

Udemy Courses Story Telling

Will Increasing the Prices Of Web Development
Courses Generate More Revenue?

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Background

- The CEO of Udemy wants to have more revenue and she's suggesting increasing the charges on Web Development Courses.
- The aim of this project is to determine whether or not increasing the charges on Web Development Courses will result in more revenue.

Executive Summary

This report entails findings from analyzing the historical data of Udemy courses with Four Subject Categories for a six-year period in a bid to determine if increasing the prices of Web Development Courses which happens to be the most trending subject will have lead to a growth or decline in Revenue.

The report was analyzed by comparing the effect of the number of subscribers, ratings, number of reviews, free/paid course ratio and course duration on the total revenue

The findings were against the run of play as we discovered that Web Development Courses with high number of subscribers, low free/paid courses ratio, high rating and high number of subscribers has significantly impacted the revenue positively and hence it would be a good idea to strategically increase the charges on some Web Development Courses.

Design

- The dataset considered for my analytics spans from September 2011 to July 2017.
- The dataset was cleaned:
 - By removing duplicate entries
 - By deleting irrelevant and empty fields.

Design

Visualization tools used for the analysis are:

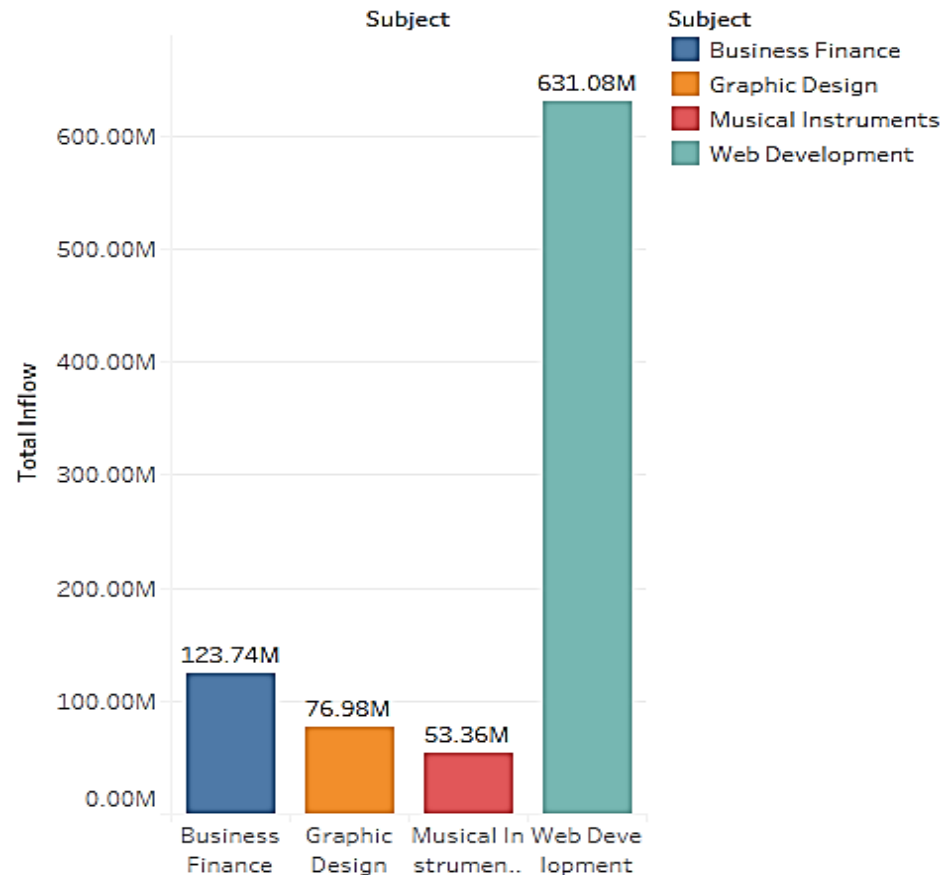
- Google spreadsheet
- Microsoft Excel
- Tableau

The visualizations used in this analysis include:

- Column plot to show more than one attribute on a single column.
- Bar plot used to denote individual features on a standalone bar.
- Line chart to display trends.
- Pie chart to express the relationship between more than one features in the same category while expressing each feature as a percentage of the whole.

6-year Revenue Analysis

Total Inflow

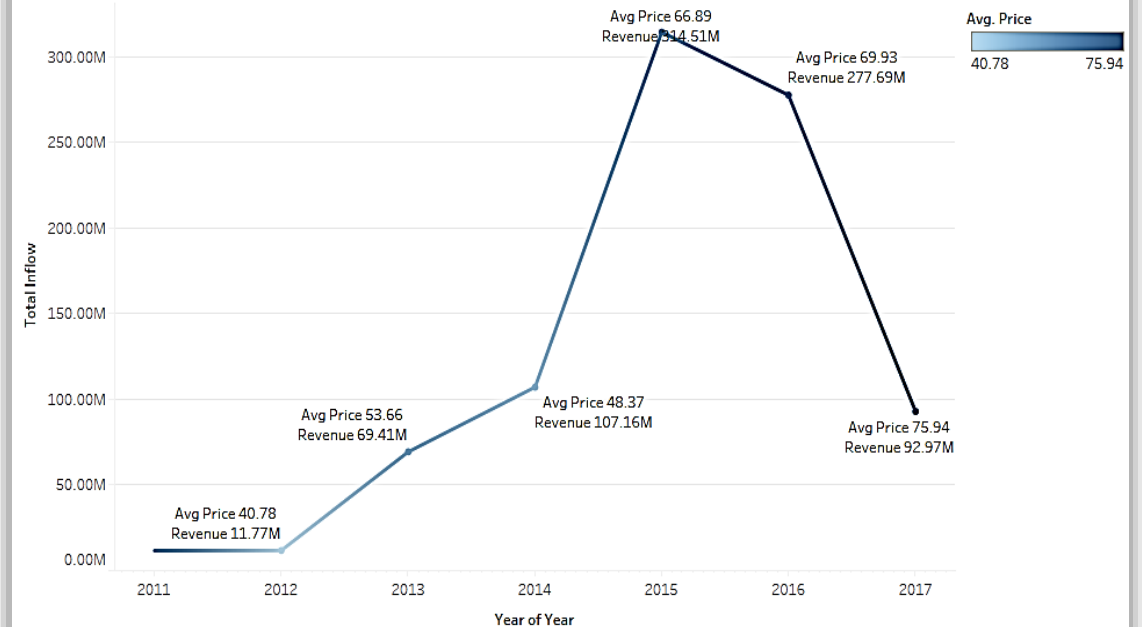


Web Development has been the major source of income for Udemy.

It has generated:

- AT LEAST **SIX TIMES** MORE REVENUE THAN business finance and the other courses
- 2.5 TIMES MORE REVENUE than the Total Inflow from all the other courses.
- The **Most Prosperous Year** was 2015 where Total Revenue from all the courses equals **314.5M**, about half of the Total Revenue in 6 years.

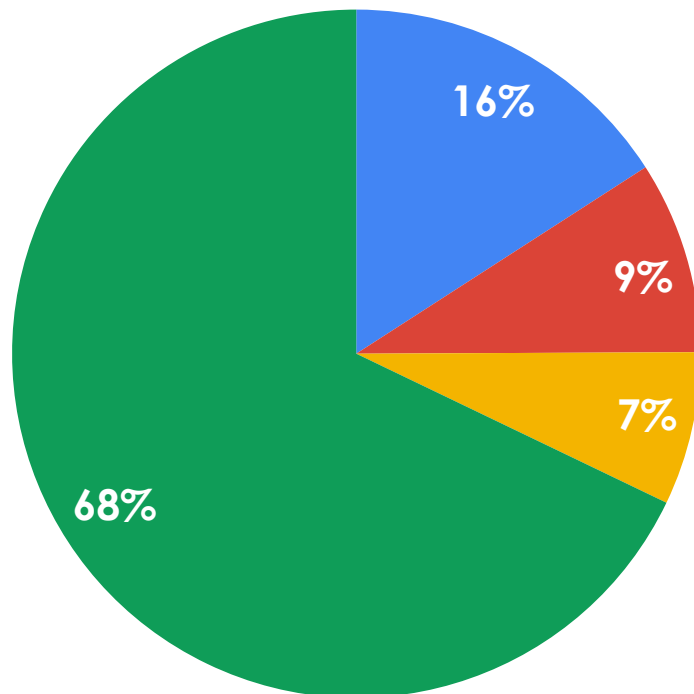
Total Inflow Per Year



Why Web Development?

Number Of Subscribers

■ Business Finance ■ Graphic Design ■ Musical Instruments ■ Web Development



Web Development has been the major source of income because:

- It has overwhelming the largest number of subscribers which is **68%** of the total number of subscribers on the platform.
- Interestingly, Business Finance has the highest number of courses with Web Development coming second.

What is gearing people to subscribe to Web Development Courses?

Subject	COUNT of courses
Business Finance	1191
Graphic Design	602
Musical Instruments	680
Web Development	1203
Grand Total	3676

Subject	AVERAGE of number of subscribers
Business Finance	1569
Graphic Design	1766
Musical Instruments	1245
Web Development	6635

How Did Web Development Evolve Across The Years?

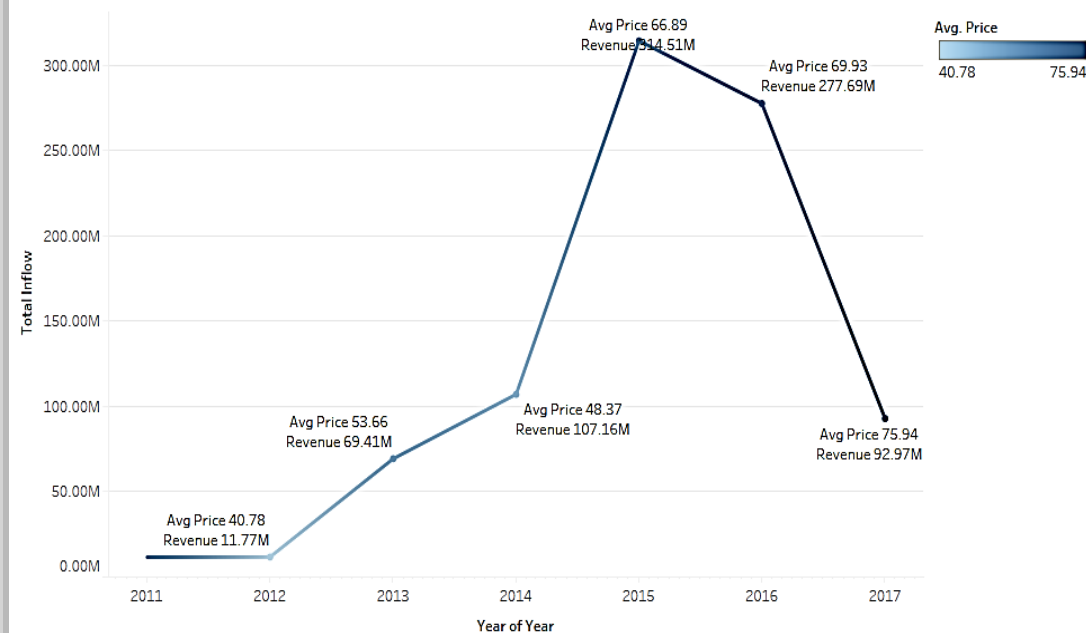
2015 was Web Development's best year in terms of **revenue generation**, garnering a whopping **240M**.

In 2015, Web Developments generated **76%** of the **Total Revenue**.

Why?

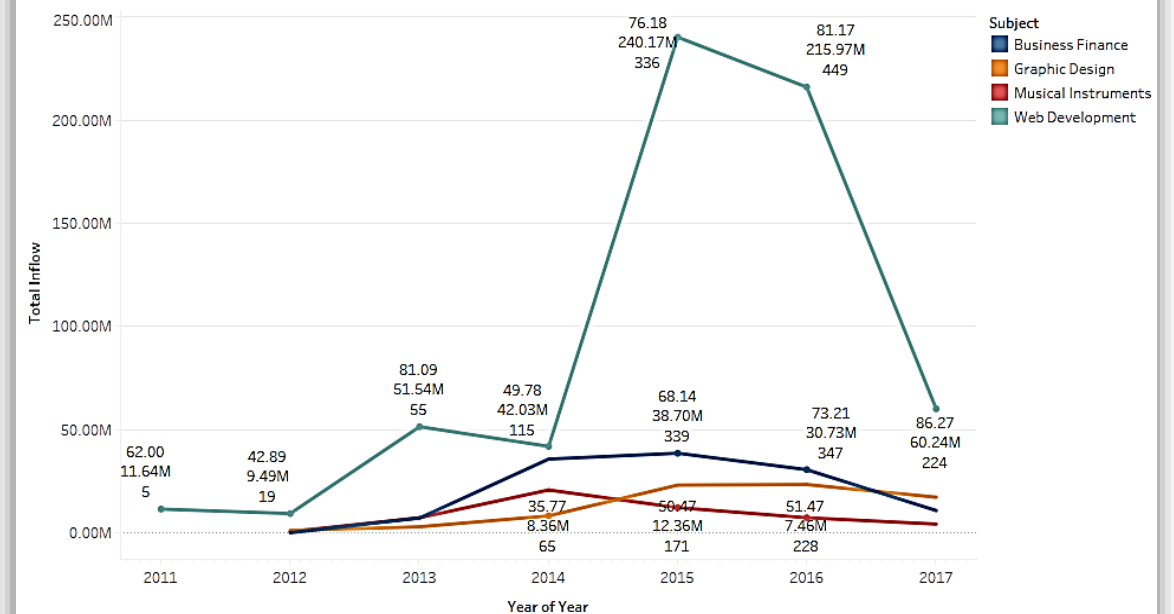
- Web Development recorded a **292%** increase in **the number of courses** under the Web Development Category compared to 2014.
- Web Development saw a huge **marginal growth** of **52%** in the average amount charged per course compared to 2014.

Total Inflow Per Year



The trend of sum of Total Inflow for Year Year. Color shows average of Price. The marks are labeled by average of Price and sum of Total Inflow.

Yearly Inflow Per Subject



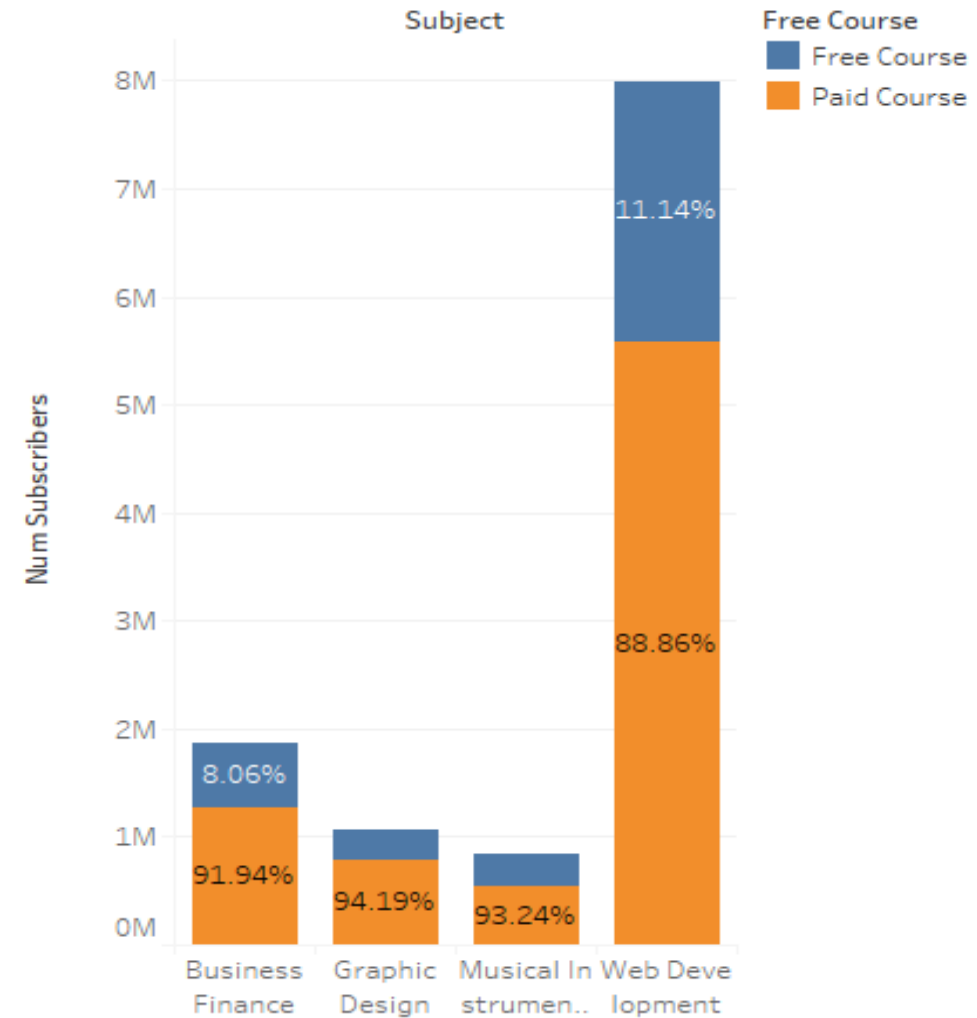
The trend of sum of Total Inflow for Year Year. Color shows details about Subject. The marks are labeled by average of Price, sum of Total Inflow and count of Subject.

Did The Amount Of Free Courses Affect Revenue?

On the surface, this look pretty irrelevant because **Web Development** has the **highest free courses to paid courses ratio across the six years** yet it has recorded the highest revenue.

Does free courses invite the interest of students to opt for paid courses?
If yes, the big question is why?

Free Courses Ratio Per Subject



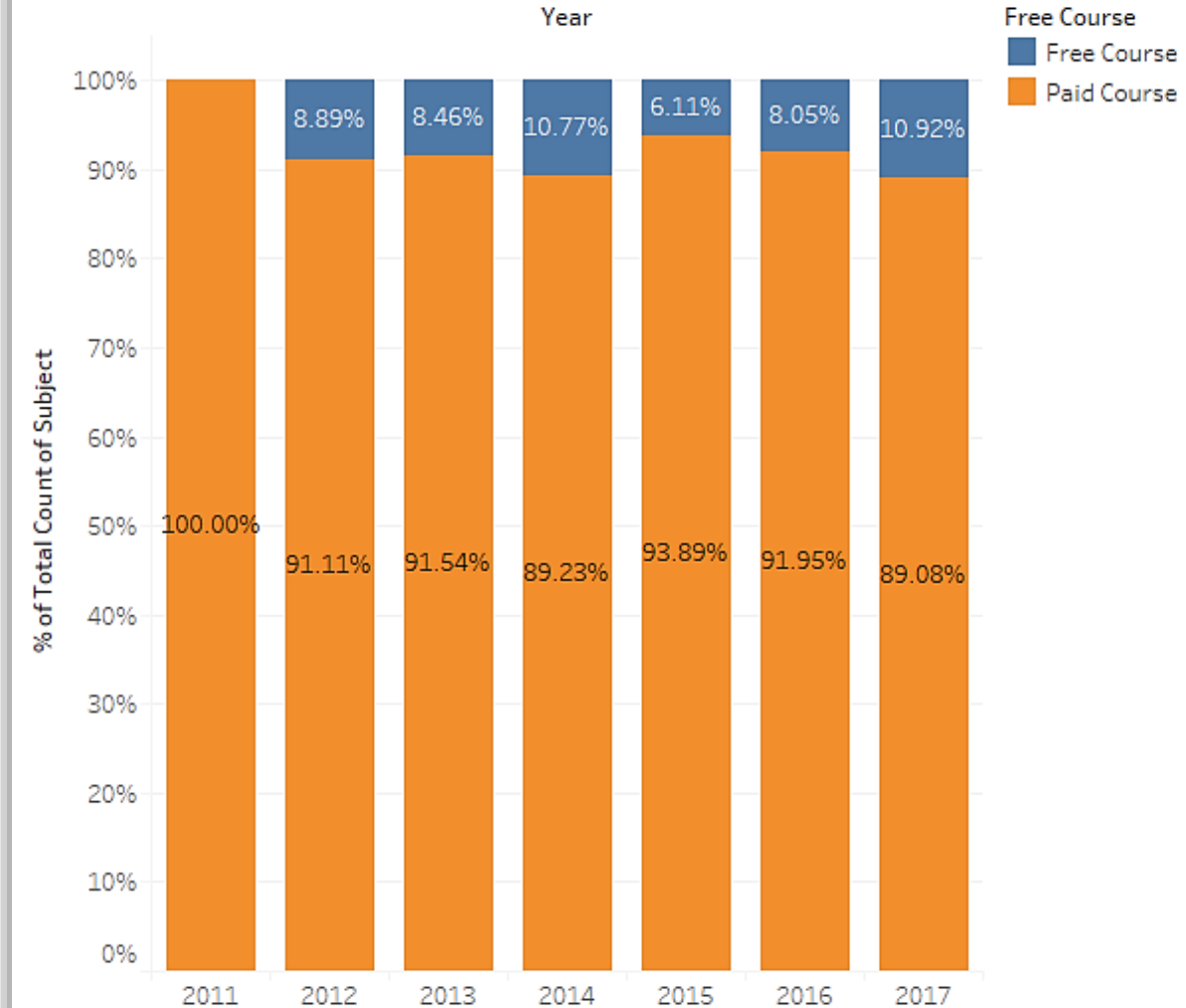
Sum of Num Subscribers for each Subject. Color shows details about Free Course. The marks are labeled by % of Total Count of Free Course.

Did The Amount Of Free Courses Affect Revenue?

- 2015 and 2016 both had 6.11% and 8.05% of free courses respectively yet both years are the two years with the highest revenues with respect to all the FOUR SUBJECTS.

Is this a coincidence?

Free Courses Ratio



% of Total Count of Subject for each Year Year. Color shows details about Free Course. The marks are labeled by % of Total Count of Free Course.

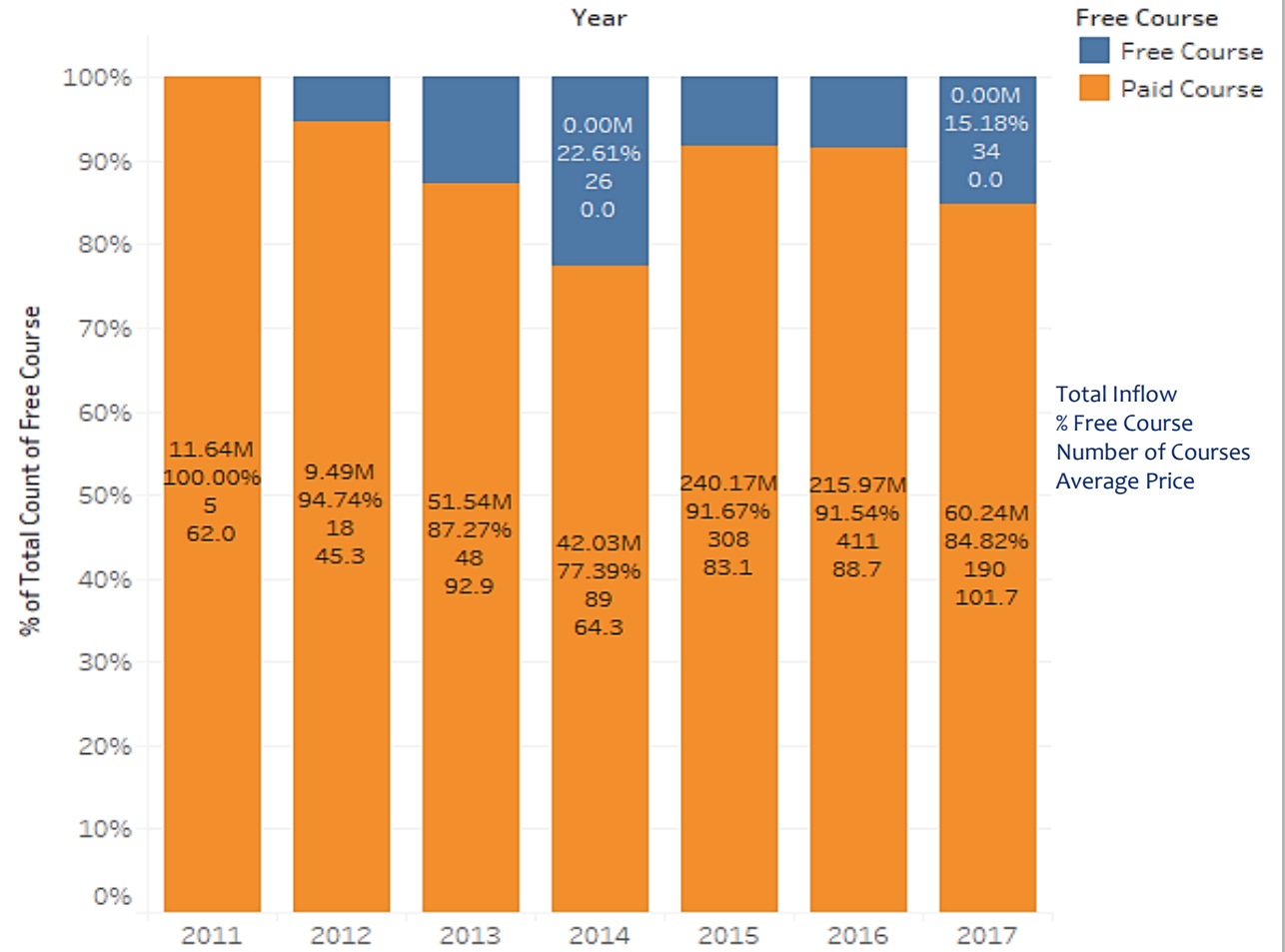
Did The Amount Of Free Courses Affect Revenue?

Zeroing in on Web Development it is observed that:

- Every time there's an **increase** in the percentage of **free courses**, there's a **decrease** in **revenue** EVEN IF THE INCREASE IS INSIGNIFICANT.
- 2012 to 2013 was an exception to the above observation because there was about a **100%** increase in the **average price** of the courses.

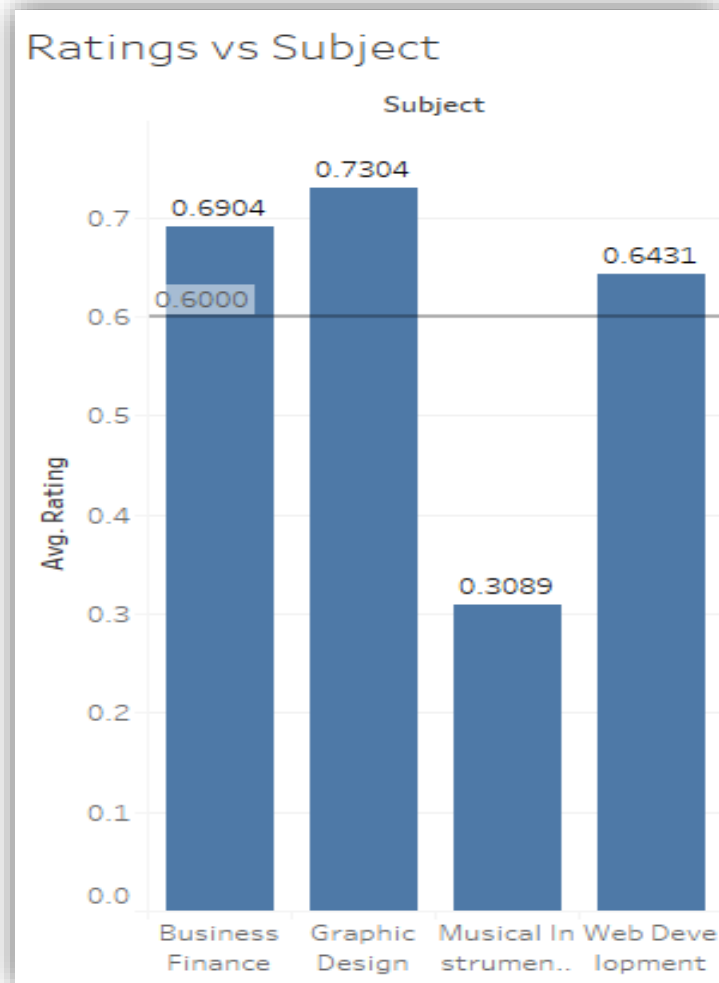
Free courses does not **positively** impact the revenue, it is best to have a **low free course to paid course ratio**.

Web Development Free-Paid Course Ratio



% of Total Count of Free Course for each Year Year. Color shows details about Free Course. The marks are labeled by sum of Total Inflow, % of Total Count of Free Course, count of Course Title and average of Price. The data is filtered on Subject, which keeps Web Development.

The Role Of Ratings In Course Revenue



- While a **high average rating** is good and necessary to influence student to subscribe for a particular course, it's impact is **negligible** with respect to Business Finance and Graphics design.

Don't conclude yet...

- The **Top20** courses reveals that **high ratings** has a pivotal role to play in the **number of subscribers** for **Web Development**.

Hence good ratings is an underlying factor that drives the interest of students and it has an **DIRECT POSITIVE CORRELATION WITH INCREASE IN REVENUE**.

AVERAGE of rating of Top 20			
subject	Free Course	Paid Course	Grand Total
Business Finance	0.56		0.56
Musical Instruments	0.88	0.96	0.92
Web Development	0.737	0.76	0.75

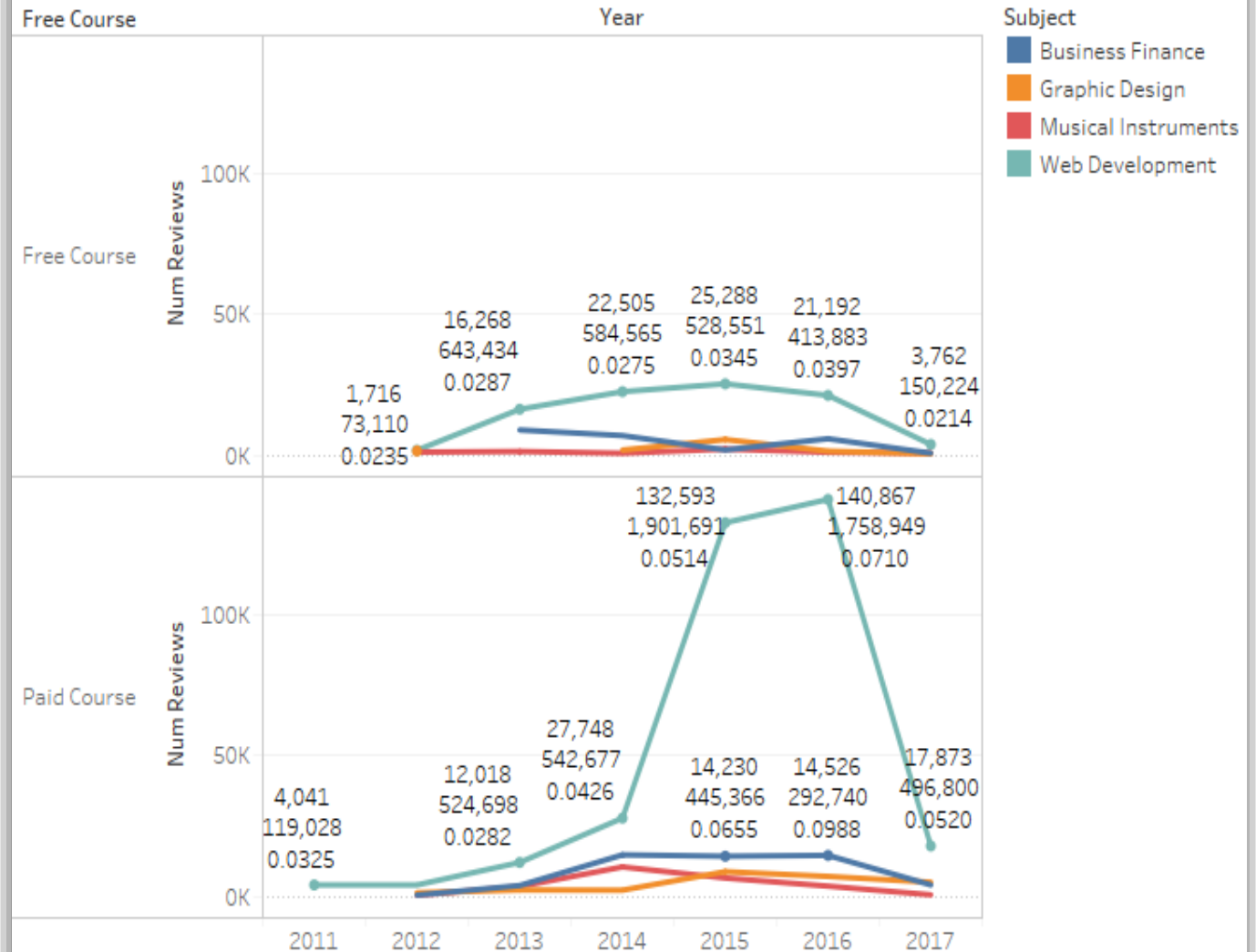
Does Number Of Reviews Impact The Revenue?

It's a slopy lane because:

- Web Development recorded the highest number of reviews in 2016 and 2015 which are it's most prosperous years.
- Web Development had the lowest average review/subscriber ratio across all the years.
- The free courses had a low average review/subscriber ratio while the free courses in the Web Development domain.

It's safe to say, the number of reviews has huge contribution to the course and it's revenue while the ratio of reviews to subscribers has little or no impact on revenue.

Review/Subscriber Ratio



The trend of sum of Num Reviews for Year Year broken down by Free Course. Color shows details about Subject. The marks are labeled by sum of Num Reviews, sum of Num Subscribers and average of Review/Subscriber Ratio.

Investigating Content Duration

- Web Development has the content duration of paid courses at least 2.2 times longer than free courses.

Does this have any impact on revenue?

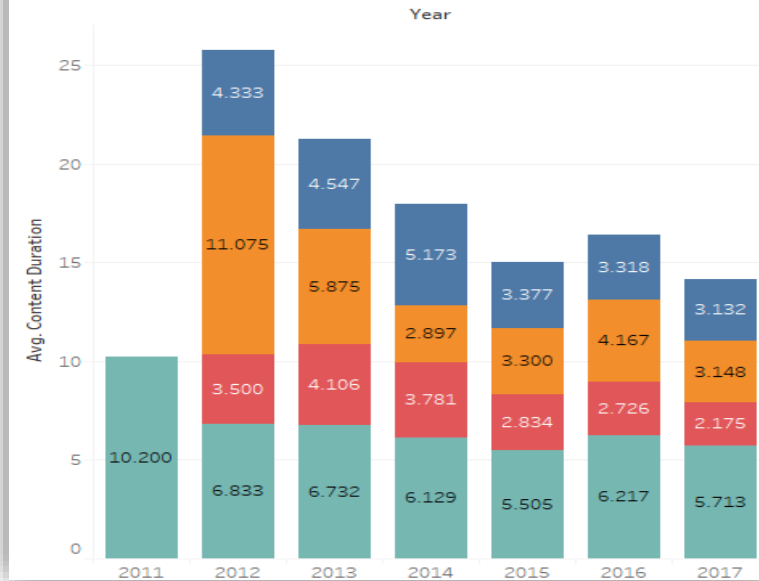
- Yes, the free courses gives the student the impression that there's more to learn and if the paid course is affordable, the student would want to opt in. In simple terms, No one wants to be a mediocre.

Content Duration For Expert Level

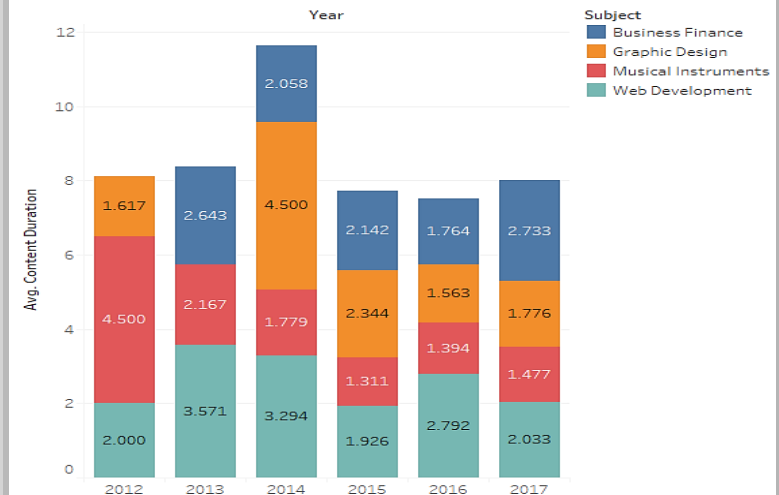
Subject	Year				
	2013	2014	2015	2016	2017
Web Development	4.000	1.000	4.000	3.925	2.500

Paid courses for the Expert Level has a direct proportionality with the Revenue Inflow for Web Development.

Content Duration For Paid Courses



Content Duration For Free Courses



Average of Content Duration for each Year Year. Color shows details about Subject. The marks are labeled by average of Content Duration. The data is filtered on Free Course, which keeps Free Course.

Conclusion

The CEO's premonition that increase in charges on Web Development Courses is the pathway to increasing revenue is VALID as historical trends has shown that Web Development Courses with high number of subscribers, low free/paid courses ratio, high rating and high number of subscribers has significantly impacted the revenue positively in the previous years.

Recommendations

Based on the trends observed in the dataset, I hereby recommend that the following modalities should guide how charges would be increased on Web Development Courses:

- Increase courses with high reviews in previous years.
- Increase Web Dev courses of at least 0.6 rating.
- Consider increasing prices of Web Dev courses with at least 5.0 hours of content.
- Increase courses with high number of subscribers – courses with at least 6000 subscribers.
- Paid courses with high subscribers should do commercials on how paid courses focusing on their target audience.
 - Get paid courses to have more subscribers across board and use the criteria above to determine which to increase its price.
 - Train facilitators to resell their courses by:
 - Creating more courses with more levels
 - Creating courses with one leg in the free domain like a taster session and one leg in the paid domain.
 - Request for reviews even before the end of course.
- Free courses with more than 0.6 rating and high subscribers should be moved to the Paid courses domain.

**THANK
YOU**