ISAT-U Students' Daily Allowance Sufficiency

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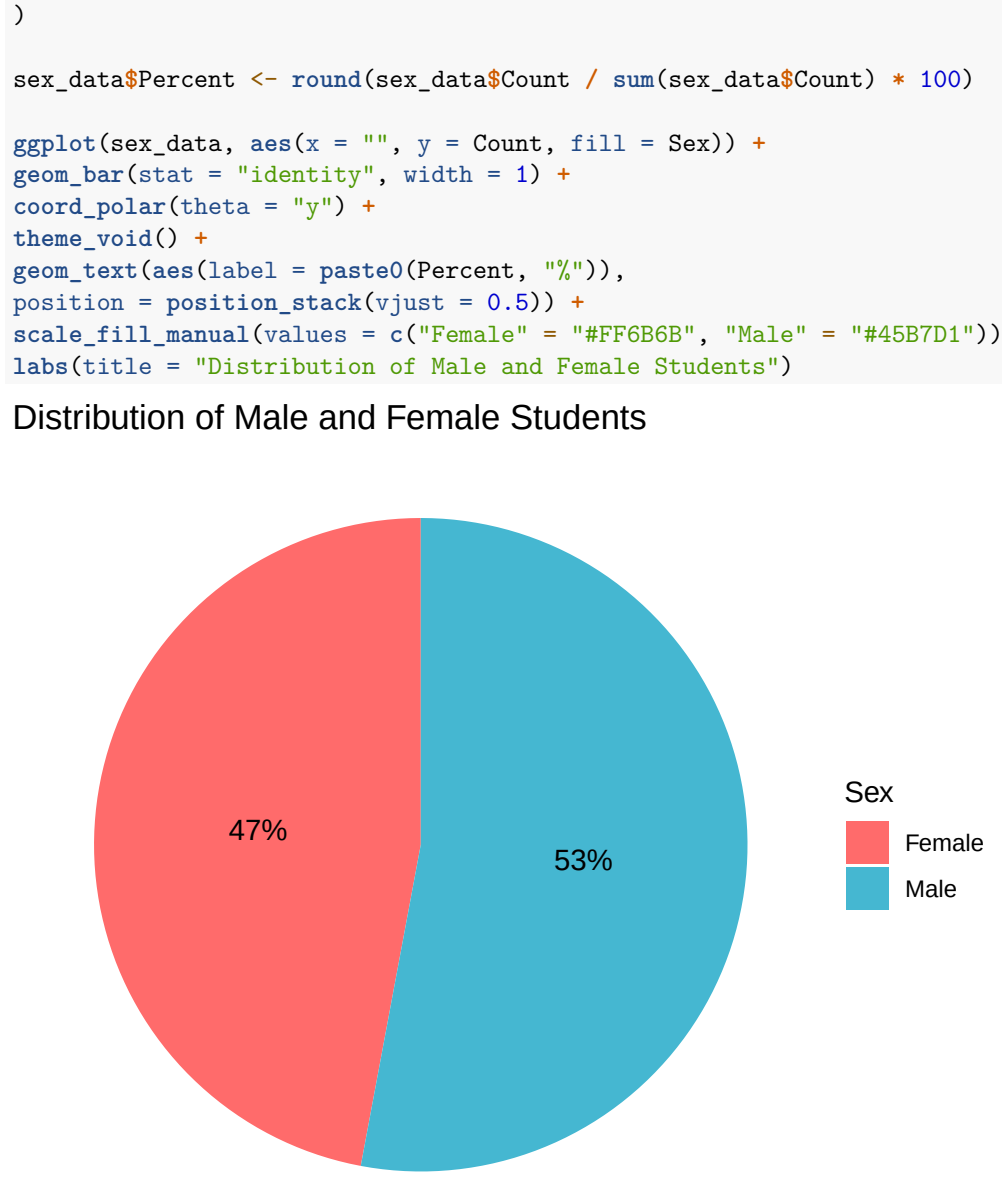
```
## I. Introduction

## Daily allowance plays an important role in meeting the everyday needs of
##     college students, including transportation, meals, school supplies, and
##     other essential expenses. For students of Iloilo Science and Technology
##     University (ISAT-U), the adequacy of their daily allowance can greatly
##     influence their academic experience and overall well-being.
##
## This study
##     aims to assess whether the daily allowance of ISAT-U college students is
##     sufficient to cover their daily needs. Using data gathered from a student
##     survey, this research analyzes students' daily allowance, spending patterns,
##     and perceptions of financial sufficiency. The collected data are presented
##     through graphical representations to clearly illustrate trends and
##     differences among respondents.
```

```
data <- read.csv("Daily-allowance.csv")
names(data)
```

```
##  [1] "Timestamp"
##  [2] "Data.Privacy.Notice...We.value.your.privacy.and.are.committed.to.safeguarding.your.personal.in
##  [3] "Course..Year.and.Section..Ex..BSIT.1...C."
##  [4] "Name..Optional."
##  [5] "Age"
##  [6] "Sex"
##  [7] "Please.select.and.rate.how.sufficient.you.think.each.amount.of.daily.allowance.for.your.needs.
##  [8] "Please.select.and.rate.how.sufficient.you.think.each.amount.of.daily.allowance.for.your.needs.
##  [9] "Please.select.and.rate.how.sufficient.you.think.each.amount.of.daily.allowance.for.your.needs.
## [10] "Please.select.and.rate.how.sufficient.you.think.each.amount.of.daily.allowance.for.your.needs.
## [11] "Please.select.and.rate.how.sufficient.you.think.each.amount.of.daily.allowance.for.your.needs.
## [12] "Please.select.and.rate.how.sufficient.you.think.each.amount.of.daily.allowance.for.your.needs.
## [13] "Please.select.and.rate.how.sufficient.you.think.each.amount.of.daily.allowance.for.your.needs.
## [14] "Please.select.and.rate.how.sufficient.you.think.each.amount.of.daily.allowance.for.your.needs.
## [15] "My.daily.allowance.is.enough.to.cover.my.transportation.expenses."
## [16] "My.daily.allowance.is.enough.to.cover.my.school.materials.and.supplies."
## [17] "My.daily.allowance.is.enough.to.buy.food.and.snacks.during.the.day."
## [18] "My.daily.allowance.is.enough.to.pay.for.occasional.school.projects.or.contributions."
## [19] "My.daily.allowance.is.enough.to.allow.me.to.save.a.small.amount.regularly."
```

```
library(ggplot2)
sex_data <- data.frame(
Sex = c("Female", "Male"),
Count = c(24, 27)
```

```
)

sex_data$Percent <- round(sex_data$Count / sum(sex_data$Count) * 100)

ggplot(sex_data, aes(x = "", y = Count, fill = Sex)) +
geom_bar(stat = "identity", width = 1) +
coord_polar(theta = "y") +
theme_void() +
geom_text(aes(label = paste0(Percent, "%")),
position = position_stack(vjust = 0.5)) +
scale_fill_manual(values = c("Female" = "#FF6B6B", "Male" = "#45B7D1")) +
labs(title = "Distribution of Male and Female Students")
```



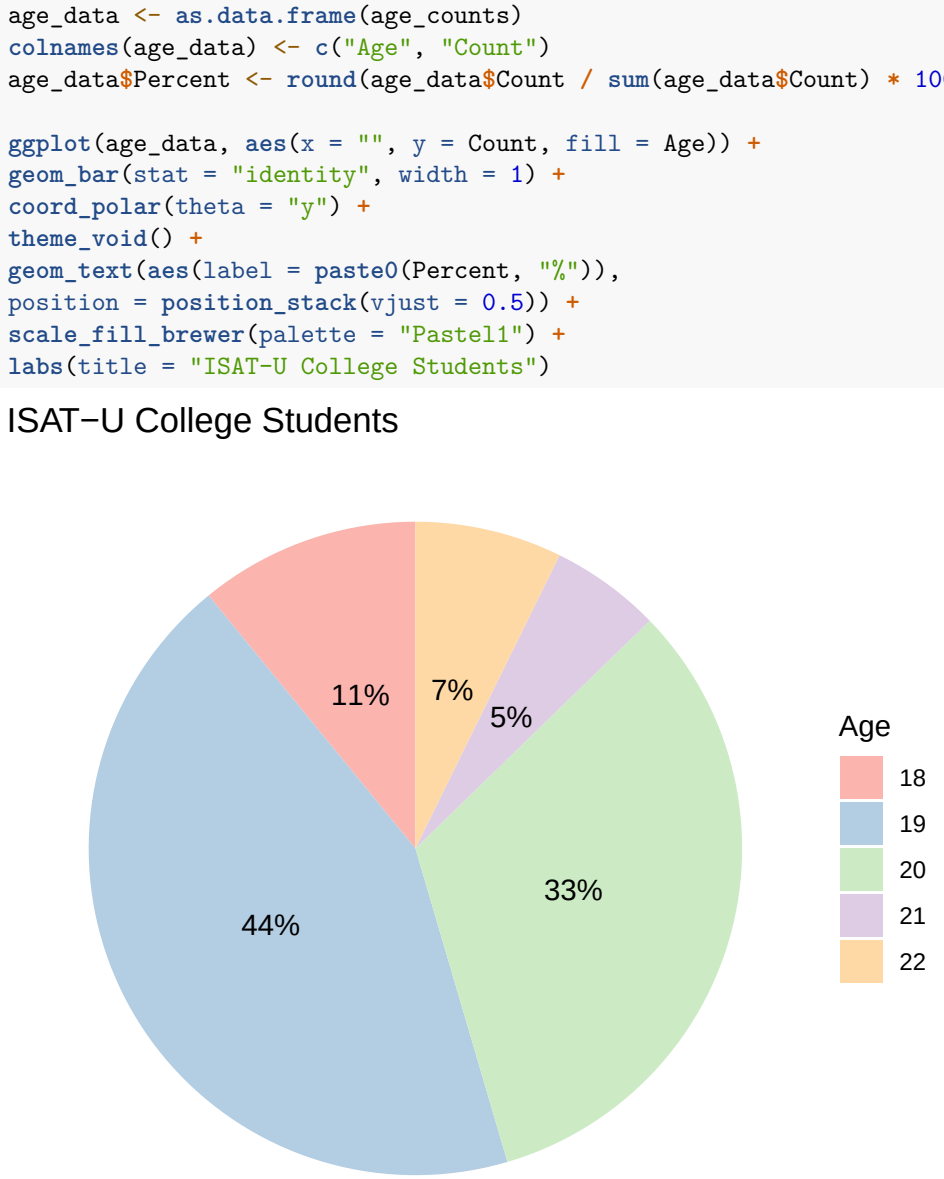

```
## The survey results show that the student population in the sample is fairly
##     balanced in terms of gender. Males slightly outnumber females, with 27 male
##     students (53%) compared to 24 female students (47%). This near-equal
##     distribution suggests that any analysis of daily allowance sufficiency will
##     fairly represent the perspectives of both genders. Additionally, the pie
##     chart clearly visualizes this balance, making it easy to see that neither
##     gender dominates the sample, which supports more equitable comparisons in
##     subsequent analyses.
```

```
numeric_ages <- as.numeric(data$Age)
```

```
## Warning: NAs introduced by coercion
```

```
numeric_ages <- numeric_ages[!is.na(numeric_ages)]
numeric_ages <- c(numeric_ages, 18)

age_counts <- table(numeric_ages)
```

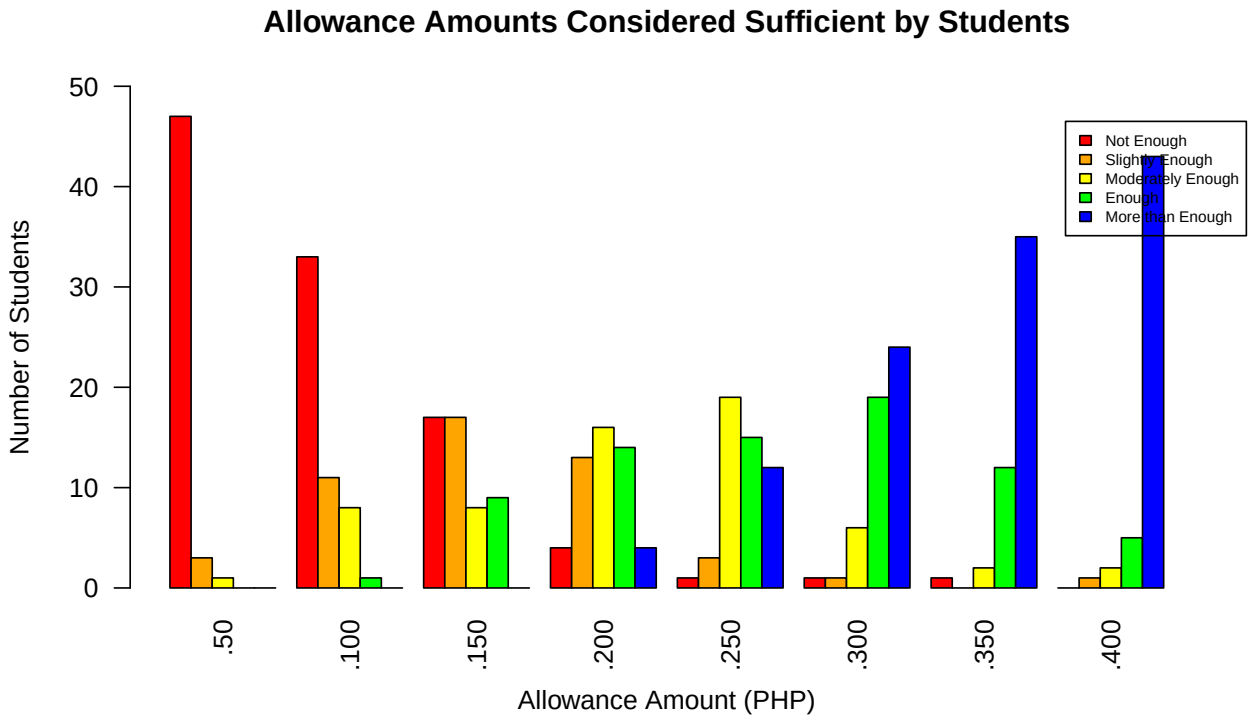
```r
age_data <- as.data.frame(age_counts)
colnames(age_data) <- c("Age", "Count")
age_data$Percent <- round(age_data$Count / sum(age_data$Count) * 100)

ggplot(age_data, aes(x = "", y = Count, fill = Age)) +
geom_bar(stat = "identity", width = 1) +
coord_polar(theta = "y") +
theme_void() +
geom_text(aes(label = paste0(Percent, "%")),
position = position_stack(vjust = 0.5)) +
scale_fill_brewer(palette = "Pastel1") +
labs(title = "ISAT-U College Students")
```




```
## Most respondents are 19 and 20 years old, indicating that the typical
##     college student in the survey falls within this age range. Fewer students
##     are younger (18) or older (21-22), which provides context for understanding
##     their daily allowance usage patterns.
```

```r
data <- read.csv("Daily-allowance.csv", stringsAsFactors = FALSE)

allowance_names <- c(
  "Please.select.and.rate.how.sufficient.you.think.each.amount.of.daily.allowance.for.your.needs....50.
  "Please.select.and.rate.how.sufficient.you.think.each.amount.of.daily.allowance.for.your.needs....100
  "Please.select.and.rate.how.sufficient.you.think.each.amount.of.daily.allowance.for.your.needs....150
  "Please.select.and.rate.how.sufficient.you.think.each.amount.of.daily.allowance.for.your.needs....200
  "Please.select.and.rate.how.sufficient.you.think.each.amount.of.daily.allowance.for.your.needs....250
  "Please.select.and.rate.how.sufficient.you.think.each.amount.of.daily.allowance.for.your.needs....300
  "Please.select.and.rate.how.sufficient.you.think.each.amount.of.daily.allowance.for.your.needs....350
  "Please.select.and.rate.how.sufficient.you.think.each.amount.of.daily.allowance.for.your.needs....400
```

```
)

allowance_cols <- match(allowance_names, names(data))
names(data)[allowance_cols] <- paste0("pesos", c(50,100,150,200,250,300,350,400))

convert <- c(
  "Not Enough" = 1,
  "Slightly Enough" = 2,
  "Moderately Enough" = 3,
  "Enough" = 4,
  "More than Enough" = 5
)

data[allowance_cols] <- lapply(data[allowance_cols], function(x) {
  x <- trimws(x)
  x <- gsub("\\.+", "", x)
  x <- gsub("[^A-Za-z ]", "", x)
  x <- convert[x]
  as.numeric(x)
})

counts <- sapply(data[allowance_cols], function(x) {
  table(factor(x, levels = 1:5))
})

rownames(counts) <- c("Not Enough", "Slightly Enough", "Moderately Enough",
                      "Enough", "More than Enough")

colors <- c("red","orange","yellow","green","blue")

barplot(counts,
        col = colors,
        main = "Allowance Amounts Considered Sufficient by Students",
        xlab = "Allowance Amount (PHP)",
        ylab = "Number of Students",
        legend.text = rownames(counts),
        args.legend = list(x = "topright", inset = c(-0.04, 0.07), cex = 0.6),
        names.arg = paste0("₱", c(50,100,150,200,250,300,350,400)),
        las = 2,
        beside = TRUE,
        ylim = c(0, 50))
```



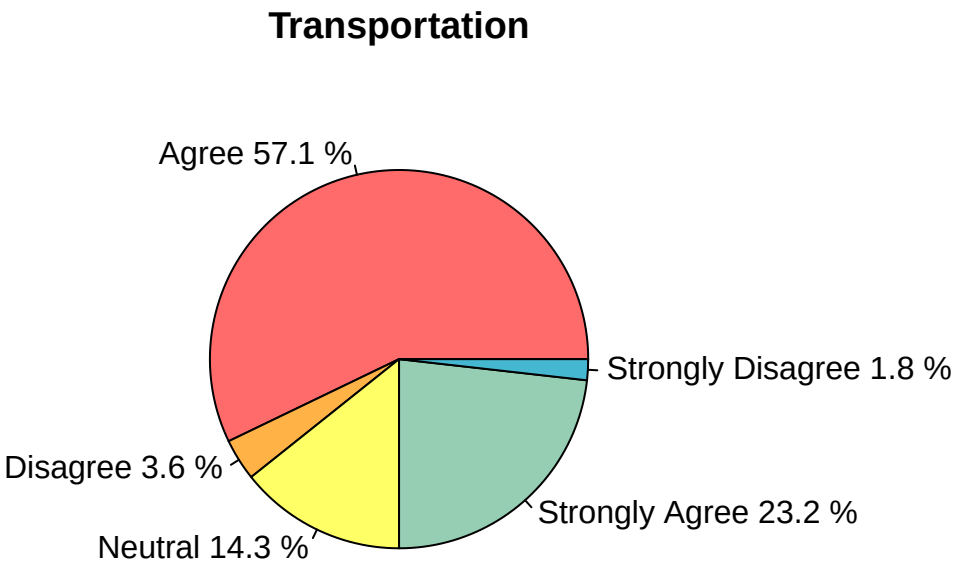

```
counts_table <- as.data.frame(counts)
colnames(counts_table) <- paste0("₱", c(50,100,150,200,250,300,350,400))
counts_table
```

```
##                   ₱50 ₱100 ₱150 ₱200 ₱250 ₱300 ₱350 ₱400
## Not Enough         47   33   17    4    1    1    1    0
## Slightly Enough     3   11   17   13    3    1    0    1
## Moderately Enough   1    8    8   16   19    6    2    2
## Enough              0    1    9   14   15   19   12    5
## More than Enough    0    0    0    4   12   24   35   43
```

```
## As shown in the bar graph, the data suggest that a daily allowance of
##     around ₱250 to ₱300 is commonly rated as Moderately Enough to Enough,
##     indicating that it is sufficient to meet students' daily needs in school.
##     In contrast, at ₱50 and ₱100, most students rated the allowance as Not
##     Enough, reflecting insufficiency. Meanwhile, allowances ranging from ₱300
##     to ₱400 received higher ratings, with many students perceiving them as
##     Enough or More than Enough.
```

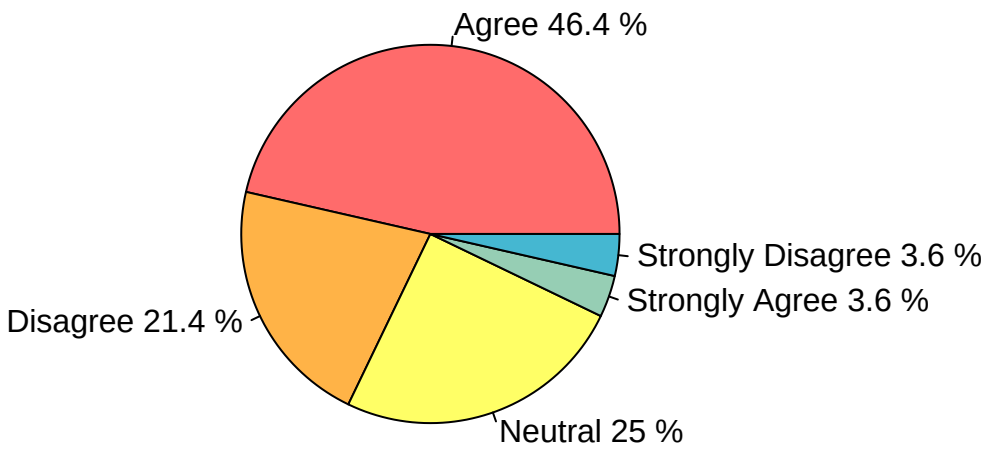
```
q1 <- data[["My.daily.allowance.is.enough.to.cover.my.transportation.expenses."]]

q1_split <- unlist(strsplit(q1, ";"))
q1_split <- trimws(q1_split)
q1_split <- tolower(q1_split)

q1_split[q1_split == "strongly disagree"] <- "Strongly Disagree"
q1_split[q1_split == "disagree"] <- "Disagree"
q1_split[q1_split == "neutral"] <- "Neutral"
q1_split[q1_split == "agree"] <- "Agree"
q1_split[q1_split == "strongly agree"] <- "Strongly Agree"

q1_count <- table(q1_split)
```

```r
colors <- c("#FF6B6B", "#FFB347", "#FFFF66", "#96CEB4", "#45B7D1")

pie(q1_count,
    labels = paste(names(q1_count), round(q1_count/sum(q1_count)*100, 1), "%"),
    col = colors,
    main = "Transportation")
```



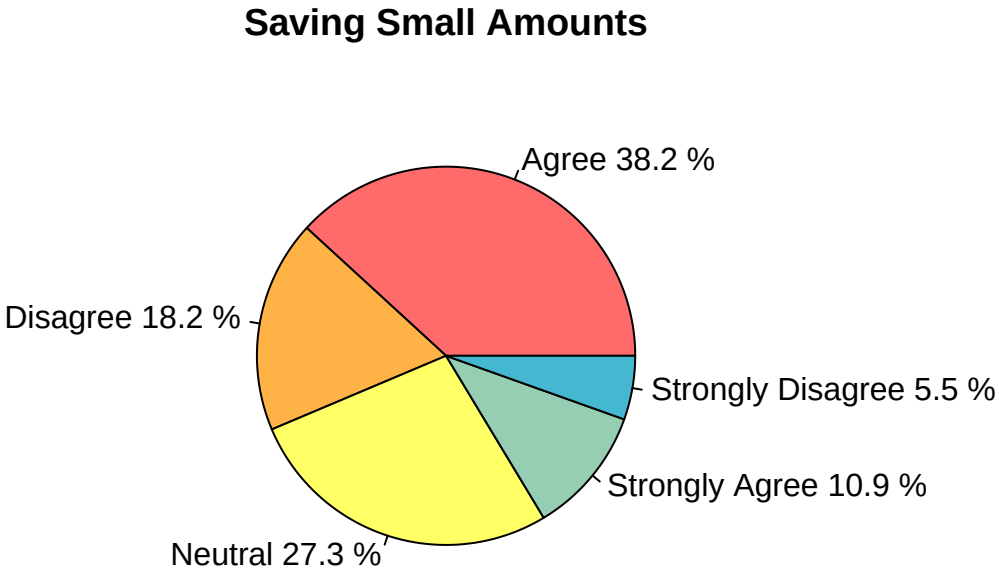

```r
## The pie chart indicates that the majority of respondents believe their
##     daily allowance is sufficient to cover transportation expenses. More than
##     half (57.1%) of the respondents selected Agree, while an additional 23.2%
##     chose Strongly Agree, showing that most students can afford their daily
##     transportation needs. Meanwhile, 14.3% of respondents selected Neutral,
##     suggesting some uncertainty or variability in transportation costs. Only a
##     small percentage Disagreed (3.6%) or Strongly Disagreed (1.8%), indicating
##     that transportation expenses are generally manageable for most students.
```

```r
q1 <- data[["My.daily.allowance.is.enough.to.cover.my.school.materials.and.supplies."]]

q1_split <- unlist(strsplit(q1, ";"))
q1_split <- trimws(q1_split)
q1_split <- tolower(q1_split)

q1_split[q1_split == "strongly disagree"] <- "Strongly Disagree"
q1_split[q1_split == "disagree"] <- "Disagree"
q1_split[q1_split == "neutral"] <- "Neutral"
q1_split[q1_split == "agree"] <- "Agree"
q1_split[q1_split == "strongly agree"] <- "Strongly Agree"

q1_count <- table(q1_split)

colors <- c("#FF6B6B", "#FFB347", "#FFFF66", "#96CEB4", "#45B7D1")

pie(q1_count,
    labels = paste(names(q1_count), round(q1_count/sum(q1_count)*100, 1), "%"),
    col = colors,
    main = "School Materials and Supplies")
```



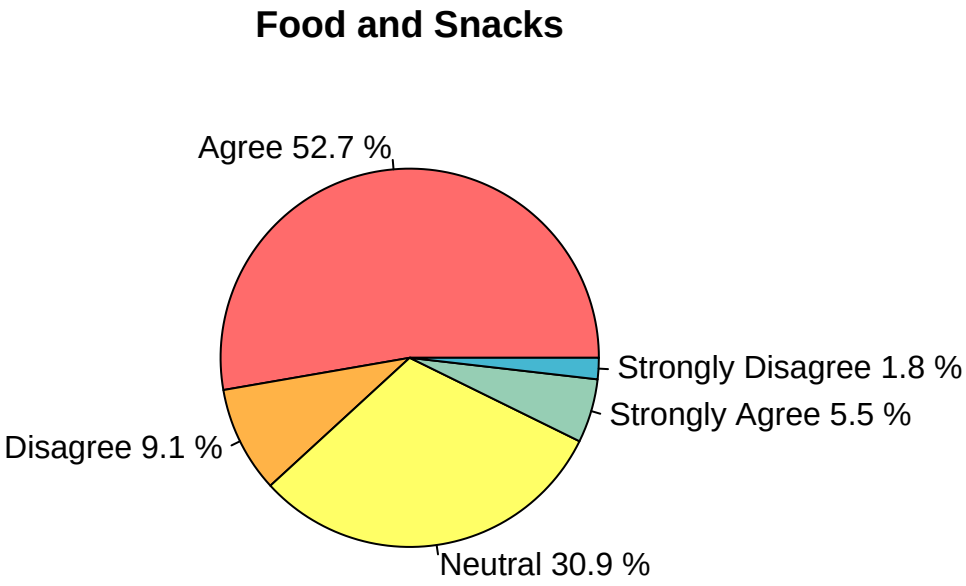

```
## The pie chart shows that a plurality of respondents believe their daily
##     allowance is sufficient to cover school materials and supplies. Nearly half
##     (46.4%) of the respondents selected Agree, while a small proportion (3.6%)
##     chose Strongly Agree, indicating moderate confidence in meeting school
##     material expenses. However, 25.0% of respondents selected Neutral,
##     suggesting uncertainty or inconsistency in covering these costs. Meanwhile,
##     a notable portion Disagreed (21.4%) or Strongly Disagreed (3.6%), indicating
##     that a considerable number of students find their allowance insufficient for
##     school materials and supplies.
```

```r
q1 <- data[["My.daily.allowance.is.enough.to.allow.me.to.save.a.small.amount.regularly."]]

q1_split <- unlist(strsplit(q1, ";"))
q1_split <- trimws(q1_split)
q1_split <- tolower(q1_split)

q1_split[q1_split == "strongly disagree"] <- "Strongly Disagree"
q1_split[q1_split == "disagree"] <- "Disagree"
q1_split[q1_split == "neutral"] <- "Neutral"
q1_split[q1_split == "agree"] <- "Agree"
q1_split[q1_split == "strongly agree"] <- "Strongly Agree"

q1_count <- table(q1_split)

colors <- c("#FF6B6B", "#FFB347", "#FFFF66", "#96CEB4", "#45B7D1")

pie(q1_count,
    labels = paste(names(q1_count), round(q1_count/sum(q1_count)*100, 1), "%"),
    col = colors,
    main = "Saving Small Amounts")
```




```
## The pie chart shows that 38.2% of the respondents Agreed that their daily
##     allowance is enough to allow them to save a small amount regularly, while
##     10.9% Strongly Agreed, indicating that a portion of students are able to
##     save. Meanwhile, 27.3% of respondents selected Neutral, suggesting
##     uncertainty or irregular saving ability. On the other hand, 18.2%
##     Disagreed and *5.5% Strongly Disagreed, showing that some students
##     find it difficult to save due to limited allowance.
```

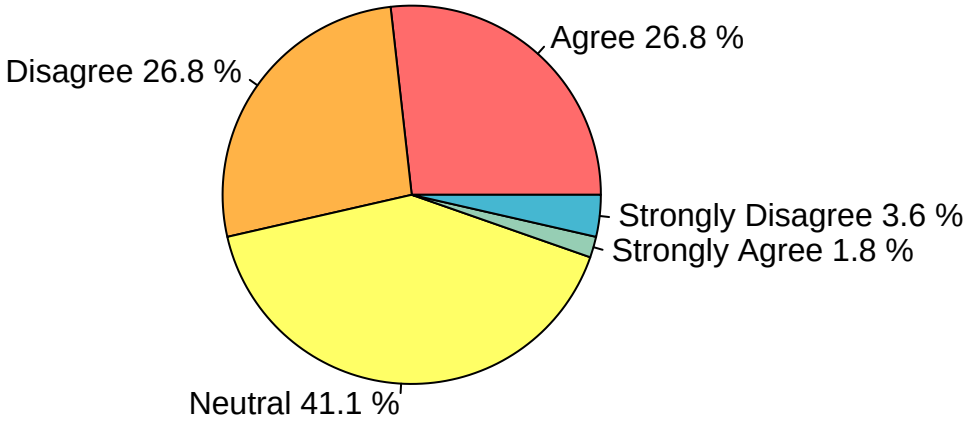
```r
q1 <- data[["My.daily.allowance.is.enough.to.buy.food.and.snacks.during.the.day."]]

q1_split <- unlist(strsplit(q1, ";"))
q1_split <- trimws(q1_split)
q1_split <- tolower(q1_split)

q1_split[q1_split == "strongly disagree"] <- "Strongly Disagree"
q1_split[q1_split == "disagree"] <- "Disagree"
q1_split[q1_split == "neutral"] <- "Neutral"
q1_split[q1_split == "agree"] <- "Agree"
q1_split[q1_split == "strongly agree"] <- "Strongly Agree"

q1_count <- table(q1_split)

colors <- c("#FF6B6B", "#FFB347", "#FFFF66", "#96CEB4", "#45B7D1")

pie(q1_count,
    labels = paste(names(q1_count), round(q1_count/sum(q1_count)*100, 1), "%"),
    col = colors,
    main = "Food and Snacks")
```




```
## As shown in the pie chart, the majority of respondents believe that their
##     daily allowance is sufficient to buy food and snacks during the day. More
##     than half (52.7%) of the respondents selected Agree, while *5.5% Strongly
##     Agree, indicating that most students are able to meet their food needs in
##     school. Meanwhile, 30.9% chose Neutral, suggesting uncertainty or
##     inconsistency in food sufficiency. Only a small portion Disagreed (9.1%)
##     or Strongly Disagreed (1.8%), showing minimal concern regarding
##     food affordability.
```

```r
q1 <- data[["My.daily.allowance.is.enough.to.pay.for.occasional.school.projects.or.contributions."]]

q1_split <- unlist(strsplit(q1, ";"))
q1_split <- trimws(q1_split)
q1_split <- tolower(q1_split)

q1_split[q1_split == "strongly disagree"] <- "Strongly Disagree"
q1_split[q1_split == "disagree"] <- "Disagree"
q1_split[q1_split == "neutral"] <- "Neutral"
q1_split[q1_split == "agree"] <- "Agree"
q1_split[q1_split == "strongly agree"] <- "Strongly Agree"

q1_count <- table(q1_split)

colors <- c("#FF6B6B", "#FFB347", "#FFFF66", "#96CEB4", "#45B7D1")

pie(q1_count,
    labels = paste(names(q1_count), round(q1_count/sum(q1_count)*100, 1), "%"),
    col = colors,
    main = "Occasional Projects or Contribution")
```

Occasional Projects or Contribution




```
## The pie chart shows that most respondents are uncertain about whether their
##     daily allowance is enough to pay for occasional school projects or
##     contributions. The largest percentage (41.1%) selected Neutral, indicating
##     mixed experiences. Equal proportions of respondents Agreed (26.8%) and
##     Disagreed (26.8%), reflecting divided opinions. Very few respondents
##     expressed strong views, with only *1.8% Strongly Agreeing and *3.6%
##     Strongly Disagreeing. This suggests that occasional school expenses may not
##     be consistently covered by students' daily allowance.
```