APPENDIX 12 – ANALYSIS PLAN

Data Analysis

Different statistical methods will be employed to address different types of research questions. Univariate analysis will be used to answer the most basic questions, e.g., what proportion of the respondents experienced sexual violence against them, what proportion of the respondents that experienced sexual violence sought help, etc. Univariate analysis, done one variable at a time, is largely descriptive. It examines the sample distribution of each variable by looking at the mean and standard error of the mean. For categorical variables, the mean is typically presented as a proportion. Estimated standard error of the mean or proportion will be used to construct confidence intervals and conduct hypothesis testing as appropriate.

Multivariate analysis will be used to examine and answer questions about the relationships or associations among variables. For example, to investigate the possible association between sexual violence and employment status, we may construct a contingency table or cross-tabulation and perform a chi-square test. Such analysis may be extended to more than two variables except that the sample size (cell sizes) might be too small if too many variables are involved. In that case, multivariate statistical models, such as logistic regression model and the like, may be considered. In the logistic regression model, the dependent variable will be a dichotomous indicator, e.g., whether or not the respondent sought help after she experienced sexual violence, and the independent variables will include factors that affect such help-seeking behavior.

Pairwise and multiple comparisons also will be used to analyze the data. Such comparisons could answer questions about possible differences among the three racial/ethnic groups or among other population subgroups (e.g., subgroups defined by employment status, educational level, socioeconomic status). For example, estimates of sexual violence, help-seeking behavior and the like may be compared between two groups (e.g., employed vs. unemployed) or among three or more groups (e.g., African American, Hispanic, and American Indian). The two sample t-test will be used for comparisons between two groups, and the chi-square test will be used for comparisons among three or more groups.

Table Shells

Each of the following table shells represents one type of table that will be used to present the analysis.

Table Shell 1: Presents estimated means or proportions and confidence intervals for women who experienced sexual violence.

Site	Estimate	Sample Size	Confidence Interval
African American			
American Indian			
Hispanic			

Table Shell 2: Presents cell frequencies and report Chi-square test

Site	Sought Help	Did not Seek Help	Row Total	x^2	p
African American					
American Indian					
Hispanic					
Column Total					

Table Shell 3: Comparisons of means or proportions between two groups

Site	Employed	Unemployed	t	p
African American				
American Indian				
Hispanic				

Table Shell 4: Multiple comparisons

Estimate	African American	American Indian	Hispanic	F	p
Percent Reporting Sexual Violence					
Percent Reporting Help Seeking					