

Mission ImposSERPble: Establishing Google Click-Through Rates

Behavioral Study by Slingshot SEO, Inc. using client data
from January – June 2011

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Executive Summary

A number of changes have occurred to the Google user experience since the last major click-through rate (CTR) studies were published (**Optify** and **Enquiro**). There have been algorithm updates, **a new user interface**, increased mobile search, the addition of social signals, and blended search engine results pages (SERPs) with videos, news, places, images, and shopping results. As Google is constantly working to improve its user interface, we expect even more changes that will have significant impact on search behavior.

As SERPs continue to evolve, does a constant CTR behavioral pattern emerge? How many more organic visits can I expect to receive as my keyword increases its position in the SERP? Our study attempts to answer these questions by finding CTRs using actual client data.

This particular study was first designed by Paul Davison, Slingshot SEO's Director of Client Success, to serve as a model to help make projections for our clients. It is our intent to make this study as transparent as possible so that organic SEOs may see how we determined our results. This study will be an on-going project that will be compared with future SERPs and other CTR studies.

Main Objective

The main objective of this study, first and foremost, is to better understand user CTR behavior and how it has evolved as SERPs change over time. We attempted to do this by answering the following questions:

1. What is our observed CTR curve for organic U.S. results for positions #1-10 in Google SERPs?
2. How does this study compare with other published CTR studies?
3. What amount of long-tail click-through can we expect for a keyword that has a stable rank in its SERP?
4. What impact do Google images, videos, news, places, and shopping results have on user behavior?

“The data is based on more than 170,000 actual user visits, making it one of the largest studies of its kind.”

Constraints

The statistical inferences that are found in this study should not be generalized to the entire population of SERPs since they are made on the basis of our client databank and, hence, are subject to many confounding variables. However, the data is based on more than 170,000 actual user visits, making it one of the largest studies of its kind; so we encourage the findings to be used as a model.

Our client databank is made up of more than 200 major retailers and enterprise groups, and our sample set was chosen from over thousands of keywords based on very strict criteria to improve the accuracy and quality of results.

A keyword phrase must have a stable position [1-10] in the SERP over a 30-day period to qualify for the study. This criteria allows us to assign that keyword to one position and use search data from thousands of users for the same time period of its stable rank.

While we would have preferred to use as many keywords as possible in the study, it was difficult to find keywords that rank in one position for 30 straight days, due to the volatile nature of SERPs. Every keyword we track was considered and every keyword that matched our strict criteria was included.

From these criteria, we had a sample set of exactly 324 keywords, with at least 30 in each position [1-10].

The time period for our sample set is approximately January 2011 to June 2011 and all keywords use actual client data from Google Analytics.

This CTR study is limited to organic United States search results from Google.

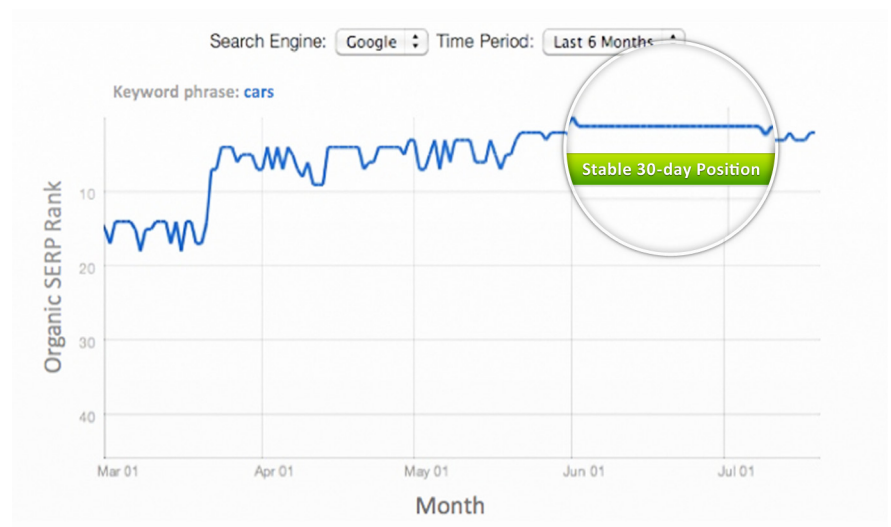
Data Gathering Process

We would like to illustrate our research methodology so that the study may be replicated.

Authority Labs: Finding Stable Keywords

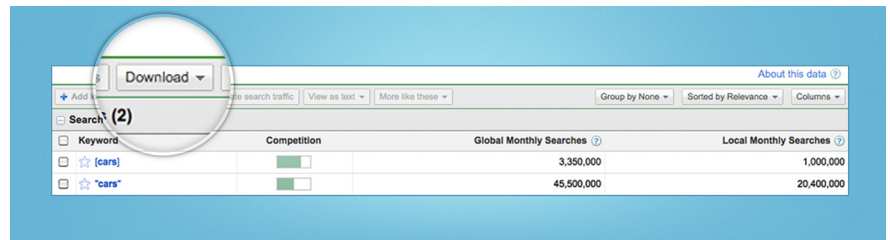
Using a tool called Authority Labs, which tracks each client keyword's daily position in SERPs, we were able to identify which keywords held stable positions for 30 days. Using "cars" as an example keyword, we observed a stable rank at position 2 for June 2011.

"We observed an 18.20% CTR for a No. 1 rank and 10.05% for position two."



Google Adwords Keyword Tool: All Months Are Not Created Equal

We found the number of exact and phrase local monthly searches using the Google Adwords keyword tool. It is important to note that all keywords have different monthly trends. For example, a keyword like "LCD TV" would typically spike in November, just before the holiday season. If one looks at searches for that keyword in May, where the search volume is not as high, the monthly search average may be overstated. Therefore, it was necessary to download the .csv file from Adwords, so that the search data was separated by month for more accuracy.



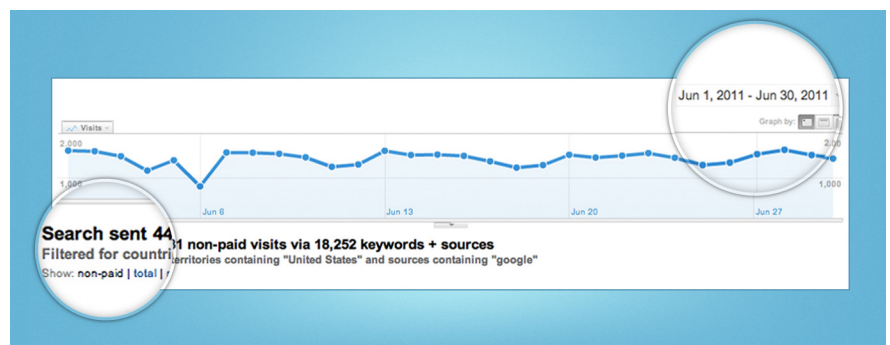
Keyword	Competition	Global Monthly Searches	Local Monthly Searches
[cars]	<div></div>	3,350,000	1,000,000
*cars	<div></div>	45,500,000	20,400,000

By using this technique, we calculated our long-tail searches for that keyword:
 “Phrase” – [Exact] = Long-Tail

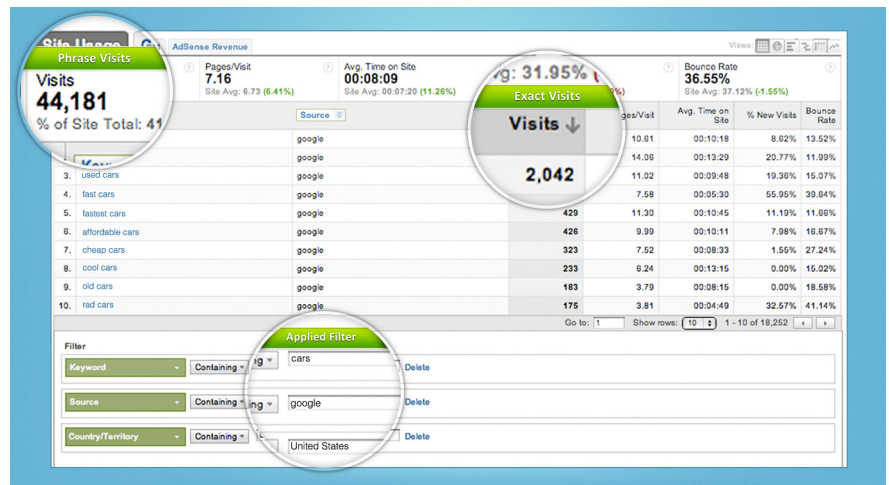
One of the confounding variables is that the data from Google Adwords is likely to be overstated due to rounding, making our click-through-rates slightly understated. However, our CTR curve can serve as a baseline model, as it is better to understate projections than to overstate.

Google Analytics: Exact and Long-Tail Visits

Under the “Keywords” tab in Google Analytics, we can quickly specify the date of our keyword’s stable position. In this case, “cars” was stable in June 2011. We also need to specify “non-paid” visits, so that we are only including organic results.



Next, we limit our filter to visits from Google in the United States only. This is because we are using Local Monthly Searches in Adwords, which is specific to U.S searches.



After applying the filter, we are given our exact visits for the word “cars” and phrase visits, which include the word “cars” and every long-tail variation. Again, to get the number of long-tail visits, we simply use subtraction: Phrase – Exact = Long-Tail visits.

Calculations

We can now calculate the Exact and Long-Tail click-through for that keyword.

$$\text{EXACT CTR} = \frac{\text{Exact Visits from Google Analytics}}{[\text{Exact}] \text{ Local Monthly Searches from Adwords}}$$

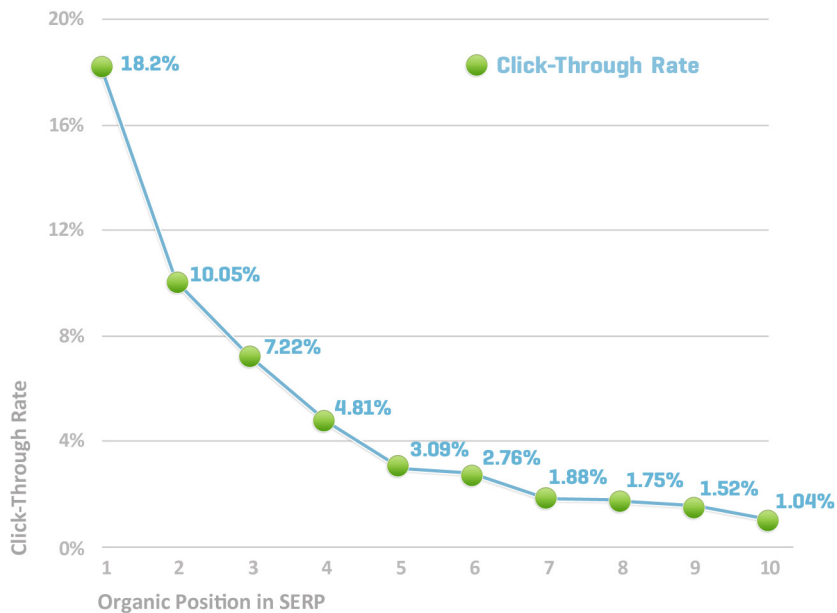
$$\text{LONG-TAIL CTR} = \frac{[\text{Phrase Visits} - \text{Exact Visits from Google Analytics}]}{[“Phrase” - [\text{Exact}] \text{ Local Monthly Searches from Adwords}]}$$

Results

What is our observed CTR curve for organic U.S. results for positions #1-10 in the SERP? Based on our sample set of 324 keywords, we have observed the following curve for Exact CTR:

"We observed an 18.20% CTR for a No. 1 rank and 10.05% for position two."

CTR Curve



Study Conducted by  **Slingshot**^{seo}

We observed an 18.20% CTR for a No. 1 rank and 10.05% for position two. CTR for each position below the fold was observed to be below 4%.

An interesting implication from our CTR curve is that for any given SERP, the percentage of users who click on an organic result in the top 10 was found to be 52.32%. This is typical user behavior, as many Google users will window shop the SERP results and search again before clicking on a domain.

How does this study compare with other published CTR studies?

"The first thing you may notice from the results of this study is that the observed CTR curve is significantly lower than the two previous studies by Optify and Enquiro. "

Google SERP Position	Slingshot SEO (January – June 2011)	Optify (December 2010)	Enquiro (2007)
1	18.2%	36.4%	27.1%
2	10.1%	12.5%	11.7%
3	7.2%	9.5%	8.7%
4	4.8%	7.9%	5.1%
5	3.1%	6.1%	4.0%
6	2.8%	4.1%	4.1%
7	1.9%	3.8%	4.1%
8	1.8%	3.5%	3.2%
9	1.5%	3.0%	2.8%
10	1.0%	2.2%	3.6%

The first thing you may notice from the results of this study is that the observed CTR curve is significantly lower than the two previous studies by Optify and Enquiro. Optify's was conducted using a variety of websites in the month of December 2010 and Enquiro's was performed in 2007. Comparing the CTR curves raises an important question: Has user behavior changed significantly since these two studies, or are the differences in CTR curves largely due to each study's unique research methods?

Optify's insightful and thorough study was conducted during the holiday season of December 2010. There are significant changes in Google's rankings during the holiday season that many believe have a significant impact on user behavior as well as the inherent change in user intent. Therefore, one should not blindly compare the CTR curves between these studies, but note their differences.

The study published by Enquiro Search Solutions was conducted in 2007 using survey data and eye-tracking research. That study was the result of a business-to-business focused survey of 1,084 pre-researched and pre-selected participants. It was an interesting study because it looked directly at user behavior through eye tracking and focused on how attention drops off as users scroll down the page.

Long-Tail CTR: Volatile and Unpredictable

For each keyword with a stable 30-day position in its given SERP, we found the percentage of click-through for all long-tail terms that stem from the keyword over the same period. For example, if “cars” ranked at position 2 for June 2011, then how much traffic could that domain expect to receive from “new cars,” “used cars,” or “affordable cars”? The reasoning is that if you rank second for “cars,” you are likely to drive a lot of traffic for those other keywords as well, even if those positions are unstable. This is partly due to the “halo effect.” We were hoping to find an elegant long-tail pattern, but we cannot prove that long-tail CTR is directly dependent on the exact term’s position in the SERP. This suggests that the universal effect of having the primary term in a stable rank is uncertain, but still very relevant.

We observed an average long-tail range of 1.17% to 5.80% for each position.

The average long-tail CTR associated with each primary keyword with a stable rank [#1-10] was found to be 2.75%.

Long-tail CTR is one of the results of a dynamic campaign that should not be ignored. By creating quality, relevant content, links that people will click, a dynamic site architecture, and social signals, your campaign can have a powerful marketing strategy that is based on more than just click-through-rates from primary keywords.

“For each keyword with a stable 30-day position in its given SERP, we found the percentage of click-through for all long-tail terms that stem from the keyword over the same period.”

Google SERP Position	# of Keyword Phrases	Exact CTR	Long-Tail CTR
1	43	18.2%	5.80%
2	32	10.1%	3.19%
3	31	7.2%	2.43%
4	34	4.8%	4.58%
5	33	3.1%	1.17%
6	30	2.8%	1.49%
7	31	1.9%	1.82%
8	30	1.8%	2.27%
9	30	1.5%	1.68%
10	30	1.0%	3.46%

Blended SERPs: The Effect of Images, News, Videos, Shopping, and Places Results

Starting in May 2007, news, video, local, and book search engines were added to Google SERPs and now include images, videos, shopping, and places results. Do blended SERPs have lower click-through-rates? One would think that because these results often push high-ranking domains towards the bottom of the page, CTR would indeed be lower for blended SERPs. However, a counter-intuitive hypothesis would suggest that because certain SERPs have blended results inserted by Google, they are viewed as more credible results and that CTR should be higher for those blended SERPs. We analyzed our sample set and failed to prove that there are significant differences in user behavior regarding blended versus non-blended results. The effect of blended results on user behavior remains to be seen.

Google SERP Position	Blended SERP CTR	Non-blended SERP CTR
1	16.9%	20.9%
2	10.1%	10.0%
3	9.3%	5.4%
4	5.5%	3.6%
5	3.5%	1.5%
6	2.8%	2.4%
7	1.9%	1.5%
8	1.9%	0.8%
9	1.7%	1.0%
10	1.0%	0.7%

Descriptive Statistics

Here are some additional statistics that describe the keywords used in our sample set:

"The Exact CTR table suggests that click-through-rates for higher positions are more volatile than lower positions. The CTR range for positions above the fold [1-4] were much wider and had a higher standard deviation than those below the fold."

Google SERP Position	Average CTR (Exact)	Range of Values	Standard Deviation
1	18.2%	(2.43% - 76.37%)	12.82%
2	10.1%	(2.86% - 51.15%)	9.01%
3	7.2%	(0.59% - 30.00%)	5.92%
4	4.8%	(0.77% - 13.04%)	3.03%
5	3.1%	(0.25% - 8.23%)	1.98%
6	2.8%	(0.00% - 8.89%)	2.05%
7	1.9%	(0.00% - 6.67%)	1.72%
8	1.8%	(0.00% - 6.15%)	1.58%
9	1.5%	(0.00% - 3.57%)	1.04%
10	1.0%	(0.00% - 2.82%)	0.79%

The Exact CTR table suggests that click-through-rates for higher positions are more volatile than lower positions. The CTR range for positions above the fold [1-4] were much wider and had a higher standard deviation than those below the fold. This speaks to the enormous advantage of ranking in the top four positions and how user attention is focused less towards the bottom of the results page.

Google SERP Position	Average CTR (Long-Tail)	Range of Values	Standard Deviation
1	5.80%	(0.00% - 30.16%)	7.24%
2	3.19%	(0.00% - 23.08%)	5.04%
3	2.43%	(0.00% - 11.30%)	3.07%
4	4.58%	(0.00% - 44.55%)	8.23%
5	1.17%	(0.00% - 6.80%)	1.36%
6	1.49%	(0.00% - 10.08%)	2.14%
7	1.82%	(0.00% - 11.87%)	2.63%
8	2.27%	(0.00% - 19.77%)	4.20%
9	1.68%	(0.00% - 19.99%)	3.67%
10	3.46%	(0.00% - 34.83%)	6.92%

The Long-tail CTR table suggests that a clear pattern for terms associated with the primary keyword phrase is very difficult to determine, which speaks to the importance, but uncertainty of the "halo effect."

Key Takeaways

1. By studying user behavior through Click-Through-Rates, we emphasize the importance of ranking in the top ten positions in Google SERPs.
2. The observed CTR was 18.20% for a No. 1 rank and 10.05% for a No. 2 rank.
3. The “halo effect” of long-tail CTR associated with primary terms is unpredictable, but should not be ignored.
4. Every SERP is different, and employing a successful marketing strategy involves considering multiple factors about each keyword phrase.

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