#analysis of WVS 1996

###Codes for WVS 1996

getwd()

setwd("D:/Users/Erwin/OneDrive - University of the Philippines/CSWCD/SD/SD 400/Dataset/WVS/1996")

library(readxl)

wvs1996 <- read\_excel("D:/Users/Erwin/OneDrive - University of the Philippines/CSWCD/SD/SD 400/Dataset/WVS/1996/testdata2.xlsx")

wvs1996 = as.data.frame(wvs1996)

library(psych)

library(tidyverse)

#https://www.datanovia.com/en/lessons/select-data-frame-columns-in-r/

wvs1996\_2 <- wvs1996%>%select(V10 ,

V101 ,

V102 ,

V103 ,

V11 ,

V123 ,

V125 ,

V126 ,

V127 ,

V128 ,

V129 ,

V135 ,

V136 ,

V138 ,

V139 ,

V140 ,

V141 ,

V142 ,

V143 ,

V144 ,

V145 ,

V146 ,

V147 ,

V148 ,

V149\_06 ,

V150 ,

V154 ,

V155 ,

V156 ,

V157 ,

V177 ,

V192 ,

V193 ,

V194 ,

V196 ,

V197 ,

V198 ,

V199 ,

V200 ,

V201 ,

V202 ,

V217 ,

V220 ,

V221 ,

V225 ,

V226 ,

V4 ,

V5 ,

V6 ,

V61 ,

V63 ,

V64 ,

V65 ,

V66 ,

V7 ,

V70 ,

V8 ,

V9 ,

V99)

#detach(wvs2001\_2)

attach(wvs1996\_2)

class(wvs1996\_2)

#subset middle class

#d <- as.numeric(c(1:5))

#d <- as.data.frame(d)

#d

#wvs1996\_2m <- subset(wvs1996\_2, V226>1 & V226<4)

#wvs1996\_2m = subset(wvs1996\_2m, select = -c(V226))

#wvs1996\_2m = subset(wvs1996\_2, select = -c(V226))

wvs1996\_2m = subset(wvs1996\_2)

#700 obs

#descriptive

desc <- describe(wvs1996\_2m)

desc2 <- desc%>%select(skew,kurtosis)

desc2

#V4 is highly skewed

mardia(wvs1996\_2, na.rm=TRUE, plot=TRUE)

out=outlier(wvs1996\_2, bad=5, cex=.5, plot=T, na.rm=TRUE, bg=c("blue"),

pch=21, ylab="D2", ylim=c(0,500))

#freq

#table(Q1)

#table(Q288)

#table(Q288R)

#table(Q287)

#crosstab

#xtabs(~Q288+Q287)

#cor

#wvs2019cor=cor(Q287, Q108)

#wvs2019cor

#wvs2019cor=cor(wvs2019)

#wvs2019cor

#http://www.sthda.com/english/wiki/correlation-test-between-two-variables-in-r

#testcor <- cor.test(wvs2019$Q288, wvs2019$Q287,

# method = "pearson")

#testcor

#mulcor <- cor(wvs2019[, c('Q288', 'Q287', 'Q1')])

#mulcor

#polychoric

#wvs19poly = polychoric(wvs2019\_2)

#pearson

wvs96cor = cor(wvs1996\_2m)

#visualize cor>.3

#library(qgraph)

#qgraph(wvs19cor,cut=.30,details=TRUE,posCol="darkgreen",negCol="red",

# labels=names(wvs19cor))

#correlation plot from the psych package to see corr > .30

#corPlot(wvs19cor,diag=F,zlim=c(.3,1),upper=F,numbers=TRUE,cex.axis=.5)

#DETERMINE NUMBER OF CORRELATIONS ABOVE .30

#also chekch for Singularity - too high correlation (r=1).

##create correlation matrix from raw data

wvs96cor = cor(wvs1996\_2m)

##compute number of coef>=.30 off-diagonal

BigR=sum(wvs96cor>=abs(.30) & wvs96cor<abs(1.0),na.rm=T)/2

print(BigR)

#BigR = 76

##Check for multicollinearity

#if determinant of cor matrix is >0.00001 then multicollinearity is probably not a problem

det(cor(wvs1996\_2m))

#KMO

KMO(wvs1996\_2)

#Bartlett's

cortest.bartlett(wvs1996\_2,n=700)

#consider:

#https://stackoverflow.com/questions/15215457/standardize-data-columns-in-r

##How many factors to retain?

#PATTERN MATRIX FOR SOLUTION WITH EIGHT

#FACTORS FROM PSYCH PACKAGE

f8=fa(wvs1996\_2m,nfactors=8,SMC=TRUE,min.err=0.001,max.iter=1000,fm="ml",rotate="none",n.obs=568)

f8out <- print(f8,sort=TRUE, digits=2)

#PARALLEL ANALYSIS (PA) WITH PSYCH PACKAGE

#PA with 500 repetitions

#For correlation matrix the n.pbs must be added: n.obs=152

#compare eigen of simulated and actual

pawvs01=fa.parallel(wvs1996\_2m,fa="pc",n.iter = 500,ylab="Eigenvalues",quant=.50)

print(pawvs01)

#suggests 12 factors

#fa="pc" - extraction method=PCA

#fa="fa" - extraction method=common factor extraction

#quant = comparison standard, here = 50th percentile

#only 1 component (eigenvalue=7.90) is sufficient

#MAP WITH PSYCH PACKAGE

vss(wvs1996\_2m,rotate="none", fm="pc", plot=FALSE, n.obs=700)

#The lowest MAP value identifies the number of factors to retain. In this

#case, MAP reaches a minimum at two factors

#lowest MAP=?

#indicates 3 to 4 factors

#SCREE PLOT WITH PSYCH PACKAGE

#display scree plot from both reduced and unreduced corr matrices

scree(wvs1996\_2m,pc=TRUE,factors=TRUE,hline="-1",main="Scree Plot")

#how many factors?

#scree = 2-3

#pa = 12

#MAP = 3 - 4

#Delete var with low loading first.

#Cutoff = .4 (consistent with 2019)

#################

# 6 factor model, promax rotation, ML extraction, save residuals

#missing data can be imputed with mean (impute="mean") or median

#(impute="median"). Default vaues for iteration (min.err, max.iter)

#and initial communality estimate (SMC)

#record output

#sink(file = "Out1.txt", split = TRUE, append = FALSE)

f6=fa(wvs1996\_2m,nfactors=6,rotate="promax",residuals=TRUE,SMC=TRUE,

missing=FALSE,fm="ml",n.obs=700)

print(f6,digits=3,sort=TRUE, cut=.399)

#record

sink(file = "Outf6.txt", split = TRUE, append = FALSE)

print(sort=TRUE,digits=3, cut=.399,f6$Structure)

sink()

#residual matrix

resd=residuals(f6,diag=FALSE,na.rm=TRUE)

print(resd,digits=3)

#next, count the number of residuals > .05. Can be changed to .10

BigR=sum(resd>abs(0.05), na.rm=T)

print(BigR)

#Total number of off-diagonal elements in the data matrix

totR=length(wvs2019\_2m)\*(length(wvs2019\_2m)-1)/2

print(totR)

#proportion of off-diagonal elements >.5 in residual matrix

sum(BigR/totR\*100)

#largest residual in the matrix

max(abs(resd),na.rm=TRUE)

#record output stop

sink(file = NULL)

unlink("Out1.txt")

#structure of matrix if desired

#save to file

sink(file = "Out1.txt", split = TRUE, append = FALSE)

print(sort=TRUE,digits=3, cut=.399,f6$Structure)

sink(file = NULL)

#decision:

#Remove vars with loading <.4, RUN

#Remove vars with loading <.5, RUN

#Try 4-factor model

#Try other or no retation

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# 4 factor model, promax rotation, ML extraction, save residuals

####this was done. 3 factor seems better, no conceptual overlap off factors

#missing data can be imputed with mean (impute="mean") or median

#(impute="median"). Default vaues for iteration (min.err, max.iter)

#and initial communality estimate (SMC)

#remove vars with loading <.4

wvs1996\_2m = subset(wvs1996\_2m, select = c(V136 ,

V138 ,

V139 ,

V140 ,

V141 ,

V142 ,

V143 ,

V144 ,

V145 ,

V146 ,

V147 ,

V148 ,

V149\_06 ,

V150 ,

V192 ,

V193 ,

V194 ,

V197 ,

V198 ,

V199 ,

V200 ,

V201 ,

V202 ,

V64 ,

V65 ,

V226))

#remove vars with loading <=.399

#run f3

f3=fa(wvs1996\_2m,nfactors=3,rotate = "promax",residuals=TRUE,SMC=TRUE,

missing=FALSE,fm="ml",n.obs=700)

sink(file = "Outf3.txt", split = TRUE, append = FALSE)

print(sort=TRUE,digits=3, cut=.399,f3$Structure)

sink()

print(f3,digits=3,cut=.399, sort=TRUE)

print(sort=TRUE,digits=3, cut=0,f3$Structure)

#remove vars with loading <.3

#wvs2019\_2m = subset(wvs2019\_2m, select = -c(Q159, Q291G2, Q291G3, Q291P2, Q292A,

# Q292B, Q292C, Q292D, Q292F, Q292H))

f2=fa(wvs2001\_2m,nfactors=2,rotate = "promax",residuals=TRUE,SMC=TRUE,

missing=FALSE,fm="ml",n.obs=568)

sink(file = "Outf3.txt", split = TRUE, append = FALSE)

print(sort=TRUE,digits=3, cut=.399,f2$Structure)

sink()

#factor scores

factor.scores(wvs2019\_2m, f3, method="tenBerge")

det(cor(wvs2019\_2m))

#KMO

KMO(wvs2019\_2m)

#Bartlett's

cortest.bartlett(wvs2019\_2m,n=737)

#mardia

mardia(wvs2019\_2m, na.rm=TRUE, plot=TRUE)

#residual matrix

resd=residuals(f3,diag=FALSE,na.rm=TRUE)

print(resd,digits=3)

#next, count the number of residuals > .05. Can be changed to .10

BigR=sum(resd>abs(0.05), na.rm=T)

print(BigR)

#Total number of off-diagonal elements in the data matrix

totR=length(wvs2019\_2m)\*(length(wvs2019\_2m)-1)/2

print(totR)

#proportion of off-diagonal elements >.05 in residual matrix

sum(BigR/totR\*100)

#largest residual in the matrix

max(abs(resd),na.rm=TRUE)

#structure of matrix if desired

#save to file

sink(file = "Out1.txt", split = TRUE, append = FALSE)

print(sort=TRUE,digits=3, cut=0,f3$Structure)

sink(file = NULL)

######################################################################

#########################################################################

# 1 factor model, promax rotation, ML extraction, save residuals

#missing data can be imputed with mean (impute="mean") or median

#(impute="median"). Default vaues for iteration (min.err, max.iter)

#and initial communality estimate (SMC)

f1=fa(wvs2019\_2m,nfactors=1,rotate="promax",residuals=TRUE,SMC=TRUE,

missing=FALSE,fm="ml",n.obs=1200)

print(f1,digits=3,sort=TRUE)

print(sort=TRUE,digits=3, cut=0,f1$Structure)

#residual matrix

resd=residuals(f3,diag=FALSE,na.rm=TRUE)

print(resd,digits=3)

#next, count the number of residuals > .05. Can be changed to .10

BigR=sum(resd>abs(0.05), na.rm=T)

print(BigR)

#Total number of off-diagonal elements in the data matrix

totR=length(wvs2019\_2m)\*(length(wvs2019\_2m)-1)/2

print(totR)

#proportion of off-diagonal elements >.05 in residual matrix

sum(BigR/totR\*100)

#largest residual in the matrix

max(abs(resd),na.rm=TRUE)

#structure of matrix if desired

#save to file

sink(file = "Out1.txt", split = TRUE, append = FALSE)

print(sort=TRUE,digits=3, cut=0,f3$Structure)

sink(file = NULL)

#############

#charts

setwd("D:/Users/Erwin/OneDrive - University of the Philippines/CSWCD/SD/SD 400/Data Analysis/WVS/1996")

library(dplyr)

library(weights)

library(sjstats)

library(gmodels)

library(pollster)

library(readxl)

library(ggplot2)

attach(wvs1996\_2)

#detach(wvs1996\_2m)

#create table

count\_to\_pct <- function(data, ..., col = n) {

grouping\_vars\_expr <- quos(...)

col\_expr <- enquo(col)

data %>%

group\_by(!!! grouping\_vars\_expr) %>%

mutate(pct = (!! col\_expr) / sum(!! col\_expr)) %>%

ungroup()

}

#QS1 per Sex

df\_count <- wvs1996\_2 %>%

count(V226, V141) %>%

count\_to\_pct(V226)

df\_count

#Grouped Bar Graphs

#rename

df\_V141 <- as.data.frame.table(df\_count)

head(df\_V141)

df\_V141 %>%

rename(

"SES" = Freq.V226

)

#re-order

df\_QS1$Freq.QS1 = factor(df\_QS1$Freq.QS1, levels=c("Strongly Agree", "Agree", "Neither Agree nor Disagree", "Disagree", "Strongly Disagree"))

theme\_set(theme\_classic())

# Plot

SES\_V141 <- ggplot(df\_V141, aes(fill = Freq.V226, y = Freq.pct\*100, x = Freq.V141)) + scale\_y\_continuous(limits = c(0,100))

SES\_V141 <- SES\_V141 + scale\_x\_discrete(labels = function(x) str\_wrap(x, width = 10)) + scale\_fill\_manual(values=c("#E69F00", "#56B4E9"))

#gs1 <- gs1 + scale\_x\_discrete(breaks=c(0,1), labels=c("No", "Yes"))

SES\_V141 <- SES\_V141 + geom\_bar(stat="identity", width = 0.8, position="dodge") +

labs(title="Bar Chart", subtitle="", caption="", x = "It is important for women \n to have representation in Congress", y = "Percent", fill = "Sex") +

theme(axis.text.x = element\_text(size = 12, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=15, face=("bold"))) +

geom\_text(aes(label=round(Freq.pct, digits=3)\*100), size = 4, position=position\_dodge(width=0.9), vjust=-0.25)

SES\_V141

ggsave("QS1 per Sex.png", plot = SES\_V141)

tab <- table(wvs1996\_2m$V141)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4), labels = c("A Great Deal", "Quite A Lot", "Not Very Much", "None At All"))

tab

V141 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V141

V141 <- V141 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Confidence in \nPolice", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V141

ggsave("V141.jpeg", plot = V141)

tab <- table(wvs1996\_2m$V142)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4), labels = c("A Great Deal", "Quite A Lot", "Not Very Much", "None At All"))

tab

V142 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V142

V142 <- V142 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Confidence in \nNational Government", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V142

ggsave("V142.jpeg", plot = V142)

tab <- table(wvs1996\_2m$V143)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4), labels = c("A Great Deal", "Quite A Lot", "Not Very Much", "None At All"))

tab

V143 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V143

V143 <- V143 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Confidence in \nPolitical Parties", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V143

ggsave("V143.jpeg", plot = V143)

tab <- table(wvs1996\_2m$V144)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4), labels = c("A Great Deal", "Quite A Lot", "Not Very Much", "None At All"))

tab

V144 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V144

V144 <- V144 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Confidence in \nCongress", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V144

ggsave("V144.jpeg", plot = V144)

tab <- table(wvs1996\_2m$V145)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4), labels = c("A Great Deal", "Quite A Lot", "Not Very Much", "None At All"))

tab

V145 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V145

V145 <- V145 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Confidence in \nCivil Service", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V145

ggsave("V145.jpeg", plot = V145)

tab <- table(wvs1996\_2m$V146)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4), labels = c("A Great Deal", "Quite A Lot", "Not Very Much", "None At All"))

tab

V146 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V146

V146 <- V146 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Confidence in \nMajor Companies", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V146

ggsave("V146.jpeg", plot = V146)

tab <- table(wvs1996\_2m$V147)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4), labels = c("A Great Deal", "Quite A Lot", "Not Very Much", "None At All"))

tab

V147 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V147

V147 <- V147 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Confidence in \nGreen/Ecology Movement", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V147

ggsave("V147.jpeg", plot = V147)

tab <- table(wvs1996\_2m$V148)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4), labels = c("A Great Deal", "Quite A Lot", "Not Very Much", "None At All"))

tab

V148 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V148

V148 <- V148 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Confidence in \nWomen's Movement", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V148

ggsave("V148.jpeg", plot = V148)

tab <- table(wvs1996\_2m$V149\_06)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4), labels = c("A Great Deal", "Quite A Lot", "Not Very Much", "None At All"))

tab

V149\_06 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V149\_06

V149\_06 <- V149\_06 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Confidence in \nASEAN", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V149\_06

ggsave("V149\_06.jpeg", plot = V149\_06)

tab <- table(wvs1996\_2m$V150)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4), labels = c("A Great Deal", "Quite A Lot", "Not Very Much", "None At All"))

tab

V150 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V150

V150 <- V150 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Confidence in \nUnited Nations", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V150

ggsave("V150.jpeg", plot = V150)

tab <- table(wvs1996\_2m$V193)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4, 5, 6, 7, 8, 9, 10), labels = c("Never be Justified", "2", "3","4", "5", "6", "7", "8", "9", "Always be Justified"))

tab

V193 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V193

V193 <- V193 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Avoiding Fare on \nPublic Transport", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V193

ggsave("V193.jpeg", plot = V193)

tab <- table(wvs1996\_2m$V194)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4, 5, 6, 7, 8, 9, 10), labels = c("Never be Justified", "2", "3","4", "5", "6", "7", "8", "9", "Always be Justified"))

tab

V194 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V194

V194 <- V194 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Cheating on Taxes \nif you have the chance", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V194

ggsave("V194.jpeg", plot = V194)

tab <- table(wvs1996\_2m$V198)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4, 5, 6, 7, 8, 9, 10), labels = c("Never be Justified", "2", "3","4", "5", "6", "7", "8", "9", "Always be Justified"))

tab

V198 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V198

V198 <- V198 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Prostitution", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V198

ggsave("V198.jpeg", plot = V198)

tab <- table(wvs1996\_2m$V199)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4, 5, 6, 7, 8, 9, 10), labels = c("Never be Justified", "2", "3","4", "5", "6", "7", "8", "9", "Always be Justified"))

tab

V199 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V199

V199 <- V199 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Abortion", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V199

ggsave("V199.jpeg", plot = V199)

tab <- table(wvs1996\_2m$V200)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4, 5, 6, 7, 8, 9, 10), labels = c("Never be Justified", "2", "3","4", "5", "6", "7", "8", "9", "Always be Justified"))

tab

V200 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V200

V200 <- V200 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Divorce", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V200

ggsave("V200.jpeg", plot = V200)

tab <- table(wvs1996\_2m$V201)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4, 5, 6, 7, 8, 9, 10), labels = c("Never be Justified", "2", "3","4", "5", "6", "7", "8", "9", "Always be Justified"))

tab

V201 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V201

V201 <- V201 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Euthanasia", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V201

ggsave("V201.jpeg", plot = V201)

tab <- table(wvs1996\_2m$V202)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4, 5, 6, 7, 8, 9, 10), labels = c("Never be Justified", "2", "3","4", "5", "6", "7", "8", "9", "Always be Justified"))

tab

V202 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V202

V202 <- V202 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Suicide", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V202

ggsave("V202.jpeg", plot = V202)

tab <- table(wvs1996\_2m$V64)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4, 5, 6, 7, 8, 9, 10), labels = c("Completely Dissatisfied", "2", "3","4", "5", "6", "7", "8", "9", "Completely Satisfied"))

tab

V64 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V64

V64 <- V64 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Satisfaction with \nFinancial Situation", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V64

ggsave("V64.jpeg", plot = V64)

tab <- table(wvs1996\_2m$V65)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4, 5, 6, 7, 8, 9, 10), labels = c("Completely Dissatisfied", "2", "3","4", "5", "6", "7", "8", "9", "Completely Satisfied"))

tab

V65 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V65

V65 <- V65 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Satisfaction with Life", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V65

ggsave("V65.jpeg", plot = V65)

tab <- table(wvs1996\_2m$V136)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4), labels = c("A Great Deal", "Quite A Lot", "Not Very Much", "None At All"))

tab

V136 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V136

V136 <- V136 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Confidence in \nArmed Forces", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V136

ggsave("V136.jpeg", plot = V136)

tab <- table(wvs1996\_2m$V138)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4), labels = c("A Great Deal", "Quite A Lot", "Not Very Much", "None At All"))

tab

V138 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V138

V138 <- V138 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Confidence in \nthe Press", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V138

ggsave("V138.jpeg", plot = V138)

tab <- table(wvs1996\_2m$V139)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4), labels = c("A Great Deal", "Quite A Lot", "Not Very Much", "None At All"))

tab

V139 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V139

V139 <- V139 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Confidence in \nthe Television", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V139

ggsave("V139.jpeg", plot = V139)

tab <- table(wvs1996\_2m$V140)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4), labels = c("A Great Deal", "Quite A Lot", "Not Very Much", "None At All"))

tab

V140 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V140

V140 <- V140 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Confidence in \nthe Labor Unions", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V140

ggsave("V140.jpeg", plot = V140)

tab <- table(wvs1996\_2m$V192)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4, 5, 6, 7, 8, 9, 10), labels = c("Never be Justified", "2", "3","4", "5", "6", "7", "8", "9", "Always be Justified"))

tab

V192 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V192

V192 <- V192 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Claiming \ngovernment benefits \nto which you are not entitled", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V192

ggsave("V192.jpeg", plot = V192)

tab <- table(wvs1996\_2m$V197)

tab<-prop.table(tab)

tab <- as.data.frame.table(tab)

tab

tab$Var1 = factor(tab$Var1, levels=c(1, 2, 3, 4, 5, 6, 7, 8, 9, 10), labels = c("Never be Justified", "2", "3","4", "5", "6", "7", "8", "9", "Always be Justified"))

tab

V197 <- ggplot(tab, aes(y = Freq\*100, x = Var1)) + scale\_y\_continuous(limits = c(0,100))

V197

V197 <- V197 + geom\_bar(stat="identity", width = 0.8, position="dodge", fill="steel blue") +

labs(title="WVS 1996", subtitle="", caption="",

x = "Homosexuality", y = "Percent", fill = "Gender Focal \nPerson") +

theme(axis.text.x = element\_text(size = 6, angle=65, vjust=1, hjust=1), axis.title=element\_text(size=10, face=("bold"))) +

geom\_text(aes(label=round(Freq, digits=3)\*100), size = 2, position=position\_dodge(width=0.9), vjust=-0.25)

V197

ggsave("V197.jpeg", plot = V197)

##############

#crosstabs

#get V226 again

library(gmodels)

sink(file = "wvs96xtabs.txt", split = TRUE, append = FALSE)

CrossTable(wvs1996\_2m$V141,wvs1996\_2m$V226, chisq = TRUE) #\*\*

CrossTable(wvs1996\_2m$V142,wvs1996\_2m$V226, chisq = TRUE) #

CrossTable(wvs1996\_2m$V143,wvs1996\_2m$V226, chisq = TRUE) #

CrossTable(wvs1996\_2m$V144,wvs1996\_2m$V226, chisq = TRUE) #\*\*

CrossTable(wvs1996\_2m$V145,wvs1996\_2m$V226, chisq = TRUE) #\*\*

CrossTable(wvs1996\_2m$V146,wvs1996\_2m$V226, chisq = TRUE) #

CrossTable(wvs1996\_2m$V147,wvs1996\_2m$V226, chisq = TRUE) #

#CrossTable(wvs1996\_2m$V148,wvs1996\_2m$V226, chisq = TRUE) #

#CrossTable(wvs1996\_2m$V149\_06,wvs1996\_2m$V226, chisq = TRUE) #close

#CrossTable(wvs1996\_2m$V150,wvs1996\_2m$V226, chisq = TRUE) #\*\*

CrossTable(wvs1996\_2m$V193,wvs1996\_2m$V226, chisq = TRUE) #\*\*

CrossTable(wvs1996\_2m$V194,wvs1996\_2m$V226, chisq = TRUE) #\*\*

CrossTable(wvs1996\_2m$V198,wvs1996\_2m$V226, chisq = TRUE) #\*\*

CrossTable(wvs1996\_2m$V199,wvs1996\_2m$V226, chisq = TRUE) #\*\*

CrossTable(wvs1996\_2m$V200,wvs1996\_2m$V226, chisq = TRUE) #

CrossTable(wvs1996\_2m$V201,wvs1996\_2m$V226, chisq = TRUE) #\*\*

CrossTable(wvs1996\_2m$V202,wvs1996\_2m$V226, chisq = TRUE) #\*\*

CrossTable(wvs1996\_2m$V64,wvs1996\_2m$V226, chisq = TRUE) #\*\*

CrossTable(wvs1996\_2m$V65,wvs1996\_2m$V226, chisq = TRUE) #\*\*

CrossTable(wvs1996\_2m$V136,wvs1996\_2m$V226, chisq = TRUE) #\*\*

CrossTable(wvs1996\_2m$V138,wvs1996\_2m$V226, chisq = TRUE) #\*\*

CrossTable(wvs1996\_2m$V139,wvs1996\_2m$V226, chisq = TRUE) #

CrossTable(wvs1996\_2m$V140,wvs1996\_2m$V226, chisq = TRUE) #

CrossTable(wvs1996\_2m$V192,wvs1996\_2m$V226, chisq = TRUE) #

CrossTable(wvs1996\_2m$V196,wvs1996\_2m$V226, chisq = TRUE) #

CrossTable(wvs1996\_2m$V197,wvs1996\_2m$V226, chisq = TRUE) #\*\*

sink()

CrossTable(wvs1996\_2m$V217,wvs1996\_2m$V226, chisq = TRUE) #