



Coca-Cola Foundation Grant
Recycling Advertising Campaign
August 2020 – January 2021

Overview:

Recycle Colorado proactively reached over 5.2 million residents in three communities between August 2020 and January 2021 with a recycling ad campaign highlighting the importance and benefits of recycling. A total of 8,435 tons of curbside recycling was collected from the three communities during that same timeframe, helping them maintain consistent recycling rates during a turbulent period when COVID-19 increased overall waste collection by 25-30%.

Goals



Six recycling messages were marketed to three Colorado communities with single-hauler residential recycling. The goals were to increase overall recycling collection and to test which recycling message(s) resonated the best.

Front Range Communities

The three Front Range cities of Commerce City, Longmont, and Thornton were chosen for their similar demographics and because all three municipalities offer single-hauler residential recycling.



Table 1. Population data for participating cities.

Demographic Facts	Longmont		Commerce City		Thornton	
	2019 CO Demographics	US Census 2019	2019 CO Demographics	US Census 2019	2019 CO Demographics	US Census 2019
Population	97,273	97,261	60,392	60,336	142,672	141,464
Median Household Income	\$74,242	\$74,242	\$77,065	\$77,065	\$79,411	\$79,411
Income % lower than poverty line	9.60%	9.60%	11.60%	11.60%	8.80%	8.80%
Home ownership	60.70%	60.70%	74.00%	74.00%	72.80%	72.80%
Median home value	\$362,500	\$362,500	\$320,100	\$320,100	\$322,200	\$322,200
Ethnicity						
Hispanic	25.20%	25.20%	49.20%	49.20%	34.20%	34.20%
Non Hispanic White	68.10%	68.10%	41.90%	41.90%	56.10%	56.10%
Non Hispanic Black	1.10%	1.10%	4.20%	4.40%	2.00%	2.10%
Non Hispanic Native American	0.50%	0.08%	0.40%	0.09%	0.30%	1.00%
Non Hispanic Asian	3.10%	3.10%	1.80%	2.00%	4.80%	4.90%
Other language spoken at home		20.60%		33.30%		24.60%

From Colorado’s State Demography Office (<https://gis.dola.colorado.gov/apps/ProfileDashboard2/>) and United States Census Bureau (<https://www.census.gov/quickfacts/fact/table/commercecitycolorado,lovelandcitycolorado,longmontcitycolorado,US/PST045219>).

Map of selected cities:



Recycling Message Themes

Recycle Colorado created six unique recycling ads in English and Spanish. Themes for the ads were selected in an effort to increase overall recycling collection and to promote general

awareness about recycling and why it is important for Colorado. One message was advertised per month over six months. The themes included:

August

General recycling education



Separation Anxiety?
Know Before You Throw
¿Indeciso sobre qué puede reciclar?
Infórmese antes de desecharlos

RECYCLE COLORADO
RECYCLECOLORADO.ORG

September

Product Transformation



Recycling makes things new again!
¡El reciclaje vuelve a hacer las cosas nuevas!

Recycle to give materials another life. Reciclar para regalar materiales otra vida.

RECYCLE COLORADO
RECYCLECOLORADO.ORG

October

Rinse to Recycle



Recycle it Right
Empty. Rinse. Recycle.
Recíclalo bien.
Vacío. Enjuague. Reciclar.

Know Before You Throw Infórmese antes de desecharlos

RECYCLE COLORADO
RECYCLECOLORADO.ORG

November

CO behind the National average



Colorado recycles 50% less than the rest of the U.S.
Colorado recicla 50% menos que el resto del país.

17% COLORADO 35% NATIONAL AVERAGE


Percentages based on most recently available information.

We can do better, Colorado! ¡Podemos mejorar, Colorado!

RECYCLE COLORADO
RECYCLECOLORADO.ORG

December

Recycling for job creation



Recycling creates Colorado jobs.
El reciclaje crea empleos en Colorado.

Recycling creates 9x more jobs than landfilling. Crea 9 veces más trabajos que el vertido.

RECYCLE COLORADO
RECYCLECOLORADO.ORG

January

Recycling for a better future



Are you looking out for Colorado's future?
RECYCLE TODAY FOR A BETTER TOMORROW.
¿Le importa el futuro de Colorado?
RECICLE HOY PARA UN MAÑANA MEJOR.

Know Before You Throw Infórmese antes de desecharlos

RECYCLE COLORADO
RECYCLECOLORADO.ORG



Communication Methods

A cross media optimization strategy was used to reach the greatest target audience while reinforcing ads through three different advertising media.

1) Digital media:

- o Google Display Ads was chosen for digital media. It allowed us to test a variety of images, headlines, and ad copy for each ad and subsequently rank performance. Google Display Ads eliminated the need to constantly monitor public comments and questions, which can be time consuming.
- o The Google Display Ads received 5,259,133 impressions.
- o The campaign prompted 14,698 clicks which directed residents' to their respective City's website recycling page to learn more about their community's recycling programs.

2) Exterior signage:

- o The ads were displayed at two bus shelters in each participating city. The locations of the bus shelters changed each month to best cover the geographic areas in each city. The ads could be easily seen by motorists and public transportation riders. This was also one way to ensure people lacking internet access could see the ads.
- o The bus shelter ads received an estimated 1,776,000 – 4,448,000 impressions.

3) City communications:

Each City was provided with customized collateral that could be promoted during our advertising campaign and beyond. We believed that messaging coming directly from the community would reinforce the advertising campaign sponsored by Recycle Colorado. For these reasons, Recycle Colorado collaborated with each city to produce:

- o Recycling flyer that could be included with a city newsletter and/or posted to the city's website. (See Appendix)
- o Video clip featuring each city's landmarks and a statement from the Mayor or city official about the importance of recycling in their community. (See Appendix)

Data Tracking

This recycling advertising campaign had two distinct goals. The first goal was to increase overall recycling rates in each of three cities. The second goal was to test which recycling message(s) resonated best with the residents of each community. With these goals in mind, we pursued two data tracking protocols, one for each goal.

1) Digital media:

Digital media advertising was done through Google Display Ads. These Display campaigns show digital ads on a variety of websites, mobile apps, and YouTube channels based on a variety of audience targeting criteria, including geography, language, interests, and behaviors. In addition



to audience targeting, these Google Display Ads campaigns used an automated bid strategy in an attempt to show ads to the most people possible in each selected city. This bid strategy is referred to as cost-per-thousand viewable impressions (vCPM) bidding, which tries to generate the most impressions for every dollar spent.

However, in early January, the last month of the project, after seeing a steady decline in performance, the bid strategy was changed from vCPM to "Maximize Clicks." Normally, this change in bid strategy should decrease the cost-per-click (CPC), while simultaneously increasing the cost-per-thousand impressions (CPM). However, after changing the bid strategy to Maximize Clicks in January, we saw a significant and unexpected increase in BOTH clicks and impressions along with notable decreases in CPCs and CPMs. In other words, to our surprise, all performance metrics improved.

Each month we specified that the ads should be served to residents in each of the respective cities. Individuals with their browsers set to English received the English version of the ad, while individuals whose internet browser was set to Spanish received the Spanish version of the same ad. We benefited from Google Display Ads' ability to test various combinations of images, headlines, and copy. We wanted to see what images resonated best and what headlines inspired the most action. The measurement of success we used for each ad was the click-through rate. Clicking on an ad would take the viewer directly to their city's recycling website for additional information about waste hauling and recycling services in that specific city.

Results from the Google Advertising Campaign

Since two different campaign strategies were used, we show two separate charts to best indicate results from each time period:

- August 2020 – December 2020: Strategy was to maximize total ad views (Impressions)
- January 2021: Strategy was to maximize total number of clicks (CTR) through remarketing



During the six months of the ad campaign, the ads received 5,259,133 views and inspired 14,698 individuals to click the ad to receive more recycling information.



Table 2. Dashboard of overall results from Google Display Ads.

English Campaign Performance

Month of Year ^	Cost	Impressions	Clicks	CTR	CPM	CPC
Aug 2020	\$1,465.32	656,420	681	0.10%	\$2.23	\$2.15
Sep 2020	\$1,437.56	619,925	390	0.06%	\$2.32	\$3.69
Oct 2020	\$1,430.92	587,592	431	0.07%	\$2.44	\$3.32
Nov 2020	\$1,425.44	647,014	384	0.06%	\$2.20	\$3.71
Dec 2020	\$1,438.98	609,105	346	0.06%	\$2.36	\$4.16
Grand total	\$7,198.22	3,120,056	2,232	0.07%	\$2.31	\$3.23
Jan 2021	\$1,244.11	1,695,974	9,702	0.57%	\$0.73	\$0.13
Grand total	\$8,442.33	4,816,030	11,934	0.25%	\$1.75	\$0.71

Spanish Campaign Performance

Month of Year ^	Cost	Impressions	Clicks	CTR	CPM	CPC
Aug 2020	\$84.53	31,736	66	0.21%	\$2.66	\$1.28
Sep 2020	\$69.00	27,589	47	0.17%	\$2.50	\$1.47
Oct 2020	\$75.78	29,064	42	0.14%	\$2.61	\$1.80
Nov 2020	\$81.09	31,274	43	0.14%	\$2.59	\$1.89
Dec 2020	\$67.68	26,018	29	0.11%	\$2.60	\$2.33
Grand total	\$378.08	145,681	227	0.16%	\$2.60	\$1.67
Jan 2021	\$253.82	297,422	2,537	0.85%	\$0.85	\$0.10
Grand total	\$631.90	443,103	2,764	0.62%	\$1.43	\$0.23

English & Spanish Combined Campaign Performance

English & Spanish Combined ^	Cost	Impressions	Clicks	CTR	CPM	CPC
Grand total	\$9,074.24	5,259,133	14,698	0.28%	\$1.73	\$0.62

Impressions: Number of times the ad was served; Clicks: The action of ‘clicking here’ to see more information (directed viewers to their City’s recycling website); CPM: Cost per 1,000 impressions; CPC: Cost per click; CTR: Click-through rate.

Since the change in January’s bid strategy significantly changed the results, we segregated January data.

- August 2020 – December 2020: Strategy was to maximizing total ad views (Impressions)
- January 2021: Strategy was to maximize total number of clicks (CTR)



Table 3. English-only Google Display Ads.

English Campaign Performance

Month of Year	Cost	Impressions	Clicks	CTR	CPM	CPC
Aug 2020	\$1,465.32	656,420	681	0.10%	\$2.23	\$2.15
Sep 2020	\$1,437.56	619,925	390	0.06%	\$2.32	\$3.69
Oct 2020	\$1,430.92	587,592	431	0.07%	\$2.44	\$3.32
Nov 2020	\$1,425.44	647,014	384	0.06%	\$2.20	\$3.71
Dec 2020	\$1,438.98	609,105	346	0.06%	\$2.36	\$4.16
Grand total	\$7,198.22	3,120,056	2,232	0.07%	\$2.31	\$3.23
Jan 2021	\$1,244.11	1,695,974	9,702	0.57%	\$0.73	\$0.13
Grand total	\$8,442.33	4,816,030	11,934	0.25%	\$1.75	\$0.71

Table 4. Spanish-only Google Display Ads.

While Spanish speakers were more expensive to reach (higher CPMs), this audience had higher CTRs and lower CPCs. This indicates ads resonated with this audience even more than with English speakers.

Spanish Campaign Performance

Month of Year	Cost	Impressions	Clicks	CTR	CPM	CPC
Aug 2020	\$84.53	31.7K	66	0.21%	\$2.66	\$1.28
Sep 2020	\$69.00	27.6K	47	0.17%	\$2.50	\$1.47
Oct 2020	\$75.78	29.1K	42	0.14%	\$2.61	\$1.80
Nov 2020	\$81.09	31.3K	43	0.14%	\$2.59	\$1.89
Dec 2020	\$67.68	26K	29	0.11%	\$2.60	\$2.33
Grand total	\$378.08	145.7K	227	0.16%	\$2.60	\$1.67
Jan 2021	\$253.82	297.4K	2.5K	0.85%	\$0.85	\$0.10
Grand total	\$631.90	443.1K	2.8K	0.62%	\$1.43	\$0.23

Gauging Success of the Online Recycling Advertising Campaign

Recycle Colorado prioritized impressions (number of views) as our primary goal. We also used click-thru rates (CTR) as a barometer for how the content prompted viewers to want to learn more. The English versions of the ads collectively had a .25% CTR while the Spanish versions of these ads had a .62% CTR. The aggregated weighted CTR for both ads was .28%. However, those statistics represent aggregated results from two different campaign strategies:

- August 2020 – December 2020: the strategy was to maximize impressions. During this time period our average CTR was 0.07% for the English version of the ad, 0.16% for the Spanish language ads, and a weighted 0.075% for both
- In January, we changed to a maximum click strategy which succeeded in increasing our CTR for the English language ad to 0.57%, the Spanish language ad to 0.85%, and a weighted average of 0.61% for both.



General All Industry Index:

The Median CTR for Google Display ads was 0.47% for all industries during COVID-19 according to [Wordstream's 2020 Study on Pay Per Click Benchmarks during COVID-19](#). This data, however, does not take into consideration the bid strategy used, nor the specific purpose of the ad, and thus renders it difficult to make a true comparison.

Comparable Public Awareness Campaigns:

A better way to determine Recycle Colorado's Google Display Ad results is against comparable public awareness campaigns, of which we offer two examples:

- 1) A green business campaign for a city on Colorado's Front Range had a campaign goal to increase awareness and participation of companies participating in its Green Business Program. This campaign had a CTR of 0.07% (ours is 0.07%), CPC of \$0.32 (ours was \$3.23), and CPM of \$0.24 (ours was \$2.31). Similar to the recycling awareness campaigns being run in Commerce City, Longmont, and Thornton, this Green Business awareness campaign was more about generating increased awareness for participating businesses among the general public, and did not include any specific/direct calls-to-action (CTAs) other than to "Click here to see the list of Green Businesses" or "Shop your local Green Businesses." Given the broad awareness goals and "softer" CTAs, this Green Business Google Display Ads campaign saw click-through rates (CTRs) similar to that of Recycle Colorado's Google Display Ads campaigns.
- 2) A tourism campaign for a city on the Front Range had a campaign goal of increasing public awareness, interest, and economic activity for local businesses for both local and drive-market audiences. This campaign rendered CTR of 0.09% (ours is 0.07%), CPC of \$2.26 (ours was \$3.23), and CPM of \$2.01 (ours was \$2.31). Similar to the recycling awareness campaigns being run in Commerce City, Longmont, and Thornton, the goal of these tourism display campaigns was to generate increased awareness, and did not include any specific/direct calls-to-action (CTAs) other than to "Shop Local" or "Support Local Businesses." Given the broad awareness goals and "softer" CTAs, these Google Display Ads campaigns saw click-through rates (CTRs) similar to that of Recycle Colorado's Google Display Ads campaigns.

Which Recycling Message Resonates Best?

Each month emphasized a different recycling theme:

- o August: General recycling education
- o September: Product transformation
- o October: Rinse to recycle
- o November: Colorado's recycling rate is behind the national average
- o December: Recycling for job creation
- o January: Recycling for a better future



Our first ad in August focusing on general recycling education showed the best performance (based on highest CTR and lowest CPC). It is unclear if this ad performed the best due to it being the first ad seen by our audience or because it was the most appealing. The general trend was a slowly decreasing performance of the ads, until January when a change in bid strategy created some pleasantly unexpected high CTRs and low CPC.

August

August's ad focused on general recycling education and showed general categories of recyclables accepted in the cities' curbside recycling programs. This ad performed the best (*during the first 5 month of a bid strategy to maximize views*) which may have simply been due to it being the first message seen by our audience.

Interesting Observations:

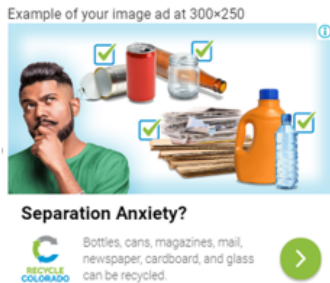
- Images of recyclable materials only were favored over images of materials that also included a person.
- The headline calling attention to Colorado was clicked on more frequently than the individual city name

Google Display Ads allowed us to test a variety of images, headlines and ad copy. It auto-combines assets to create a multitude of creative looks. Google Display Ads ranked the performance of the attributes allowing us to understand which elements performed the best. The ranking structure is based on Google's historical performance data.

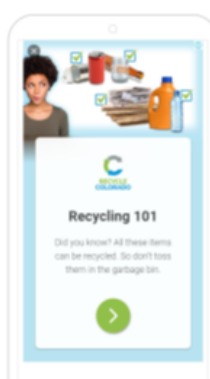
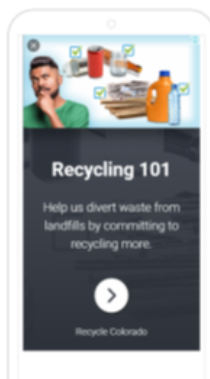
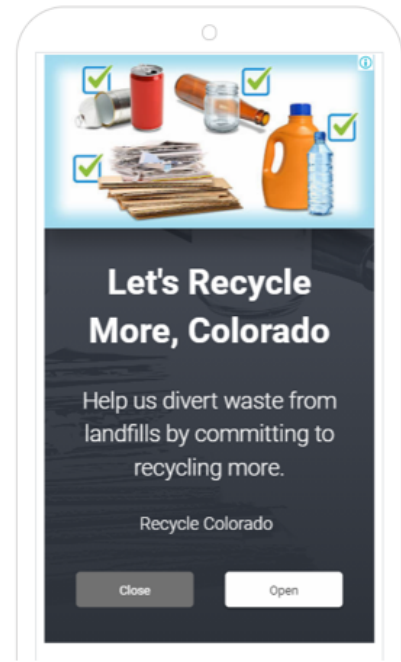
Below are various Google Display Ad combinations served to viewers.



Google Display Ads – August



Best combination



Below is how Google Display Ads ranked the various headlines, ad copy, and images we used.

Rankings: Headline, Copy, Image

Asset	Asset type	Performance
Let's Recycle More, Thornton	Headline	Good
Let's Recycle More, Colorado	Headline	Best
Know Before You Throw	Headline	Good
City of Thornton Recycles	Headline	Good
Recycling 101	Headline	Good
Know what to recycle and do your part to make your community and state a better place.	Description	Good
Bottles, cans, magazines, mail, newspaper, cardboard, and glass can be recycled.	Description	Good
Help us divert waste from landfills by committing to recycling more.	Description	Best
Did you know? All these items can be recycled. So don't toss them in the garbage bin.	Description	Good

Good



Good



Best





Spanish version:

Recicla más, Commerce City

Quando sabe reciclar, está contribuyendo a que su ciudad y todo el estado mejoren.

Recicla más, Commerce City

Recycle Colorado

Quando sabe reciclar, está contribuyendo a que su ciudad y todo el estado mejoren.

ABRIR

Best combination

Vamos a reciclar más, Thornton

¿Sabía que todos estos pueden ser reciclados? No los ponga en el bote de basura regular.

El ABC del reciclaje

Quando sabe reciclar, está contribuyendo a que su ciudad y todo el estado mejoren.

Cerrar ABRIR

Infórmese antes de desecharlos

Se puede reciclar botellas, latas, revistas, correo, periódicos, cartón y vidrio.

El ABC del reciclaje

Infórmese sobre qué artículos pueden ser reciclados.

Rankings: Headline, Copy, Image

Asset	Asset type	Performance
El ABC del reciclaje	Headline	Good
Vamos a reciclar más, Colorado	Headline	Good
Infórmese antes de desecharlos	Headline	Good
Vamos a reciclar más, Longmont	Headline	Good
¿Sabía que todos estos pueden ser reciclados? No los ponga en el bote de basura regular.	Description	Best
Se puede reciclar botellas, latas, revistas, correo, periódicos, cartón y vidrio.	Description	Good
Quando sabe reciclar, está contribuyendo a que su ciudad y todo el estado mejoren.	Description	Good
Comprométase a reciclar, y así evitaremos mandar tanta basura al vertedero.	Description	Good
Infórmese sobre qué artículos pueden ser reciclados.	Description	Good

Good



Good



Best





September:

September’s ad emphasized product transformation and how recyclable materials can be transformed into new, valuable products. We showcased glass since Colorado is fortunate to have a circular loop for recycled glass.

Interesting Observations:

- This ad performed especially well in Commerce City. We hypothesize a few reasons. First, the look of the new glass bottle is familiar to customers who frequent mercados which still sell carbonated beverages in glass bottles. The familiarity may have made this ad more personable. Secondly, many workers drink soda products on a daily basis again making the ad more relatable.
- There was no clear winner in the ad Headline.
- Combining the words recycling and sustainable in the same ad copy performed the best.

Google Display Ads - September



Best combination

Example of your image ad at 300x250



Recirculate Materials, Recycle

Recycling is the most sustainable way to create the products you use every day.



Give These Products a New Life

Recycling is the most sustainable way to create the products you use every day.
Recycle Colorado



Example of your text ad at 300x250

Recirculate Materials, Recycle

Recycle Colorado
Recycling is the most sustainable way to create the products you use every day.

OPEN



Recyclables Get Transformed

Recycling is the most sustainable way to create the products you use every day.



Recirculate Materials, Recycle



Recycling is the most sustainable way to create the products you use every day.



The Future of Your Recyclables

Recycling is the most sustainable way to create the products you use every day.

Close

Open

Google Display Ads – September



Rankings: Headline, Copy, Image

Asset	Asset type	Performance
Recycling Creates New Products	Headline	Low
Give These Products a New Life	Headline	Good
Recirculate Materials, Recycle	Headline	Good
The Future of Your Recyclables	Headline	Good
Recyclables Get Transformed	Headline	Good
Your recyclables can be transformed into new products you use every day.	Description	Good
Recycling is the most sustainable way to create the products you use every day.	Description	Best
Recycling creates new products without using extra materials and energy.	Description	Good
By recycling, you help give everyday products a whole new life.	Description	Good
Save unnecessary waste, energy and materials to create new products simply by recycling.	Description	Good

Google Display Ads - Spanish

No clear winners – they were all “good”

Example 1:
 RECYCLE COLORADO
El futuro de los reciclables
 Al reciclar, le da un nuevo uso a productos de la vida diaria.
 Cerrar | Abrir

Example 2:
 RECYCLE COLORADO
Reúselos. Reciclelos.
 Los materiales reciclables se transforman en nuevos productos de uso diario.
 Recycle Colorado
 Example of your native ad at 300x250
 RECYCLE COLORADO
El reciclaje vuelve a hacer las cosas nuevas.
 Recycle Colorado | Abrir >

Example 3:
 RECYCLE COLORADO
Lo reciclable se transforma
 Al reciclar, se crean nuevos productos sin gastar energía ni materiales nuevos.
 Cerrar | Abrir

Example 4:
 RECYCLE COLORADO
Deles un nuevo uso
 Recicle y evite crear basura y gastar energía en cosas nuevas.
 Cerrar | Abrir

Google Display Ads – September



Rankings: Headline, Copy, Image

Asset	Asset type	Performance
Reciclar crea cosas nuevas	Headline	Good
Reúselos. Recíclelos	Headline	Good
El futuro de los reciclables	Headline	Good
Deles un nuevo uso	Headline	Good
Lo reciclable se transforma	Headline	Good
Recicle y evite crear basura y gastar energía en cosas nuevas.	Description	Good
Al reciclar, le da un nuevo uso a productos de la vida diaria.	Description	Good
Al reciclar, se crean nuevos productos sin gastar energía ni materiales nuevos.	Description	Good
Los materiales reciclables se transforman en nuevos productos de uso diario.	Description	Good
El reciclaje es la manera más sostenible de crear productos de uso diario.	Description	Good

October

October's ad reverted back to an educational message with a "Rinse to Recycle" theme. Contamination is a problem cited by all three Cities and associated haulers. This ad served as a reminder to put only clean materials in the recycling bin.

Interesting Observations:

- The top ranked image was that of the empty bottles rather than a person rinsing a can.
- The ad copy emphasizing water savings performed the best.

Google Display Ads - October

Example of your image ad at 300x250



Rinse It To Recycle It

Recyclables should be emptied, rinsed, and shaken dry to properly recycle.



Are You Recycling Right?

Be sure to empty and rinse your recyclables before putting them in your bin.

Recycle Colorado

Rinse It To Recycle It

Rinsing recyclables only takes a few seconds and saves lots of water in the long run.

Recycle Colorado

Close Learn More

Are You Recycling Right?

Rinsing recyclables only takes a few seconds and saves lots of water in the long run.

Recycle Colorado

Close Learn More

★ Best combination




Rinse It To Recycle It

Rinsing recyclables only takes a few seconds and saves lots of water in the long run.

Recycle Colorado

Close Learn More

Google Display Ads - October

	4032 x 2110	Good
	1200 x 628	Best
	1200 x 628	Good

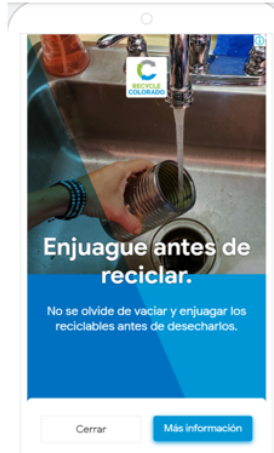
Rinse to Recycle Headline, Copy, Image Rankings

Asset	Asset type	Performance
Know Before You Throw	Headline	Low
Recycle It Right	Headline	Good
Empty. Rinse. Recycle.	Headline	Good
Rinse It To Recycle It	Headline	Best
Are You Recycling Right?	Headline	Best
Be sure to empty and rinse your recyclables before putting them in your bin.	Description	Good
Are you recycling right? Be sure to empty, rinse, and shake dry your recyclables.	Description	Low
Recyclables should be emptied, rinsed, and shaken dry to properly recycle.	Description	Good
Rinsing only takes a few seconds and saves water and energy.	Description	Good
Rinsing recyclables only takes a few seconds and saves lots of water in the long run.	Description	Best

Google Display Ads – October Spanish



Best combination



Google Display Ads – October Spanish

Rinse to Recycle Headline, Copy, Image Rankings

	4032 x 2110	Good
	1200 x 628	Best
	1200 x 628	Good

Asset	Asset type	Performance
Enjuague antes de reciclar.	Headline	Good
Vaciar. Enjuagar. Reciclar.	Headline	Good
Recíclelo bien.	Headline	Best
¿Está reciclando bien?	Headline	Good
Infórmese antes de reciclar.	Headline	Good
Enjuagar los reciclables solo toma unos segundos y ahorra agua y energía.	Description	Low
Los materiales tienen que estar vacíos, enjuagados y secos para poder reciclarlos bien.	Description	Good
No se olvide de vaciar y enjuagar los reciclables antes de desecharlos.	Description	Good
¿Está reciclando bien? No se olvide de vaciar, enjuagar y secar lo reciclable.	Description	Good
Enjuagar los reciclables solo toma unos segundos y ahorra mucha agua a largo plazo.	Description	Best



November

The goal for November’s ad was to provide motivation for Colorado to catch up to the U.S. national recycling average. The ad draws attention to the inconvenient fact that Colorado is 50% behind the national recycling average. We used mountain images which are familiar and a common sense of pride for Coloradans. While Colorado boasts numerous high peaks, we are ironically dwarfed by our low recycling rates.

Interesting Observations:

- The best headline formatted statistics as a sports score “CO 17% vs. US 35%.”
- The “It’s time to catch up” scored low and perhaps invoked a negative connotation.

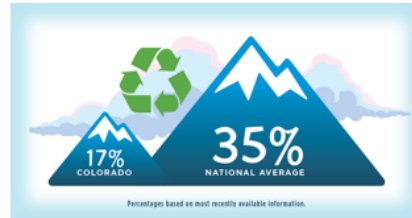
Google Display Ads – November

The image displays four variations of Google Display Ads for the 'RECYCLE COLORADO' campaign, all featuring a mountain landscape background with a recycling symbol and two mountain peaks. The left peak is labeled '17% COLORADO' and the right peak is labeled '35% NATIONAL AVERAGE'. Each ad includes a 'Close' button and a 'Learn More' button.

- Ad 1:** Headline: "We Can Do Better, Colorado". Text: "On average, Colorado recycles 50% less than the rest of the United States." "Recycle Colorado".
- Ad 2:** Headline: "Catch Up, Colorado". Text: "Colorado has fallen behind the national recycling average by 50%." "Recycle Colorado".
- Ad 3:** Headline: "CO Lags Behind National Avg.". Text: "Colorado recycles only 17% of its waste compared to the national average of 35%." "Recycle Colorado".
- Ad 4 (Best combination):** Headline: "Colorado 17% vs. US 35%". Text: "On average, Colorado recycles 50% less than the rest of the United States." "Recycle Colorado".

Google Display Ads – November

Ad 4- CO behind National Average Rankings: *Headline & Copy*



Asset	Asset type	Performance
Catch Up, Colorado	Headline	Good
CO Lags Behind National Avg.	Headline	Good
We Can Do Better, Colorado	Headline	Good
Colorado 17% vs. US 35%	Headline	Best
Elevate Our Recycling Rate	Headline	Low
On average, Colorado recycles 50% less than the rest of the United States.	Description	Best
Colorado recycles only 17% of its waste compared to the national average of 35%.	Description	Good
Colorado has fallen behind the national recycling average by 50%.	Description	Good
The US recycling average is 35%. Colorado's is just 17%. It's time to catch up.	Description	Low
40% of Coloradans don't recycle regularly. Help us catch up to the national average.	Description	Good

Google Display Ads – Spanish



Best combination

Podemos mejorar, Colorado

El 40% de la población de Colorado no recicla. Ayúdenos a alcanzar el promedio nacional.

Ponte al día, Colorado

El promedio de reciclaje nacional es 35%. En Colorado es 17%. ¡Hay que ponernos al día.

Tenemos que reciclar más

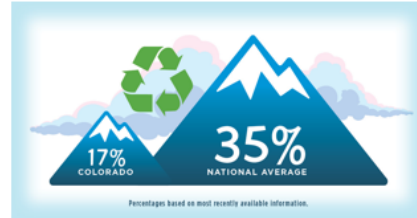
El 40% de la población de Colorado no recicla. Ayúdenos a alcanzar el promedio nacional. Recycle Colorado

Colorado 17% vs. USA 35%

Colorado está debajo del promedio nacional de reciclaje en un 50%.

Recycle Colorado

Ad 4- CO behind National Average Headline & Copy Rankings



Asset	Asset type	Performance
Podemos mejorar, Colorado	Headline	Best
Colorado 17% vs. USA 35%	Headline	Good
CO debajo de promedio nacional	Headline	Good
Tenemos que reciclar más	Headline	Good
Ponte al día, Colorado	Headline	Good
Colorado solo recicla un 17% de la basura, comparado con el promedio nacional de 35%.	Description	Good
El 40% de la población de Colorado no recicla. Ayúdenos a alcanzar el promedio nacional.	Description	Best
Colorado está debajo del promedio nacional de reciclaje en un 50%.	Description	Good
El promedio de reciclaje nacional es 35%. En Colorado es 17%. ¡Hay que ponernos al día.	Description	Good
En promedio, Colorado recicla 50% menos que el resto del país.	Description	Good

December

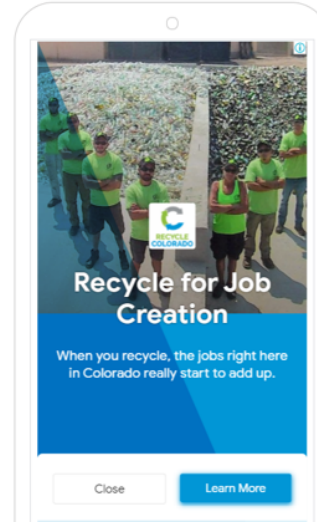
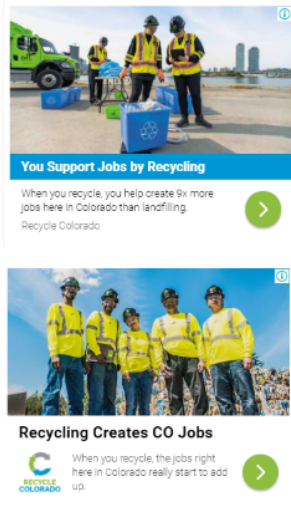
The emphasis for December's ad was recycling for job creation. Recycling creates nine times as many jobs as landfilling. With the economy being weakened by COVID-19, we felt this was a strong message.

Interesting Observations:

- The best image showed the most number of people.
- The use of statistics, "9x as many jobs," did not perform as well as the more general, "jobs...really start to add up" ad copy.

Google Display Ads – December

 **Best combination**



Google Display Ads – December

Asset	Asset type	Performance
You Support Jobs by Recycling	Headline	Good
Recycle for Job Creation	Headline	Best
Recycling Creates 9x More Jobs	Headline	Good
Help Create More Local Jobs	Headline	Best
Recycling Creates CO Jobs	Headline	Low
When you recycle, the jobs right here in Colorado really start to add up.	Description	Best
Support the local workforce by recycling, which creates 9x more jobs than landfilling.	Description	Low
Recycle for job creation. Recycling creates 9x more jobs than landfilling.	Description	Good
When you recycle, you help create 9x more jobs here in Colorado than landfilling.	Description	Good
Recycling creates 9x more Colorado jobs than landfilling. Do your part for our economy.	Description	Good

Best image



Good images



Google Display Ad: December ads

Best combination

Ayude a crear más trabajos

Cuando recicla, crea 9 veces más empleos que los que crea el proceso vertidero en Colorado

[Cerrar](#) [Más informa...](#)

Spanish



Al reciclar, apoya el trabajo

Apoye la creación de empleos, reciclando. Crea más trabajos que el proceso de vertidero.

Recycle Colorado

[MÁS INFORMACIÓN](#)



Reciclar crea empleos en CO

Cuando recicla, los empleos en Colorado empiezan a aumentar.

[MÁS INFORMACIÓN](#)

Recicle para crear empleos

Apoye la creación de empleos, reciclando. Crea más trabajos que el proceso de vertidero.

[Cerrar](#) [Más información](#)

Ayude a crear más trabajos

El reciclaje crea 9 veces más empleos que el proceso de vertidero; apoye nuestra economía

Recycle Colorado

[Cerrar](#) [Más información](#)

December: Ad 4 – Recycling for Jobs

Headline, Copy, and Image Rankings - Spanish

Asset	Asset type	Performance
Ayude a crear más trabajos	Headline	Best
Reciclar crea empleos en CO	Headline	Good
El reciclaje crea más empleos	Headline	Good
Al reciclar, apoya el trabajo	Headline	Good
Recicle para crear empleos	Headline	Good
El reciclaje crea 9 veces más empleos que el proceso de vertidero; apoye nuestra economía	Description	Good
Cuando recicla, los empleos en Colorado empiezan a aumentar.	Description	Low
Recicle para crear empleos, reciclar crea 9 veces más trabajos que el proceso de vertidero	Description	Good
Cuando recicla, crea 9 veces más empleos que los que crea el proceso vertidero en Colorado	Description	Best
Apoye la creación de empleos, reciclando. Crea más trabajos que el proceso de vertidero.	Description	Best

Best image



Good images





January

The intention of January's ad was a call of action to recycle for Colorado's future. To bookend the campaign, we used the same image of recyclable materials as was used in the first ad, along with Colorado's state flag.

Interesting Observations:

- The Colorado state flag has a strong positive connotation and thus was selected for the customized image.
- The best ranking Spanish ad copy was conversely ranked lowest in its English translation, "Recycling creates a better future by reducing energy use and creating jobs." This seems to indicate that messaging on energy use and job creation resonate better with Spanish speaking communities.
- This ad resonated particularly well in Commerce City where (unknown to us), the community ran simultaneous ads promoting its 10-year Comprehensive Plan which paralleled our messaging of creating a better future.

Google Display Ads – January

★ **Best combination**

Example of your image ad at 300x250



Recycle for Colorado's Future

Recycling creates a better, cleaner, and healthier tomorrow for Colorado.

Example of your native ad at 300x250



Are you looking out for Colorado's future? Recycle today for a...

Recycle Colorado

[Learn More >](#)

Recycle for Colorado's Future

Recycling creates a better, cleaner, and healthier tomorrow for Colorado.

[Close](#) [Learn More](#)

Our Future Depends On Us

Do us proud Colorado, recycle today for a better tomorrow.

[CLOSE](#) [LEARN MORE](#)

Recycle Today for Tomorrow

Recycling ensures a better future by reducing energy use and creating jobs.

[Close](#) [Learn More](#)



Google Display Ads – January



Headline and Copy Rankings

Asset	Asset type	Performance
Create a Better Tomorrow	Headline	Good
Recycle for a Better Future	Headline	Good
Recycle Today for Tomorrow	Headline	Good
Recycle for Colorado's Future	Headline	Best
Our Future Depends On Us	Headline	Low
Recycle for the environment, your community, and everyone who calls Colorado home.	Description	Good
Do us proud Colorado, recycle today for a better tomorrow.	Description	Good
Recycling creates a better, cleaner, and healthier tomorrow for Colorado.	Description	Best
Recycling ensures a better future by reducing energy use and creating jobs.	Description	Low
You can help ensure a better future for all Coloradans simply by recycling more.	Description	Good

Google Display Ads – January Spanish

Reciclar protege el medioambiente, la comunidad y a toda la población de Colorado.

[Cerrar](#) [Más informa...](#)

Recycle Colorado [Más información >](#)

Reciclando protegemos el futuro, pues usamos menos energía y creamos más empleos.

[Cerrar](#) [Más informa...](#)

Reciclar protege el medioambiente, la comunidad y a toda la población de Colorado.

[Cerrar](#) [Más información](#)

★ Best combination

Reciclando protegemos el futuro, pues usamos menos energía y creamos más empleos.

[Cerrar](#) [Más informa...](#)



Google Display Ads – January Spanish



Headline and Copy Rankings - Spanish

Asset	Asset type	Performance
Recicle para Colorado.	Headline	Good
Recicle para un mejor futuro.	Headline	Best
Construya un mejor mañana.	Headline	Good
El futuro en nuestras manos.	Headline	Good
Reciclar crea un futuro más sano y saludable para Colorado.	Description	Good
Reciclando protegemos el futuro, pues usamos menos energía y creamos más empleos.	Description	Best
Ayúdenos a crear un mejor futuro para Colorado, reciclando.	Description	Low
Haznos sentir orgullosos, Colorado. Reciclemos para un mañana mejor.	Description	Good
Reciclar protege el medioambiente, la comunidad y a toda la población de Colorado.	Description	Good

Demographic Observations from Google Campaign

Age & Gender

Overall, women have a slightly higher click-through rate (CTR) when compared to men. This is particularly true of older women. However, younger men 18-24 and 25-34 showed stronger performance than women of the same age. (see data charts in Appendix)

Parental Status

Overall, users who are a Parent appear to have better performance compared to users who are Not a Parent or Unknown. This includes significantly higher click-through rate (CTR) and lower cost-per-click (CPC). (see data charts in Appendix)

Household Income (HHI)

In general, it appears users in the lower 50% of HHI have the best performance with the highest click-through rate (CTR) and lowest cost-per-click (CPC). Conversely, users in the top 10% HHI have the lowest CTR and highest CPC. This trend holds true across all three communities, but is most pronounced in Commerce City with the largest delta in CTR between the lower 50% and top 10%. (see data charts in Appendix)



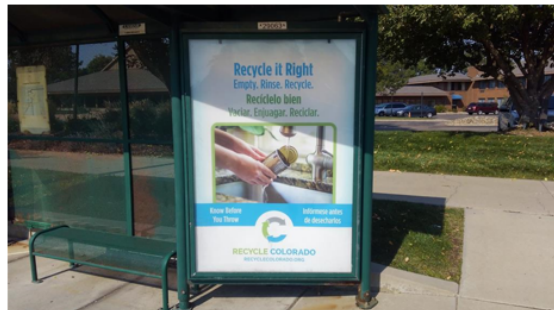
Device Type

When using a "vCPM" (maximum click) bid strategy from August 1 - December 31st, we can see that computers account for roughly 35% of cost and impressions and 10% of clicks. While these clicks from users on computers were significantly more expensive, they also likely represent a highly engaged audience since many computer users are unlikely to click on Display ads. Conversely, when the bid strategy was changed to "Maximize Clicks" in January, we see that Google Ads showed very few impressions to computer users since the algorithm also "understands" that computer users are less likely to click on Display ads compared to mobile users. (see data charts in Appendix)

Exterior Signage: Bus Shelter Ads

To expand viewership of the ads, the campaign used exterior signage on bus shelters, which could be easily seen by motorists, pedestrians, and public transportation riders. A bilingual version of the recycling ads were displayed at two bus shelters in each of the three cities. The locations of the bus shelters changed each month to best cover the geographic areas in each city. Viewership of the ads ranged from 100,000 – 552,000 impressions each month depending on location. That equates to an estimated 1,776,000 – 4,448,000 impressions during the six-month campaign.

Examples of bus shelter bilingual ads





City Communications

Each city was provided with customized collateral that could be promoted during our advertising campaign and well beyond. We believed that messaging coming directly from the community would reinforce the advertising campaign sponsored by Recycle Colorado. For these reasons, Recycle Colorado collaborated with each city to produce a:

- o Recycling flyer that could be included with a city newsletter and/or posted to the city's website. (See Appendix)
- o Video clip featuring each city's landmarks and a statement from the Mayor or city official about the importance of recycling in their community. (See Appendix)

Each city was appreciative of the customized collateral. They used it as an opportunity to promote recycling using many communication vehicles including social media posts on Facebook, Twitter, Nextdoor, and YouTube. The videos were played on local TV stations, at Rec Centers, and in City facilities and were posted on the cities' websites. Longmont also wrote a press release about the recycling advertising campaign.

Data tracking- Recycling Rates

The second goal of the campaign was to increase overall recycling rates in each of the three cities. Only cities with single haulers were selected for this project. In that way, we could best consolidate current and historical data on waste diversion. Throughout the six-month project we tracked total waste sent to landfills compared with total recycling weights to measure each town's curbside-only recycling rates. We compared curbside recycling rates from the 6-month advertising campaign to the same time period from the previous year. A total of 8,435.43 tons of recycling was collected from all three Cities during the 6 months of the recycling ad campaign. We saw slight increases in Longmont's and Thornton's recycling rates and a slight decrease in Commerce City's recycling rate which we attribute to a) opt-out of recycling bin b) change of haulers c) addition of off-site cardboard collection sites and d) COVID-19. We believe COVID-19 negatively impacted the results of all three Cities. As we take a closer look at how each City performed individually, please note:

- o COVID-19 impacted residential recycling rates. General consensus from haulers we consulted with is that a significant spike in waste and recycling weights occurred early in the COVID months of April – June and continued at increased levels over the remainder of the year.
- o Nationally, Republic Services saw a 25% increase in trash volumes. *"In a typical household folks are generating before the pandemic around four pounds per person per day, but now that's increased 25% to 30%. So folks are generating way more than four pounds per person per day," says Tania Ragland Castaneda of Republic Services, one of*



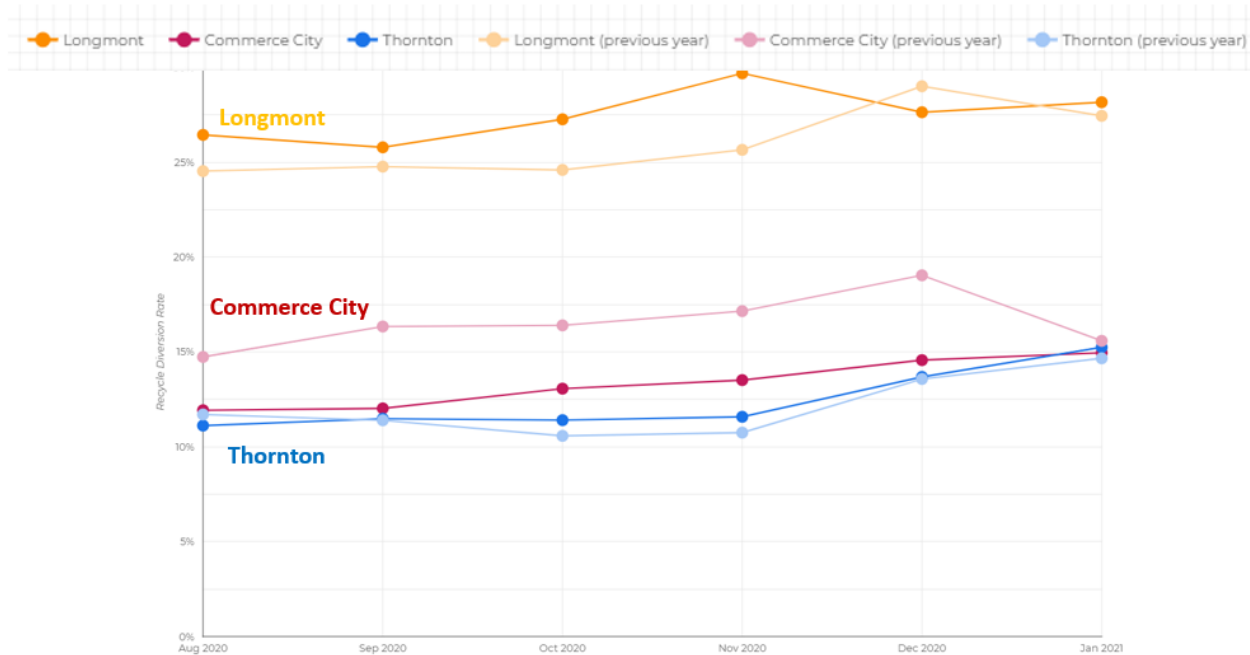
the largest solid waste collection and processing services in the nation.” [News source](#).

Across their Colorado municipalities they saw a 5-10% increase in waste and a 2-3% increase in recycling starting in late March and lasting until May. The proportionally larger increase in waste compared to recycling negatively affected the results of our campaign producing lower recycling rates due to COVID-19.

- o Only residential curbside recycling data is included in these findings. The data does NOT include commercial recycling, drop-off recycling, or compost.

A snapshot comparison of each City’s recycling rates during the course of the 6-month campaign. *The lighter colored line represents data from the previous year.*

3 City Curbside Recycling Comparison



A total of 8,435.43 tons of curbside recycling was collected across the three Cities:

- 3,974.33 ton from Longmont
- 2,845 tons from Thornton
- 1,616.10 tons from Commerce City

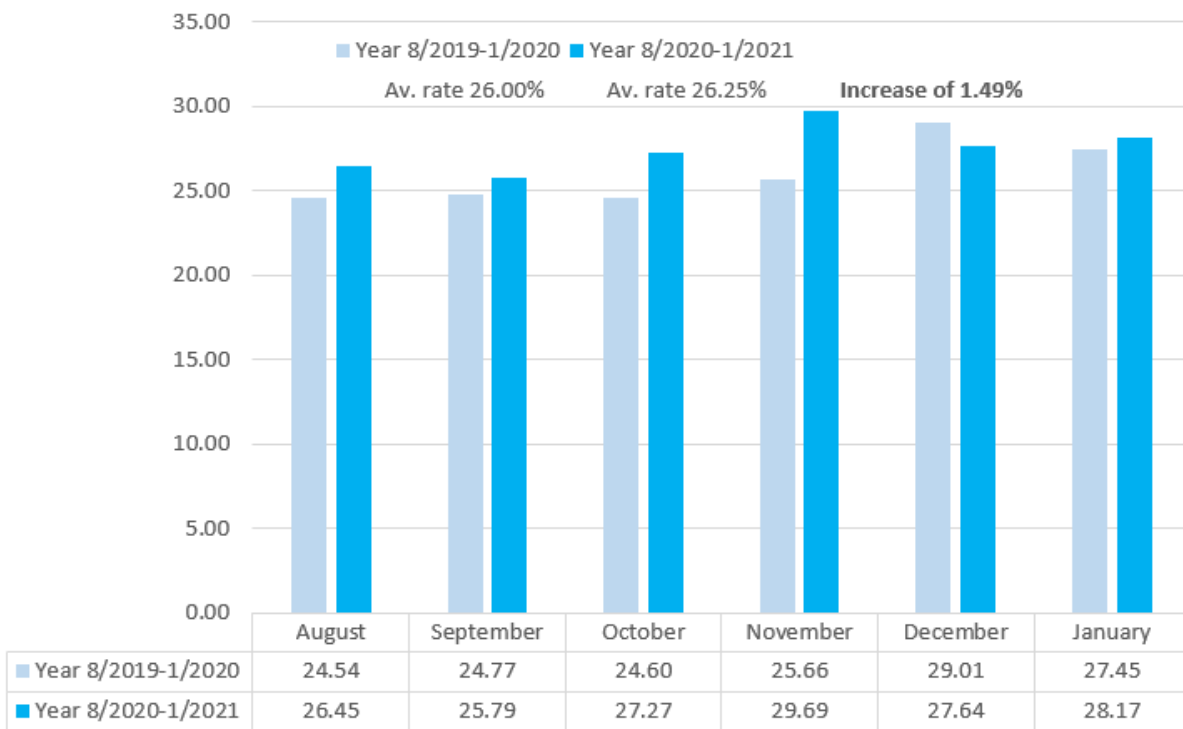


Individual City results:

Longmont

Longmont showed variability in its curbside recycling rates during the 6-month campaign. Overall, there was a **1.49% increase** in curbside recycling compared to the same time period of the previous year. We perceive any increase as a strong outcome considering the amount of waste generated during COVID-19 which weakened overall recycling rates.

Longmont Curbside Recycling Rates

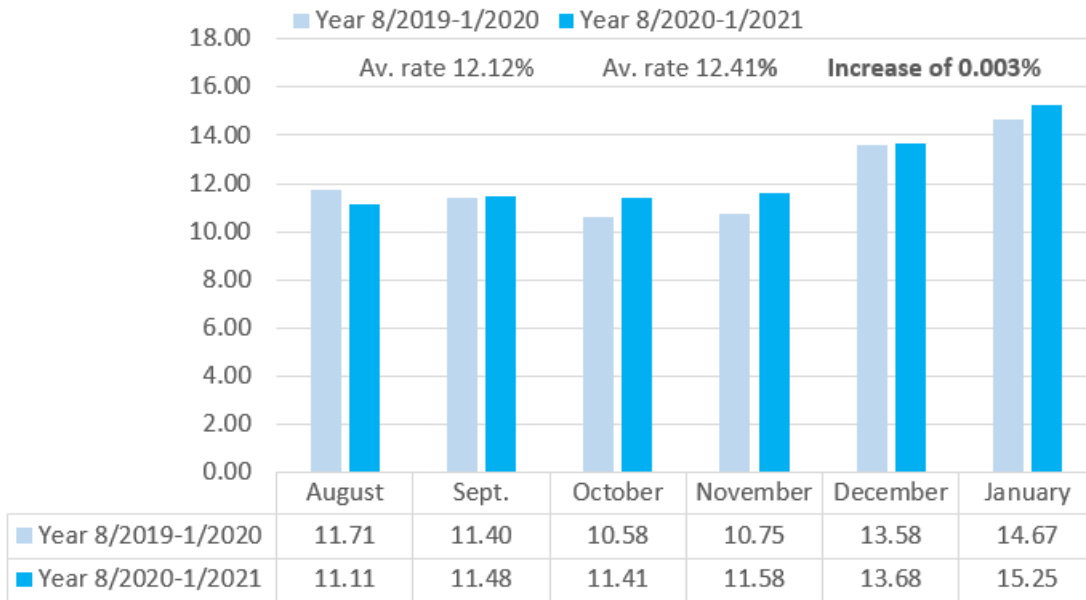


Thornton:

Thornton experienced a fairly consistent increase in curbside recycling rates during the 6-month campaign culminating in a **0.003% increase overall** from the same timeframe in the previous year. There was also a considerable increase of waste due to COVID-19 which diluted the overall recycling rates.



Thornton Curbside % Recycling Rates



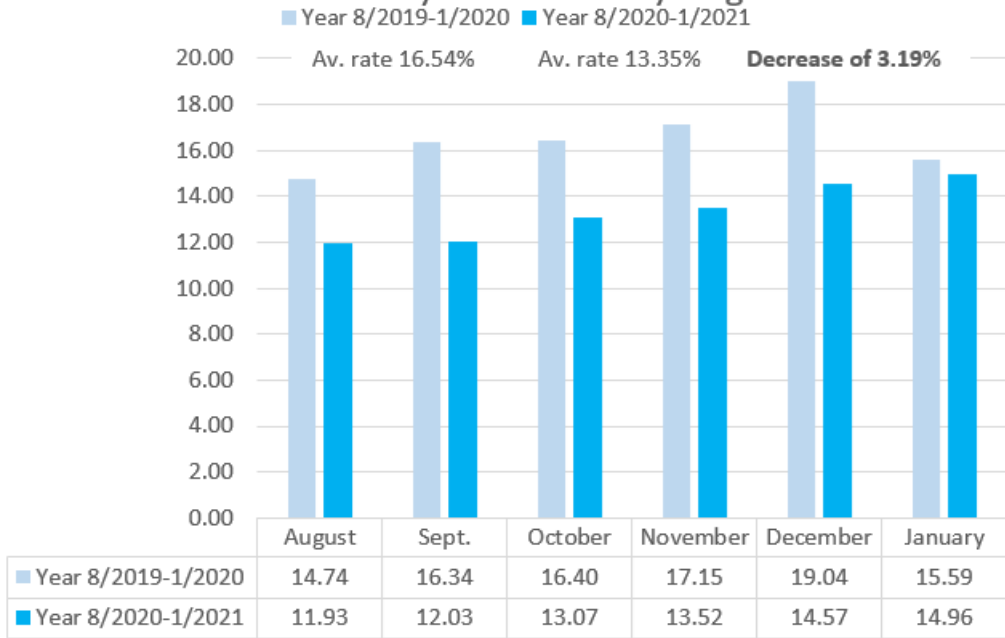
Commerce City

Commerce City experienced a consistent month over month increase in curbside recycling rates during the 6-month campaign. Commerce City experienced an overall **decrease of 3.19%** when comparing recycling rates of the 6 months of our ad campaign versus the same 6 months of the previous year. We attribute these reasons to the decrease:

1. Commerce City provided an opt-out of recycling option in 2020. Residents were given a choice of turning in their recycling bin for a second trash bin. This was done in an effort to decrease contamination rates. A decrease in recycling collection was anticipated.
2. Commerce City changed its waste/recycling hauler in January 2020. We suspect variations between each company’s data collection methodologies may have contributed to the reduction of curbside recycling reported from January 2020 onward.
3. In October, Commerce City started two new cardboard dog house recycling drop-off sites at Eagle Point and Bison Ridge in. A significant amount of cardboard (12 tons/month) was collected in these community locations for residents and businesses to use. With a second option for residential recycling of cardboard boxes, it may have detracted from recycling that otherwise would have been collected curbside.
4. There was also a considerable increase of waste due to COVID-19 which diluted the overall recycling rates.



Commerce City Curbside Recycling Rates



Conclusion:

There is a desire for more recycling outreach and education from the public and municipalities. Recycle Colorado’s 6-month recycling ad campaign was well received and most appreciated by the three Cities we partnered with. A desire for more collaboration with Recycle Colorado has been expressed for future projects. The campaign achieved its objectives of community-wide outreach with over 5.2M impressions, and drove traffic to the Cities’ websites 14,698 times where residents could learn more about their communities recycling programs. We witnessed the importance of Spanish language ads which showed higher engagement than the English versions of the same ads. There was a slight increase in recycling rates (with the exception of Commerce City) which is to be considered a success in a turbulent period of COVID-19 when trash collection outpaced recycling. While it is difficult to know the full positive impacts of this recycling ad campaign, Recycle Colorado remains committed to further advancing recycling efforts across Colorado.

Appendix:

Recycling flyers customized for each City.

Thornton - English Recycling flyer:

YOU CAN BE A PRO RECYCLER

Use these helpful 3-Steps to develop good recycling habits



Step 1: Download the City of Thornton Recycles app

The free mobile app allows you to view your collection schedule and receive reminders about recycling events and programs.




Step 2: Recycle Bag-less

Be sure to empty your recyclables directly into your recycling bin. Bagged items **CANNOT** be recycled.



Step 3: Know Before You Throw

The following items **CANNOT** be recycled.

- NO plastic bags, plastic film wraps, plastic pouches, plastic air pillow packaging**
 Why? These items tangle up the recycling equipment.
 Instead: Return plastic bags, wrap and film to grocery store collection bins to be properly recycled.
No Plastic Bags or Plastic Wrap
- NO styrofoam**
 Why? Styrofoam is 95% air and not cost-effective to recycle.
 Instead: Place in the garbage.
No Foams
- NO paper towels, napkins and tissues**
 Why? Fibers aren't strong enough to be remade into new paper products.
 Instead: Place in the garbage.
No Paper Towels, Napkins and Tissues
- NO yard waste**
 Why? Organic material contaminates other recyclables.
 Instead: Find the next Tree Branch/Compost drop-off event on our website.
No Yard Waste
- NO scrap metal, spare auto parts**
 Why? These items damage the recycling machinery.
 Instead: Place in the garbage or drop off at a scrap metal recycling center.
No Scrap Metal

 **City of Thornton**

Thanks, Thornton, for helping us recycle more and recycle better.
 For more information, please email environmentalservices@ThorntonCO.gov.



Thornton – Spanish Recycling flyer:

USTED PUEDE RECICLAR COMO LOS EXPERTOS

Siga estos 3 pasos para reciclar bien

Paso 1: Instale la aplicación sobre reciclaje de la Municipalidad de Thornton

Esta aplicación gratuita le permitirá ver los horarios de recojo, y enterarse sobre programas y eventos de reciclaje.









Paso 2: Recicle sin bolsa

Vacíe los reciclables y póngalos directamente en el bote.
NO SE PUEDE reciclar objetos en bolsas.

Paso 3: Infórmese antes de desechar

Los siguientes artículos **NO SON** reciclables.



NO RECICLE bolsas ni envoltorios de plástico, tampoco burbujas de embalaje

¿Por qué? Porque se enredan en la maquinaria.

Trate de: desechar bolsas y envoltorios de plástico en los botes de reciclaje de los supermercados.



NO RECICLE poliestireno

¿Por qué? El poliestireno está hecho de un 95% de aire y no es rentable reciclarlo.

Trate de: ponerlo en la basura.



NO RECICLE servilletas, toallas y pañuelos de papel

¿Por qué? Porque sus fibras son débiles y no permiten crear nuevos productos.

Trate de: ponerlos en la basura



NO RECICLE desechos de jardinería

¿Por qué? Porque la materia orgánica contamina los reciclables.

Trate de: averiguar en nuestra página web sobre el próximo evento de reciclaje de ramas y compostaje.



NO RECICLE trozos de metal, autopartes

¿Por qué? Porque dañan las maquinarias.

Trate de: ponerlos en la basura o donarlos en centros de reciclaje de metal.



Gracias, Thornton, por reciclar más y correctamente.

Para más información,
escribanos a environmentalservices@ThorntonCO.gov.





Longmont – English Recycling flyer:

YOU CAN BE A PRO RECYCLER

Use these helpful 3-Steps to develop good recycling habits

Step 1: Know Before You Throw

The following items **CANNOT** be recycled in your curbside recycling bin.

For more information on why and options for responsible disposal, visit our website <https://bit.ly/longmont-recycles>.

- NO plastic bags, plastic film wraps**
Why? It gets tangled in the recycling equipment.
Instead: Return plastic bags, wrap and film to grocery store collection bins to be properly recycled.
- NO Styrofoam™ food containers**
Why? Styrofoam is not recyclable in our area.
Instead: Place in trash and try to use alternative take-away food containers.
- NO paper towels, napkins and tissues**
Why? Fibers aren't strong enough to be recycled into new paper products.
Instead: Please compost or use cloth reusable towels.
- NO scrap metal, coat hangers, spare auto parts**
Why? These items damage the recycling machinery.
Instead: Bring them to the waste diversion center and place it in the special scrap metal collection bin.
- NO greasy pizza boxes**
Why? The pizza grease makes it impossible to separate the paper fibers.
Instead: If greasy, please compost. If not, please recycle.

Step 2: Download the Waste Services app

Our free Longmont Waste Services mobile app can help with all your recycling-related questions.

- Wondering what can and can't be recycled? Simply search the item in the app to find out what should be recycled, composted or thrown in the garbage – so you can sort your waste properly.
- View the collection schedule to find your trash, recycling and compost pickup days.
- Learn about special collection services, changes to your collection routes, and more.

Step 3: Rinse to Recycle

Be sure to empty, lightly rinse your recyclable cans, bottles and jars before putting them in your recycling bin. Items with residue can cause odors and attract pests in your bin and at the processing centers.

Thanks, Longmont, for helping us recycle more and recycle better.

For answers to frequently asked questions, more information, or for recycling pick-up times and dates in your area, visit our website <https://bit.ly/longmont-recycles>.

Longmont – Spanish Recycling Flyer:

RECICLAR COMO UN EXPERTO

Siga estos 3 consejos para reciclar bien



Consejo 1: Infórmese antes de reciclar

Los siguientes artículos **NO** van en el bote de reciclaje.

Para saber por qué debemos reciclar y cómo, visite <https://bit.ly/longmont-recycles>



NO recicle bolsas ni envoltorios de plástico

¿Por qué? Porque se enredan en las máquinas recicladoras.

Trate de: deschar bolsas y envoltorios de plástico en los botes de reciclaje de los supermercados.



NO recicle envases de comida de poliestireno

¿Por qué? Poliestireno no se puede reciclar.

Trate de: tirarlo a la basura y usar otro tipo de envases para llevar comida.



NO recicle toallas ni pañuelos de papel o servilletas

¿Por qué? Porque sus fibras son débiles y no permiten crear nuevos productos.

Trate de: ponerlas en el compostaje o use toallas de material.



NO recicle trozos de metal, colgadores de ropa o autopartes

¿Por qué? Porque dañan las maquinarias.

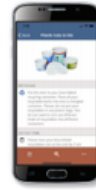
Trate de: traerlas al Centro de Reciclaje de Longmont y póngalas en el bote para metales.



NO recicle cajas grasosas de pizza

¿Por qué? Porque la grasa hace imposible separar las fibras de cartón.

Trate de: ponerlas en el compostaje. Si no esta grasosa, si se puede reciclar.



Consejo 2: Instale la aplicación de los Servicios de Desechos

Nuestra aplicación responde a sus preguntas sobre reciclaje.

- ¿Quiere saber cómo reciclar? Escriba el nombre del artículo para ver si debe reciclarlo, ponerlo en el compostaje o en la basura. Así podrá separarlos fácilmente.
- Revise el horario de colección de basura, reciclaje y compostaje.
- Entérese sobre servicios especiales de colección, cambios en las rutas y más.



Consejo 3: Enjuague

Asegúrese de vaciar y enjuagar las latas, botellas y envases de plástico antes de reciclarlos. Los residuos causan malos olores que atraen plagas en casa y en los centros de reciclaje.



Gracias, Longmont por reciclar más y correctamente.
Para obtener más información, despeje sus dudas y ver las fechas de colección, visite <https://bit.ly/longmont-recycles>





Commerce City - Bilingual Recycling Flyer

Designed to be a mailer

Front side in English

BE A PRO RECYCLER

Use these 3 helpful steps to develop good recycling habits

Step 1: Rinse to Recycle

Empty, rinse and dry your recyclables before placing them in your recycling bin. Items with residue can contaminate an entire load.

Step 2: Know Before You Throw

The following items **CANNOT** be recycled.
Learn more about Commerce City's recycling guidelines at c3gov.com/recycle.

- Plastic bags, film wrap & bubble wrap
- Scrap metal & auto parts
- Yard waste
- Greasy pizza boxes
- Styrofoam

Step 3: Know What Can Go

Do you part by helping us recycle more of these items:

- Paper and cardboard: magazines, newspapers, mail
- Plastics: water and milk jugs, food tubs, jars
- Containers: glass, aluminum, aerosol cans, cartons
- Rigid plastics: toys, flower pots, crates, buckets

Thank you for helping Commerce City recycle better
Learn more at c3gov.com/recycle



Reverse side in Spanish

RECICLE COMO LOS EXPERTOS

Siga estos 3 pasos para reciclar bien

Paso 1: Enjuagar

Vacío, enjuague y seque los artículos antes de reciclarlos.
Cuando están sucios, pueden contaminar toda la carga.

Paso 2: Infórmese antes de reciclar

Los siguientes artículos **NO** se reciclan.
Más información sobre las normas de reciclaje de Commerce City en c3gov.com/recycle.

- Bolsas de plástico, envolturas de plástico y de burbujas.
- Trozos de metal, autopartes
- Desechos de jardinería
- Cajas grasosas de pizza
- Espuma de poliestireno

Paso 3: Sepa qué desechar

Ayúdenos reciclando estos artículos.

- Papel y cartón: revistas, periódicos, correo
- Plásticos: envases de agua y leche, frascos de comida
- Envases de vidrio, aluminio, latas de aerosol, cajas
- Plásticos duros: juguetes, maceteros, baldes, cajones

Gracias por hacer que Commerce City recicle mejor
Más información en c3gov.com/recycle



City videos

Video clips featuring each City's landmarks and a statement from the Mayor or city official about the importance of recycling in their community was created for each City.

Thornton: <https://www.youtube.com/watch?v=gaAcXNJIB4g>

Longmont: <https://www.youtube.com/watch?v=YXAQKzSRrBs>

Commerce City: <https://www.youtube.com/watch?v=xbziFhvbT6Q>

All Collateral Assets:

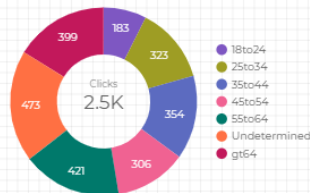
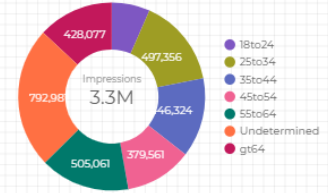
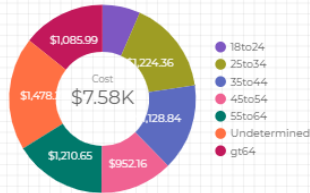
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Demographic Observations from Google Campaign- Charts

Age & Gender

How do age and gender impact performance?

Overall, women have a slightly higher click-through rate (CTR) when compared to men. This is particularly true of older women, but younger men 18-24 and 25-34 showed stronger performance than women of the same age.



Age	Female		Male		Undetermined	Grand total		
	CTR	Avg. CPC	CTR	Avg. CPC		CTR	Avg. CPC	
18to24	0.08%	\$3.02	0.09%	\$2.44	0.13%	\$1.48	0.08%	\$2.71
25to34	0.06%	\$3.99	0.07%	\$3.64	0.11%	\$1.86	0.06%	\$3.79
35to44	0.09%	\$2.99	0.07%	\$3.41	0.07%	\$2.82	0.08%	\$3.19
45to54	0.09%	\$2.96	0.07%	\$3.28	0.06%	\$2.95	0.08%	\$3.11
55to64	0.10%	\$2.45	0.06%	\$3.53	0.04%	\$4.61	0.08%	\$2.88
Undetermined	0.07%	\$3.16	0.07%	\$2.90	0.06%	\$3.14	0.06%	\$3.13
gt64	0.12%	\$2.17	0.06%	\$3.76	0.02%	\$7.06	0.09%	\$2.72
Grand total	0.09%	\$2.82	0.07%	\$3.39	0.06%	\$3.17	0.08%	\$3.08



Parental Status

How does user Parental Status impact performance?

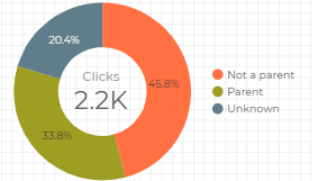
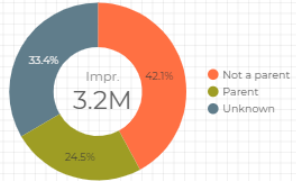
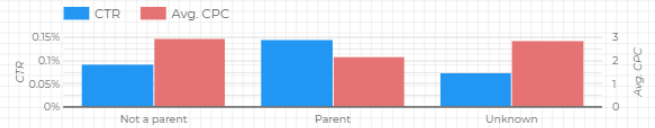
Overall, users who are a Parent appear to have better performance compared to users who are Not a Parent or Unknown. This includes a significantly higher click-through rate (CTR) and lower cost-per-click (CPC).

Impressions among Parent, Not a Parent, and Unknown are more-or-less equal so this finding does appear to be influenced by the raw numbers of impressions or clicks.

Although a variety of factors could be impacting these results, one potential takeaway is that Parents may be more likely to engage with recycling ads (i.e. higher CTR) due to their interest and concern in their children's future.

Future campaigns targeted at Parents specifically may provide even stronger results, but with under 1/3 of total impressions, targeting Parents exclusively would also significantly limit the audience size in our three target communities.

Parental Status	Cost	Impr.	Clicks	CTR	CPC	CPM
1. Not a parent	\$3,446.70	1,337,883	1,100	0.09%	\$2.94	\$17.84
2. Parent	\$2,103.10	778,307	813	0.15%	\$2.19	\$19.18
3. Unknown	\$1,831.00	1,062,556	490	0.07%	\$2.84	\$12.61
Grand total	\$7,380.80	3,178,746	2,403	0.10%	\$2.66	\$49.63



Parental Stat.	Commerce City				Thornton				Longmont				Grand total			
	CTR	CPC	Clicks	Impr.	CTR	CPC	Clicks	Impr.	CTR	CPC	Clicks	Impr.	CTR	CPC	Clicks	Impr.
Not a parent	0.11%	\$2.31	405	437,692	0.09%	\$2.89	362	438,299	0.07%	\$3.93	333	461,892	0.09%	\$2.94	1.1K	1,337,883
Parent	0.16%	\$1.99	361	296,954	0.15%	\$2.14	268	255,526	0.13%	\$2.53	184	225,827	0.15%	\$2.19	813	778,307
Unknown	0.07%	\$2.91	150	318,675	0.07%	\$2.98	154	338,195	0.09%	\$2.62	186	405,688	0.07%	\$2.84	490	1,062,556
Grand total	0.11%	\$2.40	916	1,053,321	0.10%	\$2.67	784	1,032,0...	0.09%	\$3.03	703	1,093,4...	0.10%	\$2.66	2.4K	3,178,746



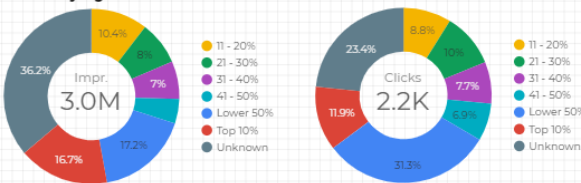
Household Income (HHI)

How does user Household Income (HHI) impact performance?

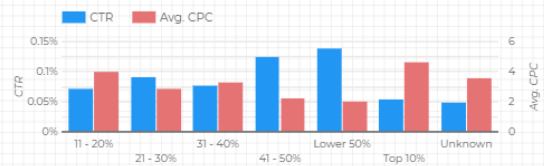
• In general, it appears users in the Lower 50% of HHI have the best performance with the highest click-through rate (CTR) and lowest cost-per-click (CPC). Conversely, users in the Top 10% have the lowest CTR and highest CPC.

• This trends holds true across all three communities, but is most pronounced in Commerce City with the largest delta in CTR between the Lower 50% and Top 10%.

• One implication could be that higher HHI correlates to lower engagement with recycling messages (i.e. CTR). However, another possibility could be that higher HHI individuals are already well-versed with recycling in their communities and therefore are less likely to respond (and click through) on recycling ads. Similarly, lower HHI individuals could have higher CTRs since they don't yet know about recycling. Without additional data, it becomes difficult to determine the underlying cause.



HHI -	CTR	CPC	Impr.	Clicks
1. 11 - 20%	0.07%	\$4.03	317,170	192
2. 21 - 30%	0.09%	\$2.93	243,409	218
3. 31 - 40%	0.08%	\$3.31	213,035	167
4. 41 - 50%	0.13%	\$2.29	137,938	151
5. Lower 50%	0.14%	\$2.02	520,935	681
6. Top 10%	0.06%	\$4.65	506,006	258
7. Unknown	0.05%	\$3.59	1,097,922	510
Grand total	0.09%	\$3.26	3,036,415	2,177



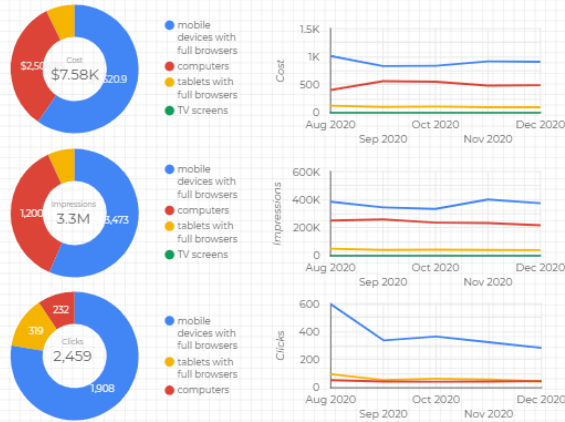
HHI	Longmont				Thornton				Commerce City				Grand total			
	CTR	CPC	Impr.	Clicks	CTR	CPC	Impr.	Clicks	CTR	CPC	Impr.	Clicks	CTR	CPC	Impr.	Clicks
11 - 20%	0.05%	\$5.13	109,879	56	0.06%	\$4.73	103,777	58	0.09%	\$3.13	103,514	78	0.07%	\$4.03	317,170	192
21 - 30%	0.06%	\$4.04	83,179	53	0.10%	\$2.72	79,288	78	0.11%	\$2.47	80,942	87	0.09%	\$2.93	243,409	218
31 - 40%	0.09%	\$2.74	70,216	66	0.06%	\$4.26	72,523	46	0.08%	\$3.12	70,296	55	0.08%	\$3.31	213,035	167
41 - 50%	0.11%	\$2.37	43,877	47	0.11%	\$2.44	48,357	53	0.14%	\$2.18	45,704	51	0.13%	\$2.29	137,938	151
Lower 50%	0.11%	\$2.36	148,529	166	0.13%	\$2.08	185,794	246	0.16%	\$1.82	186,612	289	0.14%	\$2.02	520,935	681
Top 10%	0.05%	\$5.32	185,472	88	0.05%	\$4.76	153,308	84	0.06%	\$4.27	167,226	86	0.06%	\$4.65	506,006	258
Unknown	0.05%	\$3.82	419,262	189	0.05%	\$3.93	350,446	162	0.05%	\$3.30	328,214	159	0.05%	\$3.59	1,097,922	510
Grand t...	0.07%	\$3.68	1,060,414	665	0.08%	\$3.56	993,493	727	0.10%	\$2.90	982,508	785	0.09%	\$3.26	3,036,415	2,177

Device Type

What devices are people using?

• When using a "vCPM" (maximum views) bid strategy, we can see that computers account for roughly 35% of cost and impressions and 10% of clicks. While these clicks from users on computers were significantly more expensive, they also likely represent a highly engaged audience since many computer users are unlikely to click on Display ads.

August 1 - December 31, 2020 (vCPM bid strategy)



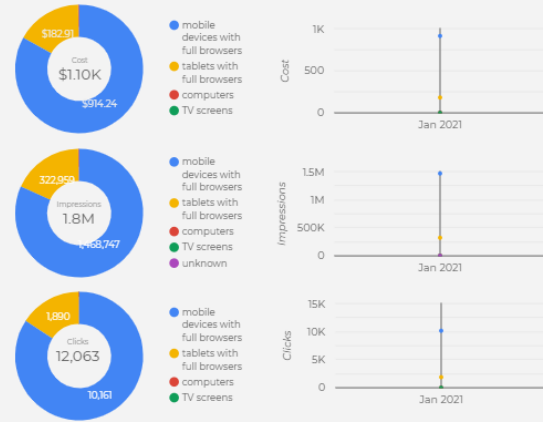
Device	Cost	Imp.	Clicks	CTR	Avg. CPC	Avg. CPM
mobile devices with full browsers	\$4,520.90	1,843,473	1,908	0.10%	\$2.37	\$2.45
tablets with full browsers	\$548.54	221,544	319	0.14%	\$1.72	\$2.48
computers	\$2,506.85	1,200,707	232	0.02%	\$10.81	\$2.09
TV screens	\$0.01	13	0	0.00%	\$0.00	\$0.73
Grand total	\$7,576.30	3,265,737	2,459	0.08%	\$3.08	\$2.32

Maximum view strategy uses computers, tablets, and mobile devices

• Conversely, in January when the bid strategy was changed to "Maximize Clicks," we see that Google Ads showed very few impressions to computer users since the algorithm also "understands" that computer users are less likely to click on Display ads compared to mobile users.

• In January, although CTR was significantly higher and CPC and CPM were significantly lower, this appears to be significantly influenced by device type, which was a result of bid strategy.

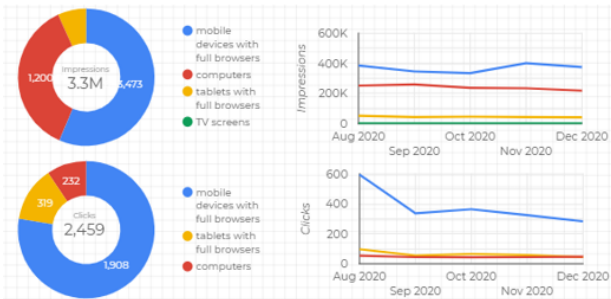
January 9-31, 2021 (Maximize Clicks bid strategy)



Device	Cost	Imp.	Clicks	CTR	Avg. CPC	Avg. CPM
mobile devices with full browsers	\$914.24	1,468,747	10,161	0.69%	\$0.09	\$0.62
tablets with full browsers	\$182.91	322,959	1,890	0.59%	\$0.10	\$0.57
computers	\$2.93	4,364	11	0.25%	\$0.27	\$0.67
TV screens	\$0.08	95	1	1.05%	\$0.08	\$0.89
Grand total	\$1,100.16	1,796,188	12,063	0.67%	\$0.09	\$0.61

Maximum click strategy is heavily reliant on mobile devices.

August 1 - December 31, 2020 (vCPM bid strategy)



January 9-31, 2021 (Maximize Clicks bid strategy)

