Survey Plots

2024-07-03

Contents

Loading df

```
df <- read_excel("/Users/counterpartventures/Desktop/Data/Survey_Data_V3.21.xlsx",
                      sheet = "Master Data")


# functions to calculate percentages within a column

calculate_percentage <- function(df, column) {
  df %>%
    filter(!is.na(!!sym(column))) %>%
    count(!!sym(column)) %>%
    mutate(percentage = n / sum(n)) %>%
    dplyr::select(!!sym(column), percentage)
}

calculate_percentage_col <- function(column) {
  column <- na.omit(column)
  counts <- table(column)
  percentages <- counts / sum(counts)
  data.frame(category = names(percentages), percentage = as.numeric(percentages))
}
```

Mandates over Time

```
mandates <- df %>%
  select(mandate_from_21, mandate_from_22,
         mandate_from_23, mandate_from_24)


percentages_list <- lapply(names(mandates), function(col) {
  calculate_percentage(mandates, col) %>%
    rename(mandate = !!sym(col)) %>%
    mutate(label = col)
})

mandate_pct <- bind_rows(percentages_list) %>%
  pivot_wider(names_from = label, values_from = percentage, values_fill = 0) %>%
  filter(mandate != "N/A")

mandate_pct_long <- mandate_pct %>%
  pivot_longer(cols = starts_with("mandate_"),
               names_to = "year", values_to = "percentage") %>%
  mutate(year = as.numeric(substr(year, nchar(year)-1, nchar(year))))
```

```
write.csv(mandate_pct_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/mandate_pct.csv")
```

Function for mandate percentages (important)

Use this to calculate percentage breakdown over time by fund type.

```
# To use this function, insert:
  # data
  # mandate (Strategic, Hybrid, Financial),
  # name of the question you want to analyze (without the suffix '_from_xx')
  # name you want the column in the new dataset to be

# for example, to calculate breakdown of strategic CVCs that take LP positions:
   #  strategic_lp <- mandate_func(df, "Strategic", "takes_lp_positions", "takes_lp?")
   #  strategic_lp will be a long format dataframe that you can use for analysis
   #  will look like this (percentages are made up):

                # takes_lp? | year | percentage
                # ++++++++++++++++++++++++++++
                #  Yes      |  21  |    0.2
                #  Yes      |  22  |    0.6
                #  Yes      |  23  |    0.73
                #  Yes      |  24  |    0.5
                #  No       |  21  |    0.8
                #  No       |  22  |    0.4
                #  No       |  23  |    0.27
                #  no       |  24  |    0.5


mandate_func <- function(df, mandate_name, var_name, col_name){

  name_21 <- paste0(var_name, "_from_21")
  name_22 <- paste0(var_name, "_from_22")
  name_23 <- paste0(var_name, "_from_23")
  name_24 <- paste0(var_name, "_from_24")

  pct_21 <- df %>%
    filter(mandate_from_21 == mandate_name) %>%
    select(all_of(name_21)) %>%
    calculate_percentage(name_21)
  names(pct_21) <- c(col_name, "pct_21")

  pct_22 <- df %>%
    filter(mandate_from_22 == mandate_name) %>%
    select(all_of(name_22)) %>%
    calculate_percentage(name_22)
  names(pct_22) <- c(col_name, "pct_22")

  pct_23 <- df %>%
    filter(mandate_from_23 == mandate_name) %>%
    select(all_of(name_23)) %>%
```

```
    calculate_percentage(name_23)
  names(pct_23) <- c(col_name, "pct_23")

  pct_24 <- df %>%
    filter(mandate_from_24 == mandate_name) %>%
    select(all_of(name_24)) %>%
    calculate_percentage(name_24)
  names(pct_24) <- c(col_name, "pct_24")

  pct_4_years <- merge(pct_21, pct_22, by = col_name) %>%
    merge(pct_23, by = col_name) %>%
    merge(pct_24, by = col_name)

  pct_long <- pct_4_years %>%
    pivot_longer(cols = starts_with("pct_"), names_to = "year", values_to = "percentage") %>%
    mutate(year = as.numeric(substr(year, nchar(year)-1, nchar(year))))

}
```

Goals of CVC

Note: can't use the `mandate_func` here because I needed to separate out the rows.

Strategic Goals

```
goals <- c("Source potential M&A target",
           "Augment existing business and/or accelerate the commercialization with business unit or R&D
           "Sensor to understand emerging + future trends and new markets"
           )


strat_goal_21 <- df %>%
  select(strat_execsponsor_goal_from_21, mandate_from_21) %>%
  filter(mandate_from_21 == "Strategic") %>%
  separate_rows(strat_execsponsor_goal_from_21, sep = "; ") %>%
  mutate(strat_execsponsor_goal_from_21 = ifelse(strat_execsponsor_goal_from_21 %in% goals,
                                                 strat_execsponsor_goal_from_21, "Other")) %>%
  calculate_percentage("strat_execsponsor_goal_from_21")
names(strat_goal_21) <- c("goal", "pct_21")


strat_goal_22 <- df %>%
  select(strat_execsponsor_goal_from_22, mandate_from_22) %>%
  filter(mandate_from_22 == "Strategic") %>%
  separate_rows(strat_execsponsor_goal_from_22, sep = "#") %>%
  mutate(strat_execsponsor_goal_from_22 = ifelse(strat_execsponsor_goal_from_22 %in% goals,
                                                 strat_execsponsor_goal_from_22, "Other")) %>%
  calculate_percentage("strat_execsponsor_goal_from_22")
names(strat_goal_22) <- c("goal", "pct_22")
```

```
strat_goal_23 <- df %>%
  select(strat_execsponsor_goal_from_23, mandate_from_23) %>%
  filter(mandate_from_23 == "Strategic") %>%
  separate_rows(strat_execsponsor_goal_from_23, sep = "\r\n") %>%
  mutate(strat_execsponsor_goal_from_23 = ifelse(strat_execsponsor_goal_from_23 %in% goals,
                                                 strat_execsponsor_goal_from_23, "Other")) %>%
  calculate_percentage("strat_execsponsor_goal_from_23")
names(strat_goal_23) <- c("goal", "pct_23")

strat_goal_24 <- df %>%
  select(strat_execsponsor_goal_from_24, mandate_from_24) %>%
  filter(mandate_from_24 == "Strategic") %>%
  separate_rows(strat_execsponsor_goal_from_24, sep = "\r\n") %>%
  mutate(strat_execsponsor_goal_from_24 = ifelse(strat_execsponsor_goal_from_24 %in% goals,
                                                 strat_execsponsor_goal_from_24, "Other")) %>%
  calculate_percentage("strat_execsponsor_goal_from_24")
names(strat_goal_24) <- c("goal", "pct_24")

strat_goal_4_years <- merge(strat_goal_21, strat_goal_22, by = "goal") %>%
  merge(strat_goal_23, by = "goal") %>%
  merge(strat_goal_24, by = "goal")  %>%
  slice(c(2,4,1,3))

strat_goal_long <- strat_goal_4_years %>%
  pivot_longer(cols = starts_with("pct_"), names_to = "year", values_to = "percentage") %>%
  mutate(year = as.numeric(substr(year, nchar(year)-1, nchar(year))))
write.csv(strat_goal_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/strat_goal.csv")
```

Hybrid Goals

```
hybrid_goal_21 <- df %>%
  select(strat_execsponsor_goal_from_21, mandate_from_21) %>%
  filter(mandate_from_21 == "Hybrid") %>%
  separate_rows(strat_execsponsor_goal_from_21, sep = "; ") %>%
  mutate(strat_execsponsor_goal_from_21 = ifelse(strat_execsponsor_goal_from_21 %in% goals,
                                                 strat_execsponsor_goal_from_21, "Other")) %>%
  calculate_percentage("strat_execsponsor_goal_from_21")

names(hybrid_goal_21) <- c("goal", "pct_21")


hybrid_goal_22 <- df %>%
  select(strat_execsponsor_goal_from_22, mandate_from_22) %>%
  filter(mandate_from_22 == "Hybrid") %>%
  separate_rows(strat_execsponsor_goal_from_22, sep = "#") %>%
  mutate(strat_execsponsor_goal_from_22 = ifelse(strat_execsponsor_goal_from_22 %in% goals,
                                                 strat_execsponsor_goal_from_22, "Other")) %>%
  calculate_percentage("strat_execsponsor_goal_from_22")
names(hybrid_goal_22) <- c("goal", "pct_22")

hybrid_goal_23 <- df %>%
```

```
  select(strat_execsponsor_goal_from_23, mandate_from_23) %>%
  filter(mandate_from_23 == "Hybrid") %>%
  separate_rows(strat_execsponsor_goal_from_23, sep = "\r\n") %>%
  mutate(strat_execsponsor_goal_from_23 = ifelse(strat_execsponsor_goal_from_23 %in% goals,
                                                 strat_execsponsor_goal_from_23, "Other")) %>%
  calculate_percentage("strat_execsponsor_goal_from_23")
names(hybrid_goal_23) <- c("goal", "pct_23")

hybrid_goal_24 <- df %>%
  select(strat_execsponsor_goal_from_24, mandate_from_24) %>%
  filter(mandate_from_24 == "Hybrid") %>%
  separate_rows(strat_execsponsor_goal_from_24, sep = "\r\n") %>%
  mutate(strat_execsponsor_goal_from_24 = ifelse(strat_execsponsor_goal_from_24 %in% goals,
                                                 strat_execsponsor_goal_from_24, "Other")) %>%
  calculate_percentage("strat_execsponsor_goal_from_24")
names(hybrid_goal_24) <- c("goal", "pct_24")

hybrid_goal_4_years <- merge(hybrid_goal_21, hybrid_goal_22, by = "goal") %>%
  merge(hybrid_goal_23, by = "goal") %>%
  merge(hybrid_goal_24, by = "goal") %>%
  slice(c(2,4,1,3))

hybrid_goal_long <- hybrid_goal_4_years %>%
  pivot_longer(cols = starts_with("pct_"), names_to = "year", values_to = "percentage") %>%
  mutate(year = as.numeric(substr(year, nchar(year)-1, nchar(year))))
write.csv(hybrid_goal_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/hybrid_goal.csv")
```

Financial Goals

```
fin_goal_21 <- df %>%
  select(strat_execsponsor_goal_from_21, mandate_from_21) %>%
  filter(mandate_from_21 == "Financial") %>%
  separate_rows(strat_execsponsor_goal_from_21, sep = "; ") %>%
  mutate(strat_execsponsor_goal_from_21 = ifelse(strat_execsponsor_goal_from_21 %in% goals,
                                                 strat_execsponsor_goal_from_21, "Other")) %>%
  calculate_percentage("strat_execsponsor_goal_from_21") %>%
  rbind(c("Source potential M&A target", 0))

names(fin_goal_21) <- c("goal", "pct_21")
fin_goal_21$pct_21 <- as.numeric(fin_goal_21$pct_21)


fin_goal_22 <- df %>%
  select(strat_execsponsor_goal_from_22, mandate_from_22) %>%
  filter(mandate_from_22 == "Financial") %>%
  separate_rows(strat_execsponsor_goal_from_22, sep = "#") %>%
  mutate(strat_execsponsor_goal_from_22 = ifelse(strat_execsponsor_goal_from_22 %in% goals,
                                                 strat_execsponsor_goal_from_22, "Other")) %>%
  calculate_percentage("strat_execsponsor_goal_from_22")
names(fin_goal_22) <- c("goal", "pct_22")
```

```
fin_goal_23 <- df %>%
  select(strat_execsponsor_goal_from_23, mandate_from_23) %>%
  filter(mandate_from_23 == "Financial") %>%
  separate_rows(strat_execsponsor_goal_from_23, sep = "\r\n") %>%
  mutate(strat_execsponsor_goal_from_23 = ifelse(strat_execsponsor_goal_from_23 %in% goals,
                                                 strat_execsponsor_goal_from_23, "Other")) %>%
  calculate_percentage("strat_execsponsor_goal_from_23")
names(fin_goal_23) <- c("goal", "pct_23")

fin_goal_24 <- df %>%
  select(strat_execsponsor_goal_from_24, mandate_from_24) %>%
  filter(mandate_from_24 == "Financial") %>%
  separate_rows(strat_execsponsor_goal_from_24, sep = "\r\n") %>%
  mutate(strat_execsponsor_goal_from_24 = ifelse(strat_execsponsor_goal_from_24 %in% goals,
                                                 strat_execsponsor_goal_from_24, "Other")) %>%
  calculate_percentage("strat_execsponsor_goal_from_24")
names(fin_goal_24) <- c("goal", "pct_24")

fin_goal_4_years <- merge(fin_goal_21, fin_goal_22, by = "goal") %>%
  merge(fin_goal_23, by = "goal") %>%
  merge(fin_goal_24, by = "goal") %>%
  slice(c(2,4,1,3))

fin_goal_long <- fin_goal_4_years %>%
  pivot_longer(cols = starts_with("pct_"), names_to = "year", values_to = "percentage") %>%
  mutate(year = as.numeric(substr(year, nchar(year)-1, nchar(year))))
write.csv(fin_goal_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/fin_goal.csv")
```

Takes LP Positions

```
strat_lp_long <- mandate_func(df, "Strategic", "takes_lp_positions", "takes_lp")
hybrid_lp_long <- mandate_func(df, "Hybrid", "takes_lp_positions", "takes_lp")
fin_lp_long <- mandate_func(df, "Financial", "takes_lp_positions", "takes_lp")

write.csv(strat_lp_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/strat_lp.csv")
write.csv(hybrid_lp_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/hybrid_lp.csv")
write.csv(fin_lp_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/fin_lp.csv")
```

Managing corporate parent

```
parent <- df %>%
  select(time_spent_strat_lp_management_from_21, time_spent_strat_lp_management_from_22,
         time_spent_strat_lp_management_from_23, time_spent_strat_lp_management_from_24)


parent_fn <- function(col){
  case_when(
    col == "< 20%" ~ "< 40%",
```

```
    col == "20-40%" ~ "< 40%",
    col == "40-60%" ~ "> 40%",
    col == "> 60%" ~ "> 40%",
  )
}

parent <- parent %>%
  lapply(parent_fn) %>%
  lapply(calculate_percentage_col)

merge_parent <- parent[[1]]
for(i in 2:length(parent)){
  merge_parent <- merge(merge_parent, parent[[i]], by = "category", all = TRUE)
}
```

```
## Warning in merge.data.frame(merge_parent, parent[[i]], by = "category", :
## column names 'percentage.x', 'percentage.y' are duplicated in the result
```

```
names(merge_parent) <- c("Time", "pct_21", "pct_22", "pct_23", "pct_24")

parent_long <- merge_parent %>%
  pivot_longer(cols = starts_with("pct_"), names_to = "year", values_to = "percentage") %>%
  mutate(year = as.numeric(substr(year, nchar(year)-1, nchar(year))))
write.csv(parent_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/parent.csv")
```

By Fund Type

```
parent_fn <- function(col){
  ifelse(col %in% c("40-60%", "> 60%"),"> 40%", "< 40%")
}

parent <- df %>%
  select(mandate_from_21, mandate_from_22, mandate_from_23, mandate_from_24,
         time_spent_strat_lp_management_from_21, time_spent_strat_lp_management_from_22,
         time_spent_strat_lp_management_from_23, time_spent_strat_lp_management_from_24) %>%
  mutate(time_spent_strat_lp_management_from_21 = parent_fn(time_spent_strat_lp_management_from_21),
         time_spent_strat_lp_management_from_22 = parent_fn(time_spent_strat_lp_management_from_22),
         time_spent_strat_lp_management_from_23 = parent_fn(time_spent_strat_lp_management_from_23),
         time_spent_strat_lp_management_from_24 = parent_fn(time_spent_strat_lp_management_from_24))

strat_parent_long <- mandate_func(parent, "Strategic", "time_spent_strat_lp_management", "time")
hybrid_parent_long <- mandate_func(parent, "Hybrid", "time_spent_strat_lp_management", "time")
fin_parent_long <- mandate_func(parent, "Financial", "time_spent_strat_lp_management", "time")

write.csv(strat_parent_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/strat_parent.csv")
write.csv(hybrid_parent_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/hybrid_parent.csv
write.csv(fin_parent_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/fin_parent.csv")
```

Business Engagement

Note: I also could not use the mandate function here because I needed to separate out the rows.

Strategic

```
engagement <- c("None", "Some", "Significant")

strat_engagement_21 <- df %>%
  select(mandate_from_21, engagement_for_investment_from_21) %>%
  filter(mandate_from_21 == "Strategic") %>%
  calculate_percentage("engagement_for_investment_from_21")
names(strat_engagement_21) <- c("level", "pct_21")

strat_engagement_22 <- df %>%
  select(mandate_from_22, engagement_for_investment_from_22) %>%
  filter(mandate_from_22 == "Strategic") %>%
  separate_rows(engagement_for_investment_from_22, sep = "#") %>%
  mutate(engagement_for_investment_from_22 =
           ifelse(engagement_for_investment_from_22 == "Required",
                  "Significant",engagement_for_investment_from_22)) %>%
  filter(engagement_for_investment_from_22 %in% engagement) %>%
  calculate_percentage("engagement_for_investment_from_22")
names(strat_engagement_22) <- c("level", "pct_22")

strat_engagement_23 <- df %>%
  select(mandate_from_23, engagement_for_investment_from_23) %>%
  filter(mandate_from_23 == "Strategic") %>%
  separate_rows(engagement_for_investment_from_23, sep = "\r\n") %>%
  calculate_percentage("engagement_for_investment_from_23")
names(strat_engagement_23) <- c("level", "pct_23")

strat_engagement_24 <- df %>%
  select(mandate_from_24, engagement_for_investment_from_24) %>%
  filter(mandate_from_24 == "Strategic") %>%
  separate_rows(engagement_for_investment_from_24, sep = "\r\n") %>%
  calculate_percentage("engagement_for_investment_from_24")
names(strat_engagement_24) <- c("level", "pct_24")

strat_engagement_4_years <- merge(strat_engagement_21, strat_engagement_22, by = "level") %>%
  merge(strat_engagement_23, by = "level") %>%
  merge(strat_engagement_24, by = "level")

strat_engagement_long <- strat_engagement_4_years %>%
  pivot_longer(cols = starts_with("pct_"), names_to = "year", values_to = "percentage") %>%
  mutate(year = as.numeric(substr(year, nchar(year)-1, nchar(year))))
write.csv(strat_engagement_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/strat_engagemen
```

Hybrid

```
hybrid_engagement_21 <- df %>%
  select(mandate_from_21, engagement_for_investment_from_21) %>%
  filter(mandate_from_21 == "Hybrid") %>%
  filter(engagement_for_investment_from_21 %in% engagement) %>%
  calculate_percentage("engagement_for_investment_from_21")
names(hybrid_engagement_21) <- c("level", "pct_21")

hybrid_engagement_22 <- df %>%
  select(mandate_from_22, engagement_for_investment_from_22) %>%
  filter(mandate_from_22 == "Hybrid") %>%
  separate_rows(engagement_for_investment_from_22, sep = "#") %>%
  mutate(engagement_for_investment_from_22 =
           ifelse(engagement_for_investment_from_22 == "Required",
                  "Significant",engagement_for_investment_from_22)) %>%
  filter(engagement_for_investment_from_22 %in% engagement) %>%
  calculate_percentage("engagement_for_investment_from_22")
names(hybrid_engagement_22) <- c("level", "pct_22")

hybrid_engagement_23 <- df %>%
  select(mandate_from_23, engagement_for_investment_from_23) %>%
  filter(mandate_from_23 == "Hybrid") %>%
  separate_rows(engagement_for_investment_from_23, sep = "\r\n") %>%
  filter(engagement_for_investment_from_23 %in% engagement) %>%
  calculate_percentage("engagement_for_investment_from_23")
names(hybrid_engagement_23) <- c("level", "pct_23")

hybrid_engagement_24 <- df %>%
  select(mandate_from_24, engagement_for_investment_from_24) %>%
  filter(mandate_from_24 == "Hybrid") %>%
  separate_rows(engagement_for_investment_from_24, sep = "\r\n") %>%
  filter(engagement_for_investment_from_24 %in% engagement) %>%
  calculate_percentage("engagement_for_investment_from_24")
names(hybrid_engagement_24) <- c("level", "pct_24")

hybrid_engagement_4_years <- merge(hybrid_engagement_21, hybrid_engagement_22, by = "level") %>%
  merge(hybrid_engagement_23, by = "level") %>%
  merge(hybrid_engagement_24, by = "level")

hybrid_engagement_long <- hybrid_engagement_4_years %>%
  pivot_longer(cols = starts_with("pct_"), names_to = "year", values_to = "percentage") %>%
  mutate(year = as.numeric(substr(year, nchar(year)-1, nchar(year))))
write.csv(hybrid_engagement_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/hybrid_engage
```

Financial

```
fin_engagement_21 <- df %>%
  select(mandate_from_21, engagement_for_investment_from_21) %>%
  filter(mandate_from_21 == "Financial") %>%
  filter(engagement_for_investment_from_21 %in% engagement) %>%
```

```
  calculate_percentage("engagement_for_investment_from_21")
names(fin_engagement_21) <- c("level", "pct_21")

fin_engagement_22 <- df %>%
  select(mandate_from_22, engagement_for_investment_from_22) %>%
  filter(mandate_from_22 == "Financial") %>%
  separate_rows(engagement_for_investment_from_22, sep = "#") %>%
  mutate(engagement_for_investment_from_22 =
           ifelse(engagement_for_investment_from_22 == "Required",
                  "Significant",engagement_for_investment_from_22)) %>%
  filter(engagement_for_investment_from_22 %in% engagement) %>%
  calculate_percentage("engagement_for_investment_from_22")
names(fin_engagement_22) <- c("level", "pct_22")

fin_engagement_23 <- df %>%
  select(mandate_from_23, engagement_for_investment_from_23) %>%
  filter(mandate_from_23 == "Financial") %>%
  separate_rows(engagement_for_investment_from_23, sep = "\r\n") %>%
  filter(engagement_for_investment_from_23 %in% engagement) %>%
  calculate_percentage("engagement_for_investment_from_23")
names(fin_engagement_23) <- c("level", "pct_23")

fin_engagement_24 <- df %>%
  select(mandate_from_24, engagement_for_investment_from_24) %>%
  filter(mandate_from_24 == "Financial") %>%
  separate_rows(engagement_for_investment_from_24, sep = "\r\n") %>%
  filter(engagement_for_investment_from_24 %in% engagement) %>%
  calculate_percentage("engagement_for_investment_from_24")
names(fin_engagement_24) <- c("level", "pct_24")

fin_engagement_4_years <- merge(fin_engagement_21, fin_engagement_22, by = "level") %>%
  merge(fin_engagement_23, by = "level") %>%
  merge(fin_engagement_24, by = "level")

fin_engagement_long <- fin_engagement_4_years %>%
  pivot_longer(cols = starts_with("pct_"), names_to = "year", values_to = "percentage") %>%
  mutate(year = as.numeric(substr(year, nchar(year)-1, nchar(year))))
write.csv(fin_engagement_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/fin_engagement.cs
```

CVC Head Info

Tenure

```
tenure_pre15 <- df %>%
  filter(year_launched_from_23 < 2015) %>%
  select(cvc_head_tenure_from_21, cvc_head_tenure_from_22,
         cvc_head_tenure_from_23, cvc_head_tenure_from_24)

tenure_post15 <- df %>%
  filter(year_launched_from_23 >= 2015) %>%
```

```
  select(cvc_head_tenure_from_21, cvc_head_tenure_from_22,
         cvc_head_tenure_from_23, cvc_head_tenure_from_24)

tenure_cat <- function(col){
  case_when(
    col < 1 ~ "< 1",
    col == 1 ~ "1",
    col == 2 ~ "2",
    col >= 3 & col < 6 ~ "3-5",
    col >= 6 & col < 11 ~ "6-10",
    col >= 11 ~ "11+"
  )
}

tenure_pre <- data.frame(lapply(tenure_pre15, tenure_cat)) %>%
  lapply(calculate_percentage_col)

tenure_post <-data.frame(lapply(tenure_post15, tenure_cat)) %>%
  lapply(calculate_percentage_col)

merged_pre <- tenure_pre[[1]]
for (i in 2:length(tenure_pre)) {
  merged_pre <- merge(merged_pre, tenure_pre[[i]], by = "category", all = TRUE)
}
```

```
## Warning in merge.data.frame(merged_pre, tenure_pre[[i]], by = "category", :
## column names 'percentage.x', 'percentage.y' are duplicated in the result
```

```
names(merged_pre) <- c("category", "pct_21", "pct_22", "pct_23", "pct_24")

merged_post <- tenure_post[[1]]
for (i in 2:length(tenure_post)) {
  merged_post <- merge(merged_post, tenure_post[[i]], by = "category", all = TRUE)
}
```

```
## Warning in merge.data.frame(merged_post, tenure_post[[i]], by = "category", :
## column names 'percentage.x', 'percentage.y' are duplicated in the result
```

```
names(merged_post) <- c("category", "pct_21", "pct_22", "pct_23", "pct_24")

tenure_pre_long <- merged_pre %>%
  pivot_longer(cols = starts_with("pct_"), names_to = "year", values_to = "percentage") %>%
  mutate(year = as.numeric(substr(year, nchar(year)-1, nchar(year)))) %>%
  replace_na(list(percentage = 0)) %>%
  cbind(year_founded = rep("Pre-2015", nrow(merged_pre)*4))

tenure_post_long <- merged_post %>%
  pivot_longer(cols = starts_with("pct_"), names_to = "year", values_to = "percentage") %>%
  mutate(year = as.numeric(substr(year, nchar(year)-1, nchar(year)))) %>%
  replace_na(list(percentage = 0)) %>%
  cbind(year_founded = rep("2015-Current", nrow(merged_post)*4))
```

```r
tenure_long <- rbind(tenure_pre_long, tenure_post_long)

write.csv(tenure_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/head_tenure.csv")
```

Head Gender

```r
gender <- df %>%
  select(gender_head_from_21, gender_head_from_22, gender_head_from_23, gender_head_from_24) %>%
  lapply(calculate_percentage_col)

gender[[4]] <- gender[[4]][-1,]

merge_gender <- gender[[1]]
for (i in 2:length(gender)){
  merge_gender <- merge(merge_gender, gender[[i]], by = "category", all = TRUE)
}
```

```
## Warning in merge.data.frame(merge_gender, gender[[i]], by = "category", :
## column names 'percentage.x', 'percentage.y' are duplicated in the result
```

```r
names(merge_gender) <- c("Gender", "pct_21", "pct_22", "pct_23", "pct_24")

gender_long <- merge_gender %>%
  pivot_longer(cols = starts_with("pct_"), names_to = "year", values_to = "percentage") %>%
  mutate(year = as.numeric(substr(year, nchar(year)-1, nchar(year))))
write.csv(gender_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/head_gender.csv")
```

Female/minority Investors

```r
female <- df %>%
  select(female_minority_investors_from_21, female_minority_investors_from_23,
         female_minority_investors_from_24)

female_pct <- function(col){
  case_when(
    col < 10 ~ "< 10%",
    col >= 10 & col <= 25 ~ "10-25%",
    col > 25 & col <= 50 ~ "25-50%",
    col > 50 & col <= 75 ~ "50-75%",
    col > 75 ~ "> 75%"
  )
}

female <- female %>%
  lapply(female_pct) %>%
  lapply(calculate_percentage_col)

merge_female <- female[[1]]
```

```
for (i in 2:length(female)){
  merge_female <- merge(merge_female, female[[i]], by = "category", all = TRUE)
}
names(merge_female) <- c("female", "pct_21", "pct_23", "pct_24")

pct_22 <- calculate_percentage_col(df$female_minority_investors_from_22)[,2]

merge_female <- cbind(merge_female[,1:2], pct_22 = pct_22, merge_female[,3:4])

female_long <- merge_female %>%
  pivot_longer(cols = starts_with("pct_"), names_to = "year", values_to = "percentage") %>%
  mutate(year = as.numeric(substr(year, nchar(year)-1, nchar(year))))

write.csv(female_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/female_investors.csv")
```

Investors Receive Carry

```
carry <- df %>%
  select(investors_receive_carry_from_21, investors_receive_carry_from_22,
         investors_receive_carry_from_23, investors_receive_carry_from_24) %>%
  lapply(calculate_percentage_col)

merge_carry <- carry[[1]]
for(i in 2:length(carry)){
  merge_carry <- merge(merge_carry, carry[[i]], by = "category", all = TRUE)
}
```

```
## Warning in merge.data.frame(merge_carry, carry[[i]], by = "category", all =
## TRUE): column names 'percentage.x', 'percentage.y' are duplicated in the result
```

```
names(merge_carry) <-c("receive_carry", "pct_21", "pct_22", "pct_23", "pct_24")

carry_long <- merge_carry %>%
  pivot_longer(cols = starts_with("pct_"), names_to = "year", values_to = "percentage") %>%
  mutate(year = as.numeric(substr(year, nchar(year)-1, nchar(year))))
write.csv(carry_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/carry.csv")
```

By fund Type

```
strat_carry_long <- mandate_func(df, "Strategic", "investors_receive_carry", "carry")
hybrid_carry_long <- mandate_func(df, "Hybrid", "investors_receive_carry", "carry")
fin_carry_long <- mandate_func(df, "Financial", "investors_receive_carry", "carry")


write.csv(strat_carry_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/strat_carry.csv")
write.csv(hybrid_carry_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/hybrid_carry.csv")
write.csv(fin_carry_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/fin_carry.csv")
```

NPS Score

```
nps <- df %>%
  select(nps_score_from_21, nps_score_from_22, nps_score_from_23, nps_score_from_24)

write.csv(nps, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/nps.csv")
```

Strategic or Independent

```
strat_indep_long <- mandate_func(df, "Strategic", "strategic_or_independent", "category")
hybrid_indep_long <- mandate_func(df, "Hybrid", "strategic_or_independent", "category")
fin_indep_long <- mandate_func(df, "Financial", "strategic_or_independent", "category")

write.csv(strat_indep_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/strat_indep.csv")
write.csv(hybrid_indep_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/hybrid_indep.csv")
write.csv(fin_indep_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/fin_indep.csv")
```

Capital Reserves

```
strat_cap_long <- mandate_func(df, "Strategic", "formal_capital_reserves_followon", "category")
hybrid_cap_long <- mandate_func(df, "Hybrid", "formal_capital_reserves_followon", "category")
fin_cap_long <- mandate_func(df, "Financial", "formal_capital_reserves_followon", "category")

write.csv(strat_cap_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/strat_cap.csv")
write.csv(hybrid_cap_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/hybrid_cap.csv")
write.csv(fin_cap_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/fin_cap.csv")
```

Investment Pace

```
pace <- df %>%
  select(mandate_from_21, mandate_from_22, mandate_from_23, mandate_from_24,
         deal_pace_12_from_21, deal_pace_12_from_22, deal_pace_12_from_23,
         investment_pace_past5_from_24) %>%
  mutate(deal_pace_12_from_24 = investment_pace_past5_from_24) %>%
  select(-investment_pace_past5_from_24)

strat_pace_long <- mandate_func(pace, "Strategic", "deal_pace_12", "pace")
hybrid_pace_long <- mandate_func(pace, "Hybrid", "deal_pace_12", "pace")
fin_pace_long <- mandate_func(pace, "Financial", "deal_pace_12", "pace")

write.csv(strat_pace_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/strat_pace.csv")
write.csv(hybrid_pace_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/hybrid_pace.csv")
write.csv(fin_pace_long, "/Users/counterpartventures/Desktop/Data/Dashboard csvs/fin_pace.csv")
```