



STATE OF INDIANA  
DEPARTMENT OF CHILD SERVICES (DCS)  
CHILD SUPPORT BUREAU (CSB)

Award No. 90FD0211

USING DIGITAL MARKETING TO INCREASE PARTICIPATION IN THE CHILD SUPPORT PROGRAM

INTERVENTION 7: DIGITAL MARKETING

EVALUATION REPORT

OCTOBER 9, 2020

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## BACKGROUND:

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### PURPOSE OF DIGITAL MARKETING GRANT PROGRAM

The Digital Marketing grant program, sponsored by the federal Office of Child Support Enforcement (OCSE) within the U.S. Department of Health and Human Services' Administration for Children and Families, is a 24-month demonstration project with the goal of researching how digital marketing may help the child support program more effectively reach and serve families. In September 2018, OCSE awarded funds to 14 child support agencies to test digital marketing approaches and partnerships to reach parents that could benefit from child support services, and create or improve two-way digital communication and engagement with parents.

The Indiana Child Support Bureau (CSB) was selected as one of the grant recipients and is implementing the CSB Digital Marketing Outreach Project in fulfillment of the grant. Indiana is focusing on four different components across multiple interventions designed to test the efficacy of digital marketing and digital tools to raise awareness about, and engage eligible families in, the Indiana child support program. The four components consist of website updates, digital marketing, chat, and two-way communication. The goals of the project include increasing:

- A. General awareness about the child support program
- B. The number of families served by increasing the child support caseload
- C. Access to the child support program through new two-way digital communication

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### PROBLEM TARGETED BY INTERVENTION 7: DIGITAL MARKETING

Based on surveys, focus groups, previous studies conducted by other states such as California's Ogilvy study, and feedback from our outreach team acquired during the planning phase, we believed that the general public lacks awareness about the child support program. Intervention 7 tested potential solutions by conducting a large digital marketing campaign and measure how differing digital ad content affects the behavior of potential participants.

The Digital Marketing grant team was formed during the planning phase and included the Core Project team led by the Project Director/Principal Investigator, the Evaluation team, and the Data Services team. This team defined and prioritized the problem through a series of collaborative internal discussions intermixed with formal outreach to external experts. Factors such as implementation effort of content updates, timing and approvals, and availability of tools were taken into account.

Prior to the intervention, our team engaged with multiple experts and a marketing firm to conduct surveys, focus groups, and create digital ad content that would promote the child support program and drive increased participation. Based on survey and focus group feedback, our team believed that images such as money might be more effective than images of children and that references to government agencies would have a negative impact on the digital marketing. Our digital ad content allowed us to conduct random control trials of each of the five primary components of a digital ad: Image, Tagline, Message, Call to Action, and Reference Organization. Additionally, our team believed there might be preferential differences between rural, suburban, and urban geographical areas. Intervention 7 targeted parents ages 19-54 in 5 counties across 56 zip codes with a total population of 450,802 citizens.

## INTERVENTION 7: DIGITAL MARKETING

Intervention 7 focused on a large digital marketing campaign that aimed to have a positive impact on participation and to determine the impact of varying digital ad content on engagement. The team, through a series of collaborative discussions held over three months, brainstormed road tests for the intervention. During these collaborative discussions, we selected thirty-one independent road tests, for the seventh and final intervention, that tested the impact of digital ads on behavior. These road tests targeted changes in each component of a digital ad: Image, Tagline, Message, Call to Action, and Reference Organization.

### ROAD TESTS 22, 23, 24, 25, & 26 – IMAGE GROUP

The team worked closely with Centro, a digital marketing vendor, to design and execute a digital marketing campaign. Using Centro's Basis Demand Side Platform (DSP), a programmatic digital ad buying platform that enables users to run efficient cross-channel advertising campaigns, to randomly but evenly distribute digital ads, we conducted a randomized controlled trial for the image component of our digital ads consisting of a control ad and four variant ads. Any citizen browsing websites or mobile apps within one of our five participating counties had an equal chance of seeing the control ad or any of the four variants. We used a digital ad without an image as the control ad and for our four variants, we used alternative images such as a boy with a soccer ball, paper dolls, and money (Figure 1). These images were chosen because surveys and focus groups conducted during our planning phase indicated that potential participants only prefer pictures of children when the child is similar to their own in terms of age. The surveys and focus groups also indicated that pictures of money might be preferable. The team tested an image of a child, an image of money, and more generic images such as the paper dolls vs no image for the control.

The randomized controlled trial targeted all mobile and desktop users within the counties of Allen, Clay, Greene, Owen, and Putnam, with a total population of 405,802. The digital campaign ran for 62 days of the 90 intervention, to determine what impact the images would have on the click-through rate of the digital ads. The team decided on a 90-day duration to maximize the amount of web traffic measured and observe fluctuations in the data over time. The digital campaign only ran for 62 of the 90 days due to limited funds. Using Centro Basis DSP, the team measured the impressions for the digital ads, and the number of users who clicked on the digital ad. We used these two measurements to calculate the click-through rate, which is the ratio of clicks over the impressions. Impressions are different from views because a digital ad can be served to a user, but it is possible the user did not see the digital ad based on its placement on a website. When a user clicked on a digital ad, it connected them to a landing page highlighting the services and benefits of the child support program and containing a button for downloading our enrollment form. Additionally, the team used Google Analytics to measure the number of users who, after connecting to the landing page through a digital ad, then downloaded an enrollment form. The team captured these measurements for the control and the four variants over the 62 days beginning on June 15, 2020 and ending on August 15, 2020.



Figure 1

## RESULTS

As shown in Figure 3, our control ad was delivered 792,441 times (impressions). These impressions resulted in 820 (0.103%) clicks of the digital ad. Each variant had similar impressions and clicks. As shown in Figure 2, our four variants had click-through rates of 0.109%, 0.106%, 0.106%, and 0.101%. While some of these met our threshold of 1% or higher difference compared to the control to be considered an outcome of interest, the group did not meet our requirement of statistical significance. The team used a chi-squared test of independence to determine statistical significance of the measured values. With four degrees of freedom across all variants, the team selected a 0.1% probability threshold, with a critical value of 18.47. The team measured a test value of only 2.32, which did not meet the selected threshold, indicating a lack of statistical significance in our measurements. Even when looked at over the 62-day duration, at no time was statistical significance achieved, and there was no trend towards significance either (Figure 4).

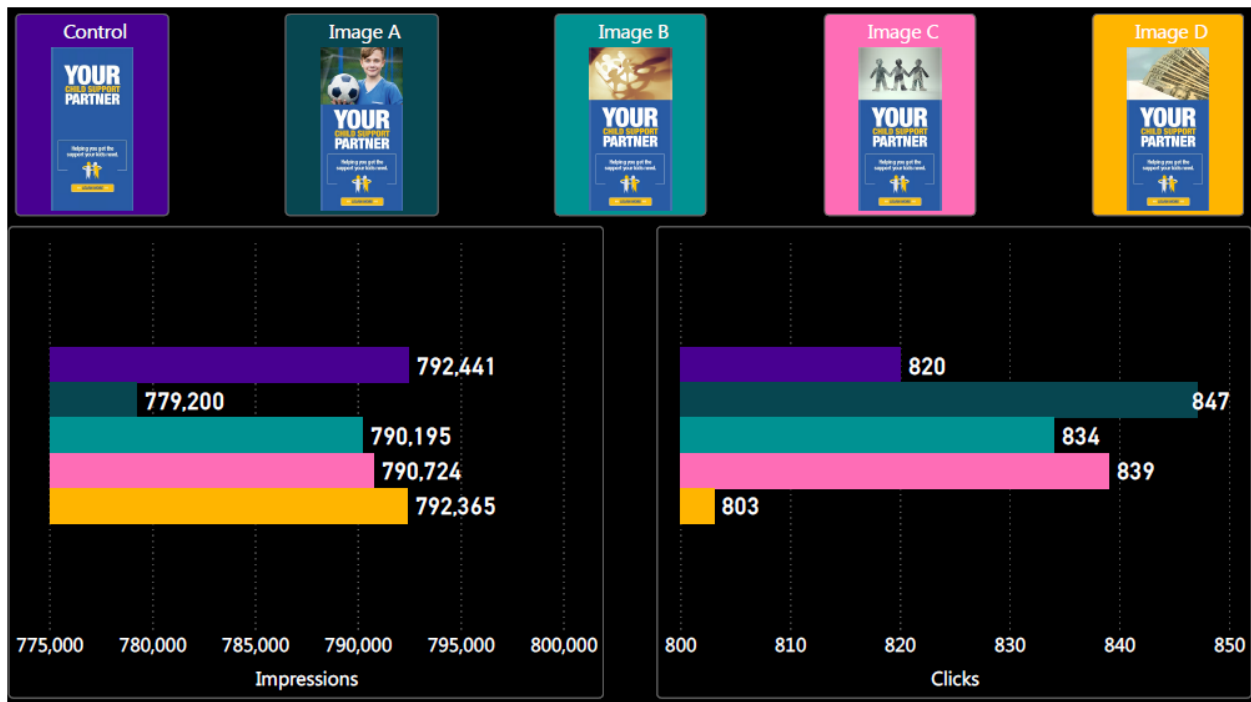


Figure 2

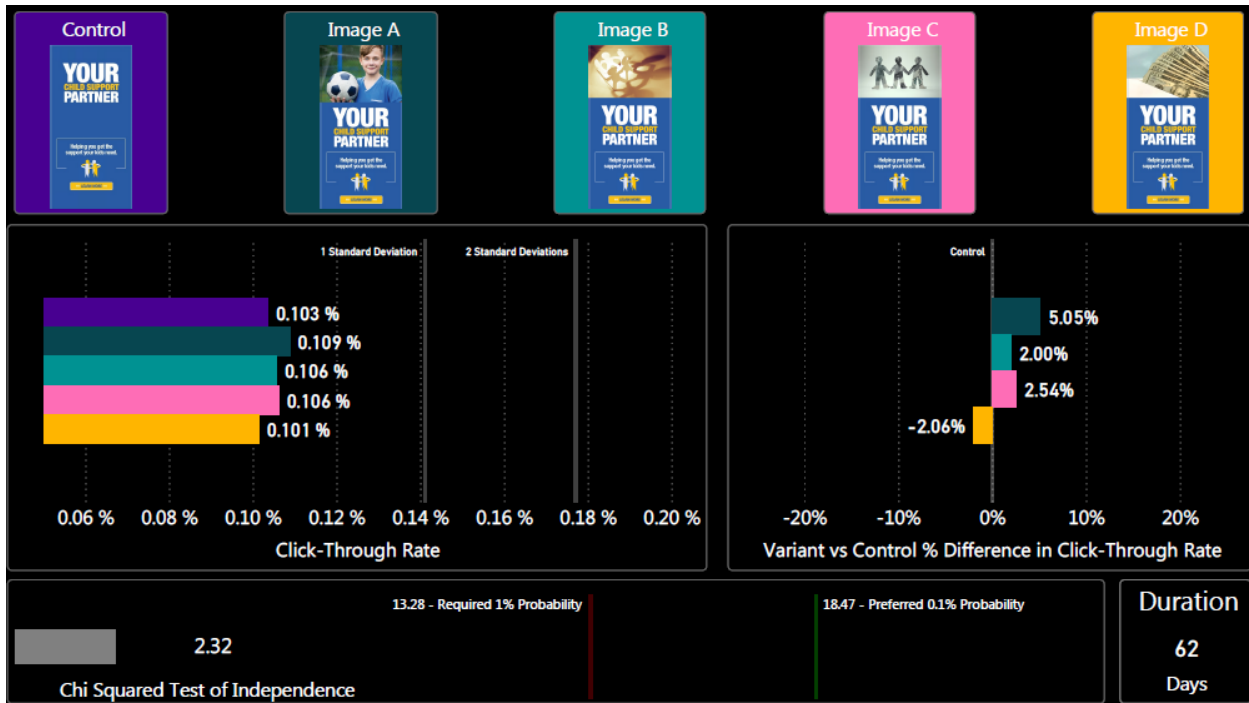


Figure 3

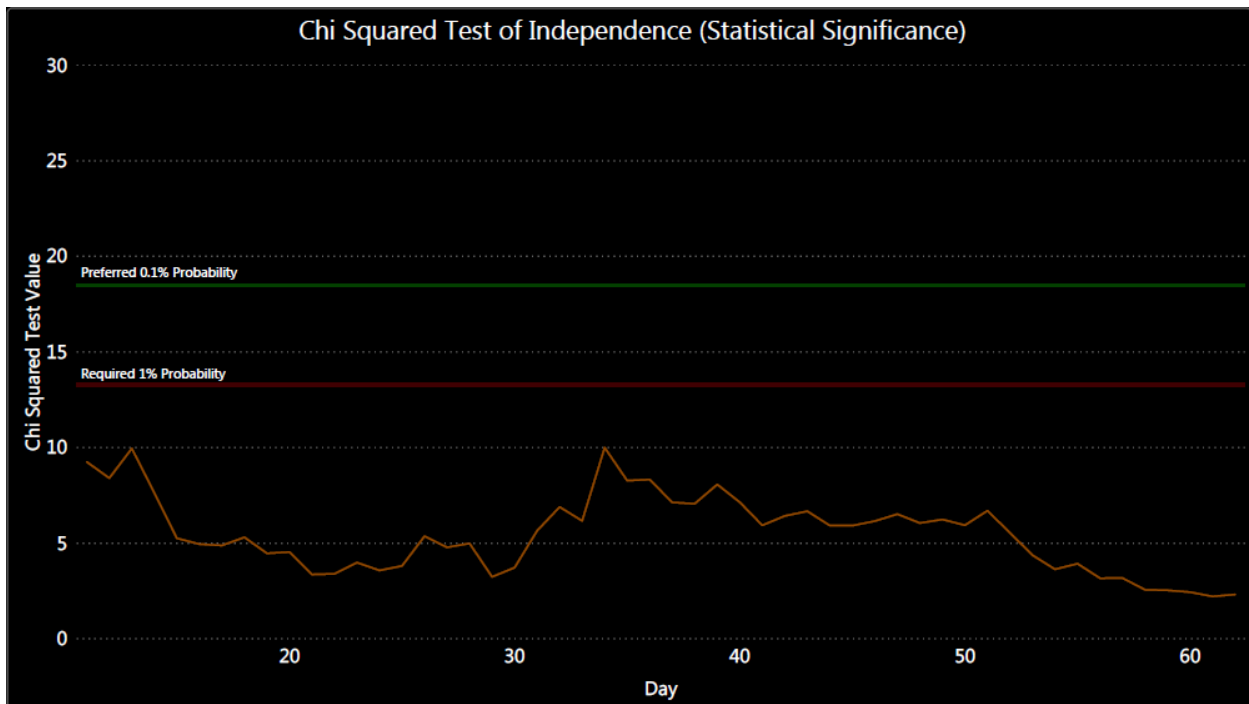


Figure 4

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## ANALYSIS

The lack of statistical significance for the image group suggests that the image used in the digital ad does not affect behavior. Images may be unnecessary in digital marketing and could be removed to provide more digital real estate for other ad components. This result itself is of interest as it runs contrary to feedback received in our surveys and focus groups and the other studies we examined in our research. The team believes our intervention results have greater weight given the experimental methodology used and the large population size.

### ROAD TESTS 27, 28, 29, 30, 31, 32, & 33 – TAGLINE GROUP

The team worked closely with Centro's Customer Success team to design and execute a digital marketing campaign. Using Centro's Basis DSP to randomly but evenly distribute digital ads, we conducted a randomized controlled trial for the tagline component of our digital ads consisting of a control ad and six variant ads. Any citizen browsing websites or mobile apps within one of our five participating counties had an equal chance of seeing the control ad or any of the six variants. As the control ad, we used a digital ad which did not have a tagline and for our six variants, we used alternative taglines with small changes such as the color of the text, and large changes that moved the location of the tagline within the digital ad (Figure 5). These taglines were chosen because they were utilized in our surveys and focus groups conducted during our planning phase. The team believed a larger random control trial was needed, in addition to our research, to evaluate how these various taglines impact behavior.

The randomized controlled trial targeted all mobile and desktop users within the counties of Allen, Clay, Greene, Owen, and Putnam, with a total population of 405,802. The digital campaign ran for 62 days of the 90 intervention, to determine what impact the images would have on the click-through rate of the digital ads. The team decided on a 90-day duration to maximize the amount of web traffic measured and observe fluctuations in the data over time. The digital campaign only ran for 62 of the 90 days due to funds being limited to \$117,000. Using Centro Basis DSP, the team measured the impressions for the digital ads, and the number of users who clicked on the digital ad. We used these two measurements to calculate the click-through rate for the digital ad, which is the ratio of clicks over the impressions. Impressions are different from views because a digital ad can be served to a user, but it is possible the user did not see the digital ad based on its placement on a website. When a user clicked on a digital ad, it connected them to a landing page highlighting the services and benefits of the child support program and containing a button for downloading our enrollment form. Additionally, the team used Google Analytics to measure the number of users who, after connecting to the landing page through a digital ad, then downloaded an enrollment form. The team captured these measurements for the control and the four variants over the 62 days beginning on June 15, 2020 and ending on August 15, 2020.



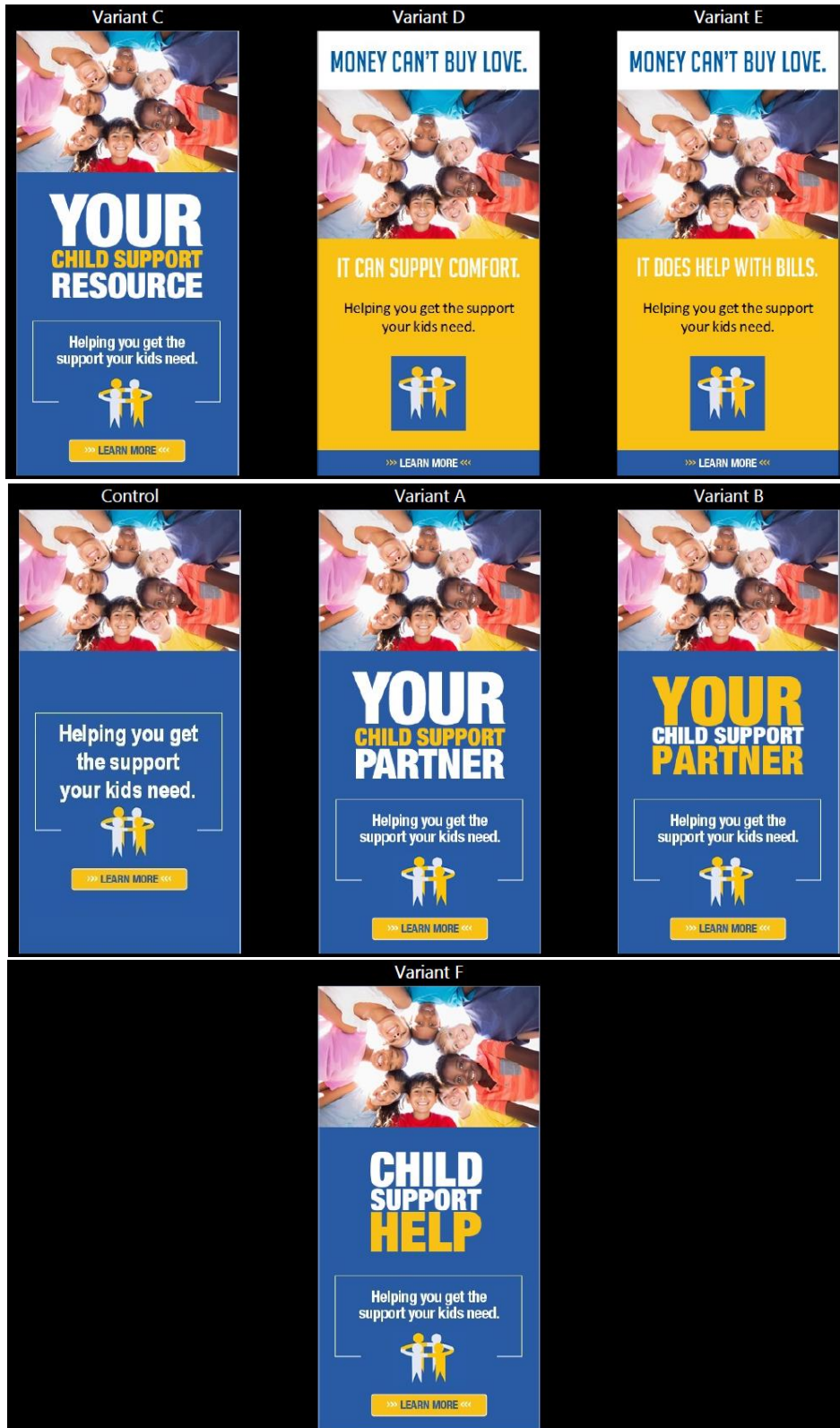


Figure 5

## RESULTS

As shown in Figure 7, our control ad was delivered 788,793 times (impressions). These impressions resulted in 817 (0.104%) clicks of the digital ad. Each variant had similar impressions and clicks with one notable exception. Our “Comfort” tagline (Tagline C) had substantially higher clicks (933) and click-through rate (0.118%). As shown in Figure 67, excluding the “Comfort” tagline (Tagline C), our variants had click-through rates similar to the control. While some of these met our threshold of 1% or higher difference compared to the control to be considered an outcome of interest, the “Comfort” tagline (Tagline C) deviated far more from the control than any other tagline. The “Comfort” tagline was also the only variant to resonate across geographical areas and performed far better than the “Bills” tagline (Tagline D) which had an identical style but was money related as opposed to using an emotion word. The team used a chi-squared test of independence to determine statistical significance of the measured values. With six degrees of freedom across all variants, the team selected a 0.1% probability threshold, with a critical value of 22.46. The team measured a test value at the end of the intervention of only 15.48, which did not meet the selected threshold, indicating a lack of statistical significance in our measurements. However, when looked at over the 62-day duration, statistical significance was achieved for almost a two-week period before dropping back down below our high thresholds (Figure ). The team believes that, had budget allowed for a longer duration, that statistically significance would have been achieved again and stabilized above the threshold we selected as we’ve seen happen in previous interventions.

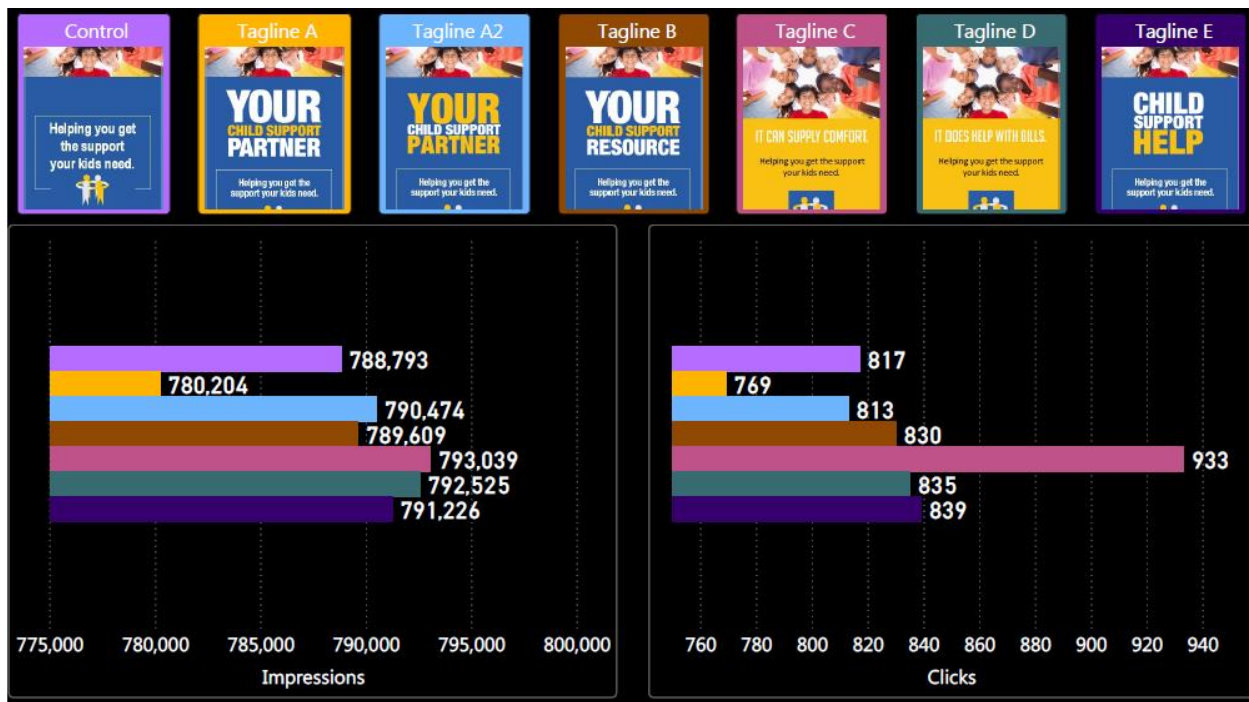


Figure 6

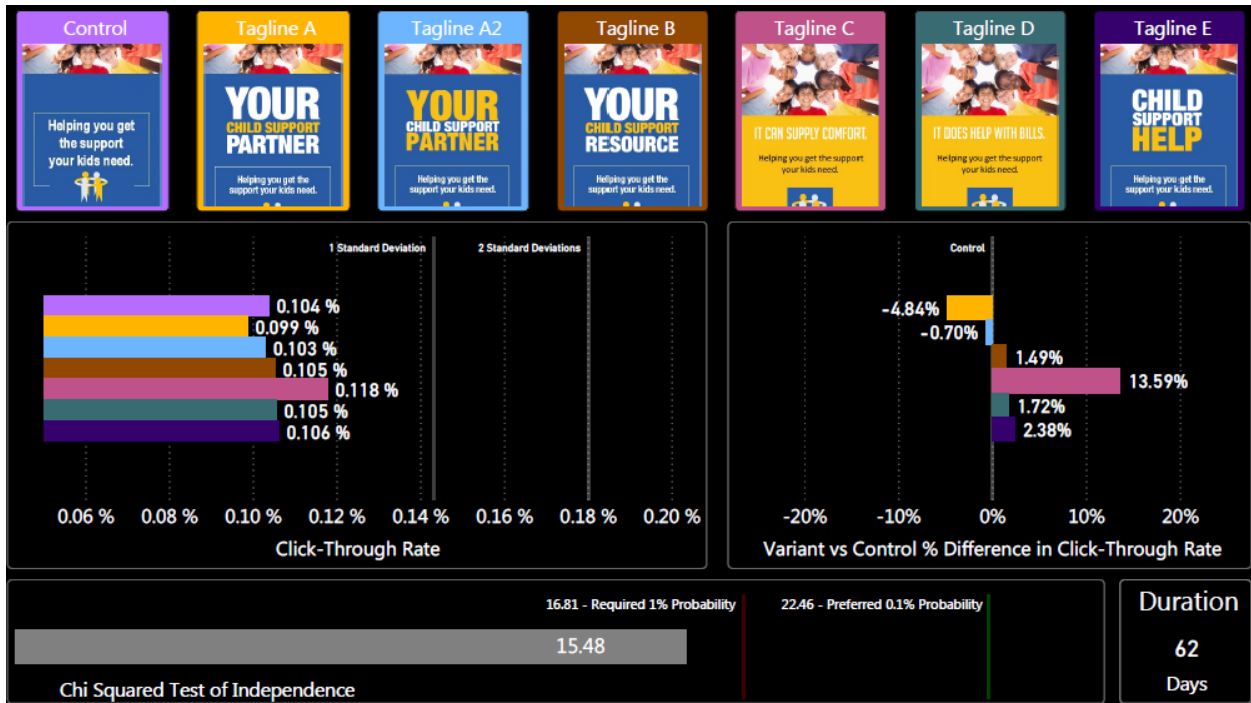


Figure 7

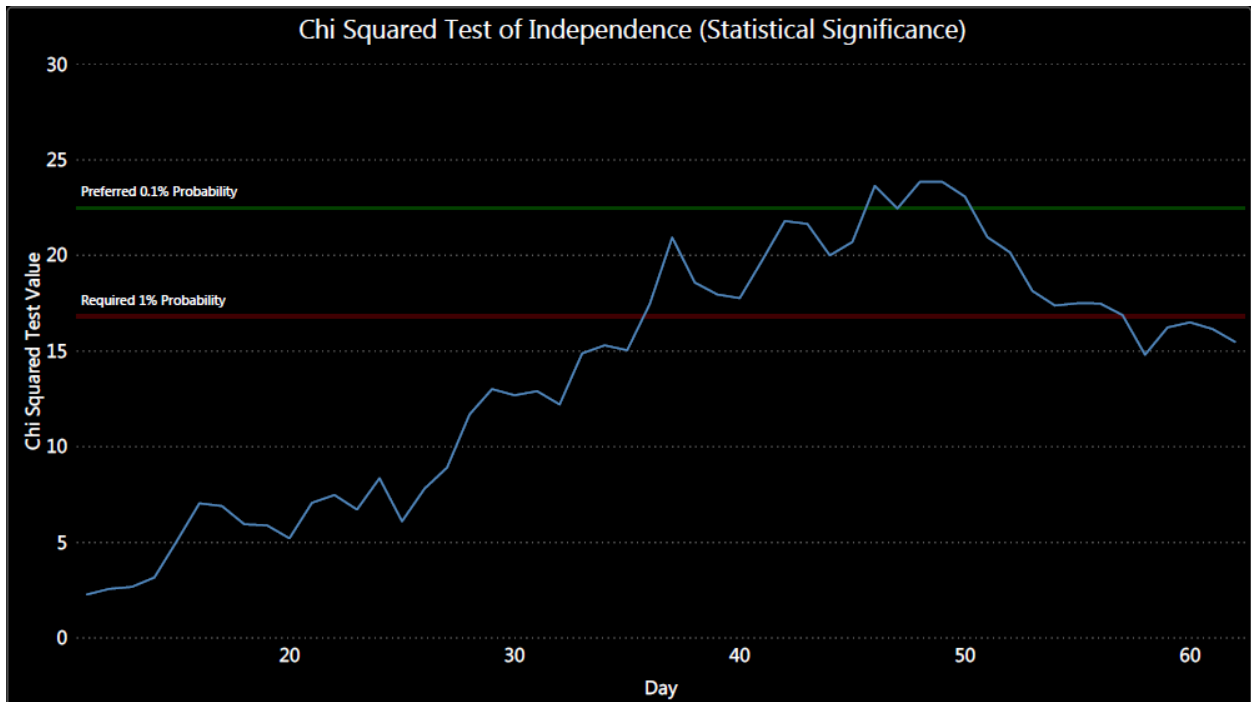


Figure 8

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## ANALYSIS

The partial statistical significance for the tagline group suggests that the tagline used in the digital ad might affect behavior. Taglines may be an important component in success of a digital ad, and taglines that utilize an emotion word may be more effective than those that do not elicit emotions for increasing program participation, as it appears, to transcend geographical areas. The team believes there is a historical precedent for taglines affecting behavior. When examining historical marketing campaigns for various brands, the ones with simple taglines and no other component rank amongst the most memorable. Examples include Nike (“Just Do It”), California Milk Processor Board (“Got Milk?”), Wendy’s (“Where’s the Beef?”), and many more. The team believes that a digital ad developed with an emotional tagline could be a valuable tool for increasing program awareness and participation.

### ROAD TESTS 34, 35, 36, 37, & 38 – MESSAGE GROUP

The team worked closely with Centro’s Customer Success team to design and execute a digital marketing campaign. Using Centro’s Basis DSP to randomly but evenly distribute digital ads, we conducted a randomized controlled trial for the message component of our digital ads consisting of a control ad and four variant ads. Any citizen browsing websites or mobile apps within one of our five participating counties had an equal chance of seeing the control ad or any of the four variants. As the control ad, we used a digital ad without a message and for our four variants, we used alternative messages with small changes to the words but followed a consistent style (Figure 9). These messages were chosen because they were utilized in our surveys and focus groups conducted during our planning phase. The team believed a larger random control trial was needed in addition to our research to evaluate how these various messages impact behavior.

The randomized controlled trial targeted all mobile and desktop users within the counties of Allen, Clay, Greene, Owen, and Putnam, with a total population of 405,802. The digital campaign ran for 62 days of the 90 intervention, to determine what impact the images would have on the click-through rate of the digital ads. The team decided on a 90-day duration to maximize the amount of web traffic measured and observe fluctuations in the data over time. The digital campaign only ran for 62 of the 90 days due to funds being limited to \$117,000. Using Centro Basis DSP, the team measured the impressions for the digital ads, and the number of users who clicked on the digital ad. We used these two measurements to calculate the click-through rate for the digital ad, which is the ratio of clicks over the impressions. Impressions are different from views because a digital ad can be served to a user, but it is possible the user did not see the digital ad based on its placement on a website. When a user clicked on a digital ad, it connected them to a landing page highlighting the services and benefits of the child support program and containing a button for downloading our enrollment form. Additionally, the team used Google Analytics to measure the number of users who, after connecting to the landing page through a digital ad, then downloaded an enrollment form. The team captured these measurements for the control and the four variants over the 62 days beginning on June 15, 2020 and ending on August 15, 2020.

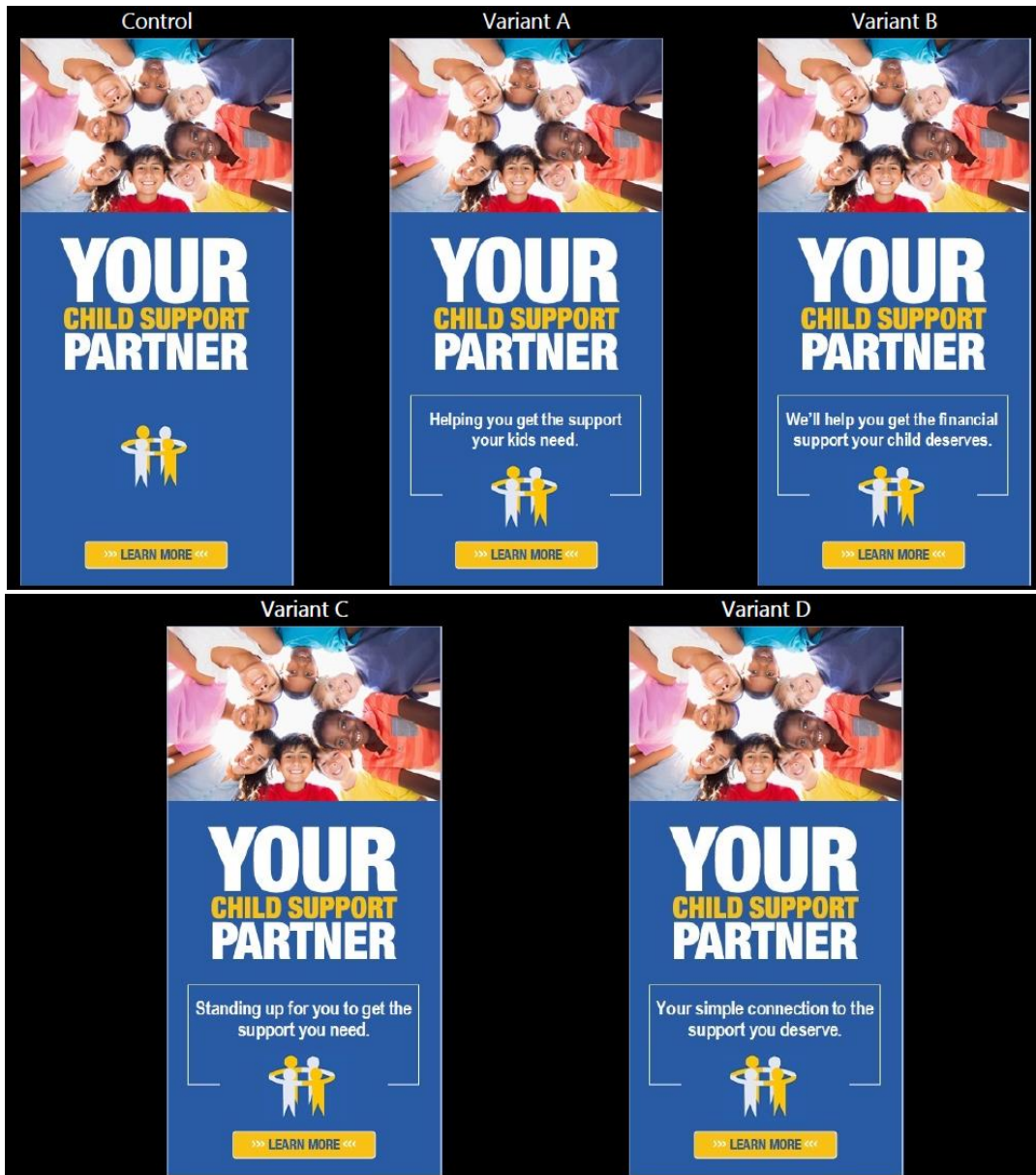


Figure 9

## RESULTS

As shown in Figure 10, our control ad was delivered 779,215 times (impressions). These impressions resulted in 818 (0.105%) clicks of the digital ad. Each variant had similar impressions and clicks. As shown in Figure 11, our four variants had click-through rates of 0.105%, 0.102%, 0.109%, and 0.098%. Only one of these (Message C) met our threshold of 1% or higher difference compared to the control to be considered an outcome of interest, and the group did not meet our requirement of statistical significance. The team used a chi-squared test of independence to determine statistical significance of the measured values. With four degrees of freedom across all variants, the team selected a 0.1% probability threshold, with a critical value of 18.47. The team measured a test value of only 4.93, which did not meet the selected threshold, indicating a lack of statistical significance in our measurements. Even

when looked at over the 62-day duration, at no time was statistical significance achieved, and there was no trend towards significance either (Figure 4).

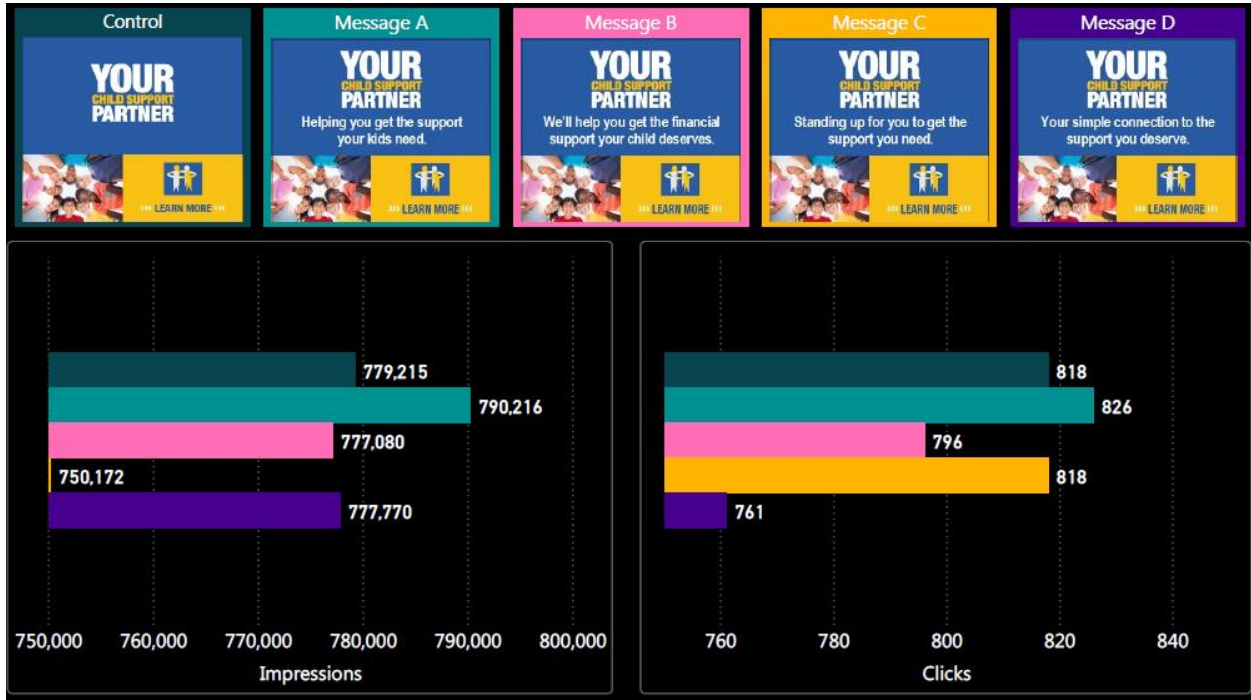


Figure 10

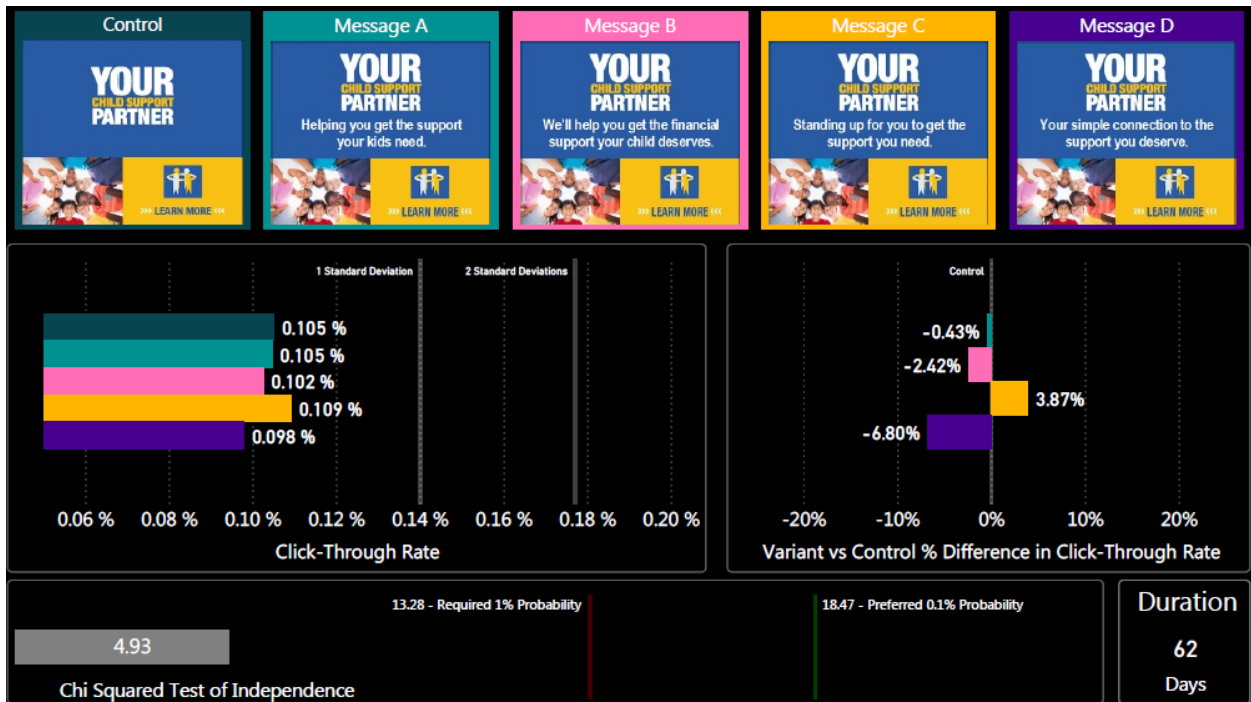


Figure 11

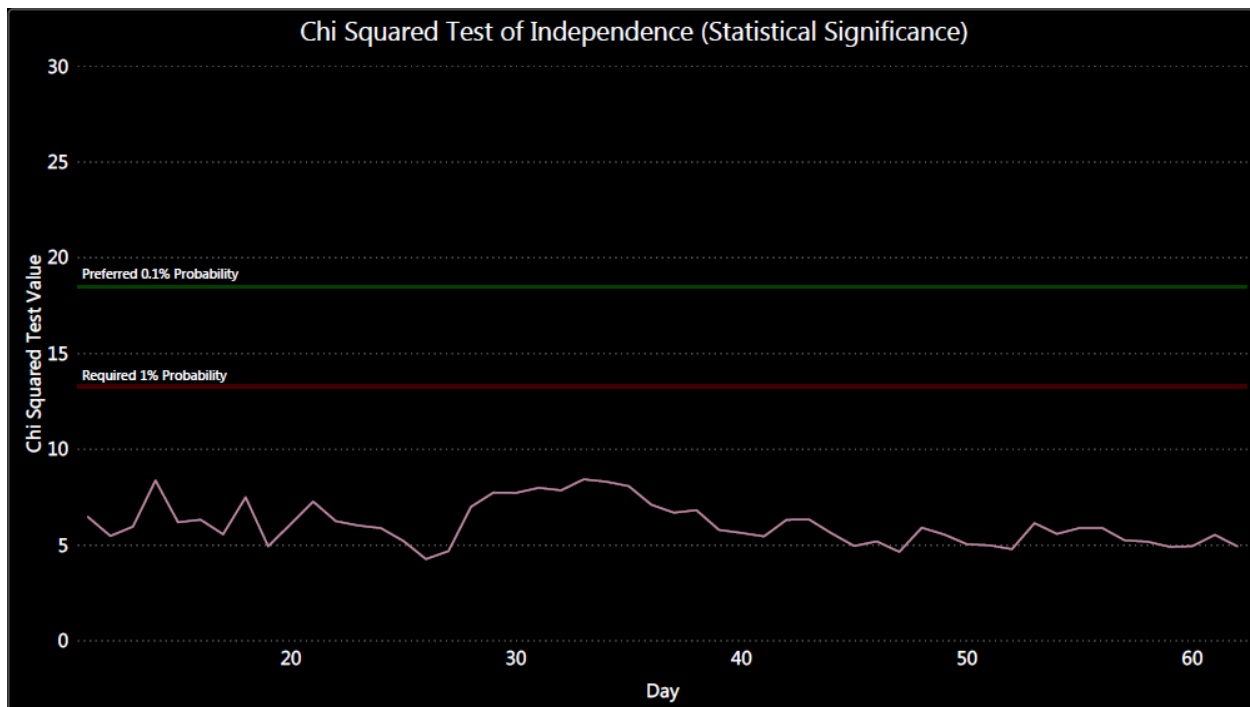


Figure 12

## ANALYSIS

The lack of statistical significance for the message group suggests that the message used in the digital ad does not affect behavior. Similar to images, messages may be unnecessary in digital marketing and could be removed to provide more digital real estate for other ad components. The team believes that the message being a smaller font and likely harder to see on mobile devices may have been a contributing factor to the poor performance compared to the control. If the experiment was repeated with the message taking up more of digital ad, it is possible a different result would occur.

## ROAD TESTS 39, 40, 41, 42, 43, & 44 – CALL TO ACTION GROUP

The team worked closely with Centro’s Customer Success team to design and execute a digital marketing campaign. Using Centro’s Basis DSP to randomly but evenly distribute digital ads, we conducted a randomized controlled trial for the call to action component of our digital ads consisting of a control ad and five variant ads. Any citizen browsing websites or mobile apps within one of our five participating counties had an equal chance of seeing the control ad or any of the five variants. As the control ad, we used a digital ad without a call to action and for our five variants, we used alternative call to actions that we tested in interventions 1 and 2 (Figure ). These call to actions were chosen because they had performed well during interventions 1 and 2 and we hoped to further validate the results of intervention 1 and 2 with a larger scale test that used experimental methodology.

The randomized controlled trial targeted all mobile and desktop users within the counties of Allen, Clay, Greene, Owen, and Putnam, with a total population of 405,802. The digital campaign ran for 62 days of the 90 intervention, to determine what impact the images would have on the click-through rate of the digital ads. The team decided on a 90-day duration to maximize the amount of web traffic measured and observe fluctuations in the data over time. The digital campaign only ran for 62 of the 90 days due to funds being limited to \$117,000. Using Centro Basis DSP, the team measured the impressions for the digital ads, and the number of users who clicked on the digital ad. We used these two measurements to calculate the click-through rate for the digital ad, which is the ratio of clicks over

the impressions. Impressions are different from views because a digital ad can be served to a user, but it is possible the user did not see the digital ad based on its placement on a website. When a user clicked on a digital ad, it connected them to a landing page highlighting the services and benefits of the child support program and containing a button for downloading our enrollment form. Additionally, the team used Google Analytics to measure the number of users who, after connecting to the landing page through a digital ad, then downloaded an enrollment form. The team captured these measurements for the control and the four variants over the 62 days beginning on June 15, 2020 and ending on August 15, 2020.



Figure 13



## RESULTS

As shown in Figure 14, our control ad was delivered 778,198 times (impressions). These impressions resulted in 791 (0.102%) clicks of the digital ad. Each variant had similar impressions and clicks. As shown in Figure 15, our five variants had click-through rates of 0.101%, 0.102%, 0.103%, 0.103, and 0.103%. Only two of these (Call to Action C and E) met our threshold of 1% or higher difference compared to the control to be considered an outcome of interest, and the group did not meet our requirement of statistical significance. The team used a chi-squared test of independence to determine statistical significance of the measured values. With five degrees of freedom across all variants, the team selected a 0.1% probability threshold, with a critical value of 20.52. The team measured a test value of only 0.34, which did not meet the selected threshold, indicating a lack of statistical significance in our measurements. Even when looked at over the 62-day duration, at no time was statistical significance achieved, and there was no trend towards significance either (Figure 16).

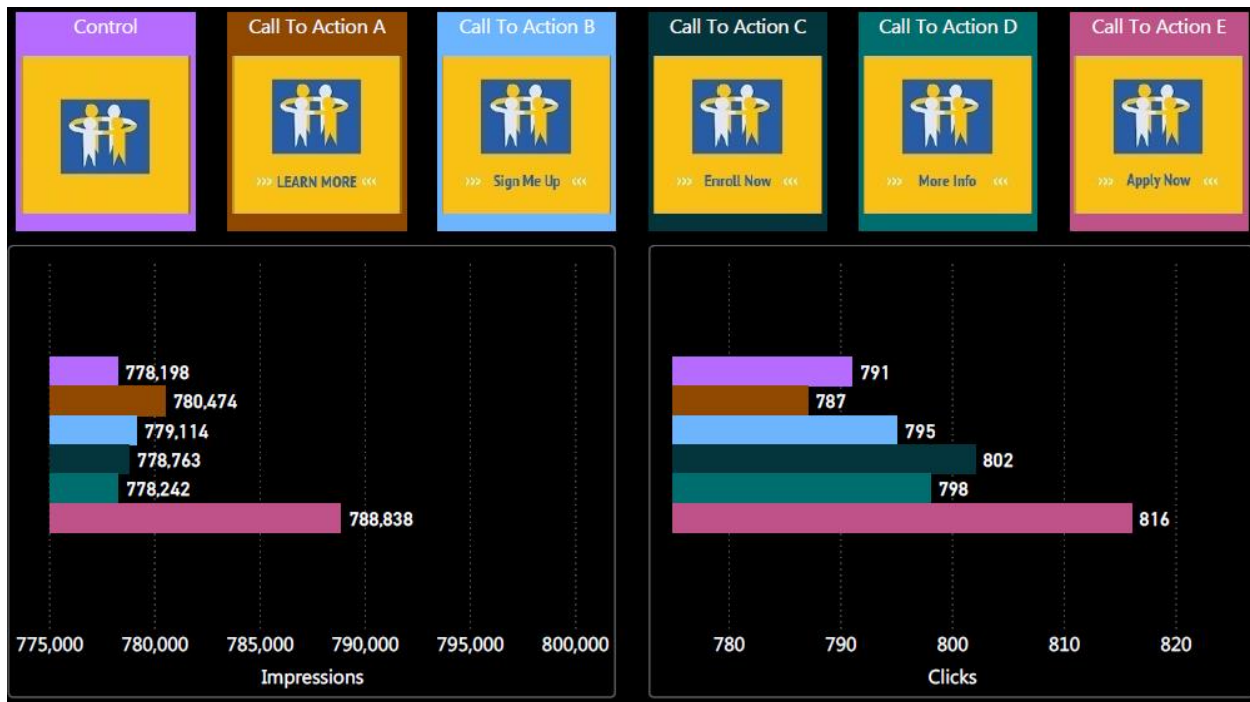


Figure 14

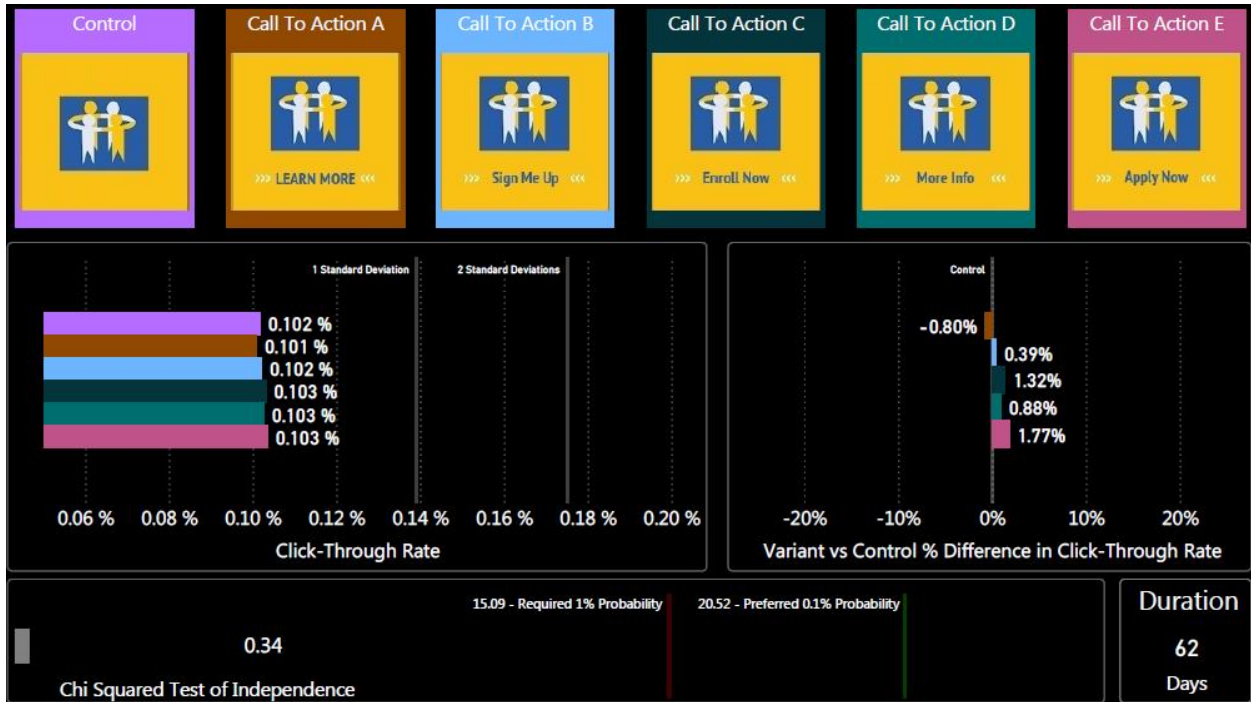


Figure 15

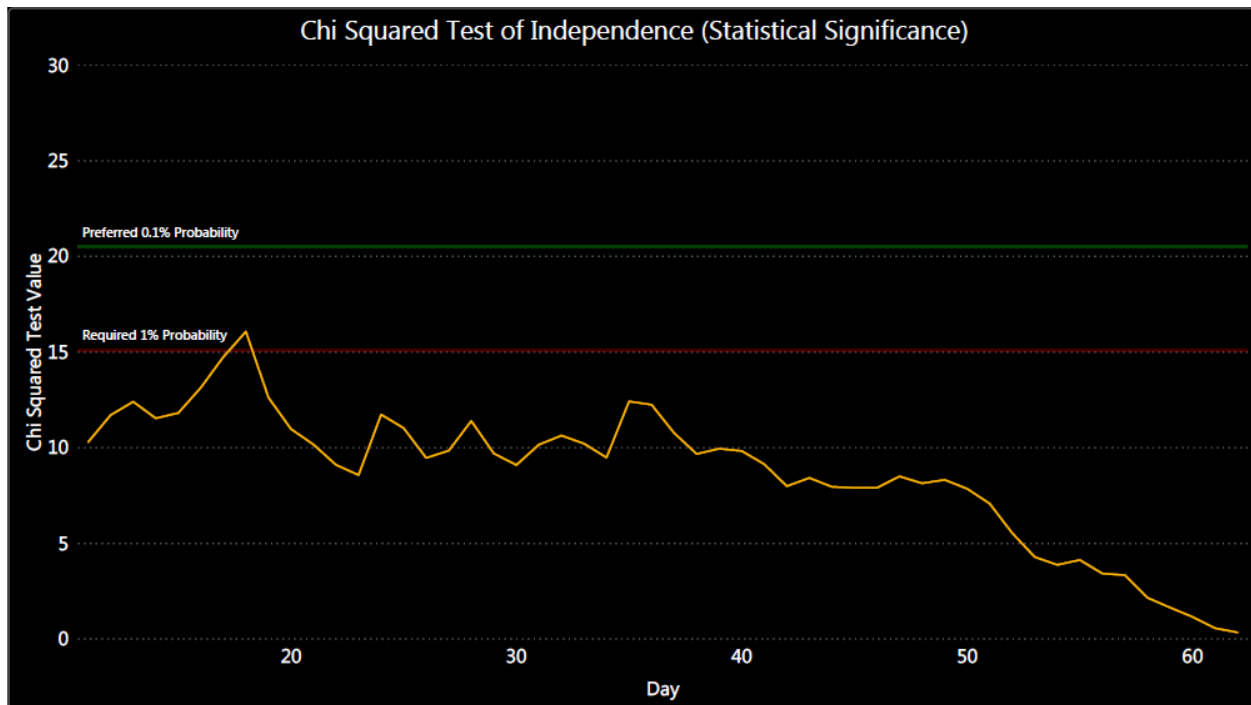


Figure 16

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## ANALYSIS

The lack of statistical significance for the call to action group suggests that the call to action used in the digital ad does not affect behavior. Like the image, calls to action may be unnecessary in digital marketing and could be removed to provide more digital real estate for other ad components. The team believes that the call to action, like the message, may be harder to see on mobile devices and may have been a contributing factor to the poor performance compared to the control. If the experiment was repeated with the call to action taking up more of digital ad, it is possible a different result would occur.

### ROAD TESTS 45, 46, 47, 48, 49, 50, 51, & 52 – REFERENCE GROUP

The team worked closely with Centro's Customer Success team to design and execute a digital marketing campaign. Using Centro's Basis DSP to randomly but evenly distribute digital ads, we conducted a randomized controlled trial for the reference component of our digital ads consisting of a control ad and seven variant ads. Any citizen browsing websites or mobile apps within one of our five participating counties had an equal chance of seeing the control ad or any of the seven variants. As the control ad, we used a digital ad without a reference to any organization and for our seven variants, we used a variety of references to the program and parent agency (Figure ). These references were chosen because they had been used in prior marketing materials for the child support program.

The randomized controlled trial targeted all mobile and desktop users within the counties of Allen, Clay, Greene, Owen, and Putnam, with a total population of 405,802. The digital campaign ran for 62 days of the 90 intervention, to determine what impact the images would have on the click-through rate of the digital ads. The team decided on a 90-day duration to maximize the amount of web traffic measured and observe fluctuations in the data over time. The digital campaign only ran for 62 of the 90 days due to funds being limited to \$117,000. Using Centro Basis DSP, the team measured the impressions for the digital ads, and the number of users who clicked on the digital ad. We used these two measurements to calculate the click-through rate for the digital ad, which is the ratio of clicks over the impressions. Impressions are different from views because a digital ad can be served to a user, but it is possible the user did not see the digital ad based on its placement on a website. When a user clicked on a digital ad, it connected them to a landing page highlighting the services and benefits of the child support program and containing a button for downloading our enrollment form. Additionally, the team used Google Analytics to measure the number of users who, after connecting to the landing page through a digital ad, then downloaded an enrollment form. The team captured these measurements for the control and the four variants over the 62 days beginning on June 15, 2020 and ending on August 15, 2020.



Figure 17

## RESULTS

As shown in Figure 19, our control ad was delivered 775,878 times (impressions). These impressions resulted in 812 (0.105%) clicks of the digital ad. Each variant had similar impressions and clicks. As shown in Figure 19, our seven variants had click-through rates of 0.109%, 0.102%, 0.105%, 0.100, 0.104%, 0.105%, and 0.098%. Only one of these (Reference A) met our threshold of 1% or higher difference compared to the control to be considered an outcome of interest, and the group did not meet our requirement of statistical significance. The team used a chi-squared test of independence to determine statistical significance of the measured values. With seven degrees of freedom across all variants, the team selected a 0.1% probability threshold, with a critical value of 24.32. The team measured a test value of only 6.55, which did not meet the selected threshold, indicating a lack of statistical significance in our measurements. Even when looked at over the 62-day duration, never was statistical significance achieved, and there was no trend towards significance either (Figure 20).

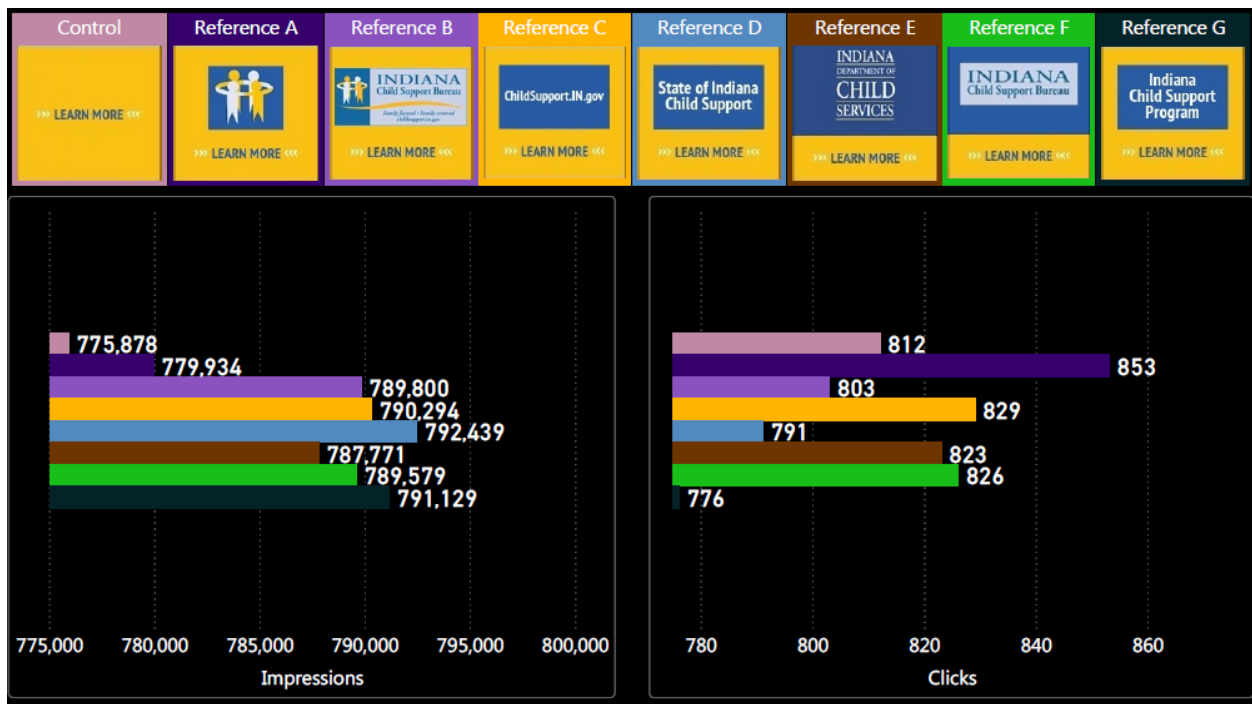


Figure 18

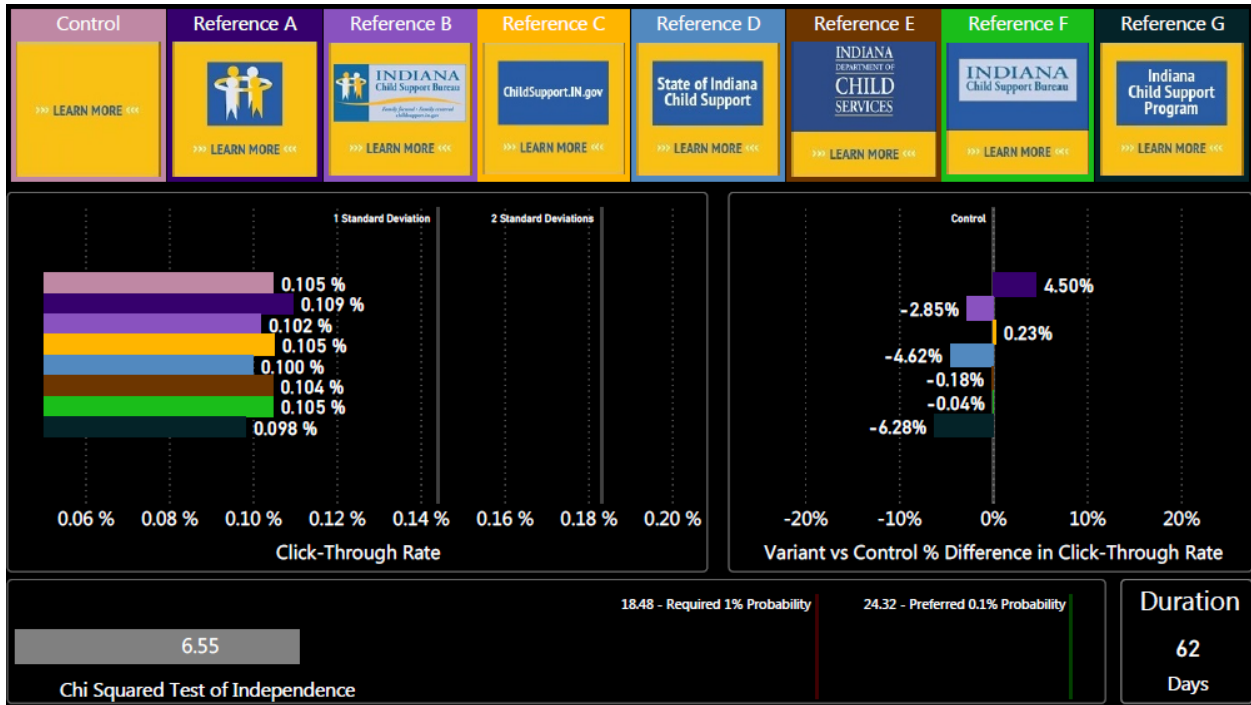


Figure 19

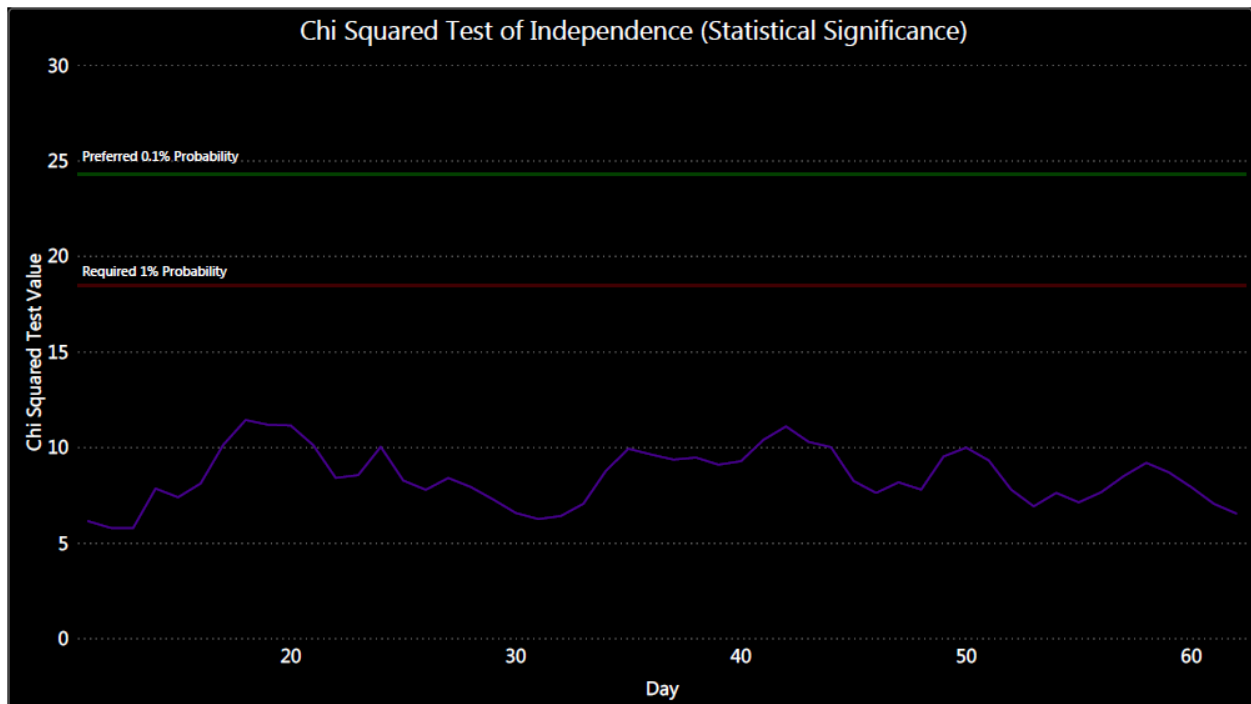


Figure 20

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## ANALYSIS

The lack of statistical significance for the reference group suggests that the reference used in the digital ad does not affect behavior. Like the images, messages, and calls to action, references may be unnecessary in digital marketing and could be removed to provide more digital real estate for other ad components. The team believes that the reference, like the call to action and the message, may be harder to see on mobile devices and may have been a contributing factor to the poor performance compared to the control. If the experiment was repeated with the call to action taking up more of digital ad, it is possible a different result would occur.

## LESSONS LEARNED AND NEXT STEPS

Our biggest takeaways from this intervention is that the tagline seems to be the most important component of a digital ad and that other components such as the image do not affect the effectiveness of the digital ad. In addition to this, emotion words such as “comfort” seem to increase the effectiveness of a digital ad both in terms of the click-through rate overall and across audience factors such as geographical area. Further, the team examined the number of new child support cases opened during the intervention in our participating counties vs non-participating counties and how those compared to the previous year. The team found that for the participating counties where the digital marketing campaign was executed, there was a 9.70% increase in new child support cases during the digital marketing campaign compared to the previous year. For non-participating counties, there was a 26.59% decrease in new child support cases. When we examined our participating large urban/suburban county (Allen County) to the five other large urban/suburban counties that did not participate, this difference was even greater. Allen County had an increase of 9.80% in new child support cases compared to the previous year, whereas the non-participating counties had a decrease of 40.19% in new child support cases compared to the previous year. The team believes this is evidence that digital marketing can be a valuable tool in increasing program awareness and participation. The team recommends, based on the results of intervention 7, that sustained annual funding be provided for digital marketing campaigns to increase program awareness and participation.

## APPENDIX A: GLOSSARY

### CHAT

Any informal digital conversation between a non-participating citizen and an Indiana Child Support resource.

### CENTRO BASIS DEMAND SIDE PLATFORM (DSP)

A programmatic ad buying platform that enables marketers and agencies to run efficient cross-channel advertising campaigns of every scale.

### DIGITAL MARKETING

Any advertising with a digital component intended to promote the Indiana Child Support program.

### GOOGLE ANALYTICS

Google Analytics 360 is an integrated data-and-marketing analysis product that analyzes consumer behavior and interactions with digital properties.

### TWO-WAY COMMUNICATION

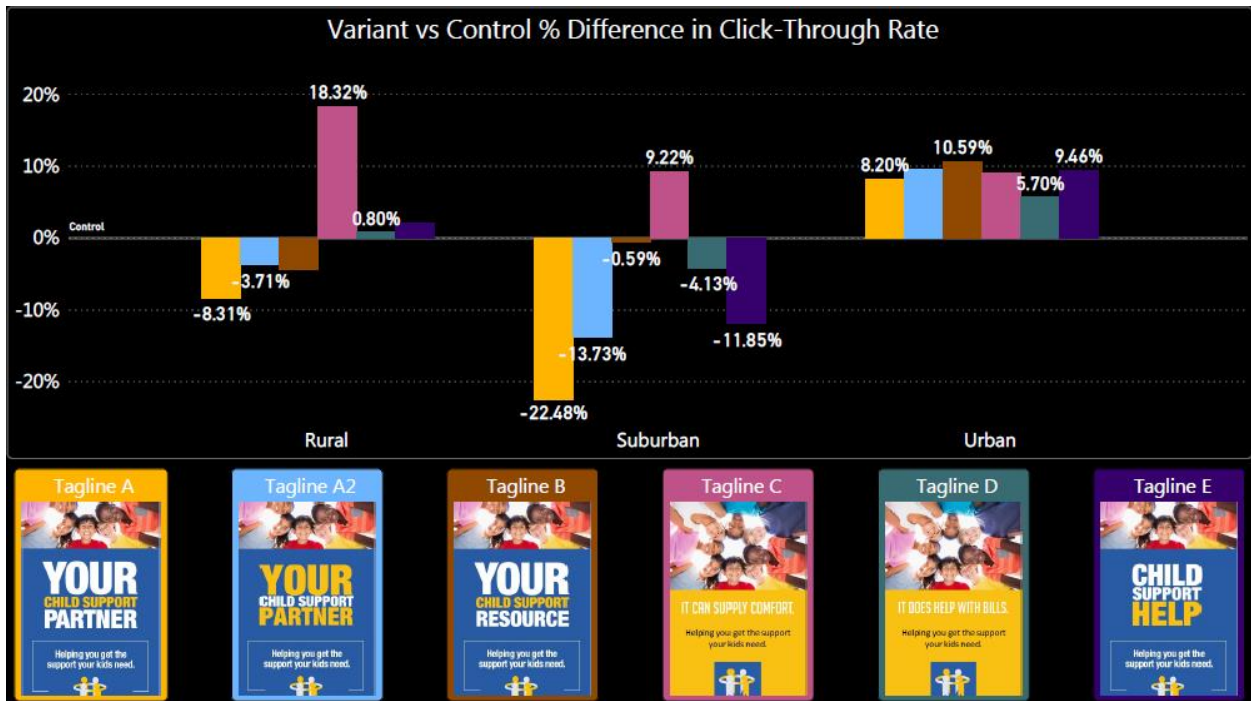
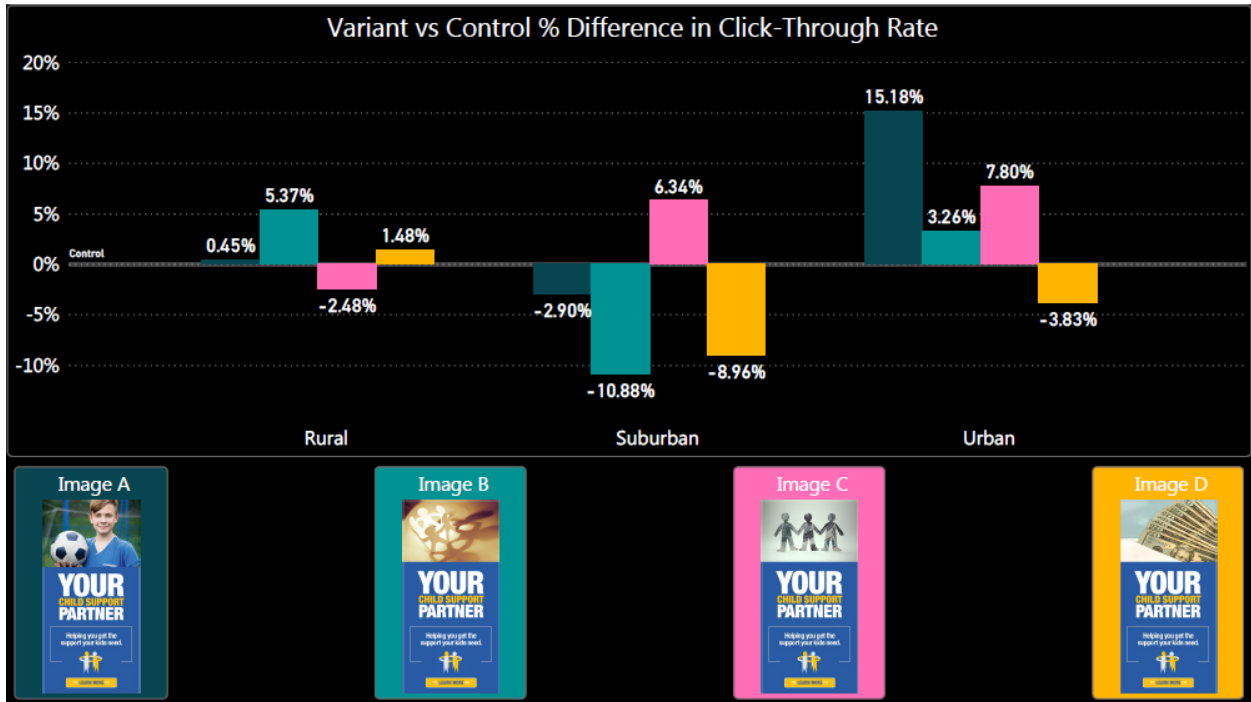
Any process in which an Indiana Child Support resource can send, receive, and respond to information to/from a citizen.

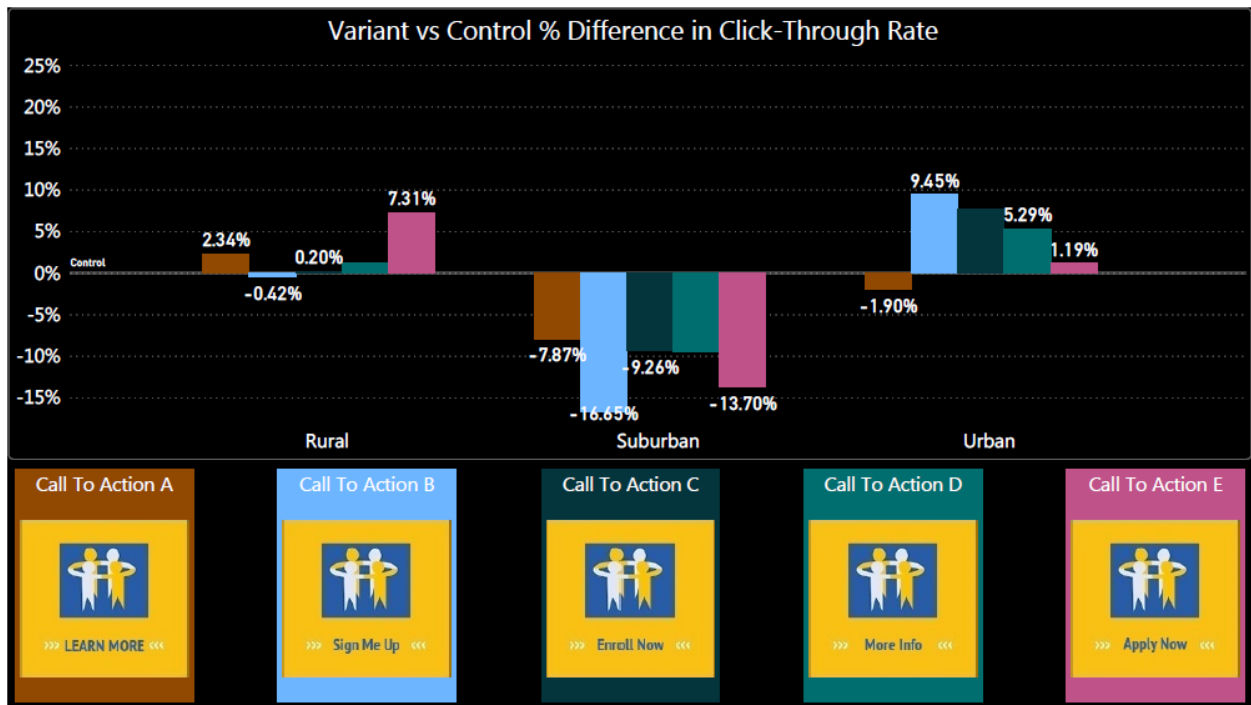
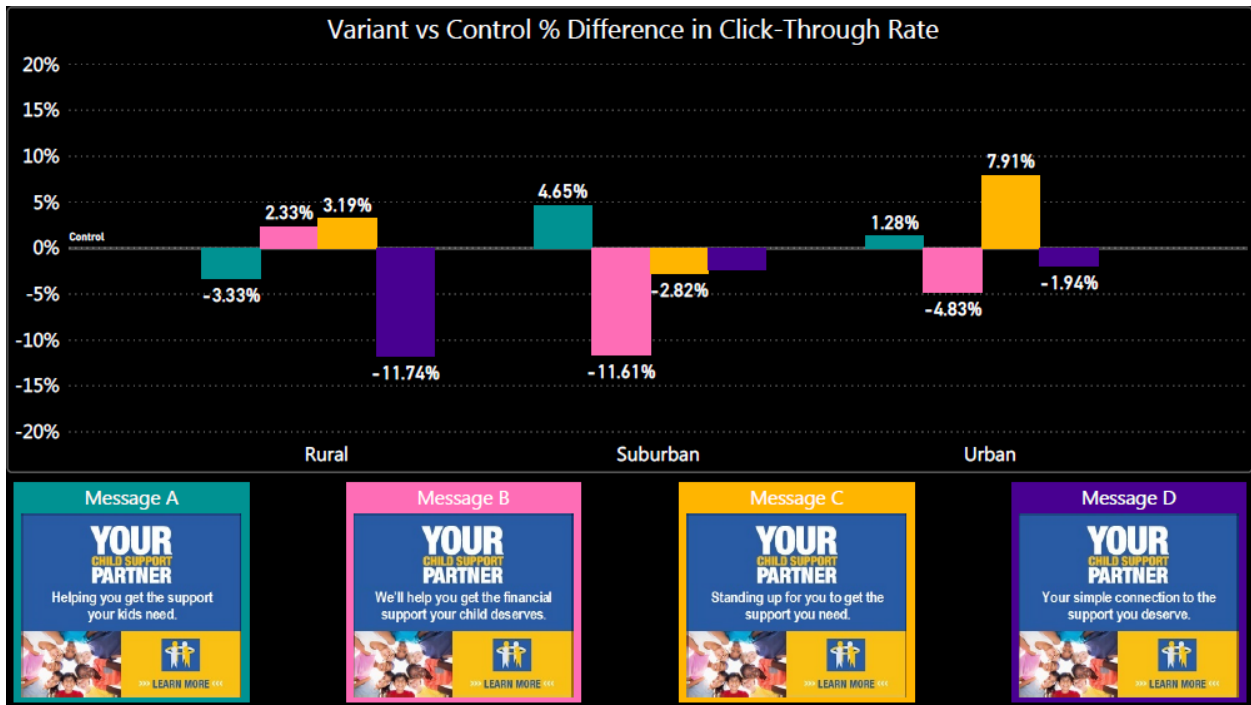
### WEBSITE UPDATE

Any change to the HTML documents or web services that impacts citizen interactions with Indiana Department of Child Services web content. (<http://www.in.gov/DCS/>)



APPENDIX B: GEOGRAPHICAL RESULTS





### Variant vs Control % Difference in Click-Through Rate

