SI 649 Static Viz Project Report

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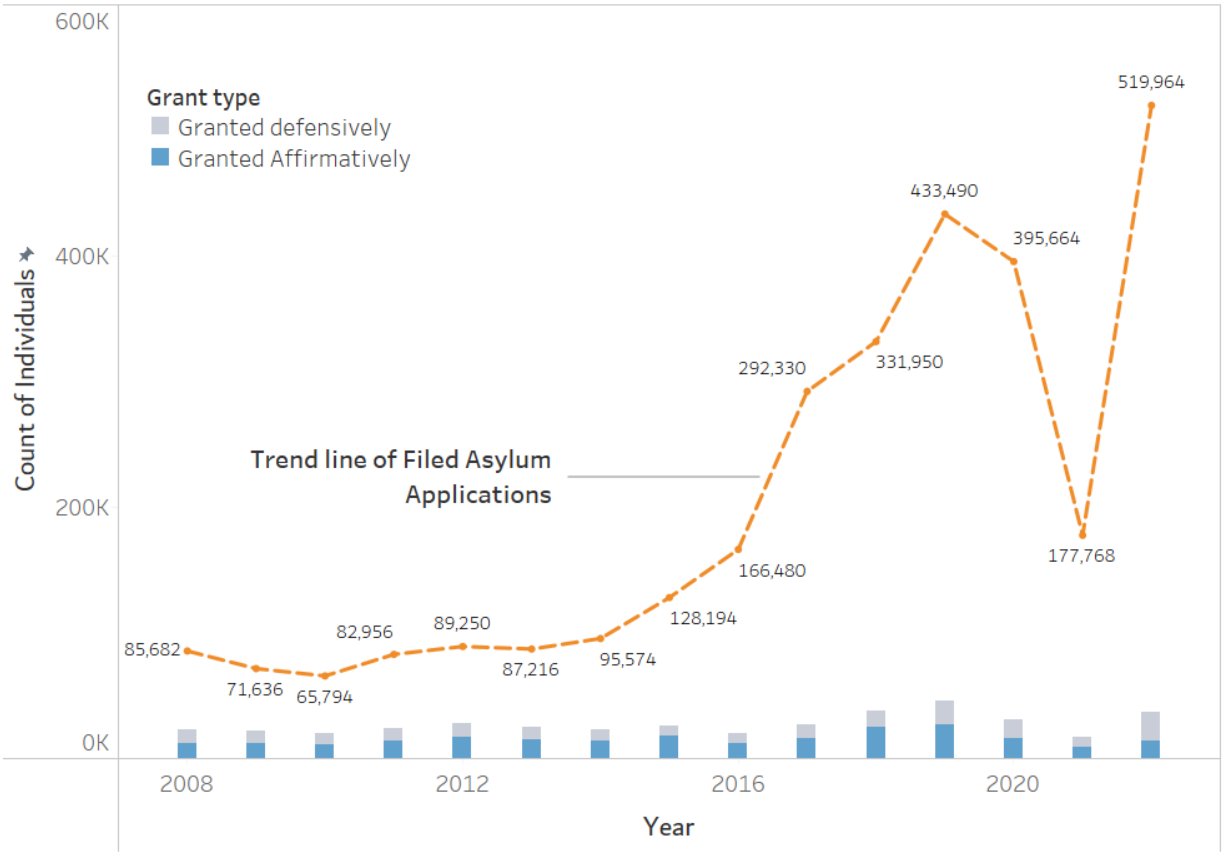
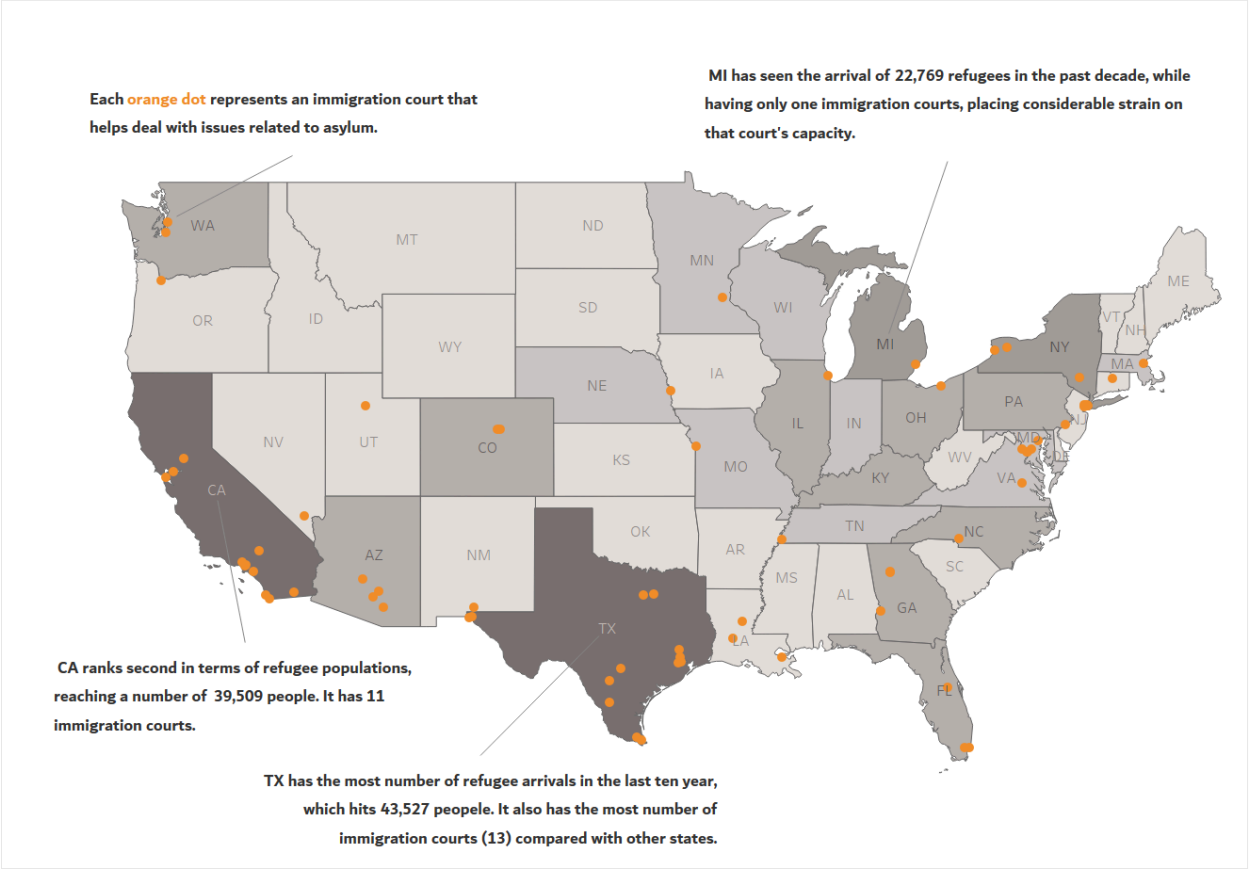
Asylum Applications and Grant Number

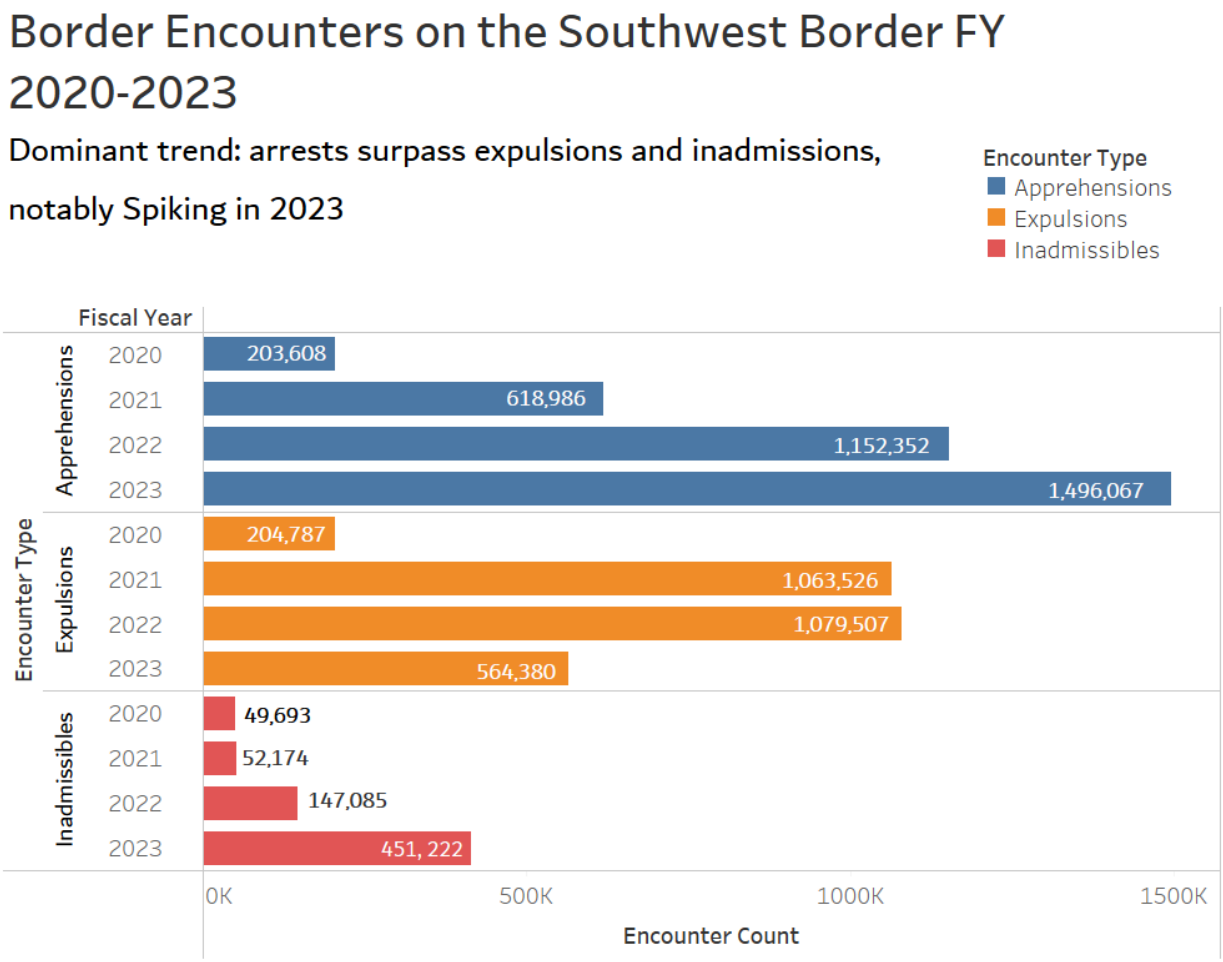
Filed asylum applications far exceeded granted approvals, FY 2008-2022.



Refugee Population and Immigration Courts in U.S. States

The refugee population and distribution of immigration courts across U.S. states (mainland) from 2013 to 2023.





First Plot

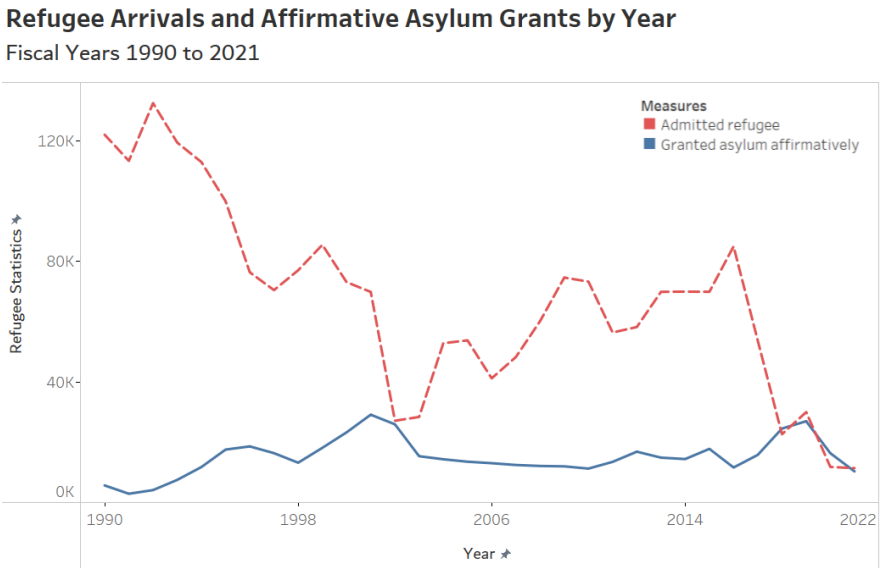
Datasets:

1. U.S. Department of Justice. Total Asylum Applications
2. Office of Homeland Security Statistics. Refugee and Asylees 2022 Data Table
3. Migration Policy Institute. U.S. Annual Refugee Resettlement Ceilings and Number of Refugees Admitted, 1980-Present (Not used for final plot)

My first plot is designed to highlight the disparity between the volume of asylum applications and the actual approvals granted. A conspicuous feature is the substantial gap between the dashed line and the corresponding stacked bars below, which is probably an intentional focal point to most viewers. Upon closer inspection, viewers will notice that the stacked bars reveal a dual composition, distinguishing defensively granted asylums from affirmatively granted ones through different color coding. While the author in the article may not explicitly delineate these categories, their relevance lies in the divergent circumstances and adjudication stages that shape the asylum-seeking process. I believe this supplementary information can add nuanced context to the article, so I included it in my plot.

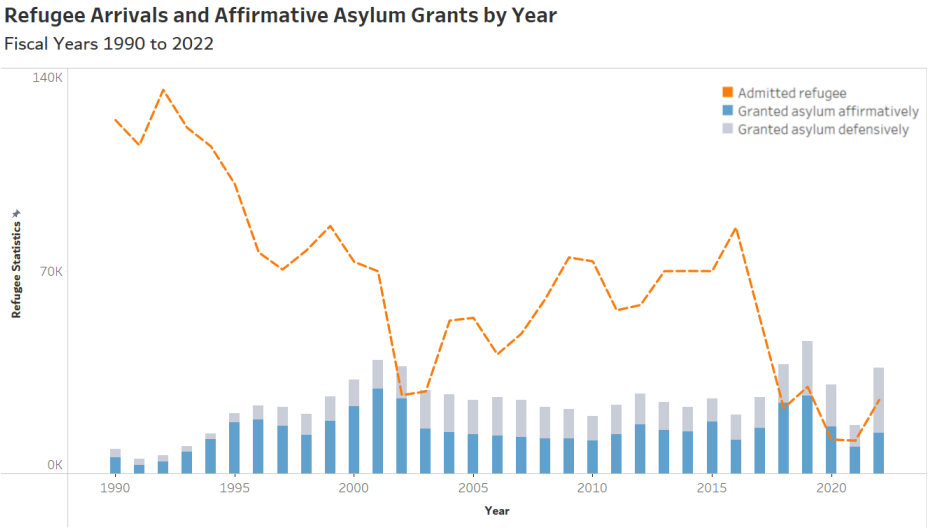
This graph is plotted based on two different sources released by separate government departments. Links to access dataset used in the chart can be found in the “Data Source” category above. The first source provides the total number of asylum applications filed from 2008 to 2022, while the second source contains data on the total number of granted asylums, including affirmatively and defensively granted ones, spanning from 1990 to 2022. To create a unified database, I joined the two tables based on the year, limiting the period to 2008-2022, and fortunately, all entries contain non-null values. Although the differing origins of these datasets may introduce some bias due to distinct data acquisition methods from different departments, I consider this concern relatively minor given that both sources are governmental departments and likely adhere to the same data collection standards

My initial inspiration for creating a visualization on this topic stemmed from Figure 1 in Fiscal Year 2020 Refugees and Asylees Annual Flow Report, where it utilized two line charts to illustrate the trends of refugee arrivals and granted asylums. Subsequently, I tried to replicate something similar in the graph below, featuring a line chart depicting yearly admitted refugees across the U.S. (data source no. 3) alongside the count of individuals granted affirmative asylum. I chose to only include “affirmative” ones because it sounded more like “positive” decisions to me at that time before doing any research on it.



However, I found the initial representation to be too simplistic, and the concept of “admitted refugees” didn’t necessarily align with the main focus of the article, which revolves around asylums. To address this, I conducted further research to understand the nuances between defensively and affirmatively granted asylums and subsequently created a second, more intricate plot. However, this plot had an issue with the dashed line overlapping with the stacked bars, potentially causing clarity issues in viewing the graph. Moreover, I remained unsatisfied with using “admitted refugee” as the axis for this plot. After further data exploration, I discovered the dataset for people applying for asylums, and made the switch to this dataset, ultimately leading to the creation of the final plot. I opted for the colors “blue” and “orange” due to their contrasting nature, providing a visually appealing contrast for viewers. To enhance the design aesthetics, I employed dashed lines instead of solid lines, as I believe this adds a more dynamic

and visually interesting element to the graph. Solid lines can be perceived as basic and uninspiring, and using dashed lines introduces a touch of creativity, deviating from the default and adding a distinctive flair to the visualization.



The final plot represents my best effort at the moment, yet significant room for improvement remains. For example, there is a considerable amount of white space in the upper-left corner of the chart, resulting from the increasing trend of the line chart. Utilizing this space creatively is a challenge, and at present, my only idea is to place the color legend there to occupy some of the vacant area. Furthermore, in comparison to the range covered by the line graph, the stacked bar plots appear relatively small and may risk losing viewer attention. Additionally, as discussed in the lecture, using stacked bars may not be ideal, as it can be challenging for users to compare among bars when the upper part of the bars doesn't share a common baseline.

Second Plot

Data sources:

1. U.S. Department of Justice. Immigration Court operational Status
2. Immigration Research Initiative. Refugee Resettlement per Capita: Which States Do the Most?

The purpose of the second plot is to assess the equitable distribution of government resources related to asylum issues. The expectation was to observe a correlation between the settlement of more refugees in a state and a higher number of immigration courts located within that state. By mapping the location of all open immigration courts in the U.S. and using color density to represent the number of refugees arriving in each state, the aim is to convey that, while Texas and California draw the highest number of refugees and have the most immigration courts, certain states, despite hosting many refugees, have only one or no immigration court. Additionally, despite Texas and California having the highest number of immigration courts, it appears insufficient in coping with the volume of refugees they accept. This observation aligns

with a key point emphasized in the article, highlighting that the limited government resources are strained by the ongoing immigration crisis.

Similar to my first plot, I gathered the data for this graph from two different datasets released by distinct departments or organizations. The first dataset comprises detailed addresses of currently open immigration courts, while the second provides the number of refugees each state has accepted over the past decade. I do have a slight concern about the second dataset, though, since it's sourced from, according to the organization itself, a “nonprofit nonpartisan think tank” focused on immigrant integration—not a government database. The reliability might not be as robust as government data. To combine both datasets into one table, I joined them based on the “state” field. To map the locations in Tableau, I utilized the “zipcode” information from the second dataset, capitalizing on Tableau's knack for pinpointing a dot's location with just the zip code.

My inspiration for this plot draws from two sources: Figure 4 in the article “Refugees and Asylees in the United States” (on the left) and “Map of the Immigration Courts and Adjudication Center” from FY 2024 Performance Budget Congressional Budget Submission (on the right). The first one elegantly displays the percentage of refugees each state accepts using a well-designed “ring plot”, while the second one provides intricate details on the locations of immigration courts and adjudication centers. While perusing various government reports on asylum issues, I came across several methods already used to depict the current burden on immigration judges. These include plots predicting the number of additional judges needed to clear all pending asylum applications. However, no one seemed to have thought about merging the distribution of refugees in each state with that of immigration courts to assess whether resources are sufficient and appropriately distributed. Consequently, I made the decision to amalgamate these two aspects of data and create a map. The map includes a filled map chart underneath, illustrating the density of resettled refugees, with dots marked on top to indicate the locations of immigration courts

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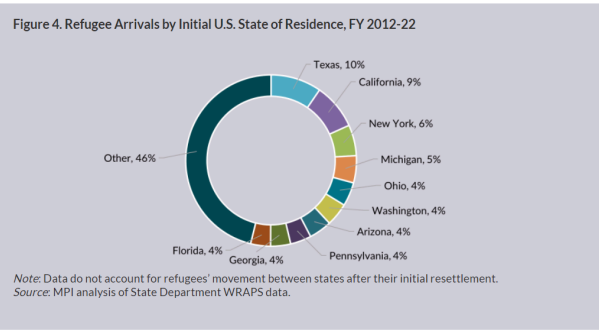
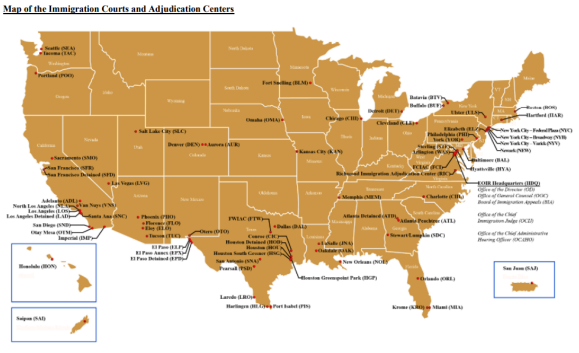
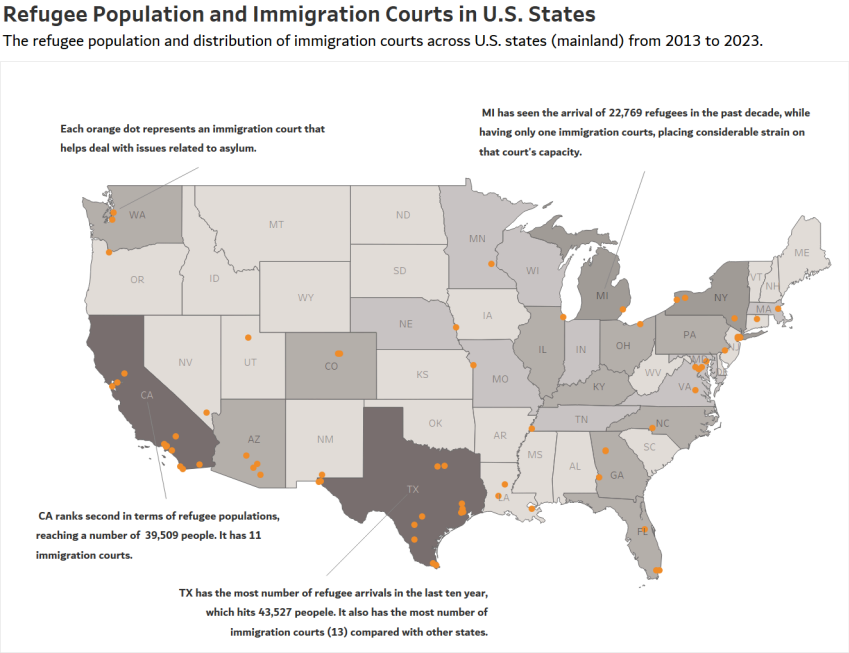




I spent most of my time figuring out how to seamlessly combine these two maps into a single chart on Tableau. Initially, I gathered latitude and longitude information from Google Maps using the detailed address data for each court in the dataset. I attempted to use this data to pinpoint the location of each court on the map. However, I hit a roadblock when I realized that the “Dual Axis” method in Tableau only accepts a single set of latitude and longitude. Consequently, I pivoted to using Zip Code information, and it worked out smoothly. Despite this minor hiccup in

my plotting journey, I made a small adjustment to achieve my final design. In the intermediate plot below, you'll notice a change in the color of the phrase “orange dots” from black to orange. This alteration was intentional because this particular annotation doesn't aim to interpret data related to the asylum and refugee topic, but serves the specific purpose of explaining what those orange dots represent. Using the color orange draws viewers' attention amidst the sea of grey tones on other parts of the map, ensuring they immediately spot the explanation and understand the meaning of them. Additionally, I chose the “grey” color palette out of the consideration that this is the most effective way to ensure the dots remain easily visible without causing any difficulty in perception.



I would judge myself for not labeling the number of arrived refugees in each state. Even though I tried, it proved challenging, especially in the northeast part of the graph where states are small, and there's already a significant number of orange dots. Explicitly displaying the refugee numbers there could potentially add more complexity, making it harder for viewers to grasp the overall graph clearly. But I’m sure there are better ways to solve this problem when using an interactive plot.

Third Plot

Data Source:

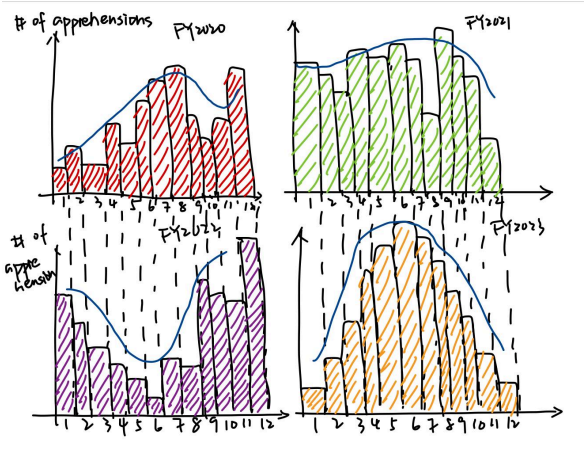
1. U.S. Customs and Border Protection. FY20-FY23 Southwest Land Border Encounters

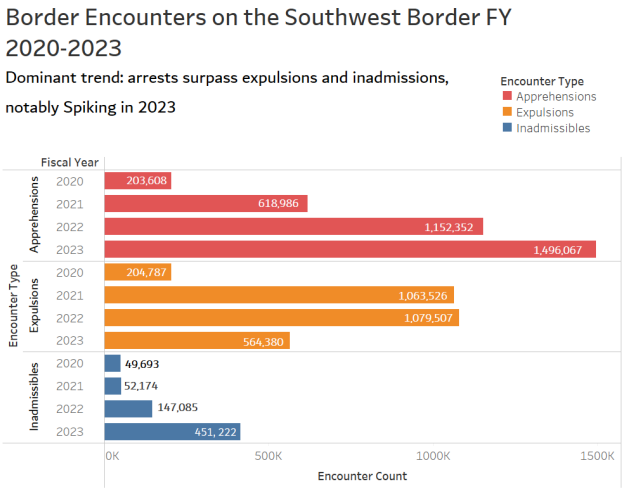
The inspiration for creating a plot on the number of people "apprehended," "expelled," and "non-admitted" from 2020 to 2023 stemmed from Eileen's mention that "the Border Patrol has arrested more people for illegally crossing the southern border into the country than any other period." The graph vividly illustrates that in 2023, the number of people arrested in the southwest surpassed the figures for the other three years. As a reader, this sparked my curiosity about the various measures border officers might take against those attempting to cross the

border illegally. To satisfy this curiosity, I included data regarding the case of expulsions and inadmissibles to supplement the parts she didn't mention in the article. The aim is for viewers to glean from the data figures that Eileen's assertion was indeed accurate, and here is the evidence supporting it.

The data utilized in this analysis is sourced from a comprehensive table that summarizes all encounters on the southwest land border, provided by the U.S. Customs and Border Protection Department. This dataset includes a range of aspects, encompassing more information than what has been presented here, such as demographics and nationalities of encounters. Given its origin from a government department, I consider the data to be quite credible. However, it's worth noting that the dataset exclusively covers the southwest border, omitting the southeast land border. Since Eileen doesn't explicitly specify which "southern border" she is referring to in the article, the plot may not fully align with the article's content, and additional data about the conditions on the east side would be further needed.

Initially, my attempt was to group the data by year and focus solely on individuals who were "arrested", excluding the other two categories. The goal was to observe the distribution of this arrested population across the period of 12 months for each of the four years in the dataset. However, when I attempted to visualize this in Tableau, I realized that the sheer volume of data might make the chart excessively large, making it impractical for inclusion in a news article. As a result, I decided to regroup the data by years and shifted my focus to answering another intriguing question: how the numbers of people arrested, expelled, and prohibited from entering the country change over the years. While attempting this, I experimented with using the color "red" to encode the "apprehension" category, given its direct mention in the article and it deserves to be more "obvious" to the eyes. However, it turned out that the red color was too eye-catching, especially since it already represented the category with the longest bars in the graph. Using such a bright color risked diverting viewers' attention from other crucial elements in the chart.





I would judge myself for failing to come up with more creative ideas of interpreting this graph, as multiple bar plots is quite boring and easy to think of. I labeled the number of encounters explicitly in the bar, trying to add more “design” to it.