Race, Gender and the Billboard Top 40 Charts between 1997 and 2007

Jean Durr

Major Research Paper submitted to the
Faculty of Graduate and Postdoctoral Studies
In partial fulfillment of the requirements
For the MA degree in Women's Studies

Institute of Women's Studies
Faculty of Social Sciences
University of Ottawa

Table of Contents

Abstract....1

Introduction....1

Contextual Framework....5

Race and Gender....12

Research Methods....17

Race and Hit Song Frequency Distributions on the Billboard Top 40 Charts....21

Race and Hit Song Frequencies by Year on the Top 40 Sales Charts....21

Race and Hit Song Frequencies by Year on the Top 40 Airplay Charts....24

Summary: Race on both Top 40 Charts....26

Gender & Race and Hit Song Frequency Distributions on the Billboard Top 40 Charts....27

Gender by Race on the Sales Charts....27

Male by Race....27

Female by Race....28

Male-Female Group by Race....29

Summary: Gender by Race on the Sales Charts....30

Race by Gender on the Sales Charts....31

Black by Gender....31

White by Gender....32

Other by Gender....33

Summary: Race by Gender on the Sales Charts....34

Summary: Sales Charts....34

Gender by Race on the Airplay Charts.....35

Male by Race.....35

Female by Race.....36

Male-Female Group by Race.....36

Summary: Gender by Race on the Airplay Charts.....37

Race by Gender on the Airplay Charts.....38

Black by Gender.....38

White by Gender.....39

Other by Gender.....40

Summary: Race by Gender on the Airplay Charts.....40

Summary: Airplay Charts.....41

Summary: Race and Gender on both Top 40 Charts.....42

Discussion.....43

Conclusion.....46

Acknowledgements.....48

Appendix.....49

References.....62

List of Tables

Table 1	Annual Number of Hits on Sales Charts	49
Table 2	Annual Number of Hits on Airplay Charts	50
Table 3A	Gender by Race on the Top 40 Sales Charts: Vertical Totals	51
Table 3B	Gender by Race on the Top 40 Sales Charts: Horizontal Totals	51
Table 4A	Gender by Race on the Top 40 Airplay Charts: Vertical Totals	52
Table 4B	Gender by Race on the Top 40 Airplay Charts: Horizontal Totals	52
Table 5	Frequency of Sales Chart Hit Songs by Category	53
Table 6	Frequency of Airplay Chart Hit Songs by Category	53

List of Figures

Graph 1A	Race by Year on the Top 40 Sales Charts	49
Graph 2A	Race by Year on the Top 40 Airplay Charts	50
Graph 3A	Top 40 Sales Male by Race	54
Graph 3B	Top 40 Sales Female by Race	54
Graph 3C	Top 40 Sales Male-Female Group by Race	55
Graph 4A	Top 40 Sales Black by Gender	56
Graph 4B	Top 40 Sales White by Gender	56
Graph 4C	Top 40 Sales Other by Gender	57
Graph 5A	Top 40 Airplay Male by Race	58
Graph 5B	Top 40 Airplay Female by Race	58
Graph 5C	Top 40 Airplay Male-Female Group by Race	59
Graph 6A	Top 40 Airplay Black by Gender	60
Graph 6B	Top 40 Airplay White by Gender	60
Graph 6C	Top 40 Airplay Other by Gender	61

Abstract

In a preceding study, Lafrance, Worcester and Burns (2011) examine gender-related trends on the Billboard Top 40 music charts between 1997 and 2007. Taking frequency and success score distributions as indicators, they determine that the Top 40 charts are characterized by gender inequality, with women charting considerably less often than men. When women do chart, however, these hit songs rapidly approach the number one rank. As a follow-up to their research, this paper combines the gender variable with that of race. Attempts are made to answer the following research question: What is the nature of race-based trends among Black, White and Other artists as they manifest on the Billboard music charts; and, to what extent does the gender variable factor into these findings? By describing frequency distributions, I conclude that race-based trends do exist; as well, they are consistent across both sales and airplay charts. As established in the original paper, gender does prove to be a noteworthy factor in these findings. Key to this study, however, is the finding that signifiers of race equality on the Billboard music charts do not translate into a meaningful indicator of race equality in society at large.

Introduction

The Billboard music charts have tracked the popularity of songs according to a number of categories since the 1930s. The Billboard Hot 100 chart has been published weekly since 1958 and is a valuable measure of popular music trends. It

is a chart that now compiles the information from the Top 100 Single Sales, the Top 100 Airplay and the Top Digital Songs charts, thus it tracks both what the audience is buying, as well as hearing on the radio (tracked by Nielsen Soundscan and BDS). These popularity trends can be critically examined for the representation of race and gender; that is, we can study the popular success of artists during a span of time with special consideration for the factors of race and gender. The charts expose the relative success of black artists in relation to white artists, as well as female artists in relation to male artists. For the purposes of this study, I will limit my analysis to the Top 100 Single Sales and the Top 100 Airplay charts, and I will further limit my consideration to the Top 40 listings in each of those charts.

The power relations that pervade music charts are illuminated through expressions of race and gender inequality (Garofalo, 2002; Mahon, 2004; Meyers, 2008; Wells, 2001). This paper describes both gender and race-related trends according to data collected from the American popular music Billboard Top 40 charts spanning from 1997 to 2007. An original study has been conducted by Lafrance, Worcester and Burns, entitled: "Gender and the Billboard Top 40 Charts between 1997 and 2007" (2011). The present study offers an important contribution by combining race with gender to determine if this second variable will shift the perceptions of the earlier paper's findings.

The study by Lafrance, Worcester and Burns aimed to determine whether there was a relationship between number of hit songs and gender, and whether women's chart

success rates would maintain a solid chart presence beyond skyrocketing to the top of the charts – a phenomenon which Allan Wells (2001) has described as "precarious" (whereby hit songs by women artists appear to have more height than depth). Lafrance, Worcester and Burns determine that, taking frequency and success score distributions as indicators, the Top 40 charts continue to be characterized by considerable gender inequality. Furthermore, their findings indicate that although women chart less often than men, when they do chart, it is closer to the number one rank. They concur with Wells, then, that "while this does indicate the presence of legitimate female stars, it also shows that female success is not very deep; indeed it may be as precarious as the next big hit" (2001).

This study begins with an analysis of race-based trends. Next, race- and gender-based trends are examined together, to establish whether and how they appear to affect one another; and whether they confirm or complicate the findings of previous studies (Lafrance, 2011; Wells, 2001). Hit song frequency counts by race and gender are broken down by year and described according to the sales and airplay Top 40 singles charts. The sales charts provide information about the music Americans buy, while the airplay charts rank audience impressions based on a calculation involving the number of times a song is played and the audience size of respective radio stations. Within each of the sales and airplay chart descriptions, I approach the same Top 40 data from two angles – first examining gender through a race-based lens; and, second, examining race through a gender-based lens. This is an attempt to expose how the race- and gender-based variables relate to one

another on the charts. This paper, then, asks the following research question: What is the nature of race-based trends among Black, White and Other artists as they manifest on the Billboard music charts; and, to what extent does the gender variable factor into these findings?

Narrowly based classification schemes have been used to simplify and organize the data for descriptive statistical purposes. Race has been divided into three categories – Black, White and Other; and gender has been divided into three categories – Male artists, Female artists and Male-Female groups. It is important to note that these chosen classifications are contentious, and inherently limiting to this body of research (Bowker & Star, 2000; Lampland & Star, 2009). For example, individual artists' self-perceptions of gender and racial identity are not reflected by our classifications; nor is it my intent to propagate cultural divisiveness or to normalize "othering" practices inflicted on marginalized populations. For these and other reasons, I begin by providing the reader with a contextual framework for the variables used in this study. What follows is a section outlining the methods used to conduct the research; then, the descriptive analysis itself[1]. A discussion rounds out the analysis before concluding remarks. The reader will find all graphs and tables in the appendix.

[1] Any mention of the plural term "artists" refers to solo artists, as distinguished from artists who perform within a "group."

Contextual Framework

Sociologist Vilna Bashi (1998) sums up the intent of this paper's research analysis; namely, that racial categories matter because racial hierarchies matter, within our stratifying socio-economic system. She describes racial categories as both emerging from and comprising a racial hierarchy; as the categories change, so do the hierarchies (and vice-versa). Bashi goes on to claim that categories change labels and meanings, and we may monitor changes in the racial hierarchy by monitoring changes in the meaning and manifestations of racial categories (p. 966). This paper draws from her conception of race, which is not necessarily a biologically-based static conception, but one that comprises contextual definitions and that is embedded in power relations. Within Bashi's description, race is a classification that is typically assigned or externally imposed with respect to both social structure and cultural representation. The racial dilemma, then, revolves around whether groups choose to embrace or recreate identities that the oppressors in the racial hierarchy created and associated with negative characteristics and denunciatory stereotypes (p. 959). It matters who does the defining and policing of the boundaries created by labels. Bashi summarizes Wynant:

> When the construction of racial category comes from outside the group, the categorization process is an example of the exercise of power held by the oppressors in the racial hierarchy. However, when those so labelled change the terms, representations and meaning of racial

> categories, they are usually competing for power in the hierarchy, and these efforts are examples of attempts at changing the existing racial hegemony. (Bashi, 1998; Wynant, 1994)

"Postracial" is a term defined by the media to denote a "colour-blind society" (Esposito, 2009). This suggests an era of progressiveness (coinciding with the election of U.S. president Barack Obama) in which race no longer shapes our thinking or our actions; or, put differently, that the colour of one's skin will not determine her or his life chances (Esposito, 2009). This is linked to a notion of meritocracy; the belief that life circumstances ought not to prevent anyone who works hard enough, from achieving one's aspirations.

Statistician Jennifer Esposito (2009) explains that, despite its positive connotations, which imply that race (and racism) is no longer the issue it once was; this ideology is misguided. Failure to recognize race as an organizing principle, renders racial advantage (white privilege) and disadvantage (racism) unaccounted for (p. 524). Focusing on meritocracy diverts our attention away from certain groups' lack of access to economic, political and cultural privilege and, in doing so, overlooks patterns of racial injustice. The notion of the post-racial can, therefore, be seen to depoliticise race-related issues within the context of present-day society.

Scholar of popular music studies, Reebee Garofalo (2002), describes the North American music industry as having a long history of classifying and artificially

separating performers as much by race as by musical style, particularly for marketing purposes. Such manipulations have made it difficult to acknowledge cross-cultural collaborations that contribute to, what are accepted as, distinct musical genres (p. 8). Latin music, for example, has always been an important influence in U.S. popular music – a recognition that is understated (p. 11). As it stands, Garofalo has stated: "The relative absence of African Americans in heavy metal and whites in rap suggests that racial divisions are still powerful determinants in social and cultural relations" (p. 11). As Garofalo infers:

> The way in which music actually unfolds as a social practice does not necessarily determine the way in which it reaches the ears of its audience. By the time a creative urge has been fed through the star-making machinery of the culture industry, all the biases of class, race, and gender have been brought to bear on it. (2002, p. 8)

The frequency of hit songs is not as straightforward an indicator of social equality for race, as it has been for gender (Lafrance, 2011). Race-related issues, for black artists in particular, appear to be contained – ghettoized – apart from the more "White" genres of music.

Not only are black artists restricted from moving laterally across genres the way white artists can; but their huge successes within R&B and Hip Hop come at the expense of reinforced stereotypes and racialization. Ethnomusicologist Karen

Pegley argues that, as a cultural construct, race plays an enormous role in musical production, dissemination, and consumption (Pegley, 2002). She poses the following question with respect to MTV's initial dissemination of rap music:

> Was "Yo! MTV Raps" an inclusive, validating gesture towards black artists and rap, or can we also see it as a means for corporate MTV to shape a young underground musical tradition, choosing "appropriate" rap styles and artists for their viewers? (2002, p.95)

Black success in popular music is neutralized on account of its being concentrated and contained; thus, posing less of a threat to "White" society. Postcolonial and cultural theorist Homi Bhabha explains that, despite the entertainment and encouragement of cultural diversity, there is always also "a corresponding containment of it" (Rutherford, 1990, p.208). As Bhabha describes:

> A transparent norm is constituted, a norm given by the host society or dominant culture, which says that 'these other cultures are fine, but we must be able to locate them within our own grid'. This is what I mean by a creation of cultural diversity and a containment of cultural difference. (Rutherford, 1990, p.208)

This paper uses classification systems as a tool for organizing music artists into race and gender categories. Social scientists, Martha Lampland and the late Susan

Leigh Star, together with cyberscholarship scholar, Geoffrey C. Bowker, are authors who extensively discuss the nature of standardization, classification and resulting consequences. Lampland and Star (2009) declare that classification systems are only logical to the extent that they suit the classifier's means to an end; apart from which, they might rightfully be described as alogical or irrational. The contentious nature of classifying people into coding-schemes can rightfully cause confusion and resentment, when people become labelled in ways that conflict with personal perceptions of identity. On a more prominent scale, concern rests with the foreseeable reproduction of social stratification entrenching inequality.

Racial "purity" is a fictitious concept (Bowker & Star, 2000); yet dire consequences, ranging from apartheid to genocide atrocities, have resulted from manipulating the interpretation of labels. Bowker and Star explained: "We seek to understand classification systems according to the work that they are doing and the networks within which they are embedded. That entails both an understanding of the categories of those designing and using the systems" (p. 42). Bowker and Star note that all categories are constructions; necessarily suffused with ethical, cultural and political values (p. 321). This paper's concern with race and gender categories is a means of establishing order within a specific context and to serve a specific purpose - that of describing gender and race relations as they are made manifest on popular music charts. Furthermore, this use of racial categories has been harnessed to challenge the depoliticising impulses of the "postracial" landscape within the music

industry, in particular. Lampland and Star explain that the architecture of classification schemes is an attempt to "pinpoint the obscure" (p. 324):

> The known variables such as gender, race, status, career, power, and innovation trajectories are subtly represented in infrastructures, especially as they appear in processes of standardizing and quantifying. Unearthing the narratives behind the boring aspects of infrastructure does, however, reveal (often in a very direct way) how knowledge is constrained, built, and preserved. (2009, p. 18)

My data suggest that Black and White are the two most salient racial categories on the charts. As well, the Male and Female binaries trump any consideration of non-gender conforming artists. In a sense, "othering" has marginalized those who do not conform to the methodological nature of this study. Lampland and Star have contended: "The silencing of 'Other'...is a moral choice as well as a technical and data-collecting one" (p. 8). They go on to describe that screening out unlimited, or even limited, diversity is inherent in the standardization process.

Lampland and Star seek to understand, and sometimes challenge, the role of "invisibility" in the work that "classification does in ordering human interaction" (p. 5). Classifications, such as are presented in this paper, can be viewed as a double-edged sword: segregation practices have been complicit in power-based hierarchies (especially as they relate to race and gender); yet, their role can also provide an

essential means from which to contemplate and advance change toward the betterment of the greater public good – benefiting the full and free development of individuals within a society. This study provides evidence that race and gender-based inequality does exist on the popular music charts. Exposing such trends provides a platform from which people can engage with consequent power dynamics more critically. Bowker and Star offer a precautionary note:

> We have a moral and ethical agenda in our querying of these systems. Each standard and each category valorizes some point of view and silences another. This is not inherently a bad thing – indeed it is inescapable. But it *is* an ethical choice, and as such it is dangerous – not bad, but dangerous. (2000, p. 5)

Those individuals who do not fit into standard categories become residual exceptions. Yet, everything is another's "other" by nature, such that this category, itself, is essential to the defining of any boundaries. Contextually speaking, however, it is often the privileged that have the luxury of defining the "Other." Recognizing this, then, necessitates mindfulness in an attempt to be clear and transparent about the limitations - methodological and sociocultural – inherent in a given body of work. Bowker and Star describe:

> The moral questions arise when the categories of the powerful become taken for granted; when policy decisions are layered into inaccessible

> technological structures; when one group's visibility comes at the expense of another's suffering. (Bowker & Star, 2000, p. 320)

Those in positions of power have vested interests in maintaining their established authority and, in some cases, in securing their own dominance through negating the empowerment of those whom they subjugate. Othering practices suit such agendas since, over time, they become embedded in the social order and, in turn, naturalized: "Seemingly purely technical issues like how to name things and how to store data in fact constitute much of human interaction and much of what we come to know as natural" (Bowker and Star, 2000, p. 326).

Race and Gender

Barriers that women have long faced in the music industry are, in many cases, similar to those faced by non-white performers. Garofalo explains that, in addition to pressures to assume personas based on stereotypes (ranging from angel to sex goddess to bitch), women have had to overcome obstacles pertaining to control over the technical processes, such as engineering and producing records, in an industry that remains overwhelmingly male-dominated (p. 12). Garofalo elaborates:

> ...As [women] they have achieved greater acceptance in the popular market, they have had to confront an industry infrastructure that is fully owned and operated by men whose ideas about career development

> frequently push them to conform to male stereotypes of how female performers should act and sound. In other words, like African Americans and other people of colour, women performers must confront norms and social practices that limit their development and chances for success. (2002, p. 13)

Following the work of philosopher Michel Foucault, Lampland and Star argue that there exists a range of means to reward and punish those who step outside of normative boundaries (p. 14). For example, successes that women artists enjoyed in the late nineties were markedly countered by the heavy misogynistic content of hyper-masculine albums and music videos, traversing musical genres (Garofalo, 2002, p. 12). Sexual assault, numerous rapes and other forms of violence, for example, are legacies of the "rage rocker" mentality that erupted in Woodstock '99. Garofalo surmises what Lafrance, Worcester and Burns went on to confirm about the significance of the decade's end:

> Perhaps it was the overwhelming success of Lilith Fair or the fact of so many Years of the Woman in a row, but 1999 definitely marked the beginning of a backlash. While even some of the female singer-songwriters like Alanis Morisette had been described as "angry" – in her case because of her Catholic schoolgirl torments and the uncensored lyrics of "You Oughta Know" – they did not compare to the fury that

issued from a collection of rock bands who were labelled "rage rockers" by the press. (p. 395)

The late 1990s saw many women rappers rising to fame following the tracks of a new generation of male gangsta rappers. Embracing their sexuality as a prime source of "power," these female artists sought to reclaim prevailing misogynistic terms, such as "bitch," as affirming signifiers of strength (Garofalo, 2002, p. 409). Accompanying the rise of gangsta rap and hip hop music, and coinciding with the timeframe of this study, is a tendency for black artists to prosper through various levels of each other's album production stages (Garofalo, 2002, p. 407). The potential might exist for Black culture to seize control within the hierarchy of the music industry by re-establishing its own rules; yet, even this may be an image purported by the controls of white corporate American to placate image-inspired audiences.

The term *crossover* refers to an artist's ability to achieve hit status in the mainstream market from a marginal category. The term is also used to indicate an artist's ability to achieve multiple genres of chart listings. Garofalo explains that many black artists and audiences see crossover as a choice that requires silencing aspects of themselves in order to achieve mainstream pop chart visibility. Markers of racial difference are minimized, and aspects of their black identity are relegated and streamlined toward universal appeal to mass audiences (p. 158). Alternately, over-emphasizing markers of racial difference can also racialize populations by

harnessing media-hype to portray illusions of power. Once again, this diverts attention away from the socially, economically and politically disadvantaged realities faced by vast members of the same populations. There exists a disparity between the power-laden images of success portrayed in music videos (as a distinct form of media) and the actualities of everyday racism and sexism.

Is it progressive and empowering to depict social advancements in representation as usual; or is it misleading, and, thus, further-damaging to imply that such advancements for marginalized populations are commonplace; when, in fact, exploitative social systems of hierarchy are upheld through orchestrating this very charade (Collins, 1990), thus privileging the dominant discourses of white, capitalist, heterosexual and patriarchal systems of power (hooks, 1992)?

As Dines and Humez argue, downplaying inequities negates their existence, and sends mixed messages to audiences that might come to perceive their social, economic and political subjugation as a result of individual ineptitude; without recognizing the systemic and hegemonic forces contributing to the obstacles they face as marginalized or oppressed peoples. Ignoring both gender and race relations oversimplifies realities; namely, that minority groups must work harder to prove themselves and do not carry the privileges associated with belonging to the status quo (2003, p. 4).

Interestingly, however, crossover does not only function through downplaying difference or minimising inequality. Indeed, Garofalo has described the success of white rapper Eminem; making the case for a different type of crossover: "...and, the more provocative the material, the louder the cheers from predominantly white audiences" (p. 411). This is a prime example of how, when deviance from the normative script does occur, only a privileged few are permitted to do so, without fear of ostracization (Brasfield, 2007). As Garofalo depicts:

> ...the shows were well produced and the audiences well behaved. The white rapper from Detroit had succeeded in turning himself into a superstar and, in the process, bringing the members of one of the most notorious groups in rap history to the attention of a new generation of middle-class teens. By the end of 2000, rap was capitalizing more than ever on its connections, both literal and metaphorical, to the street, even as it became more fully integrated into the social and corporate fabric of American life. (2002, p. 411)

It is necessary to distinguish race, as an organizing principle, from racism, which is a practice by which groups of people are stereotyped as inferior, and consequently experience various degrees of institutional oppression. "Postracial" refers to a social situation in which racial categories are rendered insignificant or meaningless (Esposito, 2009, p. 533). Yet, this confounds the fact that society has organized institutions such as government, schools, and popular culture around race

(Esposito, 2009, p. 521). Esposito surmises that being blind to difference inhibits opportunities for informed decision making (p. 522). By denying difference, hierarchies are naturalized and racialized groups are further silenced: "If race no longer matters, then people of all races have no ways of communicating about racial privileges and injustices, and instead, race becomes an uncomfortable topic. Should a white person speak of race, he or she is made to feel racist. Should a person of colour speak of race, he or she is made to feel angry" (Esposito, 2009, p. 523). Social constructions within popular culture become embedded when, as Mahon suggests: "The politics of race are central to the development, production, and consumption of popular music in the United States. Put simply, recording industry decision making feeds and is fed by assumptions about racial identity and musical taste (2004, p. 145)."

This paper will now proceed with its descriptive assessment of how race and gender function on and through popular music Billboard charts. For, popular culture is a powerful medium whereby social meanings and representations related to race and gender are both constructed and contested.

Research Methods

For this study, I work with two data sets – Billboard's Top 100 singles sales charts and its Top 100 airplay charts. These two data sets allow me to consider whether there were any differences between what people choose to listen to (as indicated by

the singles sales charts) and what is chosen for them (as indicated by the airplay charts). To make these data sets more manageable, I work with the top 40 songs of each chart for each year. Given near identical measures of central tendency and proportion, my statistical tests indicated that there were no significant differences between the 100 song samples and the 40 song samples. Frequency distributions are described by year, according to the race- and gender-based classifications of artists.

The Billboard charts compile their data by tracking sales using a technological device called Nielsen SoundScan. This device is similar to a barcode in that it registers exact unit counts when a product is purchased at SoundScan-enabled stores (Sernoe 640). Similarly, to track radio airplay, Billboard pays a number of key radio stations to use what is known as the Broadcast Data System. This system detects the songs played by these stations and adds them up at the end of each week for the purposes of determining airplay rankings[2]. Though Billboard's charting methods are not without criticism, their rankings are widely viewed as among the most important indexes of popular music in North America[3] (Lafrance, Worcester & Burns, 2011).

[2] On its website, Billboard maintains that factors such as time-of-day and audience size are also used to determine airplay rankings. See www.billboard.com for more on this topic.
[3] This choice of charts is all the more relevant given that both the Top 100 singles sales and the Top 100 airplay are component charts – that is, charts that determine the position of singles on the Billboard Hot 100. In the United States, the Billboard Hot 100 is the standard chart used to determine popularity of a song. Again, see www.billboard.com for more on this topic.

This analysis is based on two key variables – Race and Gender. The Race variable is divided into three categories: "Black," "White" and "Other." The "Black" category encompasses solo artists as well as groups, in which all are deemed Black. The "White" category encompasses solo artists as well as groups, in which all are deemed White. If two or more artists are the primary proprietors, and could be classified as racially different, they have been placed in the "Other" category – including combinations of Black with White artists. Based on the low (and sometimes nil) frequencies of certain racial categories (Latino, in most cases) over our time period, the term "Other" encompasses all artists who are neither straightforwardly Black nor White. Again, the song's featuring artists have been excluded, with focus given only to classification of primary proprietors.

The Gender variable is divided into three categories: "Male," "Male & Female" and "Female." The "Male" category encompasses solo artists as well as groups, in which all classify as male. The "Female" category encompasses solo artists as well as groups, in which all classify as female. Any song's featuring artists have been excluded, with focus given only to the classification of primary proprietors.

Coding for an artist's gender is more straightforward than attempting to determine her or his race; race being a much more contentious variable for which to code. The primary source of this study's race-based coding scheme comes from AMG's AllMusic database, where artists are classified in its biography section. This particular source was chosen because of its reputation for being the most

comprehensive, serious and detailed music reference site, widely accepted by listeners, consumers and industry professionals alike[4]. That said, however, even here the "race" of an artist is not always stated. Sometimes ethnicity, family ancestry, or only the city or country of birth is stated. For example, AllMusic only states the city of birth for artists such as Rihanna, Christina Aguilera and Mariah Carey. It does not explain that Mariah Carey's father is of African-American and Venezuelan descent and her mother is Irish-American[5]. In such cases, I ventured to the artist's official website. If ethnicity or race was not explained there, I resorted to the Wikipedia website and proceeded to the best of my knowledge.

This study is limited by the nominal, as opposed to interval-ratio, nature of its key variables. Dealing with these low-level, descriptive variables disallows the making of inferences outside this sample. What follows here, then, is purely a description of race- and gender-related trends that have characterized the Billboard charts over the time spanning 1997 to 2007. Attempting to categorize individuals by race and gender is, as I have already discussed, inherently problematic; yet, doing so can also permit an analytic framework to exist, in which information can be extracted that might otherwise be obscured – including, for example, observations of how perceptions of equality may deviate from the realities shared by distinct populations.

[4] For more information the reader can consult www.allmusic.com.

[5] Mariah Carey is coded as "Other."

Race and Hit Song Frequency Distributions on the Billboard Top 40 Charts

Race and Hit Song Frequencies by Year on the Top 40 Sales Charts

Graph 1A shows that Black artists top the charts in five years of our sample (1997, 1998, 1999, 2001, 2006). White artists top the charts in four years of our sample (2000, 2002, 2003, 2004). Hit songs by Black artists are at their highest at the end of the millennium, dominating the sales charts with the most hit songs in 1997 and 1998. With 27 hits, this surpasses White artists by a difference of 20 and Other artists by a difference of 21 total hits, in each of the two years in question. Interestingly, just as Black artists are at their pinnacle, White artists face their lowest number of hit songs (N=7). Overall, Black artists accumulate the greatest number of hit songs (N=197), followed by White artists (N=152), then Other artists (N=91) over the course of the decade.

The years from 1998 to 2000 appear to be important in terms of race-related trends. Here we see the number of hit songs by Black artists decrease dramatically from 27 in 1998 to a penultimate low of 13 in 2000; a striking difference of 14 hits over the three-year period. Alternatively, this is precisely when the number of White hits rises to a high of 18 (2000). The prime movers behind this upward trend for White artists include Madonna, Faith Hill, Britney Spears and Jessica Simpson, all of whom are female.

Other artists peak at 13 hit songs in both 1999 and 2001. Potentially paving the way for this apex are breakthroughs onto the 1999 Billboard scene coming from the Other artists, each with Latino roots, like: Christina Aguilera with her #5 hit, *Genie In A Bottle*; Jennifer Lopez with her #8 hit, *If You Had My Love*; Ricky Martin with his #9 crossover hit, *Livin' La Vida Loca*; and Enrique Iglesias with his #27 crossover hit, *Bailamos*. Over the course of the decade, Other artists maintain enough of a chart presence to rival those of both the Black and, particularly, the White categories.

Black artists experience their low of 12 hits in 2003. Contrasting these years with 1997 and 1998, when Black artists are at their peak (N=27), R. Kelly is an artist who continues to thrive despite declining sales in the early postmillennium. Indeed, R. Kelly's *I Believe I Can Fly* is at #5 in 1997 and his single *Ignition* reaches #18 in 2003. Black artists steadily climb the charts again from 2004 to 2007. Throughout these years, and across the races, black female artist Beyoncé accumulates the most hits (N=10), followed by white female artist Madonna with an accumulation of five hits. By the end of the decade[6], White artists match Black artists with 18 hit songs, leaving Other artists at their low of four hits. The noteworthy White artists spearheading the latter years are Katharine McPhee, tobyMac, Taylor Hicks, Carrie Underwood and Bo Bice – all of whom starred on the reality television show *American Idol*[7].

[6] This analysis covers a time spanning 11 years, despite the use of the term "decade."

[7] As of 2007, the American Idol franchise had sales of an estimated 23 million albums, according to Nielsen SoundScan (Rosen, 2007). There exists a tension, however, between the contestants that emerge as pre-packaged "pop stars" and the music industry, where hip-hop and pop-rock artists

We can use **Table 1** to determine that the number of hits by White artists exceeds the number of hits by Other artists in nine of the 11 years in question. When White hits outnumber Other hits, the spread can be as great as 14 songs. Yet when Other hits outnumber White hits, the spread is no greater than four songs. This suggests that White artists have higher highs and lesser lows when compared to Other artists. In addition, **Table 1** shows that Black artists peak in 1997 and 1998 with 68% of the hits (N=27) in both years and dip in 2003 to 30% (N=12) of that year's sales market share. White artists, however, peak in 2000, 2004 and 2007 with 45% of the hits (N=18) in each of the three years, and are at their lowest in 1997 and 1998 with 10% of the hits (N=4). These findings indicate that Black artists have more extreme highs and less extreme lows than White artists.

---

dominate the radio (Rosen, 2007). Top 40 music is current, racy and edgy, whereas American Idol promotes old and classic pop music (Taylor, 2004), geared to a more family-based audience.

Some radio executives imply that the music identified with many American Idol contestants is out of touch with Top 40 trends (Taylor, 2004). They argue that, despite the show's popularity, television and radio are not programmed to serve the same audience; suggesting this as the reason for "tepid" radio airplay of American Idol hits (Taylor, 2004). On the other hand, the artists that emerge from American Idol have a head start in public relations, already possessing a strong fan base through mass television and media exposure. Eventually, however, they have to compete as new recording artists capable of thriving beyond the one-hit wonder. To assist with radio airplay, it is important that post-"Idol" artists are matched with the right songs and appropriate collaborators (Taylor, 2004).

The emergence of American Idol as a phenomenon has changed the way hits are made in popular culture. The initial singles by the winner and the runner-up are rush-released to the market (Rosen, 2007). From here, full albums are released about six months after the show's end. The schedule is tight, coinciding with promotion concert tours (Rosen, 2007). It is the record company's process of selecting potential hits and the subsequent airplay that helps push contestant releases into platinum sales (Rosen, 2007). It has been stated, however, that their on-air successes are hardly representative of a collection of singers that have received an "overwhelming vote of confidence by the general public" (Taylor, 2004).

Race and Hit Song Frequencies by Year on the Top 40 Airplay Charts

For Black artists, airplay charts correspond to sales charts in 2000, when the number of hit songs dips to a penultimate low (N=11 for airplay; N=13 for sales), before rising again in 2001 (N=18 for both charts). **Graph 2A** shows that a considerable departure from the sales trends occurs in the first two years of the decade, then again after 2002. Though Black artists experience a major nine-song decline from 1998 to 1999 on the sales charts, the airplay charts reveal the opposite – a corresponding rise of nine songs over the same years. From 2003 onward, Black airplay chart success surges while its sales chart success rises only gradually.

When we consider peak scores, we see that Black artists peak in 2007 with 26 hits while White artists peak in 1998 with 26 hits. For White artists, this is a major divergence from their corresponding low of seven hits on the sales charts in 1998. White artists' hit songs peak on the airplay charts near the beginning of the decade, while Black artists' increasingly rise throughout the latter half of the decade. In contrast, Black artists peak at the beginning of the decade on the sales charts and at the end of it on the airplay charts. The line graphs representing Black and White artists suggest a symmetrical rhythm; reciprocating hits back and forth throughout the decade.

We can use **Table 2** to determine that the number of hits by Black artists exceeds those of White artists in eight of the 11 years in question. On the sales charts,

however, the number of Black hits exceeds the number of White hits in five of the 11 years. In this respect, then Black artists appear to do better on the airplay charts than on the sales charts. In fact, it is only during 1997, 1998 and 2000 that White artists surpass Black artists, by margins of 10, 17 and eight, respectively, on the airplay charts. Yet when the number of Black hits exceeds the number of White hits on these same charts, the difference is consistently larger than 9 songs throughout the latter half of the decade (2003, 2004, 2005, 2006, 2007). In other words, for five years straight, Black artists always vastly outperform White artists on the airplay charts. Race-related trends such as these are made especially clear in 2004, which is an intriguing year insofar as the total number of Black hits is steady at its two-year penultimate high of 22, while the total number of White hits plummets to a low of seven. The airplay chart's top Black artists in 2004 are Usher followed by OutKast and Mario Winans. The top White artists in the same year include Maroon5, 3 Doors Down and Nickelback. When White hits outnumber Black hits, the spread can be as great as 17 songs (1998). When Black hits outnumber White hits, the spread reaches 15 songs, yet it occurs twice within the decade (2004, 2006). From this, we might surmise that Black artists have more consistent highs than do White artists on the airplay charts.

Other artists never outperform Black artists on either sales or airplay charts. Alternatively, there are three years on the airplay charts during which the Other category surpasses the White category (1999, 2004, 2006). Leading Other artists during these years include Christina Aguilera, Alicia Keys and NeYo, respectively. This is in contrast to the sales charts, where there are two years during which the

Other category surpasses the White category (1999, 2001). Despite a lack of chart presence, as compared to the Black and White artists, Other artists are not a negligible force, given that they will occasionally exceed the number of White hits on both sales and airplay charts.

Summary: Race on both Top 40 Charts

Across the decade, Black artists collectively capture 45% (N=197) of total chart presence, White artists 35% (N=152), and Other artists almost 21% (N=91). Comparing **Table 1** to **Table 2**, we see Black artists commanding close to 45% of both sales and airplay charts; White artists occupying between 33 and 35% of both charts; and Other artists leading the sales charts at 21 to airplays' 22%. In terms of overall percentage, each race's sales chart presence closely matches its airplay chart presence. It is interesting to note that these race-based findings differ from the gender-based findings of Lafrance, Worcester and Burns (2011). The original study points to considerable gender differences between the frequency distributions of hit songs when comparing the sales charts to airplay charts. Specifically, male hits on both the sales and the airplay charts exceed female hits by a wide margin. Furthermore, while both charts are characterized by considerable gender inequality, the latter is characterized by considerably more gender inequality than the former.

On the sales charts, Black artists peak while White artists are at a low in 1997 and 1998. On the airplay charts, the converse is true; White artists peak while Black

artists are at a low (1998). The sales charts graphically depict Black and Other categories as travelling in tandem across the years from 1999 to 2002. Similarly, airplay charts graphically depict Black and Other categories as travelling in tandem across the years from 1997 to 2002. During these time frames, when the frequency of hit songs rises for Black artists, it rises for Other minority groups too, and vice versa. Periods exist when the successes of Black artists seem to come at the expense of White artists, on both charts.

Gender & Race and Hit Song Frequency Distributions on the Billboard Top 40 Charts

Gender by Race on the Sales Charts

Male by Race

Graph 3A shows that Black male artists have their strongest chart presence during the first two years of the decade; reaching their peak in 1998 (N=21). Their lowest standing is seven hits (2003). The leading Black male artists at their peak are Next, Puff Daddy & The Family and Usher. White male artists peak in 2007 with 13 hit songs and have their lowest standing in 2001 with two hits. At their peak, the leading White male artists are tobyMac, The Fratellis and Jeff Foxworthy. These findings indicate that Black males have more extreme highs and less extreme lows than their White male counterparts.

Black male artists dominate White male artists in 8 of the 11 years in question, and they dominate Other male artists throughout the decade. White male artists match Other males once (2001), during White males' lowest point (N=2), and outnumber Other males' hit songs throughout the rest of the decade. Other male artists have a range of one to three hit songs in eight of the 11 years in question. Leading the pack in 2002, with five hits, are Other males N'Sync, Strik 9ine and DJ Sammy & Yanou. Despite having only one or two hits through the majority of the decade, Other males are nevertheless represented on the sales charts in every year of the timeframe.

Female by Race

Graph 3B indicates that, unlike the males, no one female race clearly dominates the other. Black female artists surpass White and Other females during the first years (1997, 1998), then the final year, of the decade. White female artists surpass Black and Other females through most of the postmillenium (2002 to 2006). Other female artists surpass Black females in 2001, 2002 and 2003, and surpass White females in 1997, 1999 and 2001. Race does not appear to be a major predictor of success when it comes to female artists; for males, however, this is not the case.

The highest peak (N=10) belongs to White female artists (2004), with a spread of seven hit songs from each of their three lowest years (1997, 1999, 2007). The leading White female artists at this time are Diana DeGarmo, Kimberly Locke and

JoJo. Black female artists peak at eight hits (1997, 1999, 2007) with a spread of four hits from each of their three lowest years (2002, 2005, 2006). The top Black female artists in 1997, 1999 and 2007, respectively, are Toni Braxton, with her #4 ranking single *Un-Break My Heart*; Deborah Cox, with her #2 ranking single *Nobody's Supposed To Be Here*; and Beyonce's *Irreplaceable* at #3. Other female artists peak at nine hits (2001) with a spread of eight hits from their lowest year in 2007. In 2001, the top Other female artists are Mariah Carey, Eden's Crush and Olivia. The highest number of hit songs among White, Black and Other female artists are 10, nine and eight, respectively. In contrast, the highest number of hit songs among White, Black and Other males are 13, 21 and five, respectively. Indicators of female sales rankings based on racial distinctions are not as prominent as they are for men.

Male-Female Group by Race

Graph 3C reveals that, regardless of race, male-female groups have the lowest presence on the sales charts. The highest number of song hits (N=2) is achieved by Other male-female groups, occurring in two of the 11 years in question (2001, 2003). Their top singles in each of these years, respectively, are City High's #8 single *What Would You Do?*; and American Idol Finalists' #4 single *God Bless The U.S.A.*. Male-female groups failed to chart at one point in the decade, in the year 2000.

White male-female groups peak at two songs twice (2006, 2007). Their highest-ranking singles belong to Goldfrapp and Mindless Self Indulgence. Black male-female groups peak at one hit song five times over the course of the decade. Their highest-ranking singles belong to Puff Daddy & Faith Evans, Mo Thugs Family, Jonell & Method Man and Janet & Nelly. Black male-female groups lack any chart presence in six of the 11 years; White male-female groups in eight of the 11 years; and Other male-female groups in three of the 11 years. Hence, Other male-female groups have more chart presence than do their corresponding Black and White counterparts.

Summary: Gender by Race on the Sales Charts

Tables 3A and **3B** display an overall summary of racially categorized hit song frequencies, as broken down by gender, based on sales. Among solely Black artists, males' 130 hit songs occupy 66% of the charts; females' 62 hits occupy 31% of the charts; and male-female groups' five hits occupy 3% of the charts. Among solely White artists, males' 81 hit songs occupy 53% of the charts; females' 66 hits occupy 43% of the charts; and male-female groups' five hits occupy just over 3% of the charts. Among solely Other artists, males' 27 hit songs occupy 30% of the charts; females' 54 hits occupy 59% of the charts; and male-female groups' 10 hits occupy 11% of the charts. In sum, hits belonging to Black male artists more than double those of Black female artists; while hits belonging to White male artists are 10% more than White female artists (based on White sales alone). So, data from

the airplay charts reveal greater gender disparity among hits belonging to Black artists than among White artists; a finding that is consistent with the sales charts.

Race by Gender on the Sales Charts

Black by Gender

By 1998, Black male artists lead the number of hit songs (N=21) by margins of 15 and 21 hits against Black females and Black male-female groups, respectively. **Graph 4A** displays Black male artists outperforming Black females in all years. In fact, Black male artists' lowest number of hits (N=7) is only one song less than Black female artists' greatest number of hits (N=8). Throughout the decade, the number of hit songs for Black female artists ranges from four to five hits, in seven of the 11 years in question. Black male artists uphold prominent success on the sales charts while Black female artists have a steady stream of hits, albeit without the soaring peaks that their male counterparts achieve.

Black male-female groups chart in less than half of the decade, and only ever with one hit song at a time (1997, 1999, 2002, 2006, 2007). In chronological order, charting songs are: Puff Daddy & Faith Evan's #2 single *I'll Be Missing You*; Mo Thugs Family's #21 single *Ghetto Cowboy*; Jonell & Method Man's #12 single *Round & Round*; and Janet & Nelly's #8 then #21 single *Call On Me*. Black male-

female group hit songs never outnumber, or even match, those of Black males or Black females.

White by Gender

Graph 4B shows that White male hit songs rival those of White females for the majority of the decade. White male artists experience a major drop from 10 to a low of two hit songs in 2001, and peak at 13 hits in 2007. At this peak, the highest-ranking White male artists are tobyMac (#5), The Fratellis (#9) and Jeff Foxworthy (#10). White female artists' lows of three hits occur in 1997, 1999 and 2007; they peak at 10 hits in 2004. At this peak, the highest-ranking White female artists are Diana DeGarmo (#3), Kimberly Locke (#6) and JoJo (#7). With an overall range of 11 hits, White male artists weather greater and lesser degrees of successes than White female artists with their overall range of seven hits.

White male-female groups only chart over the course of three years (1999, 2006, 2007); failing to chart 73% of the time. Twice peaking at two hit songs (2006, 2007), the top White male-female group singles belong to Mindless Self Indulgence with *Straight To Video* at #29 then #30. White single artists always dominate White male-female groups.

Other by Gender

Graph 4C shows that hit songs by Other female artists outnumber Other males' in each year but two; matching them in 2002 (N=5) and having one less hit song in 2007 (N=1). Other female artists peak at 9 hits in 2001. The top Other females at this time are Mariah Carey with her #1 single *Loverboy*; Eden's Crush with their #3 single *Get Over Yourself*; and Olivia's *Bizounce* at #10. Other male artists peak at five hits in 2002. The top Other males at this time are N'Sync with their #5 single *Girlfriend*; Strik 9ine with their #22 single *Dansin Wit Wolvez*; and DJ Sammy & Yanou's *Heaven* at #28. The Other category is the only one in which the number of hit songs by Females (N=54) surpasses, and even doubles, those of Males (N=27).

Other male-female groups fail to chart in three of the 11 years (1997, 2000, 2002); achieving sales chart status 73% of the time. They peak at two hit songs twice during the decade (2001, 2003). The top Other male-female groups in each of these respective years are: City High with *What Would You Do?* (#8); and American Idol Finalists with *God Bless The U.S.A.* (#4). Other male-female artists match Other male artists four times (2001, 2004, 2005, 2006). They match Other females once, in 2007 (N=1), during Other females' lowest year. Amongst the three racial designations, male-female groups have the strongest chart presence within the Other category.

Summary: Race by Gender on the Sales Charts

Table 5 depicts an overall summary of hit song frequencies, as categorized by gender, then broken down by race, based on sales. Among males alone, Blacks artists' 130 hit songs occupy 55% of the charts; White artists' 81 hits occupy 34% of the charts; and Other artists' 27 hits occupy 11% of the charts. Among females alone, Black artists' 62 hit songs occupy 34% of the charts; White artists' 66 hits occupy 36% of the charts; and Other artists' 54 hits occupy 30% of the charts. Among male-female groups alone, Black artists' five hit songs occupy 25% of the charts; White artists' five hits occupy 25% of the charts; and Other artists' 10 hits occupy 50% of the charts. In sum, hits belonging to male artists who are Black are over 20% more than those belonging to male artists who are White (based on male sales alone); while hits belonging to female artists who are Black are 2% fewer than female artists who are White (based on female sales alone). There appears to be greater race disparity among hits belonging to male artists than among female artists, on the sales charts.

Summary: Sales Charts

Male-female groups experience the most success when led by Other artists. Black male artists outnumber Black female artists by over double the number of hits; and White male artists exceed White female artists by 10% the number of hits. Other male-female groups are twice as likely to have hit songs than are their Black and

White counterparts. Black and White female artists closely rival each other's number of hit songs. Black male artists are almost five times as likely to have a hit song than are Other male artists, and White male artists are three times as likely to have a hit song than are Other male artists.

Gender by Race on the Airplay Charts

Male by Race

Graph 5A indicates that White male artists lead the airplay charts in 1997 (N=10) and peak with 15 hit songs in 1998. Despite the dip in 2004, they fluctuate between five and eight hits from 2001 onward. Black male artists, however, climb the charts, steadily surpassing White and Other males from 2001 onward. Black males peak at 22 hits in 2007, outnumbering White males by a margin of 14 and Other males by a margin of 21 hits. Other males match Black males once, in 2000, with six hits; of note, this happens to be the lowest point of the decade for Black male artists. Only in 2004 do Other males surpass White males, by only one hit song. Interestingly, Black male artists have their best showings on the sales charts at the beginning of the decade, and have their best showings on the airplay charts throughout the latter half of the decade.

Female by Race

Graph 5B reveals that White female artists rule the airplay charts during the first two years of the decade; peaking at 10 hit songs each year. This surpasses Black female artists by margins of seven and eight, respectively. Other female artists surpass Black females twice in the decade (2001, 2006), and match Black female hits over the course of four years (1997, 1999, 2004, 2005). Other females surpass White females over the course of five years (1999, 2001, 2003, 2004, 2006). Other female artists are not a negligible force, as they rival both Black and White female artists at various times throughout the decade.

Airplay chart spreads are similar to those of the sales charts: Black females have a spread of six airplay hits to four sales hits; White females have a spread of eight airplay hits to seven sales hits; and Other females have a spread of seven airplay hits to eight sales hits. Success on the airplay charts appears to mirror success on the sales charts for female artists.

Male-Female Group by Race

Graph 5C identifies Other male-female groups peaking at two hit songs over the course of three years (2003, 2004, 2005), and failing to chart over five distinct years. Black male-female groups peak at one hit song three times, and White male-female groups peak at one hit song six times; both failing to chart over the remainder of the

decade. At a total of nine hit airplay songs, Other male-female groups outnumber Black and White groups by margins of six and three, respectively. At a total of 10 hit sales songs, Other male-female groups outnumber Black and White groups each by margins of five songs. Other male-female groups dominate Black and White groups on both the sales and airplay charts.

Summary: Gender by Race on the Airplay Charts

Tables 4A and **4B** display an overall summary of racially categorized hit song frequencies, as broken down by gender, based on airplay. Among solely Black artists, males'141 hit songs occupy 72% of the charts; females' 52 hits occupy 27% of the charts; and male-female groups' three hits occupy 2% of the charts. Among solely White artists, males' 89 hit songs occupy 60% of the charts; females' 53 hits occupy 36% of the charts; and male-female groups' six hits occupy 4% of the charts. Among solely Other artists, males' 41 hit songs occupy 43% of the charts; females' 46 hits occupy 48% of the charts; and male-female groups' 9 hits occupy 9% of the charts. In sum, hits belonging to Black male artists are 45% more than those belonging to Black female artists (based on Black airplay alone); while hits belonging to White male artists are 24% more than White female artists (based on White airplay alone). There appears to be greater gender disparity among hits belonging to Black artists than there is among White artists, on the airplay charts.

Race by Gender on the Airplay Charts

Black by Gender

Consistent with the sales charts, **Graph 6A** shows that Black female hits range from four to five songs for the majority of the decade. Also regular with the sales charts, Black male artists outperform the other two categories throughout the decade. The year 2000 is the lowest point for Black male artists (N=6); their highest point being at 22 hits in 2007. Black females have a high of eight songs (1999) and a low of two songs (1998). At their peaks, the top Black male artists (2007) are T-Pain, Akon and Lloyd; and the top Black female artists (1999) are Deborah Cox, Whitney Houston and Monica. Black male artists dominate both the sales and airplay charts, yet Black female artists maintain a considerable degree of stability, on both charts, for a majority of the decade.

Black male-female groups chart at one airplay hit in three of the 11 years (1997, 1999, 2001); failing to chart 73% of the time. These groups, in chronological order, are Puff Daddy & Faith Evans with their #19 single *I'll Be Missing You*; Mo Thugs Family with their #21 single *Ghetto Cowboy*; and City High's *What Would You Do?* at #36. Over the course of the decade, only three Black male-female groups appear on the airplay charts, each with one hit song.

White by Gender

Graph 6B reveals White male artists outperforming White male-female groups throughout the decade, and outperforming White female artists in every year, less two (1997, 2005). During 1997 and 2005, White females match White males at 10 then five hit songs, respectively. White females also outperform White male-female groups throughout the decade. White males accumulate a total of 81 hits on the sales charts, compared to their 89 hits on the airplay charts. White females accumulate a total of 66 hits on the sales charts, compared to their 53 hits on the airplay charts. White males dominate White females on both charts, but by a greater margin on the airplay charts.

White male-female groups achieve one hit song in six of the 11 years; failing to chart the remainder of the time. White males peak at 15 hits (1998) and have a low of four hits (2004). White females peak at 10 hits (1997, 1998) and have a low of one hit (2003, 2004). White males' highs are within five hits of White females' highs, yet White males' low is three hits above those of White females. The top White male artists in 1998 are Savage Garden, Matchbox 20 and Goo Goo Dolls. The top White female artists are Jewel (1997) with her #2 single *You Were Meant For Me*, and Natalie Imbruglia (1998) with her #2 single *Torn*. White male artists have more extreme highs and less extreme lows than do White females.

Other by Gender

Graph 6C identifies Other males outperforming Other females over the course of five years on the airplay charts, as opposed to once on the sales charts (2007). Twice peaking at six hit songs, Other male artists are headed by Santana (2000) and The Calling (2002). Twice peaking at eight hits, Other female artists are headed by Christina Aguilera (1999) and Jennifer Lopez (2001). Thrice peaking at two hits, Other male-female groups are headed by Busta Rhymes & Mariah Carey (2003); and Usher & Alicia Keys (2004, 2005). Females comprise 48% (N=46) of the Other airplay market; males 43% (N=41); and male-female groups 9% (N=9). On the sales charts, the percentages are 59% (N=54) for females, 30% (N=27) for males, and 11% (N=10) for male-female groups. Other females fare slightly over 10% better on the sales charts; Other males fare 13% better on the airplay charts; and Other male-female groups fare 2% better on the sales charts.

Summary: Race by Gender on the Airplay Charts

Table 6 depicts an overall summary of hit song frequencies, as categorized by gender, then broken down by race, based on airplay. Among males alone, Black artists' 141 hit songs occupy 52% of the charts; White artists' 89 hits occupy 33% of the charts; and Other artists' 41 hits occupy 15% of the charts. Among females alone, Black artists' 52 hit songs occupy 34% of the charts; White artists' 53 hits occupy 35% of the charts; and Other artists' 46 hits occupy 30% of the charts.

Among male-female groups alone, Black artists' three hit songs occupy 17% of the charts; White artists' six hits occupy 33% of the charts; and Other artists' nine hits occupy 50% of the charts. In sum, hits belonging to male artists who are Black are almost 20% more than those belonging to male artists who are White (based on male airplay alone); while hits belonging to female artists who are Black are 1% fewer than female artists who are White (based on female airplay alone). There appears to be greater race disparity among hits belonging to male artists than among hits belonging to female artists, on the airplay charts. In other words, race seems to be a more reliable indicator of success for male artists than it is for female artists.

Summary: Airplay Charts

Male-female groups experience the most success when led by Other artists. Black male artists outnumber Black female artists by a difference of 45% more hits (based on Black airplay alone); while White male artists exceed White female artists by almost 25% the number of hits (based on White airplay alone). Other male-female groups are three-times as likely to have hit songs than their Black counterparts, and 1.5 times as likely to have hit songs than their White counterparts. Black and White female artists have virtually the same number of hit songs. Black male artists are almost 3.5 times as likely to have a hit song than Other male artists, and White male artists are over twice as likely to have a hit song than Other male artists. As well, consistent with the findings of Lafrance, Worcester and Burns (2011), while total

male hits on both the sales and the airplay charts exceed total female hits by a wide margin, the airplay charts are characterized by considerably more gender inequality than the sales charts.

Summary: Race and Gender on both Top 40 Charts

On the sales charts, Black artists capture 45% (N=197) of total chart presence, White artists 35% (N=152), and Other artists 21% (N=91). Alternately, male artists capture 54% (N=238) of total sales chart presence, females 41% (N=182), and male-female groups 5% (N=20). On the airplay charts, Black artists collectively command 45% (N=196) of total chart presence, White artists 34% (N=148), and Other artists almost 22% (N=96). Alternately, male artists command 62% (N=271) of total airplay chart presence, females 34% (N=151), and male-female groups 4% (N=18). **Tables 3A, 3B, 4A** and **4B** are the tools used to draw these conclusions.

Comparing **Table 5** to **Table 6** helps to determine that, regardless of race, solo male and female artists always achieve both sales *and* airplay chart status; yet, all three of the racial categories have years in which male-female groups fail to achieve both sales *and* airplay chart status. Black artists achieve a consistent 45% of the race market share across both sales and airplay charts; to a lesser extent, White and Other artists also realize consistent percentages of the market share across both charts. While male artists achieve 8% greater success on the airplay charts than they do on the sales charts, female artists realize 7% greater success on the sales

charts than they do on the airplay charts. This difference is minute for male-female groups. These findings reveal that the percentages of Billboard market success are consistent across sales and airplay charts for racial categories; whereas, the same degree of consistency cannot be said of the gender categories. Furthermore, both charts reveal less variability (and in keeping with the premise of this study, more equality) across the sexes for White artists than for Black artists; and more equality across the races for female artists than for male artists.

Discussion

It is noteworthy to recognize that each race's proportion of sales chart presence is consistent with its airplay chart presence. Likewise, a consistent level of hierarchy prevails; with Black artists outranking White artists, and both outranking Other artists. The same level of stability across charts is less prominent with respect to gender. Male artists fare better on airplay charts than they do on sales charts, while the inverse is true of female artists. Furthermore, findings from the original study by Lafrance, Worcester and Burns (2011) reveal that all gender-related trends are much more pronounced on the airplay charts than they are on the sales charts, indicating that the music individuals choose to listen to is more gender-diverse than that chosen by mainstream radio. The present study suggests that racial categories may be more likely to achieve indicators of success than those of gender.

For males, Black artists significantly surpass White artists, with respect to overall number of hit songs, on both charts. Such differences are not prominent, however, where White females outrank Black females on both music charts. This suggests that a racial divide is more prevalent among males in the music industry, than it is among females. Furthermore, the dramatic surge in airplay chart success by Black male artists toward the end of the decade indicates that there has come to be more race variability on the sales charts for male artists.

An artist that is categorically Other has double the chance of sales chart success if female; whereas, the lead by Other females over Other males is not as pronounced on the airplay charts. A cluster of years exists where Other artists travel in tandem with Black artists. The time span coincides over the course of both charts, although it begins two years earlier on the airplay charts. This suggests that airplay factors have led the sales markets in such a way that Other minority groups mirror the successes (and pitfalls) of Black artists.

Sales chart indicators point to what individuals choose to listen to; whereas, airplay chart indicators point to what is imparted by mainstream radio stations. So, while these findings imply layers of inequality between the sexes and amidst the races, any lack of difference between the sales charts and the airplay charts suggests that the music individuals buy for themselves is in keeping with airplay influences. It is not insignificant to note that airplay selections are, in a large part, music mandated

by an increasingly centralized corporate mass media (Lafrance, Worcester & Burns, 2011).

Race-related patterns are evident in this data, yet deductions based on these findings is, alas, problematic. According to this study, Black artists dominate the charts, yet few would contest that non-White populations do not have access to the same degrees of social, political and economic opportunities as Whites. This calls into question whether this paper's guiding assumptions were correct; in other words, assuming that race and gender equality could be measured in the same way has been a misapprehension.

Frequency distributions are not a reliable indicator of equality. If they were, then the findings presented in this paper would suggest that equality exists between Blacks and Whites, inasmuch that we could then draw parallels between pop-culture popularity and corresponding measures pertaining to standards of living and quality of life. A key difference between this study on race and the preceding study on gender is that, for distinctive racial groups, gender is integrated with, and not distinct from, race and culture. Experiences of on-going subjection to sexism and racism are intertwined; both having been historical tools of colonization by the dominant group (white, male, heterosexual) that persists today. To presume any differently would be at odds with the realities of many African American and non-White populations.

A potential ramification of denying the distinctions that privilege (McIntosh, 1990) the dominant group's ease of access to social, political and economic capital is that an illusion of equality manifests whereby multicultural differences no longer shape our thinking or actions. Re-directing attention from certain groups' access to cultural privilege overlooks patterns of discrimination and injustice. Examples of such injustices include: restricted rights and freedoms, poverty, under-representation, historical and political silences, harassment, objectification and violence. Ignoring difference naturalizes hierarchy to the advantage of the dominant group's sense of experience and culture.

Conclusion

This study of the Billboard Top 40 single sales and airplay charts for the period spanning from 1997 to 2007 allows me to claim that race and gender inequality do characterize the realm of popular music. Furthermore, race-related trends are consistent across both sales and airplay charts. Concurring with the conclusions of the original study, gender-based trends play a substantial role in these findings - male hits on both the sales and the airplay charts exceed female hits by a wide margin. More specifically, the original findings have demonstrated that: (1) male artists have more extreme highs and less extreme lows than female artists; (2) men's worst showings of the decade are often just a few hits away from women's best showings; and (3) when male hits surpass female hits, the difference is

substantially larger than when female hits surpass male hits (Lafrance, Worcester & Burns, 2011).

Despite its limitations, it is necessary to code for race and gender when the data can be used as a tool for identifying important social and cultural trends. Patterns do exist, such as when one group's successes continually come at the expense of another group; or, when significant departures from the norm occur, analysts may then pinpoint key events that might be contributing factors.

The data presented here have elucidated interesting phenomena, yet the limitations exposed are far from trivial. Using frequency distributions as an indicator of equality was appropriate for analyzing gender (Lafrance, Worcester & Burns, 2011); however, transferring the method to draw conclusions about race is problematic. Decades of social science research illuminate the extent to which Black populations lack access to the vast privileges associated with being perceived as categorically White (Bashi, 1998; Collins, 1990; hooks, 1992; McIntosh, 1990). Even though Black artists dominate the music charts for the majority of the decade, their great success does not translate to strong social equality. There are, in other words, ghettos at work in the American music industry – ghettos that tend to align artists of particular races with distinct types of popular music culture. In societies where multiculturalism is promoted, racism does not necessarily disappear; it merely takes more cleverly disguised forms (Pegley, 2002; Rutherford, 1990).

This paper augments the Lafrance, Worcester and Burns study by considering Race in addition to Gender. Race, however, is a marker that traverses gender, rendering perceptions and experiences attributed to race as inextricable from those attributed to gender. Here, frequency distributions have not been effective indicators of equality when making inferences about race. Attempts to propose alternate indicators of equality go beyond the scope of this paper.

Race-related patterns are evident, yet their interpretation cannot model the manner that gender-related patterns were deduced in the first paper. A follow-up to this study would explore how to use the data presented here to draw sound conclusions about race relations and popular music today.

Acknowledgements

I wish to express my sincere thanks to Professor Lori Burns for her guidance, and to Professor Marc Lafrance for his time, energy and encouragement through the construction of this study. I am also grateful to Lara Worcester for her original data keeping records, as well as for her effective responses to my queries. Alas, I am thankful for the data verification expertise and unwavering support of Stephen Durr.

Appendix

Graph 1A
Race by Year on the Top 40 Sales Charts

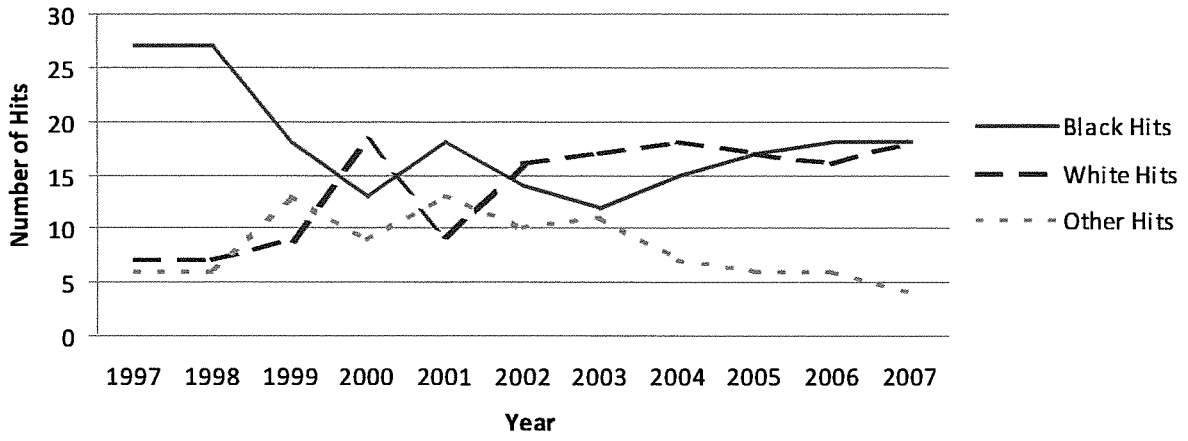


Table 1
Annual Number of Hits on Sales Charts

Year	Black Hits	White Hits	Other Hits
1997	27	7	6
1998	27	7	6
1999	18	9	13
2000	13	18	9
2001	18	9	13
2002	14	16	10
2003	12	17	11
2004	15	18	7
2005	17	17	6
2006	18	16	6
2007	18	18	4
Total:	**197**	**152**	**91**

Graph 2A
Race by Year on the Top 40 Airplay Charts

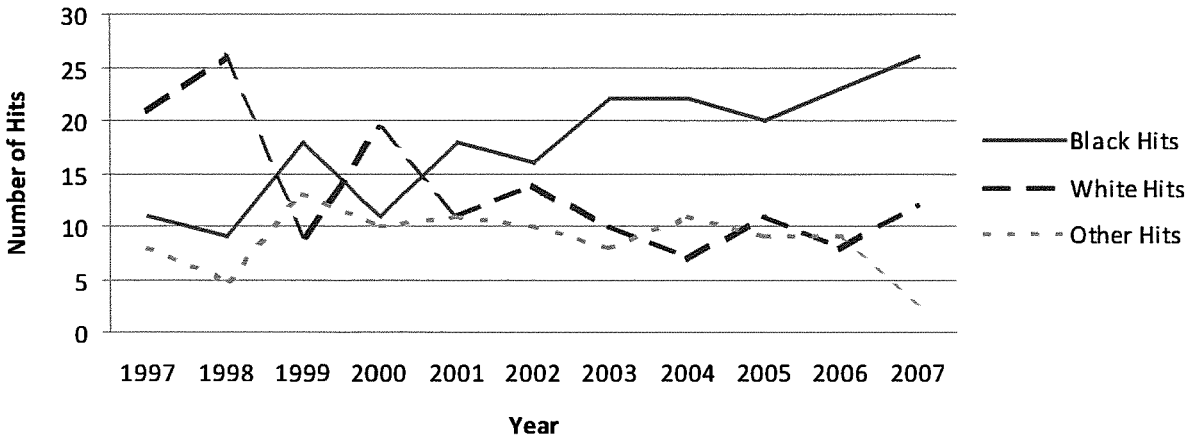


Table 2
Annual Number of Hits on Airplay Charts

Year	Black Hits	White Hits	Other Hits
1997	11	21	8
1998	9	26	5
1999	18	9	13
2000	11	19	10
2001	18	11	11
2002	16	14	10
2003	22	10	8
2004	22	7	11
2005	20	11	9
2006	23	8	9
2007	26	12	2
Total:	**196**	**148**	**96**

Table 3A

Gender by Race on the Top 40 Sales Charts: Vertical Totals

	Black	White	Other
Male	130	81	27
	65.99%	53.29%	29.67%
Male-Female Group	5	5	10
	2.54%	3.29%	10.99%
Female	62	66	54
	31.47%	43.42%	59.34%
Total:	197	152	91
	100.00%	100.00%	100.00%

Table 3B

Gender by Race on the Top 40 Sales Charts: Horizontal Totals

	Black	White	Other	Total
Male	130	81	27	238
	54.62%	34.03%	11.34%	100.00%
Male-Female Group	5	5	10	20
	25.00%	25.00%	50.00%	100.00%
Female	62	66	54	182
	34.07%	36.26%	29.67%	100.00%

Table 4A

Gender by Race on the Top 40 Airplay Charts: Vertical Totals

	Black	White	Other
Male	141	89	41
	71.94%	60.14%	42.71%
Male-Female Group	3	6	9
	1.53%	4.05%	9.38%
Female	52	53	46
	26.53%	35.81%	47.92%
Total:	196	148	96
	100.00%	100.00%	100.00%

Table 4B

Gender by Race on the Top 40 Airplay Charts: Horizontal Totals

	Black	White	Other	Total
Male	141	89	41	271
	52.03%	32.84%	15.13%	100.00%
Male-Female Group	3	6	9	18
	16.67%	33.33%	50.00%	100.00%
Female	52	53	46	151
	34.44%	35.10%	30.46%	100.00%

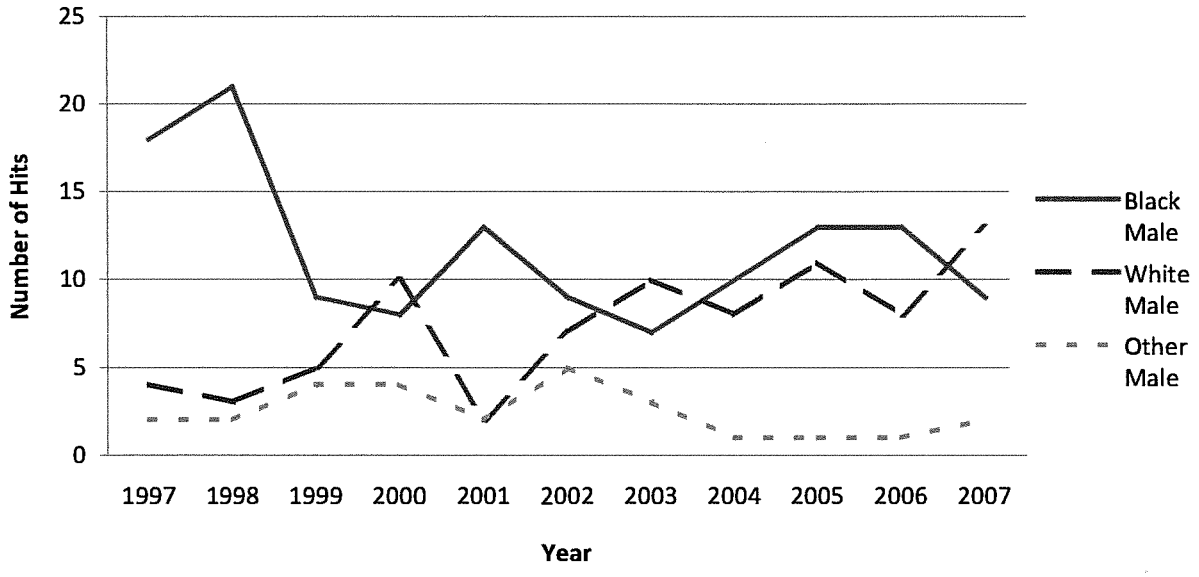
Table 5
Frequency of Sales Chart Hit Songs by Category

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
Black Male	18	21	9	8	13	9	7	10	13	13	9	**130**
White Male	4	3	5	10	2	7	10	8	11	8	13	**81**
Other Male	2	2	4	4	2	5	3	1	1	1	2	**27**
Black Male-Female Group	1	0	1	0	0	1	0	0	0	1	1	**5**
White Male-Female Group	0	0	1	0	0	0	0	0	0	2	2	**5**
Other Male-Female Group	0	1	1	0	2	0	2	1	1	1	1	**10**
Black Female	8	6	8	5	5	4	5	5	4	4	8	**62**
White Female	3	4	3	8	7	9	7	10	6	6	3	**66**
Other Female	4	3	8	5	9	5	6	5	4	4	1	**54**
Total:	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**440**

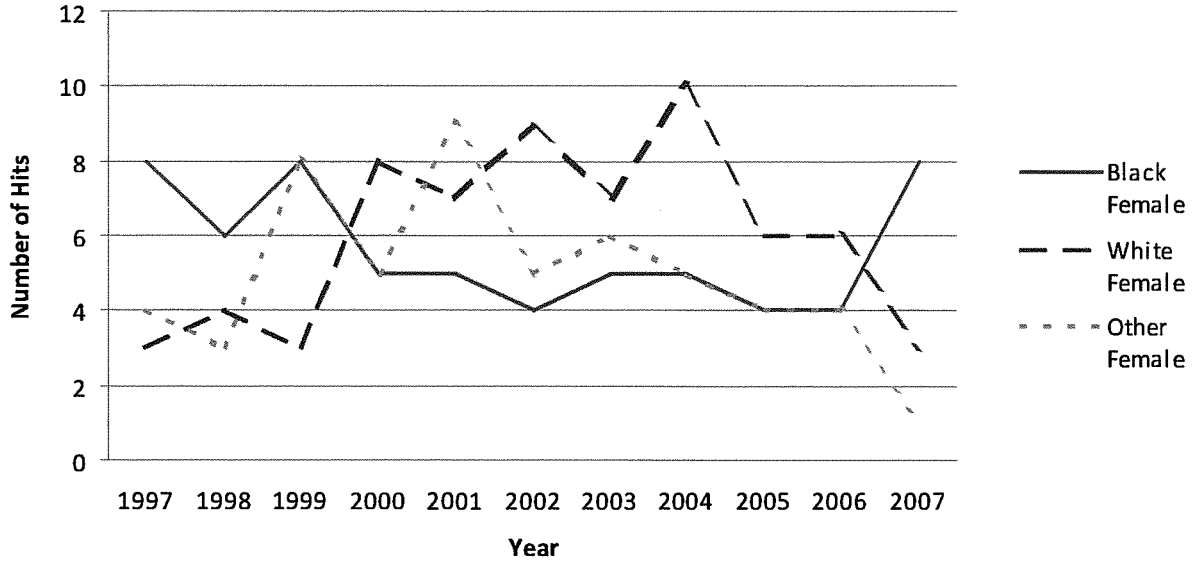
Table 6
Frequency of Airplay Chart Hit Songs by Category

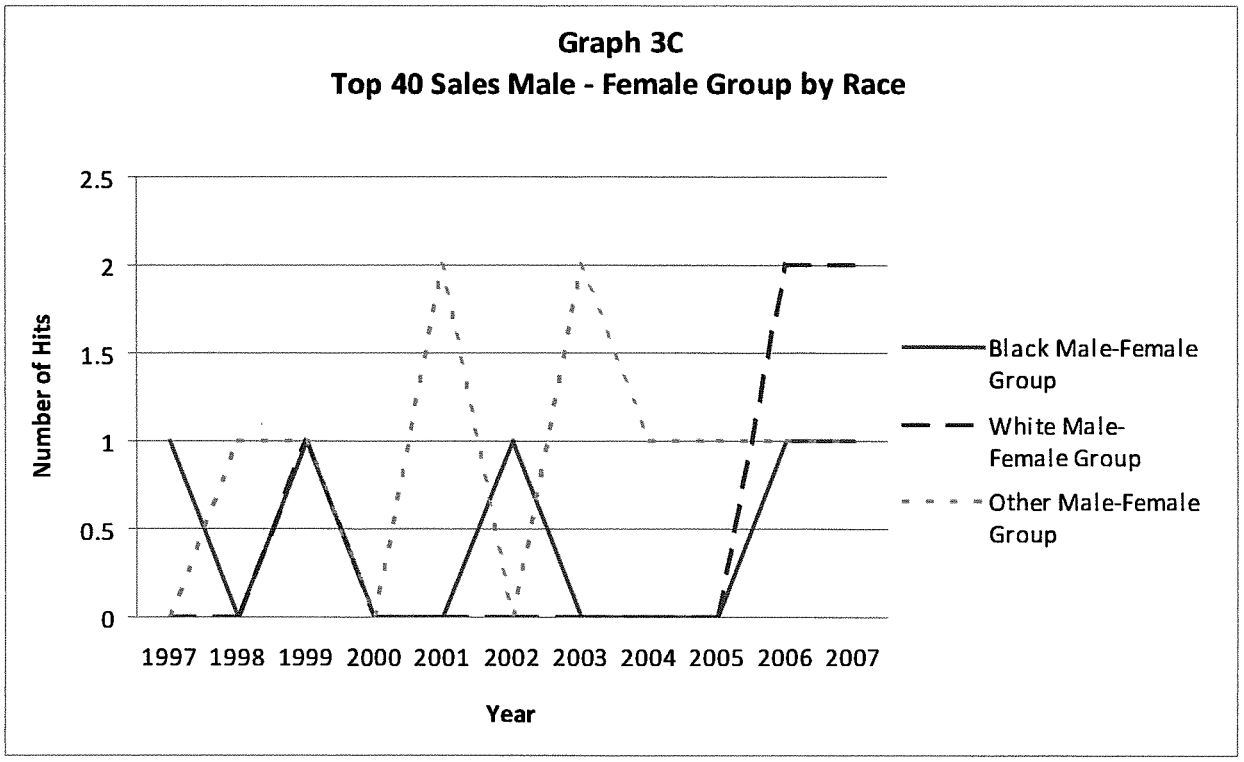
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
Black Male	7	7	9	6	12	10	16	18	16	18	22	**141**
White Male	10	15	5	14	7	8	7	4	5	6	8	**89**
Other Male	4	4	4	6	3	6	2	5	3	3	1	**41**
Black Male-Female Group	1	0	1	0	1	0	0	0	0	0	0	**3**
White Male-Female Group	1	1	1	0	0	0	1	1	1	0	0	**6**
Other Male-Female Group	1	0	1	0	0	1	2	2	2	0	0	**9**
Black Female	3	2	8	5	5	6	6	4	4	5	4	**52**
White Female	10	10	3	5	4	6	2	2	5	2	4	**53**
Other Female	3	1	8	4	8	3	4	4	4	6	1	**46**
Total:	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**440**

Graph 3A
Top 40 Sales Male by Race

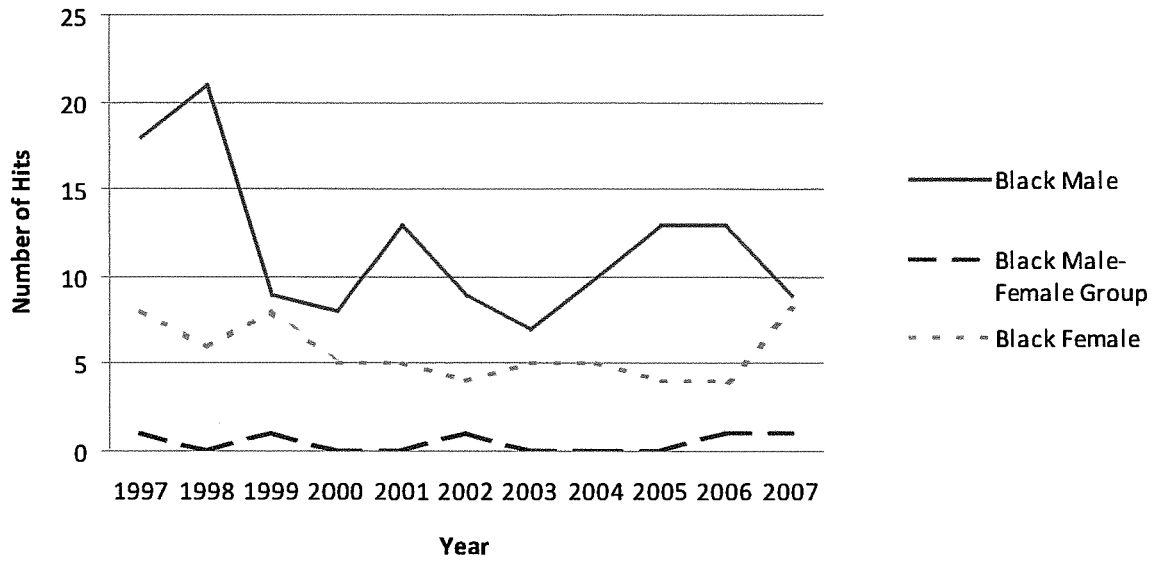


Graph 3B
Top 40 Sales Female by Race

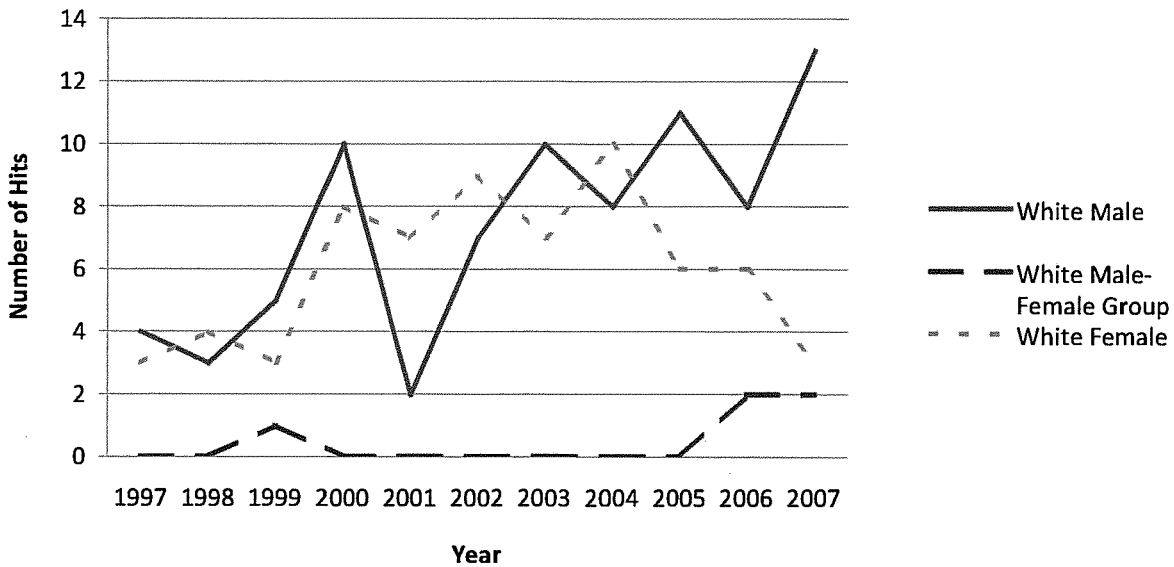


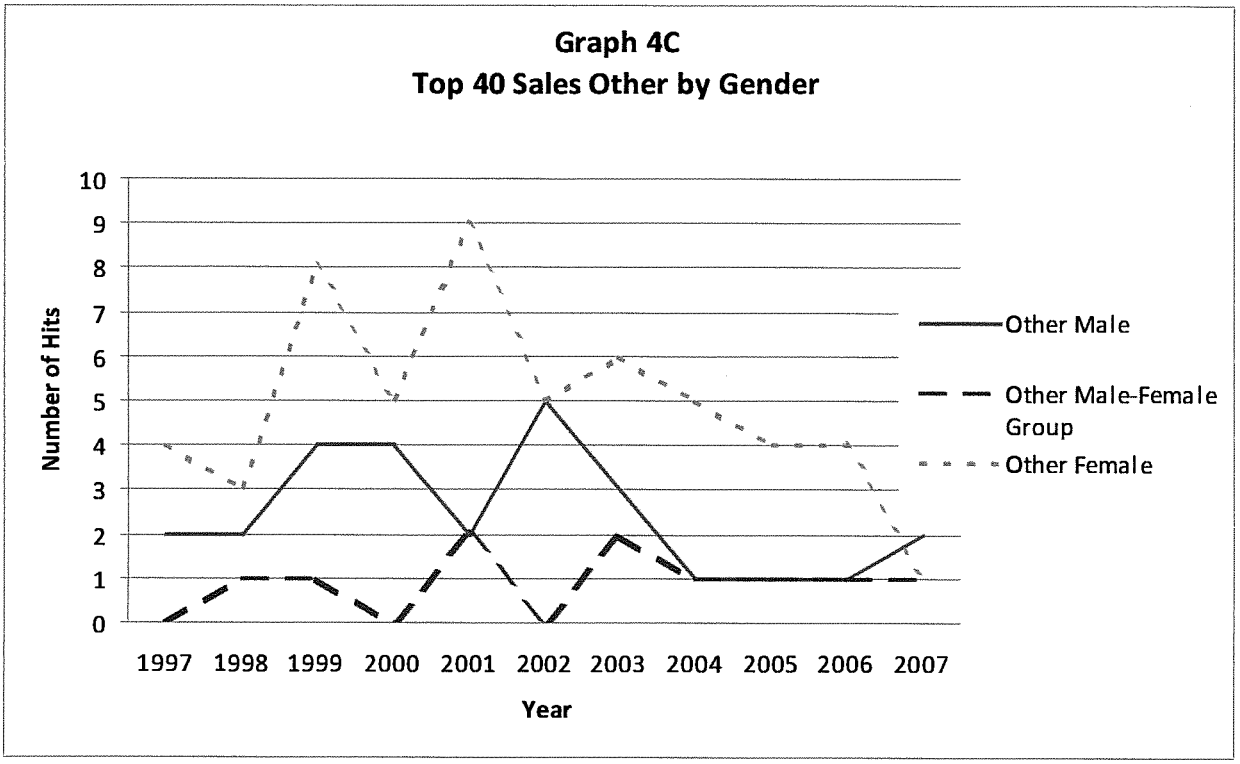

Graph 3C
Top 40 Sales Male - Female Group by Race
Number of Hits
2.5
2
1.5
1
0.5
0
1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007
Year
Black Male-Female Group
White Male-Female Group
Other Male-Female Group

Graph 4A
Top 40 Sales Black by Gender

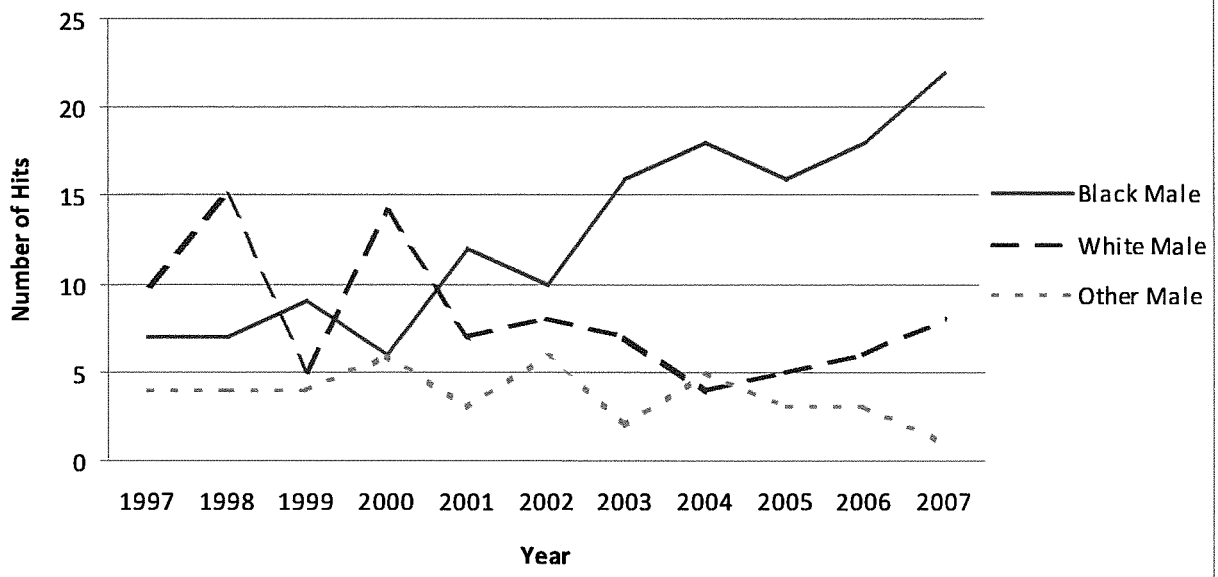


Graph 4B
Top 40 Sales White by Gender

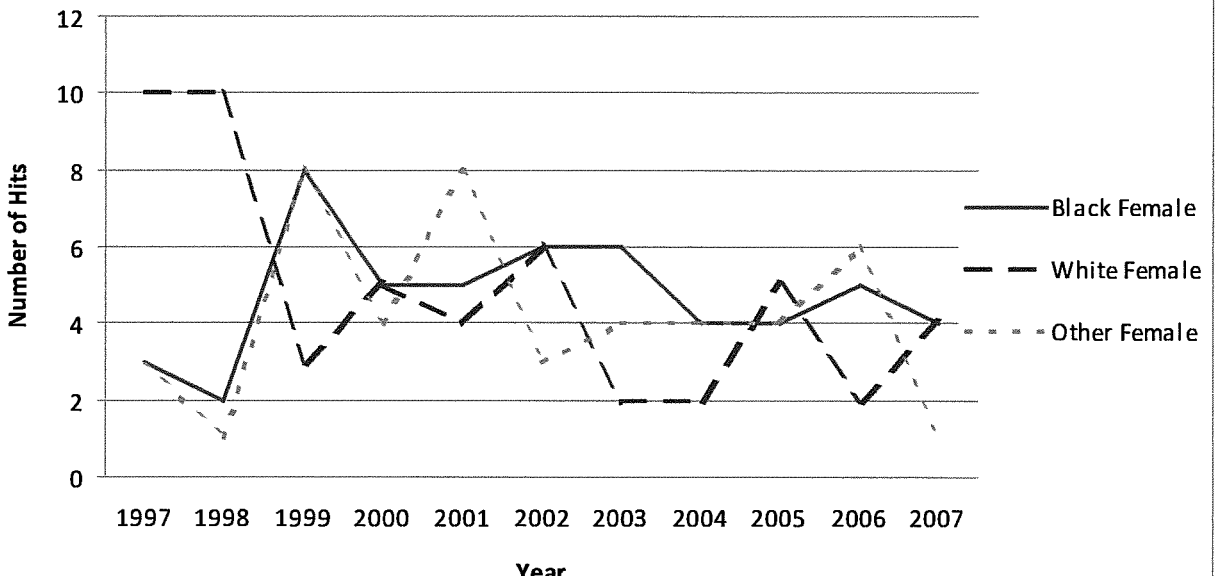


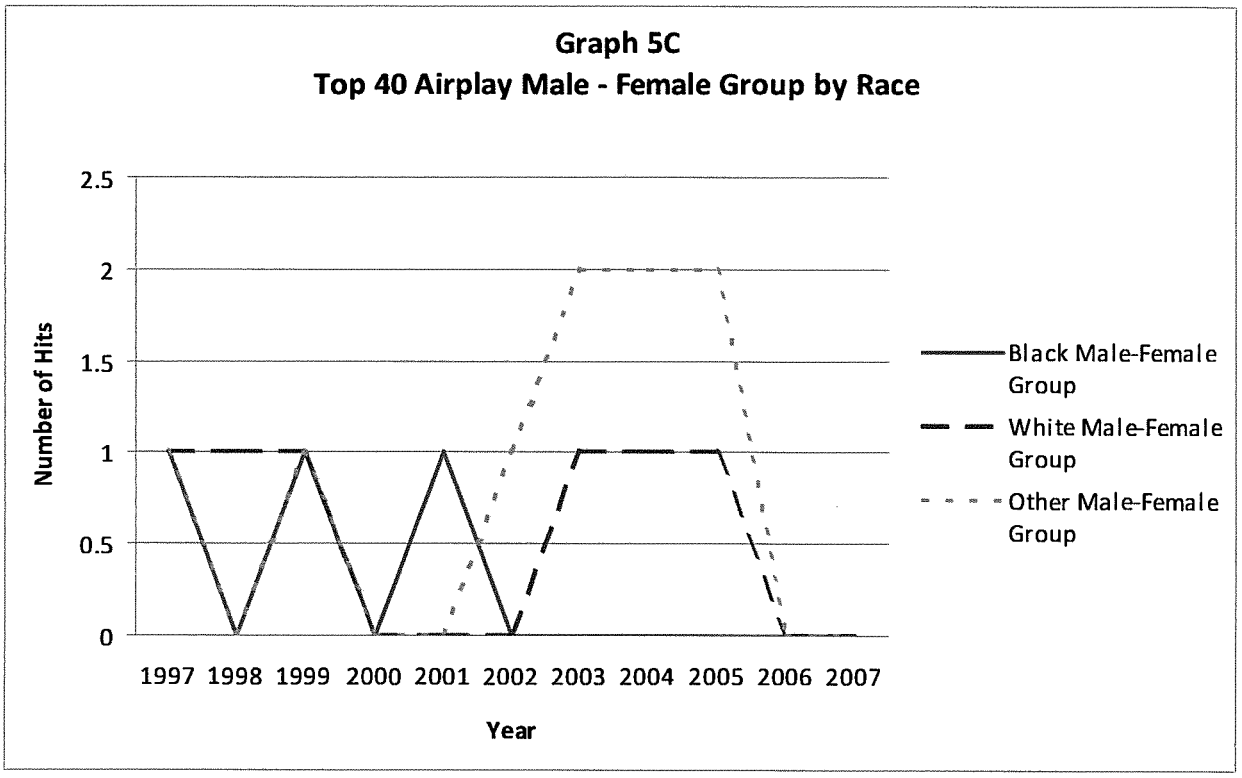

Graph 4C
Top 40 Sales Other by Gender
Number of Hits
10
9
8
7
6
5
4
3
2
1
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year
Other Male
Other Male-Female Group
Other Female

Graph 5A
Top 40 Airplay Male by Race

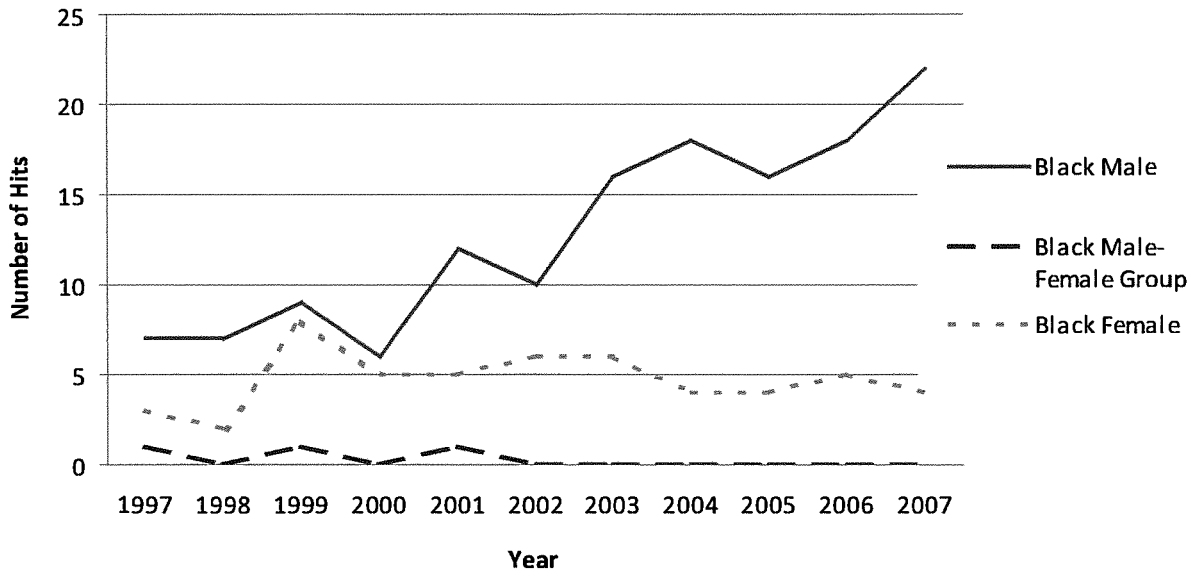


Graph 5B
Top 40 Airplay Female by Race

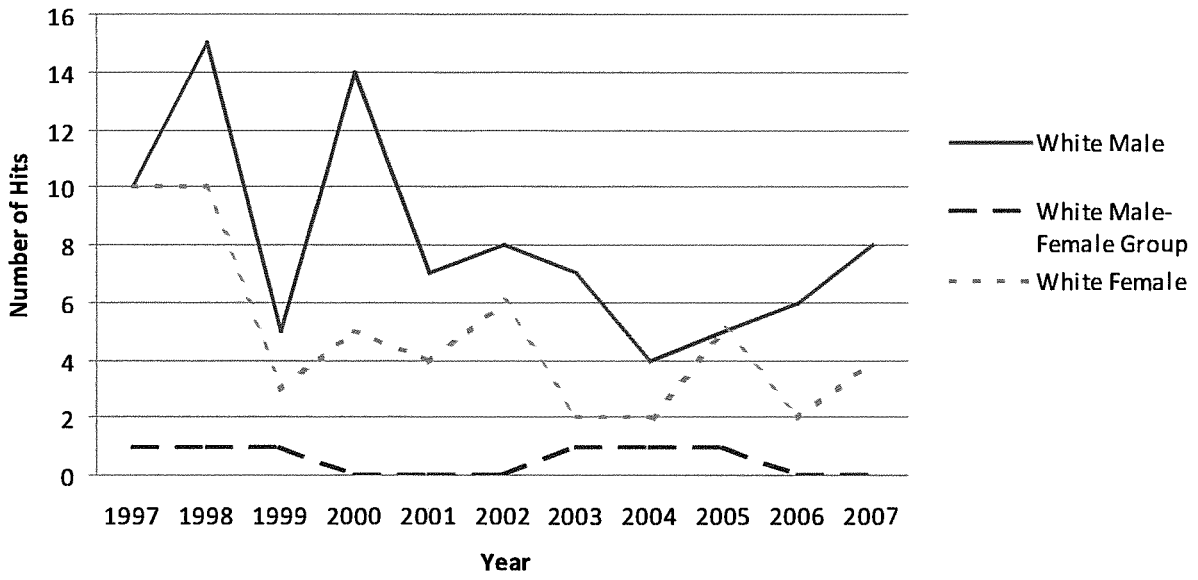


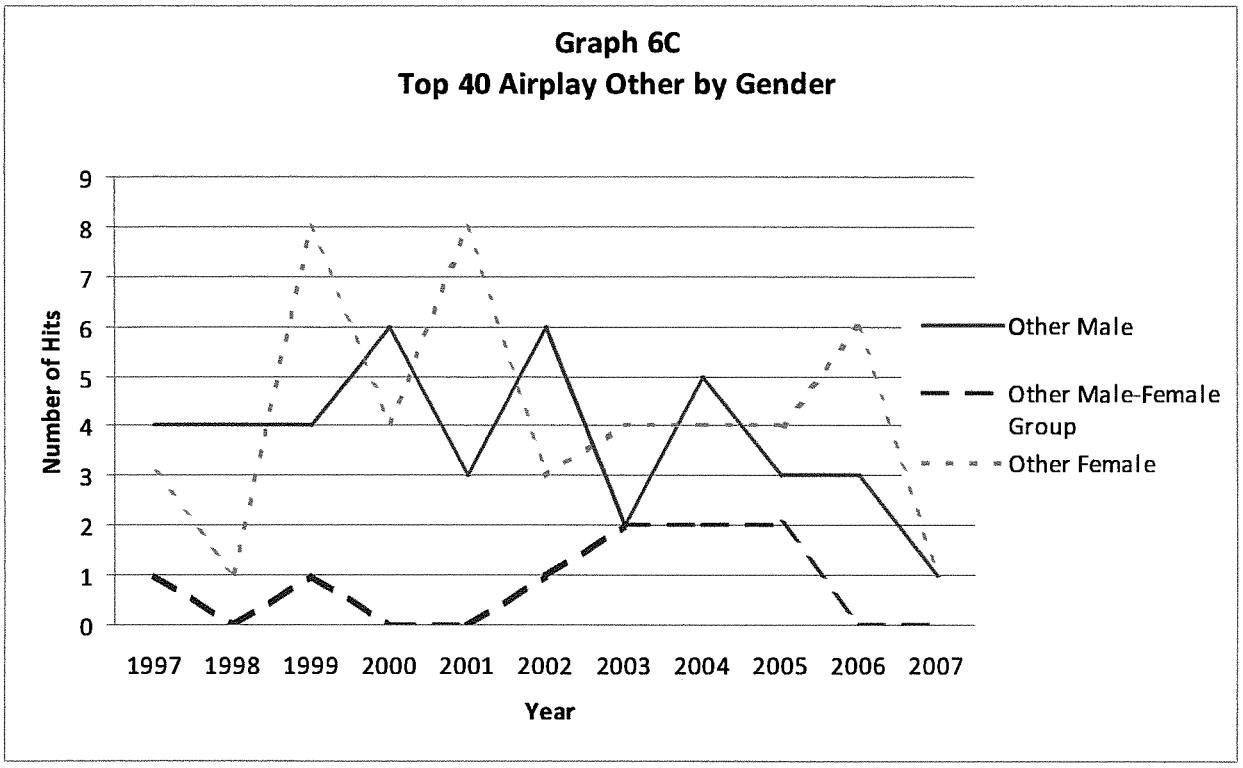

Graph 5C
Top 40 Airplay Male - Female Group by Race
Number of Hits
2.5
2
1.5
1
0.5
0
1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007
Year
Black Male-Female Group
White Male-Female Group
Other Male-Female Group

Graph 6A
Top 40 Airplay Black by Gender



Graph 6B
Top 40 Airplay White by Gender




Graph 6C
Top 40 Airplay Other by Gender
Number of Hits
9
8
7
6
5
4
3
2
1
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year
Other Male
Other Male-Female Group
Other Female

References

Bashi, V. (1998). Racial categories matter because racial hierarchies matter: A commentary. Ethnic and Racial Studies, 21: 5, 959-968.

Bowker, G. & Star, S. (2000). Sorting things out: Classification and its consequences. Cambridge, Mass.: MIT Press.

Brasfield, R. (2007). Rereading Sex and the City: Exposing the hegemonic feminist narrative. Journal of Popular Film & Television, 34 (3), 130-138.

Collins, P. (1990). Black feminist thought: Knowledge, consciousness, and the politics of empowerment (pp. 67-89). London: Harper Collins Academic.

Dines, Gail, & Humez, J. (2003). Gender, race, and class in media: A text-reader (2nd ed.). Thousand Oaks, CA: Sage Publications.

Esposito, J. (2009). What does race have to do with Ugly Betty? An analysis of privilege and postracial(?) representations on a television sitcom. Television & New Media, 10 (6), 521-535.

Garofalo, R. (2002). Rockin' out: Popular music in the USA (2nd ed.). Upper Saddle River, NJ : Prentice Hall.

hooks, b. (1992). Black looks: Race and representation. Boston: South End Press.

Lafrance, M., Worcester, L. & Burns, L. (2011). Gender and the Billboard top 40 charts between 1997 and 2007. Popular Music and Society, 34 (1).

Lampland, M. & Star, S. (2009). Standards and their stories: How quantifying, classifying, and formalizing practices shape everyday life. Ithaca: Cornell University Press.

Mahon, M. (2004). Right to rock: The Black Rock Coalition and the cultural politics of race. Durham: Duke University Press.

McIntosh, P. (1990). White privilege: Unpacking the invisible knapsack. Independent School, 49 (2), 31.

Meyers, M. (2008). Women in Popular Culture: Representation and Meaning. Cresskill, NJ: Hampton Press.

Monk, G., Winslade, J., & Sinclair, S. (2008). New horizons in multicultural counseling. Los Angeles: Sage Publications.

Pegley, K. (2002). Multiculturalism, diversity and containment on MuchMusic (Canada) and MTV (US). Canadian University Music Review, 22 (2), 93-112.

Rosen, C. (2007). The industry impact. Billboard, 119 (12), 42-46.

Rutherford, J. (1990). The third space: Interview with Homi Bhabha. Identity: Community, Culture, Difference (pp. 207-221). London: Lawrence and Wishart.

Taylor, C. (2004). Is Radio killing the American Idols?. Billboard, 116 (46), 5-72.

Wells, A. (2001). Nationality, race and gender on the American pop charts: What happened in the 90s? Popular Music and Society, 25: 221-231.

Winant, H. (1994). Racial conditions: Politics, theory, comparisons. Minneapolis: University of Minnesota Press.