M3 Project Work

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Project Sponsor

Name	Stephen Robert	
Position	Chief Economist	
Organization	Economic Research Institute (ERI)	

About Sponser

Stephen Robert serves as the Project Sponsor for initiatives undertaken by the Economic Research Institute (ERI). As the Chief Economist of ERI, Robert brings a wealth of experience and expertise in economic analysis and research. In his role, he provides strategic guidance, oversight, and support to projects within the institute, ensuring they align with ERI's objectives and contribute to its mission of advancing economic knowledge and understanding

Motivations

- Stephen Robert interested in gaining insights into the dynamics of various industries within different geographic areas. He wants to understand which industries are thriving, stagnating, or declining over time to inform economic policy recommendations and business strategies.
- As the Chief Economist, Stephen Robert is keen on tracking labor market trends such as employment growth, wage fluctuations, and establishment dynamics. He wants to identify patterns and trends in employment and wage data to assess the overall health of the labor market and provide accurate forecasts.
- Stephen Robert is particularly interested in regional economic analysis to understand how different areas are performing economically. He wants to identify disparities in employment and wages across regions and explore potential factors contributing to these disparities.
- Stephen's ultimate goal is to use data-driven insights to inform policy formulation and decision-making processes. He aims to develop evidence-based policies that promote economic growth, job creation, and prosperity for all stakeholders.

3-Minute story

In recent years, we've witnessed diverse trends in various sectors of the economy. Healthcare Ambulatory Services surged from 2018 to 2021, indicating promising growth. Credit Intermediation remained stable, showcasing resilience in finance. However, Public Administration faced fluctuations, highlighting the need for streamlined governance. Educational Services show potential for growth by 2024, while the Food Services sector struggles, requiring targeted support. Grocery Product Wholesalers and the Information Sector offer promising opportunities. Legal Services and Real Estate Lessors see consistent growth, signaling market opportunities. Economic performance is strong in areas like New York City and Nassau-Suffolk, with potential in healthcare and hospitality. To optimize economic policies, we recommend investing in workforce development, fostering innovation, and enhancing efficiency. Support for education, small businesses, and diversity in Legal Services is crucial. Sustainable development and modernization are key for a brighter economic future

Big Idea

It's crucial to recognize the significance of aligning economic policies with sector-specific trends and challenges. By allocating resources towards workforce development, innovation, and governance streamlining initiatives, we can facilitate sustainable growth across diverse sectors, Therefore, it's essential to prioritize budget allocation to these strategic areas to maximize the project's impact and ensure long-term economic prosperity.

Storyboarding

In recent years, diverse economic trends reflect global market dynamics and changing societal needs.

Public Administration fluctuations call for streamlined governance to ensure policy stability.

Implement streamlined governance for stable policies and efficient public sector operations.

Economic policies should prioritize growth, stability, and sustainability by investing in workforce development, fostering innovation, and enhancing efficiency.

Gathering stakeholder feedback is essential for refining economic policies.

Invest in workforce, innovation, education, small businesses, and legal services diversity. Prioritize sustainable development, reducing carbon footprint, and promoting renewable energy.

M4 Project Work

Understanding the Role of the Dataset in Supporting Stephen Robert's Objectives and ERI's Goals

As the Project Sponsor, it's crucial to comprehend how the dataset can strengthen Stephen Robert's objectives and contribute to the broader goals of the Economic Research Institute (ERI). The dataset encompasses a comprehensive range of economic indicators, industry insights, labor market trends, and regional analyses. This data empowers Stephen Robert to make informed policy decisions by providing valuable insights into industry dynamics, labor market trends, and regional disparities. Ultimately, this dataset aligns with Robert's goal of fostering economic growth and prosperity, in line with ERI's mission of advancing economic knowledge and understanding.

Key Features of Our Dataset:

Industry Dynamics:

- The dataset offers detailed insights into industry performance across various geographic areas, including metrics such as revenue growth, market share, and investment trends.
- This enables Stephen to identify thriving sectors, areas of stagnation, and potential policy interventions or strategic adjustments.

Labor Market Trends:

- The dataset includes granular data on employment growth, wage fluctuations, and establishment dynamics, allowing Stephen to assess the overall health of the labor market.
- He can identify emerging patterns and provide accurate forecasts to guide policy recommendations and business strategies.

Regional Economic Analysis:

- Additionally, This dataset facilitates comprehensive regional economic analysis, highlighting disparities in employment levels, wage distributions, and factors influencing regional economic performance.
- By uncovering these disparities, Stephen can design targeted interventions to promote inclusive economic growth across all regions.

Impact on Policy Formulation and Decision-Making:

Ultimately, This dataset empowers evidence-based policy formulation and decision-making processes, aligning with Robert's goal of fostering economic growth, job creation, and prosperity for all stakeholders.

TABLE 1: TOP INDUSTRIES BY EMPLOYMENT LEVELS

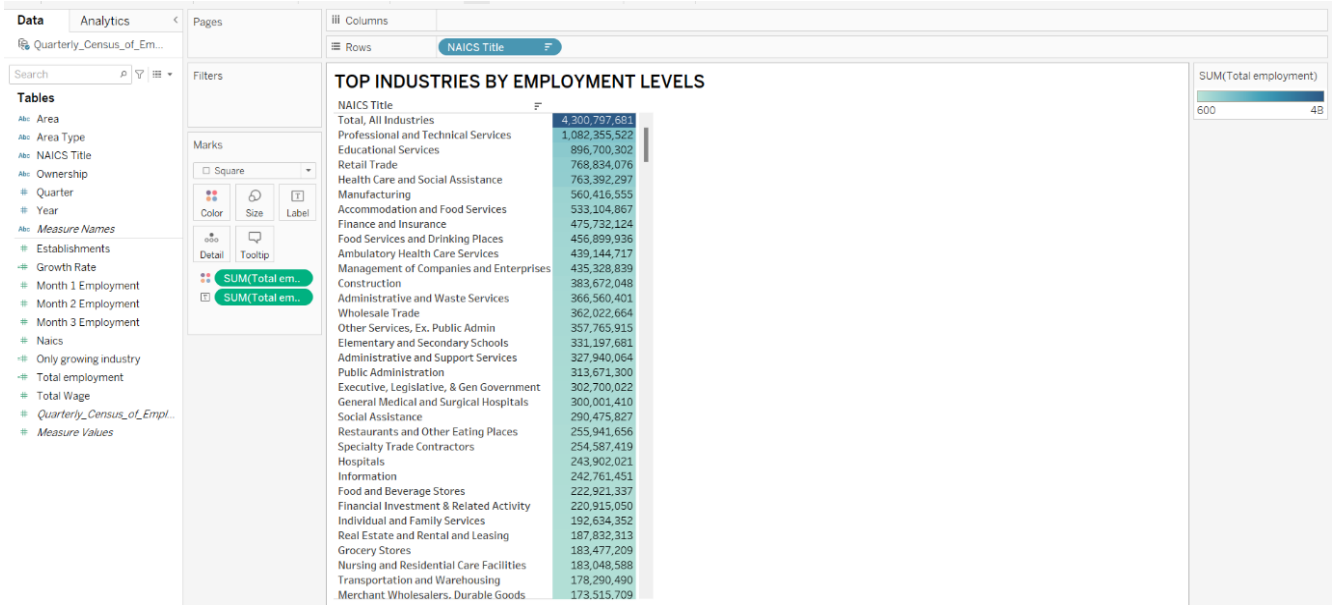


TABLE 2: REGIONAL ECONOMIC ANALYSIS

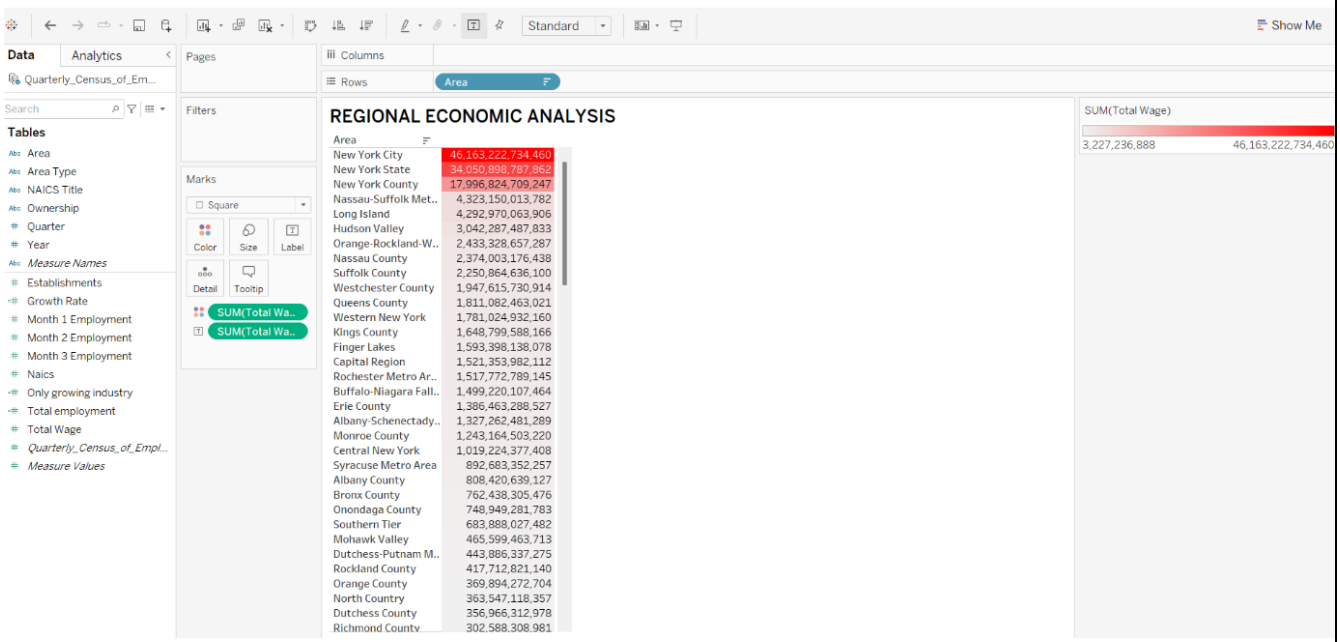
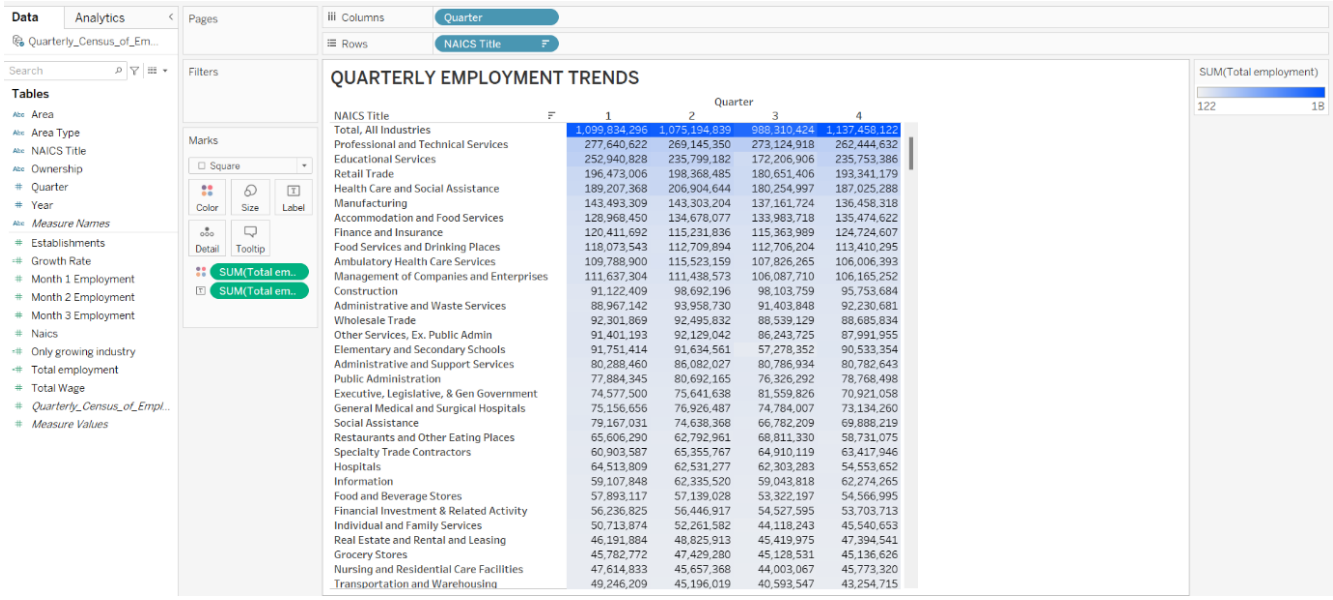
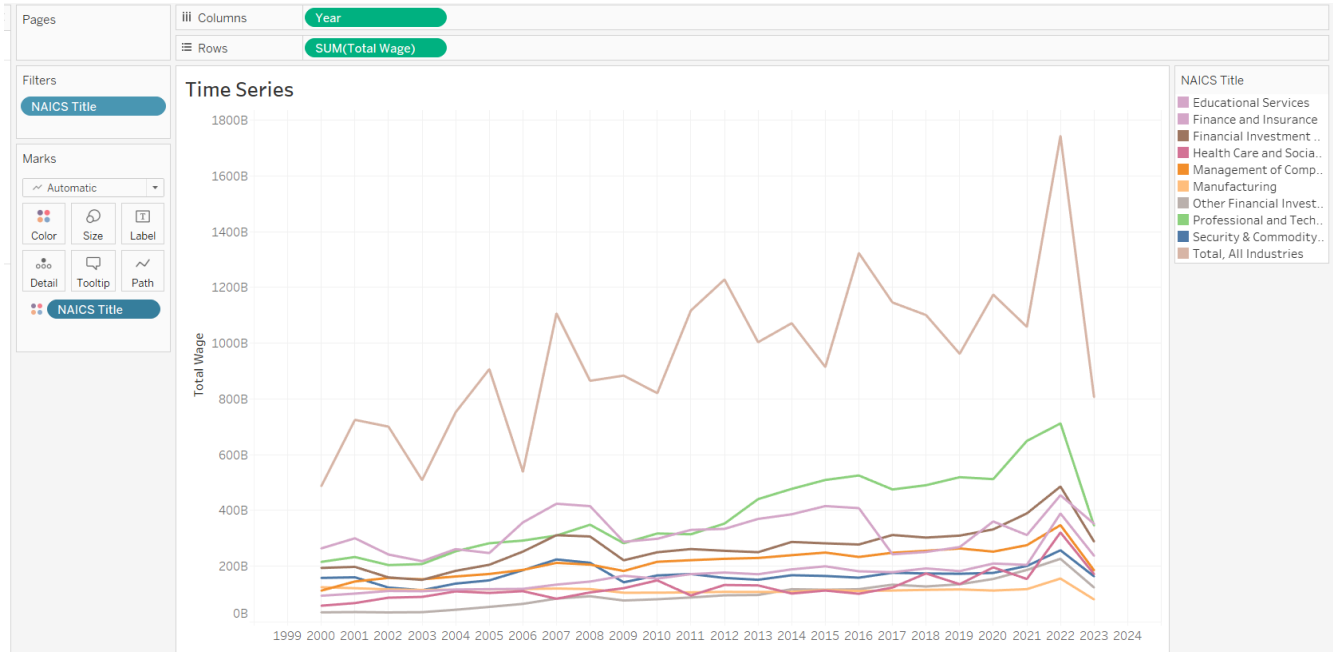


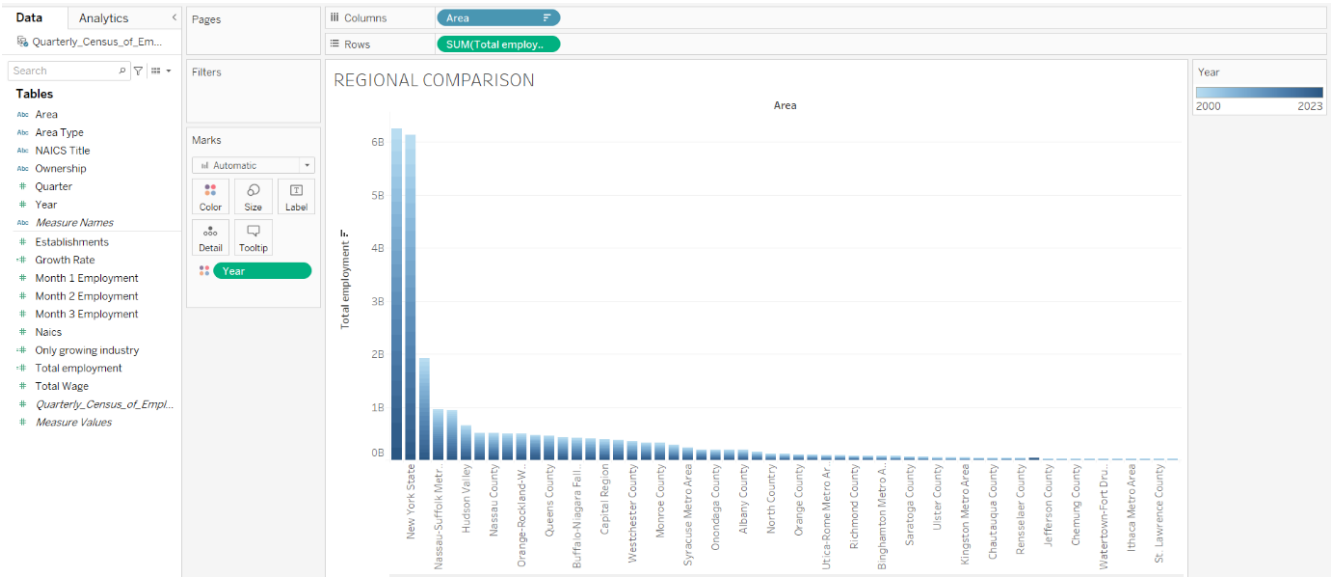
TABLE 3: QUARTERLY EMPLOYMENT TRENDS



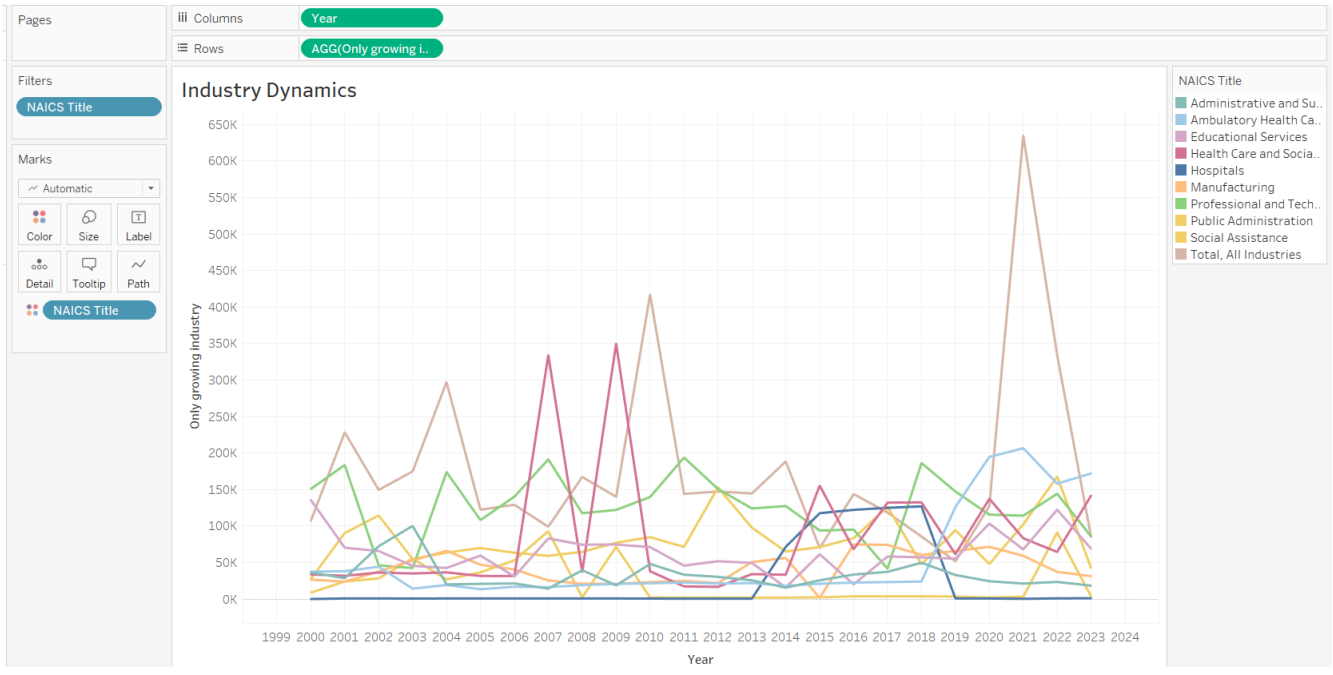
GRAPH 1: TIME SERIES ANALYSIS



GRAPH 2: REGIONAL COMPARISON



GRAPH 3: INDUSTRY PERFORMANCE DISTRIBUTION



M5 PROJECT WORK

Assessing Previous Tables and Graphs

Table 1: Top Industries by Employment levels

- The table visualization provides a clear understanding of which industries have the highest employment potential.
- The table format is effective for presenting numerical data like employment levels.
- By Sorting the industries by total employment makes it easy to identify the top industries quickly.
- The visualization seems to accurately convey the key concept of showcasing industries with the highest employment potential.
- It highlights trends by clearly showing which industries employ the most people.
- While tables might not be as visually engaging as graphs, they can still effectively convey information, especially when dealing with numerical data like employment figures.

Table 2: Regional Economic Analysis

- The visualization aims to pinpoint specific geographic areas where wages are comparatively higher.
- It serves as a tool to highlight regions that stand out in terms of wage levels compared to others.
- Viewers can gain a basic understanding of economic inequalities across different regions which helps uncover disparities in wage distribution, shedding light on regional economic challenges.
- It's effective for understanding the top regions, but it might not be visually appealing for storytelling. Incorporating more visually engaging visualizations beyond tables can enhance the presentation's impact.

Table 3: Quarterly Employment Trends

- The table visualization aims to showcase quarterly employment trends within each industry.
- It highlights the industry with the highest employment for each quarter.
- While table visualization primarily presents data without providing contextual information or narrative, making it challenging for viewers to understand the significance of the numbers.
- Consideration of alternative visualizations, such as bar graphs could enhance storytelling and engagement by providing a more dynamic and visually appealing representation of the data.

Graph 1: Time Series Analysis

- The Graph showcase Line chart which are commonly used in time series analysis to visualize trends and patterns in industry performance over time.
- It depicts historical perspective, allowing viewers to see how industries have evolved over time and whether they are increasing, decreasing, or remaining stable.
- They are valuable tools for decision-making, as they enable stakeholders to interpret past performance and make informed predictions about future trends this makes them the optimal choice for presenting the narrative we aim to convey.

Graph 2: Regional Comparison

- The Graph 2 about the Regional Comparison indicates that the data related to different areas is represented along the horizontal axis of the bar chart.
- Each bar's height represents the total employment count for a particular area or region.
- The bars in the chart are color-coded based on the year. This coloring scheme allows viewers to easily distinguish employment trends over different years within each area or region, making it the most effective method for conveying the story we intend to tell.

Graph 3: Industry Dynamics

- The Tableau line chart showcases growth trends of the top 10 industries over multiple years.
- Each line in the chart corresponds to a specific industry identified by its NAICS title.
- Analysis of the slopes and patterns of these lines allows for the comparison of relative growth rates among industries.
- The visualization facilitates the identification of industries experiencing consistent growth, fluctuations, or declines over time.
- Insights derived from the chart aid in understanding the evolving landscape of these sectors. making it the optimal approach for presenting the story we aim to tell.

Revisiting Visualization Choices

Table 1: Top Industries by Employment levels: The Table visualization lacks the visual appeal and might not facilitate the comparison of data points as readily as a horizontal bar chart which offers a visually intuitive representation, allowing viewers to easily compare the top 10 employment levels of different industries.

Table 2: Regional Economic Analysis: While the table can narrate a story around regional economic dynamics, it may not engage viewers as effectively as pie charts to tell a compelling narrative, Pie charts, for instance, offer a visually intuitive representation of proportions, making it easier for viewers to grasp the distribution of wages across different regions at a glance.

Table 3: Quarterly Employment Trends: While the table visualization effectively showcases quarterly employment trends and identifies dominant industries, it may not be the optimal visualization for several reasons. Firstly, tables might not capture the dynamic nature of the labor market and the evolving importance of industries over time as effectively as Veritcal bar chart that we can optimize the visualization, moreover the table visualization doesn't showcases how the Quarterly Employment differs through years, which could provide a more visually engaging representation of the data

Graph 1: Time Series Analysis: The visualization employs line charts, ideal for time series analysis, to depict industry trends over time. These charts offer a historical perspective, aiding in understanding past performance and predicting future trends for informed decision-making. This makes them optimal for presenting the desired narrative concisely and effectively.

Graph 2: Regional Comparison: The Regional Comparison graph uses a vertical bar chart,where regions are on the horizontal axis, and bar height reflects employment counts. Color-coded bars show trends across years for each region, facilitating clear interpretation of data trends. This visualization is optimal for conveying our narrative efficiently.

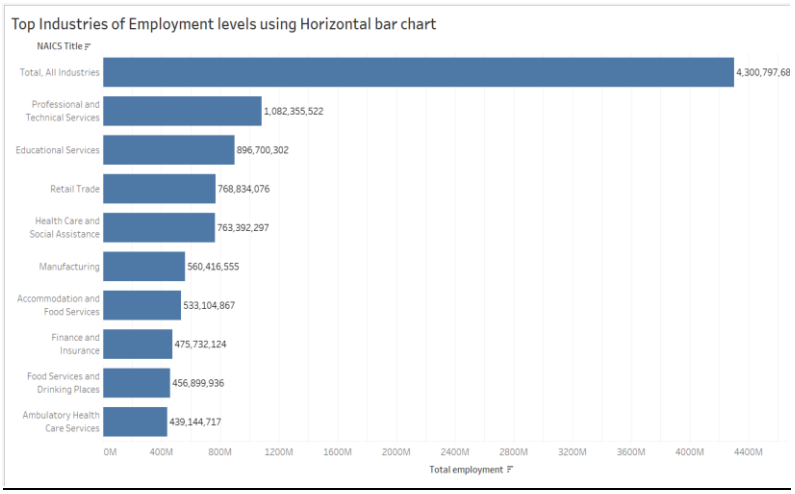
Graph 3: Industry Dynamics: The Tableau line chart displays growth trends for the top 10 industries across multiple years. Each line represents a specific industry, enabling comparison of growth rates. Analysis of slopes and patterns reveals consistent growth, fluctuations, or declines, aiding in understanding sector evolution. This visualization optimally presents insights into industry trends.

Optimizing visualization

Table 1

TOP INDUSTRIES BY EMPLOYMENT LEVELS

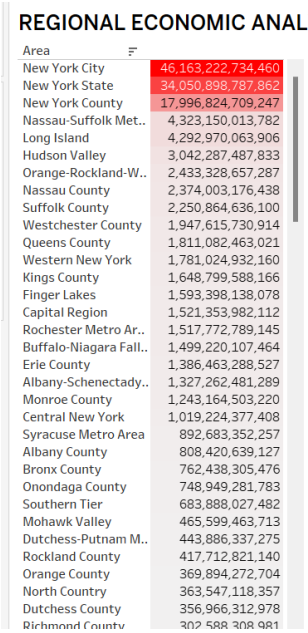
NAICS Title	
Total, All Industries	4,300,797,681
Professional and Technical Services	1,082,355,522
Educational Services	896,700,302
Retail Trade	768,834,076
Health Care and Social Assistance	763,392,297
Manufacturing	560,416,555
Accommodation and Food Services	533,104,867
Finance and Insurance	475,732,124
Food Services and Drinking Places	456,899,936
Ambulatory Health Care Services	439,144,717
Management of Companies and Enterprises	435,328,839
Construction	383,672,048
Administrative and Waste Services	366,560,401
Wholesale Trade	362,022,664
Other Services, Ex. Public Admin	357,765,915
Elementary and Secondary Schools	331,197,681
Administrative and Support Services	327,940,064
Public Administration	313,671,300
Executive, Legislative, & Gen Government	302,700,022
General Medical and Surgical Hospitals	300,001,410
Social Assistance	290,475,827
Restaurants and Other Eating Places	255,941,656
Specialty Trade Contractors	254,587,419
Hospitals	243,902,021
Information	242,761,451
Food and Beverage Stores	222,921,337
Financial Investment & Related Activity	220,915,050
Individual and Family Services	192,634,352
Real Estate and Rental and Leasing	187,832,313
Grocery Stores	183,477,209
Nursing and Residential Care Facilities	183,048,588
Transportation and Warehousing	178,290,490
Merchant Wholesalers, Durable Goods	173,515,709



Before After

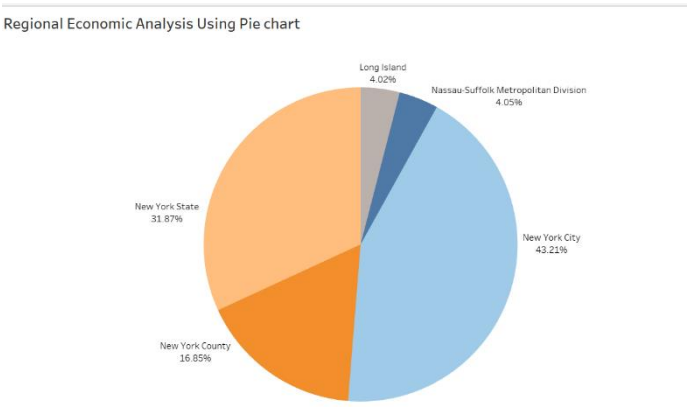
To effectively showcase the top industries by employment levels, we have determined that a horizontal bar chart is the optimal visualization choice. It efficiently communicates the rankings of industries based on their workforce size and aligns with the quality standards expected for client presentations.

Table 2



REGIONAL ECONOMIC ANALYSIS

Area	
New York City	46,163,222,734,460
New York State	34,050,898,787,862
New York County	17,996,824,709,247
Nassau-Suffolk Met..	4,323,150,013,782
Long Island	4,292,970,063,906
Hudson Valley	3,042,287,487,833
Orange-Rockland-W..	2,433,328,657,287
Nassau County	2,374,003,176,438
Suffolk County	2,250,864,636,100
Westchester County	1,947,615,730,914
Queens County	1,811,082,463,021
Western New York	1,781,024,932,160
Kings County	1,648,799,588,166
Finger Lakes	1,593,398,138,078
Capital Region	1,521,353,982,112
Rochester Metro Ar..	1,517,772,789,145
Buffalo-Niagara Fall..	1,499,220,107,464
Erie County	1,386,463,288,527
Albany-Schenectady..	1,327,262,481,289
Monroe County	1,243,164,503,220
Central New York	1,019,224,377,408
Syracuse Metro Area	892,683,352,257
Albany County	808,420,639,127
Bronx County	762,438,305,476
Onondaga County	748,949,281,783
Southern Tier	683,888,027,482
Mohawk Valley	465,599,463,713
Dutchess-Putnam M..	443,886,337,275
Rockland County	417,712,821,140
Orange County	369,894,272,704
North Country	363,547,118,357
Dutchess County	356,966,312,978
Richmond County	302,588,308,981



Before After

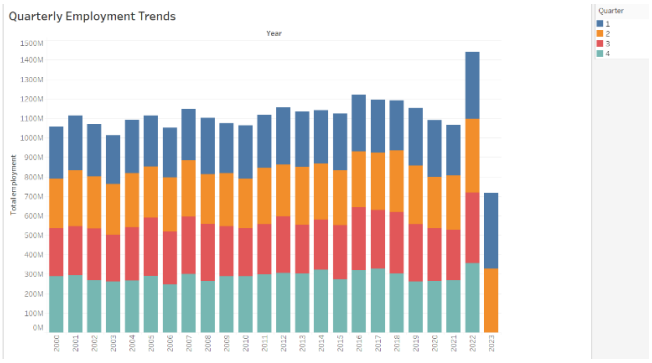
For regional economic analysis, however, we found that a pie chart is a better way to achieve optimal visualization. This format allows us to analyze the percentage of areas holding various wage levels, providing a comprehensive understanding of regional wage distribution.

Table 3

QUARTERLY EMPLOYMENT TRENDS

NAICS Title	Quarter 1	2	3	4
Total, All Industries	1,099,834,296	1,075,194,839	988,310,424	1,137,458,122
Professional and Technical Services	277,640,622	269,145,350	273,124,918	262,444,632
Educational Services	252,940,828	235,799,182	172,206,906	235,753,386
Retail Trade	196,473,006	198,368,485	180,651,406	193,341,179
Health Care and Social Assistance	189,207,368	206,904,644	180,254,997	187,025,288
Manufacturing	143,493,309	143,303,204	137,161,724	136,458,318
Accommodation and Food Services	128,968,450	134,678,077	133,983,718	135,474,622
Finance and Insurance	120,411,692	115,231,836	115,363,989	124,724,607
Food Services and Drinking Places	118,073,543	112,709,894	112,706,204	113,410,295
Ambulatory Health Care Services	109,788,900	115,523,159	107,826,265	106,006,393
Management of Companies and Enterprises	111,637,304	111,438,573	106,087,710	106,165,252
Construction	91,122,409	98,692,196	98,103,759	95,753,684
Administrative and Waste Services	88,967,142	93,958,730	91,403,848	92,230,681
Wholesale Trade	92,301,869	92,495,832	88,539,129	88,685,834
Other Services, Ex. Public Admin	91,401,193	92,129,042	86,243,725	87,991,955
Elementary and Secondary Schools	91,751,414	91,634,561	57,278,352	90,533,354
Administrative and Support Services	80,288,460	86,082,027	80,786,934	80,782,643
Public Administration	77,884,345	80,692,165	76,326,292	78,768,498
Executive, Legislative, & Gen Government	74,577,500	75,641,638	81,559,826	70,921,058
General Medical and Surgical Hospitals	75,156,656	76,926,487	74,784,007	73,134,260
Social Assistance	79,167,031	74,638,368	66,782,209	69,888,219
Restaurants and Other Eating Places	65,606,290	62,792,961	68,811,330	58,731,075
Specialty Trade Contractors	60,903,587	65,355,767	64,910,119	63,417,946
Hospitals	64,513,809	62,531,277	62,303,283	54,553,652
Information	59,107,848	62,335,520	59,043,818	62,274,265
Food and Beverage Stores	57,893,117	57,139,028	53,322,197	54,566,995
Financial Investment & Related Activity	56,236,825	56,446,917	54,527,595	53,703,713
Individual and Family Services	50,713,874	52,261,582	44,118,243	45,540,653
Real Estate and Rental and Leasing	46,191,884	48,825,913	45,419,975	47,394,541
Grocery Stores	45,782,772	47,429,280	45,128,531	45,136,626
Nursing and Residential Care Facilities	47,614,833	45,657,368	44,003,067	45,773,320
Transportation and Warehousing	49,246,209	45,196,019	40,593,547	43,254,715

Before



After

To better illustrate Quarterly Employment Trends, we found that the previous table didn't clearly show yearly patterns. Using a vertical bar chart is simpler and clearer for optimal visualization where client can easily discern patterns and fluctuations over time.

M6 PROJECT WORK

Assessing Previous Tables and Graphs

Table 1: Top Industries by Employment levels

- The Horizontal bar chart for clearly showcasing top industries by employment levels.
- This visualization effectively communicates industry rankings based on workforce size.
- The horizontal layout of the bars enables direct comparisons between industries, allowing viewers to quickly identify the largest and smallest sectors in terms of workforce size.
- Hence We found out this visualizations is the best way to present the story we want to tell.

Table 2: Regional Economic Analysis

- Pie chart selected for regional economic analysis due to its ability to effectively illustrate the distribution of wage levels across different areas.
- It can be challenging to accurately compare the sizes of different regions or wage levels in a pie chart,this can hinder the viewer's ability to understand the data effectively.
- Other visualization techniques, such as bar charts, may be more suitable for showcasing such trends in regional wage distribution.

Table 3: Quarterly Employment Trends

- This visualization allows us to compare the total employment across different years and see how it is distributed within each year across quarters.
- The use of color can help to distinguish between quarters within each bar, making it easier to identify any seasonal patterns or trends in the data.
- Thus, This visualization is best to present our story that we want to tell.

Graph 1: Time Series Analysis

- The Graph showcase Line chart which are commonly used in time series analysis to visualize trends and patterns in industry performance over time.
- It depicts a historical perspective; however, it doesn't signify the growth rate of employment.
- There should be filtering of the NAICS title to include the top-growing industry so that we may find an effective line chart for better storytelling.

Graph 2: Regional Comparison

- The Graph 2 about the Regional Comparison indicates that the data related to different areas is represented along the horizontal axis of the bar chart.
- Each bar's height represents the total employment count for a particular area or region.
- The bars in the chart are color-coded based on the year. This coloring scheme allows viewers to easily distinguish employment trends over different years within each area or region, making it the most effective method for conveying the story we intend to tell.

Graph 3: Industry Dynamics

- The Tableau line chart showcases growth trends of the top 10 industries over multiple years.
- Each line in the chart corresponds to a specific industry identified by its NAICS title.
- but the line chart is not optimal visualization because of the lines not appropritate to depict the story.
- By filtering the NAICS title to only growing industry can be the best way to optimize the visualization

Revisiting Visualization Choices

Table 1: Top Industries by Employment levels: The horizontal bar chart is the most effective visualization choice for showcasing the top industries by employment levels. This visualization efficiently communicates the rankings of industries based on their workforce size and aligns with the quality standards expected for client presentations

Table 2: Regional Economic Analysis: Previously we have used pie char that offer a visually intuitive representation of proportions but the proportions shows misinterpretation of the data, however we found out that the bar chart make it easier to compare the sizes of different regions. This is because human eyes are better at comparing lengths (as in bar charts) than angles or areas (as in pie charts), leading to more accurate and quicker comparisons.

Table 3: Quarterly Employment Trends: Vertical bar chart captures the dynamic nature of the labor market and highlights the evolving significance of industries over time. By representing quarterly employment data across years, the vertical bar chart provides a visually engaging depiction of how employment fluctuates throughout the years, allowing for easier identification of trends and patterns.

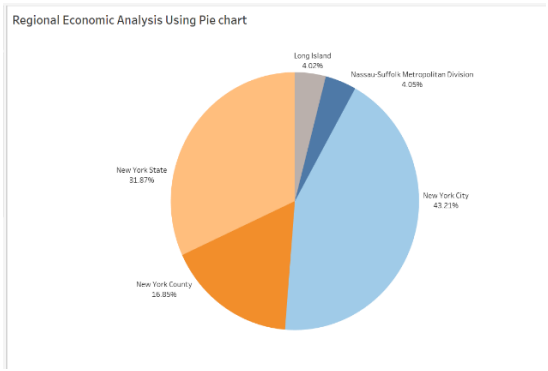
Graph 1: Time Series Analysis: The visualization utilizes line charts, ideal for time series analysis, to depict industry trends over time. However, the lines are not optimal. By narrowing the focus to the top 10 growing industries through applying a filter only on growing industries, the visualization avoids clutter and allows for a clear and concise presentation of wage trends.

Graph 2: Regional Comparison: The Regional Comparison graph uses a vertical bar chart,where regions are on the horizontal axis, and bar height reflects employment counts. Color-coded bars show trends across years for each region, facilitating clear interpretation of data trends. This visualization is optimal for conveying our narrative efficiently.

Graph 3: Industry Dynamics: The Tableau line chart displays growth trends for the top 10 industries across multiple years since the lines are not optimal and visually appealing by filtering the NAICS titles to only include the top 10 only growing industries the chart would effectively highlight the trends in employment growth within those industries over time.

Optimizing visualization

Table 2



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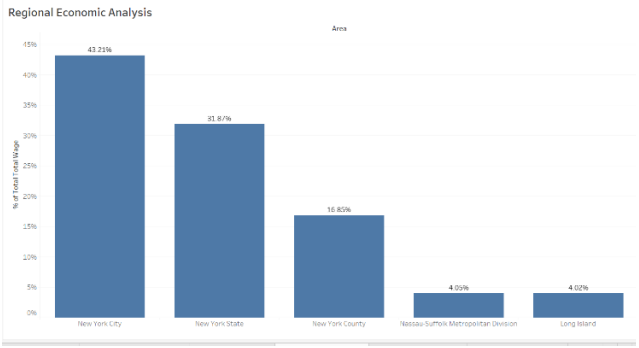
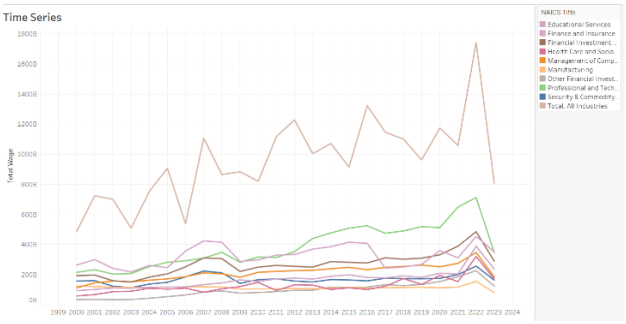


After

As we have observed, Bar chart excel in facilitating accurate comparisons between different data regions, where as in Pie chart due to the misinterpretation of proportions leads to difficulty in comparing the area and challenging to interpret the regions, Hence Bar chart is the optimal visualization.

Graph 1



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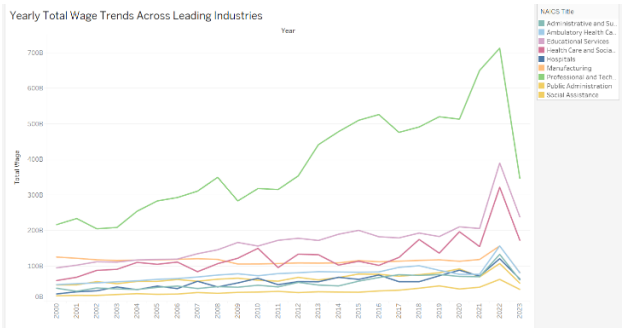
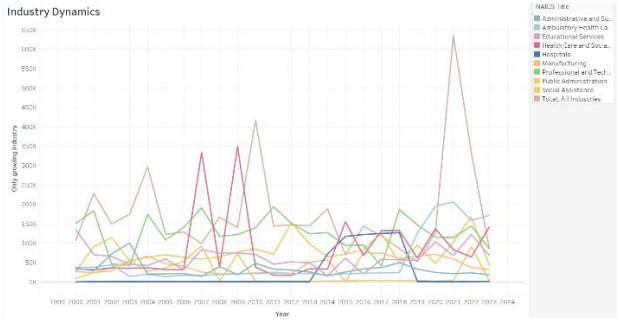


After

By filtering the NAICS titles to only include the top 10 growing industries, the chart focused on showcasing the trends and changes in wages over time specifically within those industries. This allows for a clear comparison and understanding of how the top growing industries are performing in terms of wages over the selected time period. This visualization is optimal because it effectively highlights the trends in wage growth over time within the top 10 growing industries, enabling quick identification of significant patterns and comparisons across sectors

Graph 3



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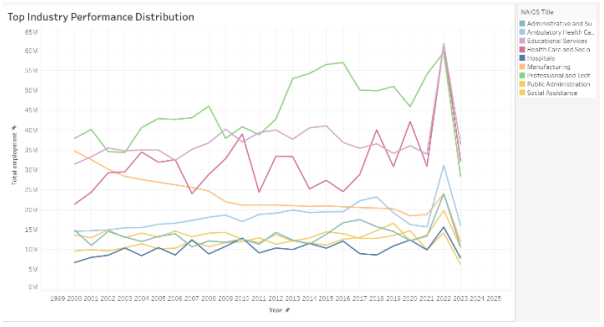
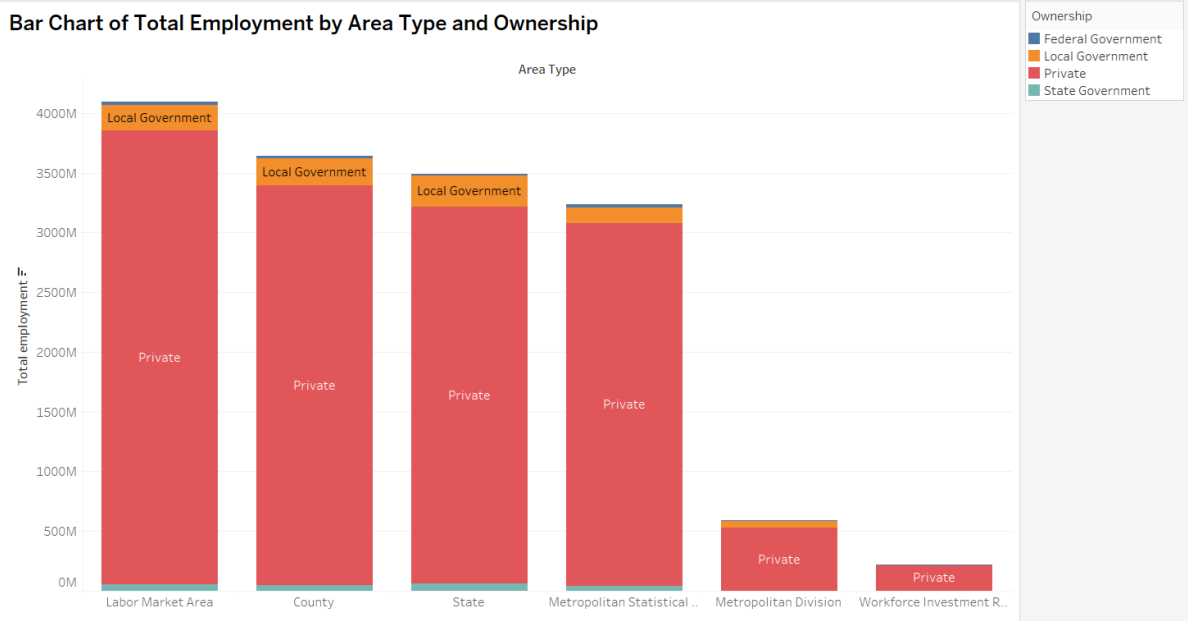


After

The line chart illustrates the total employment over the years, with each line representing a different NAICS title, By filtering the NAICS titles to only include the top 10 growing industries, the chart would effectively highlight the trends in employment growth within those industries over time, We found this visualization is optimal because it provides a clear and focused representation of employment dynamics within the most significant growing industries. By utilizing color to distinguish between NAICS titles, it enables easy identification of trends and facilitates comparisons across sectors

Going further into our story with a graph



To go further into our story we made our visualization that shows how employment is spread across different types of areas and ownership categories. It helps identify where jobs are concentrated and how different ownership structures contribute to this distribution. we can analyze how employment patterns vary between urban and rural areas, or explore disparities in employment opportunities across different ownership types, which we can go further into our story

M7 PROJECT WORK

Reviewing the visualizations

Visualization 1: Top Industries by Employment levels: The horizontal bar chart is the most effective visualization choice for showcasing the top industries by employment levels. This visualization efficiently communicates the rankings of industries based on their workforce size and aligns with the quality standards expected for client presentations.

Visualization 2: Regional Economic Analysis: The vertical bar chart provides a straightforward representation of the data, with each bar easily corresponding to a specific area and its associated total wage amount. This simplicity makes it easy for viewers to interpret and compare the wage distribution across regions at a glance, provides efficiency in conveying information, and ease of interpretation.

Visualization 3: Quarterly Employment Trends: Vertical bar chart captures the dynamic nature of the labor market and highlights the evolving significance of industries over time. By representing quarterly employment data across years, the vertical bar chart provides a visually engaging depiction of how employment fluctuates throughout the years, allowing for easier identification of trends and patterns.

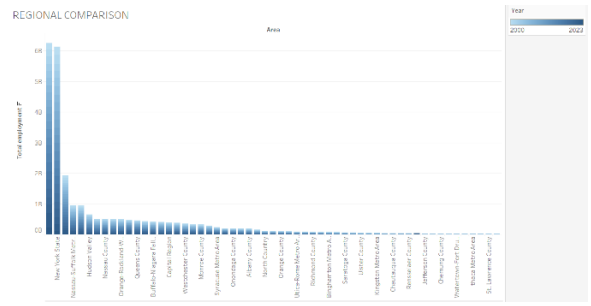
Graph 1: Time Series Analysis: The line chart provides top 10 growing industries,this allows for clear comparisons and understanding of how these industries are performing in terms of wages. The visualization effectively highlights wage growth trends within these sectors, facilitating quick identification of significant patterns and comparisons.

Graph 2: Regional Comparison: The Regional Comparison graph uses a vertical bar chart,where regions are on the horizontal axis, and bar height reflects employment counts. Color-coded bars show trends across years for each region but the gradient nature of the colors makes it challenging for viewers to distinguish between each year. As a solution, employing a line chart can enhance visual appeal and clarity. By transitioning to a line chart format, viewers can more easily track trends over time for each region, facilitating better interpretation of the data.

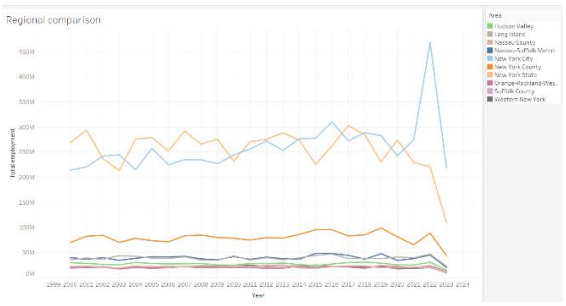
Graph 3: Industry Dynamics: The line chart depicts total employment over the years, with each line representing a NAICS title, It provides a clear and focused representation of employment dynamics within the most significant growing industries, the use of color enhances clarity, enabling quick trend identification and sector comparisons making it optimal visualization.

New Graph: Total Employment by Area Type and Ownership: visualization that shows how employment is spread across different types of areas and ownership categories. It helps identify where jobs are concentrated and how different ownership structures contribute to this distribution. we can analyze how employment patterns vary between urban and rural areas, or explore disparities in employment opportunities across different ownership types, which we can go further into our story

Improving Graph 2- Regional Comparison:



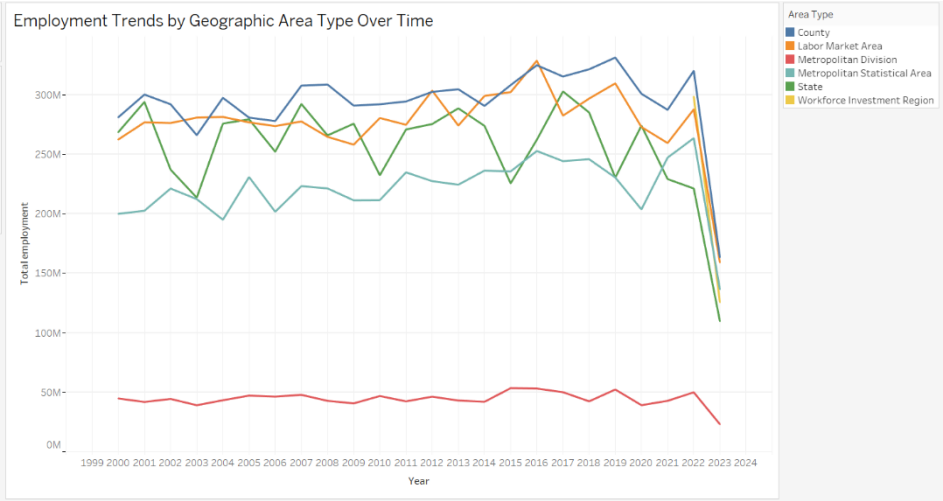
Before



After

As we have found out that the use of color-coded bars to represent trends across years can sometimes create confusion due to the gradient nature of the colors. To enhance clarity and visual appeal, we considered utilizing a line chart instead which offered a more intuitive way to track trends over time for each region, as the lines provide a clear trajectory for each year, facilitating better interpretation of the data.

New visualization



This visualization tells the story of how employment levels have evolved over the years within various geographical contexts. each area type reveal distinct patterns of growth, stagnation, or decline, offering insights into the underlying economic factors,For instance, abrupt changes in the trajectory of a line may signify economic booms or busts within specific regions,overall the line chart provides a concise and illuminating narrative of employment trends across various geographic areas.

M8 PROJECT WORK

Reviewing the visualizations

Employment Trends by Geographic Area Type Over Time

This line graph appears to track employment trends over time across different geographic classifications like county, labor market area, Each area type exhibits unique patterns of growth, stagnation, or decline, reflecting underlying economic factors. Abrupt shifts in the lines suggest economic booms or busts within specific regions. Overall, the chart offers a concise and insightful narrative of employment trends across diverse geographic contexts.

Bar Chart of Total Employment by Area Type and Ownership

The bar chart breaks down total employment by area type and by ownership, indicating a dominance of private employment across all area types. The chart is clear and seems to correspond well to the dataset parameters. The significantly higher employment in private sectors across all areas is evident.

Top Industry Performance Distribution

This line graph shows the performance of various industries over time. The trend lines for each industry can help identify growth, stability, or decline within those sectors. The sharp increases or decreases in some industries could reflect economic events, policy changes, or data anomalies that warrant further investigation.

Regional Comparison

This line graph compares employment figures across different regions over time. There's an evident peak and trough pattern that likely corresponds to economic cycles. By transitioning to a line chart format, viewers can more easily track trends over time for each region, facilitating better interpretation of the data.

Yearly Total Wage Trends Across Leading Industries

This line graph depicts the total wages within leading industries over time. It's helpful for identifying which industries are the largest contributors to wages in the economy. The graph shows an overall increasing trend in wages with some volatility, which could be related to economic factors affecting these industries.

Quarterly Employment Trends

The bar chart represents quarterly employment trends over several years, segmented by quarter. It illustrates the seasonality of employment and may reflect periodic fluctuations due to temporary or seasonal jobs. The layered bars make it easy to see changes from quarter to quarter and year over year.

Regional Economic Analysis

This bar chart shows the percentage of total wages by region, giving a clear picture of wage distribution. New York City, for example, contributes a significant percentage of the total wages, highlighting its economic influence in the dataset.

Top Industries of Employment Levels Using Bar Chart

This bar chart ranks industries by employment levels, which can be useful for seeing which industries employ the most people. The visual difference between industries is quite stark, indicating a significant variance in employment among them.