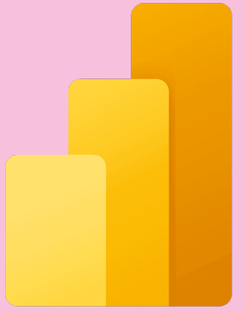
Case Study by Achintya Ranjan

In this project, I had been provided with a sample data that a PitchBook Business Intelligence Analyst encounters daily.
I have used Power Bi and Excel to analyze and interpret
the data to provide useful insights and statistics.

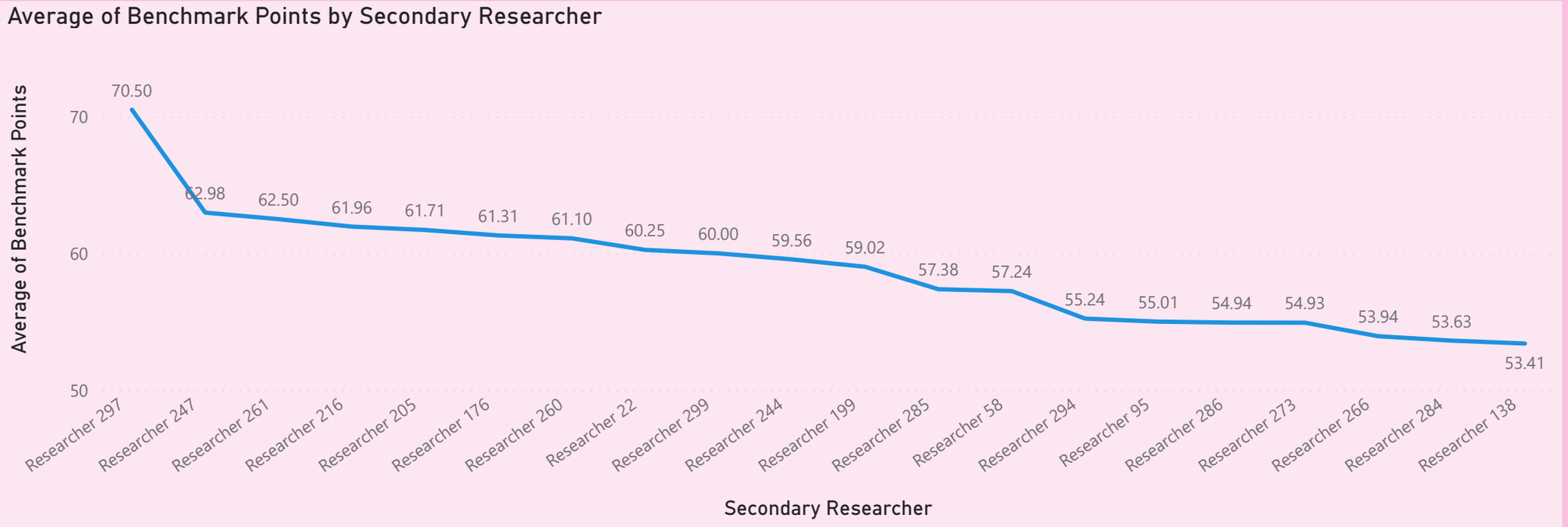


Power BI

The dataset comprises information about numerous private companies, with each company identified by a Profile ID. Additionally, the dataset includes pertinent details as per the methodologies employed by the research team. It encompasses data about the researchers associated with each company, their specific information, the workflows they have created, the time taken to complete each workflow, and benchmark points added to each profile.

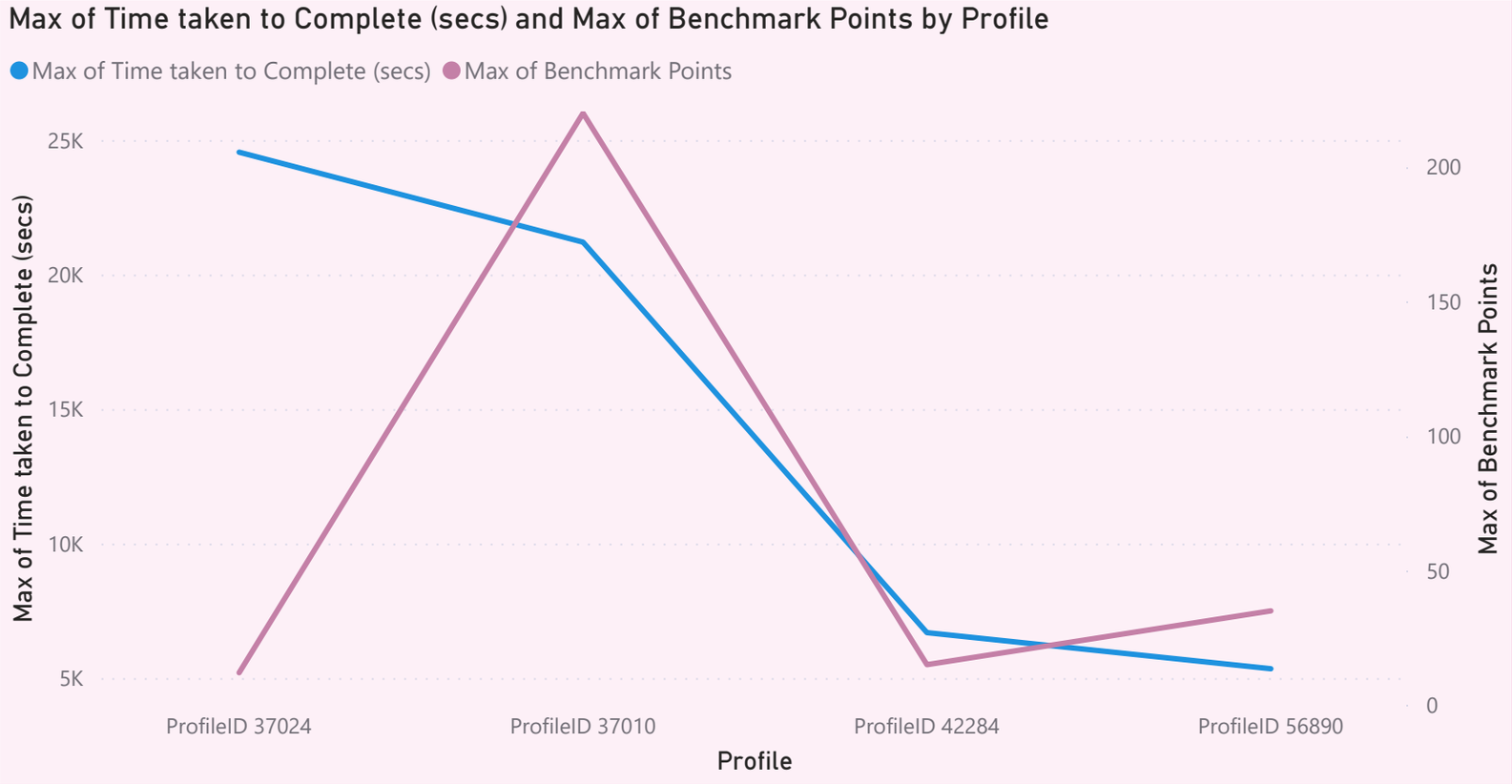
I incorporated an **efficiency metric** into my datasheet. This metric is calculated by dividing **Benchmark Points** by the **total time taken to complete the workflow.** Essentially, the metric serves as an indicator of how efficiently a researcher operates, completing workflows within a constrained timeframe while achieving noteworthy benchmark points. A high efficiency metric suggests that the researcher is producing commendable benchmark results in a relatively short amount of time.

I introduced a **frequency metric** to the dataset. This metric signifies the number of profiles (companies) that each secondary researcher has engaged with. The inclusion of this metric is crucial for analyzing the performance of a researcher. By examining the frequency with which a researcher works on different profiles, we can gain insights into their workload distribution and potentially identify areas for performance improvement.



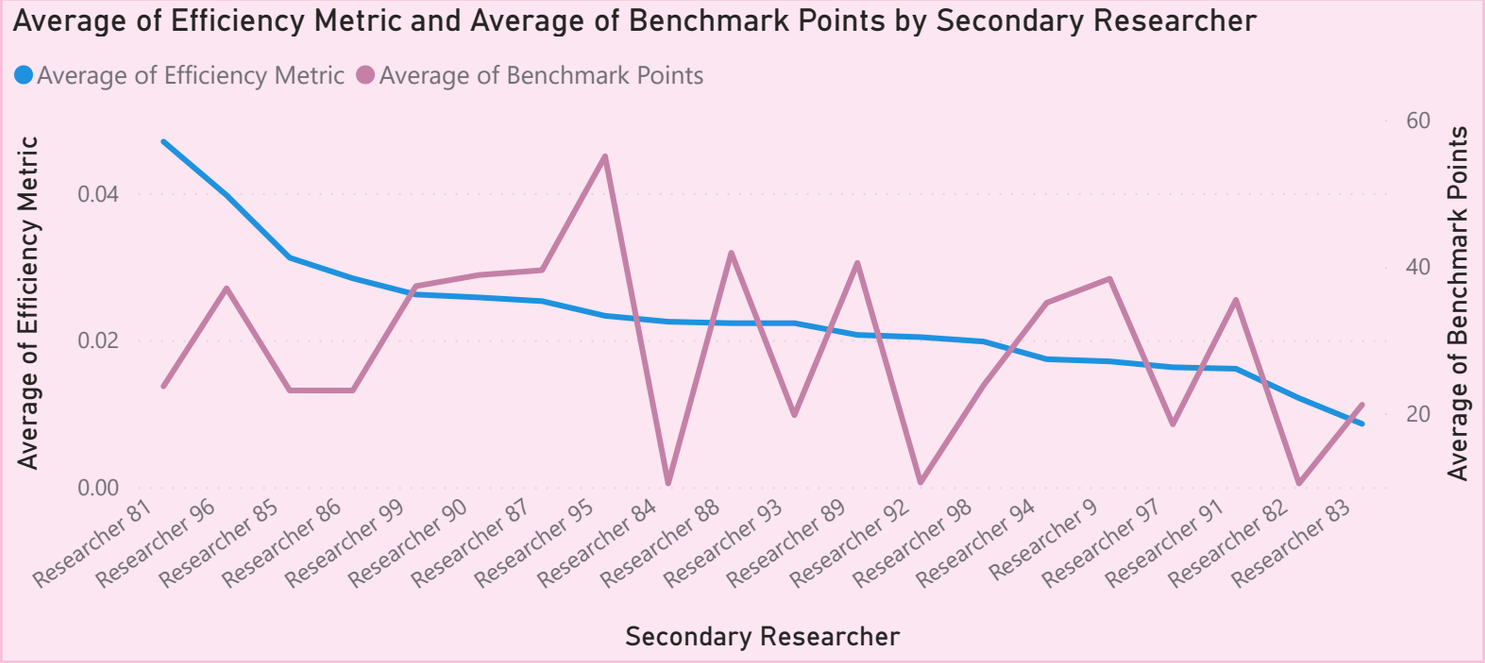
For this visualization, I have focused on the **top 20** researchers based on the average benchmark points they have generated, presenting through a line chart. It's important to note that this chart specifically emphasizes the quality of work produced by researchers, irrespective of the speed at which they complete tasks and the number of profiles each researcher has worked on. **Researcher 297** stands out with impressive numbers (**70.5**), showcasing the researcher's caliber. However, there is a noticeable sudden decline followed by a gradual decrease in benchmark points. This trend suggests that while the **top 20** performers have generally been delivering excellent results, there is a **quick degradation** in performance. The average benchmark points decrease from **70.5** to **53.41** across the **20** researchers, indicates towards a need for urgent improvement.

To address this, providing proper incentives and guidance to researchers could contribute to stabilizing the numbers on the chart. This proactive approach might enhance overall performance of the top-performing researchers.

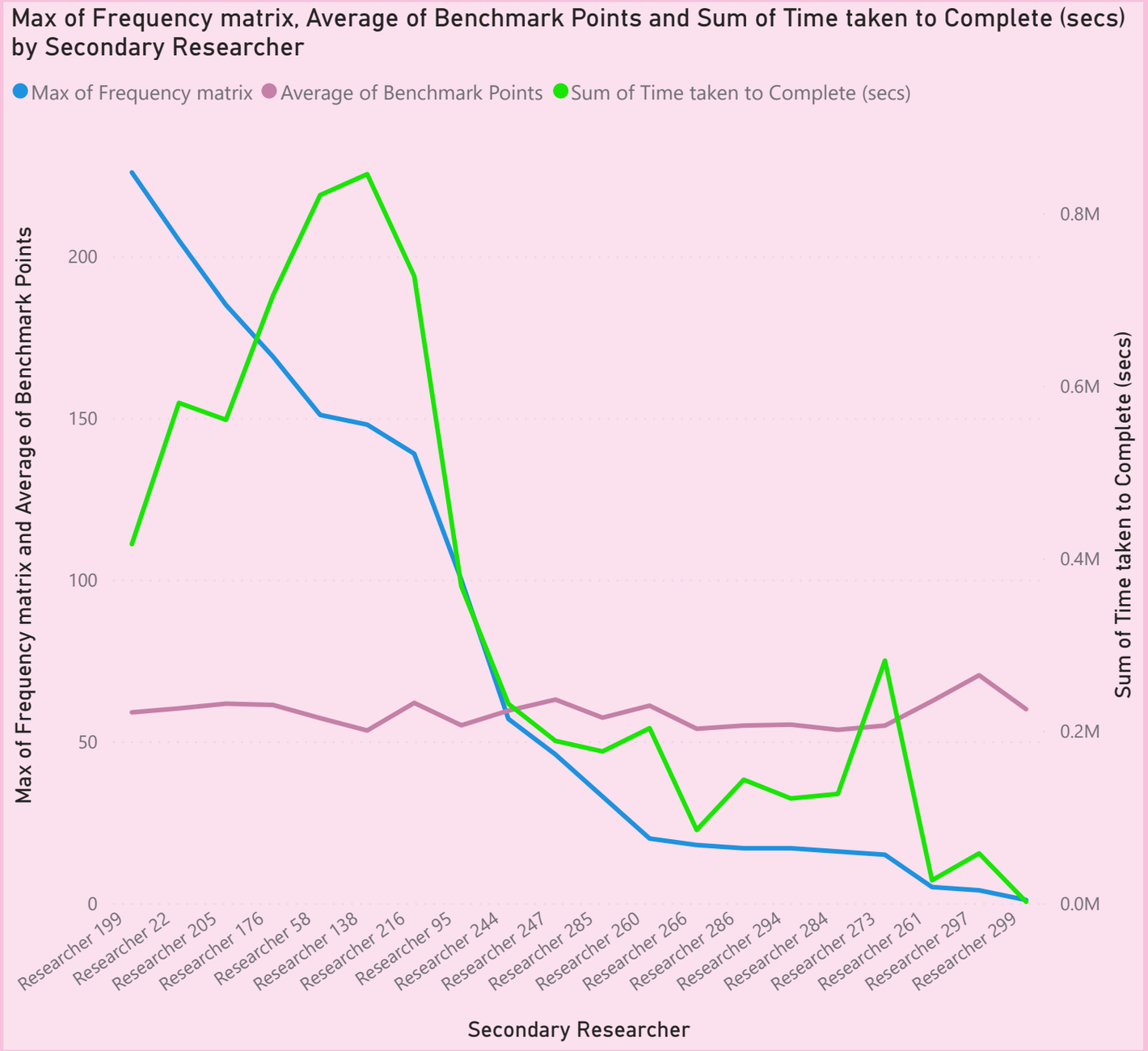


Profile	Workflow Priority	Workflow Process	Workflow Status	Workflow Type	Average of Benchmark Points
ProfileID 37010	High	Conference	Closed	MGMT - General	220.00
ProfileID 56890	High	Conference	Pend Primary	MGMT - General	35.00
ProfileID 42284		Survey	Pend Primary	MGMT - General	15.00
ProfileID 37024	High	Special Request	Closed	MGMT - General	12.00
Total					**70.50**

Analysing each researcher's performance by examining the benchmark points generated per profile they work on provides valuable insights.
In the case of Researcher **297**, who exhibited the highest average benchmark points, attention is drawn to the four profiles they worked on: Profile **37024**, **37010**, **42284**, and **56890**. A notable discrepancy is observed in Profile **37024**, where Researcher **297** generated the minimum data (**12 points**), yet the time taken is the longest (**24569 s**). This situation represents a setback, as **Profile ID 37024** demands a **high priority workflow** and premium profiles like this one are likely to expect positive and substantial results and also time consumption is high and benchmark points are minimal.

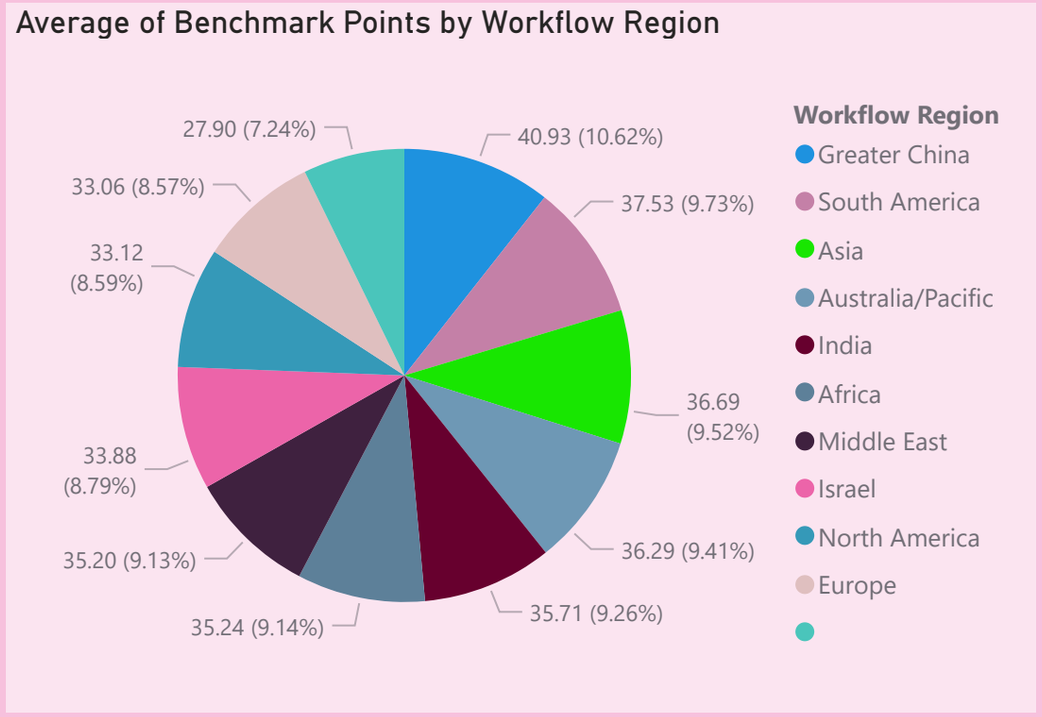


In this visualization, it's notable that none of the top performers highlighted in the previous visualization are present. This observation indicates that the pursuit of generating high benchmark points may lead to a trade-off with time consumption. The data suggests a need to shift focus towards improving the efficiency of the top performers without compromising their overall performance. Simultaneously, there should be encouragement for other researchers to enhance their benchmark point numbers.



This chart shows the performances of the **TOP 20** Researchers on the basis of highest average benchmark points scored. We can observe **Researcher 199**, **Researcher 22**, **Researcher 205** showed impressive benchmark points , close to its peak (**70.5**), even after being assigned the most of the profiles to work on and they took relatively less time to complete their tasks. This data suggests that these are one of the top performers and can work efficiently on their tasks even when the work load is high.

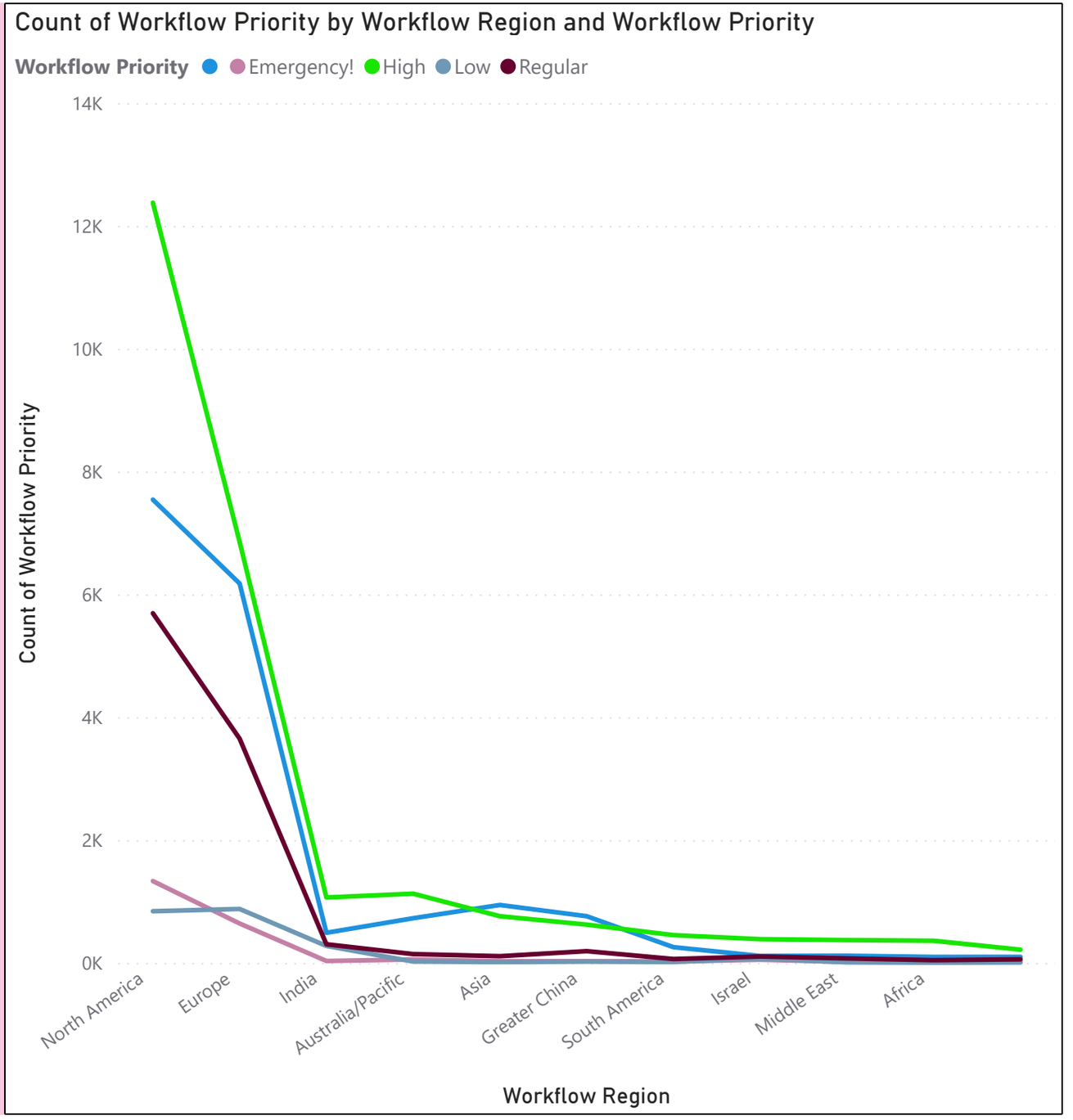
Initially we see a rise in total time taken with **Researcher 58, Researcher 138, Researcher 216** producing great work but take a lot of time in completing their tasks. Then we observe fall in the total time taken as expected with the fall in the total profiles assigned to a researcher but there is a sudden spike in the case of **Researcher 273** , who performed well enough by securing **53.63** benchmark points but took way more time than as expected from the trend. This data suggests that **Researcher 58, 138, 216 273,** should be more efficient with time as they have the ability to produce convincing work and help the Data Operations team effectively.



In the pie chart depicting the average benchmark points from different workflow regions, it's evident that there is minimal variation in the averages.
The data spans from **27.9** benchmark points to **40.93** benchmark points across the regions. This observation suggests that manpower has been evenly distributed among these regions, aiming to extract potentially maximum data points from each. The relatively consistent average benchmark points indicate a balanced approach in resource allocation, ensuring that each workflow region receives comparable attention and effort. This strategy not only maximizes data collection but also promotes an equal utilization of resources across various regions.

In this line chart, it is evident that a substantial number of workflows are generated in the **North America** and **Europe** regions. This observation emphasizes the significance of North America and Europe as the two most pivotal regions for our operations. Also, the maximum number of high-priority workflows and emergency workflows originate from these regions. This data strongly suggests that North America and Europe play a critical role in various aspects.

Considering the workflow creation in these regions, strategically deploying more researchers in North America and Europe could lead to the identification and engagement of more companies. This has the potential to significantly enhance our chances of working with a greater number of companies, presenting a valuable opportunity for growth and success.



Workflow Process	Sum of Benchmark Points	Count of Workflow Process
News	281643	6294
Survey	97266	2242
Demo Update	71642	2091
Post News	38556	769
Conference	555	12
Gravity	77	2
Total	**489739**	**11410**

With high count of workflows and high sum of benchmark points, the news workflow process is performing well in terms of generating valuable data. We should deploy our best researchers in this if their skills align with requirements of the news workflow. Further improvement in this field can ensure ongoing success to the team.

I hereby conclude this presentation. I trust that the insights derived from the data have been both helpful and engaging.

THANK YOU!