**Intro**

* My presentation analyses Berlin’s demographics and economy.
  + How has the city changed over the years? And how does it compare to the rest of Germany?
* My focus is on the year 2000 until today (or latest data available, which is usually 2022)

**Dashboard 1**

Top Graph

* We can see that Berlin’s population has grown from 3.4 million to 3.8 million
* We know that Berlin has a reputation as a city of international people. To what extent is that true?
* Although the increase in the number of non-German citizens appears to be quite small, the blue line shows us that in proportionate terms, it is a dramatic increase

Some additional analysis (*hold up fingers*):

1. Some people assume that the Merkel government’s policy of welcoming refugees following the so-called “migrant crisis” would see a large uptick in these stats around the year 2015
   * But we can see that is ***not***the case
2. We also have to keep in mind that as more countries are gradually added to the EU, more non-Germans are coming here to live and work
3. Germany has recently made it easier and quicker for foreigners to obtain German citizenship. So we may see some effects on this data in the coming years

Bottom Graph

* We can see that both lines show a similar trend - a gradual rise which peaks in the age group 25 to 30, then a quick decline as we move towards older demos
  + You can draw your own conclusions about why international people move to Berlin around this time; Perhaps this reflects your own journey to Berlin?
* And comparing 2022 to 2000, we can see growth in each and every age group
* The difference between certain demographics is stark
  + If you bumped into a random Berliner who is over 75, there is a **very low** chance that they are non-German
  + But if you bumped into a random Berliner who is 25 to 30, there is a **quite high** chance that they are non-German

**Dashboard 2**

Top Graph

* Let’s now focus on the age demographics in Berlin
* The changes from 2000 to 2022 are quite minor; the demographic proportions have remained consistent

Bottom Left Graph

* Let’s drill down and take a snapshot of ‘Berlin 2000’ vs ‘Berlin 2022’
* So we can see that in the year 2000, Berlin had a total population of 3.3 million, divided into the following age groups
* We can see that the biggest chunks are taken up by those aged 30 to 40, and 60 to 75

Bottom Right Graph

* The snapshot of ‘Berlin 2022’ is quite similar, with a slight shift towards older demographics

*Let’s now switch our focus to how Berlin’s demographics compare to the rest of Germany*

**Dashboard 3**

* Here is Germany’s total population, showing the share of each of the 16 German states
* We see that like Berlin, Germany has experienced growth in population over the past 20 years
* We can see that the majority of the population lives in Nordrhein-Westfalen, Bayern, Baden-Württemberg
* While there are relatively small populations in Bremen, Saarland & Meck-Pom

**Dashboard 4**

Top Left Graph

* We’ve already confirmed our assumption that Berlin is quite international; but how does it compare to the rest of the German states?
* This heatmap from 2022 reveals that Berlin is an “international island” in a sea of German-heavy states (which correspond to the territories of former East Germany. There may be many reasons behind this - historical, social, political - which we will not get in to here)

Top Right Graph

* This heatmap shows the mean age of each state's population in 2022
* Again, Berlin is a stark contrast to its neighbours - it is a young island in a sea of old people

Bottom Graph

* If we combine these 2 metrics, it looks like this
* So who do we have as this very young, very international state? Berlin
* Also quite young and international: Hamburg & Bremen
* On the other end of the scale (*aka old and German*): Sachsen, Brandenburg, Meck-Pom, Thuringen, Sachsen-Anhalt
* We can see that there is an obvious positive correlation between the two variables

**Dashboard 5**

Left Graph

* This graph shows us the % of the population which is non-German
* So we can see that both Berlin and Germany are getting more and more international over the years
  + With Berlin being considerably more international than Germany, *as expected*

Right Graph

* It is often said that Germany’s population is old, and getting older
  + *Is this indeed true?*
* **Yes**. This graph backs up this statement
* It shows the mean age in Germany from 1950 to today, and beyond, with predictions from the UN
* So we can see that since 1970 the mean age has skyrocketed
  + This obviously creates some problems for society, eg, more people in retirement being supported by proportionally less workers

**Dashboard 6**

Left Graph

* Let’s now switch our focus to the economy
* We can see that Berlin’s population has increased slightly over this time and Berlin’s GDP has increased significantly
  + This is quite normal and in line with most western societies

Right Graph

* If we now look at GDP per capita compared to total population, we see the trend is very similar
* We also see that the GDP growth stagnates around 2008 (GFC) and 2020 (Covid pandemic)

**Dashboard 7**

Top Graph

* Now widening our focus to Germany, we can see that every state has experienced economic growth over the past 2 decades
* And we can see that the biggest economies are Nordrhein-Westfalen, Bayern, and Baden-Württemberg
  + While the smallest are Bremen, Saarland and Meck-Pom

Bottom Graph

* This table shows each state’s GDP growth, year-on-year
  + *(slowly scroll across the table)*
  + So the general trend across all states is: we see slow growth in the early 2000s, picking up in the mid 2000s, then a dramatic reversal in 2008 thanks to the GFC, then a strong rebound, which continues for about a decade, followed by another dramatic downturn in 2020 thanks to Covid, but then another strong rebound afterwards

**Dashboard 8**

Left Graph

* In terms of GDP per capita, again we see consistent growth in every state over the past 20 years
* The top performers here are Hamburg, Bremen, and Hessen.
  + Bottom performers are Meck-Pom, Thuringen, and Sachsen-Anhalt

Right Graph

* This heatmap is a snapshot of GDP per capita in 2021
* We can see that this stereotype of ‘southern and western Germany being rich’ is true
  + The only exceptions are the small city-states of Berlin, Bremen and Hamburg
  + This would be an interesting area of economic study - *do city-states around the world perform better than larger, normal states*?

**Dashboard 9**

Left Graph

* Let’s look at another key economy indicator: unemployment rate
* We can see there is a general downward trend for all states, flattening out a bit in recent years

Right Graph

* This is a heatmap which gives us a snapshot of the unemployment rate in 2023
* The common joke from the rest of Germany is that: “We work, while Berlin takes our tax money and parties”
  + While I do not have data for ‘party rates’, the bit about unemployment appears to be true