



DATA ANALYSIS PORTFOLIO

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Professional Background

- As a graduate of Microbiology from Imo State University, Owerri, Imo State, Nigeria, my coursework has provided me with an in-depth understanding of microbial physiology, pathogenesis, genetics, public health as well as statistical methods required for quantitative analysis. During my studies, I focused on analyzing the interactions between microorganisms and their environment and assessing the impact of microorganisms on human health.
- I was also opportune to intern at the medical laboratory department of Nigerian Navy Reference Hospital, Ojo, Lagos, Nigeria, where I had a first hand laboratory experience using a wide variety of laboratory techniques and assisted in recording, analyzing and interpreting data from the laboratory test results which were used to prepare reports.
- I have been fascinated about the relationship of data analysis with the health sector and its importance in policy making and improvement of healthcare of individuals and the population at large.

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Udemy Project Description

- As a Data Analyst working at Udemy, I was asked to present the data on course sales and trends, to understand and identify the most popular course, course to increase prices for and courses their marketing should be tailored towards.
- To better understand the pricing and subscription data which will help us to identify which subject more courses should be created for and create targeted strategies to increase the company revenue.

Methodology

- The data was collected, checked for duplicates and blank cells and cleaned using Google sheets. The clean data was analyzed using Google sheets and Tableau to create visuals.

Key Questions

1. What are the total number of subscribers in each subject?
2. How does the average content duration/price/number of students vary across different subjects?
3. How many courses are free and paid for each subject?
4. What is the average price of web development courses at different level?
5. What are the 20 most popular courses? Also include the following information
 - a. Their level
 - b. Whether they are free or paid
 - c. Whether any are free beginner courses
 - d. The duration the courses
6. Does content duration impact the price of the course?

Findings

Finding 1

Table 1: Total number of subscribers in each subject

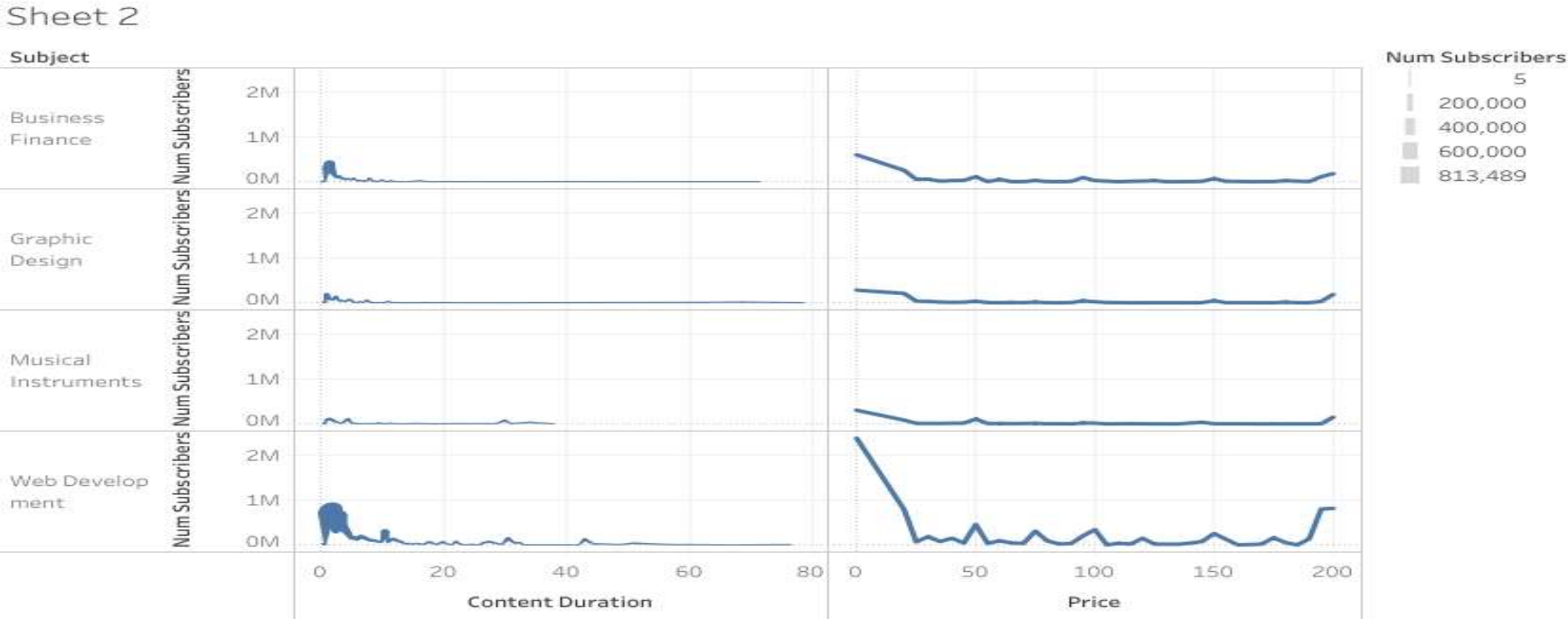
According to the data provided, the total number of subscribers are 11,760,483 and Web development has the highest number of subscribers.

<i>subject</i>	SUM of num_subscribers
Business Finance	1868711
Graphic Design	1063148
Musical Instruments	846689
Web Development	7981935
Grand Total	11760483

Finding 2

Figure 1: Average content duration, price and number of subscribers across the different subjects.

According to the data provided, the Gantt view chart below shows an interaction between the average content duration, price and number of subscribers. There is an indication that web development has higher number of subscribers with little or no payments than other subjects.



Finding 3

Table 2: Number of free and paid courses

According to the data provided, the table below shows the number of free and paid courses in each subjects, with web development having the highest number of both free and paid courses.

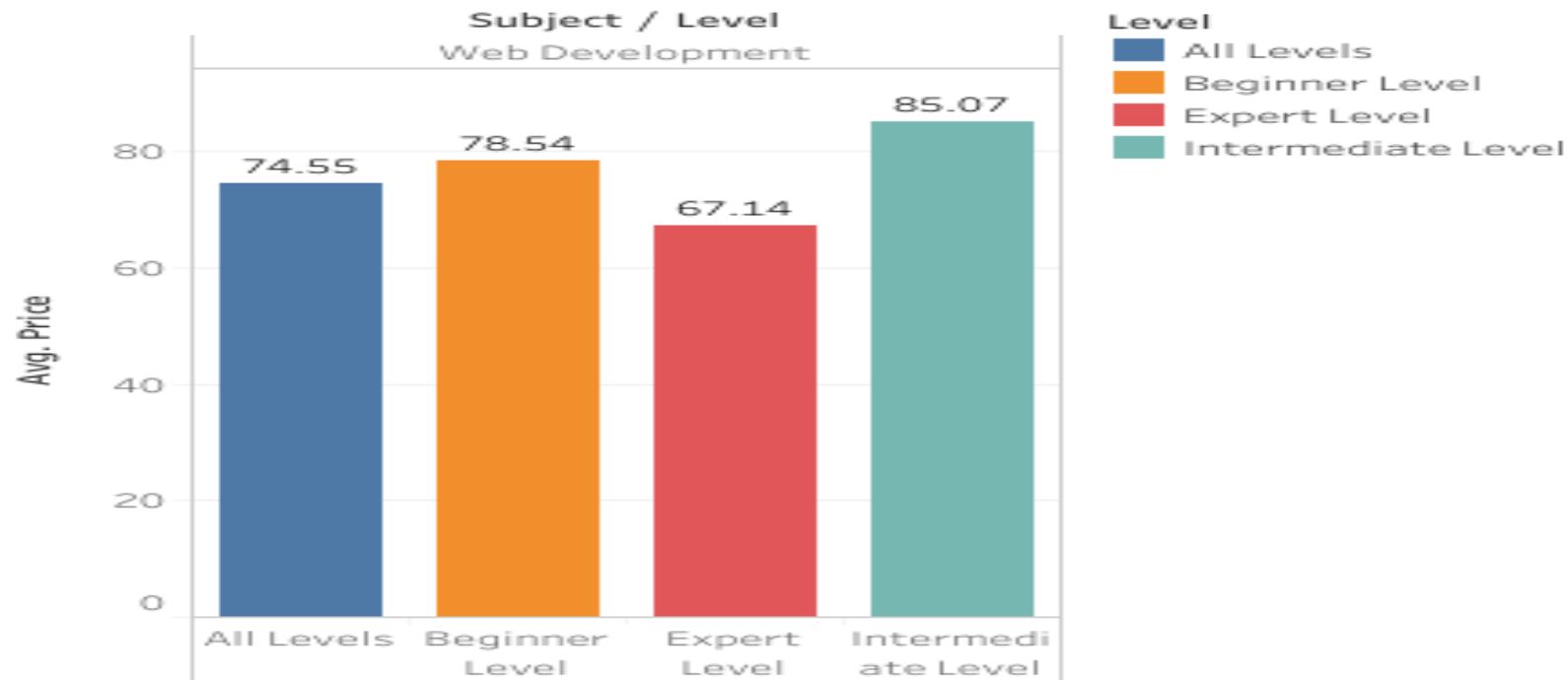
<i>subject</i>	free	paid	Grand Total
Business Finance	96	1059	1155
Graphic Design	35	549	584
Musical Instruments	46	623	669
Web Development	134	1069	1203
Grand Total	311	3300	3611

Finding 4

Figure 2: Average price of web development at different levels.

The vertical bar chart below shows the average price of web development courses at different levels, with the intermediate level having the highest average price and the expert level having the lowest average price.

Sheet 4

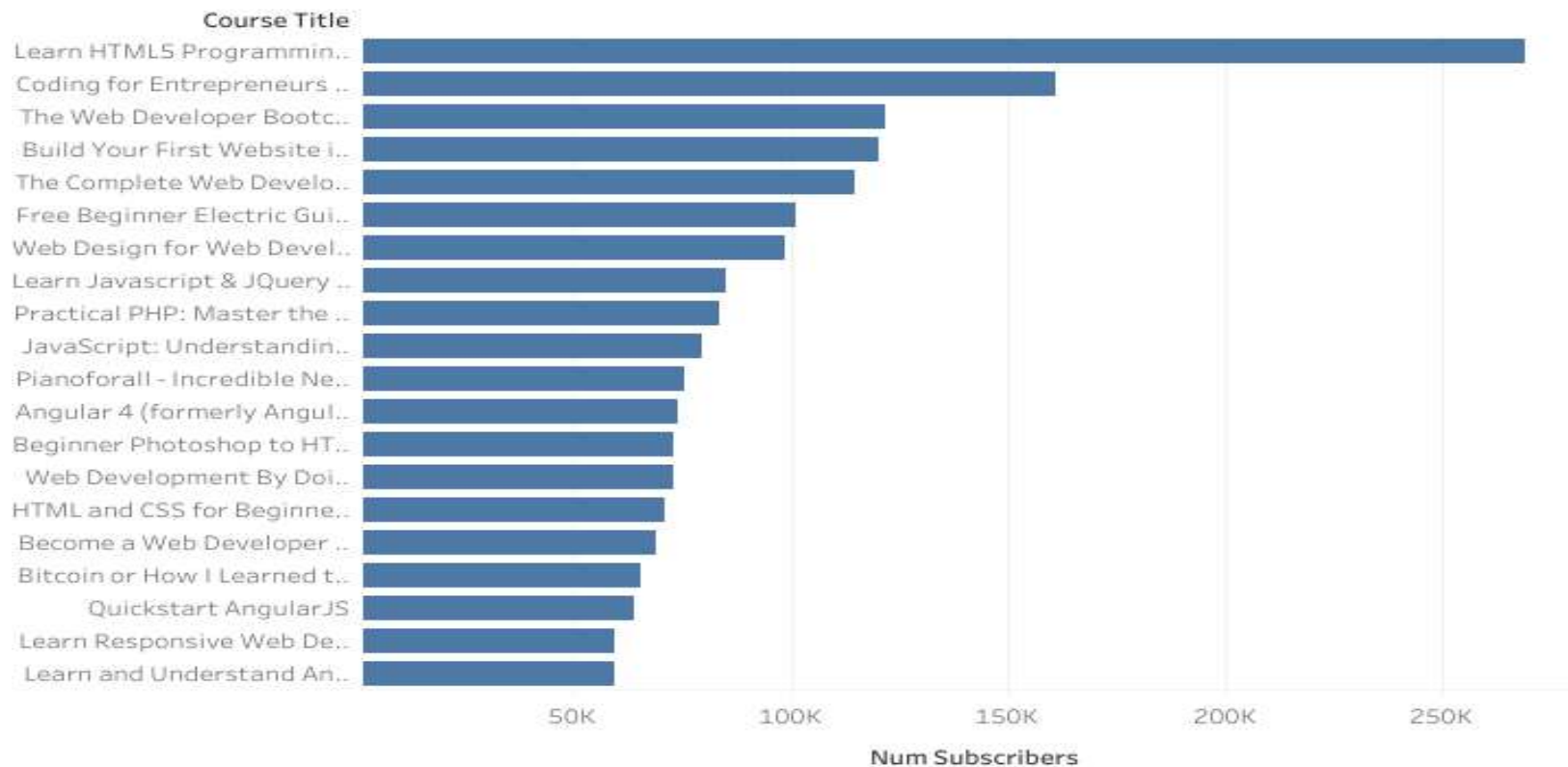


Finding 5

Figure 3: 20 most popular courses

The horizontal bar chart below shows the 20 most popular courses with a course in web development topping the list with over 250,000 subscribers.

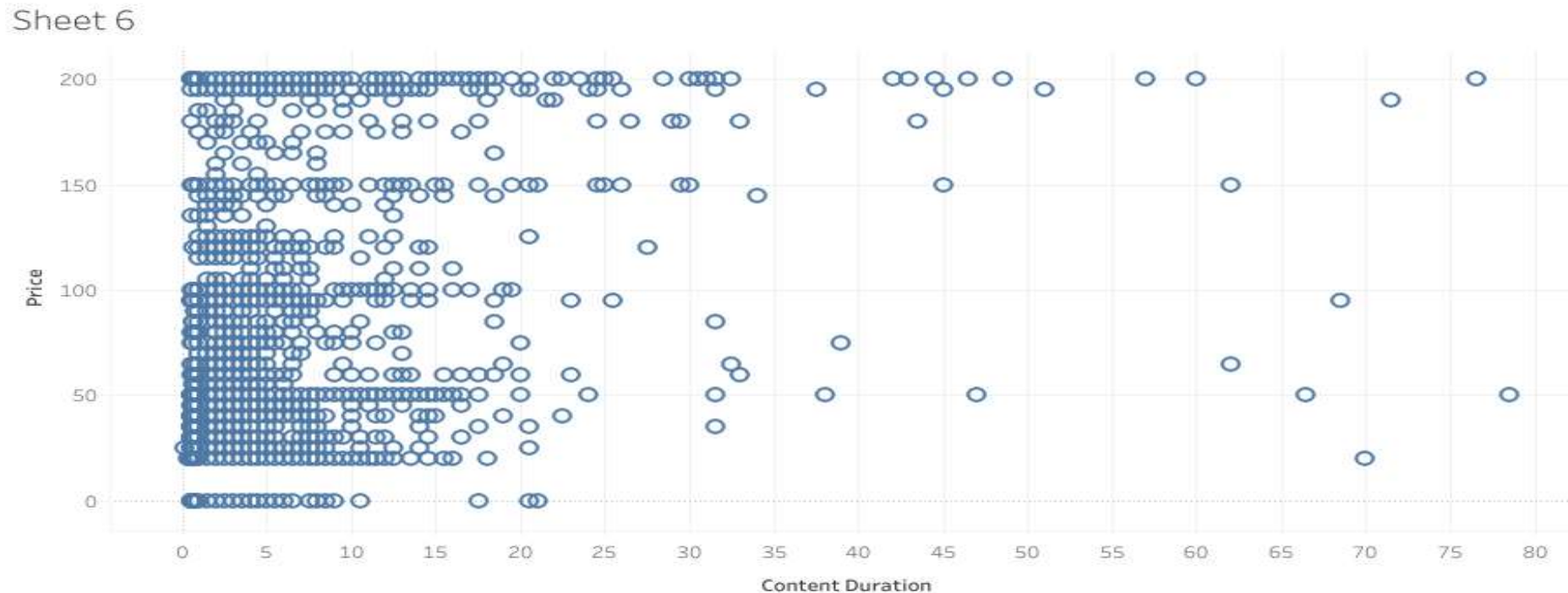
Sheet 5



Finding 6

Figure 4: Impact of content duration on the price of the course

The scatter plot chart below shows the relation between the price and content duration. The visualization explains that subscribers pay for courses with lesser content duration than those with higher content duration.



Summary of Findings

- From the data provided, almost 68% of subscribers com from Web development, as well as the top 5 courses.
- Web development and Business finance seems to have almost the same number of courses but web development has more subscribers and content duration.
- Subscribers pay more for courses with lesser content duration than those with higher content duration.

Recommended Actions

☐ **Product Recommendations:**

Focus on getting more paid course by creators in Graphic Design

☐ **Marketing Recommendations:**

Our data tells us that our web development courses are most popular and most people are willing to pay for it. Marketing and advertising campaigns should therefore focus on promoting their benefits and how they can help people achieve their goals.

Capstone Project Description

- As a Data Analyst working for New York City Department of Education, working on 2012 SAT results from Schools around New York.
- The purpose of this project is to develop a comprehensive analysis of average SAT scores of high school students in New York. This is to identify the top scorers and highly competitive schools in different SAT subjects. I conducted the analysis using available datasets from publicly accessible sources.
- The insights gained from this project can be used to inform future research on SAT scores.

Methodology

- The data was collected, checked for duplicates and blank cells and cleaned using Google sheets. The clean data was analyzed using Google sheet and visualizations were carried out using Tableau.

Key Questions

1. What are the top 10 schools in Critical Reading?
2. What are the top 10 schools in Math?
3. What are the top 10 schools in Writing?
4. What are the top 20 schools with the highest number of test takers?
5. What are the top 20 schools with highest average and their number of test takers?

Findings

Finding 7

Table 3: Top 10 schools in SAT Critical Reading

According to the data we have, the table below shows the average scores of top 10 schools in SAT Critical Reading, which indicates that Stuyvesant High School had the highest average score.

<i>SCHOOL NAME</i>	SUM of SAT CRITICAL READING AVG. SCORE
STUYVESANT HIGH SCHOOL	679
HIGH SCHOOL OF AMERICAN STUDIES AT LEHMAN COLLEGE	636
STATEN ISLAND TECHNICAL HIGH SCHOOL	635
BRONX HIGH SCHOOL OF SCIENCE	632
BARD HIGH SCHOOL EARLY COLLEGE	624
TOWNSEND HARRIS HIGH SCHOOL	621
QUEENS HIGH SCHOOL FOR THE SCIENCES AT YORK COLLEGE	612
HIGH SCHOOL FOR MATHEMATICS, SCIENCE AND ENGINEERING AT CITY COLLEGE	605
BEACON HIGH SCHOOL	577
ELEANOR ROOSEVELT HIGH SCHOOL	572
Grand Total	6193

Finding 8

Table 4: Top 10 schools in SAT Math

According to the data we have, the table below shows the average scores of top 10 schools in SAT Math, which indicates that Stuyvesant High School had the highest average score.

<i>SCHOOL NAME</i>	SUM of SAT MATH AVG. SCORE
STUYVESANT HIGH SCHOOL	735
BRONX HIGH SCHOOL OF SCIENCE	688
STATEN ISLAND TECHNICAL HIGH SCHOOL	682
QUEENS HIGH SCHOOL FOR THE SCIENCES AT YORK COLLEGE	660
HIGH SCHOOL FOR MATHEMATICS, SCIENCE AND ENGINEERING AT CITY COLLEGE	654
TOWNSEND HARRIS HIGH SCHOOL	651
HIGH SCHOOL OF AMERICAN STUDIES AT LEHMAN COLLEGE	648
BARD HIGH SCHOOL EARLY COLLEGE	604
ELEANOR ROOSEVELT HIGH SCHOOL	594
BEACON HIGH SCHOOL	575
Grand Total	6491

Finding 9

Table 5: Top 10 schools in SAT Writing

According to the data we have, the table below shows the average scores of top 10 schools in SAT Writing, which indicates that Stuyvesant High School had the highest average score.

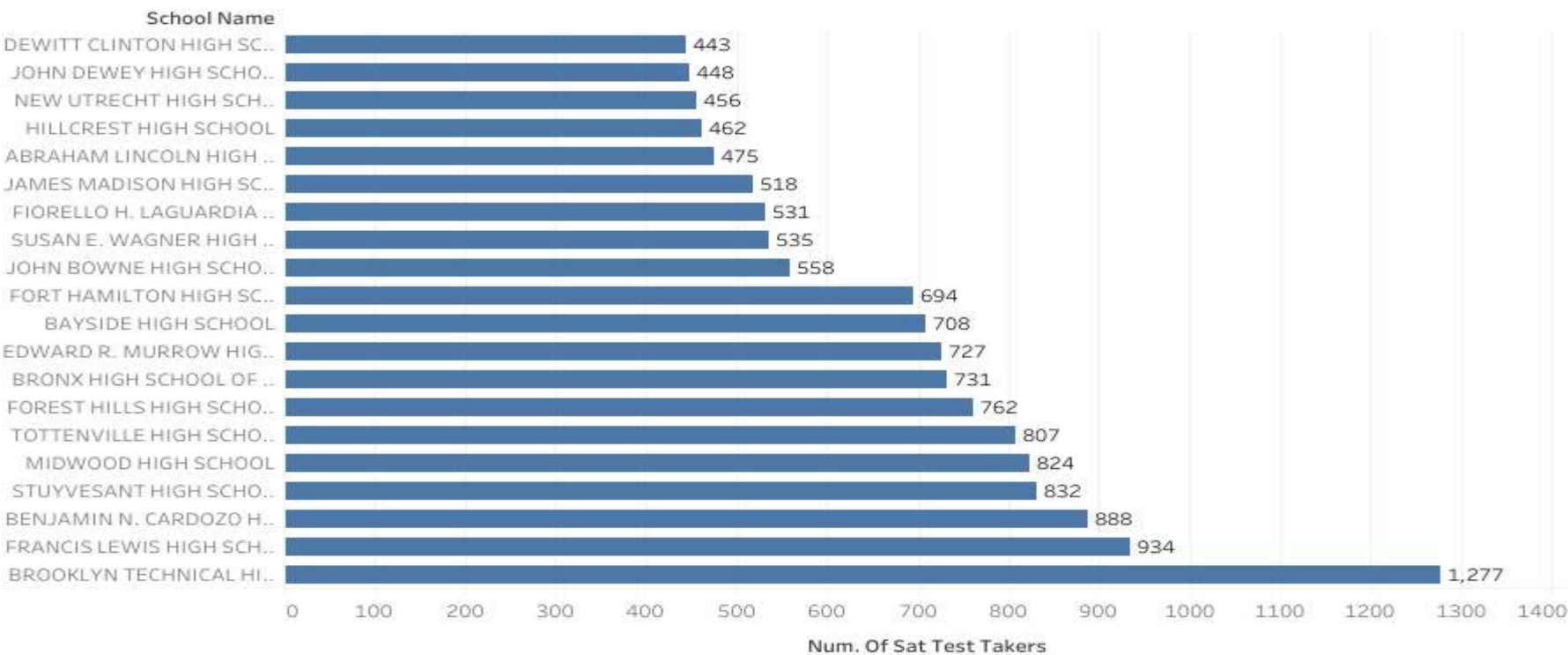
<i>SCHOOL NAME</i>	SUM of SAT WRITING AVG. SCORE
STUYVESANT HIGH SCHOOL	682
BRONX HIGH SCHOOL OF SCIENCE	649
TOWNSEND HARRIS HIGH SCHOOL	638
STATEN ISLAND TECHNICAL HIGH SCHOOL	636
HIGH SCHOOL OF AMERICAN STUDIES AT LEHMAN COLLEGE	636
BARD HIGH SCHOOL EARLY COLLEGE	628
QUEENS HIGH SCHOOL FOR THE SCIENCES AT YORK COLLEGE	596
ELEANOR ROOSEVELT HIGH SCHOOL	592
BEACON HIGH SCHOOL	592
HIGH SCHOOL FOR MATHEMATICS, SCIENCE AND ENGINEERING AT CITY COLLEGE	588
Grand Total	6237

Finding 10

Figure 5: Top 20 schools with highest number of test takers

The horizontal bar chart below shows the top 20 schools with the highest number of test takers, which indicates that Brooklyn Technical High School has the highest number of test takers.

Sheet 4

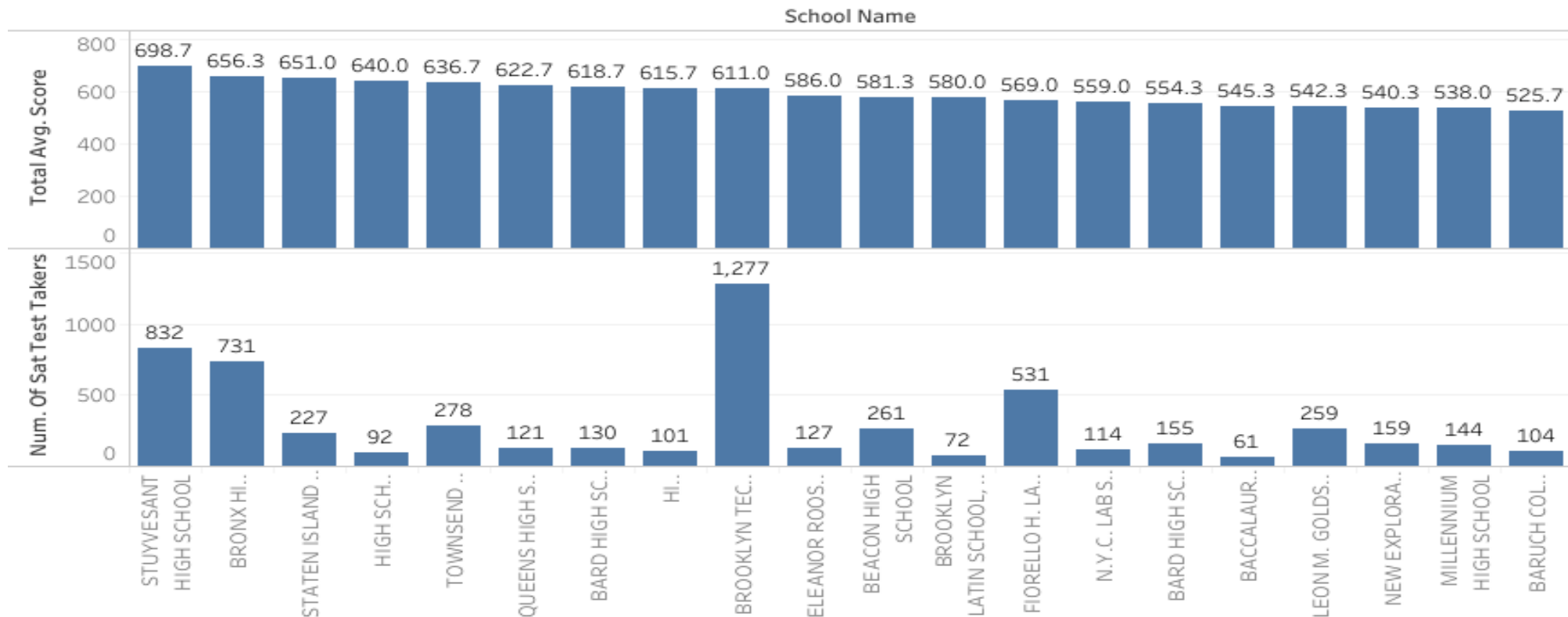


Finding 11

Figure 6: Top 20 schools with highest average and their number of test takers

The vertical bar chart below shows the top 20 schools with the highest average scores and their number of test takers.

Sheet 5



Summary of Findings

- The average scores of the schools are not dependent on their number of candidates.
- Some schools with lesser number of test takers still seem to be in competition with other schools having higher test takers this means that the number of candidates are not determinants of their scores.

Recommended Actions

- ❑ Focus on the quality of education being taught in schools with lower average scores to improve their performances.

Appendix

- Google sheets Data Set for Udemy Project

https://docs.google.com/spreadsheets/d/1IXZWVXzf9X2R8gPASQUUHcmUYVltdEicA_WMsz_kDJk/edit?usp=sharing

- Tableau Data Visualization for Udemy Project

https://public.tableau.com/views/UdemyDataAnalystAssessment/Dashboard1?:language=en-US&:display_count=n&:origin=viz_share_link

- Google sheets Data Set for 2012 SAT Results Capstone Project

<https://docs.google.com/spreadsheets/d/1Y7ul4rK6XdUrsVFv-z8l6mail7l9-4r6P2NgctE06vl/edit?usp=sharing>

- Tableau Data Visualization for 2012 SAT Results Capstone Project

https://public.tableau.com/views/DataAnalysisfor2012SATscores_/Dashboard1?:language=en-US&:display_count=n&:origin=viz_share_link

https://public.tableau.com/views/DataAnalysisfor2012SATscores_/Dashboard2?:language=en-US&:display_count=n&:origin=viz_share_link