Online Food Delivery Service

2024-04-18

```
#Libraries
library("dplyr")
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
library("readr")
library("ggplot2")
```

```
OFDSraw <- read_csv("database-RAW/Survey on Students' Perspectives of Online Food Delivery Service.csv")
```

```
## New names:
## Rows: 113 Columns: 54
## -- Column specification
## -------------------------------------------------------- Delimiter: "," chr
## (21): Timestamp, Username, Name, Age, Address, Contact number, Sex, Liv... dbl
## (32): Using online food delivery services saves me time compared to coo... date
## (1): Date
## i Use `spec()` to retrieve the full column specification for this data. i
## Specify the column types or set `show_col_types = FALSE` to quiet this message.
## * `` -> `...54`
```

```
OFDSraw <- slice(OFDSraw, -1)
#I sliced the first row of the data frame because is a test when I created the google form

top <- OFDSraw[13:23,]
top
```

```
## # A tibble: 11 x 54
##    Timestamp                Username Name  Age   Address `Contact number` Sex
##    <chr>                    <chr>    <chr> <chr> <chr>   <chr>            <chr>
##  1 2024/03/09 6:59:13 PM GM~ jayrver~ <NA>  18    Brgy. ~ <NA>             Male
##  2 2024/03/09 7:13:45 PM GM~ adccruz~ <NA>  20    Jalaud~ 09707151744      Male
##  3 2024/03/09 7:16:05 PM GM~ labayno~ Krys~ 19    Jalaud~ 09517387541      Fema~
##  4 2024/03/09 7:16:26 PM GM~ nicoleb~ Nico~ 22    Oton, ~ <NA>             Fema~
##  5 2024/03/09 7:21:56 PM GM~ dinajan~ Dina~ 23    San Jo~ <NA>             Fema~
##  6 2024/03/09 7:41:57 PM GM~ vanessa~ Vane~ 18    Calaya~ <NA>             Fema~
##  7 2024/03/09 7:42:08 PM GM~ shangmi~ Tris~ 25    Balud ~ 09297304689      Fema~
##  8 2024/03/09 7:51:53 PM GM~ nichell~ <NA>  20`   San Mi~ <NA>             Fema~
##  9 2024/03/09 7:58:15 PM GM~ ellamae~ Morc~ 19    Blk.9 ~ 09076836489      Fema~
```

```
## 10 2024/03/09 8:01:27 PM GM~ vincede~ Nokie 19    Mambuy~ <NA>             Male
## 11 2024/03/10 2:29:51 PM GM~ elisham~ <NA>  19    Brgy. ~ <NA>             Fema~
## # i 47 more variables: `Living Situation` <chr>,
## #   `Do you have access to reliable transportation(e.g., bike, carpool)?` <chr>,
## #   `Educational Background` <chr>, `Average Weekly Income / allowance` <chr>,
## #   `Frequency of Using Online Food Delivery Services` <chr>,
## #   `Primary Reason for Using Online Food Delivery Services` <chr>,
## #   Date <date>,
## #   `Using online food delivery services saves me time compared to cooking or going out to eat.` <dbl
```

Cleaning of age in data

```
# Extract numeric values from 'age' column
OFDSage <- as.numeric(gsub("[^0-9.]", "", OFDSraw$Age))
tempOFDSraw <- OFDSraw

tempOFDSraw[["Age"]] <- OFDSage

OFDSraw <- tempOFDSraw
```

Plotting of age

```
filtered_data <- tempOFDSraw[is.finite(OFDSraw$Age), ]

# Calculate range of finite ages
age_range <- range(filtered_data$Age)

# Create a histogram with more detailed x-axis
plotofage <- ggplot(data = filtered_data, aes(x = Age)) +
  geom_histogram(binwidth = 1, fill = "skyblue", color = "black") +  # Decrease binwidth for more detai
  scale_x_continuous(breaks = seq(floor(age_range[1]), ceiling(age_range[2]), by = 1)) +  # Custom brea
  labs(title = "Distribution of Ages",
       x = "Age",
       y = "Frequency")

plotofagemean <- mean(filtered_data$Age)
plotofagemin <- min(filtered_data$Age)
plotofagemax <- max(filtered_data$Age)

#Min of Age
plotofagemin
```

```
## [1] 13
```

```
#Mean of Age:
plotofagemean
```

```
## [1] 19.80357
```

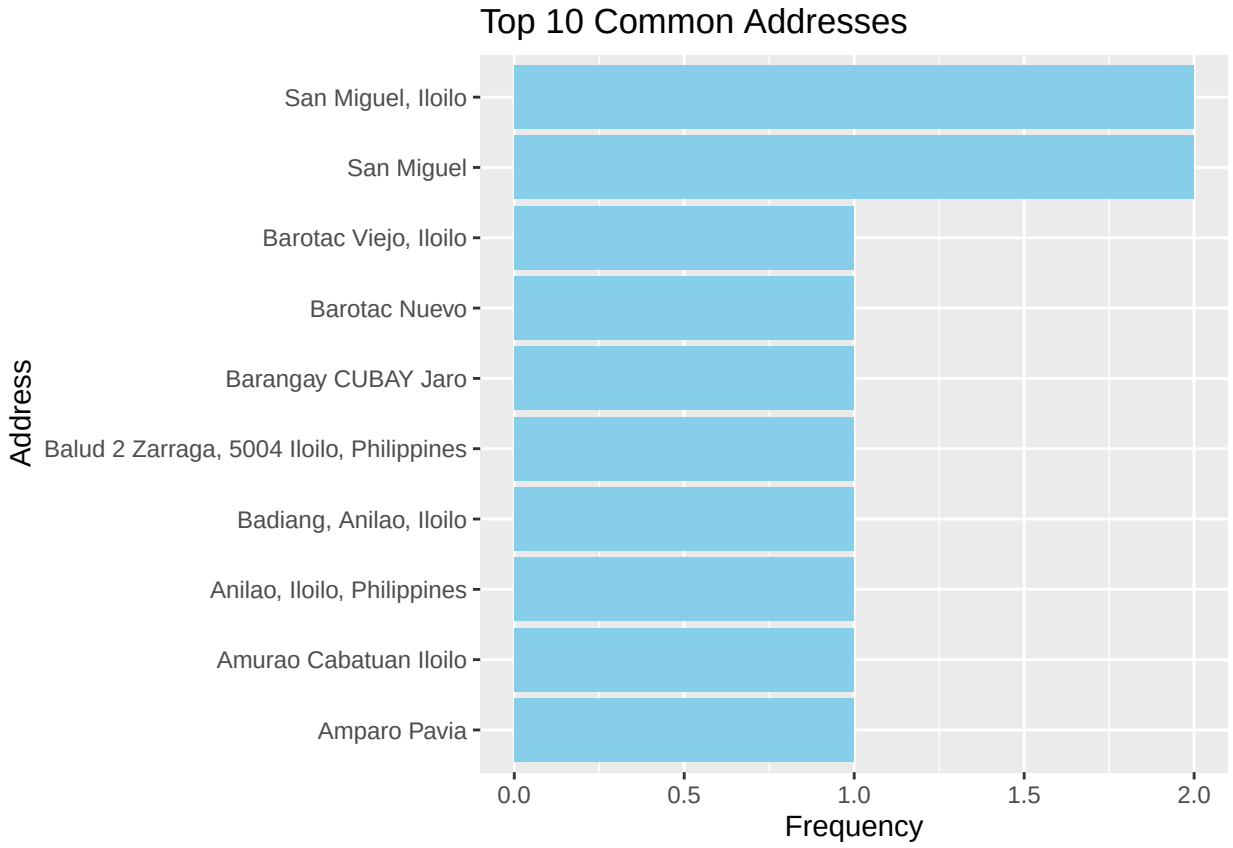
```
#Max of Age
plotofagemax
```

```
## [1] 32
```

Plotting the Frequency of Address

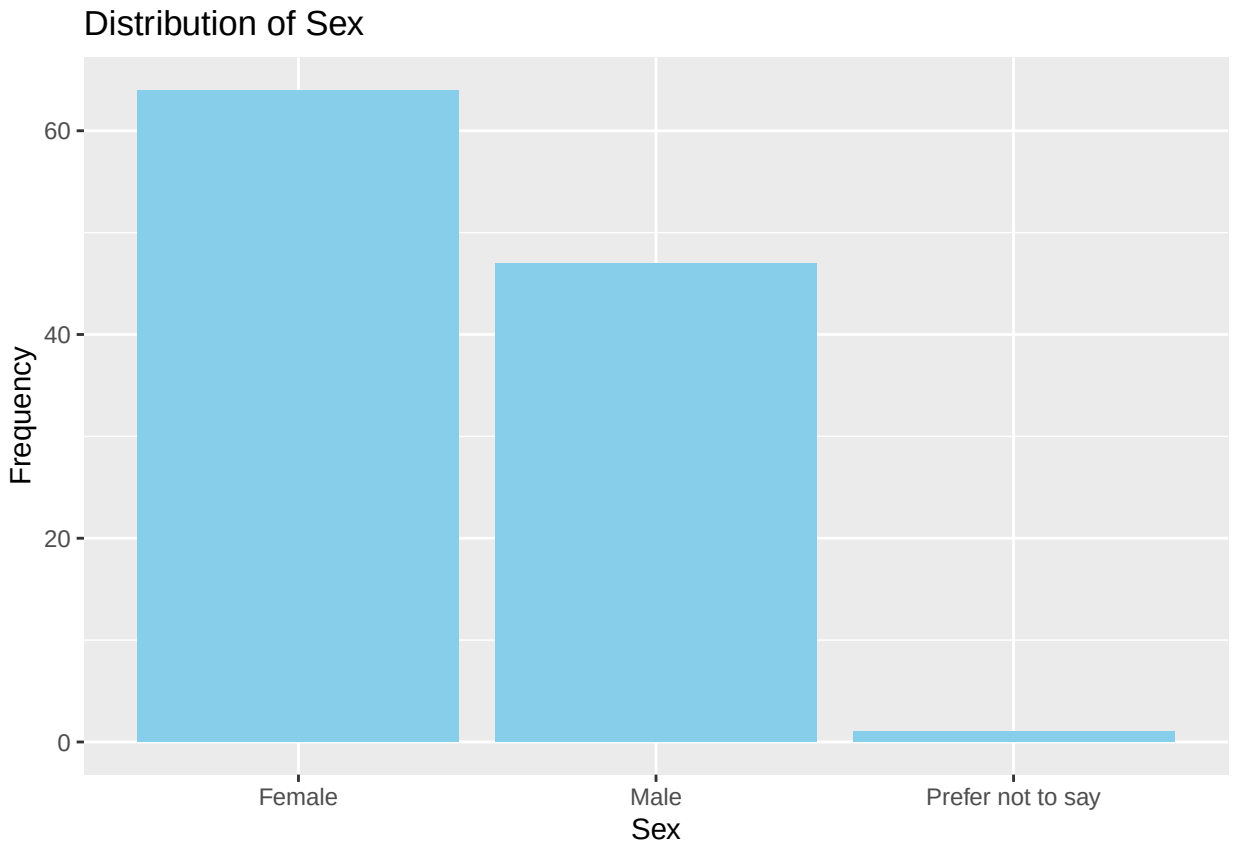
```
address_freq <- table(tempOFDSraw$Address)
```

```r
# Convert the frequency table to a data frame
address_df <- data.frame(Address = names(address_freq), Frequency = as.numeric(address_freq))

# Sort the data frame by frequency in descending order
address_df <- address_df[order(-address_df$Frequency), ]

# Plot the common addresses
ggplot(data = head(address_df, 10), aes(x = reorder(Address, Frequency), y = Frequency)) +
  geom_bar(stat = "identity", fill = "skyblue") +
  coord_flip() +  # Flip the coordinates to display horizontally
  labs(title = "Top 10 Common Addresses",
       x = "Address",
       y = "Frequency")
```



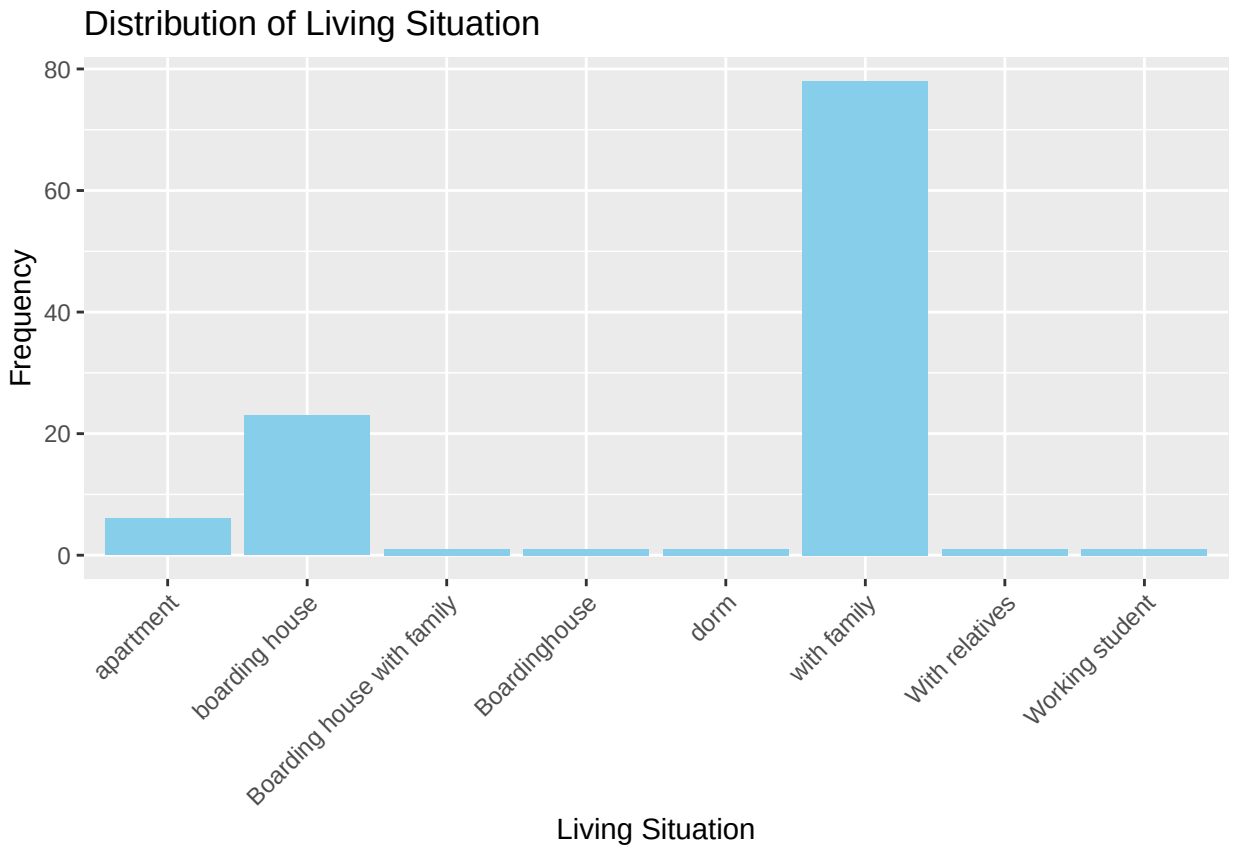
Plotting the Frequency of Sex

```r
ggplot(data = OFDSraw, aes(x = Sex)) +
  geom_bar(fill = "skyblue") +
  labs(title = "Distribution of Sex",
       x = "Sex",
       y = "Frequency")
```



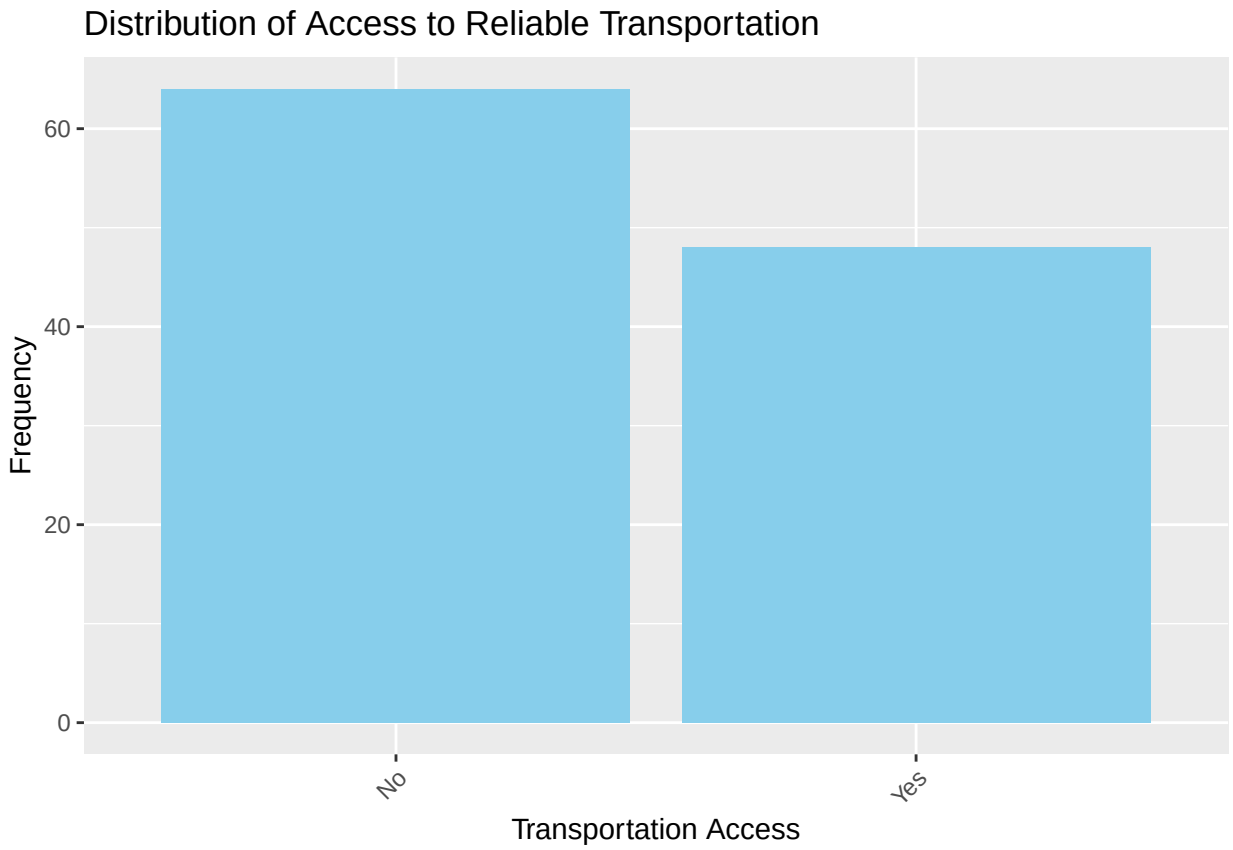
Plotting the Frequency of Living Situation

```
ggplot(data = OFDSraw, aes(x = OFDSraw$`Living Situation`)) +
  geom_bar(fill = "skyblue") +
  labs(title = "Distribution of Living Situation",
       x = "Living Situation",
       y = "Frequency") +
  theme(axis.text.x = element_text(angle = 45, hjust = 1))  # Rotate x-axis labels for better readabili
```



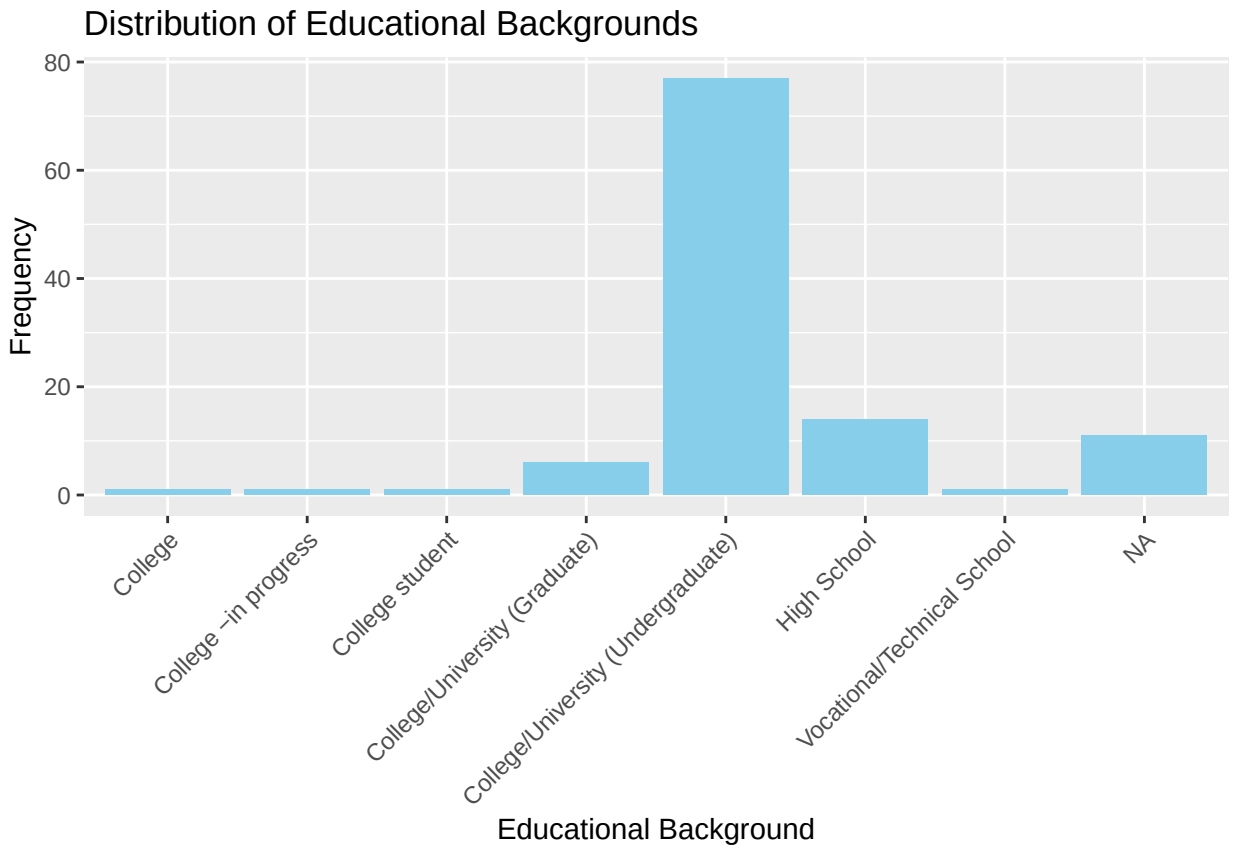
Plotting the Frequency of access to reliable transportation

```
ggplot(data = OFDSraw, aes(x = OFDSraw$`Do you have access to reliable transportation(e.g., bike, carpo
  geom_bar(fill = "skyblue") +
  labs(title = "Distribution of Access to Reliable Transportation",
       x = "Transportation Access",
       y = "Frequency") +
  theme(axis.text.x = element_text(angle = 45, hjust = 1))  # Rotate x-axis labels for better readabili
```



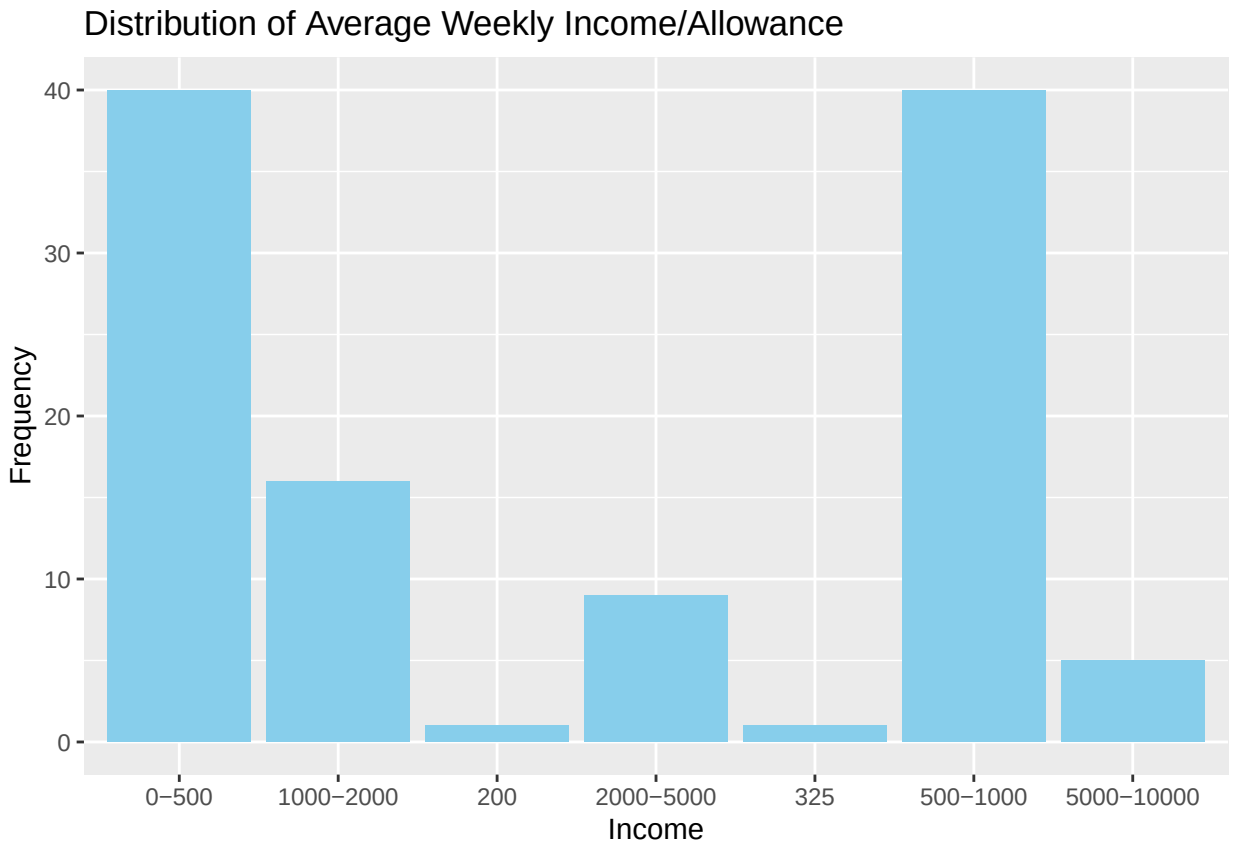
Plotting the Frequency of Educational Background

```
ggplot(data = OFDSraw, aes(x = OFDSraw$`Educational Background`)) +
  geom_bar(fill = "skyblue") +
  labs(title = "Distribution of Educational Backgrounds",
       x = "Educational Background",
       y = "Frequency") +
  theme(axis.text.x = element_text(angle = 45, hjust = 1))  # Rotate x-axis labels for better readabili
```



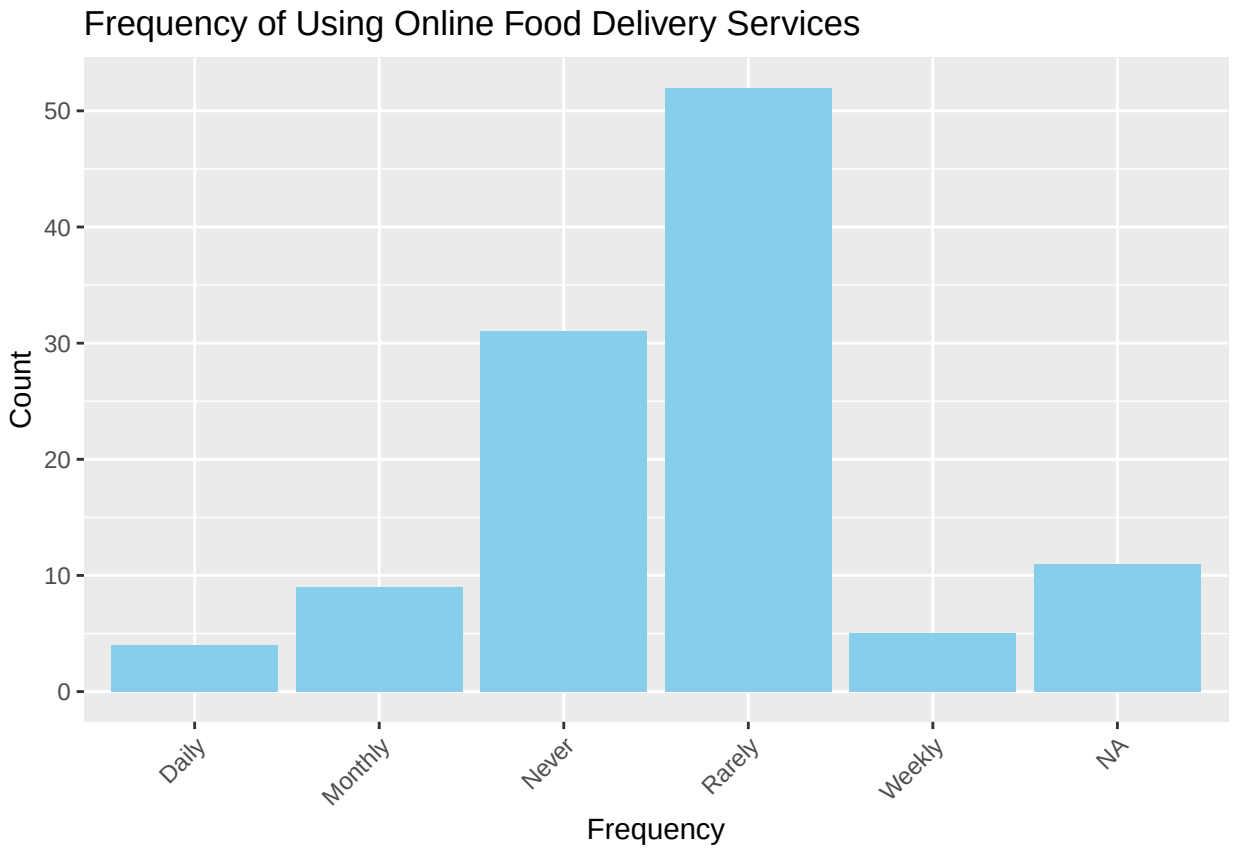
Plotting the Frequency for Average Weekly Income / allowance

```
ggplot(data = OFDSraw, aes(x = OFDSraw$`Average Weekly Income / allowance`)) +
  geom_bar(fill = "skyblue") +
  labs(title = "Distribution of Average Weekly Income/Allowance",
       x = "Income",
       y = "Frequency")
```



Plotting the Frequency for Frequency of Using Online Food Delivery Services

```
ggplot(data = OFDSraw, aes(x = OFDSraw$`Frequency of Using Online Food Delivery Services`)) +
  geom_bar(fill = "skyblue") +
  labs(title = "Frequency of Using Online Food Delivery Services",
       x = "Frequency",
       y = "Count") +
  theme(axis.text.x = element_text(angle = 45, hjust = 1))  # Rotate x-axis labels for better readabili
```



Plotting the Frequency for Primary Reason for Using Online Food Delivery Services

```
ggplot(data = OFDSraw, aes(x = OFDSraw$`Primary Reason for Using Online Food Delivery Services`)) +
  geom_bar(fill = "skyblue") +
  labs(title = "Primary Reasons for Using Online Food Delivery Services",
       x = "Primary Reason",
       y = "Count") +
  theme(axis.text.x = element_text(angle = 45, hjust = 1))  # Rotate x-axis labels for better readabili
```

```
## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
## conversion failure on 'I've Never Online Food Delivery' in 'mbcsToSbcs': dot
## substituted for <e2>

## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
## conversion failure on 'I've Never Online Food Delivery' in 'mbcsToSbcs': dot
## substituted for <80>

## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
## conversion failure on 'I've Never Online Food Delivery' in 'mbcsToSbcs': dot
## substituted for <99>

## Warning in grid.Call.graphics(C_text, as.graphicsAnnot(x$label), x$x, x$y, :
## conversion failure on 'I've Never Online Food Delivery' in 'mbcsToSbcs': dot
## substituted for <e2>

## Warning in grid.Call.graphics(C_text, as.graphicsAnnot(x$label), x$x, x$y, :
## conversion failure on 'I've Never Online Food Delivery' in 'mbcsToSbcs': dot
## substituted for <80>

## Warning in grid.Call.graphics(C_text, as.graphicsAnnot(x$label), x$x, x$y, :
```

```
## conversion failure on 'I’ve Never Online Food Delivery' in 'mbcsToSbcs': dot
## substituted for <99>
```