Extension_FINAL2

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Data Wrangling

```
# Load Pew Data
pew <- read.dta13("ATP_W64.dta")
pew <- subset(pew,select=c(QKEY,COVID_COMFORT_a_W64,
                           COVID_COMFORT_b_W64,COVID_COMFORT_c_W64,
                           COVID_COMFORT_d_W64,COVID_COMFORT_e_W64,
                           COVID_RESTRICTION_a_W64,COVID_RESTRICTION_b_W64,
                           COVID_RESTRICTION_c_W64,COVID_RESTRICTION_d_W64,
                           COVID_RESTRICTION_e_W64,COVID_RESTRICTION_f_W64,
                           COVID_RESTRICTION_g_W64,F_IDEO,F_PARTY_FINAL,F_SEX,
                           F_AGECAT,F_EDUCCAT2,F_MARITAL,F_INCOME,F_CREGION,
                           F_RACETHN,WEIGHT_W64))
```

Code & Scale Ideological DV of interest (policy support)

```
covid_ideo_scales <- subset(pew,select=c(QKEY,COVID_RESTRICTION_a_W64,
                                         COVID_RESTRICTION_b_W64,
                                         COVID_RESTRICTION_c_W64,
                                         COVID_RESTRICTION_d_W64,
                                         COVID_RESTRICTION_e_W64,
                                         COVID_RESTRICTION_f_W64,
                                         COVID_RESTRICTION_g_W64,F_IDEO))
colnames(covid_ideo_scales) <- c("QKEY","restriction_intl_travel",
                                 "restriction_most_business",
                                 "restriction_large_gatherings",
                                 "restriction_sporting_events",
                                 "restriction_closing_k12",
                                 "restriction_carry_out_only",
                                 "restriction_postponing_primary","libcon")

for(i in 2:ncol(covid_ideo_scales)){
  covid_ideo_scales[,i] <- as.character(covid_ideo_scales[,i])
}
covid_ideo_scales[covid_ideo_scales == "Necessary"] <- 1
covid_ideo_scales[covid_ideo_scales == "Unnecessary"] <- 0

covid_ideo_scales$libcon <- ifelse(covid_ideo_scales$libcon %in% "Very conservative",1,
                           ifelse(covid_ideo_scales$libcon %in% "Conservative",2,
                           ifelse(covid_ideo_scales$libcon %in% "Moderate",3,
                           ifelse(covid_ideo_scales$libcon %in% "Liberal",4,
```

```
                            ifelse(covid_ideo_scales$libcon %in% "Liberal",4,
                            ifelse(covid_ideo_scales$libcon %in% "Very liberal",5,NA))))))


for(i in 2:ncol(covid_ideo_scales)){
  covid_ideo_scales[,i] <- as.numeric(covid_ideo_scales[,i])
}
covid_ideo_scales <- na.omit(covid_ideo_scales)
```

Factor Analysis (policy support)

```
library("FactoMineR")
library("factoextra")
```

```
## Welcome! Want to learn more? See two factoextra-related books at https://goo.gl/ve3WBa
```

```
x <- covid_ideo_scales[,c(2:9)]
for(i in 1:8){
  x[,i] <- factor(x[,i])
}

factanal <- FAMD(x, graph = F,ncp=7,sup.var = NULL)
# fviz_screeplot(factanal)
# fviz_contrib(factanal, "var", axes = 1)
# fviz_contrib(factanal, "var", axes = 2)
# fviz_contrib(factanal, "var", axes = 3)
# fviz_famd_var(factanal, "var", repel = TRUE, col.var = "black")

factanal <- fa(covid_ideo_scales[,c(2:9)], nfactors=2, rotate="promax", fm="pa")
scores <- data.frame(factanal$scores)
#loadings(factanal)
loadings <- factanal$loadings
loadings <- data.frame(f1 = loadings[,1],f2=loadings[,2])

#plot(factanal$loadings,type="n") # set up plot
#text(factanal$loadings,labels=names(covid_ideo_scales)[2:9],cex=.7) # add variable names

library(ggrepel)

#alpha(covid_ideo_scales[,c(2:9)])

library(grid)
library(gridExtra)
```

```
##
## Attaching package: 'gridExtra'
```

```
## The following object is masked from 'package:dplyr':
##
##     combine
```

```
loadings$vars <- ifelse(rownames(loadings) %in% "restriction_intl_travel",
                        "International Travel",
                ifelse(rownames(loadings) %in% "restriction_most_business",
                               "Most Businesses",
```

```
                ifelse(rownames(loadings) %in% "restriction_large_gatherings",
                                    "Large Gatherings",
                ifelse(rownames(loadings) %in% "restriction_sporting_events",
                                       "Sporting Events",
                ifelse(rownames(loadings) %in% "restriction_closing_k12",
                                            "K-12 Schools",
                ifelse(rownames(loadings) %in% "restriction_carry_out_only",
                                                 "Carry-out Only",
                ifelse(rownames(loadings) %in% "restriction_postponing_primary",
                                                      "Postponing Primary",
                ifelse(rownames(loadings) %in% "libcon","Left-Right Ideology",NA)))))))

plot <- ggplot(loadings,aes(x = f1, y=f2,label=vars)) +
  theme_minimal() + geom_label_repel() +
  scale_x_continuous("First Dimension Factor (Proportion of Variance: 36%)") +
  scale_y_continuous("Second Dimension Factor (Propoportion of Variance 4%)") +
  geom_segment(aes(x = 0,y = 0,xend = f1,yend = f2),arrow=arrow())
grid.newpage()

footnote <- expression("Cronbach's Standardized"~alpha~"="~0.78)

g <- arrangeGrob(plot, bottom = textGrob(footnote, x = 0.025, hjust = 0,
                                         vjust= 0, y=0.75,
                                         gp = gpar(fontface = "italic",
                                                   fontsize = 9, col = "black")))
grid.draw(g)
```

Cronbach's Standardized $\alpha = 0.78$

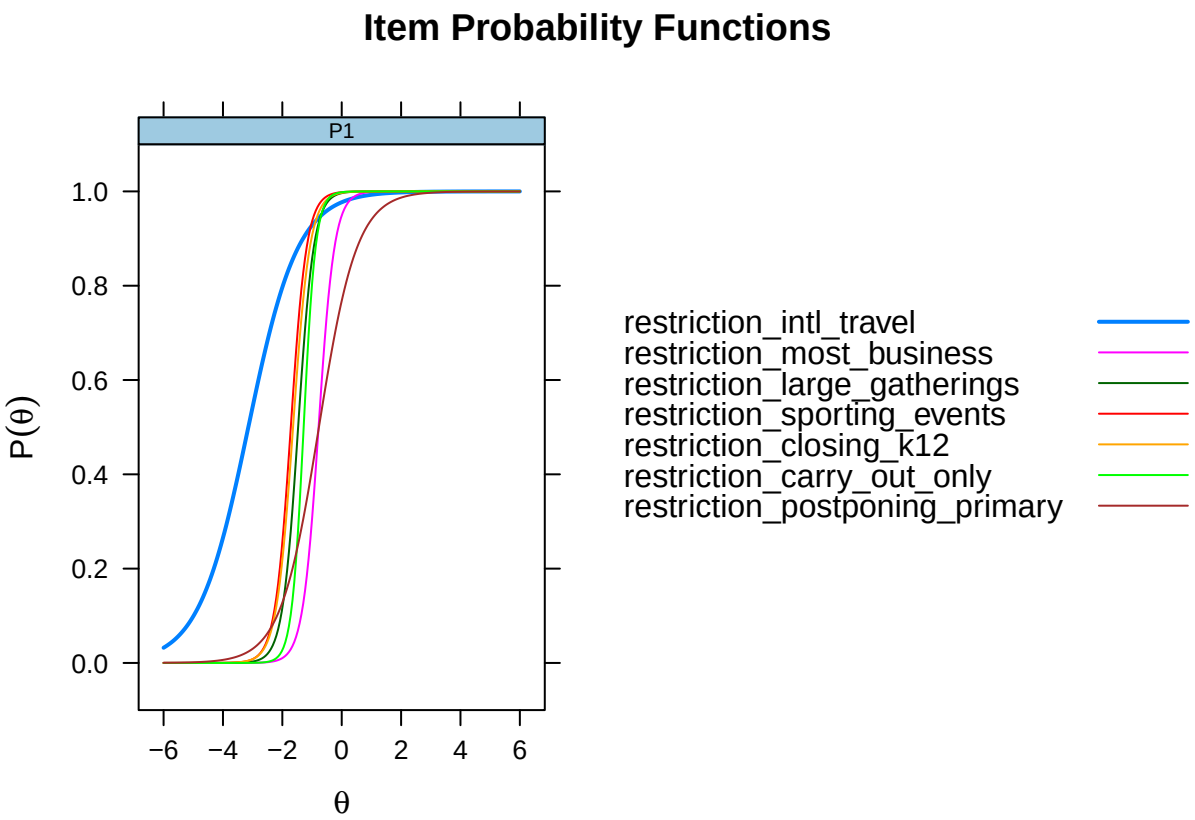
```
ggsave(file="factor_analysis_covid19_policies.png", g, width = 8, height = 5.43, units = "in")

covid_ideo_scales <- cbind(covid_ideo_scales,scores)
colnames(covid_ideo_scales)[10:11] <- c("covid_restriction_fa_dim1","covid_restriction_fa_dim2")
covid_ideo_scales$summated_restriction_scale <- rowSums(covid_ideo_scales[2:8],na.rm=T)
```

IRT

```
irt <- mirt(covid_ideo_scales[2:8], model = 1, itemtype = "graded", SE = T,
            verbose = T,removeEmptyRows = TRUE)
```

```
## Iteration: 1, Log-Lik: -24114.323, Max-Change: 1.49614Iteration: 2, Log-Lik: -21899.147, Max-Change:
##
## Calculating information matrix...
```

```
plt <- plot(irt, type = 'trace', facet_items=F) #store the object
print(plt) #plot the object
```




```
#str(plt) #find the data
pltdata <- data.frame(lapply(plt$panel.args, function(x) do.call(cbind, x))[[1]])

groups <- plot(irt, type = 'trace', facet_items=T)
groups$packet.sizes
```

```
## item
##        restriction_intl_travel      restriction_most_business
##                            200                            200
##   restriction_large_gatherings    restriction_sporting_events
```

```
##                             200                             200
##       restriction_closing_k12     restriction_carry_out_only
##                             200                             200
## restriction_postponing_primary
##                             200
```

```
pltdata$item <- rep(colnames(covid_ideo_scales)[2:8], each = 200)
pltdata$response <- groups$panel.args.common$groups

#plt$panel.args.common$groups

pltdata$item2 <- factor(pltdata$item,levels=c("restriction_carry_out_only",
                                              "restriction_closing_k12",
                                              "restriction_intl_travel",
                                              "restriction_large_gatherings",
                                              "restriction_most_business",
                                              "restriction_postponing_primary",
                                              "restriction_sporting_events"),
                        labels=c("Carry Out Only","Close K-12 Schools","
                                 Restrict Intl. Travel","Restrict Large Gatherings",
                                 "Restrict Most Businesses","Postpone Primary Elections",
                                 "Restrict Sporting Events"))

pltdata$item2 <- factor(pltdata$item2,levels=c("Restrict Intl. Travel",
                                               "Restrict Sporting Events",
                                               "Close K-12 Schools",
                                               "Restrict Large Gatherings",
                                               "Carry Out Only","Restrict Most Businesses",
                                               "Postpone Primary Elections"))

plot <- ggplot(pltdata, aes(x, y,linetype=item2,color=item2)) +
  geom_line() + scale_x_continuous(expression(theta)) +
  scale_y_continuous("Pr (Support)") + geom_hline(aes(yintercept = 0.5))  +
  theme_minimal() + labs(color="Policy",linetype="Policy") +
  theme(legend.position="bottom")
#+ scale_colour_grey(start = 0, end = .5) + ggtitle("Ordinal IRT Model Characteric Curves for Emphatic

#ggsave(file="covid19_restrictions_irt_curves_probs.png", plot, width = 8, height = 5.43, units = "in")
```

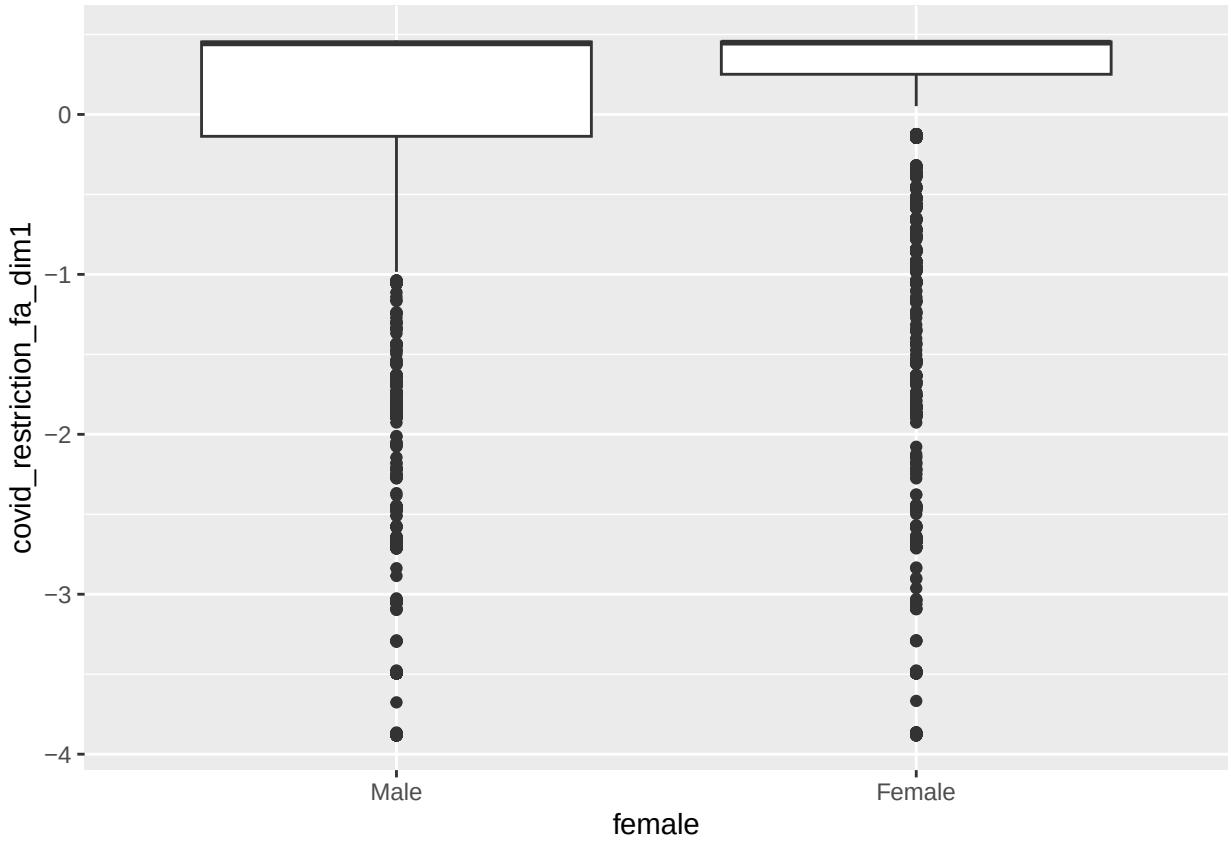
Scores

```
covid_ideo_scales$covid_restriction_fa_dim2 <- fscores(irt, full.scores = TRUE,
                                                       full.scores.SE = F)
colnames(covid_ideo_scales)[11] <- "covid_restriction_irt"

pew <- merge(pew,covid_ideo_scales,by=c("QKEY"),all=T)
pew$covid_restriction_fa_dim1 <- pew$covid_restriction_fa_dim1-mean(pew$covid_restriction_fa_dim1,na.rm=
```

Covariates

```
pew$female <- as.character(pew$F_SEX)
pew$female <- factor(pew$female,levels=c("Male","Female"))
```

```
ggplot(na.omit(pew),aes(x=female,y=covid_restriction_fa_dim1)) + geom_boxplot()
```




```
pew$pid3 <- as.character(pew$F_PARTY_FINAL)
pew$pid3 <- factor(pew$pid3,levels=c("Republican","Independent","Democrat"))

pew$weight <- as.numeric(pew$WEIGHT_W64)

pew$age_linear <- as.numeric(factor(pew$F_AGECAT))
pew$age_linear[pew$age_linear %in% 5] <- NA # Get rid of refused

pew$educ_linear <- as.numeric(factor(pew$F_EDUCCAT2))
pew$educ_linear[pew$educ_linear %in% 7] <- NA # Get rid of refused

pew$marital_status <- ifelse(pew$F_MARITAL %in% "Married",1,0)
pew$marital_status[pew$F_MARITAL %in% "Refused"] <- NA # Get rid of refused

pew$income_linear <- as.numeric(factor(pew$F_INCOME))
pew$income_linear[pew$income_linear %in% 10] <- NA # Get rid of refused

pew$region_factor <- pew$F_CREGION
pew$white_respondent <- ifelse(pew$F_RACETHN %in% "White non-Hispanic",1,0)
pew$white_respondent[pew$F_RACETHN %in% "Refused"] <- NA # Get rid of refused

hold <- read.dta13("ATP_W42.dta")
hold <- hold[,c("QKEY", "F_RACECMB")]

pew <- merge(pew,hold,by=c("QKEY"),all=T)
```

```
pew$race3 <- ifelse(pew$F_RACETHN %in% "White non-Hispanic","white",
                    ifelse(pew$F_RACETHN %in% "Black non-Hispanic","black",
                           ifelse(pew$F_RACETHN %in% "Hispanic","hispanic",NA)))
pew$race3 <- ifelse(is.na(pew$race3) & pew$F_RACECMB %in% "Asian or Asian-American",
                    "asian",pew$race3)

pew$race3 <- factor(pew$race3,levels=c("white","black","hispanic","asian"))
```

ADDING RELIGION EXTENSION

Trust variable w/ religion

```
trust <- read.dta13("ATP_W42.dta")
trust <- subset(trust,select=c("QKEY","CONFa_W42","CONFb_W42", "CONFe_W42","CONFd_F1_W42","CONFd_F2_W42

colnames(trust) <- c("QKEY","trust_elected_officials","trust_media","trust_religious","trust_medial_sci

trust[trust == "Refused"] <- NA

for(i in 2:ncol(trust)){
  print(table(trust[,i]))
  #print(levels(trust[,i]))
}
```

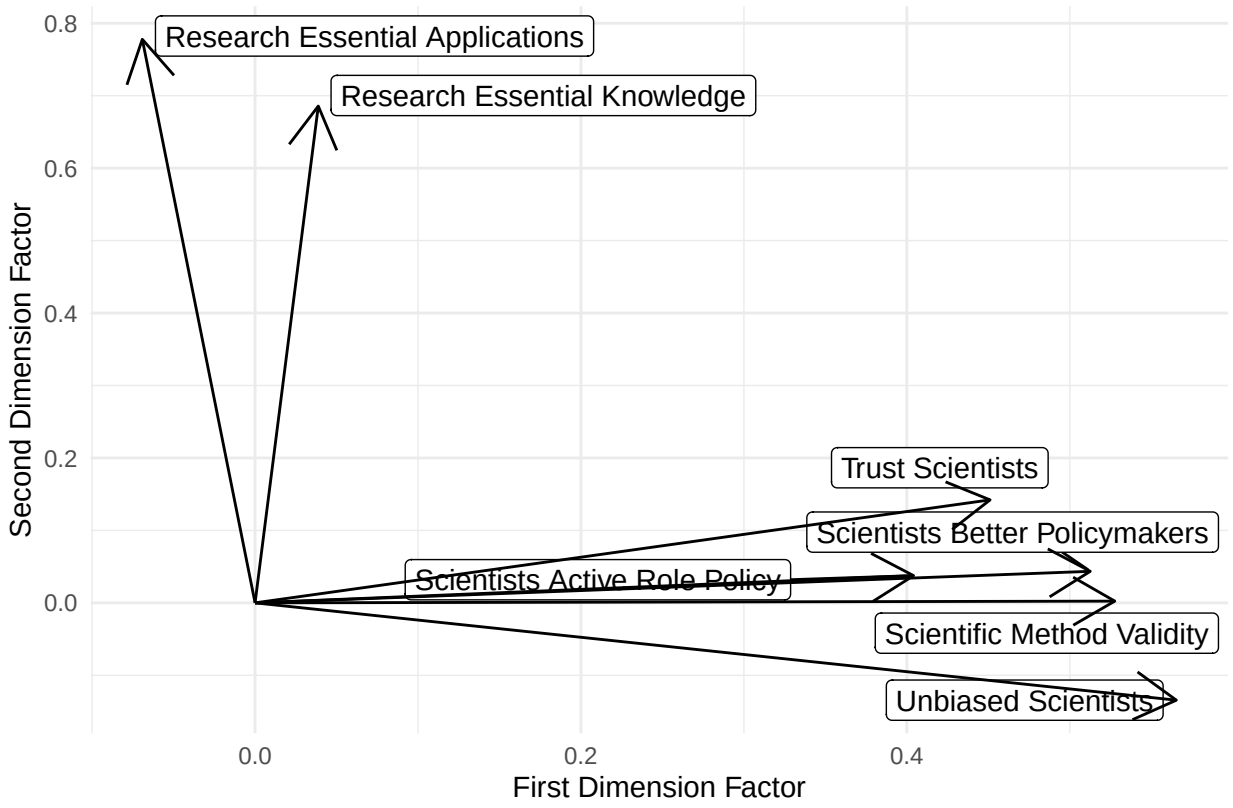
```
##
##  A great deal of confidence A fair amount of confidence
##                         154                         1393
##     Not too much confidence        No confidence at all
##                        2267                          638
##                     Refused
##                           0
##
##  A great deal of confidence A fair amount of confidence
##                         415                         1753
##     Not too much confidence        No confidence at all
##                        1449                          838
##                     Refused
##                           0
##
##  A great deal of confidence A fair amount of confidence
##                         565                         2041
##     Not too much confidence        No confidence at all
##                        1323                          521
##                     Refused
##                           0
##
##  A great deal of confidence A fair amount of confidence
##                         806                         1168
##     Not too much confidence        No confidence at all
##                         216                           32
##                     Refused
##                           0
```

```
##
##  A great deal of confidence A fair amount of confidence
##                         813                         1144
##     Not too much confidence        No confidence at all
##                         233                           41
##                     Refused
##                           0
##
##               Scientists should take an active role in public policy debates about scientific issues
##                                                                                                  2720
## Scientists should focus on establishing sound scientific facts and stay out of public policy debates
##                                                                                                  1691
##                                                                                               Refused
##                                                                                                     0
##
##                         Public opinion should play an important role to guide policy decisions abou
##
## Public opinion should NOT play an important role to guide policy decisions about scientific issues be
##
##
##
##
##           Usually BETTER at making good policy decisions about scientific issues than other people
##                                                                                                2029
##            Usually WORSE at making good policy decisions about scientific issues than other people
##                                                                                                 266
## NEITHER BETTER NOR WORSE at making good policy decisions about scientific issues than other people
##                                                                                                2144
##                                                                                             Refused
##                                                                                                   0
##
##                    The scientific method generally produces accurate conclusions
##                                                                             2860
## The scientific method can be used to produce any conclusion the researcher wants
##                                                                             1544
##                                                                          Refused
##                                                                                0
##
##                     Scientists make judgments based solely on the facts
##                                                                    2455
## Scientists' judgments are just as likely to be biased as other people's
##                                                                    1954
##                                                                 Refused
##                                                                       0
##
##                    Essential Important, but not essential
##                         2996                         1217
##             Not too important         Not important at all
##                          161                           45
##                      Refused
##                            0
##
##                    Essential Important, but not essential
##                         2210                         1871
```

```
##            Not too important         Not important at all
##                          299                           52
##                      Refused
##                            0
```

```
for(i in 2:ncol(trust)){
  trust[,i] <- as.character(trust[,i])
  #print(table(trust[,i]))
}
trust[trust == "Essential"] <- 4
trust[trust == "Important, but not essential"] <- 3
trust[trust == "Not too important"] <- 2
trust[trust == "Not important at all"] <- 1

trust[trust == "A great deal of confidence"] <- 4
trust[trust == "A fair amount of confidence"] <- 3
trust[trust == "Not too much confidence"] <- 2
trust[trust == "No confidence at all"] <- 1

trust[trust == "Scientists should take an active role in public policy debates about scientific issues"]
trust[trust == "Scientists should focus on establishing sound scientific facts and stay out of public po

trust[trust == "Public opinion should NOT play an important role to guide policy decisions about scienti
trust[trust == "Public opinion should play an important role to guide policy decisions about scientific

trust[trust == "Usually BETTER at making good policy decisions about scientific issues than other people
trust[trust == "NEITHER BETTER NOR WORSE at making good policy decisions about scientific issues than ot
trust[trust == "Usually WORSE at making good policy decisions about scientific issues than other people'

trust[trust == "The scientific method generally produces accurate conclusions"] <- 2
trust[trust == "The scientific method can be used to produce any conclusion the researcher wants"] <- 1

trust[trust == "Scientists make judgments based solely on the facts"] <- 2
trust[trust == "Scientists' judgments are just as likely to be biased as other people's"] <- 1

trust$trust_scientists <- ifelse(is.na(trust$trust_medial_scientists),trust$trust_scientists,ifelse(is.n

trust$trust_medial_scientists <- NULL
trust$scientists_pivotal_policy <- NULL

for(i in 2:ncol(trust)){
  trust[,i] <- as.numeric(trust[,i])
  #print(table(trust[,i]))
}

factanal <- fa(trust[,c(5:11)], nfactors=2, rotate="promax", fm="pa")
scores <- data.frame(factanal$scores)
#loadings(factanal)
loadings <- factanal$loadings
loadings <- data.frame(f1 = loadings[,1],f2=loadings[,2])

# plot(factanal$loadings,type="n") # set up plot
# text(factanal$loadings,labels=names(trust)[4:10],cex=.7) # add variable names
```

```r
library(ggrepel)

# alpha(trust[,c(4:8)])
# skewness(loadings$f1, na.rm=T)
# kurtosis(loadings$f1, na.rm=T)
#
# alpha(trust[,c(9:10)])
# skewness(loadings$f2, na.rm=T)
# kurtosis(loadings$f2, na.rm=T)

loadings$vars <- ifelse(rownames(loadings) %in% "trust_scientists",
                        "Trust Scientists",
                 ifelse(rownames(loadings) %in% "scientists_active_role_policy",
                        "Scientists Active Role Policy",
                 ifelse(rownames(loadings) %in% "scientists_pivotal_policy",
                        "PO Guiding Policy Science",
                 ifelse(rownames(loadings) %in% "scientists_better_policy",
                        "Scientists Better Policymakers",
                 ifelse(rownames(loadings) %in% "scientific_method",
                        "Scientific Method Validity",
                 ifelse(rownames(loadings) %in% "scientists_judgement_facts",
                        "Unbiased Scientists",
                 ifelse(rownames(loadings) %in% "research_essential_immediate_applications",
                        "Research Essential Applications",
                 ifelse(rownames(loadings) %in% "research_essential_advance_knowledge",
                        "Research Essential Knowledge",NA)))))))

plot <- ggplot(loadings,aes(x = f1, y=f2,label=vars)) + theme_minimal() + geom_label_repel() + scale_x_

grid.newpage()
footnote <- expression("Cronbach's Standardized"~alpha~"="~0.66)
g <- arrangeGrob(plot, bottom = textGrob(footnote, x = 0.025, hjust = 0, vjust= 0, y=0.75, gp = gpar(fo
grid.draw(g)
```



Cronbach's Standardized $\alpha = 0.66$

```
#ggsave(file="factor_analysis_scientific_trust.png", g, width = 8, height = 5.43, units = "in")

trust <- cbind(trust,scores)
colnames(trust)[12:13] <- c("trust_scientists_fa_dim1","trust_scientists_fa_dim2")

## Merging Data Sets
pew <- merge(pew,trust,by=c("QKEY"),all=T)

x <- subset(pew,select=c(pid3,trust_scientists_fa_dim1,trust_scientists_fa_dim2))
x <- na.omit(x)
x$pid <- ifelse(x$pid3 %in% "Democrat","D",
                ifelse(x$pid3 %in% "Republican","R",
                       ifelse(x$pid3 %in% "Independent","I",NA)))

plot <- ggplot(x,aes(x=trust_scientists_fa_dim1,
                     y=trust_scientists_fa_dim2,label=pid,color=pid)) +
  geom_text(alpha=0.2) + scale_color_manual("",values=c("blue","purple","red"))

x1 <- x
x1$pid3 <- "Full Sample"
x <- rbind(x,x1)
x$pid3 <- factor(x$pid3,levels=c("Republican","Independent","Democrat","Full Sample"),
                 labels=c("Republican Partisans","Independent Partisans",
                          "Democratic Partisans","Full Sample"))

print(summary(aov(trust_scientists_fa_dim1 ~ pid3, data = x)))

##               Df Sum Sq Mean Sq F value Pr(>F)
```

```
## pid3           3    216   72.14   116.4 <2e-16 ***
## Residuals   5810   3599    0.62
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
plot <- ggplot(x, aes(x=pid3,y=trust_scientists_fa_dim1, group=pid3,fill=pid3)) +
  geom_boxplot(alpha=0.2) + theme_minimal() +
  scale_y_continuous("Latent Scientific Trust") +
  scale_x_discrete("") + scale_fill_manual("",values=c("red","purple","blue","black")) +
  theme(legend.position = "none")
#ggsave(file="scientific_trust_boxplots_by_party.png", plot, width = 8, height = 5.43, units = "in")
```

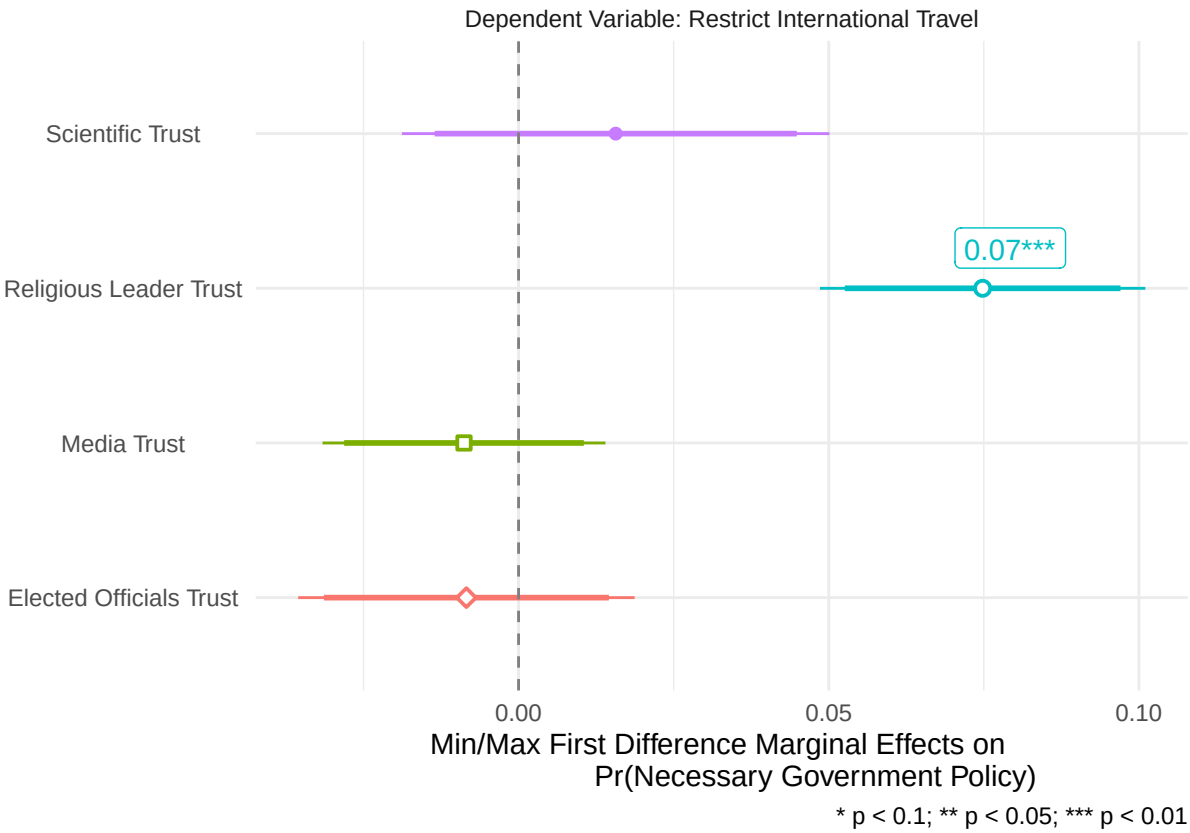
Adding Trust in Religious Leaders

Data Analysis: COVID Policy ~ Scientific Trust: Baseline Effects

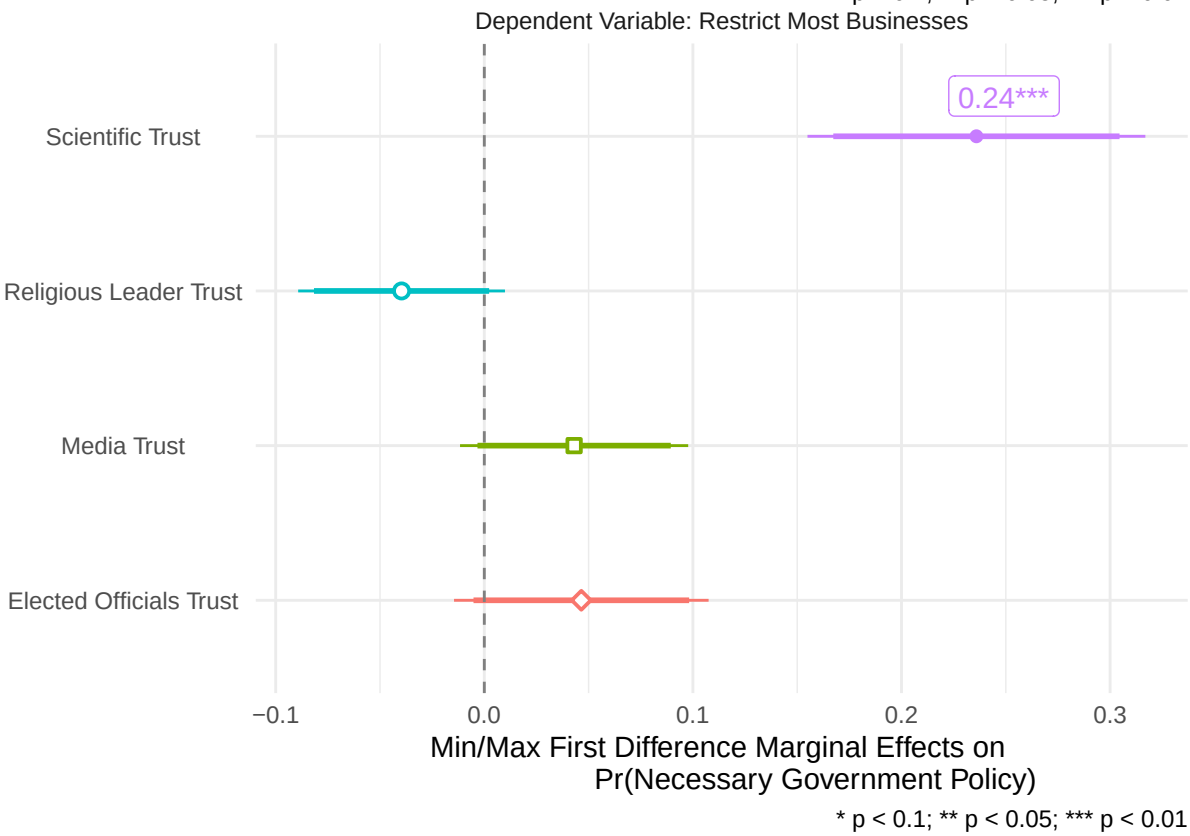
Baseline Trust Effects

```
baseline_trust_effects <- list()
for(i in which(colnames(pew) == "restriction_intl_travel"):
    which(colnames(pew) == "restriction_postponing_primary")){
  summary(model <- glm(pew[,i] ~ trust_scientists_fa_dim1 +
                         trust_media + trust_elected_officials + trust_religious +
                         female + pid3 + libcon + age_linear + educ_linear +
                         income_linear + race3 + region_factor,
                       data=pew, weights=weight, family = binomial(link = "logit")))
  mes <- summary(margins(model,
                         variables=c("trust_scientists_fa_dim1","trust_media",
                                     "trust_religious",
                                     "trust_elected_officials"),
                         type="response", change="minmax"))
  mes$model <- colnames(pew)[i]
  mes$category <- "Full Sample Baseline"
  baseline_trust_effects[[i]] <- mes
}
baseline_trust_effects <- ldply(baseline_trust_effects,data.frame)

baseline_trust_effects$pid3 <- "Full Baseline Sample"
baseline_trust_effects$category <- NULL

effects <- baseline_trust_effects
effects$ylo90 <- (effects$AME - (qt(.95, 100) * effects$SE))
effects$yhi90 <- (effects$AME + (qt(.95, 100) * effects$SE))
effects$model2 <- ifelse(effects$model %in% "restriction_carry_out_only",
                         "Dependent Variable: Restaurants Carry Out Only",
                  ifelse(effects$model %in% "restriction_closing_k12",
                         "Dependent Variable: Close K-12 Schools",
                  ifelse(effects$model %in% "restriction_intl_travel",
                         "Dependent Variable: Restrict International Travel",
                  ifelse(effects$model %in% "restriction_large_gatherings",
                         "Dependent Variable: Restrict Large Gatherings",
                  ifelse(effects$model %in% "restriction_most_business",
                         "Dependent Variable: Restrict Most Businesses",
```

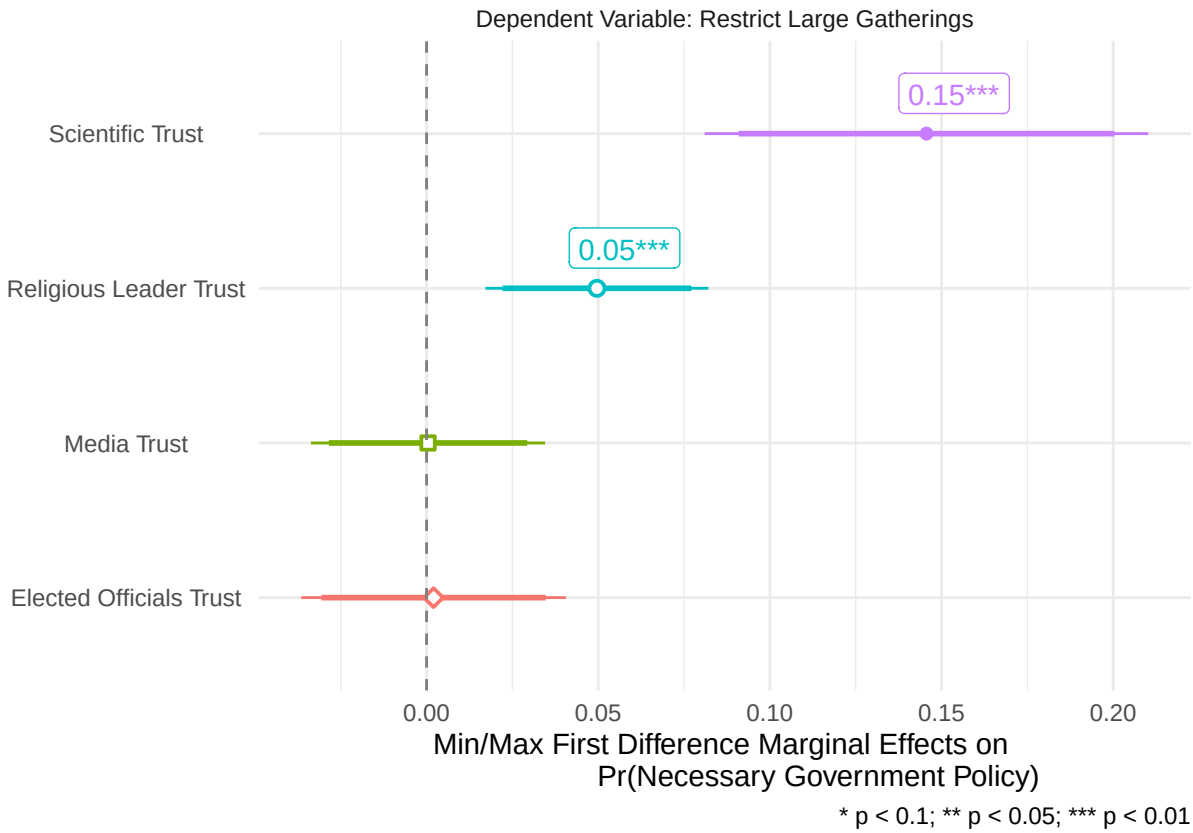
```
                  ifelse(effects$model %in% "restriction_postponing_primary",
                         "Dependent Variable: Postpone Primary Elections",
                  ifelse(effects$model %in% "restriction_sporting_events",
                         "Dependent Variable: Restrict Sporting Events",NA)))))))

effects$factor <- ifelse(effects$factor %in% "trust_elected_officials","Elected Officials Trust",
                  ifelse(effects$factor %in% "trust_media","Media Trust",
                  ifelse(effects$factor %in% "trust_religious","Religious Leader Trust",
                  ifelse(effects$factor %in% "trust_scientists_fa_dim1","Scientific Trust",NA))))

effects$label <- ifelse(effects$p < 0.01,paste(round(effects$AME,2),"***",sep=""),
                  ifelse(effects$p < 0.05,paste(round(effects$AME,2),"**",sep=""),
                  ifelse(effects$p < 0.10,paste(round(effects$AME,2),"*",sep=""),NA)))

for(i in unique(effects$model)){
  x <- subset(effects,effects$model %in% i)
  plot <- ggplot(x,aes(x=factor,y=AME,factor=factor,group=factor,color=factor,
                       shape=factor,label=label,fill=factor)) +
    facet_wrap(~model2) + coord_flip() +
    geom_linerange(aes(x= factor, ymin = ylo90, ymax = yhi90),
                   position = position_dodge(width=0.75), lwd  = 1) +
    geom_pointrange(aes(x= factor, ymin = lower, ymax = upper), lwd = 1/2,
                    position = position_dodge(width=0.75),fill="white") +
    theme_minimal() + scale_x_discrete("") +
    scale_y_continuous("Min/Max First Difference Marginal Effects on
                       Pr(Necessary Government Policy)") +
    geom_hline(yintercept = 0, colour = gray(1/2), lty = 2) +
    labs(color="Trust Effects",shape="Trust Effects") +
    theme(legend.position = "none") +
    theme(axis.text.x = element_text(hjust = 0.5),
          axis.text.y = element_text(hjust = 0.5)) +
    geom_label(vjust=-0.5,hjust=0.25,fill="white") +
    labs(caption="* p < 0.1; ** p < 0.05; *** p < 0.01") +
    scale_shape_manual("",values=c(23,22,21,20))
  print(plot)
  #ggsave(file=paste(i,"_model",".png",sep=""), plot, width = 8, height = 5.43, units = "in")
}
```

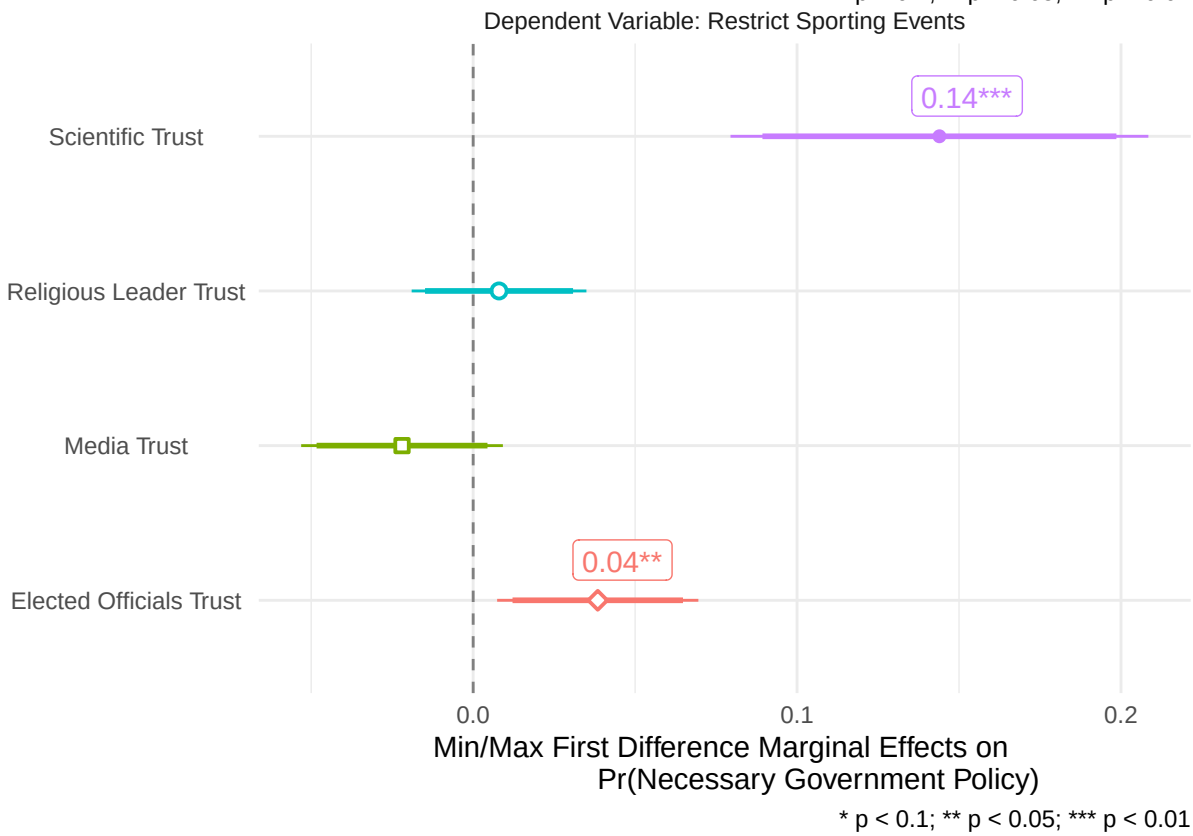


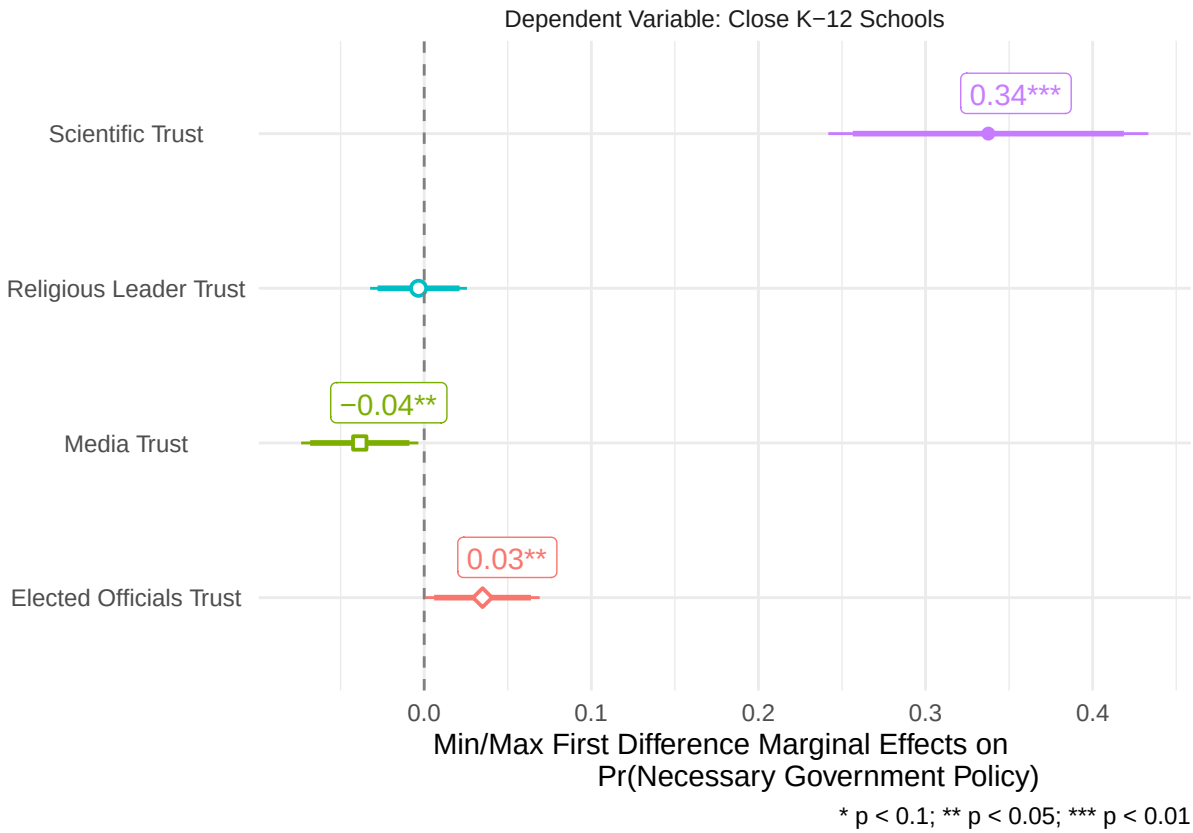
* p < 0.1; ** p < 0.05; *** p < 0.01



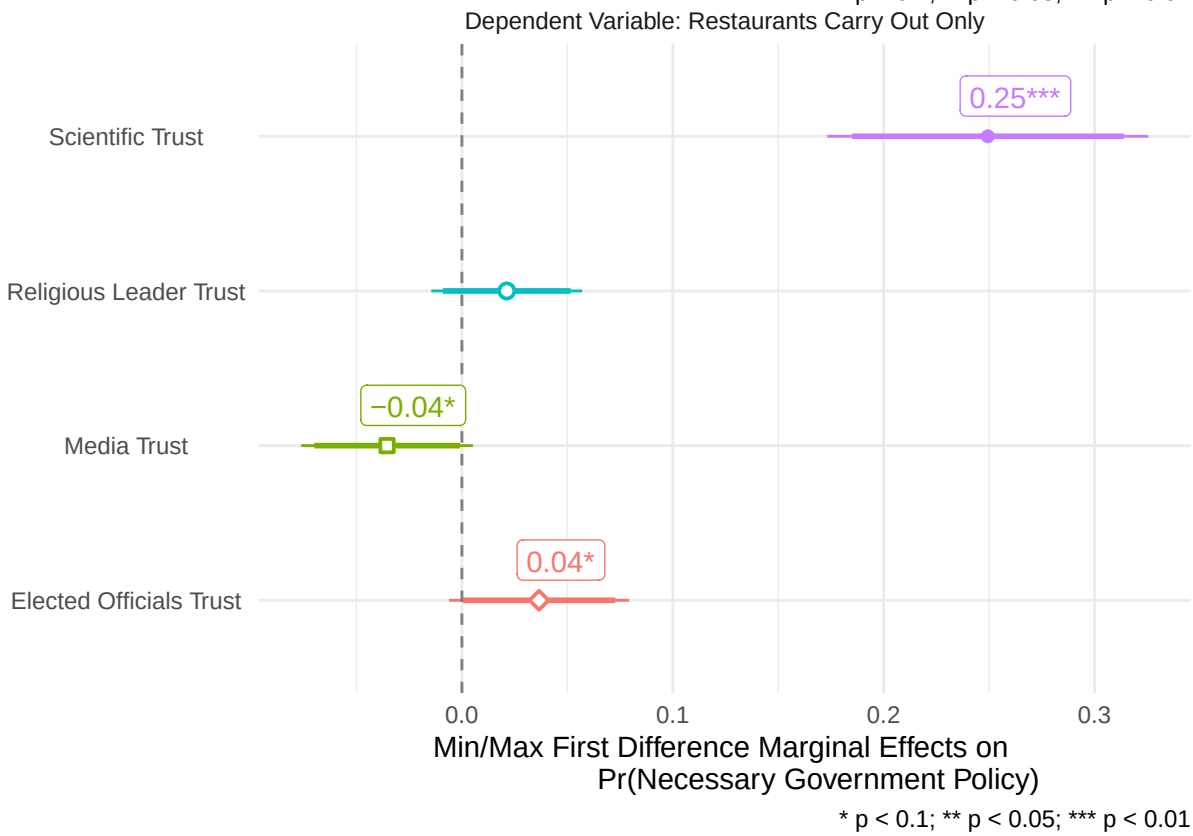
* p < 0.1; ** p < 0.05; *** p < 0.01


Dependent Variable: Restrict Large Gatherings
Scientific Trust
Religious Leader Trust
Media Trust
Elected Officials Trust
0.15***
0.05***
0.00
0.05
0.10
0.15
0.20
Min/Max First Difference Marginal Effects on
Pr(Necessary Government Policy)
* p < 0.1; ** p < 0.05; *** p < 0.01

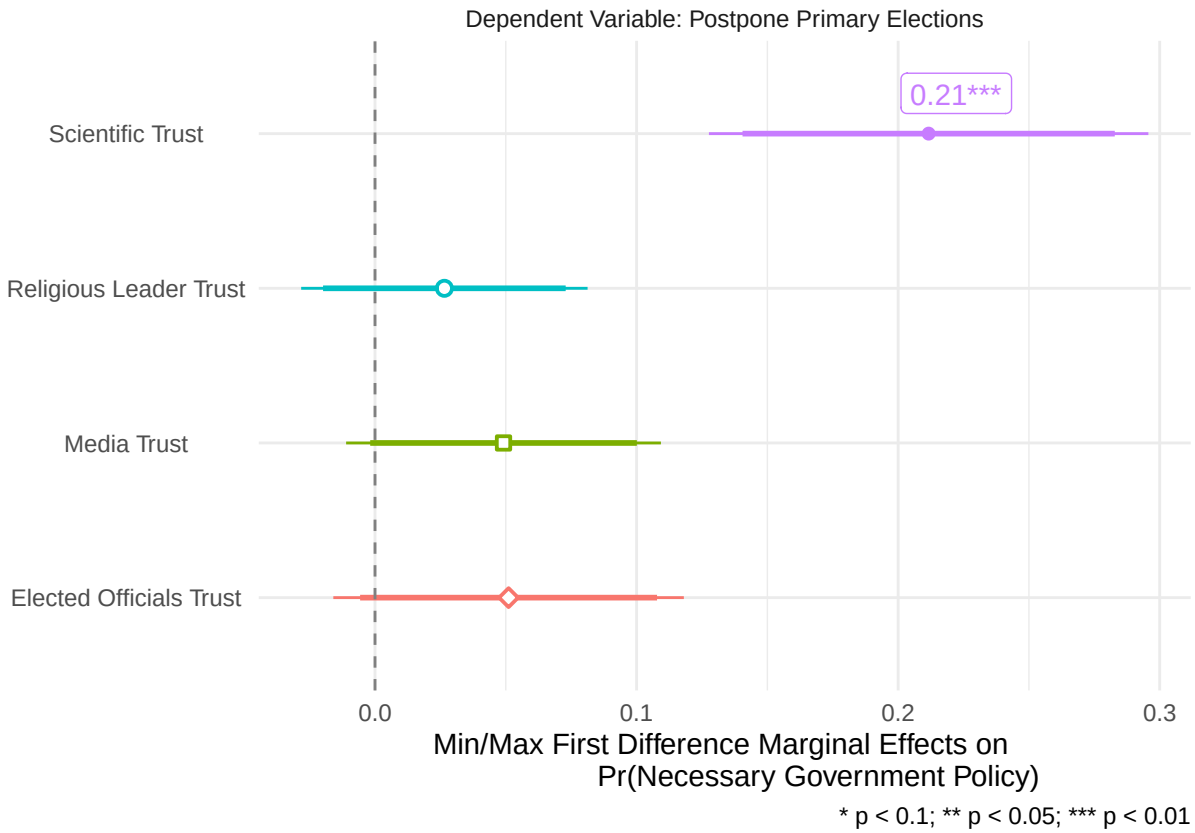

Dependent Variable: Restrict Sporting Events
Scientific Trust
Religious Leader Trust
Media Trust
Elected Officials Trust
0.14***
0.04**
0.0
0.1
0.2
Min/Max First Difference Marginal Effects on
Pr(Necessary Government Policy)
* p < 0.1; ** p < 0.05; *** p < 0.01



* p < 0.1; ** p < 0.05; *** p < 0.01



* p < 0.1; ** p < 0.05; *** p < 0.01

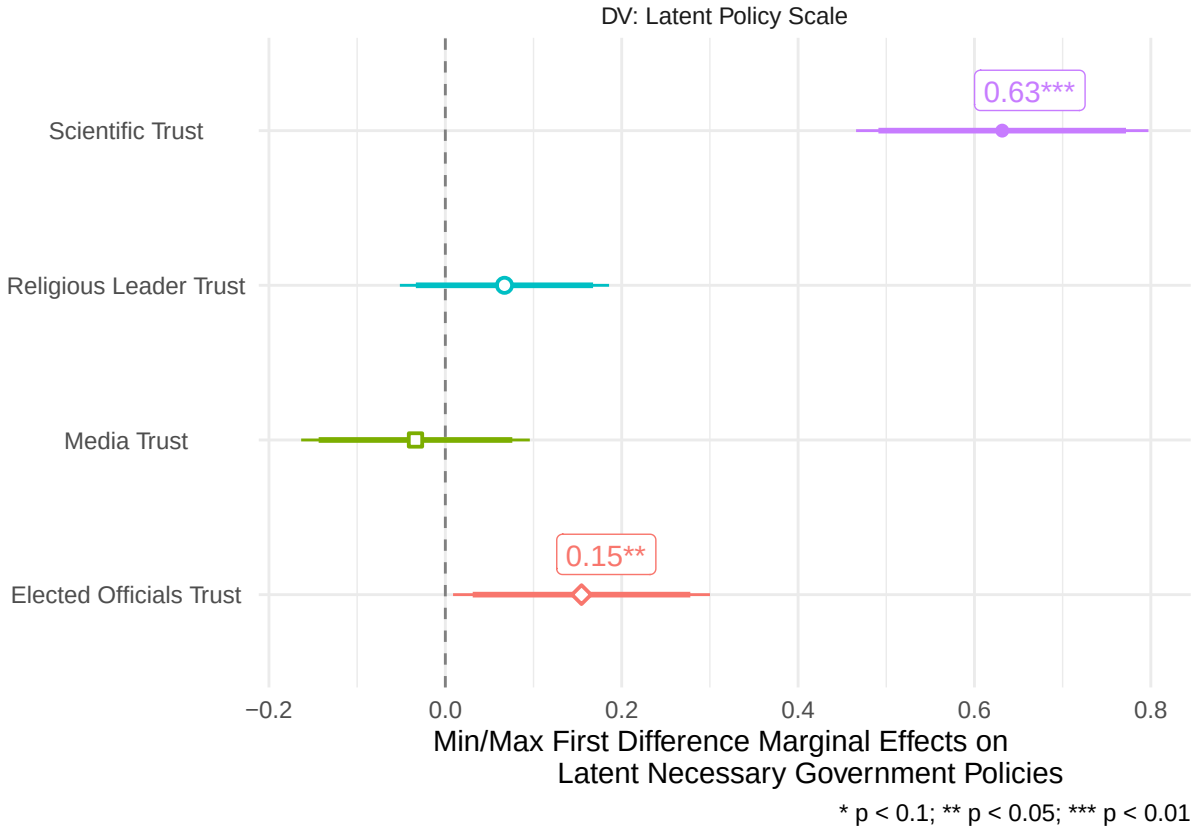


Data Analysis Figures: OLS Composite Models

LATENT POLICY SCALE

```
model <- glm(covid_restriction_irt ~ trust_scientists_fa_dim1 +
                        trust_media + trust_elected_officials + trust_religious +
                        female + pid3 + libcon + age_linear + educ_linear +
                        income_linear + race3 + region_factor,
                    data=pew, weights=weight, family = gaussian(identity))

baseline_trust_effects.2 <- summary(margins(model,
                                    variables=c("trust_scientists_fa_dim1","trust_media",
                                       "trust_religious",
                                       "trust_elected_officials"),
                                             type="response", change="minmax"))
baseline_trust_effects.2$model <- "DV: Latent Policy Scale"
baseline_trust_effects.2$pid3 <- "Full Sample"

effects <- baseline_trust_effects.2
effects$ylo90 <- (effects$AME - (qt(.95, 100) * effects$SE))
effects$yhi90 <- (effects$AME + (qt(.95, 100) * effects$SE))
effects$ame_label <- round(effects$AME,2)
effects$factor <- ifelse(effects$factor %in% "trust_elected_officials","Elected Officials Trust",
                  ifelse(effects$factor %in% "trust_media","Media Trust",
                  ifelse(effects$factor %in% "trust_religious","Religious Leader Trust",
                  ifelse(effects$factor %in% "trust_scientists_fa_dim1","Scientific Trust",NA))))
```

```
effects$label <- ifelse(effects$p < 0.01,paste(round(effects$AME,2),"***",sep=""),
                  ifelse(effects$p < 0.05,paste(round(effects$AME,2),"**",sep=""),
                  ifelse(effects$p < 0.10,paste(round(effects$AME,2),"*",sep=""),NA)))

plot <- ggplot(effects,aes(x=factor,y=AME,factor=factor,
                           group=factor,color=factor,shape=factor,label=label,fill=factor)) +
  facet_wrap(~model) + coord_flip() +
  geom_linerange(aes(x= factor, ymin = ylo90, ymax = yhi90),
                 position = position_dodge(width=0.75), lwd  = 1) +
  geom_pointrange(aes(x= factor, ymin = lower, ymax = upper), lwd = 1/2,
                  position = position_dodge(width=0.75),fill="white") +
  theme_minimal() + scale_x_discrete("") +
  scale_y_continuous("Min/Max First Difference Marginal Effects on
                     Latent Necessary Government Policies")  +
  geom_hline(yintercept = 0, colour = gray(1/2), lty = 2) +
  labs(color="Trust Effects",shape="Trust Effects") +
  theme(legend.position = "none") +
  theme(axis.text.x = element_text(hjust = 0.5),axis.text.y = element_text(hjust = 0.5)) +
  geom_label(vjust=-0.5,hjust=0.25,fill="white") +
  labs(caption="* p < 0.1; ** p < 0.05; *** p < 0.01") +
  scale_shape_manual("",values=c(23,22,21,20))
print(plot)
```

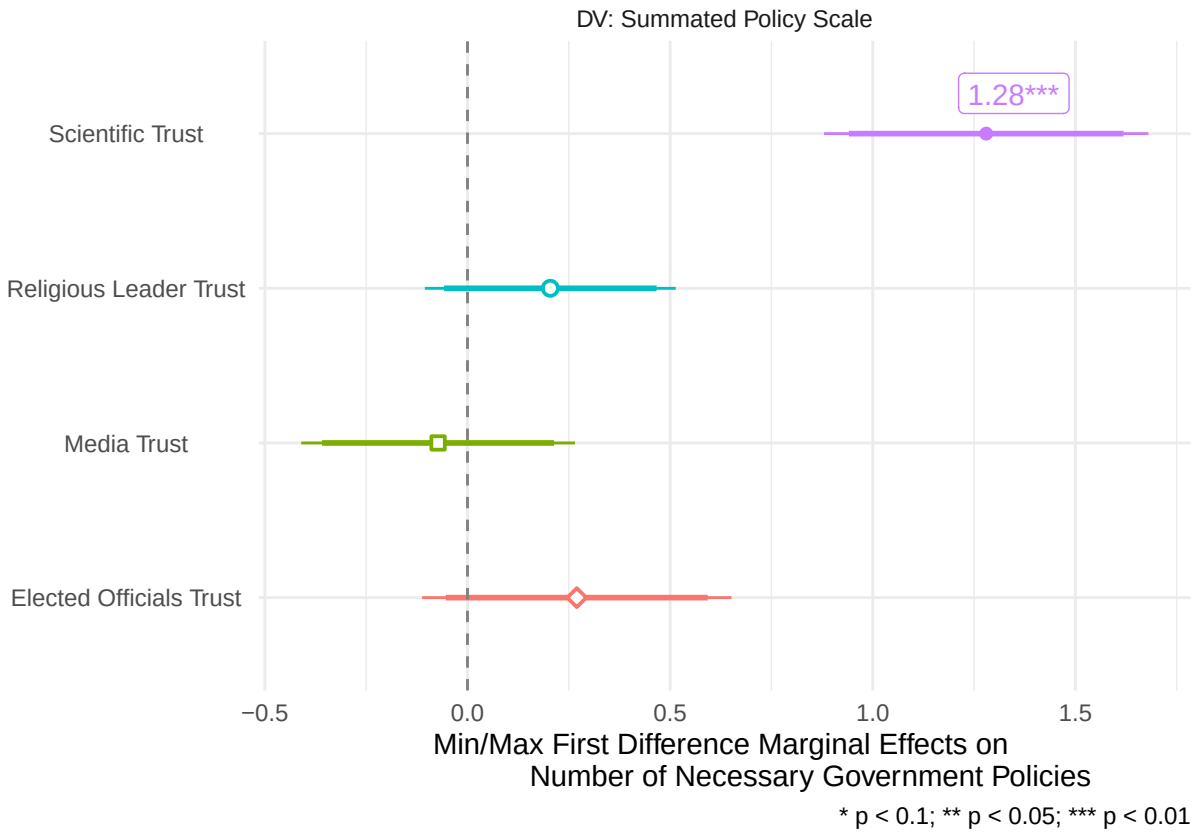



```
#ggsave(file="latent_policy_scale_model.png", plot, width = 8, height = 5.43, units = "in")
```

Data Analysis Figures: OLS Composite Models

SUMMATED POLICY SCALE

```
model <- glm(summated_restriction_scale ~ trust_scientists_fa_dim1 +
                        trust_media + trust_elected_officials + trust_religious +
                        female + pid3 + libcon + age_linear + educ_linear +
                        income_linear + race3 + region_factor, data=pew, weights=weight,
                    family = "poisson")
baseline_trust_effects.3 <- summary(margins(model,
                                            variables=c("trust_scientists_fa_dim1",
                                                        "trust_media","trust_religious",
                                                        "trust_elected_officials"),
                                            type="response", change="minmax"))
baseline_trust_effects.3$model <- "DV: Summated Policy Scale"
baseline_trust_effects.3$pid3 <- "Full Sample"

effects <- baseline_trust_effects.3
effects$ylo90 <- (effects$AME - (qt(.95, 100) * effects$SE))
effects$yhi90 <- (effects$AME + (qt(.95, 100) * effects$SE))
effects$ame_label <- round(effects$AME,2)
effects$factor <- ifelse(effects$factor %in% "trust_elected_officials","Elected Officials Trust",
                  ifelse(effects$factor %in% "trust_media","Media Trust",
                  ifelse(effects$factor %in% "trust_religious","Religious Leader Trust",
                  ifelse(effects$factor %in% "trust_scientists_fa_dim1","Scientific Trust",NA))))
effects$label <- ifelse(effects$p < 0.01,paste(round(effects$AME,2),"***",sep=""),
                 ifelse(effects$p < 0.05,paste(round(effects$AME,2),"**",sep=""),
                  ifelse(effects$p < 0.10,paste(round(effects$AME,2),"*",sep=""),NA)))

plot <- ggplot(effects,aes(x=factor,y=AME,
                           factor=factor,group=factor,
                           color=factor,shape=factor,label=label)) +
  facet_wrap(~model) + coord_flip() +
  geom_linerange(aes(x= factor, ymin = ylo90, ymax = yhi90),
                 position = position_dodge(width=0.75), lwd  = 1) +
  geom_pointrange(aes(x= factor, ymin = lower, ymax = upper), lwd = 1/2,
                  position = position_dodge(width=0.75),fill="white") +
  theme_minimal() + scale_x_discrete("") +
  scale_y_continuous("Min/Max First Difference Marginal Effects on
                     Number of Necessary Government Policies")  +
  geom_hline(yintercept = 0, colour = gray(1/2), lty = 2) +
  labs(color="Trust Effects",shape="Trust Effects") + theme(legend.position = "none") +
  theme(axis.text.x = element_text(hjust = 0.5),
        axis.text.y = element_text(hjust = 0.5)) +
  geom_label(vjust=-0.5,hjust=0.25,fill="white") +
  labs(caption="* p < 0.1; ** p < 0.05; *** p < 0.01") +
  scale_shape_manual("",values=c(23,22,21,20))
print(plot)
```




```
#ggsave(file="summated_policy_scale_model.png", plot, width = 8, height = 5.43, units = "in")
```

Distribution of Summated Rating Scales

```
x <- subset(pew,select=c(summated_restriction_scale,trust_scientists_fa_dim1,
                         pid3,trust_media,trust_elected_officials,trust_religious,
                         female,libcon, age_linear,educ_linear,income_linear,
                         white_respondent, region_factor,race3))
x1 <- na.omit(x)
x <- na.omit(x)
x1$race3 <- "Full Sample"

x <- subset(x,select=c(summated_restriction_scale,race3))
x$n <- 1
xs <- ddply(x,.(summated_restriction_scale,race3),summarise,total=sum(n,na.rm=T))
x <- ddply(x,.(race3),summarise,total_race3=sum(n,na.rm=T))
xs <- merge(xs,x,by=c("race3"))
xs$prop <- xs$total/xs$total_race3

x1 <- subset(x1,select=c(summated_restriction_scale,race3))
x1$n <- 1
xs1 <- ddply(x1,.(summated_restriction_scale),summarise,total=sum(n,na.rm=T))
xs1$total_race3 <- sum(x1$n,na.rm=T)
xs1$prop <- xs1$total/xs1$total_race3
xs1$race3 <- "Full Sample"

x <- rbind(xs,xs1)
```

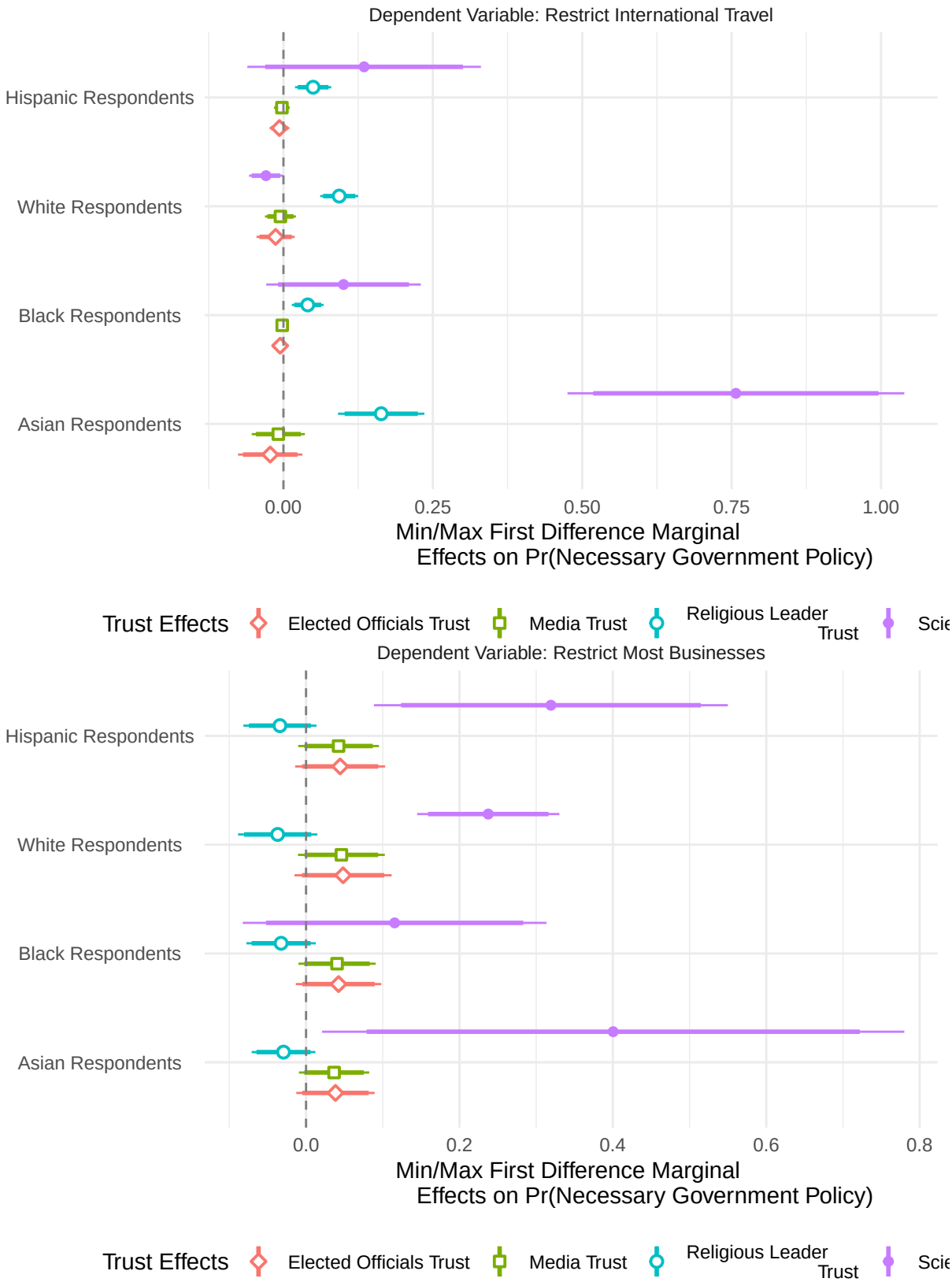
```
x$race3 <- factor(x$race3,
                  levels=c("asian","black","hispanic","white","Full Sample"),
                  labels=c("Asian Respondents","Black Respondents",
                           "Hispanic Respondents","White Respondents","Full Sample"))

plot <- ggplot(x, aes(x=factor(summated_restriction_scale),
                      y=prop, label=round(prop,2))) +
  geom_point(stat='identity', size=6*1.25) +
  geom_segment(aes(y=0,x=factor(summated_restriction_scale),
                   yend=prop,xend=factor(summated_restriction_scale)))+
  geom_text(color="white", size=2*1.25) + coord_flip() +
  facet_wrap(~race3) + theme_minimal() + theme(legend.position = "none") +
  scale_x_discrete("Number of Restrictive COVID-19 Policies Necessary") +
  scale_y_continuous("Proportion of Respondents")
#ggsave(file="number_policies_dotplot.png", plot, width = 8, height = 5.43, units = "in")
```

Conditioned by Race | Data Analysis: COVID Policy ~ Scientific Trust: Baseline Effects

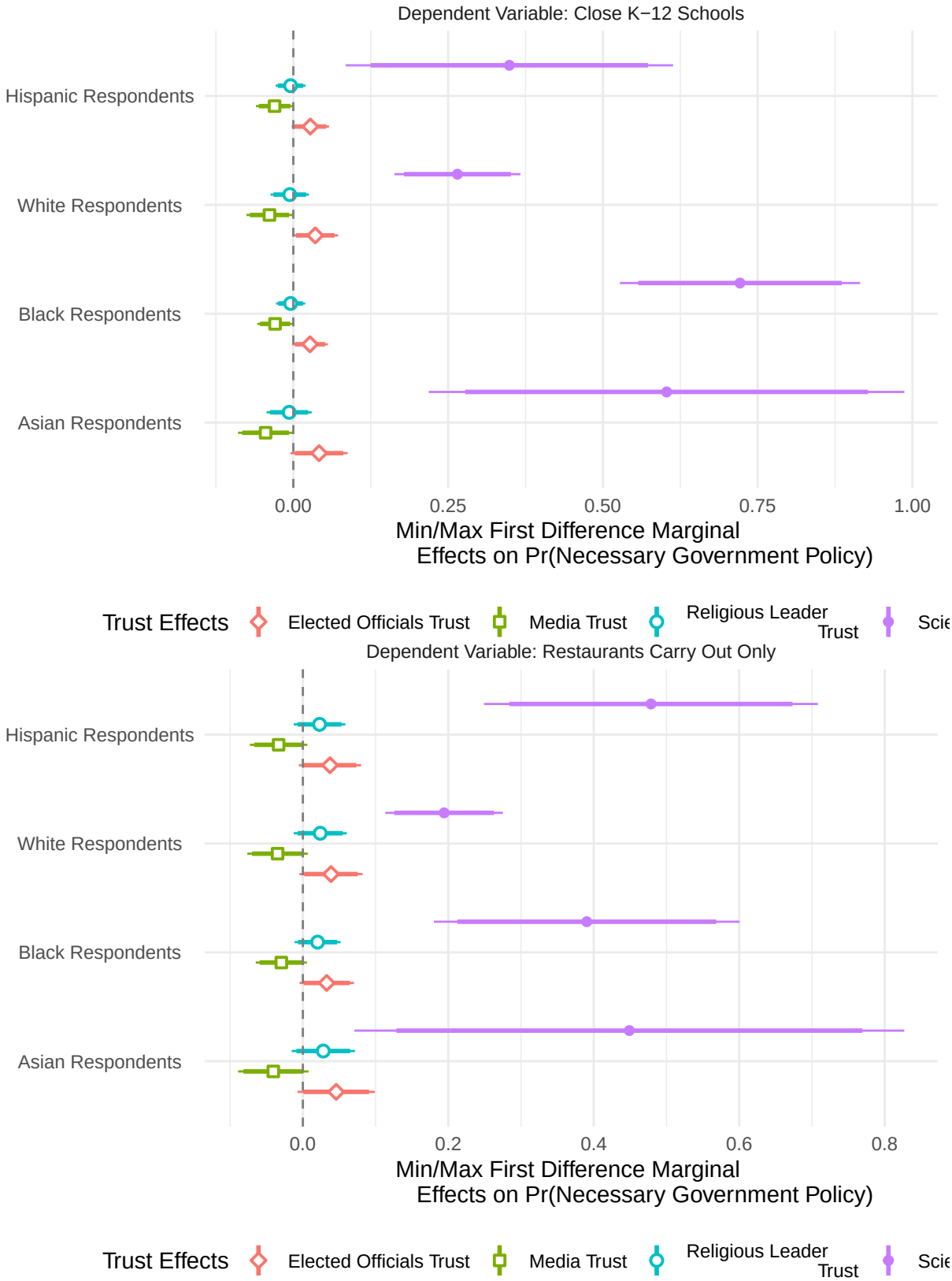
Baseline Trust Effects

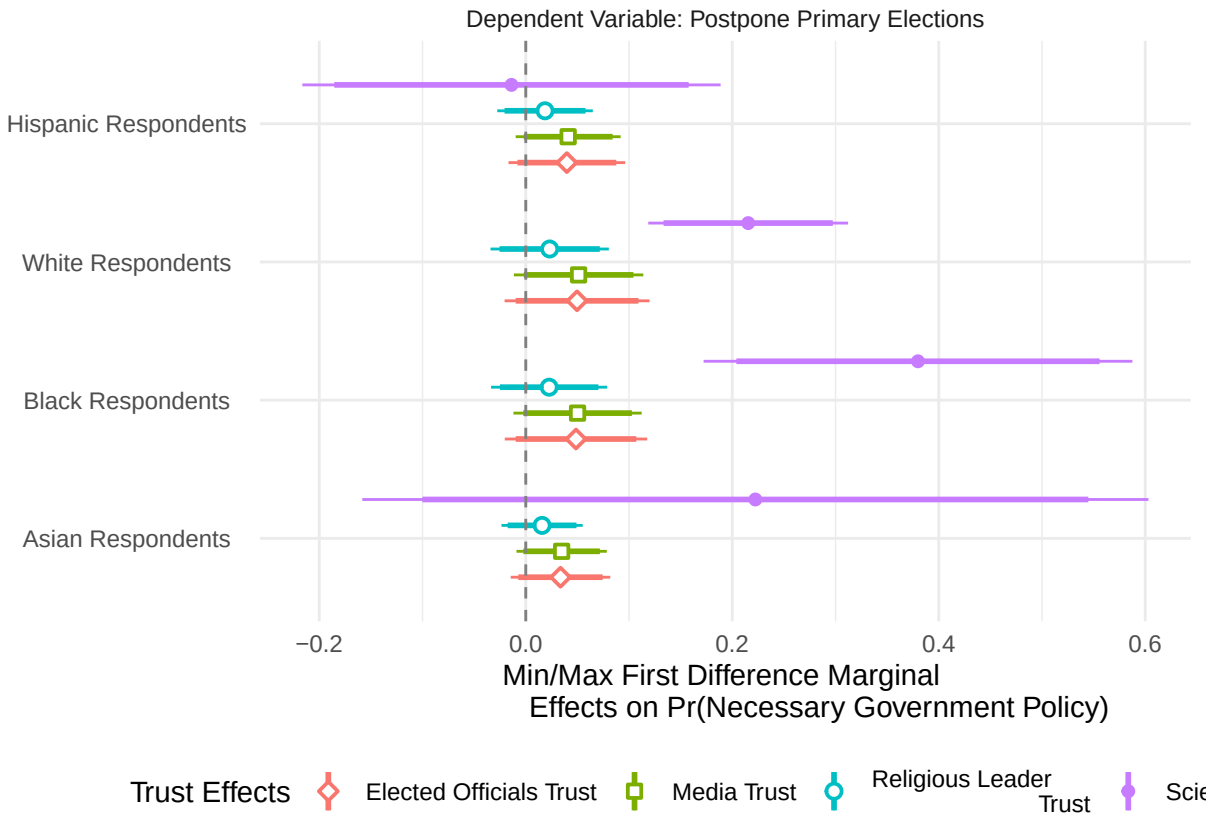
```
baseline_trust_effects.race <- list()
for(i in which(colnames(pew) == "restriction_intl_travel"):
    which(colnames(pew) == "restriction_postponing_primary")){
  summary(model <- glm(pew[,i] ~ trust_scientists_fa_dim1*race3 +
                         trust_media + trust_elected_officials +
                         trust_religious +
                         female + pid3 + libcon + age_linear +
                         educ_linear + income_linear +
                         region_factor, data=pew, weights=weight,
                       family = binomial(link = "logit")))
  mes <- summary(margins(model,
                         variables=c("trust_scientists_fa_dim1","trust_media",
                                     "trust_religious", "trust_elected_officials"),
                         at=list(race3=c("asian","black","white","hispanic")),
                         type="response", change="minmax",))
  mes$model <- colnames(pew)[i]
  mes$category <- "Full Sample Baseline"
  baseline_trust_effects.race[[i]] <- mes
}
baseline_trust_effects.race <- ldply(baseline_trust_effects.race,data.frame)


effects <- baseline_trust_effects.race
effects$ylo90 <- (effects$AME - (qt(.95, 100) * effects$SE))
effects$yhi90 <- (effects$AME + (qt(.95, 100) * effects$SE))
effects$model2 <- ifelse(effects$model %in% "restriction_carry_out_only",
                         "Dependent Variable: Restaurants Carry Out Only",
                  ifelse(effects$model %in% "restriction_closing_k12",
                         "Dependent Variable: Close K-12 Schools",
                  ifelse(effects$model %in% "restriction_intl_travel",
                         "Dependent Variable: Restrict International Travel",
```

```
                  ifelse(effects$model %in% "restriction_large_gatherings",
                         "Dependent Variable: Restrict Large Gatherings",
                  ifelse(effects$model %in% "restriction_most_business",
                         "Dependent Variable: Restrict Most Businesses",
                  ifelse(effects$model %in% "restriction_postponing_primary",
                         "Dependent Variable: Postpone Primary Elections",
                  ifelse(effects$model %in% "restriction_sporting_events",
                         "Dependent Variable: Restrict Sporting Events",NA)))))))
effects$factor <- ifelse(effects$factor %in% "trust_elected_officials",
                         "Elected Officials Trust",
                  ifelse(effects$factor %in% "trust_religious","Religious Leader
                         Trust",
                  ifelse(effects$factor %in% "trust_media","Media Trust",
                  ifelse(effects$factor %in% "trust_scientists_fa_dim1",
                         "Scientific Trust",NA))))
effects$race3 <- factor(effects$race3,levels=c("asian","black","white","hispanic"),
                        labels=c("Asian Respondents","Black Respondents",
                                 "White Respondents","Hispanic Respondents"))

for(i in unique(effects$model)){
  x <- subset(effects,effects$model %in% i)
  plot <- ggplot(x,aes(x=race3,y=AME,factor=factor,group=factor,
                       color=factor,shape=factor)) +
    facet_wrap(~model2) + coord_flip() +
    geom_linerange(aes(x= race3, ymin = ylo90, ymax = yhi90),
                   position = position_dodge(width=0.75), lwd  = 1) +
    geom_pointrange(aes(x= race3, ymin = lower, ymax = upper), lwd = 1/2,
                    position = position_dodge(width=0.75),fill="white") +
    theme_minimal() + scale_x_discrete("") +
    scale_y_continuous("Min/Max First Difference Marginal
                       Effects on Pr(Necessary Government Policy)") +
    geom_hline(yintercept = 0, colour = gray(1/2), lty = 2) +
    labs(color="Trust Effects",shape="Trust Effects") + theme(legend.position = "bottom") +
    theme(axis.text.x = element_text(hjust = 0.5),axis.text.y = element_text(hjust = 0.5)) +
    scale_shape_manual("Trust Effects",values=c(23,22,21,20))
  print(plot)
  #ggsave(file=paste(i,"_race3_model",".png",sep=""), plot, width = 8, height = 5.43, units = "in")
}
```


Dependent Variable: Restrict International Travel
Hispanic Respondents
White Respondents
Black Respondents
Asian Respondents
0.00
0.25
0.50
0.75
1.00
Min/Max First Difference Marginal Effects on Pr(Necessary Government Policy)
Trust Effects
Elected Officials Trust
Media Trust
Religious Leader Trust
Scie
Dependent Variable: Restrict Most Businesses
Hispanic Respondents
White Respondents
Black Respondents
Asian Respondents
0.0
0.2
0.4
0.6
0.8
Min/Max First Difference Marginal Effects on Pr(Necessary Government Policy)
Trust Effects
Elected Officials Trust
Media Trust
Religious Leader Trust
Scie


Dependent Variable: Restrict Large Gatherings
Hispanic Respondents
White Respondents
Black Respondents
Asian Respondents
0.0
0.2
0.4
Min/Max First Difference Marginal Effects on Pr(Necessary Government Policy)
Trust Effects
Elected Officials Trust
Media Trust
Religious Leader Trust
Scie
Dependent Variable: Restrict Sporting Events
Hispanic Respondents
White Respondents
Black Respondents
Asian Respondents
0.0
0.3
0.6
0.9
Min/Max First Difference Marginal Effects on Pr(Necessary Government Policy)
Trust Effects
Elected Officials Trust
Media Trust
Religious Leader Trust
Scie


Dependent Variable: Close K−12 Schools
Hispanic Respondents
White Respondents
Black Respondents
Asian Respondents
0.00
0.25
0.50
0.75
1.00
Min/Max First Difference Marginal
Effects on Pr(Necessary Government Policy)
Trust Effects
Elected Officials Trust
Media Trust
Religious Leader
Trust
Scie
Dependent Variable: Restaurants Carry Out Only
Hispanic Respondents
White Respondents
Black Respondents
Asian Respondents
0.0
0.2
0.4
0.6
0.8
Min/Max First Difference Marginal
Effects on Pr(Necessary Government Policy)
Trust Effects
Elected Officials Trust
Media Trust
Religious Leader
Trust
Scie

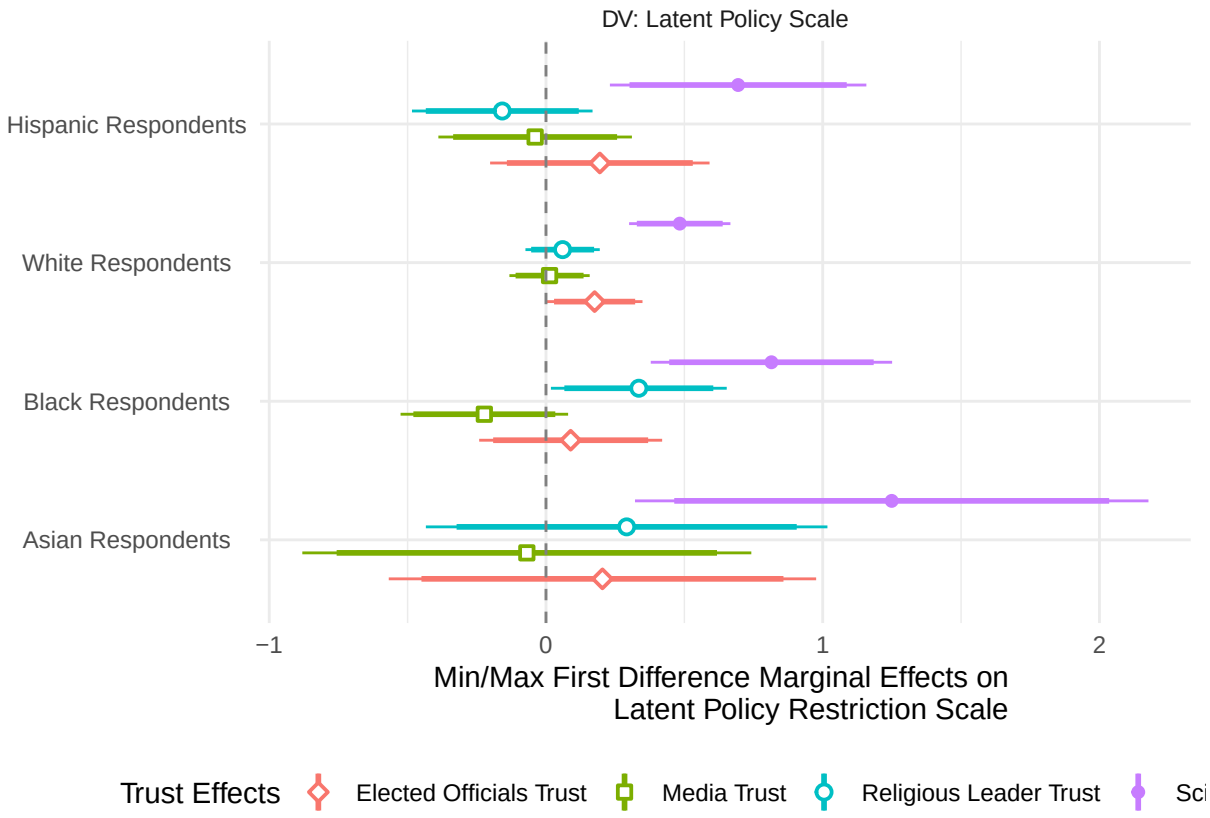


Data Analysis Figures: OLS Composite Models w/ Race Interaction (& Trust in Religious Leaders)

LATENT POLICY SCALE

```
model <- glm(covid_restriction_irt ~ trust_scientists_fa_dim1*race3 +
                       trust_media*race3 + trust_elected_officials*race3 +
                        trust_religious*race3 + female + libcon + age_linear +
                        educ_linear + income_linear + region_factor, data=pew,
                      weights=weight, family = gaussian(identity))
baseline_trust_effects.4 <- summary(margins(model,
                                            variables=c("trust_scientists_fa_dim1",
                                                        "trust_religious",
                                                       "trust_media",
                                                       "trust_elected_officials"),
                                            at=list(race3=c("asian","white","black",
                                                            "hispanic")),
                                            type="response", change="minmax"))
baseline_trust_effects.4$model <- "DV: Latent Policy Scale"
baseline_trust_effects.4$pid3 <- "Full Sample"

effects <- baseline_trust_effects.4
effects$race3 <- factor(effects$race3,levels=c("asian","black","white","hispanic"),
                        labels=c("Asian Respondents","Black Respondents",
                                 "White Respondents","Hispanic Respondents"))
```

```
effects$ylo90 <- (effects$AME - (qt(.95, 100) * effects$SE))
effects$yhi90 <- (effects$AME + (qt(.95, 100) * effects$SE))

effects$factor <- ifelse(effects$factor %in% "trust_elected_officials",
                         "Elected Officials Trust",
                         ifelse(effects$factor %in% "trust_religious",
                         "Religious Leader Trust",
                   ifelse(effects$factor %in% "trust_media","Media Trust",
                   ifelse(effects$factor %in% "trust_scientists_fa_dim1",
                         "Scientific Trust",NA))))

plot <- ggplot(effects,aes(x=race3,y=AME,factor=factor,group=factor,color=factor,
                           shape=factor)) +
  facet_wrap(~model) + coord_flip() +
  geom_linerange(aes(x= race3, ymin = ylo90, ymax = yhi90),
                 position = position_dodge(width=0.75), lwd  = 1) +
  geom_pointrange(aes(x= race3, ymin = lower, ymax = upper), lwd = 1/2,
                  position = position_dodge(width=0.75),fill="white") +
  theme_minimal() + scale_x_discrete("") +
  scale_y_continuous("Min/Max First Difference Marginal Effects on
                      Latent Policy Restriction Scale") +
  geom_hline(yintercept = 0, colour = gray(1/2), lty = 2) +
  labs(color="Trust Effects",shape="Trust Effects") +
  theme(legend.position = "bottom") +
  theme(axis.text.x = element_text(hjust = 0.5),
        axis.text.y = element_text(hjust = 0.5)) +
  scale_shape_manual("Trust Effects",values=c(23,22,21,20))
print(plot)
```



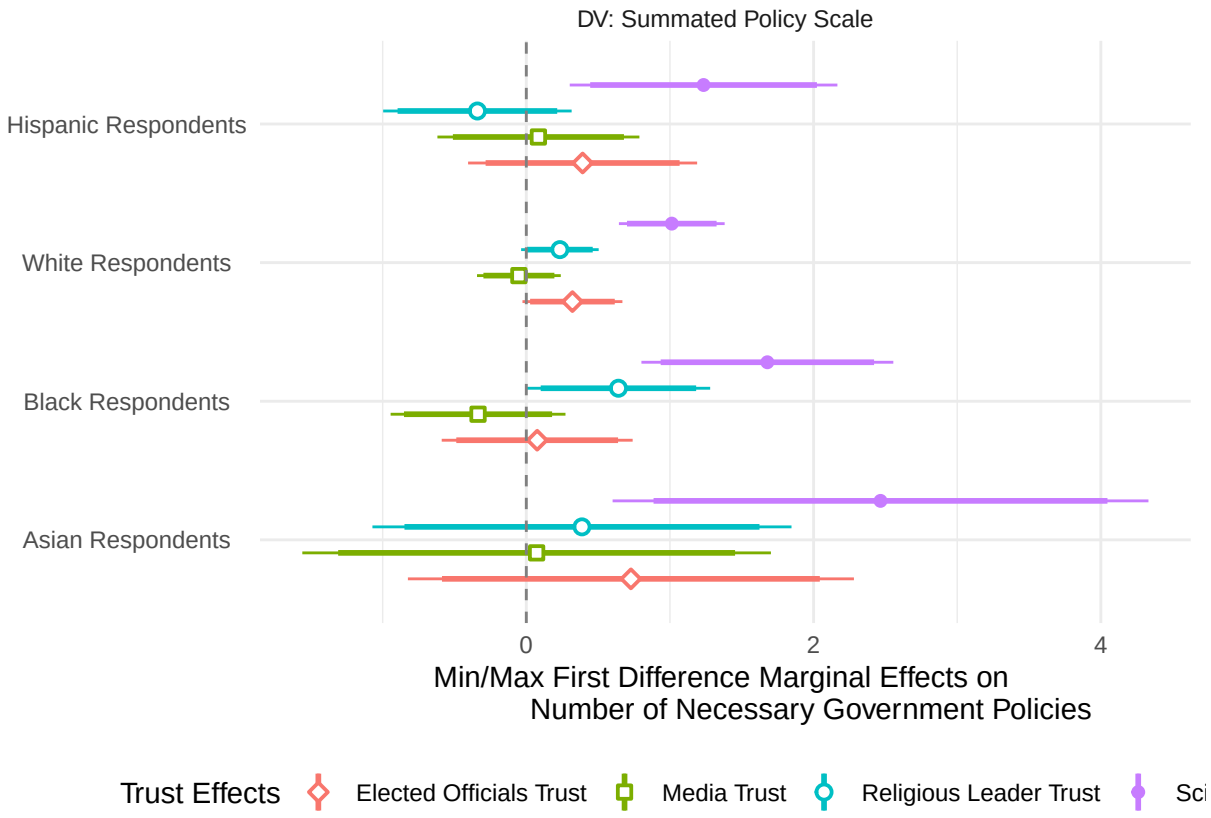

```
#ggsave(file="latent_policy_scale_race3_model.png", plot, width = 8, height = 5.43, units = "in")
```

Data Analysis Figures: OLS Composite Models w/ Race Interaction (& Trust in Religious Leaders)

SUMMATED POLICY SCALE

```
model <- glm(summated_restriction_scale ~ trust_scientists_fa_dim1*race3 +
                       trust_media*race3 + trust_elected_officials*race3 +
                       trust_religious*race3 + female + libcon + age_linear +
                      educ_linear + income_linear + region_factor, data=pew,
                     weights=weight, family = gaussian(identity))
baseline_trust_effects.5 <- summary(margins(model,
                                            variables=c("trust_scientists_fa_dim1",
                                                        "trust_media",
                                                        "trust_religious",
                                                        "trust_elected_officials"),
                                            at=list(race3=c("asian","white","black",
                                                            "hispanic")),
                                            type="response", change="minmax"))
baseline_trust_effects.5$model <- "DV: Summated Policy Scale"
baseline_trust_effects.5$pid3 <- "Full Sample"

effects <- baseline_trust_effects.5
effects$race3 <- factor(effects$race3,levels=c("asian","black","white","hispanic"),
                        labels=c("Asian Respondents","Black Respondents",
```

```
                                "White Respondents","Hispanic Respondents"))

effects$ylo90 <- (effects$AME - (qt(.95, 100) * effects$SE))
effects$yhi90 <- (effects$AME + (qt(.95, 100) * effects$SE))

effects$factor <- ifelse(effects$factor %in% "trust_elected_officials",
                         "Elected Officials Trust",
                         ifelse(effects$factor %in% "trust_religious",
                         "Religious Leader Trust",
                  ifelse(effects$factor %in% "trust_media","Media Trust",
                  ifelse(effects$factor %in% "trust_scientists_fa_dim1",
                         "Scientific Trust",NA))))

plot <- ggplot(effects,aes(x=race3,y=AME,factor=factor,group=factor,color=factor,
                           shape=factor)) +
  facet_wrap(~model) + coord_flip() +
  geom_linerange(aes(x= race3, ymin = ylo90, ymax = yhi90),
                 position = position_dodge(width=0.75), lwd  = 1) +
  geom_pointrange(aes(x= race3, ymin = lower, ymax = upper), lwd = 1/2,
                  position = position_dodge(width=0.75),fill="white") +
  theme_minimal() + scale_x_discrete("") +
  scale_y_continuous("Min/Max First Difference Marginal Effects on
                     Number of Necessary Government Policies") +
  geom_hline(yintercept = 0, colour = gray(1/2), lty = 2) +
  labs(color="Trust Effects",shape="Trust Effects") +
  theme(legend.position = "bottom") + theme(axis.text.x = element_text(hjust = 0.5),
                                            axis.text.y = element_text(hjust = 0.5)) +
  scale_shape_manual("Trust Effects",values=c(23,22,21,20))
print(plot)
```




```
#ggsave(file="summated_policy_scale_race3_model.png", plot, width = 8, height = 5.43, units = "in")
```

Boxplot by Race

```
x <- subset(pew,select=c(race3,trust_scientists_fa_dim1))
x <- na.omit(x)
print(summary(aov(trust_scientists_fa_dim1 ~ race3, data = x)))
```

```
##               Df Sum Sq Mean Sq F value Pr(>F)
## race3          3    8.5   2.818   4.302 0.0049 **
## Residuals   3154 2065.7   0.655
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
y <- subset(pew,select=c(race3,trust_scientists_fa_dim1))
y$race3 <- "Full Sample"
x <- rbind(x,y)

plot <- ggplot(x, aes(x=race3,y=trust_scientists_fa_dim1, group=race3,fill=race3)) +
  geom_boxplot(alpha=0.2) + theme_minimal() +
  scale_y_continuous("Latent Scientific Trust") +
  scale_x_discrete("",labels=c("White Respondents","Black Respondents",
                               "Hispanic Respondents","Asian Respondents","Full Sample")) +
  theme(legend.position = "none") +
  labs(caption="ANOVA suggests significant differences in mean latent
       scientific trust across racial groups, p < 0.01.") +
  geom_jitter(aes(colour=race3),alpha=0.075) +
```

```
  scale_color_manual("",values=c("#F8766D","#7CAE00","#00BFC4","#529EFF","gray")) +
  scale_fill_manual("",values=c("#F8766D","#7CAE00","#00BFC4","#529EFF","gray"))
#ggsave(file="scientific_trust_boxplots_by_race3.png", plot, width = 8, height = 5.43, units = "in")
```

Data Analysis Figures: OLS Composite Models

```
model <- lm(trust_scientists_fa_dim1 ~ female + pid3 + libcon +
                      age_linear + educ_linear + income_linear + race3 +
                      region_factor, data=pew, weights=weight)

mes <- summary(margins(model, type="response", change="minmax"))
mes$race3 <- factor(mes$factor,levels=c("race3asian","race3black","race3hispanic"),
                    labels=c("Asian Respondents","Black Respondents",
                             "Hispanic Respondents"))

mes$label <- ifelse(mes$p < 0.01,paste(round(mes$AME,2),"***",sep=""),
                    ifelse(mes$p < 0.05,paste(round(mes$AME,2),"**",sep=""),
                    ifelse(mes$p < 0.10,paste(round(mes$AME,2),"*",sep=""),NA)))

mes$ylo90 <- (mes$AME - (qt(.95, 100) * mes$SE))
mes$yhi90 <- (mes$AME + (qt(.95, 100) * mes$SE))
mes$model <- "DV: Latent Scientific Trust "

plot <- ggplot(subset(mes,!is.na(mes$race3)),
               aes(x=race3,y=AME,factor=race3,group=race3,
                   color=race3,shape=race3,label=label,fill=race3)) +
  facet_wrap(~model) + coord_flip() +
  geom_linerange(aes(x= race3, ymin = ylo90, ymax = yhi90),
                 position = position_dodge(width=0.75), lwd  = 1) +
  geom_pointrange(aes(x= race3, ymin = lower, ymax = upper), lwd = 1/2,
                  position = position_dodge(width=0.75),fill="white") +
  theme_minimal() + scale_x_discrete("") +
  scale_y_continuous("Marginal Effect of Race on Latent Scientific Trust")  +
  geom_hline(yintercept = 0, colour = gray(1/2), lty = 2) +
  labs(color="Trust Effects",shape="Trust Effects") +
  theme(legend.position = "none") +
  theme(axis.text.x = element_text(hjust = 0.5),axis.text.y = element_text(hjust = 0.5)) +
  geom_label(vjust=-0.5,hjust=0.25,fill="white") +
  labs(caption="Note marginal effects relative to
       white respondents. \n* p < 0.1; ** p < 0.05; *** p < 0.01") +
  facet_wrap(~model) + scale_shape_manual("Trust Effects",values=c(23,22,21))
ggsave(file="latent_scientific_trust_model.png", plot, width = 8, height = 5.43, units = "in")

mes <- subset(mes,!(mes$factor %in% c("region_factorWest","region_factorSouth","region_factorMidwest")))

plot <- ggplot(mes,aes(x=factor,y=AME,factor=factor,group=factor,label=label)) +
  facet_wrap(~model) + coord_flip() +
  geom_linerange(aes(x= factor, ymin = ylo90, ymax = yhi90),
                 position = position_dodge(width=0.75), lwd  = 1) +
  geom_pointrange(aes(x= factor, ymin = lower, ymax = upper), lwd = 1/2,
                  position = position_dodge(width=0.75),fill="white",shape=21) +
  theme_minimal() + scale_x_discrete("",labels=c("Age","Education","Female",
```

```
                                                  "Income","Liberal Ideology",
                                                  "Democrat","Independent",
                                                  "Asian Respondent","Black Respondent",
                                                  "Hispanic Respondent")) +
  scale_y_continuous("Marginal Effect of Covariates on Latent Scientific Trust")  +
  geom_hline(yintercept = 0, colour = gray(1/2), lty = 2) +
  labs(color="Trust Effects",shape="Trust Effects") + theme(legend.position = "none") +
  theme(axis.text.x = element_text(hjust = 0.5),axis.text.y = element_text(hjust = 0.5)) +
  geom_label(vjust=-0.5,hjust=0.25,fill="white") +
  labs(caption="Note marginal effects for respondent race &
       partisanship relative to baseline factor categories. Contextual
       regions omitted. \nFactor Baselines: white respondents, Republican
       identifiers. * p < 0.1; ** p < 0.05; *** p < 0.01") + facet_wrap(~model)
ggsave(file="latent_scientific_trust_model_full.png", plot, width = 8, height = 5.43, units = "in")
```

#Incorporating a Measure of Religious Belief as Covariate (from an additional wave: wave 46)

```
# load the foreign package to read wa
library(foreign)
# read in the .sav file using read.spss()
dataw46 <- read.spss("ATP W46.sav", to.data.frame = TRUE)
# view the first few rows of your data
#head(dataw46)
```

```
#Subsetting the variables we need for religion
#colnames(dataw46)
dataw46_subset <- subset(dataw46,
                      select=c(QKEY,CHURCHUNITE_W46,RELIGTRUST_W46,F_RACETHN,
                               F_RACECMB, CONFCLERGY1a_W46,CONFCLERGY1b_W46,
                               CONFCLERGY1c_W46,CONFCLERGY2a_W46,CONFCLERGY2b_W46,
                               CONFCLERGY2e_W46,CONFCLERGY2f_W46,
                            RELIG_INFL2_W46,ETERNAL_W46,CLERGY_RELIG_W46,
                            RELIG_FRIENDLYa_W46,RELIG_FRIENDLYb_W46,
                            RELIG_FRIENDLYc_W46,RELIG_FRIENDLYd_W46,
                            RELIG_FRIENDLYe_W46,RELIG_FRIENDLYf_W46,
                            FRIENDS_W46,F_METRO,F_CREGION,F_SEX,F_AGECAT,
                            F_EDUCCAT2,F_MARITAL,F_INCOME,F_CREGION,F_HISP,
                            F_RACECMB,F_NATIVITY,F_CITIZEN,F_RELIG,
                            F_PARTY_FINAL,F_PARTYSUM_FINAL,F_BORN,
                            F_ATTEND,F_IDEO,F_INCOME,F_INCOME_RECODE,
                            F_E3,WEIGHT_W46))
#head(dataw46_subset)
#str(dataw46_subset)

# remove rows with missing values
dataw46_subset_complete <- na.omit(dataw46_subset)

# view the first few rows of the cleaned data frame (this might be a problem
#because the number of obs. went from 6364 to 2597; we might have to impute)
#imputing  for missing data: Amelia

#head(dataw46_subset_complete)
```

#Data Wrangling: Religiousness Measure

```r
##Religiousness as religious affiliation (combine 11 and 12)
#levels(dataw46_subset$F_RELIG)

dataw46_subset <- dataw46_subset %>%
  mutate(affiliation = case_when(
    F_RELIG %in% c("Protestant (for example, Baptist, Methodist,
    Non-denominational, Lutheran, Presbyterian, Pentecostal,
    Episcopalian, Refo","Roman Catholic", "Mormon (Church of Jesus Christ of
    Latter-day Saints or LDS)", "Orthodox (such as Greek, Russian,
    or some other Orthodox church)") ~ "Christian",
    F_RELIG %in% c("Jewish", "Muslim", "Buddhist", "Hindu",
                   "Something else, Specify") ~ "Other_Religion",
    F_RELIG %in% c("Atheist","Agnostic","Nothing in particular") ~ "No_Religion",
    F_RELIG == "Refused" ~ NA,
  ))

##Religiousness as religious attendance (seldom and a few times a year) 1 and 2:
##often, 3: sometime 4 and 5: rarely and never : 6 and refused (as missing)
#levels(dataw46_subset$F_ATTEND)

dataw46_subset <- dataw46_subset %>%
  mutate(attendance = case_when(
    F_ATTEND %in% c("More than once a week", "Once a week") ~ "often",
    F_ATTEND %in% c("Once or twice a month", "A few times a year",
                    "Seldom") ~ "sometimes",
    F_ATTEND %in% c("Never", "Refused") ~ "never",
    TRUE ~ F_ATTEND
  )) %>%
  mutate(attendance = factor(attendance, levels = c("never",
                                                    "rarely",
                                                    "sometimes",
                                                    "often")))


##Religiousness as religious as belief as relational
levels(dataw46_subset$ETERNAL_W46)
```

```
## [1] "My religion is the one true faith leading to eternal life"
## [2] "Many religions can lead to eternal life"
## [3] "Refused"
```

```r
dataw46_subset$eternal_life <- ifelse(dataw46_subset$ETERNAL_W46 == "My religion is the one true faith l
  ifelse(dataw46_subset$ETERNAL_W46 == "Many religions can lead to eternal life", "many_religions",
                                  ifelse(is.na(dataw46_subset$ETERNAL_W46) |
                           dataw46_subset$ETERNAL_W46 == "Refused", NA, NA)))
#dataw46_subset$eternal_life

##Religiousness as religious as  belief as shaping your way of life
##(interpersonal life and world)
# levels(dataw46_subset$CONFCLERGY1a_W46)
# levels(dataw46_subset$CONFCLERGY1b_W46)
# levels(dataw46_subset$CONFCLERGY1c_W46)
# levels(dataw46_subset$CONFCLERGY2a_W46)
# levels(dataw46_subset$CONFCLERGY2b_W46)
```

```
# levels(dataw46_subset$CONFCLERGY2e_W46)
# levels(dataw46_subset$CONFCLERGY2f_W46)

dataw46_subset <- dataw46_subset %>%
  mutate(CONFCLERGY1a_W46_num = case_when(CONFCLERGY1a_W46 == "A lot of confidence" ~ 4,
                                         CONFCLERGY1a_W46 == "Some confidence" ~ 3,
                                         CONFCLERGY1a_W46 == "Not much confidence" ~ 2,
                                         CONFCLERGY1a_W46 == "No confidence at all" ~ 1),
         CONFCLERGY1b_W46_num = case_when(CONFCLERGY1b_W46 == "A lot of confidence" ~ 4,
                                         CONFCLERGY1b_W46 == "Some confidence" ~ 3,
                                         CONFCLERGY1b_W46 == "Not much confidence" ~ 2,
                                         CONFCLERGY1b_W46 == "No confidence at all" ~ 1),
         CONFCLERGY1c_W46_num = case_when(CONFCLERGY1c_W46 == "A lot of confidence" ~ 4,
                                         CONFCLERGY1c_W46 == "Some confidence" ~ 3,
                                         CONFCLERGY1c_W46 == "Not much confidence" ~ 2,
                                         CONFCLERGY1c_W46 == "No confidence at all" ~ 1),
         CONFCLERGY2a_W46_num = case_when(CONFCLERGY2a_W46 == "A lot of confidence" ~ 4,
                                         CONFCLERGY2a_W46 == "Some confidence" ~ 3,
                                         CONFCLERGY2a_W46 == "Not much confidence" ~ 2,
                                         CONFCLERGY2a_W46 == "No confidence at all" ~ 1),
         CONFCLERGY2b_W46_num = case_when(CONFCLERGY2b_W46 == "A lot of confidence" ~ 4,
                                         CONFCLERGY2b_W46 == "Some confidence" ~ 3,
                                         CONFCLERGY2b_W46 == "Not much confidence" ~ 2,
                                         CONFCLERGY2b_W46 == "No confidence at all" ~ 1),
         CONFCLERGY2e_W46_num = case_when(CONFCLERGY2e_W46 == "A lot of confidence" ~ 4,
                                         CONFCLERGY2e_W46 == "Some confidence" ~ 3,
                                         CONFCLERGY2e_W46 == "Not much confidence" ~ 2,
                                         CONFCLERGY2e_W46 == "No confidence at all" ~ 1),
         CONFCLERGY2f_W46_num = case_when(CONFCLERGY2f_W46 == "A lot of confidence" ~ 4,
                                         CONFCLERGY2f_W46 == "Some confidence" ~ 3,
                                         CONFCLERGY2f_W46 == "Not much confidence" ~ 2,
                                         CONFCLERGY2f_W46 == "No confidence at all" ~ 1))
```

#Covariates:

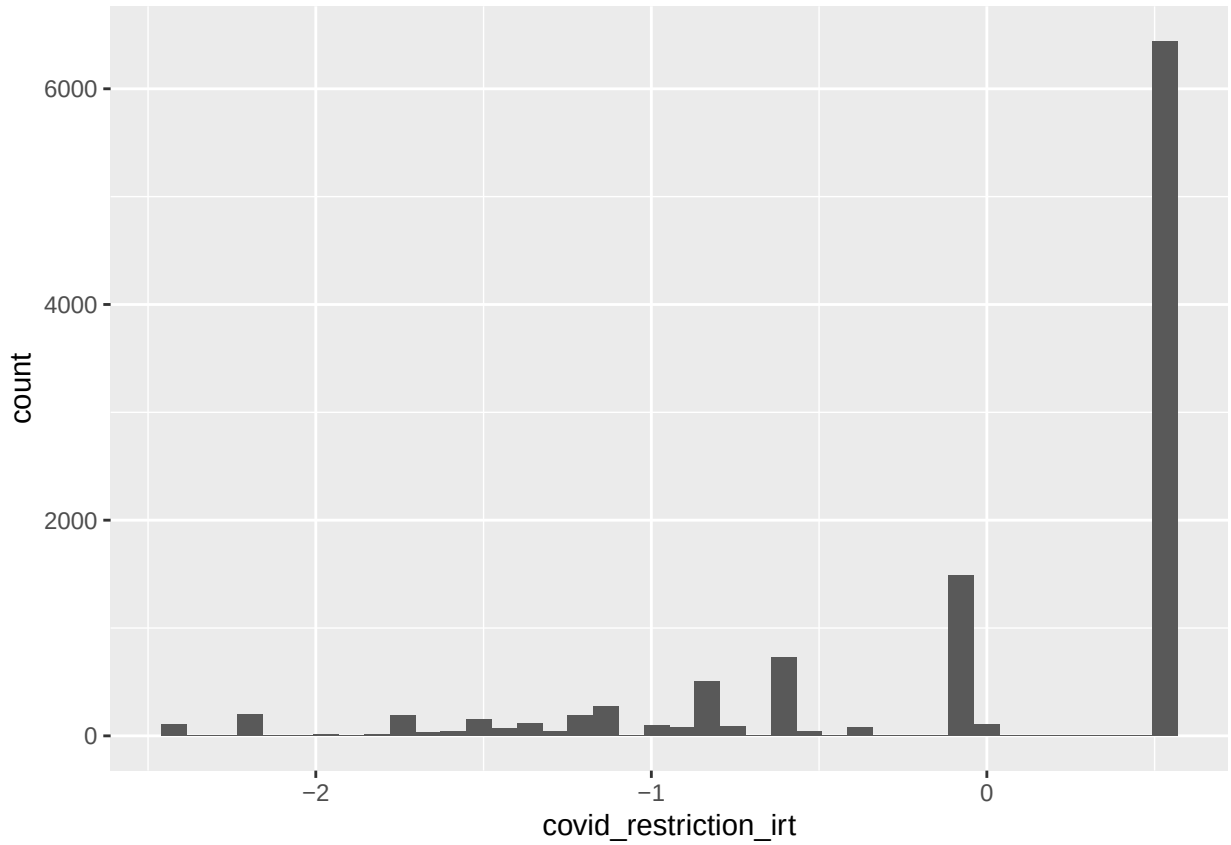
```
library(tidyverse)
#Transforming gender covariate
dataw46_subset$female <- as.character(dataw46_subset$F_SEX)
dataw46_subset$female <- recode(dataw46_subset$female, "1" = "Male", "2"= "Female")
dataw46_subset$female <- factor(dataw46_subset$female, levels=c("Male","Female"))

#Transforming & cleaning age covariate
dataw46_subset$age_linear <- as.factor(factor(dataw46_subset$F_AGECAT))
dataw46_subset$age_linear[dataw46_subset$age_linear %in% 5] <- NA # Get rid of refused

#transforming & cleaning education covariate
dataw46_subset$educ_linear <- as.factor(factor(dataw46_subset$F_EDUCCAT2))
dataw46_subset$educ_linear[dataw46_subset$educ_linear %in% 7] <- NA # Get rid of refused

#transforming & cleaning marital covariate
dataw46_subset$marital_status <- ifelse(dataw46_subset$F_MARITAL %in% "Married",1,0)
dataw46_subset$marital_status[dataw46_subset$F_MARITAL %in% "Refused"] <- NA # Get rid of refused

#transforming & cleaning income covariate
```

```
dataw46_subset$income_linear <- as.factor(factor(dataw46_subset$F_INCOME))
dataw46_subset$income_linear[dataw46_subset$income_linear %in% 10] <- NA # Get rid of refused

#transforming & cleaning region & white race covariates
library(dplyr)

dataw46_subset <- dataw46_subset %>%
  mutate(region_factor = F_CREGION,
         white_respondent = case_when(F_RACETHN == "White non-Hispanic" ~ 1,
                                      F_RACETHN != "White non-Hispanic" ~ 0,
                                      TRUE ~ NA_real_)
        )

#getting other race covariate and merging with the dataw46_subset data
# library(haven)
# dataw42 <- read_dta("ATP_W42.dta")
# dataw42_sub <- dataw42[,c("QKEY", "F_RACECMB")]
#
# dim(dataw46_subset)
# dim(dataw42)
#
# dataw46_subset <- merge(dataw46_subset, dataw42_sub,
#                         by = "QKEY",
#                         all = TRUE, suffixes = c("_w46", "_w42"))
#
# dataw46_subset$dataw42_sub <- ifelse(dataw46_subset$F_RACETHN %in% "White non-Hispanic","white",ifels
#
# dataw46_subset$dataw42_sub <- ifelse(is.na(dataw46_subset$dataw42_sub) & dataw46_subset$F_RACECMB %in
#
# dataw46_subset$dataw42_sub <- factor(dataw46_subset$dataw42_sub,levels=c("white","black","hispanic","
```

#Estimating the correlation of the various religious variables with the covid policy support variable & scientific trust to determine which are potential confounders

```
#merging the pew data with the dataw46_subset data to run the models
 dataw46_subset_new <- merge(dataw46_subset, pew,
                      by = "QKEY",
                      all = TRUE)

#transforming covid_rest_irt variable into a binary to do modeling
#because not normally distributed
dataw46_subset_new %>%
  ggplot(aes(x=covid_restriction_irt)) +
  geom_histogram(bins = 40) #showing data is not normally distributed
```

```
## Warning: Removed 2139 rows containing non-finite values (`stat_bin()`).
```




```
dataw46_subset_new <- dataw46_subset_new %>%
  mutate(covid_restriction_irt_binary=
           case_when(covid_restriction_irt > 0 ~ 1,
                     covid_restriction_irt <= 0 ~ 0))

#MEASURING CORRELATION BETWEEN RELIGIOUS VARIABLES & SUPPORT FOR COVID POLICIES
#Logistic model: support for covid policies on religious affiliation
summary(glm(covid_restriction_irt_binary ~ as.factor(affiliation) +
                    marital_status.x + income_linear.x +
                    educ_linear.x + age_linear.x + female.x,
          data = dataw46_subset_new, family = "binomial"))
```

```
##
## Call:
## glm(formula = covid_restriction_irt_binary ~ as.factor(affiliation) +
##     marital_status.x + income_linear.x + educ_linear.x + age_linear.x +
##     female.x, family = "binomial", data = dataw46_subset_new)
##
## Deviance Residuals:
##     Min       1Q   Median       3Q      Max
## -1.6725  -1.2553   0.9085   1.0334   1.3070
##
## Coefficients:
##                                            Estimate Std. Error z value
## (Intercept)                                0.068912   0.293766   0.235
## as.factor(affiliation)No_Religion         -0.014443   0.090386  -0.160
## as.factor(affiliation)Other_Religion       0.048967   0.123931   0.395
```

```
## marital_status.x                                 0.043803   0.087036   0.503
## income_linear.x$10,000 to less than $20,000   -0.068706   0.247191  -0.278
## income_linear.x$20,000 to less than $30,000    0.058988   0.237215   0.249
## income_linear.x$30,000 to less than $40,000   -0.051797   0.234933  -0.220
## income_linear.x$40,000 to less than $50,000   -0.009232   0.238438  -0.039
## income_linear.x$50,000 to less than $75,000   -0.041892   0.219362  -0.191
## income_linear.x$75,000 to less than $100,000   0.032671   0.226401   0.144
## income_linear.x$100,000 to less than $150,000 -0.048180   0.226186  -0.213
## income_linear.x$150,000 or more               -0.032129   0.233007  -0.138
## income_linear.xRefused                         0.423704   0.295633   1.433
## educ_linear.xHigh school graduate              0.118574   0.239744   0.495
## educ_linear.xSome college, no degree           0.139842   0.237284   0.589
## educ_linear.xAssociate's degree                0.050443   0.260498   0.194
## educ_linear.xCollege graduate/some post grad   0.365674   0.238215   1.535
## educ_linear.xPostgraduate                      0.093803   0.241321   0.389
## educ_linear.xDon't know/Refused               -0.386361   1.487927  -0.260
## age_linear.x30-49                             -0.045617   0.124147  -0.367
## age_linear.x50-64                             -0.212053   0.130457  -1.625
## age_linear.x65+                               -0.285430   0.135960  -2.099
## female.xFemale                                 0.439503   0.078461   5.602
##                                               Pr(>|z|)
## (Intercept)                                     0.8145
## as.factor(affiliation)No_Religion               0.8730
## as.factor(affiliation)Other_Religion            0.6928
## marital_status.x                                0.6148
## income_linear.x$10,000 to less than $20,000     0.7811
## income_linear.x$20,000 to less than $30,000     0.8036
## income_linear.x$30,000 to less than $40,000     0.8255
## income_linear.x$40,000 to less than $50,000     0.9691
## income_linear.x$50,000 to less than $75,000     0.8485
## income_linear.x$75,000 to less than $100,000    0.8853
## income_linear.x$100,000 to less than $150,000   0.8313
## income_linear.x$150,000 or more                 0.8903
## income_linear.xRefused                          0.1518
## educ_linear.xHigh school graduate               0.6209
## educ_linear.xSome college, no degree            0.5556
## educ_linear.xAssociate's degree                 0.8465
## educ_linear.xCollege graduate/some post grad    0.1248
## educ_linear.xPostgraduate                       0.6975
## educ_linear.xDon't know/Refused                 0.7951
## age_linear.x30-49                               0.7133
## age_linear.x50-64                               0.1041
## age_linear.x65+                                 0.0358 *
## female.xFemale                                2.12e-08 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##     Null deviance: 3813.4  on 2808  degrees of freedom
## Residual deviance: 3757.8  on 2786  degrees of freedom
##   (10434 observations deleted due to missingness)
## AIC: 3803.8
##
```

```
## Number of Fisher Scoring iterations: 4
```

```
#Logistic model: religion as attendance on support for covid policies
summary(glm(covid_restriction_irt_binary ~ attendance +
                   marital_status.x + income_linear.x +
                   educ_linear.x + age_linear.x + female.x,
         data = dataw46_subset_new, family = "binomial"))
```

```
##
## Call:
## glm(formula = covid_restriction_irt_binary ~ attendance + marital_status.x +
##     income_linear.x + educ_linear.x + age_linear.x + female.x,
##     family = "binomial", data = dataw46_subset_new)
##
## Deviance Residuals:
##    Min      1Q  Median      3Q     Max
## -1.684  -1.219   0.924   1.036   1.547
##
## Coefficients:
##                                                  Estimate Std. Error z value
## (Intercept)                                       0.32615    0.21509   1.516
## attendancesometimes                              -0.04532    0.07084  -0.640
## attendanceoften                                  -0.08592    0.08201  -1.048
## marital_status.x                                  0.02351    0.06622   0.355
## income_linear.x$10,000 to less than $20,000      -0.11644    0.18040  -0.645
## income_linear.x$20,000 to less than $30,000      -0.19526    0.17644  -1.107
## income_linear.x$30,000 to less than $40,000      -0.22394    0.17463  -1.282
## income_linear.x$40,000 to less than $50,000      -0.02707    0.17494  -0.155
## income_linear.x$50,000 to less than $75,000      -0.12839    0.16324  -0.787
## income_linear.x$75,000 to less than $100,000     -0.10102    0.16923  -0.597
## income_linear.x$100,000 to less than $150,000    -0.13243    0.16952  -0.781
## income_linear.x$150,000 or more                  -0.06973    0.17712  -0.394
## income_linear.xRefused                            0.32297    0.21568   1.497
## educ_linear.xHigh school graduate                -0.03029    0.17440  -0.174
## educ_linear.xSome college, no degree             -0.08911    0.17392  -0.512
## educ_linear.xAssociate's degree                  -0.17525    0.18808  -0.932
## educ_linear.xCollege graduate/some post grad      0.05531    0.17468   0.317
## educ_linear.xPostgraduate                        -0.08870    0.17766  -0.499
## educ_linear.xDon't know/Refused                  -0.63028    1.03117  -0.611
## age_linear.x30-49                                -0.09960    0.09932  -1.003
## age_linear.x50-64                                -0.15271    0.09997  -1.528
## age_linear.x65+                                  -0.16880    0.10458  -1.614
## age_linear.xDK/REF                               -1.51370    1.23656  -1.224
## female.xFemale                                    0.49858    0.05948   8.383
##                                                  Pr(>|z|)
## (Intercept)                                         0.129
## attendancesometimes                                 0.522
## attendanceoften                                     0.295
## marital_status.x                                    0.723
## income_linear.x$10,000 to less than $20,000         0.519
## income_linear.x$20,000 to less than $30,000         0.268
## income_linear.x$30,000 to less than $40,000         0.200
## income_linear.x$40,000 to less than $50,000         0.877
## income_linear.x$50,000 to less than $75,000         0.432
## income_linear.x$75,000 to less than $100,000        0.551
```

```
## income_linear.x$100,000 to less than $150,000    0.435
## income_linear.x$150,000 or more                  0.694
## income_linear.xRefused                           0.134
## educ_linear.xHigh school graduate                0.862
## educ_linear.xSome college, no degree             0.608
## educ_linear.xAssociate's degree                  0.351
## educ_linear.xCollege graduate/some post grad     0.752
## educ_linear.xPostgraduate                        0.618
## educ_linear.xDon't know/Refused                  0.541
## age_linear.x30-49                                0.316
## age_linear.x50-64                                0.127
## age_linear.x65+                                  0.107
## age_linear.xDK/REF                               0.221
## female.xFemale                                  <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##     Null deviance: 6676.1  on 4889  degrees of freedom
## Residual deviance: 6580.0  on 4866  degrees of freedom
##   (8353 observations deleted due to missingness)
## AIC: 6628
##
## Number of Fisher Scoring iterations: 4
```

```
#Logistic model: religion as eternal_life on support for covid policies
summary(glm(covid_restriction_irt_binary ~ eternal_life +
                   marital_status.x + income_linear.x +
                   educ_linear.x + age_linear.x + female.x,
         data = dataw46_subset_new, family = "binomial"))
```

```
##
## Call:
## glm(formula = covid_restriction_irt_binary ~ eternal_life + marital_status.x +
##     income_linear.x + educ_linear.x + age_linear.x + female.x,
##     family = "binomial", data = dataw46_subset_new)
##
## Deviance Residuals:
##     Min       1Q   Median       3Q      Max
## -1.6874  -1.2137   0.8963   1.0547   1.5479
##
## Coefficients:
##                                              Estimate Std. Error z value
## (Intercept)                                   0.59569    0.27591   2.159
## eternal_lifemy_religion_only                 -0.29171    0.07793  -3.743
## marital_status.x                              0.03872    0.08216   0.471
## income_linear.x$10,000 to less than $20,000  -0.24701    0.23051  -1.072
## income_linear.x$20,000 to less than $30,000  -0.42705    0.22567  -1.892
## income_linear.x$30,000 to less than $40,000  -0.39994    0.22377  -1.787
## income_linear.x$40,000 to less than $50,000  -0.18159    0.22047  -0.824
## income_linear.x$50,000 to less than $75,000  -0.36262    0.20926  -1.733
## income_linear.x$75,000 to less than $100,000 -0.31326    0.21712  -1.443
## income_linear.x$100,000 to less than $150,000 -0.31221    0.21677  -1.440
## income_linear.x$150,000 or more              -0.13611    0.22792  -0.597
```

```
## income_linear.xRefused                           0.02774    0.26301   0.105
## educ_linear.xHigh school graduate               -0.05823    0.21517  -0.271
## educ_linear.xSome college, no degree            -0.11353    0.21520  -0.528
## educ_linear.xAssociate's degree                 -0.25250    0.23103  -1.093
## educ_linear.xCollege graduate/some post grad    -0.09153    0.21572  -0.424
## educ_linear.xPostgraduate                       -0.12021    0.21958  -0.547
## educ_linear.xDon't know/Refused                 -0.69881    1.44607  -0.483
## age_linear.x30-49                               -0.16308    0.13460  -1.212
## age_linear.x50-64                               -0.17893    0.13248  -1.351
## age_linear.x65+                                 -0.19221    0.13748  -1.398
## age_linear.xDK/REF                              -1.64013    1.23606  -1.327
## female.xFemale                                   0.54419    0.07392   7.362
##                                                 Pr(>|z|)
## (Intercept)                                     0.030848 *
## eternal_lifemy_religion_only                    0.000182 ***
## marital_status.x                                0.637468
## income_linear.x$10,000 to less than $20,000     0.283898
## income_linear.x$20,000 to less than $30,000     0.058438 .
## income_linear.x$30,000 to less than $40,000     0.073887 .
## income_linear.x$40,000 to less than $50,000     0.410158
## income_linear.x$50,000 to less than $75,000     0.083114 .
## income_linear.x$75,000 to less than $100,000    0.149083
## income_linear.x$100,000 to less than $150,000   0.149781
## income_linear.x$150,000 or more                 0.550386
## income_linear.xRefused                          0.915989
## educ_linear.xHigh school graduate               0.786679
## educ_linear.xSome college, no degree            0.597801
## educ_linear.xAssociate's degree                 0.274418
## educ_linear.xCollege graduate/some post grad    0.671362
## educ_linear.xPostgraduate                       0.584063
## educ_linear.xDon't know/Refused                 0.628919
## age_linear.x30-49                               0.225657
## age_linear.x50-64                               0.176801
## age_linear.x65+                                 0.162087
## age_linear.xDK/REF                              0.184543
## female.xFemale                                  1.81e-13 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##     Null deviance: 4444.6  on 3249  degrees of freedom
## Residual deviance: 4354.3  on 3227  degrees of freedom
##   (9993 observations deleted due to missingness)
## AIC: 4400.3
##
## Number of Fisher Scoring iterations: 4
```

```
#Logistic model: religion as trust for clergy on support for covid policies
summary(glm(covid_restriction_irt_binary ~ CONFCLERGY1a_W46_num +
                    marital_status.x + income_linear.x +
                    educ_linear.x + age_linear.x + female.x,
          data = dataw46_subset_new, family = "binomial"))
```

```
##
```

```
## Call:
## glm(formula = covid_restriction_irt_binary ~ CONFCLERGY1a_W46_num +
##     marital_status.x + income_linear.x + educ_linear.x + age_linear.x +
##     female.x, family = "binomial", data = dataw46_subset_new)
##
## Deviance Residuals:
##     Min       1Q   Median       3Q      Max
## -1.7536  -1.2345   0.9096   1.0522   1.3618
##
## Coefficients:
##                                                Estimate Std. Error z value
## (Intercept)                                     0.34499    0.31560   1.093
## CONFCLERGY1a_W46_num                           -0.11853    0.04209  -2.816
## marital_status.x                                0.03617    0.09850   0.367
## income_linear.x$10,000 to less than $20,000    -0.02934    0.25938  -0.113
## income_linear.x$20,000 to less than $30,000    -0.04204    0.26073  -0.161
## income_linear.x$30,000 to less than $40,000    -0.11949    0.25244  -0.473
## income_linear.x$40,000 to less than $50,000     0.10746    0.25210   0.426
## income_linear.x$50,000 to less than $75,000    -0.07871    0.23591  -0.334
## income_linear.x$75,000 to less than $100,000   -0.18361    0.24764  -0.741
## income_linear.x$100,000 to less than $150,000  -0.04375    0.24751  -0.177
## income_linear.x$150,000 or more                -0.01344    0.25644  -0.052
## income_linear.xRefused                          0.51026    0.30524   1.672
## educ_linear.xHigh school graduate              -0.03914    0.25409  -0.154
## educ_linear.xSome college, no degree           -0.10809    0.25554  -0.423
## educ_linear.xAssociate's degree                -0.15836    0.27197  -0.582
## educ_linear.xCollege graduate/some post grad    0.08805    0.25564   0.344
## educ_linear.xPostgraduate                       0.03559    0.25884   0.137
## educ_linear.xDon't know/Refused                -0.12764    1.26916  -0.101
## age_linear.x30-49                               0.01132    0.14886   0.076
## age_linear.x50-64                               0.07703    0.14788   0.521
## age_linear.x65+                                 0.07075    0.15364   0.460
## age_linear.xDK/REF                             11.78984  324.74378   0.036
## female.xFemale                                  0.49105    0.08746   5.615
##                                                Pr(>|z|)
## (Intercept)                                     0.27433
## CONFCLERGY1a_W46_num                            0.00486 **
## marital_status.x                                0.71350
## income_linear.x$10,000 to less than $20,000     0.90995
## income_linear.x$20,000 to less than $30,000     0.87191
## income_linear.x$30,000 to less than $40,000     0.63596
## income_linear.x$40,000 to less than $50,000     0.66992
## income_linear.x$50,000 to less than $75,000     0.73865
## income_linear.x$75,000 to less than $100,000    0.45841
## income_linear.x$100,000 to less than $150,000   0.85970
## income_linear.x$150,000 or more                 0.95820
## income_linear.xRefused                          0.09459 .
## educ_linear.xHigh school graduate               0.87757
## educ_linear.xSome college, no degree            0.67230
## educ_linear.xAssociate's degree                 0.56038
## educ_linear.xCollege graduate/some post grad    0.73054
## educ_linear.xPostgraduate                       0.89064
## educ_linear.xDon't know/Refused                 0.91989
## age_linear.x30-49                               0.93940
```

```
## age_linear.x50-64                                0.60241
## age_linear.x65+                                  0.64517
## age_linear.xDK/REF                               0.97104
## female.xFemale                                  1.97e-08 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##     Null deviance: 3172.5  on 2320  degrees of freedom
## Residual deviance: 3116.0  on 2298  degrees of freedom
##   (10922 observations deleted due to missingness)
## AIC: 3162
##
## Number of Fisher Scoring iterations: 11
```

```
summary(glm(covid_restriction_irt_binary ~ CONFCLERGY1b_W46_num +
                   marital_status.x + income_linear.x +
                   educ_linear.x + age_linear.x + female.x,
         data = dataw46_subset_new, family = "binomial"))
```

```
##
## Call:
## glm(formula = covid_restriction_irt_binary ~ CONFCLERGY1b_W46_num +
##     marital_status.x + income_linear.x + educ_linear.x + age_linear.x +
##     female.x, family = "binomial", data = dataw46_subset_new)
##
## Deviance Residuals:
##     Min       1Q   Median       3Q      Max
## -1.7327  -1.2273   0.9148   1.0517   1.3343
##
## Coefficients:
##                                                 Estimate Std. Error z value
## (Intercept)                                     -0.22352    0.32012  -0.698
## CONFCLERGY1b_W46_num                             0.10945    0.04624   2.367
## marital_status.x                                 0.01129    0.09820   0.115
## income_linear.x$10,000 to less than $20,000     -0.05720    0.25911  -0.221
## income_linear.x$20,000 to less than $30,000     -0.01375    0.26147  -0.053
## income_linear.x$30,000 to less than $40,000     -0.11472    0.25240  -0.455
## income_linear.x$40,000 to less than $50,000      0.09155    0.25211   0.363
## income_linear.x$50,000 to less than $75,000     -0.09215    0.23610  -0.390
## income_linear.x$75,000 to less than $100,000    -0.19778    0.24779  -0.798
## income_linear.x$100,000 to less than $150,000   -0.04375    0.24771  -0.177
## income_linear.x$150,000 or more                  0.01350    0.25683   0.053
## income_linear.xRefused                           0.47364    0.30539   1.551
## educ_linear.xHigh school graduate               -0.02393    0.25499  -0.094
## educ_linear.xSome college, no degree            -0.08232    0.25652  -0.321
## educ_linear.xAssociate's degree                 -0.15726    0.27260  -0.577
## educ_linear.xCollege graduate/some post grad     0.09857    0.25638   0.384
## educ_linear.xPostgraduate                        0.07004    0.25968   0.270
## educ_linear.xDon't know/Refused                 -0.10184    1.26629  -0.080
## age_linear.x30-49                               -0.01173    0.14863  -0.079
## age_linear.x50-64                                0.02121    0.14709   0.144
## age_linear.x65+                                  0.02627    0.15306   0.172
## age_linear.xDK/REF                              12.17624  324.74377   0.037
```

```
## female.xFemale                                    0.46251    0.08781   5.267
##                                                 Pr(>|z|)
## (Intercept)                                       0.4850
## CONFCLERGY1b_W46_num                              0.0179 *
## marital_status.x                                  0.9085
## income_linear.x$10,000 to less than $20,000       0.8253
## income_linear.x$20,000 to less than $30,000       0.9581
## income_linear.x$30,000 to less than $40,000       0.6495
## income_linear.x$40,000 to less than $50,000       0.7165
## income_linear.x$50,000 to less than $75,000       0.6963
## income_linear.x$75,000 to less than $100,000      0.4248
## income_linear.x$100,000 to less than $150,000     0.8598
## income_linear.x$150,000 or more                   0.9581
## income_linear.xRefused                            0.1209
## educ_linear.xHigh school graduate                 0.9252
## educ_linear.xSome college, no degree              0.7483
## educ_linear.xAssociate's degree                   0.5640
## educ_linear.xCollege graduate/some post grad      0.7006
## educ_linear.xPostgraduate                         0.7874
## educ_linear.xDon't know/Refused                   0.9359
## age_linear.x30-49                                 0.9371
## age_linear.x50-64                                 0.8854
## age_linear.x65+                                   0.8637
## age_linear.xDK/REF                                0.9701
## female.xFemale                                 1.39e-07 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##     Null deviance: 3161.2  on 2312  degrees of freedom
## Residual deviance: 3108.8  on 2290  degrees of freedom
##   (10930 observations deleted due to missingness)
## AIC: 3154.8
##
## Number of Fisher Scoring iterations: 11
```

```
summary(glm(covid_restriction_irt_binary ~ CONFCLERGY1c_W46_num +
                   marital_status.x + income_linear.x +
                   educ_linear.x + age_linear.x + female.x,
         data = dataw46_subset_new, family = "binomial"))
```

```
##
## Call:
## glm(formula = covid_restriction_irt_binary ~ CONFCLERGY1c_W46_num +
##     marital_status.x + income_linear.x + educ_linear.x + age_linear.x +
##     female.x, family = "binomial", data = dataw46_subset_new)
##
## Deviance Residuals:
##     Min       1Q   Median       3Q      Max
## -1.6686  -1.2248   0.9271   1.0508   1.3291
##
## Coefficients:
##                                                 Estimate Std. Error z value
## (Intercept)                                   -0.109898   0.323098  -0.340
```

```
## CONFCLERGY1c_W46_num                              0.065007   0.046470   1.399
## marital_status.x                                  0.009497   0.098113   0.097
## income_linear.x$10,000 to less than $20,000      -0.067661   0.259392  -0.261
## income_linear.x$20,000 to less than $30,000      -0.097364   0.259775  -0.375
## income_linear.x$30,000 to less than $40,000      -0.144053   0.251725  -0.572
## income_linear.x$40,000 to less than $50,000       0.086990   0.251551   0.346
## income_linear.x$50,000 to less than $75,000      -0.114687   0.235573  -0.487
## income_linear.x$75,000 to less than $100,000     -0.201399   0.247316  -0.814
## income_linear.x$100,000 to less than $150,000    -0.063780   0.247104  -0.258
## income_linear.x$150,000 or more                  -0.019590   0.256085  -0.076
## income_linear.xRefused                            0.457305   0.305471   1.497
## educ_linear.xHigh school graduate                -0.046106   0.254570  -0.181
## educ_linear.xSome college, no degree             -0.101176   0.256166  -0.395
## educ_linear.xAssociate's degree                  -0.156128   0.272372  -0.573
## educ_linear.xCollege graduate/some post grad      0.090105   0.256021   0.352
## educ_linear.xPostgraduate                         0.067331   0.259424   0.260
## educ_linear.xDon't know/Refused                  -0.154048   1.261016  -0.122
## age_linear.x30-49                                -0.021773   0.148404  -0.147
## age_linear.x50-64                                 0.025807   0.146931   0.176
## age_linear.x65+                                   0.022136   0.152852   0.145
## age_linear.xDK/REF                               12.114769 324.743778   0.037
## female.xFemale                                    0.473742   0.087627   5.406
##                                                 Pr(>|z|)
## (Intercept)                                        0.734
## CONFCLERGY1c_W46_num                               0.162
## marital_status.x                                   0.923
## income_linear.x$10,000 to less than $20,000        0.794
## income_linear.x$20,000 to less than $30,000        0.708
## income_linear.x$30,000 to less than $40,000        0.567
## income_linear.x$40,000 to less than $50,000        0.729
## income_linear.x$50,000 to less than $75,000        0.626
## income_linear.x$75,000 to less than $100,000       0.415
## income_linear.x$100,000 to less than $150,000      0.796
## income_linear.x$150,000 or more                    0.939
## income_linear.xRefused                             0.134
## educ_linear.xHigh school graduate                  0.856
## educ_linear.xSome college, no degree               0.693
## educ_linear.xAssociate's degree                    0.566
## educ_linear.xCollege graduate/some post grad       0.725
## educ_linear.xPostgraduate                          0.795
## educ_linear.xDon't know/Refused                    0.903
## age_linear.x30-49                                  0.883
## age_linear.x50-64                                  0.861
## age_linear.x65+                                    0.885
## age_linear.xDK/REF                                 0.970
## female.xFemale                                  6.43e-08 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##     Null deviance: 3168.0  on 2316  degrees of freedom
## Residual deviance: 3119.1  on 2294  degrees of freedom
##   (10926 observations deleted due to missingness)
```

```
## AIC: 3165.1
##
## Number of Fisher Scoring iterations: 11
```

```
summary(glm(covid_restriction_irt_binary ~ CONFCLERGY2a_W46_num +
                    marital_status.x + income_linear.x +
                    educ_linear.x + age_linear.x + female.x,
          data = dataw46_subset_new, family = "binomial"))
```

```
##
## Call:
## glm(formula = covid_restriction_irt_binary ~ CONFCLERGY2a_W46_num +
##     marital_status.x + income_linear.x + educ_linear.x + age_linear.x +
##     female.x, family = "binomial", data = dataw46_subset_new)
##
## Deviance Residuals:
##     Min       1Q   Median       3Q      Max
## -1.6781  -1.2248   0.9314   1.0401   1.3316
##
## Coefficients:
##                                                 Estimate Std. Error z value
## (Intercept)                                     0.245430   0.323554   0.759
## CONFCLERGY2a_W46_num                           -0.037291   0.046600  -0.800
## marital_status.x                                0.020904   0.098415   0.212
## income_linear.x$10,000 to less than $20,000    -0.043680   0.257604  -0.170
## income_linear.x$20,000 to less than $30,000    -0.064625   0.259866  -0.249
## income_linear.x$30,000 to less than $40,000    -0.153414   0.251370  -0.610
## income_linear.x$40,000 to less than $50,000     0.085374   0.251505   0.339
## income_linear.x$50,000 to less than $75,000    -0.097458   0.235268  -0.414
## income_linear.x$75,000 to less than $100,000   -0.216150   0.246874  -0.876
## income_linear.x$100,000 to less than $150,000  -0.076178   0.246883  -0.309
## income_linear.x$150,000 or more                -0.013216   0.256464  -0.052
## income_linear.xRefused                          0.473133   0.305097   1.551
## educ_linear.xHigh school graduate              -0.119881   0.254128  -0.472
## educ_linear.xSome college, no degree           -0.192828   0.255822  -0.754
## educ_linear.xAssociate's degree                -0.235602   0.271885  -0.867
## educ_linear.xCollege graduate/some post grad   -0.009552   0.255951  -0.037
## educ_linear.xPostgraduate                      -0.042870   0.259157  -0.165
## educ_linear.xDon't know/Refused                -0.241858   1.264451  -0.191
## age_linear.x30-49                              -0.016400   0.148575  -0.110
## age_linear.x50-64                               0.014191   0.147079   0.096
## age_linear.x65+                                 0.011697   0.153693   0.076
## age_linear.xDK/REF                             12.034881 324.743773   0.037
## female.xFemale                                  0.488146   0.087659   5.569
##                                                Pr(>|z|)
## (Intercept)                                       0.448
## CONFCLERGY2a_W46_num                              0.424
## marital_status.x                                  0.832
## income_linear.x$10,000 to less than $20,000       0.865
## income_linear.x$20,000 to less than $30,000       0.804
## income_linear.x$30,000 to less than $40,000       0.542
## income_linear.x$40,000 to less than $50,000       0.734
## income_linear.x$50,000 to less than $75,000       0.679
## income_linear.x$75,000 to less than $100,000      0.381
## income_linear.x$100,000 to less than $150,000     0.758
```

```
## income_linear.x$150,000 or more                   0.959
## income_linear.xRefused                             0.121
## educ_linear.xHigh school graduate                  0.637
## educ_linear.xSome college, no degree               0.451
## educ_linear.xAssociate's degree                    0.386
## educ_linear.xCollege graduate/some post grad       0.970
## educ_linear.xPostgraduate                          0.869
## educ_linear.xDon't know/Refused                    0.848
## age_linear.x30-49                                  0.912
## age_linear.x50-64                                  0.923
## age_linear.x65+                                    0.939
## age_linear.xDK/REF                                 0.970
## female.xFemale                                  2.57e-08 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##     Null deviance: 3171.9  on 2320  degrees of freedom
## Residual deviance: 3123.5  on 2298  degrees of freedom
##   (10922 observations deleted due to missingness)
## AIC: 3169.5
##
## Number of Fisher Scoring iterations: 11
```

```
summary(glm(covid_restriction_irt_binary ~ CONFCLERGY2b_W46_num +
                   marital_status.x + income_linear.x +
                   educ_linear.x + age_linear.x + female.x,
         data = dataw46_subset_new, family = "binomial"))
```

```
##
## Call:
## glm(formula = covid_restriction_irt_binary ~ CONFCLERGY2b_W46_num +
##     marital_status.x + income_linear.x + educ_linear.x + age_linear.x +
##     female.x, family = "binomial", data = dataw46_subset_new)
##
## Deviance Residuals:
##     Min       1Q   Median       3Q      Max
## -1.6925  -1.2253   0.9297   1.0388   1.3176
##
## Coefficients:
##                                                 Estimate Std. Error z value
## (Intercept)                                     0.124994   0.344891   0.362
## CONFCLERGY2b_W46_num                            0.016846   0.057137   0.295
## marital_status.x                                0.009359   0.097815   0.096
## income_linear.x$10,000 to less than $20,000    -0.072114   0.258829  -0.279
## income_linear.x$20,000 to less than $30,000    -0.119518   0.260264  -0.459
## income_linear.x$30,000 to less than $40,000    -0.160768   0.252349  -0.637
## income_linear.x$40,000 to less than $50,000     0.052126   0.252416   0.207
## income_linear.x$50,000 to less than $75,000    -0.123311   0.236460  -0.521
## income_linear.x$75,000 to less than $100,000   -0.227456   0.247711  -0.918
## income_linear.x$100,000 to less than $150,000  -0.092524   0.247720  -0.374
## income_linear.x$150,000 or more                -0.024285   0.256995  -0.094
## income_linear.xRefused                          0.463722   0.305629   1.517
## educ_linear.xHigh school graduate              -0.118622   0.254145  -0.467
```

```
## educ_linear.xSome college, no degree           -0.188700   0.255852  -0.738
## educ_linear.xAssociate's degree                -0.243183   0.271798  -0.895
## educ_linear.xCollege graduate/some post grad    0.013648   0.255759   0.053
## educ_linear.xPostgraduate                      -0.027553   0.258931  -0.106
## educ_linear.xDon't know/Refused                -0.242666   1.264088  -0.192
## age_linear.x30-49                              -0.037949   0.148866  -0.255
## age_linear.x50-64                               0.007418   0.147373   0.050
## age_linear.x65+                                 0.004938   0.153472   0.032
## age_linear.xDK/REF                             11.947491 324.743770   0.037
## female.xFemale                                  0.484661   0.087317   5.551
##                                                Pr(>|z|)
## (Intercept)                                       0.717
## CONFCLERGY2b_W46_num                              0.768
## marital_status.x                                  0.924
## income_linear.x$10,000 to less than $20,000       0.781
## income_linear.x$20,000 to less than $30,000       0.646
## income_linear.x$30,000 to less than $40,000       0.524
## income_linear.x$40,000 to less than $50,000       0.836
## income_linear.x$50,000 to less than $75,000       0.602
## income_linear.x$75,000 to less than $100,000      0.358
## income_linear.x$100,000 to less than $150,000     0.709
## income_linear.x$150,000 or more                   0.925
## income_linear.xRefused                            0.129
## educ_linear.xHigh school graduate                 0.641
## educ_linear.xSome college, no degree              0.461
## educ_linear.xAssociate's degree                   0.371
## educ_linear.xCollege graduate/some post grad      0.957
## educ_linear.xPostgraduate                         0.915
## educ_linear.xDon't know/Refused                   0.848
## age_linear.x30-49                                 0.799
## age_linear.x50-64                                 0.960
## age_linear.x65+                                   0.974
## age_linear.xDK/REF                                0.971
## female.xFemale                                 2.85e-08 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##     Null deviance: 3184.9  on 2330  degrees of freedom
## Residual deviance: 3135.7  on 2308  degrees of freedom
##   (10912 observations deleted due to missingness)
## AIC: 3181.7
##
## Number of Fisher Scoring iterations: 11
```

```
summary(glm(covid_restriction_irt_binary ~ CONFCLERGY2e_W46_num +
                   marital_status.x + income_linear.x +
                   educ_linear.x + age_linear.x + female.x,
         data = dataw46_subset_new, family = "binomial"))
```

```
##
## Call:
## glm(formula = covid_restriction_irt_binary ~ CONFCLERGY2e_W46_num +
##     marital_status.x + income_linear.x + educ_linear.x + age_linear.x +
```

```
##     female.x, family = "binomial", data = dataw46_subset_new)
##
## Deviance Residuals:
##     Min       1Q   Median       3Q      Max
## -1.6922  -1.2188   0.9278   1.0398   1.3121
##
## Coefficients:
##                                                 Estimate Std. Error z value
## (Intercept)                                    1.508e-01  3.308e-01   0.456
## CONFCLERGY2e_W46_num                           -4.909e-03  5.159e-02  -0.095
## marital_status.x                               1.364e-02  9.783e-02   0.139
## income_linear.x$10,000 to less than $20,000   -6.697e-02  2.583e-01  -0.259
## income_linear.x$20,000 to less than $30,000   -9.297e-02  2.593e-01  -0.359
## income_linear.x$30,000 to less than $40,000   -1.352e-01  2.511e-01  -0.538
## income_linear.x$40,000 to less than $50,000    1.070e-01  2.519e-01   0.425
## income_linear.x$50,000 to less than $75,000   -1.006e-01  2.353e-01  -0.427
## income_linear.x$75,000 to less than $100,000  -2.040e-01  2.466e-01  -0.827
## income_linear.x$100,000 to less than $150,000 -7.523e-02  2.468e-01  -0.305
## income_linear.x$150,000 or more               -9.509e-03  2.558e-01  -0.037
## income_linear.xRefused                         5.020e-01  3.043e-01   1.649
## educ_linear.xHigh school graduate             -1.133e-01  2.549e-01  -0.444
## educ_linear.xSome college, no degree          -1.796e-01  2.567e-01  -0.700
## educ_linear.xAssociate's degree               -2.222e-01  2.727e-01  -0.815
## educ_linear.xCollege graduate/some post grad   2.730e-02  2.566e-01   0.106
## educ_linear.xPostgraduate                     -1.434e-02  2.598e-01  -0.055
## educ_linear.xDon't know/Refused               -2.324e-01  1.265e+00  -0.184
## age_linear.x30-49                             -3.471e-02  1.486e-01  -0.234
## age_linear.x50-64                              1.018e-02  1.471e-01   0.069
## age_linear.x65+                                4.722e-04  1.530e-01   0.003
## age_linear.xDK/REF                             1.197e+01  3.247e+02   0.037
## female.xFemale                                 4.929e-01  8.726e-02   5.648
##                                                Pr(>|z|)
## (Intercept)                                       0.648
## CONFCLERGY2e_W46_num                              0.924
## marital_status.x                                  0.889
## income_linear.x$10,000 to less than $20,000       0.795
## income_linear.x$20,000 to less than $30,000       0.720
## income_linear.x$30,000 to less than $40,000       0.590
## income_linear.x$40,000 to less than $50,000       0.671
## income_linear.x$50,000 to less than $75,000       0.669
## income_linear.x$75,000 to less than $100,000      0.408
## income_linear.x$100,000 to less than $150,000     0.761
## income_linear.x$150,000 or more                   0.970
## income_linear.xRefused                            0.099 .
## educ_linear.xHigh school graduate                 0.657
## educ_linear.xSome college, no degree              0.484
## educ_linear.xAssociate's degree                   0.415
## educ_linear.xCollege graduate/some post grad      0.915
## educ_linear.xPostgraduate                         0.956
## educ_linear.xDon't know/Refused                   0.854
## age_linear.x30-49                                 0.815
## age_linear.x50-64                                 0.945
## age_linear.x65+                                   0.998
## age_linear.xDK/REF                                0.971
```

```
## female.xFemale                                   1.62e-08 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##     Null deviance: 3187.7  on 2332  degrees of freedom
## Residual deviance: 3137.1  on 2310  degrees of freedom
##   (10910 observations deleted due to missingness)
## AIC: 3183.1
##
## Number of Fisher Scoring iterations: 11
```

```
summary(glm(covid_restriction_irt_binary ~ CONFCLERGY2f_W46_num +
                   marital_status.x + income_linear.x +
                   educ_linear.x + age_linear.x + female.x,
         data = dataw46_subset_new, family = "binomial"))
```

```
##
## Call:
## glm(formula = covid_restriction_irt_binary ~ CONFCLERGY2f_W46_num +
##     marital_status.x + income_linear.x + educ_linear.x + age_linear.x +
##     female.x, family = "binomial", data = dataw46_subset_new)
##
## Deviance Residuals:
##     Min       1Q   Median       3Q      Max
## -1.6982  -1.2197   0.9274   1.0358   1.3229
##
## Coefficients:
##                                                  Estimate Std. Error z value
## (Intercept)                                      0.226459   0.341750   0.663
## CONFCLERGY2f_W46_num                            -0.030643   0.057088  -0.537
## marital_status.x                                 0.014387   0.097794   0.147
## income_linear.x$10,000 to less than $20,000     -0.024586   0.258307  -0.095
## income_linear.x$20,000 to less than $30,000     -0.104540   0.258970  -0.404
## income_linear.x$30,000 to less than $40,000     -0.126899   0.251369  -0.505
## income_linear.x$40,000 to less than $50,000      0.089936   0.251335   0.358
## income_linear.x$50,000 to less than $75,000     -0.088115   0.235208  -0.375
## income_linear.x$75,000 to less than $100,000    -0.198727   0.246711  -0.806
## income_linear.x$100,000 to less than $150,000   -0.051740   0.246796  -0.210
## income_linear.x$150,000 or more                  0.001352   0.255695   0.005
## income_linear.xRefused                           0.505912   0.304403   1.662
## educ_linear.xHigh school graduate               -0.117483   0.254500  -0.462
## educ_linear.xSome college, no degree            -0.178372   0.256091  -0.697
## educ_linear.xAssociate's degree                 -0.240845   0.272226  -0.885
## educ_linear.xCollege graduate/some post grad     0.010458   0.256001   0.041
## educ_linear.xPostgraduate                       -0.033874   0.259176  -0.131
## educ_linear.xDon't know/Refused                 -0.289863   1.265455  -0.229
## age_linear.x30-49                               -0.025403   0.148291  -0.171
## age_linear.x50-64                                0.021922   0.146759   0.149
## age_linear.x65+                                  0.017433   0.152734   0.114
## age_linear.xDK/REF                              11.945864 324.743768   0.037
## female.xFemale                                   0.499797   0.087277   5.727
##                                                 Pr(>|z|)
## (Intercept)                                       0.5076
```

```
## CONFCLERGY2f_W46_num                               0.5914
## marital_status.x                                   0.8830
## income_linear.x$10,000 to less than $20,000        0.9242
## income_linear.x$20,000 to less than $30,000        0.6865
## income_linear.x$30,000 to less than $40,000        0.6137
## income_linear.x$40,000 to less than $50,000        0.7205
## income_linear.x$50,000 to less than $75,000        0.7079
## income_linear.x$75,000 to less than $100,000       0.4205
## income_linear.x$100,000 to less than $150,000      0.8339
## income_linear.x$150,000 or more                    0.9958
## income_linear.xRefused                             0.0965 .
## educ_linear.xHigh school graduate                  0.6444
## educ_linear.xSome college, no degree               0.4861
## educ_linear.xAssociate's degree                    0.3763
## educ_linear.xCollege graduate/some post grad       0.9674
## educ_linear.xPostgraduate                          0.8960
## educ_linear.xDon't know/Refused                    0.8188
## age_linear.x30-49                                  0.8640
## age_linear.x50-64                                  0.8813
## age_linear.x65+                                    0.9091
## age_linear.xDK/REF                                 0.9707
## female.xFemale                                  1.02e-08 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##     Null deviance: 3192.7  on 2336  degrees of freedom
## Residual deviance: 3141.6  on 2314  degrees of freedom
##   (10906 observations deleted due to missingness)
## AIC: 3187.6
##
## Number of Fisher Scoring iterations: 11
```

```
#MEASURING CORRELATION BETWEEN RELIGIOUS VARIABLES AND SCIENTIFIC TRUST
#Linear model: religion as affiliation & scientific trust
summary(lm(trust_scientists_fa_dim1 ~ as.factor(affiliation) +
                    marital_status.x + income_linear.x +
                    educ_linear.x + age_linear.x + female.x,
          data = dataw46_subset_new))
```

```
##
## Call:
## lm(formula = trust_scientists_fa_dim1 ~ as.factor(affiliation) +
##     marital_status.x + income_linear.x + educ_linear.x + age_linear.x +
##     female.x, data = dataw46_subset_new)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -2.6904 -0.5363  0.1019  0.5933  1.6468
##
## Coefficients:
##                                             Estimate Std. Error t value
## (Intercept)                                -0.351217   0.105789  -3.320
## as.factor(affiliation)No_Religion           0.212150   0.040742   5.207
```

```
## as.factor(affiliation)Other_Religion           0.113486   0.065050   1.745
## marital_status.x                              -0.076163   0.040110  -1.899
## income_linear.x$10,000 to less than $20,000    0.185005   0.093474   1.979
## income_linear.x$20,000 to less than $30,000    0.184001   0.091865   2.003
## income_linear.x$30,000 to less than $40,000    0.237368   0.093224   2.546
## income_linear.x$40,000 to less than $50,000    0.342664   0.093838   3.652
## income_linear.x$50,000 to less than $75,000    0.290634   0.086442   3.362
## income_linear.x$75,000 to less than $100,000   0.373487   0.090728   4.117
## income_linear.x$100,000 to less than $150,000  0.385991   0.092313   4.181
## income_linear.x$150,000 or more                0.407373   0.099026   4.114
## income_linear.xRefused                         0.435142   0.123653   3.519
## educ_linear.xHigh school graduate              0.028764   0.079045   0.364
## educ_linear.xSome college, no degree           0.138874   0.084866   1.636
## educ_linear.xAssociate's degree                0.241938   0.104548   2.314
## educ_linear.xCollege graduate/some post grad   0.211463   0.085922   2.461
## educ_linear.xPostgraduate                      0.410717   0.088625   4.634
## educ_linear.xDon't know/Refused               -0.648286   0.544109  -1.191
## age_linear.x30-49                             -0.091591   0.053085  -1.725
## age_linear.x50-64                             -0.136607   0.057273  -2.385
## age_linear.x65+                               -0.044442   0.060727  -0.732
## female.xFemale                                 0.001415   0.036462   0.039
##                                               Pr(>|t|)
## (Intercept)                                   0.000919 ***
## as.factor(affiliation)No_Religion             2.14e-07 ***
## as.factor(affiliation)Other_Religion          0.081230 .
## marital_status.x                              0.057747 .
## income_linear.x$10,000 to less than $20,000   0.047949 *
## income_linear.x$20,000 to less than $30,000   0.045335 *
## income_linear.x$30,000 to less than $40,000   0.010975 *
## income_linear.x$40,000 to less than $50,000   0.000268 ***
## income_linear.x$50,000 to less than $75,000   0.000790 ***
## income_linear.x$75,000 to less than $100,000  4.02e-05 ***
## income_linear.x$100,000 to less than $150,000 3.04e-05 ***
## income_linear.x$150,000 or more               4.07e-05 ***
## income_linear.xRefused                        0.000444 ***
## educ_linear.xHigh school graduate             0.715981
## educ_linear.xSome college, no degree          0.101934
## educ_linear.xAssociate's degree               0.020775 *
## educ_linear.xCollege graduate/some post grad  0.013946 *
## educ_linear.xPostgraduate                     3.84e-06 ***
## educ_linear.xDon't know/Refused               0.233632
## age_linear.x30-49                             0.084638 .
## age_linear.x50-64                             0.017176 *
## age_linear.x65+                               0.464370
## female.xFemale                                0.969049
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.7567 on 1759 degrees of freedom
##   (11461 observations deleted due to missingness)
## Multiple R-squared:  0.08572,    Adjusted R-squared:  0.07429
## F-statistic: 7.497 on 22 and 1759 DF,  p-value: < 2.2e-16
```

```r
#Linear model: religion as attendance & scientific trust
summary(lm(trust_scientists_fa_dim1 ~ attendance +
                    marital_status.x + income_linear.x +
                    educ_linear.x + age_linear.x + female.x,
          data = dataw46_subset_new))
```

```
##
## Call:
## lm(formula = trust_scientists_fa_dim1 ~ attendance + marital_status.x +
##     income_linear.x + educ_linear.x + age_linear.x + female.x,
##     data = dataw46_subset_new)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -2.88704 -0.56450  0.08683  0.60500  1.63652
##
## Coefficients:
##                                                Estimate Std. Error t value
## (Intercept)                                   -0.008569   0.079236  -0.108
## attendancesometimes                           -0.158038   0.033474  -4.721
## attendanceoften                               -0.385555   0.040059  -9.625
## marital_status.x                              -0.082362   0.031186  -2.641
## income_linear.x$10,000 to less than $20,000    0.112935   0.069624   1.622
## income_linear.x$20,000 to less than $30,000    0.035016   0.069235   0.506
## income_linear.x$30,000 to less than $40,000    0.118971   0.070343   1.691
## income_linear.x$40,000 to less than $50,000    0.188611   0.069635   2.709
## income_linear.x$50,000 to less than $75,000    0.137746   0.065519   2.102
## income_linear.x$75,000 to less than $100,000   0.212181   0.070093   3.027
## income_linear.x$100,000 to less than $150,000  0.201811   0.071054   2.840
## income_linear.x$150,000 or more                0.229922   0.077842   2.954
## income_linear.xRefused                         0.219995   0.087485   2.515
## educ_linear.xHigh school graduate             -0.016828   0.058978  -0.285
## educ_linear.xSome college, no degree           0.088690   0.064086   1.384
## educ_linear.xAssociate's degree                0.131869   0.075053   1.757
## educ_linear.xCollege graduate/some post grad   0.184245   0.065526   2.812
## educ_linear.xPostgraduate                      0.361406   0.068649   5.265
## educ_linear.xDon't know/Refused               -0.627963   0.456208  -1.376
## age_linear.x30-49                             -0.100299   0.044296  -2.264
## age_linear.x50-64                             -0.141262   0.044983  -3.140
## age_linear.x65+                               -0.056449   0.047546  -1.187
## age_linear.xDK/REF                            -0.607281   0.454142  -1.337
## female.xFemale                                 0.088861   0.028684   3.098
##                                                Pr(>|t|)
## (Intercept)                                     0.91389
## attendancesometimes                            2.45e-06 ***
## attendanceoften                                 < 2e-16 ***
## marital_status.x                                0.00831 **
## income_linear.x$10,000 to less than $20,000     0.10489
## income_linear.x$20,000 to less than $30,000     0.61306
## income_linear.x$30,000 to less than $40,000     0.09088 .
## income_linear.x$40,000 to less than $50,000     0.00679 **
## income_linear.x$50,000 to less than $75,000     0.03560 *
## income_linear.x$75,000 to less than $100,000    0.00249 **
## income_linear.x$100,000 to less than $150,000   0.00454 **
```

```
## income_linear.x$150,000 or more                0.00316 **
## income_linear.xRefused                          0.01197 *
## educ_linear.xHigh school graduate               0.77541
## educ_linear.xSome college, no degree            0.16648
## educ_linear.xAssociate's degree                 0.07901 .
## educ_linear.xCollege graduate/some post grad    0.00496 **
## educ_linear.xPostgraduate                      1.50e-07 ***
## educ_linear.xDon't know/Refused                 0.16877
## age_linear.x30-49                               0.02362 *
## age_linear.x50-64                               0.00170 **
## age_linear.x65+                                 0.23522
## age_linear.xDK/REF                              0.18125
## female.xFemale                                  0.00197 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.7823 on 3114 degrees of freedom
##   (10105 observations deleted due to missingness)
## Multiple R-squared:  0.07996,    Adjusted R-squared:  0.07317
## F-statistic: 11.77 on 23 and 3114 DF,  p-value: < 2.2e-16
```

```
#Linear model: religion as eternal_life & scientific trust
summary(lm(trust_scientists_fa_dim1 ~ eternal_life +
                    marital_status.x + income_linear.x +
                    educ_linear.x + age_linear.x + female.x,
          data = dataw46_subset_new))
```

```
##
## Call:
## lm(formula = trust_scientists_fa_dim1 ~ eternal_life + marital_status.x +
##     income_linear.x + educ_linear.x + age_linear.x + female.x,
##     data = dataw46_subset_new)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -2.92204 -0.56906  0.05113  0.61659  1.76128
##
## Coefficients:
##                                                Estimate Std. Error t value
## (Intercept)                                   -0.030484   0.103244  -0.295
## eternal_lifemy_religion_only                  -0.318776   0.037628  -8.472
## marital_status.x                              -0.049231   0.038985  -1.263
## income_linear.x$10,000 to less than $20,000    0.029851   0.088430   0.338
## income_linear.x$20,000 to less than $30,000   -0.070563   0.088014  -0.802
## income_linear.x$30,000 to less than $40,000   -0.031151   0.089590  -0.348
## income_linear.x$40,000 to less than $50,000    0.079902   0.086982   0.919
## income_linear.x$50,000 to less than $75,000    0.008984   0.083461   0.108
## income_linear.x$75,000 to less than $100,000   0.075967   0.089895   0.845
## income_linear.x$100,000 to less than $150,000  0.059304   0.090677   0.654
## income_linear.x$150,000 or more                0.025111   0.099199   0.253
## income_linear.xRefused                         0.067260   0.105166   0.640
## educ_linear.xHigh school graduate              0.002566   0.073226   0.035
## educ_linear.xSome college, no degree           0.083202   0.079864   1.042
## educ_linear.xAssociate's degree                0.078911   0.092078   0.857
## educ_linear.xCollege graduate/some post grad   0.124548   0.081819   1.522
```

```
## educ_linear.xPostgraduate                        0.307702   0.086254   3.567
## educ_linear.xDon't know/Refused                 -0.541792   0.565498  -0.958
## age_linear.x30-49                               -0.112615   0.060205  -1.871
## age_linear.x50-64                               -0.154188   0.058742  -2.625
## age_linear.x65+                                 -0.127904   0.061618  -2.076
## age_linear.xDK/REF                              -0.568495   0.461135  -1.233
## female.xFemale                                   0.133840   0.036286   3.688
##                                                 Pr(>|t|)
## (Intercept)                                     0.767823
## eternal_lifemy_religion_only                     < 2e-16 ***
## marital_status.x                                0.206800
## income_linear.x$10,000 to less than $20,000     0.735725
## income_linear.x$20,000 to less than $30,000     0.422801
## income_linear.x$30,000 to less than $40,000     0.728099
## income_linear.x$40,000 to less than $50,000     0.358412
## income_linear.x$50,000 to less than $75,000     0.914287
## income_linear.x$75,000 to less than $100,000    0.398179
## income_linear.x$100,000 to less than $150,000   0.513176
## income_linear.x$150,000 or more                 0.800187
## income_linear.xRefused                          0.522530
## educ_linear.xHigh school graduate               0.972047
## educ_linear.xSome college, no degree            0.297632
## educ_linear.xAssociate's degree                 0.391540
## educ_linear.xCollege graduate/some post grad    0.128101
## educ_linear.xPostgraduate                       0.000369 ***
## educ_linear.xDon't know/Refused                 0.338136
## age_linear.x30-49                               0.061552 .
## age_linear.x50-64                               0.008733 **
## age_linear.x65+                                 0.038042 *
## age_linear.xDK/REF                              0.217786
## female.xFemale                                  0.000231 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.7916 on 2051 degrees of freedom
##   (11169 observations deleted due to missingness)
## Multiple R-squared:  0.06787,    Adjusted R-squared:  0.05787
## F-statistic: 6.788 on 22 and 2051 DF,  p-value: < 2.2e-16
```

```
#Linear model: religion as trust for clergy & scientific trust
summary(lm(trust_scientists_fa_dim1 ~ CONFCLERGY1a_W46_num +
                    marital_status.x + income_linear.x +
                    educ_linear.x + age_linear.x + female.x,
          data = dataw46_subset_new))
```

```
##
## Call:
## lm(formula = trust_scientists_fa_dim1 ~ CONFCLERGY1a_W46_num +
##     marital_status.x + income_linear.x + educ_linear.x + age_linear.x +
##     female.x, data = dataw46_subset_new)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -2.9446 -0.5610  0.0472  0.6229  1.7371
##
```

```
## Coefficients:
##                                             Estimate Std. Error t value
## (Intercept)                                  0.11984    0.12179   0.984
## CONFCLERGY1a_W46_num                        -0.13309    0.02036  -6.538
## marital_status.x                            -0.01983    0.04839  -0.410
## income_linear.x$10,000 to less than $20,000  0.20041    0.10310   1.944
## income_linear.x$20,000 to less than $30,000  0.10889    0.10526   1.035
## income_linear.x$30,000 to less than $40,000  0.06147    0.10385   0.592
## income_linear.x$40,000 to less than $50,000  0.28924    0.10367   2.790
## income_linear.x$50,000 to less than $75,000  0.09417    0.09942   0.947
## income_linear.x$75,000 to less than $100,000 0.18361    0.10998   1.669
## income_linear.x$100,000 to less than $150,000 0.21463   0.11031   1.946
## income_linear.x$150,000 or more              0.12394    0.11720   1.058
## income_linear.xRefused                       0.22428    0.12586   1.782
## educ_linear.xHigh school graduate           -0.05550    0.08654  -0.641
## educ_linear.xSome college, no degree        -0.02608    0.09639  -0.271
## educ_linear.xAssociate's degree              0.03717    0.10968   0.339
## educ_linear.xCollege graduate/some post grad 0.07037    0.09717   0.724
## educ_linear.xPostgraduate                    0.25795    0.10318   2.500
## educ_linear.xDon't know/Refused             -0.45237    0.81258  -0.557
## age_linear.x30-49                           -0.11057    0.06906  -1.601
## age_linear.x50-64                           -0.13636    0.06816  -2.001
## age_linear.x65+                             -0.08342    0.07150  -1.167
## age_linear.xDK/REF                          -0.24602    0.57189  -0.430
## female.xFemale                               0.13657    0.04432   3.081
##                                             Pr(>|t|)
## (Intercept)                                  0.32529
## CONFCLERGY1a_W46_num                        8.72e-11 ***
## marital_status.x                             0.68202
## income_linear.x$10,000 to less than $20,000  0.05212 .
## income_linear.x$20,000 to less than $30,000  0.30108
## income_linear.x$30,000 to less than $40,000  0.55404
## income_linear.x$40,000 to less than $50,000  0.00534 **
## income_linear.x$50,000 to less than $75,000  0.34372
## income_linear.x$75,000 to less than $100,000 0.09526 .
## income_linear.x$100,000 to less than $150,000 0.05189 .
## income_linear.x$150,000 or more              0.29046
## income_linear.xRefused                       0.07497 .
## educ_linear.xHigh school graduate            0.52146
## educ_linear.xSome college, no degree         0.78676
## educ_linear.xAssociate's degree              0.73474
## educ_linear.xCollege graduate/some post grad 0.46904
## educ_linear.xPostgraduate                    0.01253 *
## educ_linear.xDon't know/Refused              0.57781
## age_linear.x30-49                            0.10958
## age_linear.x50-64                            0.04564 *
## age_linear.x65+                              0.24350
## age_linear.xDK/REF                           0.66712
## female.xFemale                               0.00210 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.8018 on 1404 degrees of freedom
##   (11816 observations deleted due to missingness)
```

```
## Multiple R-squared:  0.06362,    Adjusted R-squared:  0.04895
## F-statistic: 4.336 on 22 and 1404 DF,  p-value: 1.076e-10
```

```
summary(lm(trust_scientists_fa_dim1 ~ CONFCLERGY1b_W46_num +
                   marital_status.x + income_linear.x +
                   educ_linear.x + age_linear.x + female.x,
         data = dataw46_subset_new))
```

```
##
## Call:
## lm(formula = trust_scientists_fa_dim1 ~ CONFCLERGY1b_W46_num +
##     marital_status.x + income_linear.x + educ_linear.x + age_linear.x +
##     female.x, data = dataw46_subset_new)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -2.69770 -0.57471  0.03789  0.63962  1.60807
##
## Coefficients:
##                                                Estimate Std. Error t value
## (Intercept)                                   -0.176522   0.127404  -1.386
## CONFCLERGY1b_W46_num                          -0.003491   0.023917  -0.146
## marital_status.x                              -0.052302   0.049007  -1.067
## income_linear.x$10,000 to less than $20,000    0.155755   0.104010   1.498
## income_linear.x$20,000 to less than $30,000    0.097257   0.107214   0.907
## income_linear.x$30,000 to less than $40,000    0.034154   0.105184   0.325
## income_linear.x$40,000 to less than $50,000    0.244345   0.104967   2.328
## income_linear.x$50,000 to less than $75,000    0.054380   0.100942   0.539
## income_linear.x$75,000 to less than $100,000   0.152918   0.111822   1.368
## income_linear.x$100,000 to less than $150,000  0.188368   0.112470   1.675
## income_linear.x$150,000 or more                0.133955   0.119360   1.122
## income_linear.xRefused                         0.204813   0.127612   1.605
## educ_linear.xHigh school graduate             -0.082770   0.087654  -0.944
## educ_linear.xSome college, no degree          -0.033940   0.097674  -0.347
## educ_linear.xAssociate's degree                0.035714   0.111395   0.321
## educ_linear.xCollege graduate/some post grad   0.058094   0.098330   0.591
## educ_linear.xPostgraduate                      0.253425   0.104703   2.420
## educ_linear.xDon't know/Refused               -0.613532   0.823174  -0.745
## age_linear.x30-49                             -0.125972   0.070027  -1.799
## age_linear.x50-64                             -0.168747   0.069087  -2.443
## age_linear.x65+                               -0.122004   0.072217  -1.689
## age_linear.xDK/REF                            -0.148503   0.579757  -0.256
## female.xFemale                                 0.126754   0.045288   2.799
##                                               Pr(>|t|)
## (Intercept)                                     0.1661
## CONFCLERGY1b_W46_num                            0.8840
## marital_status.x                                0.2861
## income_linear.x$10,000 to less than $20,000     0.1345
## income_linear.x$20,000 to less than $30,000     0.3645
## income_linear.x$30,000 to less than $40,000     0.7455
## income_linear.x$40,000 to less than $50,000     0.0201 *
## income_linear.x$50,000 to less than $75,000     0.5902
## income_linear.x$75,000 to less than $100,000    0.1717
## income_linear.x$100,000 to less than $150,000   0.0942 .
## income_linear.x$150,000 or more                 0.2619
```

```
## income_linear.xRefused                              0.1087
## educ_linear.xHigh school graduate                   0.3452
## educ_linear.xSome college, no degree                0.7283
## educ_linear.xAssociate's degree                     0.7486
## educ_linear.xCollege graduate/some post grad        0.5547
## educ_linear.xPostgraduate                           0.0156 *
## educ_linear.xDon't know/Refused                     0.4562
## age_linear.x30-49                                   0.0722 .
## age_linear.x50-64                                   0.0147 *
## age_linear.x65+                                     0.0914 .
## age_linear.xDK/REF                                  0.7979
## female.xFemale                                      0.0052 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.8125 on 1399 degrees of freedom
##   (11821 observations deleted due to missingness)
## Multiple R-squared:  0.03466,    Adjusted R-squared:  0.01948
## F-statistic: 2.283 on 22 and 1399 DF,  p-value: 0.0006427
```

```
summary(lm(trust_scientists_fa_dim1 ~ CONFCLERGY1c_W46_num +
                    marital_status.x + income_linear.x +
                    educ_linear.x + age_linear.x + female.x,
          data = dataw46_subset_new))
```

```
##
## Call:
## lm(formula = trust_scientists_fa_dim1 ~ CONFCLERGY1c_W46_num +
##     marital_status.x + income_linear.x + educ_linear.x + age_linear.x +
##     female.x, data = dataw46_subset_new)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -2.68895 -0.56974  0.03737  0.64142  1.61430
##
## Coefficients:
##                                                Estimate Std. Error t value
## (Intercept)                                   -0.194944   0.130972  -1.488
## CONFCLERGY1c_W46_num                           0.006322   0.024064   0.263
## marital_status.x                              -0.055652   0.048946  -1.137
## income_linear.x$10,000 to less than $20,000    0.156886   0.104317   1.504
## income_linear.x$20,000 to less than $30,000    0.095311   0.106621   0.894
## income_linear.x$30,000 to less than $40,000    0.037525   0.105136   0.357
## income_linear.x$40,000 to less than $50,000    0.249384   0.104927   2.377
## income_linear.x$50,000 to less than $75,000    0.056576   0.100845   0.561
## income_linear.x$75,000 to less than $100,000   0.155697   0.111617   1.395
## income_linear.x$100,000 to less than $150,000  0.196335   0.111951   1.754
## income_linear.x$150,000 or more                0.140015   0.119137   1.175
## income_linear.xRefused                         0.195012   0.128022   1.523
## educ_linear.xHigh school graduate             -0.090297   0.087973  -1.026
## educ_linear.xSome college, no degree          -0.045570   0.097968  -0.465
## educ_linear.xAssociate's degree                0.024458   0.111417   0.220
## educ_linear.xCollege graduate/some post grad   0.051073   0.098568   0.518
## educ_linear.xPostgraduate                      0.247022   0.104928   2.354
## educ_linear.xDon't know/Refused               -0.605288   0.823374  -0.735
```

```
## age_linear.x30-49                                -0.132091   0.069948  -1.888
## age_linear.x50-64                                -0.170888   0.068978  -2.477
## age_linear.x65+                                  -0.121593   0.072216  -1.684
## age_linear.xDK/REF                               -0.137082   0.580077  -0.236
## female.xFemale                                    0.126697   0.045105   2.809
##                                                  Pr(>|t|)
## (Intercept)                                       0.13686
## CONFCLERGY1c_W46_num                              0.79282
## marital_status.x                                  0.25573
## income_linear.x$10,000 to less than $20,000       0.13282
## income_linear.x$20,000 to less than $30,000       0.37151
## income_linear.x$30,000 to less than $40,000       0.72121
## income_linear.x$40,000 to less than $50,000       0.01760 *
## income_linear.x$50,000 to less than $75,000       0.57488
## income_linear.x$75,000 to less than $100,000      0.16326
## income_linear.x$100,000 to less than $150,000     0.07969 .
## income_linear.x$150,000 or more                   0.24010
## income_linear.xRefused                            0.12792
## educ_linear.xHigh school graduate                 0.30487
## educ_linear.xSome college, no degree              0.64190
## educ_linear.xAssociate's degree                   0.82628
## educ_linear.xCollege graduate/some post grad      0.60444
## educ_linear.xPostgraduate                         0.01870 *
## educ_linear.xDon't know/Refused                   0.46238
## age_linear.x30-49                                 0.05918 .
## age_linear.x50-64                                 0.01335 *
## age_linear.x65+                                   0.09246 .
## age_linear.xDK/REF                                0.81322
## female.xFemale                                    0.00504 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.8125 on 1401 degrees of freedom
##   (11819 observations deleted due to missingness)
## Multiple R-squared:  0.03518,    Adjusted R-squared:  0.02003
## F-statistic: 2.322 on 22 and 1401 DF,  p-value: 0.0004974
```

```
summary(lm(trust_scientists_fa_dim1 ~ CONFCLERGY2a_W46_num +
                   marital_status.x + income_linear.x +
                   educ_linear.x + age_linear.x + female.x,
         data = dataw46_subset_new))
```

```
##
## Call:
## lm(formula = trust_scientists_fa_dim1 ~ CONFCLERGY2a_W46_num +
##     marital_status.x + income_linear.x + educ_linear.x + age_linear.x +
##     female.x, data = dataw46_subset_new)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -2.82008 -0.57578  0.03099  0.63439  1.63053
##
## Coefficients:
##                                                Estimate Std. Error t value
## (Intercept)                                     0.01142    0.13203   0.087
```

```
## CONFCLERGY2a_W46_num                            -0.07406    0.02383  -3.108
## marital_status.x                                -0.03291    0.04899  -0.672
## income_linear.x$10,000 to less than $20,000      0.18320    0.10363   1.768
## income_linear.x$20,000 to less than $30,000      0.06934    0.10651   0.651
## income_linear.x$30,000 to less than $40,000      0.02809    0.10490   0.268
## income_linear.x$40,000 to less than $50,000      0.24231    0.10466   2.315
## income_linear.x$50,000 to less than $75,000      0.04892    0.10050   0.487
## income_linear.x$75,000 to less than $100,000     0.13926    0.11143   1.250
## income_linear.x$100,000 to less than $150,000    0.17342    0.11179   1.551
## income_linear.x$150,000 or more                  0.10123    0.11890   0.851
## income_linear.xRefused                           0.21341    0.12747   1.674
## educ_linear.xHigh school graduate               -0.08292    0.08740  -0.949
## educ_linear.xSome college, no degree            -0.04287    0.09750  -0.440
## educ_linear.xAssociate's degree                  0.03813    0.11083   0.344
## educ_linear.xCollege graduate/some post grad     0.04331    0.09837   0.440
## educ_linear.xPostgraduate                        0.23578    0.10464   2.253
## educ_linear.xDon't know/Refused                 -0.51996    0.82355  -0.631
## age_linear.x30-49                               -0.13469    0.06993  -1.926
## age_linear.x50-64                               -0.16836    0.06887  -2.444
## age_linear.x65+                                 -0.14381    0.07245  -1.985
## age_linear.xDK/REF                              -0.13959    0.57924  -0.241
## female.xFemale                                   0.14769    0.04512   3.273
##                                                 Pr(>|t|)
## (Intercept)                                      0.93107
## CONFCLERGY2a_W46_num                             0.00192 **
## marital_status.x                                 0.50180
## income_linear.x$10,000 to less than $20,000      0.07731 .
## income_linear.x$20,000 to less than $30,000      0.51516
## income_linear.x$30,000 to less than $40,000      0.78891
## income_linear.x$40,000 to less than $50,000      0.02075 *
## income_linear.x$50,000 to less than $75,000      0.62650
## income_linear.x$75,000 to less than $100,000     0.21161
## income_linear.x$100,000 to less than $150,000    0.12105
## income_linear.x$150,000 or more                  0.39471
## income_linear.xRefused                           0.09431 .
## educ_linear.xHigh school graduate                0.34294
## educ_linear.xSome college, no degree             0.66024
## educ_linear.xAssociate's degree                  0.73085
## educ_linear.xCollege graduate/some post grad     0.65977
## educ_linear.xPostgraduate                        0.02440 *
## educ_linear.xDon't know/Refused                  0.52791
## age_linear.x30-49                                0.05429 .
## age_linear.x50-64                                0.01463 *
## age_linear.x65+                                  0.04734 *
## age_linear.xDK/REF                               0.80960
## female.xFemale                                   0.00109 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.8123 on 1407 degrees of freedom
##   (11813 observations deleted due to missingness)
## Multiple R-squared:  0.04201,    Adjusted R-squared:  0.02703
## F-statistic: 2.804 on 22 and 1407 DF,  p-value: 1.695e-05
```

```r
summary(lm(trust_scientists_fa_dim1 ~ CONFCLERGY2b_W46_num +
                    marital_status.x + income_linear.x +
                    educ_linear.x + age_linear.x + female.x,
          data = dataw46_subset_new))
```

```
##
## Call:
## lm(formula = trust_scientists_fa_dim1 ~ CONFCLERGY2b_W46_num +
##     marital_status.x + income_linear.x + educ_linear.x + age_linear.x +
##     female.x, data = dataw46_subset_new)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -2.6941 -0.5845  0.0414  0.6466  1.6069
##
## Coefficients:
##                                              Estimate Std. Error t value
## (Intercept)                                  -0.04369    0.14346  -0.305
## CONFCLERGY2b_W46_num                         -0.04585    0.02833  -1.619
## marital_status.x                             -0.05144    0.04887  -1.052
## income_linear.x$10,000 to less than $20,000   0.16971    0.10402   1.631
## income_linear.x$20,000 to less than $30,000   0.07373    0.10681   0.690
## income_linear.x$30,000 to less than $40,000   0.04000    0.10538   0.380
## income_linear.x$40,000 to less than $50,000   0.24728    0.10543   2.345
## income_linear.x$50,000 to less than $75,000   0.05746    0.10132   0.567
## income_linear.x$75,000 to less than $100,000  0.15979    0.11181   1.429
## income_linear.x$100,000 to less than $150,000 0.19681    0.11215   1.755
## income_linear.x$150,000 or more               0.12347    0.11918   1.036
## income_linear.xRefused                        0.20940    0.12666   1.653
## educ_linear.xHigh school graduate            -0.08183    0.08772  -0.933
## educ_linear.xSome college, no degree         -0.04025    0.09797  -0.411
## educ_linear.xAssociate's degree               0.04210    0.11127   0.378
## educ_linear.xCollege graduate/some post grad  0.05738    0.09859   0.582
## educ_linear.xPostgraduate                     0.25116    0.10484   2.396
## educ_linear.xDon't know/Refused              -0.57782    0.82626  -0.699
## age_linear.x30-49                            -0.13397    0.07020  -1.908
## age_linear.x50-64                            -0.17020    0.06916  -2.461
## age_linear.x65+                              -0.12842    0.07256  -1.770
## age_linear.xDK/REF                           -0.14081    0.58157  -0.242
## female.xFemale                                0.13647    0.04517   3.021
##                                              Pr(>|t|)
## (Intercept)                                   0.76073
## CONFCLERGY2b_W46_num                          0.10576
## marital_status.x                              0.29277
## income_linear.x$10,000 to less than $20,000   0.10302
## income_linear.x$20,000 to less than $30,000   0.49011
## income_linear.x$30,000 to less than $40,000   0.70434
## income_linear.x$40,000 to less than $50,000   0.01914 *
## income_linear.x$50,000 to less than $75,000   0.57070
## income_linear.x$75,000 to less than $100,000  0.15318
## income_linear.x$100,000 to less than $150,000 0.07950 .
## income_linear.x$150,000 or more               0.30039
## income_linear.xRefused                        0.09852 .
## educ_linear.xHigh school graduate             0.35105
```

```
## educ_linear.xSome college, no degree           0.68122
## educ_linear.xAssociate's degree                0.70523
## educ_linear.xCollege graduate/some post grad   0.56062
## educ_linear.xPostgraduate                      0.01672 *
## educ_linear.xDon't know/Refused                0.48447
## age_linear.x30-49                              0.05654 .
## age_linear.x50-64                              0.01398 *
## age_linear.x65+                                0.07695 .
## age_linear.xDK/REF                             0.80872
## female.xFemale                                 0.00256 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.8155 on 1410 degrees of freedom
##   (11810 observations deleted due to missingness)
## Multiple R-squared:  0.03739,    Adjusted R-squared:  0.02237
## F-statistic: 2.489 on 22 and 1410 DF,  p-value: 0.0001591
```

```
summary(lm(trust_scientists_fa_dim1 ~ CONFCLERGY2e_W46_num +
                   marital_status.x + income_linear.x +
                   educ_linear.x + age_linear.x + female.x,
         data = dataw46_subset_new))
```

```
##
## Call:
## lm(formula = trust_scientists_fa_dim1 ~ CONFCLERGY2e_W46_num +
##     marital_status.x + income_linear.x + educ_linear.x + age_linear.x +
##     female.x, data = dataw46_subset_new)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -2.85508 -0.57619  0.03186  0.64000  1.61237
##
## Coefficients:
##                                                Estimate Std. Error t value
## (Intercept)                                     0.04584    0.13498   0.340
## CONFCLERGY2e_W46_num                           -0.08495    0.02569  -3.307
## marital_status.x                               -0.04503    0.04870  -0.925
## income_linear.x$10,000 to less than $20,000     0.17874    0.10363   1.725
## income_linear.x$20,000 to less than $30,000     0.07047    0.10613   0.664
## income_linear.x$30,000 to less than $40,000     0.03461    0.10485   0.330
## income_linear.x$40,000 to less than $50,000     0.25215    0.10473   2.408
## income_linear.x$50,000 to less than $75,000     0.05779    0.10037   0.576
## income_linear.x$75,000 to less than $100,000    0.15614    0.11113   1.405
## income_linear.x$100,000 to less than $150,000   0.18786    0.11165   1.683
## income_linear.x$150,000 or more                 0.11632    0.11857   0.981
## income_linear.xRefused                          0.22936    0.12634   1.815
## educ_linear.xHigh school graduate              -0.08013    0.08795  -0.911
## educ_linear.xSome college, no degree           -0.02815    0.09798  -0.287
## educ_linear.xAssociate's degree                 0.04539    0.11125   0.408
## educ_linear.xCollege graduate/some post grad    0.06512    0.09869   0.660
## educ_linear.xPostgraduate                       0.25662    0.10486   2.447
## educ_linear.xDon't know/Refused                -0.62084    0.82226  -0.755
## age_linear.x30-49                              -0.12841    0.06990  -1.837
## age_linear.x50-64                              -0.16106    0.06880  -2.341
```

```
## age_linear.x65+                                  -0.12383    0.07217  -1.716
## age_linear.xDK/REF                               -0.19343    0.57889  -0.334
## female.xFemale                                    0.13684    0.04492   3.047
##                                                 Pr(>|t|)
## (Intercept)                                     0.734214
## CONFCLERGY2e_W46_num                            0.000968 ***
## marital_status.x                                0.355330
## income_linear.x$10,000 to less than $20,000     0.084785 .
## income_linear.x$20,000 to less than $30,000     0.506798
## income_linear.x$30,000 to less than $40,000     0.741415
## income_linear.x$40,000 to less than $50,000     0.016184 *
## income_linear.x$50,000 to less than $75,000     0.564846
## income_linear.x$75,000 to less than $100,000    0.160216
## income_linear.x$100,000 to less than $150,000 0.092668 .
## income_linear.x$150,000 or more                 0.326748
## income_linear.xRefused                          0.069663 .
## educ_linear.xHigh school graduate               0.362406
## educ_linear.xSome college, no degree            0.773948
## educ_linear.xAssociate's degree                 0.683318
## educ_linear.xCollege graduate/some post grad    0.509428
## educ_linear.xPostgraduate                       0.014517 *
## educ_linear.xDon't know/Refused                 0.450353
## age_linear.x30-49                               0.066403 .
## age_linear.x50-64                               0.019375 *
## age_linear.x65+                                 0.086420 .
## age_linear.xDK/REF                              0.738328
## female.xFemale                                  0.002358 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.8117 on 1410 degrees of freedom
##   (11810 observations deleted due to missingness)
## Multiple R-squared:  0.04384,    Adjusted R-squared:  0.02892
## F-statistic: 2.938 on 22 and 1410 DF,  p-value: 6.344e-06
```

```
summary(lm(trust_scientists_fa_dim1 ~ CONFCLERGY2f_W46_num +
                    marital_status.x + income_linear.x +
                    educ_linear.x + age_linear.x + female.x,
          data = dataw46_subset_new))
```

```
##
## Call:
## lm(formula = trust_scientists_fa_dim1 ~ CONFCLERGY2f_W46_num +
##     marital_status.x + income_linear.x + educ_linear.x + age_linear.x +
##     female.x, data = dataw46_subset_new)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -2.80107 -0.58558  0.02924  0.64835  1.60204
##
## Coefficients:
##                                                 Estimate Std. Error t value
## (Intercept)                                     -0.03919    0.14342  -0.273
## CONFCLERGY2f_W46_num                            -0.05075    0.02860  -1.774
## marital_status.x                                -0.05569    0.04884  -1.140
```

```
## income_linear.x$10,000 to less than $20,000    0.17823    0.10409   1.712
## income_linear.x$20,000 to less than $30,000    0.08185    0.10653   0.768
## income_linear.x$30,000 to less than $40,000    0.04824    0.10506   0.459
## income_linear.x$40,000 to less than $50,000    0.25762    0.10498   2.454
## income_linear.x$50,000 to less than $75,000    0.07104    0.10073   0.705
## income_linear.x$75,000 to less than $100,000   0.16965    0.11153   1.521
## income_linear.x$100,000 to less than $150,000  0.19961    0.11221   1.779
## income_linear.x$150,000 or more                0.13331    0.11895   1.121
## income_linear.xRefused                         0.21715    0.12639   1.718
## educ_linear.xHigh school graduate             -0.07165    0.08813  -0.813
## educ_linear.xSome college, no degree          -0.03391    0.09804  -0.346
## educ_linear.xAssociate's degree                0.05304    0.11152   0.476
## educ_linear.xCollege graduate/some post grad   0.07051    0.09883   0.713
## educ_linear.xPostgraduate                      0.26062    0.10504   2.481
## educ_linear.xDon't know/Refused               -0.62240    0.82581  -0.754
## age_linear.x30-49                             -0.13760    0.07015  -1.962
## age_linear.x50-64                             -0.16550    0.06910  -2.395
## age_linear.x65+                               -0.12806    0.07247  -1.767
## age_linear.xDK/REF                            -0.17512    0.58144  -0.301
## female.xFemale                                 0.13727    0.04515   3.040
##                                               Pr(>|t|)
## (Intercept)                                    0.78468
## CONFCLERGY2f_W46_num                           0.07622 .
## marital_status.x                               0.25441
## income_linear.x$10,000 to less than $20,000    0.08707 .
## income_linear.x$20,000 to less than $30,000    0.44242
## income_linear.x$30,000 to less than $40,000    0.64621
## income_linear.x$40,000 to less than $50,000    0.01424 *
## income_linear.x$50,000 to less than $75,000    0.48078
## income_linear.x$75,000 to less than $100,000   0.12845
## income_linear.x$100,000 to less than $150,000  0.07548 .
## income_linear.x$150,000 or more                0.26260
## income_linear.xRefused                         0.08600 .
## educ_linear.xHigh school graduate              0.41634
## educ_linear.xSome college, no degree           0.72948
## educ_linear.xAssociate's degree                0.63442
## educ_linear.xCollege graduate/some post grad   0.47569
## educ_linear.xPostgraduate                      0.01321 *
## educ_linear.xDon't know/Refused                0.45117
## age_linear.x30-49                              0.05000 .
## age_linear.x50-64                              0.01675 *
## age_linear.x65+                                0.07746 .
## age_linear.xDK/REF                             0.76331
## female.xFemale                                 0.00241 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.8153 on 1412 degrees of freedom
##   (11808 observations deleted due to missingness)
## Multiple R-squared:  0.03806,    Adjusted R-squared:  0.02307
## F-statistic: 2.539 on 22 and 1412 DF,  p-value: 0.0001121
```

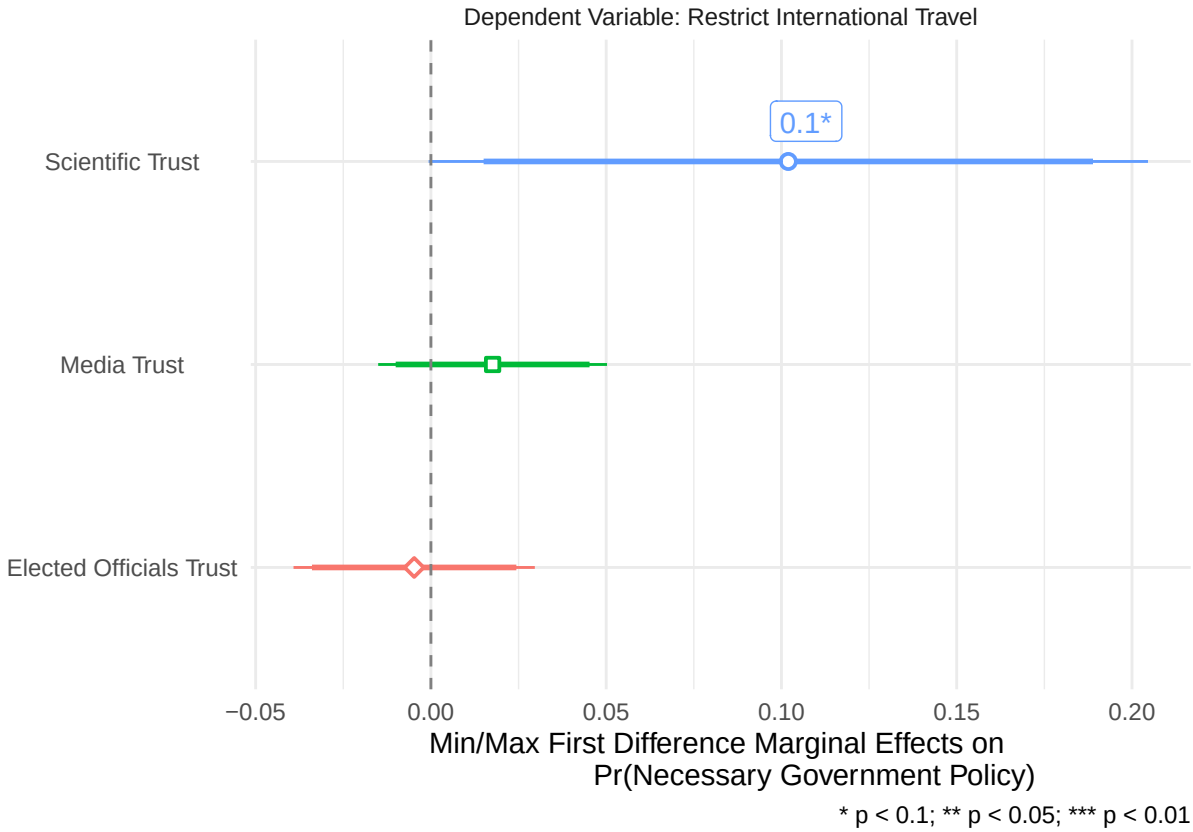
#taking eternal life & confidence in religious leader guidance about abortion & adding to orginal paper's models (w/ transformed binary covid policy support variable)

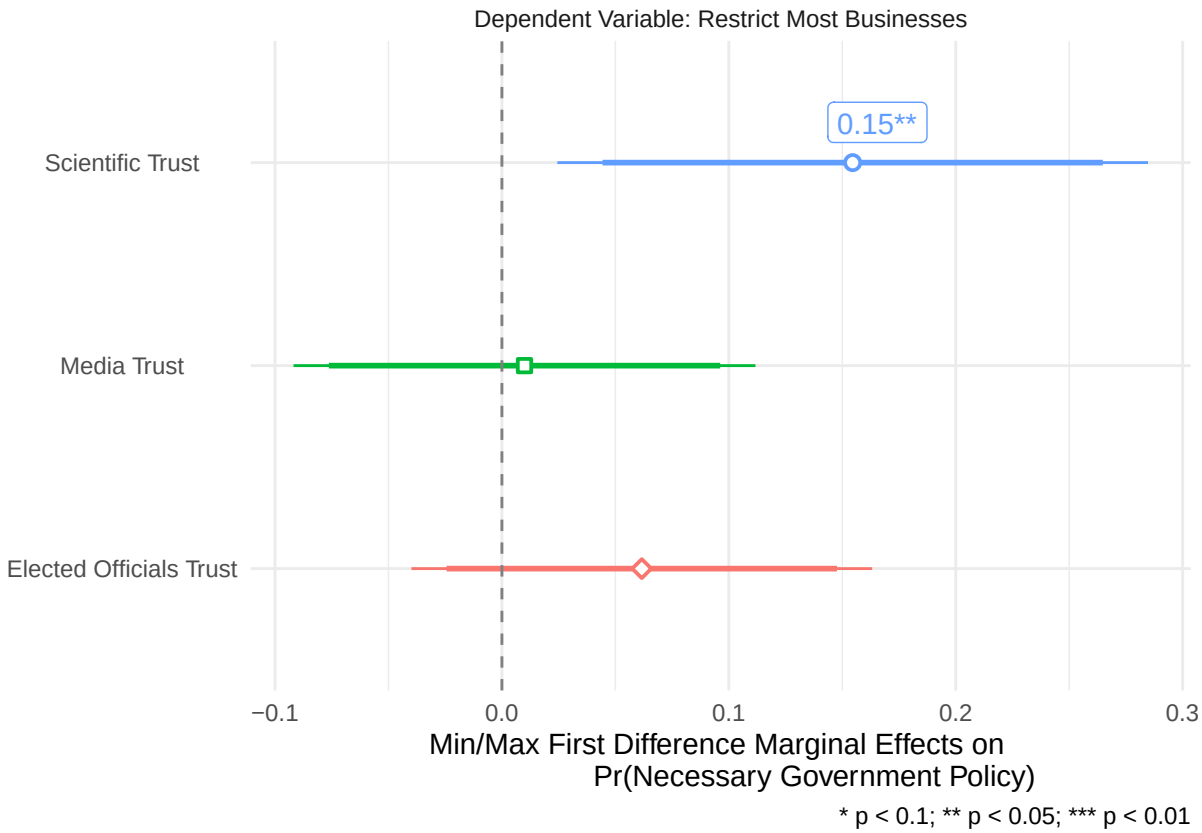
Data Analysis: COVID Policy ~ Scientific Trust: Baseline Effects

Baseline Trust Effects

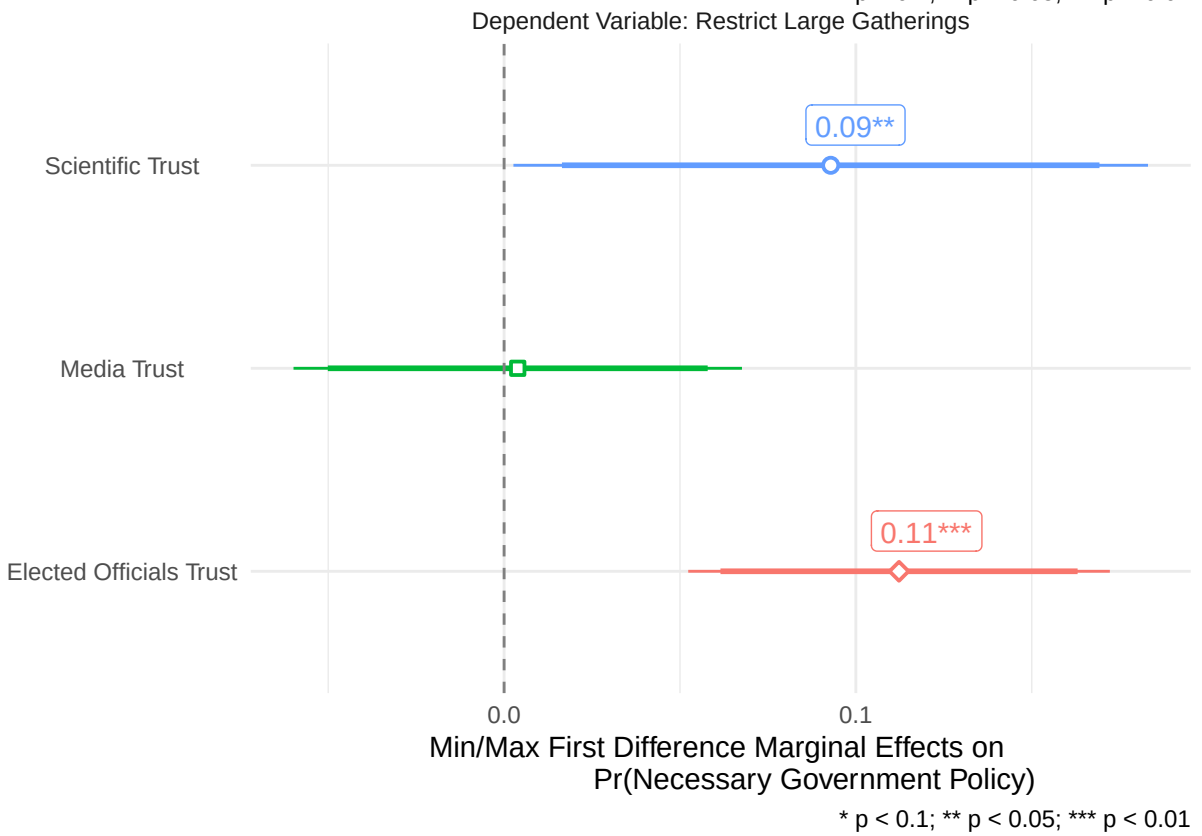
```
baseline_trust_effects <- list()
for(i in which(colnames(dataw46_subset_new) == "restriction_intl_travel"):
    which(colnames(dataw46_subset_new) == "restriction_postponing_primary")){
  summary(model <- glm(dataw46_subset_new[,i] ~ trust_scientists_fa_dim1 +
                         eternal_life + CONFCLERGY1a_W46_num +
                         trust_media + trust_elected_officials + female.x +
                         pid3 + libcon + age_linear.x + educ_linear.x +
                         income_linear.x + race3 + region_factor.y,
                       data=dataw46_subset_new, weights=weight,
                       family = binomial(link = "logit")))
  mes <- summary(margins(model,
                         variables=c("trust_scientists_fa_dim1","trust_media",
                                     "trust_elected_officials"),
                         type="response", change="minmax"))
  mes$model <- colnames(dataw46_subset_new)[i]
  mes$category <- "Full Sample Baseline"
  baseline_trust_effects[[i]] <- mes
}
baseline_trust_effects <- ldply(baseline_trust_effects,data.frame)

baseline_trust_effects$pid3 <- "Full Baseline Sample"
baseline_trust_effects$category <- NULL

effects <- baseline_trust_effects
effects$ylo90 <- (effects$AME - (qt(.95, 100) * effects$SE))
effects$yhi90 <- (effects$AME + (qt(.95, 100) * effects$SE))
effects$model2 <- ifelse(effects$model %in% "restriction_carry_out_only",
                         "Dependent Variable: Restaurants Carry Out Only",
                  ifelse(effects$model %in% "restriction_closing_k12",
                         "Dependent Variable: Close K-12 Schools",
                  ifelse(effects$model %in% "restriction_intl_travel",
                         "Dependent Variable: Restrict International Travel",
                  ifelse(effects$model %in% "restriction_large_gatherings",
                         "Dependent Variable: Restrict Large Gatherings",
                  ifelse(effects$model %in% "restriction_most_business",
                         "Dependent Variable: Restrict Most Businesses",
                  ifelse(effects$model %in% "restriction_postponing_primary",
                         "Dependent Variable: Postpone Primary Elections",
                  ifelse(effects$model %in% "restriction_sporting_events",
                         "Dependent Variable: Restrict Sporting Events",NA)))))))

effects$factor <- ifelse(effects$factor %in% "trust_elected_officials",
                         "Elected Officials Trust",
                  ifelse(effects$factor %in% "trust_media","Media Trust",
                  ifelse(effects$factor %in% "trust_scientists_fa_dim1",
                         "Scientific Trust",NA)))

effects$label <- ifelse(effects$p < 0.01,paste(round(effects$AME,2),"***",sep=""),
                  ifelse(effects$p < 0.05,paste(round(effects$AME,2),"**",sep=""),
                  ifelse(effects$p < 0.10,paste(round(effects$AME,2),"*",sep=""),
```

```
                          NA)))

for(i in unique(effects$model)){
  x <- subset(effects,effects$model %in% i)
  plot <- ggplot(x,aes(x=factor,y=AME,factor=factor,group=factor,color=factor,
                       shape=factor,label=label,fill=factor)) +
    facet_wrap(~model2) + coord_flip() +
    geom_linerange(aes(x= factor, ymin = ylo90, ymax = yhi90),
                   position = position_dodge(width=0.75), lwd  = 1) +
    geom_pointrange(aes(x= factor, ymin = lower, ymax = upper), lwd = 1/2,
                    position = position_dodge(width=0.75),fill="white") +
    theme_minimal() + scale_x_discrete("") +
    scale_y_continuous("Min/Max First Difference Marginal Effects on
                       Pr(Necessary Government Policy)") +
    geom_hline(yintercept = 0, colour = gray(1/2), lty = 2) +
    labs(color="Trust Effects",shape="Trust Effects") +
    theme(legend.position = "none") +
    theme(axis.text.x = element_text(hjust = 0.5),
          axis.text.y = element_text(hjust = 0.5)) +
    geom_label(vjust=-0.5,hjust=0.25,fill="white") +
    labs(caption="* p < 0.1; ** p < 0.05; *** p < 0.01") +
    scale_shape_manual("",values=c(23,22,21))
  print(plot)
  #ggsave(file=paste(i,"_model",".png",sep=""), plot, width = 8,
  #height = 5.43, units = "in")
}
```

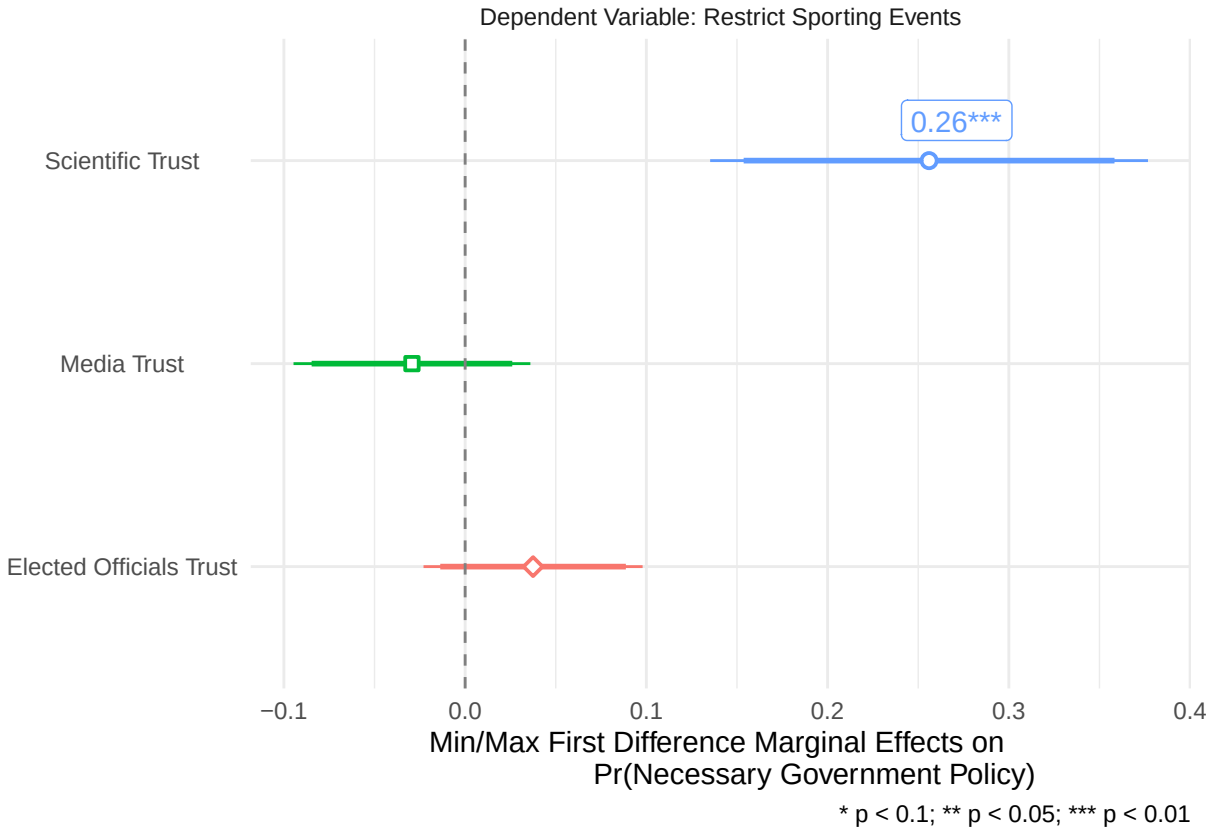


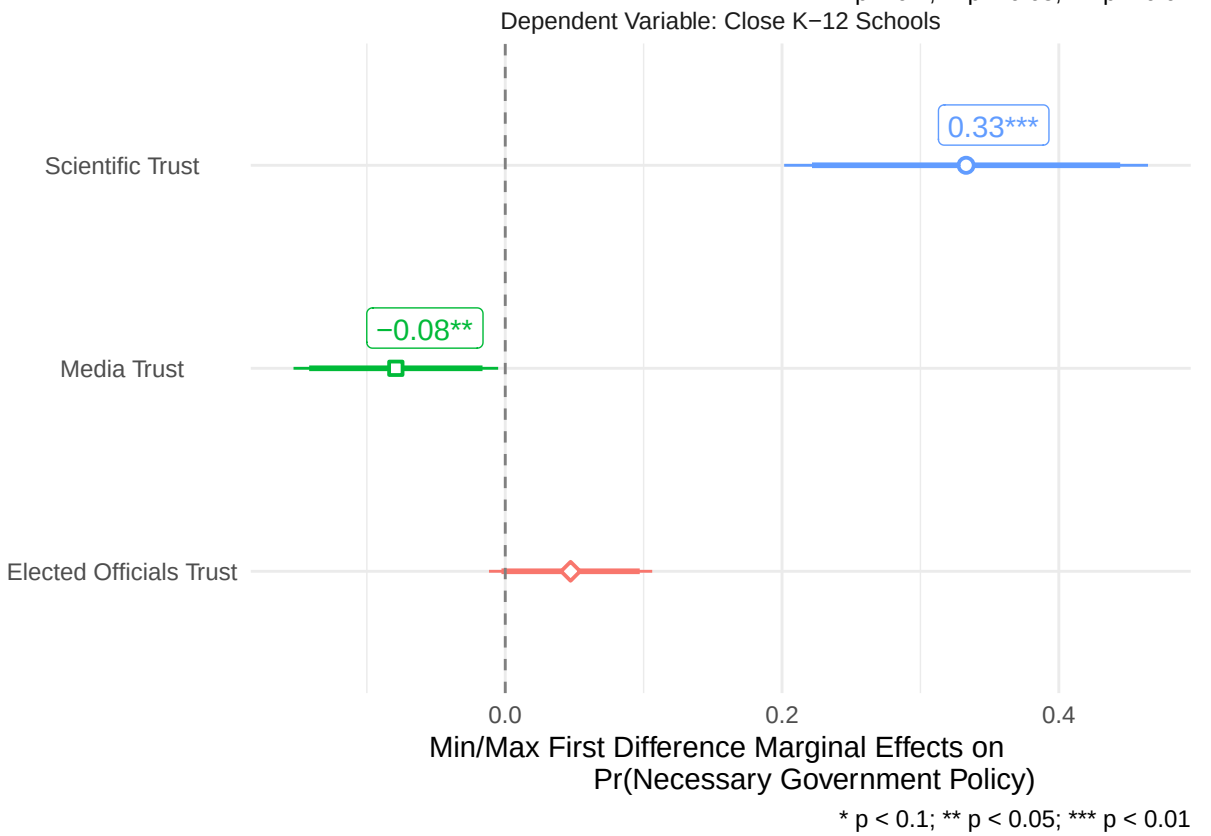


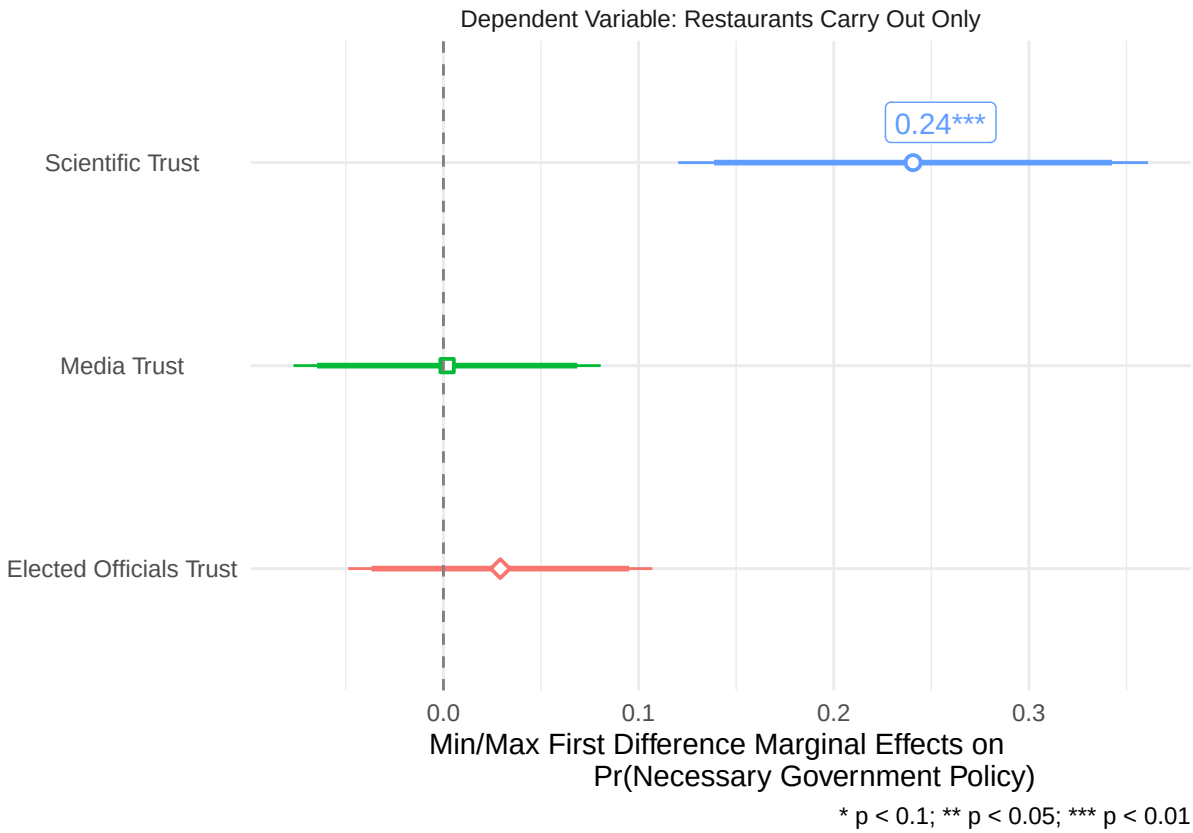
* p < 0.1; ** p < 0.05; *** p < 0.01

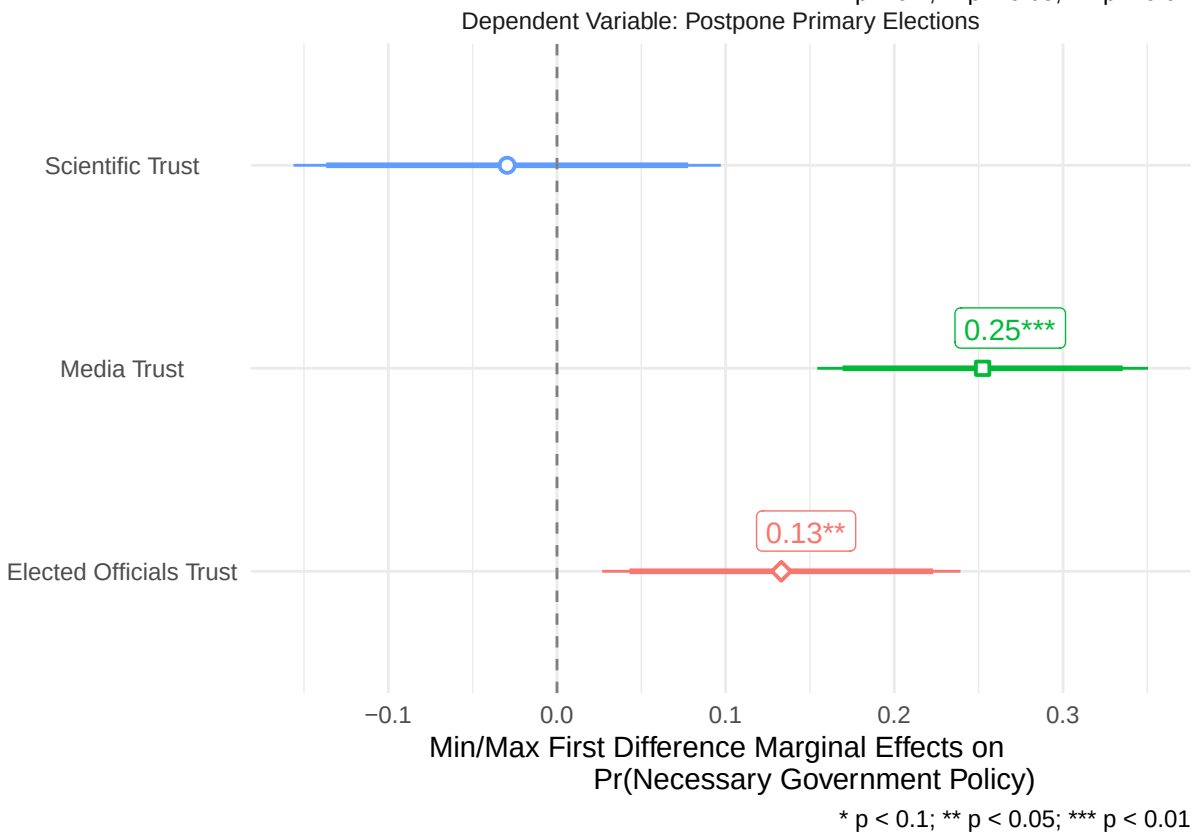


* p < 0.1; ** p < 0.05; *** p < 0.01


Dependent Variable: Restrict Sporting Events
Scientific Trust
Media Trust
Elected Officials Trust
0.26***
−0.1
0.0
0.1
0.2
0.3
0.4
Min/Max First Difference Marginal Effects on
Pr(Necessary Government Policy)
* p < 0.1; ** p < 0.05; *** p < 0.01


Dependent Variable: Close K−12 Schools
Scientific Trust
Media Trust
Elected Officials Trust
0.33***
−0.08**
0.0
0.2
0.4
Min/Max First Difference Marginal Effects on
Pr(Necessary Government Policy)
* p < 0.1; ** p < 0.05; *** p < 0.01

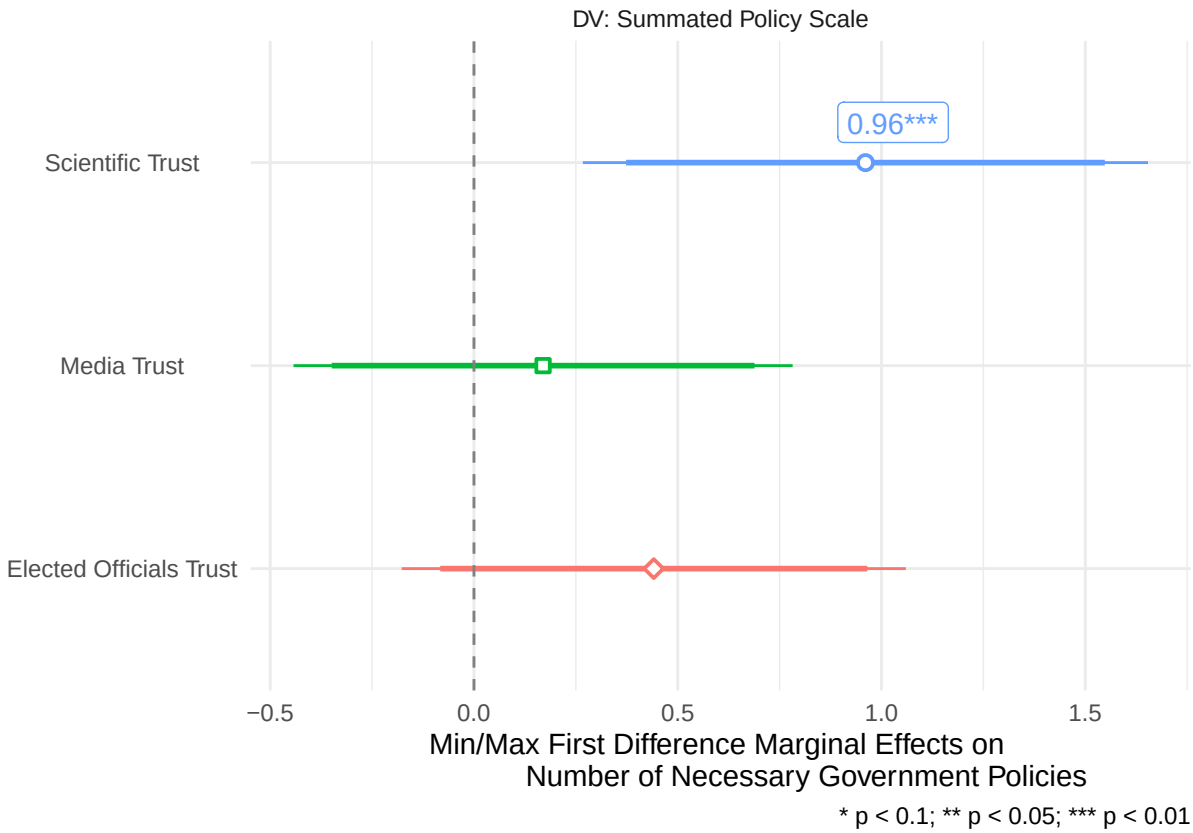

Dependent Variable: Restaurants Carry Out Only
Scientific Trust
Media Trust
Elected Officials Trust
0.24***
0.0
0.1
0.2
0.3
Min/Max First Difference Marginal Effects on
Pr(Necessary Government Policy)
* p < 0.1; ** p < 0.05; *** p < 0.01


Dependent Variable: Postpone Primary Elections
Scientific Trust
Media Trust
Elected Officials Trust
0.25***
0.13**
−0.1
0.0
0.1
0.2
0.3
Min/Max First Difference Marginal Effects on
Pr(Necessary Government Policy)
* p < 0.1; ** p < 0.05; *** p < 0.01

Data Analysis Figures: OLS Composite Models

```
model <- glm(covid_restriction_irt ~  trust_scientists_fa_dim1 +
                        eternal_life + CONFCLERGY1a_W46_num +
                        trust_media + trust_elected_officials + female.x +
                        pid3 + libcon + age_linear.x + educ_linear.x +
                        income_linear.x + race3 + region_factor.y,
                    data=dataw46_subset_new, weights=weight,
             family = gaussian(identity))

baseline_trust_effects.2 <- summary(margins(model,
                                            variables=c("trust_scientists_fa_dim1",
                                                        "trust_media",
                                                        "trust_elected_officials"),
                                            type="response", change="minmax"))
baseline_trust_effects.2$model <- "DV: Latent Policy Scale"
baseline_trust_effects.2$pid3 <- "Full Sample"

effects <- baseline_trust_effects.2
effects$ylo90 <- (effects$AME - (qt(.95, 100) * effects$SE))
effects$yhi90 <- (effects$AME + (qt(.95, 100) * effects$SE))
effects$ame_label <- round(effects$AME,2)
effects$factor <- ifelse(effects$factor %in% "trust_elected_officials",
                        "Elected Officials Trust",
                  ifelse(effects$factor %in% "trust_media",
                        "Media Trust",
                  ifelse(effects$factor %in% "trust_scientists_fa_dim1",
                        "Scientific Trust",NA)))
effects$label <- ifelse(effects$p < 0.01,paste(round(effects$AME,2),"***",sep=""),
                  ifelse(effects$p < 0.05,paste(round(effects$AME,2),"**",sep=""),
                  ifelse(effects$p < 0.10,paste(round(effects$AME,2),"*",sep=""),
                        NA)))

plot <- ggplot(effects,aes(x=factor,y=AME,factor=factor,
                           group=factor,color=factor,shape=factor,label=label,
                           fill=factor)) +
  facet_wrap(~model) + coord_flip() +
  geom_linerange(aes(x= factor, ymin = ylo90, ymax = yhi90),
                 position = position_dodge(width=0.75), lwd  = 1) +
  geom_pointrange(aes(x= factor, ymin = lower, ymax = upper), lwd = 1/2,
                  position = position_dodge(width=0.75),fill="white") +
  theme_minimal() + scale_x_discrete("") +
  scale_y_continuous("Min/Max First Difference Marginal Effects on
                     Latent Necessary Government Policies")  +
  geom_hline(yintercept = 0, colour = gray(1/2), lty = 2) +
  labs(color="Trust Effects",shape="Trust Effects") +
  theme(legend.position = "none") +
  theme(axis.text.x = element_text(hjust = 0.5),
        axis.text.y = element_text(hjust = 0.5)) +
  geom_label(vjust=-0.5,hjust=0.25,fill="white") +
  labs(caption="* p < 0.1; ** p < 0.05; *** p < 0.01") +
  scale_shape_manual("",values=c(23,22,21))
#ggsave(file="latent_policy_scale_model.png", plot, width = 8, height = 5.43, units = "in")
```

```
model <- glm(summated_restriction_scale ~ trust_scientists_fa_dim1 +
                        eternal_life + CONFCLERGY1a_W46_num +
                        trust_media + trust_elected_officials + female.x +
                        pid3 + libcon + age_linear.x + educ_linear.x +
                        income_linear.x + race3 + region_factor.y,
             data=dataw46_subset_new, weights=weight,
                    family = "poisson")
baseline_trust_effects.3 <- summary(margins(model,
                                            variables=c("trust_scientists_fa_dim1",
                                                        "trust_media",
                                                        "trust_elected_officials"),
                                            type="response", change="minmax"))
baseline_trust_effects.3$model <- "DV: Summated Policy Scale"
baseline_trust_effects.3$pid3 <- "Full Sample"

effects <- baseline_trust_effects.3
effects$ylo90 <- (effects$AME - (qt(.95, 100) * effects$SE))
effects$yhi90 <- (effects$AME + (qt(.95, 100) * effects$SE))
effects$ame_label <- round(effects$AME,2)
effects$factor <- ifelse(effects$factor %in% "trust_elected_officials",
                        "Elected Officials Trust",
                  ifelse(effects$factor %in% "trust_media","Media Trust",
                  ifelse(effects$factor %in% "trust_scientists_fa_dim1",
                        "Scientific Trust",NA)))
effects$label <- ifelse(effects$p < 0.01,paste(round(effects$AME,2),"***",sep=""),
                 ifelse(effects$p < 0.05,paste(round(effects$AME,2),"**",sep=""),
                  ifelse(effects$p < 0.10,paste(round(effects$AME,2),"*",sep=""),
                        NA)))

plot <- ggplot(effects,aes(x=factor,y=AME,
                           factor=factor,group=factor,
                           color=factor,shape=factor,label=label)) +
  facet_wrap(~model) + coord_flip() +
  geom_linerange(aes(x= factor, ymin = ylo90, ymax = yhi90),
                 position = position_dodge(width=0.75), lwd  = 1) +
  geom_pointrange(aes(x= factor, ymin = lower, ymax = upper), lwd = 1/2,
                  position = position_dodge(width=0.75),fill="white") +
  theme_minimal() + scale_x_discrete("") +
  scale_y_continuous("Min/Max First Difference Marginal Effects on
                     Number of Necessary Government Policies")  +
  geom_hline(yintercept = 0, colour = gray(1/2), lty = 2) +
  labs(color="Trust Effects",shape="Trust Effects") +
  theme(legend.position = "none") +
  theme(axis.text.x = element_text(hjust = 0.5),
        axis.text.y = element_text(hjust = 0.5)) +
  geom_label(vjust=-0.5,hjust=0.25,fill="white") +
  labs(caption="* p < 0.1; ** p < 0.05; *** p < 0.01") +
  scale_shape_manual("",values=c(23,22,21))
print(plot)
```




```
#ggsave(file="summated_policy_scale_model.png", plot, width = 8, height = 5.43,
#units = "in")
```

Distribution of Summated Rating Scales

```
x <- subset(dataw46_subset_new,select=c(summated_restriction_scale,
                                        trust_scientists_fa_dim1,
                                        eternal_life, CONFCLERGY1a_W46_num,
                          pid3,trust_media,trust_elected_officials,female.x,
                          libcon,age_linear.x,educ_linear.x,income_linear.x,
                          white_respondent.x, region_factor.y,race3))

x1 <- na.omit(x)
x <- na.omit(x)
x1$race3 <- "Full Sample"

x <- subset(x,select=c(summated_restriction_scale,race3))
x$n <- 1
xs <- ddply(x,.(summated_restriction_scale,race3),summarise,total=sum(n,na.rm=T))
x <- ddply(x,.(race3),summarise,total_race3=sum(n,na.rm=T))
xs <- merge(xs,x,by=c("race3"))
xs$prop <- xs$total/xs$total_race3

x1 <- subset(x1,select=c(summated_restriction_scale,race3))
x1$n <- 1
xs1 <- ddply(x1,.(summated_restriction_scale),summarise,total=sum(n,na.rm=T))
```

```
xs1$total_race3 <- sum(x1$n,na.rm=T)
xs1$prop <- xs1$total/xs1$total_race3
xs1$race3 <- "Full Sample"

x <- rbind(xs,xs1)
x$race3 <- factor(x$race3,
                  levels=c("asian","black","hispanic","white","Full Sample"),
                  labels=c("Asian Respondents","Black Respondents",
                           "Hispanic Respondents","White Respondents","Full Sample"))

plot <- ggplot(x, aes(x=factor(summated_restriction_scale),
                      y=prop, label=round(prop,2))) +
  geom_point(stat='identity', size=6*1.25) +
  geom_segment(aes(y=0,x=factor(summated_restriction_scale),
                   yend=prop,xend=factor(summated_restriction_scale)))+
  geom_text(color="white", size=2*1.25) + coord_flip() +
  facet_wrap(~race3) + theme_minimal() + theme(legend.position = "none") +
  scale_x_discrete("Number of Restrictive COVID-19 Policies Necessary") +
  scale_y_continuous("Proportion of Respondents")
#ggsave(file="number_policies_dotplot.png", plot, width = 8, height = 5.43,
#units = "in")
```

Conditioned by Race | Data Analysis: COVID Policy ~ Scientific Trust: Baseline Effects

Baseline Trust Effects

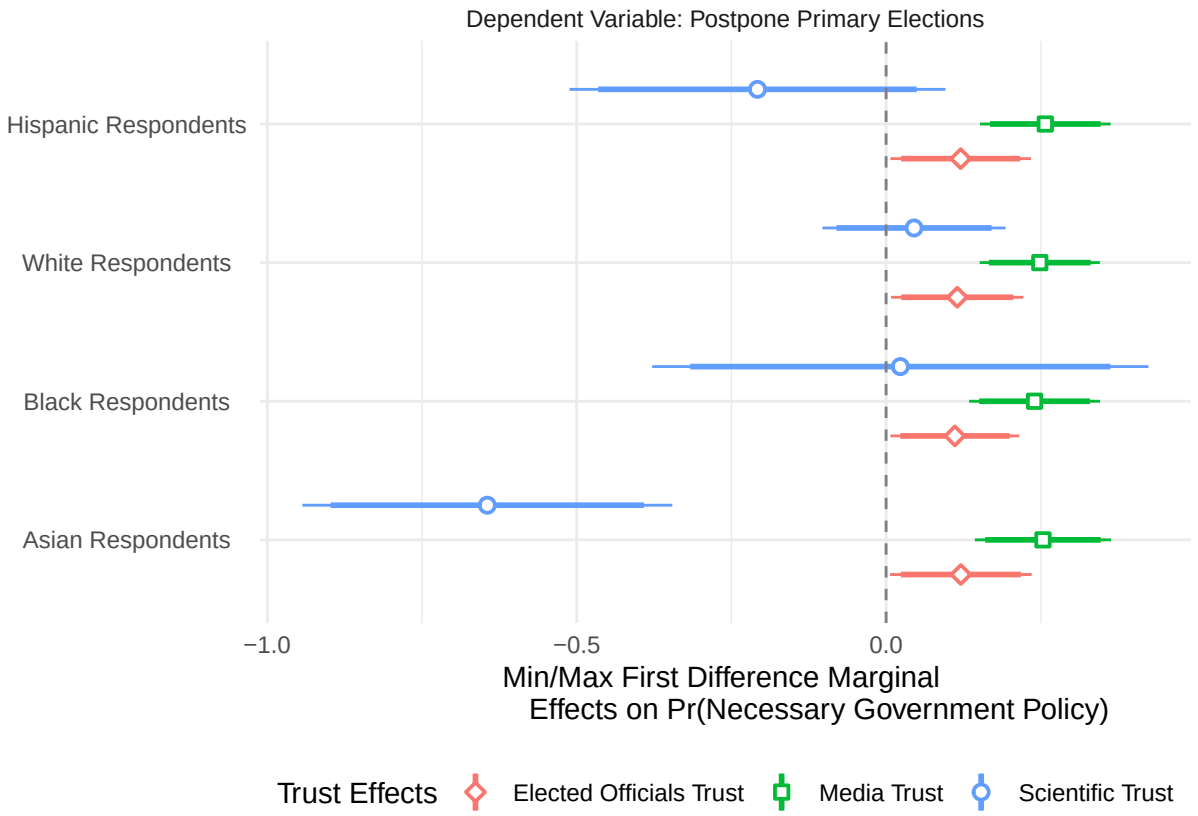
```
baseline_trust_effects.race <- list()
for(i in which(colnames(dataw46_subset_new) == "restriction_intl_travel"):
    which(colnames(dataw46_subset_new) == "restriction_postponing_primary")){
  summary(model <- glm(dataw46_subset_new[,i] ~ trust_scientists_fa_dim1*race3 +
                         eternal_life + CONFCLERGY1a_W46_num +
                         trust_media + trust_elected_officials + female.x +
                         pid3 + libcon + age_linear.x + educ_linear.x +
                         income_linear.x + race3 + region_factor.y,
                       data=dataw46_subset_new, weights=weight,
                       family = binomial(link = "logit")))
  mes <- summary(margins(model,
                         variables=c("trust_scientists_fa_dim1","trust_media",
                                     "trust_elected_officials"),
                         at=list(race3=c("asian","black","white","hispanic")),
                         type="response", change="minmax",))
  mes$model <- colnames(dataw46_subset_new)[i]
  mes$category <- "Full Sample Baseline"
  baseline_trust_effects.race[[i]] <- mes
}
baseline_trust_effects.race <- ldply(baseline_trust_effects.race,data.frame)


effects <- baseline_trust_effects.race
effects$ylo90 <- (effects$AME - (qt(.95, 100) * effects$SE))
effects$yhi90 <- (effects$AME + (qt(.95, 100) * effects$SE))
```

```
effects$model2 <- ifelse(effects$model %in% "restriction_carry_out_only",
                         "Dependent Variable: Restaurants Carry Out Only",
                  ifelse(effects$model %in% "restriction_closing_k12",
                         "Dependent Variable: Close K-12 Schools",
                  ifelse(effects$model %in% "restriction_intl_travel",
                         "Dependent Variable: Restrict International Travel",
                  ifelse(effects$model %in% "restriction_large_gatherings",
                         "Dependent Variable: Restrict Large Gatherings",
                  ifelse(effects$model %in% "restriction_most_business",
                         "Dependent Variable: Restrict Most Businesses",
                  ifelse(effects$model %in% "restriction_postponing_primary",
                         "Dependent Variable: Postpone Primary Elections",
                  ifelse(effects$model %in% "restriction_sporting_events",
                         "Dependent Variable: Restrict Sporting Events",NA)))))))
effects$factor <- ifelse(effects$factor %in% "trust_elected_officials",
                         "Elected Officials Trust",
                  ifelse(effects$factor %in% "trust_media","Media Trust",
                  ifelse(effects$factor %in% "trust_scientists_fa_dim1",
                         "Scientific Trust",NA)))
effects$race3 <- factor(effects$race3,levels=c("asian","black","white","hispanic"),
                        labels=c("Asian Respondents","Black Respondents",
                                 "White Respondents","Hispanic Respondents"))

for(i in unique(effects$model)){
  x <- subset(effects,effects$model %in% i)
  plot <- ggplot(x,aes(x=race3,y=AME,factor=factor,group=factor,
                       color=factor,shape=factor)) +
    facet_wrap(~model2) + coord_flip() +
    geom_linerange(aes(x= race3, ymin = ylo90, ymax = yhi90),
                   position = position_dodge(width=0.75), lwd  = 1) +
    geom_pointrange(aes(x= race3, ymin = lower, ymax = upper), lwd = 1/2,
                    position = position_dodge(width=0.75),fill="white") +
    theme_minimal() + scale_x_discrete("") +
    scale_y_continuous("Min/Max First Difference Marginal
                       Effects on Pr(Necessary Government Policy)") +
    geom_hline(yintercept = 0, colour = gray(1/2), lty = 2) +
    labs(color="Trust Effects",shape="Trust Effects") + theme(legend.position = "bottom") +
    theme(axis.text.x = element_text(hjust = 0.5),axis.text.y = element_text(hjust = 0.5)) +
    scale_shape_manual("Trust Effects",values=c(23,22,21))
  print(plot)
  #ggsave(file=paste(i,"_race3_model",".png",sep=""), plot, width = 8, height = 5.43, units = "in")
}
```


Dependent Variable: Restrict International Travel
Hispanic Respondents
White Respondents
Black Respondents
Asian Respondents
−20
−10
0
10
20
Min/Max First Difference Marginal
Effects on Pr(Necessary Government Policy)
Trust Effects
Elected Officials Trust
Media Trust
Scientific Trust
Dependent Variable: Restrict Most Businesses
Hispanic Respondents
White Respondents
Black Respondents
Asian Respondents
0.0
0.5
1.0
Min/Max First Difference Marginal
Effects on Pr(Necessary Government Policy)
Trust Effects
Elected Officials Trust
Media Trust
Scientific Trust


Dependent Variable: Restrict Large Gatherings
Hispanic Respondents
White Respondents
Black Respondents
Asian Respondents
−0.5
0.0
0.5
1.0
Min/Max First Difference Marginal
Effects on Pr(Necessary Government Policy)
Trust Effects
Elected Officials Trust
Media Trust
Scientific Trust
Dependent Variable: Restrict Sporting Events
Hispanic Respondents
White Respondents
Black Respondents
Asian Respondents
0.0
0.4
0.8
Min/Max First Difference Marginal
Effects on Pr(Necessary Government Policy)
Trust Effects
Elected Officials Trust
Media Trust
Scientific Trust

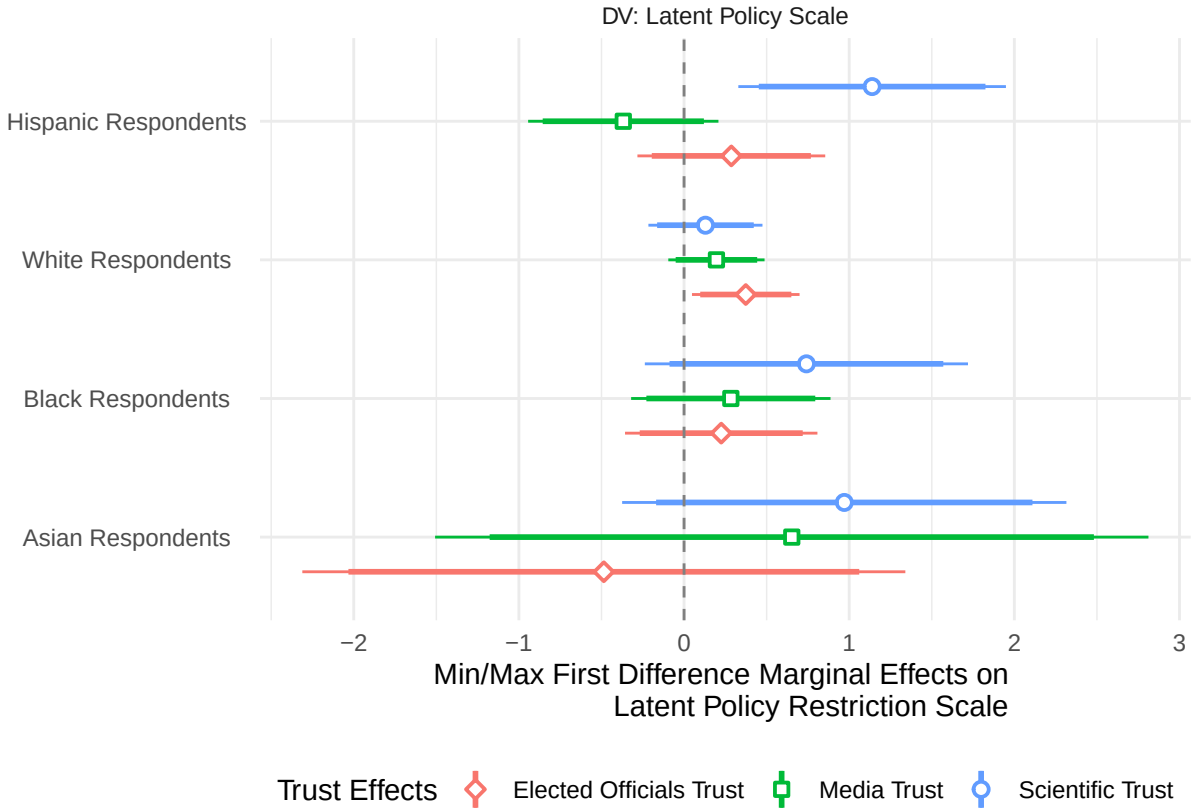

Dependent Variable: Close K−12 Schools
Hispanic Respondents
White Respondents
Black Respondents
Asian Respondents
0.0
0.4
0.8
Min/Max First Difference Marginal
Effects on Pr(Necessary Government Policy)
Trust Effects
Elected Officials Trust
Media Trust
Scientific Trust
Dependent Variable: Restaurants Carry Out Only
Hispanic Respondents
White Respondents
Black Respondents
Asian Respondents
0.0
0.3
0.6
0.9
Min/Max First Difference Marginal
Effects on Pr(Necessary Government Policy)
Trust Effects
Elected Officials Trust
Media Trust
Scientific Trust



Data Analysis Figures: OLS Composite Models

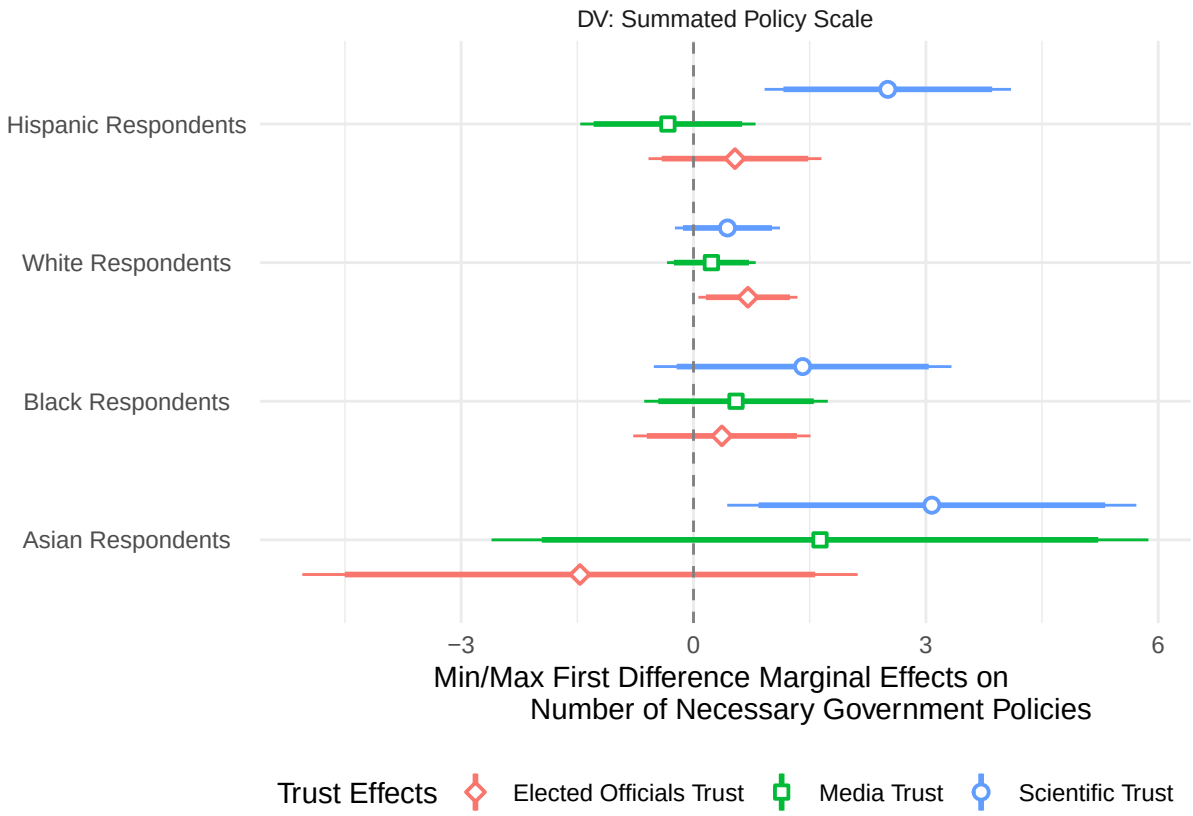
```
model <- glm(covid_restriction_irt ~ trust_scientists_fa_dim1*race3 +
                       trust_media*race3 + trust_elected_officials*race3 +
                       eternal_life + CONFCLERGY1a_W46_num + female.x +
                         pid3 + libcon + age_linear.x + educ_linear.x +
                         income_linear.x + race3 + region_factor.y, data=dataw46_subset_new,
                     weights=weight, family = gaussian(identity))
baseline_trust_effects.4 <- summary(margins(model,
                                            variables=c("trust_scientists_fa_dim1",
                                                        "trust_media","trust_elected_officials"),
                                            at=list(race3=c("asian","white","black","hispanic")),
                                            type="response", change="minmax"))
baseline_trust_effects.4$model <- "DV: Latent Policy Scale"
baseline_trust_effects.4$pid3 <- "Full Sample"

effects <- baseline_trust_effects.4
effects$race3 <- factor(effects$race3,levels=c("asian","black","white","hispanic"),
                        labels=c("Asian Respondents","Black Respondents",
                                 "White Respondents","Hispanic Respondents"))

effects$ylo90 <- (effects$AME - (qt(.95, 100) * effects$SE))
effects$yhi90 <- (effects$AME + (qt(.95, 100) * effects$SE))

effects$factor <- ifelse(effects$factor %in% "trust_elected_officials",
                         "Elected Officials Trust",
```

```
                  ifelse(effects$factor %in% "trust_media","Media Trust",
                  ifelse(effects$factor %in% "trust_scientists_fa_dim1",
                         "Scientific Trust",NA)))

plot <- ggplot(effects,aes(x=race3,y=AME,factor=factor,group=factor,color=factor,shape=factor)) +
  facet_wrap(~model) + coord_flip() +
  geom_linerange(aes(x= race3, ymin = ylo90, ymax = yhi90),
                 position = position_dodge(width=0.75), lwd  = 1) +
  geom_pointrange(aes(x= race3, ymin = lower, ymax = upper), lwd = 1/2,
                  position = position_dodge(width=0.75),fill="white") +
  theme_minimal() + scale_x_discrete("") +
  scale_y_continuous("Min/Max First Difference Marginal Effects on
                     Latent Policy Restriction Scale") +
  geom_hline(yintercept = 0, colour = gray(1/2), lty = 2) +
  labs(color="Trust Effects",shape="Trust Effects") +
  theme(legend.position = "bottom") +
  theme(axis.text.x = element_text(hjust = 0.5),
        axis.text.y = element_text(hjust = 0.5)) +
  scale_shape_manual("Trust Effects",values=c(23,22,21))
print(plot)
```




```
#ggsave(file="latent_policy_scale_race3_model.png", plot, width = 8, height = 5.43, units = "in")

model <- glm(summated_restriction_scale ~ trust_scientists_fa_dim1*race3 +
                       trust_media*race3 + trust_elected_officials*race3 +
                       eternal_life + CONFCLERGY1a_W46_num + female.x +
                         pid3 + libcon + age_linear.x + educ_linear.x +
                         income_linear.x + race3 + region_factor.y, data=dataw46_subset_new,
```

```
                    weights=weight, family = gaussian(identity))
baseline_trust_effects.5 <- summary(margins(model,
                                            variables=c("trust_scientists_fa_dim1",
                                                        "trust_media",
                                                        "trust_elected_officials"),
                                            at=list(race3=c("asian","white","black",
                                                            "hispanic")),
                                            type="response", change="minmax"))
baseline_trust_effects.5$model <- "DV: Summated Policy Scale"
baseline_trust_effects.5$pid3 <- "Full Sample"

effects <- baseline_trust_effects.5
effects$race3 <- factor(effects$race3,levels=c("asian","black","white","hispanic"),
                        labels=c("Asian Respondents","Black Respondents",
                                 "White Respondents","Hispanic Respondents"))

effects$ylo90 <- (effects$AME - (qt(.95, 100) * effects$SE))
effects$yhi90 <- (effects$AME + (qt(.95, 100) * effects$SE))

effects$factor <- ifelse(effects$factor %in% "trust_elected_officials",
                         "Elected Officials Trust",
                  ifelse(effects$factor %in% "trust_media","Media Trust",
                  ifelse(effects$factor %in% "trust_scientists_fa_dim1",
                         "Scientific Trust",NA)))

plot <- ggplot(effects,aes(x=race3,y=AME,factor=factor,group=factor,color=factor,shape=factor)) +
  facet_wrap(~model) + coord_flip() +
  geom_linerange(aes(x= race3, ymin = ylo90, ymax = yhi90),
                 position = position_dodge(width=0.75), lwd  = 1) +
  geom_pointrange(aes(x= race3, ymin = lower, ymax = upper), lwd = 1/2,
                  position = position_dodge(width=0.75),fill="white") +
  theme_minimal() + scale_x_discrete("") +
  scale_y_continuous("Min/Max First Difference Marginal Effects on
                     Number of Necessary Government Policies") +
  geom_hline(yintercept = 0, colour = gray(1/2), lty = 2) +
  labs(color="Trust Effects",shape="Trust Effects") +
  theme(legend.position = "bottom") + theme(axis.text.x = element_text(hjust = 0.5),
                                            axis.text.y = element_text(hjust = 0.5)) +
  scale_shape_manual("Trust Effects",values=c(23,22,21))
print(plot)
```




```
#ggsave(file="summated_policy_scale_race3_model.png", plot, width = 8, height = 5.43, units = "in")
```

Boxplot by Race

```
x <- subset(dataw46_subset_new,select=c(race3,trust_scientists_fa_dim1))
x <- na.omit(x)
print(summary(aov(trust_scientists_fa_dim1 ~ race3, data = x)))
```

```
##               Df Sum Sq Mean Sq F value Pr(>F)
## race3          3    8.5   2.818   4.302 0.0049 **
## Residuals   3154 2065.7   0.655
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
y <- subset(dataw46_subset_new,select=c(race3,trust_scientists_fa_dim1))
y$race3 <- "Full Sample"
x <- rbind(x,y)

plot <- ggplot(x, aes(x=race3,y=trust_scientists_fa_dim1, group=race3,fill=race3)) +
  geom_boxplot(alpha=0.2) + theme_minimal() +
  scale_y_continuous("Latent Scientific Trust") +
  scale_x_discrete("",labels=c("White Respondents","Black Respondents",
                               "Hispanic Respondents","Asian Respondents","Full Sample")) +
  theme(legend.position = "none") +
  labs(caption="ANOVA suggests significant differences in mean latent
       scientific trust across racial groups, p < 0.01.") +
  geom_jitter(aes(colour=race3),alpha=0.075) +
```

```
  scale_color_manual("",values=c("#F8766D","#7CAE00","#00BFC4","#529EFF","gray")) +
  scale_fill_manual("",values=c("#F8766D","#7CAE00","#00BFC4","#529EFF","gray"))
#ggsave(file="scientific_trust_boxplots_by_race3.png", plot, width = 8,
#height = 5.43, units = "in")
```

Data Analysis Figures: OLS Composite Models

```
model <- lm(trust_scientists_fa_dim1 ~ eternal_life + CONFCLERGY1a_W46_num +
              female.x + pid3 + libcon + age_linear.x + educ_linear.x +
                          income_linear.x + race3 + region_factor.y,
            data=dataw46_subset_new, weights=weight)

mes <- summary(margins(model, type="response", change="minmax"))
mes$race3 <- factor(mes$factor,levels=c("race3asian","race3black","race3hispanic"),
                    labels=c("Asian Respondents","Black Respondents",
                             "Hispanic Respondents"))

mes$label <- ifelse(mes$p < 0.01,paste(round(mes$AME,2),"***",sep=""),
                    ifelse(mes$p < 0.05,paste(round(mes$AME,2),"**",sep=""),
                    ifelse(mes$p < 0.10,paste(round(mes$AME,2),"*",sep=""),NA)))

mes$ylo90 <- (mes$AME - (qt(.95, 100) * mes$SE))
mes$yhi90 <- (mes$AME + (qt(.95, 100) * mes$SE))
mes$model <- "DV: Latent Scientific Trust "

plot <- ggplot(subset(mes,!is.na(mes$race3)),
               aes(x=race3,y=AME,factor=race3,group=race3,
                   color=race3,shape=race3,label=label,fill=race3)) +
  facet_wrap(~model) + coord_flip() +
  geom_linerange(aes(x= race3, ymin = ylo90, ymax = yhi90),
                 position = position_dodge(width=0.75), lwd  = 1) +
  geom_pointrange(aes(x= race3, ymin = lower, ymax = upper), lwd = 1/2,
                  position = position_dodge(width=0.75),fill="white") +
  theme_minimal() + scale_x_discrete("") +
  scale_y_continuous("Marginal Effect of Race on Latent Scientific Trust")  +
  geom_hline(yintercept = 0, colour = gray(1/2), lty = 2) +
  labs(color="Trust Effects",shape="Trust Effects") +
  theme(legend.position = "none") +
  theme(axis.text.x = element_text(hjust = 0.5),axis.text.y = element_text(hjust = 0.5)) +
  geom_label(vjust=-0.5,hjust=0.25,fill="white") +
  labs(caption="Note marginal effects relative to
       white respondents. \n* p < 0.1; ** p < 0.05; *** p < 0.01") +
  facet_wrap(~model) + scale_shape_manual("Trust Effects",values=c(23,22,21))
ggsave(file="latent_scientific_trust_model.png", plot, width = 8, height = 5.43, units = "in")

mes <- subset(mes,!(mes$factor %in% c("region_factorWest","region_factorSouth","region_factorMidwest")))

plot <- ggplot(mes,aes(x=factor,y=AME,factor=factor,group=factor,label=label)) +
  facet_wrap(~model) + coord_flip() +
  geom_linerange(aes(x= factor, ymin = ylo90, ymax = yhi90),
                 position = position_dodge(width=0.75), lwd  = 1) +
  geom_pointrange(aes(x= factor, ymin = lower, ymax = upper), lwd = 1/2,
```

```
                  position = position_dodge(width=0.75),fill="white",shape=21) +
  theme_minimal() + scale_x_discrete("",labels=c("Age","Education","Female",
                                                 "Income","Liberal Ideology",
                                                 "Democrat","Independent",
                                                 "Asian Respondent","Black Respondent",
                                                 "Hispanic Respondent")) +
  scale_y_continuous("Marginal Effect of Covariates on Latent Scientific Trust")  +
  geom_hline(yintercept = 0, colour = gray(1/2), lty = 2) +
  labs(color="Trust Effects",shape="Trust Effects") + theme(legend.position = "none") +
  theme(axis.text.x = element_text(hjust = 0.5),axis.text.y = element_text(hjust = 0.5)) +
  geom_label(vjust=-0.5,hjust=0.25,fill="white") +
  labs(caption="Note marginal effects for respondent race &
       partisanship relative to baseline factor categories. Contextual
       regions omitted. \nFactor Baselines: white respondents, Republican
       identifiers. * p < 0.1; ** p < 0.05; *** p < 0.01") + facet_wrap(~model)
ggsave(file="latent_scientific_trust_model_full.png", plot, width = 8, height = 5.43, units = "in")
```