

Mather Economics

**Digital Advertising  
Revenue Analysis & Pricing Strategy**

2012

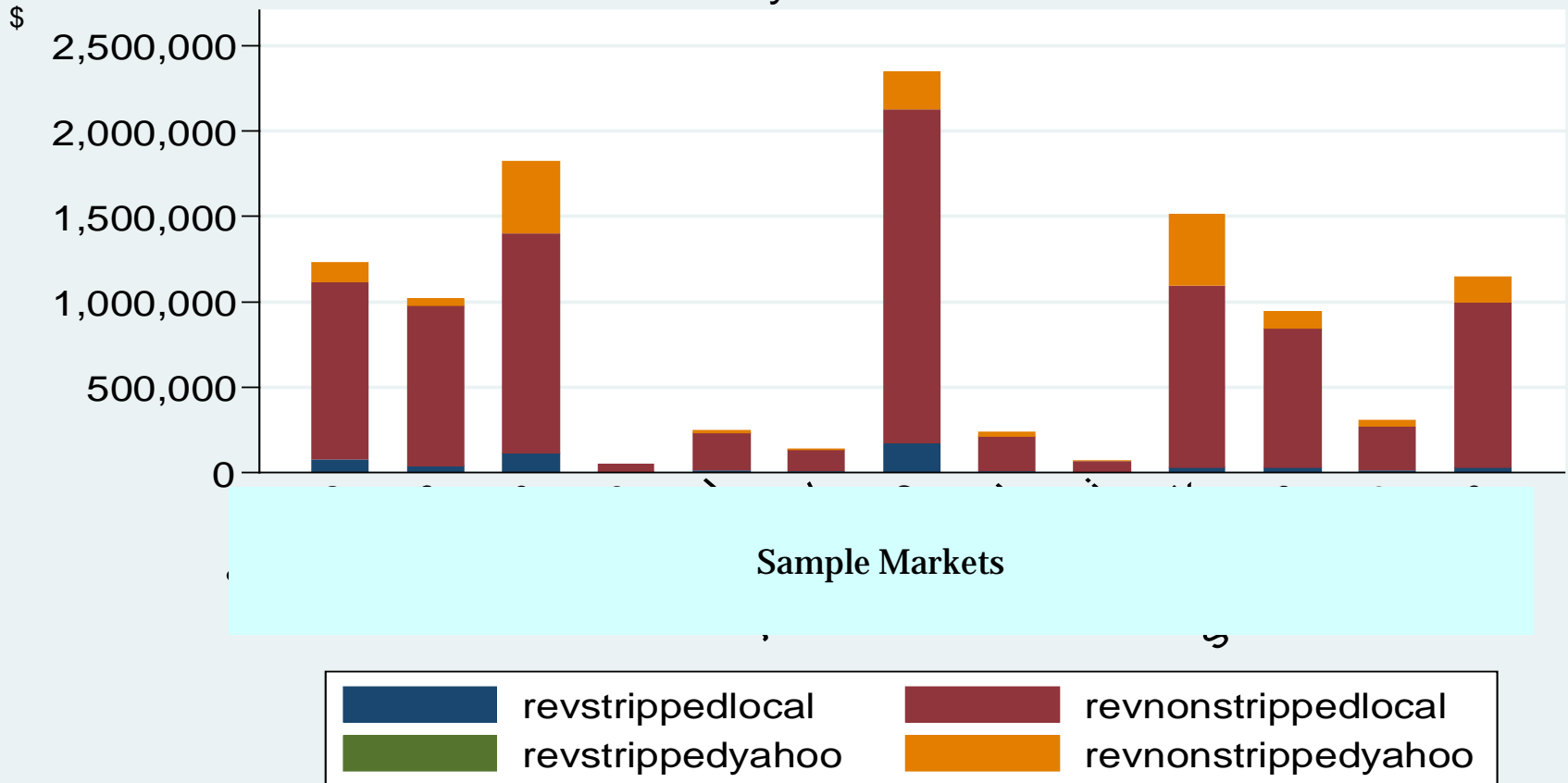
mather:

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# Digital Advertising Analysis & Pricing Strategy

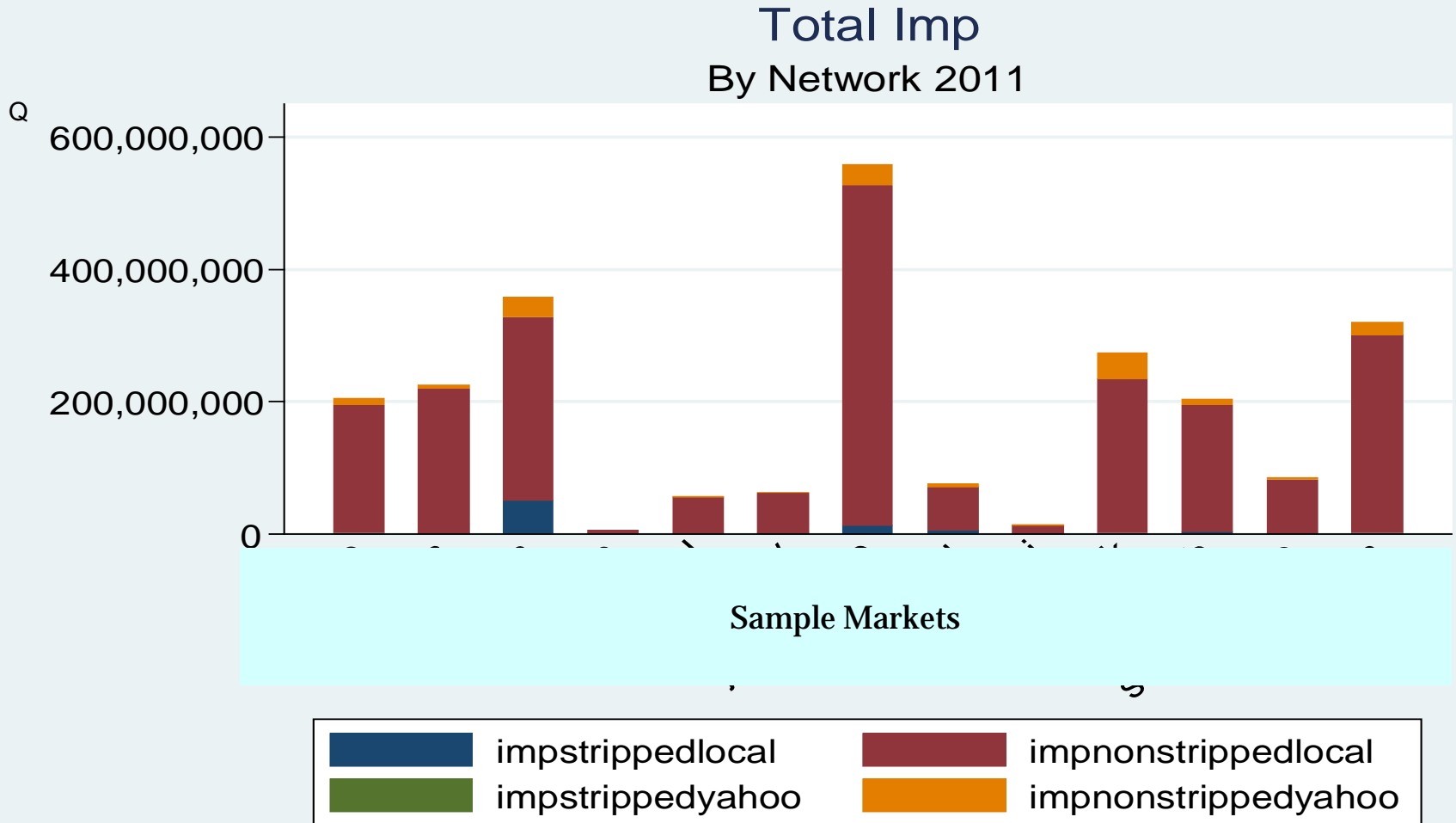
# Total Digital Advertising Revenue by Network: Local vs. Yahoo

## Total Revenue By Network 2011



Mather Economics LLC 2011

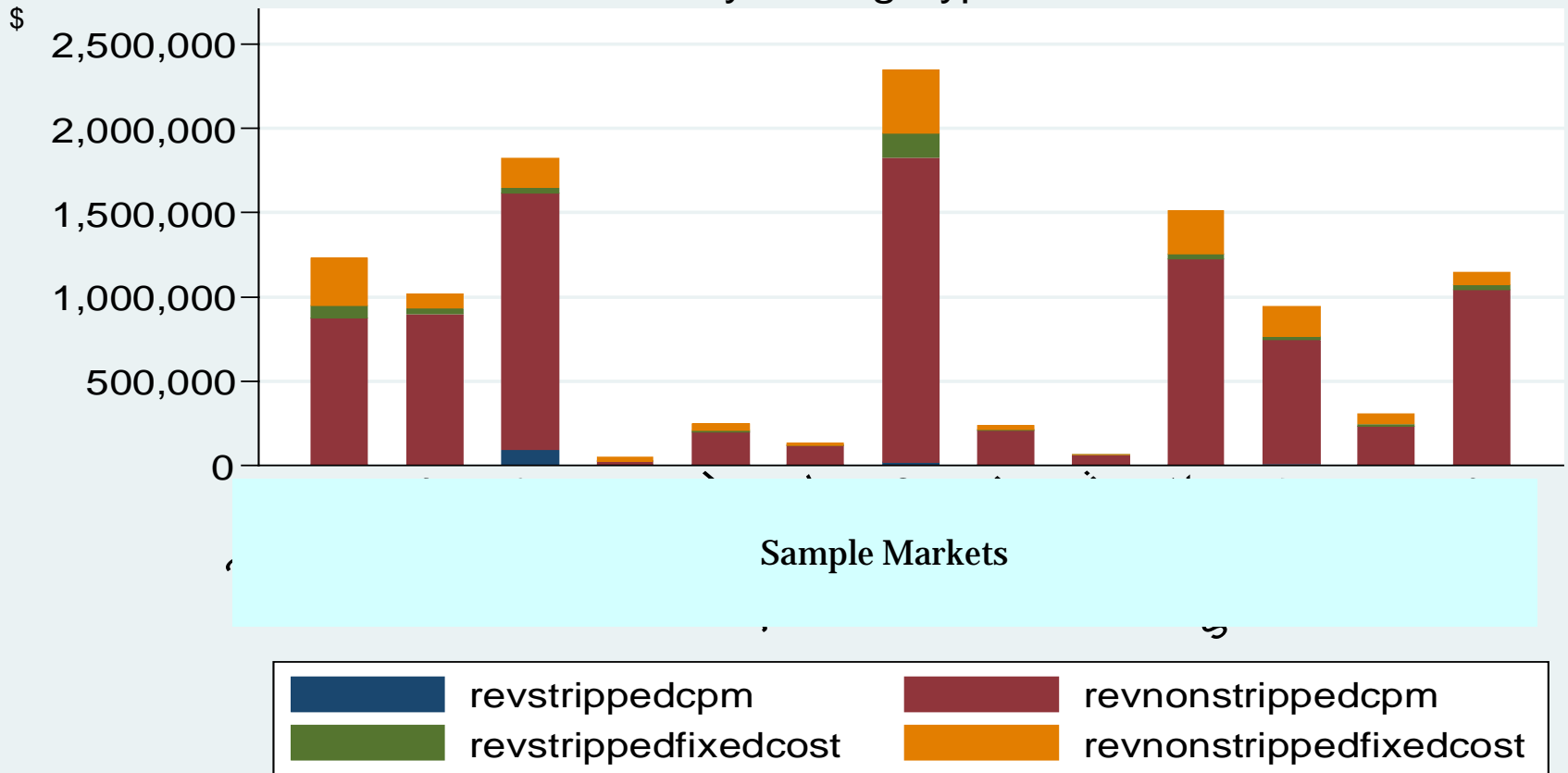
# Total Impressions Served by Network: Local vs. Yahoo



Mather Economics LLC 2011

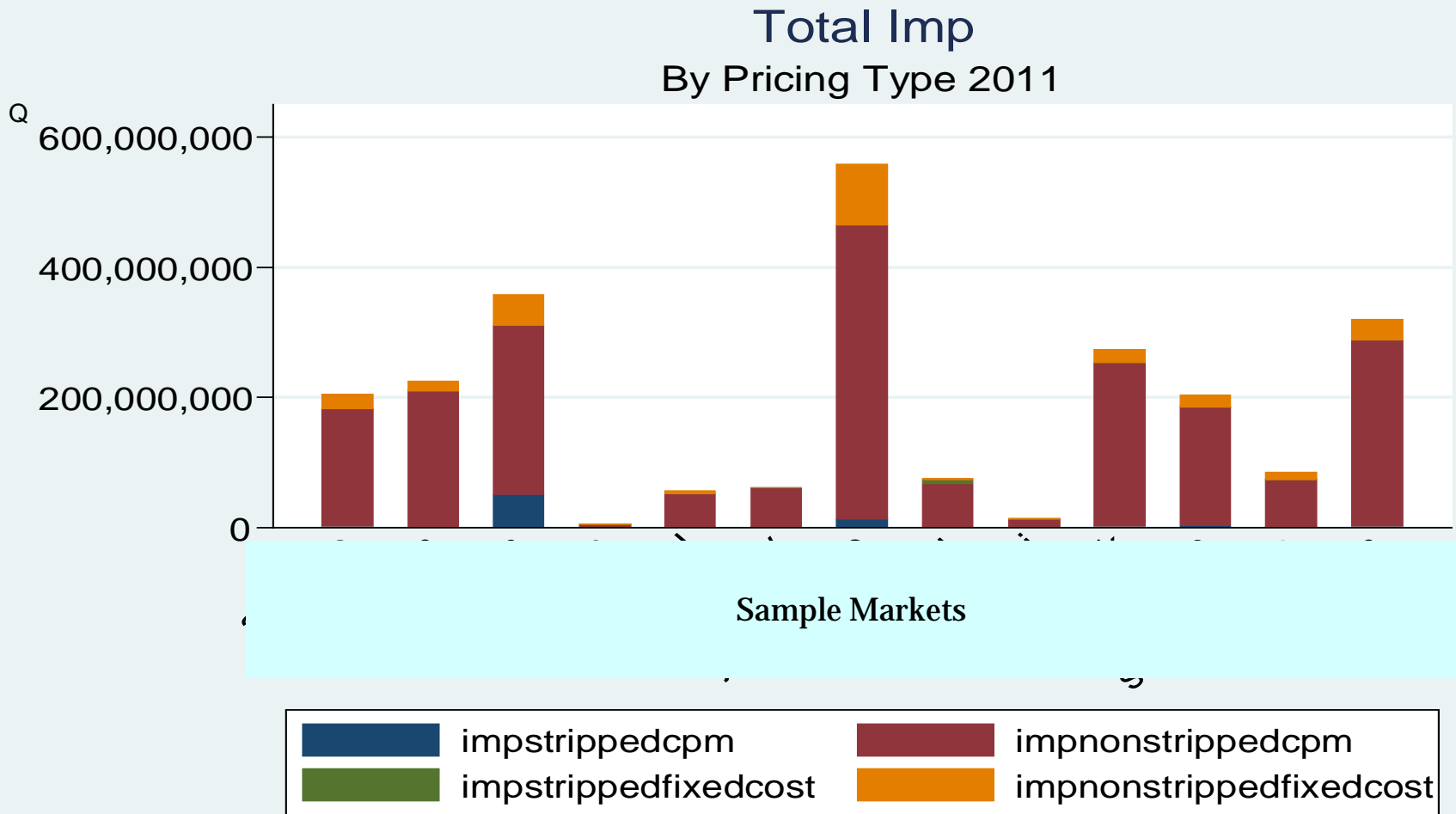
# Total Digital Advertising Revenue by Pricing Type: CPM vs. Fixed Price Ads

Total Revenue  
By Pricing Type 2011



Mather Economics LLC 2011

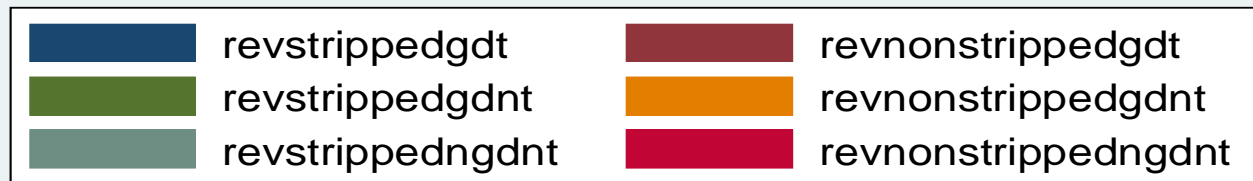
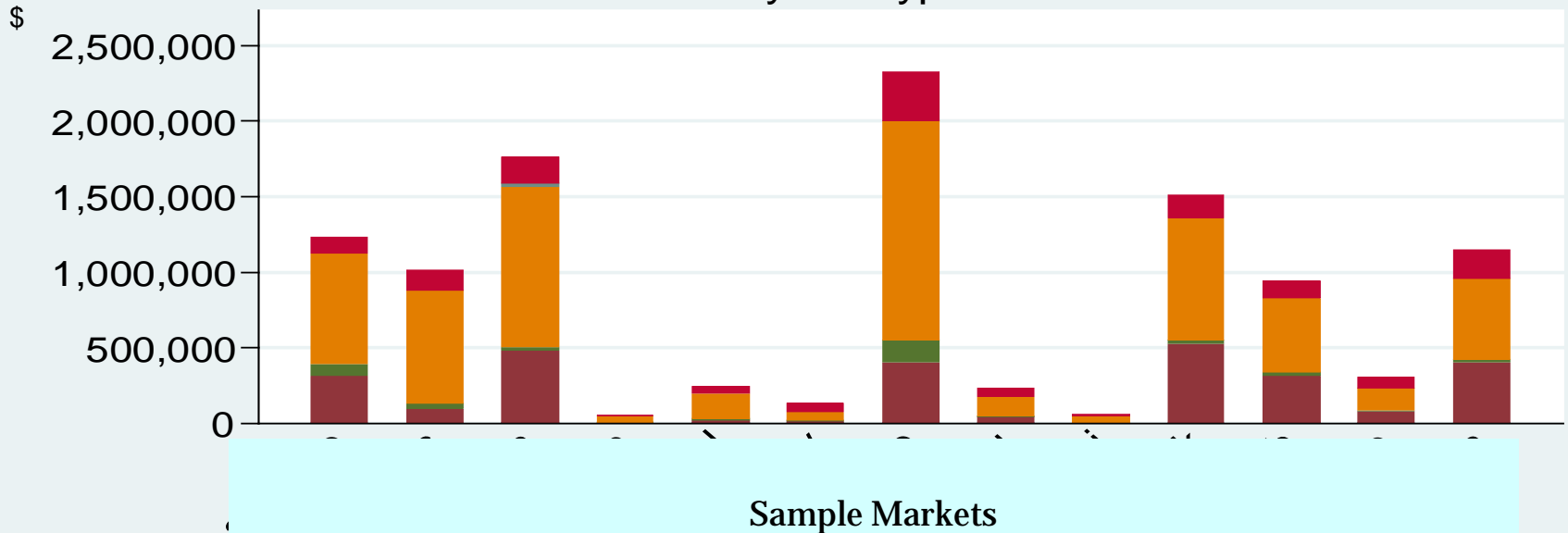
# Total Impressions Served by Pricing Type: CPM vs. Fixed Price Ads



Mather Economics LLC 2011

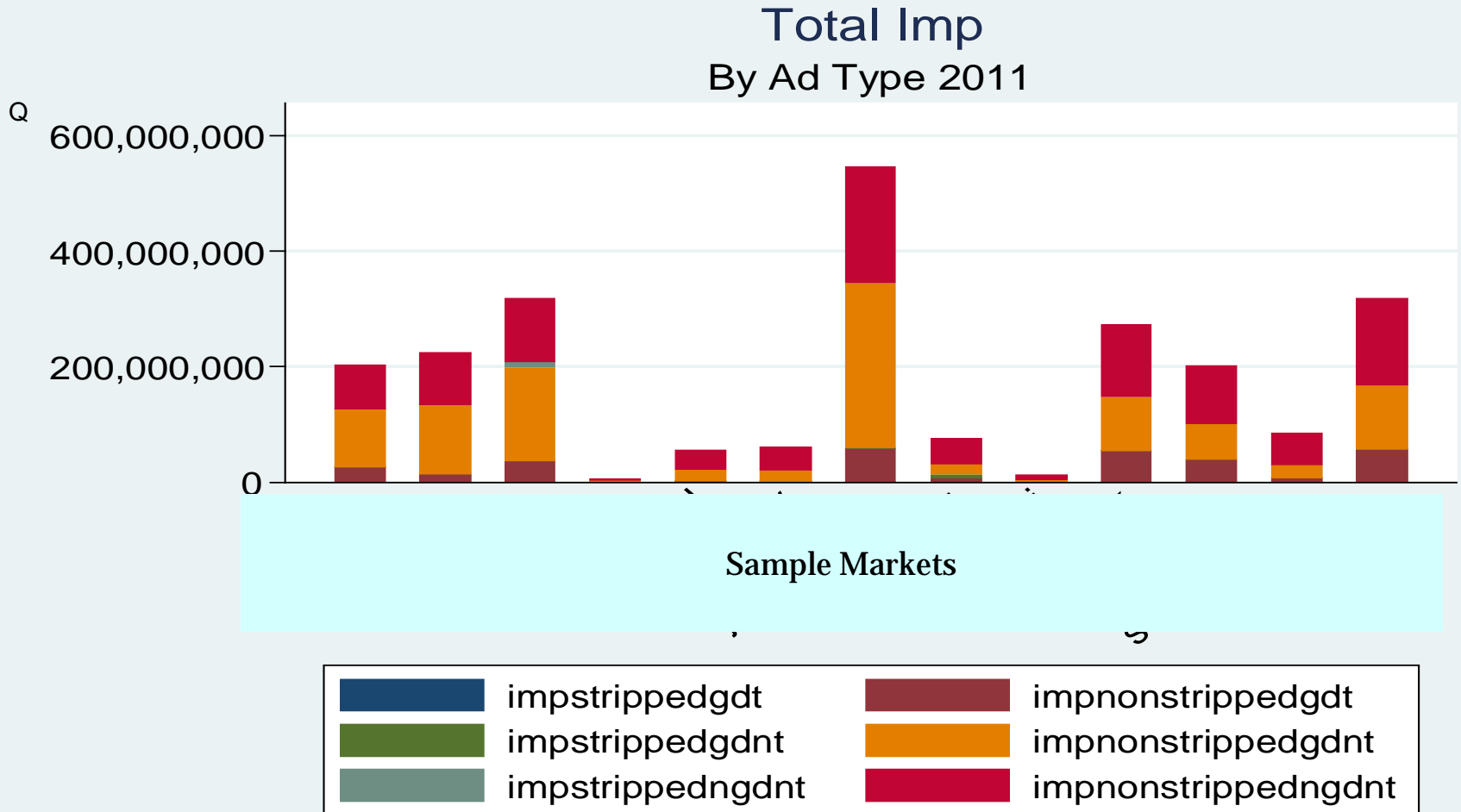
# Total Digital Advertising Revenue by Impression Categories: Guaranteed Targeted vs. Guar. Non-Targeted <sup>7</sup>

Total Revenue  
By Ad Type 2011



Mather Economics LLC 2011

# Total Impressions Served by Impression Category: Guaranteed Targeted vs. Non-Targeted

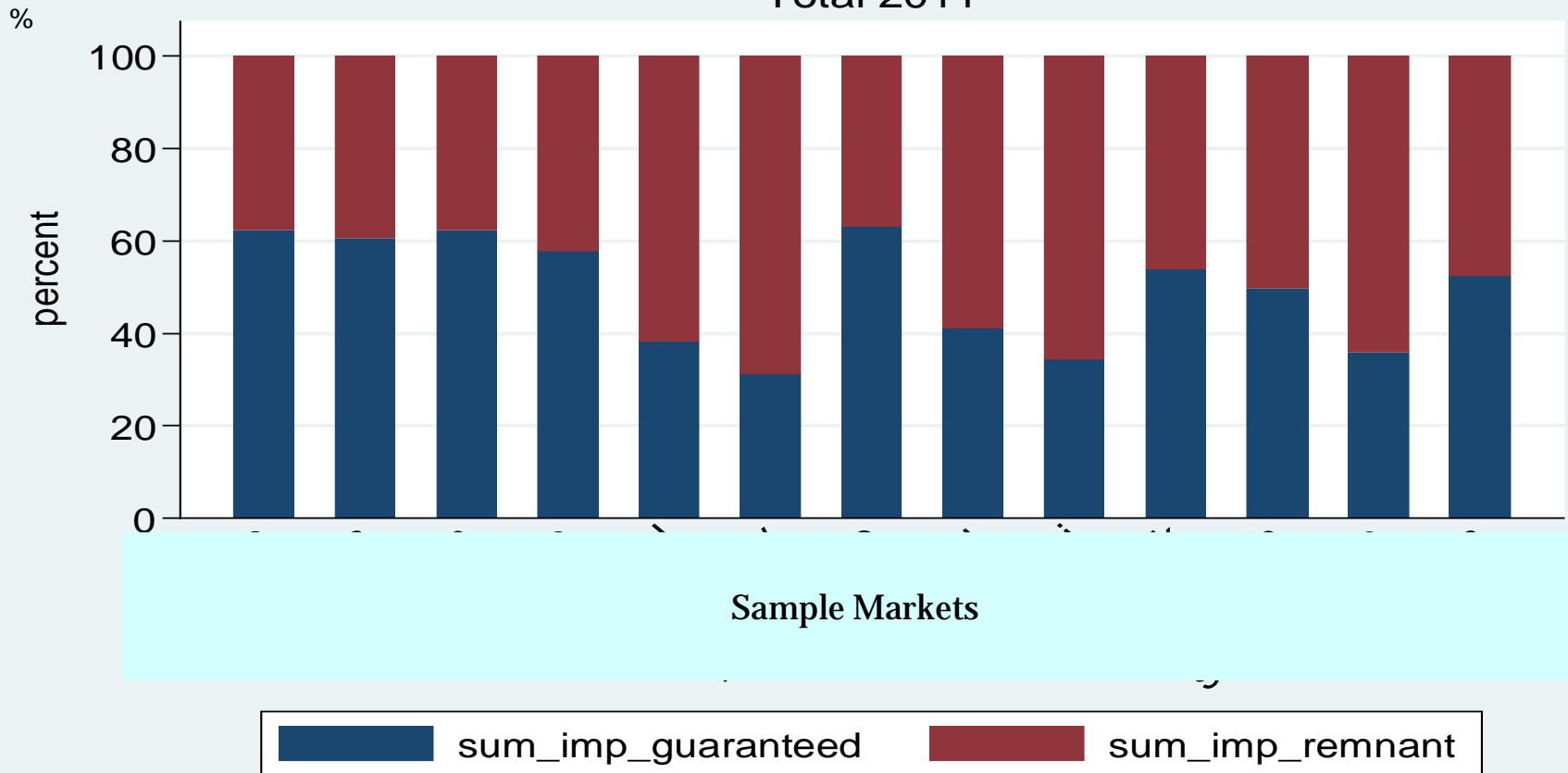


Mather Economics LLC 2011



# Guaranteed Impressions Sell Through Rate: Average Sell Through Rate is 55% (Guaranteed vs. Remnant)

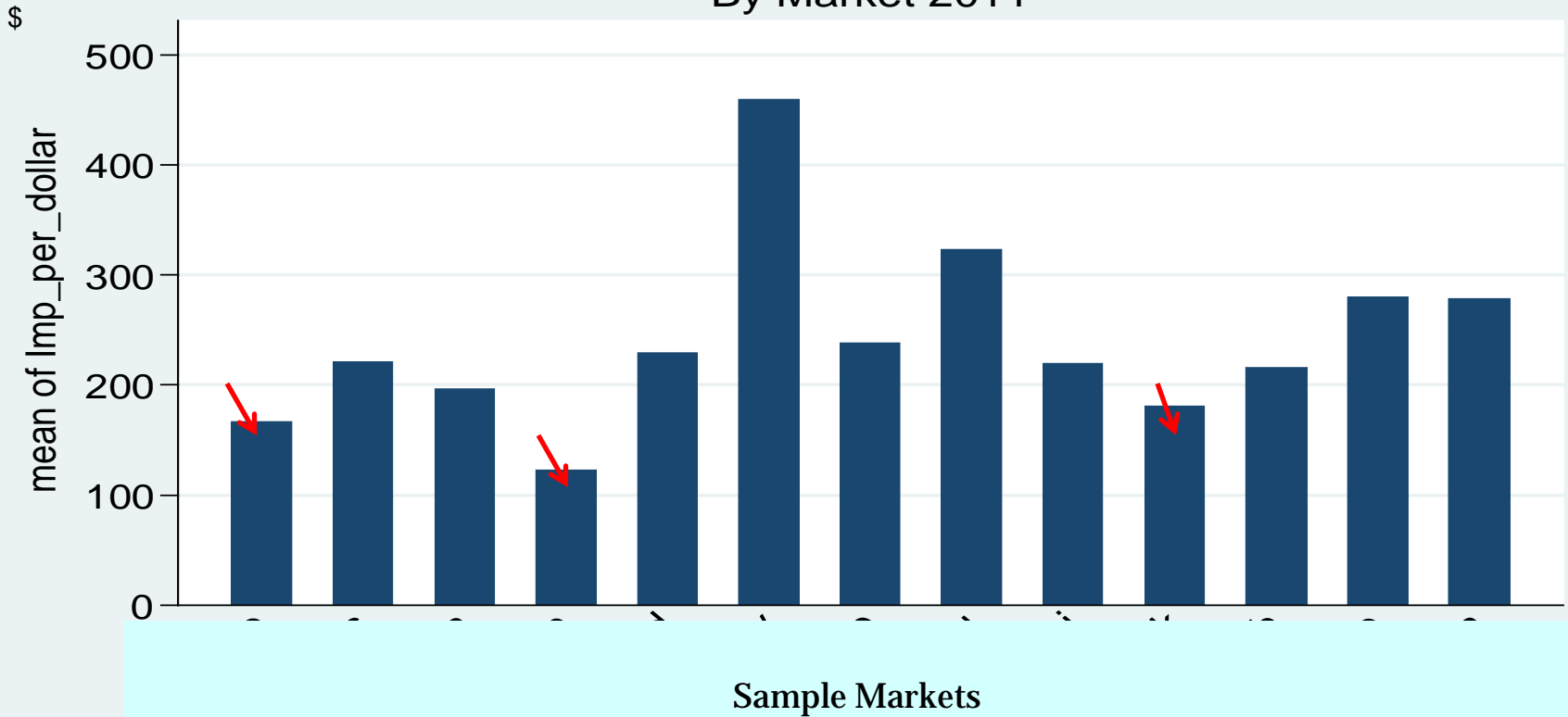
Impression Sell Through Rate  
Total 2011



Mather Economics LLC 2011

# Impression Efficiency = Number of Impressions Needed To Generate \$1 in Gross Revenue (Lower is Better) <sup>10</sup>

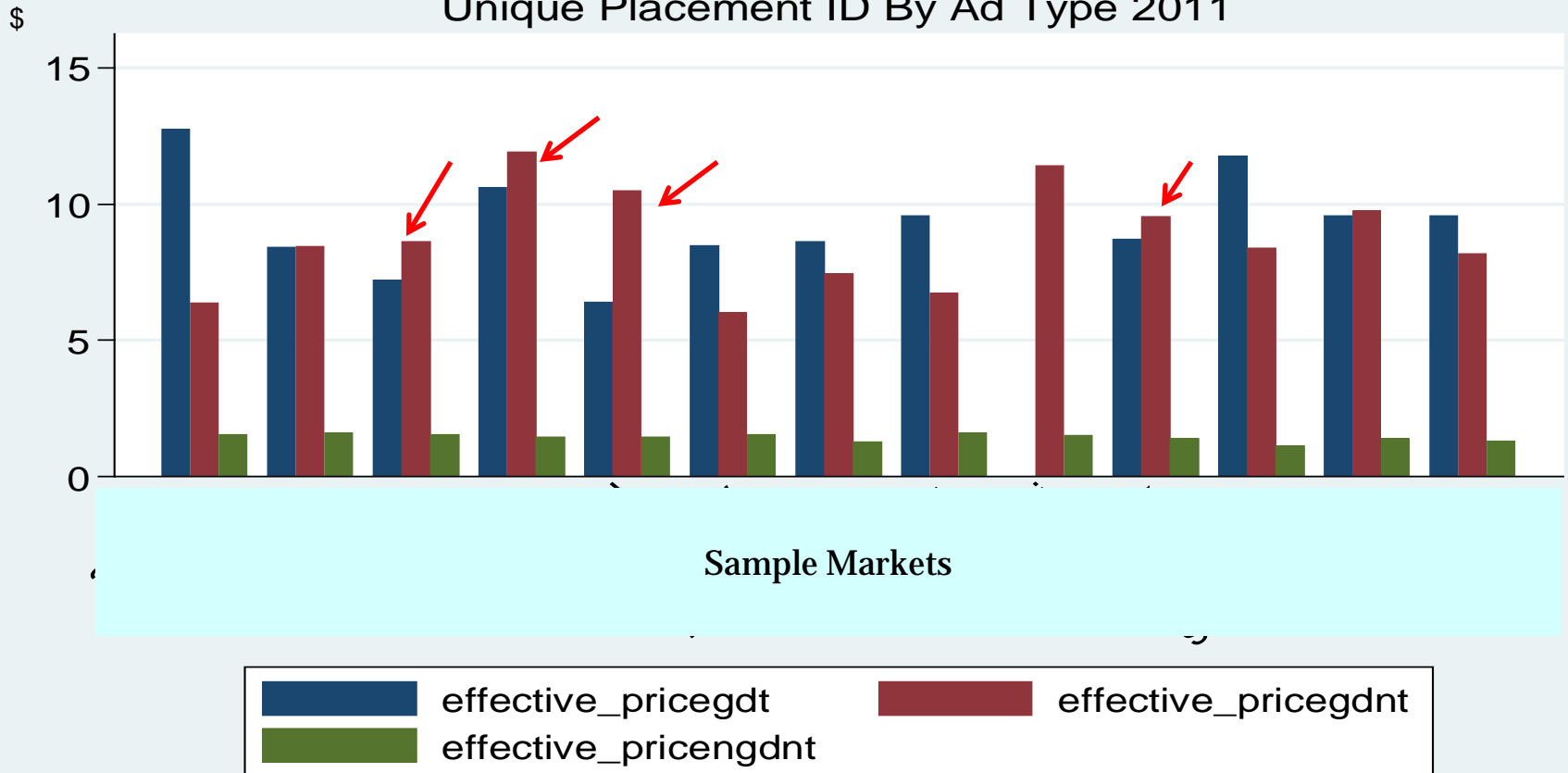
## Impression Efficiency By Market 2011



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# Average Net CPM by Impression Category: Some Markets Show Lower Targeted CPM Than Non-Targeted <sup>11</sup>

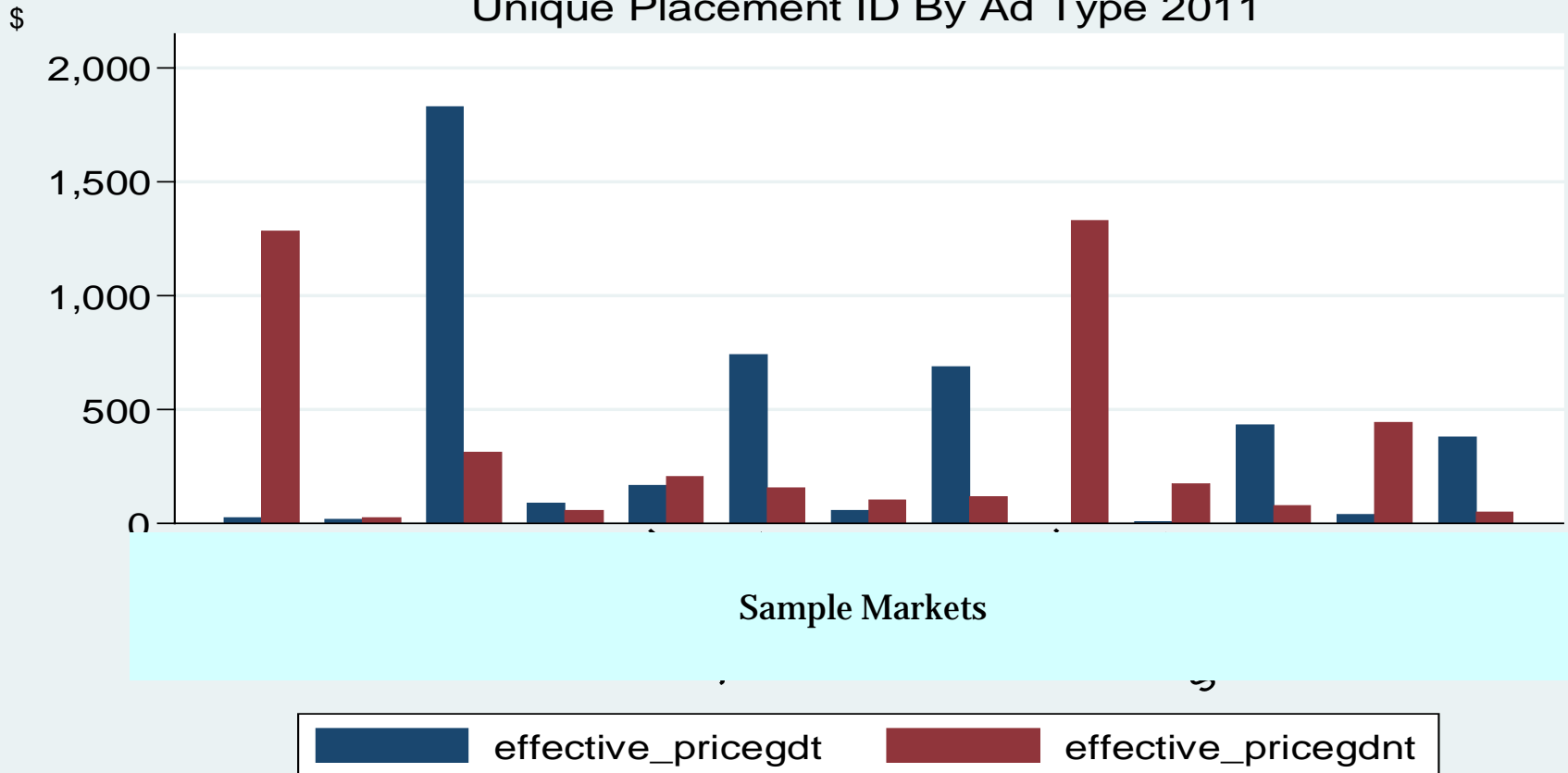
(S) CPM ONLY Ave Effective Price  
Unique Placement ID By Ad Type 2011



Mather Economics LLC 2011

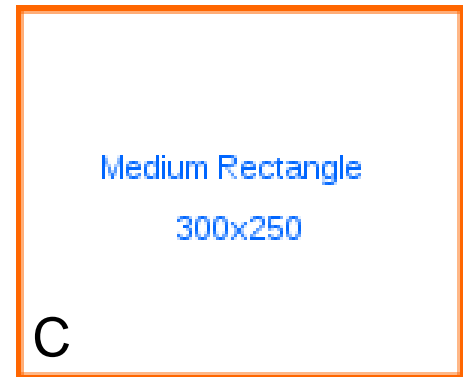
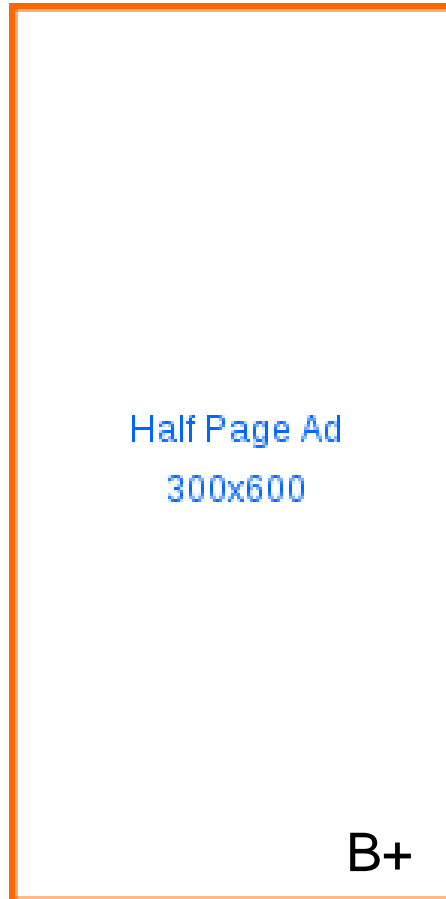
# Average Fixed Cost Pricing: Guaranteed vs. Non-Guaranteed (Most Non-Guaranteed)

(S) FIXED COST ONLY Ave Effective Price  
Unique Placement ID By Ad Type 2011



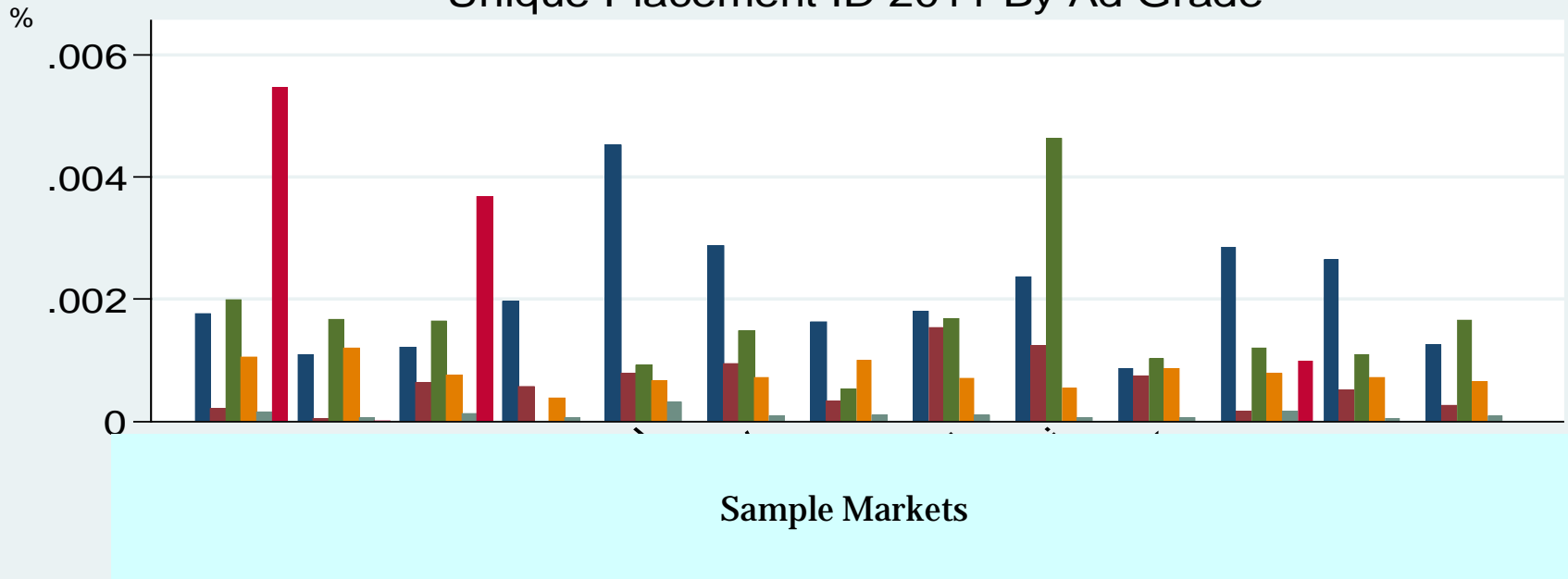
Mather Economics LLC 2011

# Common Digital Ad Sizes



# Click Through Rates – CPM Only: Leaderboard Has Highest Click-Through, Half-page Also High

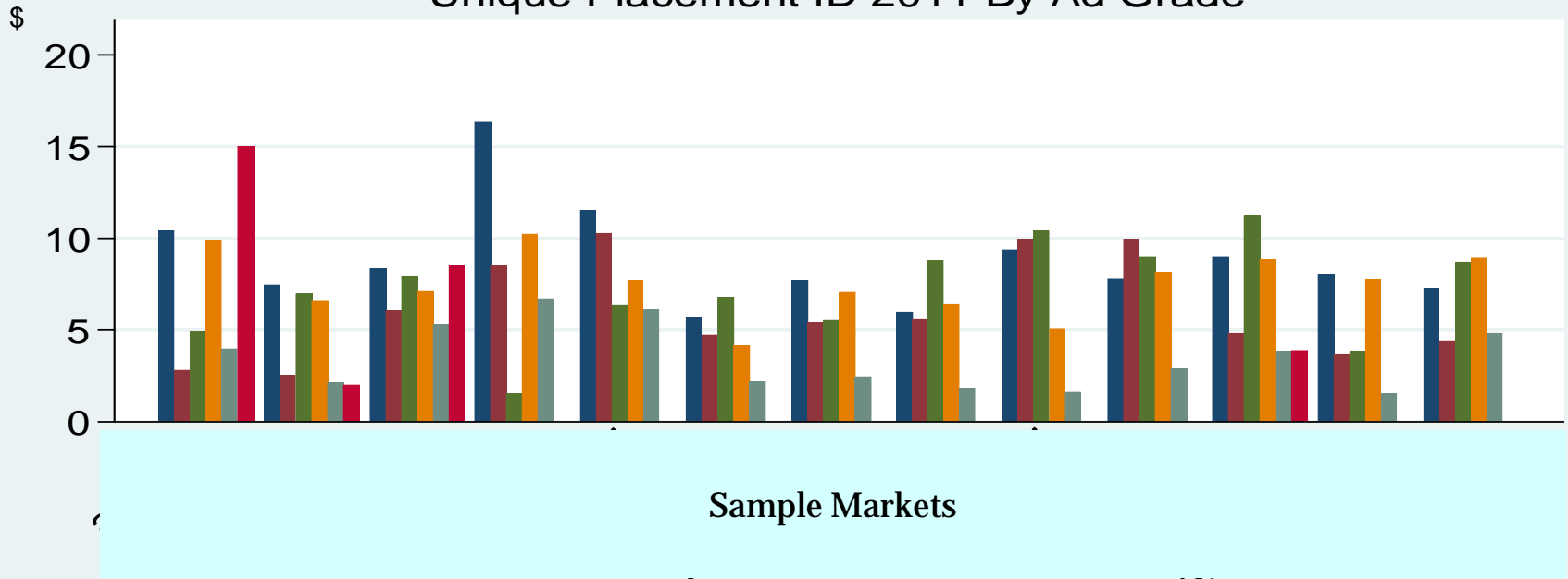
(S) CPM ONLY Click Through Rate  
Unique Placement ID 2011 By Ad Grade



Mather Economics LLC 2011

# Average Prices By Ad Size – CPM Contracts Only: CPMs not Always Consistent with Click Through Rates 15

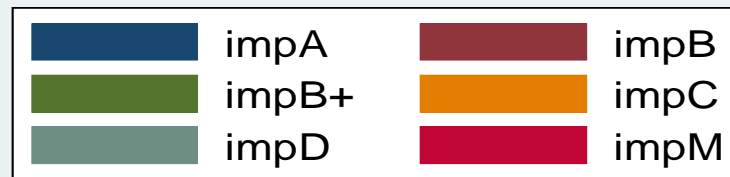
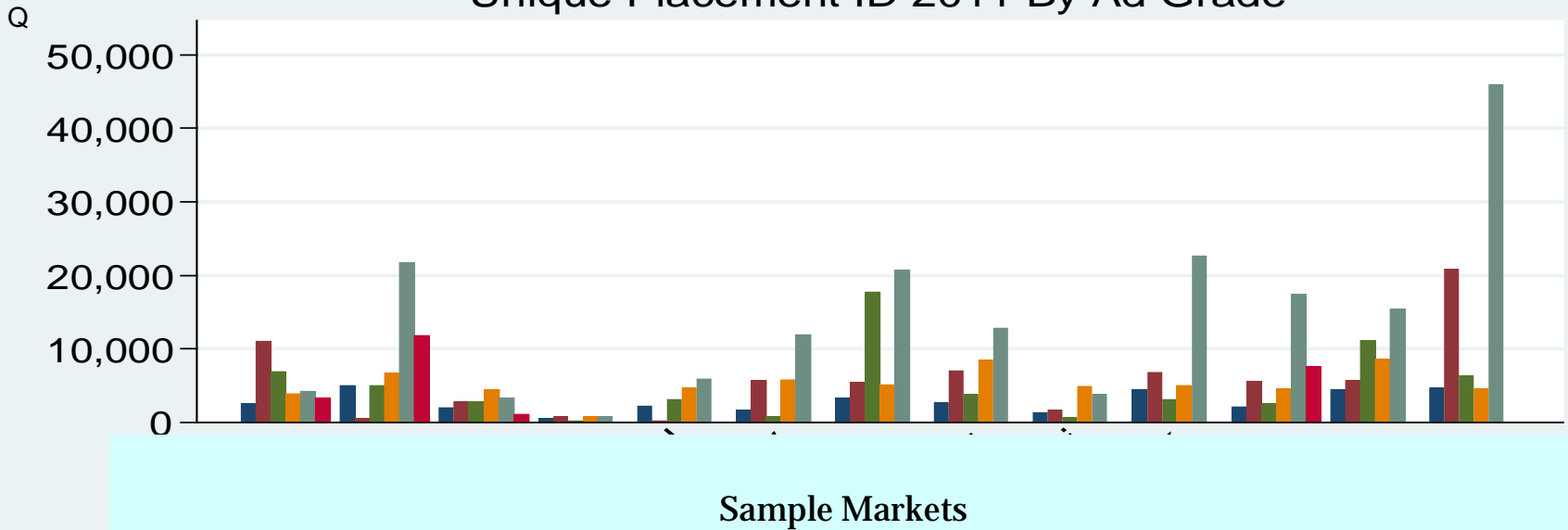
(S) CPM ONLY Ave price  
Unique Placement ID 2011 By Ad Grade



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# Average Impressions by Ad Size – CPM Only: D position <sup>16</sup> Delivers Highest Impressions

(S) CPM ONLY Ave Impressions  
Unique Placement ID 2011 By Ad Grade

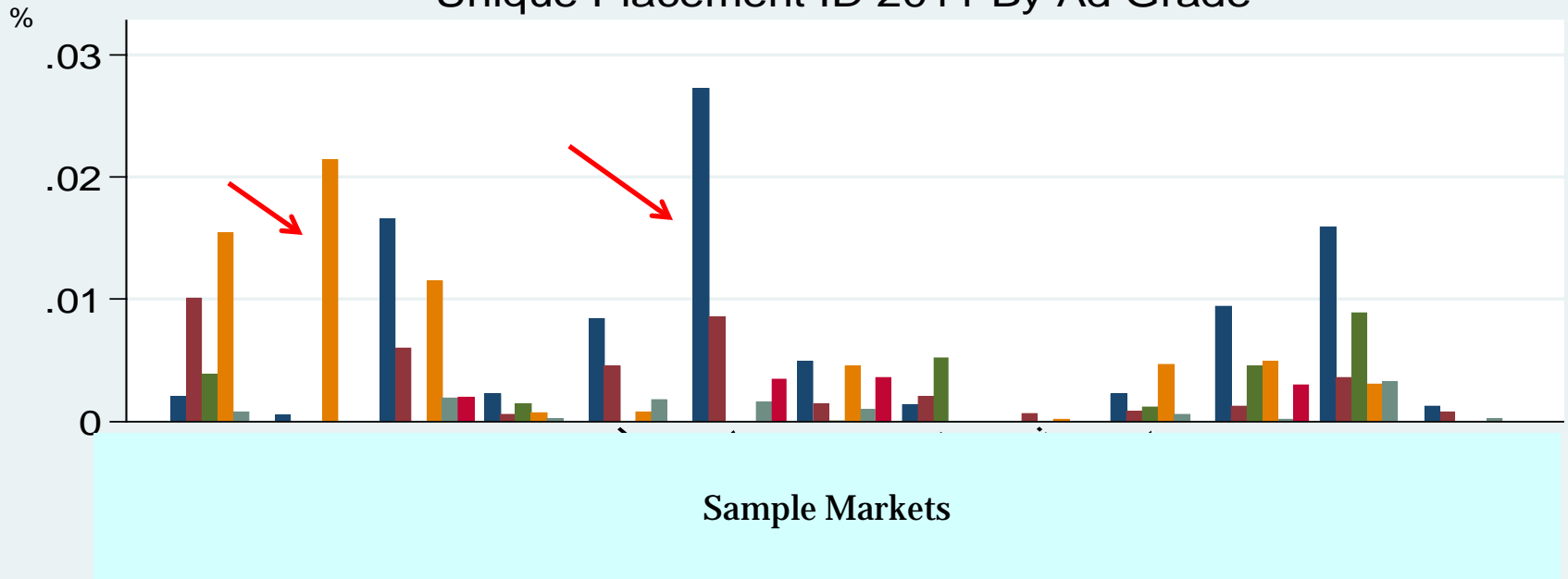


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# Click Through Rates – Fixed Cost Only: A and C positions Have Highest Click Through Rates <sup>17</sup>

(S) FIXED COST ONLY Click Through Rate  
Unique Placement ID 2011 By Ad Grade



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# Measuring Price Elasticity Analysis For Digital Advertisers – Combined Networks

- Elasticities show relationship between price and impressions
- Elasticity = Sensitivity
- Cross-price elasticities show relationship across GDT/GDNT prices and impressions

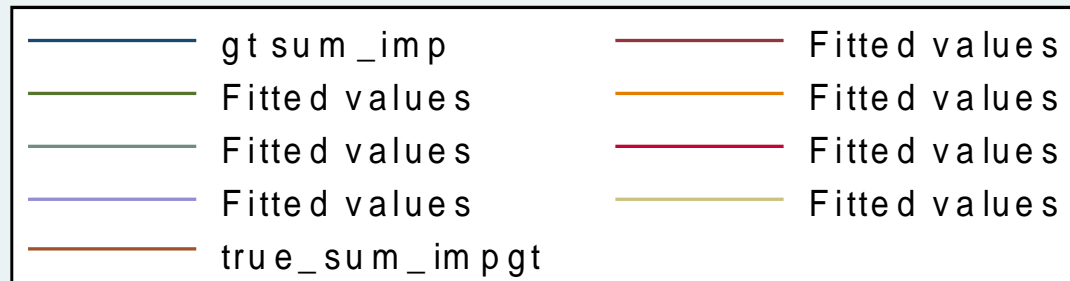
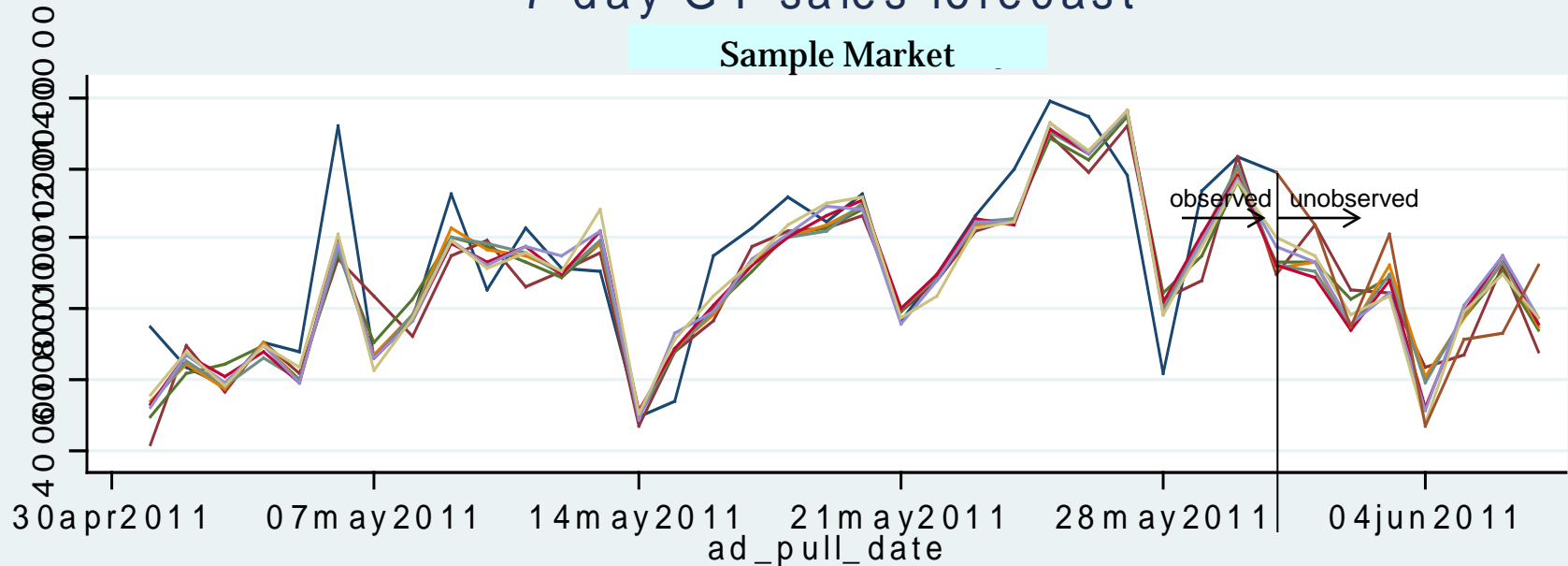
Cross Price Elasticity Analysis - Combined Networks			
	Imp - GDT	Imp - GDNT	
Price - GDT	-2.525***	0.0603	Sample Market
Price - GDNT	-0.481***	0.469***	
Price - GDT	-0.615***	-0.0513	Sample Market
Price - GDNT	1.105**	-1.856***	
Price - GDT	-0.287***	0.0137	Sample Market
Price - GDNT	0.359***	0.0894***	
Price - GDT	-0.000844	-0.0348	Sample Market
Price - GDNT	-0.354**	-0.0835	
Price - GDT	-0.212*	0.216***	Sample Market
Price - GDNT	0.169	0.358***	
Price - GDT	0.554***	-0.194**	Sample Market
Price - GDNT	-0.0802	-0.308***	
Price - GDT	-0.210***	-0.0199	Sample Market
Price - GDNT	0.0473	0.0802	
Price - GDT	-0.607***	-0.0917**	Sample Market
Price - GDNT	-1.134***	-0.175*	
Price - GDT	0.842**	-0.556***	Sample Market
Price - GDNT	-0.697**	-1.649***	
Price - GDT	-0.424***	0.0736***	Sample Market
Price - GDNT	0.249***	-0.0237	
Price - GDT	-0.680***	0.0253	Sample Market
Price - GDNT	-0.224***	0.0854*	
Price - GDT	0.295	0.518**	Sample Market
Price - GDNT	0.465	1.972***	
Price - GDT	-0.217***	0.110***	Sample Market
Price - GDNT	0.190***	-0.113**	

# Forecasting Inventory Important For Pricing Optimization (How Much Can We Sell Guaranteed?)

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## 7-day GT sales forecast

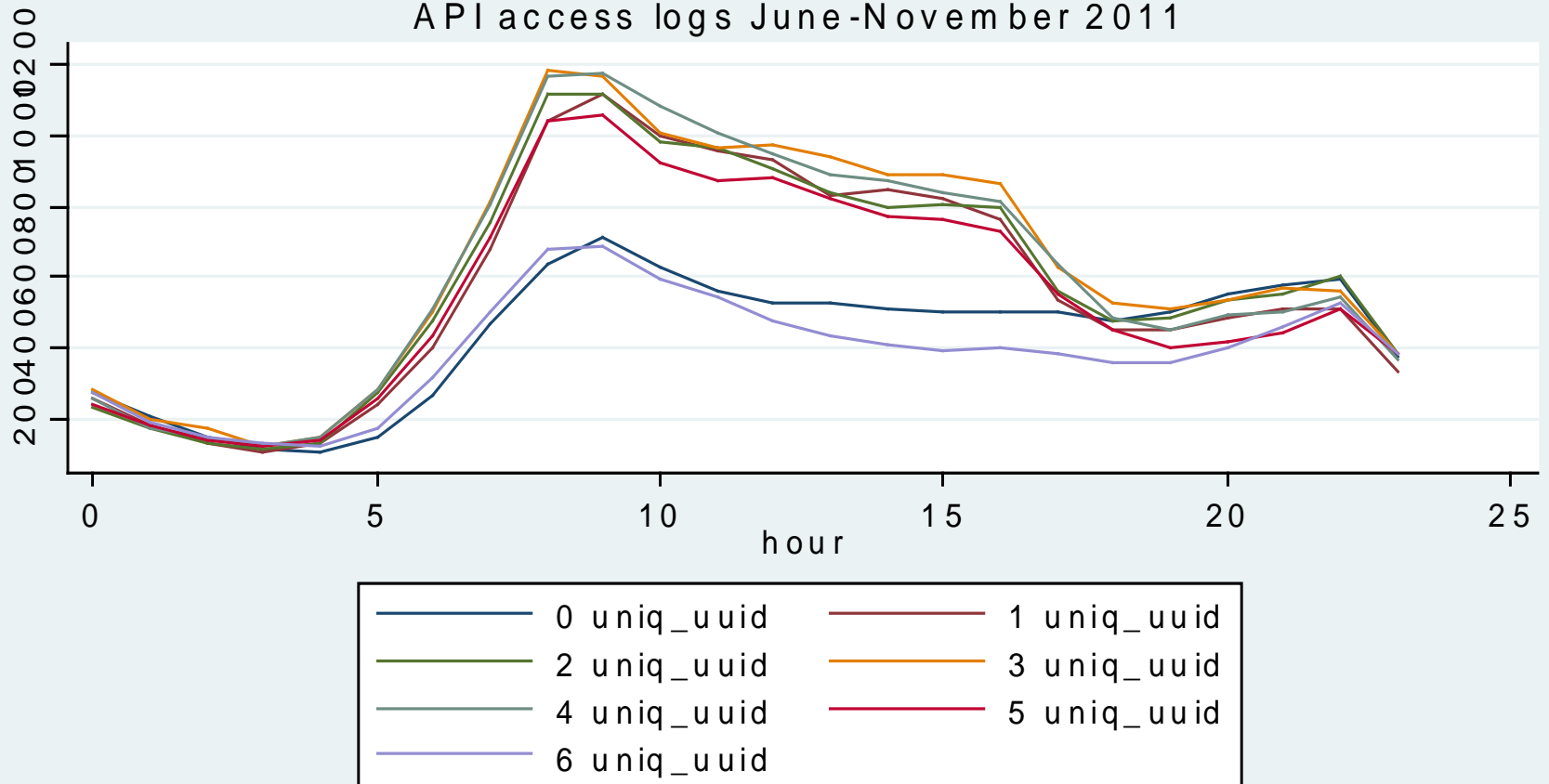
Sample Market



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# Day Part Targeting & Pricing Potential: Can Forecast Inventory By Day Part By Day Of Week

avg UUID per hour for **Sample Market** by dow  
API access logs June-November 2011



Mather Economics LLC 2011. Data by Journalism Online (Press Plus)

# Digital Advertising Data – Dynamic Rate Card Example 21

- Dynamic Rate Card – This tool will incorporate analytics on price elasticity and available inventory to offer prices
  - Price elasticity by industry category
  - Value of ads measured by click-through rate
  - Predicted sales updated with actual sales daily

Sample Publication	
CURRENT DATE	9/20/2011

AD TYPE	GT
ADVERTISER	Movie Studios
SIZE	160_600
TARGET TYPE	Hour of Week

IMPRESSIONS DESIRED	1,000
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order summary:

AVG EFFECTIVE CPM	\$33.89
TOTAL PRICE	\$33,890.31

CONTRACT START

9/28/2011

CONTRACT DAY SELECTION

<b>Week1</b>	9/28/2011	9/29/2011	9/30/2011	10/1/2011	10/2/2011	10/3/2011	10/4/2011
<b>Day</b>	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
<b>Select</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Week2</b>	10/5/2011	10/6/2011	10/7/2011	10/8/2011	10/9/2011	10/10/2011	10/11/2011
<b>Day</b>	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
<b>Select</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Advertising Pricing Conclusions

- Advertising pricing is analogous to other inventory-management pricing optimization opportunities; once inventory “expires”, it is worthless
- Price elasticity differs by Line of Business, Sections, Day of Week, Volumes; Understanding elasticity critical to pricing success
- Reservation systems enable supply/demand balancing of advertising inventory via pricing process
- Forecasting digital impression inventory important to pricing strategy; Digital Audience pricing needs to be integrated with Advertising pricing
- Dynamic pricing can yield incremental revenue & operating profits; Substantial ROI opportunity

## Contact Information

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