FORDHAM UNIVERSITY CONSULTANCY PROJECT

Master of Science in Marketing Intelligence

July 25th, 2014

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PROJECTS

1. Validation – 10 min.
2. Pod Busters – 10 min.
3. Repeatability – 20 min.

VALIDATION
PROJECT

- **Compare 13 weeks forecast of 4 Food Network shows to actual audience numbers**

- **Validate predictions and understand errors**

Last Year

1. Graph actual P25-54 audience data
2. Use time series to seasonally adjust data
3. Develop trend line
4. Create seasonally adjusted forecast based on trend line

This year

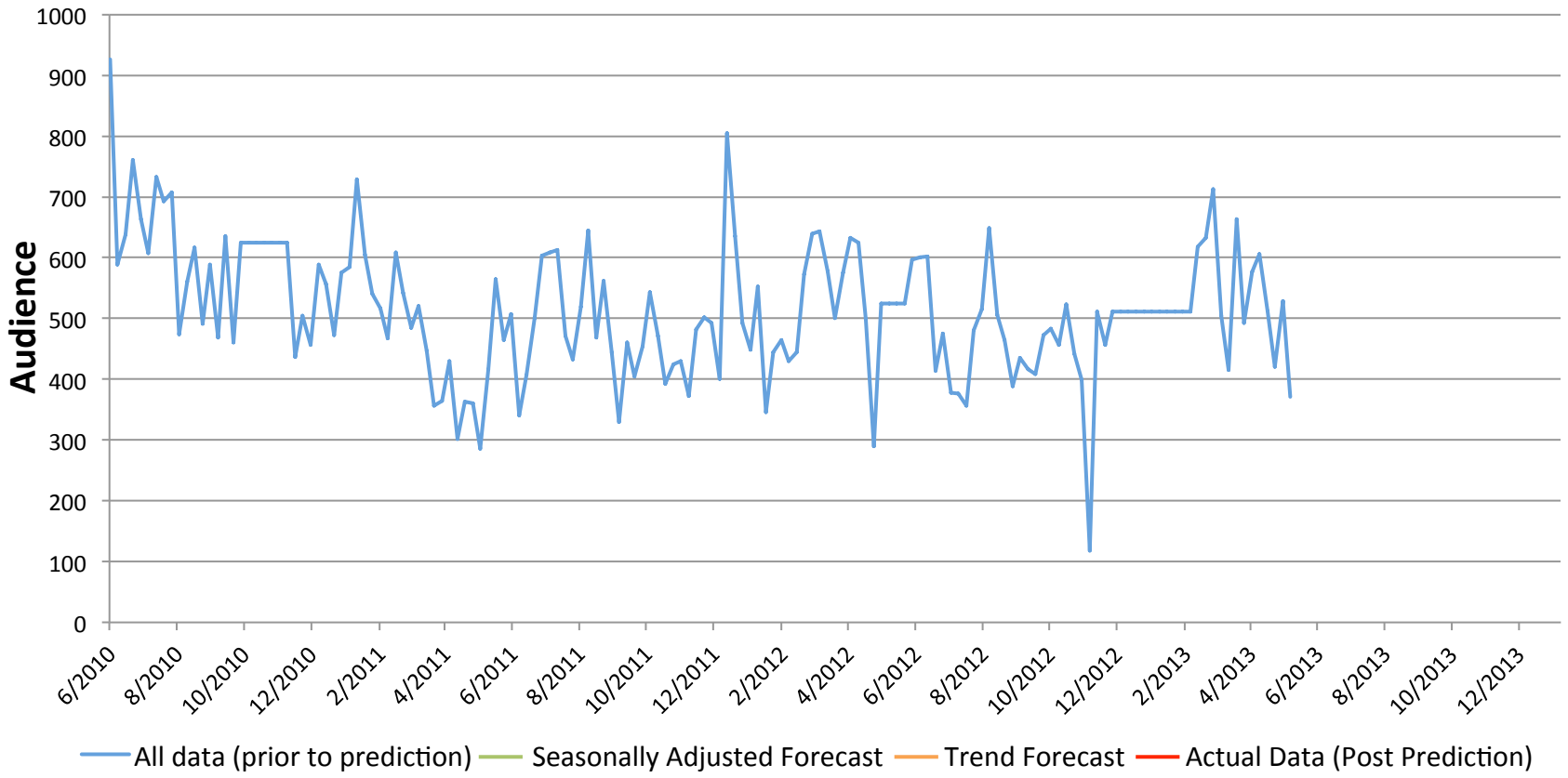
5. Compare forecast to new actual audience data

Cupcake Wars

Diners, Drive-ins and Dives

Chopped

Iron Chef America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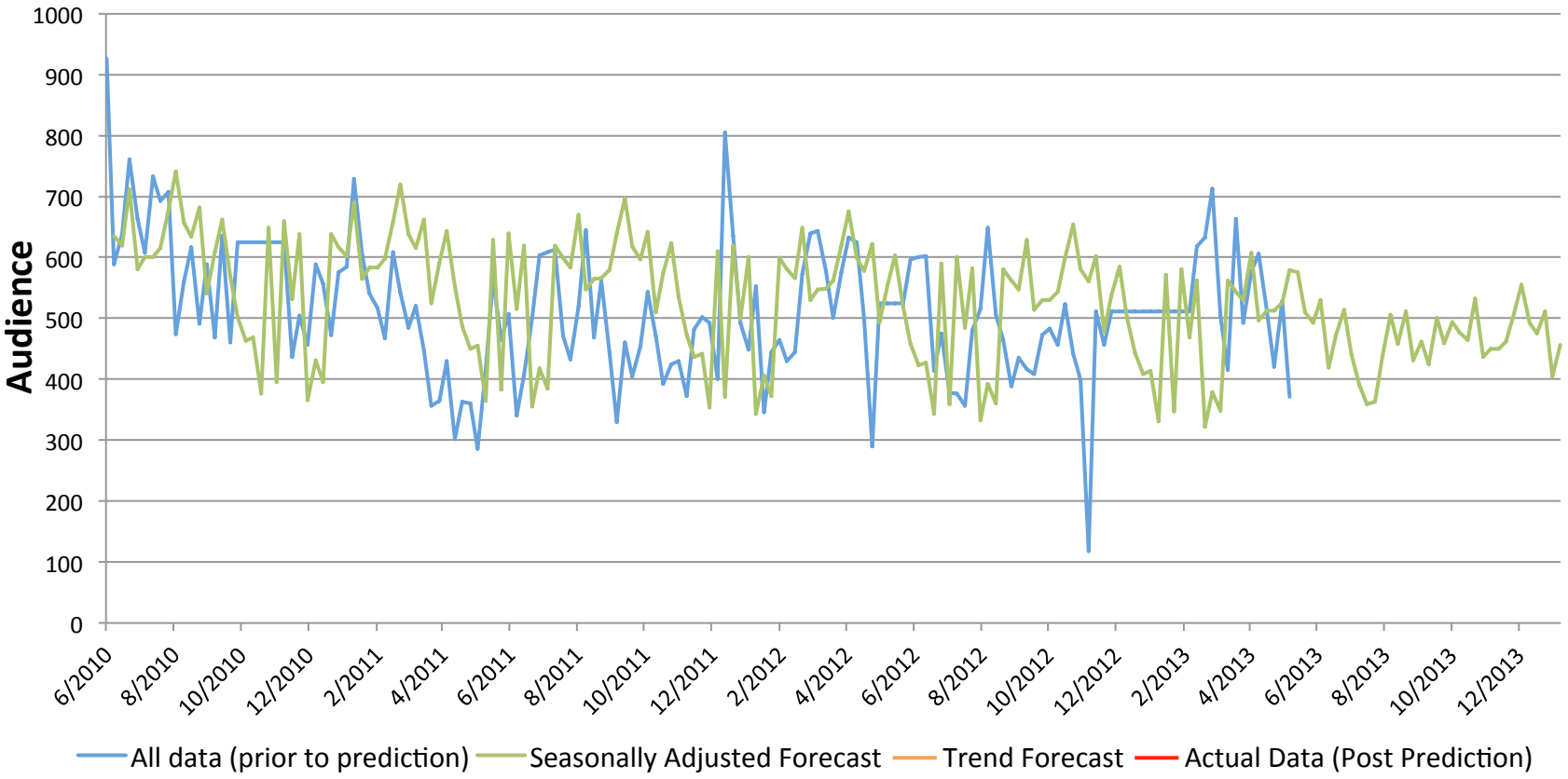
All data (prior to prediction)
Seasonally Adjusted Forecast
Trend Forecast
Actual Data (Post Prediction)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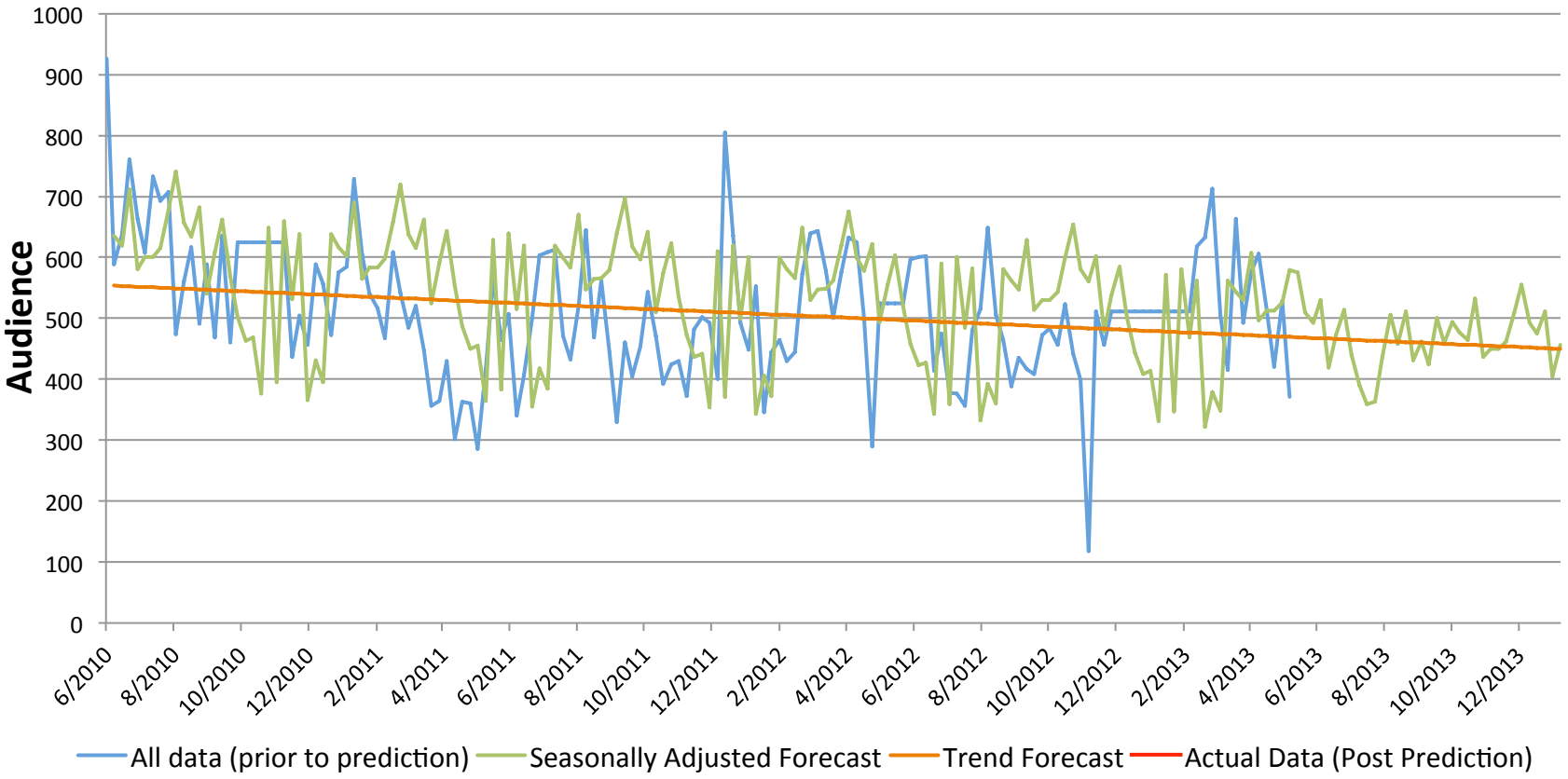
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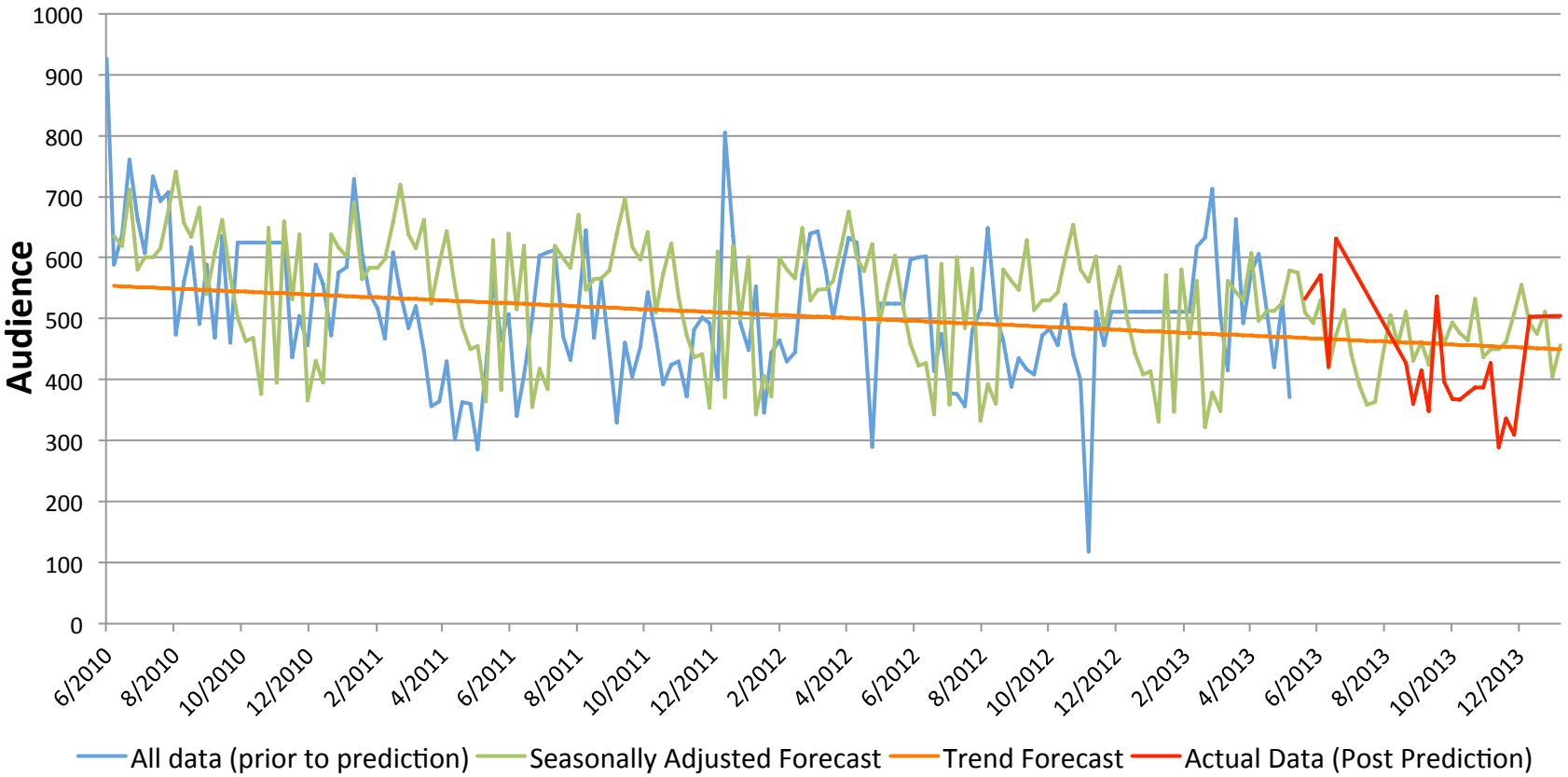
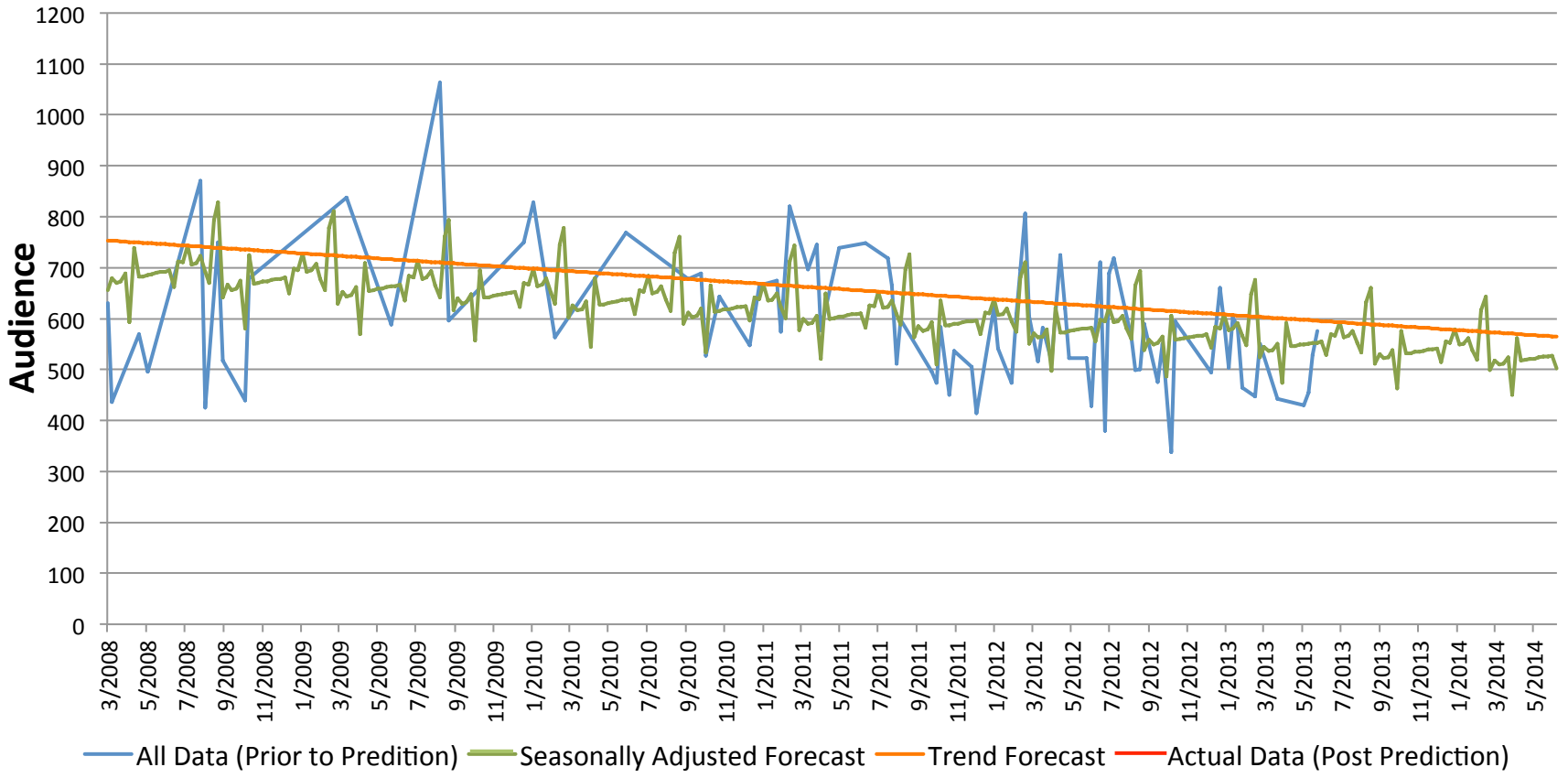


MAPE (13 weeks): Forecast vs. Actual **16.86%**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All Data (Prior to Predition)
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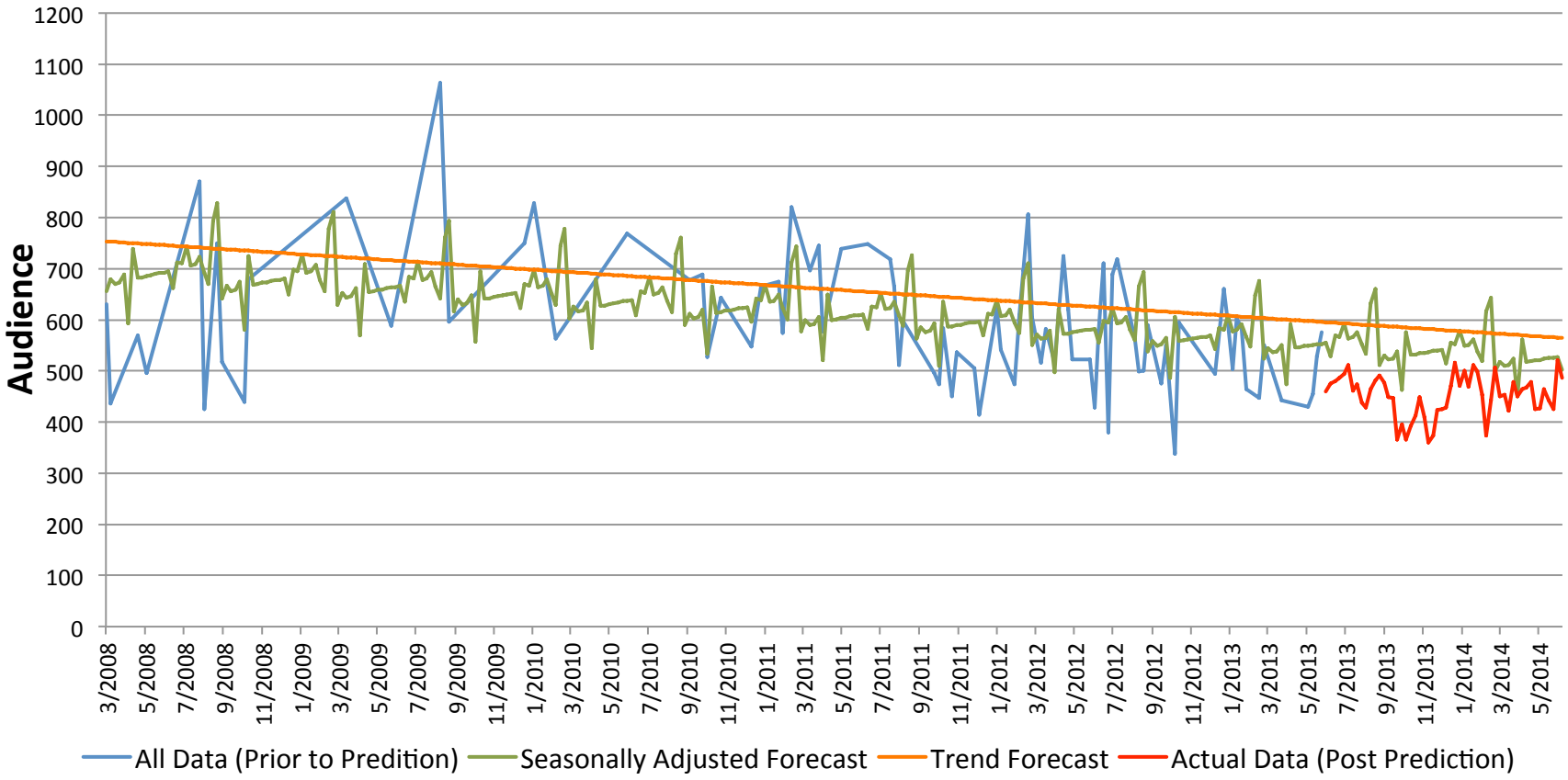
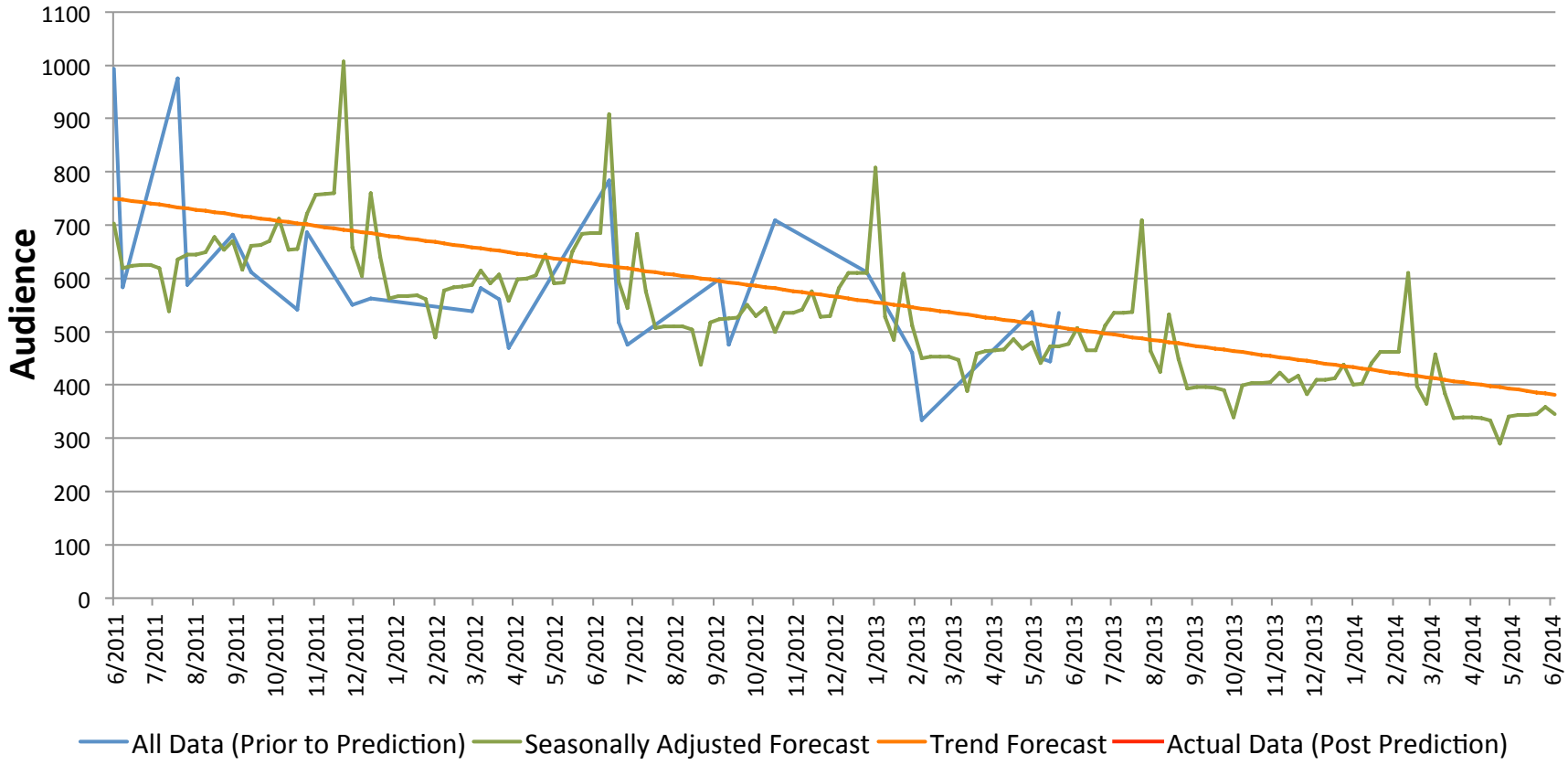


MAPE (13 weeks): Forecast vs. Actual **20.72%**


Audience
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All Data (Prior to Prediction)
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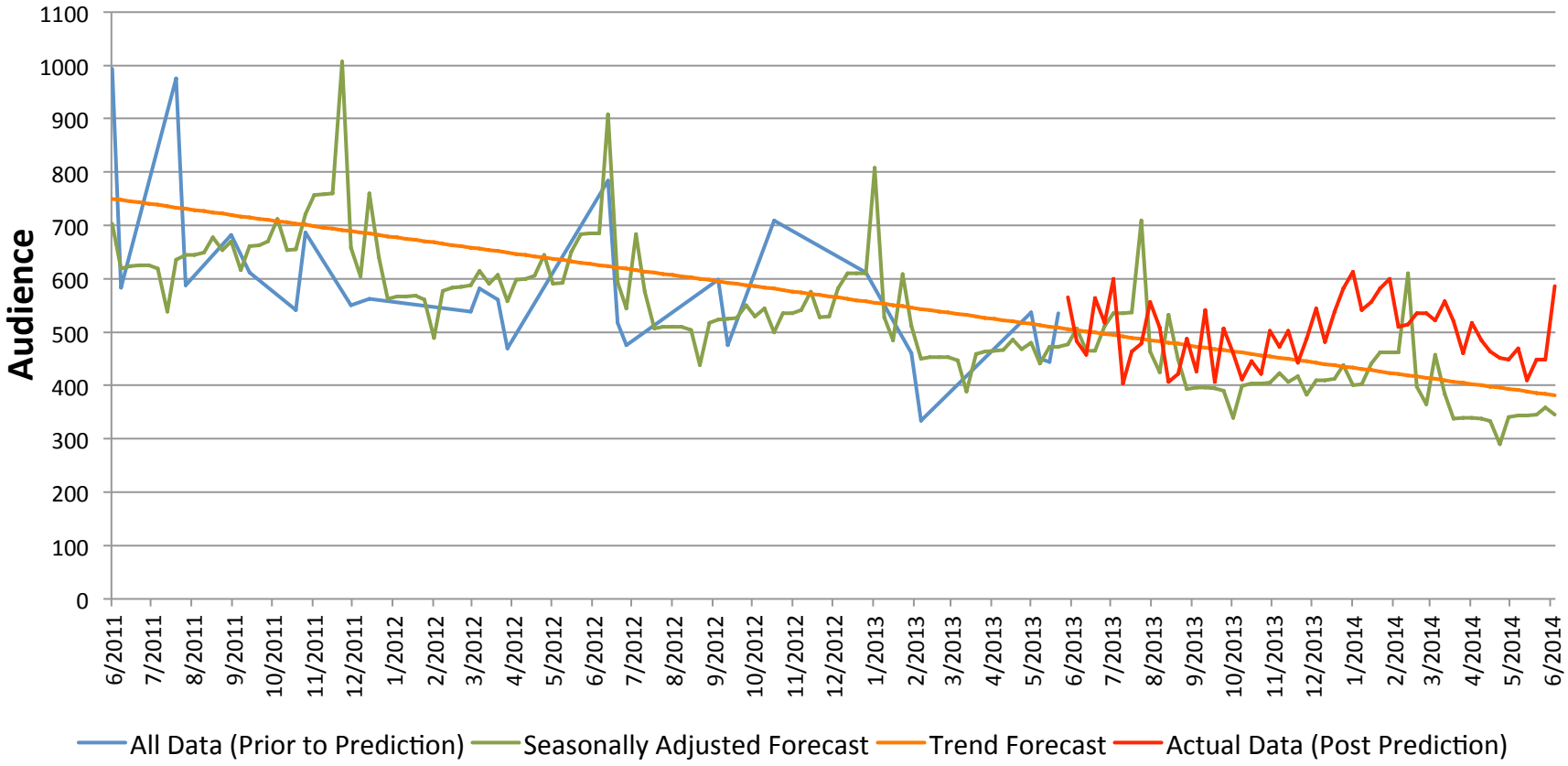
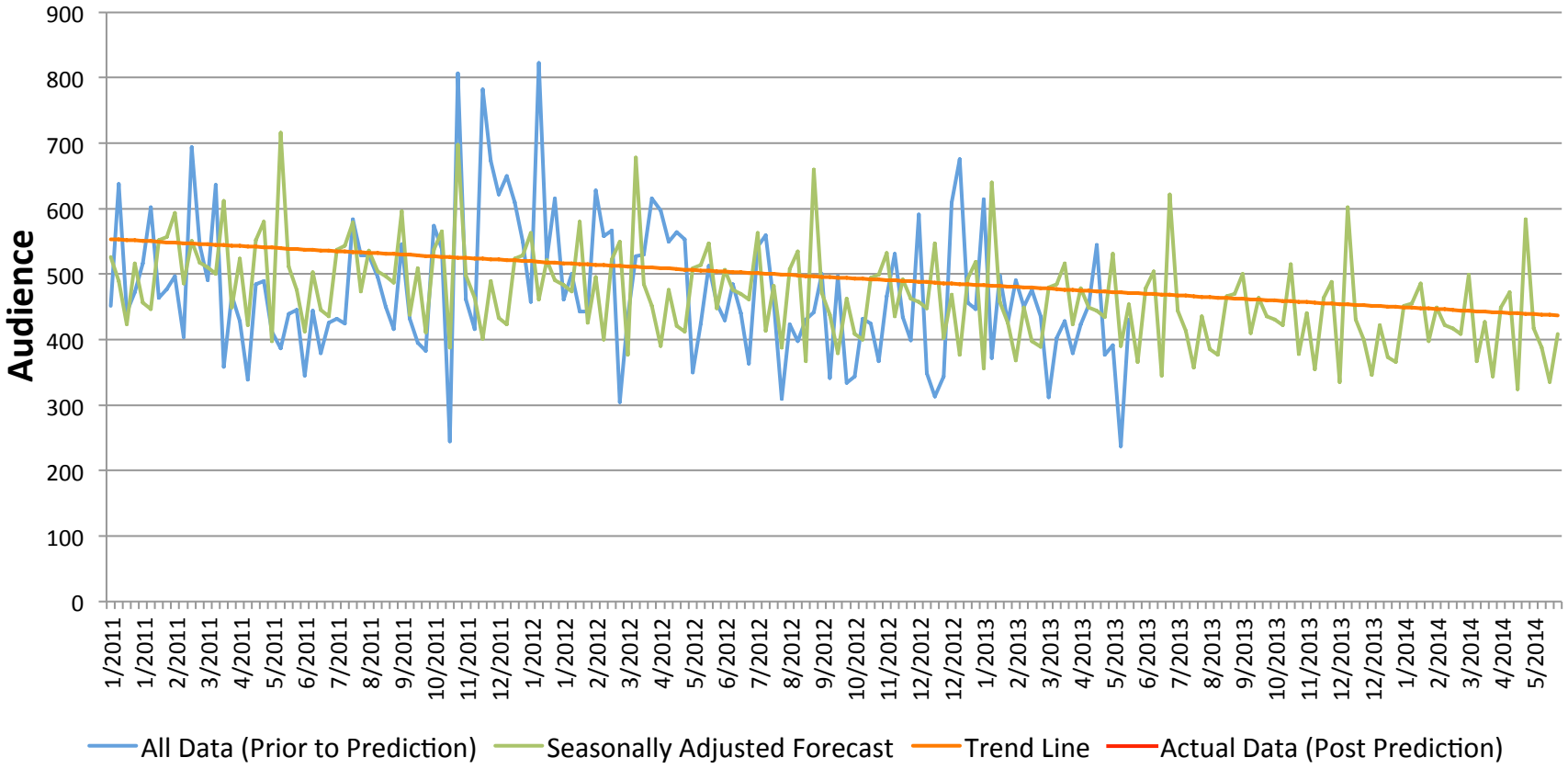
Trend Forecast
Actual Data (Post Prediction)



MAPE (13 weeks): Forecast vs. Actual **16.87%**


Audience
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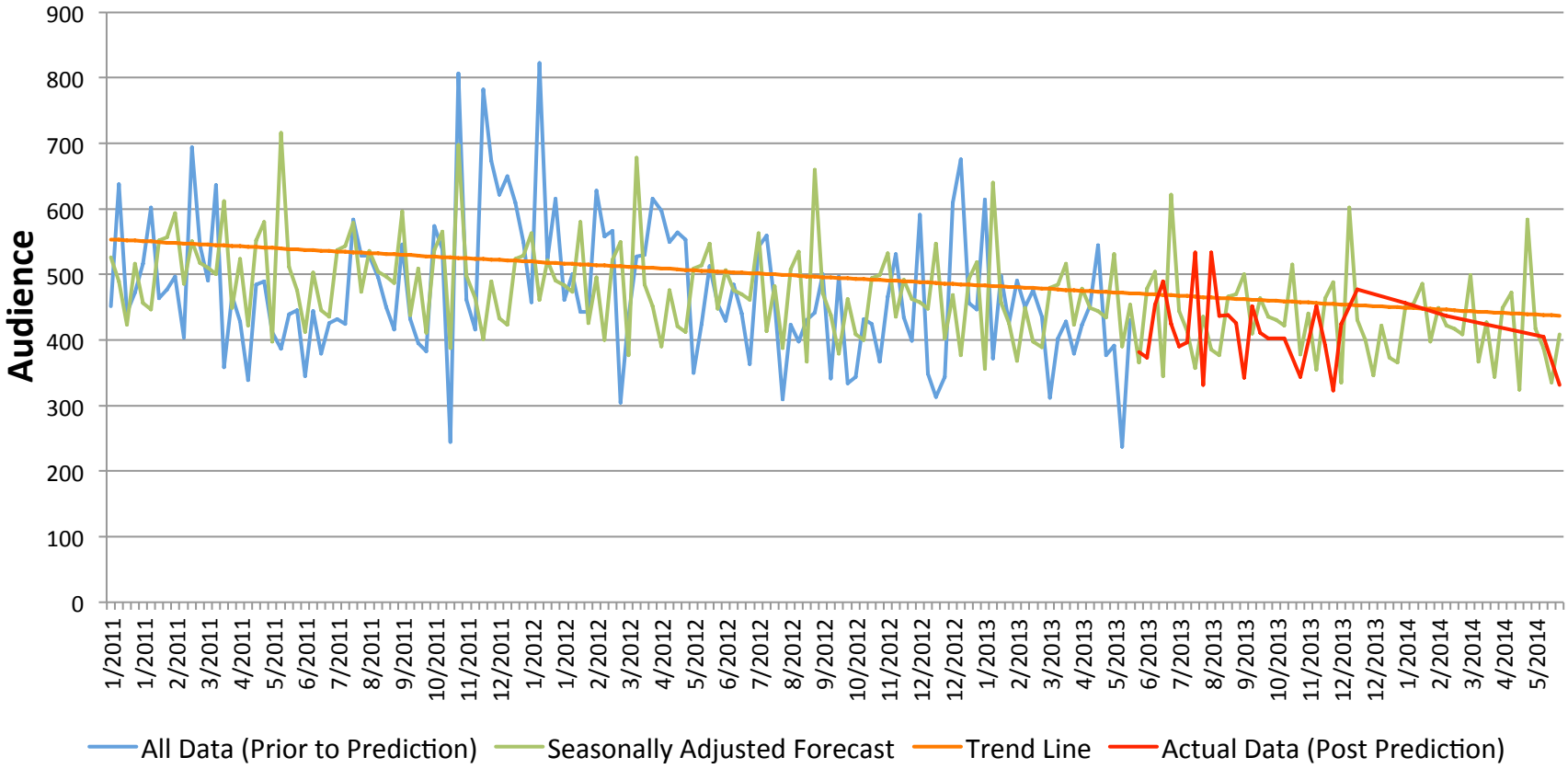
All Data (Prior to Prediction)
Seasonally Adjusted Forecast
Trend Line
Actual Data (Post Prediction)



MAPE (13 weeks): Forecast vs. Actual **19.99%**

Mean Absolute Percentage Error

Cupcake Wars:	16.86%
Diners, Drive-Ins and Dives:	20.72%
Chopped:	16.87%
Iron Chef America:	19.99%

Mean Absolute Percentage Error

Cupcake Wars:	16.86%
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Iron Chef America:	19.99%

ACCURATE MODEL

Recommendations

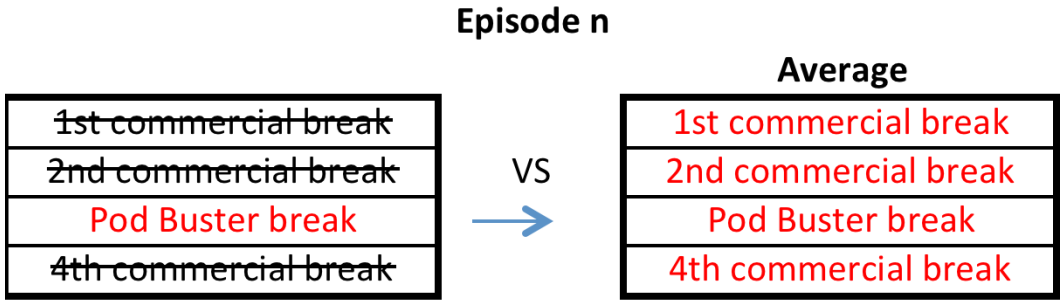
- Remove outliers from the model
- Use data starting from where trend line changes
- Include more independent variables to the model

POD BUSTERS
PROJECT

- **Understand the effect of pod busters on average commercial ratings**

- **Evaluate if Food Network should use pod busters**

1. Comparisons:



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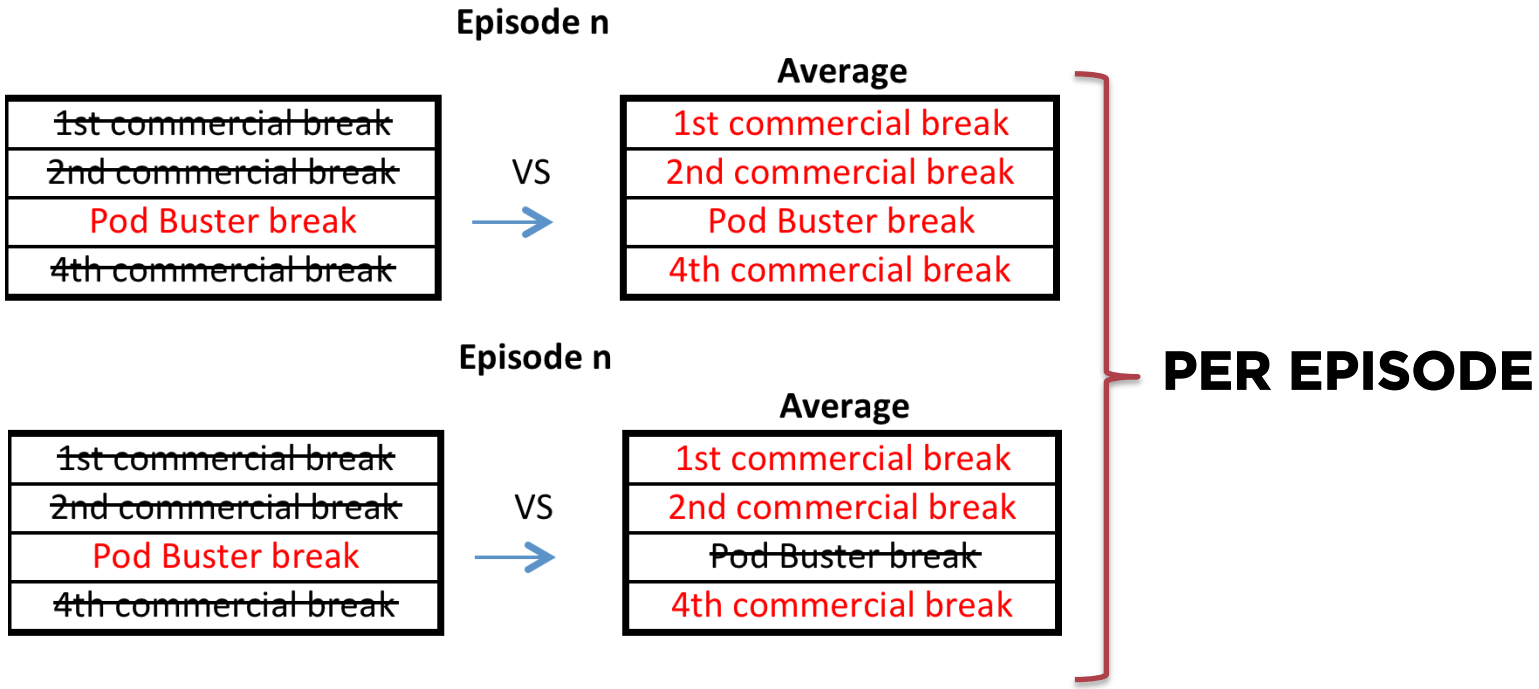

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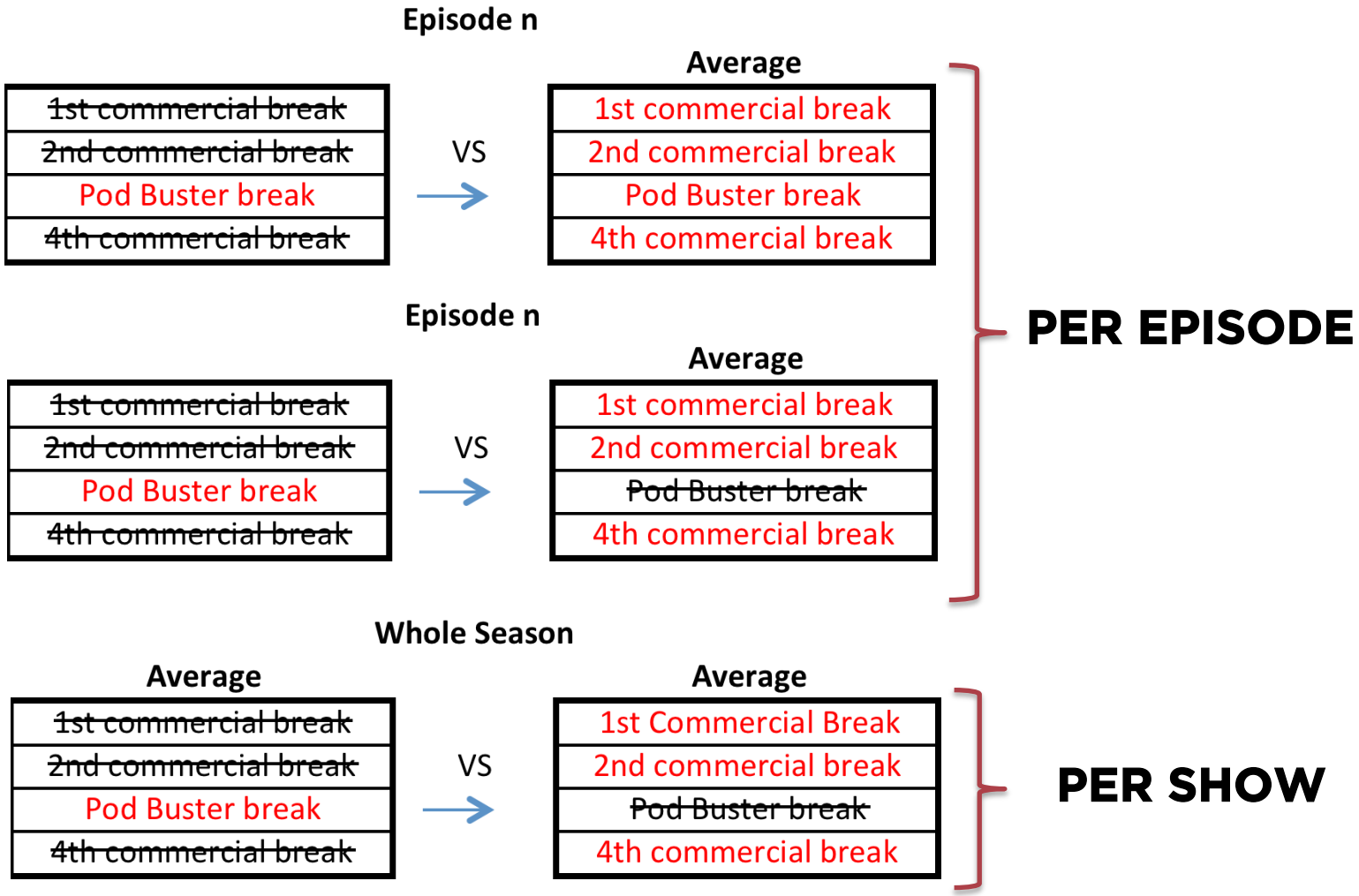
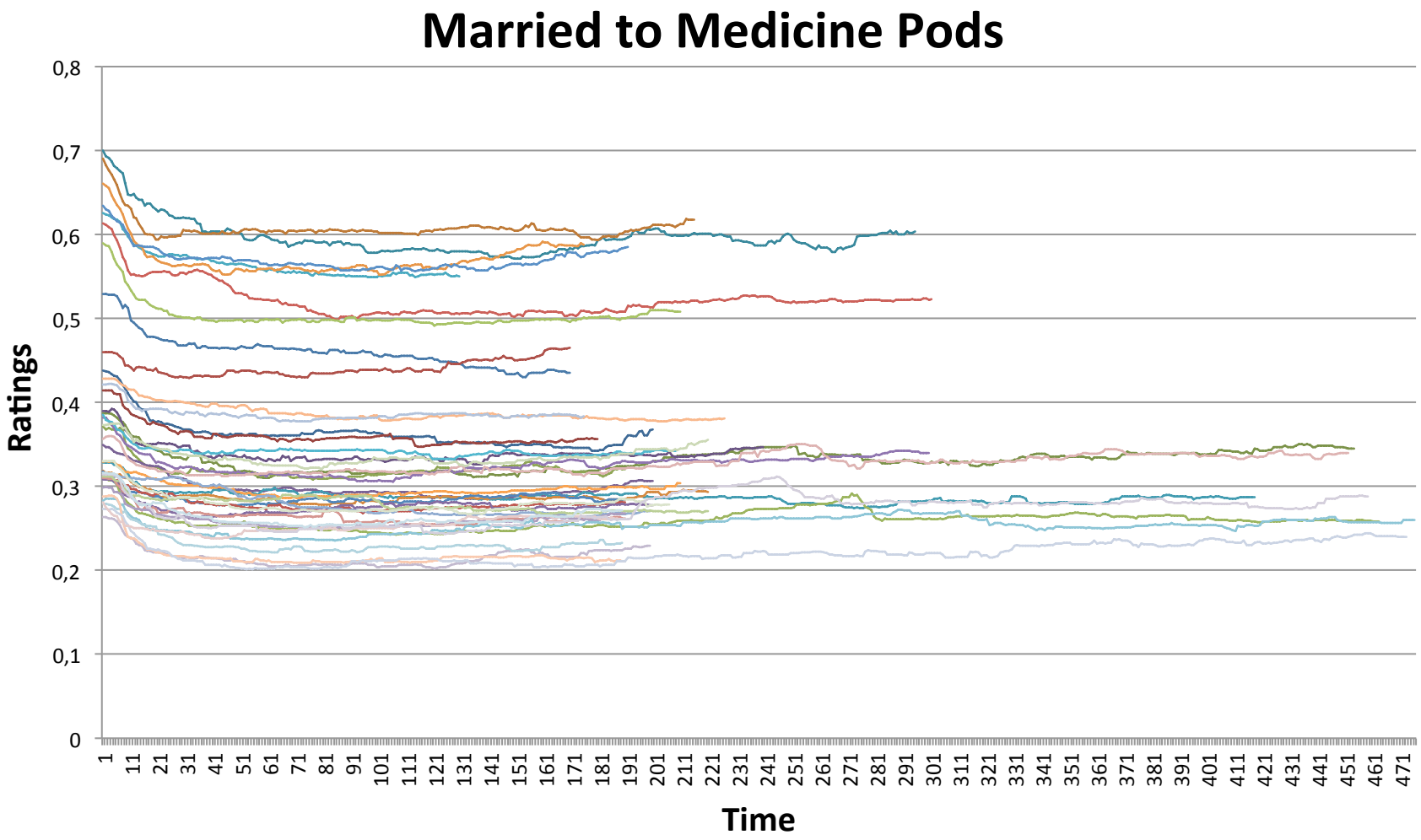
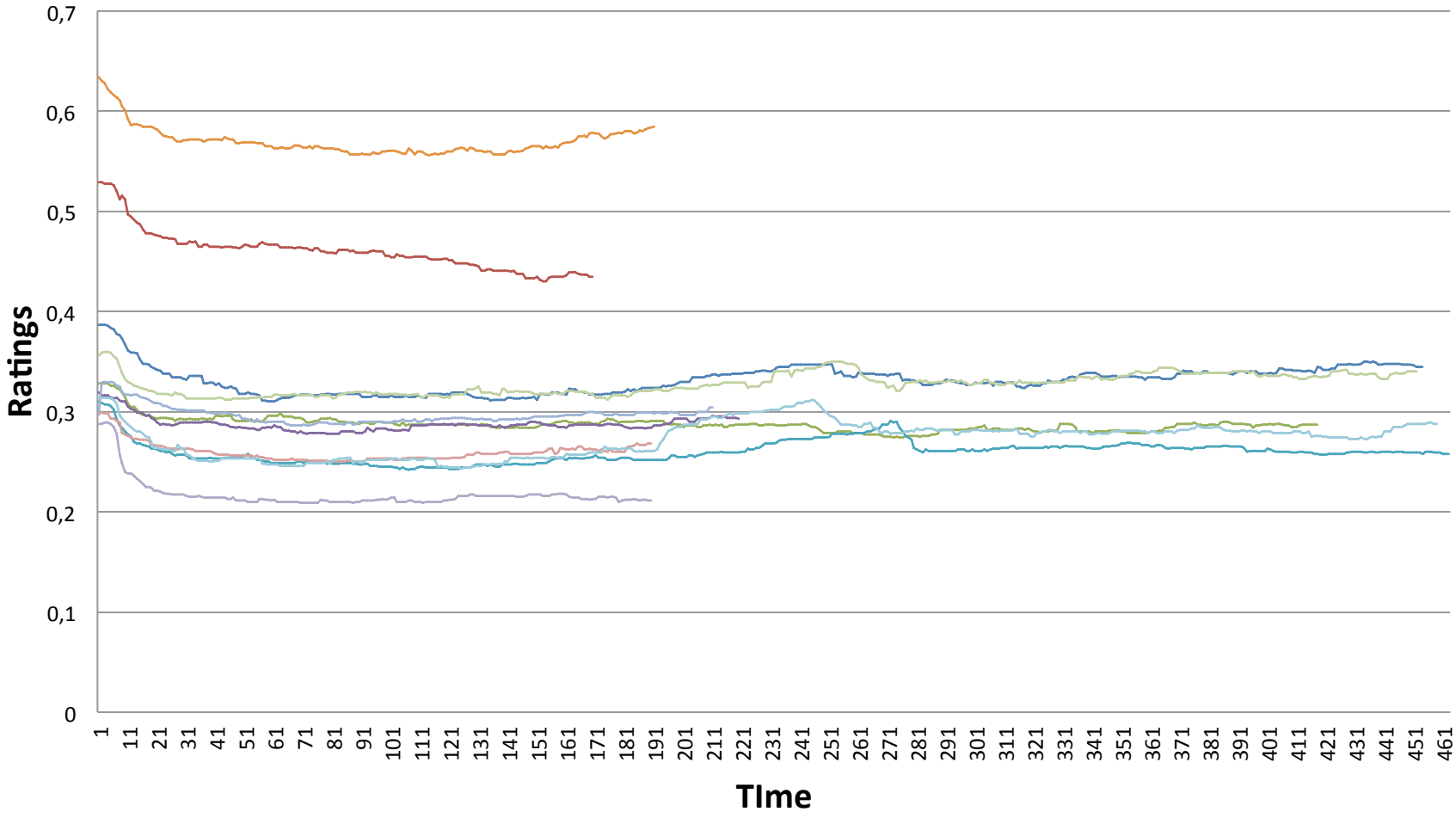


- Regular commercial break average rating: 0.3526
- Pod Buster break average rating: 0.3285

Out of 10 weeks, only 2 Pod Buster breaks outperformed the average for the same day


Married to Medicine Pods
Ratings
0,8
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0
1 11 21 31 41 51 61 71 81 91 101 111 121 131 141 151 161 171 181 191 201 211 221 231 241 251 261 271 281 291 301 311 321 331 341 351 361 371 381 391 401 411 421 431 441 451 461 471
Time

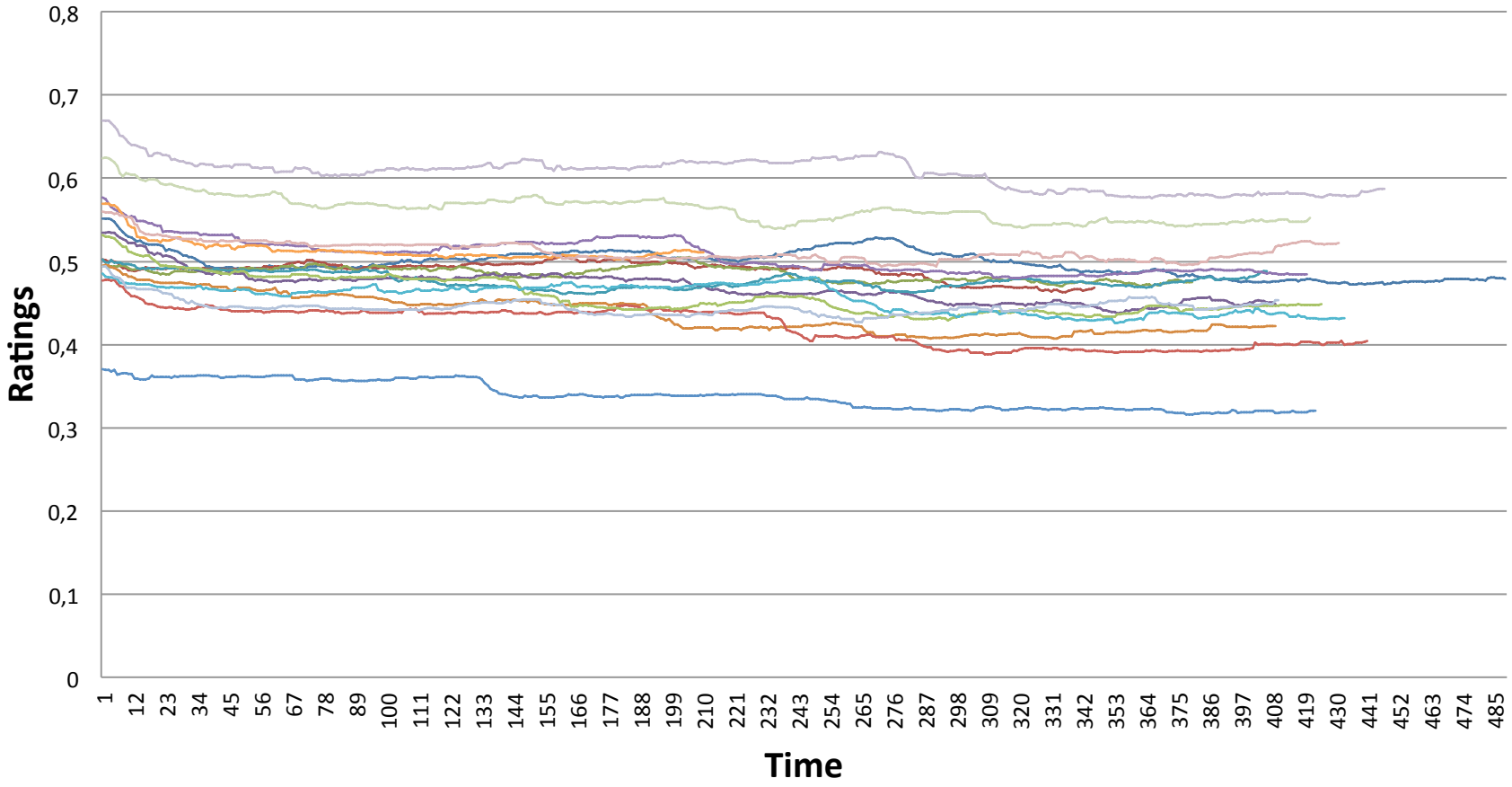
Married to Medicine 3rd Pods



- Regular commercial break average rating: 0.4899
- Pod Buster break average rating: 0.4800

Out of 16 weeks, only 4 Pod Buster breaks outperformed the average for the same day

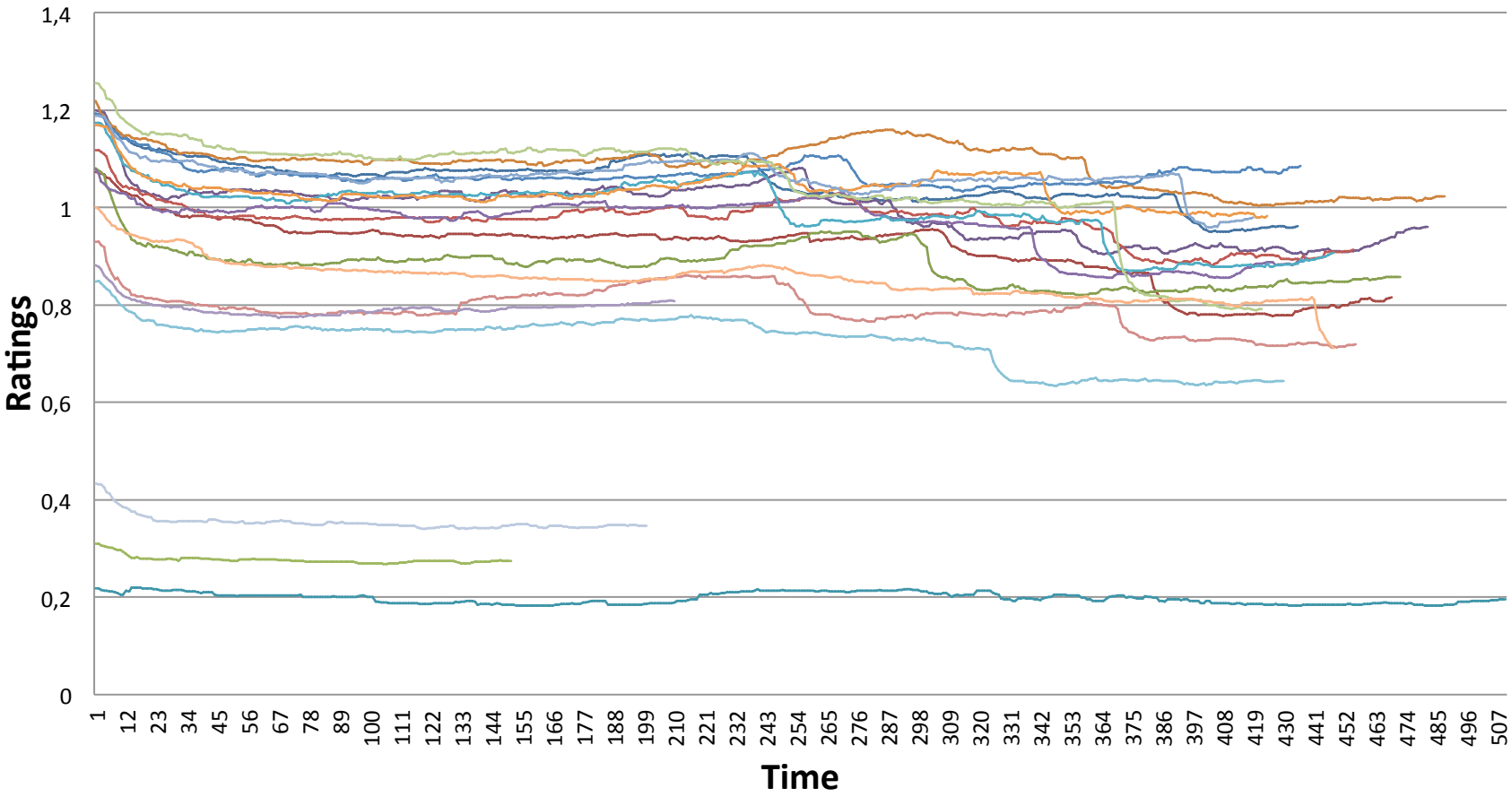
Top Chef 3rd Pods



- Regular commercial break average rating: 0.8665
- Pod Buster break average rating: 0.8533

Out of 19 weeks, only 4 Pod Buster breaks outperformed the average for the same day

Real Housewives 3rd Pods



Pod Busters commercial breaks are not outperforming regular commercial breaks in terms of ratings

Possible explanation

- 7 minute pods are not outperforming 3 minute pods because of the longer duration
- Positive changes around the 4 minute mark could be due to viewers switching back thinking their show is back on

Further Testing

- Randomize where the pod buster is played

REPEATABILITY
PROJECT

- **Understand the effect that repeating a premiere on the same week has on overall audience**
- **Create models that explains audience numbers behavior on repeating shows**
- **Predict Food Network audience numbers with more showings of an episode per week**

1. Analyzed drops in audience numbers from premiere to repeat showings

8 Food Network shows:

- Chopped Canada
- Cutthroat Kitchen
- Food Court Wars
- Guy's Grocery Games
- Mystery Diners
- Restaurant Impossible
- Restaurant Stakeout
- Rewrapped

10 Competitor Networks:

- Bravo!
- Esquire
- FX
- HGTV
- History
- Lifetime
- Oxygen
- OWN
- Spike
- WE

2. Extracted all episodes from Competitor Networks that were shown 4 or 6 times a week

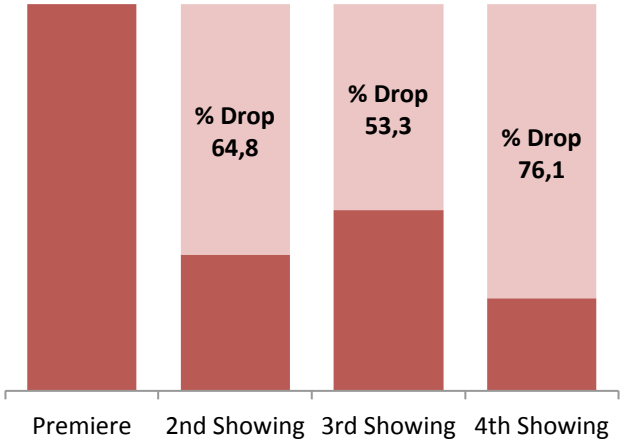
3. Developed 4-showing model and 6-showing model based on the average audience drops from relevant Competitor Networks

4. Applied to Food Network shows using premiere audience numbers

4-Showings Model

Number of Networks:	6
Number of shows:	10
Number of episodes:	58
Average weekly Audience:	2,186
Average Drop 1:	**64.8%**
Average Drop 2:	**53.3%**
Average Drop 3:	**76.1%**

4-Showings Graph



4-Showings Model

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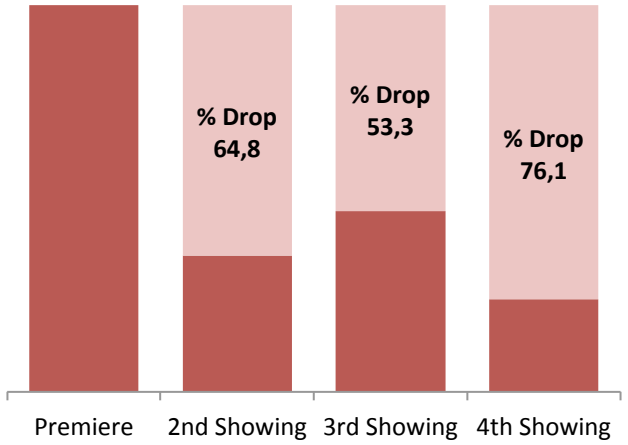


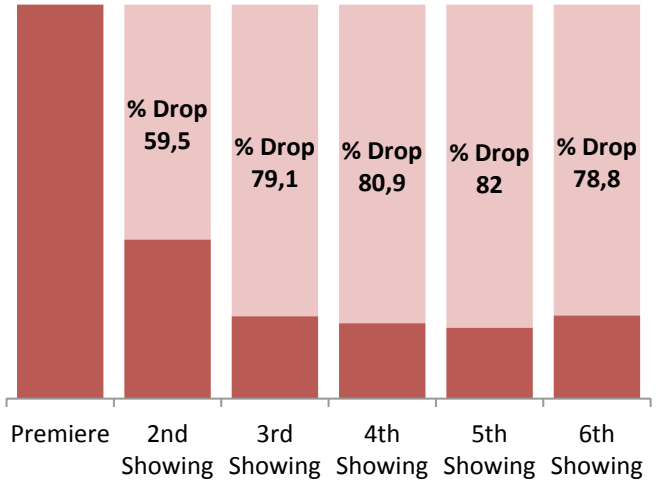
4-Showings Summary

	Included Networks	# Shows	# Ep.	Weekly Aud	Per ep. Aud	Avg 1st Drop	Avg 2nd Drop	Avg 3rd Drop
ESQUIRE		3	8	93	23	63%	-41%	-82%
OWN		5	22	594	149	40%	52%	58%
HISTORY	x	2	23	3411	853	62%	71%	83%
FX	x	1	4	2417	604	60%	83%	79%
LIFETIME	x	2	7	1569	392	78%	78%	86%
WE		2	9	542	135	41%	50%	65%
OXYGEN		2	9	642	161	58%	61%	76%
BRAVO	x	3	7	1196	299	64%	81%	83%
SPIKE TV	x	1	10	2880	720	67%	62%	49%
HGTV	x	1	7	1646	411	59%	44%	72%

6-Showings Model

Number of Networks:	4
Number of shows:	8
Number of episodes:	12
Average weekly Audience:	3,002
Average Drop 1:	**59.5%**
Average Drop 2:	**79.1%**
Average Drop 3:	**80.9%**
Average Drop 4:	**82.0%**
Average Drop 5:	**78.8%**

6-Showings Graph



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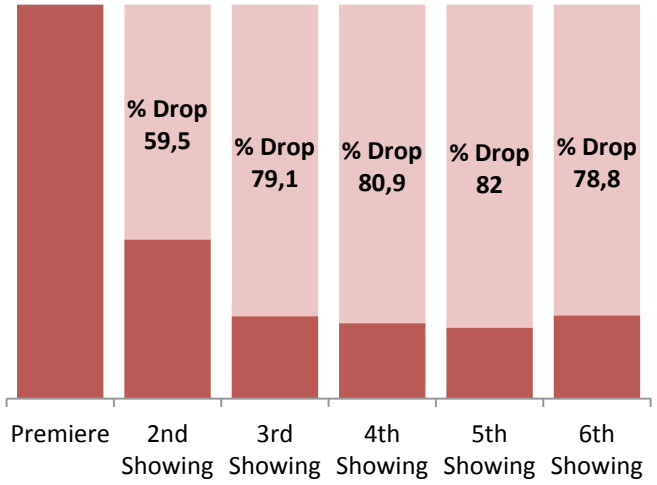
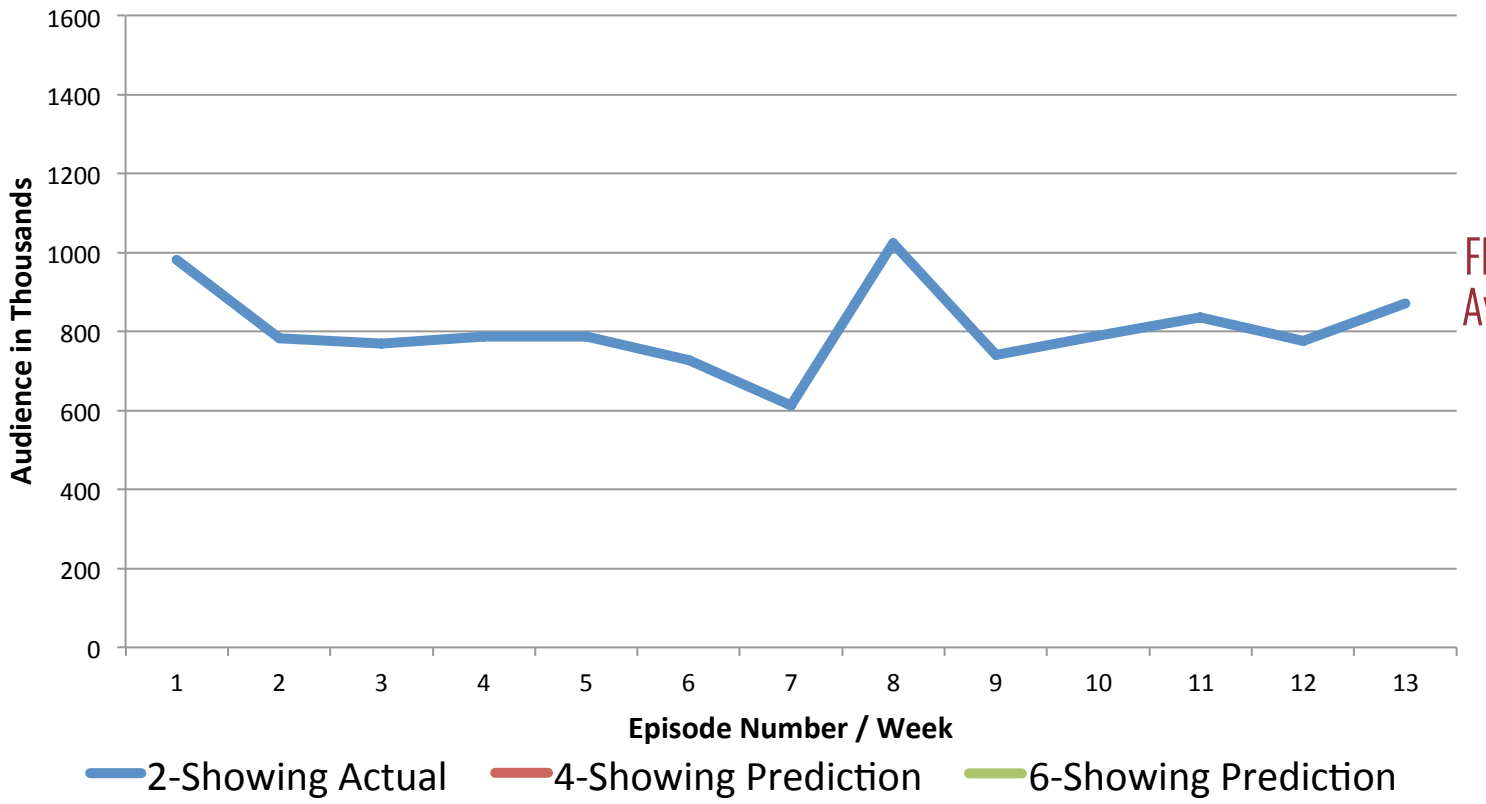


6-Showings Summary

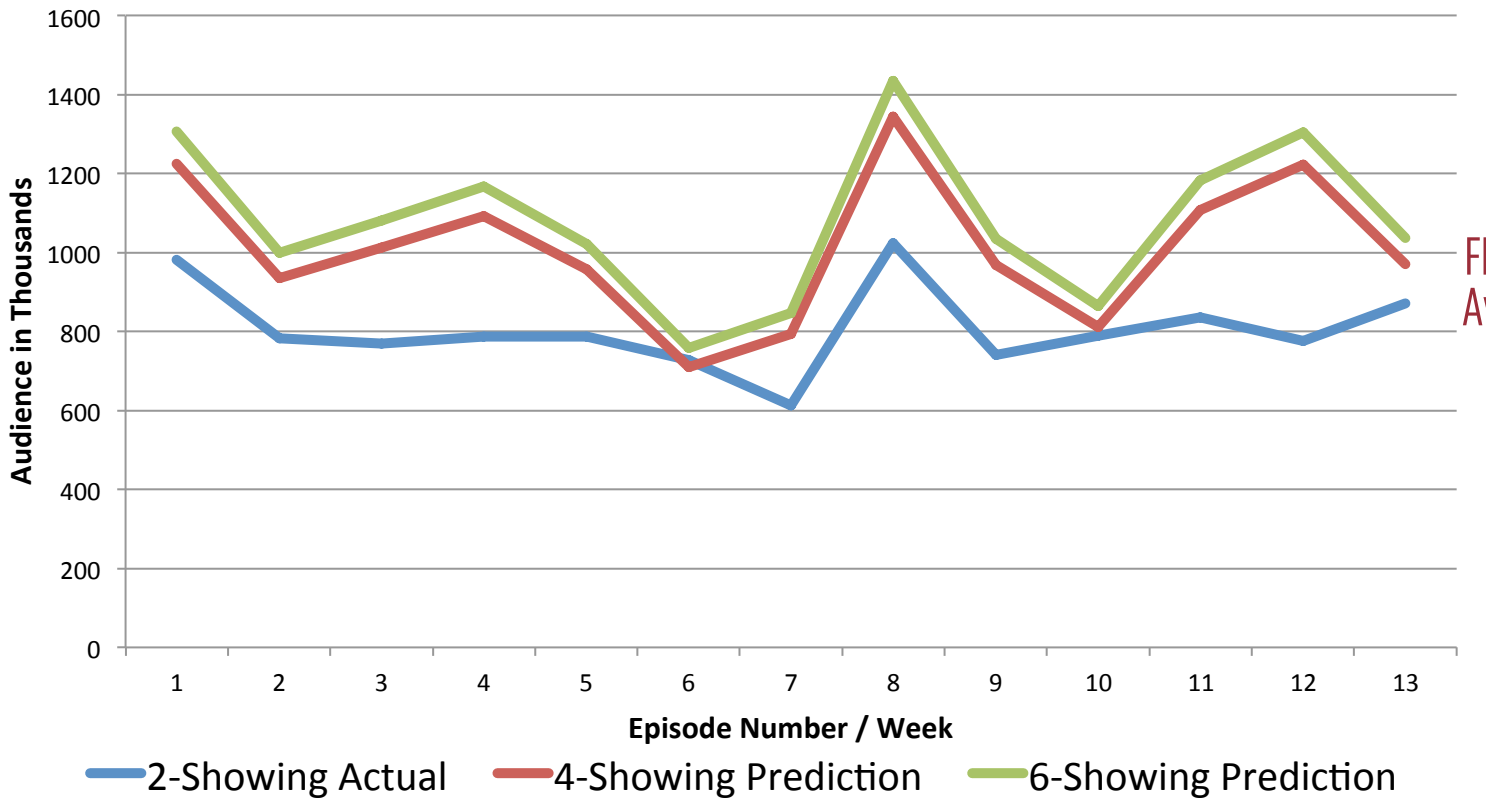
	Included Networks	# Shows	# Ep.	Weekly Aud	Per ep. Aud	Avg 1st Drop	Avg 2nd Drop	Avg 3rd Drop	Avg 4th Drop	Avg 5th Drop
OWN		1	2	1284	214	24%	30%	66%	41%	68%
HISTORY	x	1	1	4669	778	64%	89%	91%	82%	92%
FX	x	1	2	3496	583	64%	82%	86%	86%	81%
LIFETIME	x	2	3	1679	280	75%	79%	86%	86%	83%
OXYGEN		2	4	415	69	39%	69%	52%	80%	28%
BRAVO	x	4	6	2166	361	50%	77%	75%	79%	74%

Chopped Canada S1



FN 2-Showing Average Drop: 33%

Chopped Canada S1



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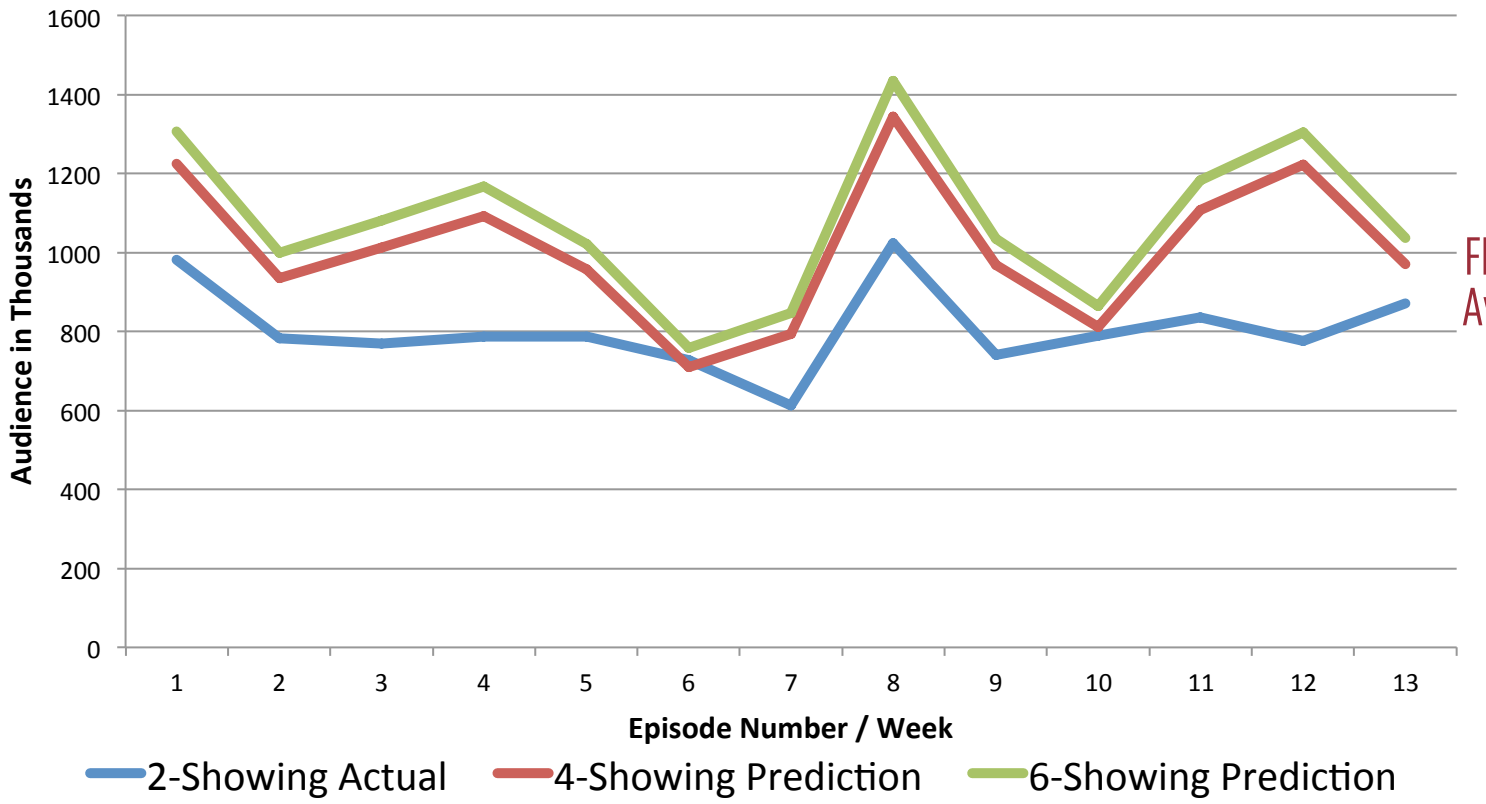
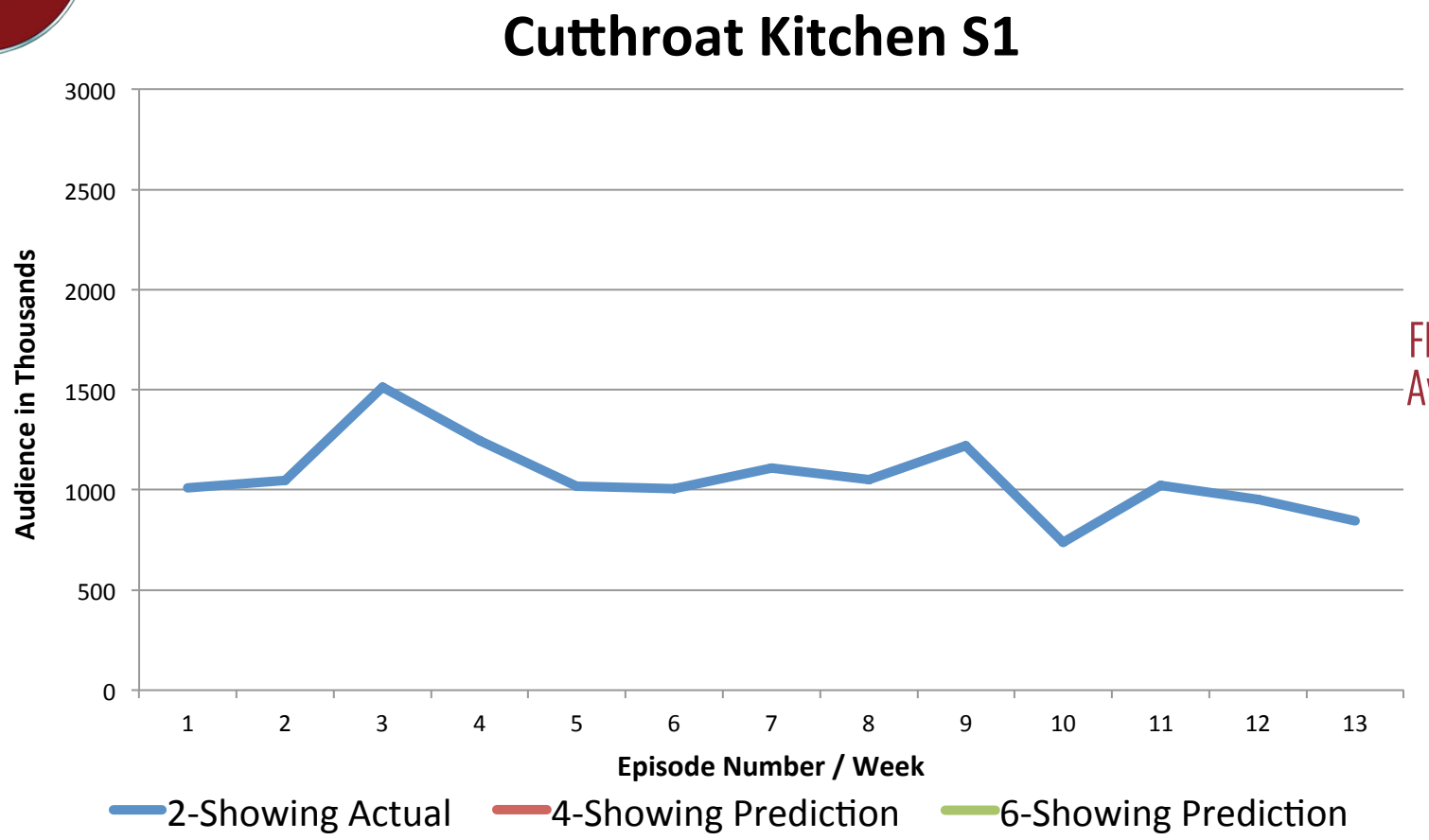
Chopped Canada S1

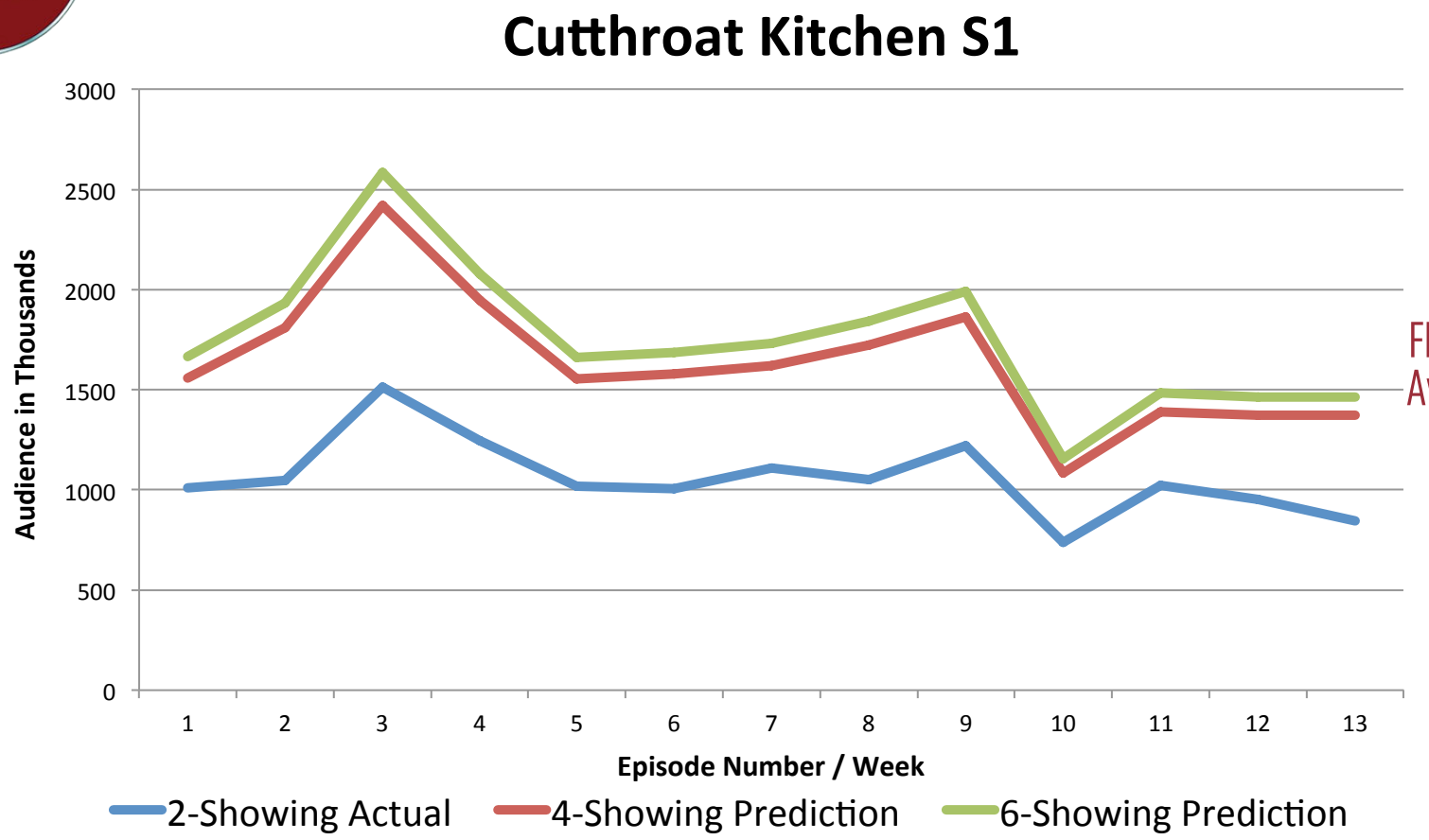


FN 2-Showing Average Drop: 33%

	Actual	4-Showing	6-Showing
Total Season Audience:	10488	13155	14043
Increase from Actual:		25.43%	33.90%

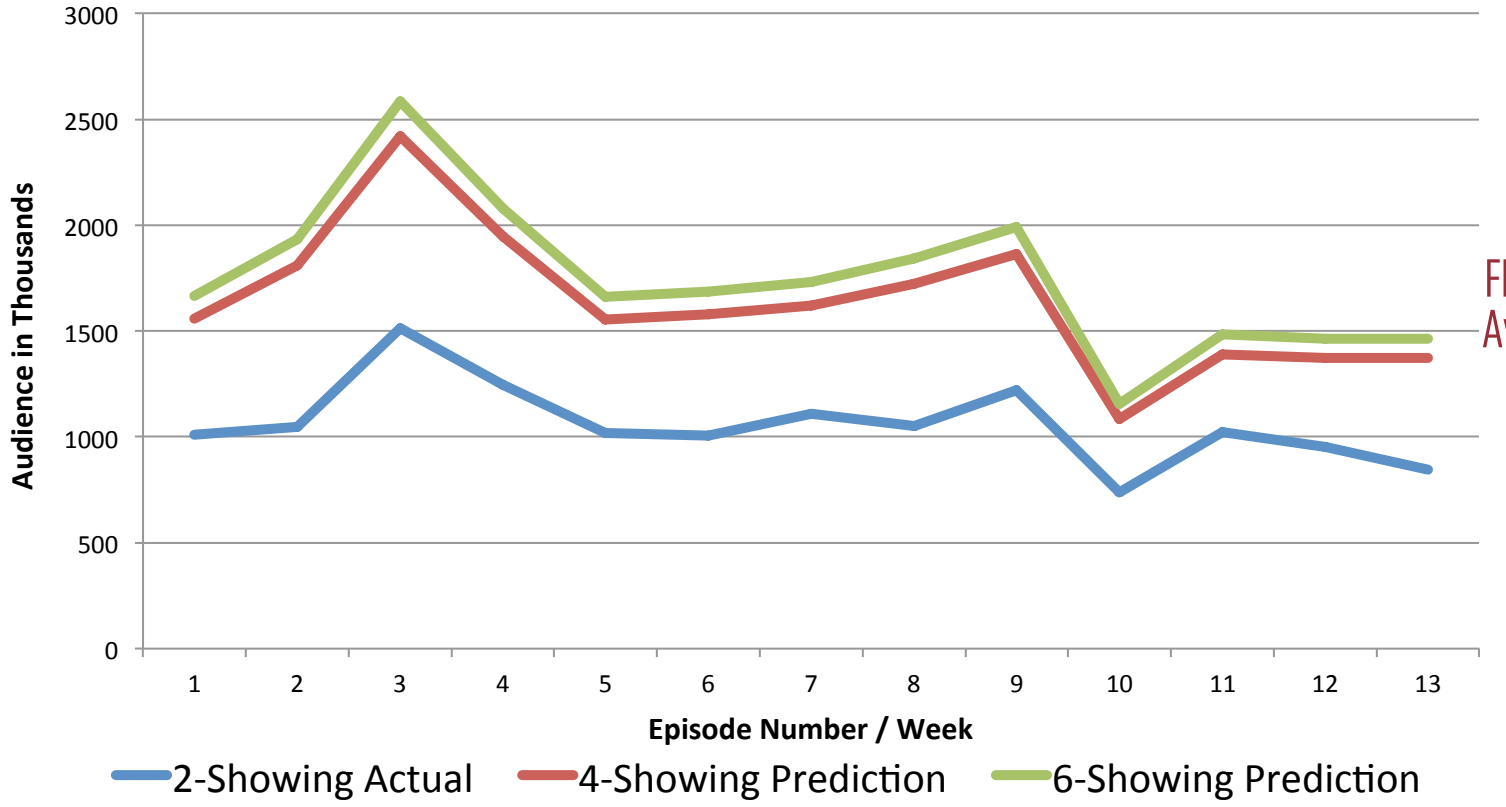


FN 2-Showing Average Drop: 66%



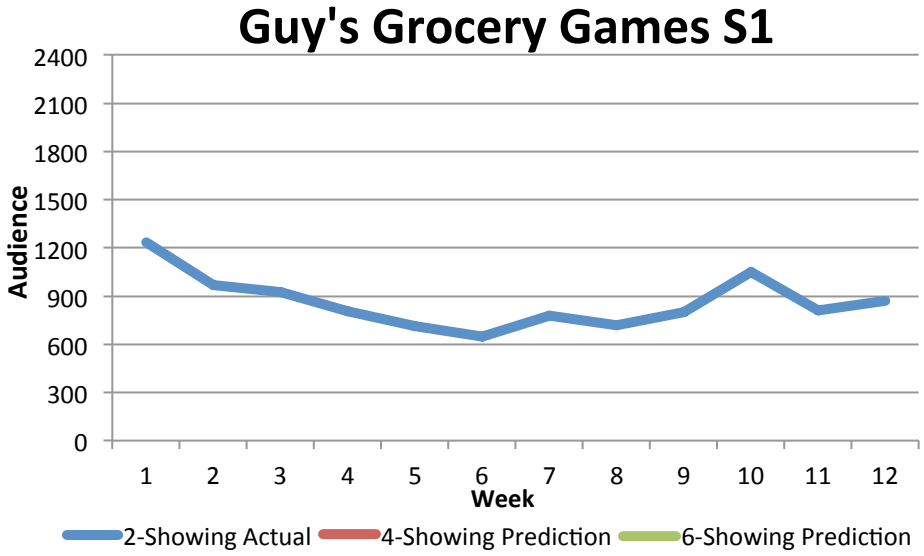
FN 2-Showing Average Drop: 66%

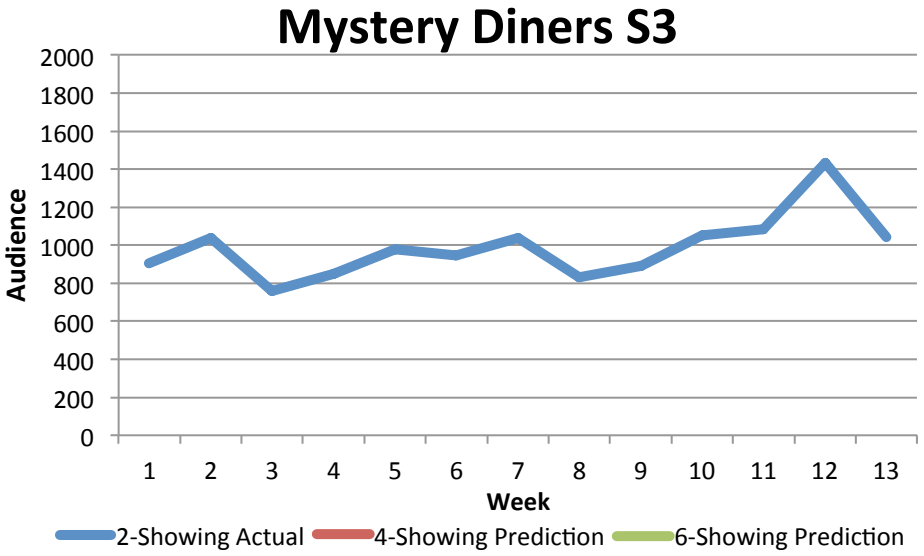
Cutthroat Kitchen S1



FN 2-Showing Average Drop: 66%

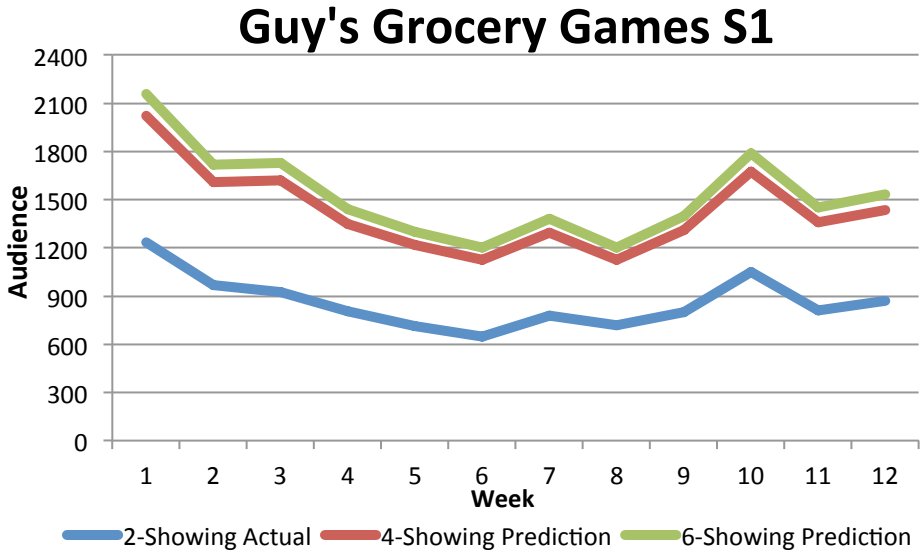
	Actual	4-Showing	6-Showing
Total Season Audience:	13775	21304	22742
Increase from Actual:		54.66%	65.10%

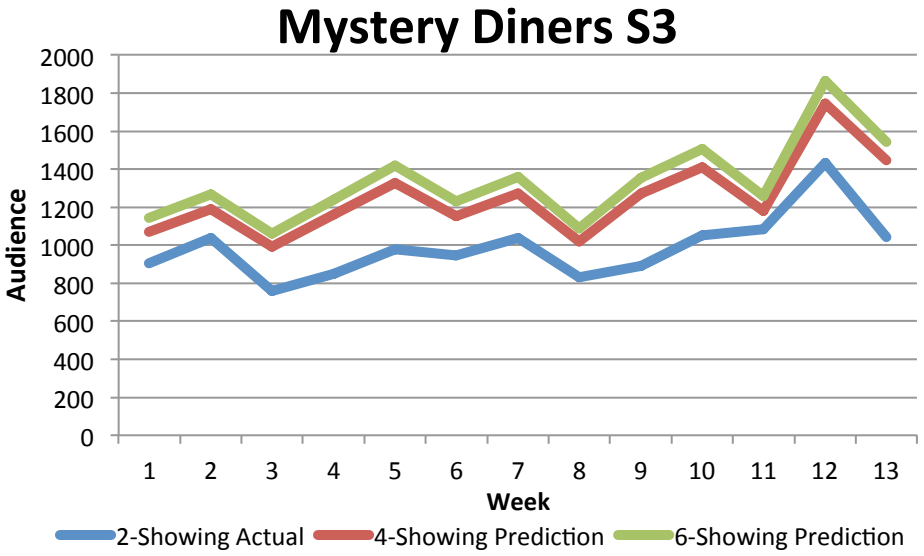




High Actual Average Drop: 76%

Low Actual Average Drop: 37%

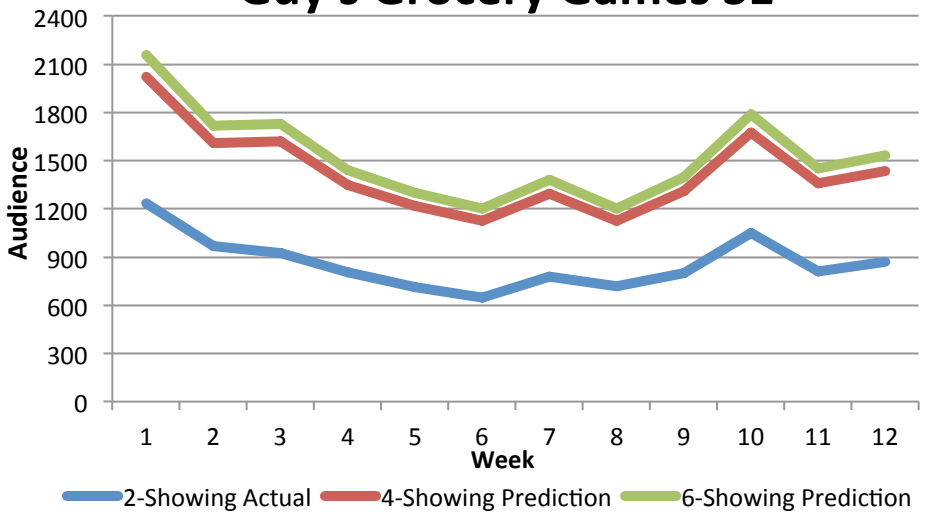




High Actual Average Drop: 76%

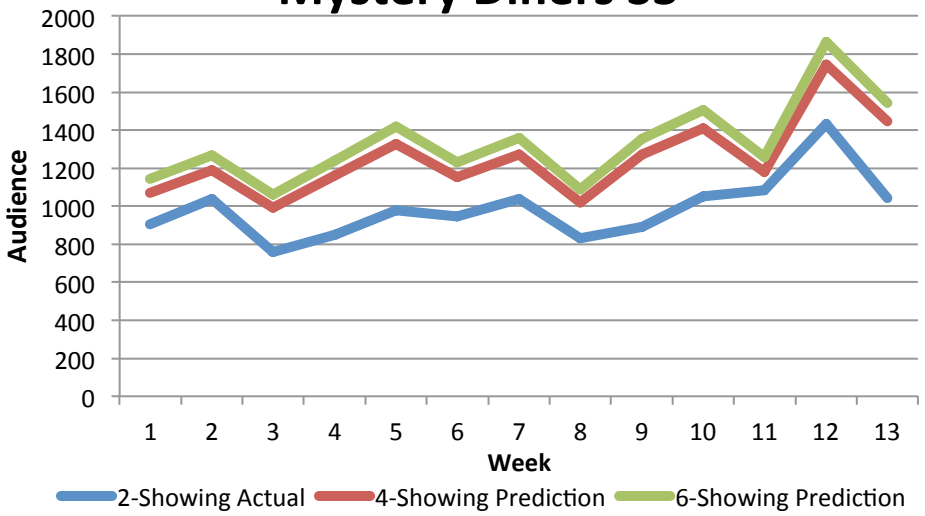
Low Actual Average Drop: 37%

Guy's Grocery Games S1



	Actual	4-Showing	6-Showing
Total Season Audience:	10316	17142	18299
Increase from Actual:		66.17%	77.39%

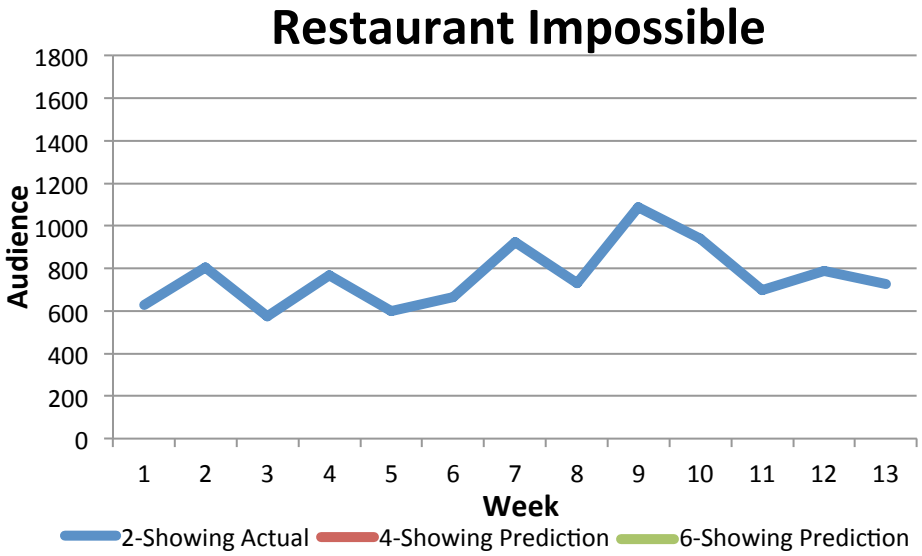
Mystery Diners S3



	Actual	4-Showing	6-Showing
Total Season Audience:	12850	16236	17332
Increase from Actual:		26.35%	34.88%

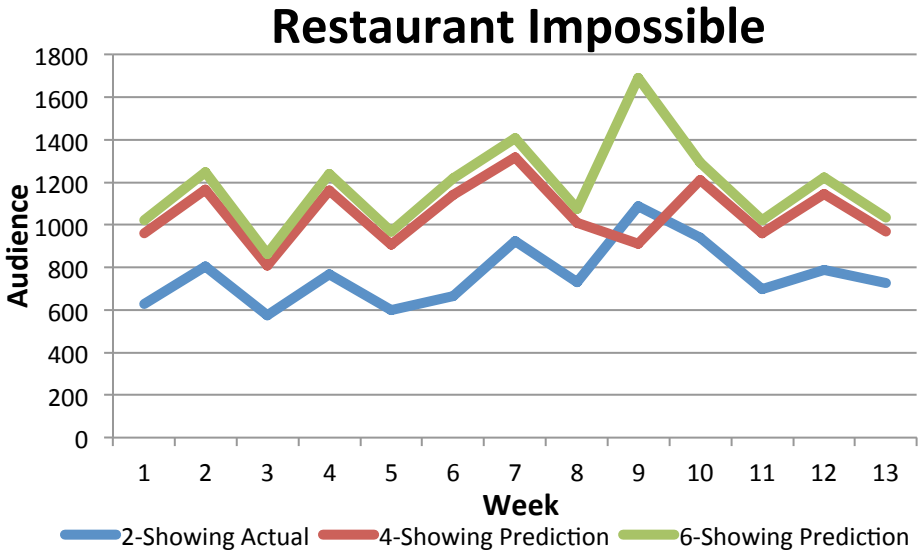
High Actual Average Drop: 76%

Low Actual Average Drop: 37%



	Actual	4-Showing	6-Showing
Total Season Audience:	9934	13671	15311
Increase from Actual:		37.62%	54.13%

Actual Average Drop: 56%



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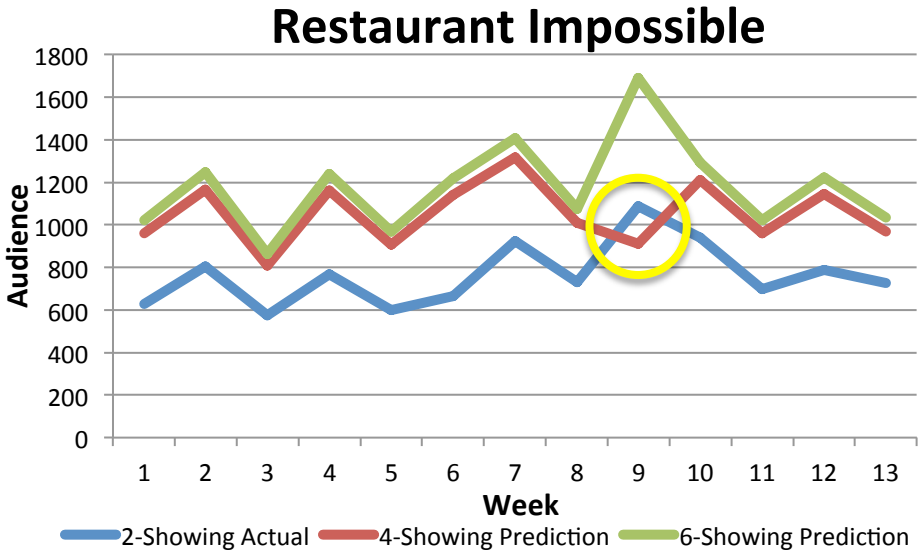

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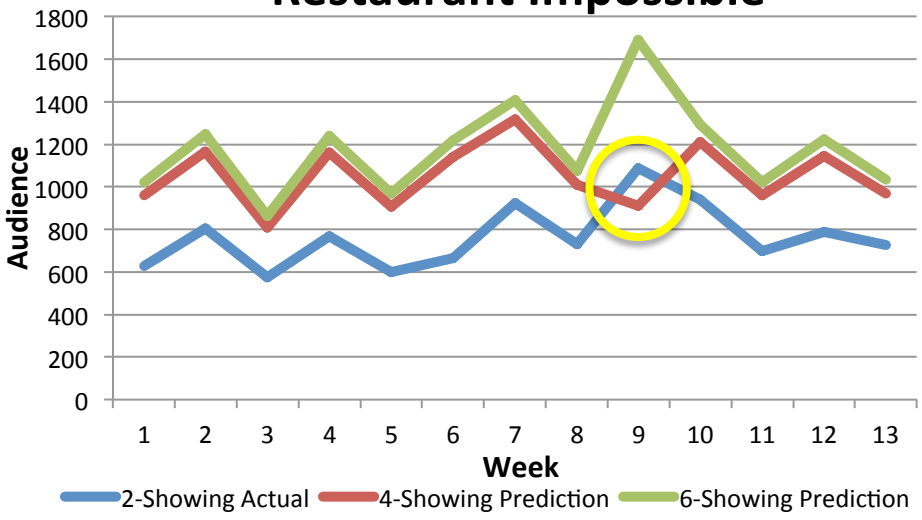
Restaurant Impossible



	Actual	4-Showing	6-Showing
Total Season Audience:	9934	13671	15311
Increase from Actual:		37.62%	54.13%

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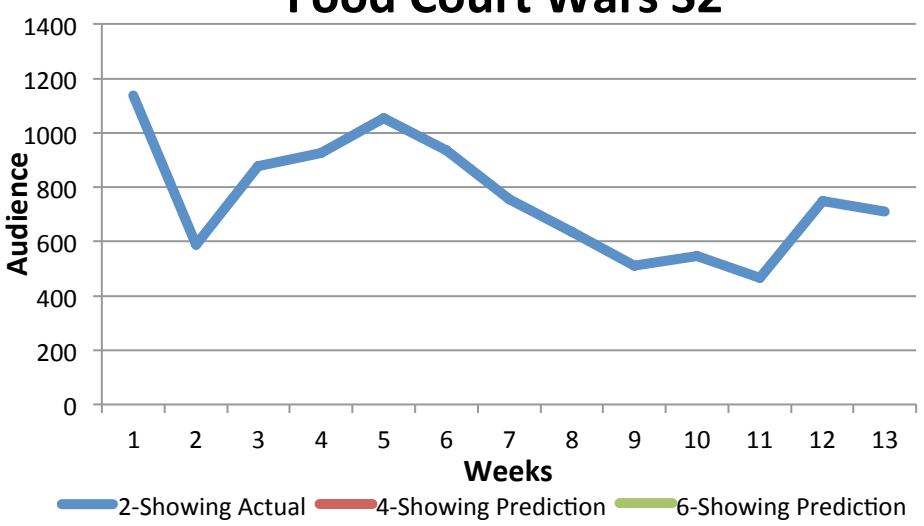
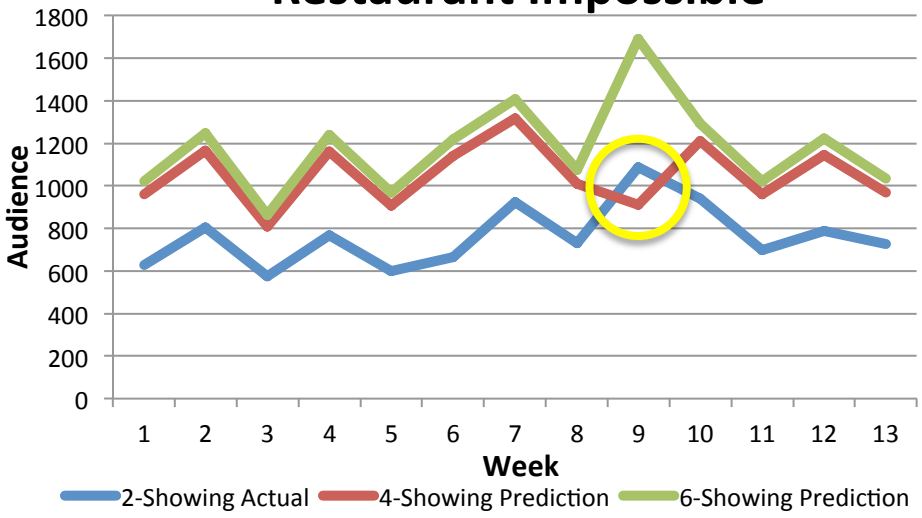
Food Court Wars S2



	Actual	4-Showing	6-Showing
Total Season Audience:	9898	11982	12790
Increase from Actual:		21.05%	29.22%

Actual Average Drop: 52%

Restaurant Impossible



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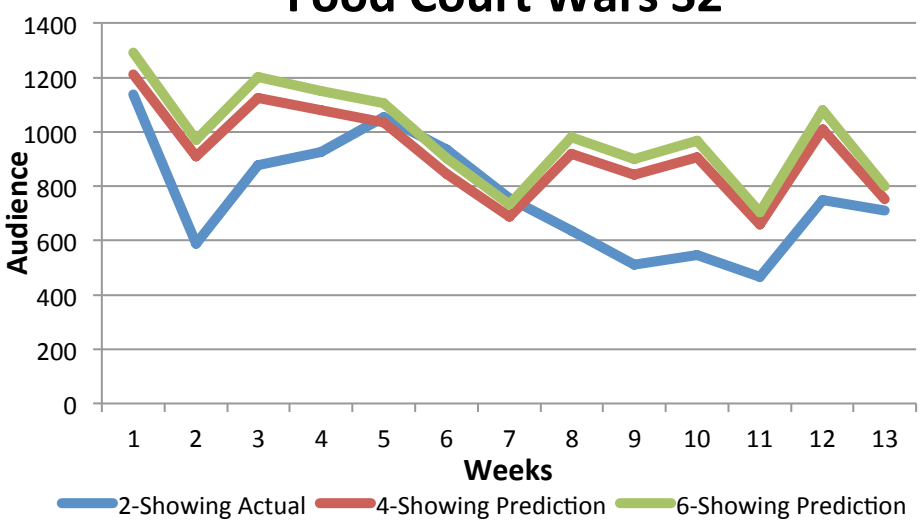
Food Court Wars S2



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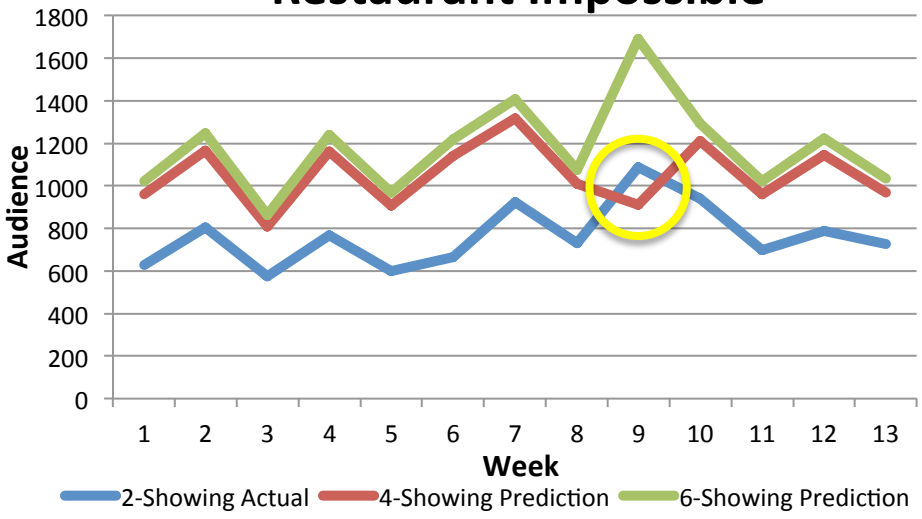

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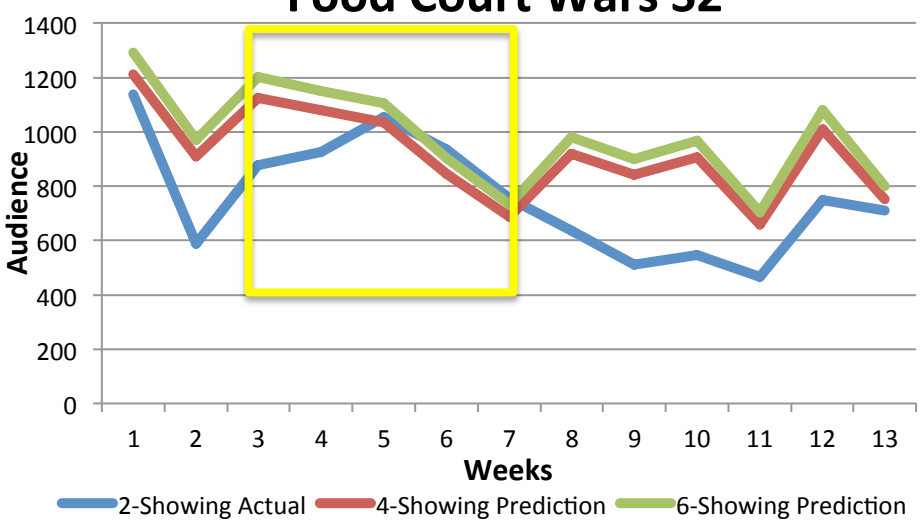

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Cutthroat Kitchen | **Guy's Grocery Games** | **Restaurant Impossible**

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3. Analysis indicates that 3 showings might be the "sweet spot" for some shows

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Food Court Wars

THANK
YOU