



AMERICORPS QUASI-EXPERIMENTAL PROGRAM EVALUATION 2018- 2021

Birth & Beyond AmeriCorps
Sacramento County
November 2021

Evaluation Report Completed by Applied Survey Research (ASR)



ACKNOWLEDGEMENTS

This evaluation report was made possible by ongoing collaborative efforts among several agencies to support children and families in Sacramento County. The agencies include:

Child Abuse Prevention Council of Sacramento

Sheila Boxley, President/Chief Executive Officer

Stephanie Biegler, Chief Program Officer

Tali Palmrose, Collaboration and Compliance Senior Program Manager

Sacramento County Department of Health and Human Services

Michelle Callejas, Director, Department of Child, Family & Adult Services

Holly Thurston, Quality Assurance Officer, Chair, Department of Health and Human Services Research Review Committee

Melissa Lloyd, Deputy Director, Sacramento County Child Protective Services, Department of Child, Family & Adult Services

Birth & Beyond Family Resource Centers

David Baker, Chief Executive Officer, Sacramento Children's Home

Laurie Clothier, Chief Executive Officer, River Oak Center for Children

Danielle Lawrence, Executive Director, Mutual Assistance Network

Jonathon Porteus, Executive Director, WellSpace Health

Rachel Rios, Executive Director, La Familia Counseling Center, Inc.

Robert Sanger, Executive Director, Folsom Cordova Community Partnership

First 5 Sacramento

Julie Gallelo, Executive Director

Carmen Garcia Gomez, Evaluation Staff

...we thank you all for the work you do and for supporting this work.



Lisa Colvig-Niclai, MA, Vice President of Evaluation

Jenny Nguyen, PhD, Senior Research Analyst

Alyssa Mullins, PhD, Senior Research Analyst

Christina Branom, PhD, Project Manager

CONTENTS

- EXECUTIVE SUMMARY 1
- INTRODUCTION..... 3
- RESEARCH QUESTIONS 4
- EVALUATION DESIGN 4
- RESEARCH QUESTION 1: BIRTH &BEYOND OUTCOMES..... 5
 - B&B Children Characteristics 5
 - Recurrence by B&B Dosage 5
 - Vulnerability Scale 8
- RESEARCH QUESTION 2: B&B AND COMPARISON (QED) 9
 - Propensity Score Matching 9
- CONCLUSION 13
- LIMITATIONS 13
- RECOMMENDATIONS 14
- APPENDIX A: B&B DEMOGRAPHICS 15
 - B&B Sample Characteristics Table 15
 - B&B CPS History & Recurrence 16
- APPENDIX B: B&B POISSON MODELS 17

TABLE OF FIGURES

Figure 1.	Recurrence by B&B Service Hours	5
Figure 2.	Baseline Substantiated Allegation Cohort and Recurrence by B&B Service Hours.....	6
Figure 3.	Predicted Probabilities of Substantiated Recurrence	7
Figure 4.	Predicted Probabilities of Substantiated Recurrence: 8 hours or more B&B Service.....	8
Figure 5.	Recurrence by Vulnerability.....	8
Figure 6.	Recurrence by Vulnerability : 8 Hours or More of Service.....	9
Figure 7.	Description of the Sample Inclusion Criteria and Observation Period	10
Figure 8.	Vulnerability Scale for Propensity Score Matched Sample	11
Figure 9.	Substantiated Recurrence.....	12
Figure 10.	Substantiated Recurrence by Vulnerability Scale	12
Figure 11.	B&B Sample Characteristics Table	15
Figure 12.	B&B CPS History & Recurrence – All Service Dosage Levels	16

EXECUTIVE SUMMARY

The Birth & Beyond (B&B) Family Resource Center Initiative, an AmeriCorps State and National program, supports families at risk of child maltreatment with weekly home visits by AmeriCorps members. AmeriCorps members as home visitors employ the evidence-based parent education curriculum, the Nurturing Parenting Program (NPP), and assesses parents using the Adult-Adolescent Parenting Inventory (AAPI) to determine risk of child maltreatment. Family Nurturing Plans are developed conjointly between B&B clients and their home visitor that prescribes the content and number of NPP lessons and home visits the parent will receive.

This study examines recurrence rates based on reentry into the Sacramento County Child Protective Services (CPS) system of B&B AmeriCorps Home Visiting program participants at the child level. This summary highlights key findings presented in this report:

1. **Birth & Beyond Outcomes:** *What percentage of B&B AmeriCorps Home Visiting clients with eight hours or more of service experience a substantiated allegation of maltreatment within 12 months of intake? Taking B&B home visiting dosage, demographics, and prior CPS history together, what factors predict the likelihood of substantiated allegations within a 12-month observation period from their date of intake?*
 - **Children in families with more AmeriCorps home visiting service were less likely to experience recurrence of maltreatment.** The substantiated recurrence rate of maltreatment was **5%** for children in families with eight or more hours, compared to **18%** for those with less than eight hours of service (Figure 1).
 - **CPS outcomes varied according to demographic and CPS risk factors.** Within the B&B AmeriCorps sample, Poisson regression analyses found that even after controlling for other factors, higher rates of substantiated recurrence were found in children who were non-White, ages 0-5, had priors within the last 5 years, had a substantiated baseline allegation at intake and who had a baseline disposition of abuse (Figure 3).
 - **Children who were higher on a vulnerability index were more likely to experience recurrence of maltreatment.** A vulnerability index was created for home visiting clients based on key covariates such as age, sex/gender, race/ethnicity, prior allegations, baseline outcome, and SDM risk assessment. Amongst B&B children with eight or more hours of service, 83% (n=146) were found to be *moderately* vulnerable, and 7% were found to be *highly vulnerable* (n=13). Recurrence rates were 5% and 8%, respectively.
 - **Service dosage mattered especially for the most vulnerable children:** Participant subgroups in the B&B AmeriCorps Home Visiting Program who received more than eight hours of program dosage had significantly ($p<0.001$) lower rates of substantiated recurrence. For instance:
 - o Amongst children with a substantiated baseline allegation, the 12-month substantiated recurrence rate was **6%** for those whose families with eight hours or more of service, compared to **18%** for families with less than eight hours of service. In other words, children with a baseline substantiated allegation are *three times more likely* to experience a new allegation in 12 months if their families have less than 8 hours of home visiting service (Figure 2).

- Amongst children with a *high vulnerability* index score, the 12 month substantiated recurrence rate was **8%** for those with eight or more hours of service, compared to **24%** of *highly vulnerable* children who had any amount of service (Figure 6).
 - Poisson regression analyses showed that even after adjusting for other covariates, the probability of experiencing substantiated recurrence was substantially lower for all subgroups with eight or more hours of service (Figure 4 and Figure 3).
2. **B&B and CPS Comparison (Quasi-experimental Design or QED):** *How do the 12-month recurrence rates for B&B AmeriCorps participants with eight hours or more of service compare to a comparison group with similar characteristics?*
- ***Children in families with eight hours or more of AmeriCorps Home Visiting service were less likely than their peers to experience maltreatment in 12 months.*** Those in the B&B AmeriCorps home visiting program with eight or more hours of service were less likely to have a substantiated recurrence during the 12-month observation window (**2.8%** of 176 children), compared to **5.1%** percent of the 176 children in the matched comparison group (Figure 9).
 - ***Amongst children with low and moderate vulnerabilities, B&B participating children were less likely than their peers to experience recurrence.*** Amongst *low vulnerability* children with eight or more hours of service, there were no (**0%**) instances of recurrence, compared to **6%** of the matched comparison group. Amongst *moderately vulnerable* children with eight or more hours of service, **2%** experienced recurrence, compared to **5%** of the comparison group (Figure 10). It appears that B&B home visiting services were more effective for those who were found to be lower on the vulnerability scale.



INTRODUCTION

The Birth & Beyond (B&B) Family Resource Center Initiative (FRC), an AmeriCorps State and National program, supports families at risk of child maltreatment with weekly home visits by AmeriCorps members. The B&B FRC initiative is governed by the Family Support Collaborative (FSC), a private/public community collaborative created in 1998 by the Sacramento County Board of Supervisors focused on reducing child maltreatment and “prevention-to-intervention-to-treatment” services to support child and family well-being.

Birth & Beyond home visiting services are coordinated through FRCs located in nine neighborhoods across Sacramento County where children are most at-risk for maltreatment. The FRCs provide culturally and linguistically appropriate services to families struggling with social and economic risk factors associated with child maltreatment, such as chronic poverty, low income, limited education, single parenthood, and lack of access to quality healthcare.

Birth & Beyond was designed as a community-based prevention strategy by the Department of Health and Human Services (DHHS), the Child Abuse Prevention Council of Sacramento, and community partners, to reduce child abuse and neglect in Sacramento County. The B&B FRC Program currently receives funding from entities such as First 5 Sacramento, the Department of Children, Family and Adult Services (DCFAS), and AmeriCorps/California Volunteers. One component of the AmeriCorps funding includes a quasi-experimental assessment every three years.

COVID-19 IMPACT

Fiscal years 2019-20 and 2020-21 were impacted by the COVID-19 pandemic, which had numerous impacts on families and community services. The COVID-19 pandemic has elevated stress levels and a need for crisis interventions for basic needs as families navigated job loss, changes in schooling and reduced access to childcare, housing instability, mental health issues and reduced social support, and barriers to access resources previously received such as CalWORKs, WIC, food banks, and more. Some families disengaged from services such as B&B home visiting due to a sense of overwhelm caused by COVID-related anxieties, uncertainty, financial strains, and competing priorities. Some families also faced barriers to virtual support services due to virtual fatigue or unreliable internet connections.¹

Similarly, support services had to pivot toward more virtual, suspended, or modified services. Programs like B&B shifted to prioritize more crisis intervention services such as providing emergency supplies via drop-offs, pick-ups, or drive through events. COVID-19’s unique and unprecedented impact has also amplified the risk factors correlated with increasing children’s vulnerability to abuse and neglect, yet CPS referrals decreased in Sacramento County, as well as other jurisdictions nationwide. Decreases, particularly during the FY 2020-21, may be a result of continued downward trends resulting from strengthening supports and prevention services for families, a result of children’s decreasing interactions with mandated reporters and adults outside of the family, or a combination of both.² Results from these analyses should be interpreted with this pattern in mind.

¹ In the current study’s sample, 191 out of 368 B&B children (52%) had a B&B intake during COVID-19. This means that their 12-month observation window and treatment services may have been impacted by the pandemic.

² ABC 10 News, “Why Sacramento County’s child abuse cases took a drop after kids left the classroom in 2020”

<https://www.abc10.com/article/news/local/sacramento/sacramento-county-child-abuse-cases/103-f6ac458d-40cd-46a6-84b2-6c4cd8f53236>

RESEARCH QUESTIONS

This evaluation seeks to understand the impact of B&B AmeriCorps home visiting participation on CPS involvement. This study seeks to answer these primary questions:

1. **Birth & Beyond Outcomes:** What percentage of B&B clients with eight hours or more of service experience a substantiated allegation of maltreatment within 12 months of intake? Taking B&B home visiting dosage, demographics, and prior CPS history together, what factors predict the likelihood of substantiated allegations within a 12-month observation period from their date of intake?
2. **Comparative Outcomes:** How do the 12-month recurrence rates for B&B AmeriCorps participants with eight hours or more of service compare to a comparison group with similar characteristics?

EVALUATION DESIGN

To answer Research Question #1 regarding B&B outcomes, this study aims to identify patterns in 12-month recurrence outcomes among B&B AmeriCorps participants, using a combination of service and CPS outcome data. To answer Research Question 2 regarding comparative outcomes, this study uses extant CPS data to conduct a quasi-experimental design (QED) to determine whether 12-month recurrence outcomes differ for children who receive B&B home visiting services compared to children who did not participate in B&B home visiting services. Because it is neither feasible nor ethical to randomly assign participants to the B&B program, all those who elect to participate in the program are accepted. A QED, therefore, limits selection bias and creates a comparison group that is similar to the treatment group. The methodology is more fully described in the section regarding Research Question 2.

■ Outcome Measures

- The primary outcome of interest is whether children whose parents had eight hours or more of home visiting experienced substantiated CPS recurrence within a 12-month observation period, and whether this rate differs for the B&B home visiting program (treatment group) or their comparison group.³

■ Demographic, CPS History and B&B Service Measures

- Demographic: Variables include child's race/ethnicity, sex/gender, and age.
- Substantiation and type of baseline referral: This variable refers to the nature of the referral that qualified the treatment and comparison group to be in this study, including whether the baseline referral was substantiated, and another identifies the type of allegation.
- Prior CPS history: This includes the total number of referrals of any kind that were made on behalf of the children in the sample prior to their baseline incidents.
- Risk level: CPS caseworkers assess clients' level of risk using the Structured Decision-Making Model (SDM). For purposes of this evaluation, SDM score was used as one of the six items for a *vulnerability score*.
- Birth & Beyond Service Dosage: Hours of service received by B&B children and their parents.

³ Defined as a CPS referral closed between March 1, 2018 and March 1, 2020. In the event of a child having more than one CPS investigation during this time, the first investigation within the timeframe will be considered the baseline CPS event.

RESEARCH QUESTION 1: BIRTH & BEYOND OUTCOMES

What percentage of B&B clients experience a substantiated allegation of maltreatment within 12 months of intake? Taking B&B home visiting dosage, demographics, and prior CPS history together, what factors predict the likelihood of substantiated allegations within a 12-month observation period from their date of intake?

B&B CHILD CHARACTERISTICS

A total of 368 children started B&B AmeriCorps home visiting between March 1, 2018 and March 1, 2020. Among them, 59% were age 0-5 and 41% were age 6-17. Slightly more than half (52%) were males. About one-quarter (26%) were Black/African American, followed by White (24%) and Hispanic/Latino (24%) children. Ninety percent of families in this sample had an annual income of \$50,000 or less, and 54% had an income of less than \$15,000, compared to just 4% of families countywide.

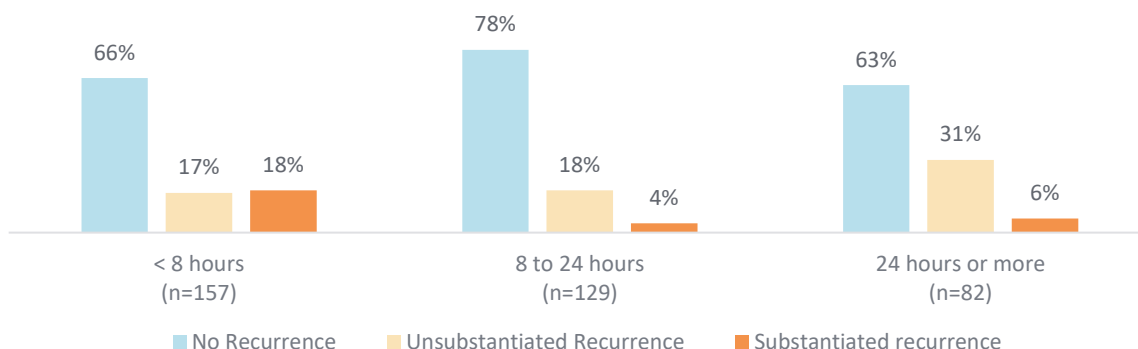
Of the 368 B&B AmeriCorps participants, about 72% were referred by CPS. For additional information on the B&B children sample characteristics, please see Appendix A.

RECURRENCE: OVERALL AND BY B&B DOSAGE

Across all children in the B&B sample, about 10% had a substantiated recurrence within 12 months of their B&B intake. This is consistent with recent annual evaluations of CPS outcomes for this population.

However, B&B service hours had a significant association with recurrence. Amongst the 368 children in the sample, 211 (57%) were in families with eight or more hours of service. As seen in Figure 1 below, substantiated recurrence was significantly lower for those who received eight hours or more of B&B home visiting service (4% for those with 8-24 hours, and 6% for 24 hours or more, or 5% overall for 8+ hours).

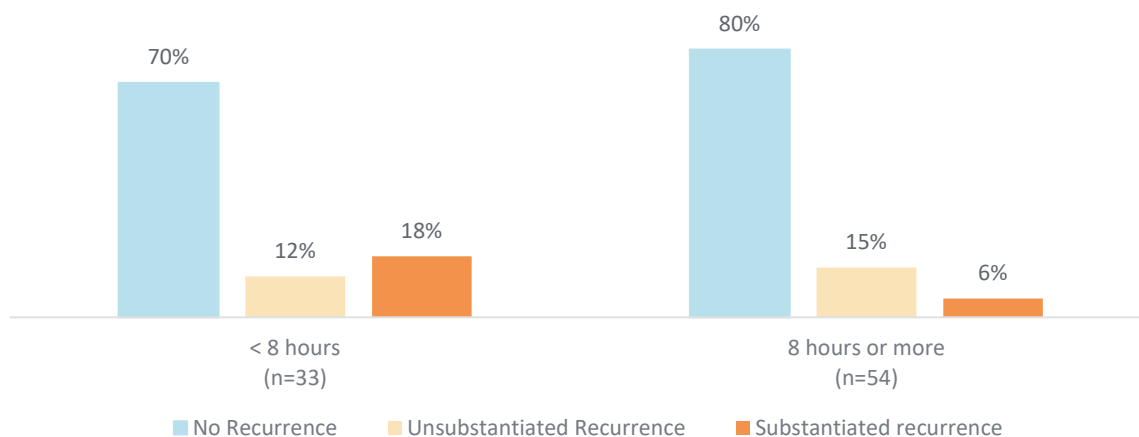
Figure 1. Recurrence by B&B Service Hours



Source: B&B 2018-2020 Program Data and CPS 2018-2020 Data; p<0.001; n=368.

The association between greater dosage and CPS outcomes also applied to those who had a substantiated baseline allegation at intake. As seen in Figure 2, **6%** of children in families with eight or more hours of service experienced a new substantiated allegation within 12 months, as compared to **18%** of children in families with less than eight hours of service. In other words, children with a baseline substantiated allegation are three times more likely to experience a new allegation in 12 months if their families have less than 8 hours of home visiting service.

Figure 2. Baseline Substantiated Allegation Cohort and Recurrence by B&B Service Hours



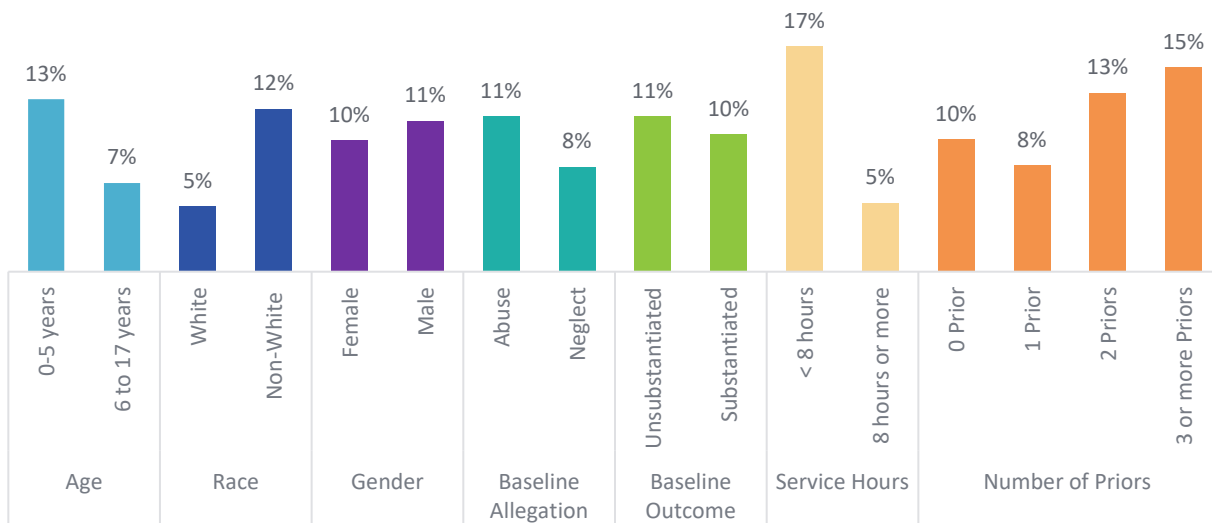
Source: B&B 2018-2020 Program Data; n=87 (substantiated baseline allegation at B&B intake).

POISSON REGRESSION PREDICTING INCIDENCE RATE RATIOS: SUBSTANTIATED RECURRENCE

A Poisson regression model was used to predict the rates of substantiated referrals during the 12-month observation window controlling for child’s age, race/ethnicity, sex, baseline referral, baseline referral outcome, service dosage hours, and number of prior allegations. The figure below highlights the predicted probabilities (margins) of substantiated recurrence by demographics and baseline disposition/outcome.

As seen in the chart, B&B children who were male, non-White, ages 0-5, had three or more prior CPS histories, had a substantiated baseline allegation, baseline allegation with a disposition of abuse, and who received less than eight hours of B&B home visiting service have a higher probability of substantiated recurrence. For instance, holding all other factors constant, 13% of children ages 0-5 experienced substantiated maltreatment within 12 months of their families' intake to the B&B Home Visiting Program. In addition, those with 8 hour or more of service had significantly lower rates (see Appendix B) of substantiated recurrence compared to those with less than 8 hours of service ($p < 0.001$).

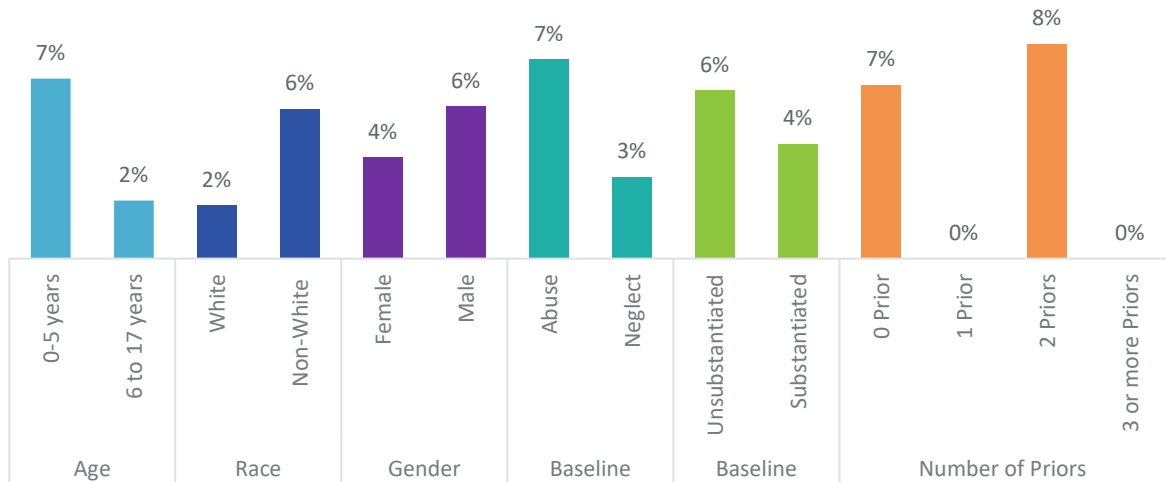
Figure 3. Predicted Probabilities of Substantiated Recurrence



Source: B&B 2018-2020 Program Data and CPS 2018-2020 Data; n=366.

When looking at the sample of B&B children whose families received eight hours or more of service (n=211), the predicted probabilities of substantiated recurrence was lower across all items. (See Appendix A for full Poisson tables). For instance, 7% of children ages 0-5 whose families had eight or more hours of service experienced substantiated maltreatment within 12 months of their families' intake to the program, as compared to 13% of 0-5 year olds whose families had any amount of service. This finding affirms the previous findings that eight hours or more of service is associated with better child welfare outcomes.

Figure 4. Predicted Probabilities of Substantiated Recurrence: 8 hours or more B&B Service



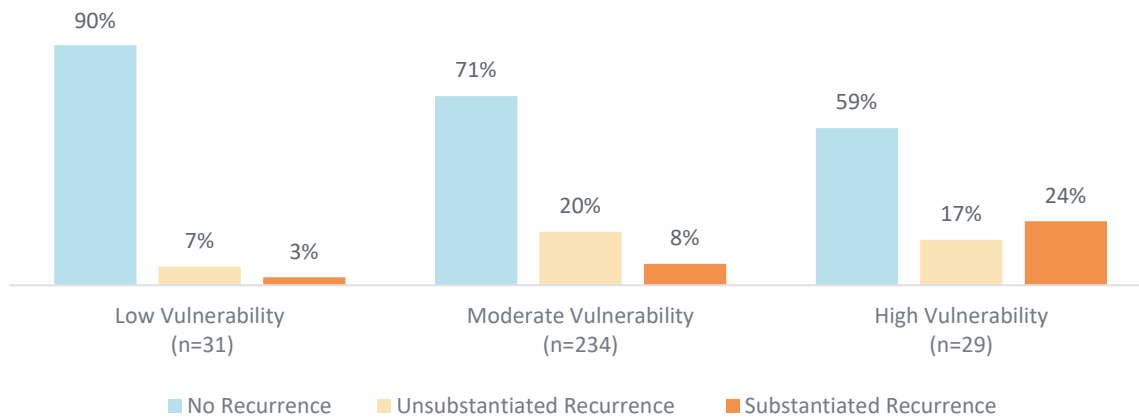
Source: B&B 2018-2020 Program Data and CPS 2018-2020; Data n=211 (8 hours or more of B&B home visiting service).

VULNERABILITY SCALE

Based on the covariates identified above, a vulnerability index was created that included 6 factors: number of prior allegations, baseline substantiated allegation, high SDM risk, being under five years of age, being male, and non-White. The vulnerability score was then recoded into categories, including *low vulnerability* (0-1 factors), *moderate vulnerability* (2-4) factors, and *high vulnerability* (5-6 factors).

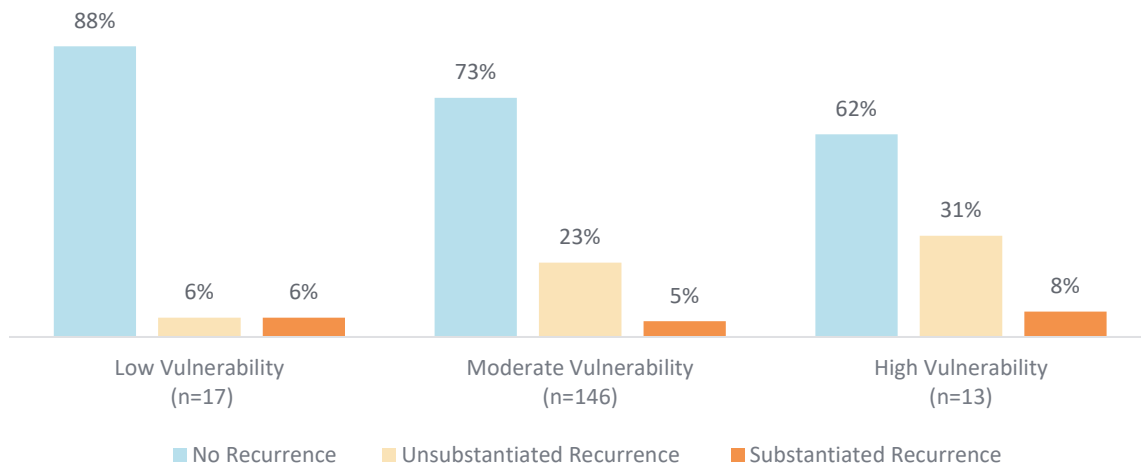
B&B children receiving home visiting services were *moderately* (80%) or *highly vulnerable* (10%); amongst those with eight hours or service or more, 83% (n=146) were found to be *moderately vulnerable*, and 7% were found to be *highly vulnerable* (n=13). As seen in the figures below, children that were *highly vulnerable* had higher rates of substantiated recurrence compared to those that are *low* on the vulnerability scale (Figure 5). However, these rates were lower amongst children whose families had eight hours or more of service (Figure 6).

Figure 5. Recurrence by Vulnerability



Source: B&B 2018-2020 Program Data and CPS 2018-2020 Data; n=294 due to missing data; p<0.01.

Figure 6. Recurrence by Vulnerability : 8 Hours or More of Service



Source: B&B 2018-2020 Program Data; total n=176 (8 hours or more of B&B home visiting service).

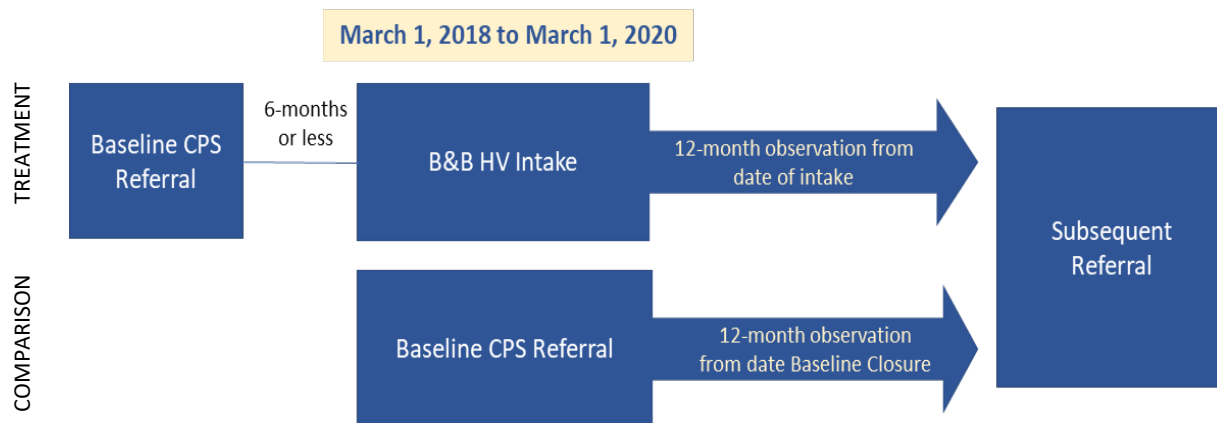
RESEARCH QUESTION 2: B&B AND COMPARISON (QED)

How do the 12-month recurrence rates for B&B AmeriCorps participants compare to a comparison group with similar characteristics?

SAMPLE SELECTION & PROPENSITY SCORE MATCHING

The quasi-experimental design (QED) portion of this evaluation compares substantiated recurrence of maltreatment between children receiving B&B AmeriCorps home visiting services and a matched set of children who had CPS involvement during a comparable time frame but did not receive B&B home visiting services.

Figure 7. Description of the Sample Inclusion Criteria and Observation Period



The research team provided Sacramento County CPS with a data set of B&B clients, including identifiers and service data, to which CPS attached baseline CPS allegations, number of priors, and CPS outcomes within 12 months and returned a de-identified file. For the comparison group, CPS also provided a deidentified data set of 20,879 cases that included all referrals to the system within the study time frame that were not opened (i.e., were not Informal Supervision or Family Maintenance/Family Reunification/Permanent Placement cases).

To analyze the QED portion of this study, ASR used a propensity score matching (PSM) technique that matches treatment cases with comparison cases through a generated vulnerability scale: number of prior allegations, baseline substantiated allegation, high SDM risk, under five years of age, males, and non-White. These intersectional characteristics have been identified in the previous section and former evaluation/research as key predictors of substantiated recurrence of maltreatment. PSM was used to decrease the likelihood of significant differences between groups for comparison purposes and to limit treatment selection bias. PSM provides the likelihood (or odds) that the individual would participate in the treatment group given observable characteristics.

The final B&B sample for this portion of the study only included those who received eight hours or more of B&B home visiting service with a vulnerability score (n=176). The following steps were taken for matching:

1. The treatment and comparison group data sets from CPS were combined into one data file with a variable that identified the data source (treatment versus comparison).
2. A vulnerability score ranging from 0-6 was generated using the six characteristics. There were 176 children in the treatment group 176 who had received eight hours or more of treatment and had valid scores for the six characteristics. The vulnerability score was then recoded into categories, including *low vulnerability* (0-1 factors), *moderate vulnerability* (2-4) factors, and *high vulnerability* (5-6 factors). This recoded variable was then used for matching so that both the treatment and comparison group had equal numbers of high/low risk cases.
3. Data were randomized for matching.
4. Using the psmatch2 command with a caliper setting of 0.001, matching was conducted using the cumulative vulnerability score.

This resulted in a total sample size of 352 children (176 in each treatment and comparison group) with a baseline CPS referral and/or B&B intake date between March 1, 2018 and March 1, 2020. As seen in the table below, this process created an exact match based on the low, moderate, and high vulnerability scores.

Figure 8. Vulnerability Scale for Propensity Score Matched Sample

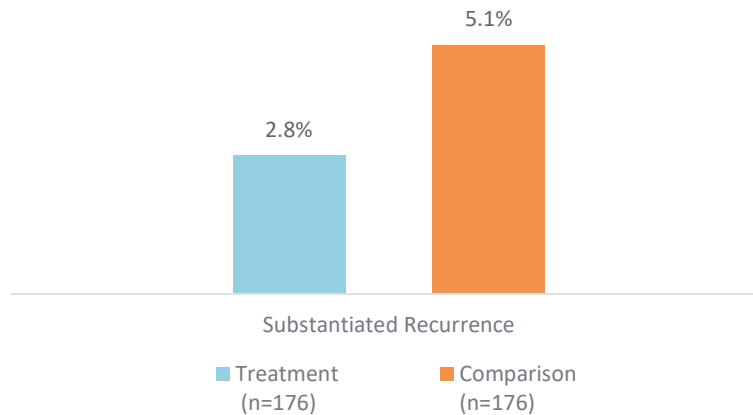
Vulnerability Scale	Treatment Group with 8 hours or more of service (n=176)	Comparison Group (n=176)
Low	10%	10%
Moderate	83%	83%
High	7%	7%

Source: B&B 2018-2020 Program Data & CPS 2018-2020 Data.

SUBSTANTIATED RECURRENCE

The B&B treatment group was found to have a lower rate of substantiated recurrence; of the 176 children in the B&B treatment group, **2.8%** percent had a substantiated recurrence of maltreatment, compared to **5.1%** percent of the 176 children in the matched comparison group.

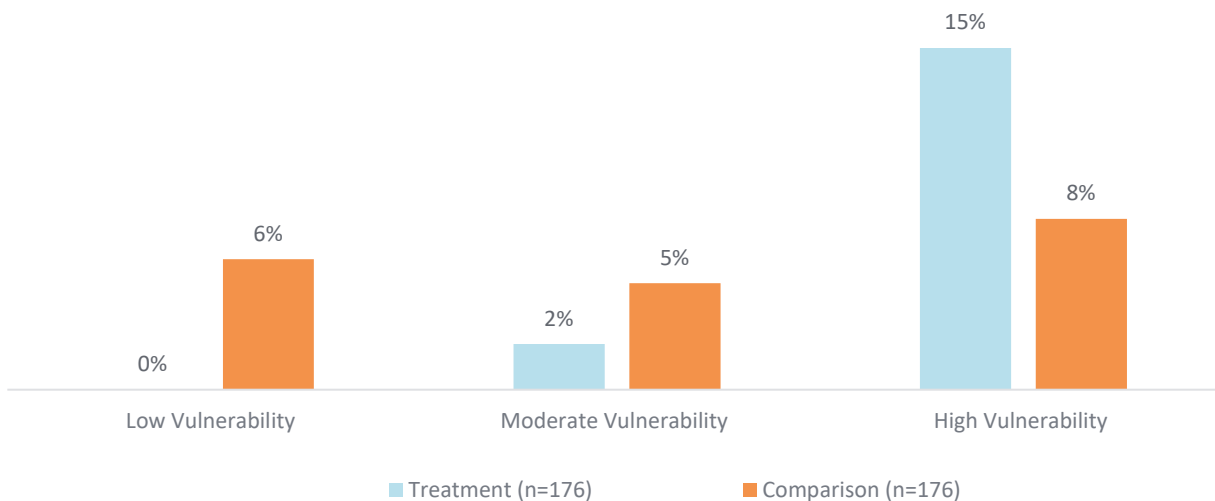
Figure 9. Substantiated Recurrence



Source: B&B 2018-2020 Program Data & CPS 2018-2020 Data.

Across the three vulnerability groups, B&B home visiting services appeared to be more effective for those who were lower on the vulnerability scale, in that they had lower recurrence rates than the comparison group; 0% vs. 6% amongst the *low vulnerability* group, and 2% vs. 5% the *moderate vulnerability* group, respectively.

Figure 10. Substantiated Recurrence, by Vulnerability Scale



Source: B&B 2018-2020 Program Data & CPS 2018-2020 Data.

CONCLUSION

In past evaluations, the B&B cohort is characterized by factors that render them to be higher risk than the CPS comparison group. This included the CPS-assessed risk level, their younger age, and perhaps most importantly, their prior CPS referral history. In this current study, these characteristics were controlled through a Propensity Score Matching (PSM) process which identified the odds of a child being in the treatment group given the high-risk profiles (vulnerability scale).

The findings reported here suggests that on average, **B&B clients that are receiving eight hours or more of service have lower rates of recurrence overall.** Secondly, when compared to the comparison group, we found that **children whose families received eight hours or more of B&B service dosage experience lower rates of substantiated recurrence compared to the CPS comparison group.**

LIMITATIONS

Data limitations: The research literature identifies several social and economic factors that contribute to the risk of recurrence, including chronic poverty, housing stability, childhood trauma among perpetrators, mental health, substance use, and the like, which would substantially improve our ability to understand the factors that predict recurrence and how to address them. However, data we had access to did not include many measures on background characteristics that may have an impact on recurrence. Additionally, SDM risk assessment was significant in predicting recurrence but had missing data.

Additionally, while PSM controls for some variation between the treatment and control groups in terms of more vulnerable children, statistical controls cannot account for “unobserved heterogeneity,” which refers to the variety of different ways in which confounding factors that are not measured (and perhaps not measurable) could nonetheless be influencing outcome.

Retrospective design: This study only compares B&B clients to a CPS comparison group retrospectively. During the observation window for this study, there were also low rates of substantiated recurrence. Therefore, it was difficult to establish a significant finding. There will always be some factors that are unmeasured and unmeasurable, which makes the case for additional data collection by both CPS and B&B even more important.

RECOMMENDATIONS

Increase engagement and retention of clients: This study indicated a clear pattern of differential outcomes based on amount of B&B service received. Of the 368 B&B AmeriCorps home visiting clients, 57% (n=211) received eight hours or more of service—who are the 43% (n=157) not receiving eight hours or more of service, and why? Of those 157 who received less than eight hours of service, 66% declined further service (n=39) or had “no contact per contact policy” (n=65). Additionally, only 26% of B&B clients completed the program as planned and 32% of clients have incomplete exits from the program from “no contact per contact policy.” While some lost contact may be unavoidable, B&B should review and improve its practices for initial engagement and make programmatic refinements to reduce attrition.

Address needs of highly vulnerable families: This study also indicated a pattern of differential outcomes based on level of client vulnerability. CPS may use the items in the vulnerability scale as a “screen” to determine whether a client family should be closed and referred to community services such as B&B. B&B in turn can use the same vulnerability screen upon intake, and provided a differentiated, more intensive level of support for such families so they can benefit from the program.

Improve data availability: Related to the issues noted in the Limitations section above, we don’t know enough about these clients. Do these children experience other ACEs or have unmet needs around childhood trauma? Are there parental behavioral health needs present? Additionally, SDM assessment seems to be a significant predictor of recurrence. Therefore, having reliable and consistent ways to gather data from this assessment may contribute further to the vulnerability scale.

Continue testing and refining the vulnerability scale: The vulnerability scale was used to illustrate the intersectional characteristics that can impact recurrence—rather than race, sex, priors, etc. alone, these items come together and may have an additive effect on recurrence. However, this scale should be tested on more data—maybe covering more years to increase the sample with substantiated recurrences for more robust and significant results.

APPENDIX A: B & B DEMOGRAPHICS

A total of 368 children started B&B AmeriCorps home visiting between March 1, 2018 and March 1, 2020 following a CPS referral (no more than six months prior to their intake date). Among them, 59% were age 0-5 and 41% were age 6-17. Slightly more than half (52%) were males. About one-quarter (26%) were Black/African American, followed by White (24%) and Hispanic/Latino (24%) children. The B&B population includes a higher proportion of Black/African American of children under 17, compared to countywide estimates (11%).⁴ More than half (54%) of the families of children in the B&B group had an annual income below \$15,000 a year. Ninety percent of families in this sample had an annual income of \$50,000 or less – well below the countywide median of \$67,292.⁵

Figure 11. B&B Sample Characteristics Table

	B&B AmeriCorps(n=368)	Countywide (2020) ⁶
Age		
0-5 years	59%	31%
6-17 years	41%	69%
Sex		
Female	48%	49%
Male	52%	51%
Race		
Asian/Pacific Islander	11%	16%
Black/African American	26%	11%
Hispanic/Latino	24%	30%
White	24%	38%
Multiracial	13%	6%
Other	2%	0.5%
Family Income⁷		
<\$15,000	54%	4%
\$15,001-\$25,000	24%	6%
\$25,001-\$50,000	12%	18%
\$50,001-\$75,000	6%	17%
\$75,001-\$100,000	3%	14%
Over \$100,000	1%	41%

⁴ KidsData.Org 2018 (10.5%), 2019 (10.5%), and 2020 (10.6%) estimates.

⁵ KidsData.Org, 2017 most current estimate. Reflects median income of families with children.

⁶ County estimates based on KidsData.Org 2020 (N = 368,364). Race/Ethnicity counts should be interpreted with caution as categories differ between sources. Countywide estimates exclude 5.6% reported as Multiracial.

⁷ B&B Family Income n = 274 due to missing data; Countywide income estimates based on families; US Census Bureau Table S1901, <https://data.census.gov/cedsci/table?q=income%20&g=05000000US06067&tid=ACSS1Y2019.S1901&hidePreview=true>

Source: B&B 2018-2020 Program Data; n=368.

The following table describes B&B AmeriCorps children’s CPS involvement. Two-thirds of participants’ baseline referrals were for general neglect, followed by almost a quarter of referrals for physical abuse. In total 24% of baseline referrals had a substantiated outcome, among children who subsequently had an intake in the B&B home visiting program. Of the 368 B&B AmeriCorps participants, about 72% (264) were referred by CPS. Almost one-third (30%) of children with at least one B&B AmeriCorps home visiting session following their CPS baseline had a subsequent referral within 12 months. In total, 10% had a substantiated allegation within 12 months of their B&B intake.

Figure 12. B&B CPS History & Recurrence – All Service Dosage Levels

	B&B AmeriCorps (n=368)
Baseline Referral Disposition	
Sexual Abuse	3%
Severe Neglect	1%
Physical Abuse	22%
General Neglect	66%
Emotional abuse	8%
Baseline Referral Outcome	
Substantiated	24%
Unsubstantiated	76%
CPS Recurrence within 12 months of intake	
No Recurrence	70%
Unsubstantiated Recurrence	20%
Substantiated Recurrence	10%
Average Number of Prior Allegations in the last 5 years	2.02

Source: B&B 2018-2020 Program Data and CPS 2018-2020 Data; n=368.

APPENDIX B: B&B POISSON MODELS

	Incidence Rate Ratios (IRR)	95% Confidence Interval
Age ^a		
0-5 years	1.94	0.93-4.05
Sex ^b		
Male	1.15	0.64-2.07
Race ^c		
Non-White	2.48	0.91-6.74
Baseline Allegation ^d		
Abuse	0.68	0.32-1.42
Baseline Outcome ^e		
Substantiated	1.13	0.57-2.27
Service Dosage Hours ^f		
8 hours or more	0.30***	0.16-0.60
Number of priors ^g		
1 prior	0.80	0.36-1.77
2 priors	1.35	0.53-3.46
3 or more priors	1.54	0.77-3.10

Source: B&B 2018-2020 Program Data and CPS 2018-2020 Data; n=366;
 Reference Groups: ^a6-17 years; ^bFemales; ^cNeglect; ^eNot Substantiated ^fLess than 8 hours of service; ^g0 priors; ***p<0.001.

	Incidence Rate Ratios (IRR)	95% Confidence Interval
Age		
0-5 years	3.10	0.60-16.03
Sex		
Male	1.50	0.45-4.99
Race		
Non-White	2.79	0.38-20.50
Baseline Allegation		
Abuse	2.43	0.70-8.40
Baseline Outcome		
Substantiated	1.47	0.49-4.42
Number of priors		
1 prior	0.00***	-
2 priors	1.23	0.25-5.94
3 or more priors	0.00***	-

Source: B&B 2018-2020 Program Data and CPS 2018-2020 Data; n=366;
 Reference Groups: ^a6-17 years; ^bFemales; ^cNeglect; ^eNot Substantiated ^fLess than 8 hours of service; ^g0 priors; ***p<0.001