

The information from 2011-2023

This is a simple analysis of many enterprises where much information make sense when you dive in to them.

The data was taken from `annual-enterprise-survey-2023-financial-year-provisional-size-bands.csv` and analyzed by Abdukhamidkhuja Shukhratkhujaev (hamid).

Electricity, Gas, Water and Waste Services

As we can see I plotted information about this enterprise and it's surely one of the most interesting things for civilian, because taxes are essential in everyday life as Waste services.

Here, we can see that income in overall has increased over the years, but had fluctuation from 2019 when Covid-19 Pandemic has started and efficiently increased as people started staying at home and taxes for homelander are much more expensive than the taxes for business owners, where most of them had to close down or take a break the next 3 years from 2019.

Also, the Government started to help more from 2019 as many people could not be working from home and so, to help people get used to online-working (working from home), Government made sure to give subsidies to all.

```
import pandas as pd
import matplotlib.pyplot as plt
data = pd.read_csv('annual-enterprise-survey-2023-financial-year-
provisional-size-bands.csv')
data.rename({'industry_code_ANZSIC': 'industry-
code', 'industry_name_ANZSIC': 'name', 'rme_size_grp': 'sizegroup'}, axis=
'columns', inplace=True)
check = data['name'] == "Electricity, Gas, Water and Waste Services"
our_data = data[check]
pivot_data =
our_data.pivot_table(index=['year', 'sizegroup'], columns='variable', val
ues='value', aggfunc='first')

pivot_data[['Salaries and wages paid',
              'Sales, government funding, grants and subsidies',
              'Total income']] = pivot_data[['Salaries and wages paid',
                                                'Sales, government funding,
grants and subsidies',
                                                'Total
income']].apply(pd.to_numeric, errors='coerce')

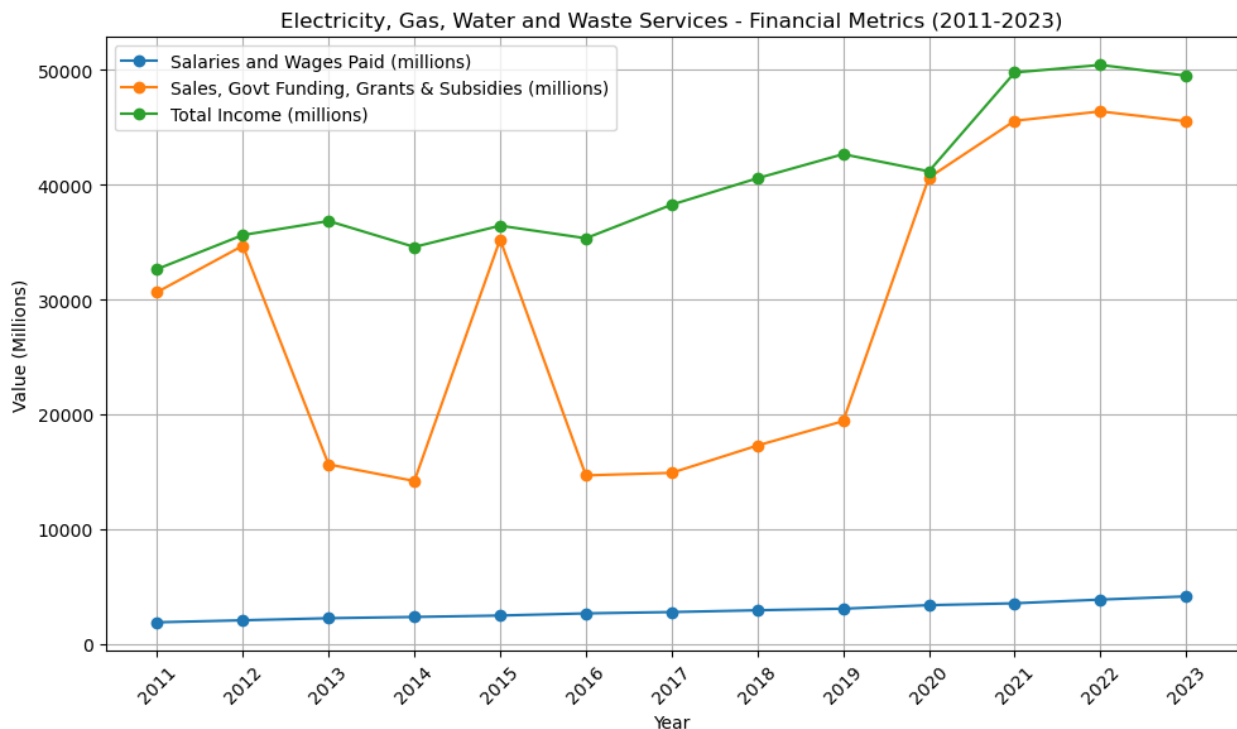
pivot_data_summary = pivot_data[['Salaries and wages paid',
```

```

and subsidies',
                                'Sales, government funding, grants
                                'Total
income']].groupby('year').sum()

plt.figure(figsize=(10, 6))
plt.plot(pivot_data_summary.index, pivot_data_summary['Salaries and
wages paid'], label='Salaries and Wages Paid (millions)', marker='o')
plt.plot(pivot_data_summary.index, pivot_data_summary['Sales,
government funding, grants and subsidies'], label='Sales, Govt
Funding, Grants & Subsidies (millions)', marker='o')
plt.plot(pivot_data_summary.index, pivot_data_summary['Total income'],
label='Total Income (millions)', marker='o')
plt.xlabel('Year')
plt.ylabel('Value (Millions)')
plt.title('Electricity, Gas, Water and Waste Services - Financial
Metrics (2011-2023)')
plt.legend()
plt.grid(True)
plt.xticks(pivot_data_summary.index, rotation=45)
plt.tight_layout()
plt.show()

```



Health Care and Social Assistance

Another one of the most initial values for person in a Country is Health, and now, as we mentioned about the Covid-19 period, here is the plotting for Health Care and Social Assistance, where we find out that the increasing temp was always there, but started to equally positively increase from 2015 till 2020, and from 2020 it increased its change % (percentage). It is also because of the lockdown and new viruses which were a shock for humanity.

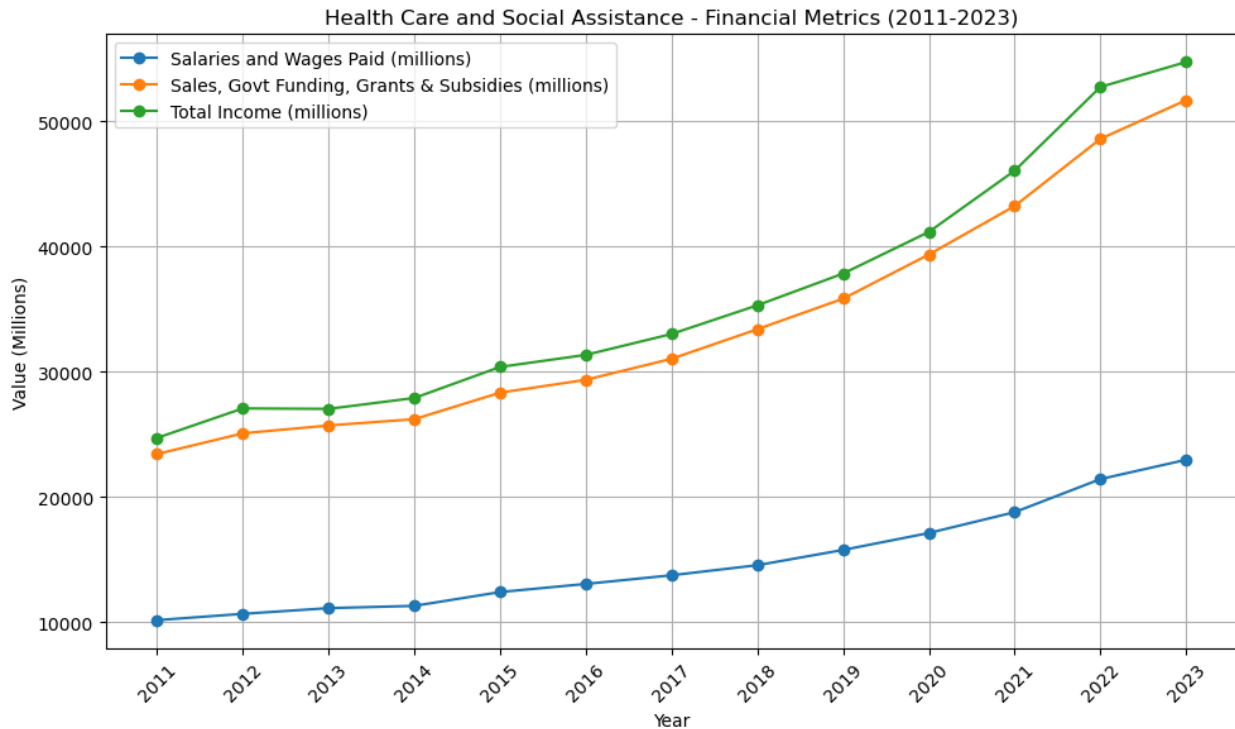
Moreover, interesting change can be seen in Salaries and Wages, not like in Taxes, here we see the upgoing temp, so good temp that from 10000 millions it became over 20000 millions in 2022 and 2023. And we will see why is that.

```
check = data['name'] == "Health Care and Social Assistance"
our_data = data[check]
pivot_data =
our_data.pivot_table(index=['year', 'sizegroup'], columns='variable', values='value', aggfunc='first')

pivot_data[['Salaries and wages paid',
              'Sales, government funding, grants and subsidies',
              'Total income']] = pivot_data[['Salaries and wages paid',
                                                'Sales, government funding,
grants and subsidies',
                                                'Total
income']].apply(pd.to_numeric, errors='coerce')

pivot_data_summary = pivot_data[['Salaries and wages paid',
                                   'Sales, government funding, grants
and subsidies',
                                   'Total
income']].groupby('year').sum()

plt.figure(figsize=(10, 6))
plt.plot(pivot_data_summary.index, pivot_data_summary['Salaries and
wages paid'], label='Salaries and Wages Paid (millions)', marker='o')
plt.plot(pivot_data_summary.index, pivot_data_summary['Sales,
government funding, grants and subsidies'], label='Sales, Govt
Funding, Grants & Subsidies (millions)', marker='o')
plt.plot(pivot_data_summary.index, pivot_data_summary['Total income'],
label='Total Income (millions)', marker='o')
plt.xlabel('Year')
plt.ylabel('Value (Millions)')
plt.title('Health Care and Social Assistance - Financial Metrics
(2011-2023)')
plt.legend()
plt.grid(True)
plt.xticks(pivot_data_summary.index, rotation=45)
plt.tight_layout()
plt.show()
```



Construction

Another Niche what most people find very important for the dream life. We can see that people in this niche always made good money and so the pandemic and other aspects did not really affect its earning, instead made it more. The Government did do their job to keep up to the trend of income, so their data is kinda similar.

And More about paid wages and salaries we will see next.

```
check = data['name'] == "Construction"
our_data = data[check]
pivot_data =
our_data.pivot_table(index=['year', 'sizegroup'], columns='variable', values='value', aggfunc='first')

pivot_data[['Salaries and wages paid',
              'Sales, government funding, grants and subsidies',
              'Total income']] = pivot_data[['Salaries and wages paid',
                                                'Sales, government funding,
grants and subsidies',
                                                'Total
income']].apply(pd.to_numeric, errors='coerce')

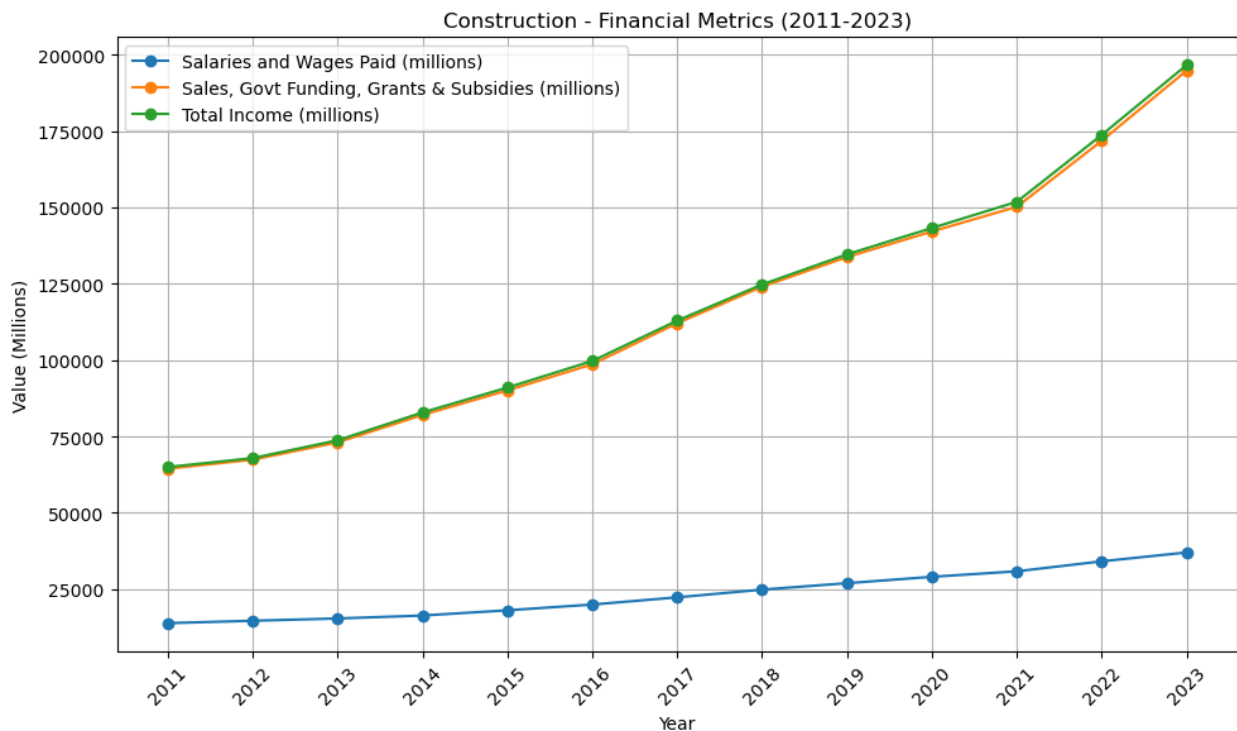
pivot_data_summary = pivot_data[['Salaries and wages paid',
                                   'Sales, government funding, grants
and subsidies',
```

```

                                'Total
income']].groupby('year').sum()

plt.figure(figsize=(10, 6))
plt.plot(pivot_data_summary.index, pivot_data_summary['Salaries and
wages paid'], label='Salaries and Wages Paid (millions)', marker='o')
plt.plot(pivot_data_summary.index, pivot_data_summary['Sales,
government funding, grants and subsidies'], label='Sales, Govt
Funding, Grants & Subsidies (millions)', marker='o')
plt.plot(pivot_data_summary.index, pivot_data_summary['Total income'],
label='Total Income (millions)', marker='o')
plt.xlabel('Year')
plt.ylabel('Value (Millions)')
plt.title('Construction - Financial Metrics (2011-2023)')
plt.legend()
plt.grid(True)
plt.xticks(pivot_data_summary.index, rotation=45)
plt.tight_layout()
plt.show()

```



Workers in Those Niches

Now, let us see the number of people that were rolled to these niches and understand why the paid salaries in previous figures were high or low.

Starting with Taxes employment, we can see that initially there were much less people working in 2011-2015, then the number started growing with no hesitation and in 2023 became over 40000 per year. And that is why the salaries paid were not changing a lot as each year they enroll 44k people.

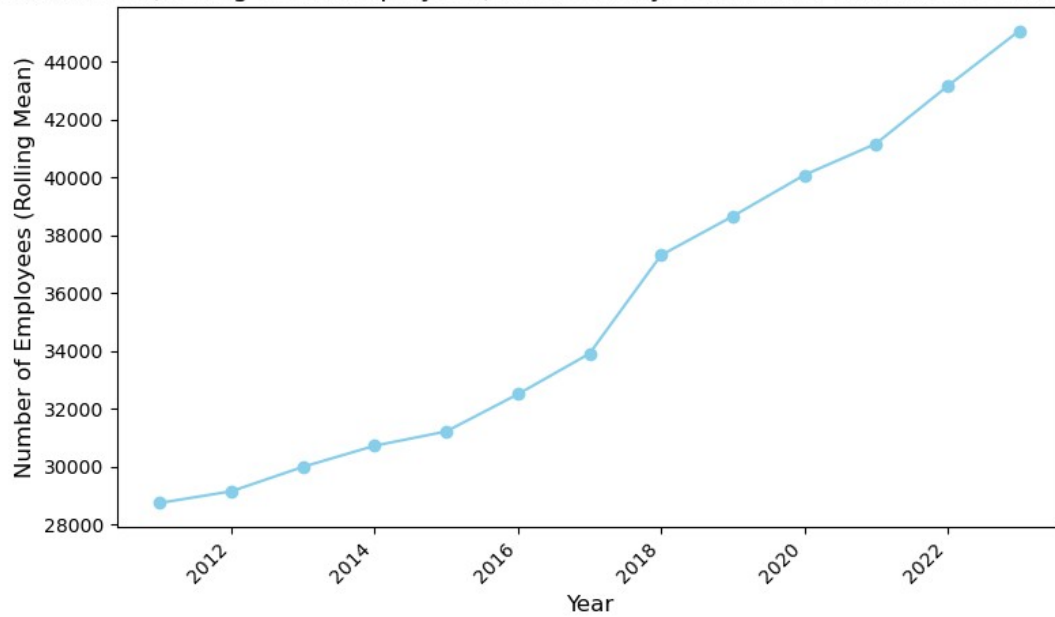
Moving to Health Care employment, the figure started growing from 2013 and made big jump in 2019 (covid period) till in 2023 it got over 360k enrollments. So, we see that 360k enrollment and 40k differs so much and that is reason why salaries paid are over 20k millions instead of 4.5k millions like in Taxes.

Lastly, Contruction recruitment was always upgoing and never down, that is usually because the population of earth increases each year and the best way to create home for people is building. After all changes, in 2023 the number of rolling workers was over 400k, and it is higher than rolling doctors. So, the paid wages and salaries were over 35k millions, and this figure gives us a clue why so much money was paid.

```
industries_of_interest = [  
    'Electricity, Gas, Water and Waste Services',  
    'Health Care and Social Assistance',  
    'Construction'  
]  
  
recruitment_info = data[(data['name'].isin(industries_of_interest)) &  
                        (data['variable'] == 'Rolling mean  
employees')].copy()  
recruitment_info['value']=recruitment_info['value'].apply(pd.to_numeri  
c, errors='coerce')  
recruitment_info = recruitment_info.dropna(subset=['value'])  
  
for industry in industries_of_interest:  
    industry_specific_data = recruitment_info[recruitment_info['name']  
== industry]  
    recruitment_by_year = industry_specific_data.groupby('year')  
    ['value'].sum().reset_index()  
  
    plt.figure(figsize=(8, 5))  
    plt.plot(recruitment_by_year['year'],  
recruitment_by_year['value'], color='skyblue',marker='o')  
    plt.title(f'Recruitment (Rolling Mean Employees) in {industry} by  
Year', fontsize=14)  
    plt.xlabel('Year', fontsize=12)  
    plt.ylabel('Number of Employees (Rolling Mean)', fontsize=12)  
    plt.xticks(rotation=45, ha='right')
```

```
plt.tight_layout()  
plt.show()
```

Recruitment (Rolling Mean Employees) in Electricity, Gas, Water and Waste Services by Year



Recruitment (Rolling Mean Employees) in Health Care and Social Assistance by Year

