



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 1: CSB WEBSITE UPDATES

EVALUATION REPORT

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Authorized Organizational Representative (AOR)	Adam Norman	Indiana IV-D Director
Project Director (PD) / Principal Investigator (PI)	Eric Durnil	Core Project Team
Project Manager	Brian Beswick	Core Project Team
Grant Compliance Specialist	Cheryl Jackson	Core Project Team
Assistant Project Manager	Linda Waller	Core Project Team
Assistant Project Manager / Assistant Grant Compliance Specialist	Charity Pollard	Core Project Team

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BACKGROUND:

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

PROBLEM TARGETED BY INTERVENTION 1: CSB WEBSITE UPDATES

Based on surveys, focus groups, information from Behavioral Interventions in Child Support (BICS) and Behavioral Interventions to Advance Self-Sufficiency (BIAS) projects, expert recommendations, and analysis of website traffic acquired during the planning phase, there was an indication that the child support program website content had negative impacts on participation in the program. These negative impacts included:

- Difficulty locating information
- Fears that an application would be denied / rejected
- A perception that the application process is excessively burdensome
- Confusion about our terminology

Intervention 1 was designed to test potential solutions to these problems with large sweeping changes across the website, and with smaller targeted content changes.

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. Impacting 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 to analyze and suggest improvements to our website content that would promote a positive user experience and fuel increased participation in the program. Our experts determined that the overall experience of the website was negative and that a holistic modernization of the website experience was needed to streamline access to our content and improve engagement. Our team also

believed that phrasing used for the links to our online applications, such as “Apply for Child Support Services” was negatively impacting participation in the program. Specifically, the word “Apply” was believed to be a deterrent since it implies the possibility of services being denied. This was believed to be exacerbated by our lengthy application. Additional confusion about our terminology and difficulty locating information was believed to be a result of our customer service line being labelled with the non-descriptive term “Kidsl ine,” which we hypothesized was confusing for visitors to the site and deterring them from calling the customer service line for assistance.

INTERVENTION 1: WEBSITE UPDATES

Intervention 1 focused on making changes to the Indiana Child Support website that would have a positive impact on participation and determine if the user experience and content phrasing impacts navigation, bounce rates, new IV-D cases, and engagement. The team, through a series of collaborative discussions held over three months, brainstormed road tests for each intervention. During these collaborative discussions, we selected five independent road tests for the first intervention. Some of the road tests were small, targeted changes to the website such as two new phrasings for the links to our online application, and a more descriptive label for our customer service line. Other road tests were larger, more sweeping changes such as the conversion of all webpages to a new template approved by the Indiana Office of Technology (IOT), and the deployment of a shorter two-page online application.

ROAD TEST 1 – CUSTOMER SERVICE LABEL

In coordination with our agency’s internal web masters, we changed the label for our customer service line from “Kidsl ine” to “Child Support Customer Service Center (Kidsl ine)” for a period of 90 days to measure its impact on call volume. The team determined a three-month timeframe was necessary to measure any significant outcome since the average monthly variation in call volume is over 20,000 calls which far exceeds the monthly child support webpage traffic of approximately 15,000 visitors and therefore any monthly increase due to the label change would be indistinguishable from the monthly variation. However, the variation in quarterly call volume is 27,000 and does not exceed the quarterly website traffic of approximately 45,000. Therefore, the team believed the 90-day timeframe to be the best option for measuring an outcome of interest.



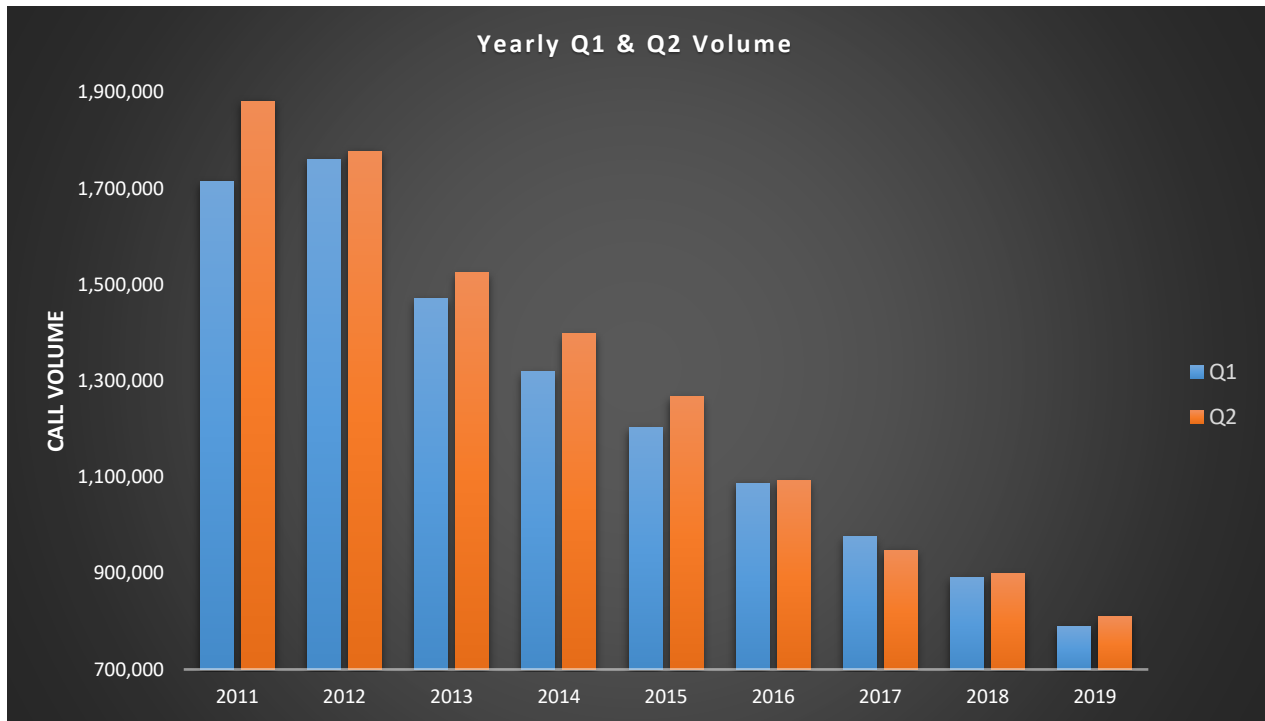
The team measured the call volume using Genesys call center software for the duration of the road test as well as for the 12 quarters prior to the intervention. These pre-intervention quarterly values were averaged together to minimize any seasonal impacts. The team also measured the second quarter of each year for the past 9 years and averaged them together for a stationary pre-intervention value. The team then compared the call volume measured during the road test to the pre-intervention non-stationary and stationary quarterly averages to determine the outcome and the impact labelling the customer service line had on the call volume amongst visitors to the Child Support webpage.

RESULTS

The customer service label, “Child Support Customer Service Center (Kidsl ine),” reached 44,904 visitors to the Child Support webpage from Monday, April 1, 2019 through Sunday, June 30, 2019. During this period there was a corresponding customer service call volume of 809,467 calls. In comparison to the pre-intervention quarterly average of 931,069 calls, this was a 121,602 (13.06%) decrease in calls. When compared to the average call volume

for Quarter 2 (Q2) over the past eight years there is an even larger decrease of 538,993 (39.97%). This result aligns with a call volume that has been in decline as far back as 2011 and parallels our declining caseload.

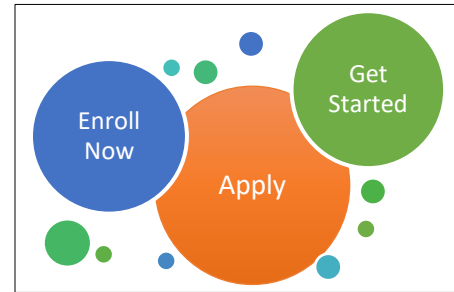
It also highlights the difficulty in measuring a correlation between the call volume and the visitors viewing the customer service line information on the Child Support webpage since the variations in the call volume far exceed the traffic to the webpage. Since there is no method for directly measuring which visitors did or did not subsequently call the customer service line, the results of the intervention are inconclusive with regards to whether the label change had an impact on the customer service call volume.



Although the call volume decreased in comparison to the pre-intervention averages, there was an increase of 20,068 (2.54%) when compared to the previous quarter. However, this aligns with the yearly Quarter 1 (Q1) and Quarter 2 (Q2) seasonal trend, which has an average increase of 27,306 calls between Q1 and Q2 over the past eight years. This seasonal trend means we can't attribute the Q1 to Q2 increase to the label change and do not consider it to be an outcome of interest. If the connection between the customer service label and the call volume exists, any impact the label change had is not large enough to be measured compared to other independent factors. Moving forward the team recommends targeting website changes whose outcomes can be measured with greater certainty.

ROAD TEST 2 & 5 – APPLICATION LINKS

The Team also worked with our agency’s internal web masters to change the wording on the links to our online application. We conducted two tests for four weeks each. During the first four weeks, we changed the links from “Apply for Child Support Services” to “Enroll Now for Child Support Services.” Then during the second four weeks, the links were changed to “Get Started with Child Support Services.” The changes targeted all visitors to our Child Support webpage, approximately 15,000 visitors per month, to determine what impact the wording of the links would have on the click-through rate to the online application. The Team decided on the four-week durations instead of full-month durations to ensure uniformity in the measurements from the road test and pre-intervention periods. The Team also considered a random control trial using A/B testing over the 90 days of the intervention to allow for concurrent testing of phrases. However, due to the need for A/B testing tools and organizational capacity, the team decided that staggered individual road tests would be more streamlined for our first intervention. The Team determined there was a risk of the four-week durations being too short to produce measurable outcomes of interest; however, the team’s appetite for this risk was acceptable.



Using Google Analytics and Siteimprove, the Team measured the population of visitors to the Child Support webpage, and the number of visitors who subsequently clicked a link to the online application. We used these two measurements to calculate the click-through rate for the online application, which is the ratio of application link clicks over the population of visitors. The Team also captured these measurements for congruent four-week periods in each of the 12 months leading up to the intervention. Each congruent measurement was aligned to the same day of the week, which ensured that the measurements all had equal days of the week. For example, Road Test 2 began on the first Monday of April 2019, so each congruent four-week measurement began on the first Monday of its corresponding pre-intervention month. Likewise, Road Test 5 began on the first Saturday of June 2019, so each congruent four-week measurement began on the first Saturday of its corresponding pre-intervention month.

To minimize seasonal impacts, we averaged these pre-intervention values and used them to calculate the pre-intervention click-through rates. We then compared these click-through rates with the road test click-through rates to determine the outcome and whether it was affected by the wording of the application links.

RESULTS



We used the wording “Enroll Now for Child Support Services” for the online application links from Monday, April 1, 2019 through Sunday, April 28, 2019 and reached 15,762 visitors to the Child Support webpage. Of these visitors, 9.05% clicked a link to the online application. This was a 3.56 point (64.85%) increase over the congruent pre-intervention monthly average of 5.49% and met the 1% threshold set for outcomes of interest. The Team performed a Chi-Square Test of Independence with a null hypothesis that the proportion of visitors that clicks a link to the online application is independent of the link phrasing. In plain language, the phrasing of link doesn’t matter, visitors will click through to the online application at random. With a single degree of freedom, either the visitor clicked an application link or did not click an application link, the team chose a 1% significance level with a critical value of 6.635. The results of the Chi-Squared Test of Independence gave a test value of 149.78. Since the test value was

greater than the critical value, we rejected our null hypothesis in favor of our alternate hypothesis, that the proportion of the visitors that clicks a link to the online application is dependent on the link phrasing. In plain language, the phrasing of the link is likely associated with a visitor’s decision to click through to the online application.



Due to use of a pre/post comparison quasi-experimental evaluation method, we could not control for all possible external factors that may have impacted the results of the road test. The team tried to minimize external factors by working with the Indiana Department of Child Services (DCS) Director of Communications to ensure that there were no external media campaigns during the intervention. The team also worked with the Child Support Bureau Director of Outreach to ensure there were no recruiting efforts that might drive an increased click-through rate to the online application during the intervention. In addition to uncontrolled external factors, there may have been impact from an overlapping road test in the intervention. The overlapping road test relocated the left side navigation, which contained one of the application links, to a menu button at the top of the page, requiring an extra click to view. This change may have resulted in lower click-through rates during the road test.

While we can’t conclude with certainty that the increase in click-through rate was solely the result of the application link change, the results suggest a correlation between the increased click-through rate and the use of the wording “Enroll Now for Child Support Services” instead of “Apply for Child Support Services.” From this correlation, the team has inferred that wording of content can have an impact on the actions of visitors to the Child Support webpage.



Similarly, we used the wording, “Get Started with Child Support Services” for online application links from Saturday, June 1, 2019 through Friday, June 28, 2019 and reached a slightly smaller audience of 14,193 visitors to the Child Support webpage. Despite the smaller audience, the click-through rate was 11.77%, significantly higher than the previous road test. This was a 6.32 point (115.94%) increase over the congruent pre-intervention rate of 5.45% and far exceeded our 1% threshold for outcomes of interest. Again, the Team performed a Chi-Square Test of Independence with a null hypothesis that the proportion of visitors that clicks a link to the online application is independent of the link phrasing. As was the case with road test 2 we had a single degree of freedom and chose a 1% significance level with a critical value of 6.635. For this road test, the results of the Chi-Squared Test of Independence gave a test value of 370.46. Again, the test value was greater than the critical value so we rejected our null hypothesis in favor of our alternate hypothesis, that the proportion of the visitors that clicks a link to the online application is dependent on the link phrasing.

ANALYSIS

The results suggest a correlation between the increased click-through rate and the use of the wording “Get Started with Child Support Services” instead of “Apply for Child Support Services.” From this correlation, the team has inferred that wording of content is possibly associated with the actions of visitors to the Child Support webpage.



This outcome is 2.72 points higher (30.05%) than the results from “Enroll Now for Child Support Services.” The Team believes this higher result may indicate that the wording “Get Started” is too generic in its meaning and child support partners might click the application links by mistake.

Additional interventions are needed to compare more phrases and test content changes targeted for the various personas involved in the child support program.

ROAD TEST 3 – WEBSITE TEMPLATE

The Team partnered with the Indiana Office of Technology (IOT) and our agency’s internal web masters to migrate all Child Support webpages to a new IOT-approved template that provided a more modern user experience. The new template removed older windowed navigation menus and replaced them with modern slide in menus. It also reorganized our domain level navigation items and information at the top and bottom of the webpages to minimize the space they utilized and provide more visibility for the webpage specific content. Lastly, it created a uniform layout for content that ensures the same experience across agency webpages and between different state agencies. The Team targeted approximately 15,000 monthly visitors to measure the impact of the new template on the website’s bounce rate over a four-week road test. The Team decided on the four-week duration to ensure uniformity in the measurements from the road test and pre-intervention periods. The Team also considered a longer duration for the road test; however, the shorter four-week timeframe allowed for comparison with other targeted changes and helped streamline coordination between state agencies involved. To measure the impact of the new template, the Team decided to analyze the combined bounce rate of the Child Support webpage and the Application page. Bounce rate is the percentage of visitors who navigate away from a website after only viewing one page and is a standard measurement used in Search Engine Optimization (SEO) and Digital Marketing to indicate how well a page matches to the expectation of the visitor. There is no time component associated with bounce rate because the goal of SEO and Digital Marketing is to drive a visitor to perform an action. In the case of the Indiana child support program, the goal is to drive the visitor to the online application. A high bounce rate is an indicator that the webpage is failing to achieve the goal.



The Team used Google Analytics and SiteImprove to measure the population of visitors to the Child Support webpage and Application page, as well as the number of visitors who subsequently exited (bounced) from the website. We summed the visitors and the bounces for both pages to determine the total values across the website. We then used these measurements to calculate the combined bounce rate for both webpages. The bounce rate is the ratio of exits (bounces) over the visitors.

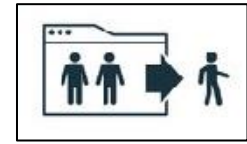
$$\text{Combined Bounce Rate} = \frac{\text{Child Support Page Bounces} + \text{Application Page Bounces}}{\text{Child Support Page Visitors} + \text{Application Page Visitors}}$$

The Team also captured these measurements for congruent four-week periods in each of the 12 months leading up to the intervention. Each congruent measurement was aligned to the same day of the week, which ensured that the measurements all had equal days of the week. For example, Road Test 3 began on the third Wednesday of April 2019, so each congruent four-week measurement began on the third Wednesday of its corresponding pre-intervention month.

We averaged these pre-intervention values to minimize any seasonal impacts and used the average to calculate the pre-intervention combined bounce rate. We then compared the bounce rate to the combined bounce rate from the road test to ascertain the outcome and determine the impact the website template had on the overall bounce rate for the Child Support website.

RESULTS

The new template for the Child Support website went live on April 17, 2019 and reached an audience of 20,359 visitors through May 14, 2019. The combined bounce rate of the website during the road test was 28.24%, a 1.65 point (5.53%) decrease compared to the pre-intervention combined bounce rate and -1% threshold for an outcome of interest. The Team performed a Chi-Square Test of Independence with a null hypothesis that the proportion of visitors that exit the Child Support website is independent of the website template. In plain language, the user experience does not matter, visitors will exit at random. With a single degree of freedom, either the visitor exited the website or clicked a link within the website. The team chose a 1% significance level with a critical value of 6.635. The results of the Chi-Squared Test of Independence gave a test value of 4,393.61. Since the test value was greater than the critical value, we rejected our null hypothesis in favor of our alternate hypothesis, that the proportion of the visitors that exited the Child Support website was dependent on the website template. In plain language, the user experience was associated with a visitor's decision to exit the website. When analyzing the bounce rates of individual webpages, the new template had more impact on the bounce rate of the Application webpage than the Child Support webpage. The Application webpage had a 3.87 point (10.57%) decrease in its bounce rate during the intervention as compared to its pre-intervention measurement, whereas the Child Support webpage only had a 1.74 point (6.03%) decrease in its bounce rate during the intervention as compared to its pre-intervention measurement.



ANALYSIS

The results suggest that the new modern template, which reorganized navigational content and the utilization of space, and created a uniform experience across the webpages, was positively associated with a visitor's user experience by focusing the user's attention to the content specific to webpages which is designed to drive visitor's to the online application. The decreased bounce rate is evidence of this improved user experience as it indicates a higher proportion of visitor's navigating to the online application rather than exiting the website. While there was a positive association to the bounce rate, the small number of only a few points has led the Team to infer that it might not be as important as our smaller targeted changes. Both the template change and the application link changes were measured using comparable metrics that measure the proportion of visitors to a page that navigated away from that page. The difference was where they navigated. Bounce rate measured visitors exiting the website, while the click-through rate of the application links measured visitors navigating to the Application webpage from the Child Support webpage. This is analogous to measuring the proportion of people that leaving a building through door A vs. door B. With the average monthly visitors to the Child Support webpage being ~15,000, the new template equates to ~261 visitors remaining on the website instead of exiting. Whereas the application link change equates to a range of ~534 to ~948 visitors navigating to the Application webpage. This result was unexpected, and our team plans to continue monitoring the bounce rate and other metrics to gauge the impact of this change over time. Future road tests will have a focused scope and avoid sweeping changes to maximize their effectiveness.

ROAD TEST 4 – TWO PAGE APPLICATION

In coordination with our agency's internal web masters and the BICS project, we shortened our online application from six pages to two pages to measure the impact of application length on the ratio of application downloads to new IV-D applications received. The Team tracked application downloads for four weeks using Google Analytics and tracked new IV-D applications received using administrative data for a congruent offset period from the application download. In Indiana, applications must be submitted through the county prosecutor's office and this process leads to a delay between the application download and a new IV-D application



appearing in our administrative data. The Team also measured multiple offset periods for comparison. During the road test, the two-page application targeted all of the estimated 15,000 monthly visitors to the Child Support website and measured new IV-D applications received for the 14 Indiana counties whose county websites link to the state's online application. Only these counties would be represented in the application download measurement.

The Team also captured application downloads and new IV-D applications received during congruent four-week periods over the 12 months leading up to the intervention. We averaged these values to minimize any seasonal impacts. We compared the ratio of new IV-D applications received over the application downloads calculated for the road test to the pre-intervention ratio to determine the outcome and how the shorter application affected new IV-D applications received.

RESULTS

The new, two-page online application was published on the Child Support website on May 4, 2019 reaching an audience of 3,908 visitors through May 31, 2019, and was downloaded by 1,552 of those visitors. The offset period for measuring resulting new IV-D applications received was May 18, 2019 through June 14, 2019, and 219 new IV-D applications were received. During these measured periods, the ratio of new IV-D applications received over application downloads was 14.11%, representing an 11.28 point (44.43%) decrease compared to the pre-intervention ratio of 25.39%. Similar results came from offsets of May 25, 2019 through June 21, 2019 and June 1, 2019 through June 28, 2019 with decreases of 10.76 (43.05%) and 11.10 (46.41%) respectively. The Team performed a Chi-Square Test of Independence with a null hypothesis that the ratio of application downloads to new IV-D applications received is independent of the application length. With a single degree of freedom and the team chose a 1% significance level with a critical value of 6.635. The results of the Chi-Squared Test of Independence gave a test value of 49.31. With a test value that was greater than the critical value we rejected our null hypothesis in favor of our alternate hypothesis that the ratio of application downloads to new IV-D applications received is dependent on the application length. However, when analyzing the two components of the ratio separately, the 1,552 application downloads were a 65.57% increase and more than two standard deviations over the pre-intervention average, whereas the 219 new IV-D applications received was a 6.8% decrease compared to the pre-intervention average.

ANALYSIS

Our team expected the ratio of application downloads to new IV-D applications received to increase indicating that the shorter application had driven more citizens to complete the downloaded application and submit the IV-D application to their county prosecutor's office. Analysis of the pre-intervention ratios trended linearly indicating that month over month, a relatively similar proportion of downloaded applications were completed and converted into new IV-D applications received. Since the applications downloaded increased, the team expected at least a proportionate increase in new IV-D applications received. Although the decrease in new IV-D applications received follows the seasonal trend for May to June, the stationary trend for congruent year over year periods follows a linear relationship to the applications downloaded. This divergence between the applications downloaded and the new IV-D applications received has led the team to believe that there is an unknown factor after application download that is impacting new IV-D applications received. The team will continue to measure the application downloads to new IV-D applications received ratio to ensure this is not an outlier month impacting the results.

LESSONS LEARNED AND NEXT STEPS

Our biggest takeaway overall is that the words we use in child support have a significant impact on our customer's behavior. Targeted changes to our digital marketing content based on research and experimentation can drive positive behavior and potentially drive increased participation. Our team is planning to take additional steps in upcoming interventions to continue evaluating a variety of words used to guide potential participants. The Team recommends additional interventions to identify which words drive the most traffic towards applications and target any words with negative effects for elimination from our digital marketing content.

Additionally, we have inferred from our intervention that the impact from broad changes to the user experience of our website may not align with expectations derived from the effort required to implement those broad changes. Although the modernized user experience of our website will remain a permanent change and met our threshold for an outcome of interest, the Team believes more targeted changes have greater impact, and we will not be making any additional general-purpose changes in upcoming interventions.

Finally, we have determined that traffic to our online application is one of many facets of the child support journey. The Team believes that in upcoming interventions we must experiment with more segments of our child support journey to identify and remedy other potential barriers to participation. The team recommends additional interventions that utilize different communication methods outside of Indiana's child support website and offer additional channels for engagement and program participation.

APPENDIX A: GLOSSARY

CHAT

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

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. The Indiana Department of Child Services began using Google Analytics 360 as a replacement for SiteImprove in August of 2018.

SITEIMPROVE

SiteImprove is an integrated data-and-marketing analysis product that analyzes consumer behavior and interactions with digital properties. The Indiana Department of Child Services switched to Google Analytics 360 in August of 2018.

TWO-WAY COMMUNICATION

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

WEBSITE UPDATES

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