

# Yelp Dataset Analysis Report

CS686 Big Data Processing Personal Project

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Date: 2020 May 1st

# General Information

Business #

192,609

Users #

1,637,138

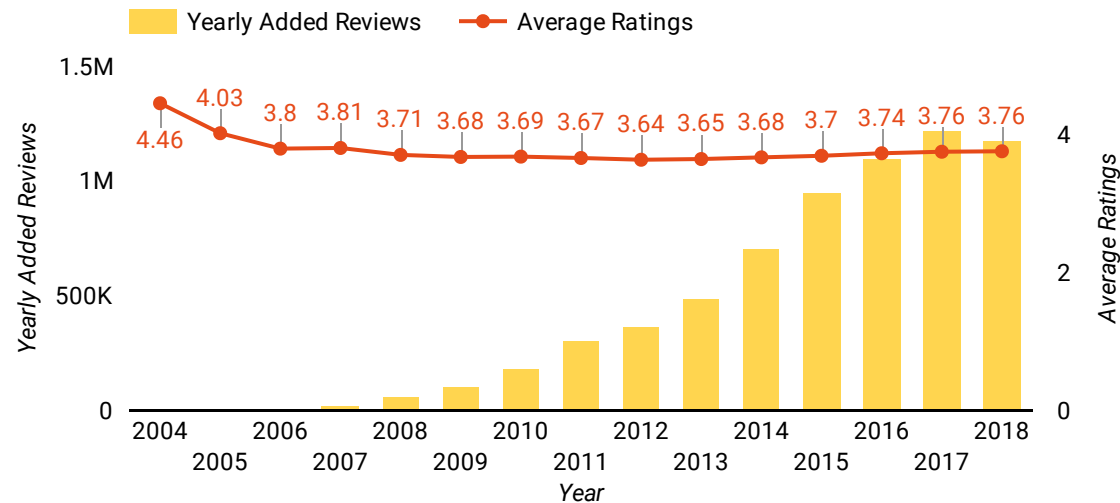
Reviews #

6,685,900

Tips #

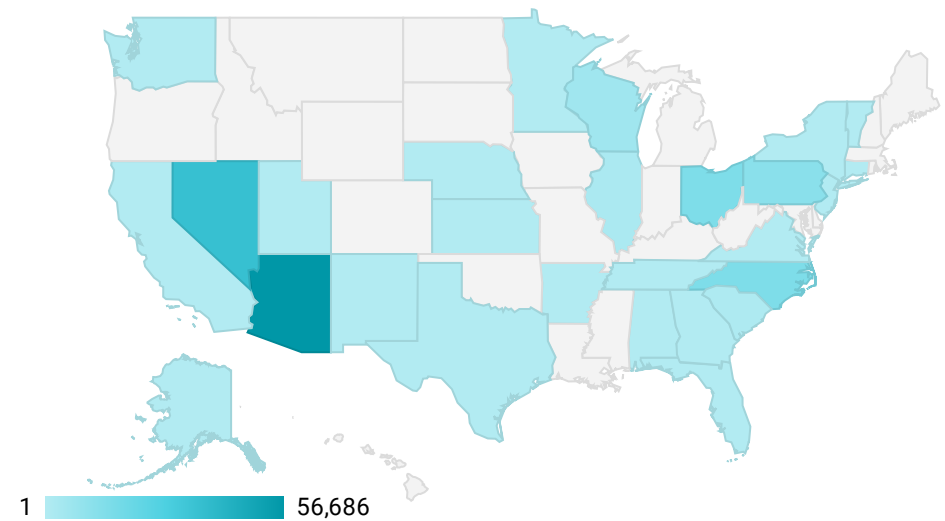
1,223,094

## Total reviews & average stars for each business

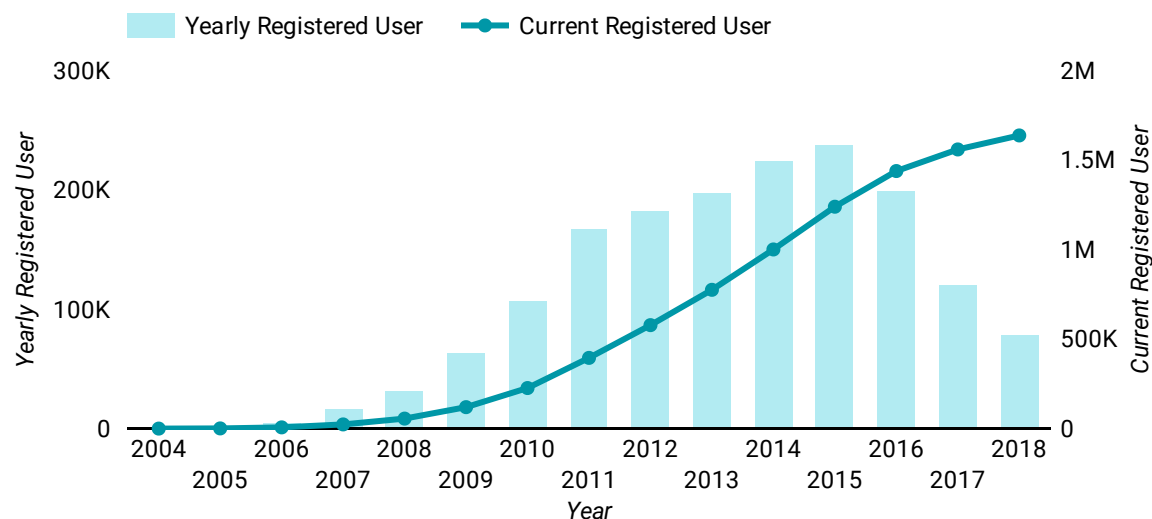


- significant increase in reviews each year
- average stars stabilize at about 3.7

## Business distribution

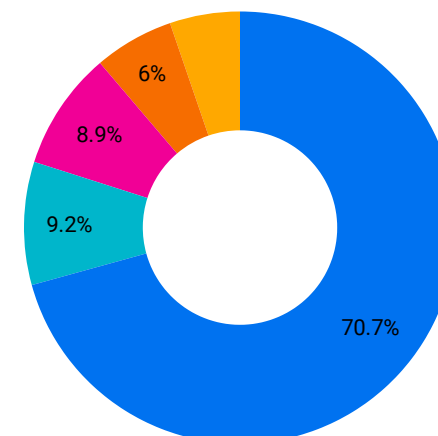


## New registered users & total registered users each year



- significant increase in registered users

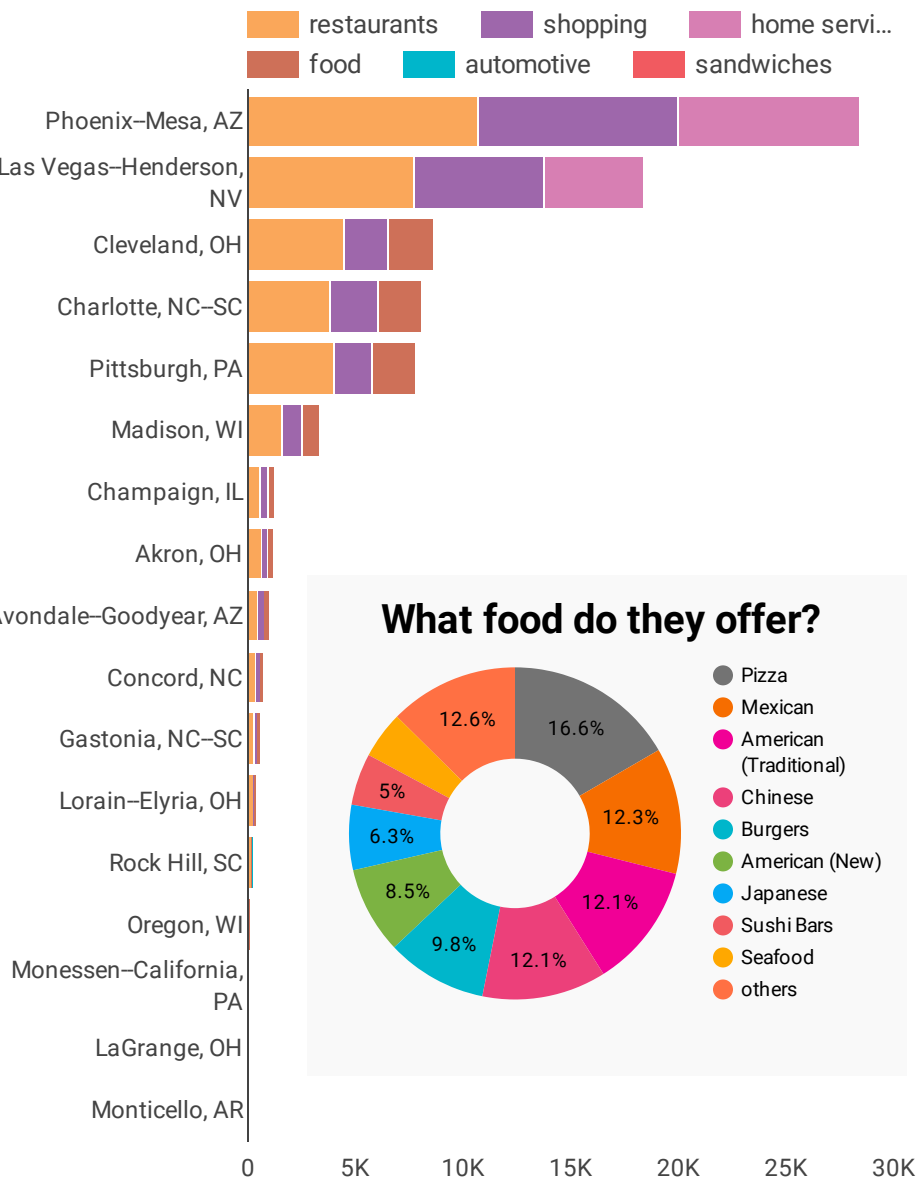
## Business categories distribution



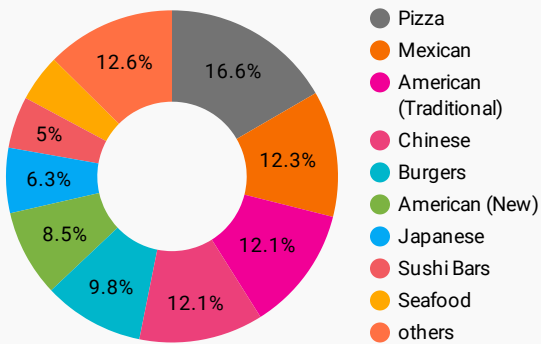
category	count	
Restaurants	59,371	
Shopping	31,878	
Food	29,989	
Home Services	19,729	
Beauty & Spas	19,370	
Health & Medical	17,171	
Local Services	13,932	
1 - 100 / 1300		

Restaurants Shopping Beauty & Spas Home Services

## Top 3 business categories in cities



### What food do they offer?



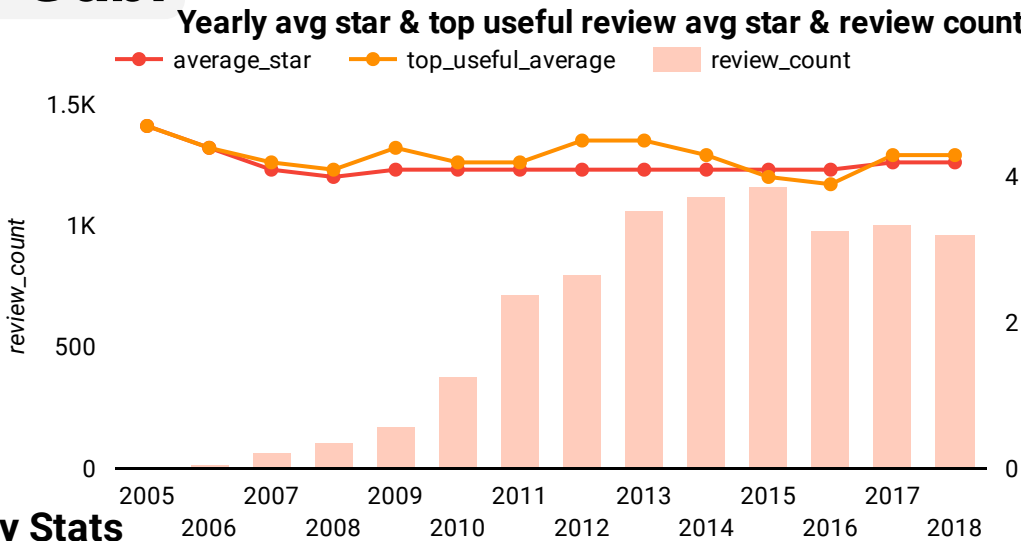
\*In large cities(like Las Vegas) , different businesses tend to distribute evenly, while in smaller cities, food-related businesses take a big portion.

## Mon Ami Gabi

Useful Reviews  
2,595

Average Stars  
4

On-Yelp-Years  
13



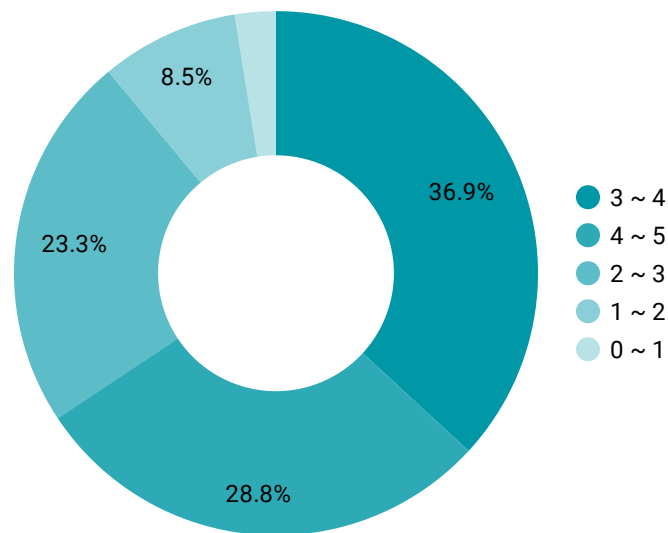
### Review Reliability Stats

On-Yelp Yrs	Reviews #	Users #	Useful per Revi...	Star Std Devi...	Suspicious User
13	8,570	8,349	0.8	1	1

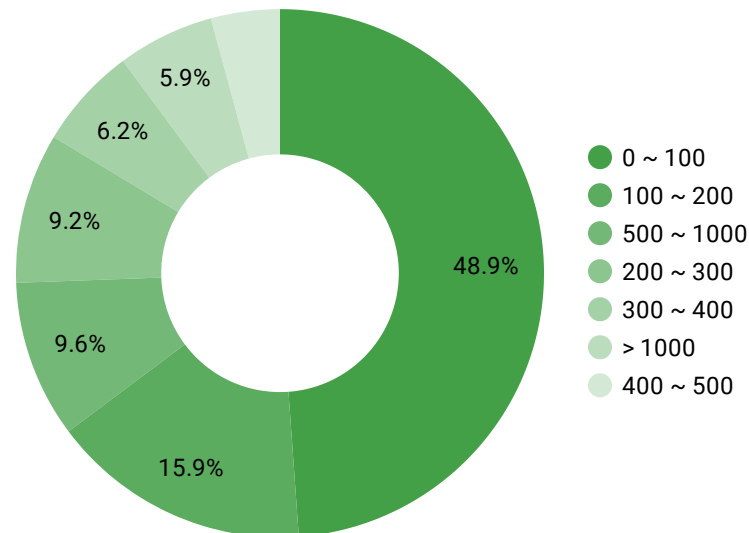
Review	stars	useful	month	year
1. I really love the Las Vegas Strip and I have eaten at Mon Ami Gabi so many times!  This is really an awesome restaurant at many levels!  I love the atmosphere in the morning for a nice breakfast watching the Bellagio famous fountains directly across Las Vegas Blvd with a great view from the patio part of the restaurant! Talk about Ambience. The atmosphere sitting on the patio is awesome enjoying the morning sun and on the inside very beautiful for fine dining!  The staff is very professional, the restaurant is very clean, the tables are set of high class, the prices reasonable for being on the Las Vegas Strip and totally a 5 star service from the servers.  The food is delicious "YUM" and food comes to the table with great presentation "warm or cold" depending on what you ordered.  I even had an awesome holiday dinner there once "Thanksgiving" and it was awesome from start to finish! So filling in a Yum and Delicious Way! :)  I highly recommend this place for all your friends	5	55	October	2018

# User Analysis

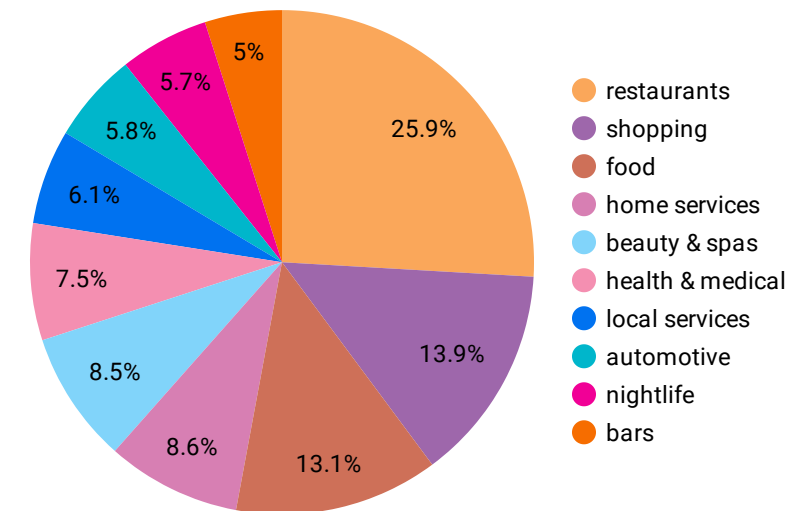
## Users Distribution by Average Stars Given



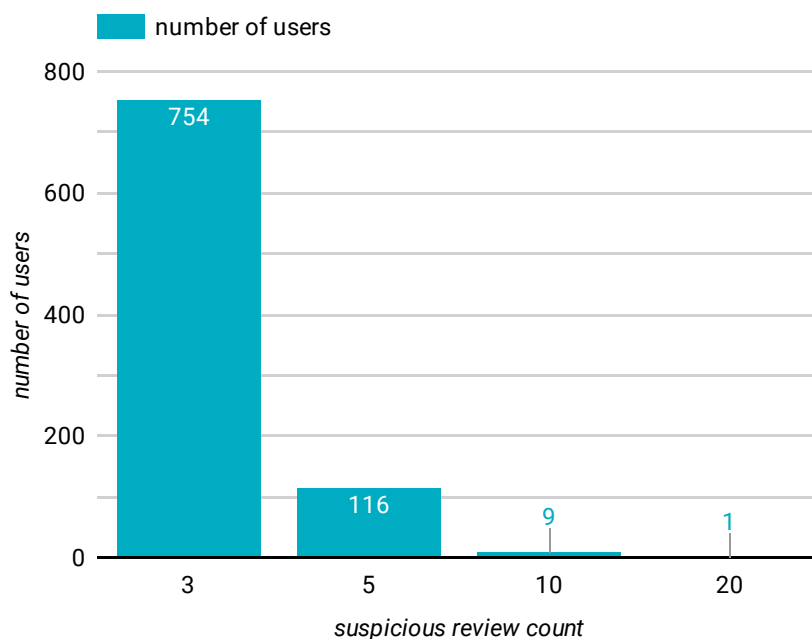
## Users Distribution by Number of Reviews Made



## Top 10 Categories Users Frequently Review On



## Suspicious Users Identification



**watch out!!**

**0.046%** of all users are identified as suspicious users with a threshold number of similar reviews of **3**.

\* Suspicious users are identified as users that made more than the threshold number of reviews with the same rating on the same business within one year.

## Popular Users Count

Average Fans  
**1.47**

Average Reviews  
**22.29**

Average Useful  
**40.53**

Review #	Fan #	AUPR	User Count
1000	100	5	384
2000	200	6	66
3000	300	8	6
5000	500	10	1

\* UPR: Average Useful Per Review

\* Popular users are identified as users with number of reviews, number of fans and average useful per review all exceeding threshold value.

**384** popular users out of **1637138(0.02%)** total users reviewed on **179** popular businesses out of **348(51.4%)** total popular businesses.

**Their impacts are huge!**