

# SKYSCRAPERS

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<https://cpang4.github.io/cs360-finalproject/>

# PROJECT OBJECTIVES

- Which are the tallest buildings in the US? (and how tall are they, relative to other tall buildings in this dataset?)
- Where are the tallest buildings in the US? Does a certain city/state have the most tall buildings?
- What are the purposes of these skyscrapers (casinos, offices, hotels, residential, etc)?
- Is there a constant positive trend for the amount of skyscrapers constructed, or has construction halted?
- How do US skyscrapers compare to other skyscrapers in the world?

# NOTES

- We are defining a skyscraper as any building with **height  $\geq 130\text{m}$** .
- The skyscrapers used for these visualizations are only **completed** ones.
- Because most skyscrapers are multipurpose, for simplicity, we used a **main** purpose (what most of the floors occupy).

# THE DATA

CORGIS Skyscraper dataset + SkyscraperCenter

## DATA PROCESSING

- Adding a “main” purpose column
- Adding “State” column
- Removing uncompleted buildings and buildings < 130m
- Adding missing heights

# DEMO

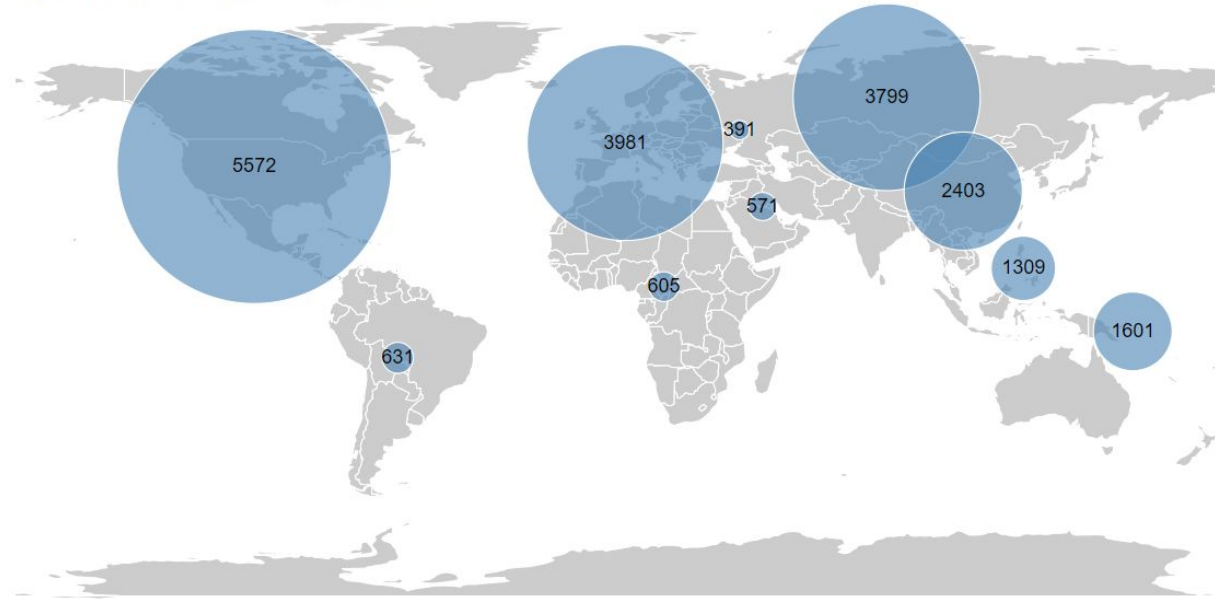
<https://cpang4.github.io/cs360-finalproject/>

# MAP WITH SLIDER

- Inspiration from a [block by PBrockmann](#)

## World Carbon Dioxide Emissions by Region

expressed in Million Metric Tons Carbon Dioxide



Year : 2000



SEX  
**Female** Male

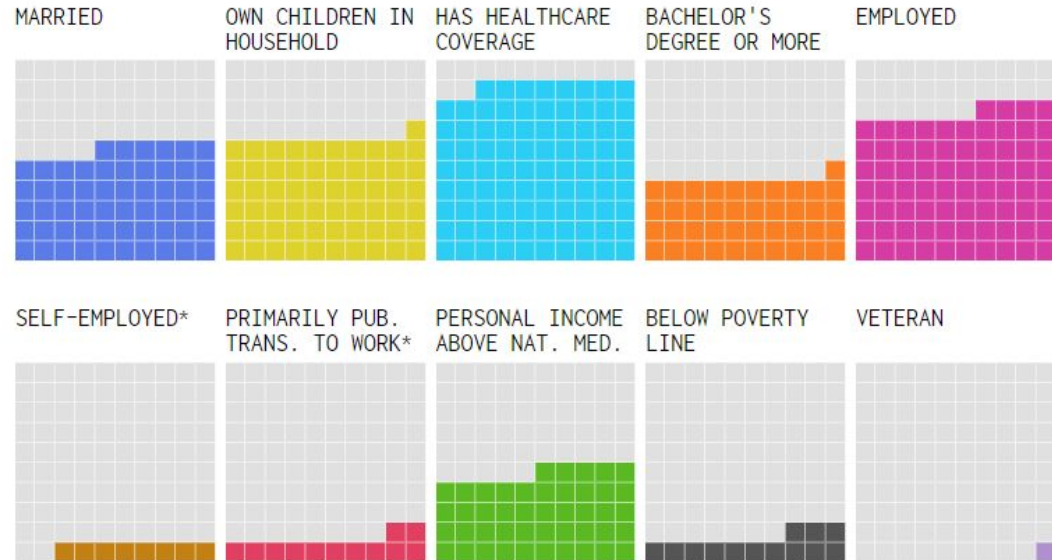
AGE GROUP  
18 to 24 **25 to 44** 45 to 64 65+

RACE OR ORIGIN  
**White** Black Asian Native Hispanic

*There are about this many people in this group...*

29,248,303

*...and of these people, here are their percentage breakdowns.*



# ICON ARRAY

- Inspiration from [FlowingData](#) by Nathan Yau

# GLOBAL COMPARISON

Sources for images from  
Skyscraper Center

**The Skyscraper Center**  
The Global Tall Building Database of the CTBUH

Search Buildings, Companies, Cities & Countries

Countries Cities **Buildings** Companies Create Lists/Graphics Compare Data Search Submit Data [Chinese/中文](#)

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### Shanghai Tower



Click an image to view larger version.

Height: To Tip  
632 m / 2,073 ft

Height: Architectural  
632 m / 2,073 ft

Height: Occupied  
583.4 m / 1,914 ft

Height: Observatory  
562.1 m / 1,844 ft

Floors Above Ground  
128

Floors Below Ground  
5

# of Elevators  
106

Top Elevator Speed  
20.5 m/s

Tower GFA  
420,000 m<sup>2</sup> / 4,520,842 ft<sup>2</sup>

Development GFA  
521,000 m<sup>2</sup> / 5,607,997 ft<sup>2</sup>

# of Hotel Rooms  
258

# of Parking Spaces  
1,794

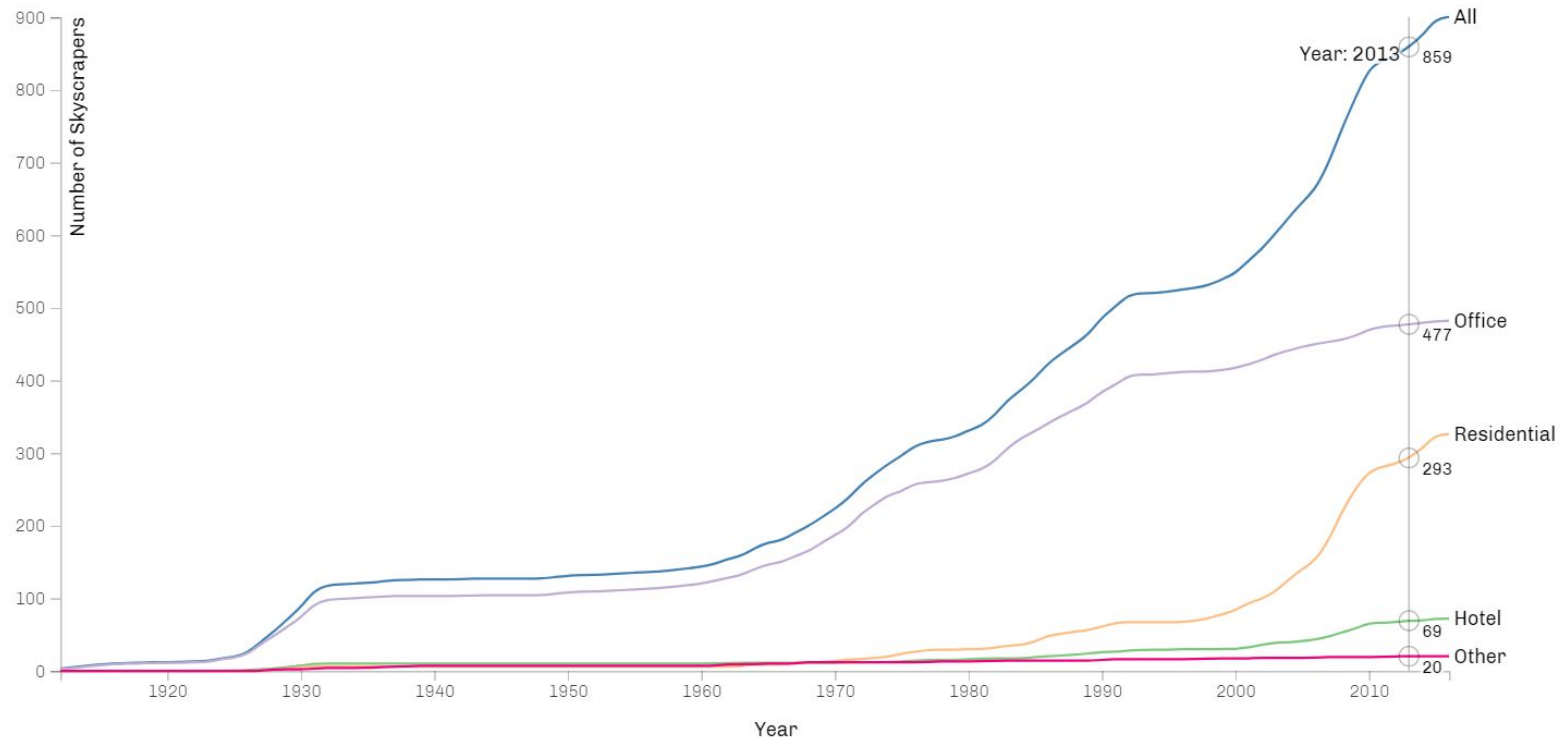


# CONCLUSION

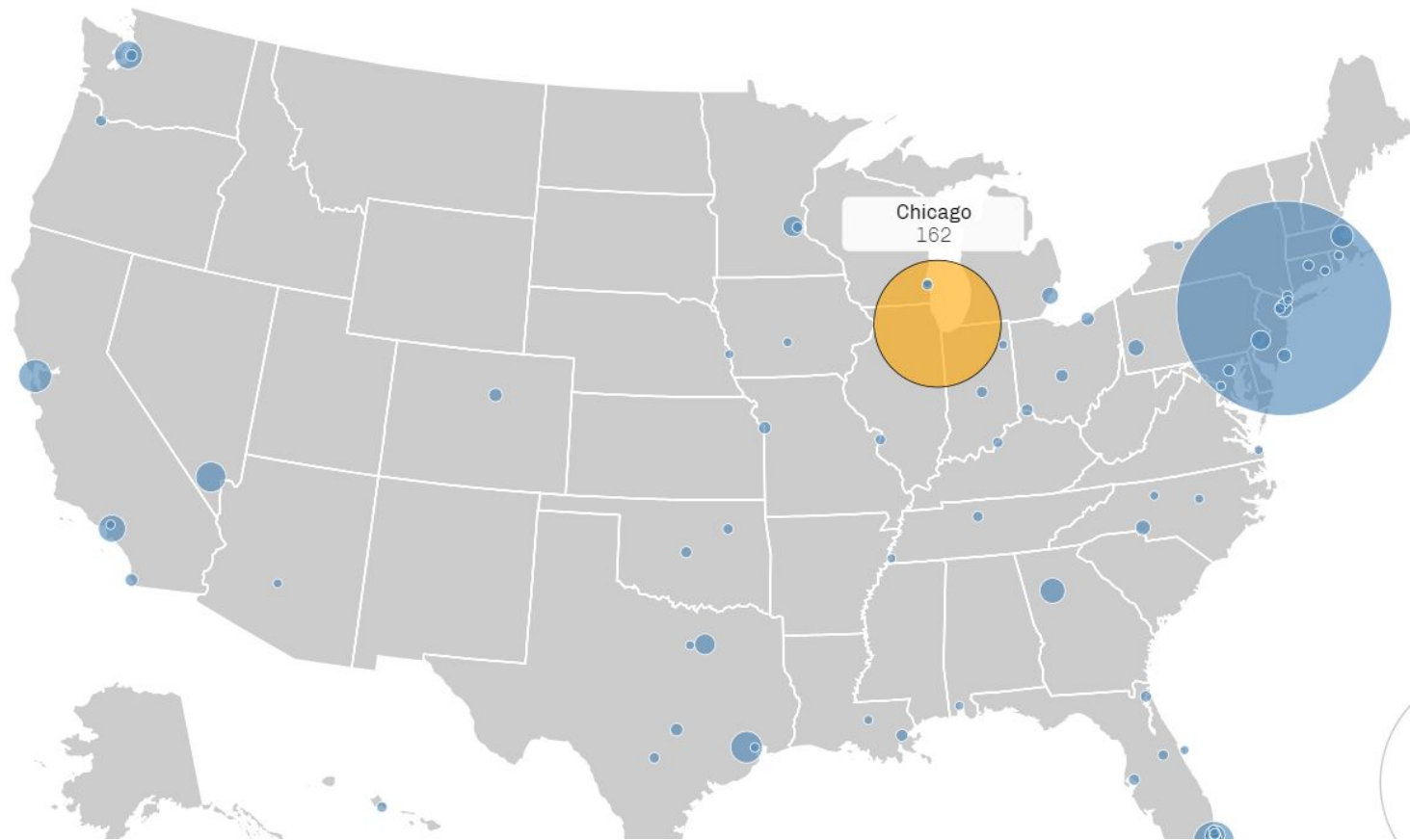
- Most main purposes are office, residential, and hotel.
- Tallest buildings are in New York and Chicago
- Globally, China has the most # of tallest skyscrapers. In Top 20, U.S. has 4 skyscrapers.
- It would be unlikely for skyscraper construction to halt, given the trends in recent years.

# LINE CHART

Number of Skyscrapers by Year in the US



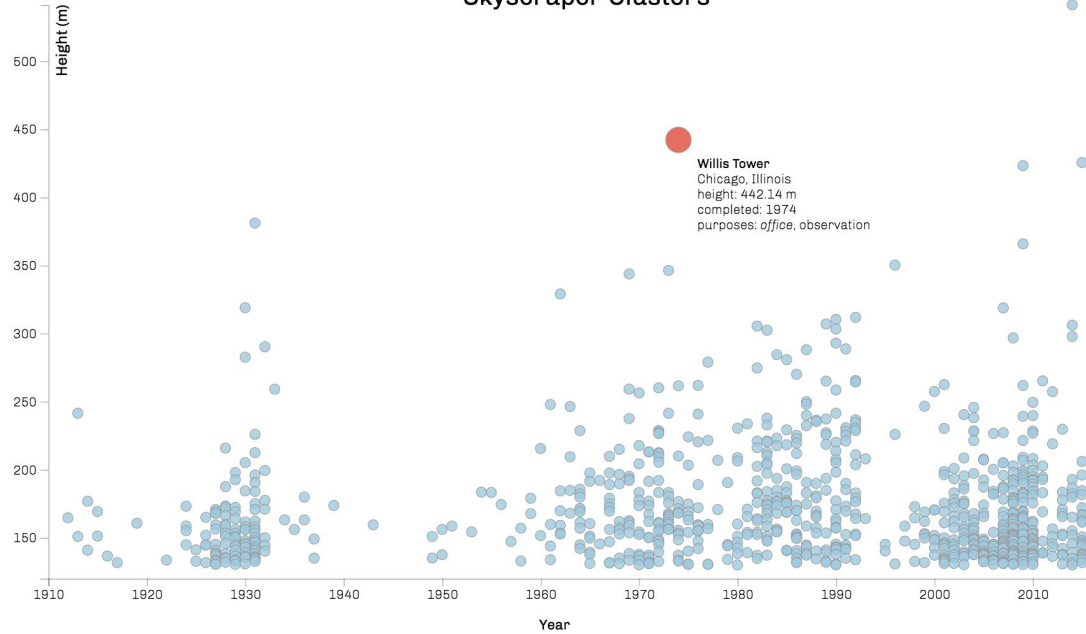
Year: 2016



# SCATTERPLOT

All States

## Skyscraper Clusters

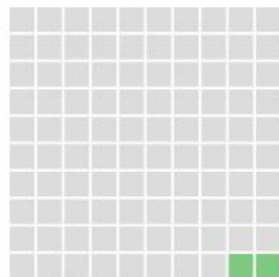




**total skyscrapers:** 162

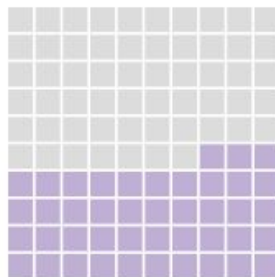
**hotel**

2% (4/162)



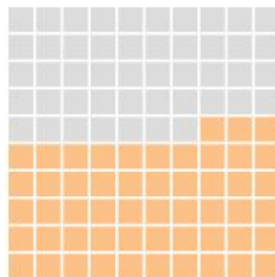
**office**

43% (70/162)



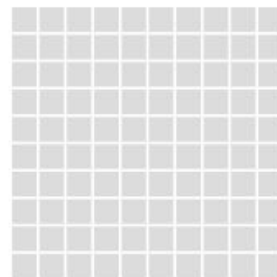
**residential**

53% (87/162)



**other**

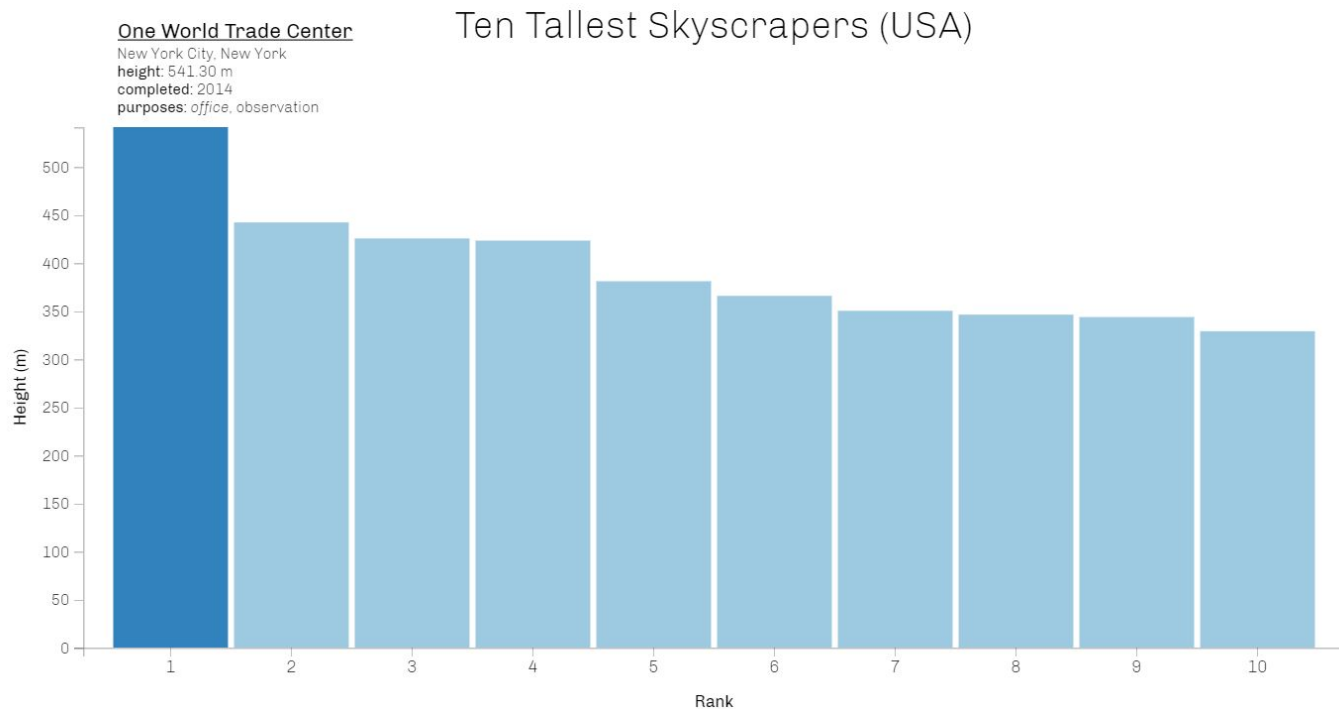
0% (1/162)



other  
1 are hospital

# BAR CHART

All



# Tallest Skyscrapers in the World

