FORDHAM UNIVERSITY
THE JESUIT UNIVERSITY OF NEW YORK

OVERVIEW

- Preparing the ingredients
  Learning project objective
- Chopping the vegetables
  Preparing for analysis
- Sautéing
  Conducting data analysis
- Ready to serve
  Conclusions

1. Preparing the Ingredients

- **Project 2 – Rentrak® Stickiness Index Analysis**
  - *Data sources:* Rentrak data for Food Network and competing networks and their corresponding Stickiness data
  - *Objective:* To identify time-series changes of Rentrak Stickiness over time by network and forecast the stickiness in the future
  - *Hypothesis:* There is an increasing trend of the Stickiness of Food Network

- **Project 5 – Premiere vs. Repeat Cooking Channel Show Analysis**
  - *Data sources:* Nielsen data for Cooking Channel shows – premiere and repeat show including the information such as day and time of the shows being aired
  - *Objective:* To reveal the rating patterns for premieres and repeats
  - *Hypothesis:* Under certain conditions, ratings for premieres are higher than repeats

2. Chopping the Vegetables

- **Project 2 Rentrak® Stickiness Index Analysis**
  - ***Type of analysis:*** Time Series Analysis, Four Quarter Moving Average Analysis
  - ***Reason for choosing these analysis:*** To identify time-series changes of Rentrak Stickiness over time by network and forecast the stickiness in the future

- **Project 5 Premiere vs. Repeat Cooking Channel Show Analysis**
  - ***Type of analysis:*** Decision tree and Linear Node analysis
  - ***Reason for choosing this analysis:*** To identify the rating patterns for premieres and repeats

3. Sautéing

Project 2– Rentrak® Stickiness Index Analysis

1 Time Series Analysis

The average weekly minutes viewed were calculated from the first quarter of 2015 to the second quarter of 2016 and taken across 22 networks in total. Linear modelling was then used to demonstrate fluctuations of stickiness during the 6 quarters. Lastly, Tableau was utilized to create a treemap which illustrated the overall stickiness performance found in the 22 networks.

3. Sautéing

Project 2– Rentrak® Stickiness Index Analysis

2 Four Quarter Moving Average Analysis

Moving Average Analysis is a trend-following method that is based on past indexes. The most basic and commonly used MA is the simple moving average (SMA), which is the simple average of a security over a defined number of time periods. The most common applications of MAs are to identify the trend direction and to determine support and resistance levels.

3. Sautéing

Project 5 – Premiere vs. Repeat

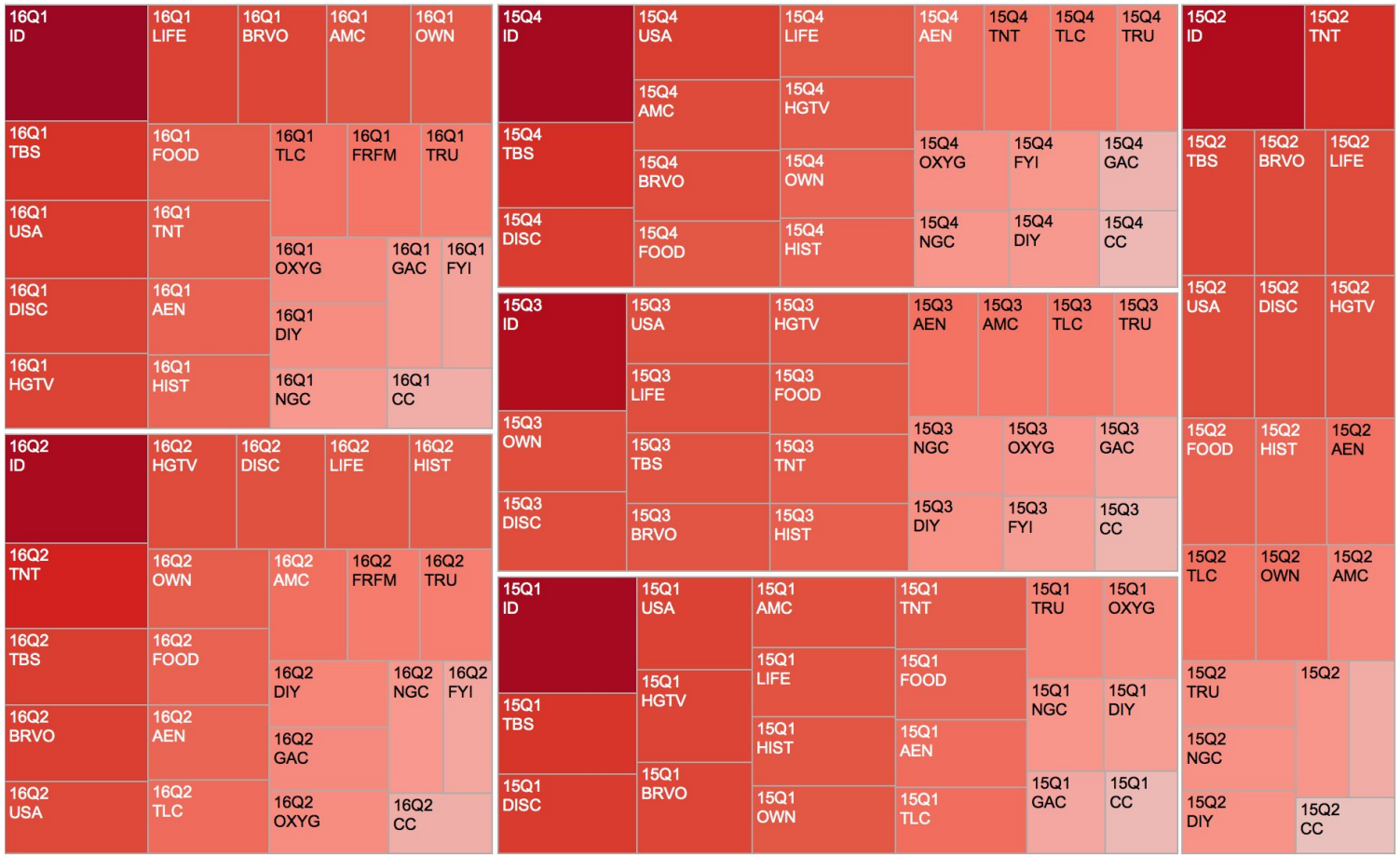
3 Decision tree and Linear Node analysis

SPSS Modeler is a powerful tool with many pre-designed analytical models. A CHIAD decision tree model and Linear Node analysis interpreted the results in two different and distinct directions.

Rentrak Stickiness Index Analysis

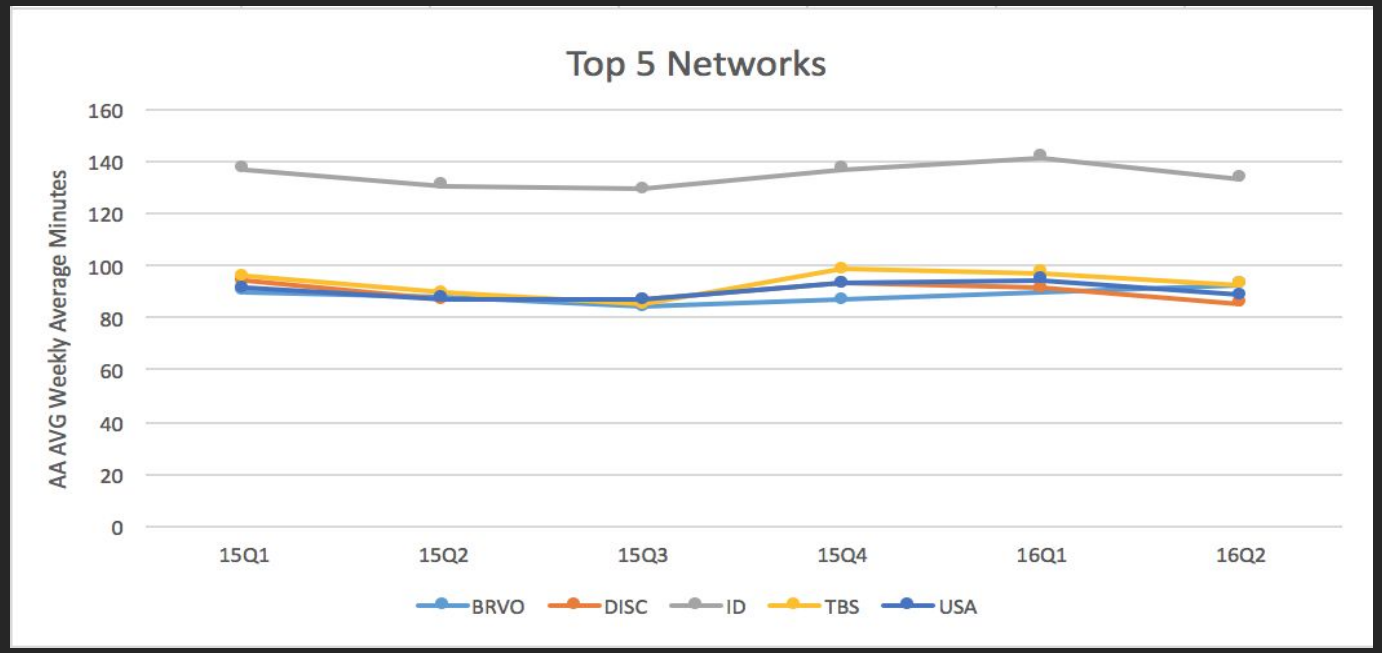
Treemap Analysis Results: Tableau Output

The darker the color is, the higher the stickiness index of the specific program will be. The larger the size of the square represents the higher stickiness index of the program. ID Network has the highest stickiness index during the 6 quarters.



Rentrak Stickiness Index Analysis

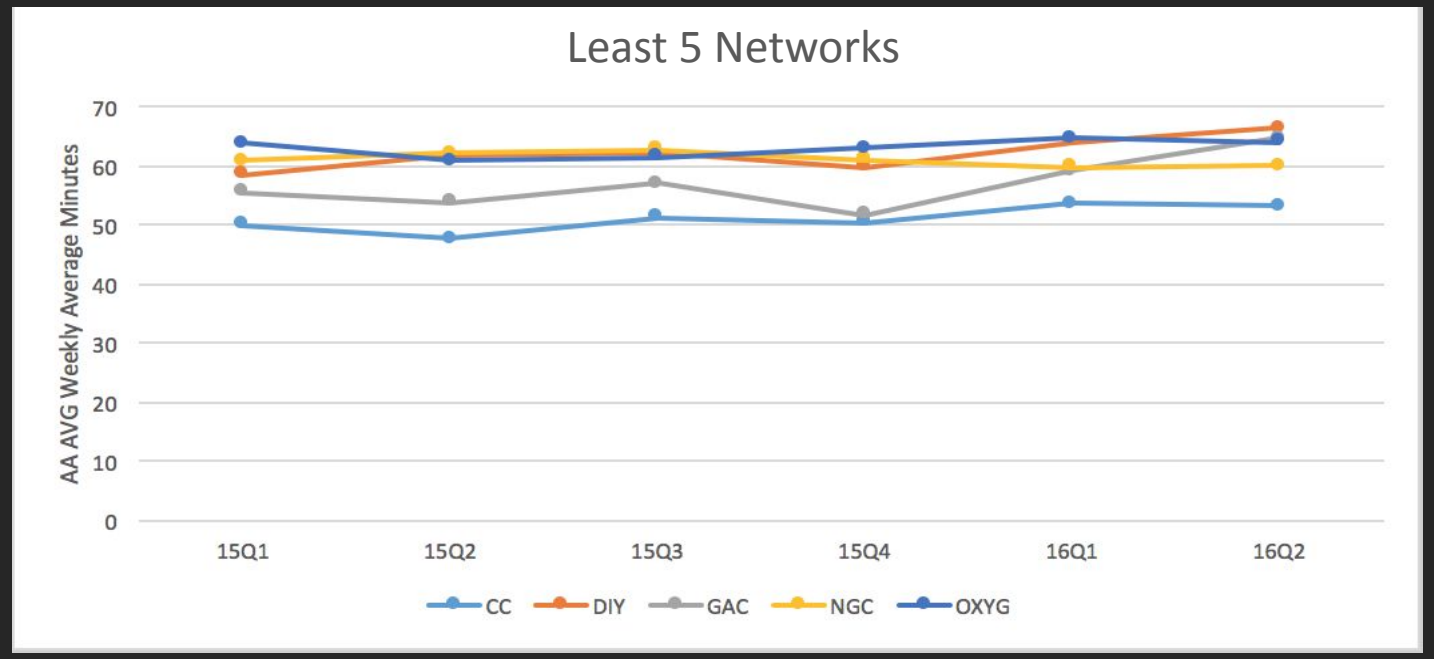
Trend Analysis Results: Stickiness Index Rankings



ID Network has the highest weekly average minutes during the 6 quarters, and it indicates that people spend the longest time watching their programs, and thus the stickiness index of ID Network is the highest. The other top four networks have similar weekly average minutes, ranging from 80 to 100. However, Food Network is not on the list.

Rentrak Stickiness Index Analysis

Trend Analysis Results: Stickiness Index Rankings



The fluctuations among different quarters are not significant for each network except GAC, which indicates that people spend the least time watching these 5 programs, and thus the stickiness indexes are low, ranging from 50 to 70.

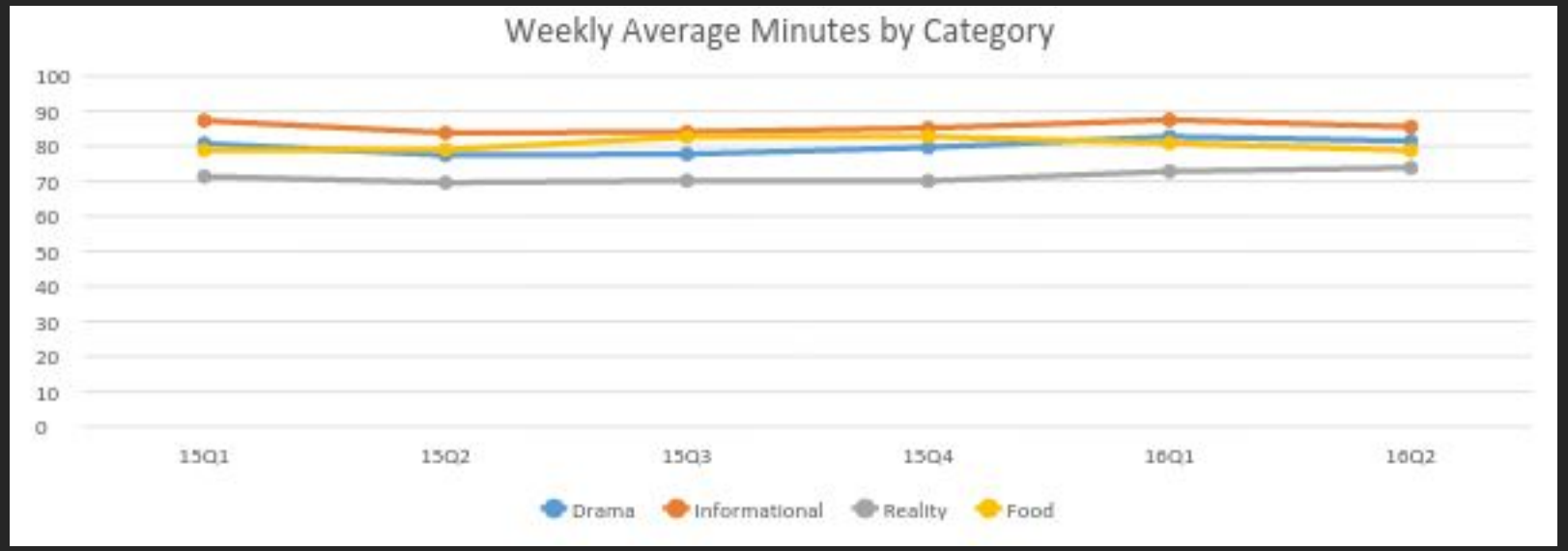
Rentrak Stickiness Index Analysis

Trend Analysis Results by Category – Drama, Informational and Reality

DRAMA	INFORMATIONAL	REALITY
AEN	DISC	OXYG
AMC	HIST	TLC
LIFE	ID	TRU
OWN	NGC	GAC
CC	DIY	FOOD
TBS	HGTV	
TNT		
USA		

Rentrak Stickiness Index Analysis

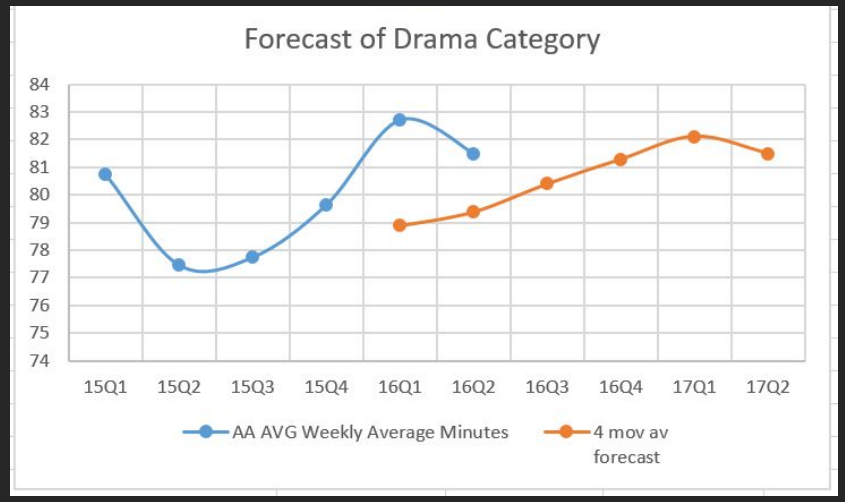
Trend Analysis Results by Category – Drama, Informational and Reality



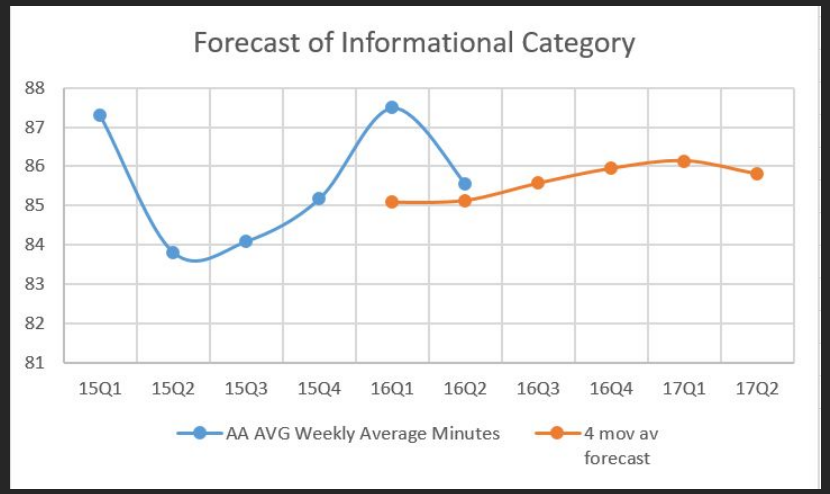
- Among the three categories, the stickiness index for Food Network is above average.
- Although the Reality category to which Food Network belongs performs the least, Food Network does stand out in this particular category.

Rentrak Stickiness Index Prediction

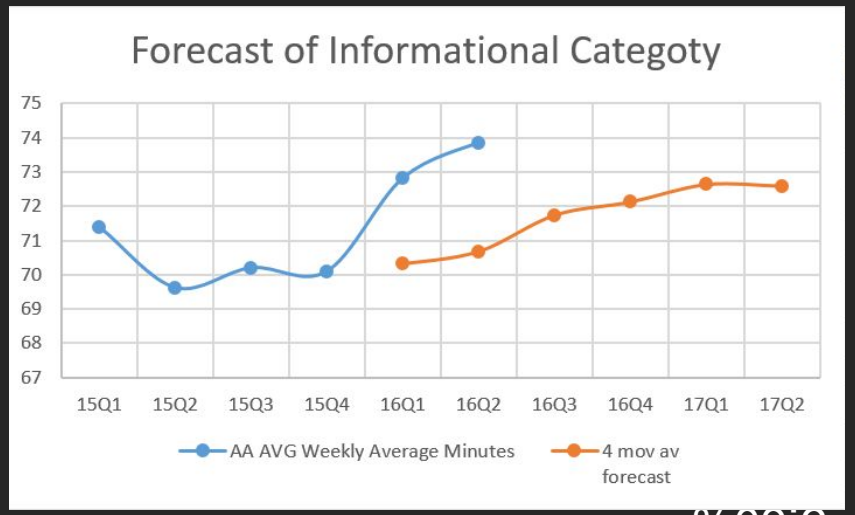
Four-quarter moving average



absolute % error =3.60%



absolute % error =1.62%

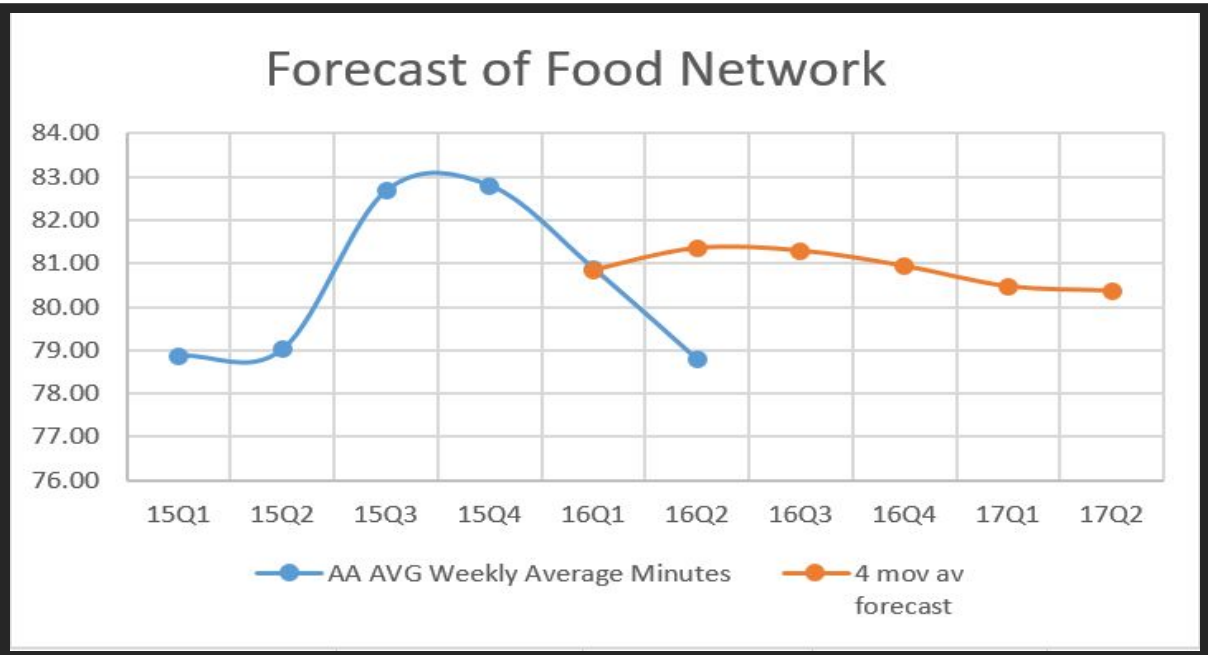


absolute % error =3.87%

- Based on four-quarter moving average method, the Weekly Average Minutes for all three categories (Drama, Informational and Reality) is expected to increase between 2016Q3 and 2017Q2.

Rentrak Stickiness Index Prediction

Four-quarter moving average



absolute % error=1.64%

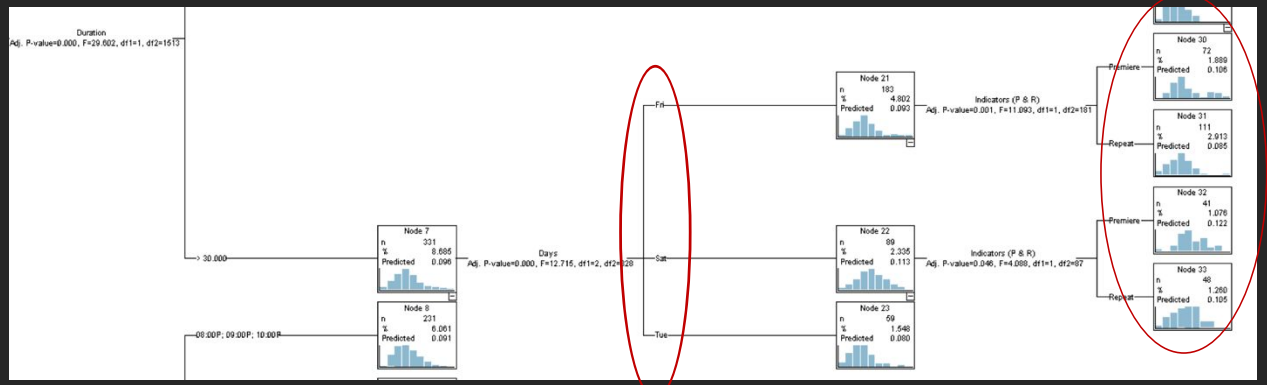
- For Food Network, the Weekly Average Minutes is expected to be around 81 in the near future.

Premiere vs. Repeat Cooking Show Analysis

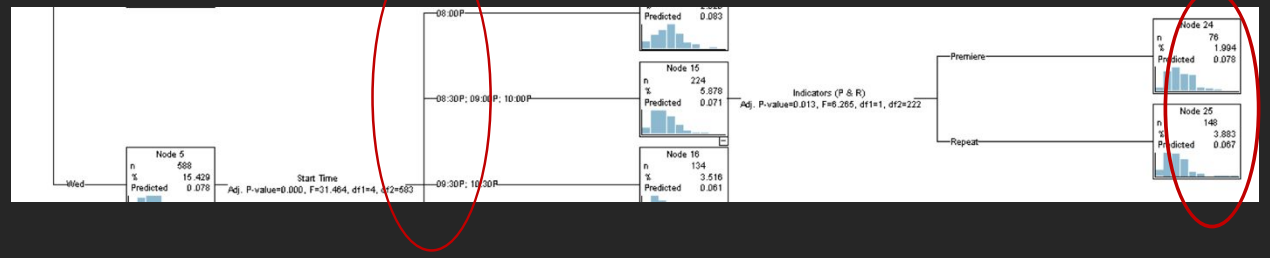
Decision Tree Analysis Results

Ratings for Premieres are significantly **higher** than that for Repeats under these two situations:

Only when the days are either Fridays or Saturdays and the duration of the program is more than 30 minutes

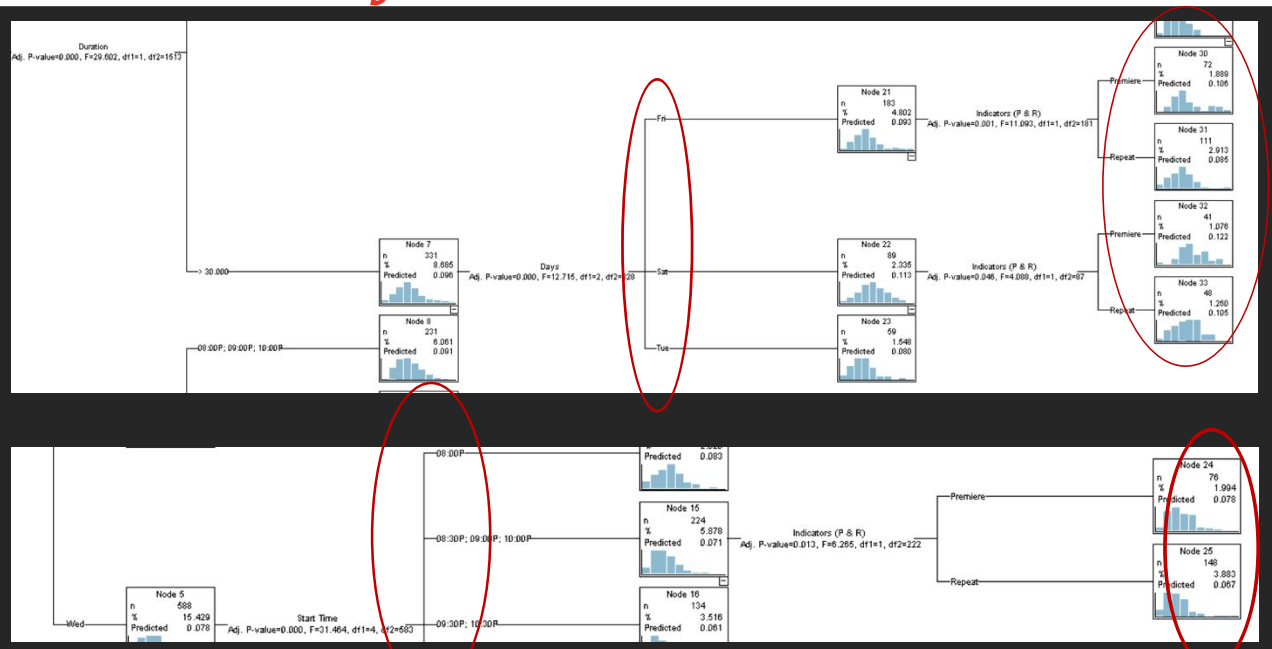


And the days are Wednesdays and Start Times are either 08:30pm, 09:00pm or 10:00pm



Premiere vs. Repeat Cooking Show Analysis

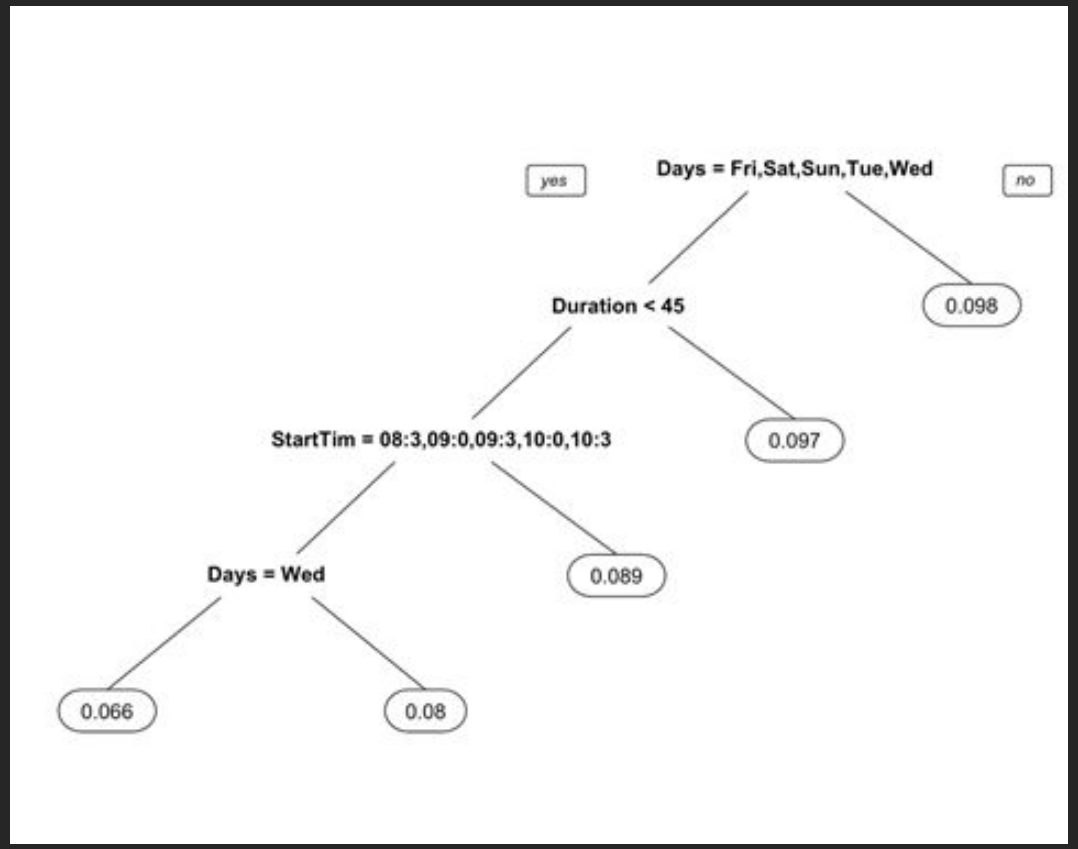
Decision Tree Analysis Results



- People enjoy weekend nights' show
- Longer shows have better ratings
- Interesting pattern on Wednesday nights
- No repeats beat premieres during all time

Premiere vs. Repeat Cooking Show Analysis

CART Model (Classification and Regression Tree)



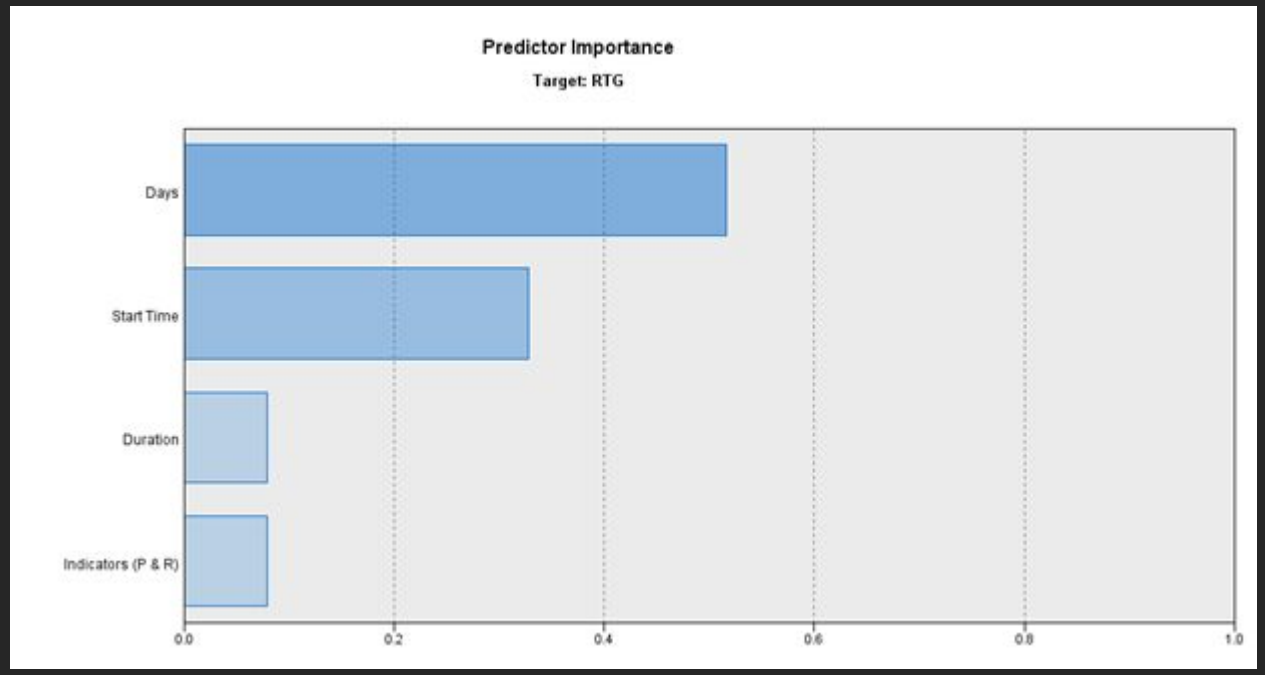
- Consistent with CHIAD model
- No significant difference between premieres and repeats
- Wednesday nights shows relatively has the lowest rating

Premiere vs. Repeat Cooking Show Analysis

Linear Node Analysis

a. Predictor importance

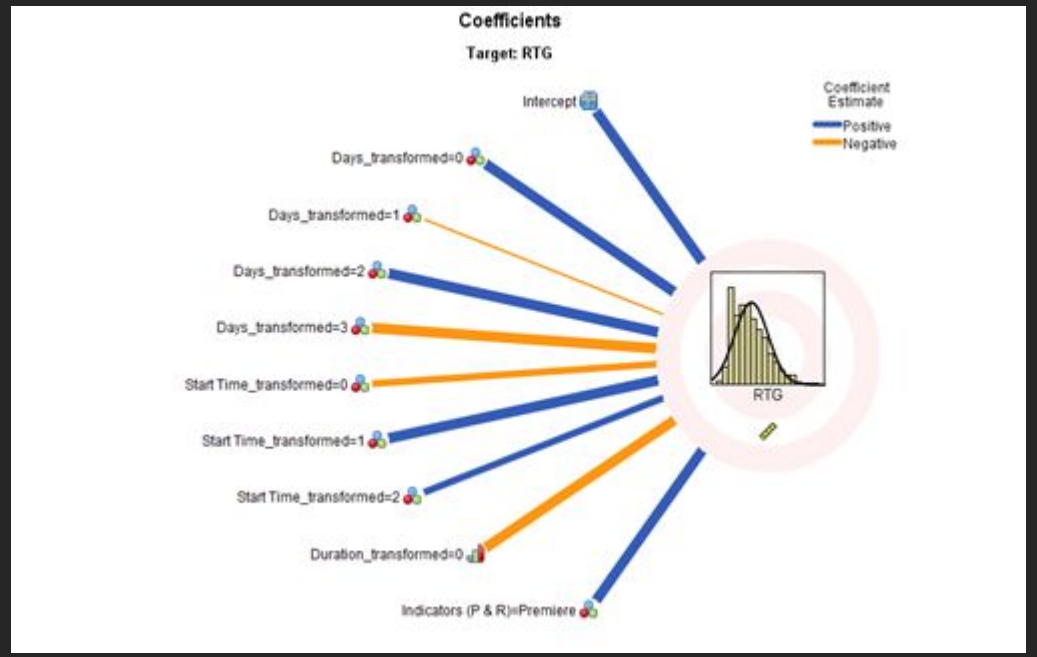
Linear Node model showed that Days and Start Time are the most significant variables. And this result is consistent with CHAID decision tree model.



Premiere vs. Repeat Cooking Show Analysis

Linear Node Analysis

b.Coefficients



Positive effects:
Days0=Monday
Days2=Thursday
Start Time1=11:30
Start Time2=08:00,11:00
Indicator=Premieres or Repeats

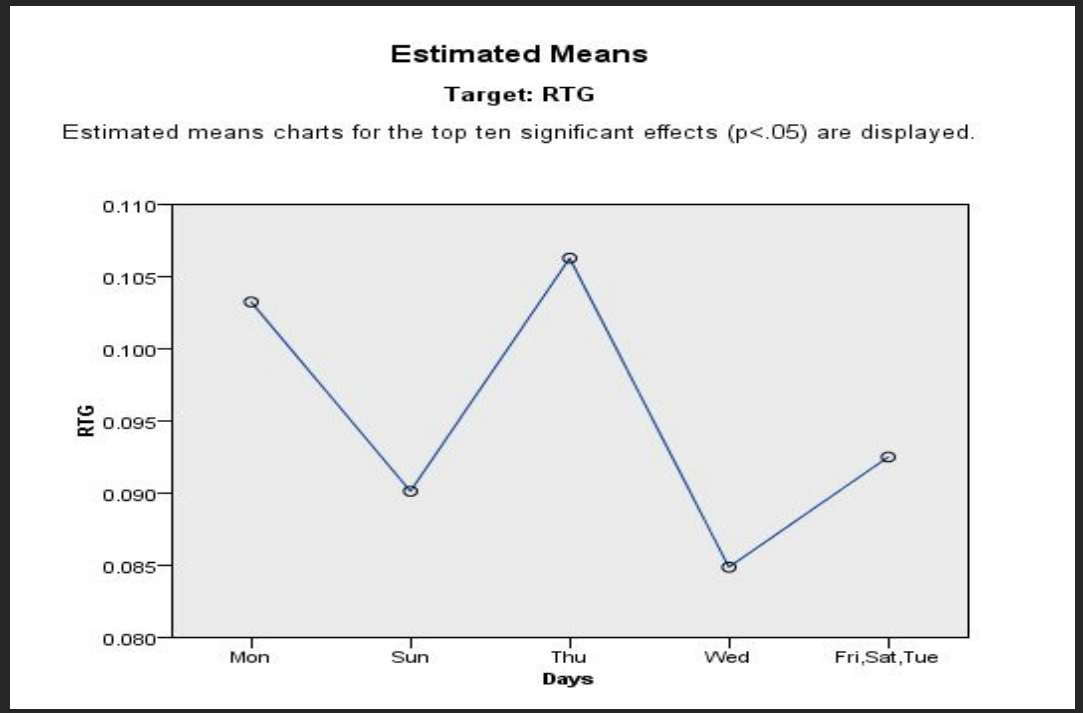
Negative effects
Days1=Sunday
Days3=Wednesday
Start Time0=09:30
Duration0=30

Premiere vs. Repeat Cooking Show Analysis

Linear Node Analysis

C. Linear Charts

Mondays and Thursdays generally have the highest ratings among other days.

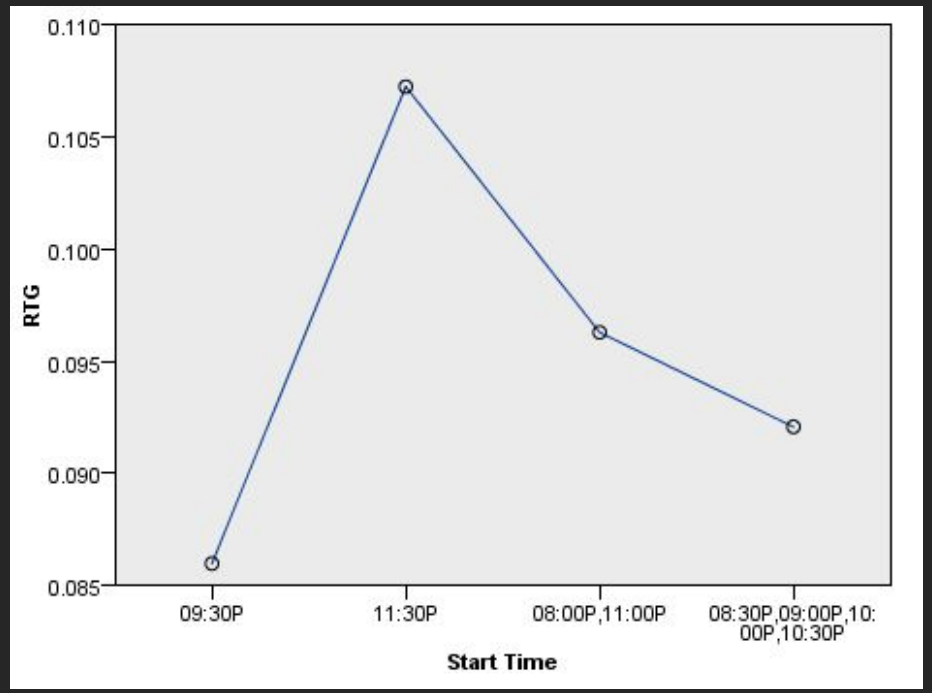


Premiere vs. Repeat Cooking Show Analysis

Linear Node Analysis

C. Linear Charts

Starting at 11:30pm has the highest ratings.

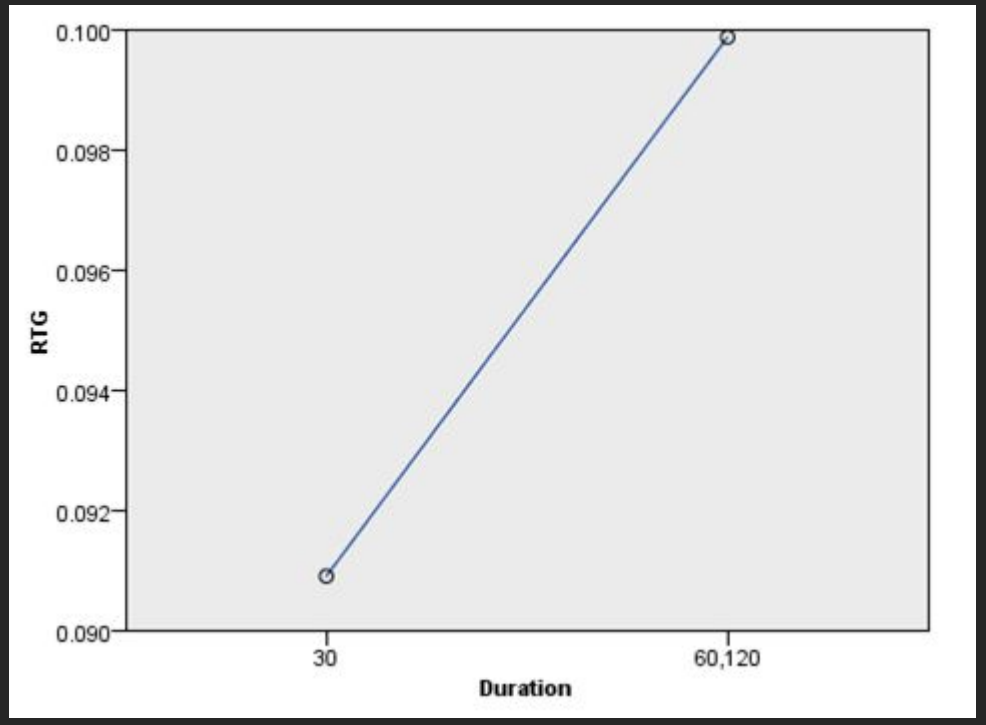


Premiere vs. Repeat Cooking Show Analysis

Linear Node Analysis

C. Linear Charts

With more than 30 minutes' duration generally have higher ratings than shows with 30 minutes' duration.

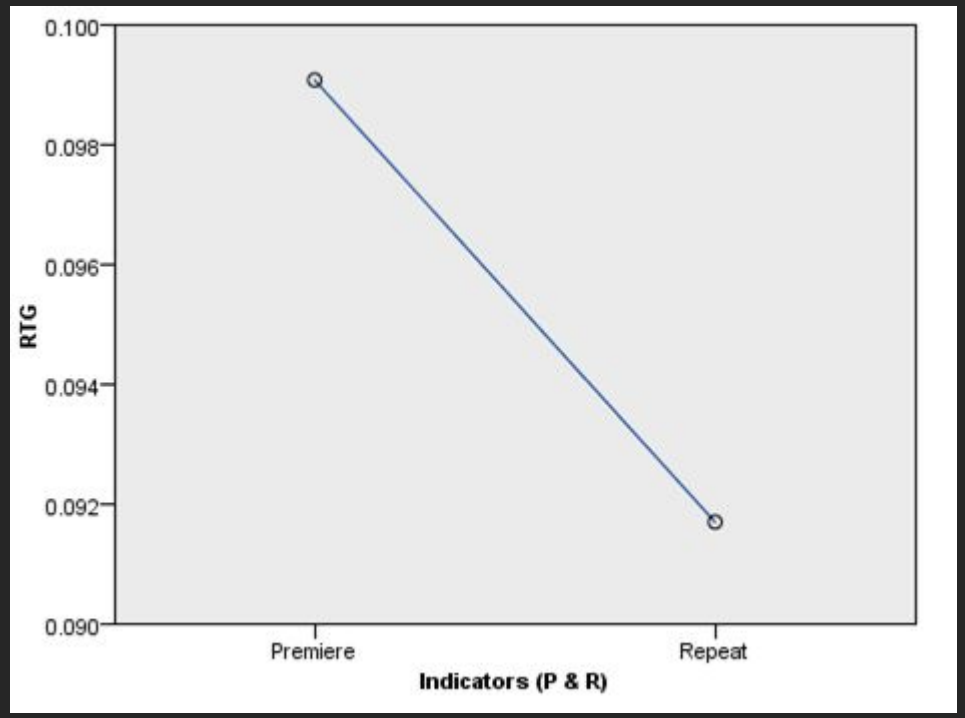


Premiere vs. Repeat Cooking Show Analysis

Linear Node Analysis

C. Linear Charts

In a larger sense, ratings for Premieres are lower than Repeats.



5. Ready to Serve

Rentrak

1. Increase Ad Price:
   - Food Network has one of the highest stickiness indices in the reality tv landscape.
   - Based off this insight, Food Network should leverage this opportunity and increase the price of their advertising slots based off of relevant research.
   - The data also projects that stickiness will increase in all categories during quarter 3.

2. ID's (Investigation Discovery Network) Success*:
   - How does ID maintain viewership through the duration of its programs?
     - The personalized story and mysterious intrigue of the programs makes for compelling can't-miss television.

*Source:http://www.latimes.com/entertainment/envelope/cotown/la-et-ct-investigation-discovery-20160105-story.html

5. Ready to Serve

Premieres vs. Repeats

1. Premieres surpass repeats in ratings

2. Airing day and time play have the greatest impact on ratings

3. Ratings reach their peak on Mondays and Thursdays

4. Rating and duration of program are positively correlated

5. 11:30pm is the optimal time for food and cooking related programs

Thank You!

Any Question?