Core Questions

```
##                 x freq
## 1 Every 1-2 hours  175
## 2 Every 3-4 hours  164
## 3      Every hour   33
## 4           Other   28
```

```
# for (i in 1:nrow(Core_Questions)) {
#   #####-------Research Style-------------###################
#   if (Core_Questions$R_Style[i] == "Hands-off") {
#     Core_Questions$R_Style[i] = "Hands-off"
#   } else if (Core_Questions$R_Style[i] == "") {
#     Core_Questions$R_Style[i] = NA
#   } else{
#     Core_Questions$R_Style[i] = "Hands-on"
#   }
#
#   ##########-----Typical Week working Hours-------------#############
#
#
#   if (Core_Questions$NP[i] == "1-2") {
#     Core_Questions$NP[i] = "NP1"
#   } else if (Core_Questions$NP[i] == "3-4") {
#     Core_Questions$NP[i] = "NP2"
#   } else if (Core_Questions$NP[i] == "5-6") {
#     Core_Questions$NP[i] = "NP3"
#   } else if (Core_Questions$NP[i] == "7-9") {
#     Core_Questions$NP[i] = "NP3"
#   } else if (Core_Questions$NP[i] == "") {
#     Core_Questions$NP[i] = NA
#   } else {
#     Core_Questions$NP[i] = "NP3"
#   }
#
#
#
#
#   if (Core_Questions$T[i] == "Minutes before deadline") {
#     Core_Questions$T[i] = "T1"
#   } else if (Core_Questions$T[i] == "1-3 hours before deadline") {
#     Core_Questions$T[i] = "T1"
#   } else if (Core_Questions$T[i] == "3-6 hours before deadline") {
#     Core_Questions$T[i] = "T1"
#   } else if (Core_Questions$T[i] == "1 day before deadline") {
#     Core_Questions$T[i] = "T2"
#   } else if (Core_Questions$T[i] == "") {
#     Core_Questions$T[i] = NA
#   } else {
#     Core_Questions$T[i] = "T2"
#   }
#
#
```

```
#   if (Core_Questions$DS[i] == "Extremely less") {
#     Core_Questions$DS[i] = "DS1"
#   } else if (Core_Questions$DS[i] == "Significantly less") {
#     # Core_Questions$DS[i]=2
#     Core_Questions$DS[i] = "DS1"
#   } else if (Core_Questions$DS[i] == "Same") {
#     # Core_Questions$DS[i]=3
#     Core_Questions$DS[i] = "DS1"
#   } else if (Core_Questions$DS[i] == "Significantly  more") {
#     # Core_Questions$DS[i]=4
#     Core_Questions$DS[i] = "DS2"
#   } else if (Core_Questions$DS[i] == "Extremely  more") {
#     # Core_Questions$DS[i]=5
#     Core_Questions$DS[i] = "DS2"
#   } else {
#     Core_Questions$DS[i] = NA
#   }
#
#   if (Core_Questions$FA[i]=="NSF"){
#     Core_Questions$FA[i]="NSF"
#   } else if (Core_Questions$FA[i]=="NIH"){
#     Core_Questions$FA[i]="NIH"
#   } else if (Core_Questions$FA[i]=="DOE"){
#     Core_Questions$FA[i]="DOE"
#   } else if (Core_Questions$FA[i]=="DOD"){
#     Core_Questions$FA[i]="DOD"
#   } else if (Core_Questions$FA[i]=="NASA"){
#     Core_Questions$FA[i]="NASA"
#   } else if (Core_Questions$FA[i]==""){
#     Core_Questions$FA[i]=NA
#   } else{
#     Core_Questions$FA[i]="Other"
#   }
# }
```

```
  # levels(factor(Core_Questions$State))
  # levels(factor(Core_Questions$S_D_E))
  # levels(factor(Core_Questions$RO_F_EG))
  # levels(factor(Core_Questions$Deadline_today))
  # levels(factor(Core_Questions$Workload_today))
  # levels(factor(Core_Questions$Workplace))
  # levels(factor(Core_Questions$RS))
  # levels(factor(Core_Questions$TW_W_H))
  # levels(factor(Core_Questions$Break))
  # levels(factor(Core_Questions$Email))
  # levels(factor(Core_Questions$funding_proposal))
  # levels(factor(Core_Questions$NP))
  # levels(factor(Core_Questions$FA))
  # levels(factor(Core_Questions$Success))
  # levels(factor(Core_Questions$Com_Proposal))
  # levels(factor(Core_Questions$L_Of_SR))
  # levels(factor(Core_Questions$W_WB_PD))
  # levels(factor(Core_Questions$T))
```

```
  # levels(factor(Core_Questions$DS))
  # levels(factor(Core_Questions$refereed_conference))
  # levels(factor(Core_Questions$A_N_Conf_Pap))
  # levels(factor(Core_Questions$core_rank))
  # levels(factor(Core_Questions$if_you_submit_manuscripts))
  # levels(factor(Core_Questions$far_in_advance_do_you))
  # levels(factor(Core_Questions$length_of_supp))
  # levels(factor(Core_Questions$in_the_week_leading_to_a_c))
  # levels(factor(Core_Questions$you_typically_subm))
  # levels(factor(Core_Questions$ss_level_in_a_fundi))


  # count(Core_Questions$FA)
```

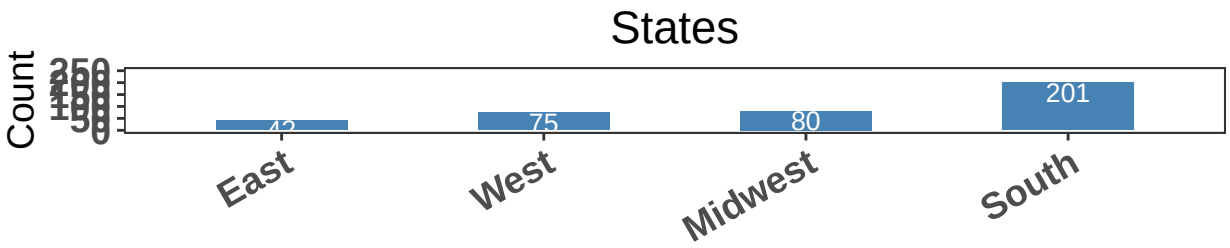
```
# ######Test a single core questions
#   temp <- count(Core_Questions$Workload_today)
#   colnames(temp) <- c("item", "count")
#   temp <- temp[!(temp$item == ""),]
#
#  bar_plot <- ggplot(data = temp, aes(x = item, y = count)) +
#     geom_bar(stat = "identity",
#              width = 0.5,
#              fill = "steelblue") +
#     theme_minimal() +
#     scale_y_continuous(breaks = seq(0, ylimit, by = 5),
#                        limits = c(0, ylimit)) +
#     labs(x = "", y = "Participant count", title = title_list[i - 1]) +
#     theme(
#       panel.grid.major = element_blank(),
#       panel.grid.minor = element_blank(),
#       plot.title = element_text(hjust = 0.5),
#       axis.text.x = element_text(
#         face = "bold",
#         size = 10 ,
#         angle = 30,
#         hjust = 1
#       ),
#       axis.text.y = element_text(face = "bold", size = 10)
#     )+
#    scale_x_discrete( limits=list[[1]])
#
#  bar_plot
```

Raw version

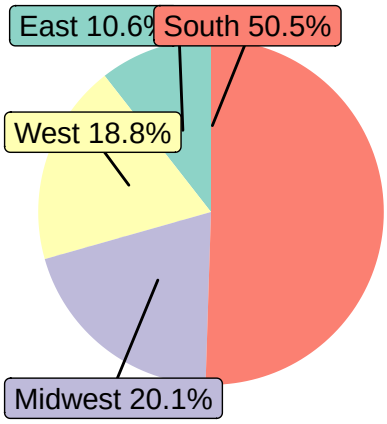
```
## [1] "state_do_you_reside"
```

```
## Warning: Removed 1 rows containing missing values (position_stack).
```

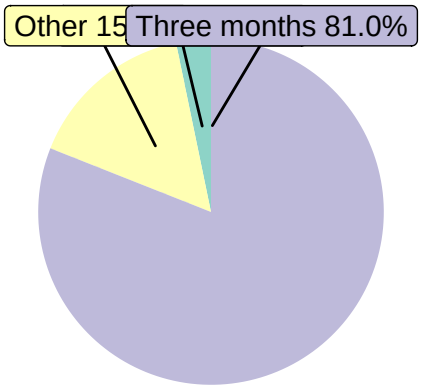
```
## Warning: Removed 1 rows containing missing values (geom_text).
```

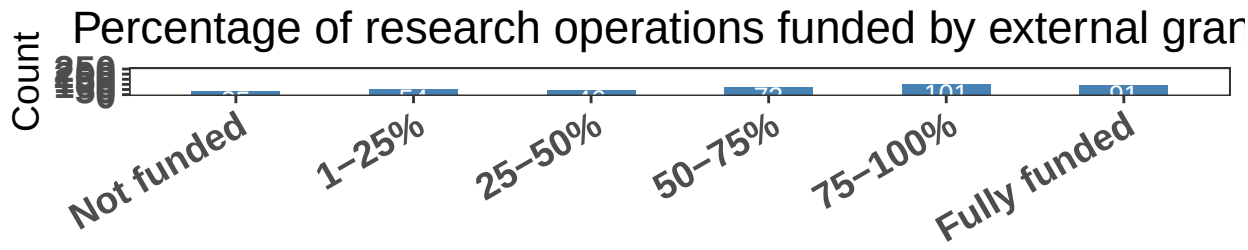


95% CI East(7.84, 13.92) Midwest(16.35, 24.23) South(45.34, 55
West(15.21, 22.90)

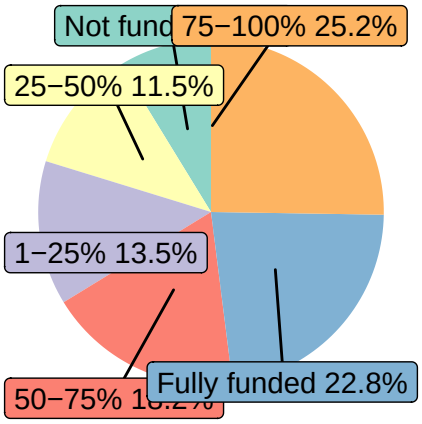


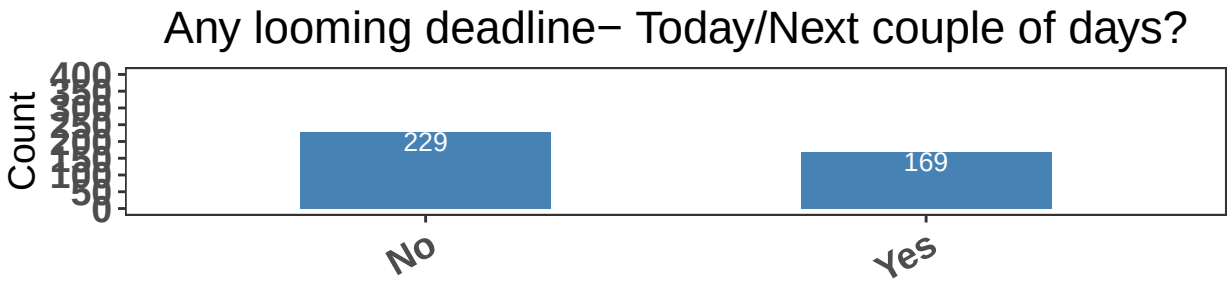
% CI Other(12.49, 19.67) Three months(76.84, 84.57) Two months(1



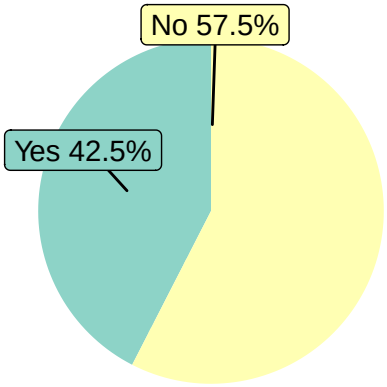


95% CI 1−25%(10.48, 17.23) 25−50%(8.71, 15.03) 50−75%(14.75,
5−100%(21.22, 29.76) Fully funded(18.89, 27.14) Not funded(6.34, 1

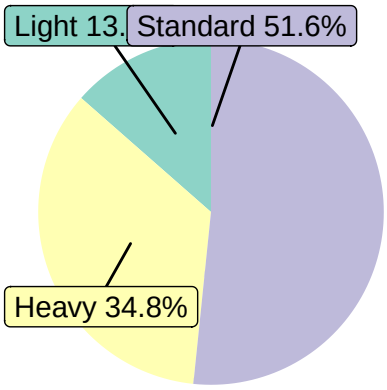


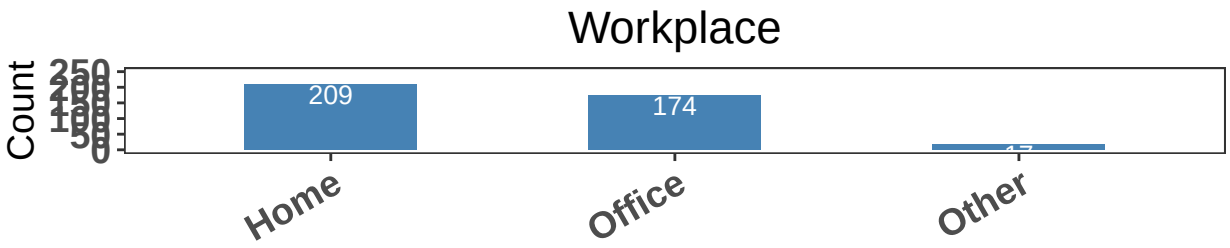


95% CI No(52.33, 62.03) Yes(37.48, 47.17)

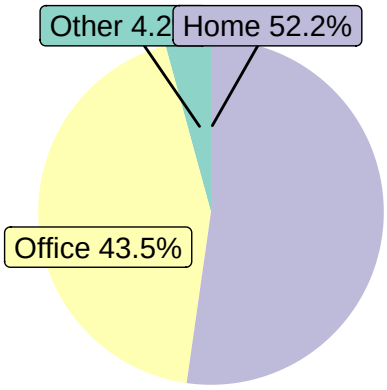


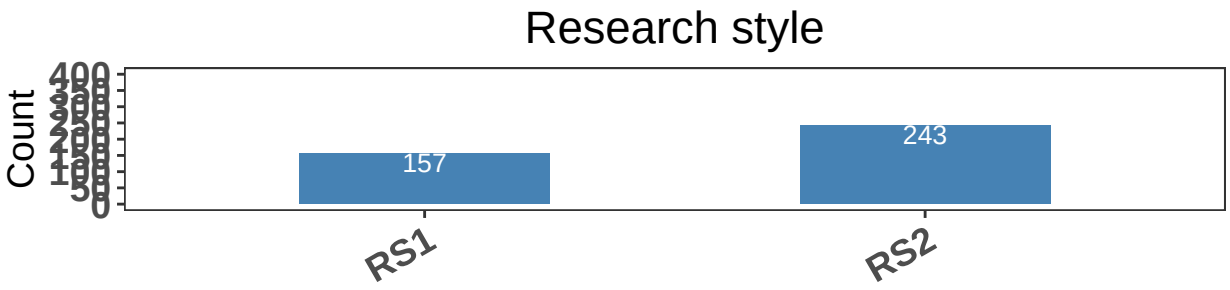
95% CI Heavy(30.22, 39.57) Light(10.48, 17.23) Standard(46.58, 5



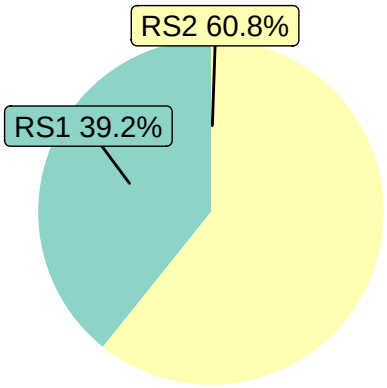


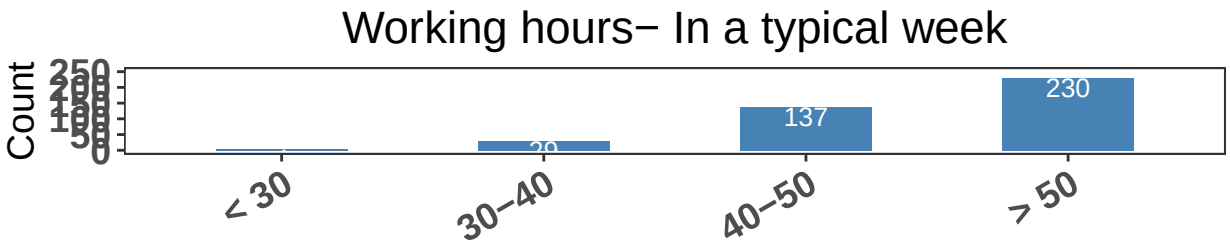
95% CI Home(47.33, 57.13) Office(38.70, 48.43) Other(2.65, 6.



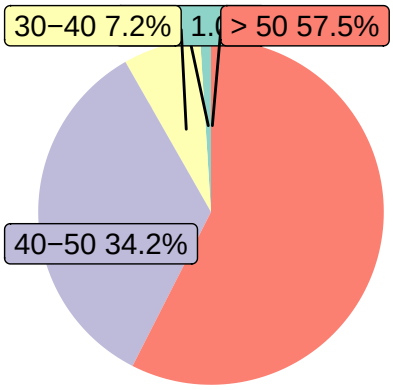


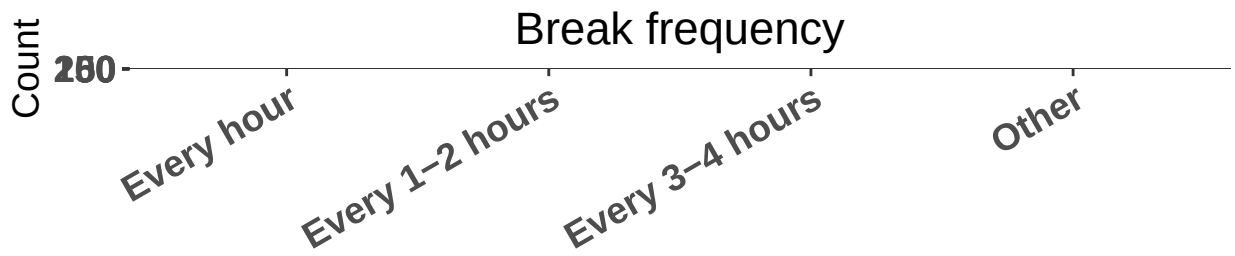
95% CI RS1(34.56, 44.15) RS2(55.85, 65.44)



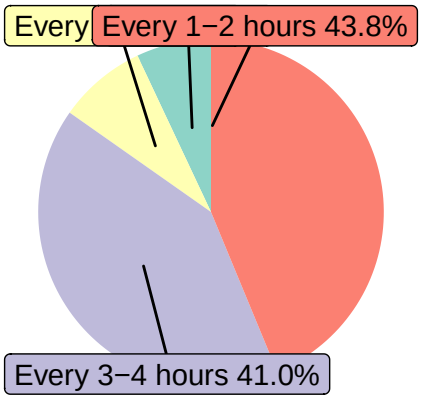


95% CI < 30(0.37, 2.64) > 50(52.58, 62.28) 30−40(5.08, 10.2
40−50(29.74, 39.06)

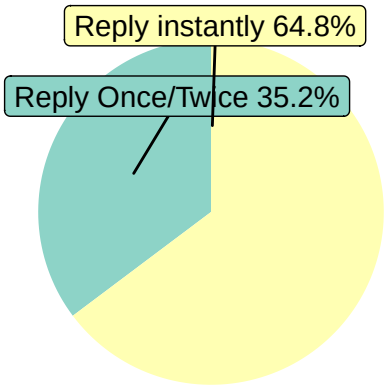


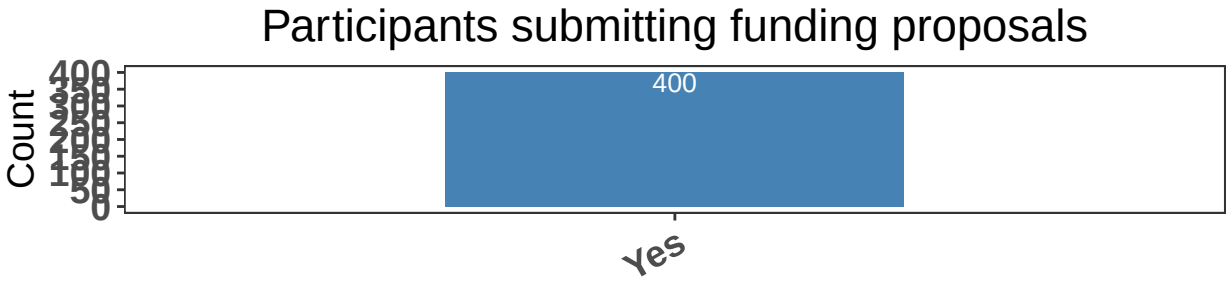


Every 1−2 hours(38.94, 48.68) Every 3−4 hours(36.26, 45.91) Every h
Other(4.87, 9.97)

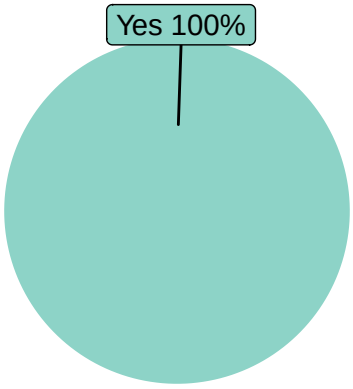


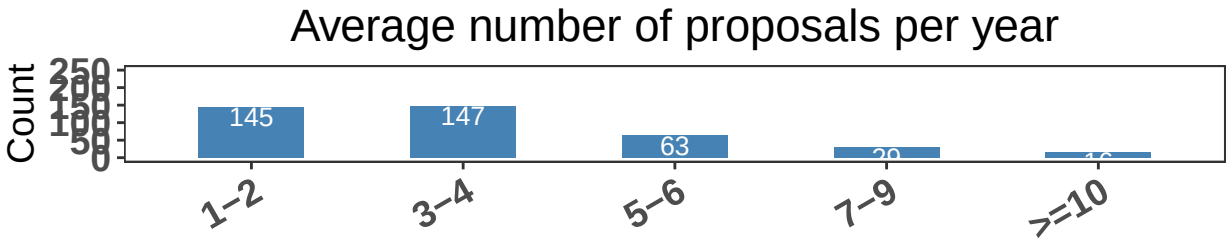
95% CI Reply instantly(59.92, 69.30) Reply Once/Twice(30.70, 40.08)



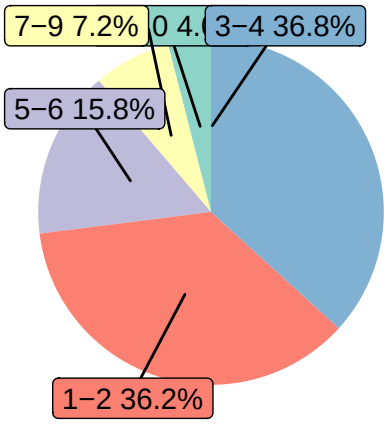

Participants submitting funding proposals
Count
400
Yes

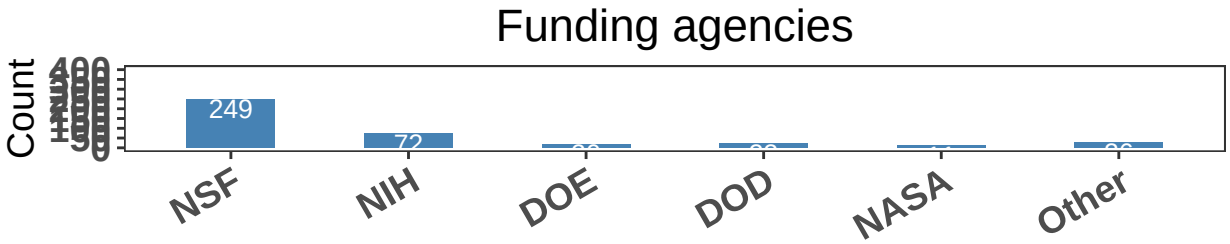
95% CI NA(NA, NA) (,)


Yes 100%

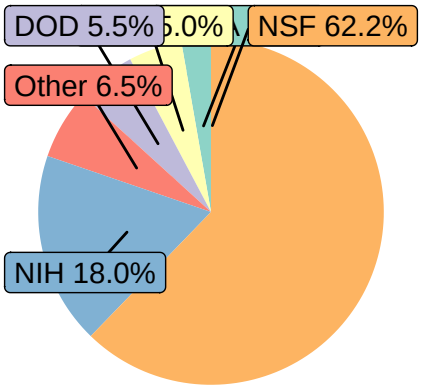


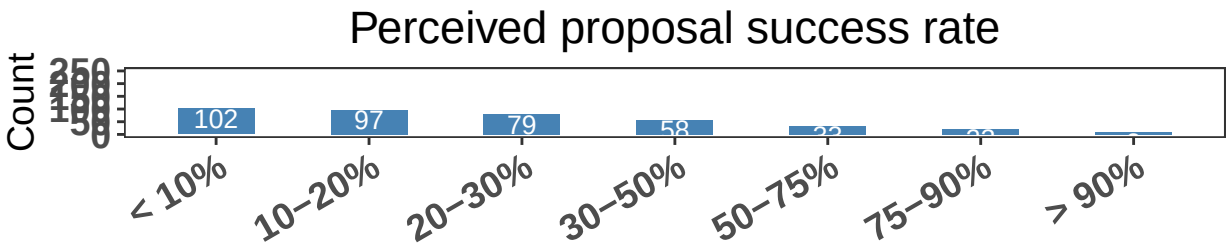
95% CI >=10(2.46, 6.44) 1−2(31.66, 41.10) 3−4(32.15, 41.61
5−6(12.49, 19.67) 7−9(5.08, 10.25)



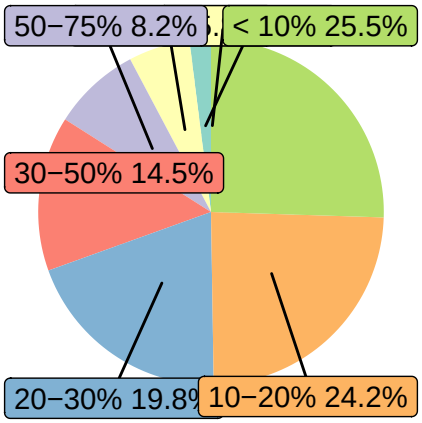


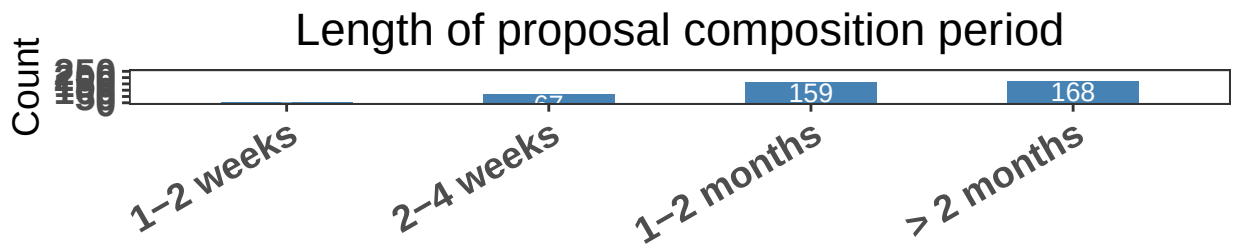
95% CI DOD(3.64, 8.23) DOE(3.24, 7.64) NASA(1.53, 4.91
NIH(14.52, 22.09) NSF(57.37, 66.89) Other(4.46, 9.39)



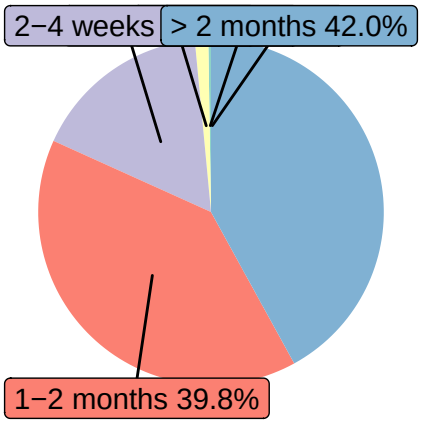


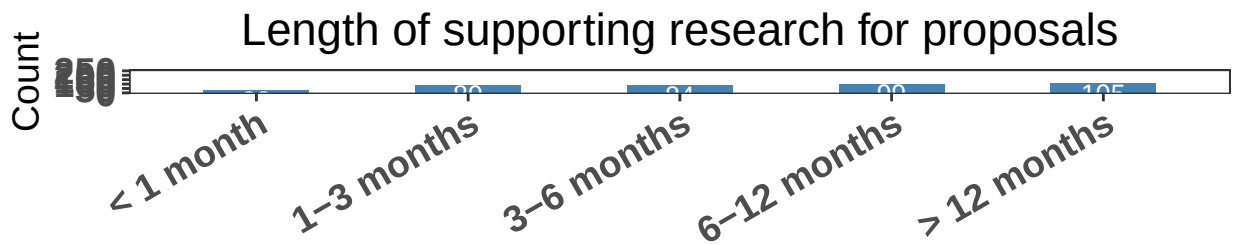
95% CI < 10%(21.45, 30.02) > 90%(1.00, 3.96) 10−20%(20.28, 2
.6.12, 23.96) 30−50%(11.37, 18.32) 50−75%(5.92, 11.39) 75−90%



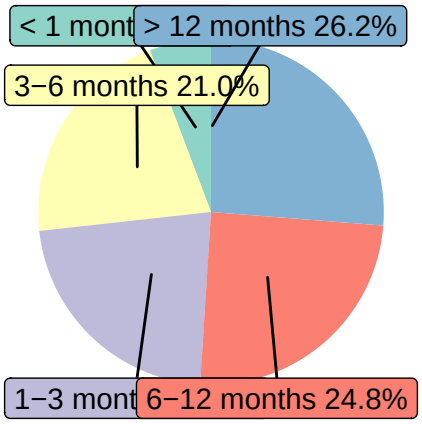


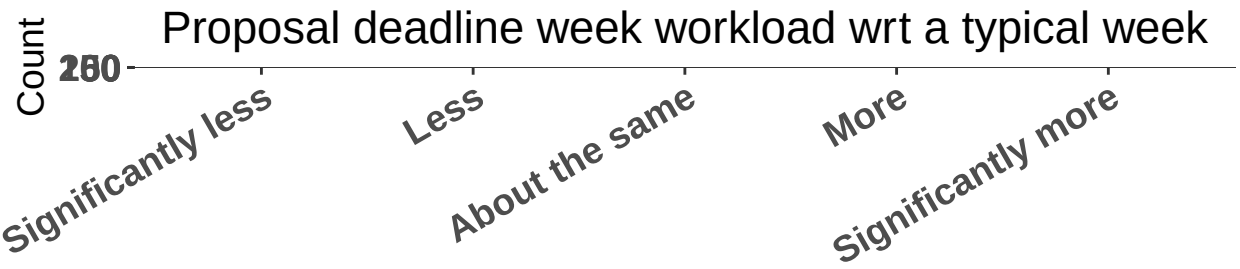
% CI < 1 week(0.03, 1.77) > 2 months(37.23, 46.92) 1−2 months(35.
1−2 weeks(0.52, 2.98) 2−4 weeks(13.39, 20.75)



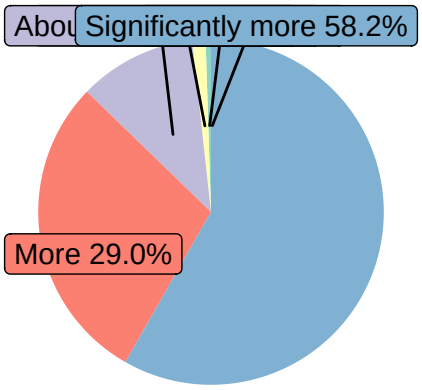


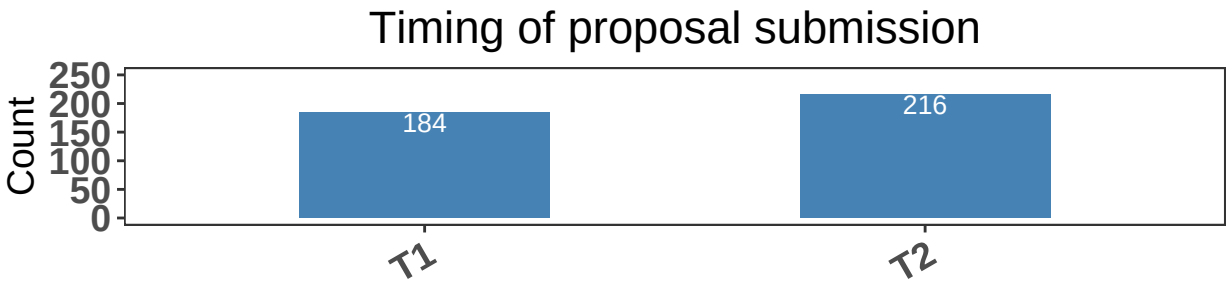
ó CI < 1 month(3.84, 8.52) > 12 months(22.15, 30.80) 1−3 months(18
3−6 months(17.27, 25.29) 6−12 months(20.75, 29.24)



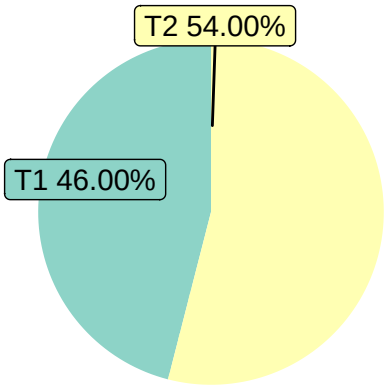


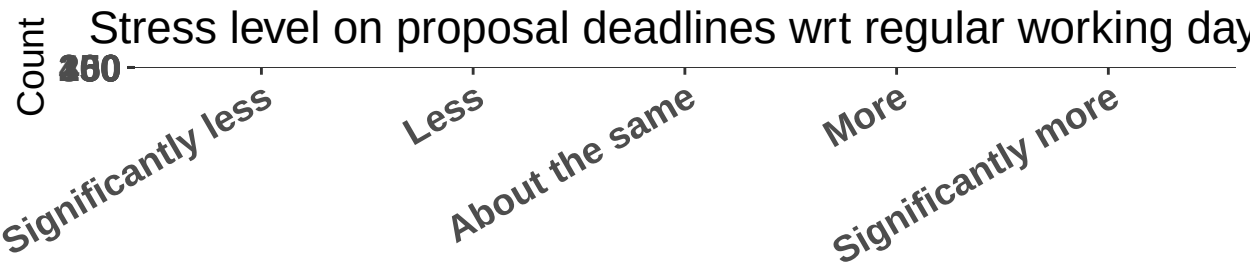
95% CI About the same(8.28, 14.48) Less(0.12, 1.99) More(24.74,
Significantly less(0.52, 2.98) Significantly more(53.33, 63.01)



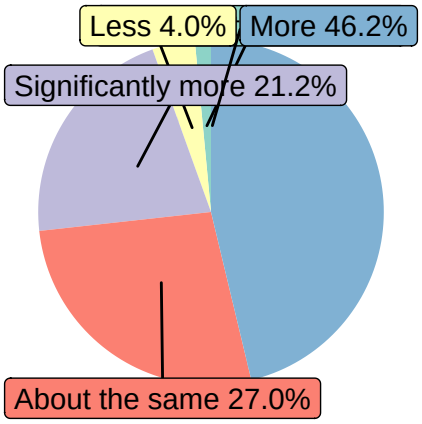


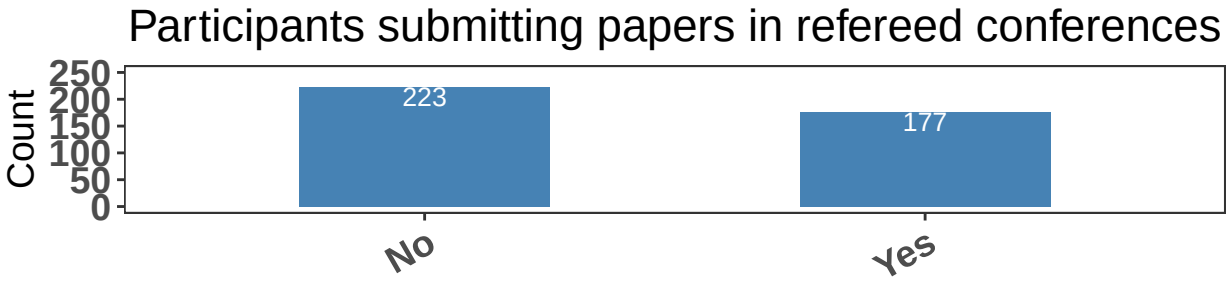
95% CI T1(41.15, 50.93) T2(49.07, 58.85)



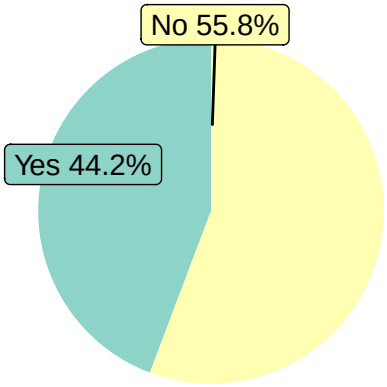


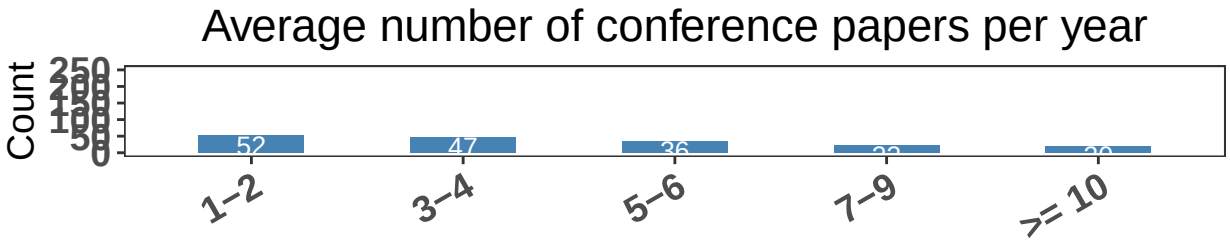
95% CI About the same(22.86, 31.58) Less(2.46, 6.44) More(41.39,
Significantly less(0.67, 3.31) Significantly more(17.50, 25.55)



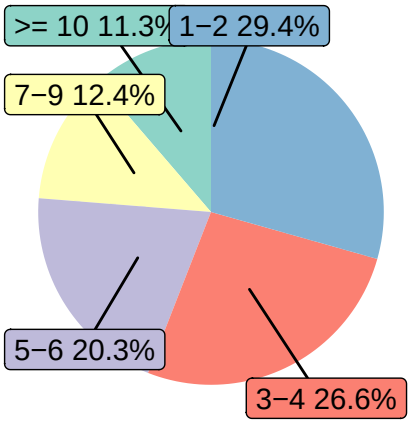


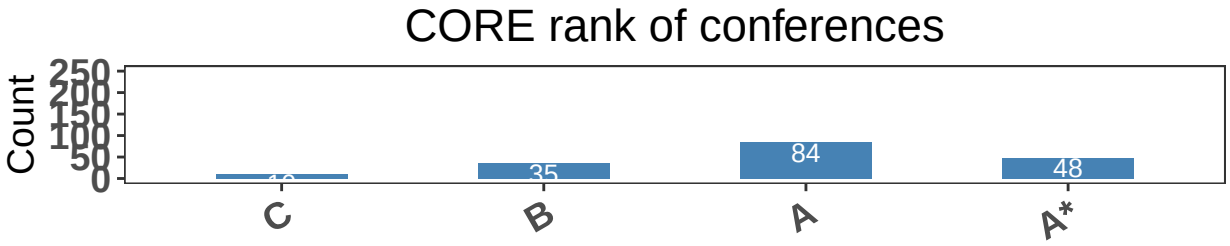
95% CI No(50.82, 60.57) Yes(39.43, 49.18)



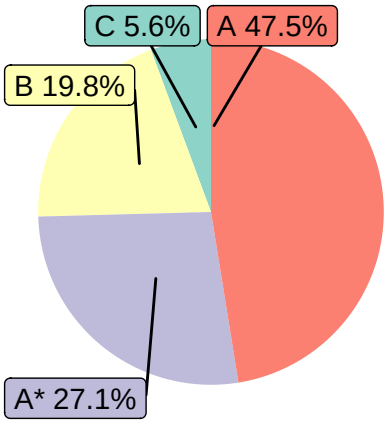


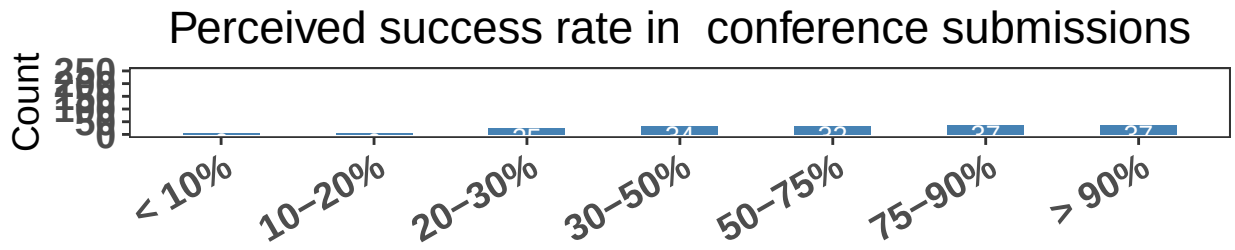
95% CI >= 10(3.24, 7.64) 1−2(10.03, 16.68) 3−4(8.93, 15.31
5−6(6.55, 12.24) 7−9(3.64, 8.23)



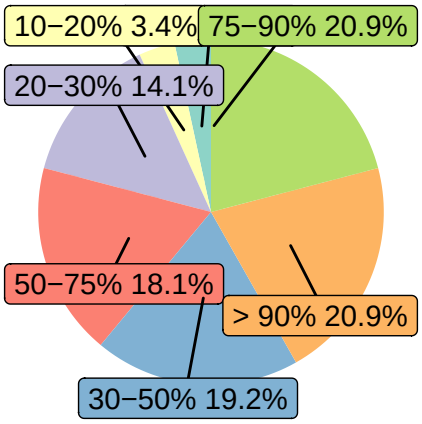


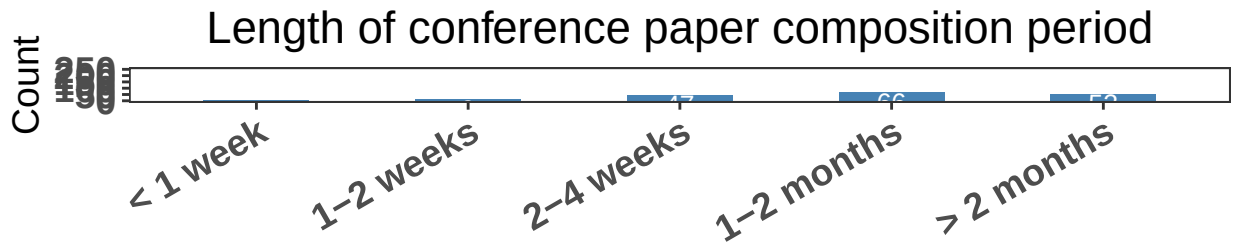
95% CI A(17.27, 25.29) A*(9.15, 15.58) B(6.34, 11.96)
C(1.35, 4.59)



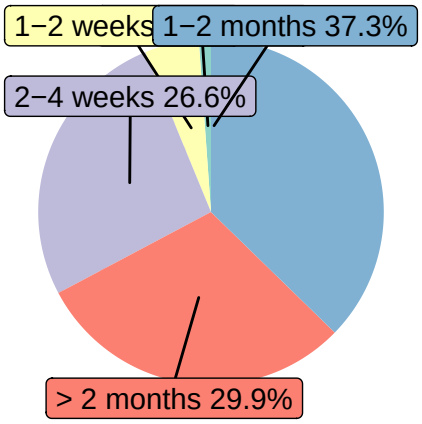


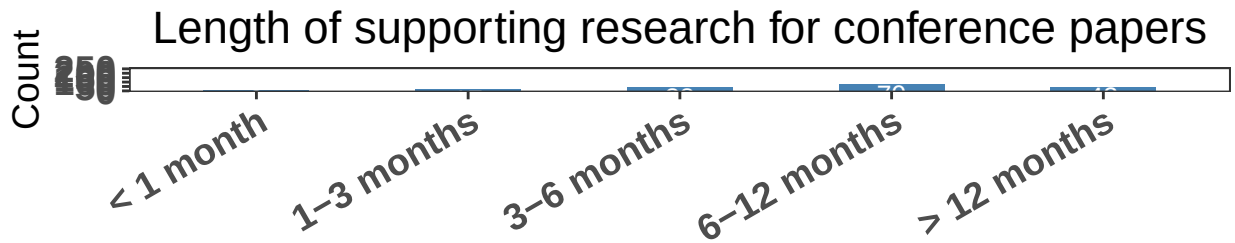
95% CI < 10%(0.67, 3.31) > 90%(6.77, 12.52) 10−20%(0.67, 3.
(4.25, 9.10) 30−50%(6.13, 11.68) 50−75%(5.70, 11.11) 75−90%(



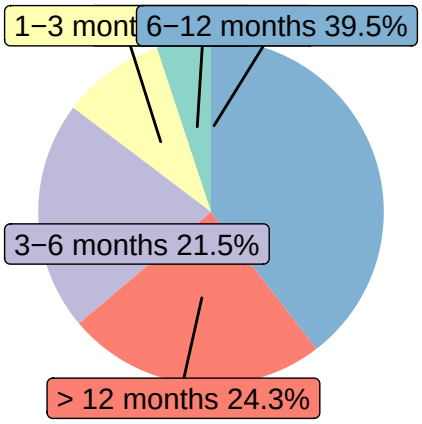


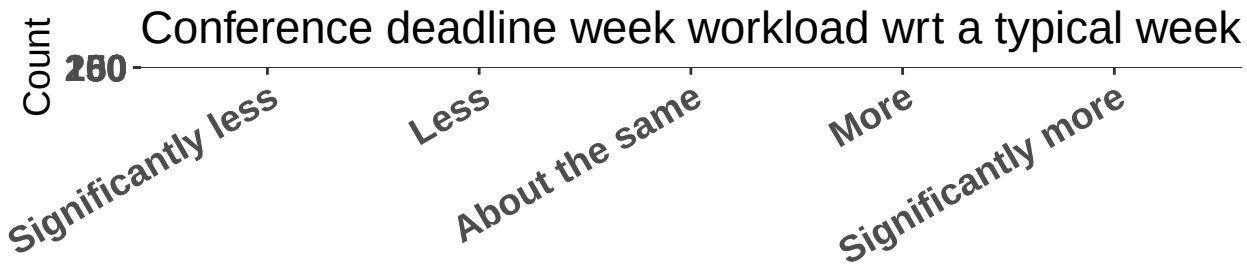
% CI < 1 week(0.12, 1.99) > 2 months(10.25, 16.96) 1−2 months(13.
1−2 weeks(1.17, 4.28) 2−4 weeks(8.93, 15.31)



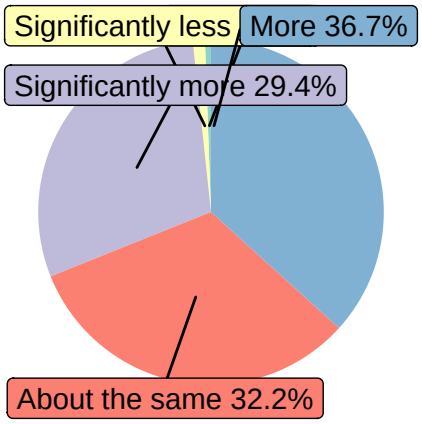


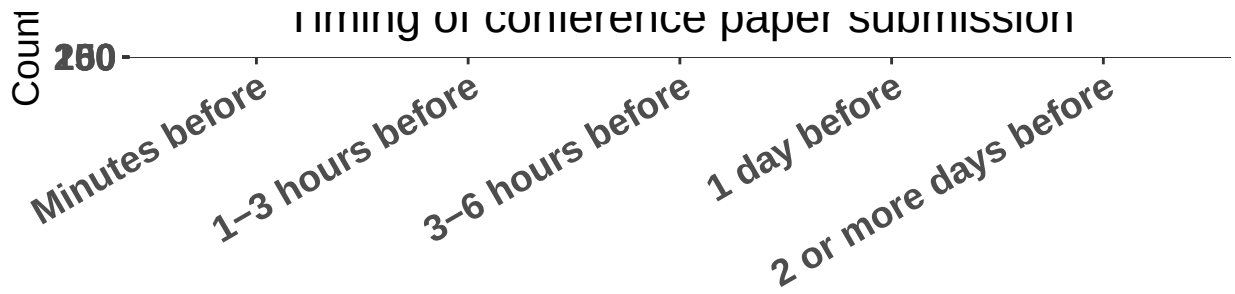
% CI < 1 month(1.17, 4.28) > 12 months(8.06, 14.20) 1−3 months(2
3−6 months(6.98, 12.80) 6−12 months(14.07, 21.56)



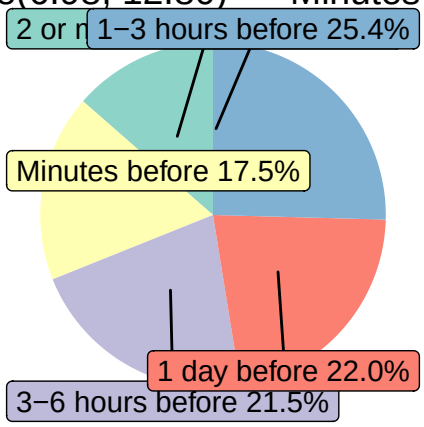


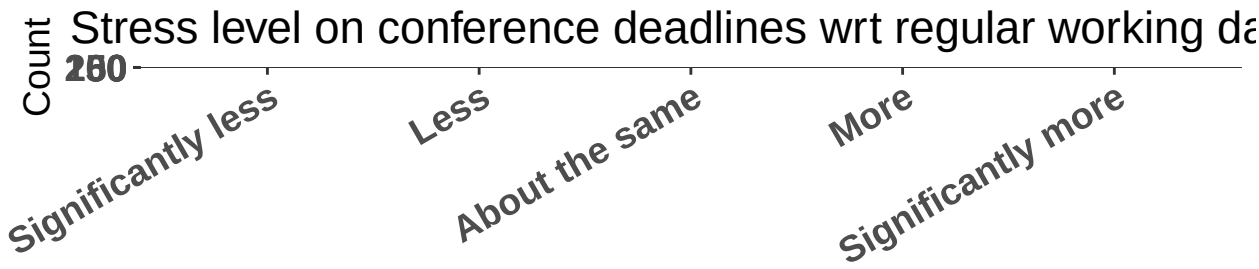
95% CI About the same(11.14, 18.05) Less(0.03, 1.77) More(12.94, Significantly less(0.12, 1.99) Significantly more(10.03, 16.68)



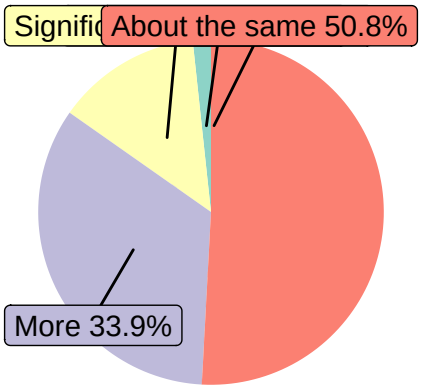


3 hours before(8.49, 14.75) 1 day before(7.20, 13.08) 2 or more days
3−6 hours before(6.98, 12.80) Minutes before(5.49, 10.83)





CI About the same(18.66, 26.87) More(11.81, 18.86) Significantly less
Significantly more(4.05, 8.81)




```
Data_CQ <- Core_Questions[,c(13, 16, 9, 10, 18, 20)]

file_name='Selected_Core_Questions.csv'
write.csv(Data_CQ,file.path(curated_data_dir, file_name), row.names = FALSE)
```

```
# ylimit= 150
#   temp <- count(Core_Questions[14])
#   colnames(temp) <- c("item", "count")
#   temp <- temp[!(temp$item == ""),]
#   temp <- temp[order(temp$count), ]
#   temp <- temp[complete.cases(temp),]
#
#
#   bar_plot <- ggplot(data = temp, aes(x = item, y = count)) +
#     geom_bar(stat = "identity",
#              width = 0.5,
#              fill = "steelblue") +
#     theme_bw() +
#     scale_y_continuous(breaks = seq(0, ylimit, by = 50),
#                        limits = c(0, ylimit)) +
#     labs(x = "", y = "Count", title = "Funding Agencies") +
#     theme(
#       panel.grid.major = element_blank(),
#       panel.grid.minor = element_blank(),
#       plot.title = element_text(hjust = 0.5),
#       axis.text.x = element_text(
```

```
#         face = "bold",
#         size = 10 ,
#         angle = 30,
#         hjust = 1
#       ),
#       axis.text.y = element_text(face = "bold", size = 10)
#     )
#   # +scale_x_discrete( limits=Ticks_list[[i-1]])
#
#   bar_plot
#
#   # plot_list[[length(plot_list) + 1]] <- bar_plot
#
#   temp <- temp %>%
#   mutate(
#     cs = rev(cumsum(rev(count))),
#     prop = percent(count / sum(count)),
#     pos = count/2 + lead(cs, 1),
#     pos = if_else(is.na(pos), count/2, pos))
# temp$pos[is.na(temp$pos)] <- 1
#
# # temp<-temp[match(order_list[[1]], temp$item),]
#
# pichart <-ggplot(temp, aes(x = "" , y = count, fill = item)) +
#   geom_col(width = 1) +
#   coord_polar(theta = "y", start = 0 ) +
#   scale_fill_brewer(palette = "Set3", direction = -4) +
#   geom_label_repel(aes(y = pos, label =paste0(item," " ,prop)), data = temp, size=4, show.legend = F,
#   theme_void() +
#   theme(legend.position =  "none", legend.title = element_blank())+
#   labs(title = "")+
#   theme(panel.grid.major = element_blank(),panel.grid.minor = element_blank(),plot.title = element_te
#
# pichart
#
#
#
# plots_act=ggarrange(bar_plot, pichart, nrow = 2, ncol = 1)
#
#       # final_plot<-plot_grid(plots_act[[i]])
#       filename<-"FA.pdf"
#       full_path<-file.path(plot_dir, filename)
#       ggsave(full_path, plots_act, width = 8.5, height = 11, units = "in")
#       # print(final_plot)
```