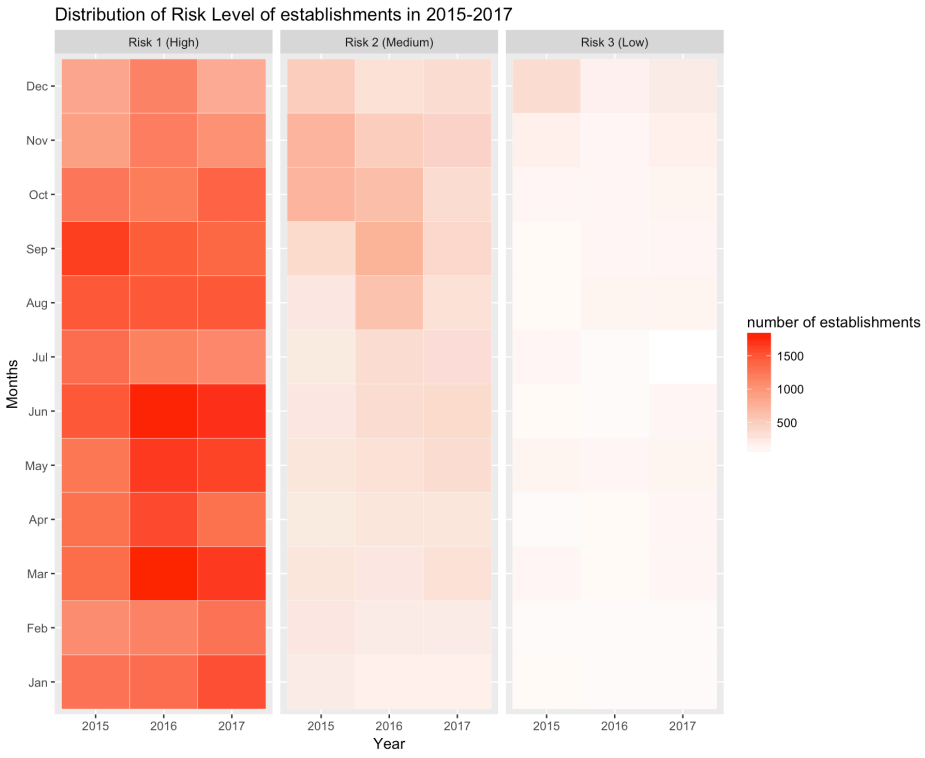
1. individual work

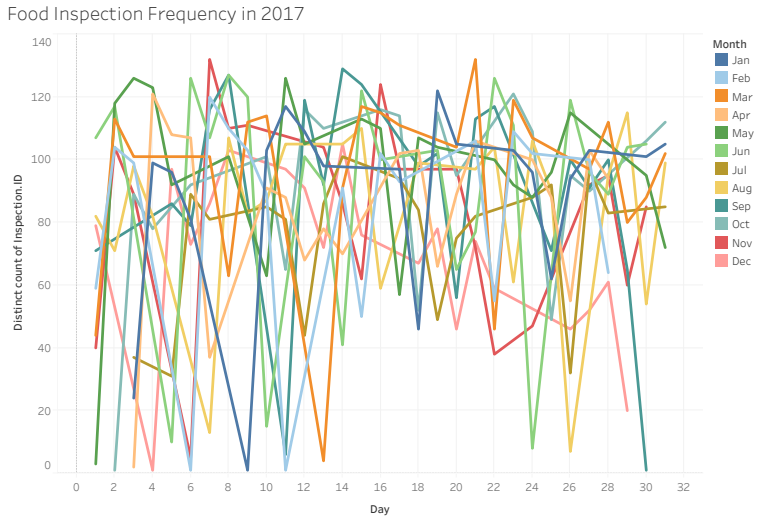
Dataset of our group is Chicago Food Inspection. I choose recent 3 years' data here.

plot 1: Distribution of Risk Level of Facilities in 2015-2017



Through the graph, we can see that generally no matter in which year, the rank is Risk1 >Risk2>Risk3, and from the colors we can see that the number of establishment in high risk take a really big part. As for year, the number of establishments of medium risk and low risk are yearly reduced which is a good news anyway.

plot 2: Food Inspection Frequency in 2017

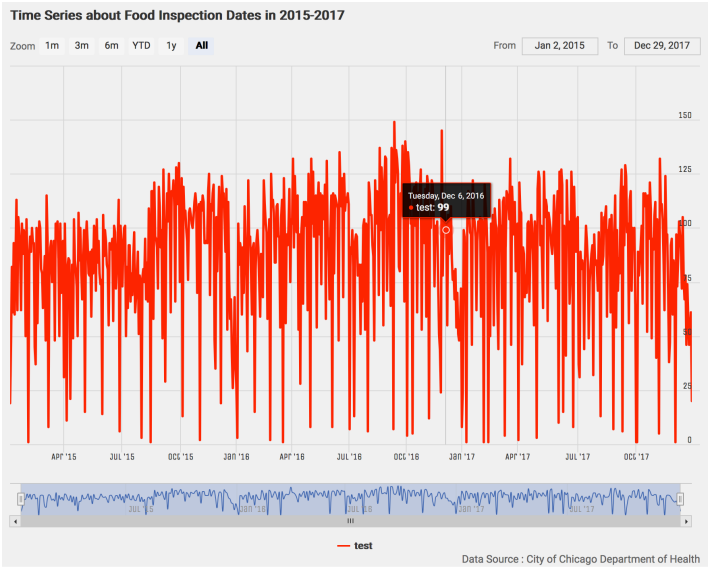


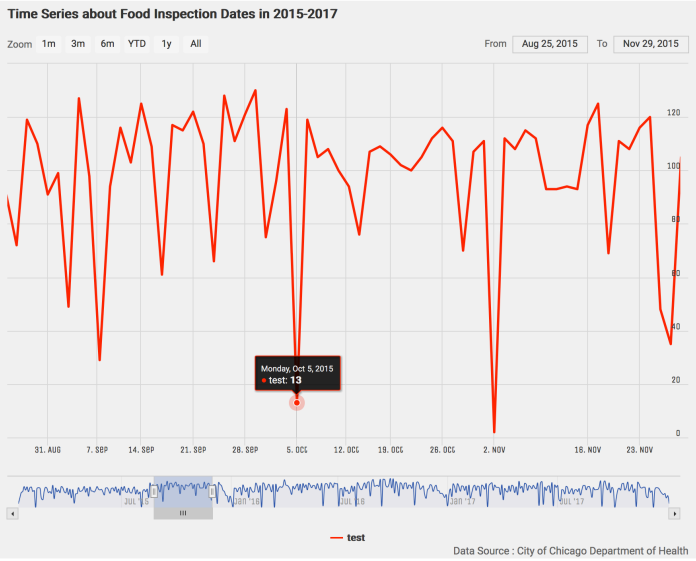
The trend of distinct count of Inspection.ID for Day. Color shows details about Month. The data is filtered on Year, which keeps 2017.

I use Tableau to map this overlay graph so even It looks clutter I can see each line individually and clearly.

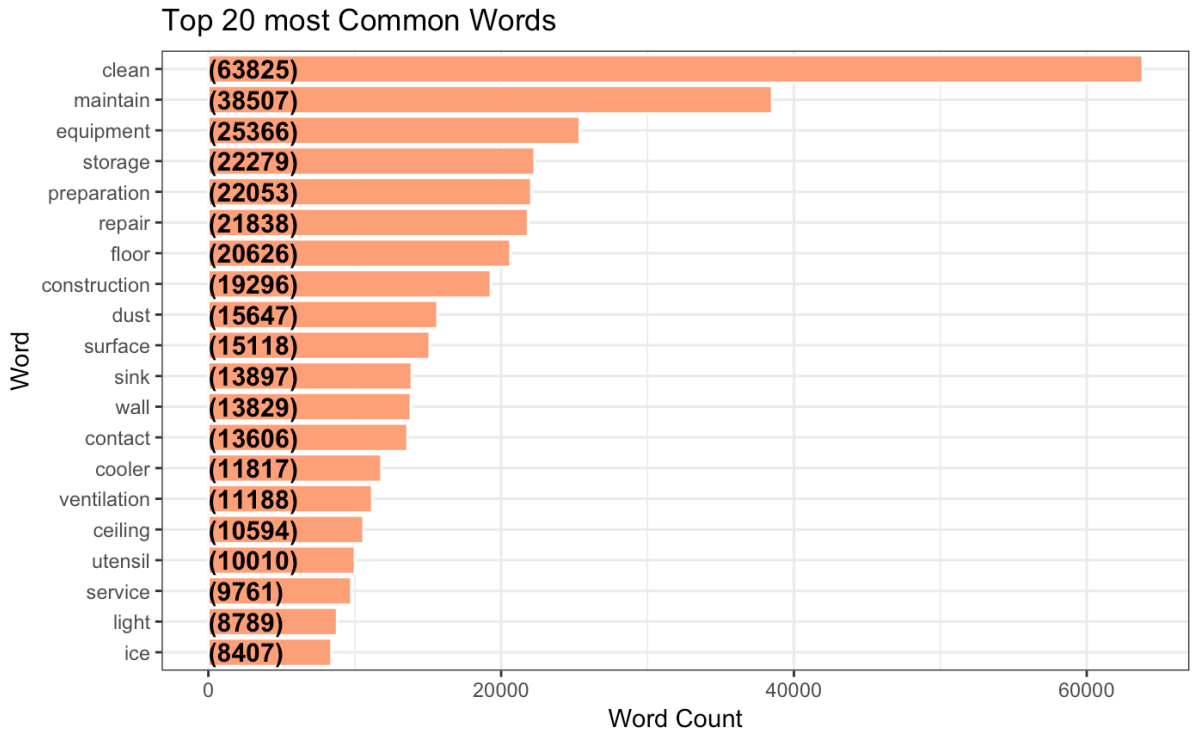
Here we can get an interesting thing: inspectors seem would ‘take a break’ near every 5 days and inspection more happened in spring and winter and less in summer in general.

Besides, I create the time series interactive chart below which is easily to get 3-year information from without clutter.



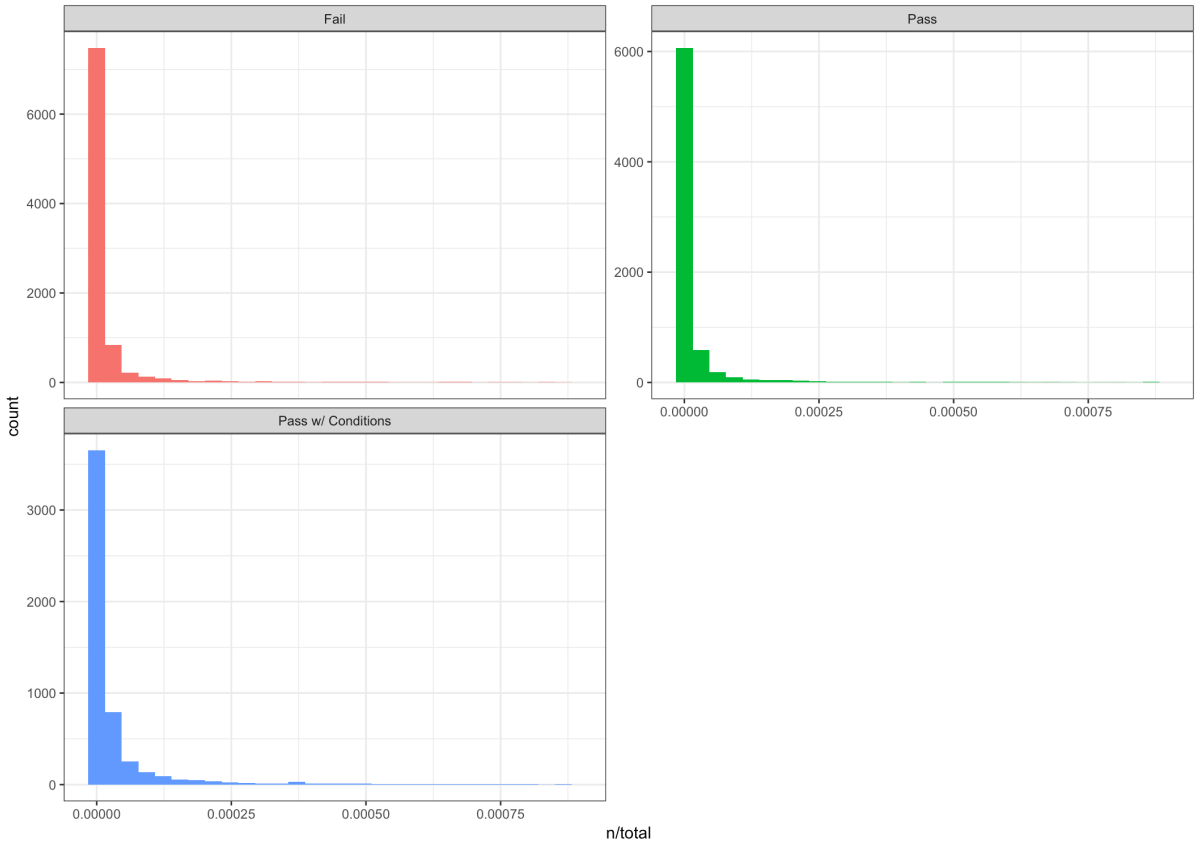


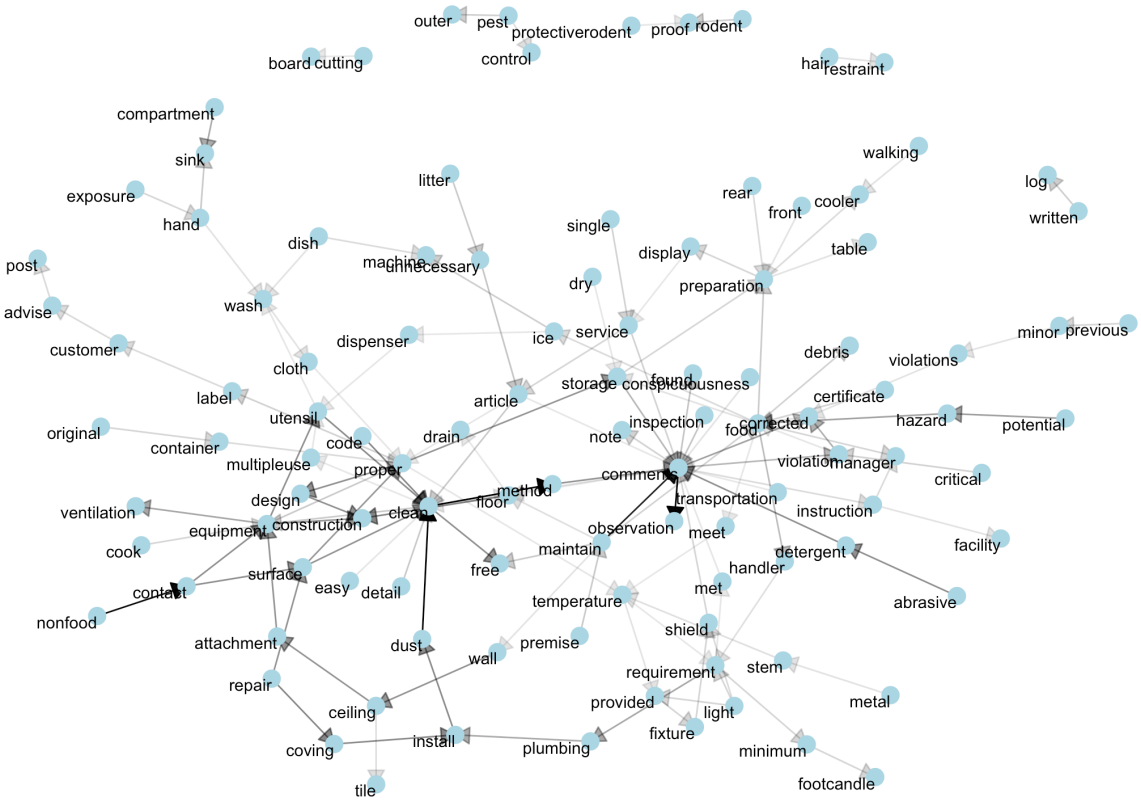
#1.Top Twenty most Common Words



#2. WordCloud of the Common Words

#Term Frequency of Words (TF)




outer
pest
protectiverodent
proof
rodent
board
cutting
control
hair
restraint
compartment
sink
exposure
hand
litter
walking
log
written
rear
front
cooler
single
display
table
dish
machine
unnecessary
post
dry
preparation
wash
advise
ice
service
minor
previous
customer
dispenser
debris
violations
cloth
storage
conspicuousness
found
certificate
label
article
utensil
inspection
corrected
hazard
potential
original
container
code
drain
note
food
violation
manager
multipleuse
proper
comment
critical
design
method
floor
transportation
instruction
ventilation
clean
equipment
construction
observation
meet
facility
cook
maintain
detergent
handler
surface
free
easy
detail
met
content
temperature
abrasive
nonfood
shield
attachment
dust
premise
wall
stem
requirement
repair
provided
metal
ceiling
light
fixture
coving
install
plumbing
minimum
tile
footcandle