Inclusion in the Recording Studio?

Gender & Race/Ethnicity of Artists, Songwriters & Producers across 1,100 Popular Songs from 2012 to 2022

Dr. Stacy L. Smith, Dr. Katherine Pieper,
Karla Hernandez & Sam Wheeler

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USC Annenberg
Inclusion Initiative

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INCLUSION IN THE RECORDING STUDIO?

EXAMINING 1,100 POPULAR SONGS FROM 2012 TO 2022

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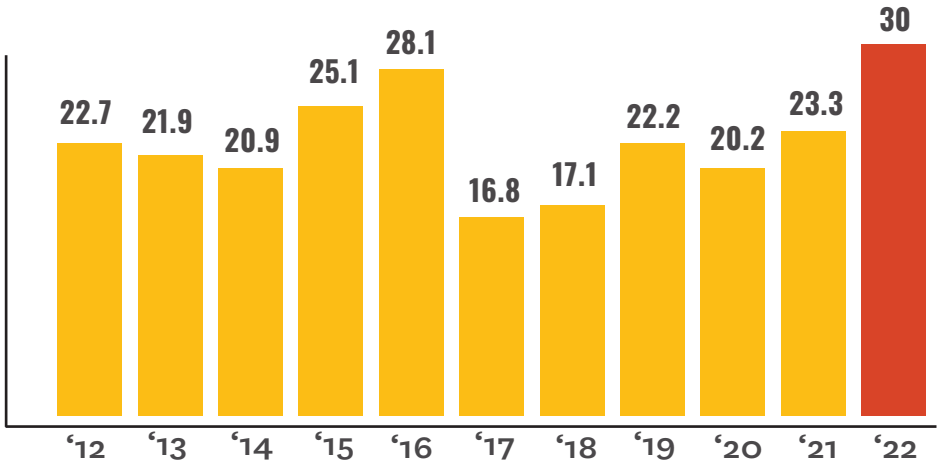
@Inclusionists

WOMEN ARE MISSING IN POPULAR MUSIC

Percentage of women out of all artists across 1,100 songs



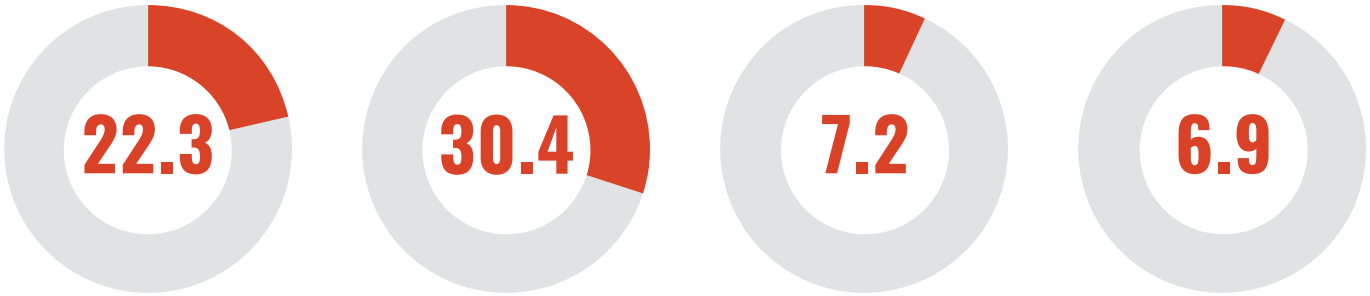
TOTAL NUMBER OF ARTISTS **2,139**

RATIO OF MEN TO WOMEN

3.5:1

FOR WOMEN, MUSIC IS A SOLO ACTIVITY

Across 1,100 songs, percentage of women out of...



ALL ARTISTS	INDIVIDUALS	DUOS	BANDS
(n=478)	*(n=427)*	*(n=10)*	*(n=41)*

WOMEN ARE PUSHED ASIDE AS PRODUCERS

THE RATIO OF MEN TO WOMEN PRODUCERS ACROSS 800 POPULAR SONGS WAS

34.1 to 1

The prevalence of women producers was evaluated out of 800 songs reflecting the Billboard Hot 100 Year-End Charts from 2012, 2015 & 2017-2022.

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WRITTEN OFF: FEW WOMEN WORK AS SONGWRITERS

Songwriter gender by year...

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL
	11%	11.7%	12.7%	13.7%	13.3%	11.5%	11.6%	14.4%	12.9%	14.3%	14%	12.8%
	89%	88.3%	87.3%	85.9%	85.9%	87.9%	87.9%	85.2%	86.9%	85.7%	85.7%	86.8%

WOMEN ARE MISSING IN THE MUSIC INDUSTRY

Percentage of women across three creative roles...

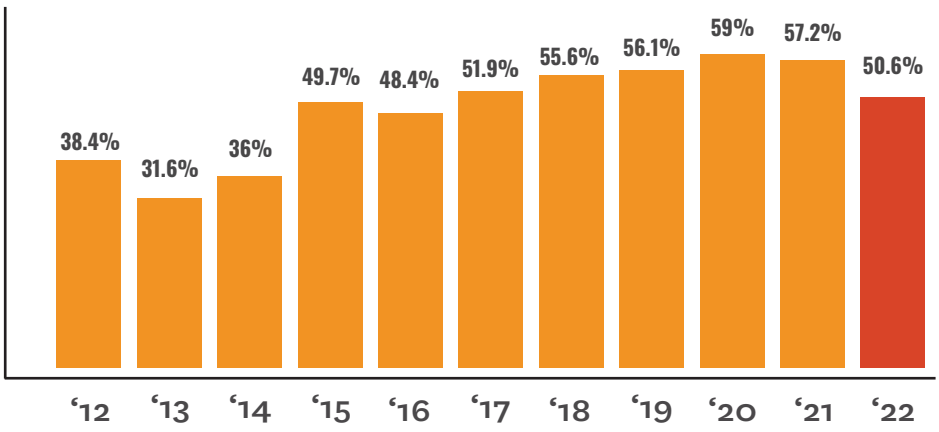
22.3% ARE ARTISTS

12.8% ARE SONGWRITERS

2.8% ARE PRODUCERS

VOICES HEARD: ARTISTS OF COLOR ACROSS 1,100 SONGS

Percentage of artists of color by year...



48.1%

OF ARTISTS WERE PEOPLE OF COLOR ACROSS 1,100 SONGS FROM 2012-2022

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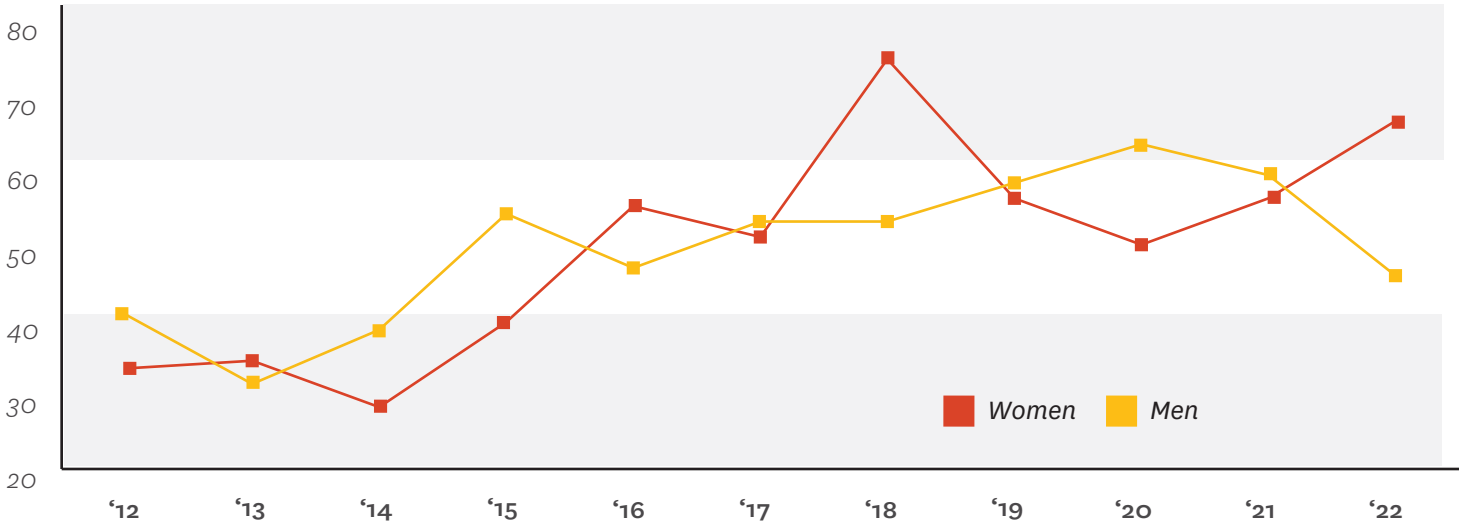
CREATIVE CONSTRAINTS: FEW WOMEN PRODUCERS WORK IN MUSIC

Percentage of men and women producers by year...

	2012	2015	2017	2018	2019	2020	2021	2022	TOTAL
	97.6%	98.2%	98.2%	97.7%	95%	98%	96.1%	96.6%	97.2%
	2.4%	1.8%	1.8%	2.3%	5%	2%	3.9%	3.4%	2.8%

MEN AND WOMEN OF COLOR CLIMB THE CHARTS

Percentage of underrepresented men and women artists by year...



WOMEN OF COLOR ARE INVISIBLE AS PRODUCERS

13 OUT OF **1,756** PRODUCING CREDITS WENT TO WOMEN OF COLOR

The prevalence of women producers was evaluated out of 800 songs reflecting the Billboard Hot 100 Year-End Charts from 2012, 2015 & 2017-2022.

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CREDITS & DEFICITS: MEN OUTPACE WOMEN IN SONGWRITING

Leading men and women songwriters by number of credits...

THE TOP MALE WRITER HAS

49

CREDITS

THE TOP WOMAN WRITER HAS

20

CREDITS

ACROSS 1,100 POPULAR SONGS FROM 2012-2022

Top Men Songwriters	*# of credits*	*Top Women Songwriters*	*# of credits*
Aubrey Graham (Drake)	49	Onika Maraj (Nicki Minaj)	20
Martin Sandberg (Max Martin)	46	Taylor Swift	17
Lukasz Gottwald (Dr. Luke)	31	Ariana Grande	16
Benjamin Levin (Benny Blanco)	26	Robyn Fenty (Rihanna)	14
Henry Walter (Cirkut)	25	Belcalis Almanzar (Cardi B)	14
Justin Bieber	25	Amala Dlamini (Doja Cat)	12
Savan Kotecha	24	Adele Adkins	10
Johan Schuster (Shellback)	21	Megan Pete (Megan Thee Stallion)	10
Dijon McFarlane (DJ Mustard)	19	Julia Cavazos (Julia Michaels)	9
Adam Levine	18	Karla Estrabao (Camila Cabello)	9
Ashley Gorley	18	Katheryn Hudson (Katy Perry)	9
Jacob Hindlin (JKash)	18	Selena Gomez	9

The top 10 male songwriters are responsible for 23.9% of the 1,100 most popular songs from 2012 to 2022.

LINER NOTES LACK WOMEN SONGWRITERS

Women songwriters across 1,100 popular songs...

<1%

OF 1,100 POPULAR SONGS HAVE ONLY WOMEN WRITERS

43%

OF 1,100 POPULAR SONGS HAVE 1 OR MORE WOMEN WRITERS

57%

OF 1,110 POPULAR SONGS HAVE NO WOMEN WRITERS

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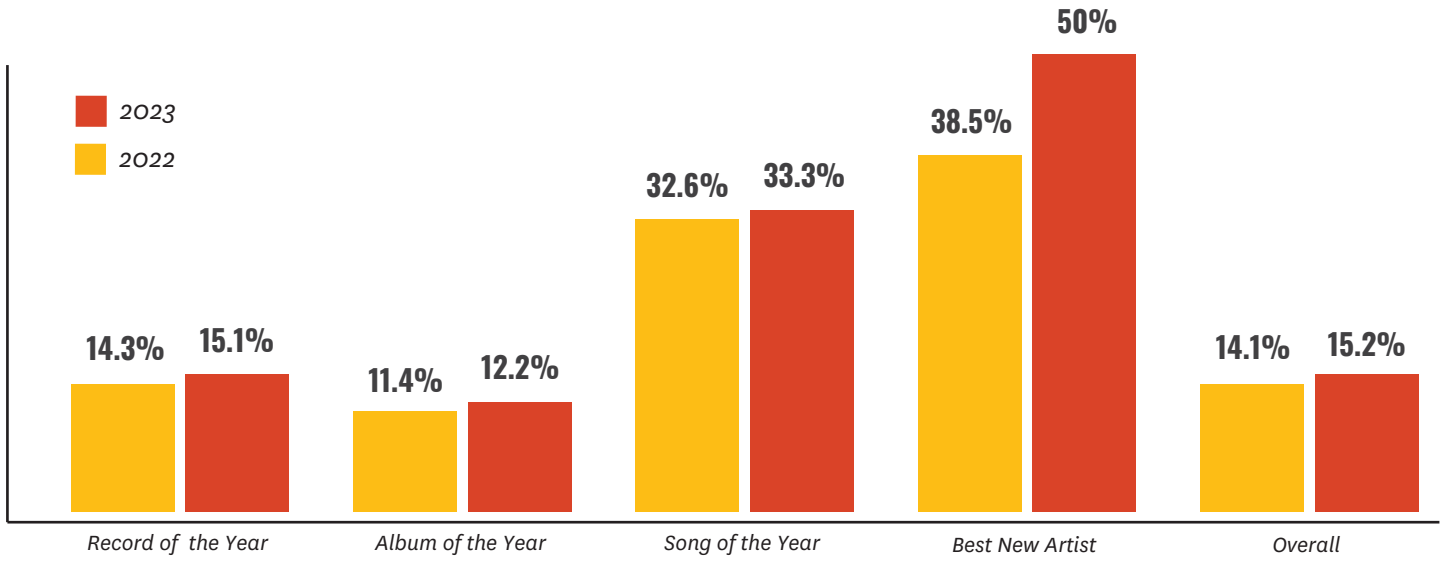
WOMEN SLUMP IN KEY CATEGORIES

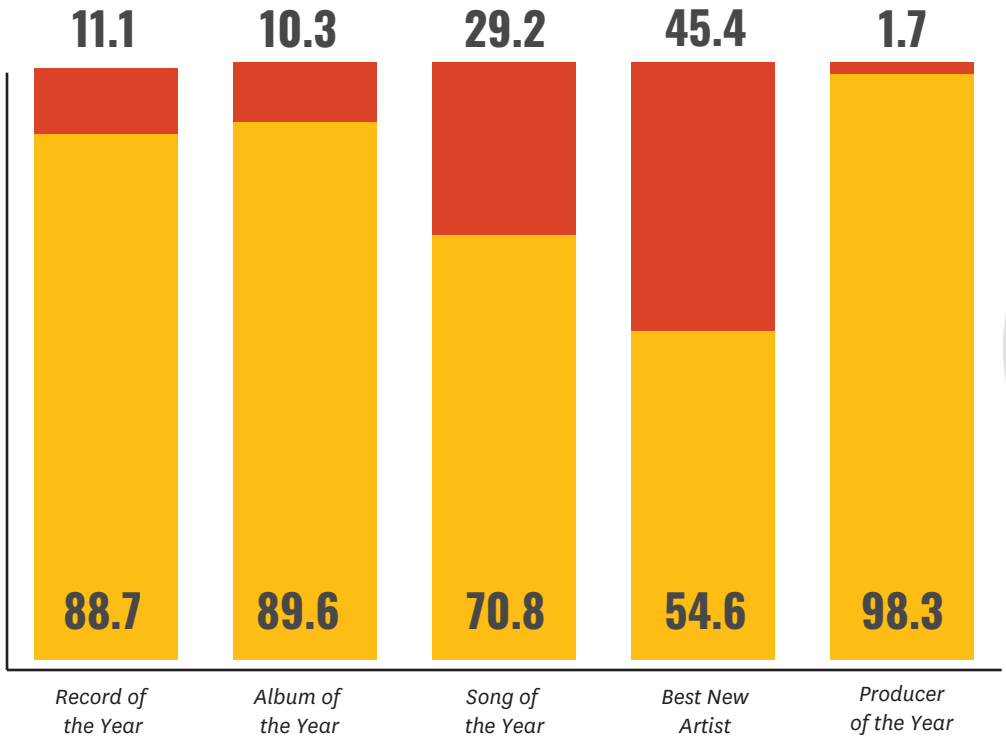
Compared to 2022, the percentage of women nominees in 2023...



Producer of the Year nominations are included in the overall total. There were no women nominated for Producer of the Year in 2022 or 2023. The Songwriter of the Year category was introduced in 2023 and was included in the overall total. 3 women were nominated in that category in 2023.

THE GENDER GAP AT THE GRAMMYS® IS REAL

Percentage of Women Nominees by Category, 2013-2023



13.9%

OF GRAMMY® NOMINEES FROM 2013-2023 WERE WOMEN. 86% WERE MEN.

Women

Men

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WOMEN GRAMMY® NOMINEES OVER TIME

Women Grammy® Nominees by Year, 2013-2023

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	OVERALL
7.9%	8.2%	14.1%	11.5%	6.4%	8%	16.4%	20.5%	28.1%	14.1%	15.2%	13.9%

340 OUT OF **2,441** NOMINATIONS

ARE WOMEN PRODUCERS & ENGINEERS IN THE MIX?

Evaluating women producers & engineers on popular songs in 2022

1 WOMEN IN THE MIX PLEDGE-TAKERS WORKED WITH A WOMAN **PRODUCER** IN 2022 ON A BILLBOARD HOT 100 YEAR-END SONG

0 WOMEN IN THE MIX PLEDGE-TAKERS WORKED WITH A WOMAN **ENGINEER** IN 2022 ON A BILLBOARD HOT 100 YEAR-END SONG

THE WOMEN IN THE MIX PLEDGE HAS HAD LITTLE IMPACT FOR WOMEN PRODUCERS AND ENGINEERS ON THE YEAR'S MOST POPULAR SONGS.

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Inclusion in the Recording Studio?
Gender & Race/Ethnicity of Artists, Songwriters, & Producers across 1,100 Popular Songs from 2012 to 2022

Dr. Stacy L. Smith, Dr. Katherine Pieper, Karla Hernandez & Sam Wheeler
Annenberg Inclusion Initiative

This report is the sixth annual study from the Annenberg Inclusion Initiative to examine artists, songwriters, and producers across the Billboard Hot 100 Year-End Chart. In this report, we assess the gender and race/ethnicity of each individual credited across these three roles on 1,100 songs from 2012-2022. Our goal is to understand whether any meaningful change has occurred in the most recent year examined (2022) as well as over the 11 years evaluated. Additionally, we assessed the demographic characteristics of nominees across 5 key categories at the Grammy Awards®. Those categories include: Record of the Year, Album of the Year, Song of the Year, Best New Artist, and Producer of the Year. This year we also included Songwriter of the Year, a new category.

Key Findings

***Artist Gender*.** There were 160 artists on the Hot 100 Billboard Year End Chart in 2022. 69.4% were male and 30% were female. Less than 1% of artists identified as gender non-binary. Across 11 years evaluated, 76.6% of artists were men and 22.3% were women.

The percentage of women artists in 2022 (30%) was significantly higher than 2021 (23.3%) or 2012 (22.7%), signaling an overtime increase for women on the popular charts. 2022 also marked a new high for women artists across all 11 years.

The ***genre*** of all 1,100 songs was evaluated. Women artists were more likely to appear in Pop songs (33%) and least likely to appear in Hip-Hop songs (13.4%).

The ***type of artist*** was also evaluated, and each artist was classified as a solo artist, part of a duo, or band member. Across 11 years, women artists comprised a total of 30.4% of individual artists. In 2022, 34.6% of solo artists were women, compared to 30.6% in 2021. 2022 is still below the high point reached in 2012 when 35.8% of solo artists were women.

Few women artists were part of groups. Women comprised only 7.2% of duos and 6.9% of band members across all 11 years.

The frequency that men and women artists appeared on the charts was examined. Men (56.7%) and women (54.5%) were equally likely to appear on the charts once across all 11 years. More than two-thirds of all artists had only one or two songs on the Year-End Chart between 2012 and 2022.

***Artist Race/Ethnicity*.** In 2022, 50.6% of all artists were from an underrepresented racial/ethnic group while 49.4% of artists were white. Compared to 2021 (57.2%), underrepresented artists saw a 6.6 percentage point decrease. Additionally, this was an 8.4 percentage point decline from the all-time high of 59% in 2020. Across all 11 years, 48.1% of all artists were from an underrepresented racial/ethnic group while 51.9% of all artists were white.

Turning to the intersection of gender and race/ethnicity, in 2022, 65% of underrepresented artists were women (65%). This was a significant increase compared to 2021 (55%). In contrast, the percentage of underrepresented men artists (45%) significantly decreased from 2021 (58%).

Looking to genre, underrepresented artists were more likely to appear on the charts for Hip-Hop/Rap (88.1%) and R&B/Soul (90.4%) songs. Underrepresented artists were least likely to chart with Country (6.2%) or Alternative (8.8%) songs.

In 2022, 54.1% of all solo artists were underrepresented. This was a decrease from 2021 (64.2%) but consistent with the percentage of solo artists who were underrepresented in 2012 (54.1%). More than half (60.5%) of all solo artists were underrepresented across the last 11 years.

Across the sample, underrepresented artists appeared on the charts less frequently in duos (31.2%) or bands (22.6%) than as solo artists.

Looking to frequency of songs on the Hot 100 Year-End Charts, underrepresented artists were less likely (51.8%) than white artists (61.7%) to have a single song. There were, no other notable differences by artist race/ethnicity in terms of the number of appearances on the chart.

Songwriters & Producers. Across 11 years, a total of 5,247 songwriters were credited on songs appearing on the Billboard Hot 100 Year-End Chart. In 2022, 85.7% of all songwriters were men and 14% were women. This was not different from 2021. Men largely outpaced women in this role as they comprised 86.8% of all songwriting credits compared to women's 12.8%. The overall ratio men to women songwriters was 6.8 to 1.

In 2022, women of color appeared as songwriters in the Hot 100 Year-End chart slightly more than white women. However, the number of women of color songwriters declined compared to 2021, while the number of white women did not change.

Women were more likely to appear as songwriters on Pop (19.5%) and Dance/Electronic (19.5%) songs and least likely on Hip-Hop/Rap (6.7%) and Country (9.7%) songs.

Women (68%) and men (66.6%) were just as likely to appear on the charts for a singular song and to have 6 or more songs throughout the sampled time frame. However, for those songwriters with six or more songs on the charts across 11 years, differences emerged. Of the top 12 male songwriters, 8 crafted more songs on the chart than the top woman songwriter. Morevoer, the top 12 male writers were responsible for 23.9% of the songs in the entire 11-year sample.

In 2022, 58% of songs excluded women songwriters. This was an increase from 2021 (53%) but consistent with 2012 (58%). Overall, 57% of songs across 11 years did not include a single women songwriter. In contrast, <1% or 6 songs were missing male songwriters.

Every producing credit across the Billboard Hot 100 Year-End Chart for the years 2012, 2016, and 2017-2022 was evaluated. Of the 232 producers in 2022, 3.4% went to women. One producer was gender non-binary.

Across 8 years, and 800 songs, 2.8% of all producers were women while 97.1% were men. This is a ratio of 34.1 men to every 1 woman.

Of the 50 women credited as producers across the 8-year sample, 13 or 26% were women of color. In 2022, three women of color were credited as producers on their own songs: Beyonce Knowles (*Break My Soul*) and Willow Smith (*Meet Me At Our Spot*) produced songs that were new in 2022. Mariah Carey appeared for the third time as a producer for *All I Want for Christmas is You*. The ratio of men producers to underrepresented women producers is 131.5 to 1.

The majority of songs were missing women producers—94.8% of the songs examined did not have even one woman producer. This means that only 5.2% of songs—39—had at least one woman producer.

There were 29 individual women producers credited across the sample. Only 9 were women of color.

Women in the Mix. We evaluated the effectiveness of the Recording Academy's Women in the Mix pledge. In 2022, a total of 12 pledge-takers appeared on the Billboard Hot 100 Year-End Chart. Only 1 worked with a woman producer across the sample (Nicki Minaj and producer Malibu Babie on *Super Freaky Girl*). There were also no credited women engineers on a song with a pledge taker that appeared for the first time across the Hot 100-Year End Chart in 2022.

Grammy® Awards. 2,441 individuals were nominated for a Grammy Award® from 2013 to 2023 across 6 major categories (Record of the Year, Album of the Year, Song of the Year, Best New Artist, and Producer of the Year). This year we added the new category of Songwriter of the Year.

Of the 514 nominees in 2023, 84.8% were men and 15.2% were women. One gender non-conforming/non-binary individual was nominated. This is a ratio of 5.5 men to every 1 woman nominated. There was no significant difference between the percentage of women nominated in 2023 (15.2%) and those nominated in 2022(14.1%). Overall, women comprised only 13.9% of total nominees across all categories for the sampled years.

Across all categories, women were most likely to be nominated for Best New Artist (45.4%) and Song of the Year (29.2%). They were least likely to be nominated for Album of the Year (10.3%) and Producer of the Year (1.7%).

Of the 340 women nominated in the last 11 years, 51.5% were white and 48.5% were from an underrepresented racial/ethinic group. When looking at the individual category nominations Underrepresented women (57.4%) were more likely to be nominated for Album of the Year than white women (42.6%). However, white women (66.7%) were twice as likely to be nominated for Song of the year than underrepresented women (33.3%).

When looking at indvidual/unique nominees the sample reduced to 1,334 individuals. Of these nominees, 86.1% were men and 13.9% were women. One nominee was gender non-conforming/gender non-binary. This is a ratio of 6.2 men to 1 woman. There was no gender difference in the frequency of nominations for men and women. However, the range of nominations varied between men and women. The most frequently nominated man received 26 nominations (Serban Ghenea) versus 12 received by the most frequently nominated woman (Taylor Swift).

Of the 185 individual women nominated, 49.7% were white and 50.8% were underrepresented women. Underrepresented women were more likely to have a single nomination compared to their white counterparts. The most frequently nominated white woman was Taylor Swift, who led all women in nominations regardless of race (12) while the highest nominated woman of color was H.E.R. (10).

Inclusion in the Recording Studio?
Gender & Race/Ethnicity of Artists, Songwriters, & Producers across 1,100 Popular Songs from 2012 to 2022

Since 2012, we have examined the Billboard Hot 100 Year-End Charts for inclusion.[1] Towards this end, we identify the gender (male, female, non binary) and underrepresented status (white, not white) of every artist, songwriter, and/or producer that participated in these agenda-setting songs. Then, we compare this year's inclusion profile to years prior to see if any meaningful change has occurred. The demographic characteristics of nominees across 5 key categories at the Grammy® Awards were also assessed. Those categories include: Record of the Year, Album of the Year, Song of the Year, Best New Artist, and Producer of the Year.[2] This year we also included Songwriter of the Year, a new category.

Besides the Grammy's ®, we also examine the effectiveness of the Recording Academy's initiative, *Women in the Mix*.[3] Given the abysmal number of women producers and engineers in the industry (2.8%, 2.5% respectively), this initiative asked artists to consider working with a female in either of these two capacities on their next project. Over 300 artists signed on to the pledge, generating press and media attention. As we outlined in our last two reports, this initiative has completely failed women producers and engineers. More specifically, the numbers of artists actually *hiring* females in these jobs across the Hot 100 has not changed.

Our aim here is to update our longitudinal study. This report is divided up into 5 major sections. First, we examine the gender and race/ethnicity of artists, focusing also on performer type (solo, duo, group) and genre. Second, we assess the demographic characteristics of songwriters and producers. We are interested in overall trends by identity group, as well as specific individuals receiving access and opportunity by gender and race/ethnicity. The third section reviews the (lack) of progress, once again, in the Women in the Mix initiative and the fourth section illuminates the demographic profile of Grammy® nominees across 5 categories. The fifth section of the report concludes with a summary of the findings and recommendations for change.

As with all of our research, we only note differences of 5 percentage points or greater. This enables us to avoid making noise about trivial deviations of 1-2 percentage points. In terms of change, we compare the results from 2022 to 2021 and then 2012. This way, we can assess both short- and long-term change.

Artists

Gender. A total of 160 artists were on the Hot 100 Billboard Year End Chart of 2022. Of these, 69.4% (*n*=111) were male artists, 30% (*n*=48) female artists, and 0.6% (*n*=1) were gender non-binary. This translates into a gender ratio of 2.3 male artists to every 1 female artist on the top charts in 2023.

Has the percentage of women performers changed over time? Yes! Women were more likely to appear on the Hot 100 chart of 2022 (30%) than 2021 (23.3%) or 2012 (22.7%). This is an over time gain of 7.3 percentage points from 2012 to 2022. While this is progress, women are nowhere near their proportion in the U.S. population (50.5%).[4]

It is important to note that we also identify performers that are gender nonbinary. A total of 3 credits were filled with gender nonbinary artists. Upon examining the data, all 3 credits were attributed to one artist: Sam Smith. Smith's total number of credits per year were as follows: 2019 (2) and 2022 (1).

The relationship between artist gender and ***song genre*** is displayed in Table 2.[5] A few trends are readily apparent. First, women were most likely to work in Pop (33%) and least likely in Hip-Hop (13.4%). Matter of fact, the gender ratio for Hip-Hop is 6.5 male artists to every 1 female artist.

Table 1
Artist Gender by Year

Year	Men	Women	Ratio
2012	77.3% (*n*=153)	22.7% (*n*=45)	3.4 to 1
2013	78.1% (*n*=168)	21.9% (*n*=47)	3.6 to 1
2014	79.1% (*n*=178)	20.9% (*n*=47)	3.8 to 1
2015	74.9% (*n*=146)	25.1% (*n*=49)	3 to 1
2016	71.9% (*n*=138)	28.1% (*n*=54)	2.6 to 1
2017	83.2% (*n*=178)	16.8% (*n*=36)	4.9 to 1
2018	82.9% (*n*=179)	17.1% (*n*=37)	4.8 to 1
2019	77.5% (*n*=131)	22.2% (*n*=38)	3.4 to 1
2020	79.8% (*n*=138)	20.2% (*n*=35)	3.9 to 1
2021	76.7% (*n*=138)	23.3% (*n*=42)	3.3 to 1
2022	69.4% (*n*=111)	30% (*n*=48)	2.3 to 1
Total	**76.6% (*n*=1,658)**	**22.3% (*n*=478)**	**3.5 to 1**

Note: A total of 3 artists were gender nonbinary. Looking at the data, all of these entries were accounted for by one performer: Sam Smith. As such, we do not present data on gender non-binary in the table.

Table 2
Song Genre by Artist Gender

Genre	Men	Women	Gender Ratio
Pop	66.6% (*n*=555)	33% (*n*=275)	2 to 1
Hip-Hop	86.6% (*n*=529)	13.4% (*n*=82)	6.5 to 1
Alternative	85.8% (*n*=206)	14.2% (*n*=34)	6.1 to 1
Country	82.7% (*n*=172)	17.3% (*n*=36)	4.8 to 1
R&B/Soul	80% (*n*=92)	20% (*n*=23)	4 to 1
Dance/Electronic	78.8% (*n*=104)	21.2% (*n*=28)	3.7 to 1

Note: Songs were collapsed into a total of 6 genres using iTunes designations. Each artist was analyzed for gender, race/ethnicity and song genre.

Next, we looked at the relationship between artist gender and ***performer type***.[6] Each artist was categorized as an individual, duo, or band. Then, the percentage of male and female artists within each category was assessed. As shown in Table 3, over a third (34.6%) of all individual artists (solo or credited as "featuring") in 2022 were women. This is not significantly higher than the percentage in 2021 (30.6%) and not different from 2012 (35.8%). Only one of 3 duos in 2022 featured a female artist (25%) and 1 band had a woman performer. Given the small sample size of women in duos or bands, we do not make yearly or over time comparisons.

Table 3
Percentage of Women Artists by Performer Type

Year	Individual Artist	Duo	Band
2012	35.8% (*n*=39)	16.7% (*n*=1)	6% (*n*=5)
2013	33.3% (*n*=37)	10% (*n*=2)	9.5% (*n*=8)
2014	35.8% (*n*=43)	0	4.6% (*n*=4)
2015	30.8% (*n*=41)	10% (*n*=1)	13.5% (*n*=7)
2016	35.2% (*n*=43)	0	22.9% (*n*=11)
2017	25.6% (*n*=34)	4.5% (*n*=1)	1.7% (*n*=1)
2018	26.2% (*n*=37)	0	0
2019	26.9% (*n*=35)	16.7% (*n*=2)	3.4% (*n*=1)
2020	22.5% (*n*=31)	33.3% (*n*=2)	6.9% (*n*=2)
2021	30.6% (*n*=41)	0	2.6% (*n*=1)
2022	34.6% (*n*=46)	25% (*n*=1)	4.3% (*n*=1)
Total	30.4% (*n*=427)	7.2% (*n*=10)	6.9% (*n*=41)

Note: Groups with 3 or more artists were considered a band if they were under a single moniker, save 1. The percentage of male individual performers, members of duos, or bands can be found by subtracting a specific cell from 100%. Featuring credits were included in all analyses. Column nor rows add to 100%.

Each year we do an additional analysis to determine whether frequency of employment for solo artists across the Hot 100 differs by gender. Here, we are interested in the number of times each solo performer is credited on a song. Prior to analysis, we remove any duplicate songs that appear more than one time across the 11-year sample. A total of 110 songs appeared in more than one year and thus were removed to avoid double counting. The total sample of songs reduced from 1,100 to 990. Then, we tallied the number of credits each solo artist had across the sample time frame. The results appear in Table 4.

Table 4
Number of Song Credits by Solo Artists' Gender

# of Songs	Men Artists		Women Artists		Total	
	# of Artists	%	# of Artists	%	# of Artists	%
1	183	56.7%	66	54.5%	249	56%
2	45	13.9%	18	14.9%	63	14.2%
3	27	8.4%	9	7.4%	37	8.3%
4	14	4.3%	5	4.1%	19	4.3%

5	14	4.3%	4	3.3%	18	4%
≥6	40	12.4%	19	15.7%	59	13.3%
Total	323	100%	121	100%	445	100%

Note: Range was grouped for presentational purposes with 6 or greater credits in one category. Similar to other years, the credits for individual artists were determined using both artists' names and/or pseudonyms. Nonbinary was not included in the table due to low sample size. Only one performer identifies as nonbinary and they have a total of 3 credits across the 11-year sample.

The top solo performers are highlighted in Table 5. Drake has amassed the most song credits as a solo artist appearing on 48 songs in 11 years which was almost double Justin Bieber (25 songs). Ariana Grande and Nicki Minaj tied for third with 22 songs each. The top male and female artists by gender appear in Table 5.

Although not featured in a Table, the top duos over 11 years were *Florida Georgia Line* (10 songs) and *The Chainsmokers* (6 songs). *Dan + Shay* as well as *Macklemore & Ryan Lewis* were tied with 5 songs each. For bands, *Maroon 5* had 15 songs across the sample time frame and *Imagine Dragons* and *Migos* had 9 each. *One Direction* had a total of 6 songs and *Coldplay* 5.

Table 5
Top Performing Individual Artists by Number of Song Credits

Rank	Males		Females	
	Name	# of Songs	Name	# of Songs
1	Drake	48	Ariana Grande	22
2	Justin Bieber	25	Nicki Minaj	22
3	The Weeknd	16	Rihanna	21
4	Chris Brown	15	Taylor Swift	16
5	Future	14	Cardi B	14
6	Lil Baby	13	Doja Cat	12
6	Ed Sheeran	13	Selena Gomez	11
7	Post Malone	12		
8	Bad Bunny	12		

Overall, female artists saw notable gains on the Billboard Hot 100 chart of 2022. Very few women participated in duos or bands, however. This latter finding has remained consistent across the 11 years evaluated.

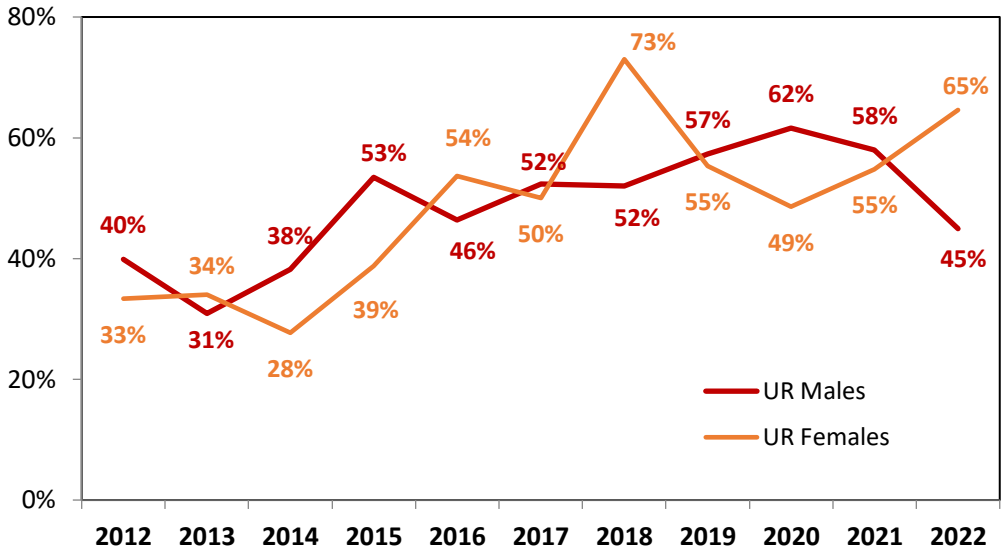
Underrepresented Artists. Across the 160 artists in 2023, just over half (50.6%, *n*=81) were from underrepresented racial/ethnic groups.[7] 2022 was significantly lower than 2021 (57.2%) but higher than 2012 (38.4%). 2020 represented an all-time high for underrepresented artists, when 59% of all performers were not white. Since 2015, the charts have been notably higher than U.S. Census, where 40.7% of the population identifies with an underrepresented racial/ethnic group.[8]

Table 6
Artist Underrepresented Status by Year

Year	White	UR	Ratio
2012	61.6% (*n*=122)	38.4% (*n*=76)	1.6 to 1
2013	68.4% (*n*=147)	31.6% (*n*=68)	2.2 to 1
2014	64% (*n*=144)	36% (*n*=81)	1.8 to 1
2015	50.3% (*n*=98)	49.7% (*n*=97)	1 to 1
2016	51.6% (*n*=99)	48.4% (*n*=93)	1.1 to 1
2017	48.1% (*n*=103)	51.9% (*n*=111)	.93 to 1
2018	44.4% (*n*=96)	55.6% (*n*=120)	.8 to 1
2019	43.9% (*n*=75)	56.1% (*n*=96)	.8 to 1
2020	41% (*n*=71)	59% (*n*=102)	.7 to 1
2021	42.8% (*n*=77)	57.2% (*n*=103)	.7 to 1
2022	49.4% (*n*=79)	50.6% (*n*=81)	1 to 1
Total	51.9% (*n*=1,111)	48.1% (*n*=1,028)	1.1 to 1

We also assessed how underrepresented status relates to ***gender***, ***genre*** and ***performer type***. In terms of **gender**, males and females were examined separately. For males, 45% of the artists were underrepresented men in 2022 and 55% were white. This is notable, as the percentage of underrepresented male artists is the lowest it has been since 2016. For females, however, the opposite pattern emerged. The percentage of underrepresented female artists in 2022 (65%) was significantly higher – 9.8 percentage points -- than 2021 (55%) or 2012 (31.3%). It is important to note, however, that the 11-year high for women of color was observed in 2018 when they represented 73% of all female artists on the Hot 100.

Figure 1
Underrepresented Men & Women Artists Over time



Underrepresented status was also related to **genre**. As shown in Table 7, underrepresented artists were most likely to dominate the Hip-Hop/Rap and R&B/Soul genres and least likely to appear in country and alternative. White artists accounted for nearly two-thirds of all Pop credits over the last 11 years. Further, the Country and Alternative genres were almost exclusively the domain of White performers.

Table 7
Song Genre by Underrepresented Status of Artists

Genre	Underrepresented Artists	White Artists
Pop	37.5% (*n*=312)	62.5% (*n*=521)
Hip-Hop/Rap	88.1% (*n*=538)	11.9% (*n*=73)
Alternative	8.8% (*n*=21)	91.2% (*n*=219)
Country	6.2% (*n*=13)	93.8% (*n*=195)
R&B/Soul	90.4% (*n*=104)	9.6% (*n*=11)
Dance/Electronic	30.3% (*n*=40)	69.7% (*n*=92)

Note: Songs were collapsed into a total of 6 genres using iTunes designations. Each artist was analyzed for race/ethnicity and genre.

Performers were categorized into individual artists, duos, and bands. Then, the percentage of underrepresented performers within each of these categories was analyzed. As shown in Table 8, 54.1%

of all solo artists in 2022 were from underrepresented racial/ethnic groups. This percentage is down 10.1 percentage points and is not different from 2012. Of the duos last year, all four or 100% of the individuals credited on the charts as a part of a duo were not white. Just over a fifth (21.7%) of all band members identify with an underrepresented racial/ethnic group.

Table 8
Percentage of Underrepresented Artists by Performer Type

Year	Individual	Duo	Band
2012	54.1% (*n*=59)	66.7% (*n*=4)	15.7% (*n*=13)
2013	52.2% (*n*=58)	15% (*n*=3)	8.3% (*n*=7)
2014	54.2% (*n*=65)	38.9% (*n*=7)	10.3% (*n*=9)
2015	56.4% (*n*=75)	70% (*n*=7)	28.8% (*n*=15)
2016	60.7% (*n*=74)	18.2% (*n*=4)	31.2% (*n*=15)
2017	65.4% (*n*=87)	27.3% (*n*=6)	30.5% (*n*=18)
2018	70.2% (*n*=99)	20% (*n*=2)	29.2% (*n*=19)
2019	65.4% (*n*=85)	33.3% (*n*=4)	24.1% (*n*=7)
2020	65.2% (*n*=90)	0	41.4% (*n*=12)
2021	64.2% (*n*=86)	25% (n=2)	39.5% (*n*=15)
2022	54.1% (*n*=72)	100% (*n*=4)	21.7% (*n*=5)
Total	60.5% (*n*=850)	31.2% (*n*=43)	22.6% (*n*=135)

Note: Groups with 3 or more artists were considered a band provided that they were under a single moniker, save 1. The percentage of white individual performers and members of duos or bands can be found by subtracting a specific cell from 100%. Featuring credits were included in all analyses. Columns nor rows add to 100%.

Similar to gender, we were interested in how many times artists of color were working in the recording studio across the 11 years of the study. After removing duplicate songs, the frequency of credits was tallied for every underrepresented and white artist. The results appear in Table 9. Only one significant difference was observed. White artists (61.7%) were more likely to have only one song credit on the Hot 100 than were underrepresented artists (51.8%).

Table 9
Number of Songs by Underrepresented Status of Artists with Solo Credits

# of Songs	UR Artists		White Artists		Total	
	# of Artists	%	# of Artists	%	# of Artists	%
1	130	51.8%	119	61.7%	249	56.1%
2	38	15.1%	25	13%	63	14.2%
3	23	9.2%	13	6.7%	36	8.1%
4	13	5.2%	6	3.1%	19	4.3%
5	11	4.4%	7	3.6%	18	4.1%
>6	36	14.3%	23	11.9%	59	13.3%
Total	251	100%	193	100%	444	100%

Note: Range was grouped for presentational purposes with 6 or more credits amassed in one category. Similar to other years, the credits for individual artists were determined using credits with both their name and/or any pseudonyms.

Turning to top performers (see Table 10), once again Drake was at the top of the list with 48 credits followed by Nicki Minaj (22 songs) and Rihanna (21 songs). The Weeknd (16 songs), Chris Brown (15 songs), Future (14 songs), Cardi B (14 songs), Lil Baby (13 songs), Bad Bunny (12 songs), and Doja Cat (12 songs) land in the next series of top spots. Kendrick Lamar, Future and Bruno Mars each have credits on 11 songs across the sample time frame. For White performers, Justin Bieber (25 songs), Ariana Grande (22 songs), and Taylor Swift (16 songs) occupy the highest ranks in Table 10. Ed Sheeran (13 songs), Post Malone (12 songs), Calvin Harris (11 songs), Luke Combs (10 songs), Adele (10 songs), Luke Bryan (10 songs), Dua Lipa (9 songs), and Katy Perry (9 songs) also landed on the top performing solo artist list.

Table 10
Top Performing Solo Artists by Underrepresented Status

Rank	Top UR Artists	# of Songs	Rank	Top White Artists	# of Songs
1	Drake	48	1	Justin Bieber	25
2	Nicki Minaj	22	2	Ariana Grande	22
3	Rihanna	21	3	Taylor Swift	16
4	The Weeknd	16	4	Ed Sheeran	13
5	Chris Brown	15	5	Post Malone	12
6	Cardi B	14	6	Calvin Harris	11
6	Future	14	7	Luke Combs	11
7	Lil Baby	13	8	Adele	10
8	Bad Bunny	12	8	Luke Bryan	10
8	Doja Cat	12	9	Dua Lipa	9
9	Kenrick Lamar	11	10	Katy Perry	9
9	Bruno Mars	11			

For women artists, 2022 was the first year in which there was a significant gain in the percentage of women performers across the Billboard Hot 100 Year-End Chart. This is an important step towards ensuring women's equal access and opportunity in music. The percentage of underrepresented artists fell in 2022, though more than half of all performers last year were not white. These results speak to both the cyclical nature of music's popularity, and the need to ensure that music that is released and marketed is representative of its listeners. In the next section, we examine whether trends observed among performers were mirrored for those writing and producing songs.

Songwriting and Producing

We evaluated every songwriter and producer associated with the Billboard Hot 100 songs in 2022, building on data collected from 2012-2021.[9] Gender was collected for each individual across both positions, and race/ethnicity was evaluated for women in these roles.

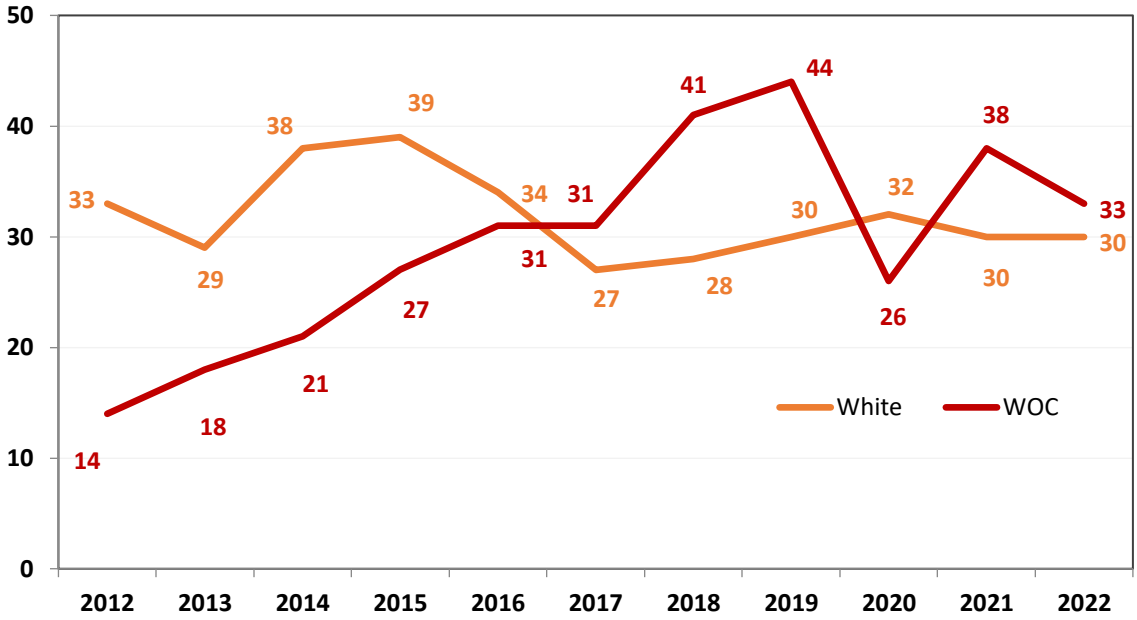
Songwriters. A total of 5,247 songwriters received a credit across the 11 years examined. Of the 451 songwriters in 2022, 85.7% (*n*=385) were men and 14% (*n*=63) were women (see Table 11). There were 3 gender non-binary songwriters in 2022. For women, there has been no significant change in the percentage of songwriters across the Billboard Hot 100 Year-End Charts since 2012. In total, the ratio of men to women songwriters across all 11 years was 6.8 to 1.

Table 11
Songwriter Gender by Year

Gender	Men	Women	Ratio
2012	89% (*n*=380)	11% (*n*=47)	8.1 to 1
2013	88.3% (*n*=355)	11.7% (*n*=47)	7.6 to 1
2014	87.3% (*n*=404)	12.7% (*n*=59)	6.8 to 1
2015	85.9% (*n*=413)	13.7% (*n*=66)	6.3 to 1
2016	85.9% (*n*=420)	13.3% (*n*=65)	6.5 to 1
2017	87.9% (*n*=442)	11.5% (*n*=58)	7.6 to 1
2018	87.9% (*n*=523)	11.6% (*n*=69)	7.6 to 1
2019	85.2% (*n*=439)	14.4% (*n*=74)	5.9 to 1
2020	86.9% (*n*=391)	12.9% (*n*=58)	6.7 to 1
2021	85.7% (*n*=406)	14.3% (*n*=68)	6 to 1
2022	85.7% (*n*=385)	14% (*n*=63)	6.1 to 1
Total	86.8% (*n*=4,558)	12.8% (*n*=674)	6.8 to 1

Turning to the race/ethnicity of women songwriters, there was a significant decrease in the number of women of color songwriters from 2021 to 2022. Despite this downturn, there were significantly more women of color songwriters in 2022 than in 2012. There was no change for white women songwriters from 2021 to 2022, or from 2012 to 2022. See Figure 2.

Figure 2
Number of Women Songwriters by Underrepresented Status Per Year



We explored the genres in which songwriters worked. Women were most likely to write Pop (19.5%) and Dance/Electronic (19.5%) songs, and least likely to write Hip-Hop/Rap (6.7%) and Country (9.7%) songs. As shown in Table 12, even though women were more likely to work in Pop, they were still outnumbered by a ratio of 4.1 to 1 on those songs. Given that women comprise 33% of Pop artists, women do not seem to be working with women writers on song lyrics.

Table 12
Song Genre by Songwriter Gender

Genre	Men Songwriters	Women Songwriters
Pop	79.9% (*n*=1,557)	19.5% (*n*=379)
Hip-Hop/Rap	93.3% (*n*=1,682)	6.7% (*n*=120)
Alternative	86.7% (*n*=306)	11.6% (*n*=41)
Country	90.3% (*n*=420)	9.7% (*n*=45)
R&B/Soul	89.9% (*n*=420)	10.1% (*n*=47)
Dance/Electronic	80.5% (*n*=173)	19.5% (*n*=42)

Beyond genre, we examined individual songwriters and how often they worked across the Hot 100 Year-End Charts over the past 11 years. Individual songwriters were identified by name (or pseudonym), and we eliminated duplicate songs across the sample. A total of 2,192 songwriters were evaluated, with

87.1% (*n*=1,909) male songwriters and 12.8% (*n*=280) female songwriters. This was a ratio of 6.8 male songwriters for every 1 individual female songwriter. Three gender non-binary songwriters appeared across the sample.

Table 13 depicts how often men and women songwriters worked and the number of songs they received credit for writing. There were no differences in the percentage of male and female earning songwriting credits—both men and women were most likely to only have one song across the Billboard Hot 100 and a similar percentage had six or more songs.

Table 13
Number of Songs by Songwriter Gender

# of Songs	Men Songwriters		Women Songwriters		Total	
	# of Writers	%	# of Writers	%	# of Writers	%
1	1,274	66.6%	191	68%	1,466	66.7%
2	289	15.1%	36	12.8%	325	14.8%
3	108	5.6%	14	5%	123	5.6%
4	48	2.5%	12	4.3%	60	2.7%
5	49	2.6%	6	2.1%	55	2.5%
>6	144	7.5%	22	7.8%	167	7.7%
Total	1,912	100%	281	100%	2,196	100%

Note: Range was grouped for presentational purposes with 6 and/or greater credits in one category. Similar to other years, the credits for individual songwriters were determined using songwriters' names and/or pseudonyms.

There were differences, however, when we further examined the highest level of songwriting credits. Of the twelve top male songwriters, all but 4 had more songs than the top woman songwriter—with the top two men earning more than double the number of songwriting credits. Moreover, the men listed in Table 14 wrote 23.9% of the songs in the entire 11-year sample.

Table 14
Top Individual Songwriters by Gender

Top Men	# of Songs	Top Women	# of Songs
Drake	49	Nicki Minaj	20
Max Martin	46	Taylor Swift	17
Dr Luke	31	Ariana Grande	16
Benny Blanco	26	Rihanna	14
Cirkut	25	Cardi B	14
Justin Bieber	25	Doja Cat	12
Savan Kotecha	24	Adele	10
Shellback	21	Megan Thee Stallion	10
DJ Mustard	19	Julia Michaels	9
Adam Levine	18	Camila Cabello	9
Ashley Gorley	18	Katy Perry	9
JKash	18	Selena Gomez	9

Another way to understand how often women songwriters had the opportunity to work is by examining how many songs featured a woman songwriter at all, and how many did not. We created two categories for the songs across the sample: those songs with one or more women songwriters credited, and those with no women songwriters credited. Table 15 depicts the results.

In 2022, 58% of all Hot 100 top songs did not feature a woman songwriter. This is a significant increase from 2021 (53%) but is the same finding we observed in 2012. Overall, 57% of the songs across the last 11 years—a total of 563 songs—did not have any women songwriters credited. In contrast, <1% or 6 songs were missing male songwriters. Thus, women's contributions have been shut out from more than half of the most popular songs across the last 11 years.

Table 15
Presence vs Absence of Women Songwriters across Sample

Year	0 Women Songwriters	1+ Women Songwriters
2012	58%	42%
2013	62%	38%
2014	60%	40%
2015	52%	48%
2016	47%	53%
2017	59%	41%
2018	59%	41%
2019	53%	47%
2020	65%	35%
2021	53%	47%
2022	58%	42%
Total	57%	43%

Note: Songs that duplicated on the chart from previous years were counted only once. Each song was examined for the presence of a woman songwriter.

The results in this section reveal that for women songwriters, little has changed when it comes to access in the music industry. Women still filled a fraction of songwriting roles, and were missing from the majority of songs across the 11-year sample. Not only did male songwriters receive more opportunities to work, at the highest levels, 12 men were responsible for crafting nearly a quarter of the most popular songs since 2012. Next, we turn to another critical and often exclusionary behind the scenes role in music: producers.

Producers. Our analysis of producers spans 2012, 2015, and 2017-2022. Producing credits across all songs in these years were examined, and every individual receiving a producing credit was included. Those who earned multiple credits on a song were counted only once for their work (*n*=52). In 2022, a total of 232 producers were credited on the Hot 100 Year-End Chart. Of those, 3.4% (*n*=8) were women and 96.1% (*n*=223) were men. One producer in 2022 was gender non-binary (*Sam Smith*).

Table 16
Number and Percentage of Women Producers by Year

Year	% Women Producers	# of Women Producers
2012	2.4%	5
2015	1.8%	4
2017	1.8%	4
2018	2.3%	5
2019	5%	11
2020	2%	4
2021	3.9%	9
2022	3.4%	8
Total	**2.8%**	**50**

Note: The percentage of men producers can be found by subtracting the percentages in each cell from 100%.

As shown in Table 16, the percentage of women producers in 2022 was roughly equivalent to 2021, and has changed little from 2012. The 8-year high point occurred in 2019 (5%). Thus, across a total of 1,756 producing credits from 2012-2022, 97.1% of producers were men and 2.8% were women. The ratio of men to women producers across the full sample was 34.1 to 1.

Race/Ethnicity. We examined the intersection of gender and race/ethnicity. Of the 50 women producers across the sample, 13 or 26% were women of color. Three women of color worked as producers in 2022. Each of these women worked on their own song: Beyonce Knowles (*Break My Soul*) and Willow Smith (*Meet Me At Our Spot*) produced songs that were new in 2022. Mariah Carey appeared for the third time as a producer in the sample given her work on the perennially charting 1994 hit song *All I Want for Christmas is You.* ***The ratio of men producers to underrepresented women producers is 131.5 to 1.***

We were also interested in how songs across the sample featured a woman producer. As with songwriters, we assessed whether each song included in the sample featured one or more women producers. The majority of songs were missing women producers—94.8% of the songs examined did not have even one-woman producer. This means that only 5.2% of songs—39-- had one woman producer.

To understand women producers' opportunities to work in popular music, we evaluated how often each of the 50 women producers were credited across the sample. First, we identified the individual women producers across the study, reducing our total to 29. Three-quarters (75.9%, *n*=22) of the women producers worked only once on a Hot 100 Year-End song across 8 years. Five women were credited on two songs, while Taylor Swift received four credits and Ariana Grande merited 7. Only 9 of the 29 individual women producers were women of color. Six of these women produced songs for which they were not also a performer.

Women continue to remain sidelined as producers in music. Only 8 women worked across the most popular songs in 2022. For women of color, this number was even smaller, and each woman produced her own song. Only 5.2% of songs across the entire sample had a woman producer, which is not surprising given that three-quarters of the women producers in the sample worked just once. Are there

ways to improve the percentage of women producers? Absolutely. In the next section, we examined one strategy and its failed impact.

Evaluating Industry Programs: Women in the Mix

Industry efforts to address the lack of women in music have existed for years, with one notable program launched in 2019. The Recording Academy began the Women in the Mix pledge with the goal of asking industry members to commit to working with a woman producer or engineer on a song. As of April 2022, 414 individuals had taken the pledge.[10] While commitments like the Women in the Mix pledge may be an important avenue for increasing women's access and opportunity, this is only the case if there is sufficient follow-through on and accountability to the pledge. Otherwise, it is like the anemic Rooney Rule in the NFL. To understand whether the pledge had an impact on the most popular songs across the music industry, the Hot 100 Year-End songs were evaluated to identify who took the pledge and whether their song credited a woman producer or engineer.

We began by collecting the names of the pledge-takers from the Women in the Mix website. Then, we ascertained whether any of those on the list were credited on a song that appeared on the 2022 Billboard Hot 100 Year-End Chart. Next, for the songs where these individuals were credited, we examined whether a woman producer or engineer was also credited. Prior to analysis, we removed songs that were included in the 2021 analysis (*Save Your Tears, Stay*) as they were part of last year's report. Also, we do not include songs from pledge-takers who produced or engineered their own songs (*All Too Well (Taylor's Version)*).

A total of 12 pledge-takers worked on songs that appeared only in the 2022 Billboard Hot 100 Year-End Chart. Only 1 worked with a different woman producer across the sample: Nicki Minaj and producer Malibu Babie collaborated on *Super Freaky Girl.* There were also no women engineers credited on a song with a pledge-taker that appeared for the first time across the Hot 100 Year-End Chart in 2022.[11]

These results demonstrate clearly that the Women in the Mix pledge has had little, if any impact, on facilitating the inclusion of women in the music industry. While pledge-takers may employ women on less popular songs, this means that the agenda-setting music for the industry lacks women's participation. Additionally, while it is important that women artists were able to expand their professional repertoire to include producing, this means there must be additional opportunities created for career producers to work across popular music. Since the Recording Academy has removed the list of pledge-takers from their website, perhaps it, too, recognizes that without follow-up and support, pledges are a noble but fruitless endeavor. It was all hype and no hiring.

Next, we turn to another aspect of the Recording Academy, namely, nominations at the Grammy® Awards and their inclusion profile.

Grammy® Awards: 2013 to 2023

Each year, we include an examination of nominees across 5 major Grammy® Award categories: Record of the Year, Album of the Year, Song of the Year, Best New Artist, and Producer of the Year. This year we added the new category of Songwriter of the Year, as it is comparable to the Producer of the Year category. Across all 11 years examined, individual nominees were identified, including individual members of groups nominated for an award.[12] Overall, 2,441 individuals were nominated for a Grammy® Award from 2013 to 2023 in these categories.

Of the 514 nominees in 2023, 84.8% (*n*=436) were men and 15.2% (*n*=77) were women. One gender non-conforming/non-binary individual was nominated in 2023. This is a ratio of 5.5 men nominated to every 1 woman nominee. 2023 was not significantly different than 2022 in terms of the percentage of women nominated but remained significantly higher than 2013. See Table 17. Overall, women represented 14% of nominees across major Grammy® categories over the past 11 years.

Table 17
Grammy® Nominations by Gender and Year

Year	Men	Women
2013	92.1% (*n*=105)	7.9% (*n*=9)
2014	91.8% (*n*=156)	8.2% (*n*=14)
2015	85.9% (*n*=134)	14.1% (*n*=22)
2016	88.5% (*n*=138)	11.5% (*n*=18)
2017	93.6% (*n*=190)	6.4% (*n*=13)
2018	92% (*n*=92)	8% (*n*=8)
2019	83.6% (*n*=138)	16.4% (*n*=27)
2020	79.5% (*n*=124)	20.5% (*n*=32)
2021	71.9% (*n*=100)	28.1% (*n*=39)
2022	85.6% (*n*=486)	14.1% (*n*=80)
2023	84.8% (*n*=436)	15.2% (*n*=78)
Total	86% (*n*=2,099)	13.9% (*n*=340)

Table 18 shows the percentage of women nominated per category over the past 11 years. Women were most likely to be nominated for Best New Artist (45.4%) and Song of the Year (29.2%). However, only one woman has been nominated for Producer of the Year (1.7%) in the past 11 years. Women also received few nominations for Record of the Year (11.1%) or Album of the Year (10.3%). In 2023, a new category, Songwriter of the Year, was introduced. In its first year, 60% (*n*=3) of nominees in the category were women and 40% (*n*=2) were men.

Table 18
Grammy® Nominations by Gender and Category

	Record of the Year	Album of the Year	Song of the Year	Best New Artist	Producer of the Year	Total
Men	88.7% (*n*=457)	89.6% (*n*=1,342)	70.8% (*n*=182)	54.6% (*n*=59)	98.3% (*n*=57)	86% (*n*=2,099)
Women	11.1% (*n*=57)	10.3% (*n*=155)	29.2% (*n*=75)	45.4% (*n*=49)	1.7% (*n*=1)	13.9% (*n*=340)

Has the percentage of women nominated per category changed over time? Table 19 reveals that for women nominees, there has been change from 2022 in one category: Best New Artist. Compared to 2013, women have gained nominations across Album of the year and Song of the Year, though they have not made significant gains as nominees for Record of the Year.

Table 19
Women Grammy® Nominations by Category over Time

	Record of the Year	Album of the Year	Song of the Year	Best New Artist	Producer of the Year
2013	11.8%	2%	15.4%	16.7%	0
2014	2.8%	6.5%	31.2%	16.7%	0
2015	18.8%	8.2%	27.3%	50%	0
2016	6.7.%	8.1%	33.3%	60%	0
2017	7.5%	4.4%	14.3%	33.3%	0
2018	0	6.1%	12%	60%	0
2019	9.1%	13.3%	18.9%	58.3%	20%
2020	8.5%	17.3%	44.4%	46.2%	0
2021	23.70%	18.60%	44.80%	75%	0
2022	14.3%	11.4%	32.6%	38.5%	0
2023	15.1%	12.2%	33.3%	50%	0

Note: Cells contain the percentage of women nominated per category to obtain the percentage of men nominated, subtract the cell percentage from 100%.

Turning to nominations by gender and race/ethnicity, of the 340 women nominated in the last 11 years, 51.5% (*n*=175) were white and 48.5% (*n*=165) were from an underrepresented racial/ethnic group. Table 20 reviews the percentage of nominations for white and underrepresented women by year. In 2023, significantly more underrepresented than white women were nominated for a Grammy® award. Underrepresented women were also significantly more likely to be nominated for a Grammy® in 2023 compared to 2013, though 2023 was equal to the previous high, reached in 2017.

Table 20
Women Grammy® Nominations by Underrepresented Status and Year

Year	White Women	UR Women
2013	66.7% (*n*=6)	33.3% (*n*=3)
2014	85.7% (*n*=12)	14.3% (*n*=2)
2015	77.3% (*n*=17)	22.7% (*n*=5)
2016	72.2% (*n*=13)	27.8% (*n*=5)
2017	38.5% (*n*=5)	61.5% (*n*=8)
2018	50% (*n*=4)	50% (*n*=4)
2019	48.1% (*n*=13)	51.9% (*n*=14)
2020	56.2% (*n*=18)	43.8% (*n*=14)
2021	61.5% (*n*=24)	38.5% (*n*=15)
2022	41.2% (*n*=33)	58.8% (*n*=47)
2023	38.5% (*n*=30)	61.5% (*n*=48)
Total	51.5% (*n*=175)	48.5% (*n*=165)

Table 21 provides the breakdown of nominations by category for white and underrepresented women across all 11 years. Women of color were most likely to be nominated for Album of the Year but were least likely to be nominated for Song of the Year. Twice as many white women were nominated in this category as women of color. White women were also more likely to be nominated in the Record of the Year category, while there was no difference in nominations for Best New Artist. In its first year of existence, 2 white women and 1 underrepresented woman were nominated for Songwriter of the Year.

Table 21
Women Grammy® Nominations by Underrepresented Status and Category

	Record of the Year	Album of the Year	Song of the Year	Best New Artist	Producer of the Year	Total
UR	43.9% (*n*=25)	57.4% (*n*=89)	33.3% (*n*=25)	49% (*n*=24)	100% (*n*=1)	48.5% (*n*=165)
White	56.1% (*n*=32)	42.6% (*n*=66)	66.7% (*n*=50)	51% (*n*=25)	0	51.5% (*n*=175)

We also examined the number of nominations allotted to men and women over the past 11 years. We identified the individual or unique nominees, which reduced our sample to 1,334 individuals. Of these 1,334 nominees, 86.1% (*n*=1,148) were men and 13.9% (*n*=185) were women. One nominee was gender non-conforming/non-binary. This is a ratio of 6.2 men to every 1 woman nominated. See Table 22.

Then, we assessed how many nominations each individual received over the time frame. There was no difference between men and women in terms of the number of nominations received. Though this seems positive, among those nominated five or more times, there is a difference in terms of the range of nominations. The most frequently nominated man received 26 nominations (Serban Ghenea) versus 12 received by the most frequently nominated woman (Taylor Swift).

Table 22
Number of Grammy® Nominations by Gender

No. of Nominations	Men	Women
1	68.6% (*n*=788)	65.9% (*n*=122)
2	15.7% (*n*=180)	16.2% (*n*=30)
3	6.9% (*n*=79)	7.6% (*n*=14)
4	2.7% (*n*=31)	3.8% (*n*=7)
≥5	6.1% (*n*=70)	6.5% (*n*=12)
Total	1,148	185

The frequency of nominations for women by race/ethnicity was also evaluated, as shown in Table 23. Of the 185 individual women, 49.2% (*n*=91) were white and 50.8% (*n*=94) were underrepresented. Underrepresented women were more likely to receive a single nomination compared to white women, while white women were more likely to receive 3 nominations. Overall, 30.9% of underrepresented women were nominated two or more times, compared to 37.4% of white women. Taylor Swift received the most nominations across all women (12) compared to the highest-nominated woman of color (H.E.R., 10).

Table 23
Frequency of Nominations for Women by Race/Ethnicity

No. of Nominations	UR Women	White Women
1	69.1% (*n*=65)	62.6% (*n*=57)
2	16% (*n*=15)	16.5% (*n*=15)
3	4.3% (*n*=4)	10.8% (*n*=10)
4	5.3% (*n*=5)	2.2% (*n*=2)
≥5	5.3% (*n*=5)	7.7% (*n*=7)
Total	**94**	**91**

Despite advocacy and activism, little has changed for women at the Grammy® in the last 11 years. Across more than a decade, 14% of nominees in the major Grammy® categories have been women. While there has been change over time, the gains experienced by women in 2020 and 2021 have reversed in the past 2 years. The Best New Artist category remains the most gender-balanced, suggesting that it is at the start of their careers and in the artist role that women can expect the highest likelihood of recognition. While women may have increased their participation in music, it seems that they still lack industry honors for their efforts.

Conclusion

Each year, this investigation examines the gender and race/ethnicity of artists, songwriters, and producers responsible for the songs on the Billboard Hot 100 Year-End Chart. The study spans 2012 to

2022, with 11 years and 1,100 songs represented. We also assessed Grammy® nominations in major categories across the past 11 years. Major findings from the investigation are reviewed below, alongside solutions for change.

Progress for Women Performers in Popular Music

For the first year since this report's inception, there was significant progress for women both over time and from year-to-year. In 2022, 30% of the artists on the Billboard Hot 100 Year-End Chart were women. While this is a far cry from the proportion of women in the U.S. population, it does represent growth. Women continued to be most likely to appear on the charts as individual artists, rather than as duos or band members.

Despite the gains for women performers, women behind the scenes saw little change. The percentage of women songwriters and producers remains roughly stagnant, and does not reflect the many talented women working across the music industry. Moreover, the top male songwriters were responsible for nearly a quarter of all the songs appearing on the chart in the past 11 years. The findings indicate that the careers of women songwriters and producers are still impeded by a web of barriers and impediments that restrict opportunities for work.

Women of Color Continue to Face Challenges

Women of color saw significant gains as artists, despite dips for underrepresented artists overall. Thus, the contributions women of color make to the music industry as performers appear to be acknowledged and celebrated. However, these gains reflect a limited repertoire—underrepresented artists were far less likely to work in specific genres such as country or alternative music, including women of color. Ensuring that women of color have opportunities as artists across the music business is imperative.

Similarly, women of color as songwriters and producers continue to face barriers and limited access. Only 3 women of color were producers in 2022, all of them on songs for which they were also credited as artists. Thus, the talents and expertise of women of color producers and songwriters remain untapped across the most popular songs of the year.

Grammy® Nominations Remain Gender-Biased

Only 15.2% of Grammy® nominees in major categories were women in 2023. This was in line with the downturn experienced in 2022, after reaching a high point in 2021. The Grammy® nominations in these categories expanded to 10 nominees and included featuring artists in 2022. Thus, it is important to note that the changes observed more likely reflect a biased nomination process than a lack of talented and worthy work from women.

Women did experience some gains in particular categories this year, and half of the nominees for Best New Artists were women. The addition of the Songwriter of the Year category is one that could be a place where women's contributions are recognized—this year, 60% of the inaugural nominees were women. White women and women of color continue to be nominated in roughly equal degrees, with some change over time such that underrepresented women were more likely to be nominated in 2023. However, both groups were outpaced in the sheer number of nominations awarded to men at the highest level. As the Grammy® nominations reflect recognition and industry respect, and may also confer financial benefits to nominees, the lack of women and women of color nominated is concerning.

Solutions for Change

The findings in this year's report reveal that while women artists have increased in popular music, there is still room for growth. What can the industry do to create change? While the simplest solution is to hire women, our solutions are designed to facilitate the hiring process.

Use Each Song as An Opportunity to Onboard Women. As noted above, more than half of songs in the sample did not have a woman songwriter, and the majority were missing women producers. The process of creating a song is collaborative, and until women are involved in the process, we will continue to see the numbers lag. Efforts such as Women in the Mix have failed not because a pledge is ineffective, but because of a lack of follow through and the failure to provide tools to pledge-takers. Individuals who have made a commitment to hire women on their songs must honor that commitment—and, importantly, must do so on the songs that are likely to be released and reach audiences.

Support Pipeline Programs. One excuse for not hiring more women in music is that there a sufficient number of women are not available to be hired. While we question this perception, one method for bolstering the number of women entering the profession is to support pipeline programs. Efforts such as She Is The Music, the EQL program, and Women's Audio Mission all work to support women as they build their experience and expertise in music. Rather than engaging efforts that remain unsuccessful such as Women in the Mix, artists who are looking for ways to bring more women into the creative process can look to these programs to recruit and hire talented professionals.

Remove Barriers to Career Progress. The reasons for women's exclusion in music have been illuminated in other reports.[13] Women are stereotyped—in terms of the types of songs and genres they can create, and into the roles they can play—they are sexualized, and their talents and experience are discounted. The pipeline programs noted above are designed to address these barriers, but there is more to do. As stated earlier, women must be hired, and they require allies and champions—men *and* women—throughout the industry who will help demolish barriers. Industry change must be a community effort, and until those who control access and opportunity realize the role they can play, progress for women will continue to move slowly.

Limitations

Each year, we acknowledge a few limitations with this study. Namely, this investigation focuses specifically on the Billboard Hot 100 Year-End Chart to understand how often women work on the most popular songs of the year. Understanding women's work across other and less popular songs is also important and would provide valuable context for this report. However, by examining popular music, we demonstrate how women continue to be shut out from opportunities with financial and career consequences. A second limitation is that more data is needed on which racial/ethnic groups are represented in popular music. While our metric surrounding underrepresented artists offers some understanding, additional clarity is necessary.

The progress seen in 2022 for women artists is an important consequence of long-term industry activism and audience response. With the gains seen for women performers this year, it is clear that change is possible. Now the challenge is to translate this change into progress for women across all aspects of the industry, particularly in creative roles behind the scenes.

Footnotes

1. We collected the complete list of Billboard's Hot 100 Year-End Chart from https://www.billboard.com/charts/year-end/hot-100-songs/. Songs do repeat on the chart from year to year. We include these when analyzing yearly trends. These songs are removed from the analyses related to credits for individual artists and songwriters to avoid counting duplicating credits. There were 110 songs that appeared more than once across the 11-year sample.

   The original report by S. Smith, M. Choueiti, K. Pieper, and others (2018) contains details on the approach to unitizing and variable definitions (link: http://bit.ly/2GhiUgj) Information on song artists came from the Billboard website. Gender was identified via online information (databases, interviews, pronoun usage, etc.).

2. The 2023 Grammy® nominations were taken from: https://www.grammy.com/news/2023-grammy-nominations-complete-winners-nominees-list. Nominees for 2023 were added to our previous analysis from 2012 to 2022. Producer of the Year reflects nominations in the Producer of the Year, Non-Classical category. The Recording Academy added the Songwriter of the Year category in 2023, and it appears in this year's analysis.

3. McDermott, M. (2019, February 1). Grammy® launch initiative helping female music producers and engineers. *USA Today.* https://www.usatoday.com/story/life/music/2019/02/01/grammys-launch-initiative-helping-female-music-producers-and-engineers/2741653002/

4. U.S. Census Bureau (n.d.). Quick Facts. Retrieved January 16, 2023 from: https://www.census.gov/quickfacts/fact/table/US/PST045221.

5. 15 songs in 2023 were affiliated with genres that were not included in the study parameters. Those genres were: Latin, Urbano Latino, Musicals, Worldwide, Soundtrack, and Holiday. We collapsed individual songs into the categories of Hip-Hop/Rap and Pop.

6. The Billboard chart provided information on artist credits. Each artist had their own individual line of data. Those credited as "featuring" were considered to be featuring artists, while "&," "with," "and," or "X" were counted as individual artists. The only exception was when the two artists credited in this manner performed as a duo consistently. The current members of each Band or Duo were investigated and included—each member received an independent line of data. In the full 11-year sample, there was one band that had fewer than 3 members. Based on the approach to crediting, this was still considered to be a band. In 2022, one soundtrack credited "cast" which could not be identified and was not included in the analysis.

7. The race/ethnicity of every artist was evaluated. Our approach to this process is detailed in our original report. 11 people could not be ascertained in the 2022 sample for Race/Ethnicity, 3 people (all songwriters/Producers were inferred for gender based on their names, as was one apparent race/ethnicity judgment for artists.

8. U.S. Census

9. Using three repertories (ASCAP, https://www.ascap.com/repertory; BMI, http://repertoire.bmi.com/StartPage.aspx; and SESAC, https://www.sesac.com/#!/repertory/search) we identified songwriters associated with the Hot 100 songs of 2023. 1 song did not appear in these databases; for these songs, credits were taken from album booklets or other online sources (Genius, Spotify). The process for identifying gender and race/ethnicity was similar to that for artists. Senior research team members judged the race/ethnicity of any individual for whom information was not

available via online sources. There were 3 individuals whose gender could not be ascertained, and no women songwriters whose race/ethnicity was inferred.

Producers for each song were identified using liner notes as well as information from online sources (e.g., Genius, Spotify). Producer credits were those that met Recording Academy guidelines and included producers, co-producers, and vocal producers. Producers were only counted once per song, even if they received multiple producing credits. The gender of 1 producer in the 11-year sample was not able to be ascertained. The race/ethnicity for all women producers was available via online sources for 2022. One group of producers could not be identified and were excluded.

10. Using historical captures of the Recording Academy website, the list of Women in the Mix pledge takers was obtained from April 23, 2022. This was the last date data were captured online. A total of 422 pledge-takers were listed, which expanded when individual band members were identified separately. 8 members duplicated as pledge taker under the Producer and Artists sections.

11. Credits for engineering were identified from Genius and album liner notes. Eligibility definitions from the Recording Academy were used to designate which engineers were included in the analysis. These were: Engineer, Recording Engineer, Recorded by, Mixed by, Mixer, Mix Engineer, Remix Engineer, Remixed by, Mastering Engineer, Vocals Recorded by/Engineered by, Balance Engineer/Engineered by.

12. Upon release of the Grammy® nominations, the list of nominees was collected from https://www.grammy.com/news/2023-grammy-nominations-complete-winners-nominees-list. Every individual nominated, including individual members of bands and duos, received a line of data in the analysis. There were a few exceptions to this. Three groups had members who could not be identified and were excluded from analysis. Each received a single featuring artist nomination as a group for the Record of the Year category in 2022.

13. Smith, S.L., Pieper, K., Choueiti, M., Clark, H., Case, A., & Villanueva, S. (2019) *Gender and Race/Ethnicity of Artists, Songwriters & Producers across 900 Popular Songs from 2012-2018.* Annenberg Inclusion Initiative. http://assets.uscannenberg.org/docs/aii-inclusion-recording-studio-2019.pdf

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