Title Goes Here

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Abstract

Text of abstract

1 Formatting Open Science Group  
2 Federation of Planets  
3 Acme Corporation

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Keywords: keyword 1; keyword 2; keyword 3

Highlights: These are the highlights.

# Introduction

Here is a citation (Marwick, 2017)

# Background

# Methods

# Results

library(tidyverse)  
library(ggbeeswarm)  
# This CSV file was downloaded from our data sheet here  
# https://docs.google.com/spreadsheets/d/1Jwe3UqJyedrV-QWlwR\_44\_\_t4xBVrCfxGyhXdi3E0sg/edit?resourcekey#gid=1686084773  
# note that you may need to download it again to get the latest updates!  
  
jobdata <- read\_csv(here::here('analysis/data/raw\_data/Tenure Track Job Advertisements in Archaeology (Responses) - Form Responses 1.csv')) %>%   
 # simplify the column names   
 janitor::clean\_names()  
  
total\_number\_of\_ads\_in\_our\_sample <- nrow(jobdata)

We have 386 job advertisements in our sample

# we can get the year from the URL to the Academic Job Ads Wiki  
  
year\_ad\_posted <-   
jobdata %>%   
 pull(url\_to\_data\_source\_e\_g\_paste\_in\_url\_to\_the\_jobs\_wiki\_page) %>%   
 str\_extract(., "[[0-9]]{4}-[[0-9]]{4}")  
  
jobdata <-   
 jobdata %>%   
 mutate(year\_ad\_posted = year\_ad\_posted) %>%   
 drop\_na()  
  
ggplot(jobdata) +  
 aes(year\_ad\_posted) +  
 geom\_bar() +  
 scale\_x\_discrete(name = "Academic Year") +  
 theme\_minimal()

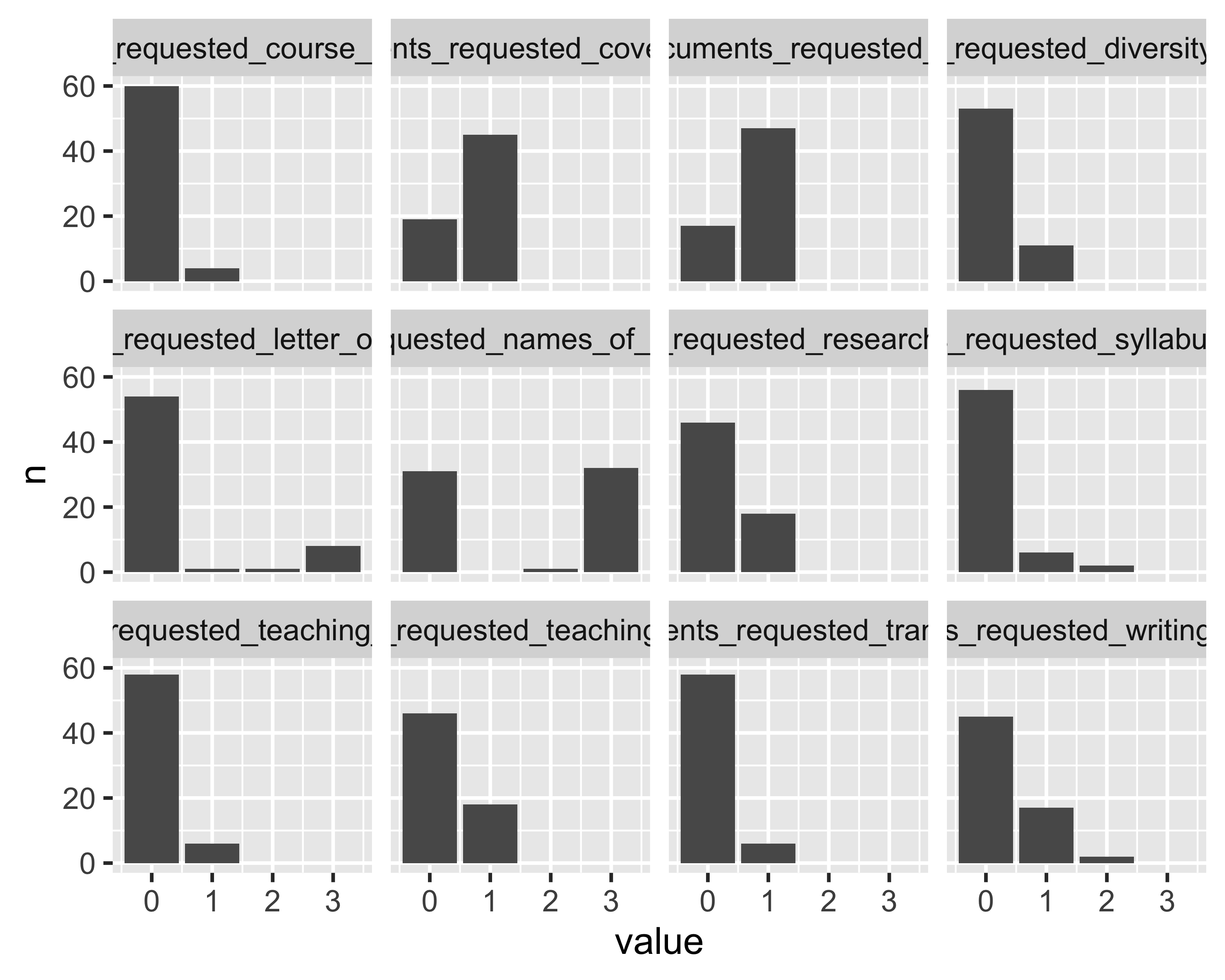
|  |
| --- |
| Figure 1: Number of tenure-track archaeology faculty job ads posted each year |

[Figure 1](#fig-how-many-jobs-per-year) shows how many jobs per year in our sample

# ratio of tenure-track to untenured positions  
  
base\_url <- "http://academicjobs.wikia.com/wiki/Archaeology\_Jobs\_"  
  
# starts at 2010-2011  
  
years <- map\_chr(2010:2019, ~str\_glue('{.x}-{.x +1}'))  
# though it seems to start at 2007-8: https://academicjobs.fandom.com/wiki/Archaeology\_07-08  
  
urls\_for\_each\_year <- str\_glue('{base\_url}{years}')  
  
library(rvest)  
  
# all years  
urls\_for\_each\_year\_headers <-   
map(urls\_for\_each\_year,  
 ~.x %>%   
 read\_html() %>%   
 html\_nodes('.mw-headline') %>%   
 html\_text())  
  
# what are the different sections? I reviewed every year to see what   
# headings were used to indicate TT and non-TT jobs  
tt\_sections <- c("TENURE-TRACK POSITIONS",  
 "TENURE-TRACK OR TENURED / FULL-TIME POSITIONS",  
 "Tenure-Track or Tenured / Full-time Position",  
 "ASSISTANT PROFESSOR OR OPEN RANK",  
 "TENURE TRACK ASSISTANT PROFESSOR OR OPEN RANK",  
 "TENURED ASSOCIATE OR FULL PROFESSOR",  
 "ASSOCIATE OR FULL PROFESSOR")  
  
non\_tt\_sections <- c("NON-TENURE-TRACK POSITIONS",   
 "VISITING POSITIONS / Limited-Term Appointments / Postdocs",   
 "Visiting Positions / Limited-Term Appointments / Postdocs",  
 "VISITING POSITIONS / LIMITED TERM APPOINTMENTS / POSTDOCS",   
 "VISITING POSITIONS / LIMITED-TERM APPOINTMENTS / POSTDOCS / PART-TIME POSITIONS",  
 "VISITING POSITIONS")  
  
end\_non\_tt\_sections <- c("DISCUSSION, RUMORS AND SPECULATION",   
 "DISCUSSION, RUMORS, SPECULATION",  
 "General Discussion, Rumors, and Speculation" )  
  
# what to do about this?  
# "COMPLETED SEARCHES"  
  
# this is a function that extracts text from each section with a heading  
# that matches those above, and counts how many positions are in each section  
library(stringr)  
get\_counts\_tt\_non\_tt <- function(x){  
   
tt\_start <- which(str\_detect(x,   
 paste(tt\_sections,   
 collapse = "|")))[1]   
non\_tt\_start <- which(str\_detect(x,   
 paste(non\_tt\_sections,   
 collapse = "|")))[1]   
non\_tt\_end <- which(str\_detect(x,   
 paste(end\_non\_tt\_sections,   
 collapse = "|")))[1]   
n\_tt\_jobs <- length( x[(tt\_start + 1) : (non\_tt\_start - 1) ] )  
n\_non\_tt\_jobs <- length( x[(non\_tt\_start + 1) : (non\_tt\_end - 1) ] )  
  
return(list(n\_tt\_jobs = n\_tt\_jobs,  
 n\_non\_tt\_jobs = n\_non\_tt\_jobs))  
}  
  
# calculate ratio  
ratios\_of\_tt\_to\_non\_tt\_jobs <-   
map\_df(urls\_for\_each\_year\_headers,  
 get\_counts\_tt\_non\_tt) %>%   
 mutate(ratio = n\_tt\_jobs / n\_non\_tt\_jobs) %>%   
 mutate(year = str\_replace(str\_sub( urls\_for\_each\_year, -9),  
 "-", "-\n"))   
  
# draw plot  
 ggplot(ratios\_of\_tt\_to\_non\_tt\_jobs) +  
 aes(year,   
 group = 1,  
 ratio) +  
 geom\_line() +  
 geom\_hline(yintercept = 1,  
 colour = "red") +  
 labs(y = "Ratio of tenure-track to non-tenure track\njobs in Archaeology",  
 x = "") +  
 theme\_bw(base\_size = 16)



integer\_breaks <- function(n = 5, ...) {  
 fxn <- function(x) {  
 breaks <- floor(pretty(x, n, ...))  
 names(breaks) <- attr(breaks, "labels")  
 breaks  
 }  
 return(fxn)  
}  
  
jobdata %>%   
 select(starts\_with("documents\_requested")) %>%   
 pivot\_longer(everything()) %>%   
 group\_by(name, value) %>%   
 tally() %>%   
 mutate(value = case\_when(  
 value == "Not requested in the job ad" ~ 0,  
 value == "One" ~ 1,  
 value == "Two (e.g. two syllabi)" ~ 2,  
 value == "Three" ~ 3,  
 .default = 0  
 )) %>%   
 ggplot() +  
 aes(value,  
 n) +  
 geom\_col() +  
 facet\_wrap( ~ name)



jobdata\_requirements <-   
jobdata %>%   
 select(year\_ad\_posted,  
 starts\_with("documents\_requested")) %>%   
 pivot\_longer(-year\_ad\_posted) %>%   
 mutate(value = case\_when(  
 value == "Not requested in the job ad" ~ 0,  
 value == "One" ~ 1,  
 value == "Two (e.g. two syllabi)" ~ 2,  
 value == "Three" ~ 3,  
 .default = 0  
 )) %>%   
 # trim names a bit  
 mutate(name = str\_remove(name, "documents\_requested\_"))  
  
jobdata\_requirements\_means <-   
jobdata\_requirements %>% # average number requested per year  
 group\_by(year\_ad\_posted,   
 name) %>%   
 summarise(mean\_n = mean(value))  
  
ggplot(jobdata\_requirements\_means) +  
 aes(year\_ad\_posted,   
 mean\_n,  
 group = name) +  
 geom\_line() +  
 geom\_jitter(data = jobdata\_requirements,  
 aes(year\_ad\_posted,   
 value),  
 alpha = 0.1,  
 height = 0.2,  
 width = 0.1) +  
 facet\_wrap(~name,  
 scales = "free\_y") +  
 theme\_minimal() +  
 theme(axis.text.x = element\_text(angle = 90, vjust = 0.5))

|  |
| --- |
| Figure 2 |

# do the requirements differ for associate positions   
jobdata %>%   
 mutate(position\_title = case\_when(  
 str\_detect(title\_of\_position\_tenure\_track\_jobs\_only, "Associate") ~ "Associate",  
 str\_detect(title\_of\_position\_tenure\_track\_jobs\_only, "Assistant") ~ "Assistant")) %>%   
 select(position\_title,  
 starts\_with("documents\_requested")) %>%   
 pivot\_longer(-position\_title) %>%   
 mutate(value = case\_when(  
 value == "Not requested in the job ad" ~ 0,  
 value == "One" ~ 1,  
 value == "Two (e.g. two syllabi)" ~ 2,  
 value == "Three" ~ 3,  
 .default = 0  
 )) %>%   
 filter(!is.na(position\_title)) %>%   
 ggplot() +  
 aes(position\_title,  
 value  
 ) +  
 geom\_jitter(height = 0.05) +  
 facet\_wrap( ~ name)

|  |
| --- |
| Figure 3 |

# Discussion

# Conclusion

# Acknowledgements

# References

Marwick, B., 2017. Computational reproducibility in archaeological research: Basic principles and a case study of their implementation. Journal of Archaeological Method and Theory 24, 424–450. <https://doi.org/10.1007/s10816-015-9272-9>

### Colophon

This report was generated on 2024-02-05 14:38:43.575327 using the following computational environment and dependencies:

# which R packages and versions?  
if ("devtools" %in% installed.packages()) devtools::session\_info()

─ Session info ───────────────────────────────────────────────────────────────  
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 system x86\_64, darwin20  
 ui X11  
 language (EN)  
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 ctype en\_US.UTF-8  
 tz America/Los\_Angeles  
 date 2024-02-05  
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 [2] /Library/Frameworks/R.framework/Versions/4.3-x86\_64/Resources/library  
  
 P ── Loaded and on-disk path mismatch.  
  
──────────────────────────────────────────────────────────────────────────────

The current Git commit details are:

# what commit is this file at?   
if ("git2r" %in% installed.packages() & git2r::in\_repository(path = ".")) git2r::repository(here::here())

Local: /Users/bmarwick/Downloads/archyjobads  
Head: nothing commited (yet)