



Edison Research's
"Share of Ear"
Q1 2023:
How America
listens to audio



The data: About Edison Research's "Share of Ear"



maru/matchbox

"Share of Ear" is the authoritative and definitive view of how Americans consume audio content. Edison reports share of audio time spent and percentage of Americans who use each content source in a day.

Each quarter, Edison Research surveys 1000 persons 13+ on audio use. Respondents keep a 24-hour diary to record audio use. Each released study reflects 4,000 respondents, representing a one-year rolling average. This wave is based on persons from Q2 2022, Q3 2022, Q4 2022, and Q1 2023.

Edison is a leading provider of AM/FM radio research, with more than 25 years experience. Edison originated the long running Infinite Dial study, which covers consumer adoption of new media platforms. They also conduct exit polling for all national elections for America's television networks.

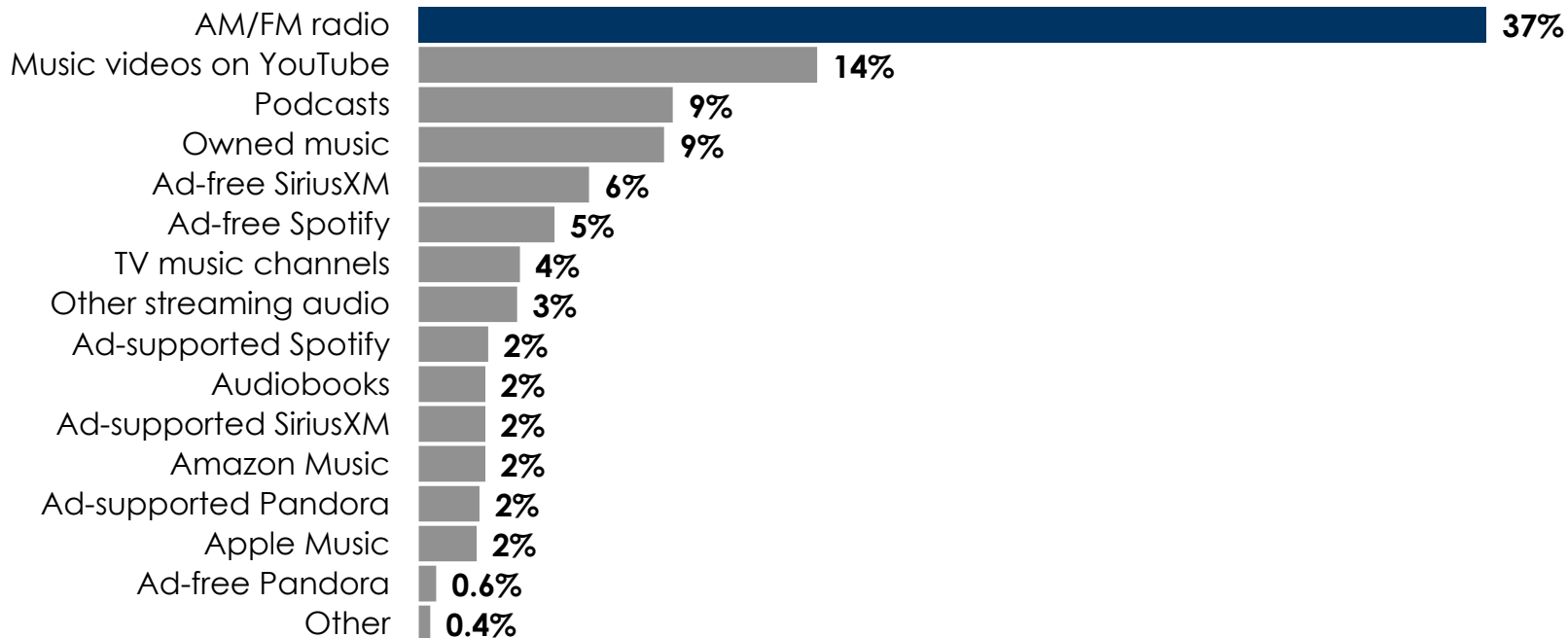
To probe if consumers can hear the ads in audio services, MARU/Matchbox conducted a national study of 1,520 persons 13+ from September 2021 to October 2021.

Table of contents

- **Slide 4:** Audience share of total audio
- **Slides 5-14:** Ad-supported audience shares
- **Slide 15-17:** Streaming as a % of total AM/FM radio listening
- **Slide 18:** AM/FM radio streaming vs. ad-supported Spotify and Pandora
- **Slide 19:** Share of AM/FM radio streaming and over-the-air time spent by genre
- **Slide 20:** Ad-supported audio share on the smart speaker
- **Slides 21-24:** Audio platform duplication
- **Slides 25-35:** Location of listening
- **Slides 36-38:** Share of listening by DMA
- **Slides 39-41:** Audibility of AM/FM radio, Pandora, and Spotify
- **Slides 42-45:** Ad-supported audio and voters
- **Slides 46-57:** Audio trends from 2017-2022
- **Slides 58-65:** Podcasts
- **Slides 66-67:** Key takeaways

Audience shares of total audio: AM/FM radio dominates

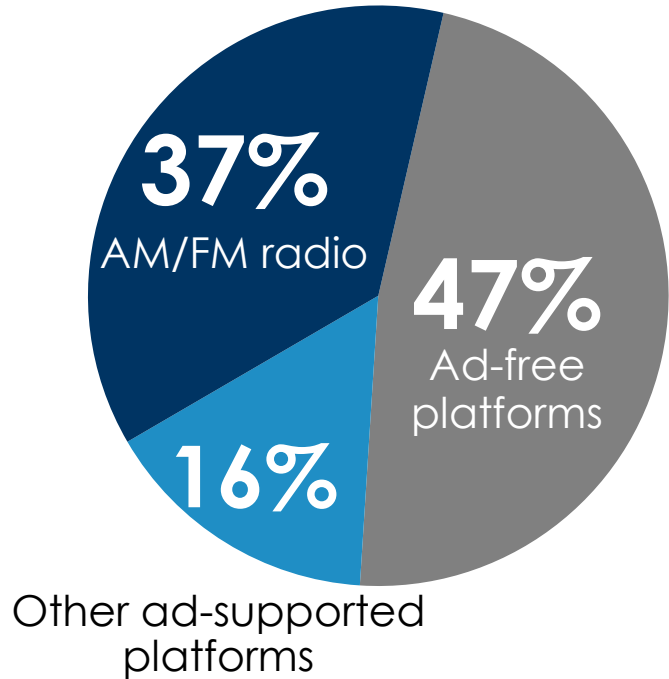
Share of audio (ad-supported and ad-free) time spent among persons 18+




Source: Edison Research, "Share of Ear," Q2 2022-Q1 2023. Persons 18+; SiriusXM: Ad-Supported: Spoken Word. Ad-Free: Music; Podcasts listened to on streaming platforms are included in 'podcasts;' Percentages may not add up to 100 due to rounding.

Americans spend 53% of their audio time with ad-supported media

Share of audio time spent among persons 18+



AM/FM radio accounts for **71%** of the daily audio time spent with any ad-supported platform



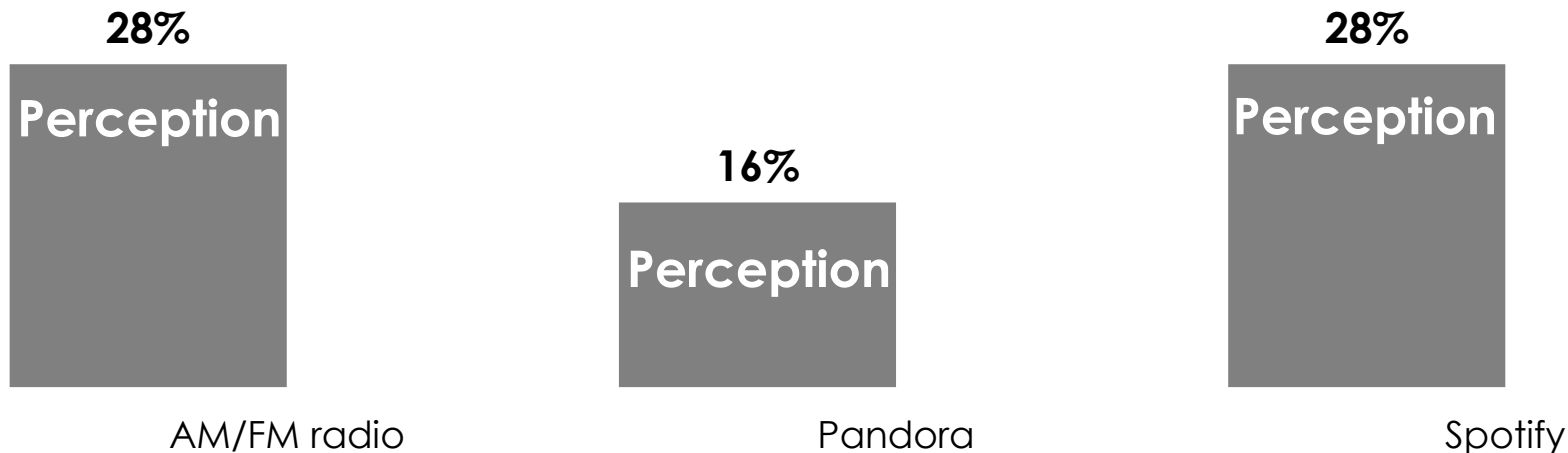
“There is increasing global evidence that marketers are basing their media choices on their own behavior or that stoked by the digitally obsessed marketing media, rather than actual audience data ... The first law of marketing is that you are not the market. You are an urban, professional, well paid media executive. Everything you think and do is from a highly unrepresentative n of 1. ”

Mark Ritson, Marketing Professor

Advertiser Perceptions: Advertisers think AM/FM radio's audience share (28%) trails Pandora/Spotify (44%)

According to Advertiser Perceptions, advertisers and agencies think the share of audio time spent with AM/FM radio is less than combined streaming

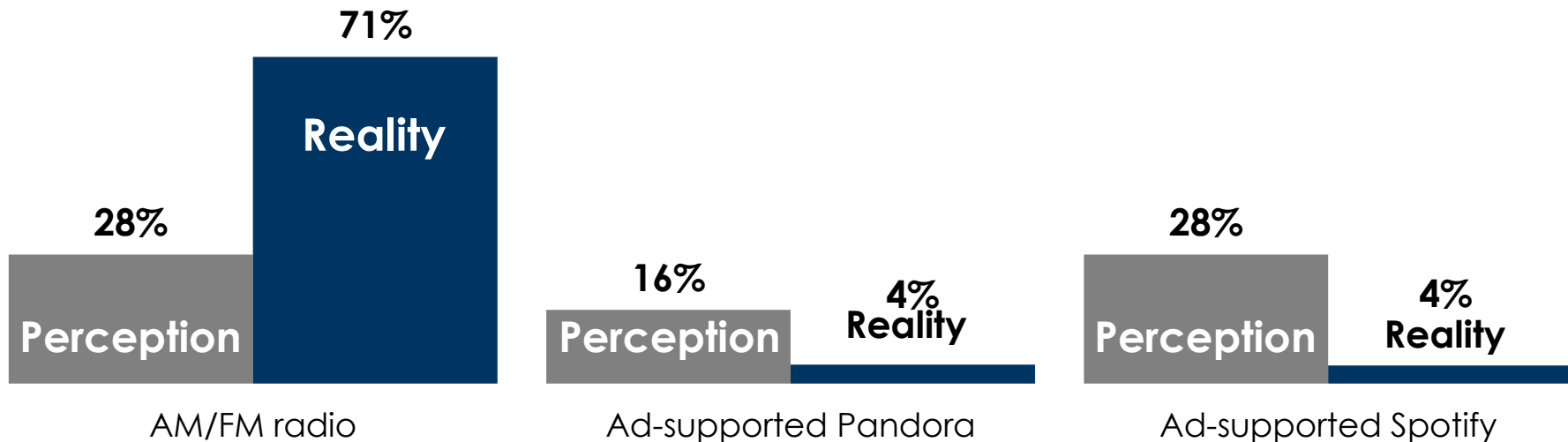
Q: There is a lot of activity in the online radio space. In recent years, Pandora, Spotify, iHeartRadio and other audio streaming services have grown in adoption. Please estimate what you consider their audience share.



Reality: The audience share of AM/FM radio is 18X larger than ad-supported Spotify and ad-supported Pandora

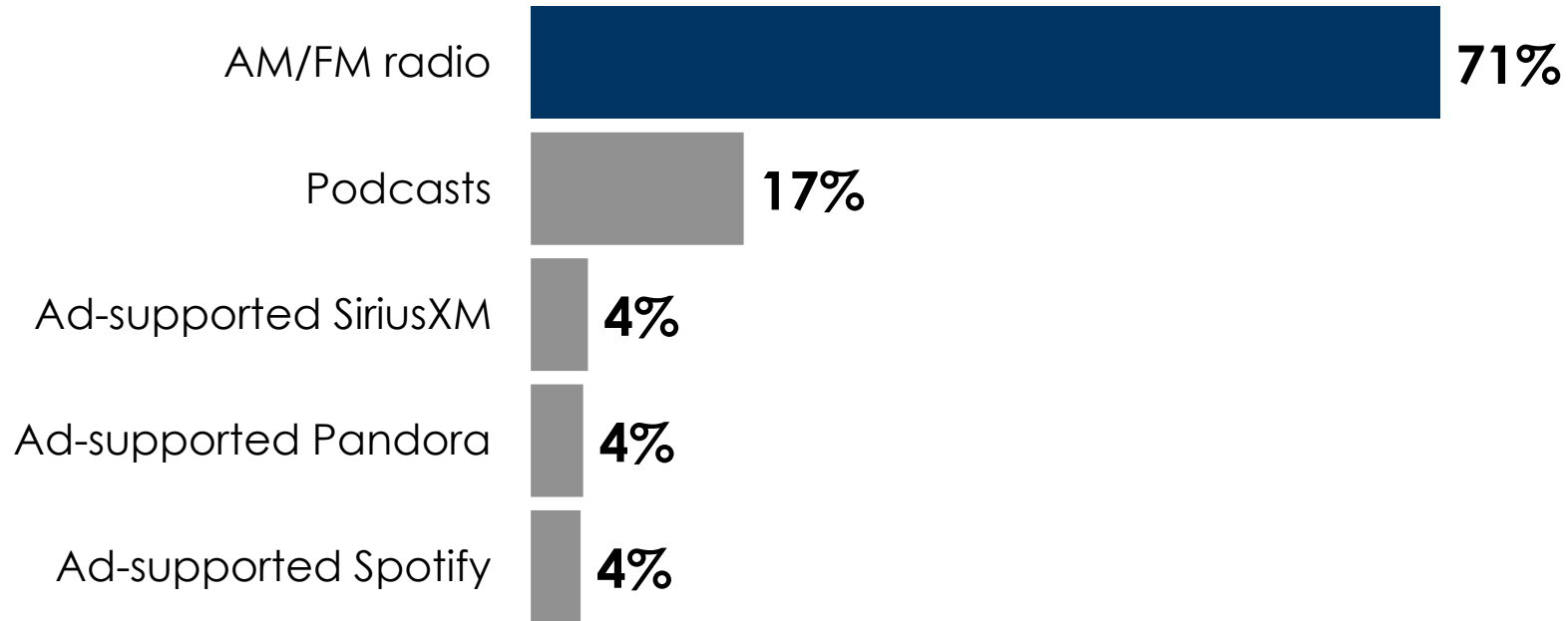
AM/FM radio's actual share is 2.5X greater than what advertisers perceive

Perception of advertisers and agencies vs. actual share of ad-supported audio time spent among persons 18+



AM/FM radio leads ad-supported audio shares

Share of ad-supported audio time spent among persons 18+



AM/FM radio leads ad-supported audio across major demos

Share of ad-supported audio time spent

	Persons 18+	Persons 18-34	Persons 18-49	Persons 25-54	Persons 35-64	Persons 50+
AM/FM radio	71%	55%	62%	65%	74%	80%
Podcasts	17%	29%	25%	21%	14%	8%
Ad-supported Pandora	4%	5%	4%	4%	4%	3%
Ad-supported Spotify	4%	6%	4%	4%	3%	5%
Ad-supported SiriusXM	4%	5%	5%	6%	5%	4%

Source: Edison Research, "Share of Ear," Q2 2022-Q1 2023; SiriusXM: Ad-Supported: Spoken Word. Ad-Free: Music; Podcasts listened to on streaming platforms are included in 'podcasts'; Percentages may not add up to 100 due to rounding.

Female demographics: AM/FM radio leads ad-supported audio across major demos; Podcasts are #2

Share of ad-supported audio time spent

	Women 18+	Women 18-34	Women 18-49	Women 25-54	Women 35-64	Women 50+
AM/FM radio	74%	56%	63%	68%	78%	86%
Podcasts	15%	26%	22%	18%	12%	8%
Ad-supported Pandora	4%	6%	6%	6%	4%	2%
Ad-supported Spotify	4%	7%	5%	3%	3%	2%
Ad-supported SiriusXM	3%	4%	4%	4%	3%	2%

Source: Edison Research, "Share of Ear," Q2 2022-Q1 2023; SiriusXM: Ad-Supported: Spoken Word. Ad-Free: Music; Podcasts listened to on streaming platforms are included in 'podcasts'; Percentages may not add up to 100 due to rounding.

Male demographics: AM/FM radio leads ad-supported audio across major demos; Podcasts show strength

Share of ad-supported audio time spent

	Men 18+	Men 18-34	Men 18-49	Men 25-54	Men 35-64	Men 50+
AM/FM radio	68%	56%	61%	62%	71%	77%
Podcasts	18%	32%	27%	23%	14%	8%
Ad-supported SiriusXM	6%	5%	6%	7%	7%	6%
Ad-supported Spotify	4%	5%	4%	5%	4%	4%
Ad-supported Pandora	4%	3%	3%	3%	4%	4%

Source: Edison Research, "Share of Ear," Q2 2022-Q1 2023; SiriusXM: Ad-Supported: Spoken Word. Ad-Free: Music; Podcasts listened to on streaming platforms are included in 'podcasts'; Percentages may not add up to 100 due to rounding.

African American: AM/FM radio leads ad-supported audio across major demos; Podcasts are a strong number 2

Share of ad-supported audio time spent

	African Americans 18+	African American men 18+	African American women 18+	African Americans 18-34	African Americans 18-49	African Americans 25-54
AM/FM radio	74%	73%	76%	48%	61%	70%
Podcasts	15%	17%	14%	36%	27%	19%
Ad-supported Spotify	4%	3%	4%	9%	6%	3%
Ad-supported Pandora	3%	3%	4%	4%	4%	3%
Ad-supported SiriusXM	3%	4%	3%	2%	2%	4%

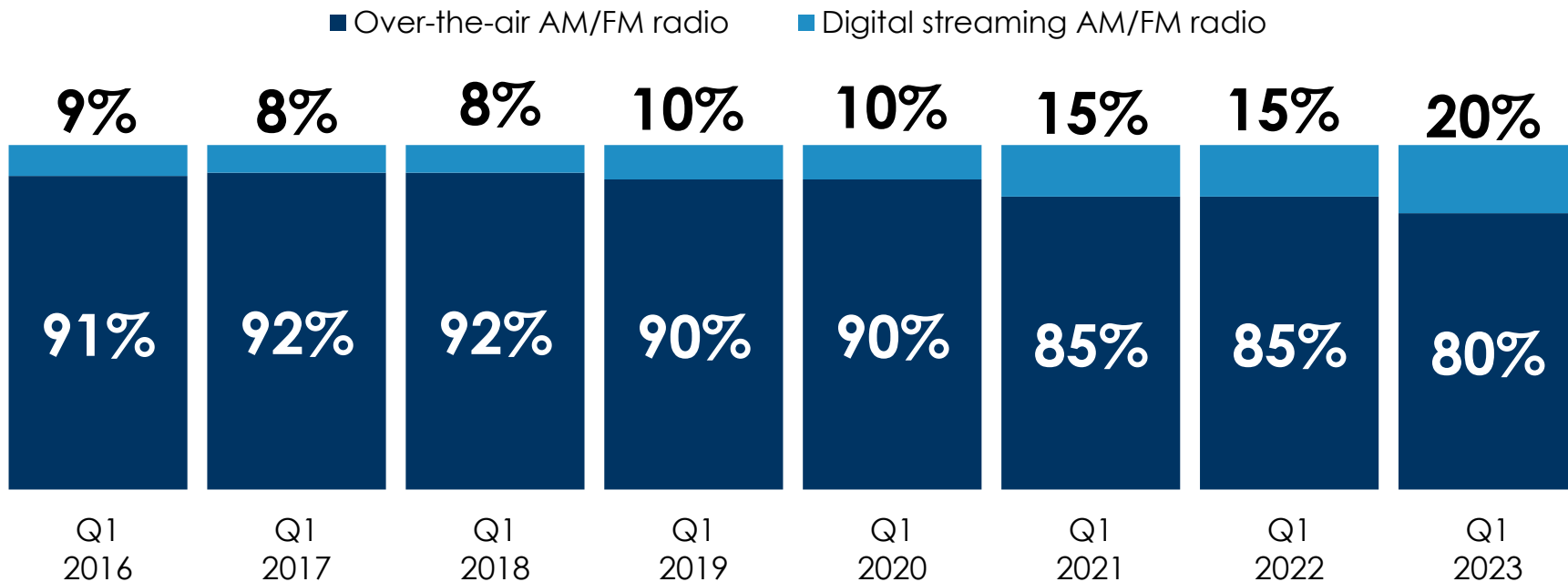
Hispanic: AM/FM radio leads ad-supported audio across major demos; Podcasts are a strong number 2

Share of ad-supported audio time spent

	Hispanics 18+	Hispanic men 18+	Hispanic women 18+	Hispanics 18-34	Hispanics 18-49	Hispanics 25-54
AM/FM radio	60%	54%	68%	49%	54%	55%
Podcasts	25%	28%	21%	39%	31%	28%
Ad-supported Pandora	6%	8%	3%	2%	5%	5%
Ad-supported SiriusXM	5%	6%	5%	5%	7%	7%
Ad-supported Spotify	4%	4%	3%	5%	4%	4%

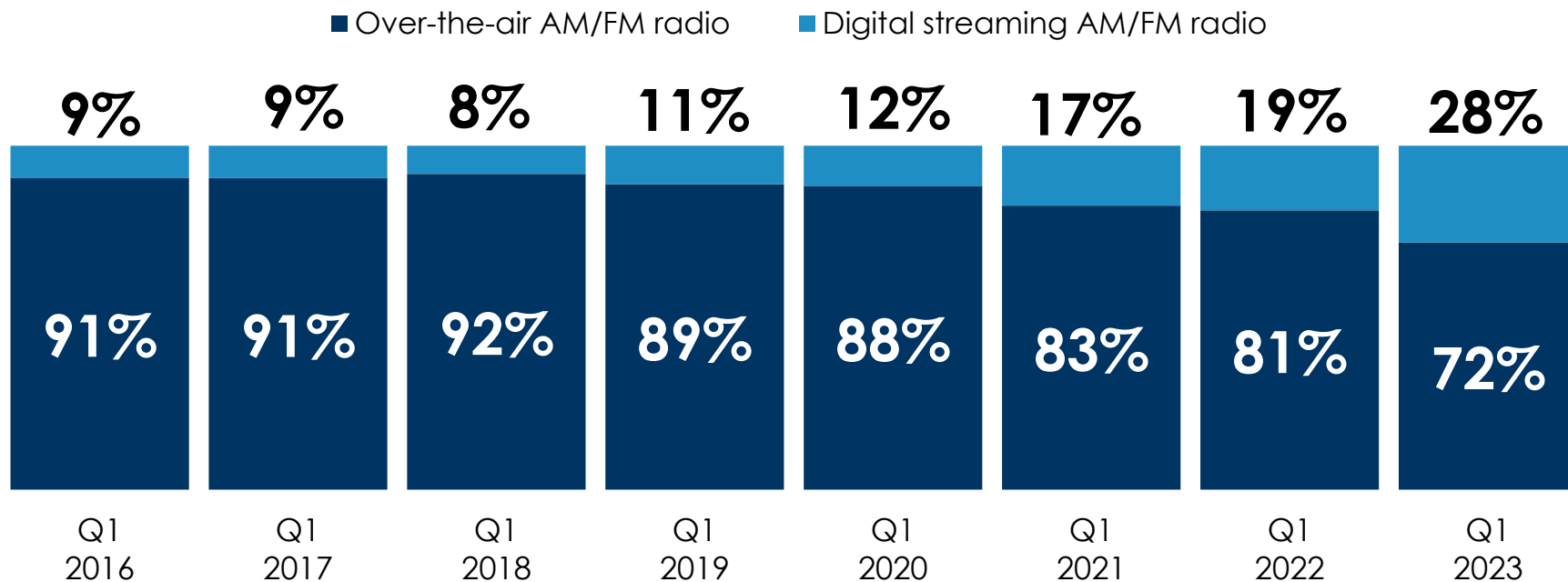
Streaming surges as a percentage of total AM/FM radio listening; 20% of 25-54 listening occurs via streaming

Share of audio time spent between over-the-air AM/FM radio listening and digital streaming
AM/FM radio listening, persons 25-54



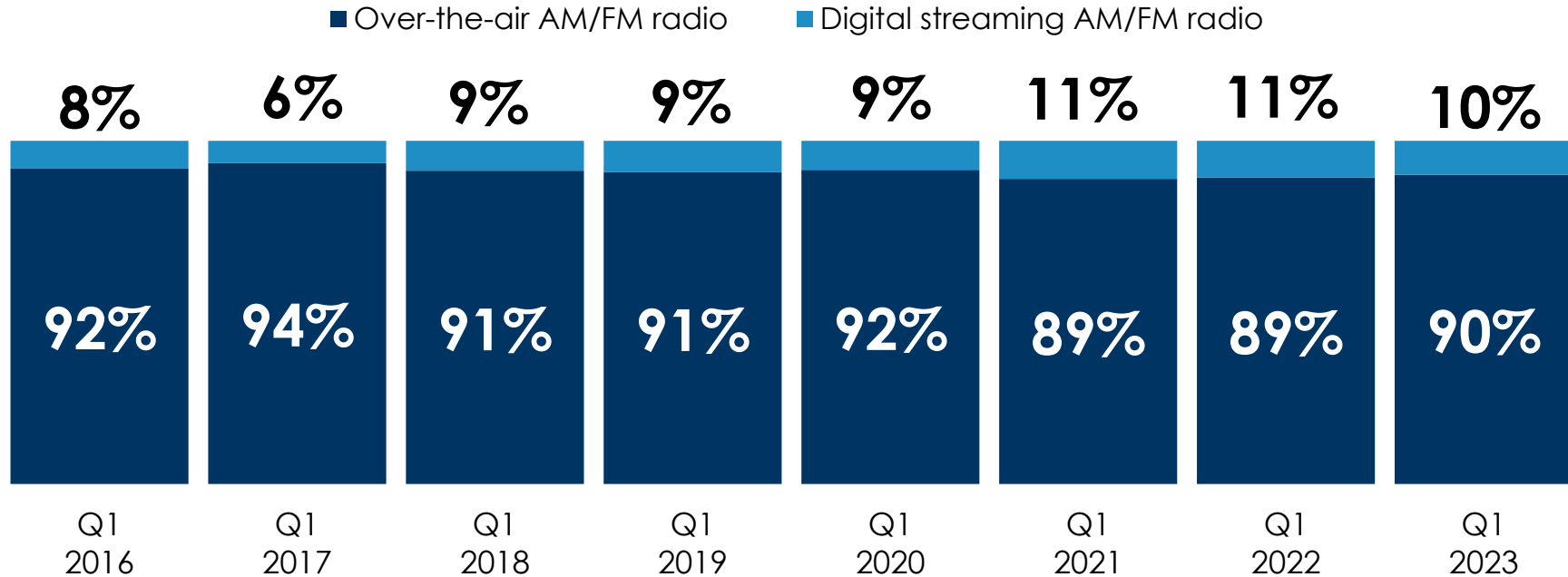
Men 25-54: Streaming leaps as a percentage of total AM/FM radio listening: 28% of listening occurs via streaming (3X women 25-54)

Share of audio time spent between over-the-air AM/FM radio listening and digital streaming
AM/FM radio listening, men 25-54



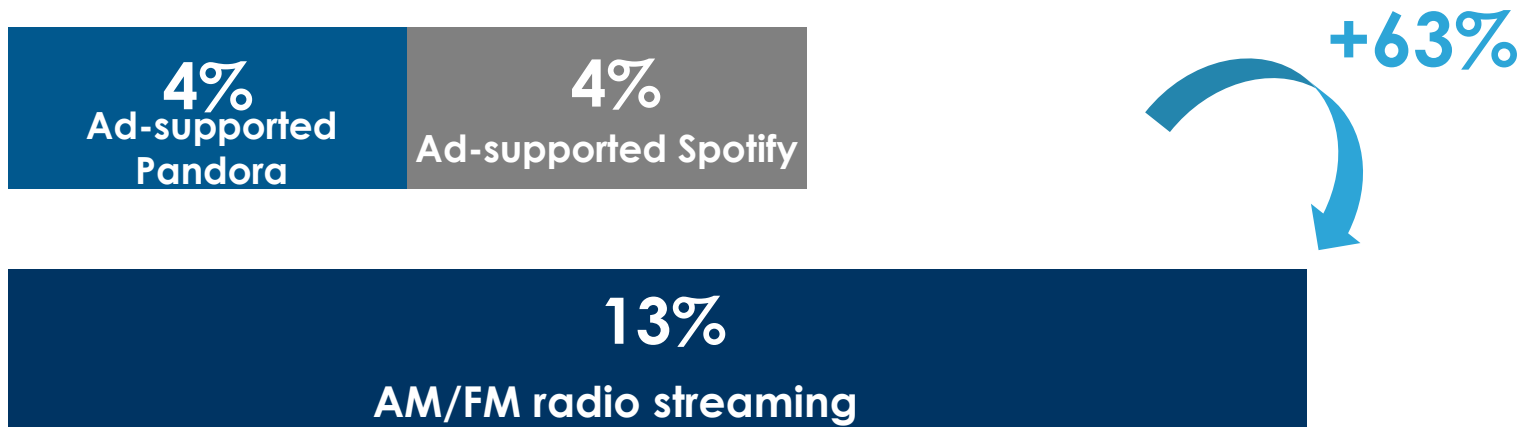
Women 25-54: AM/FM radio streaming listening is stable; 10% of listening occurs via streaming (1/3 of men 25-54)

Share of audio time spent between over-the-air AM/FM radio listening and digital streaming
AM/FM radio listening, women 25-54



Head snapper: AM/FM radio streaming's share is +63% larger than the combined ad-supported Spotify/Pandora audience

Share of ad-supported audio among persons 25-54



Of time spent with AM/FM radio, women consume more music than men; Sports garners a high share of male AM/FM radio streaming

Share of AM/FM over-the-air radio time spent by genre

	Over-the-air AM/FM radio		
	Persons 25-54	Men 25-54	Women 25-54
Music	73%	66%	80%
News	12%	16%	9%
Talk/ Personality	11%	13%	10%
Sports	4%	6%	2%

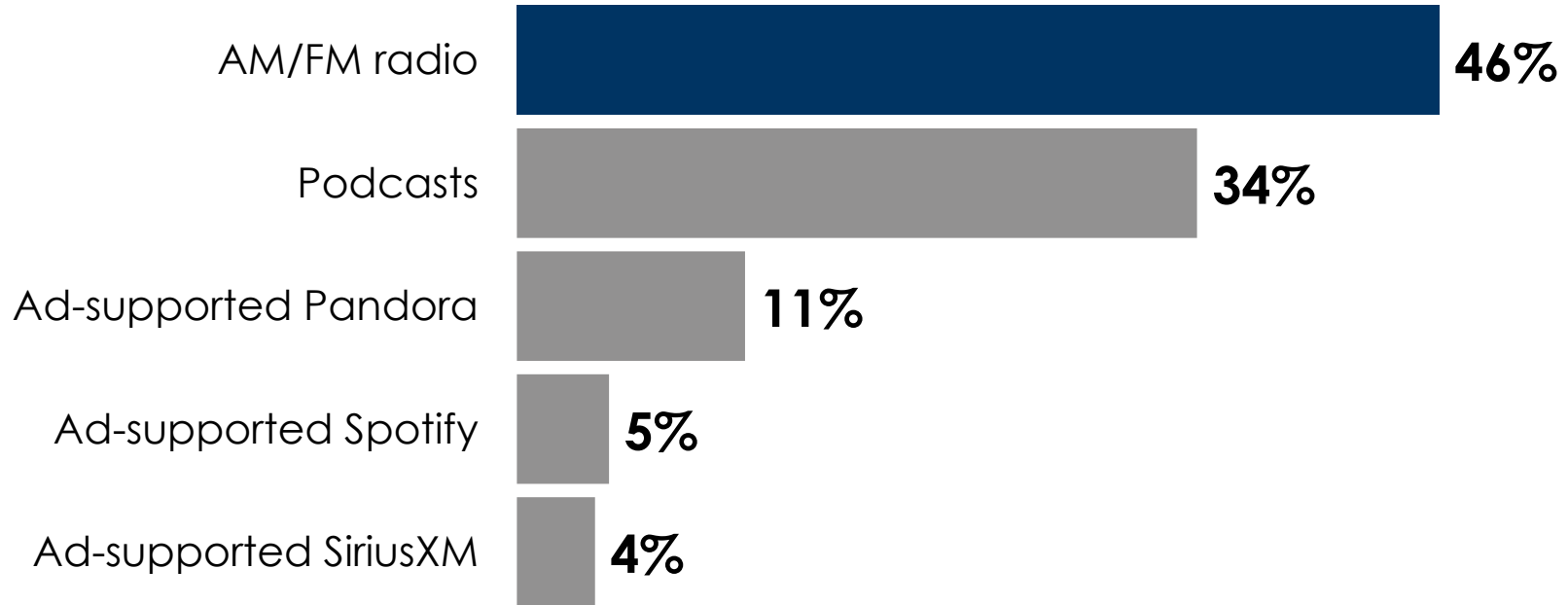
Share of AM/FM streaming radio time spent by genre

	Streaming AM/FM radio		
	Persons 25-54	Men 25-54	Women 25-54
Music	62%	57%	73%
News	19%	21%	15%
Talk/ Personality	12%	13%	10%
Sports	7%	8%	2%

How to read: Of the time women 25-54 spend with AM/FM radio streaming, 73% of it is spent with music.

Smart speaker listening: AM/FM radio has the largest ad-supported audio share

Share of ad-supported audio time spent on the smart speaker, among persons 18+

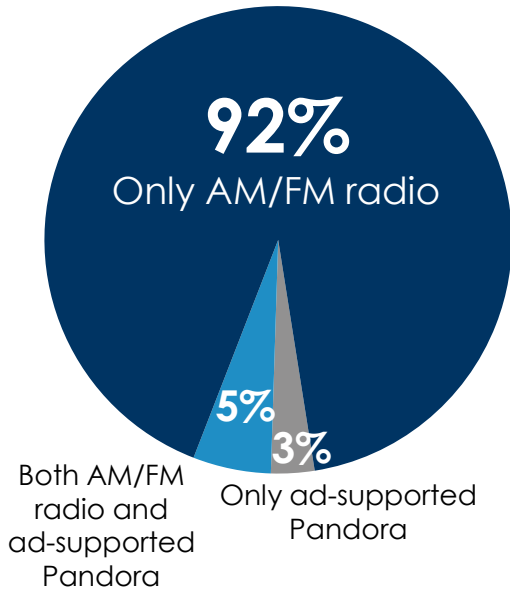


A pair of over-ear headphones is shown against a dark blue background. The headphones are also covered in a semi-transparent blue overlay, creating a monochromatic effect. The text "Audio platform duplication" is centered over the image in a white, sans-serif font.

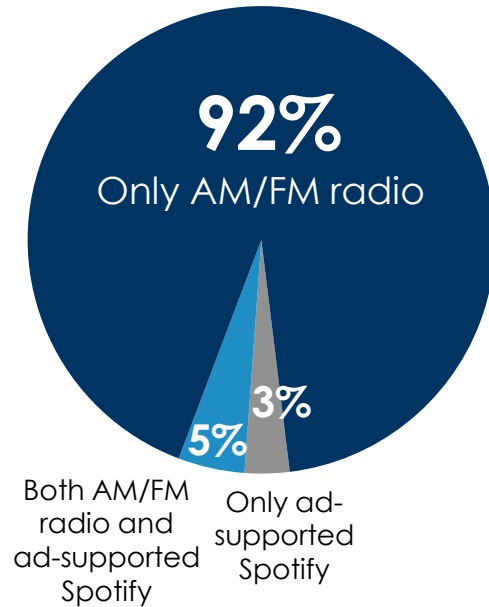
Audio platform duplication

Most people only listen to AM/FM radio and not ad-supported Pandora, Spotify, or SiriusXM

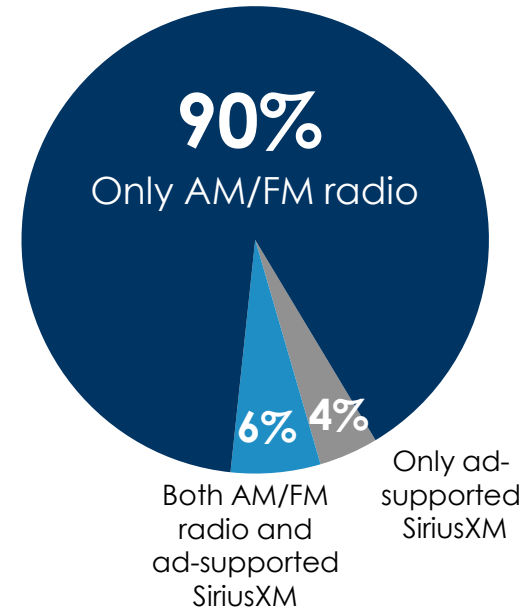
AM/FM radio and
ad-supported
Pandora duplication



AM/FM radio and
ad-supported Spotify
duplication

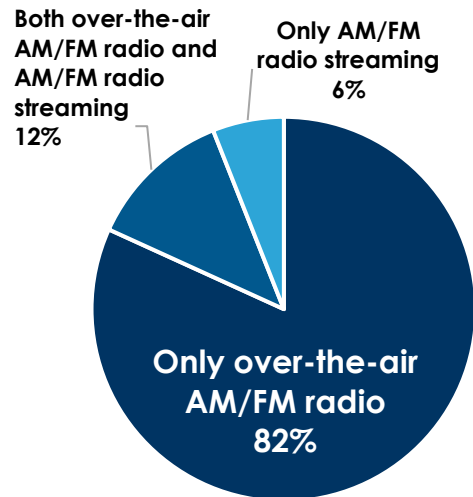


AM/FM radio and
ad-supported
SiriusXM duplication

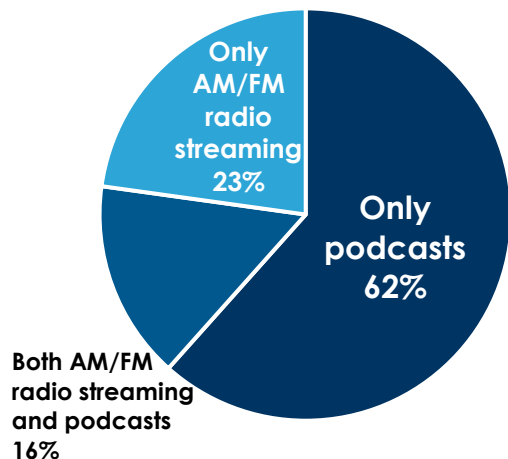


Duplication analysis: Podcasts, AM/FM radio streaming, and over-the-air AM/FM radio

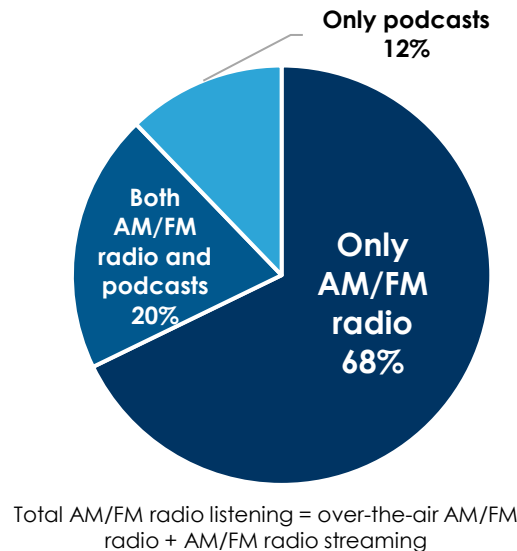
AM/FM radio streaming generates a +6% lift in incremental reach to AM/FM radio



AM/FM radio streaming generates a +30% lift in incremental reach to podcasts

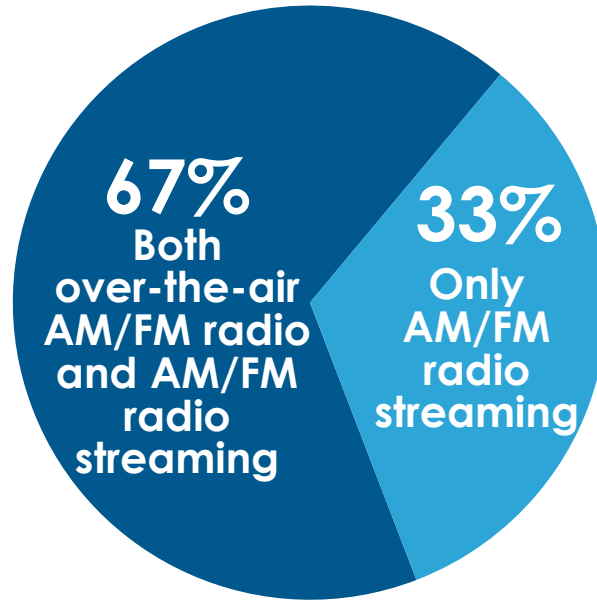


Podcasts generate a +14% lift in incremental reach to total AM/FM radio listening



Adding AM/FM radio streaming in the plan generates incremental reach to over-the-air AM/FM radio

AM/FM radio streaming and AM/FM radio over-the-air audience duplication



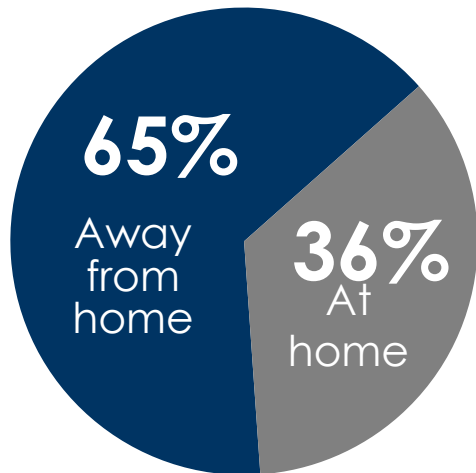


Location of listening

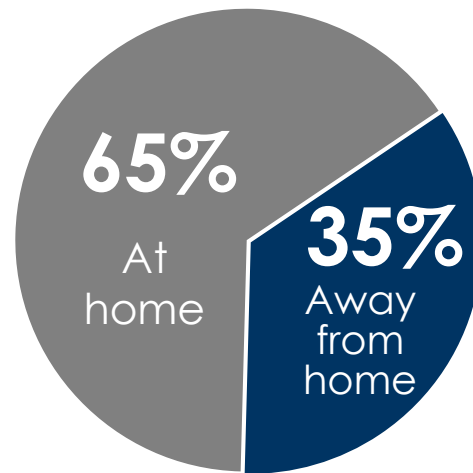
AM/FM radio reaches consumers on the path to purchase while majority of pure play streaming occurs at home

Most streaming listening occurs at home as background music

AM/FM radio location of listening



Ad-supported pure-play streaming location of listening



The majority of AM/FM radio streaming listening happens at home

	Share of time spent with ad-supported audio by location			
	Car	Work	Home	Any other place
AM/FM radio streaming	5%	23%	67%	5%
Ad-supported Spotify	8%	17%	68%	7%
Ad-supported Pandora	14%	11%	69%	6%

AM/FM radio's share of ad-supported audio is consistently strong at work, at home, and in the car

Share of time spent with ad-supported audio by location

	AM/FM radio	Podcasts	Ad-supported Spotify	Ad-supported Pandora	Ad-supported SiriusXM
At work	70%	17%	6%	4%	3%
At home	63%	22%	5%	5%	4%
In the car	87%	6%	1%	2%	4%

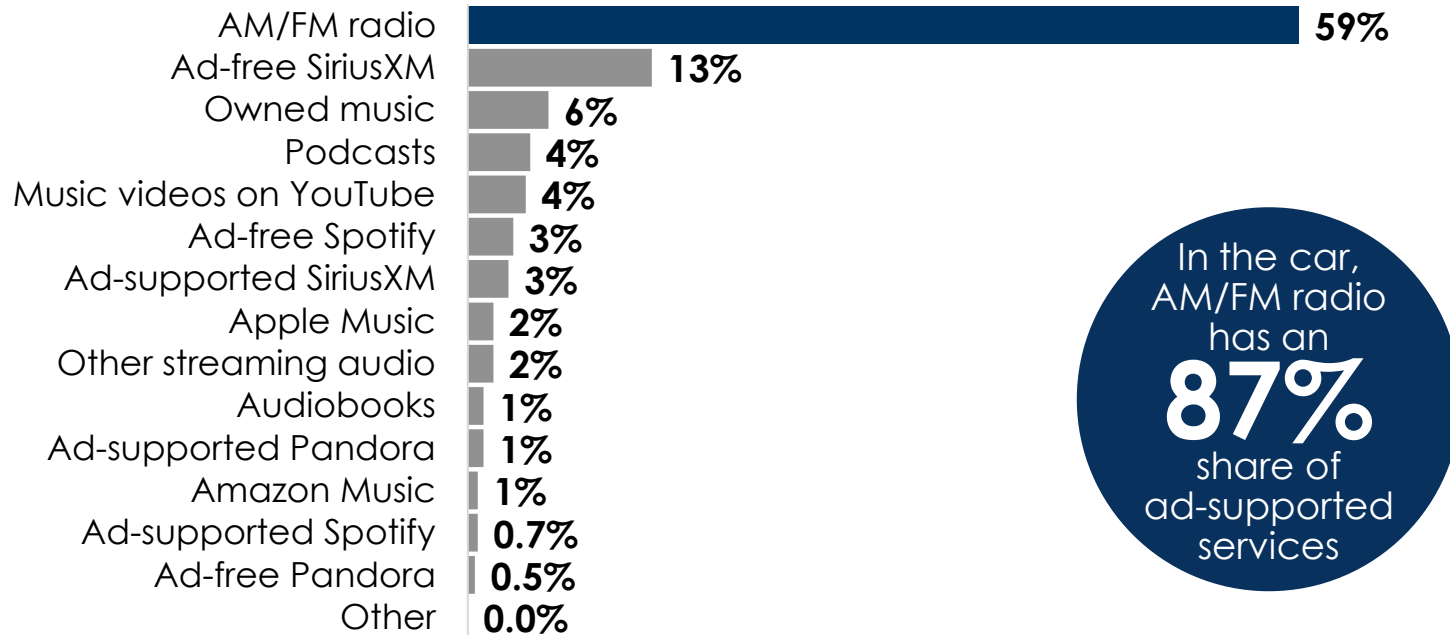
“The biggest risk for radio is the 26-year-old planner who lives in New York or Chicago and does not commute by car and does not listen to radio and thus does not think anyone else listens to radio.”

Colin Kinsella, former CEO Havas Media, North America
November 16, 2016, Radio Ink Forecast Conference



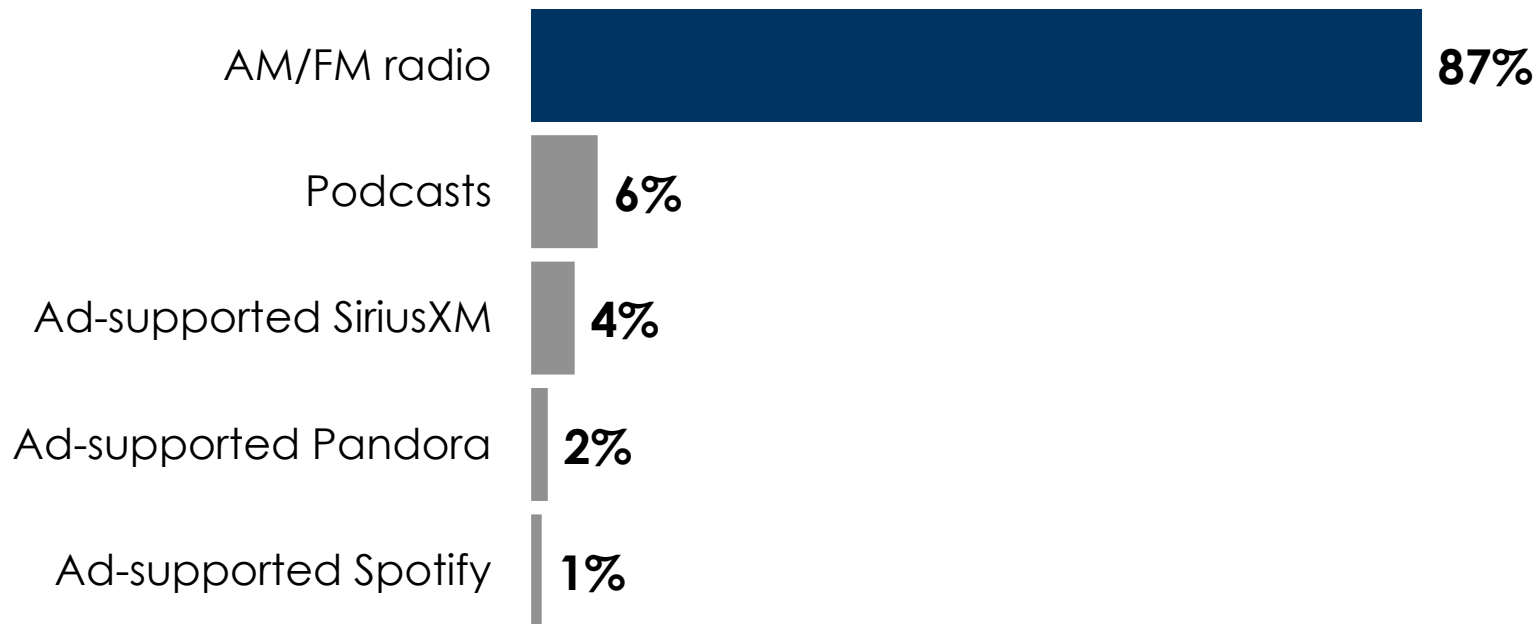
In car total audio shares: AM/FM radio dominates

Share of audio (ad-supported and ad-free) time spent in the car among persons 18+



AM/FM radio rules ad-supported audio in the car

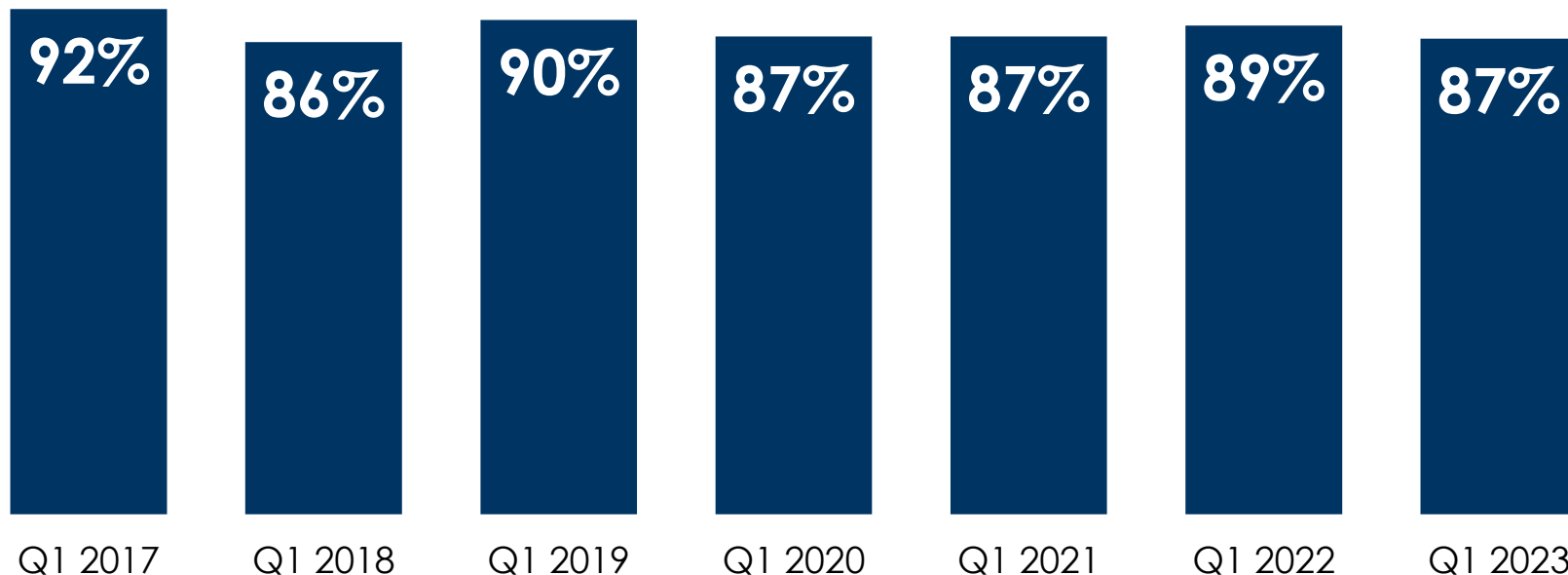
Share of ad-supported audio time spent in the car among persons 18+



Source: Edison Research, "Share of Ear," Q2 2022-Q1 2023. Persons 18+, in the car; SiriusXM: Ad-supported: Spoken Word. Ad-free: Music; Podcasts listened to on streaming platforms are included in 'podcasts;' Percentages may not add up to 100 due to rounding.

In-car ad-supported audio: AM/FM radio's share trend is remarkably consistent

AM/FM radio's share of ad-supported audio in the car among persons 18+



In-car demographics: AM/FM radio leads ad-supported audio across major demos

In-car share of ad-supported audio time spent

	Persons 18-34	Persons 18-49	Persons 25-54	Persons 35-64
AM/FM radio	82%	83%	84%	87%
Podcasts	11%	9%	8%	6%
Ad-supported SiriusXM	3%	4%	4%	4%
Ad-supported Pandora	3%	3%	3%	1%
Ad-supported Spotify	1%	2%	1%	1%

Source: Edison Research, "Share of Ear," Q2 2022-Q1 2023, in the car; SiriusXM: Ad-Supported: Spoken Word. Ad-Free: Music; Podcasts listened to on streaming platforms are included in 'podcasts;' Percentages may not add up to 100 due to rounding.

In-car female demographics: AM/FM radio leads ad-supported audio across major demos

In-car share of ad-supported audio time spent

	Women 18-34	Women 18-49	Women 25-54	Women 35-64
AM/FM radio	85%	87%	89%	92%
Podcasts	8%	6%	4%	3%
Ad-supported SiriusXM	3%	2%	2%	3%
Ad-supported Pandora	3%	3%	3%	2%
Ad-supported Spotify	2%	2%	1%	1%

Source: Edison Research, "Share of Ear," Q2 2022-Q1 2023, in the car; SiriusXM: Ad-Supported: Spoken Word. Ad-Free: Music; Podcasts listened to on streaming platforms are included in 'podcasts;' Percentages may not add up to 100 due to rounding.

In-car male demographics: AM/FM radio leads ad-supported audio across major demos

In-car share of ad-supported audio time spent

	Men 18-34	Men 18-49	Men 25-54	Men 35-64
AM/FM radio	76%	77%	77%	83%
Podcasts	17%	14%	14%	9%
Ad-supported Pandora	4%	2%	2%	1%
Ad-supported SiriusXM	3%	5%	6%	6%
Ad-supported Spotify	0%	2%	1%	1%

Source: Edison Research, "Share of Ear," Q2 2022-Q1 2023, in the car; SiriusXM: Ad-Supported: Spoken Word. Ad-Free: Music; Podcasts listened to on streaming platforms are included in 'podcasts;' Percentages may not add up to 100 due to rounding.

A pair of over-ear headphones is shown against a solid blue background. The headphones are positioned diagonally, with the left earcup in the upper left and the right earcup in the lower right. The text "Share of listening by DMA" is overlaid in the center in a white, bold, sans-serif font.

Share of listening by DMA

Most audio platform shares are consistent by market size

Share of ad-supported audio time spent by DMA rank

	AM/FM radio	Ad-supported SiriusXM	Podcasts	Ad-supported Pandora	Ad-supported Spotify
DMA rank 1-25	69%	4%	19%	4%	4%
DMA rank 26-100	76%	4%	13%	4%	3%
DMA rank 101+	65%	6%	18%	5%	6%

Indexing audio platform shares by market size finds Spotify and podcasts over index in top markets

Share of listening by DMA rank, indexed to total listening

	AM/FM radio	SiriusXM	Podcasts	Pandora	Spotify
DMA rank 1-25	95	92	113	96	116
DMA rank 26-100	110	101	78	103	76
DMA rank 101+	92	125	110	106	102

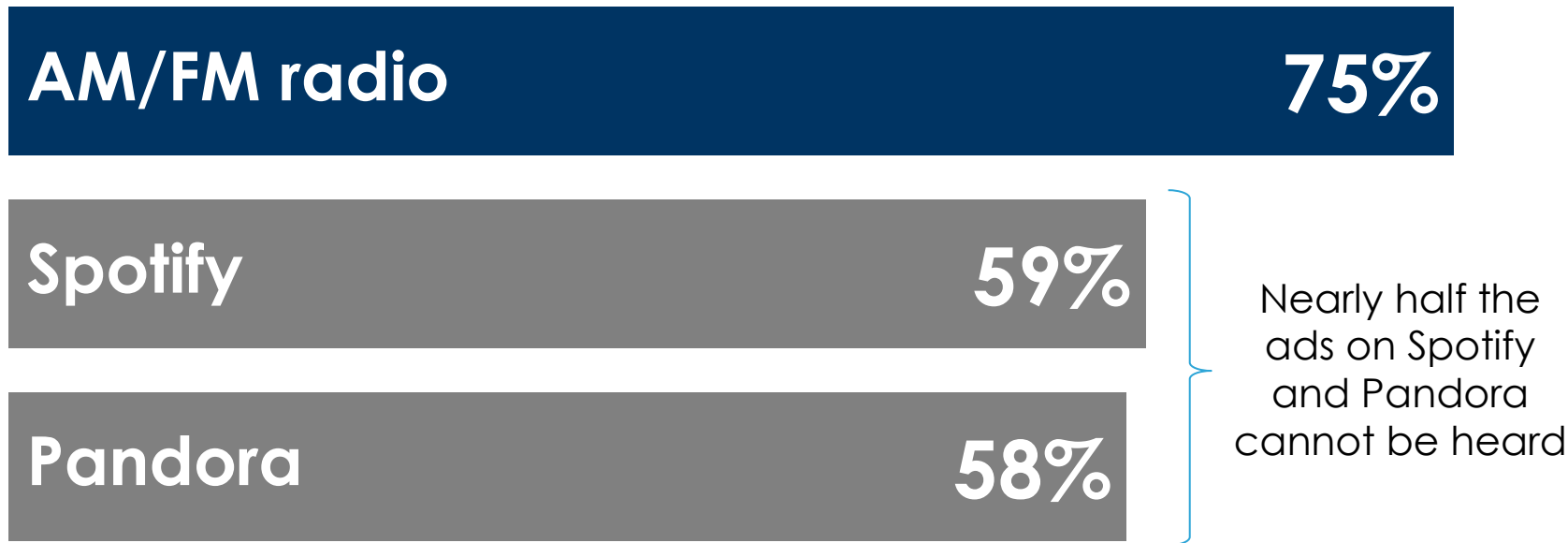
How to read: Listening to podcasts in the top 25 markets is 13% greater versus the country overall. Listening to podcasts in markets 26-100 is 22% lower than the U.S. average.

A pair of over-ear headphones is shown in a dark blue, semi-transparent style against a solid blue background. The headphones are positioned diagonally, with the left earcup in the foreground and the right earcup slightly behind it. The text "Since so much Pandora/Spotify listening takes place at home, audibility is an issue" is overlaid in white, bold, sans-serif font, centered horizontally and partially overlapping the headphones.

Since so much Pandora/Spotify
listening takes place at home,
audibility is an issue

Listeners hear ads on AM/FM radio; Pandora/Spotify? Not so much

“I can hear what people are talking about when I’m listening to...”



Versus AM/FM radio, Pandora and Spotify ads are only audible three-quarters of the time

Audibility index: % who say “I can hear what people are talking about when I’m listening to...”

AM/FM radio audibility indexed to 100

AM/FM radio

100

Spotify

79

Pandora

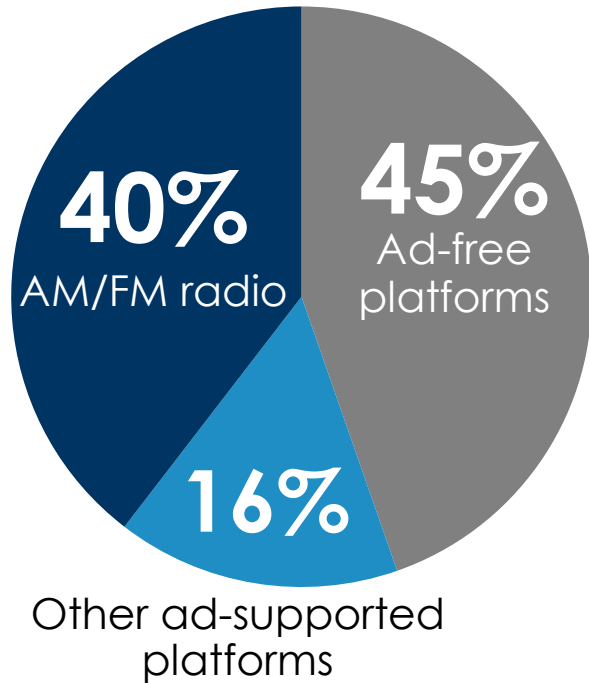
77



Ad-supported audio and voters

Registered voters spend 55% of their audio time with ad-supported media

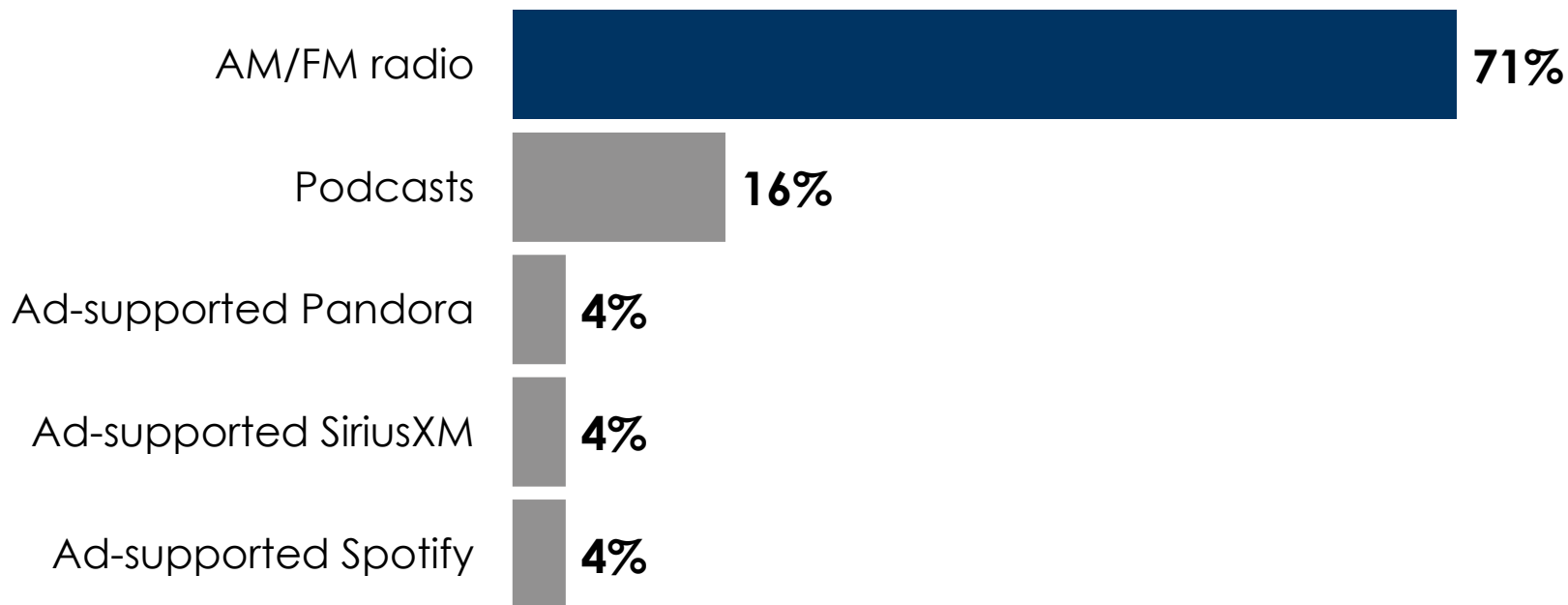
Share of audio time spent among registered voters 18+



AM/FM radio accounts for **71%** of the daily audio time spent with any ad-supported platform among registered voters

AM/FM radio dominates audio share among registered voters

Share of ad-supported audio time spent among persons 18+
(among registered voters)



AM/FM radio has substantial shares among registered voters, Independents, Republicans, and Democrats

Share of ad-supported audio time spent among persons 18+

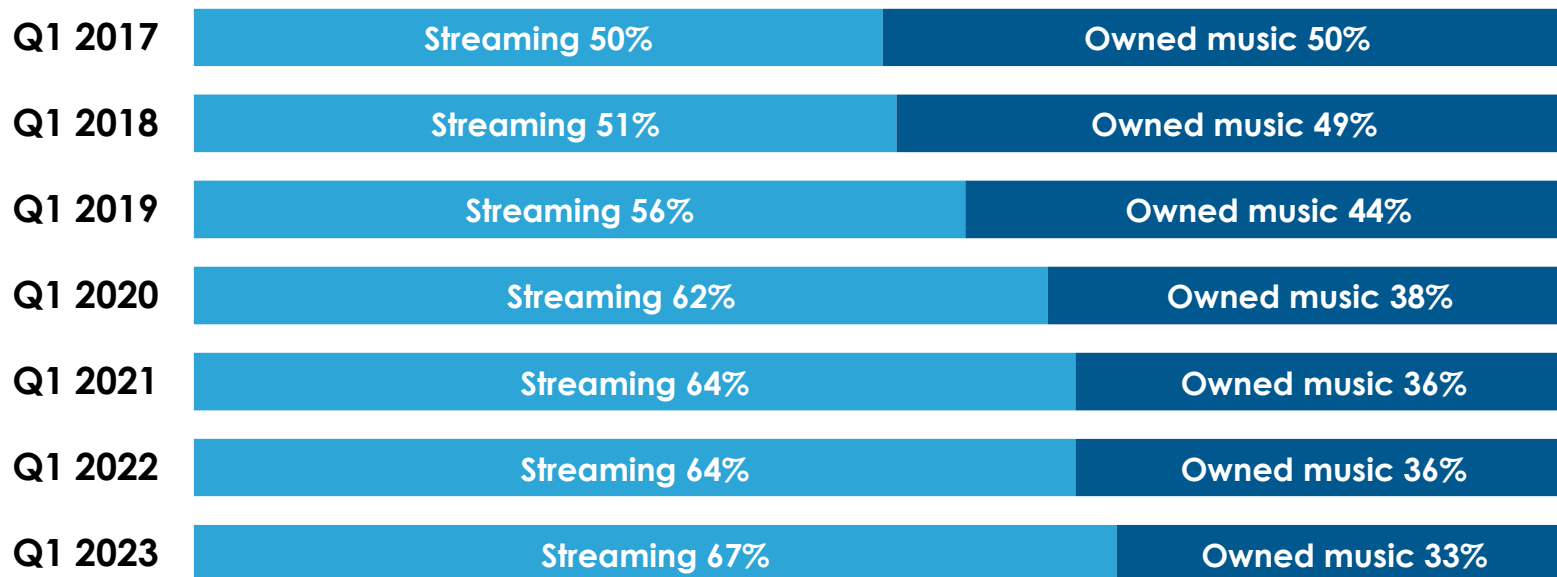
	Registered voters	Democrats	Independents	Republicans
AM/FM radio	71%	66%	72%	77%
Podcasts	16%	20%	16%	13%
Ad-supported Pandora	4%	5%	4%	3%
Ad-supported SiriusXM	4%	5%	4%	4%
Ad-supported Spotify	4%	4%	4%	3%



Audio trends from 2017-2023

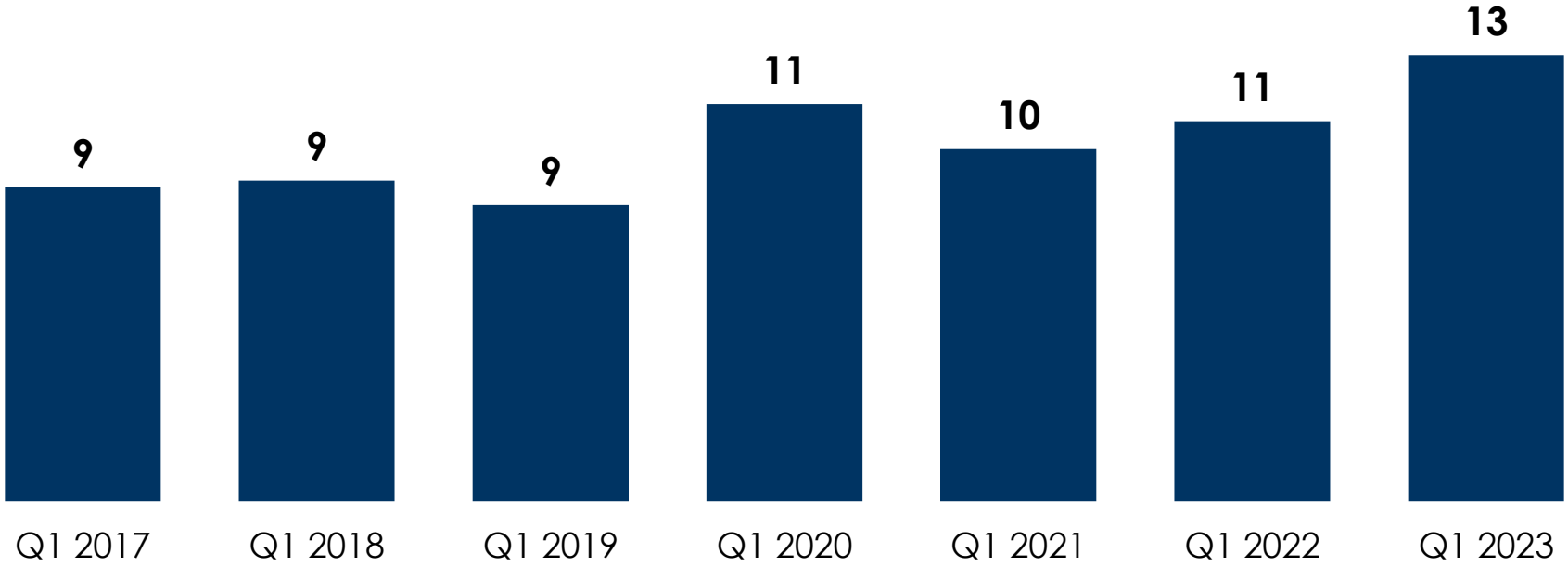
Time spent with streaming grows at the expense of owned music – not AM/FM radio

Share of audio time spent between streaming (Pandora/Spotify) and owned music (iTunes/CDs), persons 18+



Daily time spent with AM/FM radio streaming increased in Q1 2023

Average daily time spent in minutes with AM/FM radio streaming



How to read: In Q1 2023, persons 18+ spent an average of 13 minutes daily listening to AM/FM radio streaming.

Persons 18+: AM/FM radio is dominant, podcasts quadruple, AM/FM radio streaming is up, and Pandora's audience is cut in half

	Share of ad-supported audio among persons 18+	
	Q1 2017	Q1 2023
Over-the-air AM/FM radio	77%	61%
Podcasts	4%	17%
AM/FM radio streaming	6%	10%
Ad-supported Pandora	9%	4%
Ad-supported Spotify	2%	4%
Ad-supported SiriusXM	2%	4%

Persons 18-34: AM/FM radio is dominant, Pandora plummets, and podcasts triple

	Share of ad-supported audio among persons 18-34	
	Q1 2017	Q1 2023
Over-the-air AM/FM radio	56%	44%
Podcasts	10%	29%
AM/FM radio streaming	8%	11%
Ad-supported Spotify	8%	6%
Ad-supported Pandora	17%	5%
Ad-supported SiriusXM	2%	5%

Persons 25-54: AM/FM radio is dominant, AM/FM radio streaming grows to beat ad-supported Pandora/Spotify combined, and podcasts quadruple

	Share of ad-supported audio among persons 25-54	
	Q1 2017	Q1 2023
Over-the-air AM/FM radio	73%	52%
Podcasts	5%	21%
AM/FM radio streaming	6%	13%
Ad-supported SiriusXM	2%	6%
Ad-supported Pandora	11%	4%
Ad-supported Spotify	3%	4%

Persons 35-64: AM/FM radio is dominant, Pandora is down, and podcasts up 6X

	Share of ad-supported audio among persons 35-64	
	Q1 2017	Q1 2023
Over-the-air AM/FM radio	83%	66%
Podcasts	2%	13%
AM/FM radio streaming	5%	10%
Ad-supported Pandora	7%	4%
Ad-supported SiriusXM	2%	5%
Ad-supported Spotify	1%	3%

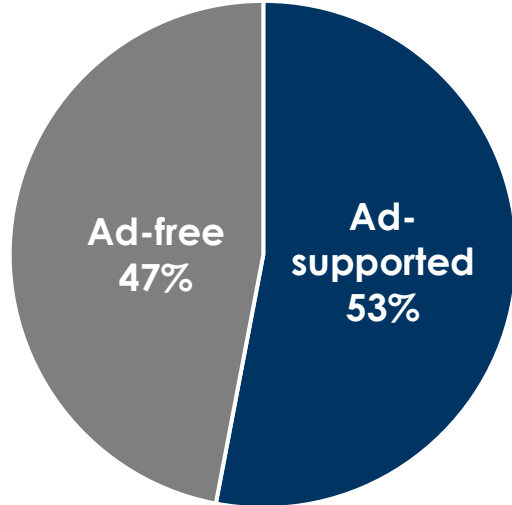
Persons 18+: Podcast daily reach has tripled since 2017

	% of persons 18+ who listen daily	
	Q1 2017	Q1 2023
Over-the-air AM/FM radio*	69%	61%
Podcasts	7%	24%
AM/FM radio streaming*	8%	12%
Ad-supported SiriusXM	5%	7%
Ad-supported Pandora	12%	6%
Ad-supported Spotify	4%	5%

Spotify's small ad-supported audience: The vast majority of Spotify listening is to its ad-free subscription service

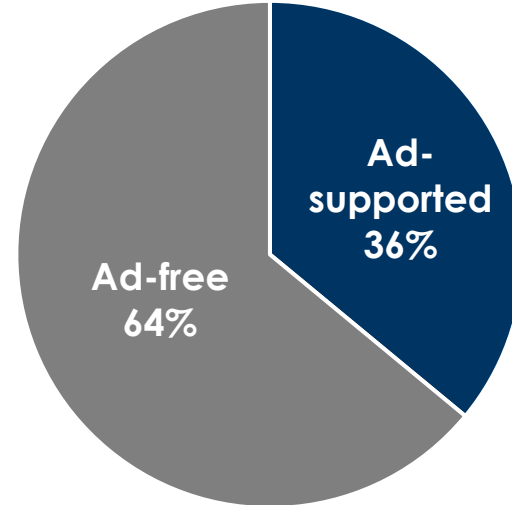
Q1 2017:

**Share of audio time spent with Spotify
among persons 25-54**



Q1 2023:

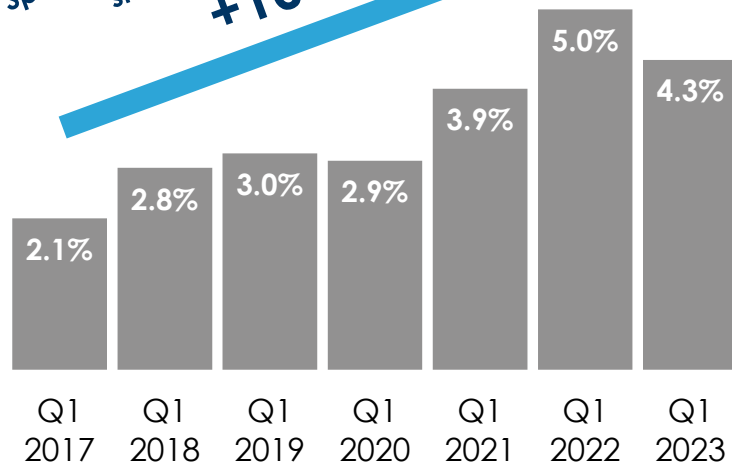
**Share of audio time spent with Spotify
among persons 25-54**



Two-thirds of Spotify's audience comes from its ad-free subscription service; The ad-free audience has doubled since 2017

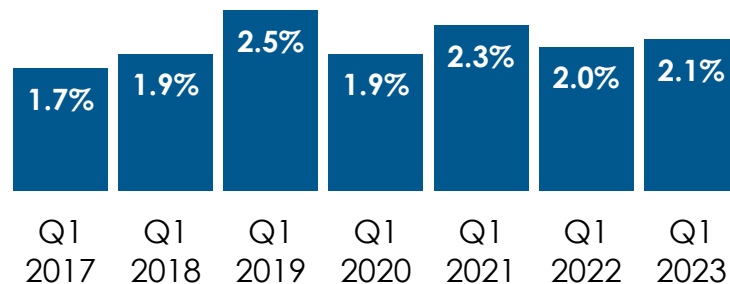
Share of audio time spent among persons 18+

Spotify's ad-free (subscription) audience
share trend since Q1 2017
+105%



Spotify's ad-supported audience share
trend since Q1 2017

24%

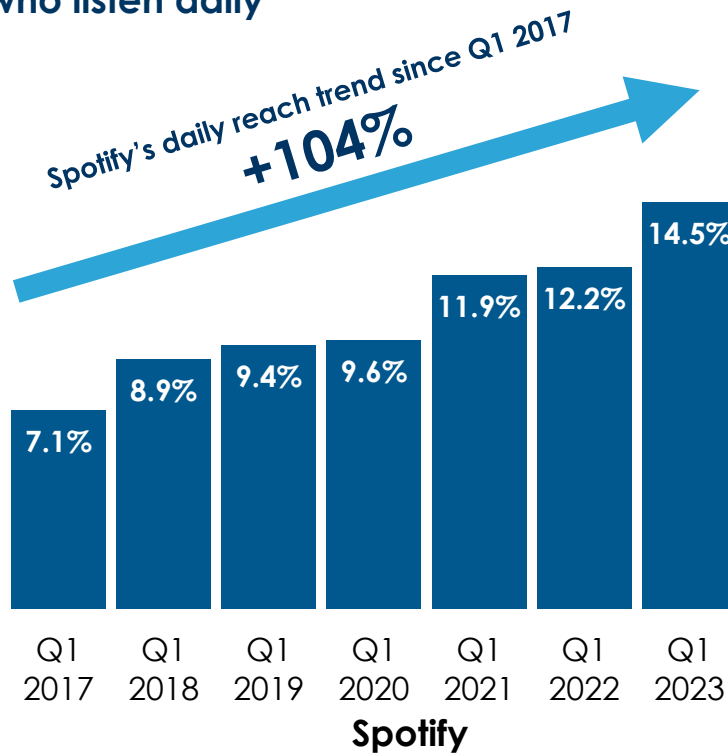
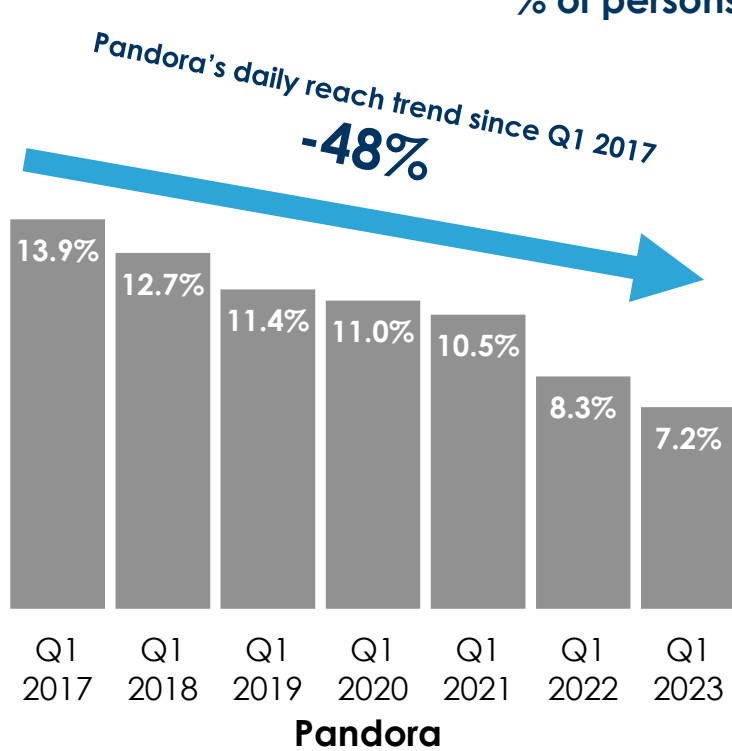


64%

of Spotify's
audience is from
its ad-free
subscription
service

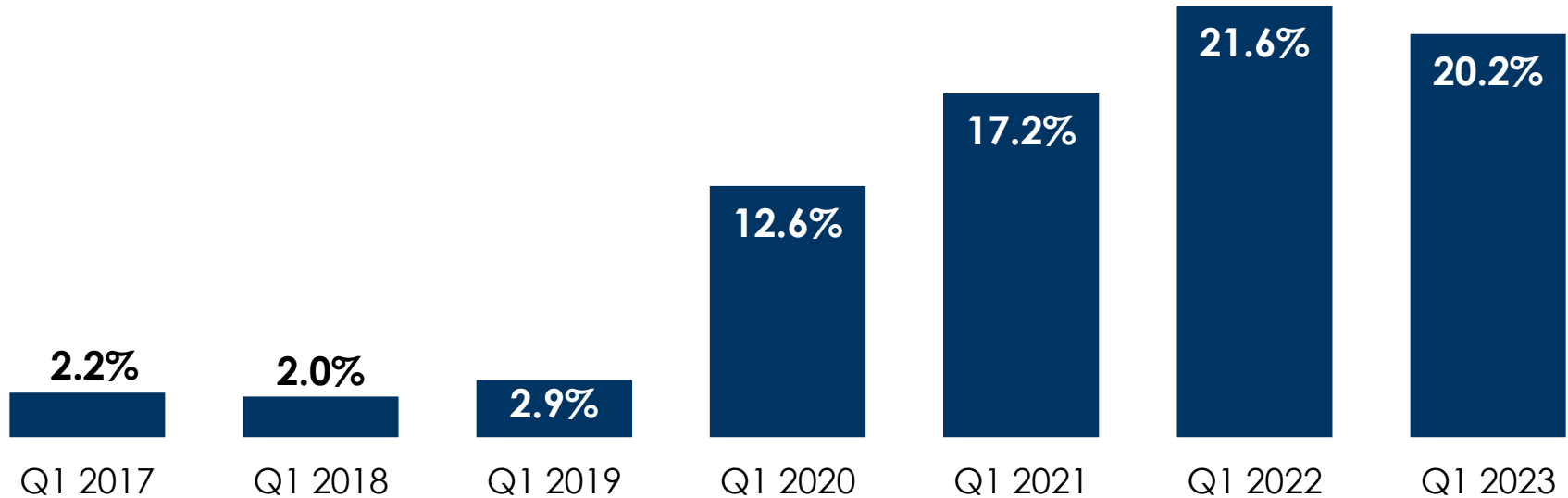
Spotify's daily reach is now 2X Pandora

% of persons 18+ who listen daily



Spotify's podcast push has grown its spoken word portion of time spent to 20%

Share of Spotify listening that is spoken word



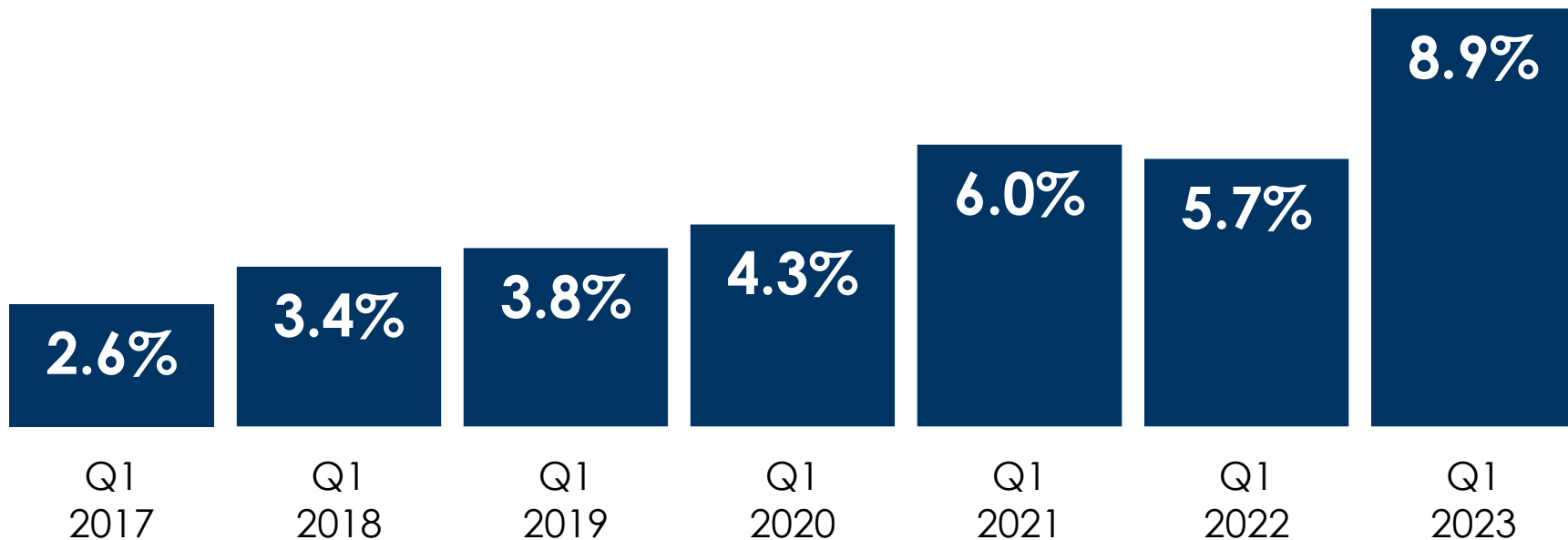
How to read: 20.2% of Spotify listening in Q1 2023 was to spoken word.



Podcasts

Podcasts' share of time spent has more than tripled since Q1 2017

Persons 18+ share of audio time spent



Podcast audiences double the combined ad-supported shares of Pandora and Spotify across major demos

	Edison Research "Share of Ear" Q1 2023: Share of ad-supported audio	
	Podcasts	Pandora/Spotify
Persons 18+	17%	8%
Persons 18-34	29%	11%
Persons 25-54	21%	8%
Persons 35-64	14%	7%

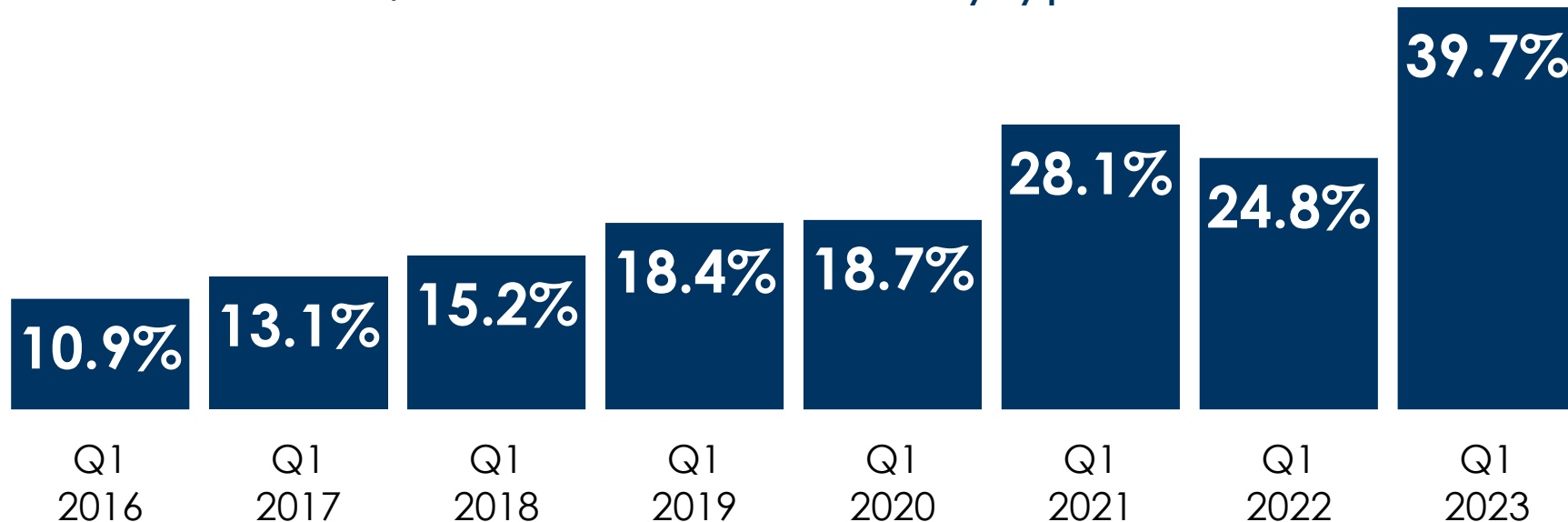
Since 2017, daily podcast listeners have increased across all demographics; The older the demo, the greater the growth

% of persons who listen daily

Demographic	Q1 2017 % of daily podcast listeners	Q1 2023 % of daily podcast listeners	% change
Persons 13-17	8%	23%	+288%
Persons 18-24	17%	35%	+206%
Persons 25-34	10%	43%	+430%
Persons 35-44	8%	32%	+400%
Persons 45-54	3%	19%	+633%
Persons 55-64	2%	11%	+550%
Persons 65+	2%	10%	+500%

18-34 podcast reach surges: Over one out of three are reached daily, up 3X from 2016

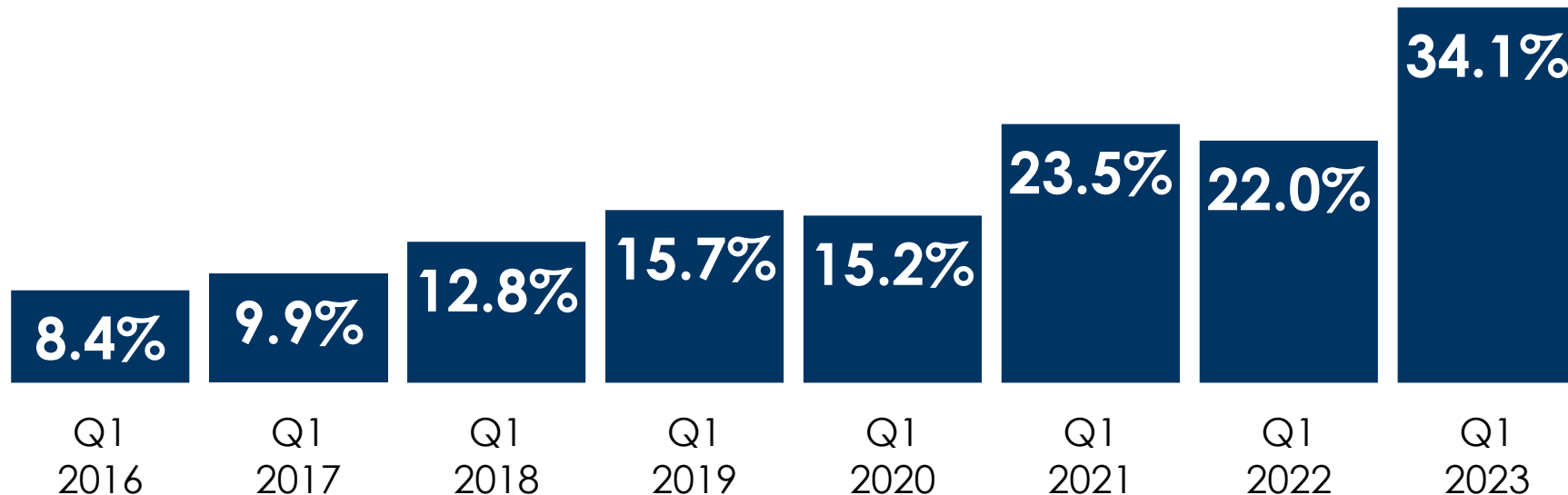
% of 18-34 Americans reached daily by podcasts



How to read: In 2016, 10.9% of U.S. persons 18-34 listened to podcasts in an average day. In 2023, 39.7% of persons 18-34 listen in a typical day, a threefold increase.

18-49 podcast reach surges: One out of three are reached daily, up 4X from 2016

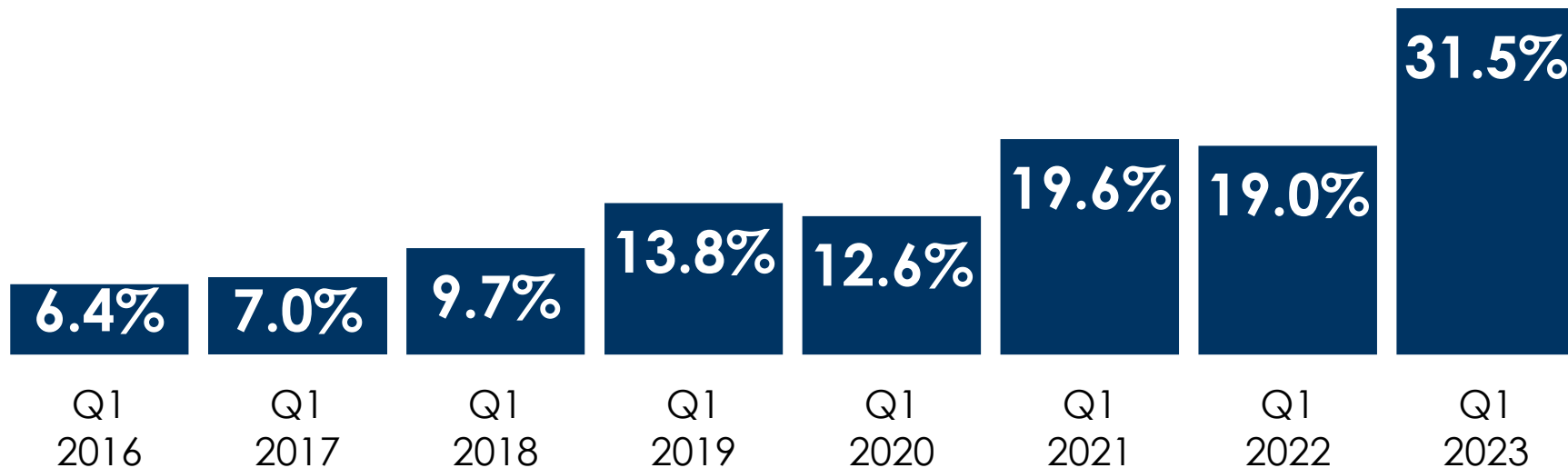
% of 18-49 Americans reached daily by podcasts



How to read: In 2016, 8.4% of U.S. persons 18-49 listened to podcasts in an average day. In 2023, 34.1% of persons 18-49 listen in a typical day, a fourfold increase.

25-54 podcast reach surges: Almost one out of three are reached daily, up 5X from 2016

% of 25-54 Americans reached daily by podcasts

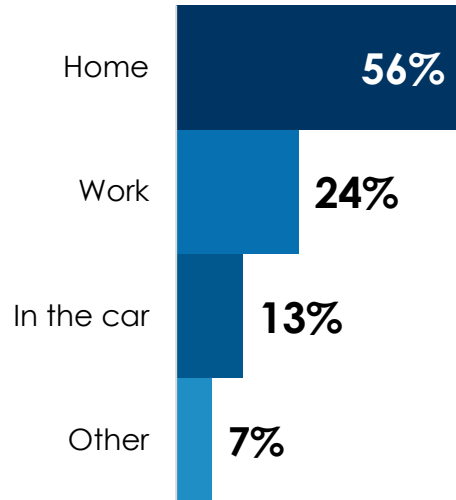


How to read: In 2016, 6.4% of U.S. persons 25-54 listened to podcasts in an average day. In 2023, 31.5% of persons 25-54 listen in a typical day, a fivefold increase.

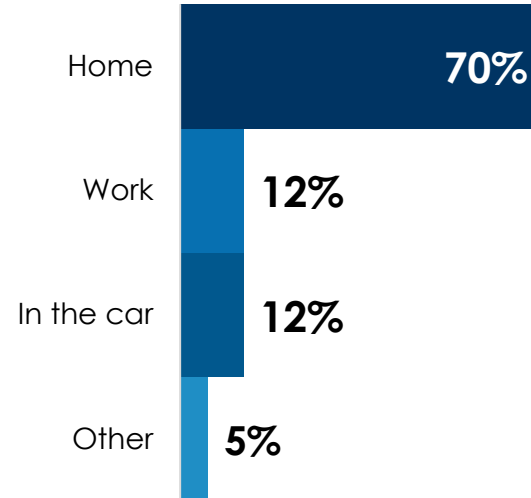
Most podcast listening occurs at home, even before the pandemic

% of time spent listening to podcasts by location

"Share of Ear": Q1 2020



"Share of Ear": Q1 2023



Key takeaways

- **AM/FM radio is the centerpiece of audio:** AM/FM radio represents 71% share of ad-supported audio.
- **AM/FM radio dominates digital audio:** The audience share of AM/FM radio is 18X larger than ad-supported Spotify and ad-supported Pandora.
- **Streaming is growing as a percentage of total AM/FM radio listening:** 20% of persons 25-54 listening occurs via streaming. Among men 25-54, AM/FM radio streaming represents 28% of all AM/FM radio listening, 3X the proportion of women 25-54 (10%).
- **Among their time spent with AM/FM radio, men spend more time with spoken word:** Almost half (43%) of male 25-54 time spent with streaming goes to spoken word compared to 27% of time among women 25-54.
- **Most Americans only listen to AM/FM radio:** Duplication between AM/FM radio and the Pandora, Spotify, and SiriusXM audiences shows the majority of the U.S. only listen to AM/FM radio
- **AM/FM radio has an on-the-go audience:** 65% of all AM/FM radio listening takes place out of home, close to the point of purchase. Most streaming listening occurs at home.

Key takeaways

- **AM/FM radio has by far, highest share of audio in the car:** AM/FM radio has a dominant 87% share of in-car ad-supported audio, unchanged over the last seven years.
- **Listeners hear ads on AM/FM radio:** Compared to AM/FM radio, ads on Pandora and Spotify are only audible three-quarters of the time.
- **Pandora's ad-supported share continues to decline sharply:** Among persons 18-34, ad-supported Pandora is down from 17% in Q1 2017 to 5% in Q1 2023.
- **The vast majority of Spotify listening is to its ad-free subscription service:** Two-thirds of Spotify's audience comes from its ad-free subscription service. The subscription service's ad-free audience has doubled since 2017. Ad-supported shares are stagnant.
- **Podcasts experience dramatic growth and now have scale:** Daily podcast listeners have increased 3X to 5X across all demographics since Q4 2017. Almost a third of U.S. 25-54s are reached daily by podcasts.



Thank You

The intellectual property included in this presentation is property of Cumulus Media, including Westwood One, and may not be used without permission. Any details are subject to change. 2022 Cumulus Media, Inc.

Appendix

Daily time spent with AM/FM radio dominates digital audio

Average daily minutes listened
among persons 18+

AM/FM radio

1 hour 37 minutes

Spotify

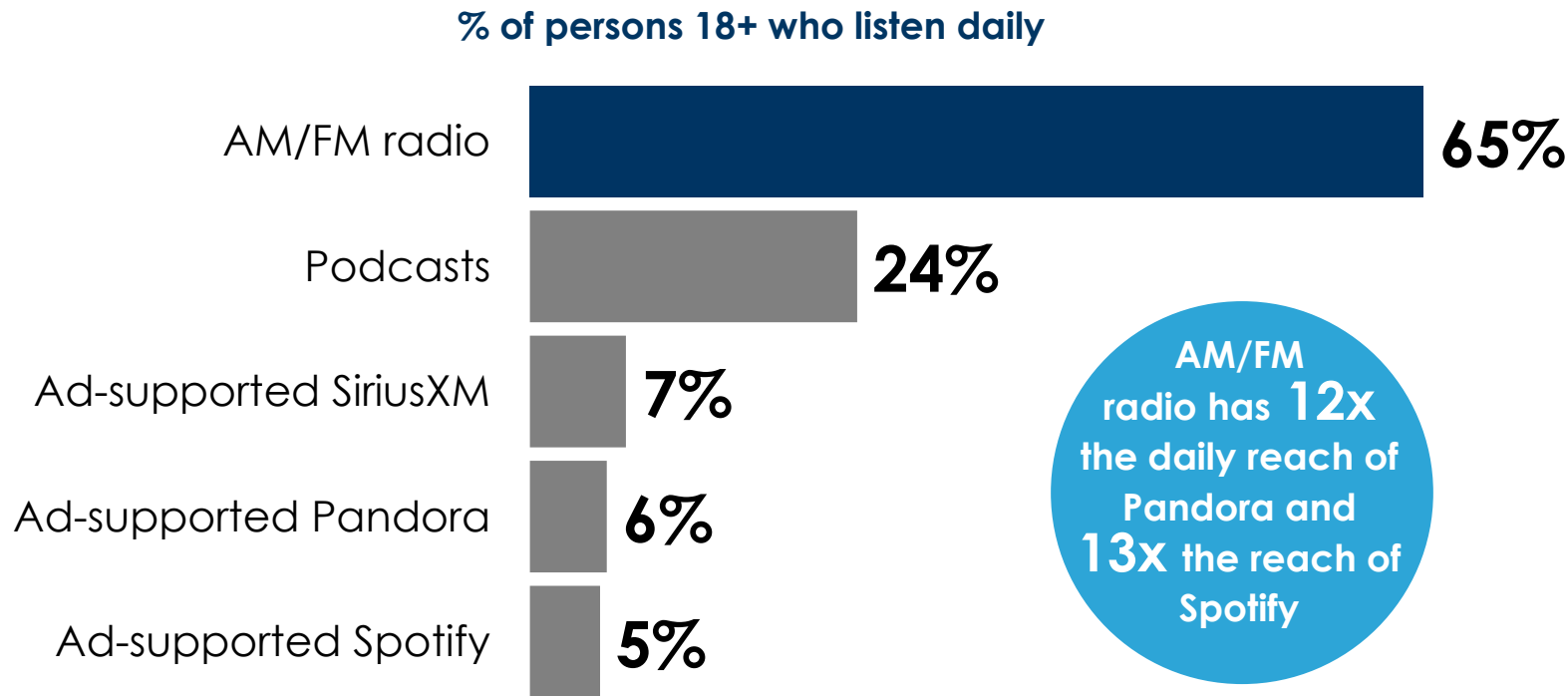
**16
minutes**

Pandora

**7
minutes**

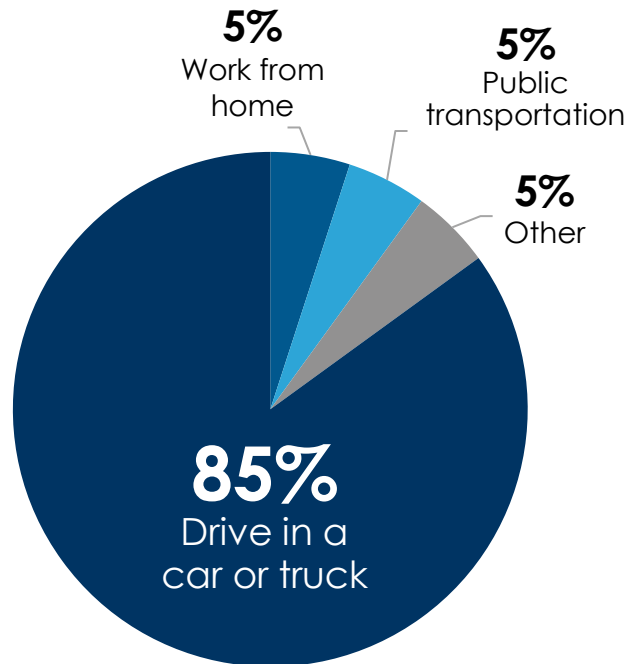
“When you look at the landscape overall, and you think about something like radio, the truth is that the vast **majority of the minutes** that are being **spent on radio today haven't yet moved online,**”
Daniel Ek, CEO of Spotify

AM/FM radio outreaches ad-supported audio platforms daily



Americans are commuting and traveling alone

% of commuting by method



89% 
of car commuters
drive alone

Even in New York, the capital of media planning and buying, most commute by car/truck

City	% that commute by car or truck	% that commute by public transportation
New York City	57%	31%
Los Angeles	84%	6%
Chicago	77%	12%
San Francisco	67%	17%
Dallas	90%	1%
Houston	90%	2%
Atlanta	89%	3%
Philadelphia	81%	9%
Washington DC	76%	14%
Boston	73%	13%
Total U.S.A.	85%	5%

“Pandora pioneered something really interesting, really special with their free ad-based streaming music service ... [but now] the early adopters are moving to on-demand, & **mainstream America is still in love with AM/FM radio.**”

Barton Crockett, FBR Capital Markets Analyst

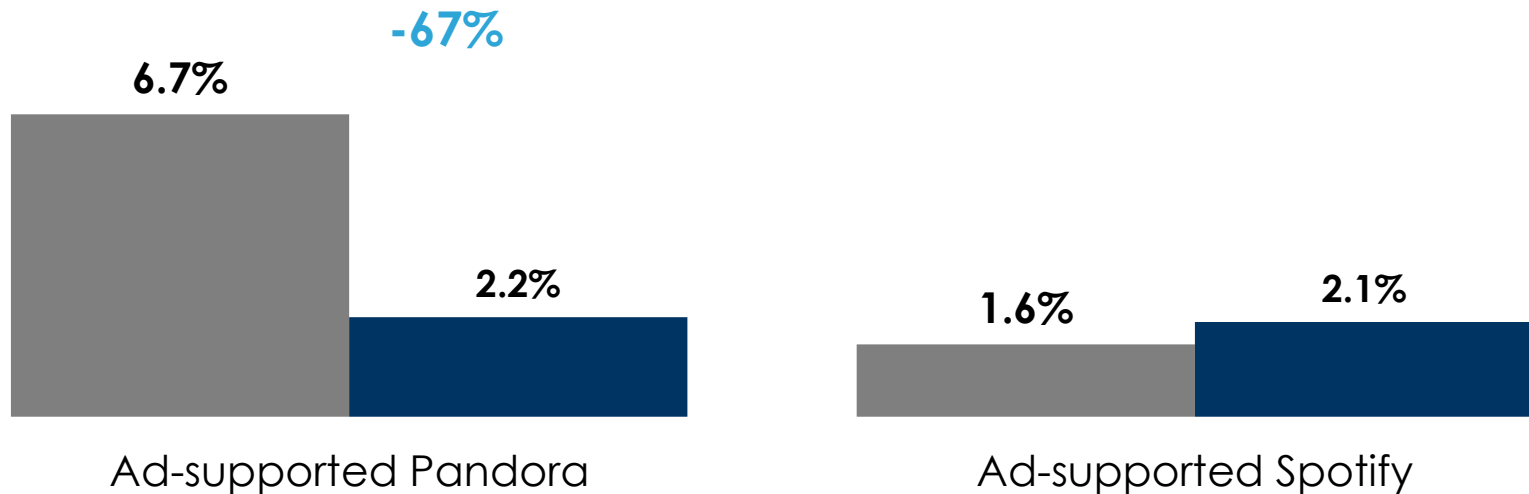


Source: “Pandora’s Plan to Stay Independent Means Push Beyond Radio,” Bloomberg Business, March 7, 2016.

Over the last six years, Pandora has experienced erosion in ad-supported audiences while Spotify has plateaued

Persons 25-54 share of audio time spent

■ Q1 2017 ■ Q1 2023



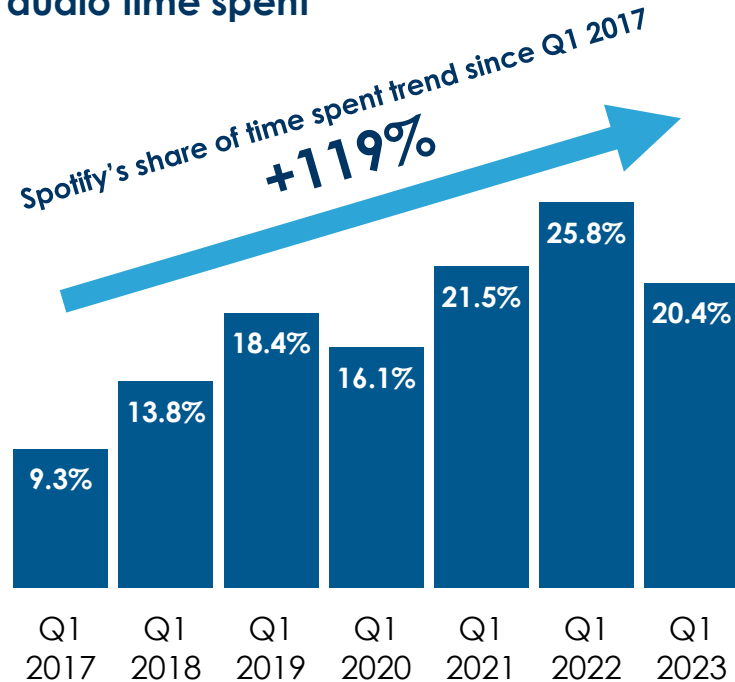
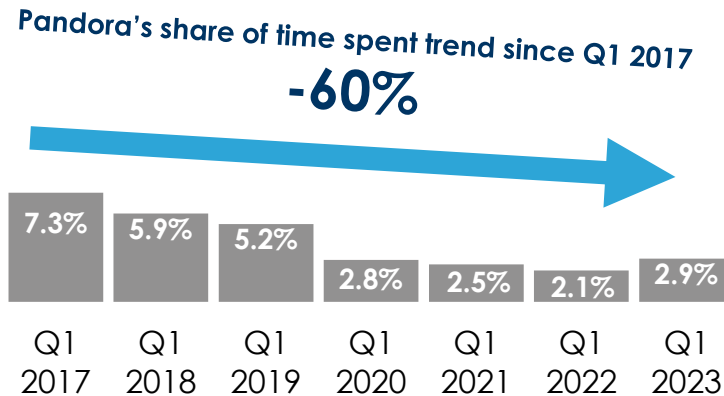
Since 2017, Pandora's audience has experienced substantial loss across numerous demos

Share of audio time spent (ad-supported Pandora)

Demographic	Q1 2017 Pandora audience share	Q1 2023 Pandora audience share	% change
Persons 13-17	6.3	1.0	-84%
Persons 18-24	6.5	1.7	-74%
Persons 25-34	9.3	2.1	-77%
Persons 35-44	6.4	2.5	-61%
Persons 45-54	4.2	1.8	-57%
Persons 55-64	2.9	2.4	-17%
Persons 65+	2.1	2.2	+5%

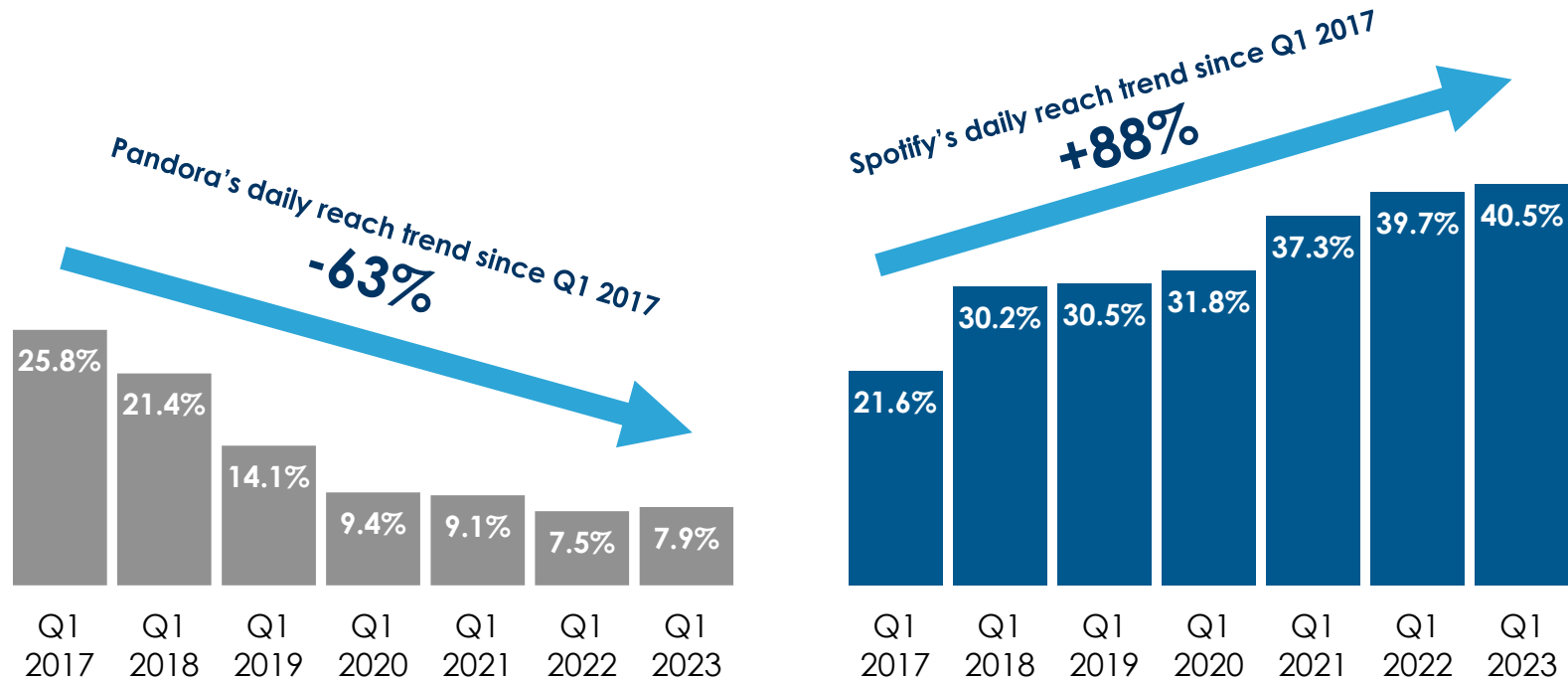
Among 18-24s, Spotify beats Pandora 7 to 1

Persons 18-24 share of audio time spent



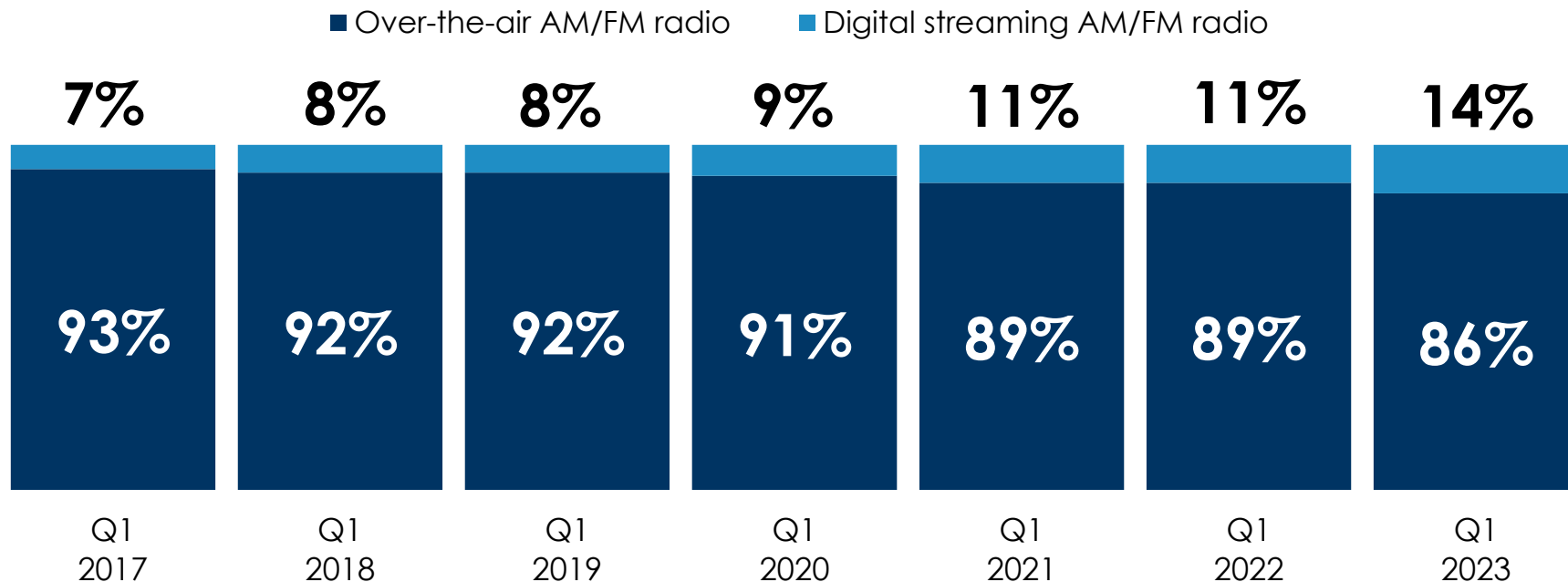
Among 18-24s, Pandora's reach drops drastically; Spotify has more than 5X the reach of Pandora


% of persons 18-24 who listen daily



Persons 18+: Streaming is growing as a percentage of total AM/FM radio listening; Most listening is still from over the air

Share of audio time spent between over-the-air AM/FM radio listening and digital streaming
AM/FM radio listening, persons 18+



A pair of over-ear headphones is shown against a solid blue background. The headphones are positioned diagonally, with the left earcup in the upper left and the right earcup in the lower right. The text is overlaid on the right side of the image.

Perception vs. reality: Share of ad-supported audio

The audience share of ad-supported Pandora is 4X smaller than the perception of media professionals

Perception of advertisers and agencies vs. actual share of ad-supported audio time spent among persons 18+

Ad-supported Pandora



The audience share of ad-supported Spotify is 7X smaller than the perception of media professionals

Perception of advertisers and agencies vs. actual share of ad-supported audio time spent among persons 18+

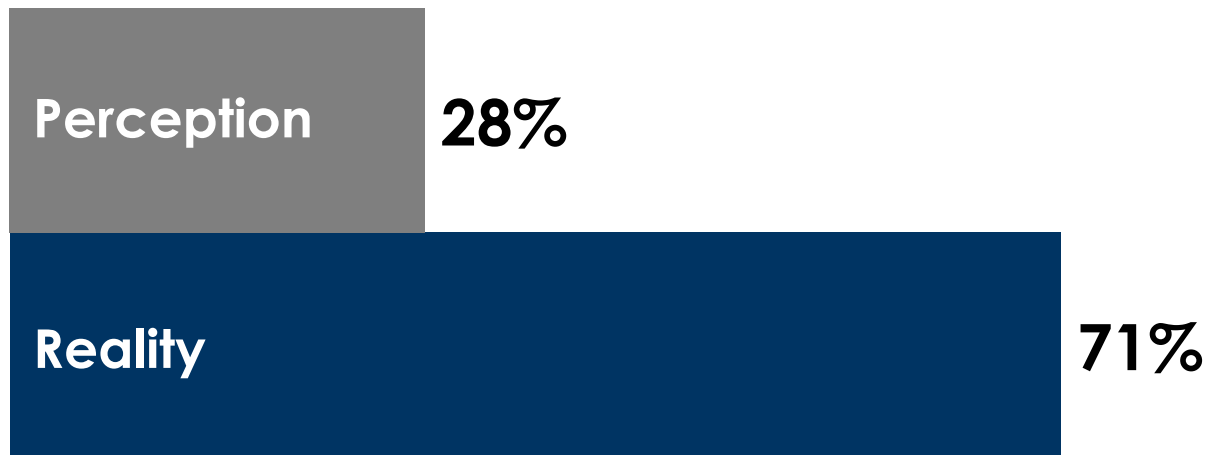
Ad-supported Spotify



AM/FM radio's actual share is 2.5X greater than what advertisers perceive

Perception of advertisers and agencies vs. actual share of ad-supported audio time spent among persons 18+

AM/FM radio

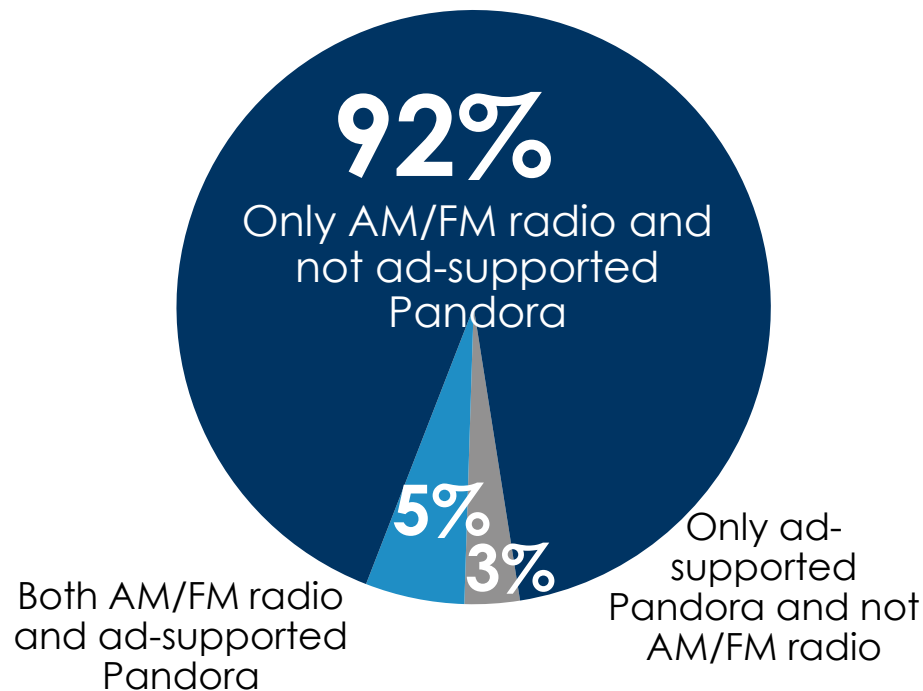




Duplication analysis

Between ad-supported Pandora and AM/FM radio, most people listen to AM/FM radio

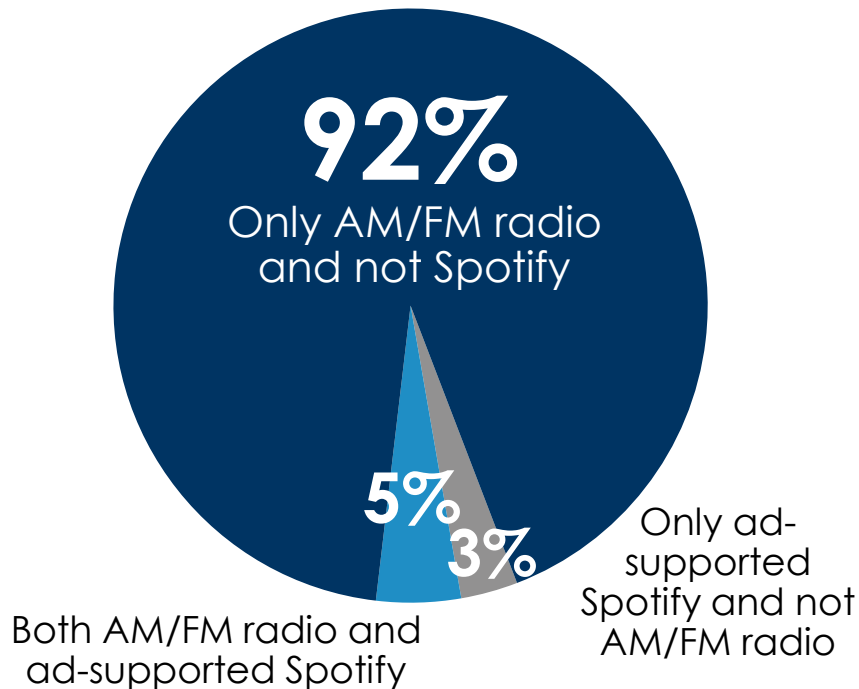
AM/FM radio and ad-supported Pandora audience duplication



The base audio buy should be AM/FM radio, which reaches **64%** of ad-supported Pandora's audience for free

Between ad-supported Spotify and AM/FM radio, most people listen to AM/FM radio

AM/FM radio and ad-supported Spotify audience duplication



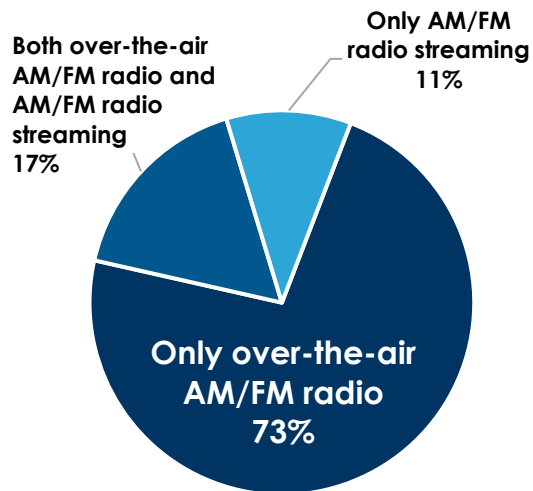
The base audio buy should be AM/FM radio, which reaches

60%

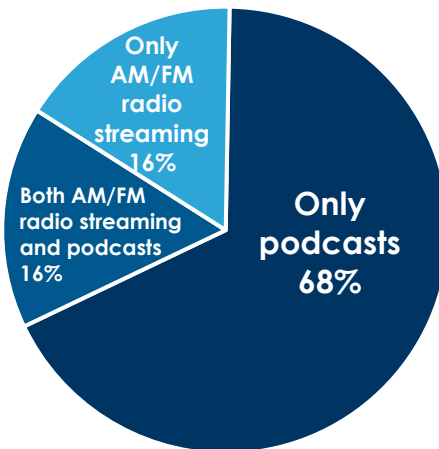
of ad-supported Spotify's audience for free

Persons 18-34 duplication analysis: Podcasts, AM/FM radio streaming, and over-the-air AM/FM radio

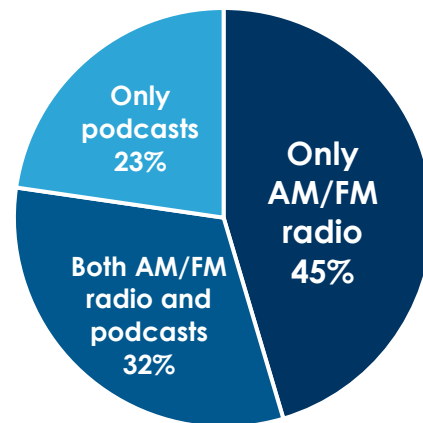
AM/FM radio streaming generates a +12% lift in incremental reach to AM/FM radio



AM/FM radio streaming generates a +19% lift in incremental reach to podcasts



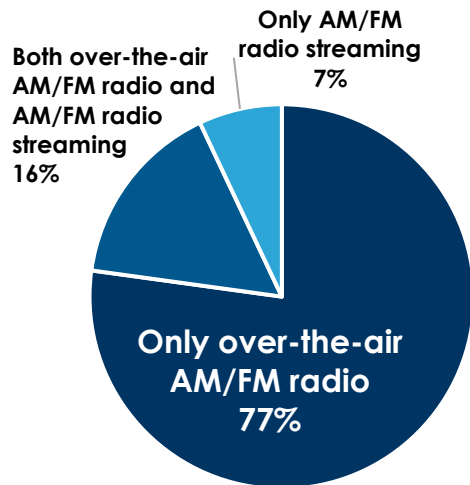
Podcasts generate a +29% lift in incremental reach to total AM/FM radio listening



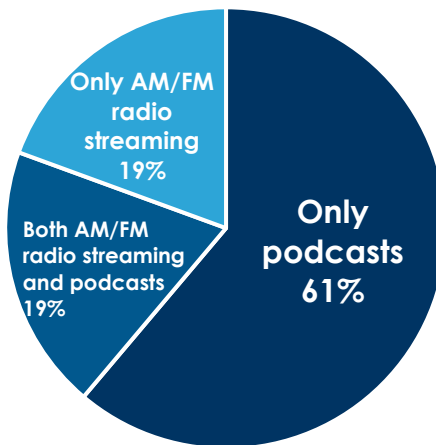
Total AM/FM radio listening = over-the-air AM/FM radio + AM/FM radio streaming

Persons 25-54 duplication analysis: Podcasts, AM/FM radio streaming, and over-the-air AM/FM radio

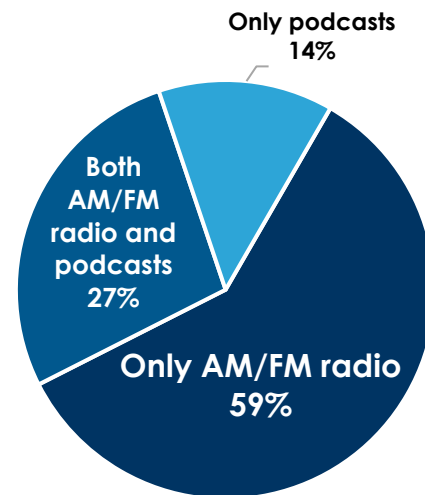
AM/FM radio streaming generates a +8% lift in incremental reach to AM/FM radio



AM/FM radio streaming generates a +24% lift in incremental reach to podcasts



Podcasts generate a +16% lift in incremental reach to total AM/FM radio listening



Total AM/FM radio listening = over-the-air AM/FM radio + AM/FM radio streaming