What?

Caesar's Staffing Problem



Why?

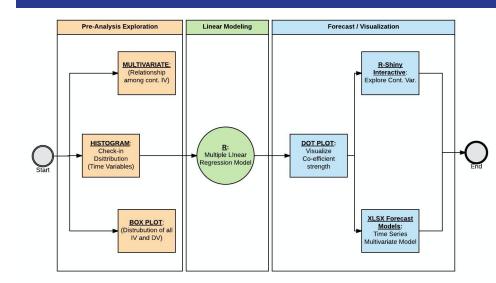
P/L = (\$1.5 Billion)Staffing Exp. = (\\$2 Billion)

	2012	2011	2010
Revenues	8/100000		
Casino	\$6,247	\$6,395	\$6,672
Food and beverage	1510	1,508	1,482
Rooms	1206	1,193	1,118
Other	877	710	607
Less: casino promo allowance	(1,253)	(1,233)	(1,326)
Net Revenues	8,587	8,573	8,553
Operating expenses			
Casino	3,556	3,618	3,818
Food and beverage	660	659	614
Rooms	298	286	259
Property, general, admin	2,104	2,087	2,030
Depreciation and amortization	716	678	699
Intangible/tangible asset impairment charges	1,068	33	184
Other	498	396	466
Total operating expenses	8,900	7,757	8,070
Loss(income) from operations	(313)	816	483
Gains on early extinguishment of debt	136	48	116
(Loss)income from continuing operations, net of income taxes	(1,383)	(698)	(849)
(Loss)income from discontinued operations, net of income taxes	(110)	31	26
Net loss	(1,492)	(667)	(823)
Net (loss)/income per common share of stock	(\$11.95)	(\$5.50)	(\$8.37)
Total assets	27,998	28,516	28,588
Long-term debt	20,532	19,760	18,786
Stockholders' (deficit)/equity	(412)	1,007	1,673

Source: Caesars 2012 10-K, p. 34.

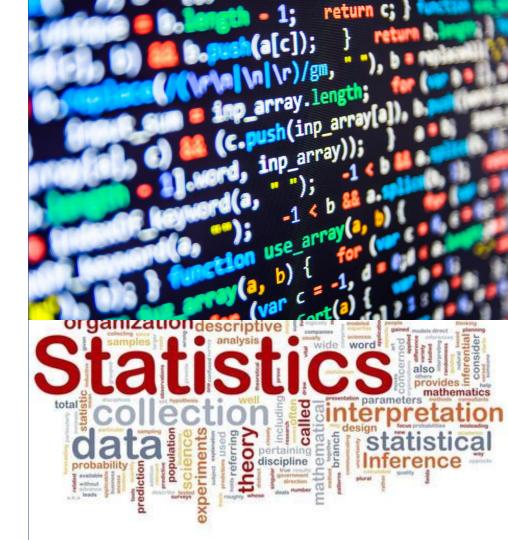
How?

Forecast guest checkins 1.Time-Series Forecast 2.Causal Forecast

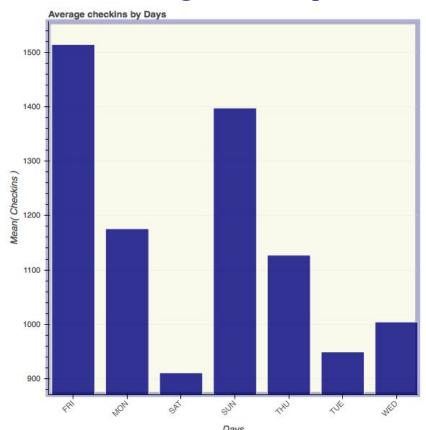


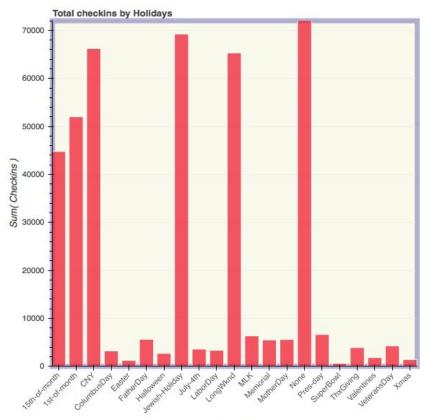
Disclaimer

Programming vs. Statistics



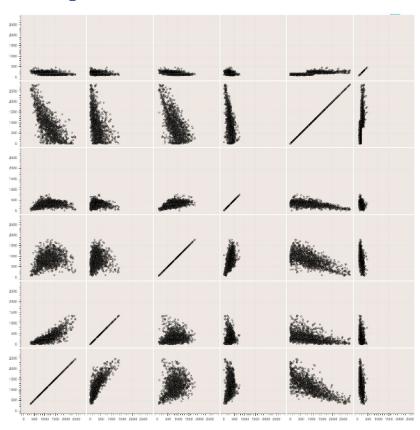
Pre-Analysis Exploration: Histograms



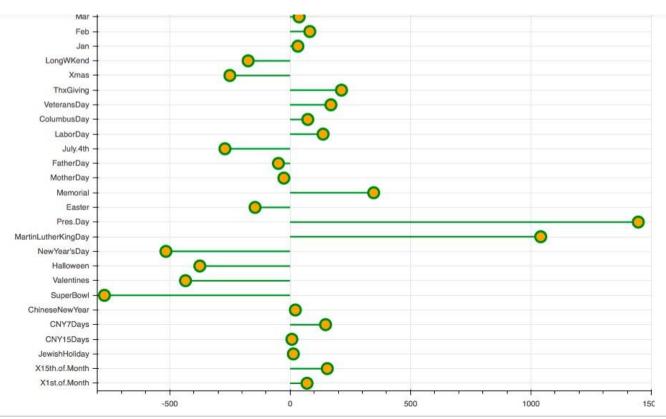


Holidays

Pre-Analysis Exploration: Multivariate

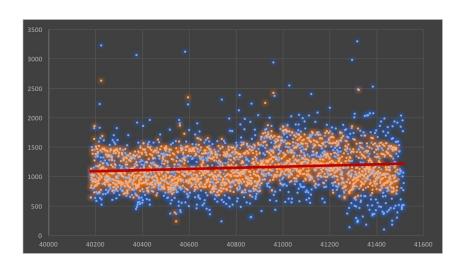


Linear Model: Results

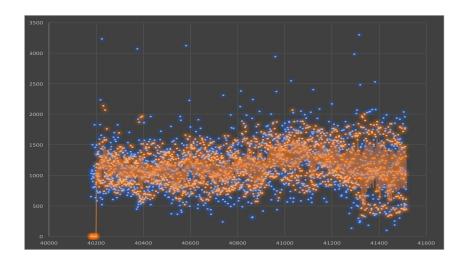


Forecast Models

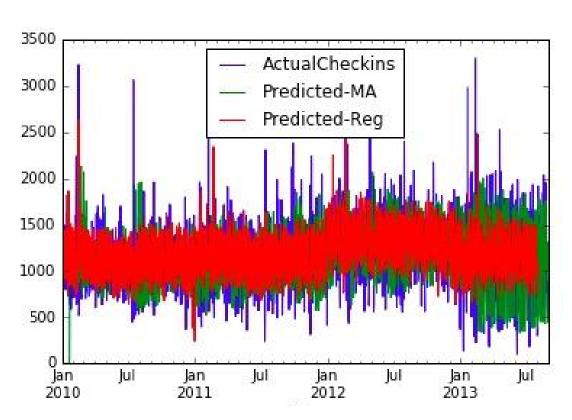
Causal Model



Moving Average Model



Model Comparison



Model Comparison

Mean Absolute Percentage Error

