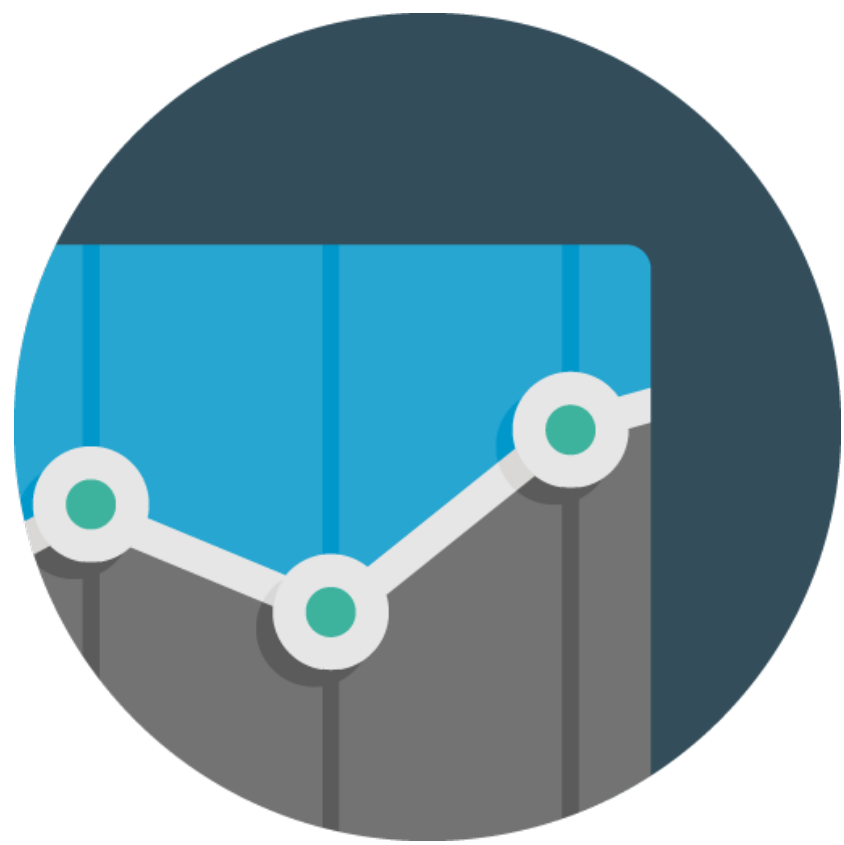
Store Intelligence

Make strategic decisions with the industry's most accurate estimates.

App Intelligence

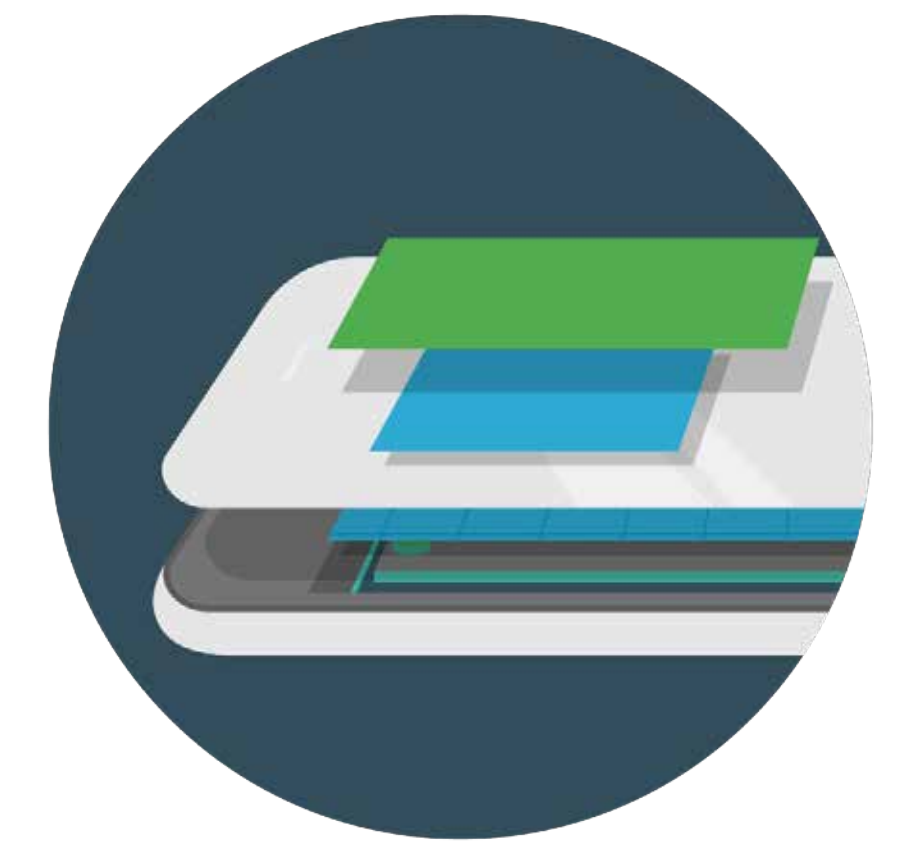Drive organic growth with the leading App Store Optimization platform.

Ad Intelligence

Develop winning User acquisition campaigns with crucial mobile advertising insights.

Usage Intelligence

Benchmark app usage, engagement, and demographics.

App Teardown

Evaluate which SDKs apps are using and measure SDK adoption across market segments.

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