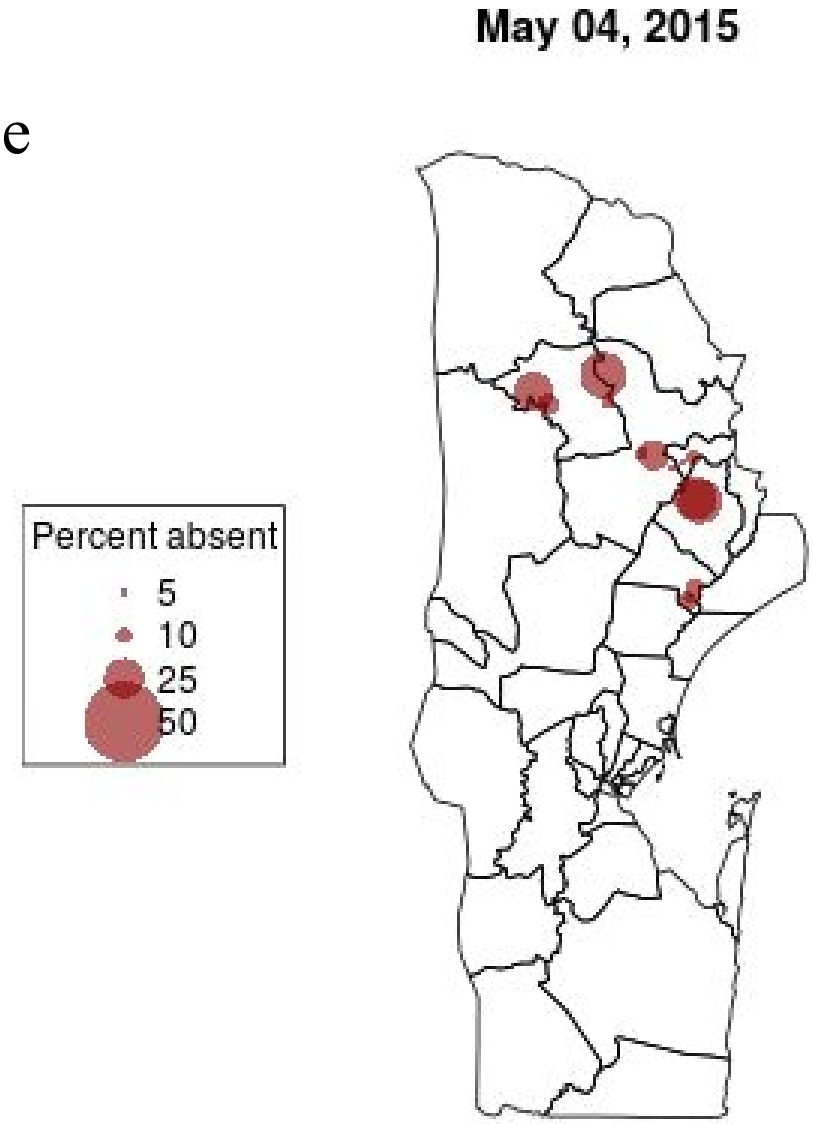
MALTEM school absenteeism overview

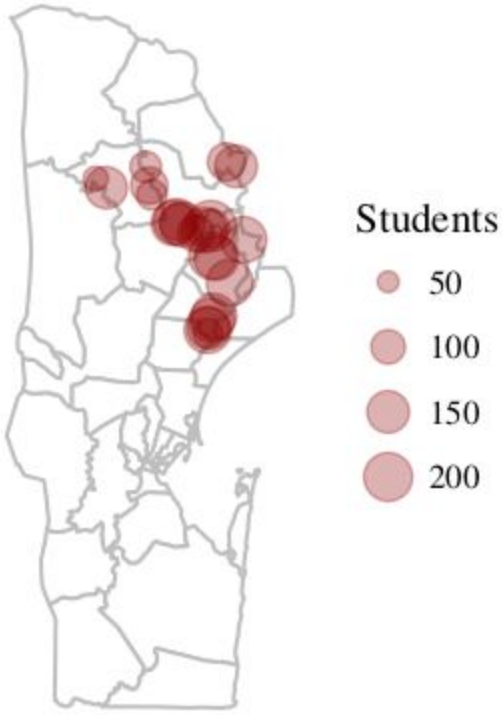
Laia Cirera
Joe Brew
Elisa Sicuri

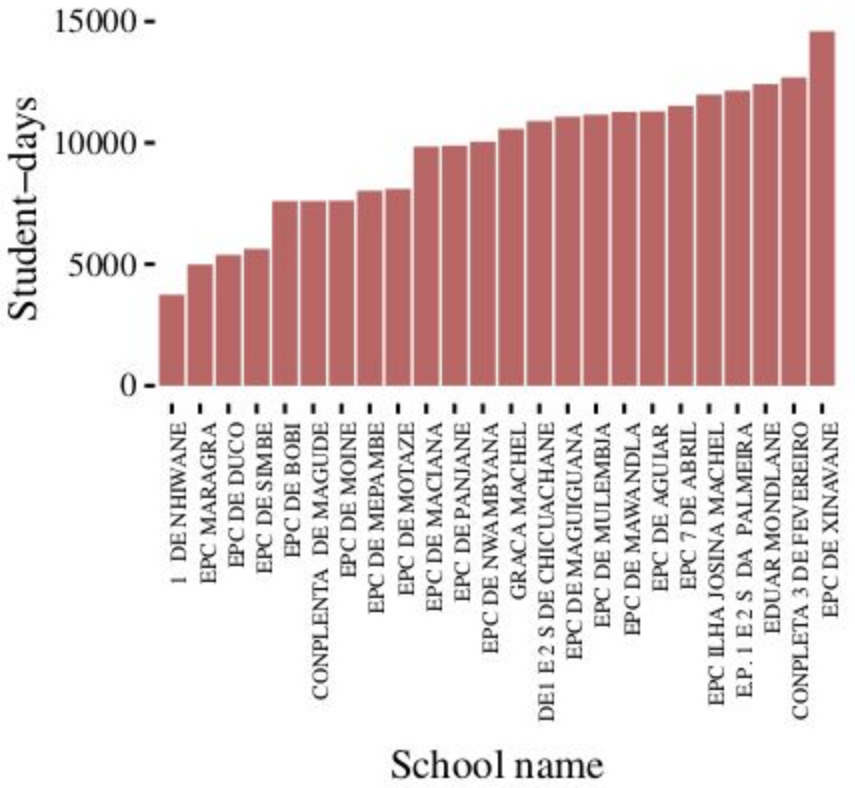
Contents

Baseline /
Surveillance



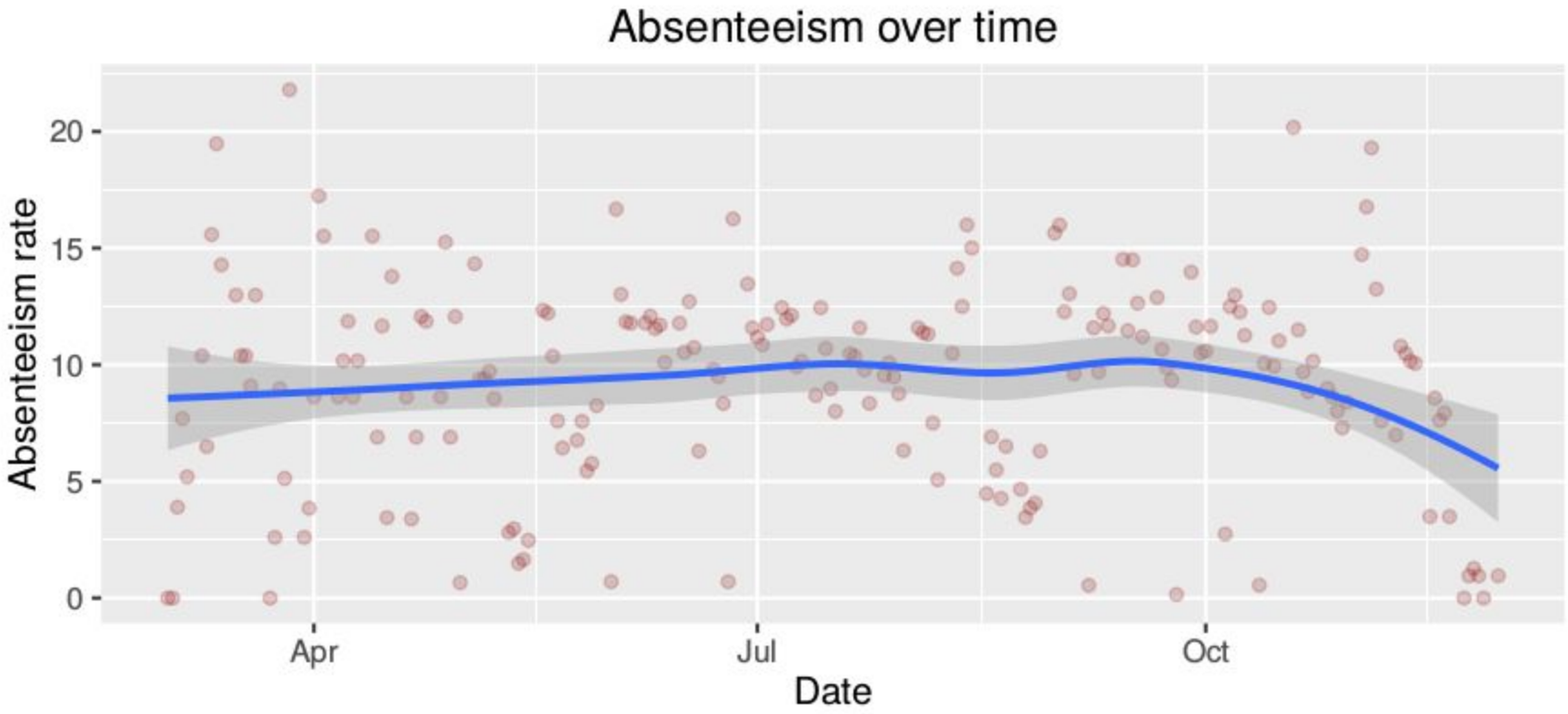
Data have been collected over three months on 25 schools, with a total of 3513 students. In total, 232663 unique student-days have been analyzed.





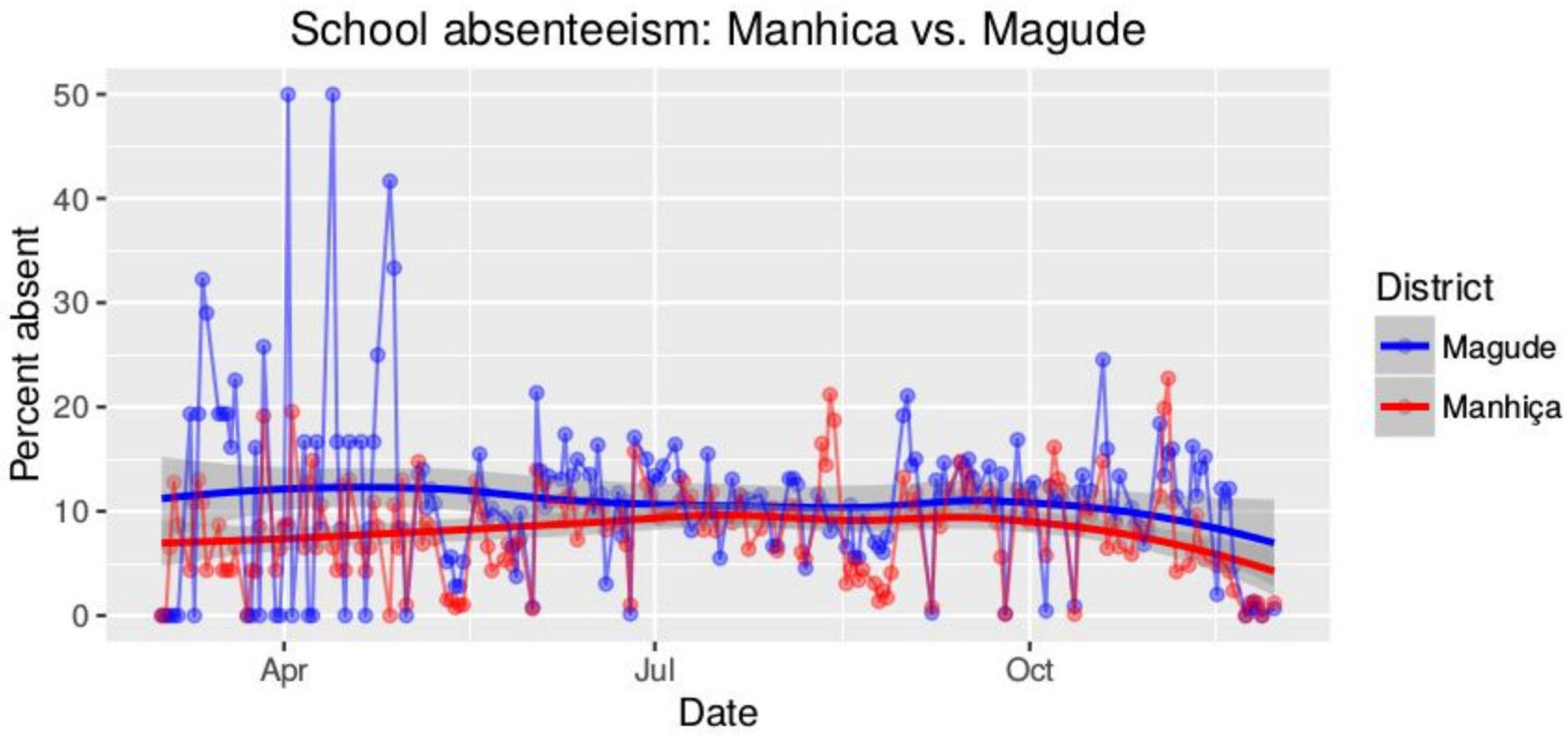
By time

When we combine all schools, we can estimate the overall seasonality of absenteeism.

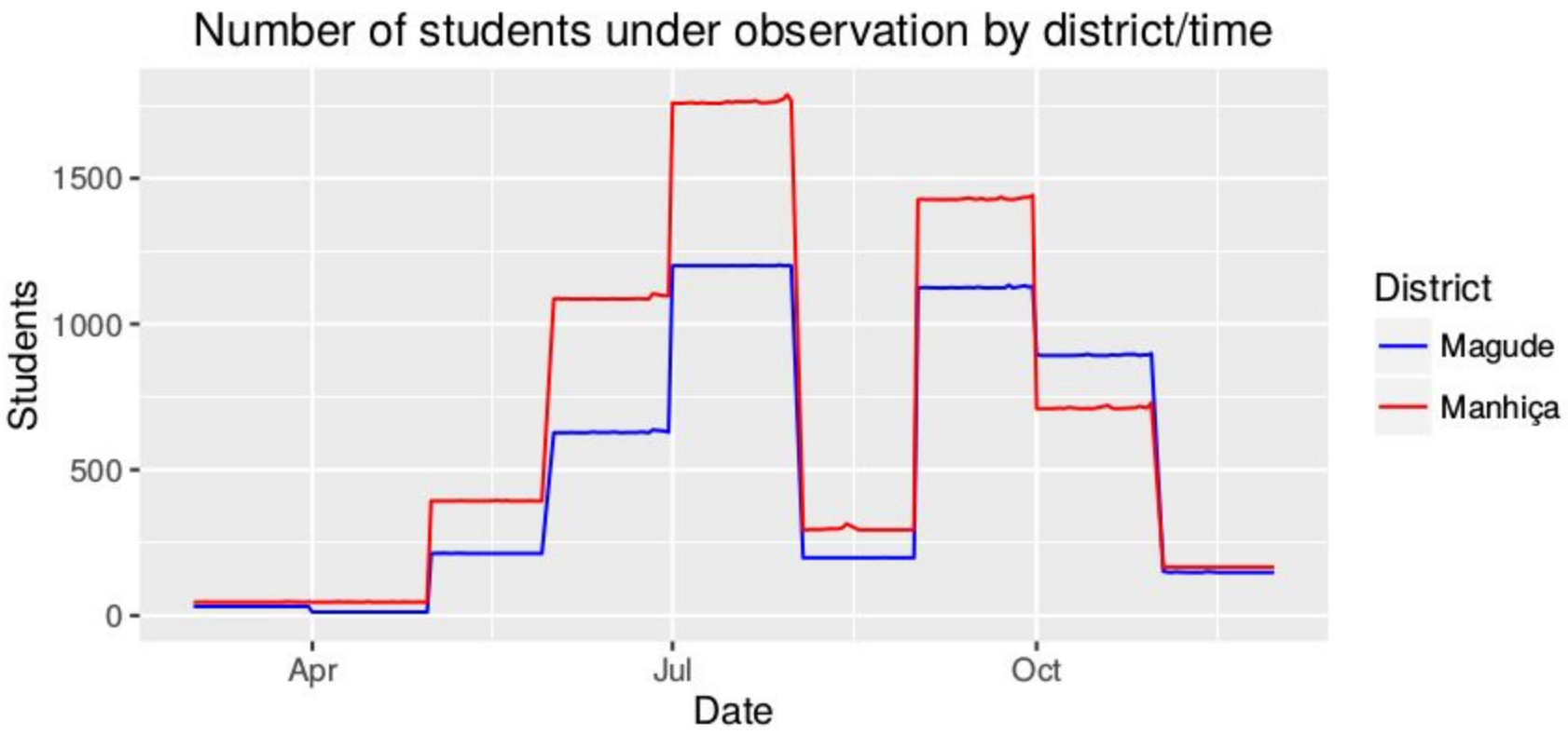


By district

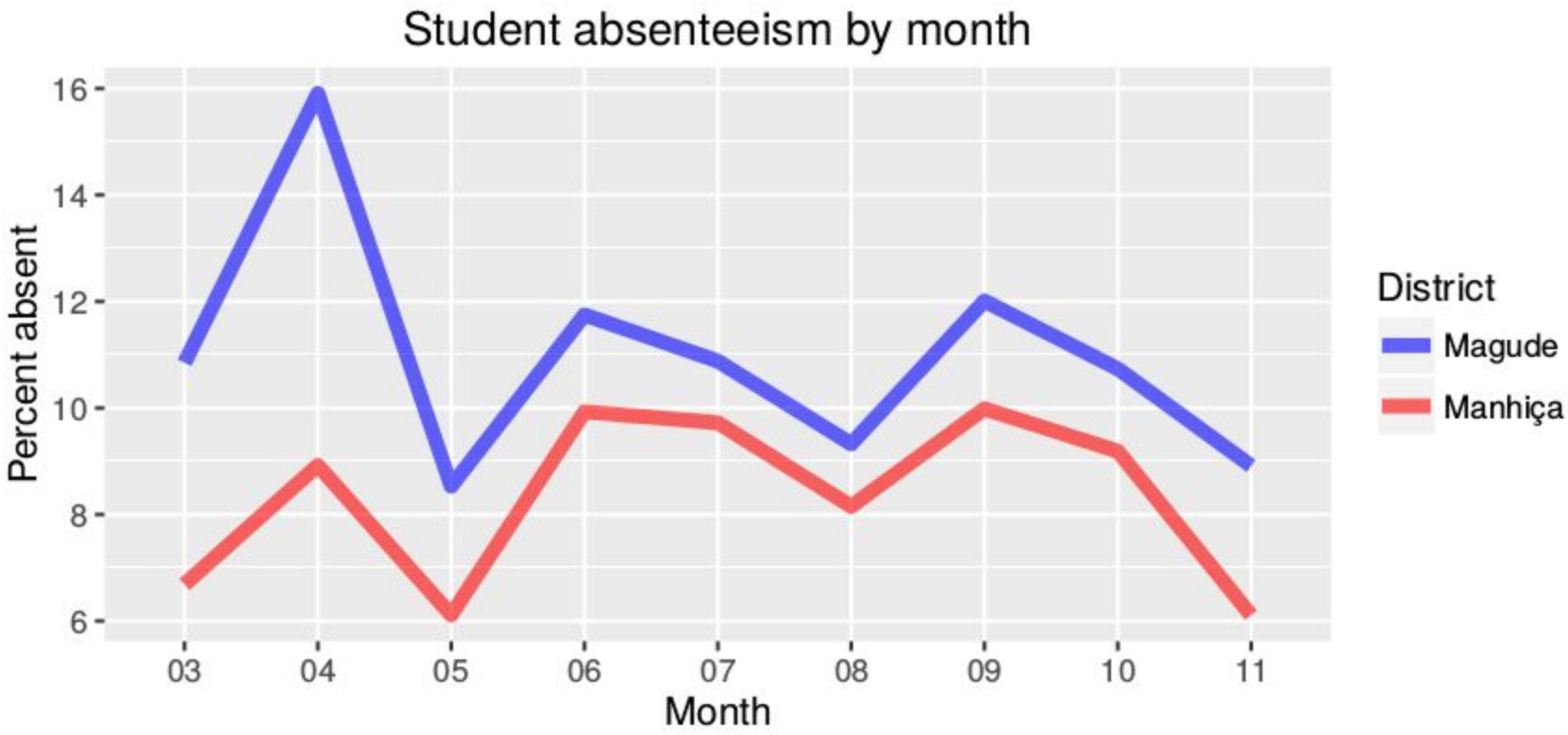
Generally speaking, absenteeism is slightly higher in Magude than in Manhiça:



However, it is worth noting that the number of students in Magude is fewer, and therefore more subject to natural variance:

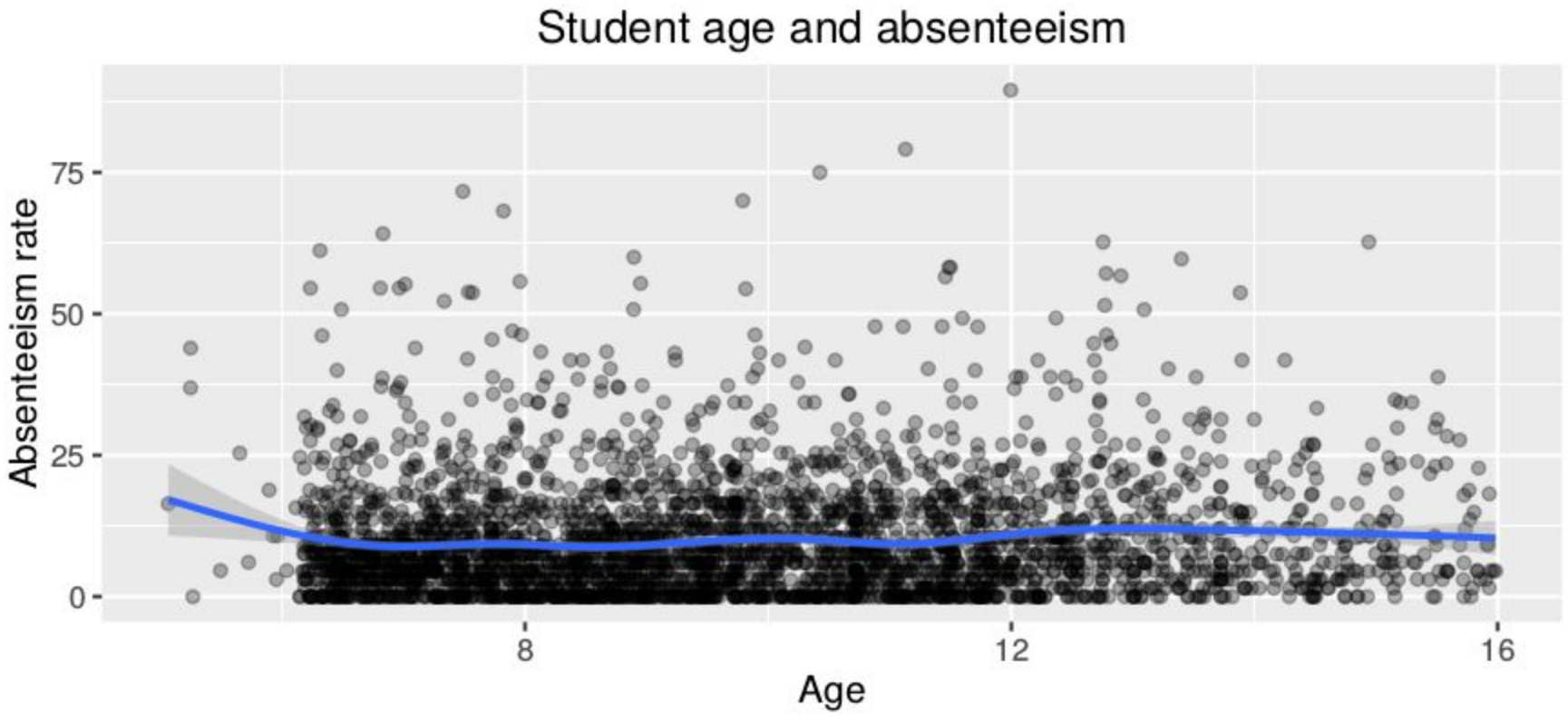


If we aggregate by month, we can examine absenteeism in a slightly smoother fashion:



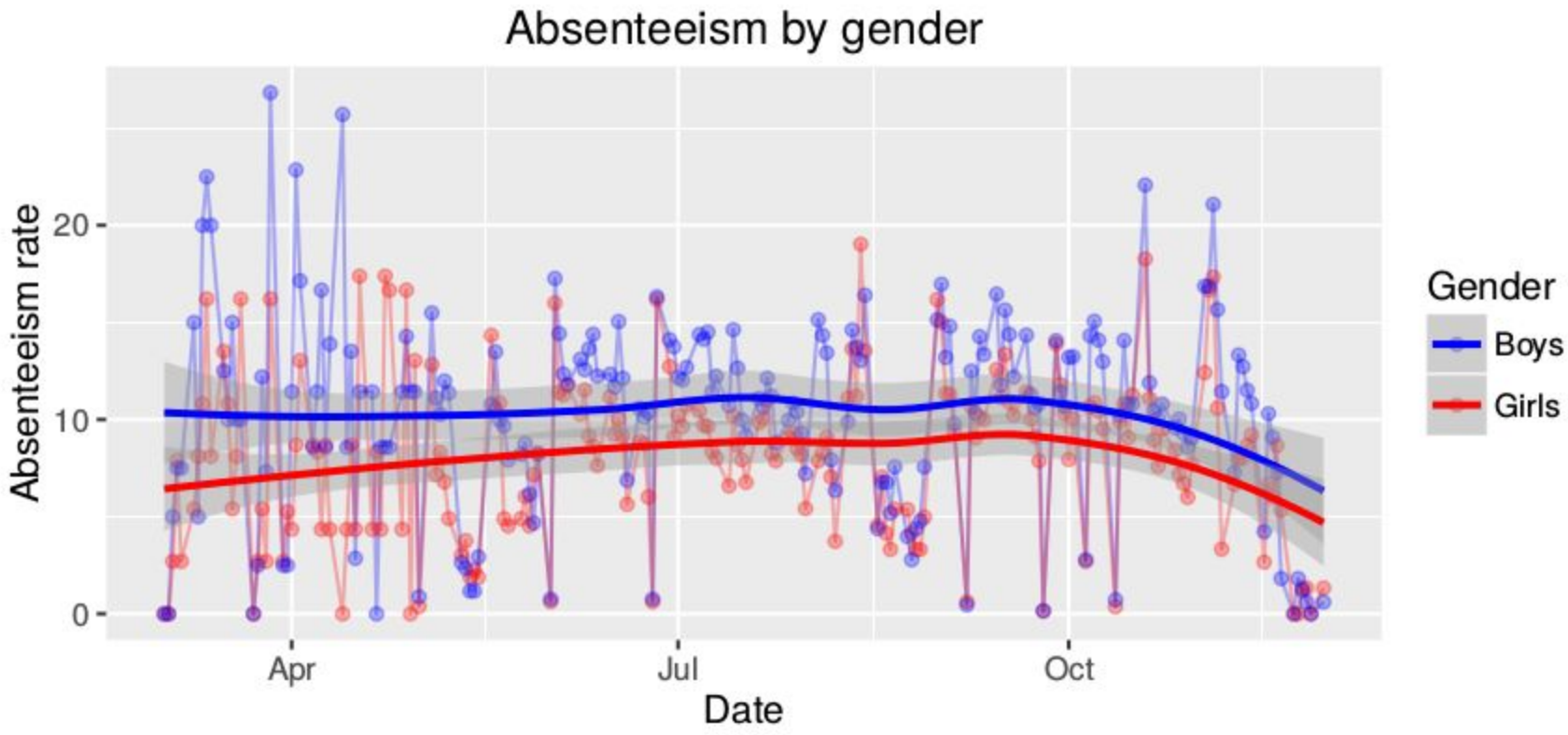
By age

There is no clear trend between a student's age and their absenteeism rate.



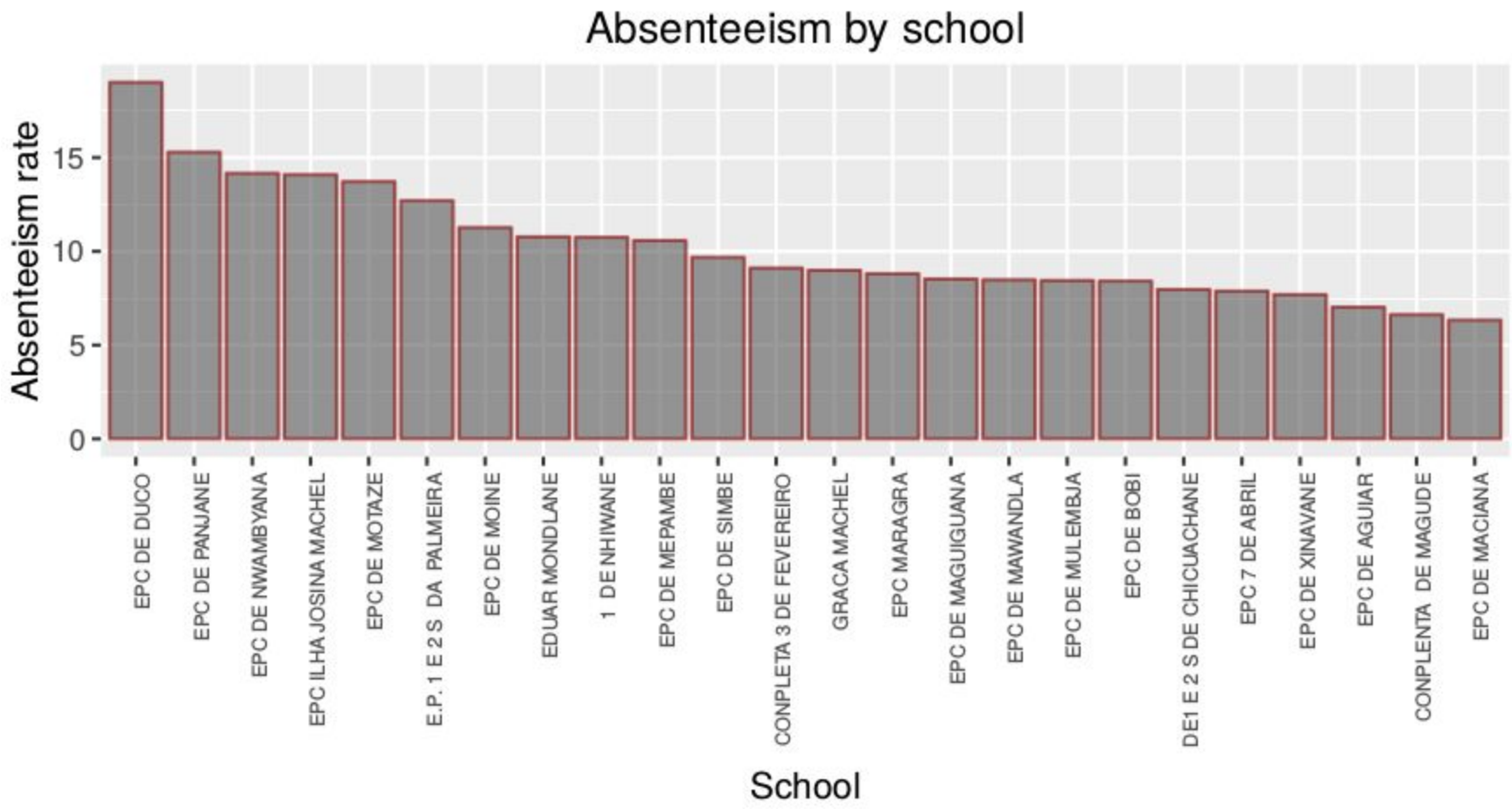
By gender

Generally speaking, females have lower absenteeism than males:

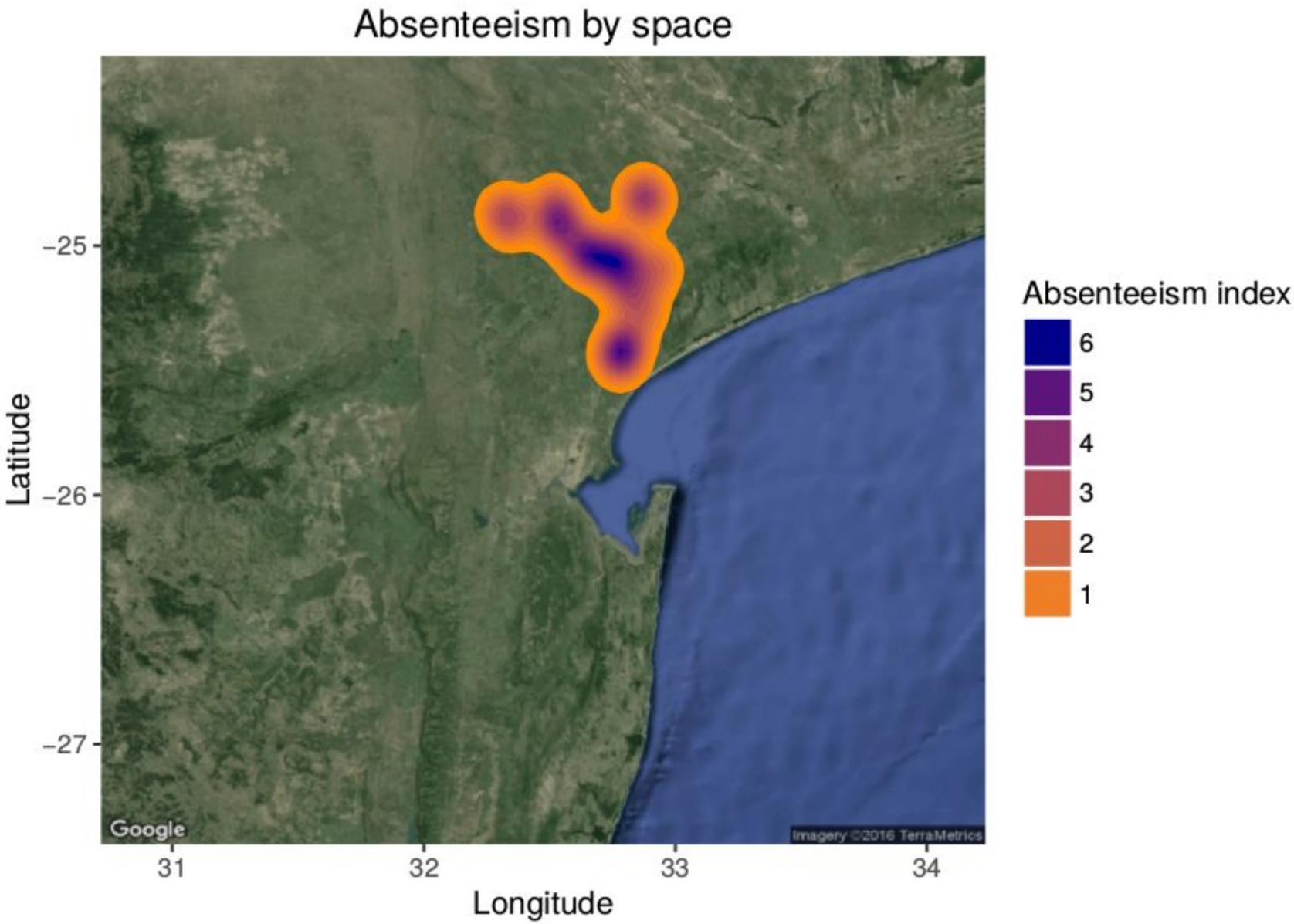


By school

There is a surprisingly high level of variation in absenteeism by school. To assess overall absenteeism, we de-aggregate on time, and examine overall absenteeism by school.

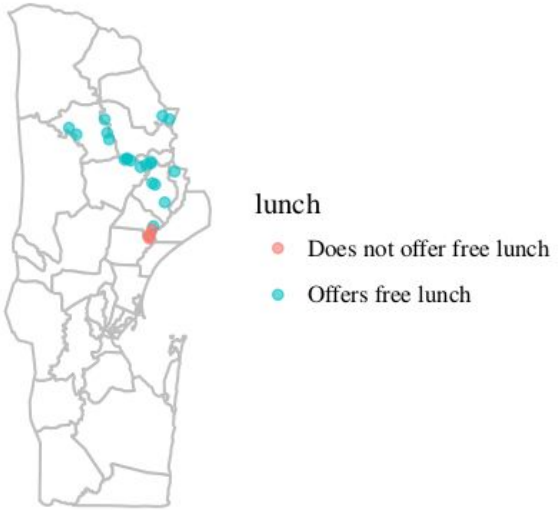


By geography

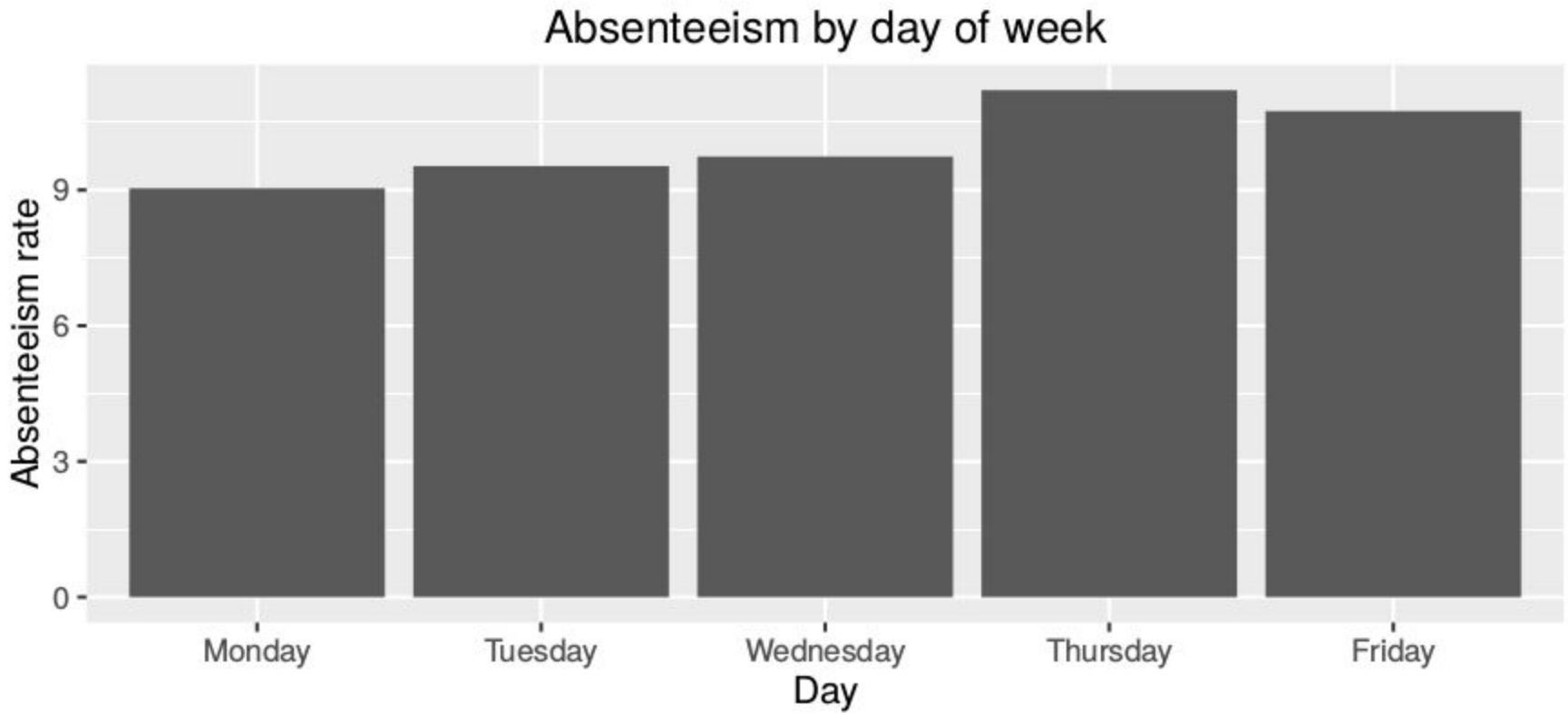


By lunch status

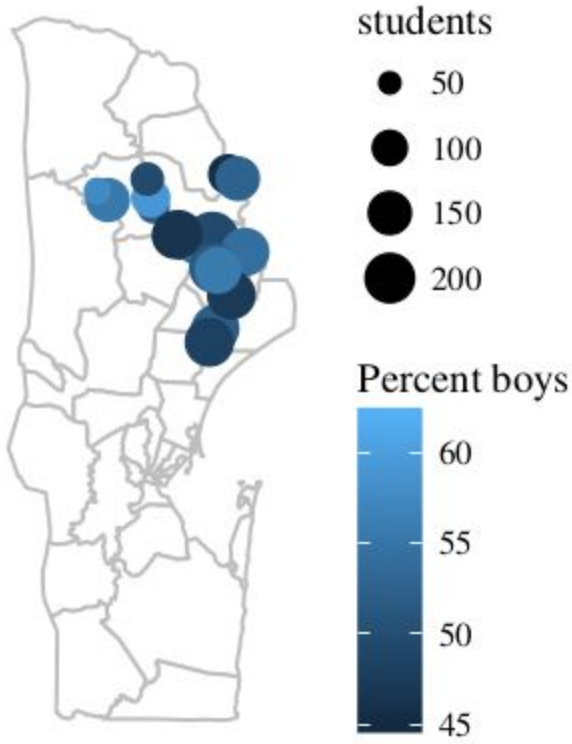
Geographically, the fews schools not offering free lunch are clustered together



By day of the week



Geographical distribution of boys and girls

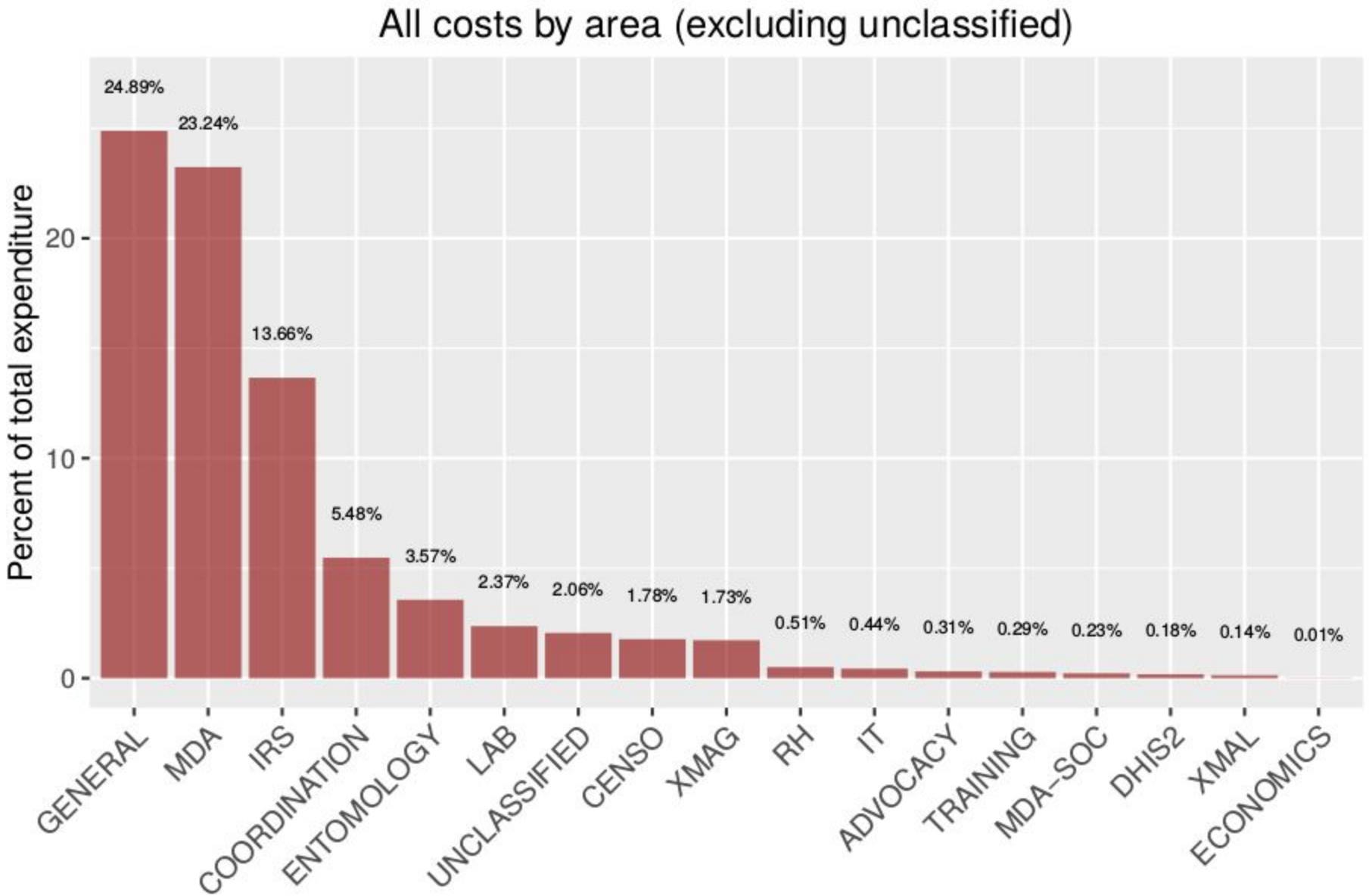


MALTEM costs overview

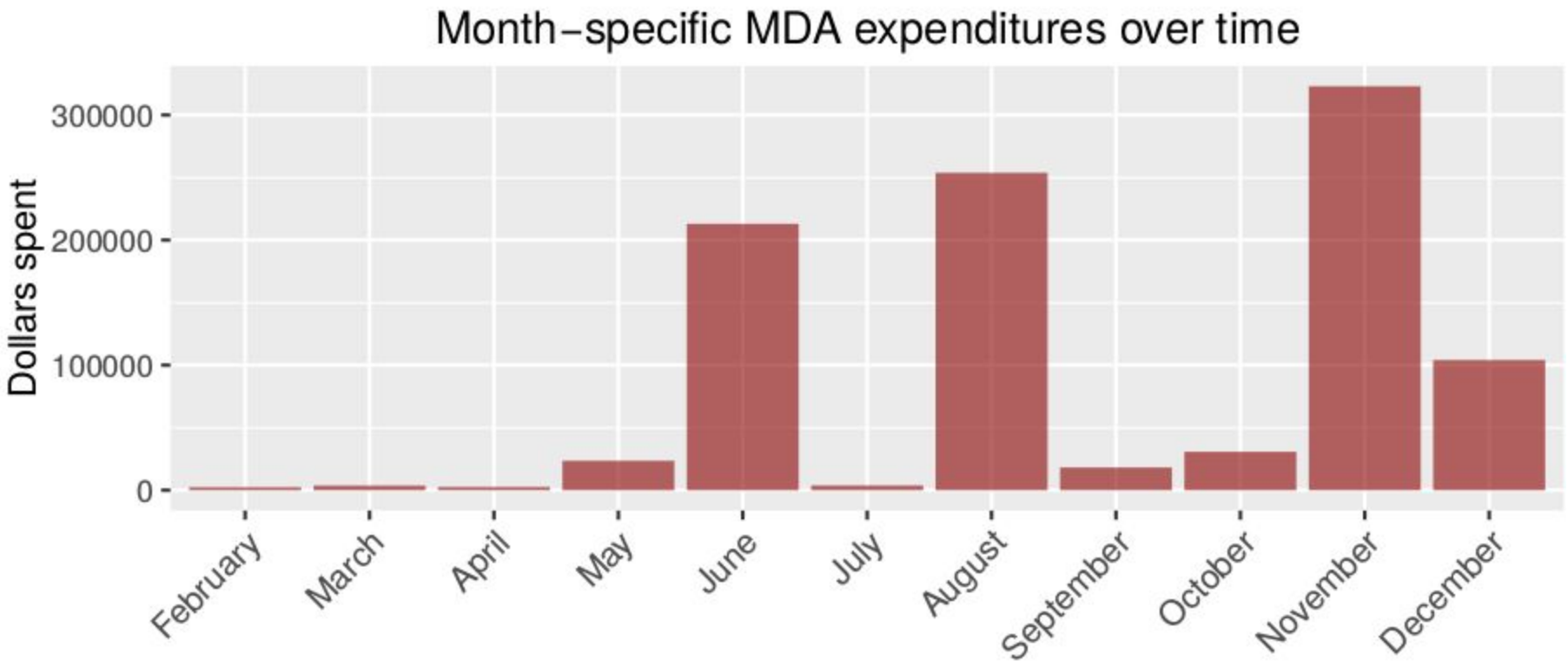
Laia Cirera
Joe Brew
Elisa Sicuri

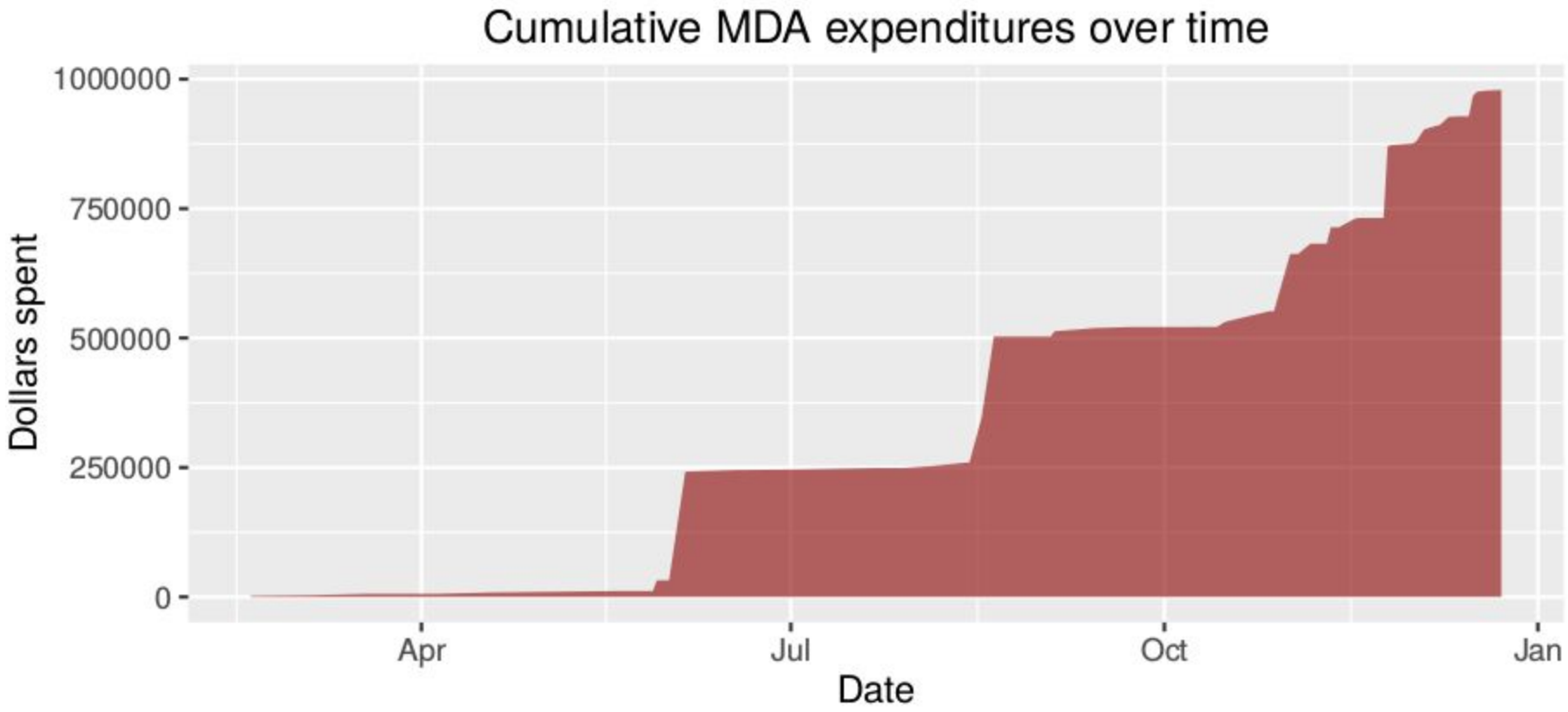
Contents

By area

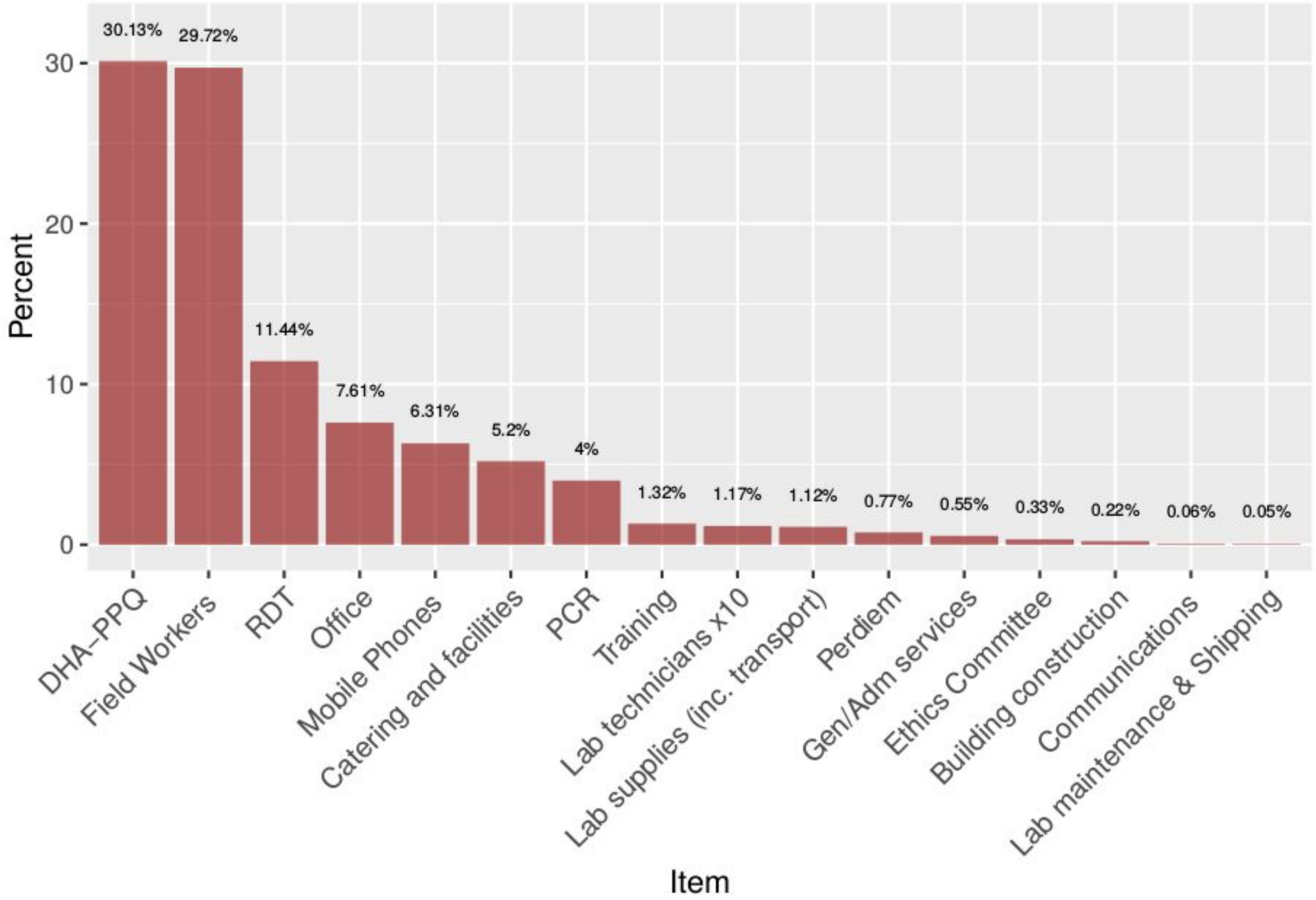

All costs by area (excluding unclassified)
Percent of total expenditure
0
10
20
24.89%
23.24%
13.66%
5.48%
3.57%
2.37%
2.06%
1.78%
1.73%
0.51%
0.44%
0.31%
0.29%
0.23%
0.18%
0.14%
0.01%
GENERAL
MDA
IRS
COORDINATION
ENTOMOLOGY
LAB
UNCLASSIFIED
CENSO
XMAG
RH
IT
ADVOCACY
TRAINING
MDA-SOC
DHIS2
XMAL
ECONOMICS

MDA expenditures over time

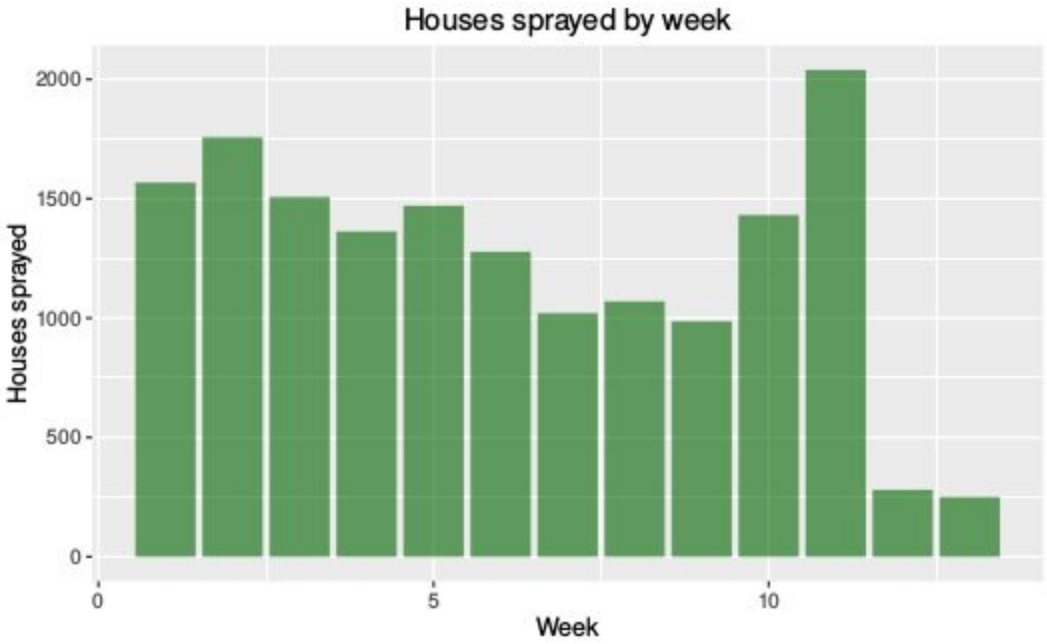


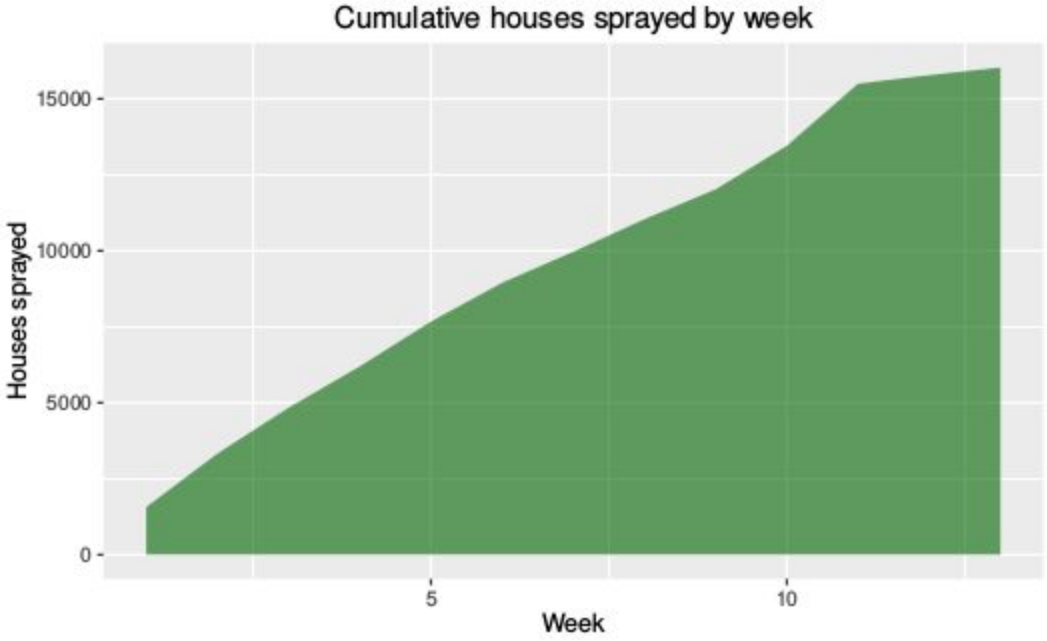

Cumulative MDA expenditures over time
1000000
750000
500000
250000
0
Dollars spent
Apr
Jul
Oct
Jan
Date

MDA expenditures by item

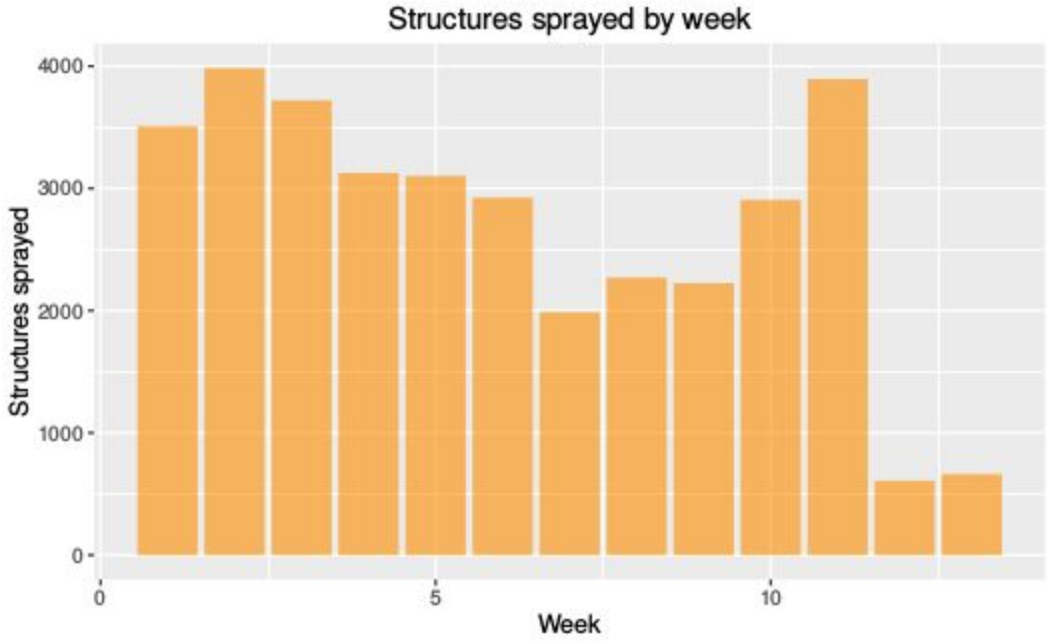


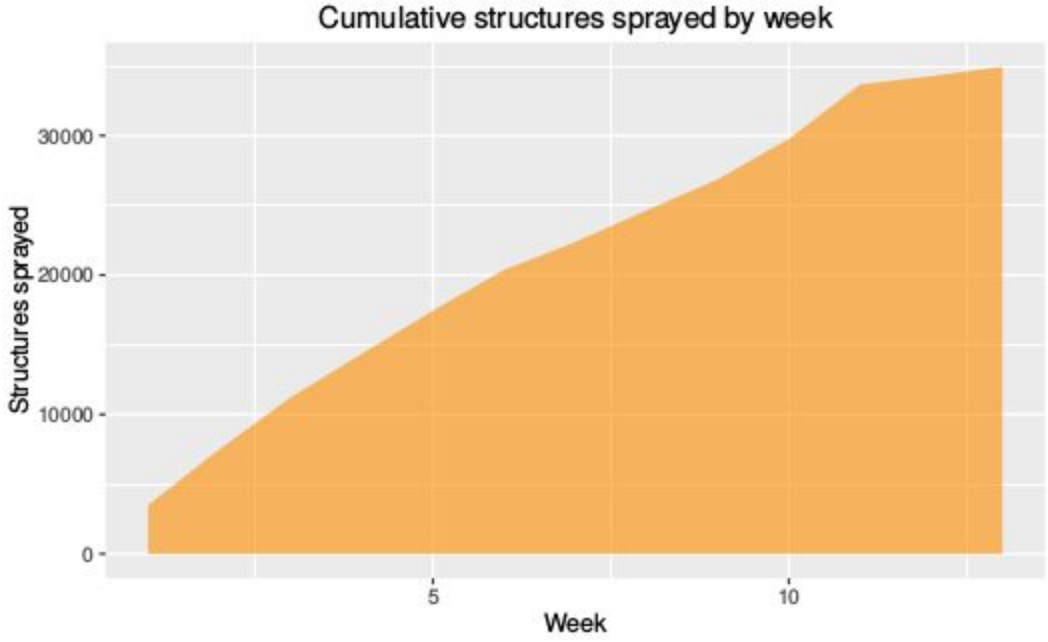
Houses sprayed



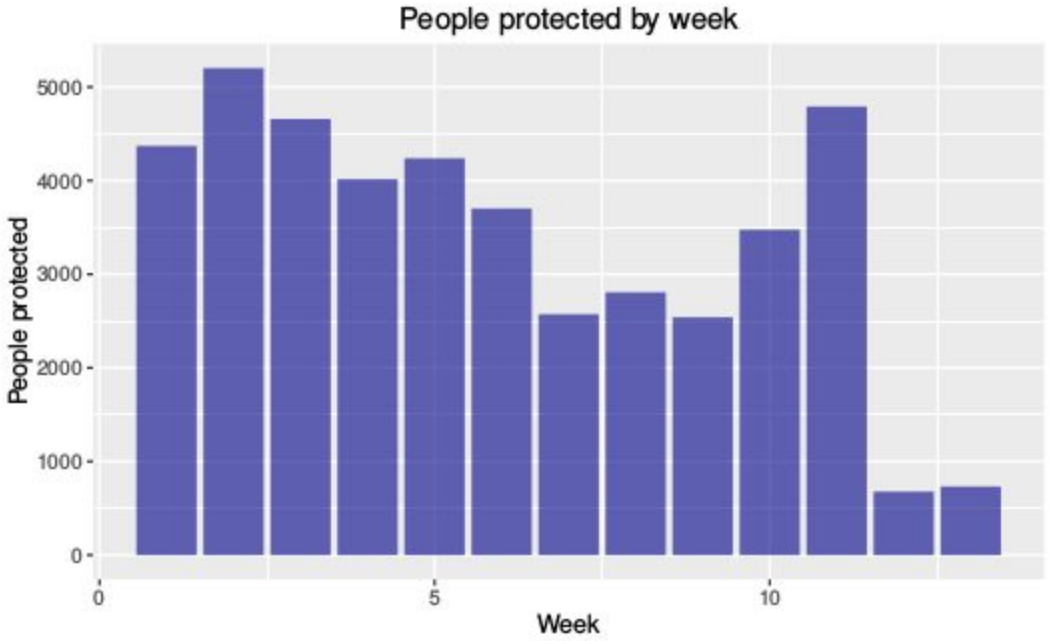


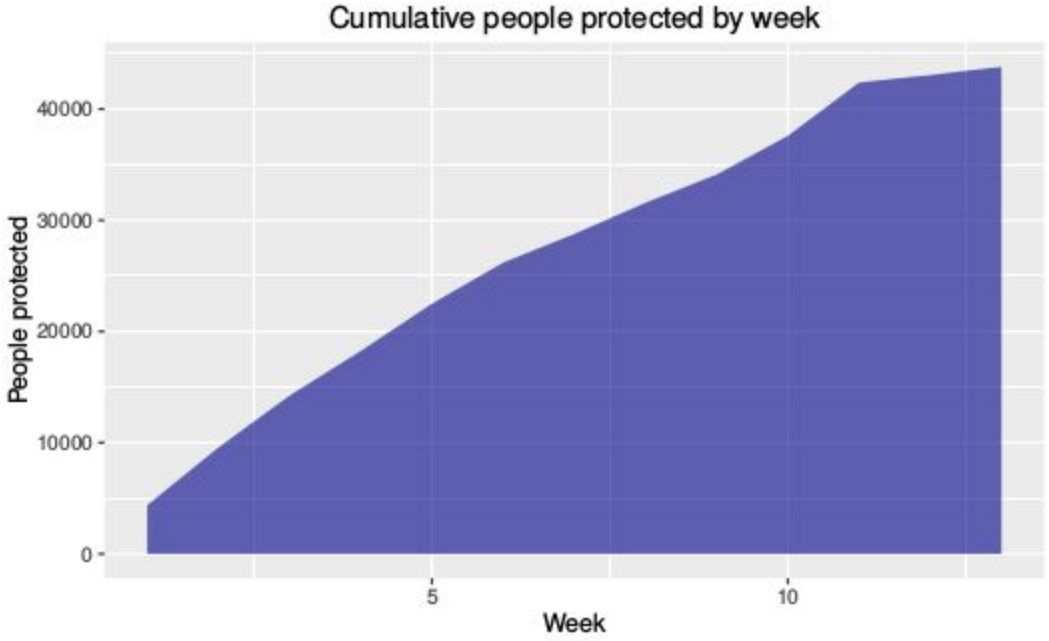
Structures sprayed





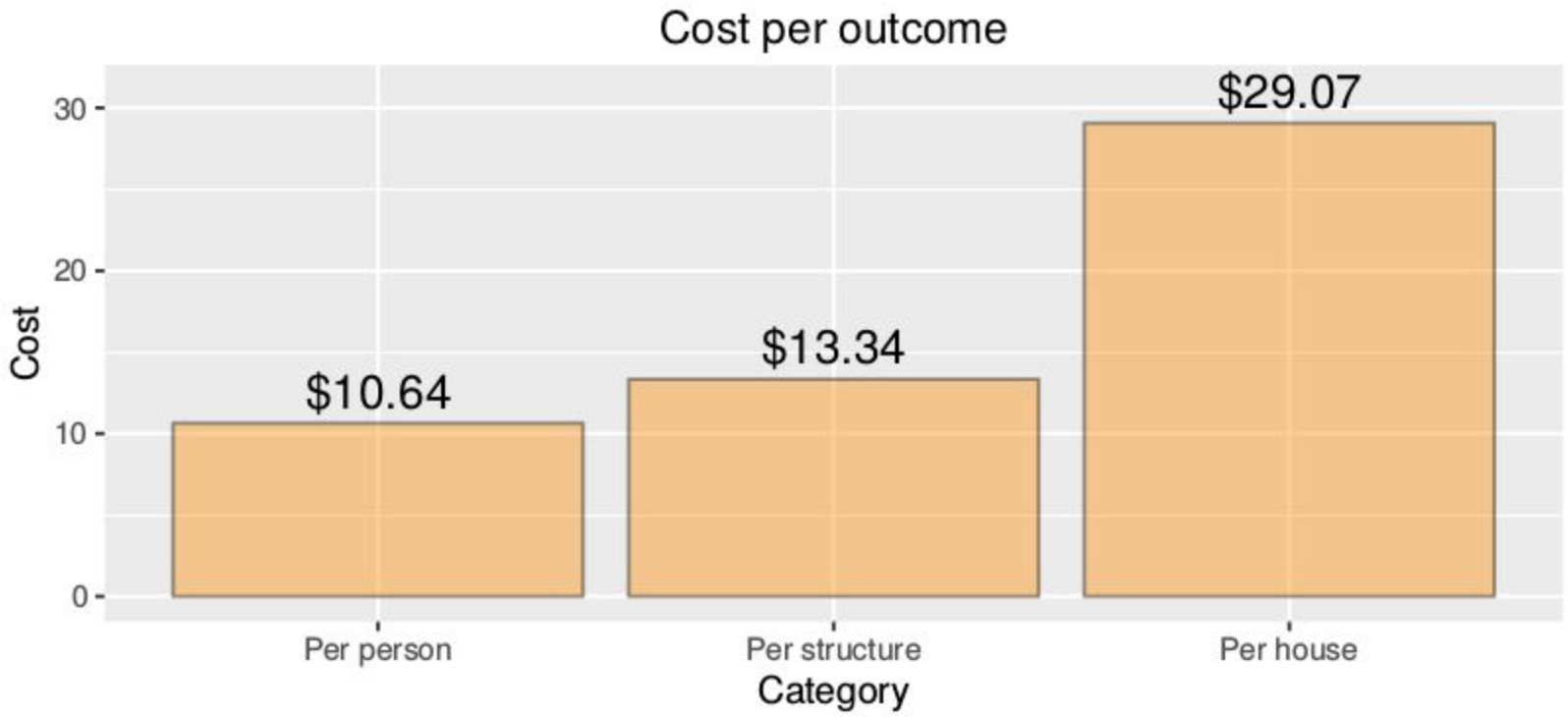
People protected





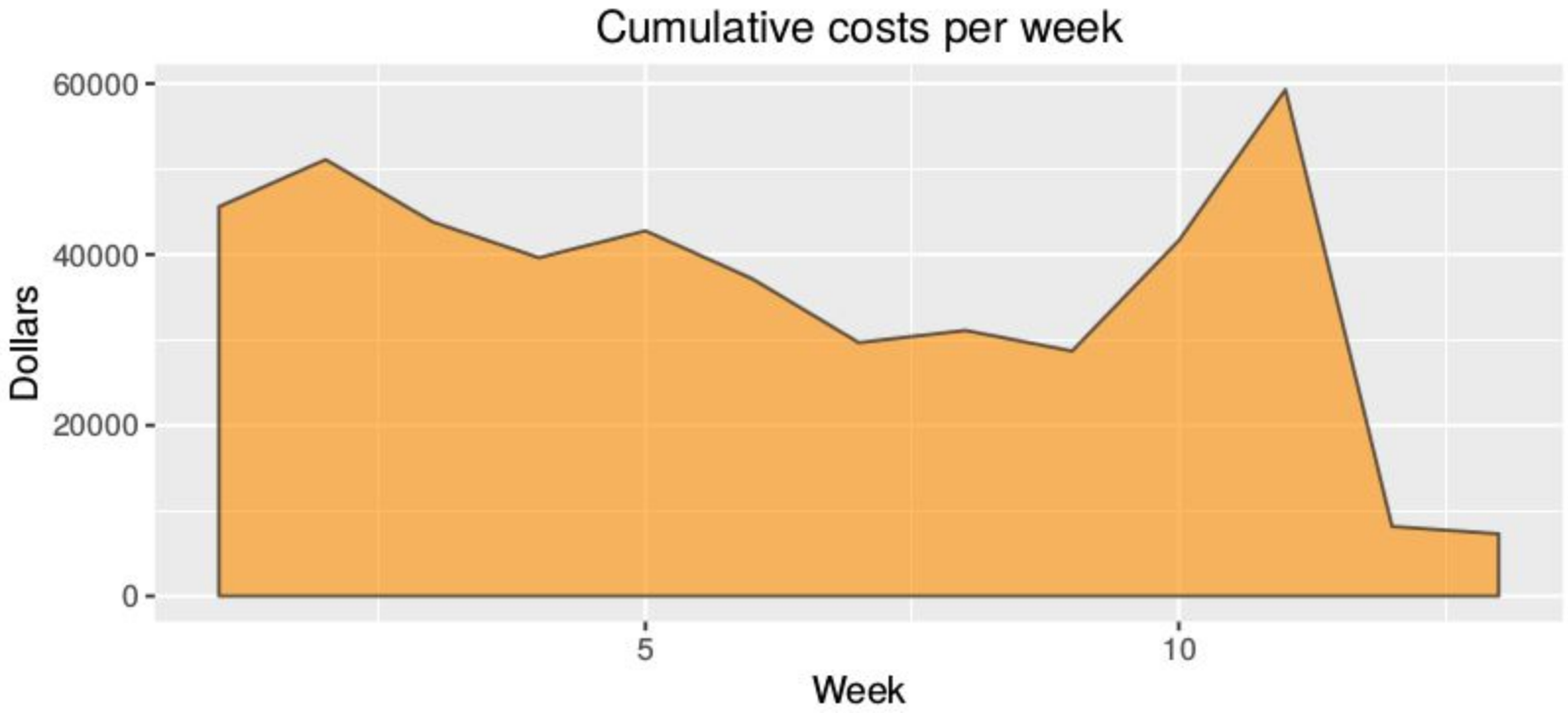
IRS costs

(Simply dividing by the total direct cost of 465999.19.)



Expenses over time

(Direct costs only, assuming fixed house cost of $29.07.)



Xinavane data overview

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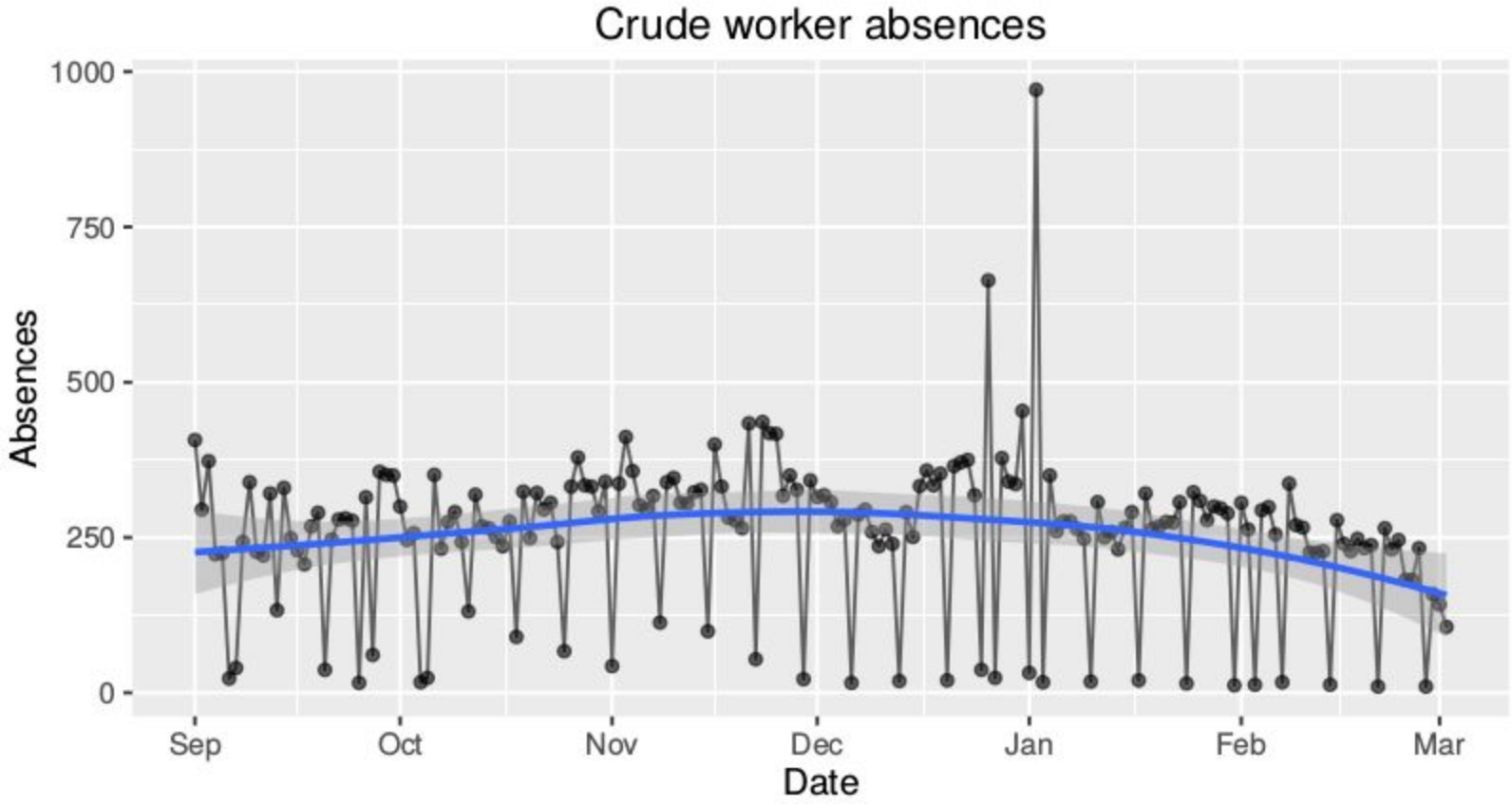
Elisa Sicuri

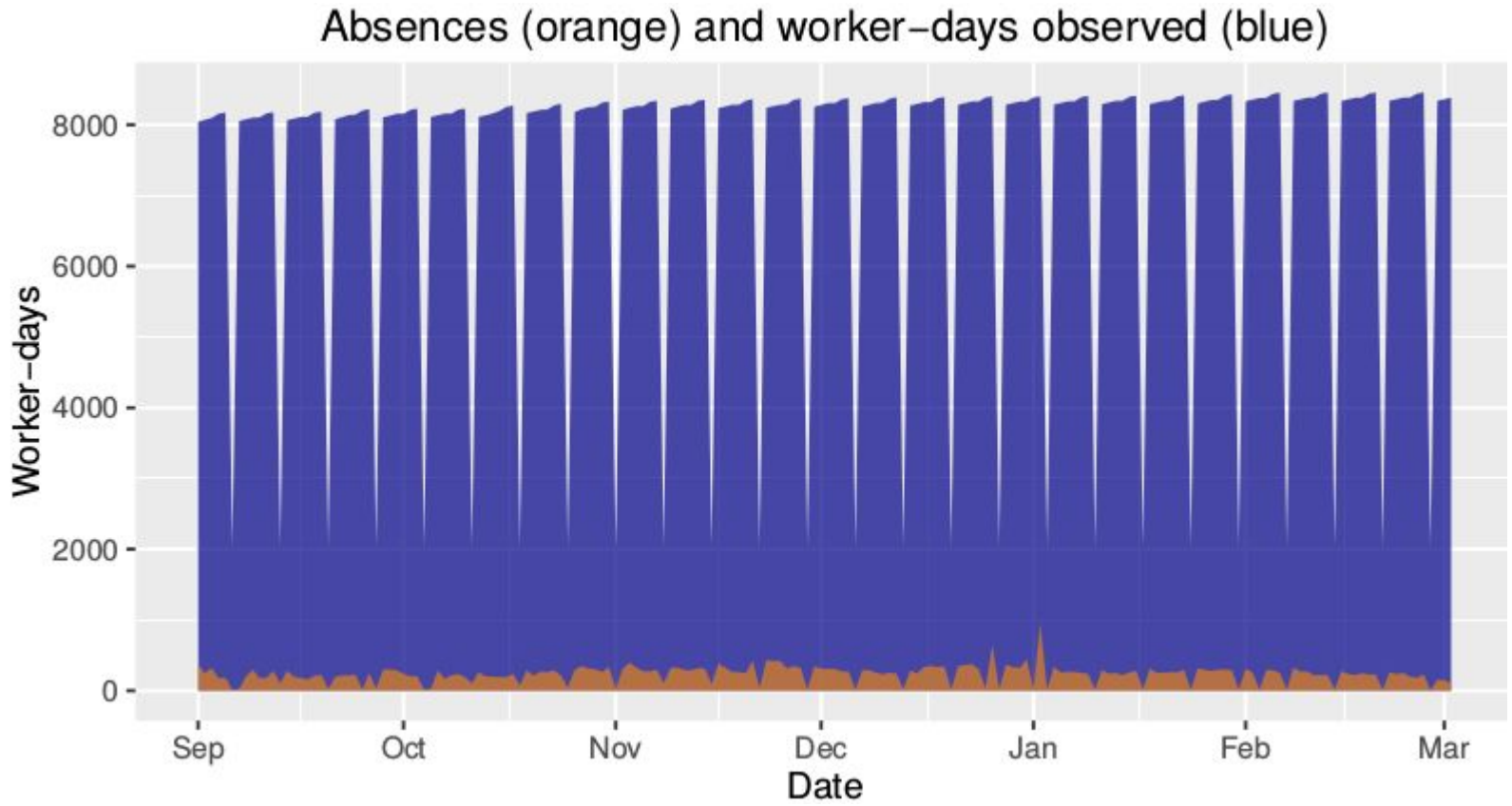
March 8, 2016

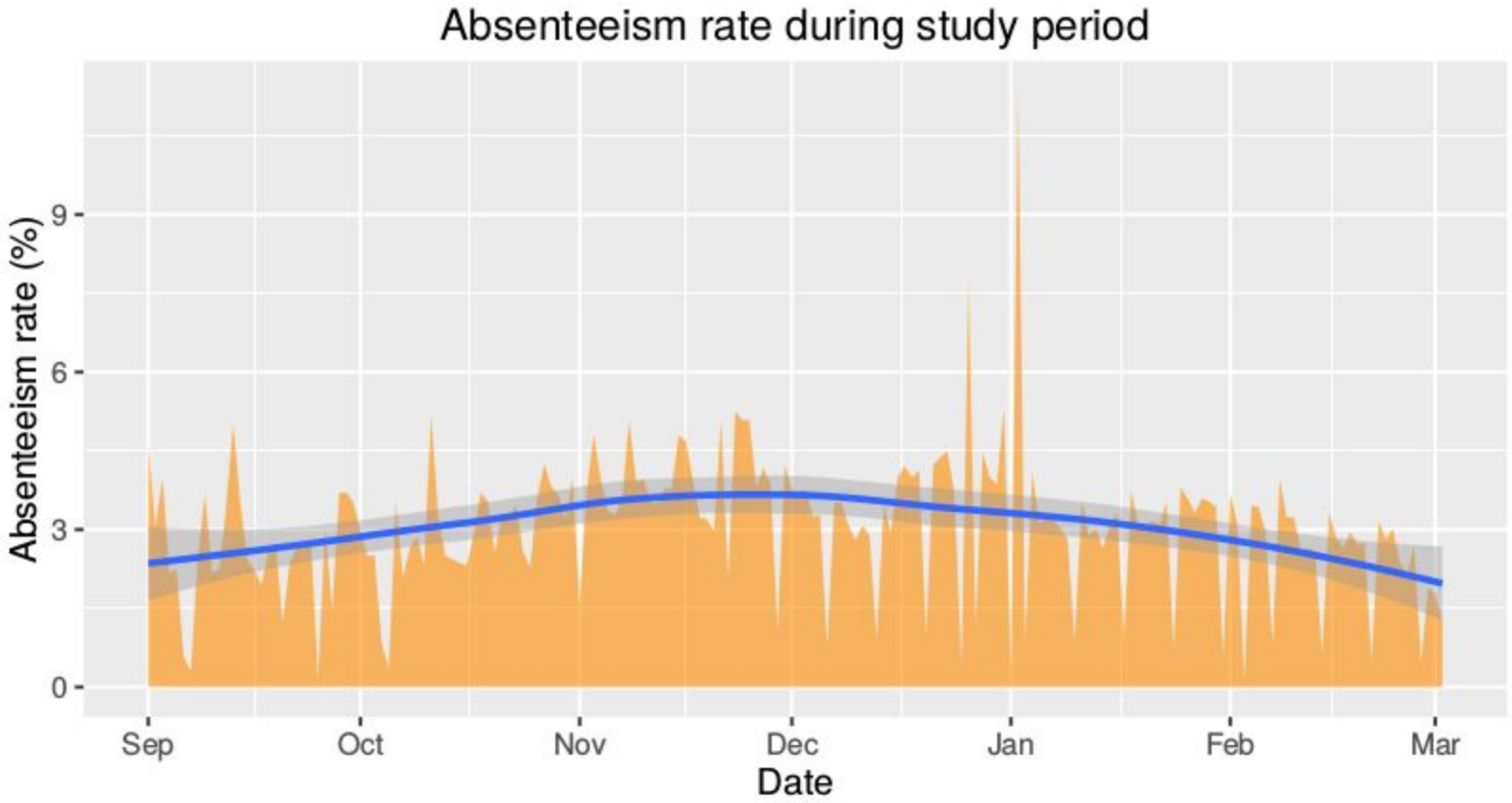
Contents

Absences

Absenteeism data spans from September 01, 2015 until March 02, 2016. On average, there are 253 absences per day. Though there appears to be some longer-term variation in the below chart, it's clear that the most important factor is weekly seasonality:

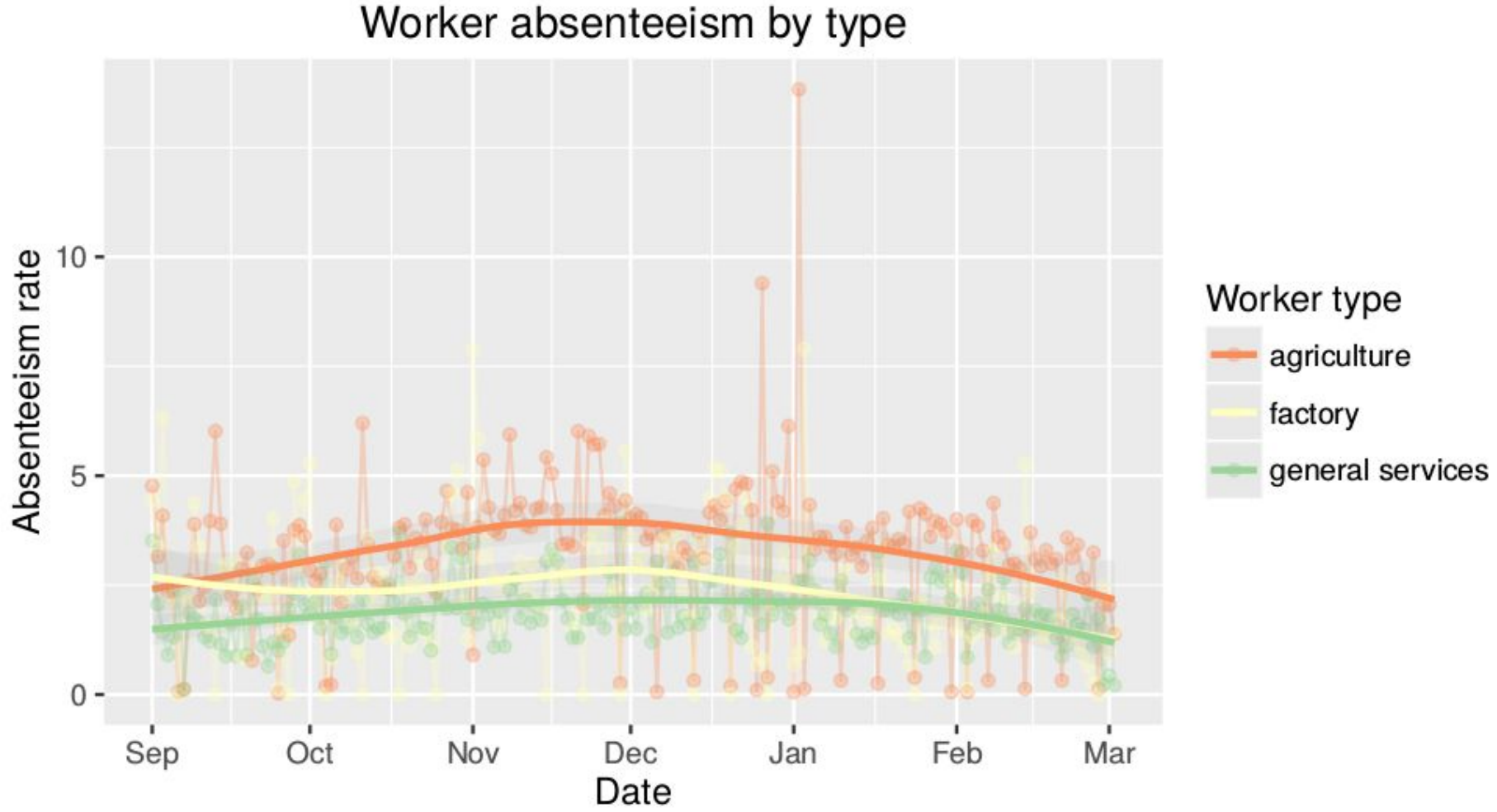


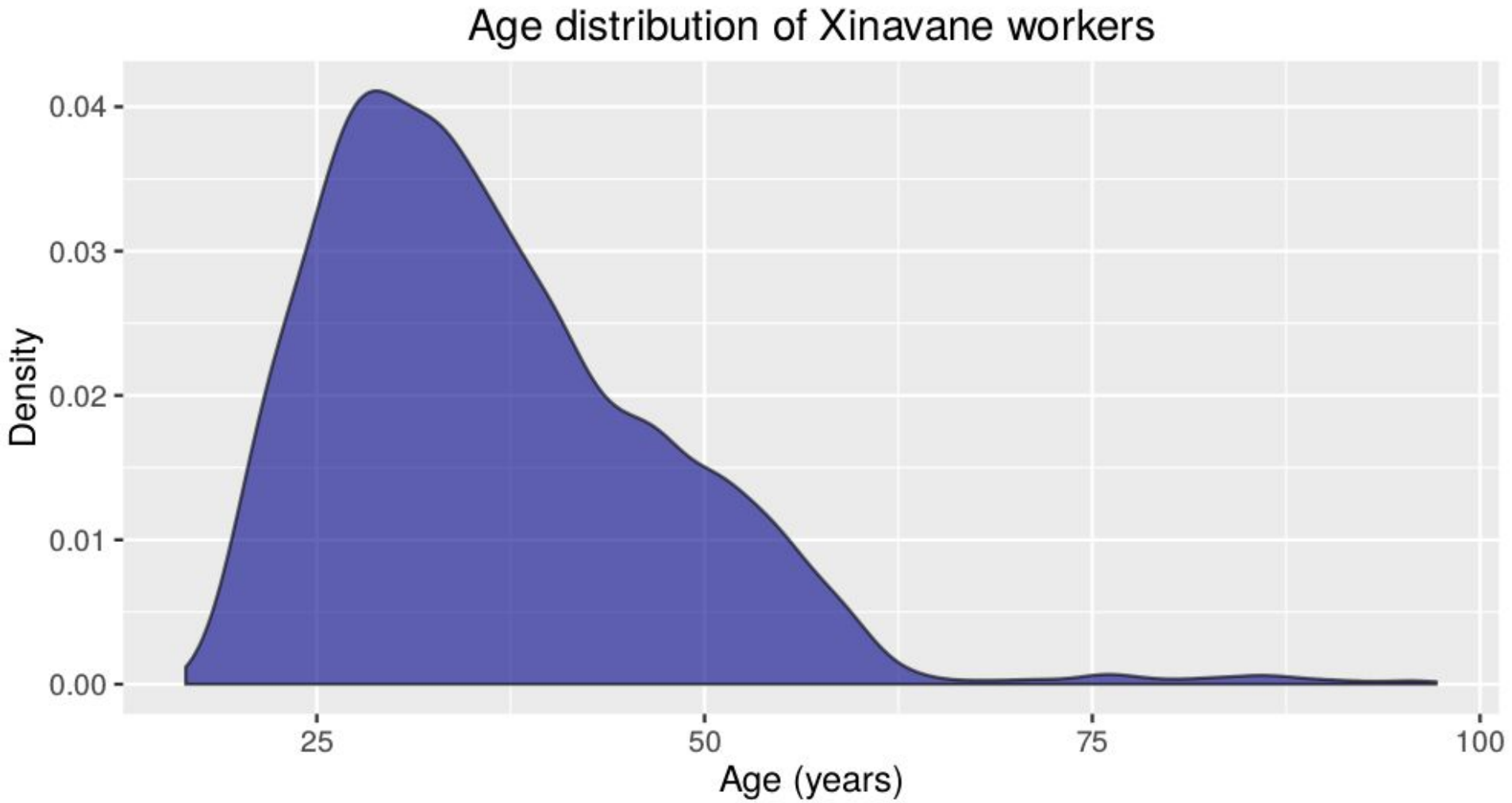

Absences (orange) and worker−days observed (blue)
Worker−days
8000
6000
4000
2000
0
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Date

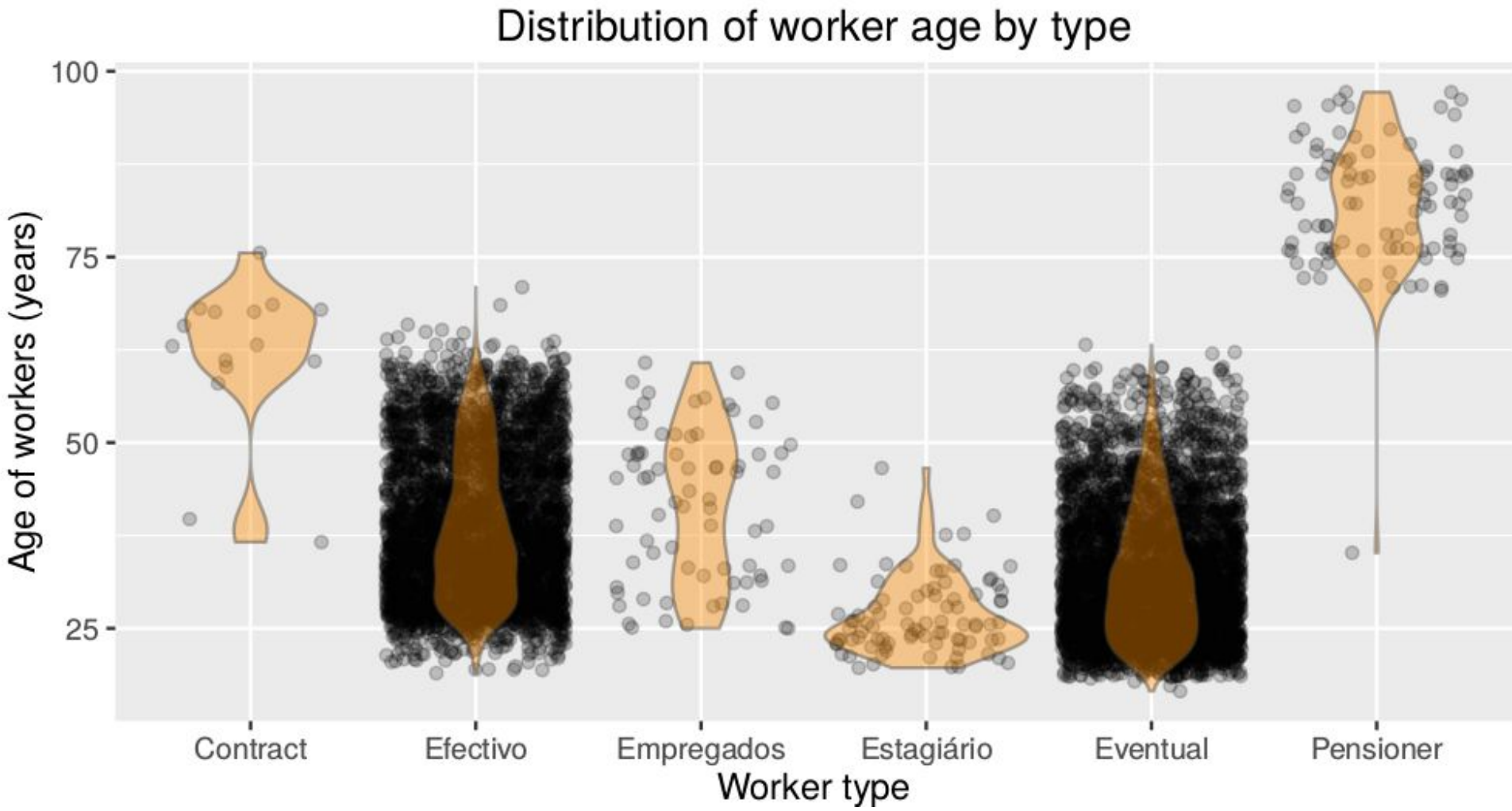

Absenteeism rate during study period
Absenteeism rate (%)
0
3
6
9
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Date

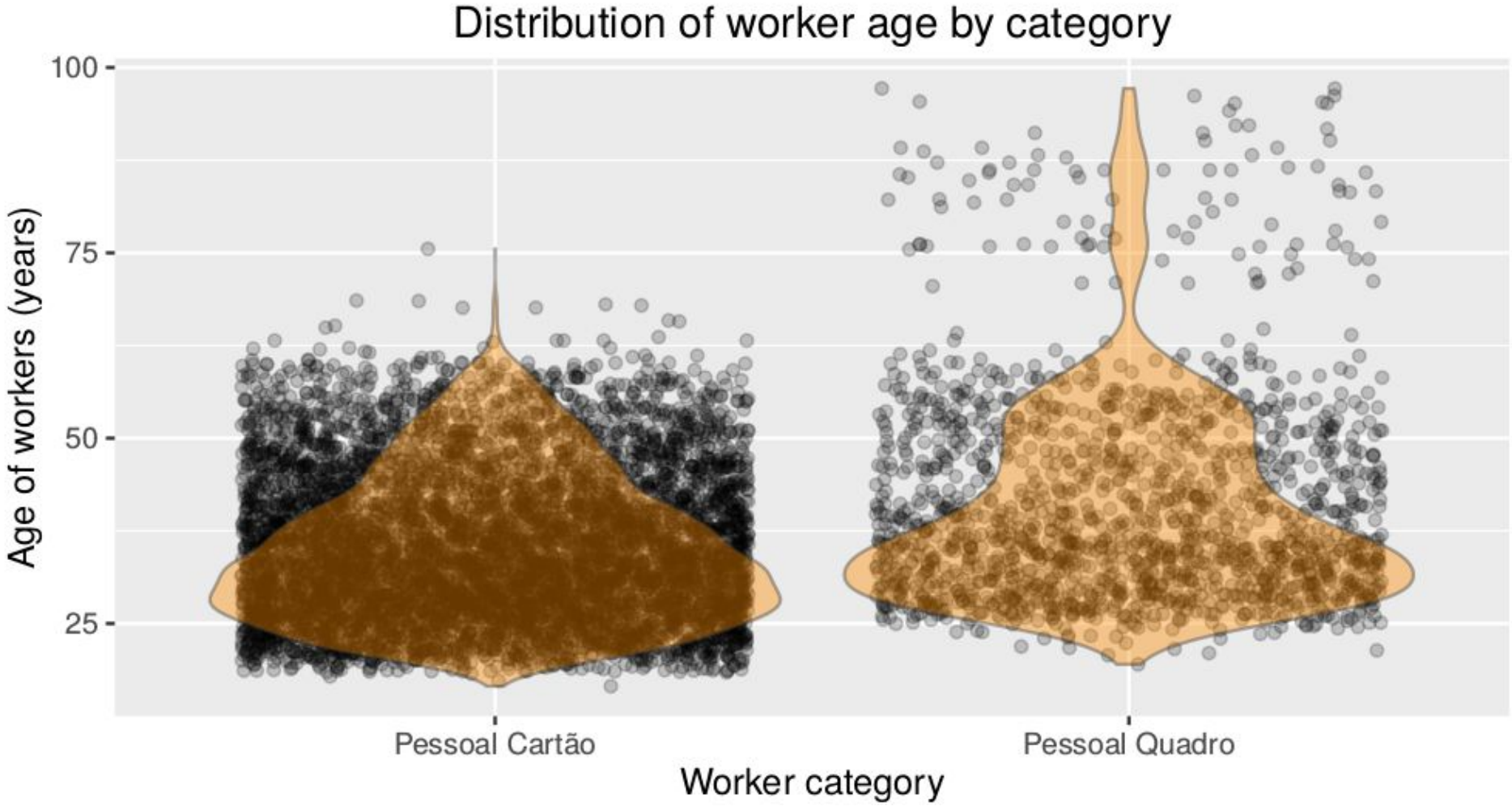
Absenteeism rate by worker type

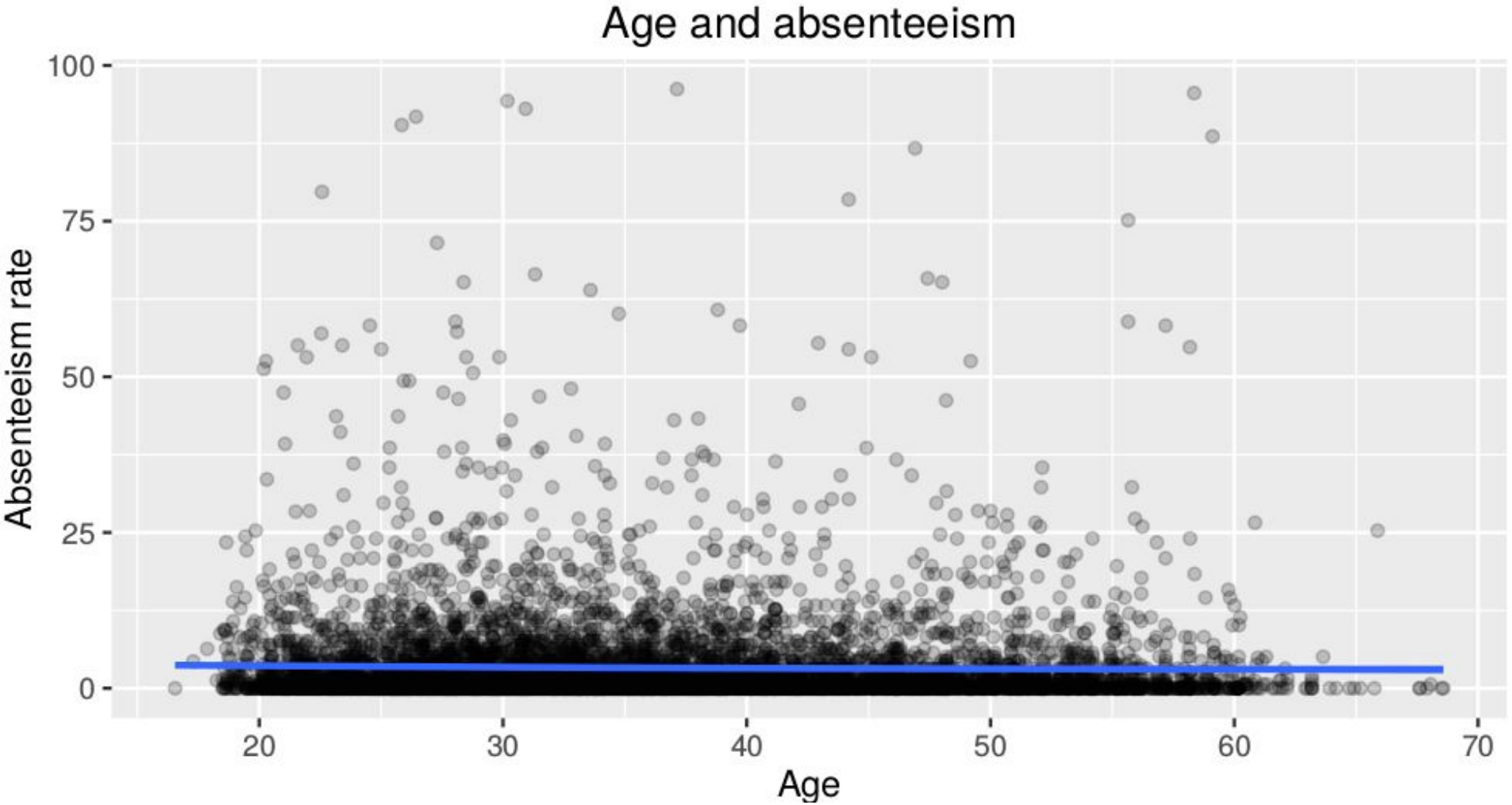
Agricultural workers have significantly higher absenteeism than those that work in the factory or in general services.

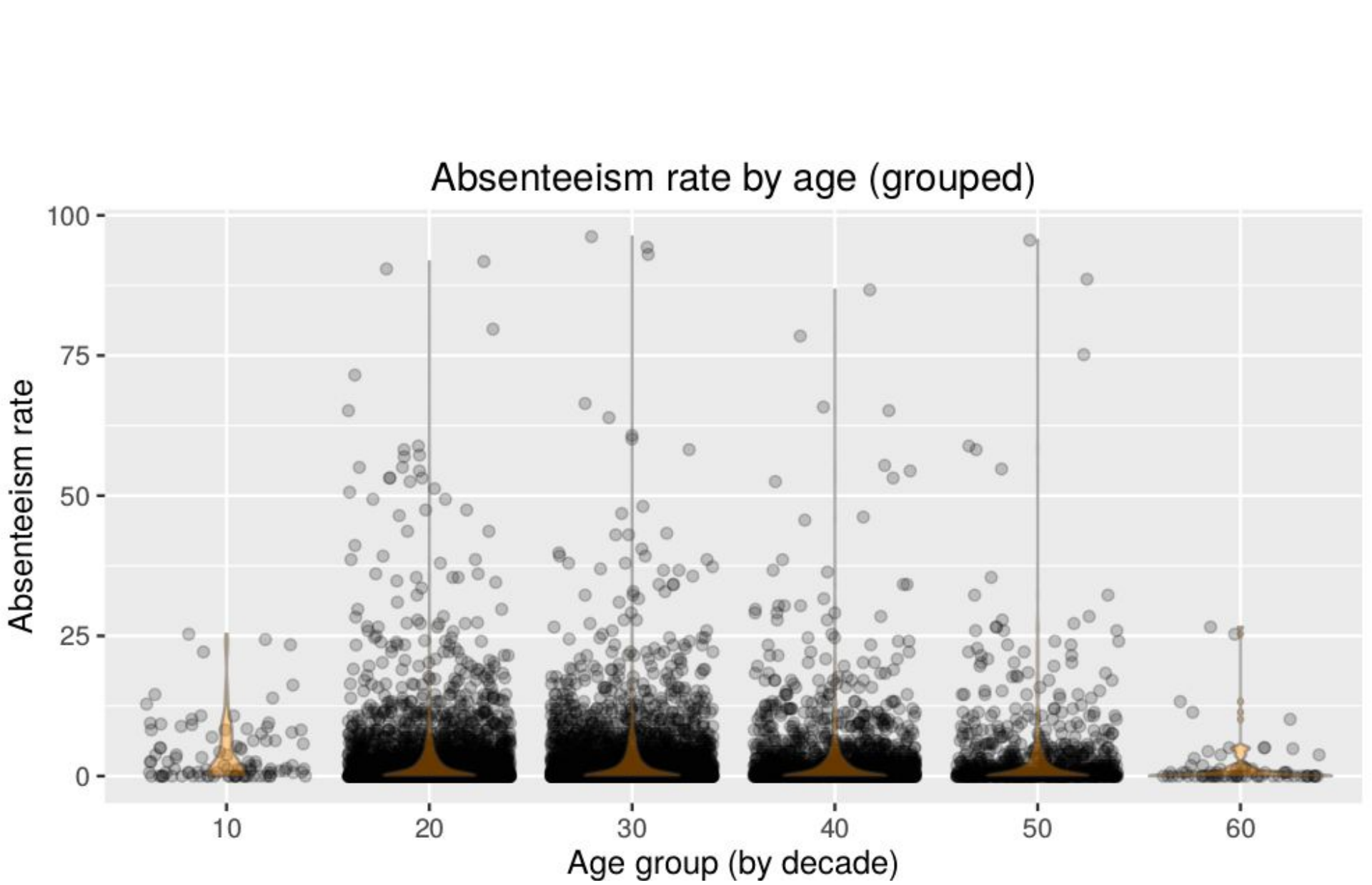



Age distribution of Xinavane workers
Density
0.04
0.03
0.02
0.01
0.00
25
50
75
100
Age (years)


Distribution of worker age by type
Age of workers (years)
100
75
50
25
Contract
Efectivo
Empregados
Estagiário
Eventual
Pensioner
Worker type

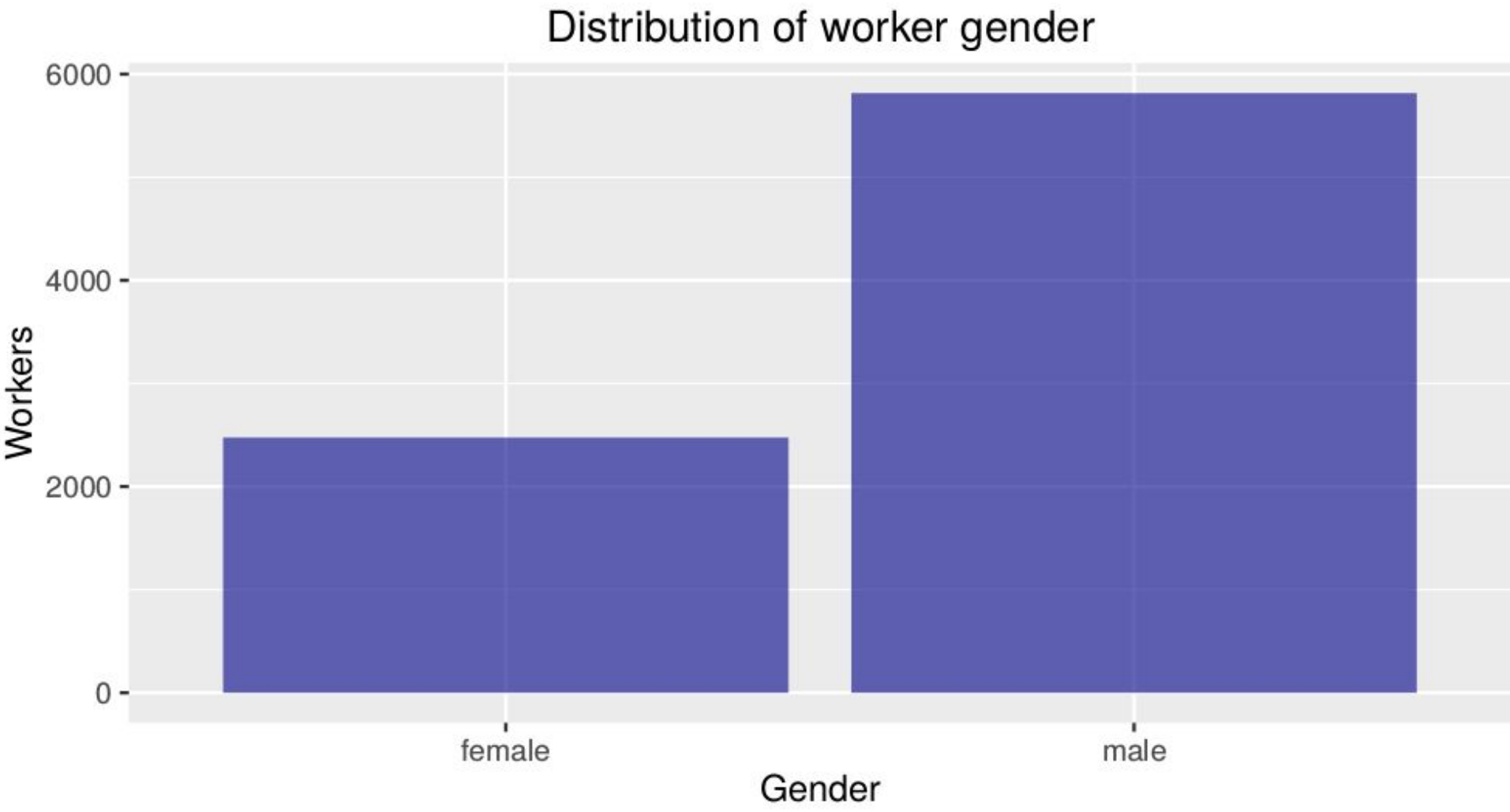

Distribution of worker age by category
100
75
50
25
Age of workers (years)
Pessoal Cartão
Pessoal Quadro
Worker category

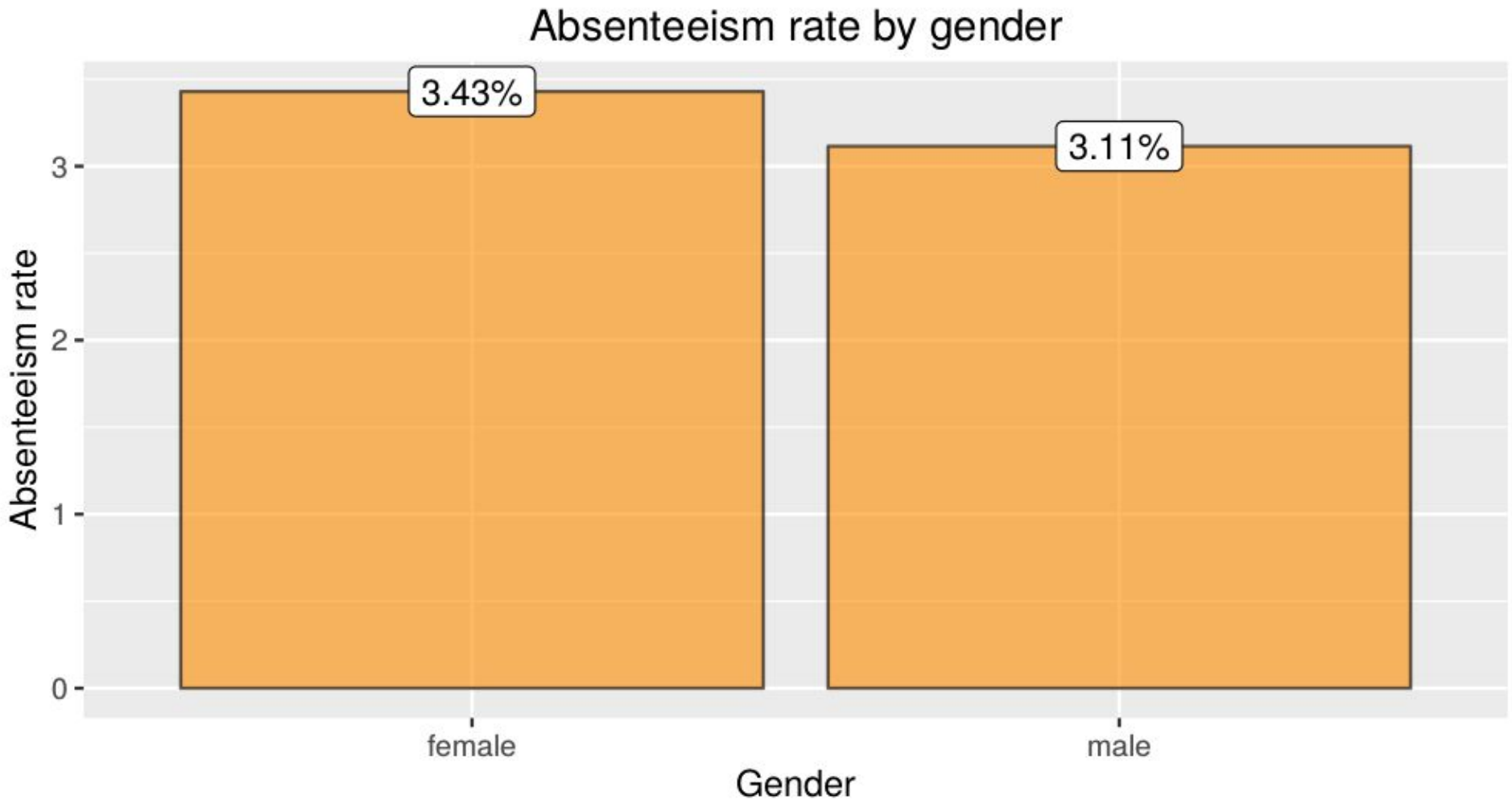

Age and absenteeism
Absenteeism rate
100
75
50
25
0
20
30
40
50
60
70
Age


Absenteeism rate by age (grouped)
Absenteeism rate
100
75
50
25
0
10
20
30
40
50
60
Age group (by decade)

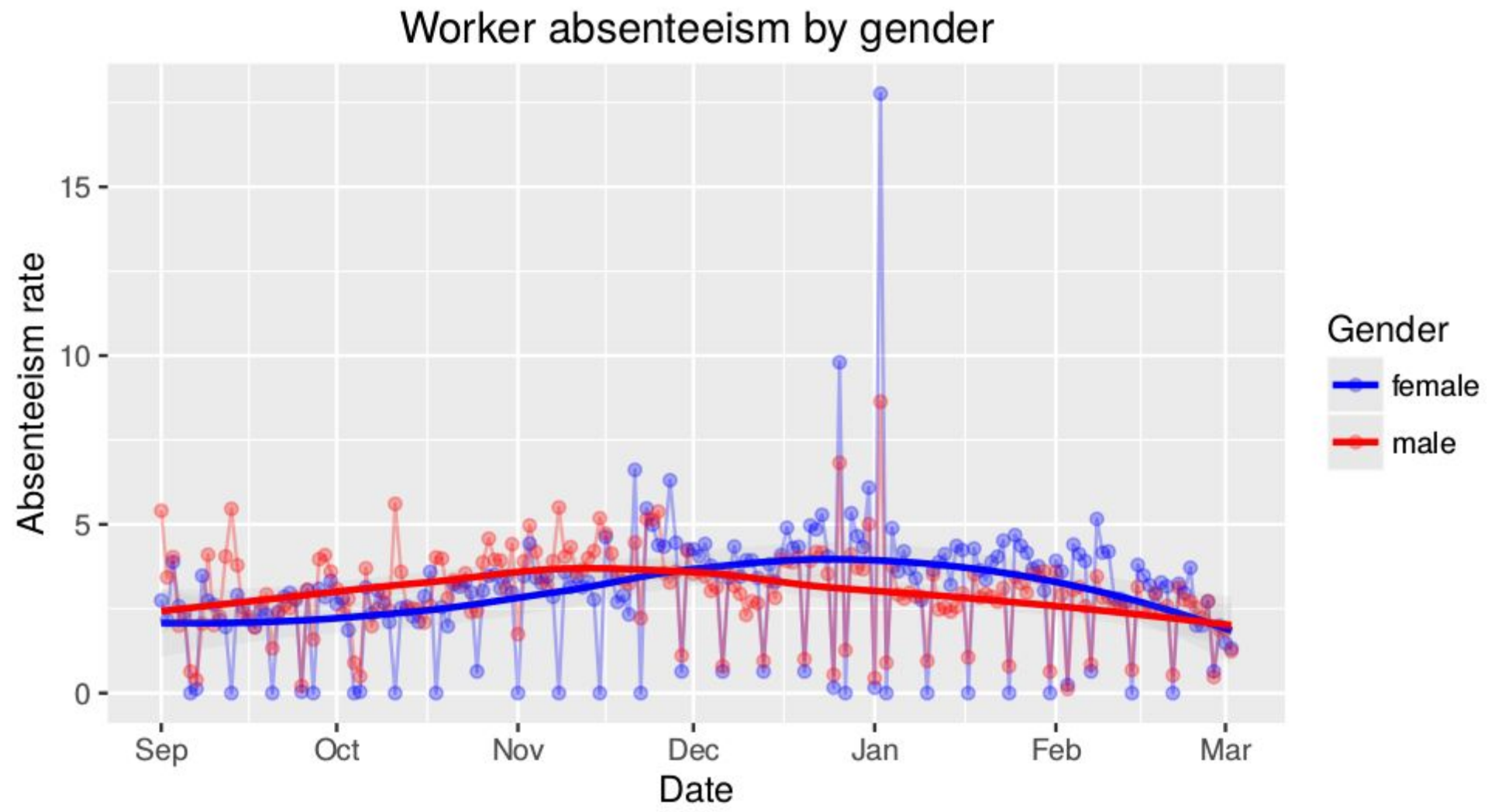
Gender

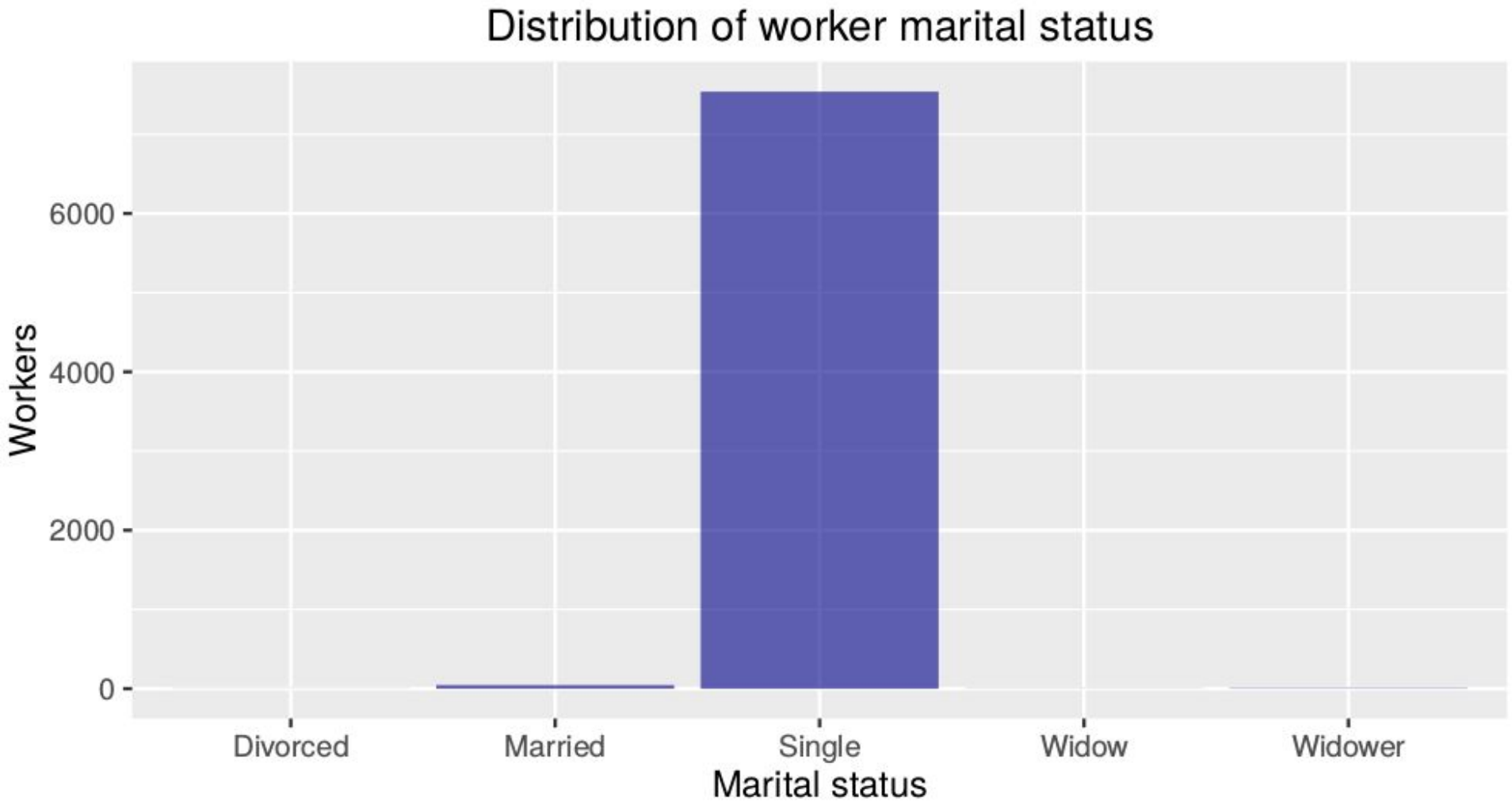
The ratio of males to females at Xinavane is greater than 2 to 1:




Absenteeism rate by gender
3.43%
3.11%
Absenteeism rate
3
2
1
0
female
male
Gender

If we examine absences over time by gender, it is difficult to distinguish a trend:




Distribution of worker marital status
Workers
6000
4000
2000
0
Divorced
Married
Single
Widow
Widower
Marital status