Gender Norm Attitudes In New Jersey

Data analysis report

Submitted to NJCASA by

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Executive Summary

The New Jersey Coalition Against Sexual Assault (NJCASA) and the Center on Violence Against Women and Children (VAWC) partnered to analyze data from a random sample of New Jersey residents with a focus on gender norms attitudes. The questionnaire was developed during a previous partnership between these agencies; a meticulous review of the literature and existing instruments resulted in the development and piloting of the questionnaire. The questionnaire was then implemented by a third party and the data were analyzed by VAWC.

Analysis consisted of descriptive statistics of the sample and more advanced analysis of attitudes. The descriptive analysis of the sample included age, race, gender, education, main source of news, marital status, language of interview, and area code. Factor analysis was conducted on questions addressing attitudes, which determined three aspects of attitudes were being measured: *Attitudes about Gender Roles/Sexual Violence*, *Attitudes about Media, and Attitudes about Bystander Behavior*. These attitudes were then compared by demographic groups.

Detailed results and conclusions are provided in the full report. The following provides an overview of key results:

- Attitudes about Gender
    - Greatest belief in traditional gender roles: men, those who are older, those who have only a high school education, widowers, those who completed the survey in Spanish, and those who receive most of their news from TV
    - Least belief in traditional gender roles: women, those who are younger, those who get their news from the internet, whites, those with a graduate degree, those who are married, and those who completed the survey in English
- Attitudes about Media
    - Great belief that gender inequality exists in media: women, those with a graduate degree and those who completed the interview in English
    - Least belief that gender inequality exists in media: men, those with a high school education, and those who completed the interview in Spanish
- Attitudes about Bystander Behavior
    - Greater willingness to intervene in bystander situations: women, those who get their news from books, those who are older, blacks, those with a graduate degree, those who are widowed, and those who completed the interview in English
    - Lower willingness to intervene in bystander situations: men, those who are younger, those get news from magazines, those in the ‘other’ racial category, those with a high school education, those never been married, and those who completed the interview in Spanish

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I. Introduction

In an effort to gather baseline information about gender norm attitudes in the state of New Jersey, the New Jersey Coalition Against Sexual Assault (NJCASA) worked in conjunction with the Center on Violence Against Women and Children (VAWC) at the Rutgers University School of Social Work to develop and analyze the results of a survey that was administered to a random sample of adult residents of New Jersey. The survey development process is described in detail in a previous report, and this document focuses on the analysis of the survey data.

"Gender norms" is a broad category that can include a number of constructs. Generally defined, gender norms "are powerful, pervasive values and attitudes, about gender-based social roles and behaviours that are deeply embedded in social structures" (Keleher & Franklin, 2008, 43). Gender norms operate at multiple levels in our society and serve to maintain power and dominance by men over women. As a result of gender norms, women and girls are at risk for a number of problematic outcomes, including violence (Keleher & Franklin, 2008). Specifically, beliefs in rigid gender roles and adversarial views of women have been consistently associated with sexual violence in the literature (see Carr, 2004).

For the purposes of the current project, three main constructs were used to define gender norms: 1. Attitudes about *gender roles and sexual violence;* 2. Attitudes about the *media's portrayal of women*; and 3. Attitudes about *bystander intervention* in situations where inequality to women is apparent. These three areas were determined as priorities during the survey development process in conjunction with NJCASA and based on information provided by the Governor's Advisory Council Against Sexual Assault and the Prevention and Public Education Committee (PPEC). As such, these three areas will serve as priority areas for the state's sexual violence primary prevention plan. The data from this survey will provide baseline data which

can be used to measure whether future interventions are associated with a change in attitudes in these areas.

Therefore, the purpose of this project is to organize, clean, and analyze the gender norms data that was collected from 889 residents of New Jersey. The main question guiding the analysis include what are the societal perceptions, norms and attitudes towards gender norms and key risk factors towards sexual violence in NJ, as measured by attitudes about gender roles/sexual violence, gender in the media, and bystander information? The specific objectives of this analysis project were the following:

- Clean all data, looking for errors and accounting for missing data
- Create variables and scales based on Exploratory Factor Analysis
- Run descriptive statistical tests for all variables and specific items, providing percentages and frequencies of responses
- Run statistical tests to determine whether responses varied significantly by demographic factors such as gender and ethnicity

This report provides detailed information about the methods used to analyze the data, results of the analysis, and a brief discussion of the key findings.

II. Methods

A systematic process was used to analyze the results of the survey. Below is a description of the survey instrument, data collection process, and analysis including the data preparation, factor analysis, and further statistical tests. For those statistical tests that were more advanced, a brief summary is presented below and detailed, technical explanations are provided in the appendix.

Survey Instrument

The survey that was administered for this project was developed previously by VAWC in conjunction with NJCASA. The survey was developed through a rigorous process that involved a careful review of the literature, and an in depth examination of 27 validated and reliable gender norm scales, including the Burt Scales (1980), the Illinois Rape Myth Acceptance Scale (Payne, Lonsway, & Fitzgerald, 1999), the Bystander Attitude Scale (Banyard, Moynihan & Plante, 2007), the Classical and Modern Sexism Scales (Ekehammar, Akrami, & Araya, 2000) and the Ambivalent Sexism Inventory (Glick & Fiske, 1996). Based on these scales, an item pool was created and pilot tested, which resulted in revisions and modifications to ensure reliability. Next, the researchers engaged in a cyclical process of revisions and review by key stakeholders until a final survey was determined (see report by Koivunen, McMahon, & Warrener, 2010, for details about the survey development process).

The final survey included a total of 30 questions from various scales to measure attitudes and behaviors related to gender norms. Additionally, eight items were added by NJCASA that asked about demographic information of the respondents, including area code, zip code, age, race, gender, relationship/marital status, education level, main source of news, and language of

the interview (Spanish/English). Gender and language of the interview were recorded by the interviewer, while the other demographic questions were answered by the respondent.

Data collection

Data were collected through random digit dialing to adult residents (over the age of 18) in the State of New Jersey. This process was conducted by another agency so details are available through NJCASA. A total of 889 surveys were collected.

Data Preparation

Data analysis began by converting the collected data from Excel into SPSS (a statistical software package). The technical details of the data were prepared, including data names, labels, and specifics such as whether each item was numeric or text. The data were then examined for errors by reviewing descriptive statistics of all variables in the dataset. The data were found to be in excellent shape, with extremely small amounts of missing data.

To make sure that all items were consistently coded for the analysis, responses to all 30 gender norms items were recoded to exclude responses of ‘not applicable’, ‘don’t know’, or ‘refused,’ and reversed so that “1” became strongly disagree and “5” became strongly agree for all items. Four items were reverse coded because the wording expressed opposite beliefs from the other items.

The analysis involved several steps. First, univariate statistics were examined, to look at the frequencies and percentages of responses to each question. Each demographic variable was examined by calculating percentages of each group. For example, the percentage of those who responded to each category in the race question was calculated. Next, gender, race, and age were

grouped to determine overall demographic groups for the sample, such as white males aged 45-54.

The next step was to look more closely at the gender norms questions and determine if the questions were grouped together in any significant ways. Factor analyses were run on all the 30 gender norms items on the survey. (A full description of the factor analyses can be found in the proceeding section and Appendix). The results of the factor analysis indicated that the questions could be grouped into three factors (i.e. scales) including: 1) Attitudes about Gender roles/Sexual violence, 2) Attitudes about Media, and 3) Attitudes about Bystander Intervention. Composite scores were created for each of these three scales. These composite scale variables were created using a mean (average) score and imputation for missing data. Imputation uses a formula to estimate what the missing responses would have been and replaces the missing items. Given the small amounts of missing data, imputation is an acceptable method that should have minimal effect on the composite scores.

Reliability is also important to establish for the scales to demonstrate that they are relevant and consistent. A good score is around .8, however above .6 is acceptable. The reliability score for each scale was: 0.69 for Attitudes about Gender Roles/Sexual Violence, 0.65 for Attitudes about Media, and 0.66 for Bystander Attitudes.

Finally, analysis was conducted to determine if responses on the three scales (Gender Roles/Sexual Violence, Media, and Bystander) were different for various demographic groups (such as gender, ethnicity, age, etc). This was accomplished through a statistical analysis, Analysis of Variance (ANOVA). For example, ANOVA was used to see if racial groups had significantly different scores for the Attitudes about Gender Role/Sexual Violence scale, which

would indicate which group believes most strongly that men and women should hold traditional gender roles.

Factor Analysis

This section provides further details about the factor analyses that were conducted to better examine the overall survey. The results of the factor analyses provided information about which questions "loaded" well, or which questions accounted for the most variance in responses. In the end, the factor analyses showed us that there were indeed three different constructs being measured: attitudes about gender roles/sexual violence, attitudes about the media, and attitudes about bystander intervention. The factor analysis also helped us condense the numerous items to include only those questions that loaded strongly enough and provided information to create three scales. Therefore, the 30 original items were reduced to 18, with 8 items on the Gender Role Attitudes scale, 5 on the Media scale, and 5 on the Bystander scale. (Please see Table A: Scale Item Overview for detailed information about the methods used in the factor analyses and a table with the list of survey items that did and did not load.)

As a result of the factor analyses, three subscales were created. One scale focused on the attitudes about media, with four questions asking directly about the media's portrayal of women and one question regarding equality of men and women at work. These items are linked by the belief in institutional inequality, such as in the media and at work. This was labeled the "Media" scale. A higher score indicates that the person believes inequality exists at an institutional level.

A second scale compromised of eight questions was deemed the Gender Roles Scale. The items in this scale focus on the respondent's beliefs about both the man's and the woman's role in relationships, as well as where to place blame in situations of sexual assault. Some examples of questions in this scale include: "It is acceptable for a woman to have a career, but

marriage and family should come first" and "A woman who dresses in skimpy clothes should not be surprised if a man tries to force her to have sex." A higher score indicates more traditional beliefs about gender roles and increased victim blaming attitudes.

The final scale, termed the "Bystander" scale, included questions that asked about behaviors such as using certain language or talking to boys about treating women with respect. A higher score indicates a greater willingness to act as a bystander.

There were 12 items that did not load onto any of the factors (See Table 3). The questions that did not load and were not a part of any scale could be seen as more controversial or personal, such as asking a partner for consent before becoming intimate.

The three scales (Attitudes about Gender Roles, Attitudes about Media, Bystander Scale), were then used in subsequent analyses to determine the relationship between demographic variables and respondent's attitudes.

III. Results

Analysis of the survey data provided findings about a number of categories. First, we describe the demographics of the sample. Second, we describe the findings for each of the three scales- Gender role attitudes, Media attitudes, and Bystander attitudes, as well as their variations by demographic items.

Demographics of sample

Highlight: The largest group of participants were white females ages 65+ (76 participants), followed by males in the 45-54 age group (67 participants). The smallest groups were females ages 45-54 and ages 55-64 who identified their race as "other".

Demographic analysis indicates that 52% of respondents were women, and 48% were men. Sixty-four percent of respondents were white, 12% black, and 15% Hispanic. More than half were married and living with their partner; 26% had never been married. The largest represented age group was 65+. Ninety-six percent of the interviews were conducted in English, the rest in Spanish. When asked for their primary source of news, the majority of respondents (43%) said from television, 23% from the internet, and 24% from newspapers.

Table 1: Demographics

	N	%
Gender		
Female	463	52
Male	423	48
Age (missing=11)		
18-34	151	17
35-44	140	16
45-54	199	23
55-64	175	20
65+	210	24
Race (missing=24)		
Non-Hispanic White	572	65
Non-Hispanic African-Am or Black	84	10
Latina or Hispanic	153	18
Other	53	6
Education (missing=2)		
HS Grad or less	246	28
Some college, college grad or some grad	447	51
Graduate degree	191	22
Marital Status (missing=10)		
Married, living with partner	508	57
Widowed	90	10
Divorced	78	9
Separated	26	3
Never been married	174	20
Language of Interview		
English	847	96
Spanish	39	4
Main source of news (missing=13)		
Newspapers	216	24
Magazines	2	<1
Internet	205	23
Books	1	<1
TV	378	43
Radio	49	6
Government Agencies	2	<1
Family	2	<1
Friends/Colleagues	10	1

Other	8	<1
Area code		
201	171	19
551	4	<1
609	126	14
732	180	20
848	1	<1
856	118	13
862	11	1
908	93	11
973	182	21

N=886
Note: Due to missing data, numbers in the 'N' column may not equal 886.
These counts are not weighted.

Table 2 provides further information about the combination of respondents' gender, race and age. The largest group were white females ages 65+ (76 participants), followed by males in the 45-54 age group (67 participants). The smallest groups were females ages 45-54 and ages 55-64 who identified their race as "other".

Table 2: Crosstabs of Gender, Age & Race

		18-34	35-44	45-54	55-64	65+
White	**Male**	56	52	67	48	53
	Female	59	38	63	49	76
Black	**Male**	18	7	11	3	4
	Female	20	22	9	9	6
Hispanic	**Male**	29	10	7	5	2
	Female	28	20	20	6	4
Other	**Male**	18	14	4	5	3
	Female	8	12	1	2	4

N=885
These counts are not weighted, as crosstabulation analysis is exact counts found in the data.

Average scores

Average (or mean) scores were calculated for each of the 30 gender norm items on the survey. Additionally, average scores were calculated for each of the three scales (Gender Roles, Media, and Bystander). For a complete list of average scores for the items and scales, see Table 3.

The Attitudes about Gender Roles Scale had a range of responses from 1 to 5, with greater numbers indicating more endorsement of traditional gender roles. The scale had a mean score of *2.76*, meaning the average score of the entire response group was about in the middle of the range, only slightly leaning toward an endorsement of traditional gender roles. The individual items ranged from *2.02* to *3.60* in their means, which indicates some variability in people's opinions of each question.

The Attitudes about Media Scale also had a range of 1 to 5, with higher numbers indicating the belief that inequality exists in the media. The mean score for this scale was *3.84*; this indicates that the average for the entire response group was above the midpoint, leaning toward beliefs that inequality exists in the media. The individual items had means that ranged from *3.57* to *3.96*, consistent with the overall mean that leaned toward a belief that inequality exists in the media.

The Bystander Scale also had a range of 1 to 5, with higher scores representing a greater likelihood to intervene as a bystander. The scale had an overall mean of *3.90*. This indicates that the response group generally leaned toward a greater willingness to intervene. The means of the individual items ranged from *3.21* to *4.58*. These means all lean toward a greater willingness to intervene in bystander situations.

Differences by demographic groups

ANOVA, or analysis of variance, is a statistical test that was used to determine whether the scores on the three scales (Gender Roles, Media, and Bystander) were significantly different for each demographic group (gender, race, etc). The results show that there were significant differences on each of the scales for some but not all groups.

Gender roles

Highlight: Those groups that indicated a statistically significant stronger belief in traditional gender roles include men, those who are older, those who have only a high school education, widowers, those who completed the survey in Spanish, and those who receive most of their news from TV.

A higher score on the Attitudes about Gender Roles/Sexual Violence scale indicates a stronger belief in traditional gender roles. The highest possible score was 5, the lowest 1. The overall average (mean) for the Attitudes about Gender Roles scale was *2.76*. Men *(2.83)* had higher scores than women *(2.70)*. For media source, people who got news from magazines had the most traditional beliefs about gender roles *(3.25)*, however only two respondents chose this category which likely skews the results; for the larger response groups, TV had the highest score *(2.88)*. The oldest age group (65+) *(3.01)*, 'other racial group' *(2.98)*, a high school education *(3.00)*, and widowers *(3.10)* had the most traditional beliefs. Spanish speaking respondents had a higher score *(3.15)* than English speaking respondents *(2.75)*. (See Table 4 in Appendix).

Media

Highlight: Those groups that indicated a statistically significant stronger belief that inequality exists in the media include women, those with more education, and those who completed the survey in English.

The scores for the Media scale ranged from 1 to 5, with 5 indicating a stronger belief that inequality exists in the media. The overall average (mean) score for the Media scale was *3.84*. Women had a significantly higher score than men, indicating a stronger belief that inequality exists in the media; for example, that women are portrayed as sex objects in popular music. The average score for women was higher than the overall average at *3.96*, while the men's score was lower at *3.74*. Those with a graduate degree (*4.08)* had higher scores than their counterparts on the Media Scale. For the education category, the middle category with some or all of college also scored higher than the overall mean *(3.91)*, while the high school group was lower *(3.72)*. For language, the English speaking group had the high score *(3.87)* and the Spanish speaking group had a lower score *(3.34)*. The media source category did not have significant differences between groups, nor did age, race, or marital status. (See Table 3 in Appendix)

Bystander

Highlight: Those groups that indicated a statistically significant willingness to intervene in situations involving gender discrimination include women, those ages 35-44, those who get news from books, and those who completed the survey in English.

A higher score on the Bystander Scale indicates a greater willingness to intervene. The overall average score for Bystander Scale was *3.90*. Women *(4.06)* indicated a greater willingness to intervene than men *(3.74)*. People who got their news from books reported the greatest likelihood to intervene *(5.00)*, however only two respondents selected this category. For the larger response categories, radio had the highest score at *(4.00)*. For age, 35-44 year olds had

the highest score *(4.04)*. Blacks *(4.04)* and individuals separated from a partner *(4.30)* also had high scores. Education did not have significant differences between groups. English speaking respondents *(3.92)* had higher scores than Spanish speakers *(3.49)*. The lowest scores in each significant group came from men *(3.74)*, magazine readers *(3.00;* N=2) or internet news readers *(3.78;* higher response rate), 18-34 year olds *(3.73)*, the 'other' racial group *(3.75)*, and those who have never been married *(3.66)*. (See Table 5 in Appendix).

IV. Discussion

The results of the analyses of the data regarding gender norms in New Jersey provide some important information that can be used to guide further efforts of the state regarding its primary prevention plan. Analysis revealed some important variations by demographics for the responses to each of these scales. This allows for comparisons of the various groups as to who believes that inequality exists in the media, who believes in traditional gender roles, and who is most/least willing to intervene in bystander situations.

First, significant results from the Media Scale provide insight into potential areas to target for media literacy. Men had lower scores, meaning they were less likely to see a problem with how women are portrayed in the media. The language of the interview found significant differences between the groups, but this should be interpreted carefully as the translation or understanding in different languages or cultures may be different. It is possible that the difference is not due to being an English or Spanish speaker, but because of differences in interpretation based on translation. Given that age, race, and marital status were not found to have significant differences between groups, the best target of media literacy intervention

according to these survey results would be gender based, with a specific focus on men's understanding of women's portrayal in the media.

Second, the Gender Roles Scale results suggest that men, racial minority groups, and older age groups have the most traditional beliefs about gender roles. These groups were the most likely to blame women's behavior for rape and condone the perpetrator's behavior. This is consistent with previous research. This suggests that these groups may especially benefit from efforts to educate about the impact of gender inequality, sexual violence, victim blaming.

Results from analysis of the Bystander Scale provide information on the groups who report being most likely and least likely to intervene in situations where discrimination against women is occurring. Men, those identified in the 'other' racial group, the youngest age group, and those never been married are the least likely to intervene. Further work is needed to engage these groups and to find out what barriers may exist to bystander intervention. An important factor to consider in interpreting these results is this is a self-report of *how likely* the respondent is to intervene, not a recollection of actual intervention.

The key areas that appear to be ripe for intervention in the various areas are gender, age, race, and education. In particular, men saw problems with the media, held more traditional gender role beliefs, and were less likely to intervene in bystander situations. This is consistent with previous research,and recommendations have been made to develop sexual violence prevention programs that are gender specific. In a gender specific group, the issue of masculinity can be further explored and men can address the social norms around masculinity that may perpetuate stereotypical gender roles, as well as preventing men from stepping in as bystanders.

Racial minority groups had more traditional gender role beliefs and were less likely to intervene, except in the case of African Americans. This may be related to cultural norms, and needs further exploration. Age is another potential area for intervention, though in different ways. Older groups hold more traditional gender role beliefs, but the younger age group is less likely to intervene. The issue of age has not yet been adequately explored in the research literature to understand more about these differences, but more work is needed.

These results suggest potential directions for the focused delivery of prevention work in the state of New Jersey to those groups mentioned above. The results also indicate that prevention efforts may need to be tailored to the specific needs of these various groups. Generic prevention programming may not reach each of these groups in the same way, and therefore prevention efforts may need to be tailored to understand the norms within each of these groups, and to find ways to engage members in ways that recognize their experiences and perceptions.

There are several potential limitations of this study including social desirability and measurement issues. First, social desirability is an issue whenever a study asks questions about sensitive issues. Respondents may have tried to portray themselves in a more positive light when asked about their beliefs and behaviors because they were aware that certain responses may be deemed socially unacceptable. The confidential nature of this survey and the fact that it was done over the phone should have reduced some of the social desirability effect. Second, there are some measurement issues that limit interpretation of results. To keep the survey at an acceptable length the full versions of the scales were not used. Any time a scale is used in a modified format, there is a potential for reduced validity of the scale. Because only partial scales were used, it is possible that they are not accurately measuring the original constructs. Another aspect of measurement problems is that the questions measured attitudes, not behaviors. All

three scales, including the Bystander Attitudes scale, measure attitudes about aspects related to gender norms. Therefore, no conclusions can be made from this study about how groups respond to situations involving gender discrimination or violence.

V. Conclusion

This report provides an overview of how various demographic groups view gender roles/sexual violence and gender inequality in the media, and the willingness of these groups to intervene in bystander situations. The results of this report can be used a guide to inform programs whose aim is to address attitudes toward gender roles/sexual violence, inequality in the media, and bystander intervention. Gender is the consistent variable among all three attitude scale and therefore is likely the best focus of interventions geared toward changing attitudes. All other results indicate that the demographic groups most likely to benefit from intervention vary by each particular attitude. Therefore, any intervention that is intended to target attitudes about gender roles/sexual violence, attitudes about media, or attitudes about bystander behavior should be tailored to reflect specific demographic groups.

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Appendix A: Scale Item Overview

Exploratory and confirmatory factor analyses were conducted on 30 questions included in the survey. Two separate analyses were necessary because the questions were asked in two different ways. Twenty-two of the questions asked about beliefs with a possible response from 1 (strongly agree) to 5 (strongly disagree). Eight items asked the respondent how likely he or she was to behave in a certain manner, ranging from 1 (extremely likely) to 5 (not likely).

The first factor analysis looked at the 22 questions about beliefs with a response scale ranging from 1 (strongly agree) to 5 (strongly disagree). An exploratory factor analysis of these items was run to report Eigenvalues over 1, with direct oblimin rotation (because the results are expected to be correlated), scree plot extraction, and listwise deletion. Seven factors reported Eigenvalues over 1, but the first two explained 26% of the variance, whereas each of the other factors explained 6% or less. The analysis was run again, limiting to two factors. Results showed that Kaiser-Meyer-Olkin=.74 and that Bartlett's test was significant at $p<.001$, indicating the factors are significant and a good fit. In order to be included in the final factor, an item needed to be above .4 for one factor and less than .3 for other factors. Five items loaded on one factor, eight loaded on another, and nine did not load on either. The four reverse coded items were among those that did not load, a common problem with reverse coded items in scales.

The second factor analysis looked at the eight items that asked the respondent how likely he or she was to behave in a certain manner, ranging from 1 (extremely likely) to 5 (not likely These items were taken from one bystander behavior scale, and were run separately as a confirmatory factor analysis. The eight bystander items were run in the same manner as the previous analysis. Only one factor accounted for 33% of the variance. Results showed that

Kaiser-Meyer-Olkin=.783 and that Bartlett's test was significant at p<.001, also indicating significance and a good fit. Five items loaded on the bystander scale and three did not load.

The following table "Scale Items Overview" provides the means and standard deviations for each of the items included in the factor analysis. The table also indicates the scale on which the item was included, or whether the item did not load (DNL).

Table 3: Scale Items Overview

Item	*Mean (SD)*	Factor/Scale
Advertising influences how people treat women.	*3.57 (1.01)*	Media
Popular music often portrays women as sex objects.	*3.89 (1.01)*	Media
I am bothered by violence against women shown on TV and in movies.	*3.90 (1.01)*	Media
Advertisements on TV and in magazines often make women look like sexual objects.	*3.89 (1.00)*	Media
More progress needs to be made in order for men and women to gain equality at work.	*3.96 (.84)*	Media
There is something wrong with a woman who doesn't want to marry and raise a family.	*2.02 (.91)*	Attitude
I think it is more important for the man in the family to have a job than it is for a woman.	*2.89 (1.18)*	Attitude
It is acceptable for a woman to have a career, but marriage and family should come first.	*3.15 (1.20)*	Attitude
Men should be willing to sacrifice their own happiness in order to provide financially for the women in their lives.	*2.95 (1.18)*	Attitude
A woman should never disagree with her husband in Public when other people can hear.	*2.45 (1.25)*	Attitude
Women should be protected by men.	*3.60 (1.06)*	Attitude
A woman who dresses in skimpy clothes should not be surprised if a man tries to force her to have sex.	*2.38 (1.25)*	Attitude
Rape happens when a man's sex drive gets out of control.	*2.61 (1.23)*	Attitude
To express concern if a family member makes a sexist, degrading or disrespectful joke.	*3.74 (1.46)*	Bystander

To challenge a friend who uses sexist language to talk about or describe girls or women.	*3.74 (1.42)*	Bystander
To refuse to listen to music that uses sexist language to describe women or girls.	*3.21 (1.65)*	Bystander
To talk to boys or men in my family about treating girls and women with respect.	*4.58 (.87)*	Bystander
To confront a friend who looks like he is trying to take advantage of a girl or woman.	*4.25 (1.17)*	Bystander
To confront a friend if I heard that he took advantage of a woman.	*4.14 (1.22)*	DNL*
Ask my partner if he or she wants to get intimate, even if she and I are in a long term relationship.	*3.67 (1.48)*	DNL*
If my partner asks me to stop, even if we already started having sex, I will stop.	*4.62 (.89)*	DNL*
Some people over-react to violence against women shown on TV and in movies. (Reverse Coded)	*2.87 (1.19)*	DNL**
Society treats men and women in the same way. (Reverse Coded)	*3.83 (.97)*	DNL**
If a woman is insulted by another man, her boyfriend or partner should fight on her behalf.	*2.94 (1.18)*	DNL**
It is okay for the woman to pay for a date. (Reverse Coded)	*2.36 (1.02)*	DNL**
I prefer a male boss to a female boss.	*2.86 (.98)*	DNL**
In the United States, women no longer have to worry about equality. (Reverse Coded).	*3.64 (1.00)*	DNL**
I have no respect for women who have casual sex.	*2.56 (1.07)*	DNL**
I think that it is more acceptable for men to be sexually aggressive than for women.	*2.33 (.99)*	DNL**
I believe that false accusations of rape are often used as a way of getting back at men.	*3.28 (1.07)*	DNL**
Bystander Scale	*3.90 (.89)*	5 items
Media Scale	*3.84 (.67)*	5 items
Gender Attitude Scale	*2.76 (.64)*	8 items

Note: SD=Standard Deviation; DNL=Did not load

*Item run with Bystander Factor Analysis; **Item run with beliefs items.

Range=1-5; For Media & Attitude, a higher score indicates a greater belief that inequality exists or an endorsement of traditional gender roles. For Bystander Behaviors, a higher score indicates a greater willingness to intervene.

Appendix B: Analysis of Variance

ANOVA compares a grouped variable such as gender and sees if there are significant differences between groups when looking at the scale variable. For the ANOVA tables, the means and standard deviations are reported for each group. The F score is the result of the ANOVA and is reported with the degrees of freedom, which are an indication of the number of respondents and possible responses. A higher F score is better. The p value column indicates whether there were significant differences between groups. A dash in this column means the differences were not significant.

Below in Tables 4, 5, and 6 are the results for each of the three scales: Gender roles, Media, and Bystander. All ANOVA tests were run with weighted data.

Table 4: ANOVAs of Demographic Variables and Attitude Scale
Results of the demographic groups compared to the Attitude Scale.

	Mean	SD	F (df between, df within)	p
Gender			9.04 (1, 908)	**
Male	2.83	.62		
Female	2.70	.66		
Media Source			4.59 (9, 893)	***
Newspapers	2.70	.66		
Magazines (N=2)	3.25	1.06		
Internet	2.61	.66		
Books (N=2)	2.63	.00		
TV	2.88	.60		
Radio	2.70	.67		
Government Agencies (N=2)	2.88	.60		
Family (N=2)	3.06	.44		
Friends/Colleagues (N=16)	3.23	.50		
Other (N=6)	2.86	.49		
Age			15.43 (4, 896)	***
18-34	2.71	.60		
35-44	2.61	.59		
45-54	2.68	.68		
55-64	2.76	.71		
65+	3.01	.55		
Race			17.66 (3, 902)	***
Non-Hispanic White	2.65	.63		
Non-Hispanic African-Am or Black	2.96	.57		
Latina or Hispanic	2.96	.60		
Other	2.98	.70		
Education			53.88 (2, 901)	***
HS Grad or less	3.00	.56		
Some college, college grad or some grad	2.62	.62		
Graduate degree	2.44	.72		
Marriage Status			6.16 (4, 895)	***
Married, living with partner	2.71	.64		
Widowed	3.10	.57		
Divorced	2.85	.66		
Separated	3.00	.57		
Never been married	2.72	.63		
Language of Interview			11.84 (1, 908)	***
English	2.75	.65		
Spanish	3.15	.45		

*Note: A higher score on the Attitude Scale indicates a greater endorsement of traditional gender roles and justification of male sexual aggression toward women.
**Overall mean for the Attitude Scale=*2.76 (.64)*

Table 5: ANOVAs of Demographic Variables and Media Scale

Results examining the variation between demographic groups on the Media Scale.

	Mean	SD	F (df between, df within)	p
Gender			25.25 (1, 908)	***
Male	3.74	.64		
Female	3.96	.67		
Media Source			1.76 (9, 893)	-
Newspapers	3.92	.61		
Magazines (N=2)	3.13	.66		
Internet	3.86	.67		
Books (N=2)	3.60	.00		
TV	3.80	.68		
Radio	4.03	.64		
Government Agencies (N=2)	4.40	.28		
Family (N=2)	3.90	1.56		
Friends/Colleagues (N=16)	4.14	1.56		
Other (N=6)	3.56	.72		
Age			1.21 (4, 896)	-
18-34	3.78	.65		
35-44	3.88	.66		
45-54	3.87	.67		
55-64	3.92	.67		
65+	3.83	.66		
Race			.95 (3, 902)	-
Non-Hispanic White	3.85	.66		
Non-Hispanic African-Am or Black	3.90	.69		
Latina or Hispanic	3.78	.67		
Other	3.88	.58		
Education			15.60 (2, 901)	***
HS Grad or less	3.72	.66		
Some college, college grad or some grad	3.91	.65		
Graduate degree	4.08	.63		
Marriage Status			1.92 (4, 895)	-
Married, living with partner	3.88	.64		
Widowed	3.64	.76		
Divorced	3.91	.71		
Separated	3.85	.69		
Never been married	3.83	.66		
Language of Interview			19.89 (1, 908)	***
English	3.87	.66		
Spanish	3.34	.68		

*Note: A higher score on the Media Scale indicates a stronger belief that inequality exists between genders in the media; this does not indicate an endorsement of inequality.

**Overall mean for Media Scale=*3.84 (.67)*

Table 6: ANOVAs of Demographic Variables and Bystander Scale

Results of the Bystander Behavior Scale compared to demographic groups.

	Mean	SD	F (df between, df within)	p
Gender			31.74 (1, 908)	***
Male	3.74	.91		
Female	4.06	.83		
Media Source			1.97 (9, 893)	*
Newspapers	3.99	.87		
Magazines (N=2)	3.00	1.13		
Internet	3.78	.90		
Books (N=2)	5.00	.00		
TV	3.93	.88		
Radio	4.00	.91		
Government Agencies (N=2)	4.80	.00		
Family (N=2)	3.70	1.84		
Friends/Colleagues (N=16)	4.23	.66		
Other(N=6)	3.60	1.22		
Age			4.50 (4, 896)	***
18-34	3.73	.83		
35-44	4.04	.84		
45-54	3.98	.95		
55-64	3.86	.90		
65+	4.01	.88		
Race			2.79 (3, 902)	*
Non-Hispanic White	3.94	.89		
Non-Hispanic African-Am or Black	4.04	.74		
Latina or Hispanic	3.79	.91		
Other	3.75	.95		
Education			2.79 (2, 901)	-
HS Grad or less	3.88	.90		
Some college, college grad or some grad	3.90	.90		
Graduate degree	4.11	.71		
Marriage Status			7.55 (4, 895)	***
Married, living with partner	3.98	.86		
Widowed	4.10	.76		
Divorced	3.99	.91		
Separated	4.30	.76		
Never been married	3.66	.91		
Language of Interview			7.57 (1, 908)	**
English	3.92	.88		
Spanish	3.49	1.01		

*Note: A higher score on Bystander Scale indicates the individual is more likely to engage in these bystander behaviors.

**Overall mean for Bystander Scale=*3.90 (.89)*