

How Socioeconomic Factors Affect Average Age of First Birth in Canada*

Sevnur Kulak

Dongqi Bi

Ivan Li

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Abstract

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1 Introduction

2 Data

```
## List of 93
## $ line :List of 6
## ..$ colour : chr "black"
## ..$ size : num 0.5
## ..$ linetype : num 1
## ..$ lineend : chr "butt"
## ..$ arrow : logi FALSE
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_line" "element"
## $ rect :List of 5
## ..$ fill : chr "white"
```

*Code and data are available at: https://github.com/hellowoshibb/STA304_paper3

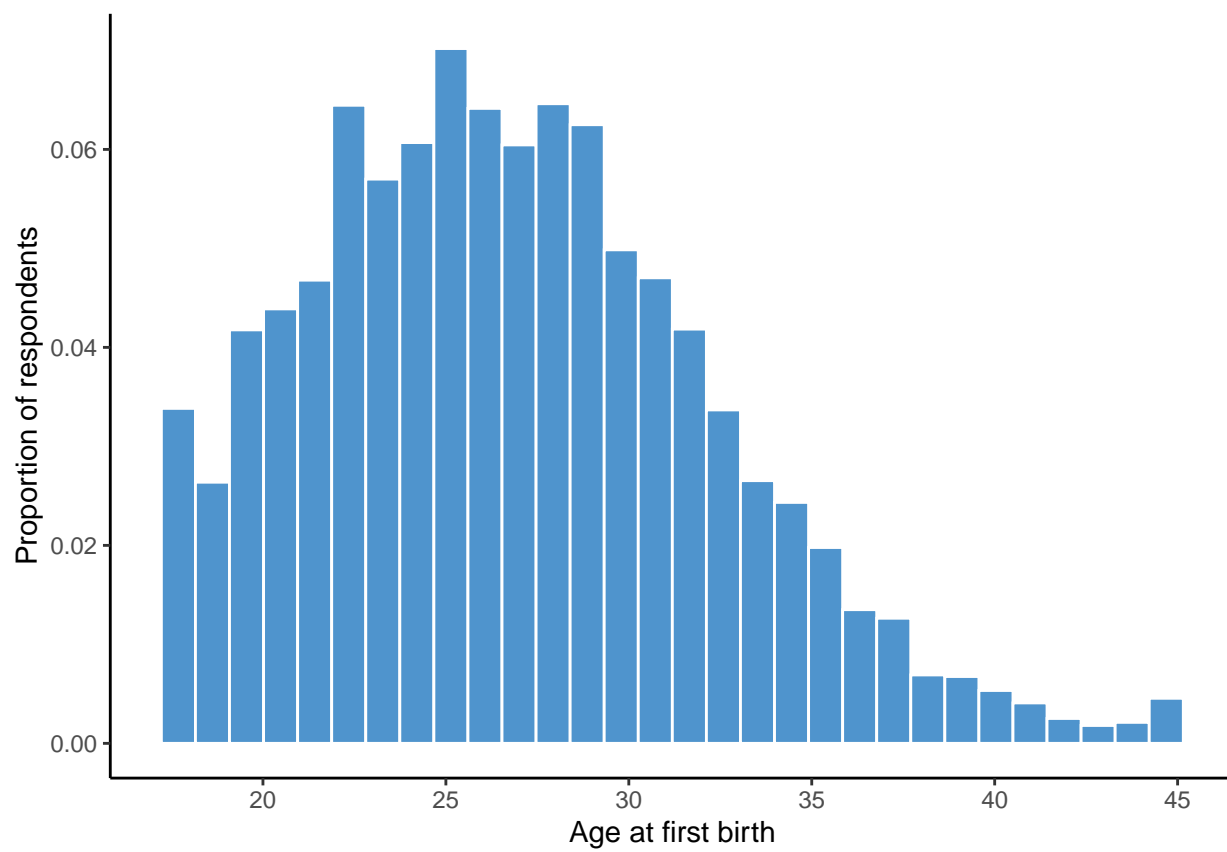


Figure 1: Distribution of age at which respondents have their first child

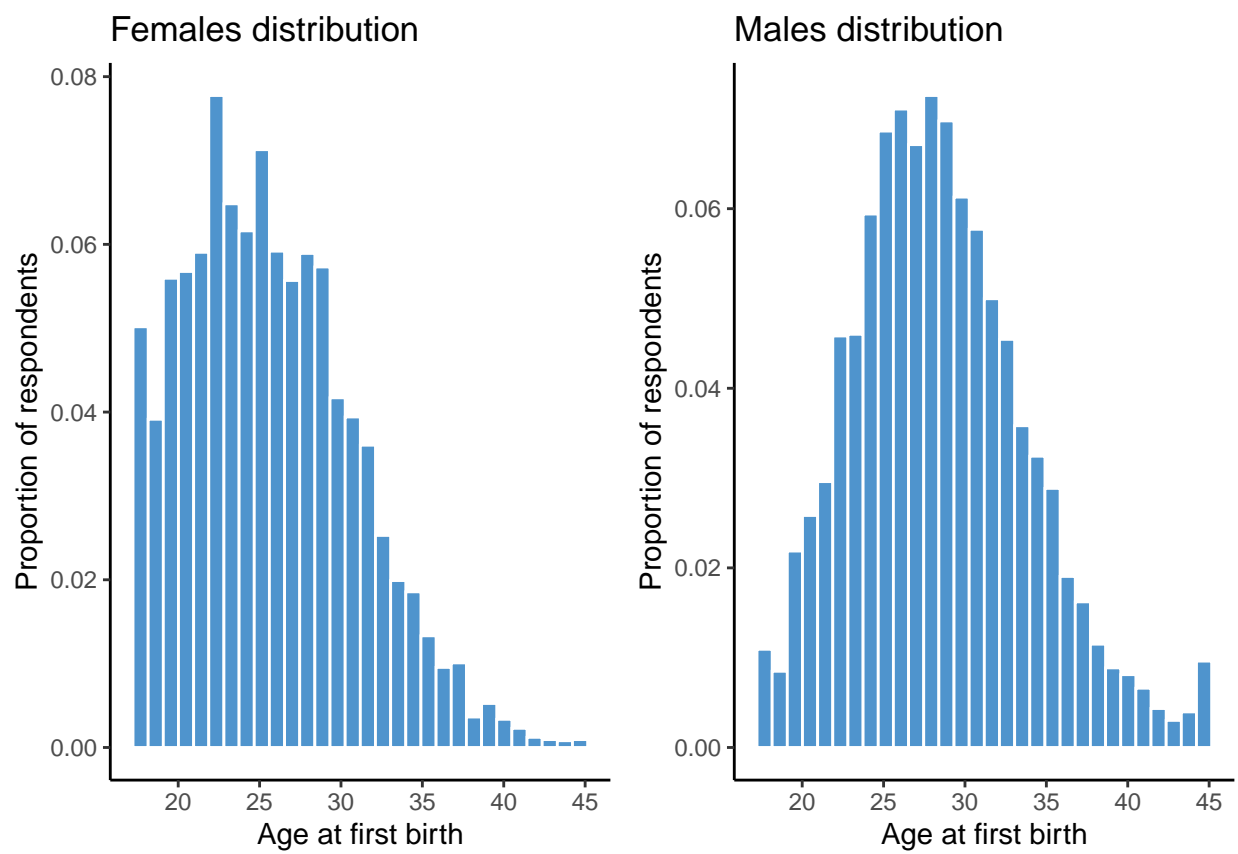


Figure 2: Distribution of age at which respondents have their first child by gender

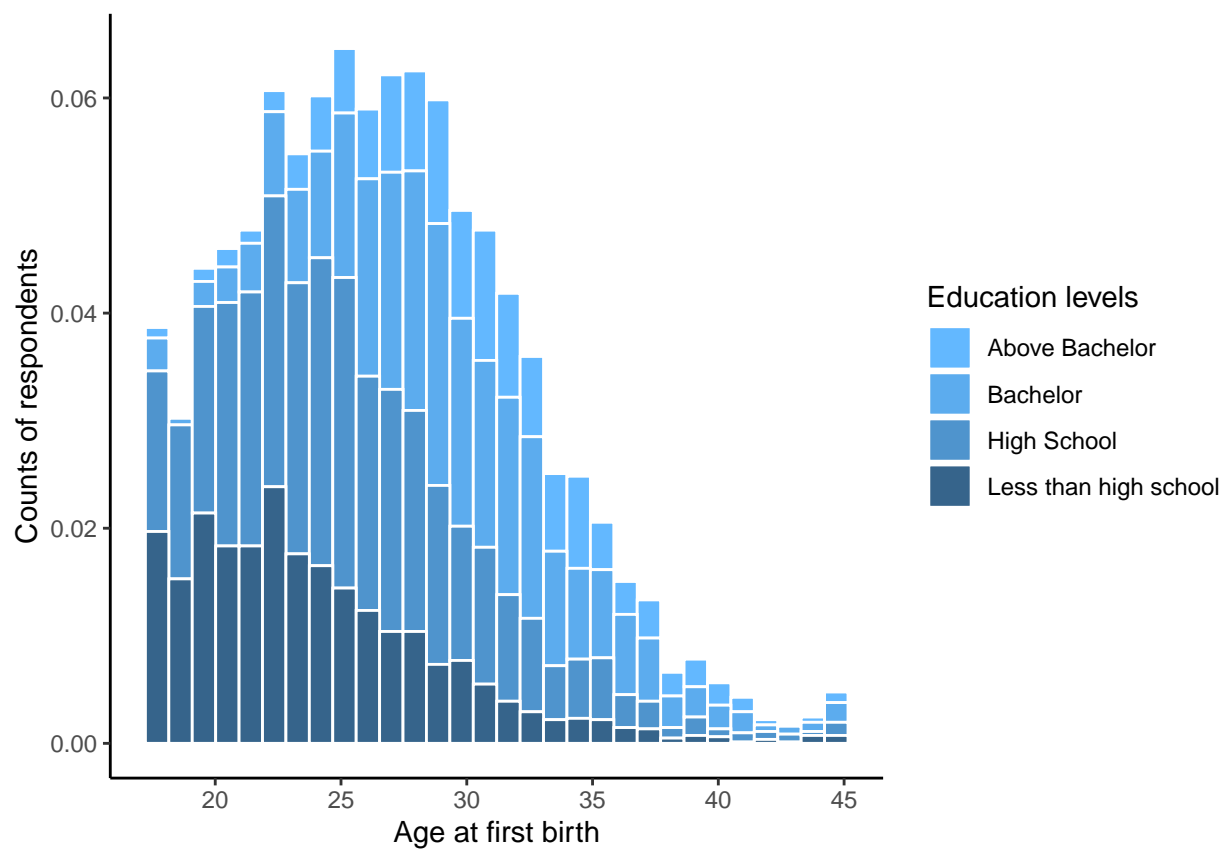


Figure 3: Distribution of age at which respondents have their first child by education levels

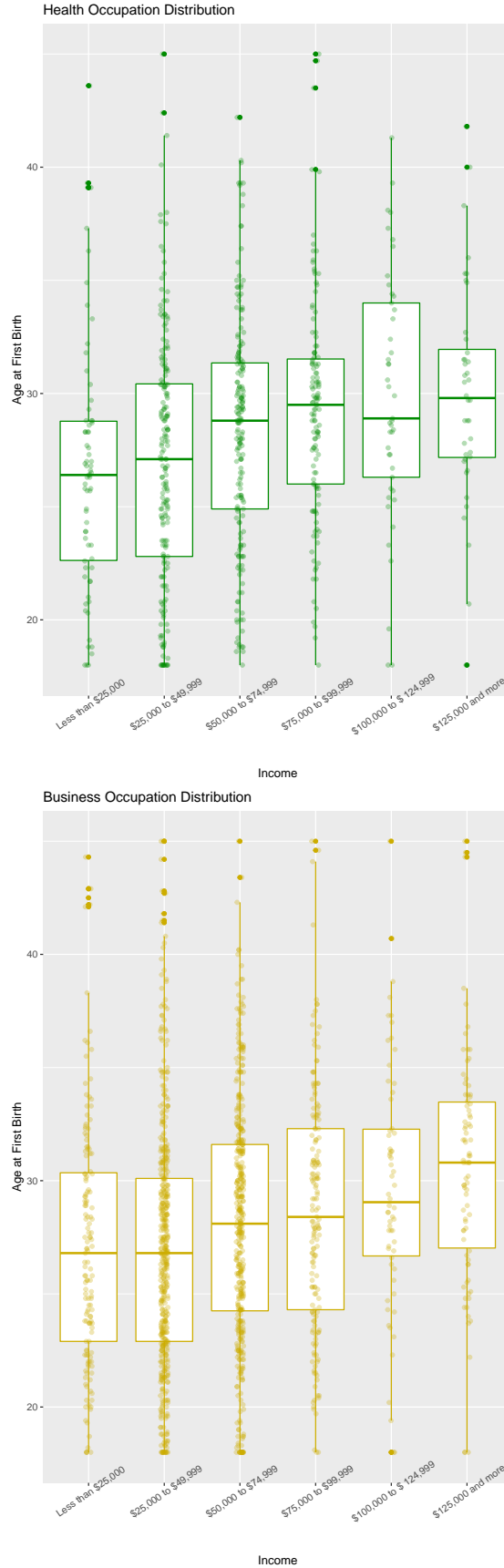


Figure 4: Part1 : Distribution of age at which respondents have their first child by occupation and income

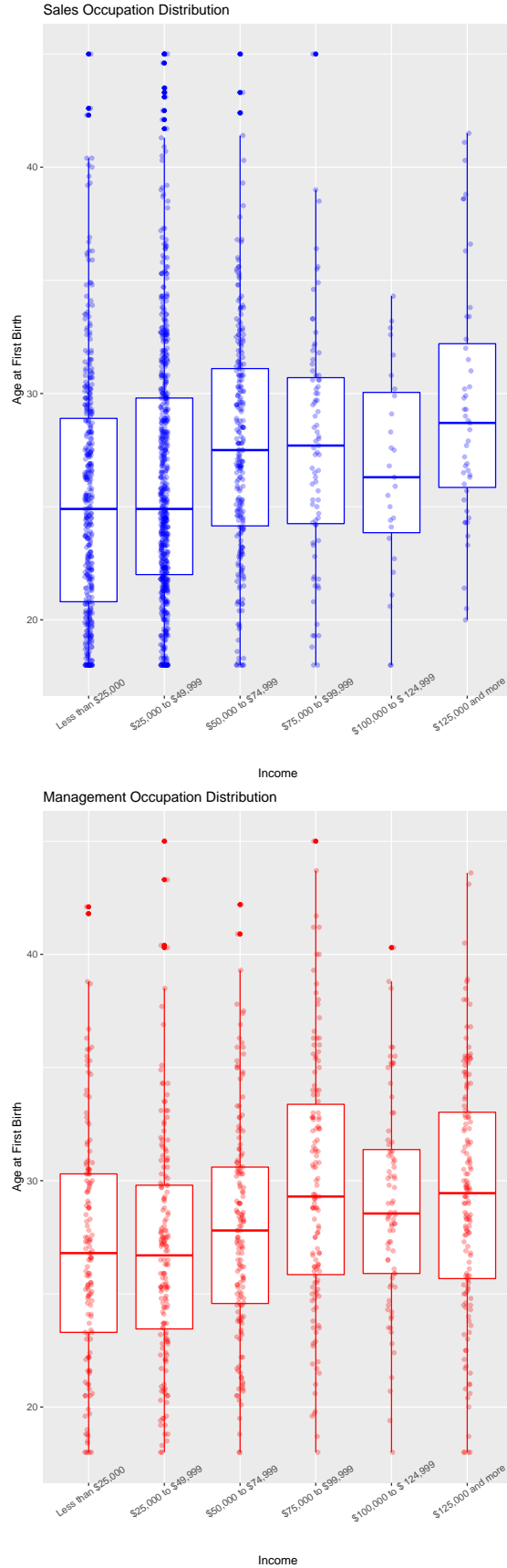


Figure 5: Part2 : Distribution of age at which respondents have their first child by occupation and income

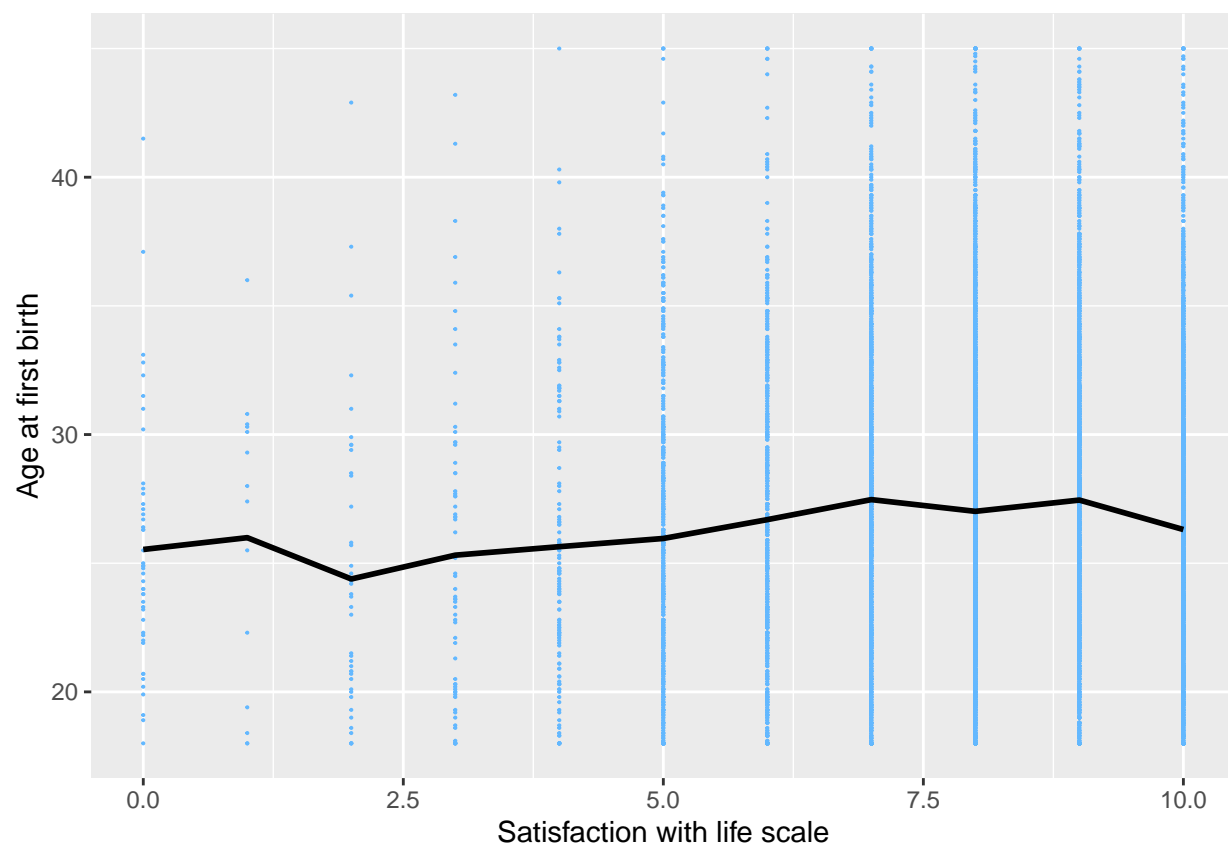


Figure 6: Age at which having their first child vs feelings about life as a whole

```

## ..$ colour      : chr "black"
## ..$ size        : num 0.5
## ..$ linetype     : num 1
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_rect" "element"
## $ text           :List of 11
## ..$ family       : chr ""
## ..$ face         : chr "plain"
## ..$ colour       : chr "black"
## ..$ size         : num 11
## ..$ hjust        : num 0.5
## ..$ vjust        : num 0.5
## ..$ angle        : num 0
## ..$ lineheight   : num 0.9
## ..$ margin       : 'margin' num [1:4] 0points 0points 0points 0points
## ..- attr(*, "unit")= int 8
## ..$ debug        : logi FALSE
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_text" "element"
## $ title          : NULL
## $ aspect.ratio   : NULL
## $ axis.title      : NULL
## $ axis.title.x    :List of 11
## ..$ family       : NULL
## ..$ face         : NULL
## ..$ colour       : NULL
## ..$ size         : NULL
## ..$ hjust        : NULL
## ..$ vjust        : num 1
## ..$ angle        : NULL
## ..$ lineheight   : NULL
## ..$ margin       : 'margin' num [1:4] 2.75points 0points 0points 0points
## ..- attr(*, "unit")= int 8
## ..$ debug        : NULL
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_text" "element"
## $ axis.title.x.top :List of 11
## ..$ family       : NULL
## ..$ face         : NULL
## ..$ colour       : NULL
## ..$ size         : NULL
## ..$ hjust        : NULL
## ..$ vjust        : num 0
## ..$ angle        : NULL
## ..$ lineheight   : NULL
## ..$ margin       : 'margin' num [1:4] 0points 0points 2.75points 0points
## ..- attr(*, "unit")= int 8
## ..$ debug        : NULL
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_text" "element"
## $ axis.title.x.bottom : NULL
## $ axis.title.y        :List of 11
## ..$ family       : NULL
## ..$ face         : NULL

```



```

## ..$ colour      : NULL
## ..$ size        : NULL
## ..$ hjust       : NULL
## ..$ vjust       : num 1
## ..$ angle       : num 90
## ..$ lineheight  : NULL
## ..$ margin      : 'margin' num [1:4] 0points 2.75points 0points 0points
## ..- attr(*, "unit")= int 8
## ..$ debug       : NULL
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_text" "element"
## $ axis.title.y.left      : NULL
## $ axis.title.y.right     :List of 11
## ..$ family           : NULL
## ..$ face             : NULL
## ..$ colour           : NULL
## ..$ size             : NULL
## ..$ hjust           : NULL
## ..$ vjust           : num 0
## ..$ angle           : num -90
## ..$ lineheight      : NULL
## ..$ margin          : 'margin' num [1:4] 0points 0points 0points 2.75points
## ..- attr(*, "unit")= int 8
## ..$ debug           : NULL
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_text" "element"
## $ axis.text            :List of 11
## ..$ family           : NULL
## ..$ face             : NULL
## ..$ colour           : chr "grey30"
## ..$ size             : 'rel' num 0.8
## ..$ hjust           : NULL
## ..$ vjust           : NULL
## ..$ angle           : NULL
## ..$ lineheight      : NULL
## ..$ margin          : NULL
## ..$ debug           : NULL
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_text" "element"
## $ axis.text.x          :List of 11
## ..$ family           : NULL
## ..$ face             : NULL
## ..$ colour           : NULL
## ..$ size             : NULL
## ..$ hjust           : NULL
## ..$ vjust           : num 1
## ..$ angle           : NULL
## ..$ lineheight      : NULL
## ..$ margin          : 'margin' num [1:4] 2.2points 0points 0points 0points
## ..- attr(*, "unit")= int 8
## ..$ debug           : NULL
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_text" "element"
## $ axis.text.x.top      :List of 11

```

```

## ..$ family      : NULL
## ..$ face        : NULL
## ..$ colour      : NULL
## ..$ size        : NULL
## ..$ hjust       : NULL
## ..$ vjust       : num 0
## ..$ angle       : NULL
## ..$ lineheight  : NULL
## ..$ margin      : 'margin' num [1:4] 0points 0points 2.2points 0points
## .. ..- attr(*, "unit")= int 8
## ..$ debug       : NULL
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_text" "element"
## $ axis.text.x.bottom : NULL
## $ axis.text.y       :List of 11
## ..$ family      : NULL
## ..$ face        : NULL
## ..$ colour      : NULL
## ..$ size        : NULL
## ..$ hjust       : num 1
## ..$ vjust       : NULL
## ..$ angle       : NULL
## ..$ lineheight  : NULL
## ..$ margin      : 'margin' num [1:4] 0points 2.2points 0points 0points
## .. ..- attr(*, "unit")= int 8
## ..$ debug       : NULL
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_text" "element"
## $ axis.text.y.left  : NULL
## $ axis.text.y.right :List of 11
## ..$ family      : NULL
## ..$ face        : NULL
## ..$ colour      : NULL
## ..$ size        : NULL
## ..$ hjust       : num 0
## ..$ vjust       : NULL
## ..$ angle       : NULL
## ..$ lineheight  : NULL
## ..$ margin      : 'margin' num [1:4] 0points 0points 0points 2.2points
## .. ..- attr(*, "unit")= int 8
## ..$ debug       : NULL
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_text" "element"
## $ axis.ticks       :List of 6
## ..$ colour      : chr "grey20"
## ..$ size        : NULL
## ..$ linetype     : NULL
## ..$ lineend      : NULL
## ..$ arrow       : logi FALSE
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_line" "element"
## $ axis.ticks.x     : NULL
## $ axis.ticks.x.top  : NULL
## $ axis.ticks.x.bottom : NULL

```

```

## $ axis.ticks.y           : NULL
## $ axis.ticks.y.left     : NULL
## $ axis.ticks.y.right    : NULL
## $ axis.ticks.length     : 'simpleUnit' num 2.75points
##   ..- attr(*, "unit")= int 8
## $ axis.ticks.length.x   : NULL
## $ axis.ticks.length.x.top : NULL
## $ axis.ticks.length.x.bottom: NULL
## $ axis.ticks.length.y   : NULL
## $ axis.ticks.length.y.left : NULL
## $ axis.ticks.length.y.right : NULL
## $ axis.line             :List of 6
##   ..$ colour           : chr "black"
##   ..$ size              : 'rel' num 1
##   ..$ linetype          : NULL
##   ..$ lineend           : NULL
##   ..$ arrow             : logi FALSE
##   ..$ inherit.blank: logi TRUE
##   ..- attr(*, "class")= chr [1:2] "element_line" "element"
## $ axis.line.x           : NULL
## $ axis.line.x.top       : NULL
## $ axis.line.x.bottom    : NULL
## $ axis.line.y           : NULL
## $ axis.line.y.left      : NULL
## $ axis.line.y.right     : NULL
## $ legend.background     :List of 5
##   ..$ fill              : NULL
##   ..$ colour            : logi NA
##   ..$ size              : NULL
##   ..$ linetype          : NULL
##   ..$ inherit.blank: logi TRUE
##   ..- attr(*, "class")= chr [1:2] "element_rect" "element"
## $ legend.margin         : 'margin' num [1:4] 5.5points 5.5points 5.5points 5.5points
##   ..- attr(*, "unit")= int 8
## $ legend.spacing        : 'simpleUnit' num 11points
##   ..- attr(*, "unit")= int 8
## $ legend.spacing.x      : NULL
## $ legend.spacing.y      : NULL
## $ legend.key             : list()
##   ..- attr(*, "class")= chr [1:2] "element_blank" "element"
## $ legend.key.size        : 'simpleUnit' num 1.2lines
##   ..- attr(*, "unit")= int 3
## $ legend.key.height      : NULL
## $ legend.key.width       : NULL
## $ legend.text            :List of 11
##   ..$ family            : NULL
##   ..$ face              : NULL
##   ..$ colour            : NULL
##   ..$ size              : 'rel' num 0.8
##   ..$ hjust             : NULL
##   ..$ vjust             : NULL
##   ..$ angle             : NULL
##   ..$ lineheight        : NULL
##   ..$ margin            : NULL

```

```

## ..$ debug          : NULL
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_text" "element"
## $ legend.text.align : NULL
## $ legend.title       :List of 11
## ..$ family          : NULL
## ..$ face            : NULL
## ..$ colour          : NULL
## ..$ size            : NULL
## ..$ hjust           : num 0
## ..$ vjust           : NULL
## ..$ angle           : NULL
## ..$ lineheight      : NULL
## ..$ margin          : NULL
## ..$ debug           : NULL
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_text" "element"
## $ legend.title.align : NULL
## $ legend.position    : chr "right"
## $ legend.direction   : NULL
## $ legend.justification : chr "center"
## $ legend.box         : NULL
## $ legend.box.just    : NULL
## $ legend.box.margin  : 'margin' num [1:4] 0cm 0cm 0cm 0cm
## ..- attr(*, "unit")= int 1
## $ legend.box.background : list()
## ..- attr(*, "class")= chr [1:2] "element_blank" "element"
## $ legend.box.spacing  : 'simpleUnit' num 11points
## ..- attr(*, "unit")= int 8
## $ panel.background    :List of 5
## ..$ fill              : chr "white"
## ..$ colour           : logi NA
## ..$ size             : NULL
## ..$ linetype         : NULL
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_rect" "element"
## $ panel.border        : list()
## ..- attr(*, "class")= chr [1:2] "element_blank" "element"
## $ panel.spacing      : 'simpleUnit' num 5.5points
## ..- attr(*, "unit")= int 8
## $ panel.spacing.x    : NULL
## $ panel.spacing.y    : NULL
## $ panel.grid          :List of 6
## ..$ colour           : chr "grey92"
## ..$ size             : NULL
## ..$ linetype         : NULL
## ..$ lineend          : NULL
## ..$ arrow            : logi FALSE
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_line" "element"
## $ panel.grid.major    : list()
## ..- attr(*, "class")= chr [1:2] "element_blank" "element"
## $ panel.grid.minor    : list()
## ..- attr(*, "class")= chr [1:2] "element_blank" "element"

```

```

## $ panel.grid.major.x      : NULL
## $ panel.grid.major.y      : NULL
## $ panel.grid.minor.x      : NULL
## $ panel.grid.minor.y      : NULL
## $ panel.ontop              : logi FALSE
## $ plot.background         :List of 5
## ..$ fill                  : NULL
## ..$ colour                : chr "white"
## ..$ size                  : NULL
## ..$ linetype              : NULL
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_rect" "element"
## $ plot.title              :List of 11
## ..$ family                : NULL
## ..$ face                  : NULL
## ..$ colour                : NULL
## ..$ size                  : 'rel' num 1.2
## ..$ hjust                 : num 0
## ..$ vjust                 : num 1
## ..$ angle                 : NULL
## ..$ lineheight            : NULL
## ..$ margin                : 'margin' num [1:4] 0points 0points 5.5points 0points
## ..- attr(*, "unit")= int 8
## ..$ debug                 : NULL
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_text" "element"
## $ plot.title.position     : chr "panel"
## $ plot.subtitle           :List of 11
## ..$ family                : NULL
## ..$ face                  : NULL
## ..$ colour                : NULL
## ..$ size                  : NULL
## ..$ hjust                 : num 0
## ..$ vjust                 : num 1
## ..$ angle                 : NULL
## ..$ lineheight            : NULL
## ..$ margin                : 'margin' num [1:4] 0points 0points 5.5points 0points
## ..- attr(*, "unit")= int 8
## ..$ debug                 : NULL
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_text" "element"
## $ plot.caption            :List of 11
## ..$ family                : NULL
## ..$ face                  : NULL
## ..$ colour                : NULL
## ..$ size                  : 'rel' num 0.8
## ..$ hjust                 : num 1
## ..$ vjust                 : num 1
## ..$ angle                 : NULL
## ..$ lineheight            : NULL
## ..$ margin                : 'margin' num [1:4] 5.5points 0points 0points 0points
## ..- attr(*, "unit")= int 8
## ..$ debug                 : NULL
## ..$ inherit.blank: logi TRUE

```

```

##   .- attr(*, "class")= chr [1:2] "element_text" "element"
## $ plot.caption.position      : chr "panel"
## $ plot.tag                   :List of 11
##   ..$ family                 : NULL
##   ..$ face                   : NULL
##   ..$ colour                 : NULL
##   ..$ size                   : 'rel' num 1.2
##   ..$ hjust                  : num 0.5
##   ..$ vjust                  : num 0.5
##   ..$ angle                  : NULL
##   ..$ lineheight             : NULL
##   ..$ margin                 : NULL
##   ..$ debug                  : NULL
##   ..$ inherit.blank: logi TRUE
##   .- attr(*, "class")= chr [1:2] "element_text" "element"
## $ plot.tag.position          : chr "topleft"
## $ plot.margin                : 'margin' num [1:4] 5.5points 5.5points 5.5points 5.5points
##   .- attr(*, "unit")= int 8
## $ strip.background           :List of 5
##   ..$ fill                   : chr "white"
##   ..$ colour                 : chr "black"
##   ..$ size                   : 'rel' num 2
##   ..$ linetype               : NULL
##   ..$ inherit.blank: logi TRUE
##   .- attr(*, "class")= chr [1:2] "element_rect" "element"
## $ strip.background.x         : NULL
## $ strip.background.y         : NULL
## $ strip.placement            : chr "inside"
## $ strip.text                 :List of 11
##   ..$ family                 : NULL
##   ..$ face                   : NULL
##   ..$ colour                 : chr "grey10"
##   ..$ size                   : 'rel' num 0.8
##   ..$ hjust                  : NULL
##   ..$ vjust                  : NULL
##   ..$ angle                  : NULL
##   ..$ lineheight             : NULL
##   ..$ margin                : 'margin' num [1:4] 4.4points 4.4points 4.4points 4.4points
##   .. .- attr(*, "unit")= int 8
##   ..$ debug                  : NULL
##   ..$ inherit.blank: logi TRUE
##   .- attr(*, "class")= chr [1:2] "element_text" "element"
## $ strip.text.x               : NULL
## $ strip.text.y               :List of 11
##   ..$ family                 : NULL
##   ..$ face                   : NULL
##   ..$ colour                 : NULL
##   ..$ size                   : NULL
##   ..$ hjust                  : NULL
##   ..$ vjust                  : NULL
##   ..$ angle                  : num -90
##   ..$ lineheight             : NULL
##   ..$ margin                 : NULL
##   ..$ debug                  : NULL

```

```

## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_text" "element"
## $ strip.switch.pad.grid : 'simpleUnit' num 2.75points
## ..- attr(*, "unit")= int 8
## $ strip.switch.pad.wrap : 'simpleUnit' num 2.75points
## ..- attr(*, "unit")= int 8
## $ strip.text.y.left :List of 11
## ..$ family : NULL
## ..$ face : NULL
## ..$ colour : NULL
## ..$ size : NULL
## ..$ hjust : NULL
## ..$ vjust : NULL
## ..$ angle : num 90
## ..$ lineheight : NULL
## ..$ margin : NULL
## ..$ debug : NULL
## ..$ inherit.blank: logi TRUE
## ..- attr(*, "class")= chr [1:2] "element_text" "element"
## - attr(*, "class")= chr [1:2] "theme" "gg"
## - attr(*, "complete")= logi TRUE
## - attr(*, "validate")= logi TRUE

```

3 Results

4 Discussion

5 Survey

6 References