

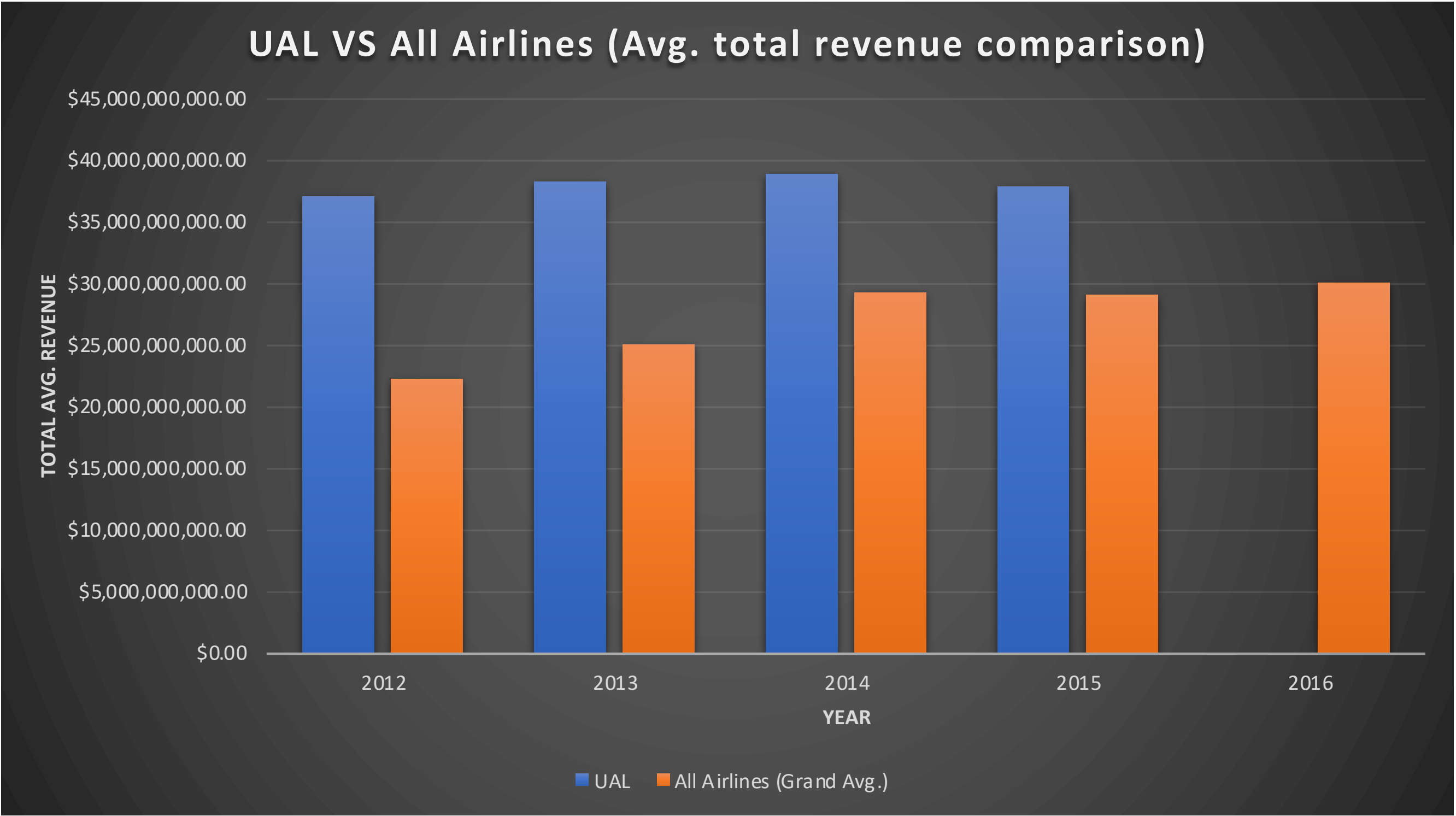
# **UDACITY - BAND**

**Analysing NYSE data**

**Abhishek Shirsat; Jan 17, 2021**

# How does UAL compare against all airlines combined?

- The Avg. Total revenue of UAL is greater than the Avg. Total revenue across all airlines for years (2012 - 2015) *(Note: No data available for 2016)*
- The Avg. total revenue for UAL from 2012-2015 was \$38,049,000,000, significantly higher than Avg. total revenue across all airlines, which was \$27,162,000,000.00

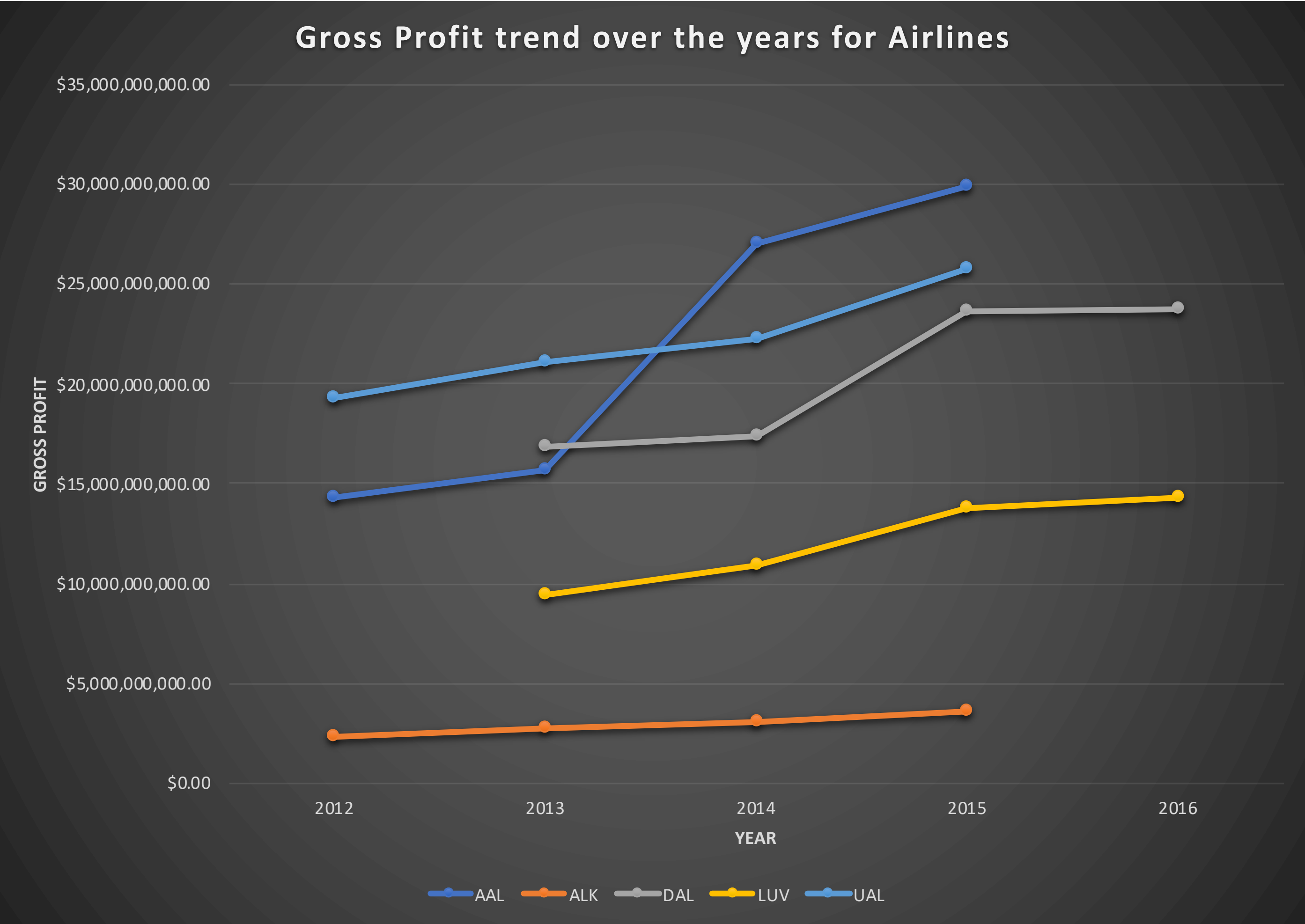


Summary Statistics

	UAL	All Airlines
Mean	\$38,049,000,000.00	\$27,162,000,000
Median	\$38,071,500,000.00	\$37,152,000,000
Std Dev.	734311014.9	14,013,142,722
Range	\$1,749,000,000.00	\$37,993,000,000

# Comparing Airlines - UAL, AAL, ALK, DAL, LUV

## How did the Airlines compare in terms of Gross profit over the period 2012 - 2016?



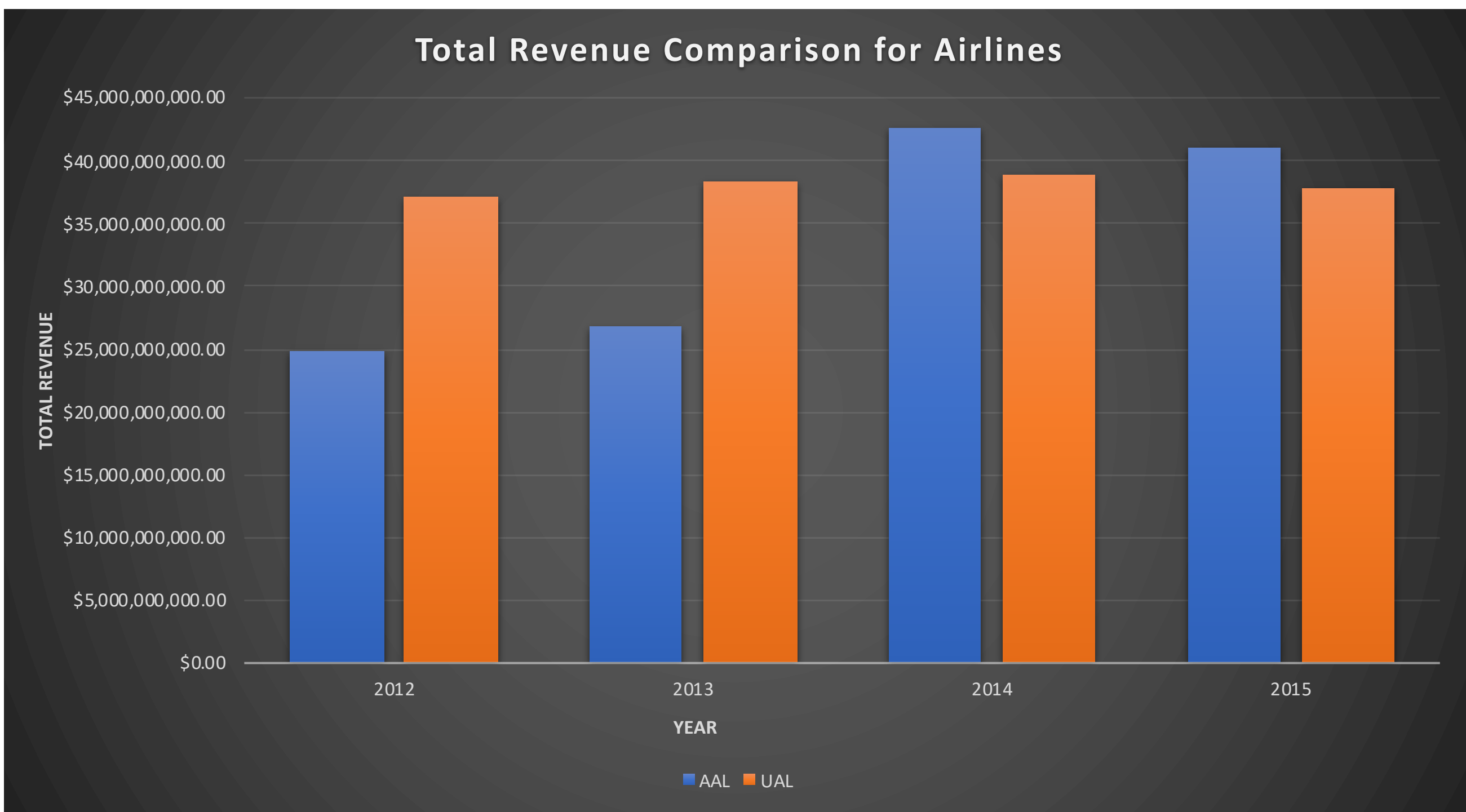
- From the line-chart and std. deviation, we observe that ALK has had lower profits for all years, with a lower growth rate.
- AAL showed a significant rise in profits since 2013 and had the highest gross profit since 2014 as compared to other 4 airlines. This can be observed from the line-chart and higher std. deviation
- DAL did not show a growth in profit in 2015-2016 period. Their profits grew in 2014 suggesting some major changes in their operations that year.
- UAL profits grew consistently since 2012 and were the leaders at the start but lagged behind AAL after 2013

### Summary Statistics

	AAL	ALK	DAL	LUV	UAL
MEAN	\$21,751,000,000.00	\$2,961,250,000.00	\$20,377,750,000.00	\$12,102,000,000.00	\$22,110,750,000.00
MEDIAN	\$21,377,000,000.00	\$2,922,000,000.00	\$20,501,500,000.00	\$12,361,500,000.00	\$21,688,500,000.00
STD DEVIATION	\$7,856,781,444.50	\$551,741,711.91	\$3,790,250,244.60	\$2,337,313,700.24	\$2,703,675,692.46
RANGE	\$15,538,000,000.00	\$1,325,000,000.00	\$6,890,000,000.00	\$4,901,000,000.00	\$6,402,000,000.00

# Comparing Airlines - UAL and AAL

How did UAL and AAL compare against each other?



## Total revenue comparison

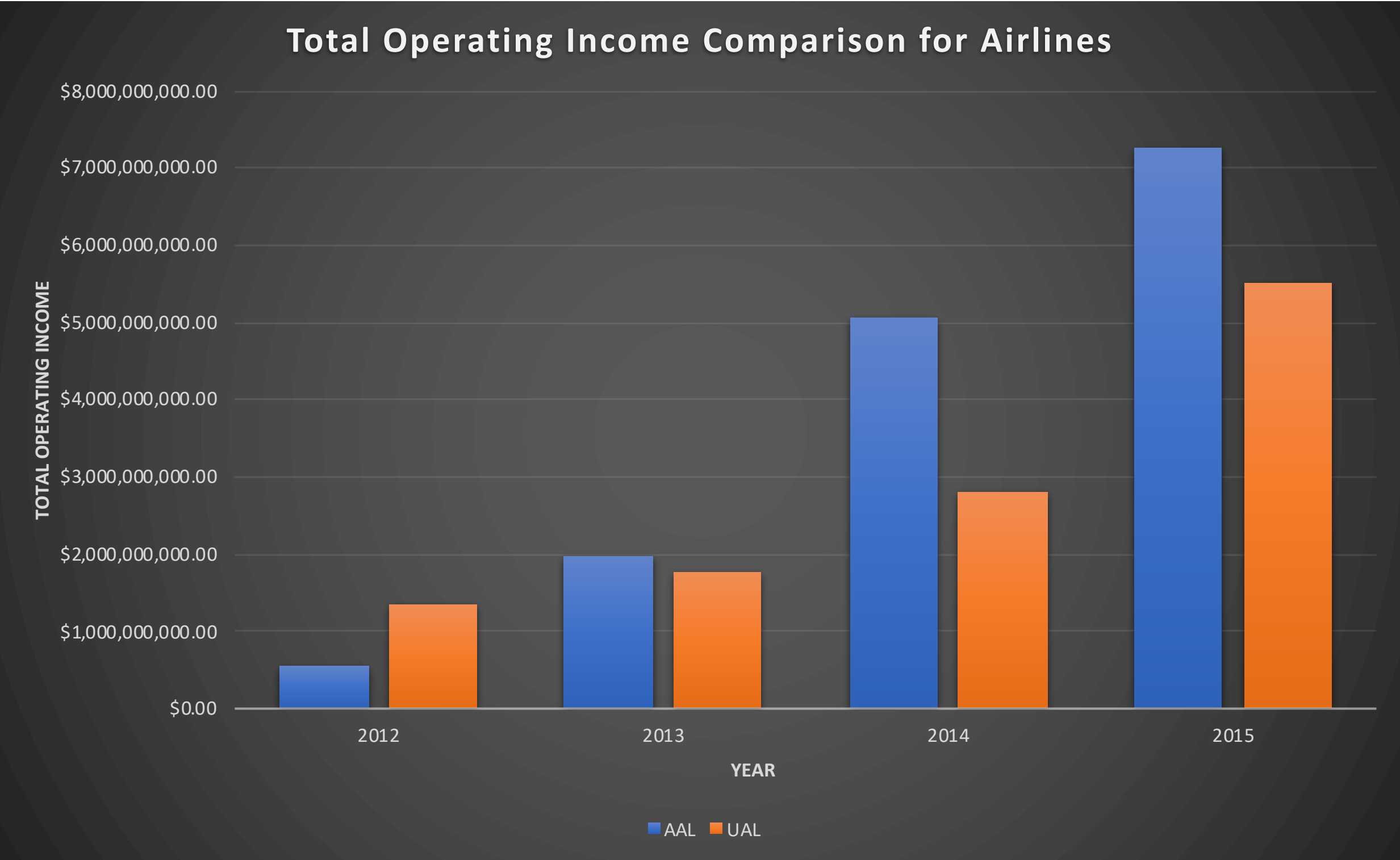
- From the bar-chart, we observe that the total revenue for United Airlines (UAL) has been somewhat consistent over the years 2012 - 2015, ranging between \$3500 Million - \$4000 Million
- American Airlines (AAL) has shown a noticeable growth in total revenue since 2013

### Summary Statistics

	AAL	UAL
MEAN	\$33,809,500,000.00	\$38,049,000,000.00
MEDIAN	\$33,866,500,000.00	\$38,071,500,000.00
STD DEVIATION	9306494381	734311014.9
RANGE	\$17,795,000,000.00	\$1,749,000,000.00

# Comparing Airlines - UAL and AAL

## How do UAL and AAL compare against each other?



### Total Operating income comparison

- From the bar-chart, we observe that the total the total operating income for UAL and AAL was close in 2013, but AAL showed a significant growth in 2014
- American Airlines (AAL) has consistently had a greater total operating income than UAL after 2012 which suggests some major changes in their business operations

### Summary Statistics

	AAL	UAL
MEAN	\$3,699,000,000.00	\$2,859,750,000.00
MEDIAN	\$3,503,500,000.00	\$2,292,500,000.00
STD DEVIATION	3028527805	1858641507
RANGE	\$6,721,000,000.00	\$4,130,000,000.00