paper*

Pascal Lee Slew Yunkyung Park

29 March 2022

Abstract

Four sentences

1 Introduction

2 Data

```
## # A tibble: 7 x 2
##   character            sum
##   <fct>              <dbl>
## 1 Residence           3565
## 2 Region              3566
## 3 Mother's_education  3565
## 4 Work_status         3564
## 5 Occupation          3565
## 6 Employment_status   3563
## 7 Total               3564
```

Table **??** shows that 3,566 participated the survey, but there are 3 whom did not answer their employment status, etc.

*Code and data are available at: https://github.com/Pascal-304/dhs_analysis.

Table 1: A subset of key features

Background	No child under six	1+ child under six	Child's caretaker - respondent	Character
Urban	58.3	41.7	42.7	Residence
Rural	38.9	61.1	49.4	Residence
Western	44.2	55.8	63.6	Region
Central	47.5	52.5	59.7	Region
Greater_Accra	60.8	39.2	39.7	Region
Volta	42.9	57.1	46.1	Region
Eastern	44.8	55.2	44.1	Region
Ashanti	42.1	57.9	40.5	Region
Brong_Ahafo	38.9	61.1	50.0	Region
Northern	35.0	65.0	39.2	Region

3 Results

3.1 Mother's education

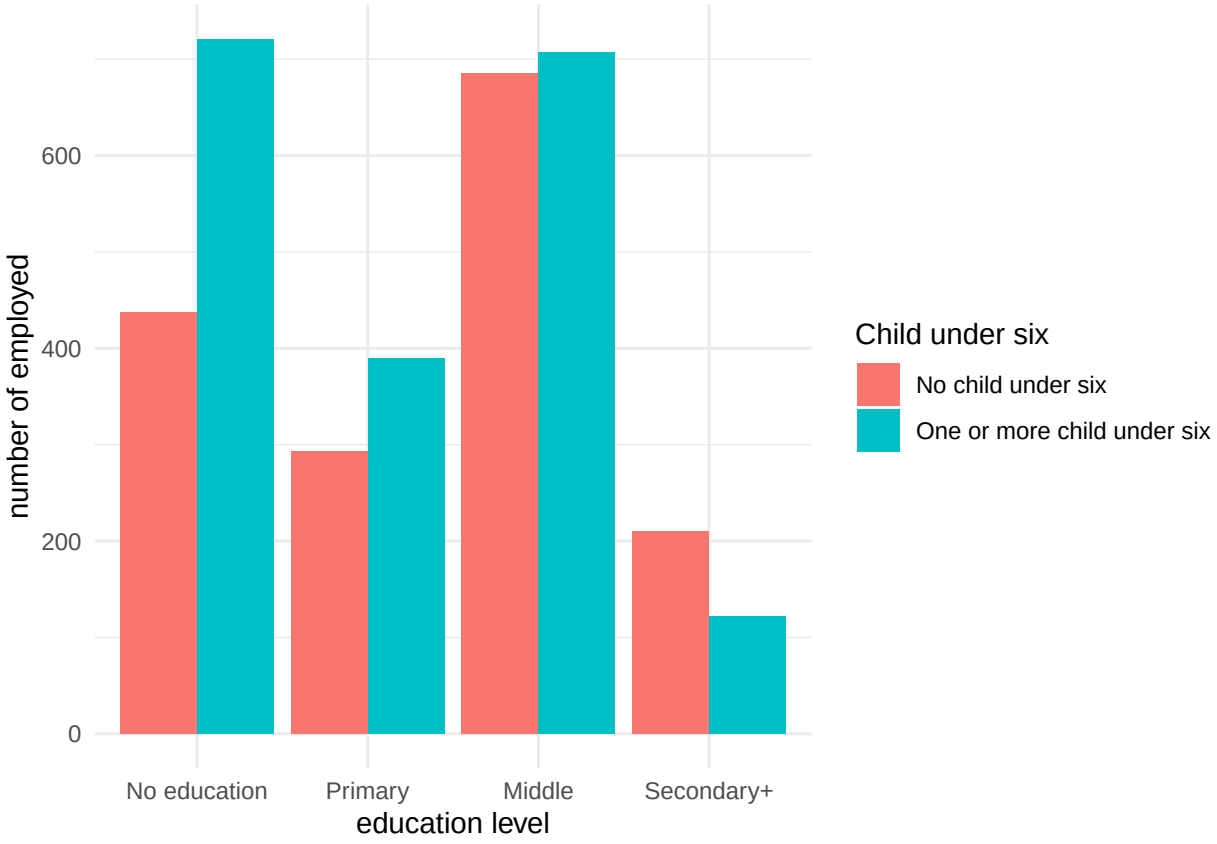


Figure 1: Mother's Education level

Figure 1 shows that there are less women who studied more than secondary school, and only the secondary+ turned out to be more likely to have no child under six.

3.2 Work status

Figure 3 shows that

3.3 Occupation

Figure 5 shows that

3.4 Employment status

Figure 7 shows that

```
## Linking to GEOS 3.9.1, GDAL 3.2.1, PROJ 7.2.1; sf_use_s2() is TRUE
```

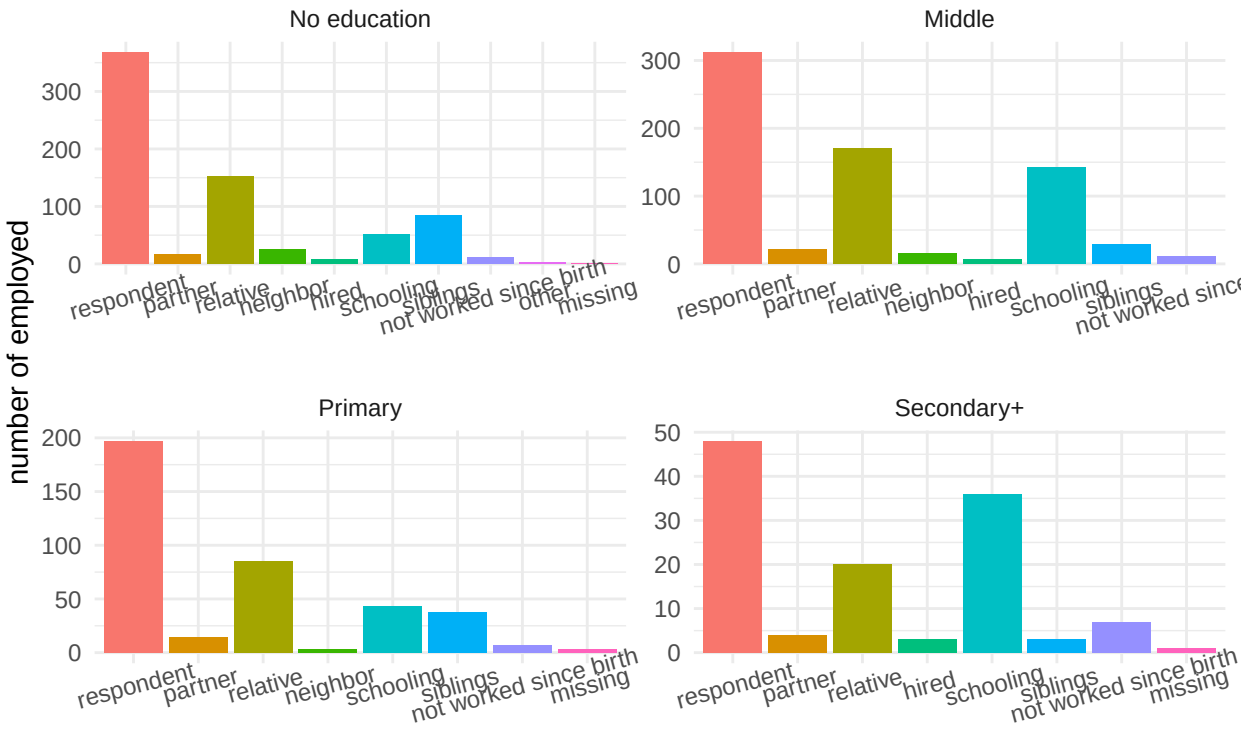


Figure 2: Distribution of child's caretaker by mother's education level

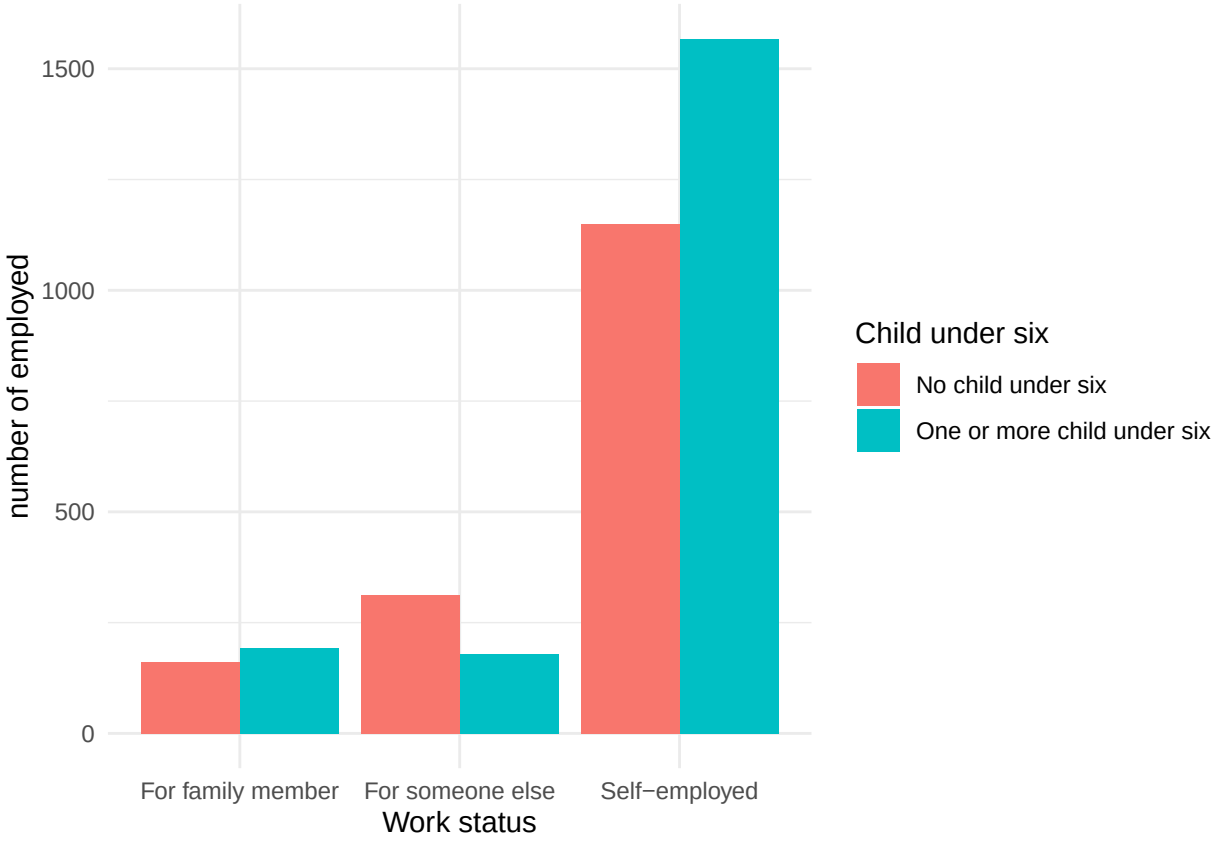


Figure 3: Work status

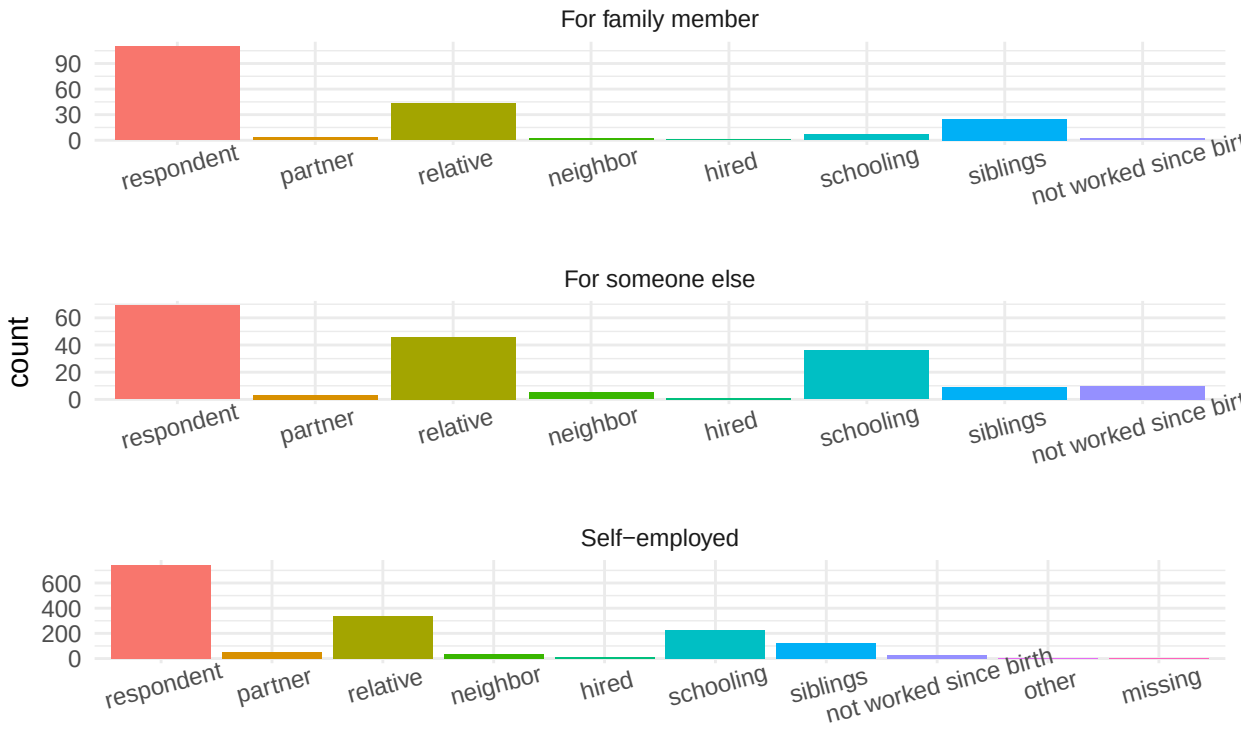


Figure 4: Distribution of child's caretaker by work status

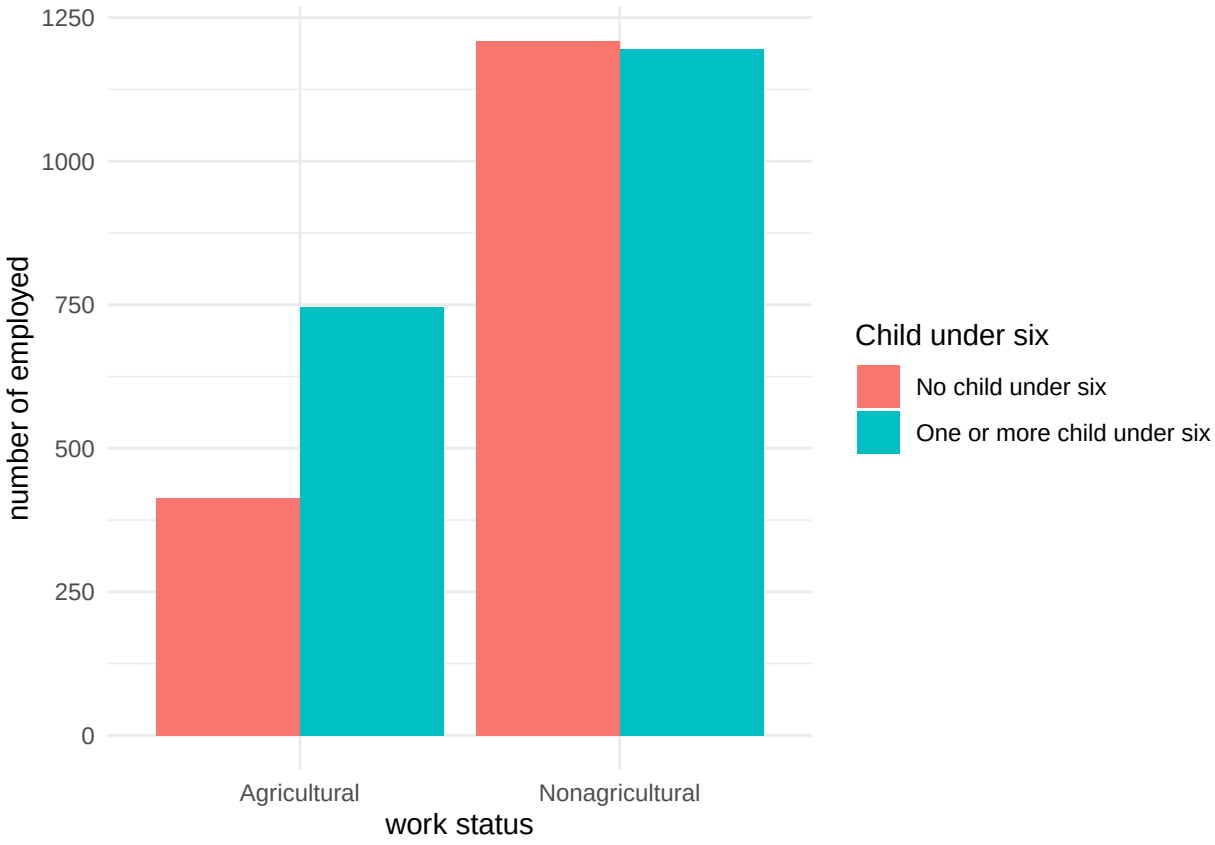


Figure 5: Occupation

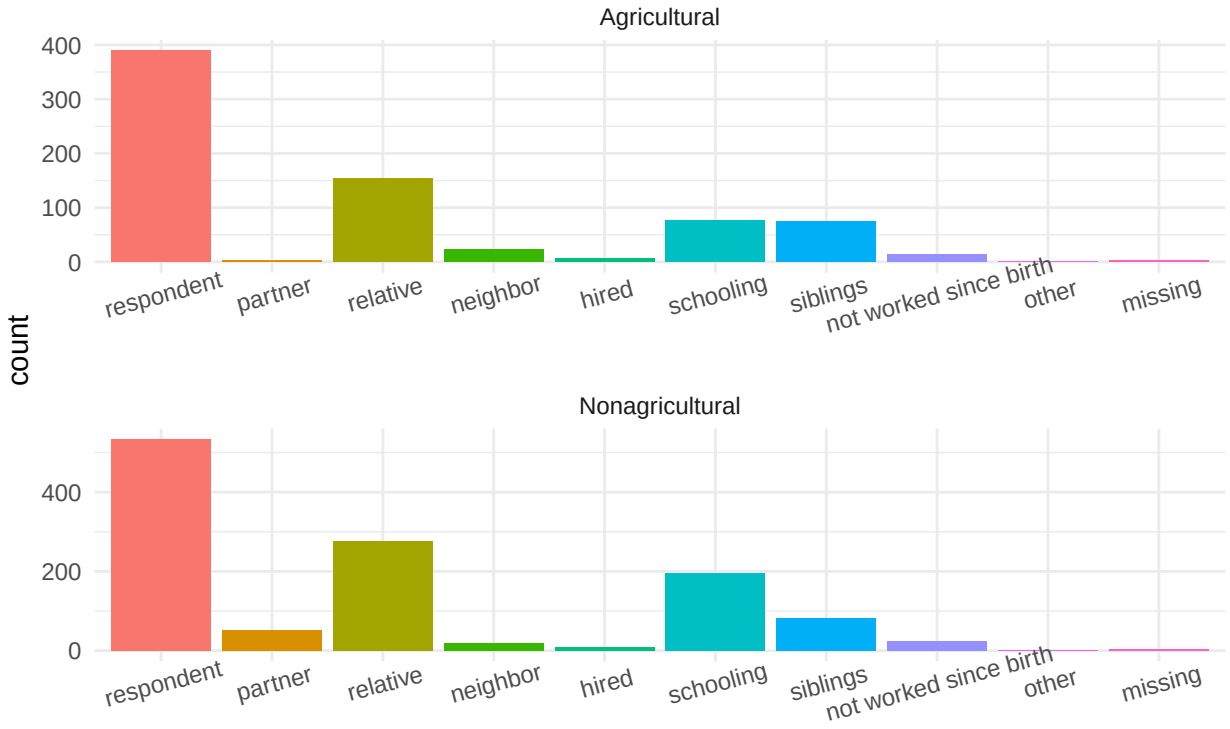


Figure 6: Distribution of child's caretaker by work status

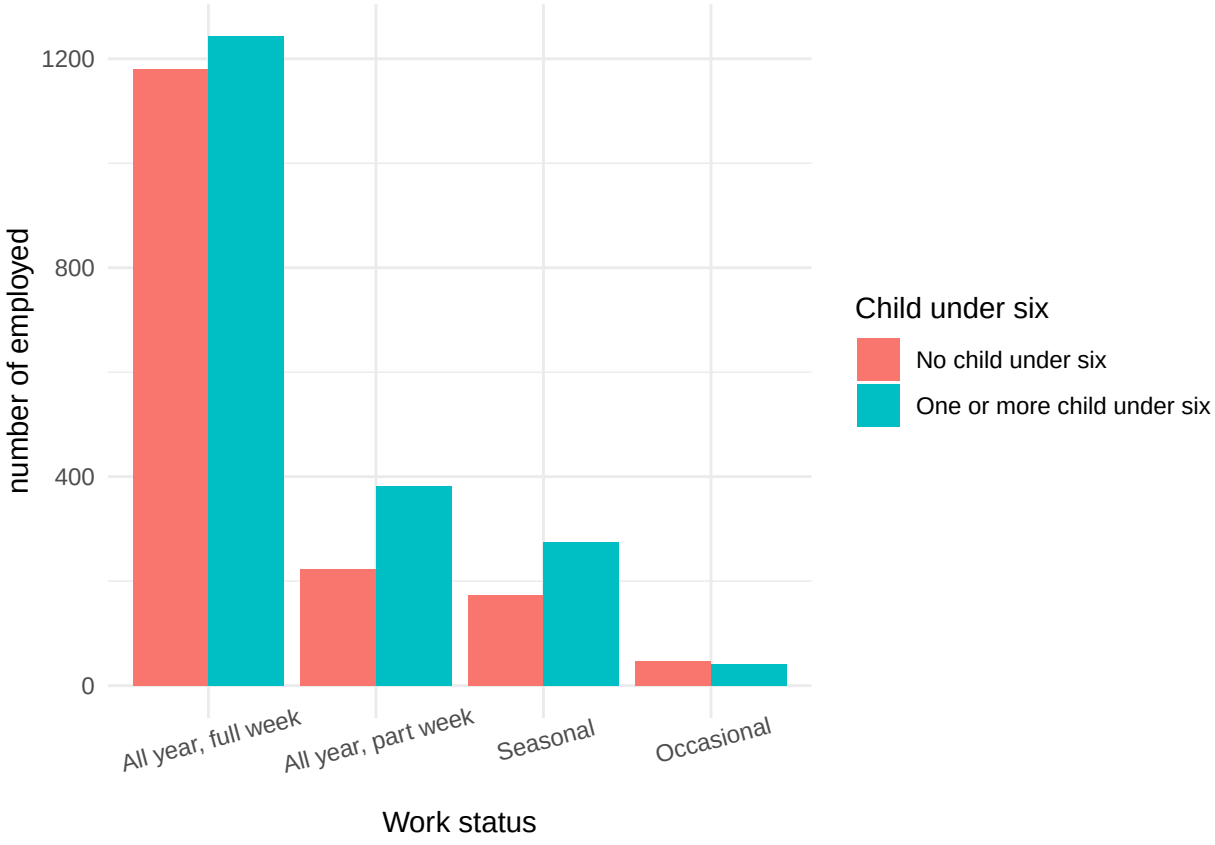


Figure 7: Employment status

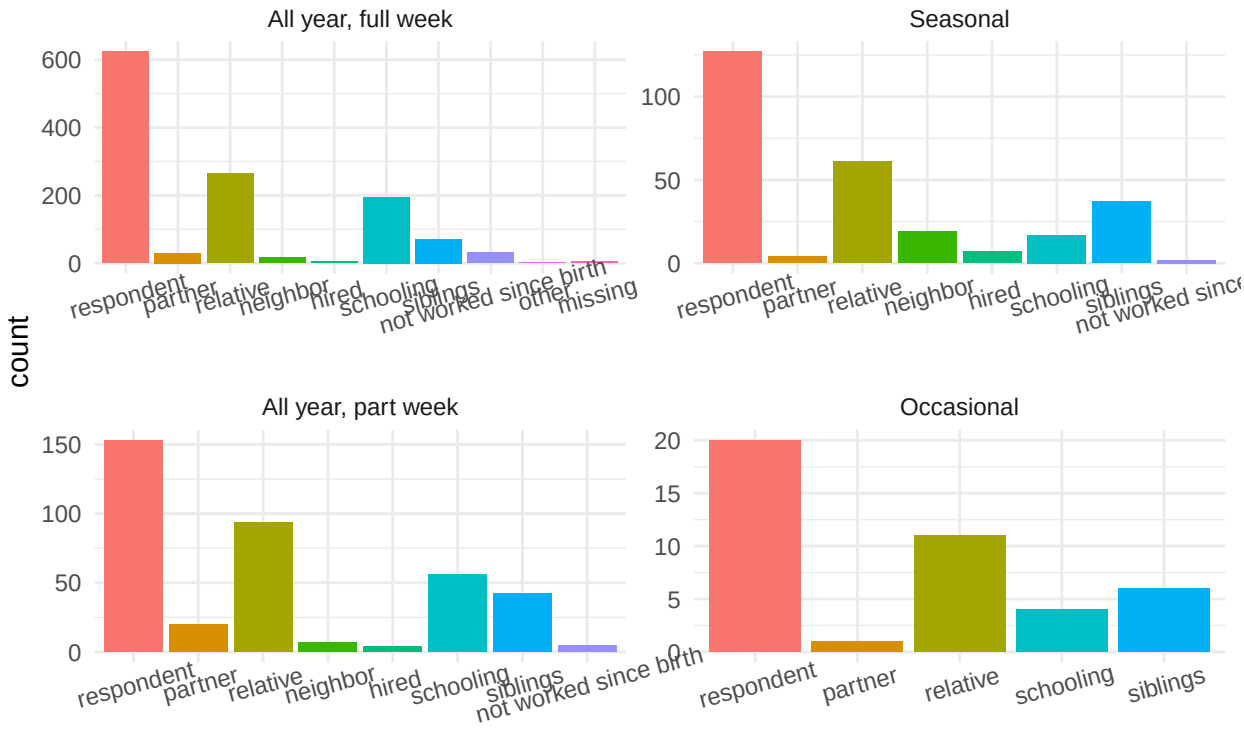
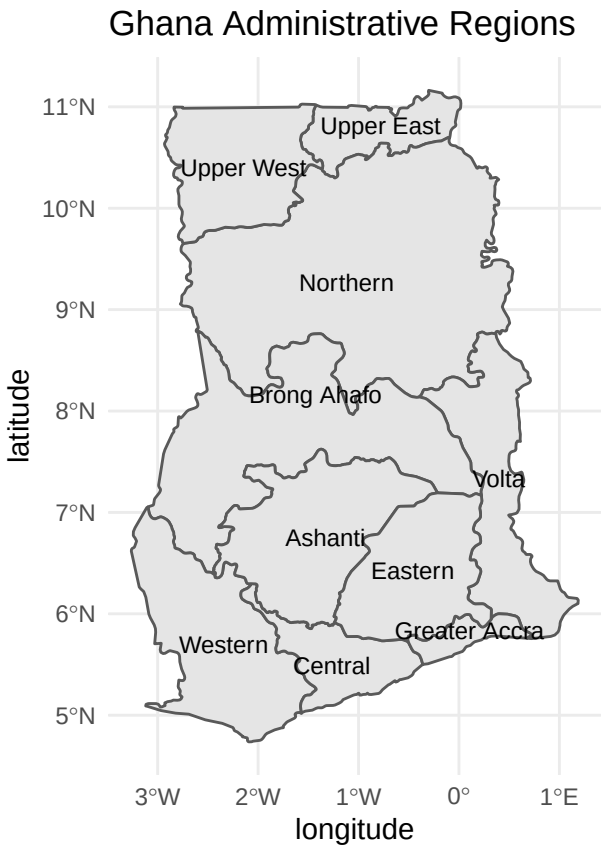
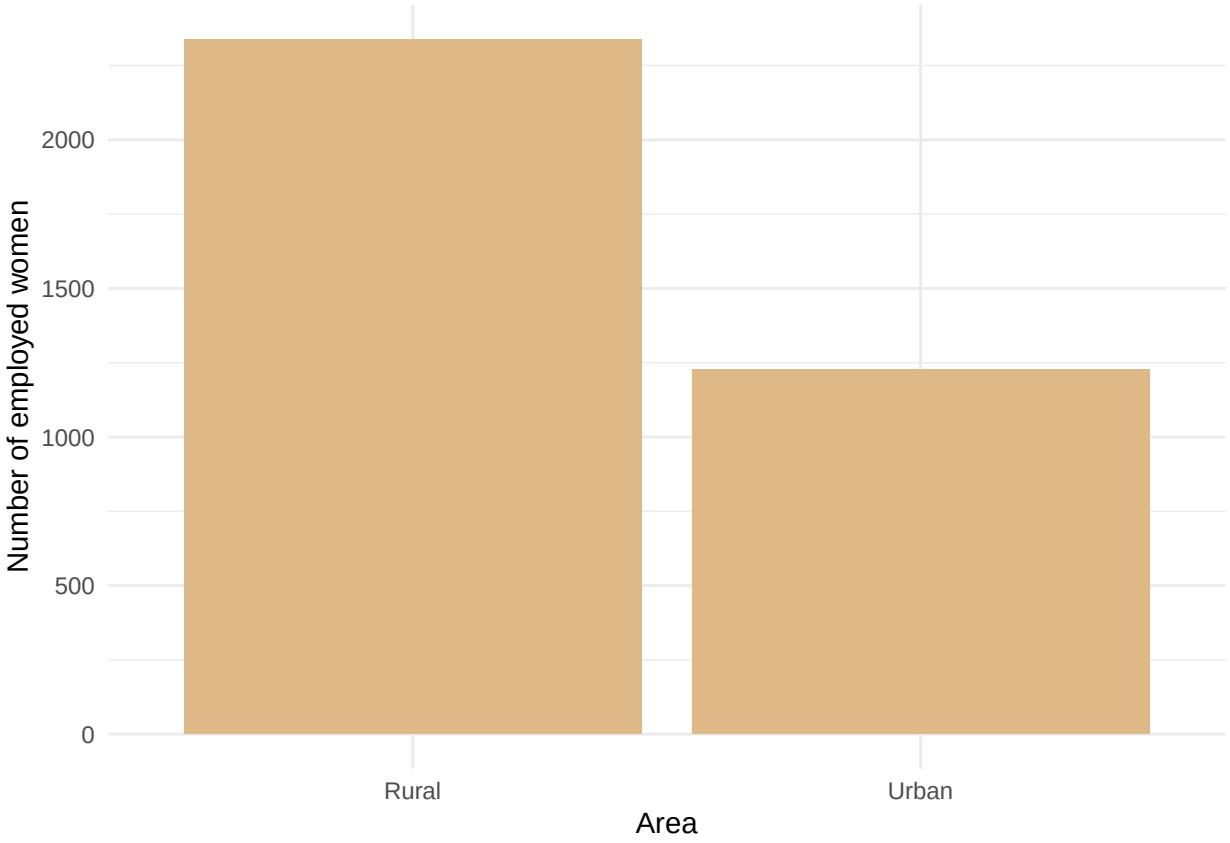
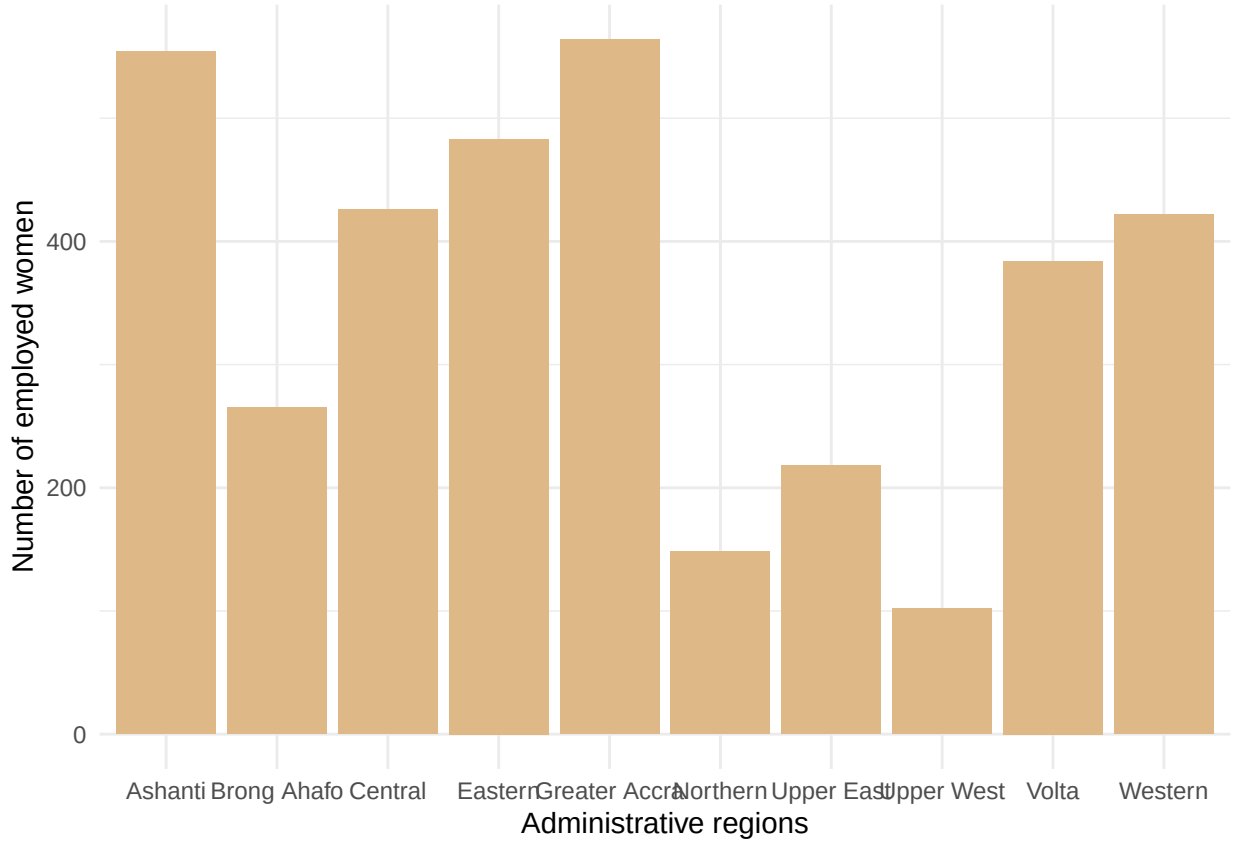


Figure 8: (#fig:employment_statuschildcare)Distribution of child's caretaker by work status


Ghana Administrative Regions
11°N
10°N
9°N
8°N
7°N
6°N
5°N
latitude
3°W
2°W
1°W
0°
1°E
longitude
Upper East
Upper West
Northern
Brong Ahafo
Volta
Ashanti
Eastern
Greater Accra
Western
Central

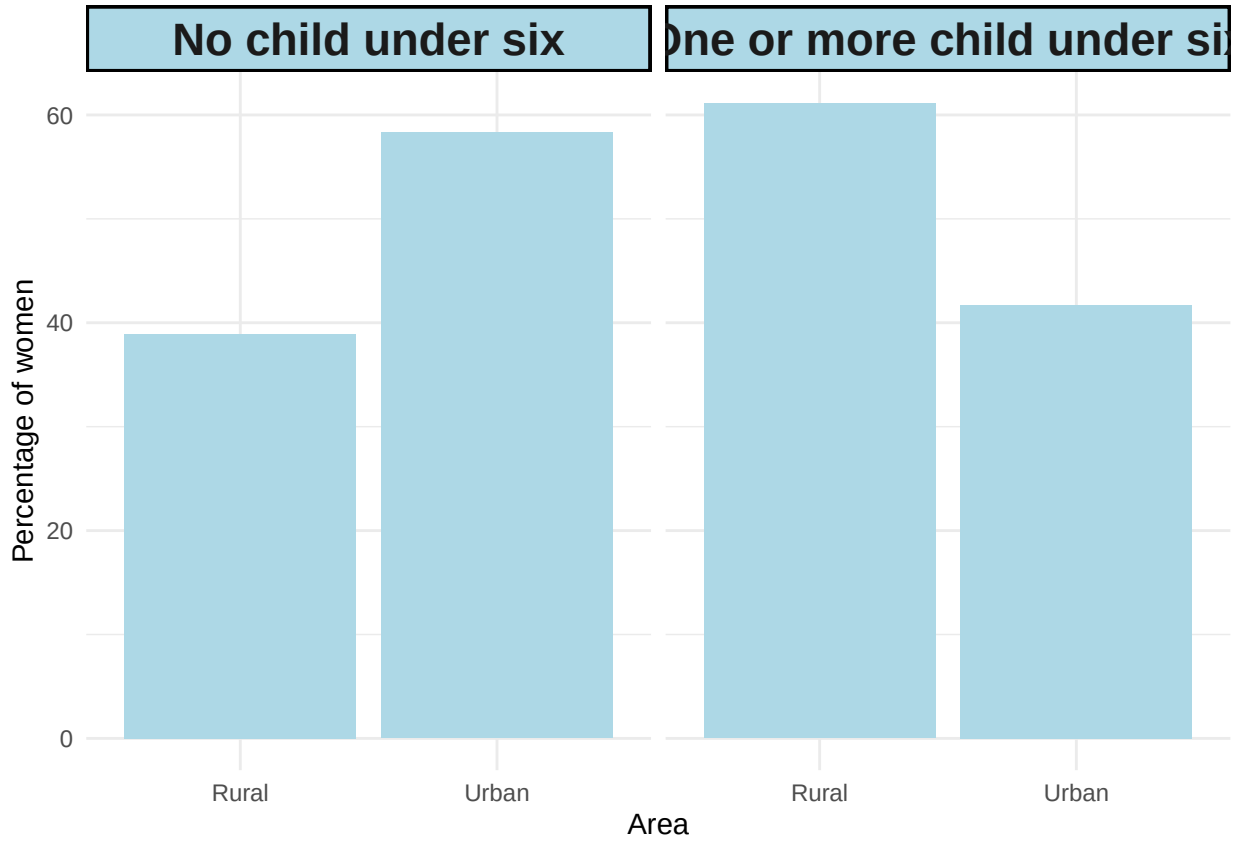

Number of employed women
2000
1500
1000
500
0
Rural
Urban
Area




```
# make dataset in long format
resid_long <- residence %>%
  select(-c(character)) %>%
  pivot_longer(!background, names_to = "variables", values_to = "percentage")

# create label names list
label_list <- list('no_child_under_six' = "No child under six",
                   'one_more_child_under_six' = "One or more child under six")

labellers <- function(variable, value) {
  return(label_list[value])
}

# plot bar graph
resid_long %>%
  filter(variables == 'no_child_under_six' | variables == 'one_more_child_under_six') %>%
  ggplot(aes(x = background,
             y = percentage,
             fill = background)) +
  geom_bar(stat = 'identity',
           fill = "lightblue") +
  labs(x = "Area",
       y = "Percentage of women") +
  theme_minimal() +
  facet_wrap(~variables, labeller = labellers) +
  theme(strip.text = element_text(face = "bold", size = rel(1.5)),
```

```
    strip.background = element_rect(fill = "lightblue", colour = "black", size = 1))
```

```
## Warning: The labeller API has been updated. Labellers taking ‘variable‘ and
## ‘value‘ arguments are now deprecated. See labellers documentation.
```




```
# caretaker aspect
```

4 Discussions

4.1 Limitation and weaknesses

The number does not add up to 100. (truncation error)

5 References