J.S. Analytics

Analyzing key performance indicators in four domains through marketing analytics to guide strategic and efficient budget distribution

By: C524 Analysts

Agenda

01 Introduction

About Us

- **Data analytics agency based in New York City**

- **Provide insights and recommendations by analyzing data reports**

Key Analysts

Location
Michael Zhang
Sasha Russell
Ibrahima Coulibaly

Creative
Phurba Sherpa
Nadya Yemane
GuiJing(Luru) Jiang
Tausif Islam

Inventory
Yasiel Parra
Andrew Qu
Dash Pugliese
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Audience
Esrat Sadya
Stephanie Medina
Jonathan Wong
Celine Lozach

Our Goals

01 Identify

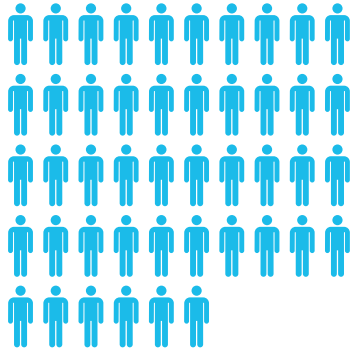02 Analyze

03 Visualize

04 Share

Data

- **Data Source:** 2 Analytics datasets

- **Data collection date range:** 2024 - 2025

- **KPI focus areas:** Click Through Rate, Cost Per Acquisitions,

  Cost Per Mille, Cost Per Click, Conversion Rate

User Demographics

451

Users

51.17%

Female
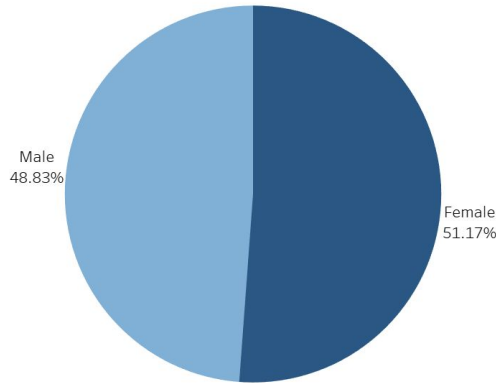
42.9

Average age

Oregon, North Dakota, Montana

U.S. states with most users (28)

Male
48.83%

Female
51.17%

User Demographics

366

College graduates

51.0%

Parents

49%
Not a parent

51%
Is a parent
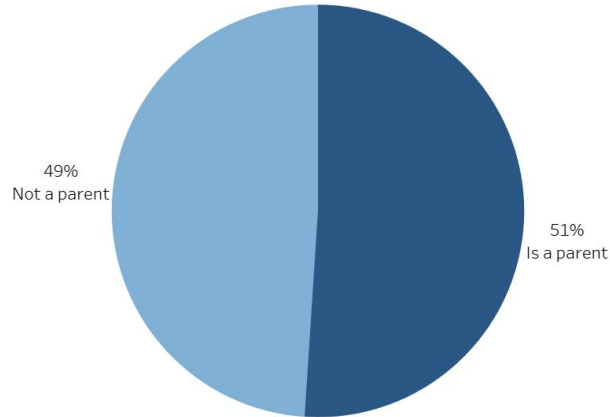
2.53

Average amount of children *(parents only)*

1	2	3	4
82	87	124	78
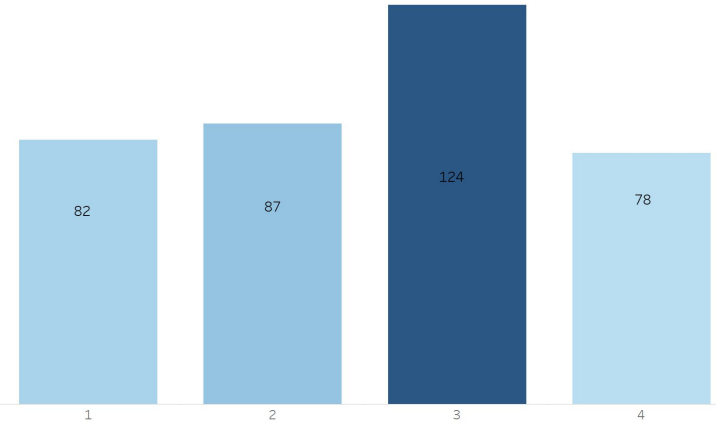
Overview

727
Total campaigns

$3,815.51
Average campaign gross cost

233K
Total clicks

8.5K
Total conversions

85.7M
Total impressions

74.1M
Total measurable impressions

41.9M
Total viewable impressions

02

Location Performance

Top and Bottom 5 States by CTR

Top 5 States
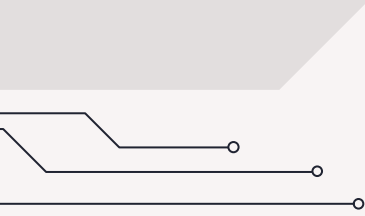1. Texas - 0.47%
2. Michigan - 0.45%
3. Vermont - 0.45%
4. Illinois - 0.43%
5. Kentucky - 0.43%

Bottom 5 States
1. West Virginia - 0.25%
2. Louisiana - 0.26%
3. New Jersey - 0.27%
4. Minnesota - 0.28%
5. Indiana - 0.29%

Average CTR per State
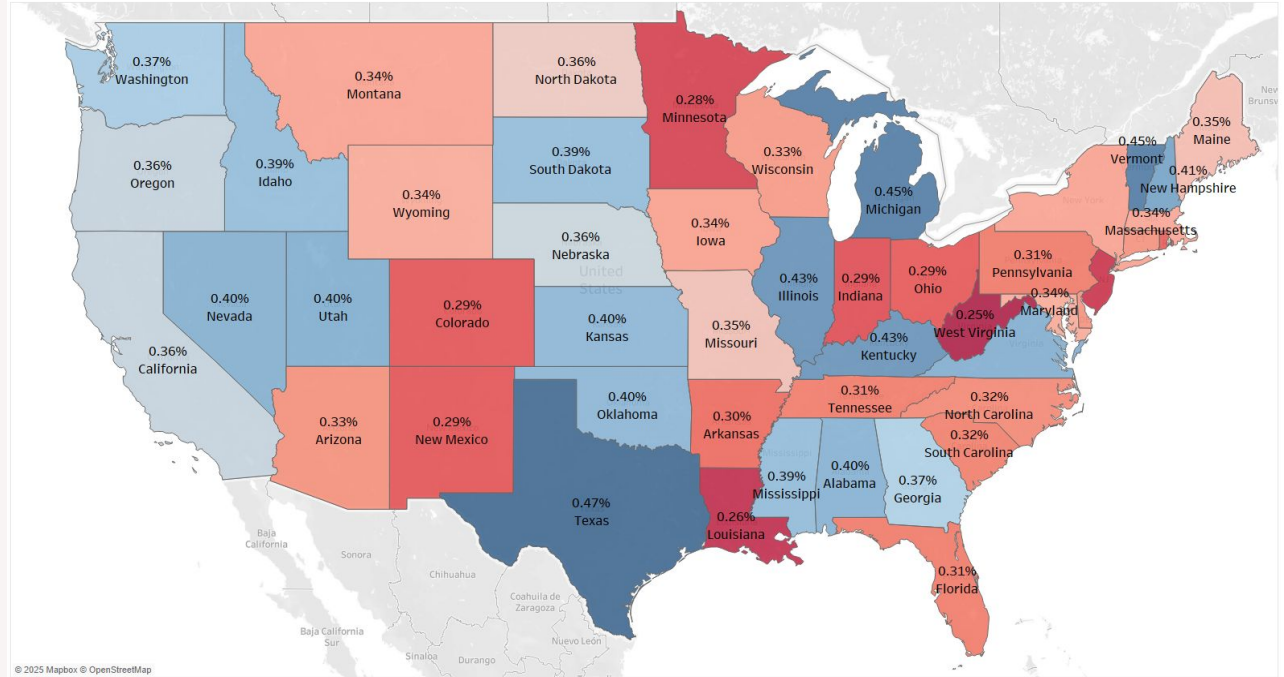
Top and Bottom 5 States by CVR

Top 5 States
1. Indiana - 27.24%
2. Colorado - 25.46%
3. Washington - 21.98%
4. Alaska - 20.71%
5. Arkansas - 18.49%

Bottom 5 States
1. Pennsylvania - 2.38%
2. New Mexico - 5.41%
3. Mississippi - 5.87%
4. Wyoming - 6.14%
5. Michigan - 6.19%

Average CVR per State
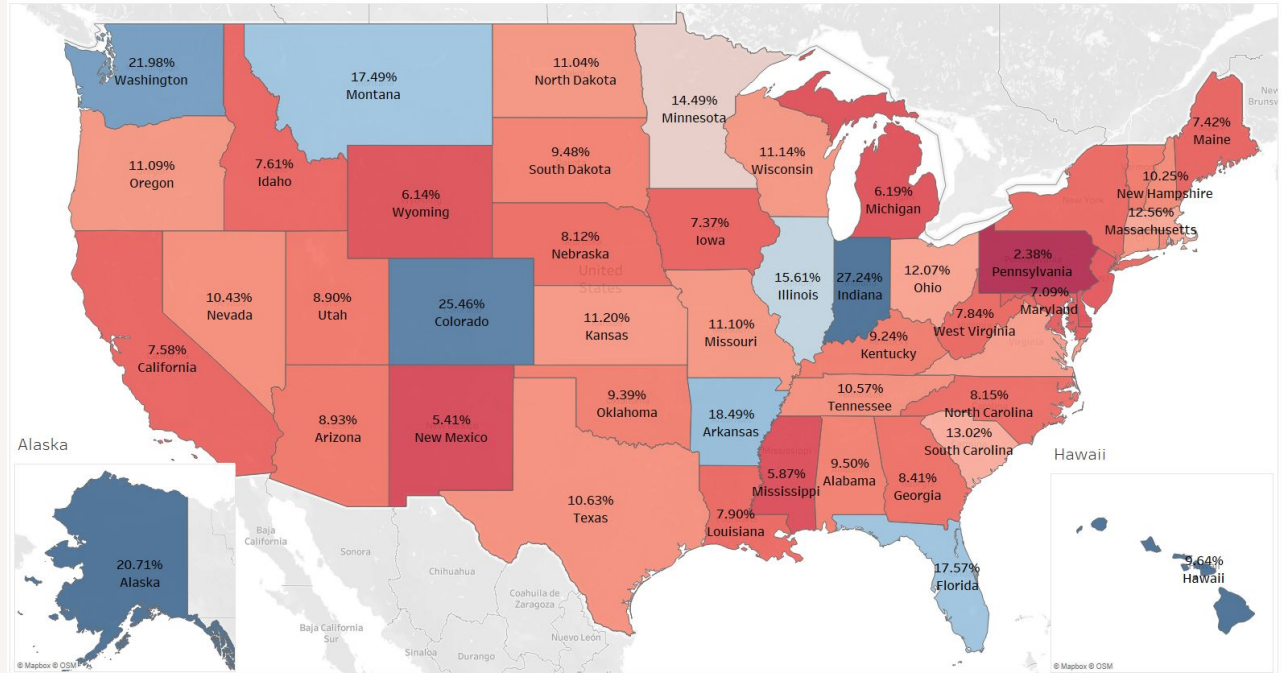
Top 5 States by CPM vs. CPC

CPM Top 5 States
1. Kansas
2. Montana
3. Massachusetts
4. Vermont
5. Oregon

CPC Top 5 States
1. Montana
2. Kansas
3. Massachusetts
4. Colorado
5. Missouri

State by CPM

State	CPM
Kansas	5,509
Montana	5,205
Massachusetts	4,949
Vermont	4,842
Oregon	4,339

State By CPC

State	CPC
Montana	2,146.6
Kansas	1,935.7
Massachusetts	1,734.6
Colorado	1,722.9
Missouri	1,489.9
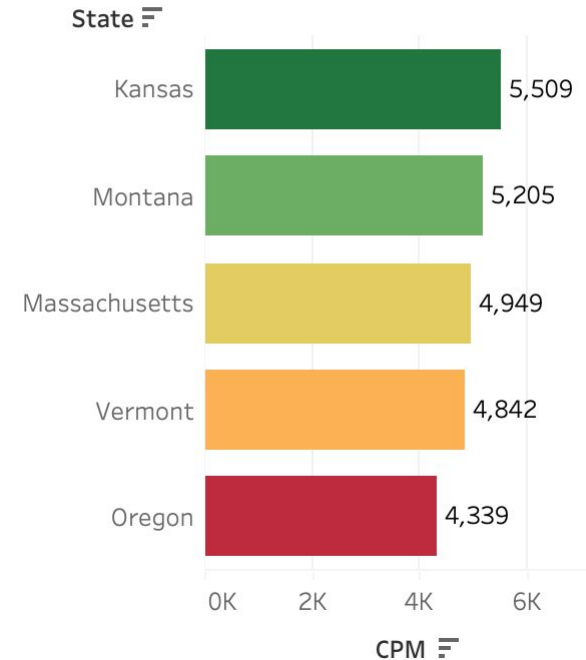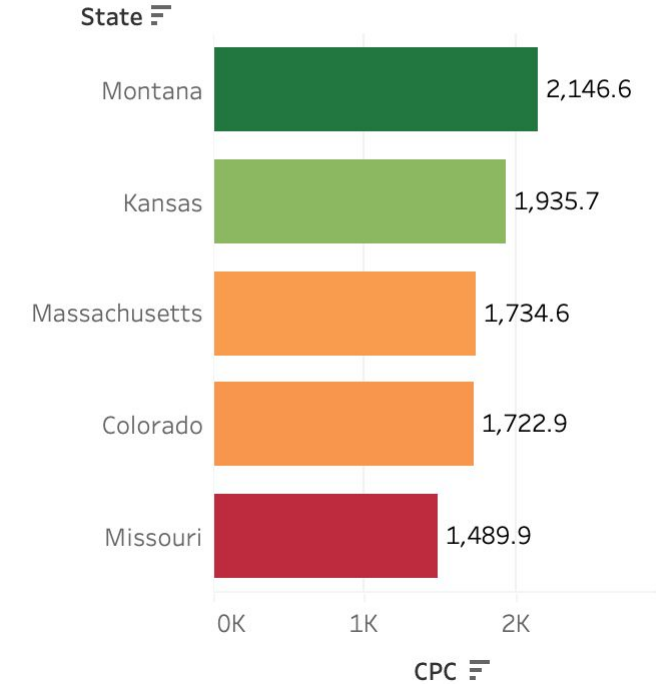
Kansas and Montana have strong competition in specific industries relevant to online advertising, leading to elevated CPCs.

Bottom 5 States by CPM vs. CPC

CPM Bottom 5 States
1. Pennsylvania
2. Arizona
3. New York
4. Arkansas
5. Ohio

CPC Bottom 5 States
1. Pennsylvania
2. Arizona
3. New York
4. Arkansas
5. Idaho

State by CPM

State

State	CPM
Pennsylvania	248.9
Arizona	417.1
New York	752.6
Arkansas	946.8
Ohio	1,047.2
New Mexico	1,051.1

CPM

State By CPC

State

State	CPC
Pennsylvania	71.3
Arizona	117.1
New York	215.7
Arkansas	262.2
Idaho	305.2
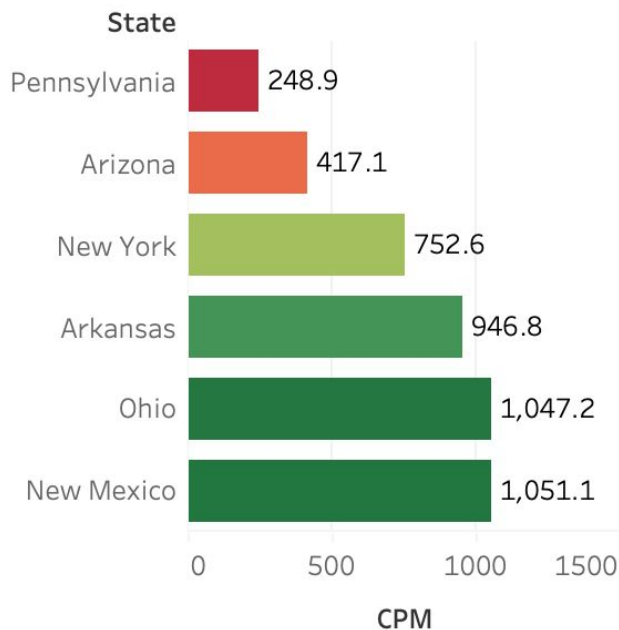
CPC
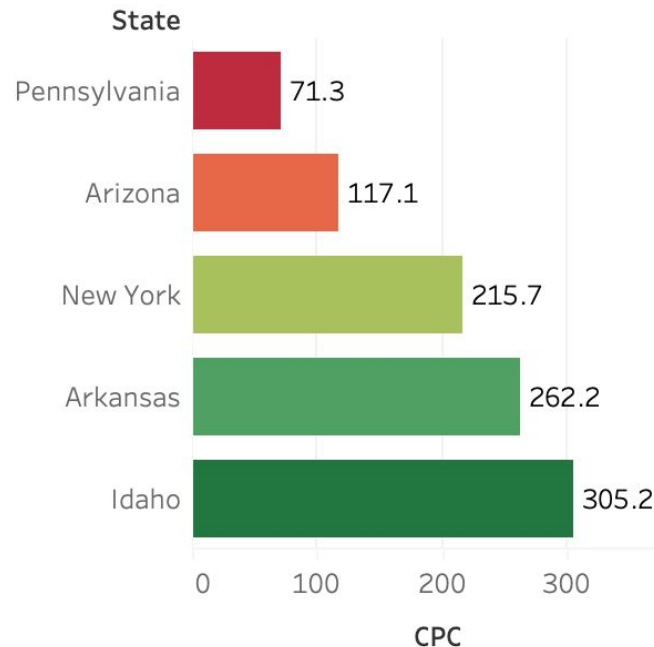
CPM rates can fluctuate based on the time of year or season. A lower CPM might be acceptable if the campaign is still driving engagement and conversions. Campaigns where the primary goal is to maximize reach and get the ad seen by as many people as possible.

Top and Bottom 5 States by CPA

State	CPA ($)
Mississippi	638.2
Alaska	598.7
Pennsylvania	521.8
Nevada	521.6
Michigan	507.3
North Dakota	244.4
Arkansas	227.6
Iowa	201.3
Idaho	169.4
Arizona	153.9

Top or Bottom 5 CPA
- Bottom 5
- Top 5

Bottom = CPA ($)
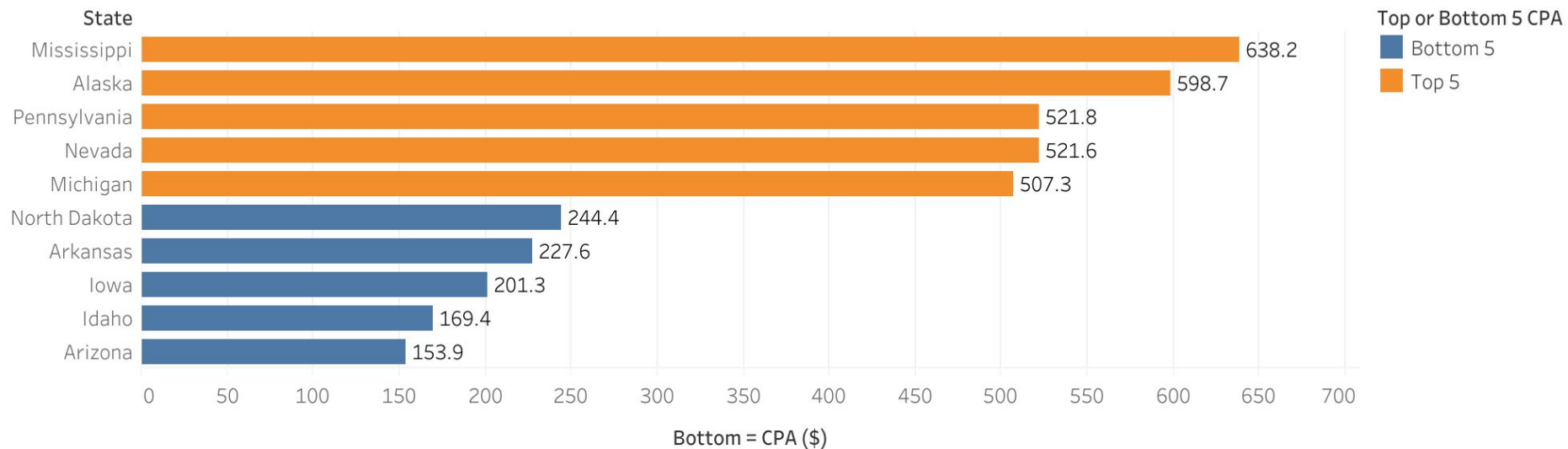
Viewability Rate by State

Highest Viewability Rates by States:

1. Oregon (72.7%)
2. Maine (71.3%)
3. Utah (69.8%)
4. Delaware (66.4%)

Lowest Viewability Rates by States:

1. Missouri (31.7%)
2. South Dakota (32.6%)
3. Texas (35.4%)
4. Michigan (27%)
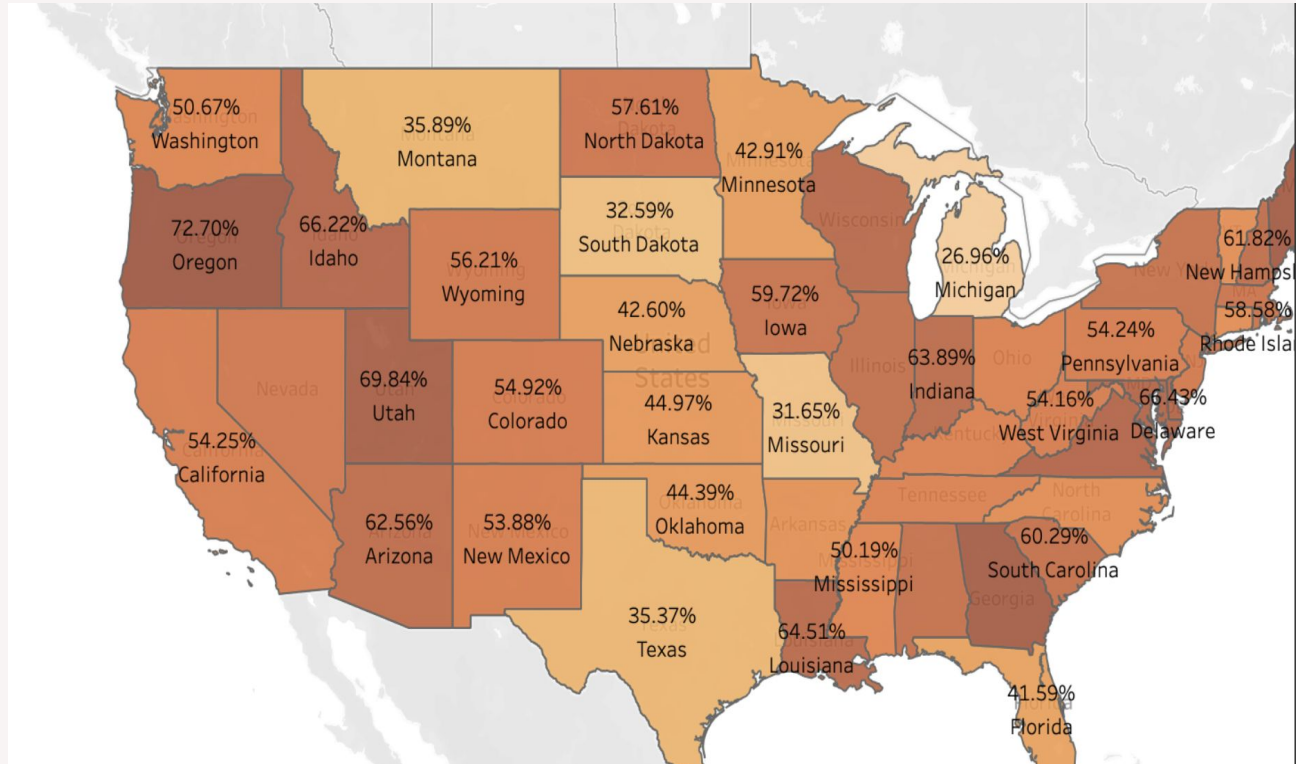
Location Strategy Recommendations

- Prioritize states with high conversion rates and click through rates by increasing its performance budget and creating conversion-focused campaigns.

- Reevaluate the messaging of the ads for states with low conversion rates and click through rates. Refine the audience segmentation to increase relevance and engagement.

- A low CPM can be beneficial for brand awareness, in states with higher populations. But a higher CPM might be necessary for campaigns focused on driving conversions.

- Seasonal fluctuations can create higher demand during peak seasons. States focused on brand awareness lead t*o elevated CPCs &* CPMs in industries *relevant to online advertising,* campaigns specific advertising formats like billboards.

03 Audience Performance

Top 10 Cost-Effective Audiences (Part 1)

	CPA	CPC	CPM	vCPM	mCPM	CTR	CVR
1	Retail $68.78	US Technology $1.84	US Technology $4.97	US Travel $27.00	US Technology $5.29	Online Behavior 46.76%	Online Behavior 56.72%
2	US Travel $95.77	Retail $4.03	Retail $11.79	Retail $32.69	Retail $14.23	US 26.44%	US 18.53%
3	US Mail Order Buyer $100.78	US Travel $5.78	US Travel $18.91	US Technology $43.49	US Travel $20.11	OnAudience 6.49%	OnAudience 6.25%
4	Tech Enthusiasts $120.07	US Mail Order Buyer $5.78	US Mail Order Buyer $20.56	US Mail Order Buyer $67.00	US Mail Order Buyer $27.66	Media and Entertainment 5.22%	Mobile - US 3.79%
5	Mobile Audience $158.24	Mobile Audience $14.26	Mobile Audience $39.05	Tech Enthusiasts $106.03	Mobile Audience $60.21	Mobile - US 4.68%	US Financial 3.29%

Top 10 Cost-Effective Audiences (Part 2)

	CPA	CPC	CPM	vCPM	mCPM	CTR	CVR
6	Travel $238.29	Tech Enthusiasts $24.01	Tech Enthusiasts $61.91	Restaurants $183.65	Tech Enthusiasts $67.69	Lotame 2.72%	Media and Entertainment 2.71%
7	US Technology $310.19	Telecommunications and Mobile Tech $25.02	Telecommunications (Telco) $116.60	Travel $237.34	Telecommunications (Telco) $129.74	US Financial 1.47%	Lotame 2.12%
8	Restaurants $441.35	US Buying Channel Preference $28.14	Purchase Behaviors $122.79	US Buying Channel Preference $254.58	Purchase Behaviors $137.92	Travel and Tourism 1.02%	US Interest 1.74%
9	Telecommunications and Mobile Tech $525.46	Purchase Behaviors $33.15	Travel $135.40	Mobile Audience $259.20	Telecommunications and Mobile Tech $153.87	Real Estate 0.91%	Travel and Tourism 1.32%
10	US Buying Channel Preference $534.62	Purchase-Based $33.30	US Health and Fitness $139.05	Telecommunications and Mobile Tech $315.78	US Health and Fitness $154.01	Purchase-Based 0.62%	US Home 0.83%

CTR

College graduate Not a parent Male 15%	College graduate Not a parent Female 12%	Non-college graduate Is a parent Female 15%	Non-college graduate Is a parent Male 11%
College graduate Is a parent Male 14%	College graduate Is a parent Female 12%	Non-college graduate Not a parent Female 12%	Non-college graduate Not a parent Male 11%

AGG(CTR Percent of Gr...

11%   15%

CVR
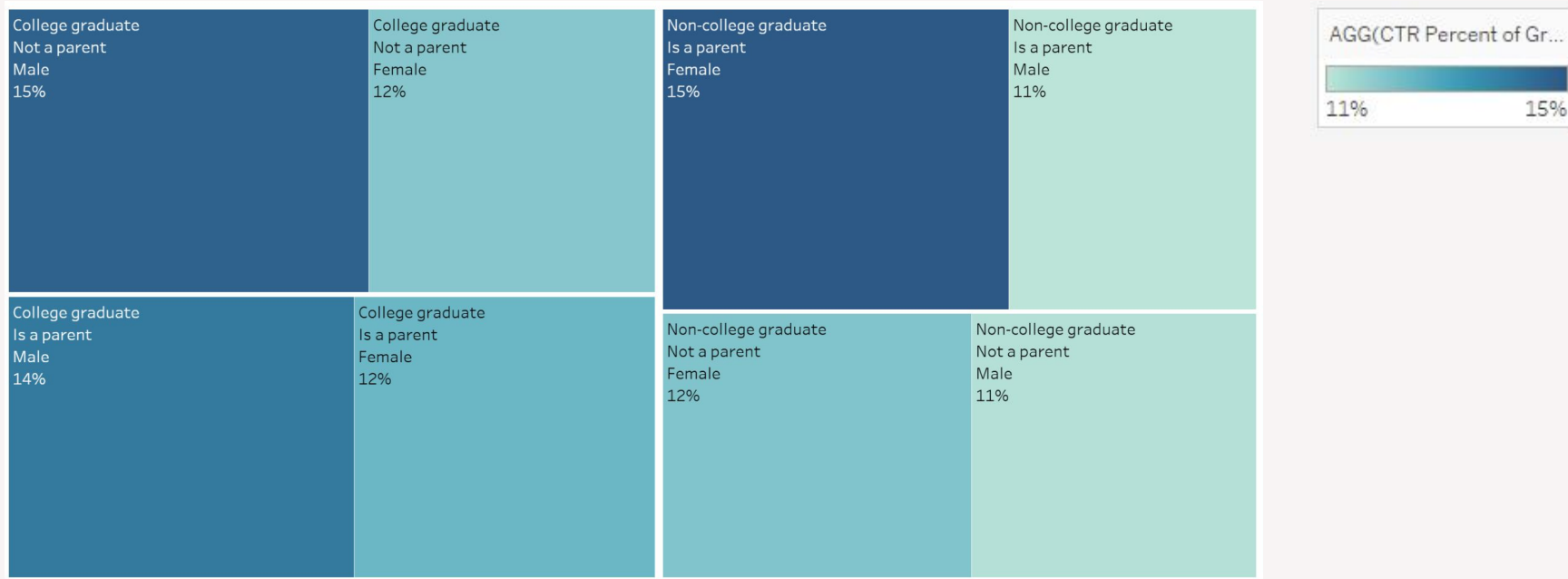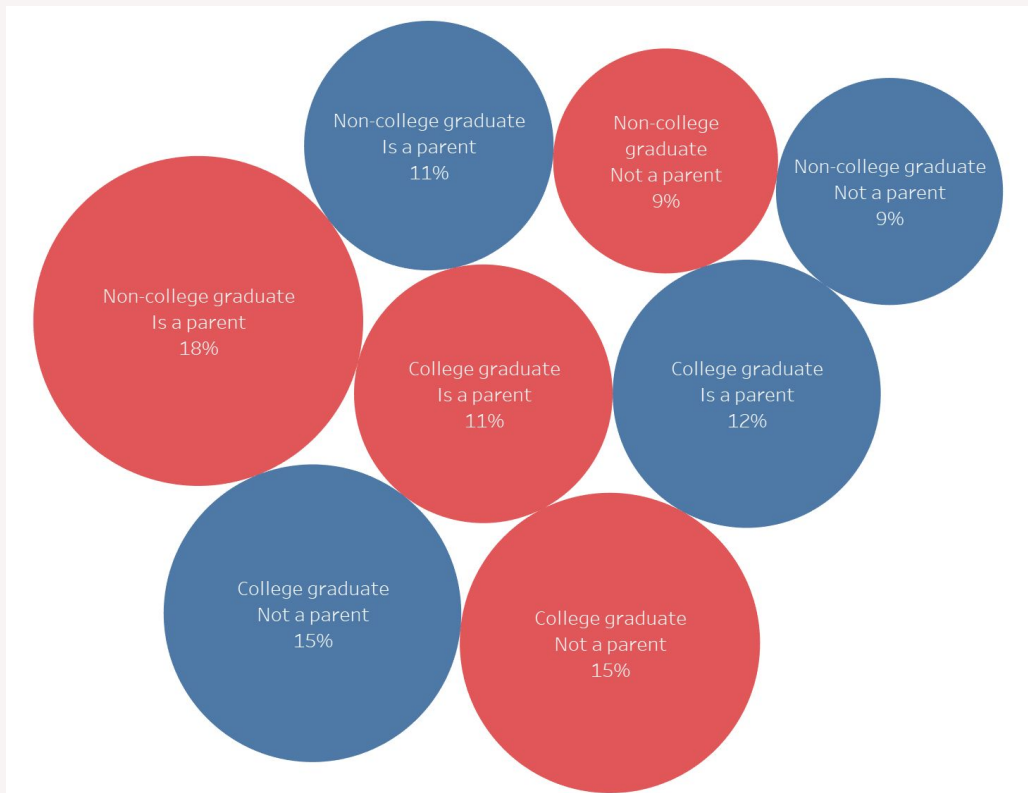
Audience Personas

Persona 1:
John

- Male
- 60 years old
- Is a college graduate
- Is not a parent
- From Idaho
- Interest in Travel > Vacation > Agritourism
- Farms are continually being closed in Idaho so farmers can be looking for extra income sources

Persona 2:
Jane

- Female
- 63 years old
- Is a college graduate
- Is a parent
- From Kansas
- Interest in TV Shows > Dramas
- A Nielsen study revealed older women are spending more time watching TV or online

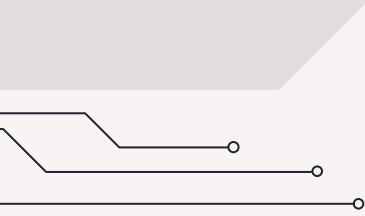## Persona 3:
Mrs. Smith

- Female
- 43 years old
- Is a college graduate
- Is a parent of three children
- From Wisconsin
- Interest in luxury cars specifically Porsche
- Could have children who are older or heading to college soon with more disposable income
- Uncommon but not unfounded according to Porsche 15% of Porsche buyers are women
- Some audiences to explore are buick or Lexus in women

Audience Recommendations

- Next Top Performing Audiences/Next potential list of audiences to invest in:

  - US Home

  - US Health and Fitness

  - US Buying Channel Preference

  - Travel

  - Telecommunications (Telco)

- Worst Performing Audience Segments/Biggest potential list of audiences to invest in:

  - Mobile - US

  - Media and Entertainment

  - OnAudience

  - US

  - Online Behavior

- Reach out to test further strategies towards non college graduates as well as individuals in their mid to late 20s age range for biggest future payoff potential

04

Creative Performance

Performance Metrics

Creative Size	CPA (Avg)	CPA (Sum)	CVR (Avg)	CPC (Avg)	CPC (Sum)	CPM (Avg)	CPM (Sum)
300x250	723.66	256,899.80	0.11	49.59	17,605.36	163.03	57,874.85
320x50	682.26	213,546.59	0.12	54.53	17,067.18	156.14	48,871.49
300x50	723.66	256,899.80	0.11	49.59	17,605.36	163.03	57,874.85

Key Insight:

320x50 delivers better conversions at lower costs, while both 300x50 and 300x250 underperform with higher acquisition costs and weaker conversion rates. The identical metrics for 300x50 and 300x250 suggest either duplicate reporting or identical creative performance.

Avg Value

| | 300x250 | | | | 320x50 | | | |

- CPA: 723.7 (300x250), 682.3 (320x50)
- CPC: 49.6 (300x250), 54.5 (320x50)
- CPM: 163.0 (300x250), 156.1 (320x50)
- CVR: 0.1 (300x250), 0.1 (320x50)

Sum Value

- CPA: 256,900 (300x250), 213,547 (320x50)
- CPC: 17,605 (300x250), 17,067 (320x50)
- CPM: 57,875 (300x250), 48,871 (320x50)
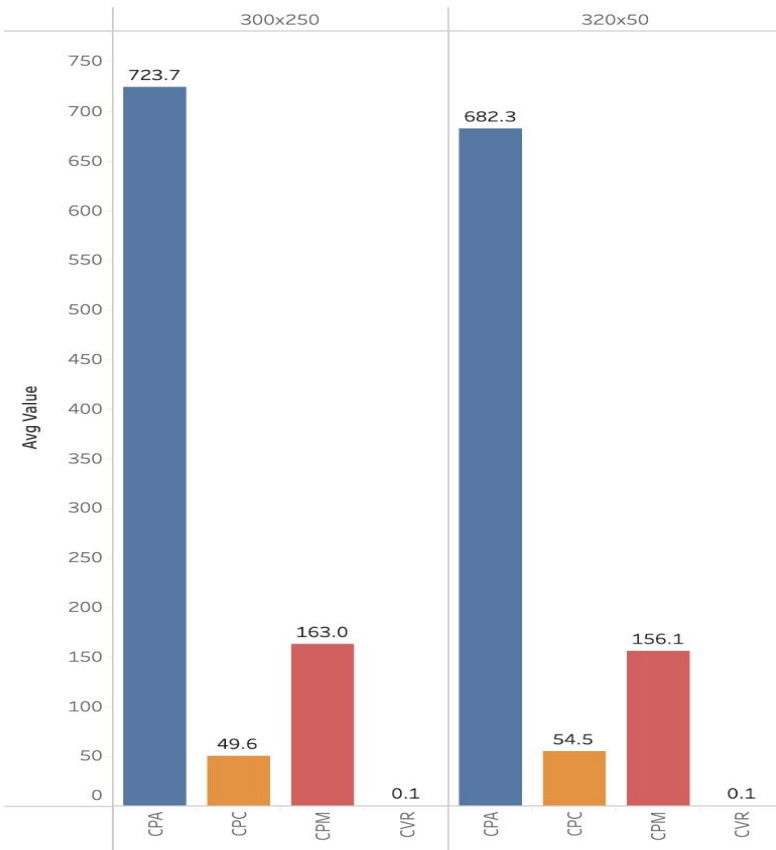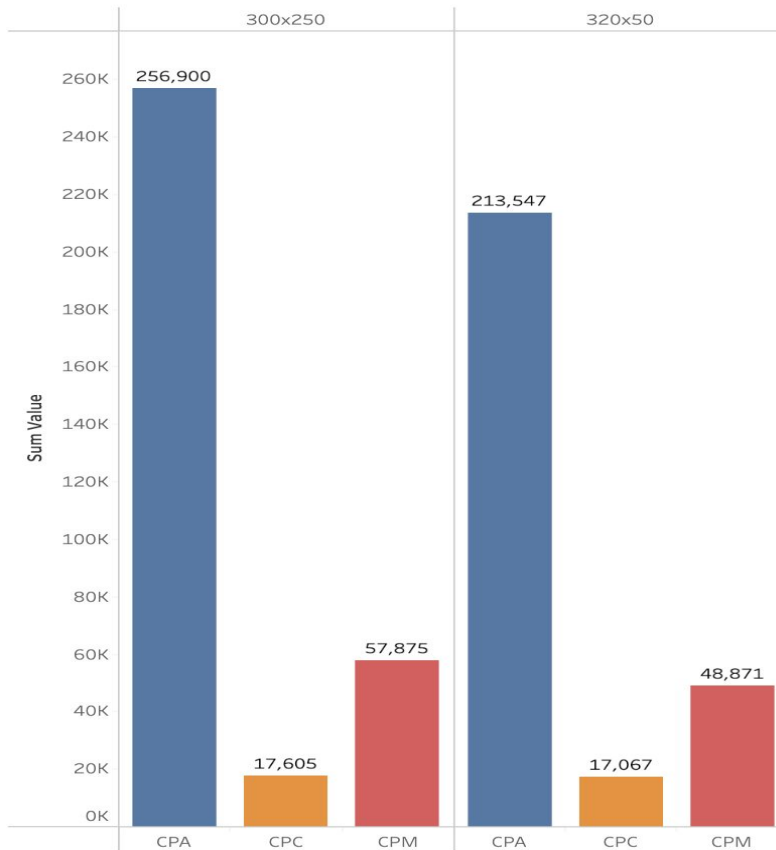
The 300x250 and 320x50 ad formats outperform other metrics, indicating higher effectiveness.

However, repeated values for cost-related metrics suggest potential data inconsistencies.

Avg Value

300x50

	Value
CPA (Avg)	723.7
CPC (Avg)	49.6
CPM (Avg)	163.0

SUM Value

300x50

	Value
CPA (Sum)	256,900
CPC (Sum)	17,605
CPM (Sum)	57,875
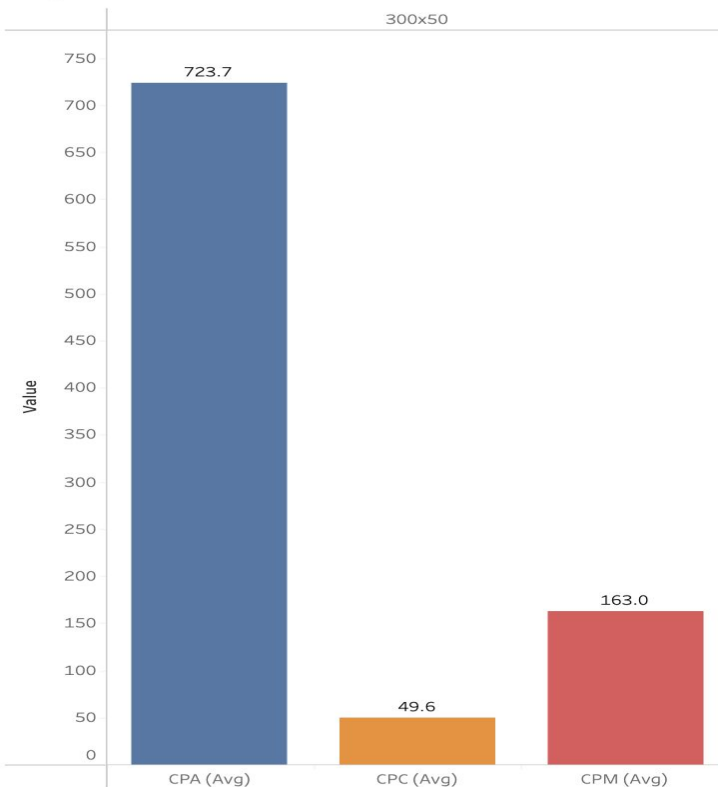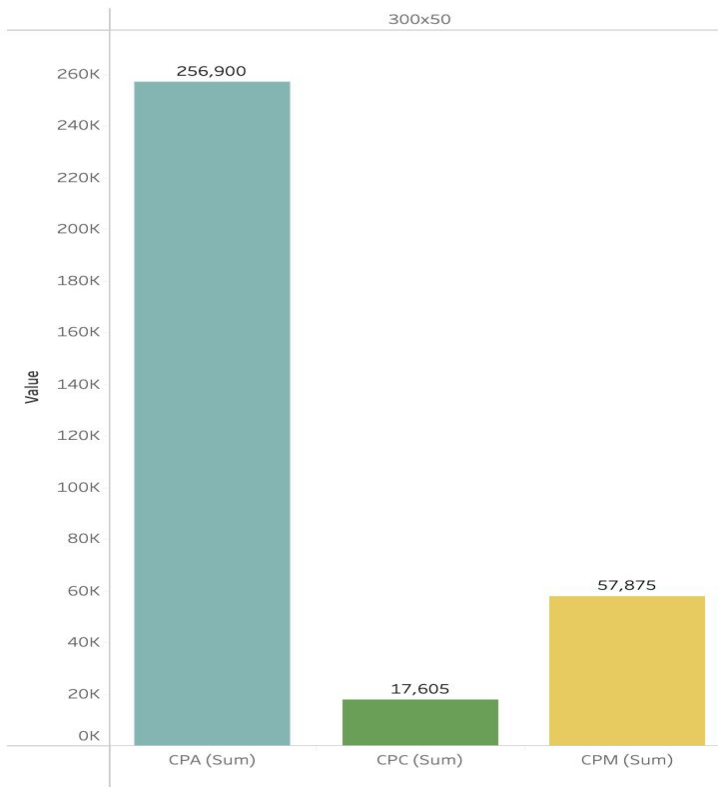
The 300x50 ad format shows strong performance in both average and total values, while cost metrics (CPA/CPC/CPM) remain relatively low. No data anomalies are evident in this dataset.

Branding

Creative Size	Avg. Gross Cost	Avg. Viewable Impressions	Avg. Clicks	Avg. CTR
300x50	$4,332.03	39,841	252.44	0.36%
300x250	$3,586.29	54,519	325.28	0.36%
320x50	$3,978.12	64,511	328.21	0.35%
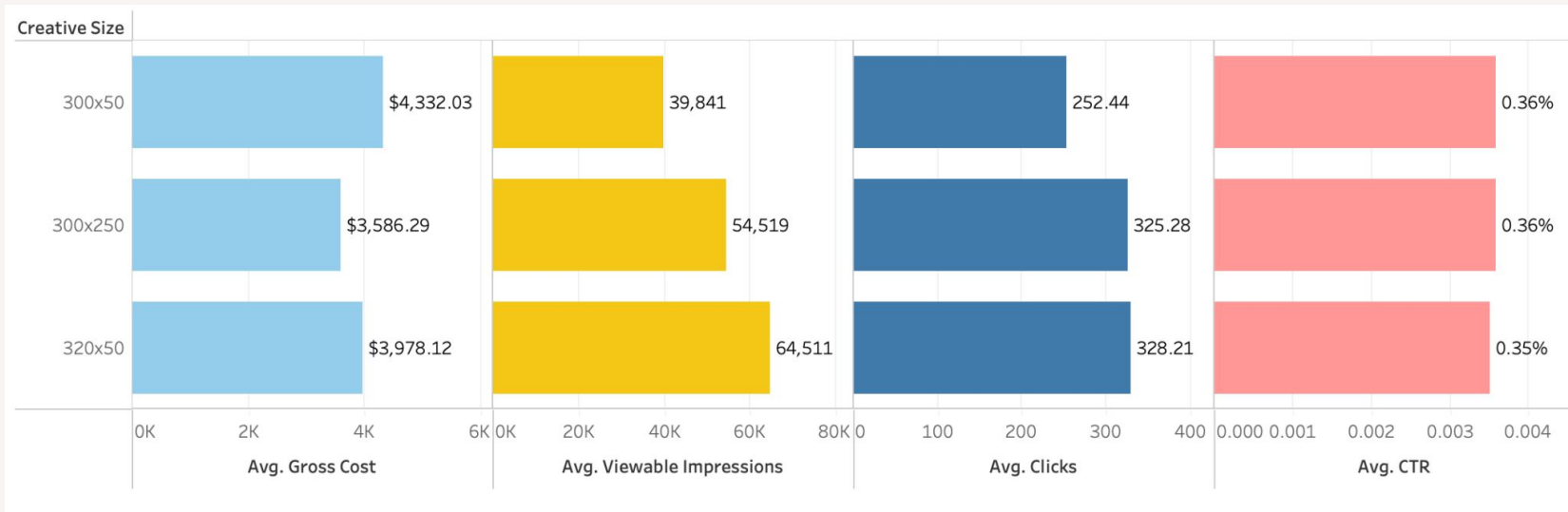
Creative Messaging

Creative Me..	% of Total CTR			% of Total CVR		
10% Discount - Ends 6/1	8.45%	13.28%	1.70%	7.95%	15.54%	1.23%
Sign up Now - 10% Off	9.30%	10.63%	1.18%	9.66%	9.94%	1.47%
Sign up Today - 10% Off	10.23%	11.62%	2.24%	12.69%	10.31%	1.08%
Subscribe Today - 10% Discount	14.50%	13.82%	3.06%	16.04%	11.38%	2.70%

Creative Size
- 300x50
- 300x250
- 320x50
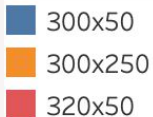
- **Subscribe Today - 10% Discount**
  - Performed best with 300x50 and 320x50
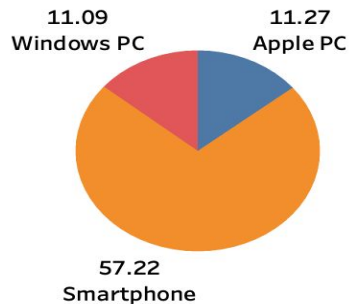- **Sign up Today - 10% Off**
  - Performed best with 300x250

Creative Sizes in comparison to Devices

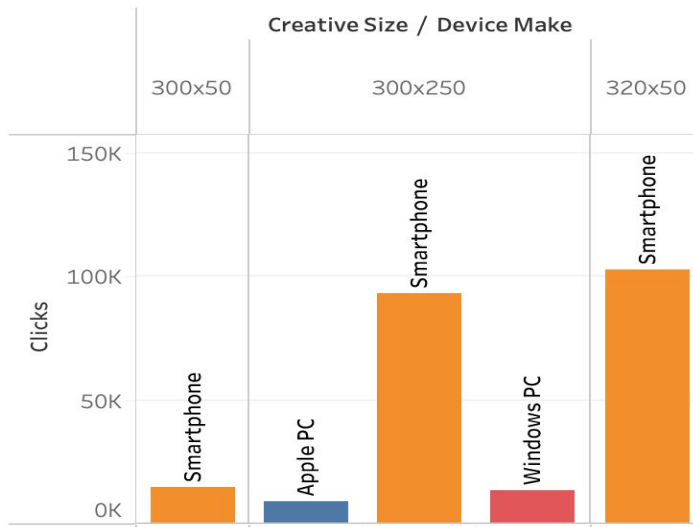| Creative Size	Smartphone	Mac (Apple PC)	Windows PC
300×50	✅ Common	❌ Rare/Not used	❌ Rare/Not used
320×50	✅ Common	❌ Rare/Not used	❌ Rare/Not used
300×250	✅ Common	✅ Common	✅ Common

INSIGHTS

- 300×50 and 320×50 are mobile-focused formats.

- 300x250 is the only size used across all three device types.

Total Conversions

11.09 Windows PC
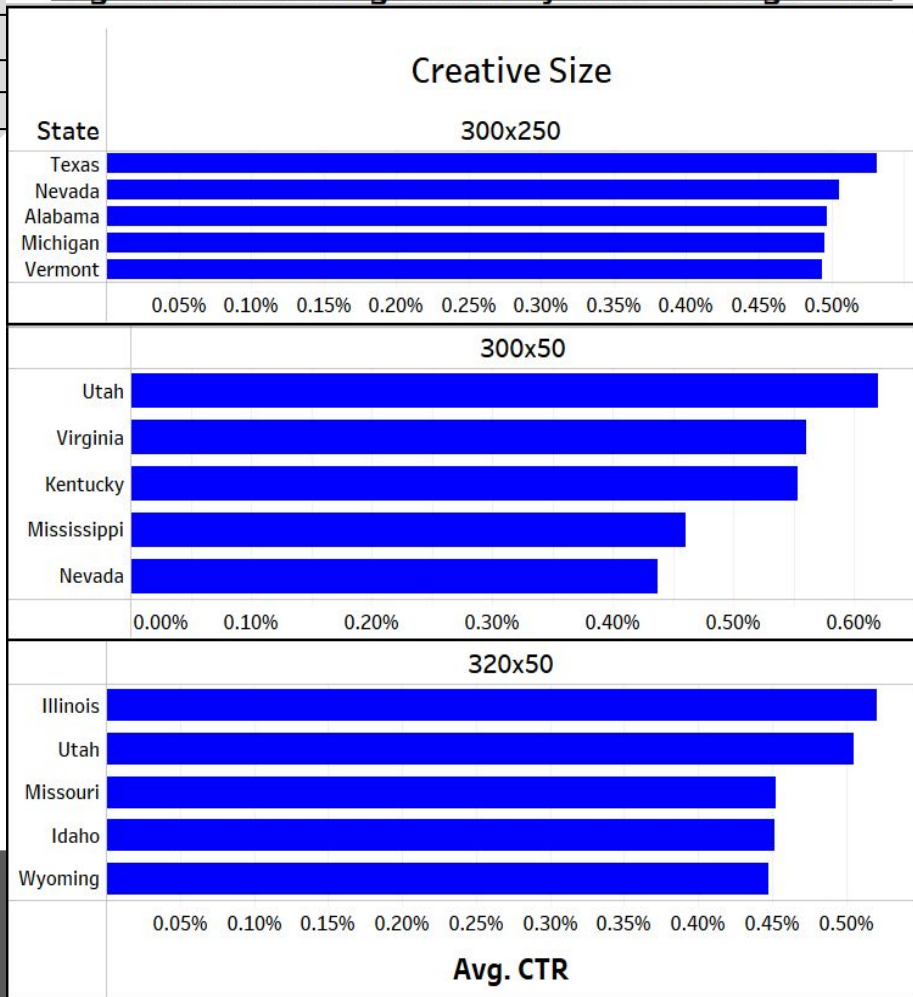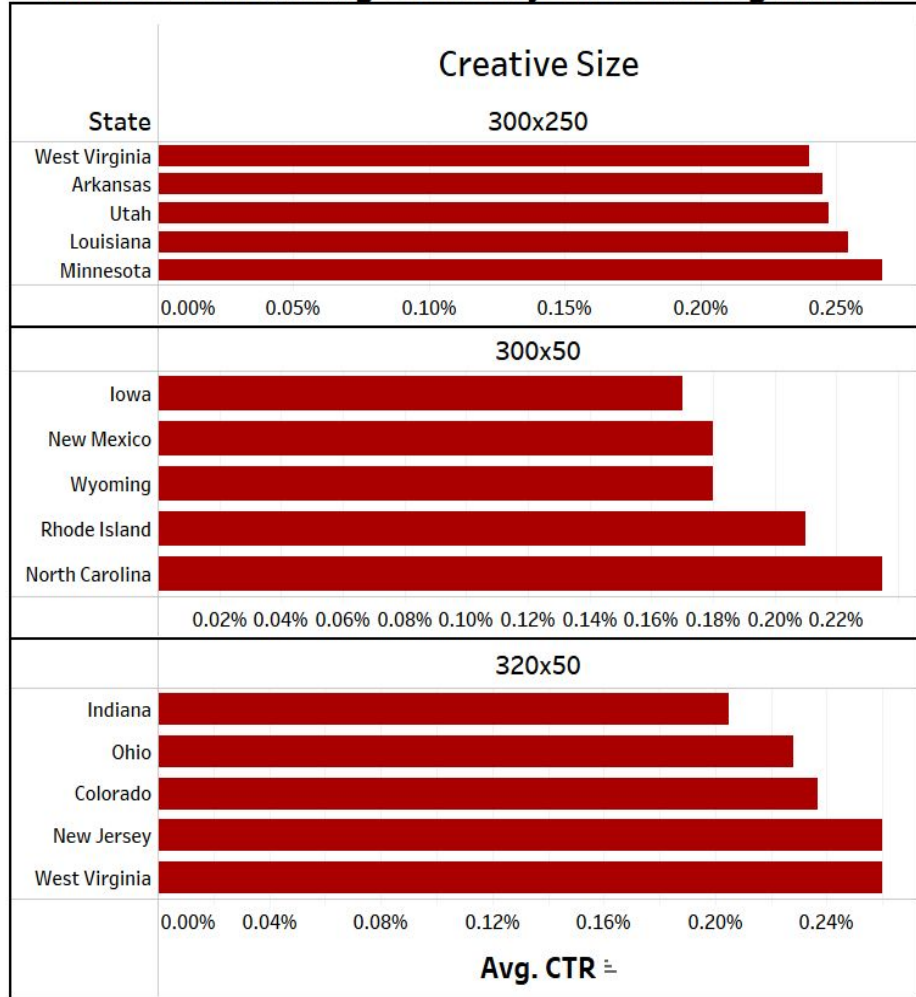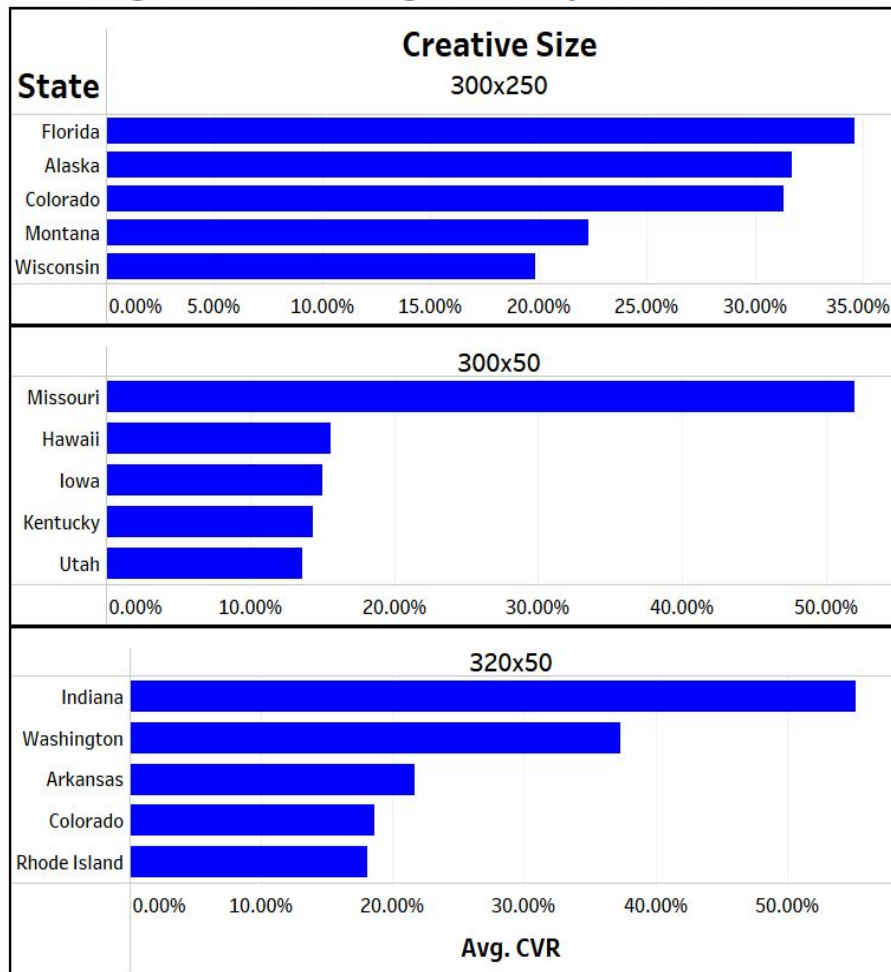11.27 Apple PC
57.22 Smartphone

Total Clicks

Creative Size / Device Make

Device Make

- Apple PC
- Smartphone
- Windows PC

Highest Performing States by Click-Through Rate

Creative Size

300x250

State	
Texas	
Nevada	
Alabama	
Michigan	
Vermont	

0.05% 0.10% 0.15% 0.20% 0.25% 0.30% 0.35% 0.40% 0.45% 0.50%

300x50

State	
Utah	
Virginia	
Kentucky	
Mississippi	
Nevada	

0.00% 0.10% 0.20% 0.30% 0.40% 0.50% 0.60%

320x50

State	
Illinois	
Utah	
Missouri	
Idaho	
Wyoming	

0.05% 0.10% 0.15% 0.20% 0.25% 0.30% 0.35% 0.40% 0.45% 0.50%

Avg. CTR

Lowest Performing States by Click-Through Rate

Creative Size

300x250

State	
West Virginia	
Arkansas	
Utah	
Louisiana	
Minnesota	

0.00% 0.05% 0.10% 0.15% 0.20% 0.25%

300x50

State	
Iowa	
New Mexico	
Wyoming	
Rhode Island	
North Carolina	

0.02% 0.04% 0.06% 0.08% 0.10% 0.12% 0.14% 0.16% 0.18% 0.20% 0.22%

320x50

State	
Indiana	
Ohio	
Colorado	
New Jersey	
West Virginia	

0.00% 0.04% 0.08% 0.12% 0.16% 0.20% 0.24%

Avg. CTR

Creative Recommendations

- Reallocate 70-80% of budget to higher-performing 320x50 creatives (6% lower CPA, 9% higher CVR) and limit 300x250 to 20-30% with strict $700 CPA caps for optimal ROI

- Move more of the budget toward smartphone campaigns, as mobile users not only account for a high volume of traffic (with over 200,000 clicks within a year) but also convert in greater numbers. Focus on mobile ad networks to reach users where they're most engaged and most likely to take action

- Double down on the 320x50 format using proven messaging ("Subscribe Today–10% Discount" and "Sign Up Today–10% Off") and consider phasing out or minimizing investment in the 300x50 and 300x250 formats

- Consider phasing out the 300x250 format in Utah and reallocate the budget for that size towards the 300x50 and 320x50 sizes

- Consider phasing out the 320x50 format in Iowa and reallocate the budget for that size towards the 300x50 size

- Consider phasing out the 300x50 format in Indiana and test out the 320x50 size, while creating more 320x50 sizes

05 Inventory Performance

Top 5 Performing Exchanges

Cost
- Kargo
- GumGum
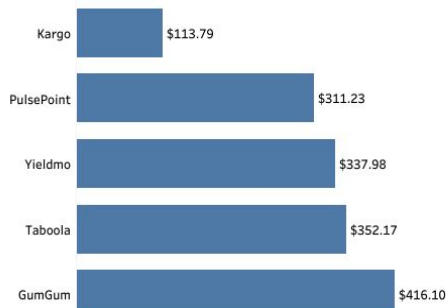- Sovrn

CTR
- Index Exchange
- Google Ad Manager
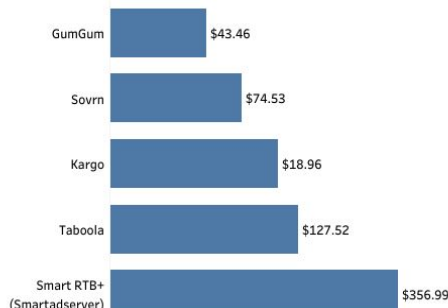- Sovrn

CVR
- PubMatic
- Magnite DV+
- Google Ad Manager

Viewability
- Google Ad Manager
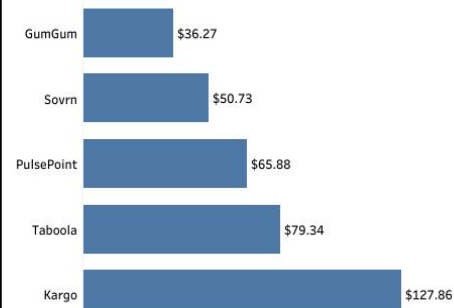- AppNexus
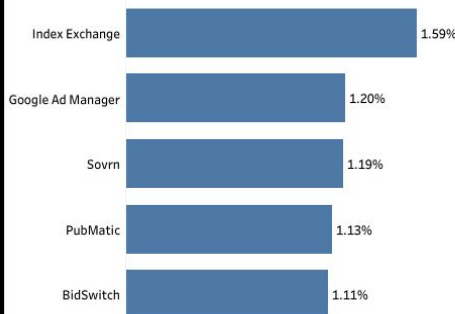- Index Exchange

AVG CPA
(Cost Per Acquisition)

Exchange	Value
Kargo	$113.79
PulsePoint	$311.23
Yieldmo	$337.98
Taboola	$352.17
GumGum	$416.10

AVG CPC
(Cost Per Click)

Exchange	Value
GumGum	$43.46
Sovrn	$74.53
Kargo	$18.96
Taboola	$127.52
Smart RTB+ (Smartadserver)	$356.99

AVG CPM
(Cost per Mille)

Exchange	Value
GumGum	$36.27
Sovrn	$50.73
PulsePoint	$65.88
Taboola	$79.34
Kargo	$127.86

CTR
(Click Through Rate)

Exchange	Value
Index Exchange	1.59%
Google Ad Manager	1.20%
Sovrn	1.19%
PubMatic	1.13%
BidSwitch	1.11%

CVR
(Conversion Rate)

Exchange	Value
PubMatic	197.96%
Magnite DV+	190.00%
Google Ad Manager	190.00%
BidSwitch	184.62%
Sharethrough	120.00%

Viewability

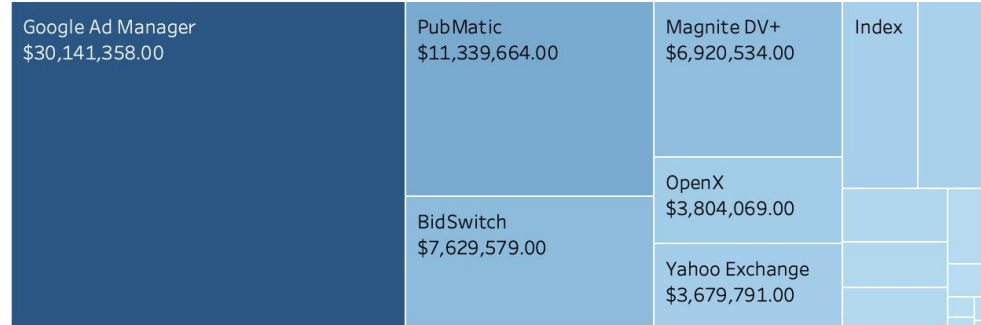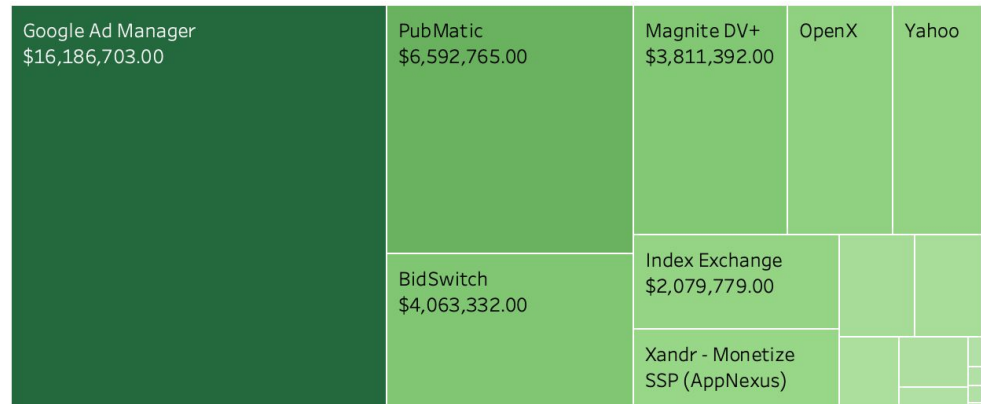| Exchange	Value
Google Ad Manager	93.42%
Xandr > Monetize SSP (AppNexus)	91.55%
Index Exchange	91.54%
Yahoo Exchange	91.14%
Magnite DV+	90.67%

Impressions

Google Ad Manager

- **Measurable Impressions:** $30.14M
- **Viewable Impressions:** $16.19M
- It has the highest totals, but also shows a decrease from measurable to viewable impressions.
- All platforms show fewer viewable impressions than measurable ones

Measurable Impressions

Google Ad Manager $30,141,358.00	PubMatic $11,339,664.00	Magnite DV+ $6,920,534.00	Index
	BidSwitch $7,629,579.00	OpenX $3,804,069.00	
		Yahoo Exchange $3,679,791.00	

Viewable Impressions

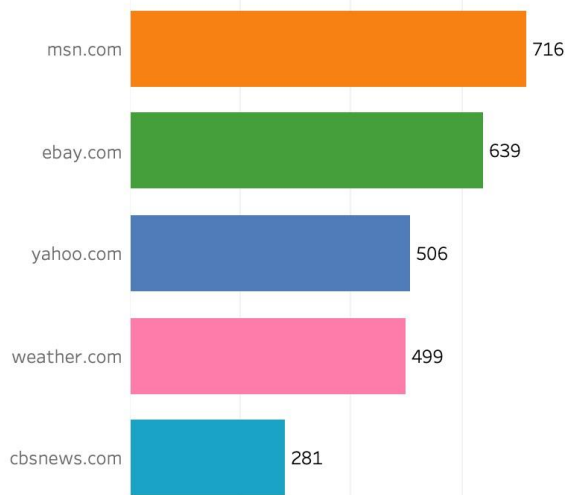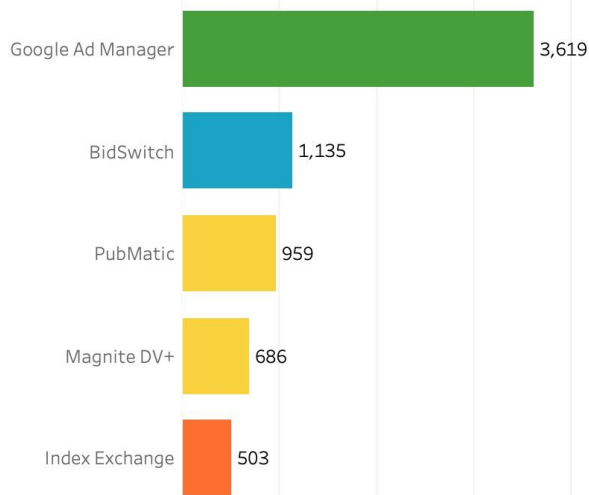|			
Google Ad Manager $16,186,703.00	PubMatic $6,592,765.00	Magnite DV+ $3,811,392.00	OpenX / Yahoo
	BidSwitch $4,063,332.00	Index Exchange $2,079,779.00	
		Xandr - Monetize SSP (AppNexus)	

Conversion Rates

Based off of the dataset provided, these were the Top 5 Websites and Exchanges calculated for Total Conversions made

Top 5 App URL (Websites) by Total Conversions

Website	Total Conversions
msn.com	716
ebay.com	639
yahoo.com	506
weather.com	499
cbsnews.com	281

Top 5 Exchanges (Publishers) by Total Conversions

| Exchange	Total Conversions
Google Ad Manager	3,619
BidSwitch	1,135
PubMatic	959
Magnite DV+	686
Index Exchange	503

Conversion Rates (Cont.)

Top 5 Websites

- **MSN.COM** - a webportal provided by Microsoft that offers news, weather, sports, finances, and other content
- **EBAY.COM**- a multinational e-commerce company based in San Jose, California that allows users to buy and sell items via online marketplaces
- **YAHOO.COM** - a webportal that provides a search engine and related services such as e-mail, finance, sports and entertainment.
- **WEATHER.COM** - a pay television channel owned by Weather Group, LLC, a subsidiary of Allen Media Group
- **CBSNEWS.COM** - news division of the American television and radio broadcaster CBS.

Top 5 App URL (Websites) by Total Conversions

| Website	Conversions
msn.com	716
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cbsnews.com	281
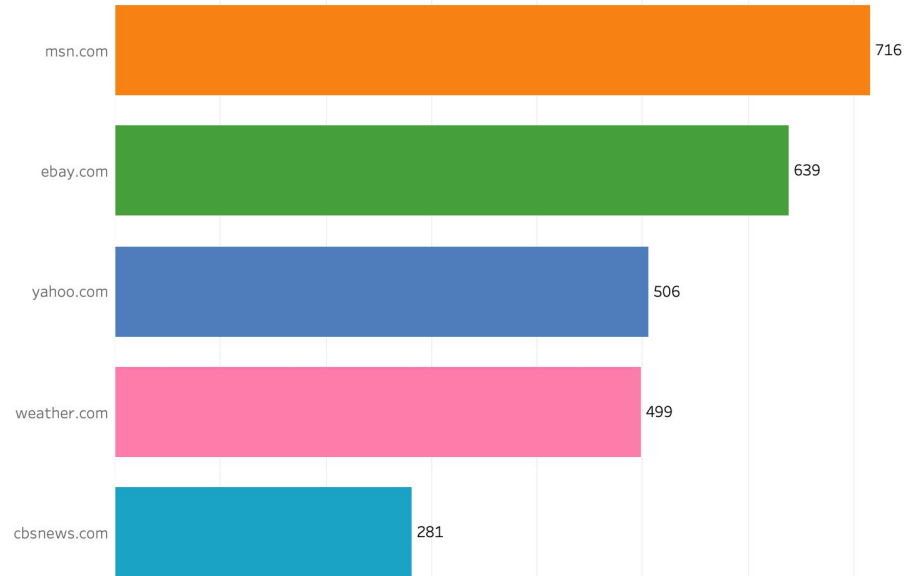
Conversion Rates (Cont.)

Top 5 Exchanges

- **GOOGLE AD MANAGER** - ad management platform introduced by Google for large publishers who have significant direct sales
- **BIDSWITCH** - subsidiary of CRITEO, an advertising company that provides online display advertising
- **PUBMATIC** - developer and implementer of online advertising software and strategies for digital publishing ad advertising industry.
- **MAGNITE DV+** - cross-channel programmatic advertising
- **INDEX EXCHANGE** - platform that enables media owners to grow revenue and marketers to reach consumers on any screen, through an ad format

Top 5 Exchanges (Publishers) by Total Conversions

Exchange	Total Conversions
Google Ad Manager	3,619
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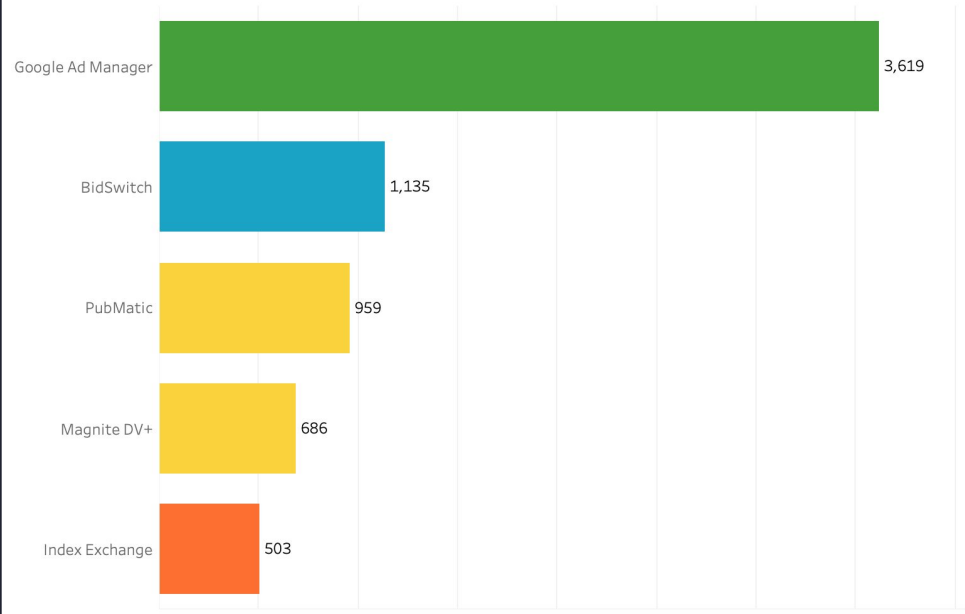
Top 5 Websites to Contract for Direct Buy by Click Through Rate

- **W3schools.com** (1.59%)
  - An educational website that is free and teaches web development.

- **Whatismyipaddress.com** (1.20%)
  - A website that makes it easy for users to quickly find out and understand what their IP address is.

- **m.Timesofindia.com** (1.19%)
  - Major news outlet that provides articles and information in a format optimized for a mobile version.

- **Accuweather.com** (1.13%)
  - A website that provides weather-related services, such as weather forecasts and warnings.

- **Tomsguide.com** (1.13%)
  - A popular online publication that is known for product reviews, guides and news articles that focuses on content related to technology

CTR

w3schools.com 1.59%	m.timesofindia.com 1.19%	accuweather.com 1.13%
whatismyipaddress.com 1.20%	tomsguide.com 1.13%	
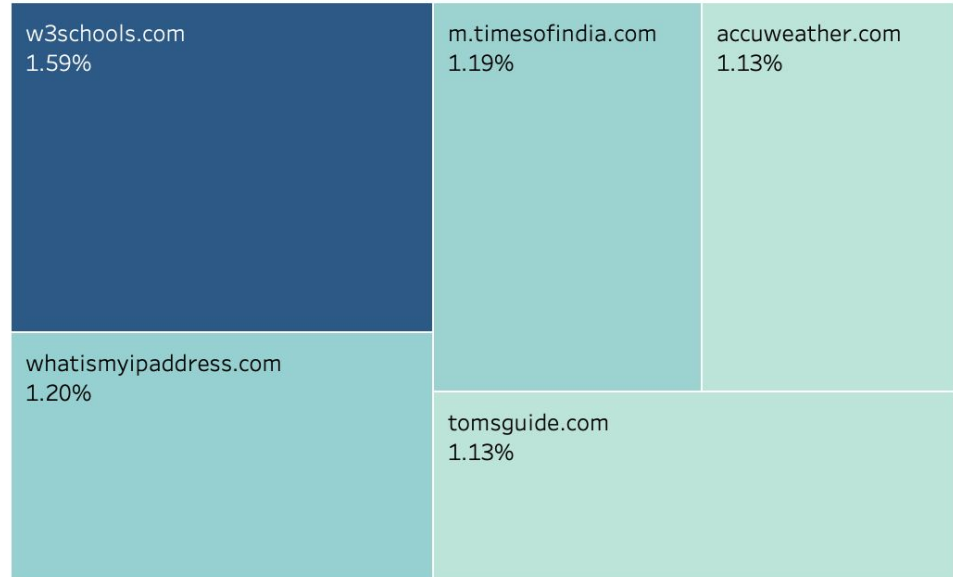
Inventory Recommendations

- **Focus marketing efforts towards Google Ad Manager**

  We recommend this since Google Ad Manager brings in nearly three times more conversions than any other exchange.

- **Review Google Ad Manager Inventory**

  Consider reviewing ad placements to find ways to improve viewability, such as where ads appear on the page or how quickly the page loads.

- **Consider improving spending towards high-viewability platforms**

  Due to platforms like Pubmatic and Magnite DV+ showing better viewability rates, we recommend increasing spending on these platforms because it would be beneficial for viewability KPI.

- **Focus direct buys on high-CTR websites to boost user engagement and improve ad performance.**

  W3Schools.com Performs well likely due to its educational content. We recommend using this website for campaigns aimed at tech-savvy or professional audiences.

06   Conclusion

THANKS!

Do you have any questions?