Washington State IV-E Waiver Demonstration Project

Family Assessment Response Final Evaluation Report

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TriWest
Health + Human Service Evaluation + Consulting
4450 Arapahoe Avenue, Suite 100, Boulder, CO 80303

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For more information, contact Tonya Aultman-Bettridge:
taultman-bettridge@triwestgroup.net

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1 Executive Summary

1.1 Report Description

This report provides TriWest Group's (TriWest) final evaluation of Washington State's Title IV-E Waiver Demonstration Project, Family Assessment Response (FAR). FAR is a differential response pathway for screened-in allegations of abuse and neglect as an alternative to traditional Child Protective Services (CPS) investigations conducted through the Department of Children, Youth, and Families (DCYF). Our evaluation began in January 2014, and it concludes on July 1, 2019, with the submission of this report.

In this Executive Summary, we present brief descriptions of the FAR program, our evaluation, key findings, and select recommendations. The remaining chapters, as listed below with chapter numbers in parentheses, provide detailed expansions of these items:

- **Introduction and Overview (2)**. Background and context on FAR and its participants
- **Evaluation Framework (3)**. Theory of change, logic model, and overview of data sources and methodological approaches
- **Process Study (4)**. Description of FAR's services, major activities, and policies, including findings on nine research questions and fidelity
- **Outcome Study (5)**. Outcomes derived from quantitative data on determining how the FAR implementation affected child well-being, removal rates, and re-referral rates
- **Cost Study (6)**. Description of the fiscal impact of FAR on DCYF services, offices, and other aspects based on office-level and family-level analysis
- **Summary (7)**. Summary of the evaluation report, including key research questions, the overarching research methodology, and major findings.
- **Supporting Documents Appendix (8)**. Supplemental materials referenced elsewhere in the report.
- **Technical Appendix (9)**. Expanded methodologies, analysis, and results.

1.2 Evaluation Overview

The original framework of Washington State's Title IV-E Waiver Demonstration Project, Family Assessment Response (FAR), outlined steps DCYF would take to focus child welfare resources on the following four areas in order to improve outcomes for safety, permanency, and well-being:

- **Increased connections** with extended family, natural supports, and community to enhance child safety by engaging families outside the traditional investigative process.
- **Provision of concrete goods and services** to support families, safely prevent placement in out-of-home care, safely reunify children with their families, and improve child and family well-being.
- **Expanded use of evidence-based practices** to provide targeted interventions that effectively address the needs of children and their families, improve child safety in the home, prevent out-of-home placement, and increase child and family well-being.
- **Expansion of Washington State's practice models**, specifically, Solution Based Casework[1] and the Safety Framework.

Our evaluation comprises three main components: a process evaluation, an outcome evaluation, and a cost study. Each component allows the evaluation to answer different questions about the implementation and how FAR did, or did not, improve outcomes for safety, permanency, and well-being. In doing this, we also address the four focus areas listed above.

The **process evaluation** ("Process Study") includes efforts to describe program implementation, including policy and procedure impacts at the state and individual-office levels. Among other data sources, we relied on key informant interviews, FAR family surveys, and administrative casework data. Additionally, the process evaluation provides a by-office rating of fidelity for each DCYF office in the state. The **outcome evaluation** ("Outcome Study") uses a comparison group design, comparing families who received FAR to a propensity-score-matched comparison group of families who were eligible for FAR but did not receive it. These analyses focused on questions about FAR outcomes, such as the program's impact on removal and re-referral rates, service provision, and family-level costs of DCYF purchased goods and services. Finally, the **cost/fiscal study** ("Cost Study") considers the effect of FAR on the costs of operating field offices, including all costs of serving families. This portion used a panel data structure, with 13 six-month time periods for each of 46 field offices. This approach allowed us to observe the change in cost of servicing families as each office transitions from pre to post FAR while controlling for numerous variables and characteristics. The study provides analysis for both office-level and family-level outcomes.

[1] DCYF made changes to practice models during the FAR implementation. These changes are discussed in the Implementation section of this report.

1.3 Major Evaluation Findings

Complete findings are presented throughout the major portions of this evaluation. Below, we present abbreviated findings from each of the three major analytical portions of the study (i.e., Process Study, Outcome Study, Cost Study). These findings are direct responses to the research questions guiding each of the evaluation's three major portions.

1.3.1 Process Evaluation Findings

Our process evaluation responds to nine process research questions (PRQs), presented below.

PRQ1. How was FAR Implemented across the state? Describe the implementation process and family enrollment into FAR. FAR was implemented through a 10-phase rollout process beginning in January 2014 and concluding in June 2017. During each phase of the rollout, DCYF trained and supported select offices for FAR implementation. TriWest used the phased rollout to create treatment and comparison groups.

PRQ2. How did FAR and investigative office staff (administrators, supervisors, case workers) view their office preparedness for FAR implementation? Key informant interviews suggest strong agreement that offices, on average, were prepared for implementation. Administrators tended to be prepared at slightly higher rates than FAR caseworkers were. Investigative caseworkers were least likely to agree that they were prepared for implementation. Caseworkers generally were able to find information and administrative support for their questions related to FAR implementation.

PRQ3. How did FAR and investigative office staff (administrators, supervisors, case workers) describe how implementation affected CPS casework? On average, office staff reported only minor detrimental effects on CPS casework. Staff tended to agree with the FAR approach, with strongest support coming from administrators, second highest from FAR caseworkers, and investigative caseworkers showing lowest support. Families stated that their experiences with DCYF was improved or unchanged after FAR, relative to earlier experiences.

PRQ4. How did FAR implementation affect family engagement? From the DCYF perspective, FAR increased the degree and quality of partnering with families. Families, likewise, report high levels of engagement and inclusion, noting that caseworkers tend to include family perspectives in casework.

PRQ5. Were families satisfied with their experiences with FAR? Families indicated high levels of satisfaction with caseworkers. They expressed that they received helpful guidance, were respected, and found caseworker help to be both beneficial and satisfying.

PRQ6. How did FAR implementation affect service delivery? Availability of services? DCYF personnel noted increases in DCYF-funded services, concrete goods, and community services. DCYF services were least affected; concrete goods were most affected. Based on averages across all offices, fewer than 10% of high-risk FAR families received an EBP whereas nearly 39% of these same families received some form of in-home service.

PRQ7. Did families view services received through FAR as helpful? Caseworkers provided help in multiple forms, including services (community and DCYF-funded). Families who received some level of help indicated that help was overwhelmingly beneficial and sufficient.

PRQ8. What was the level of fidelity of implementation of FAR in each FAR office? Offices exhibited widely varying levels of fidelity to the FAR model, though all offices tended to have lower levels of fidelity after the initial scoring year (2015). The annual fidelity score for the aggregate of all offices was highest (51%) in the first year of scoring (2015). This level declined sharply the following year (39% in 2016) and plateaued in the third year (41% in 2017).

PRQ9. What contextual factors have had or may have a bearing on the replicability of the intervention or the effectiveness of the demonstration? Phased rollout permitted DCYF to address needs within the FAR model, including changes in training, delivery, and services. Greatest concerns are in the need to improve how services, especially EBPs, are provided to families. The extension of FAR case length may both improve service delivery and improve fidelity.

1.3.2 Outcome Evaluation Findings

Our outcome evaluation responds to four outcome research questions (ORQs), presented below.

ORQ1. Does the FAR pathway reduce the number and proportion of any child entering out-of-home care during participation and at 12, 24, and 36 months following case closure? According to our matched comparison analysis, FAR does reduce the probability of removal. For measures at 3, 6, 12, and 24 months after intake, this reduction is statistically significant. The estimated reduction in the probability of removal is approximately 17% at 12 months. For the 36-month period following case closures, the same process reveals reduced likelihood of removals because of FAR. However, findings for the 36-month period are not statistically significant, meaning we have low confidence in the reliability of those specific estimates.

ORQ2. Does the FAR pathway reduce the number and proportion of repeat maltreatment allegations (re-referrals) during participation and at 12, 24, and 36 months following case

closure? Based on the comparison of FAR to FAR-eligible investigative families, FAR appears to increase accepted re-referrals, which runs contrary to our expected outcomes. However, these re-referrals are disproportionately FAR eligible, reflecting lower levels of risk and indicating that FAR appears to limit the escalation of maltreatment.

ORQ3. Does the FAR pathway impact child and family well-being in the domains of behavioral and emotional functioning, social functioning, cognitive and academic functioning, and physical health and development? Because the original evaluation tool designed for measuring well-being was discontinued at the beginning of the evaluation, we developed an alternative method using proxy data. This method showed little difference in well-being measures between the FAR and comparison families. These results suggest that FAR had little impact on well-being. However, they also suggest that FAR places no greater safety risk for families than non-FAR approaches.

ORQ4. What is the impact of implementation of the FAR pathway on disproportionality within the child welfare system? We examined disproportionality with a very focused scope. Although several system decision points can cause or exacerbate disproportionality, our analysis was limited to considering disproportionality in (1) families assigned into FAR rather than the investigative pathway at intake and (2) families agreeing to participate in the FAR intervention. This focus allowed us to isolate two key points where FAR could potentially exacerbate system disproportionality issues. For most of our evaluation, families designated as "Native American" or Washington State Tribe" disproportionally declined FAR participation. However, in the first cohort of 2018, following the Washington Legislature's removal of the FAR Agreement, rates of these families declining FAR aligned closely with average decline rates. However, throughout the initiative, Native American families were assigned to FAR at lower rates largely as a result of FAR ineligibility caused by many of these families having higher numbers of previous intakes.

1.3.3 Cost Evaluation Findings

Our cost study responds to two cost research questions (CRQs), presented below.

CRQ1. Has implementing the FAR pathway cost the state of Washington more or less than continuing with the investigative pathway? Increase or decrease of costs vary by specific expenditure category. Analysis of DCYF-purchased goods and services for FAR and matched comparison families demonstrates a statistically significant decline in expenditures for FAR families. This analysis excludes all costs that are not direct purchases (e.g., social worker labor costs). Office-level analysis of all costs related to serving families also shows a decrease in costs after implementing FAR, but these results are not statistically significant.

CRQ2. How has the timing and types of costs shifted as the result of FAR? Analysis of matched FAR and comparison families shows an increase in expenditures on FAR families during the first six months after intake. But by 12 months, FAR families have lower total expenditures, and the estimated savings from FAR continues to increase at 24 and 36 months after intake. These results are statistically significant. FAR therefore seems to increase expenditures on families initially but reduces expenditures over time.

Analysis of expenditure at the office level do not show any statistically significant change resulting from adoption of FAR, in either total costs, or any of the subcategories of cost we analyzed. Point estimates of total costs show a decline after FAR implementation. Specific subcategories such as caseworker or removal-related costs have either increases or decreases after FAR implementation. However, the small magnitude of the average change and underlying variability in office-level data do not allow us to conclude FAR resulted in cost increases or savings in any category.

1.4 Implications and Recommendations

Over the course of the implementation and evaluation, several findings emerged. Among these is that FAR largely succeeded in some significant areas, had modest changes in others, and has room for growth in still others.

Perhaps the most notable successes are those findings derived from key informant interviews and family surveys on the way that FAR has allowed caseworkers and families to work more closely as partners. As noted in the Process Study, caseworkers largely embraced some key principles of FAR, including the opportunity to provide non-adversarial case work and services to help families improve and avoid escalation and removals. These lead to the following recommendations:

- Caseload levels vary by office, but most offices exceed the recommended level: that caseworkers have 15 cases at any one time. Reduction in caseload levels should be prioritized since improved caseload levels (1) improve fidelity to the FAR model, (2) allow greater opportunity for family engagement, and (3) may decrease caseworker turnover.
- Families who received services tended to note that services were both sufficient to meet their immediate needs and helpful in providing new perspectives and skills. As such, additional training and information-gathering for caseworkers on available services may be beneficial. That office-level support should then carry into family engagement as workers are more equipped to guide and align families to services.
- The loss of the FAR leads following implementation was often cited by caseworkers as detrimental to maintaining strong communication between offices and local services and providers. Administrators may need to consider approaches to both maintain and

develop liaisons between offices and community. Furthermore, this work may improve understanding among mandatory reporters (e.g., schools).

- With the extension of FAR case length, we expect the use of all services, including EBPs, to increase. Continued emphasis on these expanded opportunities should be presented to families.
- The delivery of concrete goods was often a point of significant excitement, both for caseworkers—who remarked that they felt empowered—and for families—who commented that they appreciated receiving practical help. Offices and administrators may consider ways to share creative and successful approaches to delivering concrete goods. They may also consider sharing approaches for handling situations in which some families may expect or rely on concrete goods when services or community connections may be more beneficial in the long run.

Findings in the Outcome Study also pointed to areas of both success and continued need. Perhaps the largest success is the reduction of removals that result from FAR. However, the expectations that re-referrals would reduce did not occur. Initial findings show that FAR had little effect (negatively or positively) on safety and well-being, even with lower removals, which indicates that the removals avoided through FAR did not negatively impact child safety. Disparity concerns around access to FAR from previous reports appear to be improving, after substantive programmatic changes were made (i.e., the elimination of the FAR Agreement). However, some concerns remain regarding the lower rates (relative to the average rate for all FAR families) of Native American families assigned to FAR versus the investigative pathway.

- Consider whether some of FAR's emphasis on non-adversarial engagement with families may provide training opportunities and approaches that could also lead to reduced removals in investigative situations.
- More examination is needed on the nature and cause of increased re-referrals with FAR. Some caseworkers and administrators suggest that these increases may result from increased exposure of families to services (where, prior, they may not have been as noticed by mandatory reporters). In this case, re-referrals may indicate positive signs that families are getting more help, especially because FAR re-referrals tend to not escalate into more severe situations. In other cases, they may point to the need for greater communication with reporters on the nature of FAR (i.e., that is still a CPS response, not a voluntary service option).
- Rates of Native American families declining FAR show signs of significant reduction in disproportionality in access to FAR following the removal of the FAR Agreement relative to decline rates observed early in the program. Initially, Native American families declined participation at much higher rates than other families. After elimination of the FAR Agreement, the proportion of Native Americans refusing to participation dropped significantly. The decline rate is now similar to rates of decline for families of other races/ethnicities. However, some concerns remain over lower rates of assignment to

FAR for Native American families as an alternative to the investigative pathway. The disproportionate rate of assignments appears to be driven by these families' higher number of prior CPS intakes at the time of the decision to assign a new intake to FAR (FAR establishes a threshold for prior CPS intakes that, if reached, removes family eligibility for FAR).

- Some offices reported having low levels of community services for families whose primary language is not English. Continued observation and sensitivity to the diverse cultural needs of families should remain a high priority.

The Cost Study points to similar concerns about the delivery of EBPs and caseworker caseload levels.

- In addition to the aspects mentioned above, we recommend consideration of how services are recommended. A shift from a risk-based tool for decision-making toward a needs-based tool may improve both the quantity of EBPs, and other services, delivered and the applicability of those services.

Finally, although this evaluation answers several questions about the characteristics of FAR and its impact on local communities, it also introduces questions for ongoing monitoring or future evaluation.

- Initial indicators show that FAR, despite its lower level of removals, does not increase safety risks. Ongoing monitoring should consider how to better track safety. Likewise, future evaluations may consider designing and prioritizing assessment systems for measuring safety risks and concerns.

1.5 Changes to the Demonstration

One change affected both the demonstration and our overall evaluation design: an adjustment to our initial methodology for measuring child and family well-being. The original design for FAR implementation included the use of the Child and Adolescent Needs Scale (CANS) to help in case and service planning. Not only was the CANS intended as a basis for caseworker planning, we designed the evaluation to use this tool to measure changes in needs as a proxy measure for well-being. However, caseworkers expressed high levels of dissatisfaction with the tool, and it was never fully implemented. As a result, the evaluation utilized a different measure of well-being and caseworkers relied on different methods and tools for case and service planning.

In addition, Washington State temporarily withheld FAR funding during the 2015 legislative session. This pause had potential effects on the program and evaluation, some of which are addressed briefly in the Outcome Study.

During the first two years of FAR implementation, DCYF considered adjustments to which cases should remain FAR eligible. One such adjustment to the FAR model was the decision to move families (regardless of risk) out of FAR eligibility if the intake involved a physical abuse allegation of a child aged three years or younger.

Finally, the Washington State Legislature made two important changes based on early evaluation findings. First, legislation passed in October 2017 eliminated the requirement that families sign a "FAR Agreement" in order to participate. Second, in 2018, the legislature extended case duration for cases in which services were being provided to 120 days.

2 Introduction and Overview

2.1 Background and Context

In March 2012, Engrossed Substitute Senate Bill 6555 was signed into Washington State law. This law required Department of Children, Youth, and Families (DCYF)[2] to implement a differential response system. This system would provide an alternative pathway for families, with accepted reports of child abuse and neglect, who have a low-to-moderate risk of future child maltreatment. This alternative response (AR)—**Family Assessment Response (FAR)**—was coupled with the approved Title IV-E waiver, which provided federal funding flexibility.

The state's intent was to leverage the waiver's funding flexibility to reinvest Title IV-E funds into interventions that would support major reform of the child welfare system. Reform, then, would change practice when families first come to DYCF's attention: FAR engages families and addresses the basic needs of children to stabilize and strengthen the family unit, improve child and family well-being, and safely prevent out-of-home placements.

The particular design and implementation of Washington's FAR model was informed by other states' AR models and findings. To provide context for evaluation findings concerning the implementation and preliminary outcomes of FAR, we at TriWest Group (TriWest) reviewed evaluations of AR efforts in six other states: Colorado, Illinois, Minnesota, Missouri, Nevada, and New York. We chose these states for their respective programs' similarities to the Washington FAR model and for the availability of similar process and outcome measures. We used findings from these programs to inform our evaluation work and to discuss findings with Washington FAR stakeholders.

[2] The program and evaluation, as originally implemented, was conducted through the Department of Social and Health Services (DSHS) Children's Administration (CA). In July 2017, Washington State Governor, Jay Inlsee, signed House Bill 1661, creating Department of Children, Youth, and Families (DCYF). In July 2017, CA was dissolved and redefined as part of DCYF. Throughout this report, we refer to DCYF as the party responsible for all aspects of the FAR program.

Our literature review and other considerations focused on the following three aspects:

- Program structure, including scope, jurisdiction, intakes, program eligibility, and the structure of the intervention
- The evaluation, including sampling methodology and evaluation design
- Demonstration outcomes, including re-referral rates, removal rates, caseload and case length data, service provision, and costs of the demonstration.

Based on these findings, the aims and context of Washington State's FAR program, and our experience in other large-scale evaluations, we developed an evaluation that would measure and inform the state's attempt to increase family engagement, reduce removals, and improve child and family well-being.

2.2 The Purpose of the Waiver Demonstration

Washington State's Title IV-E Waiver Demonstration Project focuses on the implementation of Family Assessment Response (FAR), a differential response pathway for screened-in allegations of abuse and neglect as an alternative to traditional Child Protective Services (CPS) investigations. The original FAR framework outlined specific steps to be taken by DCYF to focus child welfare resources on four areas in order to improve outcomes for safety, permanency, and well-being:

1. **Increased connections with extended family, natural supports, and community to enhance child safety** by engaging families *outside the traditional investigative process*. By offering services and support without a formal "finding" regarding child abuse or neglect, the state hopes families will be more open to accepting services.
2. **Provision of concrete goods and services** to support families, safely prevent placement in out-of-home care, safely reunify children with their families, and improve child and family well-being.
3. **Expanded use of evidence-based practices** to provide targeted interventions that effectively address the needs of children and their families, improve child safety in the home, prevent out-of-home placement, and increase child and family well-being.
4. **Expansion of Washington State's practice models,** specifically, Solution Based Casework[3] and the Safety Framework.

2.3 Target Population(s)

2.3.1 Primary Target Population

FAR focuses on children and their families who are reported (and screened in) to CPS for neglect and low-to-moderate physical abuse with a non-emergent, 72-hour response time.

[3] DCYF made changes to practice models during the FAR implementation. These changes are discussed in the Implementation section of this report. DCYF moved away from SBC late in the FAR implementation.

- Low-to-moderate risk allegations of child neglect and physical abuse that do not indicate that the child's safety is in immediate danger.
- Initial face-to-face contact with the children for non-emergent cases must occur within 72 hours. Emergent cases will all be assigned to an investigative response.
- Involve families with minimal recent CPS involvement (if a family has had more than three CPS investigations or FAR interventions in the previous year, they are assigned for an investigation).

2.3.2 Population Needs and Challenges Addressed

A significant focus of the FAR approach was considering ways to improve the state's foster care program and reduce out-of-home placements. As such, one challenging population FAR was designed to address was families who traditionally would have gone into foster care. According to the state's 2012 assessment of its foster care entitlement program, the program struggled to improve because funds were prioritized for eligible children and youth already in placement. Although this prioritization was understandable, it left minimal funding for pursuing prevention approaches. As a result, DCYF faced reduced ability to provide families with services and support that might prove to be better, more-effective solutions for foster-eligible families.

Additionally, for all levels of risk and need, DCYF recognized limitations on how it could best meet diverse and particular needs that improve family well-being. The pre-FAR system contained gaps in both services and in ways of evaluating or locating need. These deficiencies restricted families from broader access to concrete goods, support services, and evidence-based practices across the system.

The FAR model was an attempt to consider these limitations and to improve the full DCYF approach to provide better, more-informed training for workers within the child welfare system. This training proposed to create better staff specialization with a result of helping serve families with varying need or risk levels with more-targeted approaches. Furthermore, the training, specialization, improved services, and focus on prevention would allow for a reduction in out-of-home placement, ultimately helping to address both the high-level needs of foster-eligible populations and the low- or moderate-level needs of families who could escalate into more intensive needs.

2.4 Interventions and Components

The FAR intervention components can be grouped into four main areas: caseworker training, family assessment, provision of goods and services, and family engagement. We provide a logic model, showing how these areas connect and relate to the evaluation, in Chapter 3.

Caseworker Training

Caseworker training was an integral component of FAR and has undergone several stages and adjustments. Training was intended to be cooperative, with DCYF viewing FAR training as a partnership between DCYF and the Alliance for Child Welfare Excellence. Early in the process, DCYF asked FAR caseworkers and supervisors to provide feedback about how to improve and strengthen training; feedback was then reviewed and used to adjust curriculum. Some of these areas for improvement included changes to language or policy. For example, some misunderstandings led caseworkers and administrators to view FAR as a program distinct from CPS activities (i.e., caseworkers would often depict pathways as being either FAR or CPS). In other cases, DCYF reported that FAR caseworkers often believed they were required to seek a parent's permission before seeing and interviewing their children.

In January 2015, DCYF adjusted FAR training schedules. These changes included additional focused coaching opportunities with the training. As a result, the DCYF FAR Team provided two days of training to all new FAR caseworkers, giving FAR caseworkers and supervisors the opportunity to meet and develop connections with other FAR staff statewide. These trainings also created opportunities for attendees to be introduced to the basics of FAR, including legal and policy requirements, practice expectations, presentations from parents who have had prior experience as clients of the department, fatherhood engagement, and the various screening and assessment tools. Also in 2015, training included information on the family surveys[4] and asked caseworkers to encourage their families' participation.

Training, until full statewide FAR implementation, generally focused on offices rolling out[5] in each phase. Once implementation was complete, gaps in training became apparent, especially as a consequence of caseworker turnover and transfer. As a result, DCYF instituted new rounds of training in July 2017 aimed to refresh FAR training for existing workers and to provide training for workers who have joined offices after those offices received their initial rollout training.

Family Assessment

FAR implementation and evaluation benefited from the development and implementation of two distinct Structured Decision-Making (SDM) tools: an intake tool and a risk assessment tool.

- **SDM Intake Tool**: The Washington State Department of Children, Youth, and Families (DCYF) worked with the Children's Research Center (CRC) to develop an SDM Intake Tool designed to determine which families are eligible for FAR. This tool guides intake workers through a series of questions aimed to designate whether an allegation of child

[4] Family surveys are discussed in-depth in the Process Study chapter.

[5] "Rolling out" and "rollout" refer to the incremental implementation of the FAR approach across Washington State. We provide a detailed discussion of this approach in Chapter 3.

abuse or neglect aligns with definitions in state statute. If a case screens in for a CPS response, the SDM Intake Tool helps intake staff determine whether an investigative or a FAR response is appropriate for the family.

- **SDM Overall Risk Assessment Tool**: An existing SDM Overall Risk Assessment Tool has also been utilized in both FAR and investigative pathways to help determine family risk factors and needs for services.

In October 2013, DCYF trained intake staff in the implementation of the FAR pathway. The SDM Intake Tool was fully implemented statewide at that time, and FAR eligibility was determined for all screened-in intakes regardless of whether an office had begun FAR implementation. The statewide implementation of the intake tool assisted in our identification of a Comparison Group for the matching component of our FAR evaluation.

Once the intake tool identifies a family as qualifying for FAR,[6] the family can select the FAR pathway. The FAR pathway is optional. Families choose to participate, and, unlike many other states implementing an alternative response, participants in Washington's initial implementation were required to sign an agreement of participation (this agreement was also signed by the caseworker). The agreement was part of the enabling legislation for the program's implementation. Families who declined to participate in FAR, voluntarily or by refusing to sign the FAR agreement, were typically transferred to the investigative pathway.[7] However, because of concerns that the FAR agreement may have disproportionately dissuaded some families (and specifically Native American families) from enrolling in FAR, the Washington Legislature eliminated the requirement in October 2017.

Provision of Goods and Services

Links to services and concrete goods assist in meeting families' needs and in helping prevent escalation or further involvement. A primary goal of FAR was to provide immediate access to concrete goods aimed to address underlying factors that may have led to CPS involvement. Many of the families served in child welfare have unmet basic needs impacting the parents' or guardians' ability to safely parent and reduce risk of abuse and neglect to their children. In addition, and where appropriate, FAR connects families to needed support services, including those paid by the state and those available through other community-based programs or agencies.

[6] Before the full implementation of FAR to all offices statewide, participation in FAR also depended on whether the office serving a family offered FAR at the time of the intake.

[7] In some cases, families participated in the assessment process under the FAR pathway but failed to sign the FAR agreement. If the caseworker believed no further services or actions were necessary, the case could be closed without being transferred to the investigative pathway.

In 2016, DCYF contracted with agencies throughout Washington to purchase, store, and distribute concrete goods to families and DCYF offices statewide. The intent of these contracts was to reduce barriers to obtaining goods for families and to streamline the process for distribution. DCYF reported that this approach proved successful, noting that staff appreciated having necessary items on hand or easily accessible; they reported that families were getting needed items in a timely and efficient manner. Because of the success of the distribution of concrete goods, and the demand of caseworkers who recognized the benefits of the program, concrete good were expanded to include CPS investigations, parent-child visitation, reunification, and kinship care placement and licensing. Through this component of FAR, and now the full DCYF CPS operations, caseworkers can request items for families—such as diapers, cribs, housekeeping supplies, lice kits, and beds—that are needed to address safety or risk concerns, support visitation, ease placement of children into safe kinship care, and assist kinship caregivers in becoming licensed. The contracted providers deliver the items to the local DCYF offices and directly to a family's home.

Concrete goods were intended to serve as a relatively minor component of the scope of DCYF to extend evidence-based programs (EBPs) to families. For FAR, DCYF launched and promoted several EBPs, including "Triple P," Incredible Years, and SafeCare. DCYF selected these services, and others listed below, based on strategic key deliverables of the services that had the likelihood of greatest effectiveness and availability:

- **Functional Family Therapy (FFT)** targets children and youth, ages 11 to 18, with very serious problems, including conduct disorder, violent acting-out, and substance use disorders.
- **Incredible Years** is for families with newborns and children up to three years of age. This service focuses on assisting parents in learning safe and healthy ways to promote their children's social, emotional, and academic development. Research also suggests that Incredible Years may reduce child behavior problems.
- **Intensive Family Preservations Services (Homebuilders)** serves children and youth from birth through age 17. Homebuilders engages families in their natural environment with the design of avoiding unnecessary placement of children into out-of-home systems (e.g., foster care, juvenile justice facilities).
- **Positive Parenting Program ("Triple P")** is for families with children ages 2 to 16 years old. This service targets families using unsafe parenting techniques for managing child behavior. Triple P also focuses on helping parents learn coping strategies in order to effectively deal with parenting challenges.
- **Promoting First Relationships (PFR)** is a home visiting intervention and prevention program that trains parents in strategies and approaches for improving secure, healthy relationships between caregivers and children, birth to 3 years of age.
- **SafeCare** is for families with newborns up to five years of age. This service addresses family situations in which caregivers have little or no experience and understanding of

basic child care and safety. This service is especially beneficial for families with more neglect-related issues and for first-time parents.

Improved Family Engagement

The overall FAR approach comprises multiple strategies that differ slightly from traditional CPS investigative approaches. Among these are caseworker efforts to contact families prior to child interviews, interviews conducted with children and parents together when appropriate, and focus on discovering why a family might need help rather than a finding of abuse or neglect. These approaches are designed to increase family engagement in the process. When families are better engaged, they are more likely to accept services and to be willing to discuss family problems openly.

Likewise, FAR uses services to reduce animosity between CPS and families in need of supports. Part of this approach involves linking families directly to community (i.e., non-DCYF-funded) services and supports. These links connect families and communities in a cooperative effort; they also increase connections and understanding between DCYF and community services, systems, and agencies (e.g., law enforcement, schools). This increases communication and engagement, which should strengthen relationships and reduce adversarial or suspicious interaction between families and DCYF. Ultimately, increased, positive engagement should lead to greater trust, and greater trust should benefit the children in FAR and their families.

3 Evaluation Framework

3.1 Theory of Change (TOC)/Logic Model

3.1.1 Theory of Change

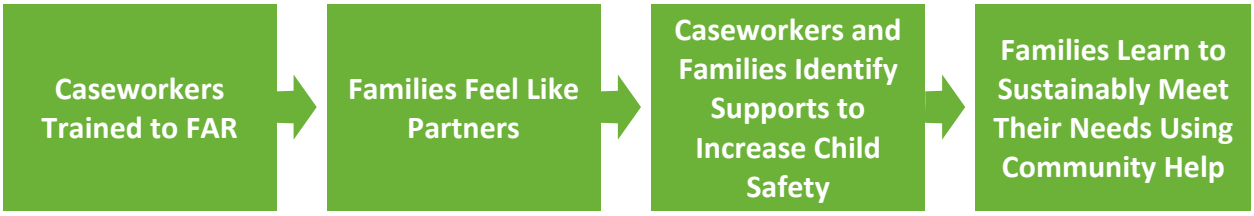
The Family Assessment Response (FAR) is a differential response pathway for screened-in allegations of abuse and neglect, and it serves as an alternative to traditional Child Protective Services (CPS) investigations. The FAR model expands Department of Children, Youth, and Families' (DCYF) options for low- and moderate-risk families to better serve those families and to help more children by safely preventing placement in out-of-home care, improving child well-being, and reducing re-referrals.

The FAR model pursues these outcomes by shifting the potentially-adversarial caseworker focus on seeking a finding of abuse or neglect to one that emphasizes partnering with families to identify strengths and needs; addresses needs through the provision of concrete goods and services, increased community engagement, and the expanded use of evidence-based

practices; and ensures child safety. The FAR pathway includes a comprehensive assessment of child safety, health, and well-being. It also considers barriers families face in keeping children safely at home. Families are offered supports and voluntary services to prevent placement while addressing problems that evoked the negligent treatment or maltreatment intake.

The following graphic (Figure 1) presents a conceptualized version of the theory of change, adapted from the Washington State Title IV-E Demonstration Project Fourth Quarterly Report.[8]

Figure 1. FAR Theory of Change



3.1.2 Logic Model

The logic model on the following pages was primarily developed through discussion with DCYF and the Research and Data Administration (RDA). We also considered information available in the Terms and Conditions document; the RFP; DCYF planning documents; the Initial Design and Implementation Report;[9] and the second and third quarterly reports to the federal Administration on Children, Youth, and Families for the Title IV-E demonstration project.

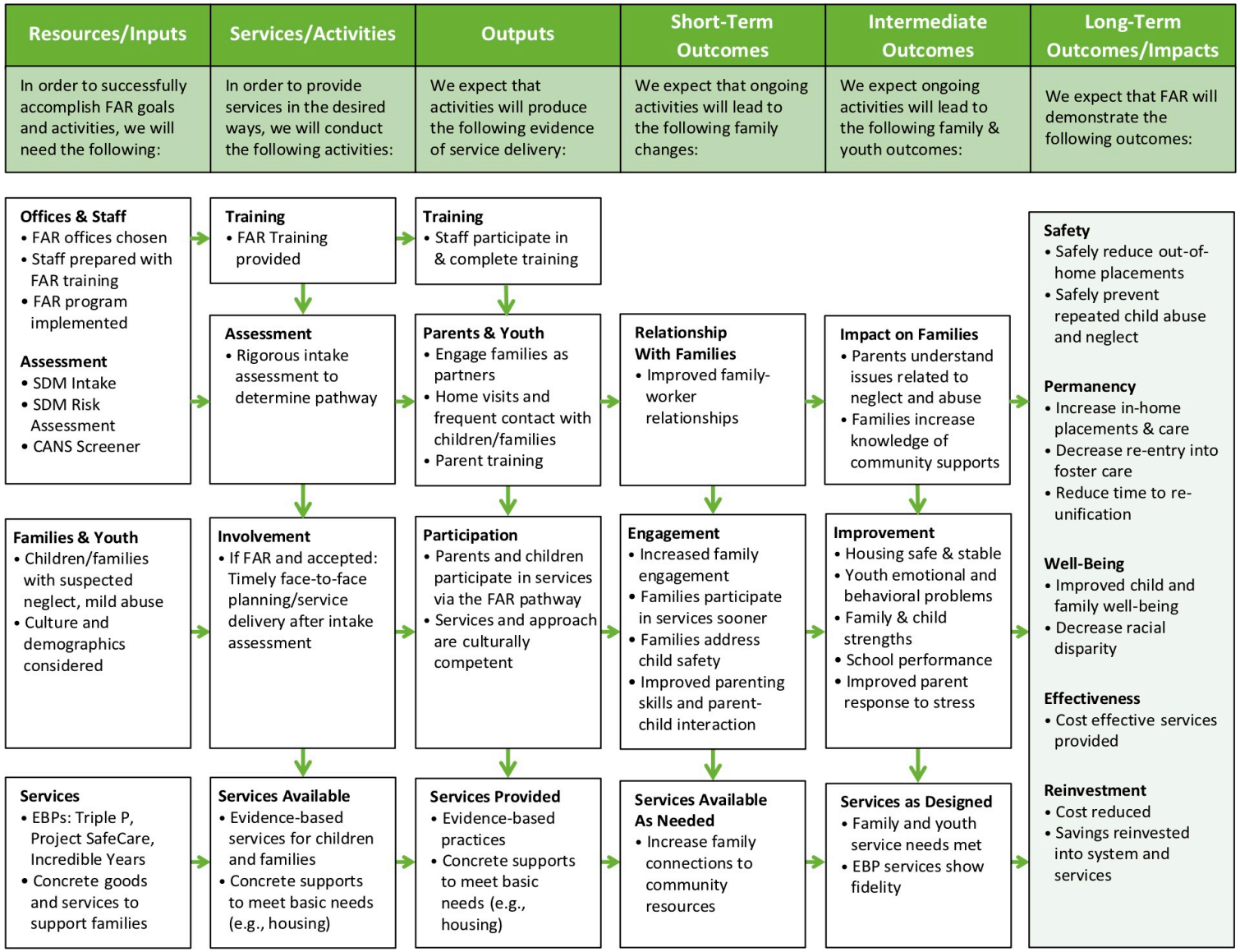
Resources, Activities, Outputs, and Outcomes

The logic model (Figure 2) details how resources and activities, that make up FAR, lead to improved family involvement and participation in services, stronger community relationships, and, eventually, improved long-term outcomes such as permanency and well-being.

[8] State of Washington Department of Social and Health Services. (2013). *Washington State Title IV-E Demonstration Project: Fourth quarter progress report, July–September 2013*. Retrieved from State of Washington Department of Social and Health Services website: https://www.dcyf.wa.gov/sites/default/files/pdf/far-2013qtr4.pdf

[9] State of Washington Department of Social and Health Services. (2013). *Child Welfare Title IV-E Waiver Demonstration Project: Initial design and implementation report*. Retrieved from State of Washington Department of Social and Health Services website: https://www.dcyf.wa.gov/sites/default/files/pdf/far-2013qtr1.pdf

Figure 2. Logic Model



3.1.3 Changes to the Model

Both the theory of change and logic model remained consistent throughout the program—except for one substantive change to the logic model: the elimination of the CANS (Child and Adolescent Needs and Strengths) tool for service planning (under "Resources/Inputs": "Assessment" in Figure 2). This change was implemented as a result of practical considerations early in the program. Caseworkers often disregarded this tool, asserting it was redundant with existing practice for identifying needs and that it played little or no role in service planning with families.

The elimination of the CANS could also be categorized as a programmatic change. The FAR implementation experienced numerous similar programmatic changes in response to lessons learned during implementation, including tweaks to FAR training structure, initial caseworker engagement practice, and program timeframes. These changes did not affect logic model theory, content, or structure.

Additionally, the Washington State Legislature made two important changes based on early evaluation findings. First, legislation passed in October 2017 eliminated the requirement that families sign a "FAR Agreement" in order to participate. Second, in 2018, Senate Bill 6309 extended case duration in cases where services were being provided to 120 days.[10] Both changes occurred relatively late in program implementation. Thus, this evaluation tries to address the potential impacts of these changes but is limited by the lack of comparison group families during later time periods.

3.2 Overview of the Evaluation

3.2.1 Methodology Design

The evaluation comprises three main components: a process evaluation, an outcome evaluation, and a cost study. Each component allows the evaluation to answer slightly different questions about the implementation, effectiveness, and costs of the IV-E Waiver.

Process Evaluation

The process evaluation (see the Process Study section) examines the implementation of the FAR model under the IV-E waiver. This portion includes efforts to describe program implementation, including policy and procedure impacts at the state and individual-office levels. Key informant interviews provided information about contextual variables and barriers that could impact the implementation (e.g., barriers to service provision) and actions designed to address those barriers. We interviewed state-level DCYF staff as well as FAR staff; regional,

[10] SB 6309, 65th Legislature, 2018 Regular Sess. (Wa. 2018). Retrieved from http://lawfilesext.leg.wa.gov/biennium/2017-18/Pdf/Bills/Senate%20Passed%20Legislature/6309-S.PL.pdf

administrative area, and office staff; FAR caseworkers; and investigative caseworkers. We also interviewed service providers to gain perspective from parties interacting with the program from outside DCYF. Process evaluation contextual information from these key informant interviews, family surveys, and administrative data (e.g., caseload reports, in-depth case reviews) was used to describe the degree to which FAR was implemented with fidelity to the original model and to inform the outcomes and cost analyses.

Outcome Evaluation

The outcome evaluation (see the Outcome Study section) and portions of the cost study used a comparison group design, comparing families who received FAR to a propensity-score-matched comparison group of families who were eligible for FAR but did not receive it. These analyses focused on questions about FAR outcomes, such as the program's impact on removal and re-referral rates, service provision, and family-level costs of DCYF purchased goods and services.

Cost Study

We also conducted an office-level study (see the Cost/Fiscal Study section) of the effect of FAR on the costs of operating regional offices, including all costs of serving families. This design used a panel data structure, with 13 six-month time periods for each of 46 field offices. The number of pre and post FAR implementation periods varies by office, with early adopters of FAR having fewer pre-FAR periods and more post-FAR periods. Cost variables reflect all cost of serving FAR families, both through FAR and through other pathways. Control variables include the number of accepted intakes. This panel data approach allows us to observe the change in cost of servicing families as each office transitions from pre to post FAR, controlling for office-specific time invariant characteristics.

3.2.2 Implementation

The implementation of FAR in Washington State was scheduled to occur in multiple phases. This "phased" approach was a central feature of the FAR evaluation. Because only select offices implemented FAR at specific times, families receiving CPS services in non-FAR offices served as a source for a comparison group. In the case of the office-level panel data analysis, this phased rollout was especially beneficial; it provided greater confidence that the changes we measured were most likely direct results of FAR and did not reflect some incidental or secondary changes. In other words, the phased approach provided the best scenario for a scientific, control-based study. Additionally, the phased implementation allowed DCYF to assess implementation successes and challenges from early phases, make mid-course corrections, and ensure better implementation in later phases. The Process Study of this report provides a detailed description of the phased FAR implementation.

3.3 Data Sources and Data Collection Methods

3.3.1 Process Evaluation Data Sources

Initial data sources for the process evaluation include state and office documents (e.g., the IV-E waiver application, policy and procedure, training manuals), RDA and Washington State Institute for Public Policy (WSIPP) reports, and University of Washington Evidence Based Practice Institute documents and reports. In addition, key stakeholders from participating agencies and levels and service providers supplied information through key informant interviews and ongoing review and interaction with TriWest evaluation staff. Finally, we developed a family survey to collect data on families' perceptions of their well-being and their engagement with the child welfare system.

Administrative data were also important in the process of describing services and determining whether logic model elements occurred.

Process Evaluation Data Sources

- **Key informant interviews** collected qualitative and quantitative information to address eight key factors, such as whether a needs assessment was completed and community assets were mapped. Key informants were interviewed and asked pre-determined questions about each factor.
- **Surveys of families participating in FAR** were developed to collect family perspectives on their engagement with child welfare programs and services. The survey also asked about areas of well-being.
- A**dministrative data** were used to gather information regarding caseloads, implementation activities, and other DCYF measures of families and offices for both FAR and non-FAR data.
- **Case Reviews** supplied by DCYF were used to gather information regarding the results of administrative case reviews.

3.3.2 Outcome Evaluation and Fiscal/Cost Data Sources

The outcome evaluation analyzed FAR's impact on child well-being, removal rates, re-referral rates, and service costs. Data for the family level matched comparison study came from two sources. (1) FamLink, the state's comprehensive child welfare data system, was the source for all information on intakes, risk scores, and DCYF case activities such as filing of service plans, removals, or purchase of goods or services. (2) DSHS's Integrated Client Database[11] was the source for dozens of other family-level variables related to criminal justice involvement, economic assistance, homelessness, use of crisis medical services, mental health treatments, and other factors important in the development of a matched comparison group.

[11] https://www.dshs.wa.gov/sites/default/files/SESA/rda/documents/research-11-144.pdf

For the office-level panel data cost analysis, FamLink was the source for the number of accepted intakes per period. Office-level expenditure data came from DCYF's financial data system. We received a report of expenditures for each office for each month, broken down into several dozen categories. We selected all categories that included costs that could be attributed to specific offices, excluding categories for administrative offices that did not directly serve families. We aggregated monthly costs to the six-month time periods used in the analysis. While total cost at each office was the primary variable of interest, we also used the panel structure to identify the effect of FAR on subcategories such as the purchase of evidence-based services, concrete goods, and other categories related to the FAR implementation.

3.4 Sampling Plan

The sampling plan applies only to the Outcome Study. See the Process Study for details on our selection of respondents for the key informant interviews and on the family survey used. In the case of the office-level cost study, data from all field offices were used without any type of sampling.

3.4.1 Eligibility Design

The FAR intervention was delivered to all new CPS intakes that screen into FAR based on specific eligibility criteria.

Our eligibility design (see the "Eligibility Design" section in the Process Study) divides FAR and investigative pathway children/families into separate sub-groups for purposes of comparison. Following guidance provided by the waiver's terms and conditions, we defined sub-groups to include those children/families who meet the following grouping criteria:

1. Received FAR (Intent-to-treat: received treatment)
2. Opted out of FAR (Intent-to-treat: declined treatment)
3. Were eligible for FAR but served in non-FAR offices, and were matched to children/families within groups 1 and 2 above (Investigative, matched comparison families)
4. Were not eligible for FAR and were served in FAR or non-FAR offices (investigative families, not included in comparison pool)

3.4.2 Matching Design

In examining individual child/family-level processes, outcomes, and costs, we were able to identify each of the above groups as representing a different study group condition and could then compare these groups to all other groups. However, comparisons between the combination of group 1 (received FAR) and group 2 (declined FAR) and a matched comparison group drawn from group 3 (eligible for FAR but served in non-FAR offices) were the greatest

value in estimating the effect of FAR on outcomes. The matched comparison group is our estimate of the most likely outcomes for FAR families had FAR not been available. We determined the effect of FAR, then, based on the difference between actual outcomes for FAR families and this estimate of what *would have* occurred had FAR not been available.

We conducted matching on an array of demographic variables, risk and protective factors, and history of child welfare involvement. We worked with the Research and Data Administration (RDA) and DCYF staff to settle on a final list of variables for matching (see the Outcome Study and Technical Appendix for details).

As part of our intent-to-treat design, we included families that screened into FAR but opted out of the intervention. It was important to track how often families accepted the program and what happens (in terms of process, outcomes, and cost) to *all* families who were offered the pathway, not merely those families who accepted the referral and participated in the FAR program.

The intent-to-treat design provides an estimate of the degree to which outcomes and costs were affected when people are screened into FAR, not an estimate of the difference FAR makes for those people who actually received it. Comparing these matched groups helped us answer the question, "What difference does being screened into FAR make, in terms of outcomes and costs for children and their families?"

Consistent with the eligibility design, additional analyses distinguished between those families who accepted FAR and those who did not. These sub-analyses addressed the question, "What difference does FAR make when children and their families accept a referral to the FAR pathway and participate in it?" To accomplish this, we conducted a second level of analysis. In this analysis, we compared differences between families opting into FAR and those who were eligible but opted out. We did not use matching in this analysis; the families we used in this analysis were all FAR families from the matched-comparison-group analysis.

3.4.3 Cohort Structure

Our comparison group design includes division of the treatment and matched comparison groups into six-month cohorts, starting January 1, 2014. Cohort 1 covers January–June 2014. Cohort 2 covers July–December 2014. Cohort 3 covers January–June 2015. This six-month grouping pattern continued until June 2017, when all offices had implemented FAR and a comparison group was no longer available. Early cohorts offered relatively few treatment observations and substantially more potential comparison observations. For these cohorts, the analysis used the entire treatment pool and drew from the entire comparison pool for the propensity-score-matched subset of comparison observations (see Table 1).

As the program continued, the availability of comparison and treatment observations inverted. Eventually, as more offices implemented FAR, the potential comparison pool became smaller than the treatment pool. Once this occurred, in order to preserve the ability to match to as many potential comparison observations as possible, we began drawing random samples from the full treatment pool that were smaller than the total number of potential comparison observations available for that cohort.

Table 1. Families Assigned to FAR Study and Comparison Groups

Study Cohort	Families with a FAR Intake	Sampled[12] FAR Group Families	Matched Comparison Group Families	FAR Eligible Investigative Families
Cohort 1 (Jan–June 2014) Phase 1 Offices	664	664	664	9,152
Cohort 2 (July–Dec 2014) Phase 1–3 Offices	2,629	2,629	2,629	5,378
Cohort 3 (Jan–June 2015) Phase 1–5 Offices	5,589	2,000	2,000	3,277
Cohort 4 (July–Dec 2015) Phase 1–5 Offices	5,429	1,000	1,000	2,014
Cohort 5 (Jan–June 2016) Phase 1–6 Offices	5,934	1,000	1,000	1,936
Cohort 6 (July–Dec 2016) Phase 1–8 Offices	5,473	500	500	1,104
Cohort 7 (Jan–June 2017) Phase 1–10 Offices	7,172	250	250	566

3.5 Data Analysis Plan

The **process evaluation** examines the implementation of the FAR model under the IV-E waiver—before and after the start of the demonstration—among participating administrative

[12] Beginning with Cohort 3, a random sample of FAR families was used for comparative analysis. As more offices implemented FAR, the comparison pool of families in non-FAR offices became too small to draw a Comparison Group that was the same size as the full FAR group, culminating in a Cohort 7 Comparison Group of 250.

units and between the FAR pathway and investigative pathway comparison groups. We considered each type of comparison as appropriate for each of the eight process evaluation areas specified in the Washington State Waiver Terms and Conditions and detailed in the Process Study.

The **outcome evaluation** has the primary goal of estimating cause-and-effect relationships between receipt of FAR and child/family outcomes. The overarching data analysis plan is to measure the difference in outcomes between the FAR families and matched comparison group, controlling for as many confounding factors as possible. A detailed presentation of this plan is in the Outcome Study.

The **office-level cost analysis** focuses on the change in the cost of serving families as each field office transitions to offering FAR. It includes the total cost, including costs of investigations and placements, and controls for changing numbers of accepted intakes. Details of the process are in the Cost/Fiscal Study.

3.5.1 Data Analytic Methods

Our data analytic methods varied, depending on the question and the type of data collected. The following five items summarize the data analytic methods employed in the evaluation; these methods are detailed in the respective process, outcome, and cost studies in this report.

Process Analysis

1. **Readiness assessments and organizational data**. These data were summarized descriptively to provide information about the FAR implementation and how it differs from the traditional investigative pathway.
2. **Key informant interviews**. Interview data were entered into qualitative analysis software and used to provide qualitative data to address associated process evaluation questions.
3. **Administrative data**. Administrative risk assessment and services data were downloaded and analyzed. These analyses were used for a range of purposes, including description, hypothesis testing, and modeling to assess differences between FAR and investigative pathway programs and families. Administrative data were also analyzed descriptively in order to determine level of program implementation fidelity.
4. **Family survey**. Survey data were collected regularly and analyzed to address engagement for FAR families. Descriptive and inferential statistics were employed in analyzing pathway differences. Longitudinal general linear modeling approaches were employed to consider change resulting from ongoing family participation.

Outcome Analysis

Our data analytic methods for measuring family-level outcomes involve finding the difference in outcomes for the FAR and matched-comparison families and testing for statistical significance for any observed differences. We controlled for confounding factors in two ways. First, by matching on pre-treatment values of variables associated with outcomes, we made the treatment and comparison groups as similar as possible in baseline characteristics that might otherwise cause omitted variable bias. Second, in addition to analyzing differences in outcomes using simple t-test and chi-squared tests, we also used multiple regression with binary treatment indicators and the full set of matching variables as covariates. This method allowed us to control for remaining heterogeneity in baseline characteristics between the FAR and matched comparison groups.

Cost Analysis

Because the cost data have a panel data structure, our analytic method was to use a fixed-effect regression model, with a variable indicating those periods when the office had implemented FAR. The regression coefficient on this treatment variable measures the change in average cost for each office as it implemented FAR. We estimated several variations of this model; see the Fiscal/Cost Study for details.

3.6 Limitations

Each specific analysis component of the project has its own methodological limitations. These limitations are described below.

3.6.1 Methodological, Logistical, and Resource Limitations

Family surveys provided information directly from those people who were most impacted by the program: the parents and caregivers participating in FAR. These surveys offered important context and detail for the implementation of the IV-E Waiver Demonstration. However, a comparison group was not feasible. Therefore, survey data can provide vital information about how families participating in FAR perceived the program, but they do not provide contrast with how Investigative families viewed the services they received. In addition, difficulties in contacting families means that a low percentage (3.7%) of all eligible[13] FAR families participated in surveys. While we attempted to contact all families who were served or—as the population grew larger—a targeted sample of participants, incorrect phone numbers or lack of response means that generalizability of the survey results should be done with caution. In addition, prior

[13] "Eligible" includes families who completed FAR between May 2015 and December 2018. However, the majority of these families did not consent to be contacted, significantly limiting the number of families available for a survey. The Process Study describes further limitations on the number of surveys attempted.

to October 2017, we were authorized to contact only those families who had expressed consent to contact (on average, about one third of all case closures per month).

Office-level site visits and interviews with caseworkers provided rich details around the initial implementation of FAR at each office as the intervention rolled out across the state. However, the expense involved with visiting each office necessitated only one visit for each of the 41 offices.[14] Therefore, our study of office implementation successes and challenges addresses only the initial implementation of the program and does not speak in detail to ongoing and later challenges experienced by offices implementing FAR.

Implementation limits prevented any type of randomized block design in assignment of families to FAR or investigative paths. The propensity-score-matched design used in the outcome study potentially reduces but does not eliminate the confounding effects caused by omitted variable bias.

The decision on which offices would implement FAR, and which would not, was also not random. One potential source of omitted variable bias relates to this; if offices that were better staffed or organized were selected for FAR first, then comparison families belonged to less prepared offices, which has the potential for creating bias. We were unable to control for this.

3.7 Evaluation Time Frame

3.7.1 Evaluation Time Frame Alignment

The evaluation time frame was designed to follow the FAR "phased-in" approach to implementation. We began collecting all data, with the exception of the family survey data, on January 1, 2014, to coincide with the launch of FAR in the three pilot sites (see "Implementation" in the Process Study for context). We then built "cohorts" of families, in six-month increments, allowing two new quarters of office rollouts to be added to the sample in each cohort. This grouping allowed very close alignment of the implementation to the evaluation. However, because multiple offices within each six-month cohort began their implementation at slightly different times, the process is not perfect. Still, given that the outcome observation period was designed to align with FAR families' dates of intake, this initial staggering of office rollouts within a quarter likely had no significant impact on the evaluation.

The family survey design and implementation plan was purposefully delayed until the second year of implementation. The delay allowed stakeholders to provide meaningful input and to ensure that these stakeholders had sufficient buy-in on the process and scope.

[14] We did re-visit the three Phase 1 offices, bring the total number of visits to 44 across 41 unique offices.

Data for the evaluation continued through December 2018, the end of the original waiver (not including the extension period). The phased rollout feature allowed for a robust comparison group to be included in the evaluation of the early waiver period. However, as more offices began implementation, the pool of potential comparison group families diminished. Because implementation was completed in June 2017, the evaluation of outcomes after that period does not include the comparison group, although an analysis of changes in FAR outcomes over time was still possible.[15] In addition, some significant program changes occurred late in the implementation (e.g., new training protocol, removal of the FAR agreement, extended services timeframe). Because a comparison group was unavailable at the time of these changes, this evaluation's ability to determine the impact of those adjustments is limited.

3.7.2 Challenges and Changes

The primary change to the overall evaluation design was our approach measuring child and family well-being. The initial implementation of FAR included the use of the Child and Adolescent Needs Scale (CANS) to help in case and service planning. We originally designed the evaluation to use this tool to measure changes in needs as a proxy measure for well-being (with a decrease in CANS scores indicating reduced need for services and, therefore, improved well-being). However, early in the implementation, caseworkers expressed high levels of dissatisfaction with the tool, and it was never fully implemented. As a result, the evaluation utilized a different measure of well-being, including family self-reports and administrative data (e.g., hospitalizations or emergency department visits, justice system involvement) to attempt to gauge the degree to which child and family well-being improved as a result of FAR involvement.

In addition, Washington State temporarily withheld FAR funding during the 2015 legislative session. We discuss this pause and its potential effects on the program and evaluation in the Process Study section.

There were also multiple challenges related to the family-level data found in FamLink. These included missing data in key variables, such as the age of children. We imputed missing values in response. FamLink also included a feature in which the office listed for each family potentially changed as the associated caseworker moved offices; the historical data did not remain stationary but were inappropriately updated to current values. DCYF and RDA were successful at addressing these and similar FamLink data issues, although the potential for similar undiscovered data problems remains.

[15] To address the shrinking of comparison group families, we used random samples from the treatment group for comparison. This process is described in greater depth in the Outcome Study.

Finally, our cohort structure resulted in assigning families with accepted intake to a single status during each cohort period; FAR, FAR eligible investigative, or other. We provide details in later sections. This assignment was not without ambiguity, for many families had repeated accepted intakes both within a cohort period and over multiple cohort periods. This created the possibility of cross contamination of our treatment and comparison groups. Our solution was to effectively eliminate families from the comparison pool if they reappeared later as FAR families. Because of this and related issues, the samples used for FAR and comparison groups are neither every FAR or comparison family, nor a random draw from all possible FAR and comparison families. This problem somewhat limits the generalizability of our results to all families with intakes during the evaluation period.

There were no additional challenges to the proposed evaluation plan.

4 Process Study

4.0.1 Process Study Structure

The Process Study, or process evaluation, describes the Washington IV-E waiver FAR program's services, major activities, and polices. The process evaluation relies on four types of data to complete most findings:

- Site visits and key informant interviews
- Family surveys
- FamLink and other administrative data sources
- DCYF case reviews.

In addition, based on these data sources and quantitative data sources from the Outcome Study and Cost Study, we have formed a Fidelity Rating methodology that aims to assign office-level ratings, by year, of the degree DCYF offices adhered to the FAR model. We used the four types of data sources and the Fidelity Rating methodology to respond to our process evaluation research questions. Below, we present these nine questions and brief summaries of key findings and themes. The expanded findings can be found in the appropriate sections of the report.

4.0.2 Research Questions Brief Findings

PRQ1. How was FAR Implemented across the state? Describe the implementation process and family enrollment into FAR. FAR was implemented through a 10-phase rollout process beginning in January 2014 and concluding in June 2017. During each phase of the rollout, DCYF trained and supported select offices for FAR implementation. TriWest used the phased rollout to create treatment and comparison groups.

PRQ2. How did FAR and investigative office staff (administrators, supervisors, case workers) view their office preparedness for FAR implementation? Key informant interviews suggest strong agreement that offices, on average, were prepared for implementation. Administrators tended to be prepared at slightly higher rates than FAR caseworkers were. Investigative caseworkers were least likely to agree that they were prepared for implementation. Caseworkers generally were able to find information and administrative support for their questions related to FAR implementation.

PRQ3. How did FAR and investigative office staff (administrators, supervisors, case workers) describe how implementation affected CPS casework? On average, office staff reported only minor detrimental effects on CPS casework. Staff tended to agree with the FAR approach, with strongest support coming from administrators, second highest from FAR caseworkers, and investigative caseworkers showing lowest support. Families stated that their experiences with DCYF was improved or unchanged after FAR, relative to earlier experiences.

PRQ4. How did FAR implementation affect family engagement? From the DCYF perspective, FAR increased the degree and quality of partnering with families. Families, likewise, report high levels of engagement and inclusion, noting that caseworkers tend to include family perspectives in casework.

PRQ5. Were families satisfied with their experiences with FAR? Families indicated high levels of satisfaction with caseworkers. They expressed that they received helpful guidance, were respected, and found caseworker help to be both beneficial and satisfying.

PRQ6. How did FAR implementation affect service delivery? Availability of services? DCYF personnel noted increases in DCYF-funded services, concrete goods, and community services. DCYF services were least affected; concrete goods were most affected. Based on averages across all offices, fewer than 10% of high-risk FAR families received an EBP whereas nearly 39% of these same families received some form of in-home service.

PRQ7. Did families view services received through FAR as helpful? Caseworkers provided help in multiple forms, including services (community and DCYF-funded). Families who received some level of help indicated that help was overwhelmingly beneficial and sufficient.

PRQ8. What was the level of fidelity of implementation of FAR in each FAR office? Offices exhibited widely varying levels of fidelity to the FAR model, though all offices tended to have lower levels of fidelity after the initial scoring year (2015). The annual fidelity score for the aggregate of all offices was highest (51%) in the first year of scoring (2015). This level declined sharply the following year (39% in 2016) and plateaued in the third year (41% in 2017).

PRQ9. What contextual factors have had or may have a bearing on the replicability of the intervention or the effectiveness of the demonstration? Phased rollout permitted DCYF to address needs within the FAR model, including changes in training, delivery, and services. Greatest concerns are in the need to improve how services, especially EBPs, are provided to families. The extension of FAR case length may both improve service delivery and improve fidelity.

4.1 Key Research Questions and Implementation Measures

The process portion of our evaluation was guided by nine research questions. For each of the questions, listed below (Table 2), we have used one or more data sources to provide a response. Given the significance of the questions for guiding both our evaluation design and analysis, we have organized this Process Study around the questions, grouping findings and analysis by question. We will expand on the final question, regarding factors of replicability or effectiveness, in the discussion portion (4.5) of this chapter. Prior to our responses and findings related to the research questions, we include an overview of the key data sources used across the research questions (sections 4.2, 4.3).

Table 2. Process Research Questions

Process Research Questions (PRQ)	Data Sources/Measures
PRQ1. Implementation How was FAR Implemented across the state? Describe the implementation process and family enrollment into FAR.	**FAR Administrative Documentation** • Maps of implementation stages • Client enrollment data
PRQ2. Preparedness How did FAR and investigative office staff (administrators, supervisors, caseworkers) view their office preparedness for FAR implementation? **PRQ3. Effects on Casework** How did FAR and investigative office staff (administrators, supervisors, caseworkers) describe how implementation affected CPS casework?	**Key Informant Feedback** • Summary of key informant interviews
PRQ4. Effects on Family Engagement How did FAR implementation affect family engagement?	**Key Informant and Family Feedback** • Summary of key informant interviews • Summary of parent surveys
PRQ5. Family Experience Were families satisfied with their experiences with FAR?	**Family Feedback**
PRQ6. Effects on Services How did FAR implementation affect service delivery? Availability of services?	**Key Informant Feedback** • Summary of key informant interviews **FamLink Administrative Data** • Analysis of key indicators of risk and service reception
PRQ7. Perceived Benefit of Services Did families view services received through FAR as helpful?	**Family Feedback**
PRQ8. Fidelity to FAR Model What was the level of fidelity of implementation of FAR in each FAR office?	**FAR Fidelity Ratings**
PRQ9. Factors on Replicability or Effectiveness What contextual factors have had or may have a bearing on the replicability of the intervention or the effectiveness of the demonstration?	**Recommendations for use of contextual factors** Description of contextual factors serving as barriers to implementation or program function and what was done to address them

4.2 Data Sources and Data Collection

The Process Study portion, in responding to the research questions, uses the following data sources, which we have grouped into four categories.

4.2.1 Site Visits and Key Informant Interviews

TriWest collected FAR implementation data through site visits and key informant interviews (KIIs) with caseworkers (both FAR and investigative workers), supervisors, and administrators. The visits and semi-structured interviews were conducted within three to six months after the implementation of FAR in the respective office. Each interview contained Likert scale questions, asking respondents to rank their perspectives about various implementation components (e.g., training, other preparedness, caseloads, working with families, perceived program strengths and weaknesses). In addition, open-ended questions were used to explain ratings and/or to provide more narrative perspectives regarding the respondents' views of implementation challenges and successes. Frequency distributions and means for Likert scale responses were computed. Basic content analysis for open-ended questions was used to group responses based on either pre-identified or emerging themes. During the first two years of implementation, we conducted 400 KIIs in 29 offices. By the end of this process, we had visited all 41 offices at least once and conducted 531 interviews.

4.2.2 Family Surveys

Data were also collected from parents/guardians who participated in FAR through a Family Survey. At case closure, parents/guardians received a case closure letter reminding them that an evaluation team member may contact them to complete a telephone survey. The letter, which was distributed by DCYF until January 2019, also provided information for completing a web-based or automated telephone survey if families preferred those methods.

Call lists, the basis for these contacts, were provided monthly by DCYF based on a compilation of closures. Until late fall 2017, DCYF sent TriWest recent phone numbers of FAR participants who indicated in the FAR agreement that they were willing to be contacted for a survey. Following the removal of the FAR agreement in October 2017 and through the final set of closures in December 2018, contact information on closures was provided by the state's Research and Data Analysis (RDA) department and included all parents/guardians with case closures. From this compilation, we contacted a targeted sample[16] of parents/guardians to complete a telephone survey.

[16] Beginning with October 2017, the first month without FAR Agreement indication, the compilation included significantly more families than in previous months. We limited our sample to 120 families per month, weighing selection by office. This weighted sampling allowed a greater emphasis on gathering responses from families who were served from more-recently implemented FAR offices (as opposed to Phase 1 offices that have multiple years

To better communicate with FAR families, we employed "Parent Allies"—individuals who had been involved in the Washington CPS system and could better identify with the families they were surveying. Parent Allies called recent FAR family parents/guardians to conduct the full telephone surveys. FAR parents or guardians who participated in the full live telephone survey were offered a $10 Walmart gift card as a token of appreciation. Those completing the shorter web-based or telephone surveys were offered a $5 gift card.

Between all methods (parent ally survey, online survey, automated phone interview), a total of 1,426 surveys were completed since May 2015, when we began tracking the distribution of types of response to parent ally surveys. Response rates and counts, by type and by office, are presented in section 4.3.2.

4.2.3 FamLink and Other Administrative Data Sources

Washington's State Automated Child Welfare Information System (SCWIS) is FamLink. Extracts from the FamLink data system provide information on all referrals to CPS in the state. TriWest used the system to identify unduplicated families with an intake during the study period (n=146,634). Intake data in FamLink were then used to separate families into study cohorts (e.g., treatment, comparison, excluded) based on whether (1) the intake was screened-in and not a "risk only" case[17] and (2) whether the intake was FAR-eligible. The "Eligibility Design Flowchart" graph in the Evaluation Framework section of this report shows the flow of those intakes into specific treatment and control groups.

Other administrative data for the Process Study included minutes from monthly Evaluation Workgroup meetings, implementation documentation provide by DCYF, and quarterly IV-E waiver progress reports submitted by DCYF.

4.2.4 DCYF Case Reviews

Between 2015 and 2018, DCYF administrators (i.e., supervisors, regional directors) conducted reviews of a random sample of FAR cases. DCYF reviewed cases for compliance on important components of FAR, including items related to family contact and engagement, assessment and

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of data). For later offices, October–December 2018, we expanded our calls to the full closures lists, which included, on average, about 300 families per month.

[17] Risk-only cases are those cases in which a child is at imminent risk of harm, but there is not child abuse or neglect (CA/N) to be investigated. These cases would not be assigned to a CPS Investigation and, therefore, are not eligible for the alternative FAR response. For a full list of definitions, see https://www.dshs.wa.gov/ca/practices-and-procedures-guide/2200-intake-process-and-response

linkages to services, and child safety. TriWest obtained summary reports, at the individual-office level, of these reviews for use in assessing FAR implementation fidelity.

4.3 Sample

As noted in section 4.2, we used four main types of data to evaluate the waiver implementation process. Following the structure of that section, this section provides descriptions of key characteristics and approaches for each sample by data source. Note, however, that this section contains an additional item: Fidelity Ratings. The Fidelity Ratings are not a distinct data source, but they integrate the other data sources noted in this section to respond to Process Research Question 8.

4.3.1 Site Visits and Key Informant Interviews Description

We conducted key informant interviews at all Washington State Child Welfare offices, Phase 1 through Phase 10 of the implementation, within three to four months after an office implemented FAR. These interviews consisted of a structured set of questions covering content areas from the process evaluation section of the WA Title IV-E Evaluation Plan. We employed three instruments: one for administrators, FAR supervisors, and FAR caseworkers; one for investigative staff (supervisors and caseworkers); and one for service providers. Investigative staff interviews received a smaller survey, which comprises relevant questions asked of administrators, FAR supervisors, and FAR caseworkers. Service providers received a separate subset of questions limited to service provision and family involvement.

The table below (Table 3) shows the dates, by phase, of the interviews and the number of interviewees at each office. The "Administrators" grouping includes FAR Leads, Regional Leads, and Area Administrators. The "FAR" category includes FAR caseworkers and FAR supervisors (including those serving dual roles). The "Investigations" category includes dedicated investigative caseworkers and supervisors.

Table 3. Total Interviews Conducted by Role by Phase

Role Category	Office Rollout Phase										Total
	1	2	3	4	5	6	7	8[18]	9	10	
Administrator	12	10	17	10	6	2	3	2	6	3	71
FAR	34	22	53	61	41	12	18	5	19	15	280
Investigations	9	7	29	26	20	3	8	0	7	19	128
Service Provider	7	11	12	7	4	3	5	0	3	0	52

[18] Phase 8 had only two offices rollout: White Center and King West. As such, interview levels were notably lower than levels at other phases—and especially relative to earlier phases with more and larger offices.

Role Category	Office Rollout Phase										Total
	1	2	3	4	5	6	7	8[18]	9	10	
Total	62	50	111	104	71	20	34	7	35	37	531

We interviewed a total of 71 administrators, 280 FAR caseworkers and supervisors, 128 investigative caseworkers and supervisors, and 52 service providers (see Table 3). These totals include a portion of "follow-up" interviews conducted at phase 1 offices during the pause in FAR implementation. Results exclude the ratings made during follow-up interviews and the ratings made by service providers.

Results from these interviews, which provide key data for several portions of the Process Study, reflect differing perspectives between FAR caseworkers and Investigative caseworkers. These responses are especially noteworthy when asked about levels of agreement with the FAR approach. Because FAR caseworkers volunteered to work in FAR (as opposed to being mandated or assigned by offices), some pre-implementation bias may shape FAR caseworker favorability or investigative caseworker hesitancy.

4.3.2 Family Surveys

A key data resource for several components of the process evaluation is family surveys. We developed the surveys to collect families' perspectives on their engagement with child welfare programs and services. The survey also asked about areas of well-being. Sampling for families varied over time. During the first three years of surveys (2015–2017), families were asked to sign a FAR Agreement. As part of that agreement, caregivers indicated a willingness to be contacted to participate in an interview. All caregivers who indicated they were willing, and for whom a valid phone number could be obtained, were contacted to attempt a survey. Following the elimination of the FAR Agreement, sampling expanded to include, initially, a targeted selection of families and, finally, all families with contact information who had completed FAR.

Survey Completion Rates and Distribution

Family Survey data were gathered through abbreviated surveys via automated phone interviews (OneReach) or online forms (SurveyMonkey) or through "parent allies" via a live telephone survey. Parent allies began conducting interviews with families who had consented, on the FAR agreement letter, to be contacted by TriWest following completion of their FAR cases. Based on this agreement, DCYF provided us with monthly closure lists. These lists included contact information, in the form of telephone numbers, for FAR families who had expressed consent to be interviewed. Later in the evaluation, following the removal of the FAR agreement in October 2017, DCYF, through its Research and Data Analysis (RDA) unit, sent contact information for *all* families with FAR closures to us on a monthly basis. As noted above,

we processed these closure lists (either a targeted selection or a complete collection of all closures) and distributed them to parent allies.

Although we began surveys shortly after initial Phase I rollouts in 2014, we started tracking call response rates—the distribution of responses to parent ally surveys—with May 2015 closures. The parent ally program continued to make calls until April 2019, completing calls on closure lists through December 2018. In addition, parent allies responded to FAR family requests for surveys ("callbacks"[19]) until April 2019, when the phone survey system was disabled. The OneReach automated phone interview began operation in March 2016; the SurveyMonkey online form began in May 2015. We disabled both systems in April 2019.

Altogether, over 5,000 contacts were made or attempted with FAR families between May 2015 and April 2019 (see Table 4).

Table 4. Contacts Made or Attempted (All Methods)

Method	Contacts Made or Attempted
OneReach Automated Phone Interview	37
SurveyMonkey Online Survey	302
FAR Family "Callback"	241
Parent Ally Contact	4,471
Total	5,051

Response Distribution

The following descriptions summarize the distribution of data collected for reporting family responses to the FAR program. The chart below (Figure 3) shows the frequency of call attempts from parent allies and the distribution of responses to these call attempts. Between May 2015 closures and December 2018 closures, parent allies made or attempted contact with 4,471 families and achieved an average 32% (1,426) survey completion rate. The largest impediment to increased surveys is difficulty reaching FAR families. About 49% of all calls, usually after three attempts per family, concluded because of either no answer (including busy signals, full voicemail inboxes, or failure to answer the phone at an agreed upon time), unreturned messages left on voicemail, or disconnection in some form (including service responses that a recipient cannot accept calls or an invalid number). And additional 7% of call attempts were classified as having an "unknown" result (generally indicating that a parent ally did not record the reason for no survey or because the contact was referred to a different survey method).

[19] Because callbacks are initiated by FAR families, they may come from any DSHS office in the state. In the Family Survey analysis, callbacks are grouped with specific offices, when identifiable.

However, when contact was made, about 89% of FAR family respondents complete a survey (Figure 4).

Figure 3: Call Response Distribution (May 2015–December 2018 Closures)

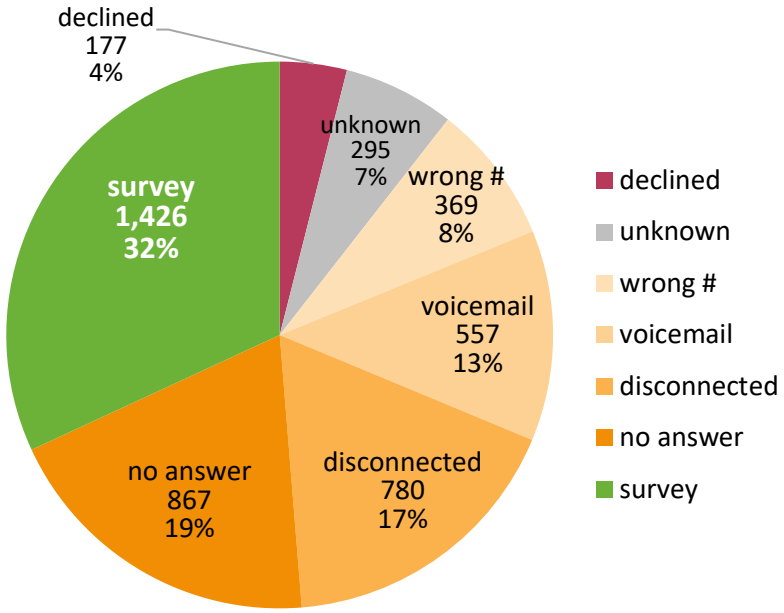
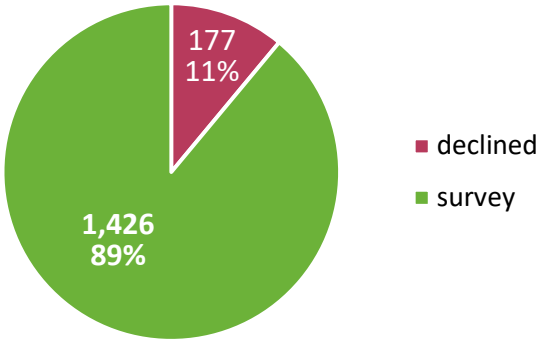


Figure 4. Response with Successful Contact

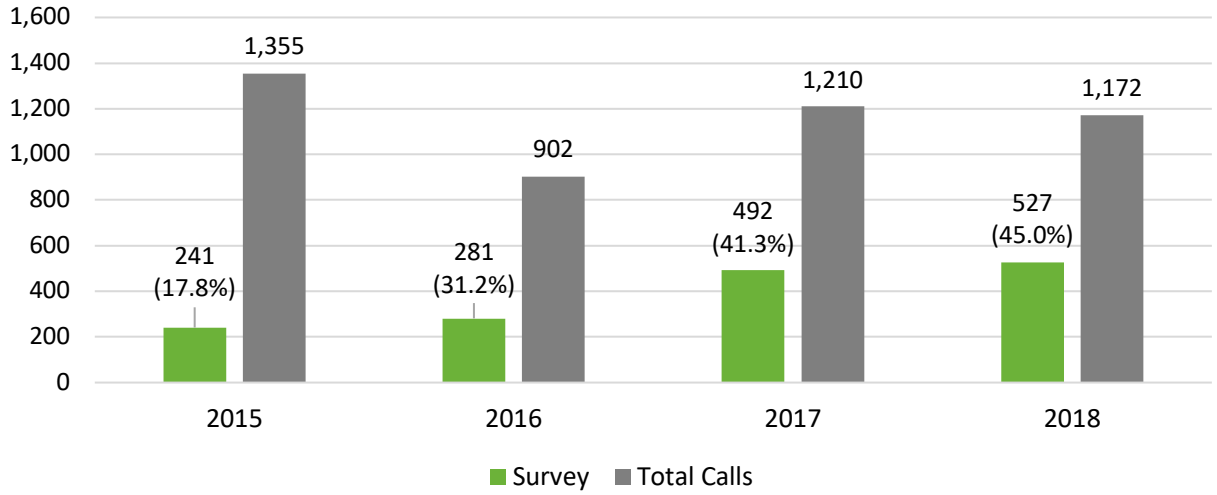


The data also show that survey rates improved significantly over the course of the program. Survey rates nearly doubled from 17.8% with 2015[20] closures to 31.2% with 2016 closures; however, the total number of calls attempted fell off by one third for 2016 closures (Figure 5). Total calls improved for 2017 closures, and survey rates grew 10 percentage points over the previous year (and nearly 24 percentage points over the initial-year closures). Ultimately,

[20] Note that years represent closure dates and not necessarily the dates when calls were attempted.

survey rates, as a percentage of total calls attempted, nearly tripled between 2015 closures and 2018 closures.

Figure 5: Survey Rates by Year

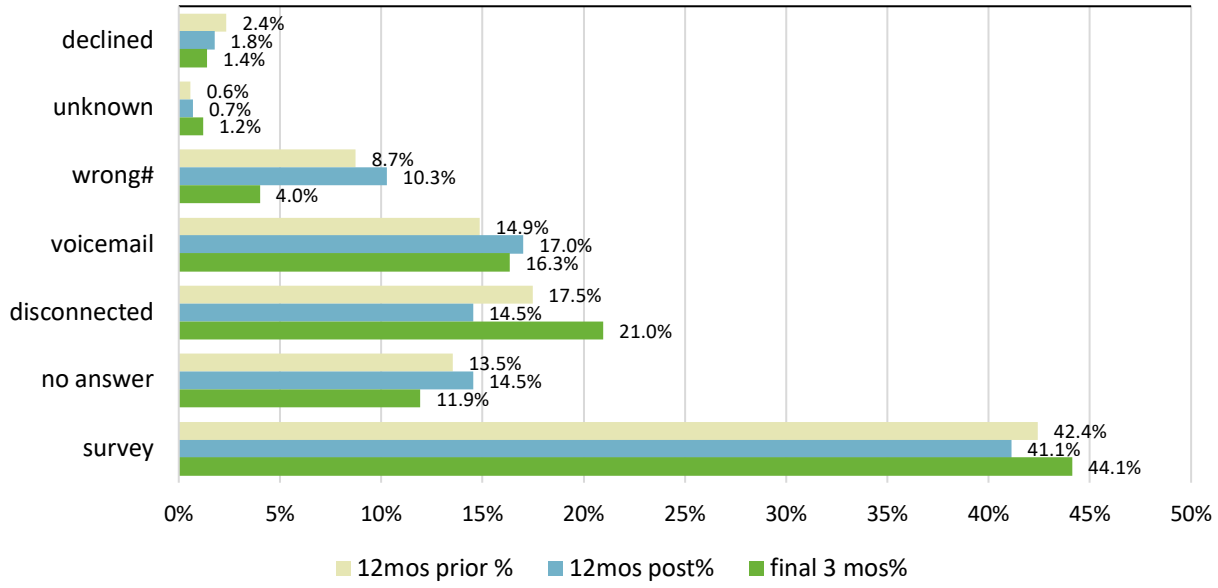


These increases over the final two years of closures are also significant in indicating the effect of the FAR agreement removal. As noted above, closures prior to October 2017 were filtered to include only those families who had consented to being contacted by TriWest. Closures post-agreement were then a complete list of all families who had completed FAR. For several months (October 2017–September 2018), we distributed call lists based a weighted sample. For the final three months of closures, we distributed call lists with all families with contact information.

The following chart compares results for three periods: (1) the year before the end of the FAR Agreement ("12mos prior%"), the year following the FAR agreement ("12mos post%"), and the final three months of closures ("final 3 mos%)—representing *all* FAR families closing a FAR case.

Apart from a relatively sizable drop in wrong numbers in the final three months, little difference is apparent in response rates, especially with survey rates showing only minimal variation over the closures between October 2017 and December 2018. This general consistency between self-selecting FAR families and the full selection of FAR families suggests that the distribution of responses among respondents is not appreciably biased by self-selection.

Figure 6: Response Distribution Pre/Post FAR Agreement



Finally, some offices, such as Vancouver and Pierce East, received a disproportionate number of calls and completed surveys relative to other offices of similar size. This disparity is primarily a consequence of the phased rollout structure of FAR. An office such as Vancouver, for example, implemented FAR in October 2014 and received heavy initial focus, whereas Yakima rolled out in April 2017. Despite these imbalances over the course of the evaluation, offices tended to receive similar focus, relative to office size, over comparable amounts of time. For example, over the final span of surveys, between August 2018 and December 2018, Vancouver received 67 attempts and Yakima received 63.

Response Results and Decay

Throughout this study, we align particular Family Survey questions with particular research questions.[21] Although most Family Survey questions can be assigned to individual offices and by closure year, we use aggregate results when possible. This approach allows for a more direct response to a question—especially as questions are aimed at the evaluation as a whole, not necessarily to individual offices—and avoids the cumbersome nature of presenting four years of data from over 40 offices. However, in aggregating, we do sacrifice some details, specifically (1) in the degree any single office may shape the overall results and in (2) differences in responses across years.

[21] The complete list of Family Survey questions is in the Document Appendix. Results of aggregate responses to each of the 22 questions (including sub-questions) is in the Technical Appendix.

As such, we can provide complete Family Survey data available as needed for a by-office breakdown. Beyond that, concerning the differences in responses across years, we have noticed a general decay in the intensity of favorability toward FAR among families. Specifically, differences between favorable responses in 2015, the first year of Family Survey data, and 2018 are prominent. We found a seven-percentage-point decline, on average, in the degree of favorability. For example, based on our composite of eight questions,[22] we found that 67% of respondents in 2015 answered at the highest positive level on questions and another 17% affirmed the second-highest positive level (a total of 84%). For the same composite of questions, 2018 respondents affirmed the highest positive-level responses 58% of the time and second-highest 18% (a total of 76%). As Figure 7 and Figure 8 present, respondents were less likely to respond favorably to Family Survey questions as the program continued.

Figure 7. Family Survey Levels of Favorable/Non-Favorable Response (Four Levels)

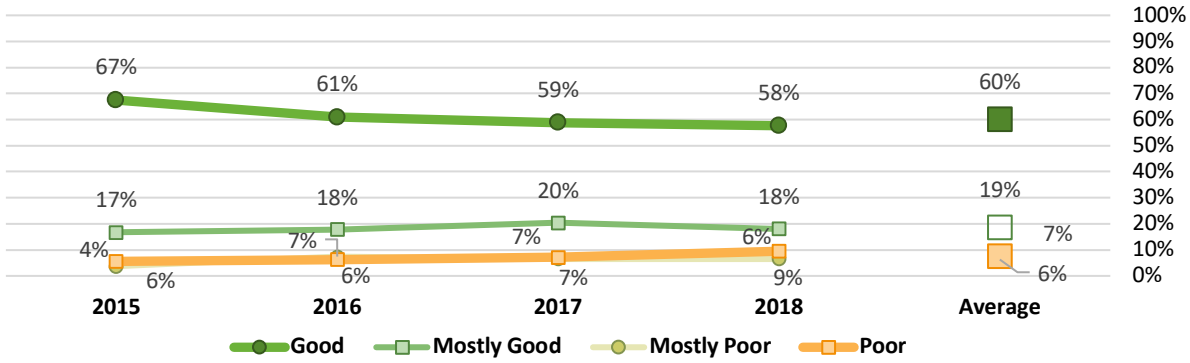
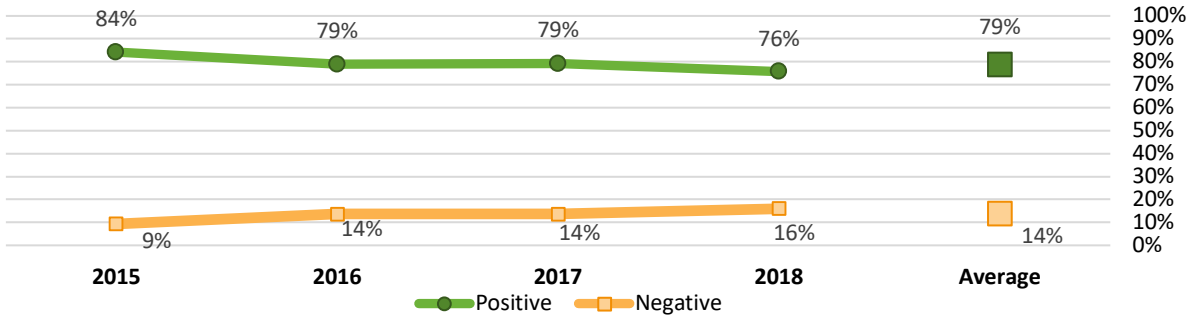


Figure 8. Family Survey Levels of Favorable/Non-Favorable Response (Combine Positive/Negative Responses)



[22] For this composite, we used questions 2, 4, 7, 10, 13, 18, 19, and 20. The individual questions and results are available in the Technical Appendix.

However, although there is a clear decay over the four years of family surveys, the greatest drop occurs between 2015 and 2016, with very minor decay in subsequent years. As discussed in other portions of the report, this favorability drop coincides with the rollout "pause," which occurred in 2015 and likely affected several components of the initial attitudes of FAR. The relative steadiness between 2016 and 2018 is likely a more reliable indicator of family views of FAR.

4.3.3 FamLink and Other Administrative Data Sources

We obtained administrative data regarding caseloads and the results of administrative case reviews. These data included all families originally assigned to FAR at intake (and comparison families for the outcome study). TriWest utilized multiple administrative reports and documents to describe implementation activities in the process study.

4.3.4 DCYF Case Reviews

We also received aggregate summary reports of FAR case reviews conducted by DCYF staff. All available case review summaries were used. However, these data are limited. For example, not all offices were reviewed in all years. Also, review questions changed slightly over time. We incorporated as much case review data as possible.

4.3.5 Fidelity Ratings

Our Fidelity Rating Methodology attempts to (1) evaluate offices using a percentage-based rating (i.e., 0–100%) (2) based on a broad set of indicators and measures (3) that reflect priorities of the logic model (4) with a goal of succinctly quantifying each office's fidelity to the FAR model. Because some measures (i.e., key informant interviews) have data for only the implementation year, we provide two types of ratings: a one-time **Implementation Year (IY) Fidelity Rating** and a **Yearly (Y) Fidelity Rating**. The following table presents a condensed overview of the various data sources and fields used to comprise the fidelity rating. The first column ("Training and Readiness") is used only for the IY rating. We produce a Fidelity Rating (IY and Y) by averaging the average percentages of each column. An expanded discussion and metric follows.

Table 5. Fidelity Scoring Subcategory Overview

Training and Readiness (IY Only)	Caseload	Family Assessment and Engagement	Family Involvement in Services	FAR Elements Related to Safety
KII: NPRQ 4.2.1 How prepared for FAR were you when FAR was implemented?	CW Report: For every year (2015–2018) caseloads are scored as at standard or below.	FS: 7. I was actively engaged in the process.	CR: Were there efforts to collaborate with the mother to assess the family's needs and identify appropriate services?	CR: Was the parent/caregiver contacted in advance to arrange the initial meeting unless a

Training and Readiness (IY Only)	Caseload	Family Assessment and Engagement	Family Involvement in Services	FAR Elements Related to Safety
KII: NPRQ 4.2.2 If FAR were beginning today, how prepared would you be?		FL: Contacts per family	CR: Were there efforts to collaborate with the father to assess the family's needs and identify appropriate services?	significant safety concern required an unannounced home visit?
KII: PRQ 11.1.2 How much did barriers interfere with the FAR implementation?		CR: Were interviews and observations of child victim(s) sufficiently comprehensive?	FS: (4) My caseworker listened to my opinion about whether or not my family needed services.	CR: Did the Initial Face-to-Face (IFF) contact with all child victims occur, or were sufficient attempts made, within the required 72-hour response time?
KII: PRQ 8.1.1 How much do you agree with the FAR approach?				
KII: PRQ 8.1.2 How much do your peers agree with the FAR approach?		CR: Were the parent/caregiver interviews sufficiently comprehensive?	FS (17) Of those who responded "YES" to 17, "Did you receive any help or services from your caseworker or other source through FAR?" response to follow up: "If yes, was it the kind of help you needed?	CR: Was a Safety Assessment completed that accurately identified if the child was safe or unsafe?
KII: PRQ 9.1.1 EBPs paid for by DCYF				CR: Was the FAR intervention sufficiently comprehensive to determine if all children were safe, and were all risk and safety threats adequately addressed?
KII: PRQ 5.1.5 Concrete supports paid for by DCYF			FL: Any EBP provided?	
			FL: Any Service provided	
Avg. all %'s (IY Only)	**% indicating degree caseloads per FTE met or exceeded ≤15?**	**Avg. all %'s**	**Avg. all %'s**	**Avg. all %'s**

Calculating Fidelity Ratings

The following table (Table 6) lists the same categories and fields the table above presents in grid form. Where possible, we have provided field names (and/or questions) and descriptions of possible responses for each item within a subcategory. We have also indicated the sources of those fields and data (i.e., KII=Key Informant Interview, FS=Family Survey, CR=Case Review, FL=FamLink).

Percentages-Based Scoring

All fields have equal weight within any subcategory (e.g., PRQ 5.1.5 reporting on concrete good use/increase has equal weight to PRQ 11.1.1 on barriers in the "Training and Readiness" subcategory). As such, calculating the average percentage for any subcategory requires averaging all percentages for each field within that subcategory.[23] In Table 6, we note the method or metric for determining each field's percentage in the "Percentages" column.

[23] This process applies to all subcategories except "Caseload," which comprises only one measure: the percentage of caseload ratios that are at or below a standard threshold.

Likewise, we describe possible values or responses for each field (e.g., a Likert scale set of possible responses to a survey question) in the "Value Description" column.

To calculate the total fidelity rating, we first average the percentages within each subcategory to form a single composite percentage for that subcategory, resulting in five distinct subcategory averages. For the Initial Year rating, we average all five measures percentage averages to form the IY Fidelity Rating. Otherwise, we average the average percentages of four subcategories (omitting "Training and Readiness") to form the Yearly Fidelity Rating.

Because data are incomplete in both case reviews and family surveys (i.e., some small offices did not have enough survey responses in a given year for a valid sample size), we calculated two distinct fidelity ratings for each office for each year. First, we calculate a "core" fidelity score. This score includes items with consistent administrative data for all of a given office's implementation years, between 2015 and 2017. The "core" fidelity measure includes four measures: caseloads, number of family contacts, percentage of high-risk families receiving services, and percentage of high-risk families receiving an evidence-based practice service.

Table 6. Fidelity Subcategory Breakdown by Measure and Scoring

Measure	Value Description	Percentages
Training and Readiness (Implementation Year Only)		
KII: NPRQ 4.2.1 How prepared for FAR were you when FAR was implemented?	1=Not Prepared 2=Somewhat Prepared 3=Mostly Prepared 4=Very Prepared	Calculate as average score/4.0
KII: NPRQ 4.2.2 If FAR were beginning today, how prepared would you be?	1=Not Prepared 2=Somewhat Prepared 3=Mostly Prepared 4=Very Prepared	Calculate as average score/4.0
KII: PRQ 11.1.2 How much did barriers interfere with the FAR implementation?	1=Very Much a Barrier 2=Noticeable Barrier 3=Somewhat a Barrier 4=Not a Barrier	Calculate as average score/4.0
KII: PRQ 8.1.1 How much do you agree with the FAR approach?	1=Don't Agree 2=Somewhat Agree 3=Mostly Agree 4=Completely Agree	Calculate as average score/4.0
KII: PRQ 8.1.2 How much do your peers agree with the FAR approach?	1=Don't Agree 2=Somewhat Agree 3=Mostly Agree 4=Completely Agree	Calculate as average score/4.0
KII: PRQ 9.1.1 EBPs paid for by the Children's Administration	1=Decreased 2=Stayed the Same 3=Increased	Calculate as average score/3.0
KII: PRQ 5.1.5 Concrete supports paid for by the Children's Administration	1=Decreased 2=Stayed the Same 3=Increased	Calculate as average score/3.0

Measure	Value Description	Percentages
Max Total Subcategory Average (IY Only)		**100% (Average of all %)**
Caseload		
CW Report ("Average FAR Caseload by Office"): For every year (2015–2018) caseloads are scored as at standard or below. (The standard value of "15" was determined by DCYF recommendation and according to standards developed in other states' policies.[24])	>15=Above expected caseload ≤15=Standard expected caseload	Offices with average caseloads per FTE ≤15 score 100%. Offices with average caseloads >15 are assigned percentages based on the extent that the office caseload average exceeds standard weight.
Max Total Score		**100% (% of Caseloads at ≤15)**
Family Assessment and Engagement		
FS: 7. I was actively engaged in the process.	1=Never 2=Not very often 3=Some of the time 4=Always or almost always	Calculated as average score/4.0
FL: Contacts per family	Three possible scores: 1. For FAR cases 0–45 days, contacts >0=100% 2. For FAR cases >45 days, ages 0–5, contacts ≥3 per every 30-day period after day 45 3. For FAR cases >45 days, ages >5, contacts ≥2 per every 30-day period after 45 days	Offices are scored based on % of families who are within threshold, depending on 1, 2, or 3.
CR: Were interviews and observations of child victim(s) sufficiently comprehensive?	X=No Y=Yes	% of "Yes"
CR: Were the parent/caregiver interviews sufficiently comprehensive?	X=No Y=Yes	% of "Yes"
Max Total Subcategory Average		**100% (Average of all %)**
Family Involvement in Services		
CR: Were there efforts to collaborate with the mother to assess the family's needs and identify appropriate services?[25]	X=No Y=Yes	% of "Yes"
CR: Were there efforts to collaborate with the father to assess the family's needs and identify appropriate services?	X=No Y=Yes	% of "Yes"
FS: (4) My caseworker listened to my opinion about whether or not my family needed services.	1=Never 2=Not very often 3=Some of the time 4=Always or almost always	Calculate as average score/4.0

[24] Siegel, G., Loman, A., (2014). Ohio Alternative Response Evaluation Extension: Final Report. Institute of Applied Research, St. Louis, MO.; Siegel, G., Filonow, C., Loman, L. (2010). Differential Response in Nevada - Final Evaluation Report. Institute of Applied Research. St. Louis, MO.

[25] Case reviews for 2014–2015 contained items regarding efforts to collaborate with mother/father. For 2016 and 2017 reviews, this was changed to gaining "collateral contacts." The percentage of reviews finding sufficient efforts to engage collateral contacts replaced these two items for fidelity analyses for 2016 and 2017.

Measure	Value Description	Percentages
FS (17) Of those who responded "YES" to 17, "Did you receive any help or services from your caseworker or other source through FAR?" response to follow up: "If yes, was it the kind of help you needed?"	1=No 2=Yes	% responding "Yes"
FL: Any EBP provided?	% of families with a paid EBP service in FL Among top quartile of risk	% "Yes"
FL: Any service provided?	% of families with any paid service in FL Among top quartile of risk	% "Yes"
Max Total Subcategory Average		**100% (Average of all %)**
FAR Elements Related to Safety		
CR: Was the parent/caregiver contacted in advance to arrange the initial meeting unless a significant safety concern required an unannounced home visit?	X=No Y=Yes	% "Yes"
CR: Did the Initial Face-to-Face (IFF) contact with all child victims occur, or were sufficient attempts made, within the required 72-hour response time?	X=No Y=Yes	% "Yes"
CR: Was a Safety Assessment completed that accurately identified if the child was safe or unsafe?	X=No Y=Yes	% "Yes"
CR: Was the FAR intervention sufficiently comprehensive to determine if all children were safe, and were all risk and safety threats adequately addressed?	X=No Y=Yes	% "Yes"
Max Total Subcategory Average		**100% (Average of all %)**
Overall Fidelity Rating	IY=Average of all subcategory average %s	Y=Average of all subcategory average %s except "Training and Readiness"

Based on the calculation parameters presented above, scores can range between 0 and 100%. However, scores are meant to allow (1) for a description of an office's fidelity relative to other offices, (2) for assessment of the degree to which higher fidelity is related to better outcomes,[26] and (3) for tracking how office fidelity changed over time. No office is expected to score 100% because 100% is virtually impossible to achieve for most measures. For example, families can be offered services universally, but since participation in services is voluntary, we do not expect that all families offered offices would accept them. Similarly, although a higher percentage of families participating in EBPs is desirable in the FAR model, it is not feasible for the majority of families to participate (due to availability in some areas, family voluntary participation, appropriateness of EPB services for some families, etc.). Furthermore, in some cases, EBPs are not necessary for some contexts, including cases when a family may need one-time assistance with concrete goods.

[26] See the Outcome Study and Cost Study for this analysis.

4.4 Data Analysis and Results

To better respond to the guiding research questions, we have presented the following results as direct responses to each question. This ordering may create minor redundancy as any one data source may inform multiple questions; however, it has the advantage of making the data and analysis directly relevant to the Process Study and more accessible to readers who are interested in specific questions.

4.4.1 PRQ1 (Implementation)

How was FAR Implemented across the state? Describe the implementation process and family enrollment into FAR.

Summary Response to Question

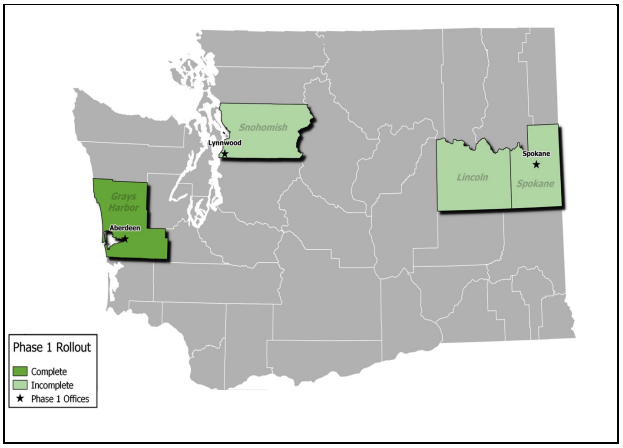
FAR was implemented through a 10-phase rollout process beginning in January 2014 and concluding in June 2017. During each phase of the rollout, DCYF trained and supported select offices for FAR implementation. Likewise, DCYF modified training and adjusted the FAR program based on the experiences and responses of offices in early phases. During this phased rollout, we assembled evaluation cohorts based on the number of families enrolled in FAR or eligible for FAR, allowing for the creation of treatment and comparison groups.

FAR Implementation

DCYF implemented FAR statewide over a 10-phase rollout process. During each phase, caseworkers in a rollout office were offered to remain in traditional investigations or become FAR caseworkers. In addition, each office was allotted a temporary "FAR Lead" position—a person tasked with helping to coordinate FAR with community resources—and office administration were designated to oversee FAR work and FAR caseworkers.

Initially, FAR was implemented in three "pilot" sites (see map at right) in January 2014. DCYF selected these three sites (Aberdeen, Lynnwood, and two zip codes of Spokane) based on their geographical locations and their readiness to implement the new pathway. The map shows the location of offices in which FAR was implemented (marked with a star) and indicates the degree to which FAR was available in the county. Counties with full FAR availability during a specific phase are indicated in dark green,

FAR: Phase 1 Rollout (January 2014)

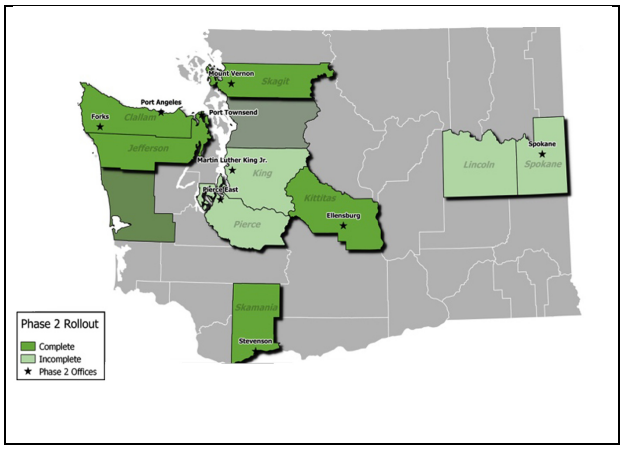


whereas counties with some FAR implementation (but where the entire county was not yet covered) are shown in light green. Gray shading indicates that FAR was not available at the time of that specific rollout phase.

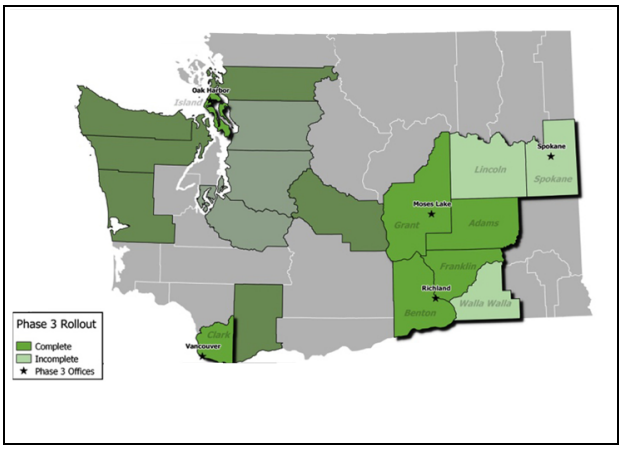
Following the six-month pilot site implementation, DCYF added FAR into new offices each quarter. The offices identified in the map (right) began implementing the FAR pathway in July 2014 (Phase 2).

In October 2014, an additional five offices were added across the state in Phase 3 of the rollout.

FAR: Phase 2 Rollout (July 2014)



FAR: Phase 3 Rollout (October 2014)

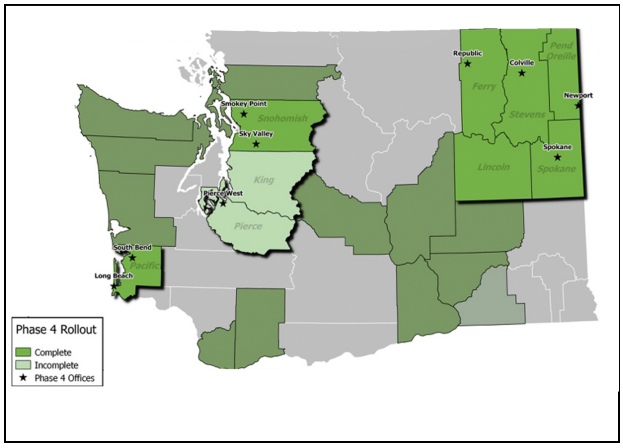


After the pilot implementation, and during the implementation of Phases 2 and 3, DCYF made two important changes. First, they adjusted training in response to feedback received from the pilot sites. These adjustments included providing more examples of FAR cases and situations that might be encountered with the new approach; they also included hearing from caseworkers with experience in implementing the program in the pilot sites.

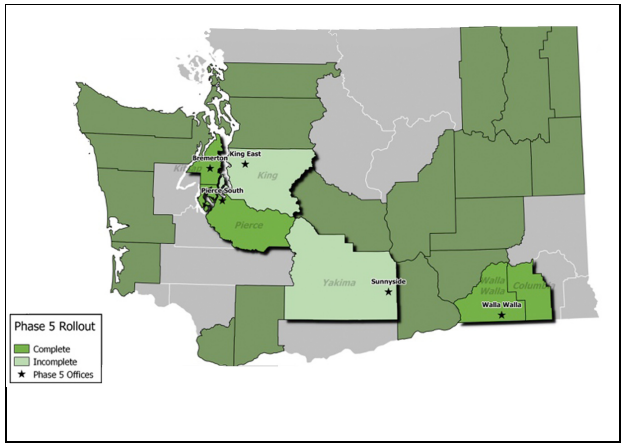
Second, DCYF began to work towards greater consistency of language in FAR, both internally (including in training) and externally (with community stakeholders). This language change focused on emphasizing that FAR is still a CPS response and that child safety remains the most important consideration of the approach.

During the Phase 4 and 5 rollouts, DCYF continued listening to feedback from the field, conducting case reviews, and revising trainings accordingly. In addition, after the Phase 4 rollout, FAR made an intake change. Physical abuse reports involving a child between 0 and 3 years old were no longer eligible for FAR.

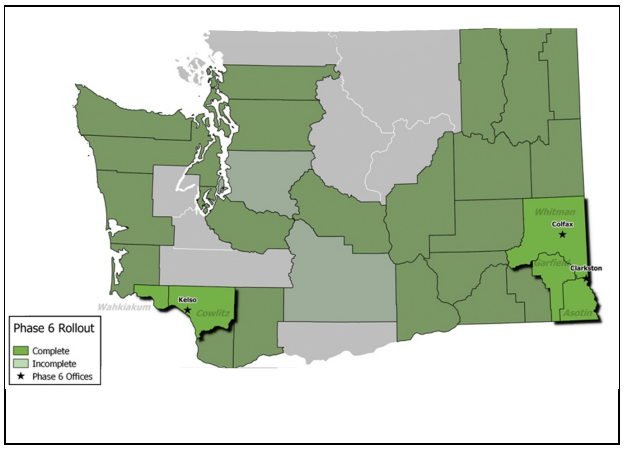
FAR: Phase 4 Rollout (January 2015)



FAR: Phase 5 Rollout (April 2015)



FAR: Phase 6 Rollout (October 2015)



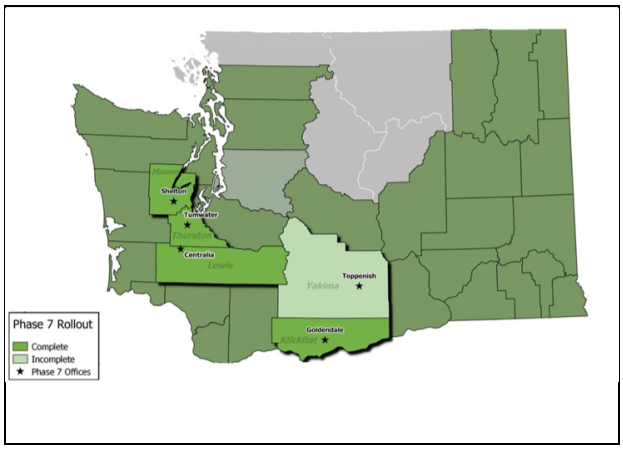
During the 2015 session, the Washington State Legislature did not allocate funding for the FAR program, resulting in a nine-month "pause" in the implementation of the program. Because of the statewide loss of funding, no FAR trainings were held between October 2015 and July 2016. However, three of the identified Phase 6 offices slated to rollout in October 2015 continued with their planned implementation; this process was possible largely because there were only three offices. Although the phased implementation appears to have continued as planned, this pause in training and the additional delay of rollout for 6 offices may have affected the implementation of the program and may have potentially influenced some family outcomes. Several key informants, particularly FAR administrators and FAR leads, noted that the "pause" decreased enthusiasm for FAR, with some caseworkers noting, at the time, that they began to view FAR as a program that did not have support, resulting in skepticism about whether FAR would be either successful or sustained.

Prior to resuming rollouts with Phase 7 offices in July 2016, DCYF worked with intake workers to clarify two points of FAR ineligibility: (1) cases with more than three intakes (not just assessments[27]) are ineligible for FAR and (2) cases involving inappropriate child sexual behavior of one child toward another child are ineligible for FAR.

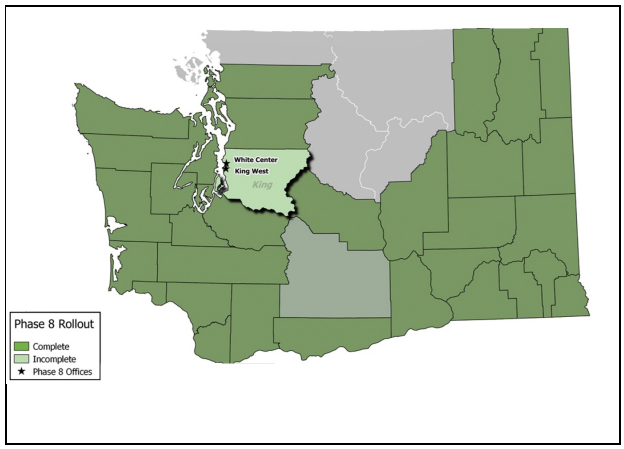
[27] Previously, DCYF identified some cases in which multiple intakes were receiving a single assessment, meaning that some families with more than three prior intakes were labelled as "FAR-eligible."

In addition, DCYF conducted a review of cases of physical abuse allegations involving 4- and 5-year-olds in both pathways. They determined that decisions regarding eligibility for FAR (as opposed to the investigative pathway) were being made appropriately and that child safety was being protected. The review recommended no changes to eligibility criteria.

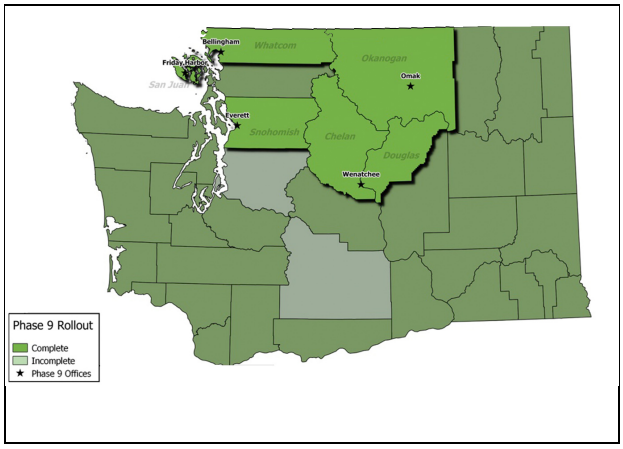
FAR: Phase 7 Rollout (July 2016)



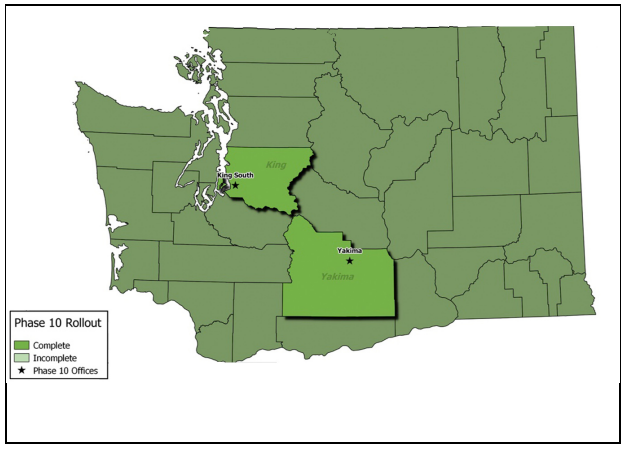
FAR: Phase 8 Rollout (October 2016)



FAR: Phase 9 Rollout (January 2017)



FAR: Phase 10 Rollout (April–June 2017)



Offices completed implementation in June 2017 when the final two offices, Yakima and King South, implemented FAR. All site visits were completed by October 2017. DCYF closed out the rollout phase of program implementation and transitioned to a focus on sustainability.

4.4.2 PRQ2 (Preparedness)

How did FAR and investigative office staff (administrators, supervisors, case workers) view their office preparedness for FAR implementation?

Summary Response to Question

In considering how FAR and investigative office staff (administrators, supervisors, case workers) viewed their office preparedness at time of FAR implementation, the key informant interviews suggest strong agreement that offices, on average, were prepared for implementation. According to the interviews, administrators tended to be prepared at slightly higher rates than FAR caseworkers were. Investigative caseworkers were least likely to agree that they were prepared for implementation, but they still, on average, expressed general agreement that they were prepared. Furthermore, caseworkers generally were able to find information and administrative support for their questions related to FAR implementation.

Key Informant Interview Findings

Our primary source for addressing this question is the responses of office staff themselves, specifically, the key informant interviews. As noted in the Sample section of this chapter (4.3.1), key informant interviews were conducted three to six months after an office implemented FAR. As such, the following responses are the best available indications of the degree to which administrators, supervisors, and caseworkers (both FAR and investigative) were prepared for FAR at the time of implementation and with reflection on increasing preparedness in the months afterward. These responses, though, should be considered as reflecting initial office implementation only. They do not speak to the continued/ongoing implementation of FAR in later time periods, when new staff (including supervisors and administrators) joined offices post-implementation.

Responses in Aggregate

The following findings reflect responses, taken in aggregate, across all roles and offices. As such, they indicate general agreement, regardless of role or position, and provide key trends on caseworker and administrative views of FAR progress over the interviewing period.

Ratings of FAR preparedness were generally higher in the final phases of FAR implementation than in the earliest phases as indicated by responses to question NPRQ 4.2.1, “How prepared for FAR were you when FAR was implemented?” Respondents from phases 1 through 3, on average, scored 2.77 on a 4.0-point scale, indicating an average response between “Somewhat Prepared” (2.0) and “Mostly Prepared” (3.0). Phases 8 through 10, however, averaged a score of 3.03, slightly above “Mostly Prepared” (see Table 7). These responses suggest that offices were able to work through initial struggles and that later phases benefited, in terms of preparedness, from the experiences of earlier-implemented offices and adjustments in training by DCYF.

Table 7. Responses to FAR Preparedness Across All Roles and All Phases

NPRQ4.2.1	Office Rollout Phase									
	1	2	3	4	5	6	7	8	9	10
Total Respondents	31	39	99	97	67	17	29	7	32	37
Average Rating	2.91	2.92	2.67	2.69	2.75	2.63	2.89	3.00	2.88	3.18

Below, we have included additional findings that appear across all roles. Where available, we have included the question number; the questions and available responses are presented in the Technical Appendix.

- Ratings of respondents' abilities to find answers to FAR questions and support from administrators were generally high (NPRQ 4.2.5, NPRQ 4.2.6).
- Ratings of the degree of change in parents' engagement (PRQ 15.1.1) were higher than the degree of change in caseworker engagement (PRQ 14.2.1). A likely reason for this disparity is that many caseworkers stated that their engagement with families was already at higher levels, prior to FAR implementation, than was family engagement. If this perspective is accepted, it indicates that though FAR had relatively minimal impact on caseworker engagement, it did have meaningful impact on family engagement.
- The safety assessment was the tool rated most useful (NPRQ 21.3.2, an average rating of 3.0 on a 4.0-point scale), the FARFA was rated moderately useful (NPRQ 21.3.5, average rating of 2.83), and the SDM risk assessment was rated least useful (NPRQ 21.3.4, average rating of 2.48).
- Access to EBPs mostly stayed the same (PRQ 9.1.1), access to community-based supports or services saw a minor increase (PRQ 5.1.6), and access to DCYF-provided supports saw the greatest increase (PRQ 5.1.5). This increases in DCYF-provided supports reflects comments that the ability to easily and quickly provide concrete goods with the "FAR card" is one of the most beneficial aspects of FAR.
- Ratings of office/community partnerships and the degree to which the community understands FAR remained relatively low (PRQ 24.1.1).

Responses by Role

The following findings reflect differences in perspectives and experiences across roles (i.e., FAR caseworkers, investigative caseworkers, administrators). As an example of these differences, administrators tended to respond to question NPRQ 4.2.1, "How prepared for FAR were you when FAR was implemented?" with a higher view of preparedness than did other respondents. Administrators, on average, scored 3.28 on a 4.0-point scale, indicating an average response between "Mostly Prepared" (3.0) and "Very Prepared" (4.0). Caseworkers, both FAR and investigative, tended to view their level of preparation at FAR somewhat lower (see Table 8).

Table 8. Responses to FAR Preparedness at Implementation by Role

NPRQ4.2.1	Administrators	FAR Caseworkers	Investigative Caseworkers
Total Respondents	69	267	119
Average Rating	3.28	2.75	2.59

Below, we have included additional findings. Where available, we have included the question number; the questions and possible responses are presented in the Technical Appendix.

- On average, administrators tended to rate preparedness at the start of implementation higher than other respondents, with an average rating of 3.28 on a 4.0-scale, signifying responses FAR and investigative workers. Investigative workers gave the lowest ratings of preparedness for FAR at implementation (NPRQ 4.2.1).
- All caseworkers had more trouble than administrators finding answers to FAR questions (NPRQ 3.2.5).
- Although all respondents, on average, rated administrative support relatively high (between "Mostly Supportive" and "Very Supportive"), investigative caseworkers (3.31) and FAR caseworkers (3.39) tended to have lower ratings (3.31 and 3.39, respectively) than did administrators themselves (3.78) (NPRQ 4.2.6.).
- Preparedness at the start of implementation tended to increase slightly by phase.
- Barriers to FAR implementation tended to decrease slightly by phase.
- FAR caseworkers serving in a dual role (i.e., serving both FAR and investigative clients) expressed having reduced feelings of FAR preparedness.

4.4.3 PRQ3 (Effects on Casework)

How did FAR and investigative office staff (administrators, supervisors, case workers) describe how implementation affected CPS casework?

Summary Response to Question

Based on key informant interviews conducted at all DCYF offices in the state, we found that, on average, office staff reported only minor detrimental effects on CPS casework. Further, staff tended to agree with the FAR approach, with strongest support coming from administrators and FAR caseworkers. Investigative caseworkers were slightly less in agreement of FAR. In addition, the vast majority of surveyed families who completed FAR and who had previous CPS experience stated that their current experiences with DCYF was improved or unchanged relative to earlier experiences, suggesting that FAR's effects on casework were largely beneficial for the families served by FAR.

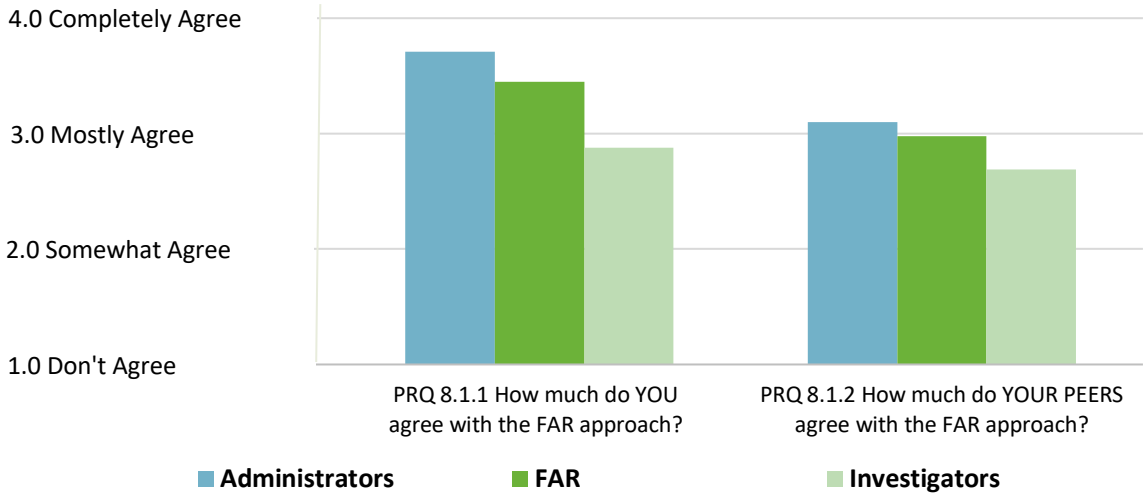
Expanded Response

Responses to this question come primarily from key informant interviews and family surveys. In particular, we attempted to find, based on staff responses, how caseworkers (both FAR and investigative) experienced changes to work because of the FAR implementation. As might be expected, any significant change to protocol, language, and expectations should have some impact. The extent and character of that impact (i.e., whether there were desired or unwanted effects and to what degree) are not so predictable; those that are significant are considered in the Outcome Study or Cost Study. In many cases, caseworkers, especially FAR workers, tended to view the FAR approach as favorable.

Key Informant Interviews

The primary indicator of how implementation affected casework was how staff, including administrators, expressed agreement with the FAR approach. Our two key data points on this question considered both how staff being interviewed viewed FAR and how these same staff perceived peer agreement with the FAR approach. As the following graphic presents (Figure 9), staff tended to have a relatively high level of agreement with the approach while expecting that their peers had lower levels of agreement. So, although individual caseworkers were likely to report an agreement with the FAR approach, they were less likely to feel like the office overall was as accepting. In offices where there were greater disparities between these two questions, there appeared to be more conflict and less enthusiasm, overall, for the FAR implementation.

Figure 9. Agreement on FAR Approach by Role



As noted in the data description of these interviews, caseworkers voluntarily transferred to FAR or chose to remain in investigations. As such, some bias regarding FAR agreement likely existed

prior to implementation. Below, we summarize the overall findings from these and related questions.

- Ratings of personal agreement with the FAR approach were highest for administrators and lowest for investigators (PRQ 8.1.1). This lower level of agreement generally reflects lower investigator buy-in with FAR.[28] Ratings of perceived peer agreement with FAR were especially low for investigators (PRQ 8.1.2) (See Figure 9).
- When asked to consider both the degree of positive change attributable to FAR (NPRQ 1.3.3) and whether barriers interfered with FAR implementation (PRQ 1.1.2), respondents generally rated positive change higher than they rated barriers to implementation.
- On average, individual respondents' ratings of personal agreement with the FAR approach (PRQ 8.1.1) were always higher than the same respondents' perceived view of how peers agreed with the FAR approach (PRQ 8.1.2). This disparity suggests that caseworkers and administrators may have a slightly more negative perception of how FAR is being received than actually exists within the offices.
- Administrators reported the highest levels of positive change (2.89), and investigators reported the lowest (2.61). FAR ratings were in the middle (2.75) but were not significantly different from either group (NPRQ 11.3.3).
- Administrators reported the highest levels of change in caseworker engagement practice (2.96), with FAR workers viewing positive change slightly lower (2.67). In contrast, however, investigators rated the level of change very low: 1.54 (about halfway between "No Change" and "Some Change"). All three differences in ratings were statistically significant (PRQ 14.2.1).

In addition to the questions above, we also found that responses tended to vary slightly across time and dependent on whether caseworkers were serving dual roles (i.e., serving both FAR and investigative clients) or if offices were urban or rural.

- Barriers to FAR implementation tended to decrease slightly by phase.
- FAR caseworkers serving a dual role experienced, relative to both FAR caseworkers and investigative caseworkers, reduced feelings of support from administration; reduced ratings of peer agreement with FAR, likely because these FAR workers had greater contact with investigators; and reduced ratings of the degree of positive change.
- Caseworkers in urban offices tended to have greater personal agreement with FAR.
- Caseworkers in urban offices tended to rate peer agreement with FAR much higher. This trend likely reflects that smaller, more-rural offices tended to be a tighter-knit staff with more-consistent views.

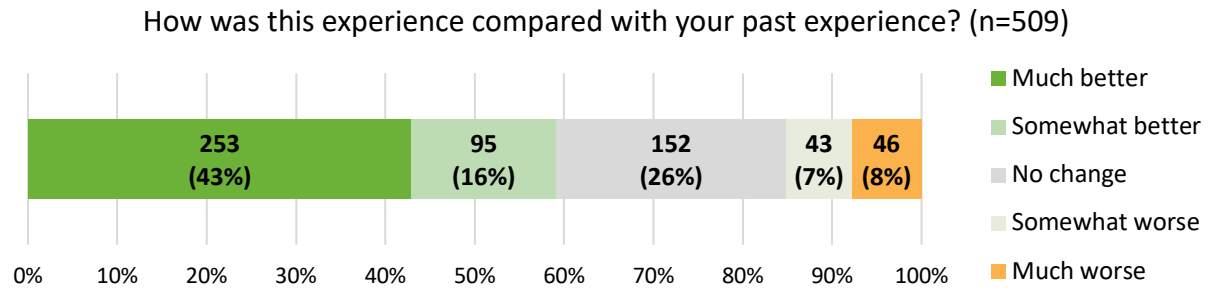
[28] As noted in 4.4.1, as each office rolled out, caseworkers were offered the opportunity to move from investigations into FAR casework. As such, some gap of agreement and perspectives toward FAR between investigative caseworkers and FAR caseworkers may have existed prior to actual FAR implementation.

Family Survey Responses

The Family Surveys are not directly concerned with this question. However, they do provide one question that asks whether experience working with DCYF has improved as a result of FAR, which indirectly may suggest changes in function and interaction that show either improvement or regression.

The survey specifically allowed families with prior DCYF experience to contrast and rate their experience with FAR, responding to the question, "How was this experience compared with your past experience?" Of the 590 respondents, 348 (59%) replied that their experience was "Much better" or "Somewhat better." Another 152 (26%) replied that they noticed no change in their experience. About 15% (89) of respondents indicated that their experience was "Somewhat worse" or "Much worse" than a previous experience.

Figure 10. Family Survey Question 22



4.4.4 PRQ4 (Effects on Family Engagement)

How did FAR implementation affect family engagement?

Summary Response to Question

Based on perspectives from both families and DCYF workers, FAR has improved engagement with families. From the DCYF perspective, FAR increased the degree and quality of partnering with families. And though investigative caseworkers are less inclined to see significant change, they still note perceptible positive effects of FAR, especially in options for providing services. Families, likewise, report high levels of engagement and inclusion, noting that caseworkers tend to include family perspectives in casework.

Expanded Response

The FAR model stresses working together with families and establishing a relationship that is less adversarial than traditional CPS investigations by finding a different pathway to engage families, to establish trust, and to encourage families to accept support and participate in

services. Our primary ways of measuring whether these goals were reached are the key informant surveys with office staff (administrators, FAR workers, investigative workers) and family surveys with parents and/or guardians who have successfully completed FAR.

Key Informant Interviews

As noted in previous sections, we conducted key informant interviews at DCYF offices within three to six months of an office's implementation of FAR. We selected four questions from those interviews to express caseworker and administrator perspectives on whether FAR implementation affected engagement with families. When possible, we also considered how—the extent or form of that changed engagement—took form.

- **PRQ 14.1.1.** How often do social workers engage families to work with them as partners?
- **PRQ 14.2.1** How much as social worker family engagement practice changed as a result of FAR? [alternative: If you weren't an investigator prior to FAR, what is your understanding of how much social worker engagement practice has changed?]
- **PRQ 14.3.1** How often do social workers talk with parents to coordinate the time and place for interviewing children?
- **PRQ 15.1.1** How much has FAR increased parents' engagement in the case process?

Before considering these questions individually, we note some general findings relative to variation in phases, whether caseworkers served dual roles (i.e., served both FAR and investigative clients), and location.

- Changes in caseworker engagement practices tended to increase slightly by phase.
- Frustration with intake and screening procedures tended to rise by phase.
- Caseworkers serving a dual role expressed lower ratings of change in caseworker engagement as a result of FAR.
- Urban offices tended to register more frustration and disagreement with intake and screening decisions.

The following table (Table 9) presents average responses to the four survey questions noted above. These responses aggregate all offices, reporting on average rating by role for each of the questions.

Table 9. KII Responses to Engagement Questions

Question	Roles			Measures
	Administrators (max n=69)	FAR CWs (max n=267)	Inv CWs[29] (max n=119)	
PRQ 14.1.1	3.13	3.38	NA	4=Always, 3=Usually, 2=Sometimes, 1=Never
PRQ 14.2.1	2.96	2.67	1.54	4=Changed A Lot, 3=Noticeable, 2=Some Change, 1=No Change
PRQ 14.3.1	3.27	3.43	NA	4=Always, 3=Usually, 2=Sometimes, 1=Never
PRQ 15.1.1	3.23	2.89	NA	4=Much More, 3=Noticeably More, 2=Slightly More, 1=No More

For all questions, respondents noticed some level of increased engagement or change with families relative to previous approaches. Though administrators perceived this engagement as occurring at higher levels than FAR caseworkers did, both groups responded positively to questions about how FAR has changed the way that DCYF works with families.

Regarding question 14.1.1, both caseworkers and administrators expressed that this remains an ideal and that FAR has increased opportunities to work with families as partners. However, in a follow-up question, caseworkers noted some impediments to even higher levels of engagement. The key concerns expressed were largely issues of caseload and staffing, with one FAR worker noting, “Staffing issues have impacted our ability.” Another worker noted the logistical problem of trying to meet, within the allotted time, when the family is together. Specifically, the caseworker noted that families tend to be together in evenings but caseworker schedules tend to start early and coordinating with families can extend working hours to unsustainable levels.

On a practical note, though both FAR caseworkers and administrators rated 14.3.1 highly, at some point between “usually” and “always,” some caseworkers noted that perfect coordination is not always possible. One FAR worker stated that meeting with families is sometimes impeded by incorrect contact information or cannot be completed because of a “time crunch” (e.g., adhering to the 72-hour contact parameter when an intake arrives on a Friday), leading to the need to meet with a child separately from his or her family.

Notably, on question 14.2.1, which includes investigative caseworkers, there is greater discrepancy between how administrators and FAR caseworkers view the effect of FAR on

[29] Investigative caseworkers received a different survey than FAR caseworkers received. In some cases, as with PRQ 14.2.1, questions overlapped. However, in other cases, questions were designed exclusively for FAR caseworkers and have no investigative caseworker equivalent.

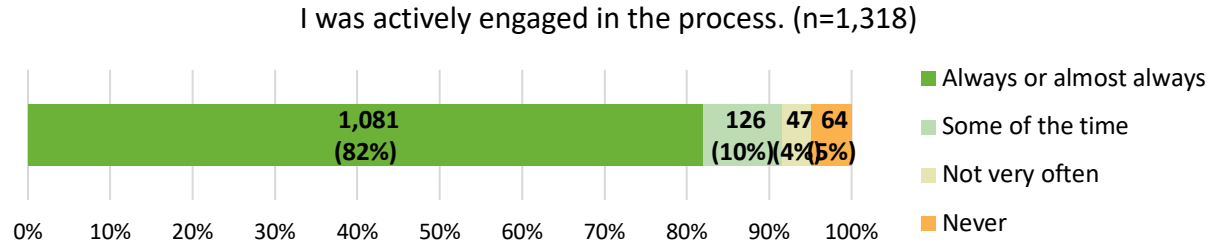
caseworker practice and what investigative workers perceive. Administrators and FAR workers saw some positive effects, with one FAR worker stating that families were more open to receiving services and another stating that FAR "changed our mindset on how we work with families." Another worker noted a less adversarial relationship, stating that "families are kinder to the social worker [in FAR]."

Investigative caseworkers were not in complete disagreement. One investigator stated, "I do try and give families more resources instead of just transferring them to FVS." However, several investigative caseworkers indicated they did not see any significant changes. This lack of change was sometimes attributed to a sense of separation: that FAR is an independent operation, with some early-phase interviewees referring to FAR and CPS as two distinct services (not identifying FAR as a CPS service). Another investigative caseworker noted that, because FAR cases tend to be lower risk, "We're not holding [FAR families] accountable with giving them a finding."

Family Survey Responses

Parents and caregivers also provided their perspectives on engagement through the family surveys. Overall, parents reported being engaged in the FAR process, with a vast majority (82%) of respondents expressing they were "always or almost always" actively engaged with the process. By contrast, only 5% of families responded they were "never" actively engaged (see Figure 11).

Figure 11. Family Level of Engagement with Process



This high percentage marks the average across four years of survey data. For the initial year (2015), respondents tended to respond "always or almost always" over 88% of the time (in contrast to only 2.6% responding "never"). Levels dropped to 82% in 2016 and remained, on average, close to that level for the remaining three years of family surveys.

In addition, families tended to note that the quality of the engagement—in terms of having their perspectives considered—was favorable. Most respondents (71%) reported that their caseworker discussed strengths, beliefs, and traditions at least "always," "almost always," or "some of the time," though nearly 30% of respondents stated their perspectives were never or

not often discussed (see Figure 12). Further, even larger majorities of families reported that they and their caseworker agreed on the family's strengths and needs (88% at always, almost always, or some of the time; see Figure 13). Likewise, very few families (9%) reported that caseworkers made important decisions without their input (see Figure 14).

Figure 12. Caseworker Discussion of Family Perspectives

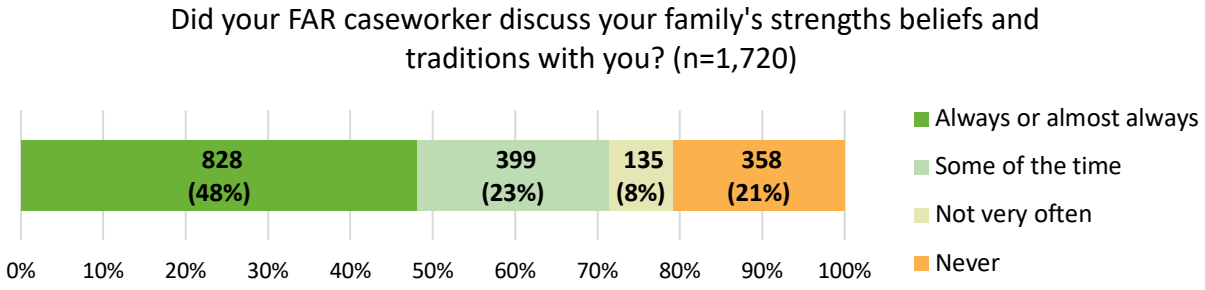


Figure 13. Caseworker-Family Agreement About Strengths and Needs

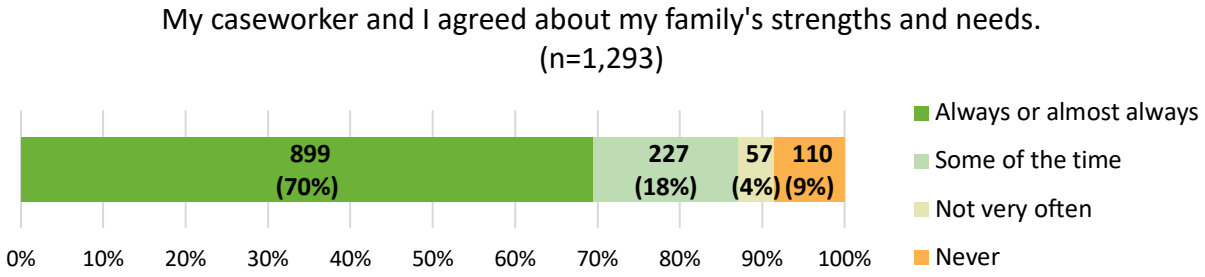
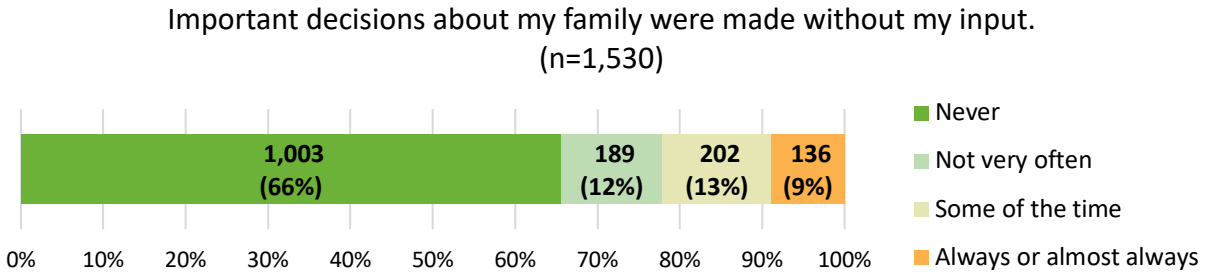


Figure 14. Decisions Made with Family Input



4.4.5 PRQ5 (Family Experience)

Were families satisfied with their experiences with FAR?

Summary Response to Question

Based on family responses to two key survey questions, and on open-ended follow-up questions, families indicated high levels of satisfaction with caseworkers. They

expressed receiving helpful guidance and a sense of being respected. Furthermore, families found caseworker help, in a variety of forms, to be both beneficial and satisfying.

Expanded Response

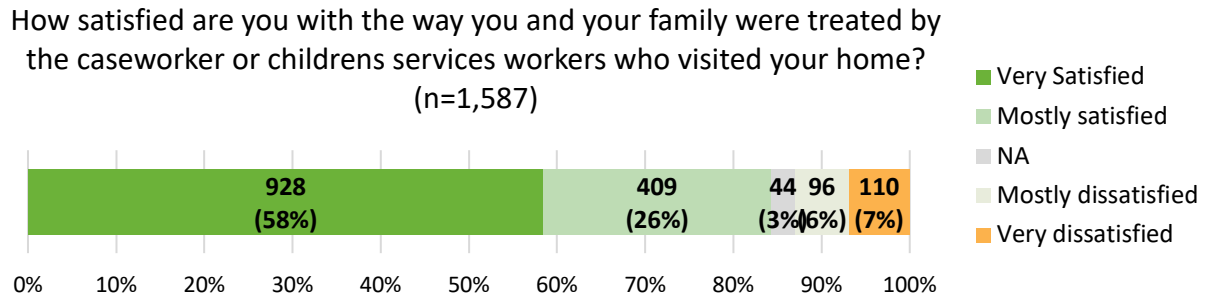
Data for responding to this question, from an evaluation perspective, are limited to two questions from family surveys. Respondents, based on these surveys, report generally high levels of satisfaction with DCYF. There are, though, limitations for determining exactly what aspects of FAR were most satisfying or dissatisfying. Where possible, we have tried to determine specific aspects by integrating responses to open-ended questions. However, we recommend that DCYF consider developing quantitative data points during case closures that may provide more detailed information for future evaluations.

Family Survey Responses

We asked FAR families about their level of satisfaction with both how they were treated by FAR caseworkers and with the help they received from FAR caseworkers and DCYF. In both cases, responses were highly positive.

Regarding family levels of satisfaction with caseworker treatment, a large majority (58%) stated they were "very satisfied" (see Figure 15). Additionally, at least a quarter of respondents said they were "mostly satisfied." Altogether, 84% of families reporting being either very or mostly satisfied, in contrast to the 13% of families who were either mostly or very dissatisfied. An additional 3% did not express any level of satisfaction or dissatisfaction with caseworkers. Also, this question applied specifically to families' experiences with caseworkers who made a home visit, suggesting that families felt respected within their homes under generally uncomfortable situations.

Figure 15. Family Satisfaction with Caseworkers

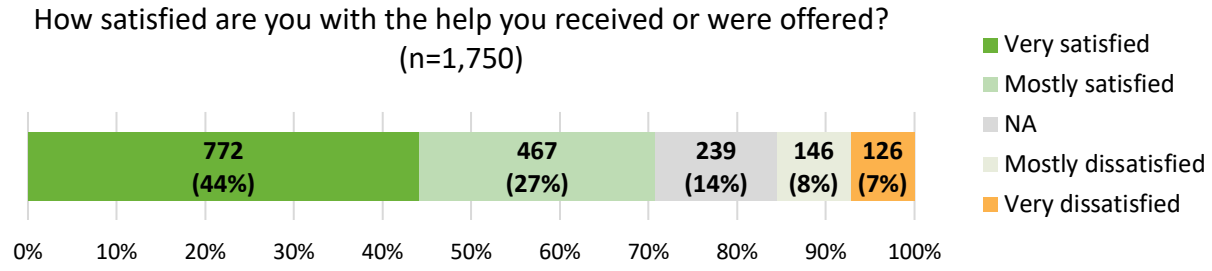


Although families were generally pleased with caseworker engagement, they expressed slightly lower levels of satisfaction with the help they were offered or received from these workers. In

particular, 44% of respondents stated they were "very satisfied" with the help they received or were offered. Another 27% said they were "mostly satisfied" (see Figure 16).

The response level among families who were either very or mostly dissatisfied with caseworker help was relatively close to those who were dissatisfied with caseworker treatment: 15% regarding help versus 13% regarding treatment. The largest difference between the two sets of responses is the 11-percentage-point increase in families who did not express any level of satisfaction or dissatisfaction.

Figure 16. Family Satisfaction with Help Offered or Received



The 14% of respondents who were neutral may reflect some ambiguity in the question, specifically with exactly what "help" refers to. The question is worded broadly intentionally so that it would allow families to consider the multitude of ways caseworkers can assist families, not exclusively in terms of services. However, to provide some sense of the items considered help and to better explain why families were satisfied with their experience with FAR, we include quotes from families, below.

Regarding points of satisfaction, some families completed open-ended responses on surveys, which provide a broader sense of the particular ways caseworker engagement and help were beneficial. The following comments are representative of repeating themes among families who had higher levels of satisfaction with their FAR experience, responding to the question, "What was most helpful to you and your family?":

- "I felt like I had a parent advocate. He really recognized that it wasn't an abuse or neglect situation but a situation where I needed resources and programs to keep on going. My caseworker was great."
- "Having worker come in and talk to me and my boyfriend. It was like an eye opener. She asked questions, that we had to think about. And we realized things."
- "I guess the caseworker brought relevant helpful ideas to my attention about what my daughter's perspective might be. I appreciated that."
- "That the [social worker] offered to be a mediator between the teacher and I."
- "She was respectful when she came into my home. She respected my space. She let me talk and didn't interrupt me. Didn't judge me by what the report said."

- "I now know the rules of the state of Washington and how they affect me and my child. I know now how to get help—information on how I should treat my daughter. Also they showed me ways to get info on the internet."

Although comments were generally favorable, the following comments are representative of repeating themes among families who had "very dissatisfied" experiences with FAR, responding to the question, "What could be done differently in the future to make FAR more helpful to families":

- "Have more resources available to families. Let parents know that their case closed...."
- "Follow up appointments or calls to say that everything is closed."
- "To be in better communication with my case worker to positively progress in my life. It was hard to get in contact with her to get the additional services that I needed."
- "She had deadline to interview kids and there was way too much phone tag then embarrassed family by showing up at school."
- "I felt she was unfair to all parties. She offered services to other parties and made me feel like the bad guy. She never let us know anything, never returned emails or calls, and never offered kids victim services."
- "The Staff needs more training on how to treat the families better. They did more damage than good for my family."

4.4.6 PRQ6 (Effects on Services)

How did FAR implementation affect service delivery? Availability of services?

Summary Response to Question

Based on our preliminary findings, FAR increased service delivery. According to key informant interviews, DCYF office administrators and FAR caseworkers both noted increases in multiple service types. Some of these changes, specifically with EBPs, were modest increases. However, concrete supports saw substantial increase. Additional findings, based on the number of high-risk FAR families who received a service, show that, on average, fewer than 10% of these families received an EBP and nearly 39% received some form of in-home service.

Expanded Response

Part of FAR's design is the delivery of services to families who need them. Some of these services come in the form of concrete supports, which have seen significant increase since the implementation of FAR. As the program developed, investigative caseworkers noted the value of concrete supports and, ultimately, DCYF extended concrete supports to all DCYF caseworkers. Additionally, FAR focused on the delivery of evidence-based practices for families in need. Caseworkers cited recommending several EBPs (see the Introduction and Overview for

a list of EBPs), depending on which EBPs were available to the office. In general, smaller offices had limited options.

Delivery of services, especially with EBPs, is likely to be affected by the extension of the length of time FAR cases can remain open. Most of the results in this analysis reflect the delivery of services under the 45-day case length model. Future evaluation may consider whether increased duration of cases improves service delivery and effectiveness.

Key Informant Interviews

To best evaluate the impact of FAR on service use, including evidence-based practices (EBPs) and concrete supports, we asked administrators and FAR caseworkers several questions. In particular, the following four items are concerned with the degree to which DCYF personnel detected effects on services. Because the initial FAR design did not include non-FAR workers in the use of concrete goods—and because this research question is aimed specifically on FAR's effects on services—investigative workers were not included in the following portions of the interviews.

- **PRQ 5.1.5** Indicate changes in concrete supports paid for by DCYF.
- **PRQ 5.1.6** Indicate changes in community-based (non-DCYF) services and concrete supports.
- **PRQ 9.1.1.** Indicate changes in EBPs paid for by DCYF.
- **PRQ 24.1.1** How often are sustainable community supports and services meeting family needs?

Before considering these questions individually, we note some general findings relative to variation in phases, whether FAR caseworkers had previous experience in investigations, and location.

- FAR caseworkers with previous experience in investigations were more likely to indicate an increase in access to EBPs. (FAR workers without investigative experience noted lacking a reference point from which to make a rating of change in access to EBPs.)
- Access to EBPs and DCYF-provided services and supports tended to increase by phase.
- Ratings of the community's ability to meet needs decreased slightly by phase.
- Urban offices tended to rate a greater increase in access to EBPs, a greater access to community-based services and supports, and a greater ability for the community to meet family needs.

The greatest and most-immediate increase ins services came from the extended use of concrete supports supplied by DCYF. FAR workers commented often about the benefit of having the ability to provide services to families. In some cases, the extension of concrete goods was seen as one of the most significant components of FAR by FAR caseworkers. One

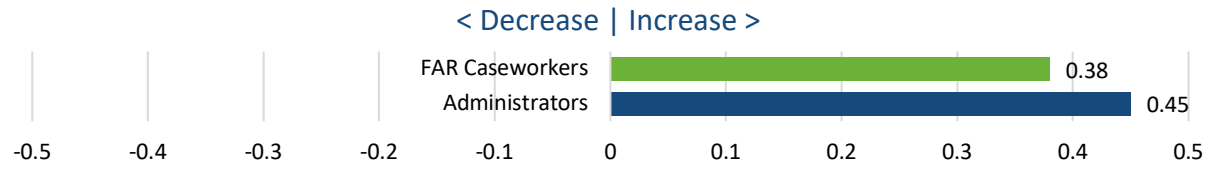
caseworker noted that the "FAR Card," a credit card used to purchase concrete goods locally, was helpful for "setting up the case plan" in terms of buying organizational tools; further, the caseworker noted that this process is "how people start to trust." Another caseworker reported the FAR Card as having unintended benefits with her work with members of a local Native American tribe. The worker stated, "Having the card and being able to take [clients] to the store…. I think this helps with disproportionality."

In addition, Family Survey respondents commonly cited concrete goods as a key benefit of FAR, as illustrated in the following quotes from FAR families:

- "The financial help [the caseworker] gave us… paying off an electric bill so that I could put a deposit down on an apt. and glasses for my son."
- The most helpful thing from FAR was "the bus pass I received to get back and forth to work, until I got paid."
- "[The caseworker] helped me get an alarm system and safeguard my house.

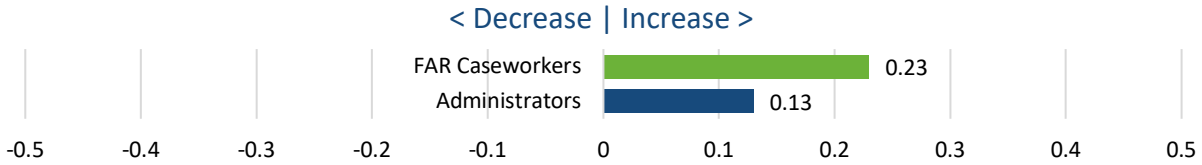
The following chart (Figure 17) presents the average response to question PRQ 5.1.5 regarding the degree of increase or decrease in use of concrete goods. For this, and the following two charts, we assigned a value of -0.5 to all responses that indicated concrete supports "decreased," 0.0 to response that stated concrete supports "stayed the same," and 0.5 for interview responses of "increased." Concrete supports were overwhelmingly perceived, especially by administrators, as having increased since FAR implementation.

Figure 17. Increase in Concrete Supports (DCYF Funded)



Respondents also indicated that they saw increased use of community-based services and concrete supports by FAR families (Figure 18). Although the degree of change is small relative to the increase of DCYF-funded concrete supports (especially among administrators), the change does positively indicate that FAR is connecting families to services and goods beyond previous approaches. Still, one FAR caseworker noted that, in his community, community-based goods and services "skyrocketed in proportion to" other services.

Figure 18. Increase in Community-Based Services and Concrete Supports

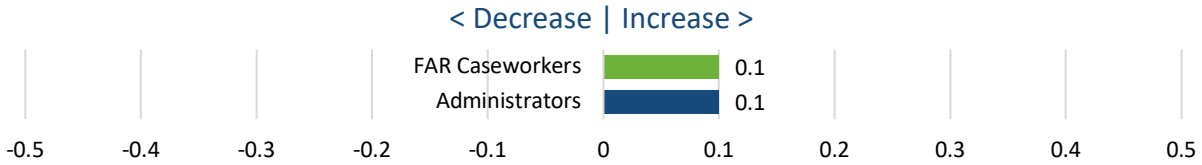


Evidence-based programs saw the most minimal level of increase, with both FAR caseworkers and administrators viewing approximately the same level of minor increase (Figure 19). However, this small increase remains a positive indicator of FAR's effect on services. Although it does not show that FAR is seeing the increase in EBPs expected in the original program design, caseworker feedback does help provide context for ways this could improve with future training and development.

The key factor in the lack of EBP growth is the initial—real and perceived—limitation of FAR case length. The *real* limitation for some EBPs was a 90-day window, which some caseworkers noted as being too short or as being complicated, especially in rural areas, by waitlists or limits on available services. However, the more prominent reason given by caseworkers was a *perceived* view that all services needed to be completed within the standard 45-day window for FAR. As one FAR caseworker noted, "It's not possible to do some of those 12-week evidence-based practices." However, caseworkers were permitted to extend cases to 90 days for services if they received parental agreement. Whether the lower-than-expected EBP increase is primarily a result of caseworker misunderstanding or parental/guardian refusal to extend FAR is unknown. However, as of fall 2017, the Washington Legislature extended case length to 120 days, essentially removing time-based limitations on EBPs and other services. Because the vast majority of our interviews concluded before this case length extension, we do not have data on what impact the change had. As such, DCYF may consider revisiting this question in future evaluations in the context of the extended 120-day window for FAR cases.

Another limitation is the availability of services themselves. In some cases, EBPs are not available as widely as caseworkers would like. In one north-central Washington office, a caseworker noted, EBPs increased "from 0 to 1."

Figure 19. Increase in EBPs (DCYF Funded)



Finally, the following table (Table 10) presents average responses to the question, "How often are sustainable community supports and services meeting family needs?" These responses aggregate all offices, reporting on average rating by role for each of the questions.

Table 10. KII Responses to Effects of FAR on Services and Goods

Question	Administrators (max n=69)	FAR CWs (max n=267)	Measures
PRQ 24.1.1	2.31	2.6	4=Always, 3=Sometimes, 2=Usually, 1=Never

In general, both administrators and FAR caseworkers saw marginal ability for community supports and services to meet family needs. Caseworkers and administrators offered several perspectives on why these measures were not higher. Some workers noted geographic limitations. As is the case with DCYF-funded EBPs, smaller, more-remote offices had fewer services to connect with FAR families. A caseworker in a small, northeast Washington office stated simply, "we don't have many [community services] available." Another FAR caseworker in central Washington, commenting on specific needs that community services and supports in her area were unable to meet, stated, "housing, advocacy, help, and support for monolingual Spanish [clients] is significantly lacking."

Service Use by Risk Level (Administrative Data)

As part of our analysis, we considered what types of services (EBPs, other in-home services) were being most used. Given that FAR does not expect all families to receive services, we focused on those high-risk FAR families who were most likely to be recommended to EBPs. The following measures ask, for any given office in any given year, how many FAR families at the highest SDM risk levels (i.e., level 3 or 4) received EBPs and/or in-home services.

As with other office-level findings, results varied significantly by office and by year. For example, based on all offices serving at least 10 high-risk FAR families in one year, one office had a 2017 rate of 90% for any in-home service. On the other end of the range, an office served 14 FAR families in 2015 with only 1 family (7.1%) receiving any type of in-home service. For high-risk families receiving EBPs, the range is diminished, with the highest percentage receiving EPBs at 9 of 41 families (22%) and the lowest having 0 of 38 (0%). One office had a slightly higher percentage (1.8%), but that percentage reflects only 2 of 111 high-risk FAR families receiving an EBP.

A table showing all measures for all offices and years is included in the Technical Appendix. The table below (Table 11) presents the counts and percentages (on average) for all offices, 2014–2017. In summary, slightly more than 9% of high-risk FAR families received EBPs, and nearly 39% of these families received some in-home service.

Table 11. Percentage of High-Risk FAR Families Receiving Services (Average of All Offices 2014–2017)

Measure of Families Receiving Service (n=8,047)	EBPs	Any In-Home Service
Number of families receiving service	730	3,106
Percentage of families receiving service	9.1%	38.6%

4.4.7 PRQ7 (Perceived Benefit of Services)

Did families view services received through FAR as helpful?

Summary Response to Question

Based on family survey results to multiple questions, families were generally able to learn about or receive services, goods, and other help as part of the FAR program. Specifically, families responded that caseworkers provided help in multiple forms, including services (community and DCYF-funded). Of those families who indicated they received some level of help, large majorities indicated that the help was both beneficial (88%) and sufficient (71%).

Expanded Response

Services remain a key aim of FAR: helping families find and receive services appropriate to family needs, including EBPs, community-based services, and concrete goods. In this section, we present responses from families who completed the Family Survey. These responses reflect the perceptions of FAR families regarding the help and services they received. For this level of findings, we asked students relatively broad questions in which "help" and "caseworker" were shorthand representatives of larger groups. Specifically, "help" could refer to advice or EBPs provided by DCYF. Likewise, as caseworkers are generally the contact point between FAR and DCYF, "caseworker" can be seen to represent the literal caseworker(s) involved in a FAR case and/or the array of services and contacts a family may encounter. Because families may not be familiar with the technical distinctions between types of services and providers, we did not ask more targeted questions. However, breakdowns on specific types of services received are analyzed more completely in the outcome and cost studies of this report.

Family Survey Responses

The Family Surveys provide multiple ways of addressing whether families received or were offered services and whether these services were perceived as beneficial. As noted in section 4.5.5 on Family Experience, caseworkers provided help to families, where "help" is a broad-enough term to include services and goods. As shown in Figure 16, families overwhelmingly

(71%) indicated that they were very or mostly satisfied with the help caseworkers offered or provided.

In a similarly broad question, we asked families whether caseworkers helped them to get support or help from friends and family. Although this question does not include services, it does aim to show that caseworkers were actively engaged in attempting to determine and meet family needs. Over half (51%) of respondents noted that caseworkers helped get local family/friend support. A similar question asked whether caseworkers helped families get support or help from the community. In this case, 57% of respondents noted that caseworkers provided this level of direction always, almost always, or some of the time.

Although these responses suggest strong caseworker support for finding services and receiving help in some form, they do not necessarily show whether families fully perceived services received through FAR as beneficial. As such, we have provided two questions that include sub-questions. These sub-questions as families to provide longitudinal information. This perspective offers the clearest picture of whether families perceived services as helpful.

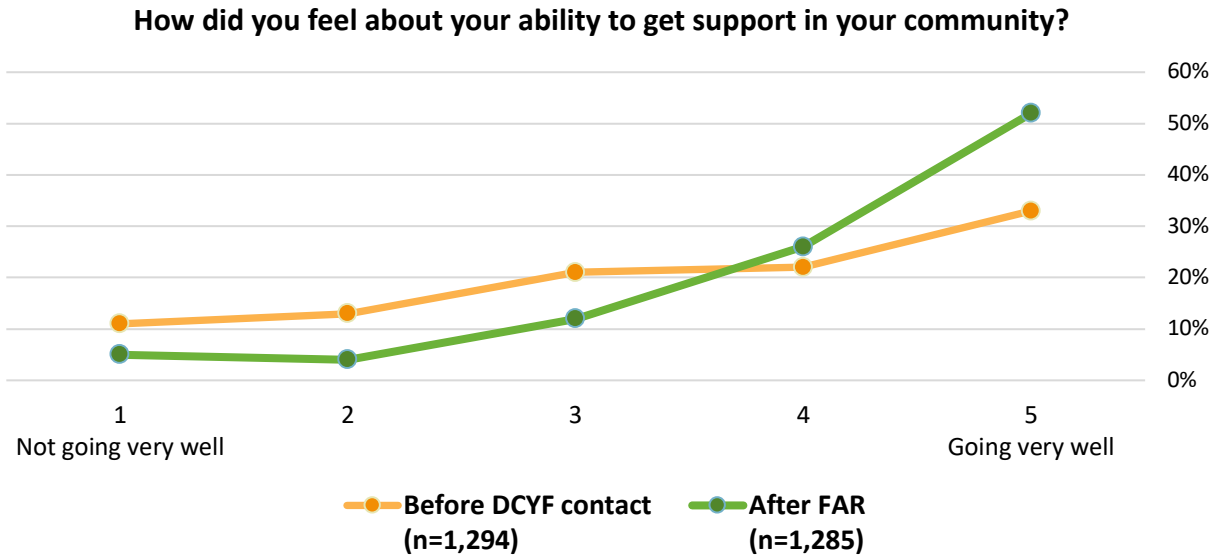
First, we asked families, "How did you feel about your ability to get support in your community before you were contacted by child services?" We followed this question with a second asking how families *now* (i.e., after receiving FAR) feel about their abilities to get community support. In both cases, families were asked to rate their ability to get support on a sale of 1 to 5, with 1 indicating "not going very well" and 5 indicating "going very well." As indicated in Table 12. Family Ability to Get Support in Community (Before/After), only about a third of respondents selected the highest level for their perception of their ability to get support prior to FAR. This level rose to over half of all respondents upon completing FAR.

Table 12. Family Ability to Get Support in Community (Before/After)

How did you feel about your ability to get support in your community?				
	BEFORE you were contacted by child services (n=1,294)		Now (n=1,285)	
Response	**Frequency**	**Percentage**	**Frequency**	**Percentage**
5 Going very well	427	33%	673	52%
4	279	22%	329	26%
3	276	21%	158	12%
2	168	13%	55	4%
1 Not going very well	144	11%	70	5%
Total	**1,294**	**100%**	**1,285**	**100%**

Figure 20 presents these same responses, showing that although lower-level ratings between the before-contact and after-FAR perceptions of family ability to get community support were similar, higher-level ratings were clearly more abundant for families after receiving FAR.

Figure 20. Family Ability to Get Support in Community (Before/After)



In a similar measure, we asked families to identify whether they received help or services from their caseworkers or other sources through FAR. Of 1,329 families surveyed, 579 (44%) responded that they did receive such help and/or services (see Table 13). Of these, we asked two follow-up questions: "Was it the kind of help you needed?" and "Was it enough to really help you?" For the first follow-up question, the vast majority—88% of the 585 people responding—stated that they received the kind of help they needed. Likewise, 71% of the 594 people responding to the second follow-up question reported that this help was "enough to really help" them.

Table 13. Families Who Received Help or Services

Did you receive any help or services from your caseworker or other source through FAR? (n=1,329)		
Response	**Frequency**	**Percentage**
Yes	579	44%
No	750	56%
Total	**1,329**	**100%**
If yes, was it the kind of help you needed? (n=585)		
Response	**Frequency**	**Percentage**
Yes	513	88%

Did you receive any help or services from your caseworker or other source through FAR? (n=1,329)		
Response	**Frequency**	**Percentage**
No	72	12%
Total	**585**	**100%**
Was it enough to really help you? (n=594)		
Response	**Frequency**	**Percentage**
Yes	424	71%
No	170	29%
Total	**594**	**100%**

Figure 21 and Figure 22 further presents the result levels of the two follow-up questions, showing that for the 44% of families indicating they received help or services, most received beneficial and sufficient response.

Figure 21. Families Responding that Help or Services Were Beneficial

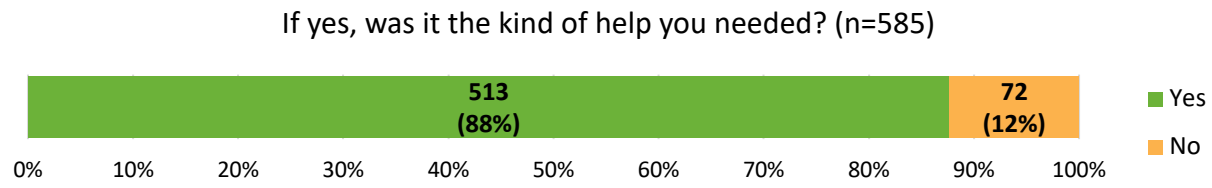
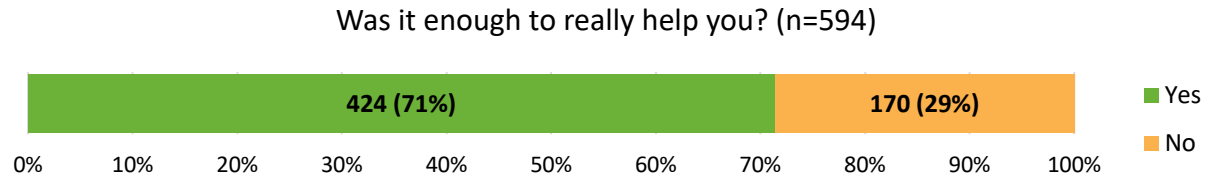


Figure 22. Families Responding that Help or Services Were Sufficient



4.4.8 PRQ8 (Fidelity to FAR Model)

What was the level of fidelity of implementation of FAR in each FAR office?

Summary Response to Question

Based on the use of three composite scores (i.e., implementation year fidelity score, yearly fidelity score, and yearly enhanced fidelity score), offices exhibited varying levels of fidelity to the FAR model. On average, scores for implementation and enhanced scores were relatively similar (between 60–62 on a 100-point scale). Annual fidelity

scores tended to be lower. And both forms of yearly scores (core yearly and enhanced yearly) showed gradual decline over the three years assessed.

Expanded Response

Fidelity asks whether offices applied and fulfilled specific FAR policies and expectations. Presumably, offices that had the highest levels of fidelity were more likely to be providing families with the services and other benefits of the FAR model. Although this portion of the evaluation does not consider a direct connection between office-level fidelity and outcomes, it does analyze general trends in how offices have implemented and maintained FAR.

To provide a more robust portrait of how offices performed, we considered three levels of scoring. These levels, and the methodologies behind them, are described below. In all, ratings tended to vary significantly by office. Likewise, some offices benefited from having more data and more consistent data. Some small offices, for example, had minimal survey data or other components required for the most nuanced ratings. However, offices, regardless of their starting level of fidelity, tended to show gradual decline.

Fidelity Components

Our initial fidelity evaluation design was developed collaboratively with DCYF, TriWest, and other partners (e.g., the Alliance for Child Welfare Excellence). As the evaluation moved forward, we made adjustments to our original designs, especially as key items for measuring fidelity were no longer available to us. The most significant of these items was the decision, initiated by DCYF caseworkers, to not use the CANS (Child and Adolescent Needs and Strengths) tool. As a result, our revised fidelity model (detailed in section 4.3.5) emphasizes an aggregate score that reflects three types of by-office fidelity: implementation year fidelity, yearly core fidelity, and yearly enhanced fidelity.

Implementation Fidelity Score

The implementation fidelity score measures—regardless of year of implementation—initial FAR fidelity in the first months after an office began implanting the model. This score comprises office ratings based on interviews with caseworkers, supervisors, and administrators regarding (1) an office's preparedness to implement FAR, (2) challenges and barriers to implementation, (3) caseworker agreement with the principles of the FAR model, and (4) changes in service availability as a result of FAR implementation.

Core Fidelity Score

The core fidelity score is an annual measure that begins with an office's implementation year. This score comprises the fidelity measures that were most complete and consistently available in all offices for all applicable years: average monthly caseload, average number of family

contacts, percentage of families participating in services, and percentage of families participating in evidence-based practices.

Enhanced Fidelity Score

The enhanced fidelity score is another annual measure that supplements the core fidelity measures with data that is not consistently available for all offices and/or for all periods. These measures include items regarding family engagement and service participation as measured by family surveys and specific FAR components (e.g., family interview timing, sequencing and reviewer opinions on the completeness and sufficiency of safety assessments, overall FAR execution in randomly selected FAR cases).

The monitoring protocol collected, analyzed, and shared data for the following purposes:

- Evaluate compliance with FAR policy, procedures, and practice expectations
- Measure the fidelity to or adherence to the practice model (program and practice skill fidelity)
- Measure the quality of services provided by FAR caseworkers and supervisors
- Monitor factors likely to impact successful implementation and sustainability of the model

Using the revised Fidelity Rating Methodology, we calculated the degree to which both the evaluation and individual offices adhered to the FAR model. Below, we have provided aggregate evaluation-wide fidelity scores and analysis for FAR for each year, 2015–2017. Fidelity ratings for the offices that rolled out in 2014 are combined into the 2015 ratings because too few data are available from 2014 to produce a separate rating for those nine FAR offices. In the following section, we provide aggregate scores for all offices. The complete list of fidelity ratings for all offices and years is presented in the Technical Appendix.

Fidelity Findings

Implementation Fidelity Score

Offices varied considerably in their fidelity to FAR during their initial implementation period. Some offices had low aggregate implementation scores, reflecting reports from caseworkers (1) that they did not feel prepared to implement the model, (2) lower levels of office agreement with the FAR principles, and (3) views of little change in service availability. Table 14 below shows the average implementation score across the 40 offices visited in the first six months following implementation.

Table 14. Implementation Fidelity Rating

	Year of Office Implementation			
	2014	**2015**	**2016**	**2017**
Number of Offices	12	11	5	4
Minimum Score	53	54	48	66
Maximum Score	86	87	87	87
Average Implementation Fidelity	**62**	**70**	**79**	**77**

Implementation fidelity, on average, improved over time. This improvement likely reflects the learnings of the FAR team over time. For example, DCYF identified training issues early in implementation and made changes and improvements in training and case consultation after the first several phases of FAR offices completed their roll out.

Core Fidelity Score

The Implementation Fidelity Score measures the foundations of the FAR model: office preparedness to rollout, caseworker agreement with the principles, and increases in service availability. However, the Core Fidelity Score measures the structural components outlined in the logic model as necessary to implement FAR. These measures can be consistently and reliably tracked over time. For example, one measure is the FAR goal of average caseloads of 15 per caseworker, low enough to allow caseworkers to engage and work with families. Additionally, the Core Fidelity Score tracks family contacts, which allow for meaningful engagement and assessment, and delivery of services, including delivery of EBPs.

Average core fidelity was lower than implementation fidelity and dropped somewhat after 2015 (see Table 15). There was also greater variation across offices, with some offices scoring very low.

Table 15. Core Fidelity Rating

	Rating Year		
	2015	**2016**	**2017**
Number of Offices	30	38	44
Minimum Score	20	13	15
Maximum Score	69	57	67
Average Core Fidelity Score	**51**	**39**	**41**

Enhanced Fidelity Score

The Enhanced Fidelity Score includes additional measures to the core fidelity ratings. These additional data do not necessarily lead to increased scores. We add scores from these additional data measures and then average all measures, core and enhanced, so the possible range stays the same.

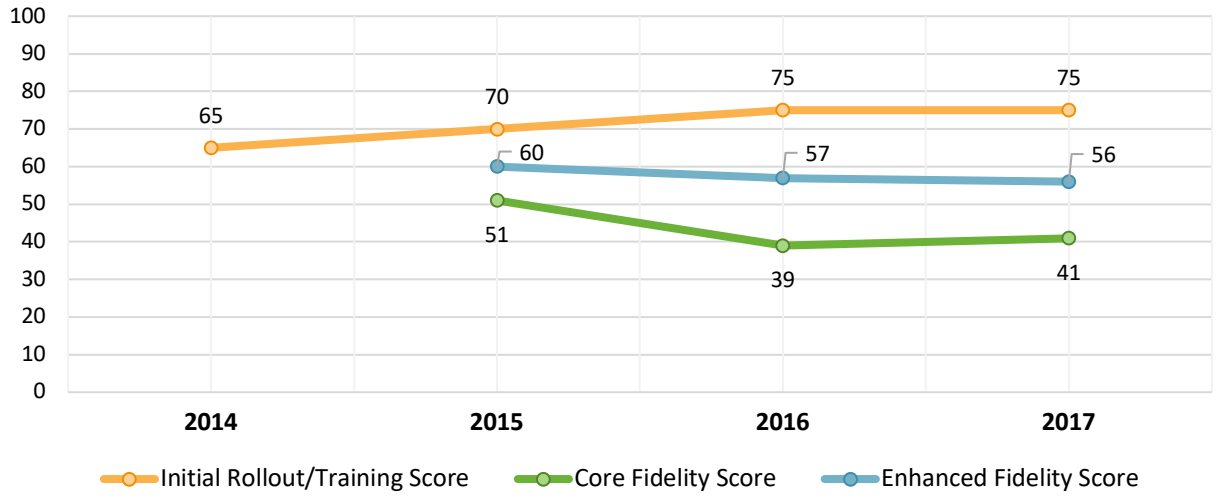
However, some data tended to provide a positive boost to scores (see Table 16). These data include parent survey responses on engagement and case reviews of FAR compliance with family interviews, safety assessments, and comprehensiveness of the intervention. When these more subjective—and less consistently available—items are added, fidelity scores improved somewhat, but the decline over time remained present (though much less pronounced).

Table 16. Enhanced Fidelity Rating

	Rating Year		
Year	**2015**	**2016**	**2017**
Number of Offices	30	38	44
Minimum Score	11	30	27
Maximum Score	85	84	78
Average Enhanced Fidelity	**60**	**57**	**56**

The following graph (Figure 23) presents the three types of scores, showing the decline in fidelity scores over the three measured years. As noted, initial rollout/training scores tend to be higher that annual scores. And core fidelity scores tend to be lower than enhanced scores, suggesting that more robust data lead to more developed scoring.

Figure 23. Average Fidelity Scores Over Time (2014–2017)



4.5 Discussion

The following discussion considers aspects of the Process Study as they relate to both the implementation and continuation of the FAR program. In particular, this discussion acts as a response to PRQ9: "What contextual factors have had or may have a bearing on the replicability of the intervention or the effectiveness of the demonstration?"

4.5.1 Key Findings

DCYF used a phased rollout to implement FAR statewide in stages. During this process, FAR leadership demonstrated a willingness to make mid-course corrections based on learnings from offices as they navigated implementation. The team used formal interim evaluation findings and less-formal office feedback to make changes to communication strategies, training content and approach, and FAR eligibility criteria. DCYF also used interim evaluation report recommendations to request two legislative changes to the FAR program: (1) eliminating a written FAR Agreement and (2) extending the amount of time that cases may remain open if needed for a family to receive services.

Throughout all implementation phases, caseworkers, supervisors, and administrators largely reported that they felt prepared to implement FAR at the time of their office rollout. Implementation scores that track preparedness, agreement with the FAR model, and increased service/concrete goods availability confirm that initial implementation fidelity was fairly high, when scored according to those measures and increased slightly over the phases of implementation (an indicator that mid-course adjustments made by FAR leadership based on evaluation findings may have been beneficial).

Many caseworkers reported that FAR either improved their engagement with families or, at least, confirmed that FAR's general design to engage more closely with families as partners was a good approach. Similarly, families participating in FAR reported high levels of engagement and satisfaction with their FAR experience. Although there is no definitive statistical evidence of FAR leading to "better" casework, the totality of the qualitative anecdotal evidence indicates that, on the whole, FAR provided a better experience for caseworkers and for families. Part of this finding may reflect the fact that caseworkers largely self-selected into FAR (i.e., caseworkers who were committed to the FAR approach were likely those that volunteered for the FAR implementation and would, therefore, be more satisfied with their FAR experience).

FAR families reported fairly high (with generally 80% or more providing positive responses to each question) satisfaction with their FAR caseworker, their overall experience, and satisfaction with the services made available to them. In many of the "comments" provided by respondents, families praised the work of their FAR caseworker as a help to their family. Some families offered suggestions to improve their experience. These included having more resources available, more access to/attention from caseworkers, and more training around respectfully interacting with families.

Interviews with caseworkers indicated that FAR did increase access to both services and concrete goods available to families. FamLink service data, however, indicate that a relatively low percentage of high-risk FAR families received services. In interviews, caseworkers expressed frustration around the limited amount a time that a FAR case could be open; the short span increased difficulty when attempting to engage meaningful services. As a result of this interim evaluation finding, DCYF asked the Washington State Legislature to extend the maximum amount of time a FAR case could remain open, if services are being provided. Although the legislature approved this expansion, the change happened too late into the evaluation period to assess whether it affected outcomes.

Families, however, did report access to helpful services during their participation in FAR. Of those families who indicated they received some level of help, large majorities (generally more than 70%) indicated that the help was both beneficial and sufficient. Families also reported that FAR helped to connect them to family and community supports.

Additionally, during rollout, DCYF assigned "FAR Leads" to aid in implementation. Among other tasks, the leads worked to align the local offices with community resources and supports. After implementation, leads were removed from offices, often leaving undefined activities. The loss of this liaison between the office and the community was cited by many caseworkers as an impediment to both community understanding and outreach to community-based services.

Furthermore, implementation fidelity scores increased over time, indicating that those offices implementing FAR in later phases likely benefited from FAR leadership studying earlier phase office rollouts and improving processes. However, core fidelity measures around caseloads that allow for adequate family engagement, number of family contacts, and services delivered declined after the first two years of implementation. This may be an artifact of the "pause" in FAR funding that likely affected enthusiasm for FAR and commitment to the program. It may also relate to rising caseloads that did not allow caseworkers to spend sufficient time partnering with each individual family.

4.5.2 Recommendations

As DCYF continues to implement the FAR program and make adjustments following conclusion of the waiver, we have three primary recommendations:

1. Continue to monitor FAR caseloads and support offices so that caseworkers can maintain a caseload of around 15 families at a time or less. This caseload level will allow workers to have the needed contacts with families and spend the time to foster meaningful engagement.
2. Continue to encourage workers to refer families to services and evidence-based practices. Ensure that caseworker training includes information that cases can remain open for up to 180 days if a family can benefit and is willing to participate in services. Include guidance on the referral process and encourage offices to continue to develop inventories of resources available in their community.
3. Support caseworker referrals to services by implementing a standardized needs assessment tool. Moving from a risk-based service decision-making system to one that takes into account each individual family's needs will help to connect families to those services most likely to improve outcomes.

5 Outcome Study

Many of our analyses relied, to some extent, on correctly identifying the office that served a FAR or investigative case. However, several data sources had an 8%–15% error rate for this variable, requiring substantial and ongoing collaboration to fix. Because of timing and data-availability issues, these fixes could not be applied all at once. Furthermore, office assignment in our final two cohorts (July–December 2017 and January–June 2018) was never corrected. Because of this, these last two cohorts were excluded from several analyses that rely on office assignment.

Along with incorrect field office tracking, the office names themselves saw substantial drift. Over the course of the evaluation, some offices combined, multiple names were used for the same office, and some offices were renamed. This drift is often not consistently reflected between datasets, leading to significant difficulty in aligning offices across data sources. Much effort and back-and-forth with DCYF was necessary to align office names and codes. The state, including the team at the Research and Data Administration (RDA), was very patient, responsive, and helpful.

One other challenge arose primarily as a result of the cohort structure required by our analysis design. The complex logic governing how different types of cases (e.g., FAR, FAR-eligible investigative, non-FAR-eligible investigative) fell into which cohort over time led to difficulties in developing a complete summary of all intakes over the study period. This was not a shortcoming in the data or in DCYF's data management, but a difficulty that arose from this particular study design.

We first recognized this issue came when comparing our findings to those of WSIPP's (Washington State Institute for Public Policy). WSIPP conducted similar analysis but on an underlying data object that was fundamentally different from the data included in our cohort files. This difference led to slightly different findings and intake counts between the two analyses. These differences introduced questions that were difficult to answer without access to both data sources, though we eventually determined that the cohort structure forced some types of investigative intakes to be dropped. As a result, we asked for and ran additional analysis on a separate dataset that included all intakes, unsorted by cohorts, over our study period.

Additionally, we encountered difficulty describing one undesirable outcome in this study: that families who are at greater risk of a removal or re-referral are more likely to receive EBPs and other services. The challenge here includes several components. First, our measures of risk are relatively weak. The abuse and neglect scores used as a proxy for risk presented several difficulties, including a substantial number of missing values and factors associated with how those variables are calculated. Second, assignment of EBPs was not random. Because receipt of EBPs, removals, and re-referrals are all highly correlated—and because we do not have an adequate "true" measure of risk—this analysis cannot entirely control for the factors necessary to identify how receipt of EBPs affects outcomes.

Finally, we found that a very high proportion of families used in the study had prior experiences with child welfare services and continued to re-refer after their initial FAR intake. This recycling potentially contaminates our treatment (FAR) and comparison (FAR-eligible investigative) pools in the family-level analysis. The cohort structure was designed specifically to address this problem but results in another bias: comparison families cannot, at least during the study period, come back as an actual FAR family after a FAR-eligible investigative intake. In short, this phenomenon reduces the similarity between our treatment and comparison pools.

The outcome evaluation analyzed FAR's impact on child well-being, removal rates, re-referral rates, and service costs. Data necessary for analyzing removal rates, re-referral rates, and service costs came primarily from FamLink, the state's comprehensive child welfare data system. Originally, we planned to measure well-being through data from the Child and Adolescent Needs and Strengths (CANS) tool. However, for numerous reasons, we have had to modify our approach to well-being analysis. An expanded well-being study based on data from the Integrated Client Database (ICDB) will be included in the June 17, 2019, draft.

The following section presents outputs, data collection sources, and the driving evaluation questions for the outcome evaluation.

5.0.1 Outcome Study Structure

The current draft of the Outcome Study, or outcome evaluation, describes the Washington IV-E waiver FAR program's outcomes in four key areas. The outcome evaluation relies on FamLink and ICDB data for analysis.

For this version, we have focused on two of the four main elements of the outcome evaluation, namely removals and re-referrals. Although we can report, at this time, on those elements, we are still developing our analysis and findings for the other two elements of the study: well-being and disparity. We will update this chapter with one or both elements after they have been thoroughly reviewed.

5.0.2 Research Questions Brief Findings

ORQ1. Does the FAR pathway reduce the number and proportion of any child entering out-of-home care during participation and at 12, 24, and 36 months following case closure? According to our matched comparison analysis, the FAR pathway does reduce the probability of a child's removal from its family. For measures at 3, 6, 12, and 24 months after intake, this reduction was statistically significant. The estimated reduction in the probability of removal was approximately 17% at 12 months. For the 36-month period following case closures, the same process revealed that the FAR pathway reduced the likelihood of removals. However, findings for the 36-month period are not statistically significant, meaning we have low confidence in the reliability of those specific estimates.

ORQ2. Does the FAR pathway reduce the number and proportion of repeat maltreatment allegations (re-referrals) during participation and at 12, 24, and 36 months following case closure? Based on the comparison of FAR to FAR-eligible investigative families, FAR appears to increase accepted re-referrals, which runs contrary to our expected outcomes. However, these re-referrals are disproportionately FAR eligible, reflecting lower levels of risk and indicating that FAR appears to limit the escalation of maltreatment.

ORQ3. Does the FAR pathway impact child and family well-being in the domains of behavioral and emotional functioning, social functioning, cognitive and academic functioning, and physical health and development? Because the original evaluation tool designed for measuring well-being was discontinued at the beginning of the evaluation, we developed an alternative method using proxy data. This method showed little difference in well-being measures between the FAR and comparison families. These results suggest that FAR had little impact on well-being. However, they also suggest that FAR places no greater safety risk for families than non-FAR approaches.

ORQ4. What is the impact of implementation of the FAR pathway on disproportionality within the child welfare system?
For most of our evaluation, families designated as "Native American" or Washington State Tribe" disproportionally declined FAR participation. However, in the first cohort of 2018, following the Washington Legislature's removal of the FAR Agreement, rates of these families declining FAR aligned closely with average decline rates. However, throughout the initiative, Native American families were assigned to FAR at lower rates largely as a result of FAR ineligibility caused by many of these families having higher numbers of previous intakes.

5.1 Key Research Questions and Implementation Measures

The Outcome Study presents four research questions we used to guide our data gathering and analysis. An abbreviated version of that section is presented below (Table 17), showing each research question and the data sources used to respond to it.

Table 17. Outcome Study Research Questions

Outcome Study Research Questions (ORQ)	Data Sources
ORQ1. Removals Does the FAR pathway reduce the number and proportion of children entering out-of-home care during participation and at 12, 24, and 36 months following case closure?	**FamLink, ICDB data**
ORQ2. Re-Referrals Does the FAR pathway reduce the number and proportion of repeat maltreatment allegations (re-referrals) during participation and at 12, 24, and 36 months following case closure?	**FamLink, ICDB data**

Outcome Study Research Questions (ORQ)	Data Sources
ORQ3. Well-Being Does the FAR pathway impact child and family well-being in the domains of behavioral and emotional functioning, social functioning, cognitive and academic functioning, and physical health and development?	**FamLink, ICDB**
ORQ4. Disproportionality What is the impact of implementation of the FAR pathway on disproportionality within the child welfare system?	**FamLink**

5.2 Key Outcomes

Removals

We measured the proportion of families with one or more removals at 3, 6, 12, 24, and 36 months after case opening for both FAR and matched comparison families. The key outcomes related to removals were the difference in removal rates between these two groups. Three-month removal rates were short term and corresponded to the case length of FAR cases. Six- and 12-month outcomes were intermediate in length and were closely tied to the services provided during the open case period. Twenty-four- and 36-month outcomes were long-term.

Re-Referrals

Analogously to removals, we measured the proportion of families with one or more re-referrals at the same 3, 6, 12, 24, and 36-month intervals after case opening periods. We measured and reported on accepted intakes, conducting sub-analyses for FAR eligible and not-FAR eligible accepted intakes. We also reported on screened-out and risk-only re-referrals, which were less relevant outcome measures. As with removals, the key outcome was the difference in rates between FAR and comparison families.

See section 5.5.2 for the specific outcome variables we used to measure these outcomes.

5.3 Comparison/Cohorts

Starting in January 2014, all families subject to claims of abuse and neglect (intakes) were evaluated for eligibility for the FAR pathway, both in offices that implemented FAR and in offices in which FAR had not yet been implemented. During the staggered implementation, FAR-eligible families in offices that had not yet implemented FAR continued to be subject to child welfare investigations (treatment as usual). The presence of both FAR and FAR-eligible families (i.e., families who would have been assigned FAR if their local office had implemented FAR) drives the core of TriWest's data analysis plan: it allows comparison of outcomes between families receiving FAR in FAR-implemented offices (i.e., treatment group) to FAR-eligible families subject to investigation in offices that had not yet implemented FAR (i.e., comparison

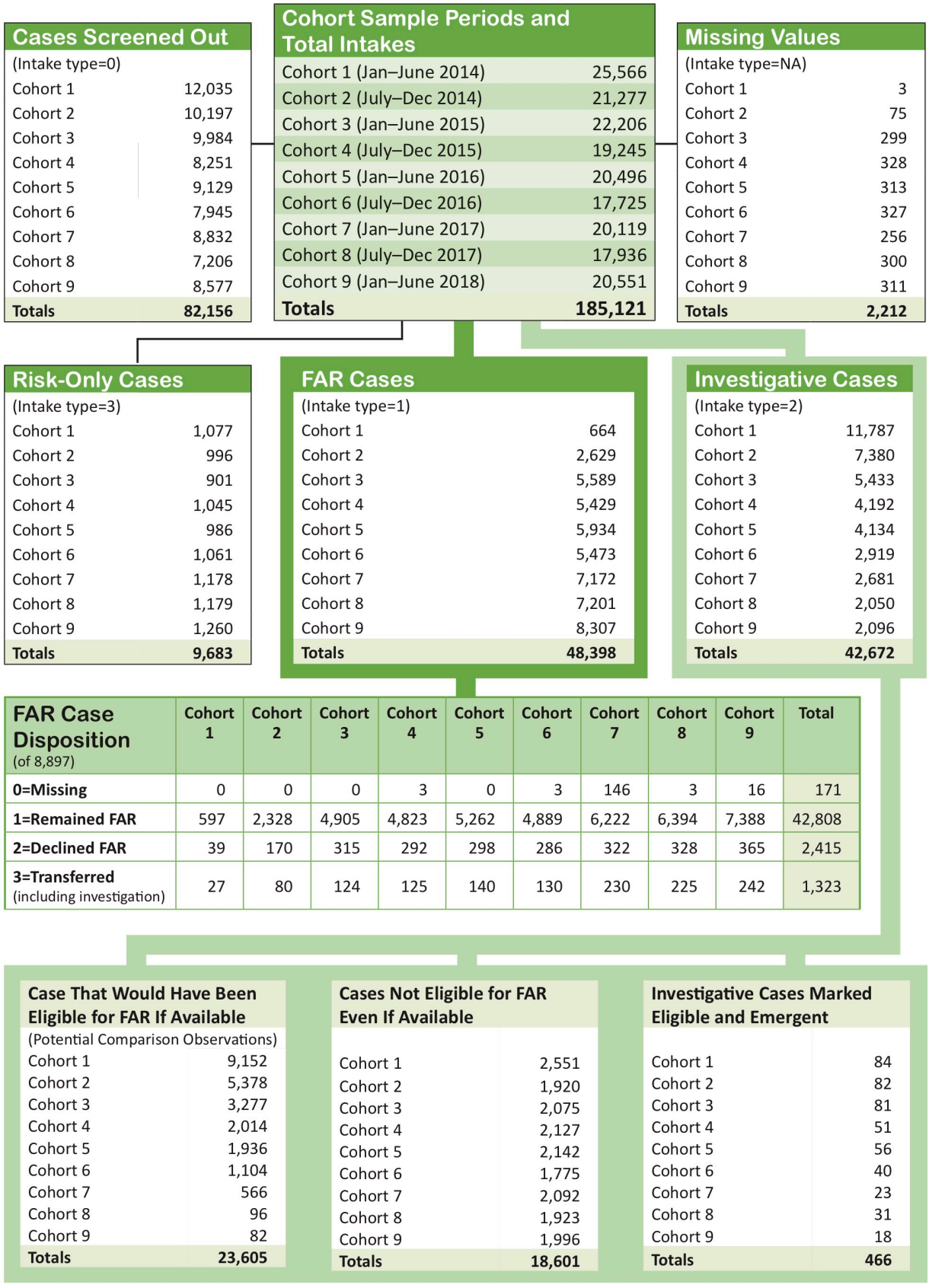
group). Families excluded from FAR involved accusations of a more serious nature with significantly greater risk of child harm, including all cases designated as emergent. These families were automatically assigned to the investigative pathway and were not used in our analysis.

The staggered rollout of FAR resulted in many more comparison families than FAR families in the January 2014 cohort (explained below): 9,068 to 663, after various filters were applied (see Figure 24). By the second cohort, starting in July 2014, the balance was 5,296 to 2,601. In the third and fourth cohorts (January and July 2015, respectively) there were more FAR families than comparison families, and we therefore randomly selected 2,000 FAR families for Cohort 3 and 1,000 FAR families for Cohort 4. By reducing the size of the FAR cohort to a number below the FAR-eligible investigative cohort, we created the opportunity to match the sampled families to FAR-eligible investigative families with similar characteristics. By the time we considered the seventh and final cohort, starting in January 2017, the low number of available comparison group families resulted in a matching of 250 FAR and 250 FAR-eligible families. While we received an eighth cohort starting in July 2017, and a ninth cohort starting in January 2018, the number of FAR-eligible investigative families in each cohort was too small to allow us to develop a comparison group.

Not all families assigned to FAR remained on that pathway. FAR is a voluntary program, and families that declined FAR may have been transferred (involuntarily) to investigations. This analysis is an “intent-to-treat” design: once a family was screened into FAR, including any immediate supervisor overrides, the family was considered a FAR family for the duration of the analysis. We performed a separate analysis (not reported in this document) comparing families that completed FAR versus those that were transferred to investigation. The results of that analysis were predictable; families involuntarily removed from the FAR program had higher removal and referral rates than those families completing FAR.

Based on the cohorts constructed from FAR and FAR eligible investigative families, we created matched treatment (FAR) and comparison groups using propensity score matching. Details are described in section 5.5 below and the Technical Appendix.

Figure 24. Distribution of Intakes (All Cohorts)



Cases Screened Out (Intake type=0)

Cohort 1	12,035
Cohort 2	10,197
Cohort 3	9,984
Cohort 4	8,251
Cohort 5	9,129
Cohort 6	7,945
Cohort 7	8,832
Cohort 8	7,206
Cohort 9	8,577
Totals	**82,156**

Cohort Sample Periods and Total Intakes

Cohort 1 (Jan–June 2014)	25,566
Cohort 2 (July–Dec 2014)	21,277
Cohort 3 (Jan–June 2015)	22,206
Cohort 4 (July–Dec 2015)	19,245
Cohort 5 (Jan–June 2016)	20,496
Cohort 6 (July–Dec 2016)	17,725
Cohort 7 (Jan–June 2017)	20,119
Cohort 8 (July–Dec 2017)	17,936
Cohort 9 (Jan–June 2018)	20,551
Totals	**185,121**

Missing Values (Intake type=NA)

Cohort 1	3
Cohort 2	75
Cohort 3	299
Cohort 4	328
Cohort 5	313
Cohort 6	327
Cohort 7	256
Cohort 8	300
Cohort 9	311
Totals	**2,212**

Risk-Only Cases (Intake type=3)

Cohort 1	1,077
Cohort 2	996
Cohort 3	901
Cohort 4	1,045
Cohort 5	986
Cohort 6	1,061
Cohort 7	1,178
Cohort 8	1,179
Cohort 9	1,260
Totals	**9,683**

FAR Cases (Intake type=1)

Cohort 1	664
Cohort 2	2,629
Cohort 3	5,589
Cohort 4	5,429
Cohort 5	5,934
Cohort 6	5,473
Cohort 7	7,172
Cohort 8	7,201
Cohort 9	8,307
Totals	**48,398**

Investigative Cases (Intake type=2)

Cohort 1	11,787
Cohort 2	7,380
Cohort 3	5,433
Cohort 4	4,192
Cohort 5	4,134
Cohort 6	2,919
Cohort 7	2,681
Cohort 8	2,050
Cohort 9	2,096
Totals	**42,672**

FAR Case Disposition (of 8,897)	Cohort 1	Cohort 2	Cohort 3	Cohort 4	Cohort 5	Cohort 6	Cohort 7	Cohort 8	Cohort 9	Total
0=Missing	0	0	0	3	0	3	146	3	16	171
1=Remained FAR	597	2,328	4,905	4,823	5,262	4,889	6,222	6,394	7,388	42,808
2=Declined FAR	39	170	315	292	298	286	322	328	365	2,415
3=Transferred (including investigation)	27	80	124	125	140	130	230	225	242	1,323

Case That Would Have Been Eligible for FAR If Available (Potential Comparison Observations)

Cohort 1	9,152
Cohort 2	5,378
Cohort 3	3,277
Cohort 4	2,014
Cohort 5	1,936
Cohort 6	1,104
Cohort 7	566
Cohort 8	96
Cohort 9	82
Totals	**23,605**

Cases Not Eligible for FAR Even If Available

Cohort 1	2,551
Cohort 2	1,920
Cohort 3	2,075
Cohort 4	2,127
Cohort 5	2,142
Cohort 6	1,775
Cohort 7	2,092
Cohort 8	1,923
Cohort 9	1,996
Totals	**18,601**

Investigative Cases Marked Eligible and Emergent

Cohort 1	84
Cohort 2	82
Cohort 3	81
Cohort 4	51
Cohort 5	56
Cohort 6	40
Cohort 7	23
Cohort 8	31
Cohort 9	18
Totals	**466**

5.4 Sample

5.4.1 Sample Description and Characteristics

For the family-level matched comparison study, the only sampling we performed was in cohorts 3–7. We reduced the number of FAR families to ensure that the comparison pool was several times larger than the FAR treatment group. This ensured that the comparison pool was large enough to allow one-to-one matching, with a good likelihood of finding unused matches with similar characteristics for each FAR family used in the analysis. Our reduction of the FAR pool was based entirely on random draws. Table 18 below lists the size of each cohort used in the analysis.

Table 18. Cohort Size (Far, Comparison Group Families)

Study Cohort	Number of Families with a FAR Intake	Number of Sampled FAR Group Families	Number of Matched Comparison Group Families
Cohort 1 (Jan–June 2014) Phase 1 Offices (pilot)	664	664	664
Cohort 2 (July–Dec 2014) Phase 1–3 Offices	2,629	2,629	2,629
Cohort 3 (Jan–June 2015) Phase 1–5 Offices	5,589	2,000	2,000
Cohort 4 (July–Dec 2015) Phase 1–5 Offices	5,429	1,000	1,000
Cohort 5 (Jan–June 2016) Phase 1–6 Offices	5,934	1,000	1,000
Cohort 6 (July–Dec 2016) Phase 1–8 Offices	5,473	500	500
Cohort 7 (Jan–June 2017) Phase 1–10 Offices	7,172	250	250

5.5 Data Sources and Data Collection

5.5.1 Data Sets and Significant Variables

The processing of administrative data sets occurred as each new cohort became available. We received separate six-month data files from Washington State. Each data transfer included files of two types: (1) a single file of pre-existing characteristics for each family in the new cohort (the cohort file) and (2) files of outcome variables for families in the most recent and all previous cohorts. The outcome variables represent events subsequent to each family's intake (e.g., new intakes, child removals, or services received). The cohort files were static in the sense that all information included was drawn from the events before the family's intake.

In these data sets, each row represents a single family, each of which was coded using the variable *Intktype* as Screened Out (not accepted), FAR, Investigative, or Risk Only (a category representing abuse or neglect claims that do not display sufficient risk to warrant DCYF intervention). Both the cohort and outcome files drew from both FamLink (DCYF's data management system) and other Washington State data systems related to criminal justice, economic assistance, mental health, physical health, and other social service systems (the integrated client database, or ICDB).

Within the data, families were identified with the numeric variable *ID_CASE*. Because an ID_CASE may have multiple intakes during a cohort period, and the intake type (FAR, Investigative, Risk Only) may vary with each new intake, we categorized a given family during a cohort period with the following prioritization: actual FAR, FAR-eligible investigative intakes, and all other intake types. As an example, if a family's first intake was Risk Only, and one month later the family had a FAR intake, the family was categorized as FAR within that cohort period since actual FAR is prioritized over Risk Only intakes.

Intake Categorization Priority

This prioritization also applied to families that had intakes in multiple periods. If a family had a FAR intake in Cohort 6, the process that the Washington State Research and Data Analysis (RDA) team used to generate the cohorts removed that family's Investigative and Risk Only intakes from earlier cohorts. For this reason, the table of intakes reported on the previous page does not represent the total number of intakes for all families; it is instead the unduplicated count by ID_CASE of intakes during the seven cohort periods.

Because of this prioritization of FAR intakes, TriWest's data did not include all intakes. Since the purpose of the analysis is to measure the effect of FAR, this limitation did not impact our analysis of the comparison of FAR (treatment) to matched FAR-eligible investigative (comparison) intakes.

To help us match FAR families to FAR-eligible investigative families, we requested information on family characteristics related to prior family history. Our data request focused on any family characteristic that could change the effect of FAR on our measured outcomes, including variables related to prior economic assistance, prior involvement with DCYF, criminal histories of family members, mental health and medical histories, and many other similar factors. DCYF provided over 300 covariates in the cohort files, with many representing variations on the same variable. For example, we have variables representing receipt of economic assistance in the

previous twelve months, and also receipt of economic assistance at any time in the past. We also have binary (some/none) variations versus continuous numeric variables (e.g. $457)

Because binary versions of these variables would reduce variability and therefore decrease the precision of estimates, we utilized continuous versions when available. For financial assistance variables, we selected a single variable representing total assistance from all Washington State sources. The final list of covariates that we used in propensity score matching and as control variables in multiple regression is provided in the following table (Table 19):

Table 19. List of Matching Variables

Variable	Description
County Urbanization	Level of urbanization of the county of the FAR office in which the family receives services, based on U.S. Department of Agriculture designations
Criminal Involvement	Number of family members with any criminal involvement prior to FAR intake (any time prior)
Criminal Severity	The severity of the most severe criminal offense of any family member prior to FAR intake (any time prior)
Disability (DD) Eligibility	Number of family members eligible for disability benefits
Domestic Violence History	Number of family members with a domestic violence charge prior to FAR intake (any time prior)
Emergency Room Use	Total number of family members using emergency room care (number of visits) prior to FAR intake (any time period)
First DCYF Encounter	(Yes/No) Indicates whether this is the first DCYF encounter for any family member
Homelessness History	Total number of household members experiencing homelessness prior to FAR intake (any time period)
Injury History	Total number of injuries reported to any family member prior to FAR intake (any time period)
Intake Type	Type of intake (Neglect/Abandonment, Physical Abuse, Sexual Abuse/Exploitation)
Juvenile Justice History	Total number of prior adjudications for all juvenile family members prior to FAR intake (any time prior)
Medical/Medicaid Eligibility	Number of months eligible for medical assistance (maximum for family member) prior to FAR intake
Mental Health History	Total number of family members with mental health diagnosis prior to FAR intake (any time prior)
Mental Health History (Severity)	Most severe mental health diagnosis across family members prior to FAR intake (any time prior)

Variable	Description
Number of Children	Count of the number of children living with the family at time of FAR intake
Prior AOD Treatment	Total number of times family member(s) (any) who were treated for alcohol or other drug issues prior to FAR intake (any time prior)
Prior Economic Assistance	Sum of family's total economic assistance received prior to FAR intake (any time prior)
Race/Ethnicity (Youngest Child)	Race/ethnicity of youngest child in the family, as recorded in FamLink
Risk Scores	Abuse and neglect scores derived from SDM Risk Assessment
Tribal Affiliation	DCYF flag indicating an Indian Child Welfare case
Youngest Child's Age	Age of the youngest child in the family at the time of intake

We generated the variable representing the number of children using data provided in the *far_persons* data set, which contains information on every person related to an intake. Using this data set, we calculated the age of every person involved in any intake and excluded those individuals 18 years old and older. After eliminating any observations with the same *ID_CASE* (family ID) and *ID_PRSN* (person ID), we summed the number of children by *ID_CASE*. We added this TriWest-generated variable into each cohort file. In early versions of the data, many families did not have any children listed in the *far_persons* file. This problem was reduced significantly in later updates of the data.

There were two risk score variables, *abuse* and *neglect*, each based on risk scores completed through the Structured Decision-Making (SDM) risk assessment. The cohort data set included the date the SDM risk information was entered into FamLink. A comparison of intake dates to SDM dates demonstrated that SDM information was entered on average approximately 45 days after intake rather than at the beginning of the case. Because the entered information may have been results of the intervention, instead of pre-existing family characteristics before the intervention, we did not use the DCYF-generated neglect or abuse risk scores as matching or control variables. Instead, we separated components of the risk scores that were based on unchanging characteristics (such as number of prior intakes) and developed our own risk and abuse scores. Many observations contained missing values.

"Youngest Child's Age" was drawn from the cohort variable *ageintk_yngst*, which represents the age of the youngest family member. In the first two cohorts of data that we received, this variable contained many missing values or had values that were contradictory (e.g., negative ages or adult ages). We replaced problematic values by using values from the previously mentioned *far_persons* data set. More recent transfers of data have substantially fewer missing or errant values after replacement from the *far_persons* data.

Because several important variables had many missing values, particularly the abuse and neglect risk scores, we imputed missing values of matching variables. This process involved creating five copies of our data set and replacing all observations of missing matching variables with a value composed of two parts. The first part was the most likely value based on all other non-missing values. The second part was a random component (mean zero) based on the variance of the variable with the missing observations. Each of the five data sets had a slightly different replacement value because of the addition of the random component. We performed all statistical analysis using all five data sets and combined results using Rubin's rule. Only matching variables, and not outcome variables, were imputed. For more details, see the Technical Appendix and online documentation for the R package *Amelia*.[30]

Using these matching variables, we performed propensity score matching to develop the cohorts used for analysis. Our matching scheme was one-to-one nearest neighbor, selecting the comparison family for each FAR family that had the closest propensity score. Propensity score matching results in a comparison group with similar baseline characteristics to the treatment group, which helps reduce the confounding effects of using non-matched comparison groups. See the Technical Appendix for details on propensity score matching and the resulting matched comparison group.

5.5.2 Selecting Outcome Variables

TriWest focuses on outcomes addressing the following research questions:

- **Removals.** Does FAR reduce the number of children removed from their families?
- **Re-Referrals.** Does FAR reduce future accusations of abuse and neglect?
- **Well-Being**. Does FAR affect child and family well-being?
- **Disparity.** Does FAR benefit children and families across various demographics?

Removals

To address the first research question, we used the outcome files to generate a series of binary outcome variables indicating whether a family had one or more children removed during the specified time period. Time periods included spans within 3 months (90 days), 6 months, 12 months, 24 months, and 36 months of intake. Variable names were *removal3*, *removal6*, *removal12*, *removal24*, and *removal36*. These are binary indicator variables; they did not capture how many children were removed from a family, but only whether a family experienced one or more removals. Because of complexities in identifying the unduplicated count of unique children that were removed, we are more confident in a binary measure for removals.

[30] https://cran.r-project.org/web/packages/Amelia/Amelia.pdf

Re-Referrals

To address the second research question, we created binary variables indicating whether a family had one or more new intakes during the specified period. *Add_intk3* reports any new intakes within three months (90 days) of the initial intake; *add_intk_acc3* counts only accepted intakes (FAR or investigative), excluding Screened Out or Risk Only intakes. We also created separate variables (*add_intk_out3*, *add_intk_FAR3*, *add_intk_invst3*, and *add_intk_risk3*), which correspond to the number of Screened Out, FAR or FAR-eligible, Investigative non-FAR-eligible, and Risk Only intakes.

Well-Being

To estimate FAR's effect on child well-being, we measured 10 indicators of family well-being in the 12 months before a family's FAR or investigative intake and these same indicators in the 12 months after that intake. This analysis was limited only to the FAR and matched comparison investigative families included in the family-level outcomes analysis (the analysis of removals, re-referrals, and family-level costs). The indicators included measures of physical health, mental health, criminal involvement, drug and alcohol use, and homelessness.

Disparity

We measured potential disparity at several points in the intake process. First, we considered whether disproportionality by race or tribal status exists in the availability of FAR, as measured by the proportion of accepted intakes that are FAR eligible. The determination of FAR eligibility is formulaic, based on past DCYF involvement and other related factors. But this process may unintentionally result in disparity.

5.6 Data Analysis

After completing propensity score matching, we combined the seven cohorts, adding binary cohort indicators and using them as additional covariates. We analyzed the effect of FAR on the probability of a removal, additional intakes (i.e., re-referrals), and costs (see the Cost Study for an expanded discussion of this aspect).

Our analysis approach was to perform a difference in means test (T test) or proportions test (chi-squared test) between the FAR treatment and matched comparison groups. This approach assumes that heterogeneity between the treatment and comparison groups is eliminated through matching. We also performed more sophisticated regression-based tests. The regression-based analysis allowed us to use the matching variables as covariates, permitting further control for heterogeneity between the groups. The regression-based tests also allowed us to adjust for the skewed distribution of the cost outcome variable. Given outcome data that were dominated by zeros and were highly skewed, T-tests have the potential to produce biased

estimates of the effect of FAR. Because both analytic methods yielded very similar results, we present results in this chapter from the difference in means/proportions tests, and we report regression-based results in the Technical Appendix.

Because we are also interested in detecting whether the effect of FAR varied over time, we measured the difference between the FAR and comparison group for each period (three-month, six-month, etc.) separately for each cohort. We used a regression-based approach for this analysis. Results are included in the Technical Appendix.

5.7 Results

5.7.1 Removals

We calculated removal rates using the previously described outcome variables, *removal3, removal6, removal12, removal24*, and *removal36*. These binary variables indicated whether a family had one or more removals within the time period indicated (e.g., three months for *removal3*).

Because both the dependent variables and the treatment variable *farcase* are binary, we conducted a simple test of a difference in proportions of families with a removal with a chi-squared test.

As shown in Table 20, the comparison group had a slightly higher, but statistically significant, rate of removals at three months than did FAR families. This pattern of a significant difference persisted over longer outcome time frames (6, 12, 24, and 36 months).

Table 20. Removals at 3, 6, 12, and 36 Months After Intake

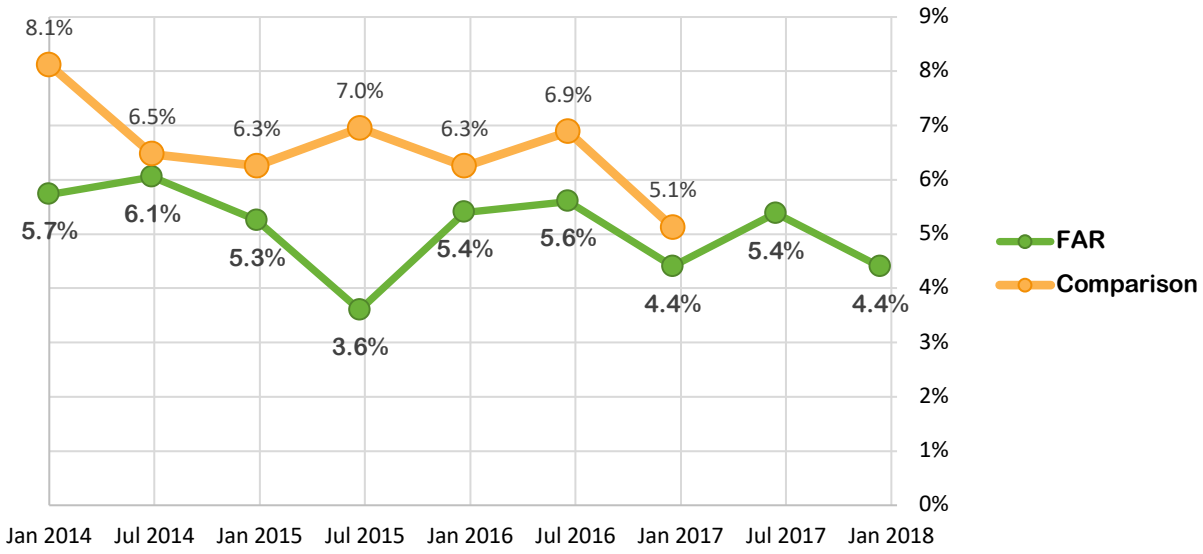
(Cohorts 5–7 were not active for enough time to be included in analysis of later outcome time frames.)	FAR	Matched Comparison Group[31]
Percentage of Families with a Removal **within 3 months of intake** (Cohorts 1–7)	2.6%	3.7%*
Percentage of Families with a Removal **within 6 months of intake** (Cohorts 1–7)	3.8%	4.8%*
Percentage of Families with a Removal **within 12 months of intake** (Cohorts 1–7)	5.4%	6.4%*
Percentage of Families with a Removal **within 24 months of intake** (Cohorts 1–6)	7.6%	8.5%*

[31] An "*" indicates a statistically significant value.

(Cohorts 5–7 were not active for enough time to be included in analysis of later outcome time frames.)	FAR	Matched Comparison Group[31]
Percentage of Families with a Removal **within 36 months of intake** (Cohorts 1–4)	9.3%	9.7%

The regression results show that FAR had the largest effect on removal rates during the cohort starting in July of 2015 (see the Technical Appendix). This is also apparent in the unmatched comparison of FAR families to all FAR eligible investigative families. As demonstrated in Figure 25 below, FAR families have lower removal rates than does the pool of FAR-eligible investigative families during every cohort. The difference is largest in cohort 4, which included intakes between July and December of 2015.

Figure 25. Proportion of Families with One or More Removals at 12 Months



Several other results are apparent in Figure 25. First, the declining rate of removals in FAR reversed with cohort 5, starting in January of 2016. This coincides with the "pause" in the rollout of new offices. Anecdotal evidence suggests that caseworker confidence in the sustainability of the FAR program declined during this period.

Second, although we do not have FAR-eligible investigative families for cohorts 8 and 9, we can report removal rates for FAR families. The 12-month rates continued the previous trend, suggesting continued lower removal rates with the FAR program as compared to what would have occurred had FAR not been implemented.

Implications of Reduced Removals

To offer greater context for the impact of our analysis of removal rates, we estimated how many families will avoid experiencing a removal in future years because of FAR. Our process began by estimating the number of unique families who have a FAR-eligible intake each year. Because some families have multiple intakes, this number is much smaller than the total number of intakes each year. We made this estimate by averaging the number of families who are FAR eligible (actual FAR or FAR-eligible investigative intakes) each year between 2014 and 2017 (see Table 21).

Table 21. Estimated FAR-Eligible Intakes Per Year (Unique Families)

Year	Families
2014	20,267
2015	18,011
2016	16,719
2017	16,003
Average	**17,750**

These data are based on a file of all intakes provided to us by RDA and covering the January 1, 2014, through July 31, 2017, period (the span between the initial and complete implementation of FAR). Since the full year of data were not included for 2017, we supplemented with the cohort file we received for this period. Because of this file's construction method, we may have omitted a small number of families.

Although the annual series trended downward, we lack sufficient data to project whether future intakes follow this trend. As such, we use the four-year average of 17,750 as a basis for estimated FAR-eligible future intakes.

Based on this yearly figure, and the removal rate for FAR-eligible investigative intakes from the logistic regression analysis used in our cohort analysis, we estimate that if all FAR-eligible families enter the investigative path, there will be 1,144 families with one or more removals within 12 months of intake. If these same families enter the FAR path, however, we expect to find 943 families with one or more removals within 12 months of intake. The resulting difference is 201 families per year who do not experience a removal within one year of intake, or a reduction of 17.5% from the 1,144 estimate.

5.7.2 Re-Referrals

Table 22 below shows the proportion of FAR and comparison group families with one or more new accepted CPS intakes within three months following their initial FAR (or investigative) case.

The comparison group had a statistically significant lower proportion of new intakes when considering all new accepted intakes. FAR families had more re-referrals in general, but many continued to be FAR-eligible referrals, indicating that risk levels had been staying the same for these families. Comparison group families were eligible for FAR in their first intake but generally had fewer subsequent FAR-eligible referrals and, in some cases, had significantly more non-eligible referrals, an indicator that these families were facing greater challenges when they returned (as indicated by risk at intake).

Table 22. Families with New CPS Intakes Within 3 Months After Intake

Families with New CPS Intakes Within 3 Months After Initial Intake, Cohorts 1–7	FAR	Matched Comparison Group[32]
Percentage of families with *any* new accepted CPS intake	12.5%	11.2%*
Percentage of families with a new FAR-eligible intake	9.5%	6.6%*
Percentage of families with a new non-FAR-eligible intake	3.9%	5.5%*
Percentage of families with a new "risk-only" intake	0.7%	0.7%

These same patterns hold for new intakes at 6, 12, 24, and 36 months, as shown in the following tables. Again, the comparison group had a lower proportion of families with any new intakes, but this difference was being driven entirely by having fewer FAR-eligible intakes. Comparison group families continued to have slightly higher rates of new non-FAR-eligible intakes, although the statistical significance of this difference disappears at 24 months.

Table 23. Families with New CPS Intakes Within 6 Months After Intake

Families with New CPS Intakes Within 6 Months After Initial Intake, Cohorts 1–7	FAR	Matched Comparison Group[32]
Percentage of families with *any* new accepted CPS intake	19.3%	16.3%*
Percentage of families with a new FAR-eligible intake	14.4%	9.7%*
Percentage of families with a new non-FAR-eligible intake	6.9%	8.5%
Percentage of families with a new "risk-only" intake	1.2%	1.4%

Table 24. Families with New CPS Intakes Within 12 Months After Intake

Families with New CPS Intakes 12 Months After Initial Intake, Cohorts 1–7	FAR	Matched Comparison Group[32]
Percentage of families with *any* new accepted CPS intake	27.4%	22.3%*

[32] An "*" indicates a statistically significant difference (p<.05).

Families with New CPS Intakes 12 Months After Initial Intake, Cohorts 1–7	FAR	Matched Comparison Group[32]
Percentage of families with a new FAR-eligible intake	20.7%	13.1%*
Percentage of families with a new non-FAR-eligible intake	11.1%	12.8%
Percentage of families with a new "risk-only" intake	2.4%	2.7%

Table 25. Families with New CPS Intakes Within 24 Months After Intake

Families with New CPS Intakes 24 Months After Initial Intake, Cohorts 1–6	FAR	Matched Comparison Group[33]
Percentage of families with *any* new accepted CPS intake	36.8%	28.8%*
Percentage of families with a new FAR-eligible intake	28.6%	17.7%*
Percentage of families with a new non-FAR-eligible intake	16.4%	17.4%
Percentage of families with a new "risk-only" intake	4.7%	5.0%

Table 26. Families with New CPS Intakes Within 36 Months After Intake

Families with New CPS Intakes 36 Months After Initial Intake, Cohorts 1–4	FAR	Matched Comparison Group[33]
Percentage of families with *any* new accepted CPS intake	43.0%	33.7%*
Percentage of families with a new FAR-eligible intake	33.7%	21.7%*
Percentage of families with a new non-FAR-eligible intake	20.6%	20.4%
Percentage of families with a new "risk-only" intake	6.6%	6.4%

[33] An "*" indicates a statistically significant difference (p<.05).

Figure 26. Proportion of FAR-Eligible Families with One or More Referrals at 12 Months

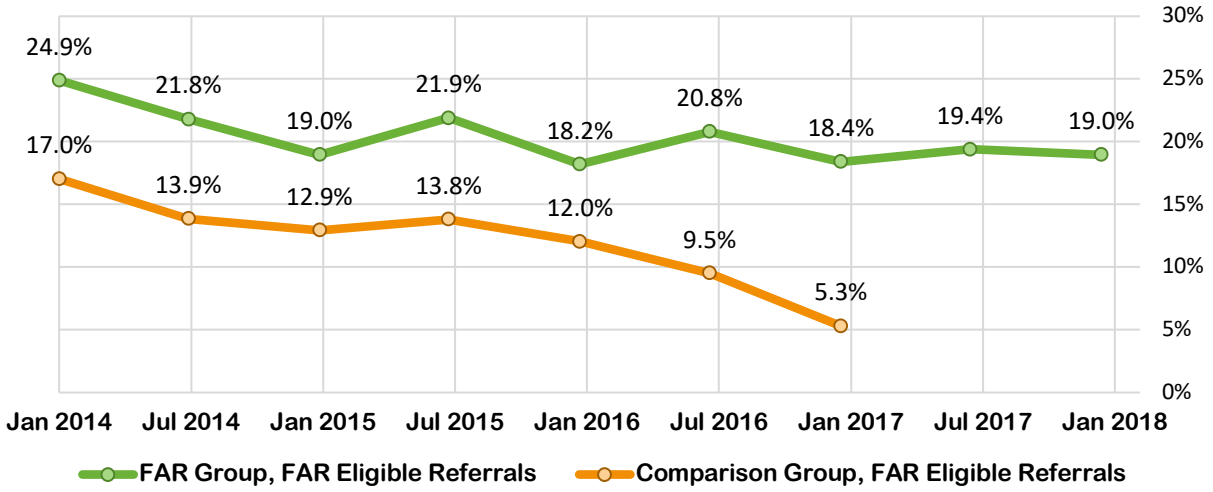
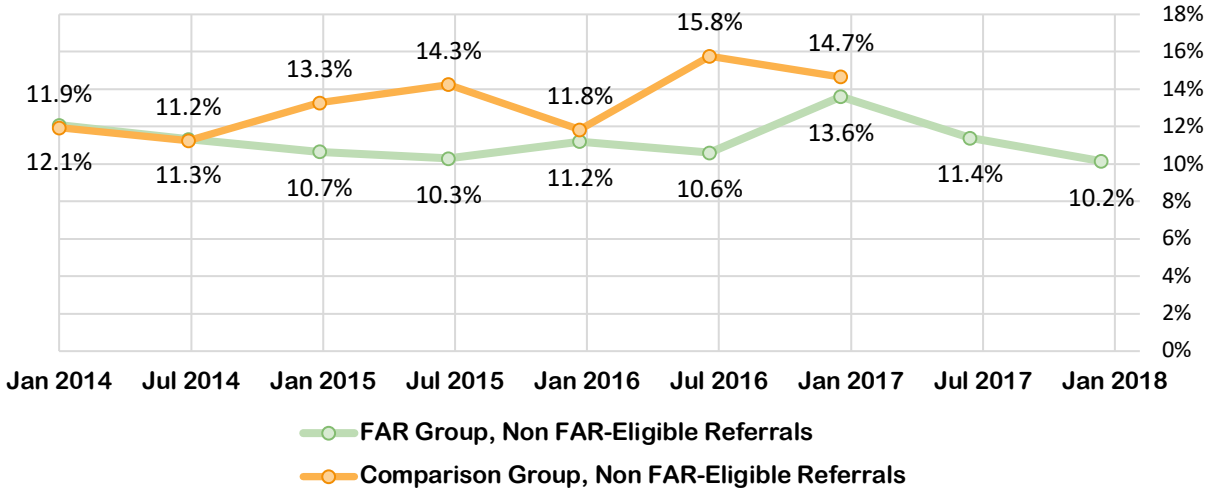


Figure 27. Proportion of Non-FAR-Eligible Families with One or More Referrals at 12 Months



As may be observed in Figure 26 and
Figure 27, the patterns observed for the matched FAR and comparison families also hold for all of the FAR and FAR-eligible investigative families in our data. FAR families have higher rates of FAR-eligible re-referrals for all cohorts and all time periods. We have graphed the 12-month rate, and this rate is consistent for FAR families in the last two cohorts (these cohorts are unused in the matched comparison analysis). FAR-eligible investigative families have higher rates for non-FAR eligible re-referrals. Unlike removals, we do not see different behavior for cohort 4 than with other cohorts in either the time series graphs or in the logistic regressions reported in the Technical Appendix.

In our discussions with caseworkers and DCYF administrators, we discovered several possible contributing factors to increases in re-referrals. First, because FAR is perceived to help families, there may be more willingness for mandatory reporters to report low-risk cases when FAR is available (key informants often noted that school districts were likely to perceive FAR as a system of services rather than an extension of CPS work). Next, as part of the FAR implementation, FAR office leads engaged in community outreach. This outreach and engagement may have heightened awareness of child abuse and neglect. Combined, these related factors may increase willingness to report, leading to higher re-referral rates after offices implemented FAR. We did not attempt to verify these possible explanations with the data available to us.

5.7.3 Well-Being

Our analysis created two difference scores for each indicator of child well-being. The first difference score was the change in the well-being indicator before and after intake for the FAR group. The second difference was the change in the well-being indicator before and after intake for the matched comparison group. We compared the FAR group's change in indicators to the matched comparison group's change in indicators (a difference-in-difference test), which provided a measure, for each well-being indicator, of the group that experienced the larger change from before to after intake.

Table 27 below presents the group means for the FAR and matched comparison group, for each indicator of well-being, before and after intake. Table 28 includes difference-in-difference scores and a short discussion of the findings for each indicator.

Table 27. Group Means for Well-Being Indicators

Well-Being Measure	Mean for FAR Families (n = 7,944)		Mean for Matched Comparison Families (n =6,911)		Statistically Significant Difference?
	12 Months Pre-Intake	12 Months Post-Intake	12 Months Pre-Intake	12 Months Post-Intake	
Instances of Alcohol or Drug Treatment	1.18	1.52	1.07	1.47	No
Family Members with Criminal Involvement	0.33	0.28	0.30	0.26	No
Maximum Severity of Criminal Activity	0.33	0.59	0.31	0.54	No
Charges of Domestic Violence	0.02	0.04	0.02	0.03	Yes

Well-Being Measure	Mean for FAR Families (n = 7,944)		Mean for Matched Comparison Families (n =6,911)		Statistically Significant Difference?
	12 Months Pre-Intake	12 Months Post-Intake	12 Months Pre-Intake	12 Months Post-Intake	
Emergency Department Visits	2.73	2.61	2.33	2.17	No
Episodes of Homelessness[34]	2.02	2.13	1.83	1.99	No
Number of Family Injury Diagnoses	1.30	1.54	1.10	1.32	No
Maximum Juvenile Rehabilitation Detention Level	0.02	0.03	0.04	0.04	No
Number of Juvenile Convictions	0.11	0.18	0.11	0.17	No
Family Members with Mental Illness	1.04	NA	0.90	NA	NA

Table 28. Well-Being Difference-In-Difference Scores and Discussion

Well-Being Measure	Difference-In - Difference Score[35]	Discussion of the Difference in the Change in FAR Group Scores and Change in Matched Comparison Group Scores
Instances of Alcohol or Drug Treatment	0.05	The comparison group experienced a slightly greater increase in instances of alcohol or drug treatment, but this effect was small and not statistically significant.
Family Members with Criminal Involvement	-0.004	The FAR group experienced a slightly greater decrease in the number of family members with criminal involvement, but this effect was small and not statistically significant.
Maximum Severity of Criminal Activity	-0.03	The FAR group experienced a slightly greater increase in the severity of criminal activity. This effect was nearly statistically significant with p = 0.057, but the difference is still too small to be of note.

[34] Although the average number of homelessness episodes per family appears high (around two per 12-month period), most families have no episodes of homelessness; a small group of families with many episodes biases this mean. This measure tracks episodes in several types of shelters, including emergency housing and shelters for battered spouses.

[35] Comparison difference minus FAR difference, rounded.

Well-Being Measure	Difference-In - Difference Score[35]	Discussion of the Difference in the Change in FAR Group Scores and Change in Matched Comparison Group Scores
Charges of Domestic Violence	-0.01	The FAR group experienced a greater increase in the number of charges of domestic violence. This difference was statistically significant with p = 0.010, but the effect is very small, as most families (FAR and investigative) do not include members being charged with domestic violence.
Emergency Department Visits	-0.04	The comparison group experienced a slightly greater decrease in emergency room visits, but this effect was small and not statistically significant.
Episodes of Homelessness	0.03	The comparison group experienced a slightly greater increase in homelessness episodes, but this effect was small and not statistically significant.
Number of Family Injury Diagnoses	0.02	The FAR group experienced a slightly greater increase in the number of medical diagnoses of an injury, but this effect was small and not statistically significant.
Maximum Juvenile Rehabilitation Detention Level	-0.005	The FAR group experienced a slightly greater increase in the maximum detention level for juvenile rehabilitation, but this difference was small and not statistically significant.
Number of Juvenile Convictions	-0.02	The FAR group experienced a slightly greater increase in the number of juvenile convictions, but this difference was small and not statistically significant.
Family Members with Mental Illness	NA	Data for both the FAR and matched comparison groups in the 12 months after intake was missing, and so difference-in-difference analysis could not be run for this indicator.

These well-being measures are drawn from variations of the covariates used in the family-level matched comparison analysis. While these are important variables to control for in analyzing the impact of FAR on removals and re-referrals, they are less suitable in measuring changes in family or child well-being. Some of them (e.g., measures related to family criminal justice involvement) are not the focus of FAR services provided to families and are unlikely to change as the result of FAR. Other variables, such as the number of family injury diagnoses, reflect the complex living situations of some families in FAR and may not directly reflect on the welfare of children.

We used these variables because of their availability as substitutes for the CANS, but the general lack of statistically significant differences between FAR and comparison families

supports the hypothesis that FAR is not designed to address the full and complex set of problems faced by families.

5.7.4 Disproportionality

Overall disproportionality informs whether child welfare programs, whether in Washington State or across the country, are appropriately offered to all intended children and families. For our analysis of disproportionality in Washington's FAR program, we specifically examined the degree to which the FAR program may have alleviated or exacerbated disproportionality at two key system decision points: (1) at intake as families are assigned to FAR versus the investigative pathway and (2) at the point families voluntary participate (or decline participation) in the program.

For the first measurement of disproportionality, FAR eligibility at intake, we report in Table 29 the percentages of accepted intakes that are FAR eligible by race and tribal status. These data are based on intakes of all families, January 2014 through July 2017.

Table 29. Intake Type by Race/Ethnicity for All Intakes (Jan. 1, 2014–June 30, 2017, Cohort Periods 1 Through 7)

Race/Ethnicity	Screened Out	FAR[36]	Investigations	Risk Only
Asian/Pacific Islander	54.2%	15.0%*	27.2%	3.6%
Black	53.2%	13.5%	28.8%	4.5%
Hispanic (white or unknown race)	53.3%	12.7%*	28.8%	5.2%
Multiracial Asian/Hispanic/White	54.3%	13.2%	26.5%	6.0%
Multiracial Black (no Native Amer.)	55.0%	13.0%	26.6%	5.4%
Multiracial Native American	53.5%	13.4%	26.6%	6.5%
Native American	52.4%	11.1%*	28.4%	8.1%
White	57.4%	13.9%*	24.3%	4.5%

Families identified as Native American and Hispanic all have FAR intake rates at intake below the mean, whereas families identified as Asian/Pacific Islander, and White all have eligibility rates above the mean. These differences are small, but they are statistically significant. Further analysis revealed that this difference was similar for our study population and for all intakes across the five-year FAR implementation. It appears to be driven by the number of prior CPS intakes per family, which is a factor in eligibility. On average the families with lower rates of assignment to FAR had a higher average number of prior CPS intakes.

[36] An "*" indicates a statistically significantly difference than the overall average rate of FAR assignment at $p < 0.05$.

Our second measure of disproportionality is for families who were offered FAR but declined the program. Table 30 lists the percent of families who decline FAR by cohort period. Because the January 2014 cohort only included 664 FAR families, we excluded it from the table.

Table 30. Disparity (Families Who Declined FAR)

Race or Tribal Status	July 2014	Jan 2015	July 2015	Jan 2016	July 2016	Jan 2017	July 2017	Jan 2018
Native American	8.10%	11.70%	7.80%	8.00%	7.30%	5.10%	8.30%	3.00%
Asian/Pacific Islander	6.00%	6.50%	4.80%	4.50%	4.60%	6.00%	2.30%	3.80%
Black	7.30%	3.70%	4.80%	4.30%	6.20%	5.50%	4.30%	4.60%
White	7.30%	5.60%	6.10%	4.70%	5.30%	4.70%	4.70%	4.80%
Hispanic (white or unknown race)	4.90%	5.40%	4.00%	3.80%	5.40%	2.60%	4.00%	2.80%
Multiracial Native American	6.70%	6.60%	3.70%	9.50%	8.80%	7.70%	5.00%	4.00%
Multiracial Black (no Native American)	4.00%	5.60%	2.40%	7.40%	4.20%	3.20%	3.40%	4.40%
Multiracial Asian/Hispanic/White	0.00%	4.50%	4.30%	9.30%	1.70%	6.60%	3.90%	9.80%
Race Unknown	4.80%	5.90%	4.90%	4.80%	4.10%	3.40%	4.30%	3.90%
Not WA State Tribe	6.40%	5.70%	5.30%	5.00%	5.10%	4.40%	4.40%	4.40%
WA State Tribe	12.90%	6.40%	9.90%	7.30%	8.10%	7.90%	7.60%	4.40%
Total	**6.50%**	**5.70%**	**5.40%**	**5.00%**	**5.20%**	**4.50%**	**4.60%**	**4.40%**

The most apparent pattern in rates of families declining FAR are for Native American and Washington State Tribal families. These families have rates that are much higher than other families. As reported in the process section of this report, FAR social workers and DCYF administrators reported that several Native American families expressed reluctance to sign the FAR Agreement and were therefore transferred to investigations. Notably, the FAR Agreement was eliminated in late 2017, which coincides with a shift in decline rates for Native American families. By 2018, rates of declining FAR from families identified as Native American aligned to the rest of the population. This timing suggests that the FAR agreement was acting as a barrier to Native American and tribal families.

5.7.5 Effect of Services on Outcomes

To consider whether receipt of services affected removals or re-referrals, we focused on two categories of services: evidence-based practices (EBPs) and concrete goods. However, any correlation between receipt of EBPs and removals or re-referrals is theoretically ambiguous. Although we may expect that services help families, resulting in reductions of removals and re-

referrals, the actual connection is more nuanced. Specifically, the families who most need services (and especially EBPs) are the families most likely to experience removals and re-referrals. Services are offered as a way of attempting to avoid these less-desirable outcomes, though services and goods, of course, are not always capable of overcoming some high-risk situations. Conversely, families who do not need services are very unlikely to experience removals or re-referrals. Thus, viewing the correlation between service provision and removals or re-referrals as causal (i.e., that increased EBP utilization *causes* increased risk of removal) is erroneous.

Methodology

Washington State offers a number of in-home services and uses the California Evidence-Based Clearinghouse criteria to designate six of these as EBPs. These six EBPs include Family Functional Therapy (FFT), Homebuilders Intensive Family Preservation Service (IFPS), Parent-Child Interaction Therapy (PCIT), Project SafeCare, Incredible Years, and the Positive Parenting Program ("Triple P").[37] This analysis considers (1) the aggregate effect of receiving any of these EBPs and (2) the individual effect for each of the six EBPs.

The concrete goods category includes clothing and other incidentals, transportation that was not removal- or placement-related, and concrete goods that may have been provided as part of receipt of an EBP. We identified these services through subcategory tags included in the detailed service data files.

Unlike the family-level analysis, which uses matched comparison groups and tests effects by cohort, this analysis focuses only on FAR families, includes all families who received FAR, and does not divide the data into cohorts. These data include families who received FAR between January 2014 through June 2018.

We count receipt of EBPs and concrete goods starting with the intake date of each family's first assignment to FAR. For the analysis of removals, the counting period ends at the date of the first removal or 180 days after intake, whichever comes first. For the analysis of re-referrals, the counting period ends at the date of the first re-referral or 180 days after intake, whichever comes first. Any EBPs received outside these periods are assumed to be unrelated to the specific FAR intake analyzed.

In compiling the data, we used binary (yes/no) variables to track receipt of EBPs and concrete goods, rather than attempting to count services families received. From there, we ran logistic regression to analyze the effect of receipt of EBPs and concrete goods on removals and re-referrals. The regression model included as covariates all 36 of the matching variables used in

[37] For more details on the EBPs, see section 2.4.

the full family-level outcomes analysis[38], as well as a variable tracking the receipt of EBPs (but not concrete goods) prior to a family's first FAR intake. Likewise, we used binary variables for outcome variables (removals and re-referrals) to track whether the family experienced a removal or re-referral within 12 months of a family's first FAR intake. We did not perform this analysis for other periods (e.g., 3, 6, 24, or 36-month outcomes).

We ran these analyses twice: once for the FAR families with the highest risk levels, as measured by the top quartile of abuse and neglect risk scores, and once for the entire group of FAR families.

Results

High-Risk FAR Families (Removals)

For the group of highest risk FAR families (n = 21,998), receipt of *any* EBP was not in aggregate associated with removals at conventional significance levels.[39] However, at the individual EBP level, some variance occurs. For example, families who received IFPS and SafeCare correlated with having more removals than did families who did not receive those EBPs. On the other hand, families who received Triple P saw fewer removals than did families who did not receive that service. Finally, families who received concrete goods correlated to having more removals than families who did not receive concrete goods.

High-Risk FAR Families (Re-Referrals)

Receipt of any EBP in aggregate was associated with fewer re-referrals. This statistically significant effect was driven primarily by FFT, which was associated with fewer re-referrals. The other individual EBPs associated with fewer re-referrals as well, though on their own none of the other five EBPs' effects were statistically significant. Receipt of concrete goods was also associated with fewer re-referrals.

Over a 12-month period, these results suggest that the provision of EBPs and concrete goods may play a small role in reducing re-referrals, while such services were certainly not found to reduce removals. Indeed, it seems that among high-risk families, those in danger of experiencing a removal are more likely to receive a certain type of EBP (IFPS and SafeCare), while families that are less likely to experience a removal receive Triple P.

Table 31 summarizes statistically significant effects of receipt of EBPs and concrete goods on removals and re-referrals for the riskiest FAR families.

[38] Please refer to the appendix for the full list of match variables, which track abuse and neglect risk scores, various indicators of well-being, county urbanization, criminal involvement, mental health, and ethnicity.

[39] Statistical significance refers to P-Values less than or equal to 0.05.

Table 31. Effect of EBPs and Receipt of Concrete Goods on Removals and R-Referrals for High-Risk FAR Families

Service	Association with Removals	Association with Re-Referrals
Receipt of Concrete Goods	More Removals	Fewer Re-referrals
Receipt of Any EBP (Aggregate Effect)	No Significant Effect	Fewer Re-referrals
FFT	No Significant Effect	Fewer Re-referrals
IFPS	More Removals	No Significant Effect
Incredible Years	No Significant Effect	No Significant Effect
PCIT	No Significant Effect	No Significant Effect
Project SafeCare	More Removals	No Significant Effect
Triple P	Fewer Removals	No Significant Effect

All FAR Families (Removals)

In our analysis of the relationship between service provision and outcomes for all FAR families (n=46,717), we found statistically significant removal results nearly identical to those for the group of high-risk FAR families. The only notable change is that with the increased sample size, in aggregate, the receipt of any EBP is associated with more removals. This finding, as noted earlier, is consistent with expectations: those families most in need of EBPs are generally the families most in danger of experiencing a removal.

All FAR Families (Re-Referrals)

As with removals, the general relationship between service provision and re-referrals did not differ for all FAR families as opposed to high-risk FAR families. Notable differences include the loss of a statistically significant effect for the receipt of any EBP in aggregate and the finding that families who received IFPS were more likely to experience a re-referral.

Likewise, overall conclusions of the association of EBPs and concrete goods with removals and re-referrals follow the patterns set by the high-risk group of FAR families. Table 32 summarizes statistically significant effects of receipt of EBPs and concrete goods on removals and re-referrals for all FAR families.

Table 32. Effect of EBPs and Receipt of Concrete Goods on Removals and Re-Referrals for All FAR Families

Service	Association with Removals	Association with Re-Referrals
Receipt of Concrete Goods	More Removals	Fewer Re-referrals
Receipt of Any EBP (Aggregate Effect)	More Removals	No Significant Effect
FFT	No Significant Effect	Fewer Re-referrals

Service	Association with Removals	Association with Re-Referrals
IFPS	More Removals	More Re-referrals
Incredible Years	No Significant Effect	No Significant Effect
PCIT	No Significant Effect	No Significant Effect
Project SafeCare	More Removals	No Significant Effect
Triple P	Fewer Removals	No Significant Effect

Rates of EBPs and Concrete Goods Provision in this Analysis

At some point prior to their first FAR intake, 4.6% of all FAR families had received at least one EBP, and 8.1% of high-risk FAR families had received at least one EBP before their first FAR intake. In addition, 5.6% of all FAR families and 7.9% of high-risk FAR families received any EBP between the date of their first FAR intake and either 180 days after that date or the date of their first removal, whichever came first. During that same period, 20.2% of all FAR families and 25.1% of all high-risk FAR families received concrete goods or services. As expected, a larger proportion of high-risk FAR families received the services tracked in this analysis than did the proportion of all FAR families.

The rates for service provision prior to the first re-referral are typically slightly lower than the rates prior to the first removal, as more families have re-referrals than removals. And if a re-referral results in a removal, temporally the re-referral must happen first, which reduces the length of the period over which we can count receipt of services.

The following table (Table 33) summarizes the rates of EBP and concrete service provision for the time spans used in the analysis.

Table 33. Proportions of Families Receiving EBPs and Concrete Goods

Service	All FAR Families	High-Risk FAR Families
Provision Between Intake and 180 Days or First Removal		
Receipt of Concrete Goods	20.2%	25.1%
Receipt of Any EBP (Aggregate Effect)	5.6%	7.9%
FFT	1.5%	2.1%
IFPS	1.2%	1.8%
Incredible Years	0.1%	0.2%
PCIT	0.2%	0.2%
Project SafeCare	0.4%	0.6%

Service	All FAR Families	High-Risk FAR Families
Triple P	2.3%	3.3%
Provision Between Intake and 180 Days or First Re-referral		
Receipt of Concrete Goods	18.0%	22.0%
Receipt of Any EBP (Aggregate Effect)	4.7%	6.4%
FFT	1.3%	1.8%
IFPS	0.9%	1.3%
Incredible Years	0.1%	0.2%
PCIT	0.2%	0.2%
Project SafeCare	0.3%	0.4%
Triple P	1.9%	2.7%

5.7.6 Effect of Fidelity on Outcomes

Using the office FAR fidelity scores described in the Process Study, we measured the relationship between fidelity scores and 12-month removal and re-referral outcomes. Our approach was similar to measuring the effect of EBPs on outcomes, and we used much of the same data. Given that our fidelity scores considered only FAR families, this analysis likewise used the subset of FAR families from our study of the effects of EBPs on removal and re-referral outcomes whose intakes occurred between January 2015 and June 2017. We did not have sufficient data for calculating fidelity scores for offices in 2014 (see 4.4.8 for more details on these limitations).

To transfer the office-level fidelity scores to the family-level outcome analysis, we assigned each FAR family the fidelity score pertaining to the office and year in which their FAR intake occurred. The fidelity scores were calculated by calendar year, but cohorts changed every six months. This meant families from the same office but from two different cohorts from the same year (e.g., January–June and July–December 2015) received the same annual (e.g., 2015) fidelity scores.

Using the fidelity scores as explanatory variables, and the same covariates used in the family-level matched comparison analysis, we used logistic regression to measure the effect of fidelity on either removals or re-referrals. This analysis included three types of fidelity scores: fidelity for FAR training and initial rollout, a post-implementation core fidelity score (core fidelity scores include fewer measures but these measures are more consistently available between offices),

and an enhanced post-implementation fidelity score (enhanced fidelity scores include more measures, but these measures were less consistently available between offices). We analyzed the relationship between each of the three types of fidelity scores and outcomes.

With three explanatory variables (the three types of fidelity scores) and two dependent variables (12-month removals and re-referrals), we generated results for six regressions. These results found that for re-referrals, higher initial rollout, core, and enhanced fidelity scores were all associated with increased re-referral rates. However, only the initial rollout score was statistically significant, with a P-Value of less than 0.001. Each of the three fidelity measures was associated with increased removal rates, with P-Values 0.015, 0.002, and 0.035, all statistically significant.

5.8 Discussion

5.8.1 Differences Between Findings and Hypothesis

In addition to reducing unnecessary removals, FAR is designed to link families to community and other natural supports to prevent re-referrals. Based on the comparison of FAR to FAR-eligible investigative families, FAR appears to increase accepted re-referrals. These re-referrals are disproportionately FAR eligible, reflecting lower levels of risk.

Discussions with DCYF staff have generated several hypotheses that may explain this finding. First, an important component of implementing FAR was community outreach, including explaining the benefits of FAR to potential reporters of abuse and neglect. This may have had the inadvertent consequence of reducing reluctance to report allegations in FAR offices, potentially increasing the re-referral rate.

Next, given the low level of services provided to FAR families, it may take multiple cycles of referrals to address family needs. For investigations, with the heighted risk of removals, families may respond by reducing those activities leading to the claim of abuse or neglect, without necessarily addressing the underlying problems leading to the claim. FAR may then increase re-referrals in the short term because reporters and families are less reluctant to become involved with DCYF, while it reduces long term risk of more serious abuse and neglect. If this explanation is correct, the long-term reduction must occur after the end of 36 months, for FAR retains a statistically significant increase in accepted re-referrals up through that period.

Finally, in 2018, the Washington legislature adjusted the length that FAR cases could remain open with the intention of enabling caseworkers to better provide families with services. Given this adjustment, we would expect that the opportunities for families to receive expanded FAR services may ultimately reduce re-referrals.

5.8.2 Challenges

Many of our analyses relied, to some extent, on correctly identifying the office that served a FAR or investigative case. However, several data sources had an 8%–15% error rate for this variable, requiring substantial and ongoing collaboration to fix. Because of timing and data-availability issues, these fixes could not be applied all at once. Furthermore, office assignment in our final two cohorts (July–December 2017 and January–June 2018) was never corrected. Because of this, these last two cohorts were excluded from several analyses that rely on office assignment.

Along with incorrect field office tracking, the office names themselves saw substantial drift. Over the course of the evaluation, some offices combined, multiple names were used for the same office, and some offices were renamed. This drift is often not consistently reflected between datasets, leading to significant difficulty in aligning offices across data sources. Much effort and back-and-forth with DCYF was necessary to align office names and codes. The state, including the team at the Research and Data Administration (RDA), was very patient, responsive, and helpful.

One other challenge arose primarily as a result of the cohort structure required by our analysis design. The complex logic governing how different types of cases (e.g., FAR, FAR-eligible investigative, non-FAR-eligible investigative) fell into which cohort over time led to difficulties in developing a complete summary of all intakes over the study period. This was not a shortcoming in the data or in DCYF's data management, but a difficulty that arose from this particular study design.

We first recognized this issue came when comparing our findings to those of WSIPP's (Washington State Institute for Public Policy). WSIPP conducted similar analysis but on an underlying data object that was fundamentally different from the data included in our cohort files. This difference led to slightly different findings and intake counts between the two analyses. These differences introduced questions that were difficult to answer without access to both data sources, though we eventually determined that the cohort structure forced some types of investigative intakes to be dropped. As a result, we asked for and ran additional analysis on a separate dataset that included all intakes, unsorted by cohorts, over our study period.

Additionally, we encountered difficulty describing one undesirable outcome in this study: that families who are at greater risk of a removal or re-referral are more likely to receive EBPs and other services. The challenge here includes several components. First, our measures of risk are relatively weak. The abuse and neglect scores used as a proxy for risk presented several difficulties, including a substantial number of missing values and factors associated with how

those variables are calculated. Second, assignment of EBPs was not random. Because receipt of EBPs, removals, and re-referrals are all highly correlated—and because we do not have an adequate "true" measure of risk—this analysis cannot entirely control for the factors necessary to identify how receipt of EBPs affects outcomes.

Finally, we found that a very high proportion of families used in the study had prior experiences with child welfare services and continued to re-refer after their initial FAR intake. This recycling potentially contaminates our treatment (FAR) and comparison (FAR-eligible investigative) pools in the family-level analysis. The cohort structure was designed specifically to address this problem but results in another bias: comparison families cannot, at least during the study period, come back as an actual FAR family after a FAR-eligible investigative intake.[40] In short, this phenomenon reduces the similarity between our treatment and comparison pools.

5.8.3 Limitations

For the family-level analysis, several data or evaluation design features created potential limitations. Although our propensity score design used family characteristics available in the FamLink administrative data system to make a comparison group, we were unable to match on any office characteristic other than degree of urbanization. As part of our key informant interviews, we observed varying degrees of readiness for the FAR implementation. It is conceivable that FAR families were matched to comparison families in offices with substantially different capacity to serve families, creating bias in our measurement of the impact of FAR.

In a related data mismeasurement problem, because of FamLink mis-assignment of families to field offices, we were provided corrected office assignments several times during the evaluation period. We are unable to ascertain the error rate in the final assignment of families to offices. Misclassifying a family's office will result in errors in degree of urbanization, which is a variable we used in matching.

In another evaluation design limitation, because the cohort structure was designed to maximize the number of FAR families, any family accepted into FAR was eliminated as a comparison family in earlier cohorts. The same family could not be a comparison family for cohort 1, then a FAR family in cohort 2. This limited the characteristics of comparison families to those who did not have a subsequent FAR intake. This potentially resulted in comparison families with more severe needs (subsequent intakes were not FAR eligible) or less severe needs (subsequent intakes did not occur or were screened out). The net bias from this design feature is unknown.

[40] If FAR families did re-enter the study, the logic of the cohort structure would require that family be considered as part of the treatment group in a later cohort and would be removed from the comparison pool in the earlier cohort in which their FAR-eligible investigative intake occurred.

5.8.4 Recommendations

The following recommendations are generally responses to the items listed above in the "Challenges" section (5.8.2) and speak to ways to improve both current operations and to better prepare for future evaluations.

- For future analysis, continue the process DCYF is currently engaged in to consolidate, standardize, and bring office variables into alignment between data sources. Create a data key that tracks field office naming through time so that older data sources with outdated office names can be understood or analyzed with up-to-date naming conventions.
- Analyses that use a cohort design should ensure that data are structured such that intakes can be clearly tracked through the cohort construction process and that the objects used in the analysis can be compared, on an intake-by-intake basis, to the original distribution of intakes prior to cohort construction.
- Future analyses should consider alternatives to the logic and structure of this study's cohort-based analysis. These alternatives include using only shorter outcome periods (excluding analysis of outcomes at two and three years), to reduce contamination of comparison groups, or randomly assigning implementation to offices and delaying implementation at comparison offices until the completion of the period of analysis.

Finally, toward the end of our analysis, we considered a question that was outside the original evaluation but proved interesting. Specifically, we, together with DCYF, explored whether receipt of EBPs would correlate with reductions in removals and re-referrals. However, based on our initial analysis, we found no such correlations. In many instances, the preliminary results showed a high association between receipt of EBPs and increases in removals and re-referrals.

As noted earlier in this study (see 5.7.5), this association, in hindsight, should not be surprising. It seems likely that those families receiving the most services are the same families at the highest level of risk for removals and re-referrals.

However, we have considered other possibilities in why the association between services and increased probability of removals and re-referrals did not tend toward reductions—or that higher fidelity to FAR would appear to actually increase negative outcomes. It should be noted that these are preliminary theories (and analyses) and deserve extended discussion and exploration before being accepted as explanations for this association (or lack of correlation).

First, we recommend a shift from categorizing families based on risk levels (assigning scores or factors that group families in terms of risk) and moving toward a needs-based assessment. This shift might better align families with the specific EBPs and services they need.

Second, FAR is designed to provide families with services that help prevent abuse and neglect events leading to removals. If that is the mechanism by which reductions in removals occur, we would expect receipt of EBPs and contacts with social workers to be correlated with reduced removals. An alternative hypothesis is that FAR reduces removals, as compared to investigations, because FAR social workers are less focused on investigating claims of abuse and neglect and, therefore, find less cases that require removals.

While these two mechanisms are not exclusive, different policy recommendations should arise depending on which mechanism drives reduced removal rates (i.e., strict adherence to the FAR model or a shift in how removals are assessed in investigations). If it is provision of services, increasing EBPs and reducing social worker caseloads may further reduce removals. If it is instead a shift in social worker focus, then further analysis of child safety resulting from FAR may be warranted (i.e., it may be the case that investigative caseworkers remove more children than safety considerations require). Because the policy and practice consequences of these approaches are significant—and because they differ based on what factors are considered to be driving this lack of correlations between services and improved outcomes—we recommend further analysis.

6 Cost Study

6.0.1 Cost Study Structure

The Cost Study describes the Washington IV-E waiver FAR program's office-level and family-level expenditures. We used FamLink administrative data to respond to our cost study research questions (CRQ). Below, we present these two questions (with sub-questions) and brief summaries of key findings and themes. The expanded findings can be found in the appropriate sections of the report.

6.0.2 Research Questions Brief Findings

CRQ1. Has implementing the FAR pathway cost the state of Washington more or less than continuing with the investigative pathway? Increase or decrease of costs vary by specific expenditure category. Analysis of DCYF-purchased goods and services for FAR and matched comparison families demonstrates a statistically significant decline in expenditures for FAR families (see Table 37). This analysis excludes all costs that are not direct purchases (e.g., social worker labor costs). Office-level analysis of all costs related to serving families also shows a decrease in costs after implementing FAR, but these results are not statistically significant (see Table 39).

CRQ2. How has the timing and types of costs shifted as the result of FAR? Analysis of matched FAR and comparison families shows an increase in expenditures on FAR families during the first six months after intake. But by 12 months, FAR families have lower total expenditures, and the estimated savings from FAR continues to increase at 24 and 36 months after intake. These results are statistically significant. FAR therefore seems to increase expenditures on families initially but reduces expenditures over time.

Analysis of expenditure at the office level do not show any statistically significant change resulting from adoption of FAR, in either total costs, or any of the subcategories of cost we analyzed. Point estimates of total costs show a decline after FAR implementation. Specific subcategories such as caseworker or removal-related costs have either increases or decreases after FAR implementation. However, the small magnitude of the average change and underlying variability in office-level data do not allow us to conclude FAR resulted in cost increases or savings in any category (see Table 49).

6.1 Key Research Questions and Implementation Measures

The cost/fiscal portion of our evaluation was guided by two research questions. For each of the questions, listed below (Table 34), we have used the FamLink administrative data provided by Department of Children, Youth, and Families (DCYF) and the Research and Data Administration (RDA) to provide a response. Because our cost study focuses on both office-level and family-level analysis, sections in this chapter split the analysis into distinct sections for each level.

Table 34. Cost Study Research Questions

Cost Study Research Questions (CRQ)	Data Sources/Measures
CRQ1. Implementation Has implementing the FAR pathway cost the state of Washington more or less than continuing with the investigative pathway?	**FamLink administrative data** • See below for measures
CRQ2. Cost Shifts How has the timing and types of costs shifted as the result of FAR? Has the distribution of costs for a FAR family shifted across time (more costs earlier and fewer costs later)? Has the distribution of costs shifted between expense categories (more for services that support children remaining with their families and fewer costs for out of home placement)?	**FamLink administrative data** • See below for measures

6.2 Data Sources and Data Collection

We address the research questions with two separate cost studies. In the first, we use the family-level matched comparison framework to analyze the cost of DCYF purchased goods and services for FAR and comparison families. This study excludes staffing and other costs. In our second study, we use office-level cost data that reflect all DCYF costs attributable to specific

offices. These data help us estimate the change in costs as offices implement FAR, controlling for any change in accepted intakes.

6.2.1 Service Cost Data

DCYF provided data reflecting the purchase of goods and services, including removal and foster care services, for every family included in our study. Using this transaction-level data, we assembled total expenditures for each family included in the matched comparison study. Breakout categories included expenditures within 3, 6, 12, 24, and 36 months of intake.

These service cost data are at the family level and do not reflect many costs of serving families, such the cost of social worker time or any component of overhead costs, such as FAR implementation costs.

The other data used in the family-level comparison group are the same covariates used in the outcome study. See that section of this report for details.

6.2.2 Office-Level Cost Data

Because the FAR implementation had the potential for changing the costs of serving families in and outside of FAR, we also requested data on expenditures at the level of family-serving field offices. This broader data more accurately captures all the costs (direct and ancillary) associated with serving families before and after the FAR implementation.

The underlying data for the office-level expenditure analysis came divided into two general categories: administrative expenditures and service-related expenditures. Each of these general categories offered eight further subcategories for grouping expenditure types, for a total of 16 subcategories. These 16 expenditure subcategories represented 131 unique expenditure codes.[41] Generally, this analysis focused on expenditures related to casework, service provision, removals and the removal process, caseworker activity, administrator activity, and relevant overhead.[42]

Raw expenditure data were organized by month. In order to make this analysis more comparable to the family-level analysis, we grouped expenditures by periods aligning with our six-month cohort period start and end dates (January–June and July–December of each year). This structure resulted in 13 periods from 2011 through 2017 over which we measured

[41] The full dataset of office-level expenditures for Washington State would include substantially more than 131 possible expenditure categories. The expenditure categories included in this analysis included only those expenditures deemed relevant for this analysis.

[42] These expenditures were specifically at the field-office level. We excluded expenditures at regional offices or headquarters (locations that do not work directly with families).

expenditures, including six periods of measurement prior to FAR implementation and seven periods over which field offices continuously rolled out FAR.

The 13-period dataset included separate costs for each of the 46 field offices included in the analysis, by period, by analysis category. Together with DCYF, we categorized the 131 available expenditure types into the following analysis categories:

- Total costs
- Total administrative costs
- Total service-related costs
- Costs uniquely related to removals
- Costs uniquely related to non-removal services
- Costs related to provision of Evidence-Based Practices (EBPs)
- Costs related to expenditures that were ambiguous with regard to removals or non-removal services
- Costs unique to caseworkers and caseworker activity
- Costs unique to administrators
- Office overhead costs

In addition to the expenditure data, we also requested data on every accepted intake during the study period. We counted the number of FAR and investigative intakes for each office and each period, then used these variables as controls. The remaining types of intakes—screened-out and risk-only—should not result in additional costs to field offices, and we excluded them.

6.3 Data Analysis

6.3.1 Family-Level Matched Comparison Study

As described in the outcome section of this report, we compared family-level cost variables between the FAR treatment group and matched FAR eligible investigative comparison group. The treatment effect is measured by differencing the FAR and comparison family costs. And for each cost variable, we performed tests to determine whether any observed difference was statistically significant.

We measured differences in costs with two different approaches. First, we performed difference in mean T tests between the cost values of each family in the treatment and comparison pools. This approach reports the difference in average cost for each cost variable between the FAR and comparison families and results in a P-value (two sided). The approach allows us to report the probability that the real difference is zero and the observed difference is caused by sampling error. For simplicity of interpretation, we report these difference in means and P-values in our summative tables.

The underlying distribution of costs per family is highly skewed and zero dominated. The five-number summary (plus mean) of the 12-month costs is displayed in Table 35.

Table 35. Cost per Family Distribution

Minimum	1st Quartile	Median	Mean	3rd Quartile	Maximum
$0	$0	$0	$950	$0	$206,300

Note that the third quartile value remains $0 (i.e., no expenditures). This distribution is dominated by no expenditures on families. This absence of expenditures for both first and third quartiles would seem to run counter to the mean amount of expenditures—$950 per family. However, this mean is not representative of typical spending on families (which is $0). Rather, the mean is driven by the small number of families with very large expenditures.

Given this distribution, T tests have the potential for biasing estimates of effect size and statistical significance. To account for this mismatch between the data and the assumptions underlying T tests, we used a regression model designed specifically to reveal the nuances of zero-dominated data. We selected a "hurdle" model that allowed the same underlying variables (our matching variables plus the FAR indicator variable) to separately estimate the probability of any expenditures (the first hurdle) and the size of those expenditures (the second hurdle). This approach allowed FAR to reveal differential effects; it could increase the probability of any expenditures while reducing the magnitude of expenditures for those families with positive values.

We used a Probit model to estimate the first hurdle. For the second hurdle, we used log of expenditures as the dependent variable and the same matching variables as the independent variables. We used values for this econometric model[43] to calculate expected values for each family, FAR and comparison. This approach allows each family to first be FAR (setting the FAR treatment variable to 1) then to be a second expected value when the treatment values were set to 0 (i.e., non-FAR). We subtracted each family's expected value as FAR from its expected value as a comparison family in order to measure, for each family, the effect of FAR on costs. The average of these differences is the reported effect of FAR on each cost variable.

Using the hurdle model, we also allowed the effect of FAR to vary by cohort. By interacting the FAR treatment variable with a cohort indicator, we could calculate a differential effect of FAR for each cohort. This approach is more suitable if we expect that the FAR program had significant programmatic changes over time.

[43] Wooldridge, J. M. (2001). *Econometric Analysis of Cross Section and Panel Data*. Cambridge, Mass: MIT Press. 537.

6.3.2 Office-Level Panel Cost Study

Our 13-period, 46-office panel set includes multiple cost variables and the number of accepted FAR and investigative intakes. The underlying logic predicting office-level costs is that as intakes increase, office-level expenses increase through additional staffing, removal costs, purchased services, and/or concrete services. We therefore control for accepted intakes.

Other office-specific characteristics also result in differences in costs between offices. For example, location may affect office rent costs and the availability of purchased services. In the family-level analysis, we attempted to control for these differences through variables related to urbanization (Rural-Urban Continuum Codes [RUCA]). In the office-level study, we are able to take advantage of panel data techniques to eliminate any confounding effects of time-invariant office-level characteristics.

We used a fixed-effect panel data model, which for each office compares the cost in each time period to the average cost for that office in all time periods. Because office-level characteristics related to location do not change significantly over time, any change in an office's cost between a specific period and the average of all the office's periods is unrelated to the office's location. We, therefore, eliminated these changes as confounding factors. The variables retained in the model are those variables that do change: (1) the number of intakes and (2) the absence or presence of FAR. In the model, we also included the time period as an independent variable. This had the effect of separating out factors that would change the cost of serving families in all offices, both FAR and non-FAR, such as rising wages or rents.

We allowed the treatment variable to enter our model in two different ways. In the first approach, we categorized each office as not FAR (0), partially FAR (value between 0 and 1, for offices whose rollout did not perfectly coincide with a cohort period), or FAR (1). The regression coefficient variable reflects the effect of FAR on costs, and in this case reflects the average effect of FAR across all periods in which FAR was implemented. This approach does not show how the effect of FAR may vary (i.e., how FAR costs may change over time).

For our second approach, we created separate binary variables tracking each six-month cohort period for which FAR had been implemented in an office. We allowed FAR to have a differential impact on costs over time by replacing the single FAR/not-FAR variable described above with these seven binary FAR variables. For example, FAR could have raised costs in the initial implementation period but could have reduced costs in subsequent periods. This second approach more accurately measures the dynamics of the FAR intervention, in which office staff take time to transition to the new model. It also more accurately captures the significant turnover in personnel we observed in field offices as FAR was first implemented, with many offices unable to fully staff positions during the transition period.

While the primary cost variable of interest is the sum of all office-level expenditures per time period, we use the same analysis structure to look at subcategories of cost. The following table (Table 36) summarizes the complete list of cost categories we measure and the anticipated direction of change with FAR. For some categories, we expected costs to increase (e.g., EBP Expenditures), for some we expected costs to decrease (e.g., Removal-Related Expenditures). In many cases, we had no clear expectation of the effect of FAR on costs; we have labeled these items as "ambiguous" (e.g., All Service Expenditures). While it is not clear that FAR on its own should necessarily increase or decrease total expenditures or office and staffing expenditures, FAR was expected to reduce removals and increase service provision.

Table 36. Expected Outcome by Category

Category	Expected Outcome
Administrator Expenditures	Ambiguous
All Administrative Expenditures	Ambiguous
All Service Expenditures	Ambiguous
Caseworker Expenditures	Increase
EBP Expenditures	Increase
Non-Removal Service Expenditures (incl EBPs)	Increase
Office Overhead Expenditures	Ambiguous
Removal-Related Expenditures	Decrease
Total Costs	Ambiguous

6.4 Results

6.4.1 Family-Level Matched Comparison Group Results

As previously described, we used T tests for a simple measurement of difference in mean costs between FAR and comparison families. The average cost for each group is reported in Table 37. The difference in these sample averages is reported under the "Magnitude of Effect: T-Test" column. Based on sample averages, FAR families had higher costs at 3 months ($42 per family) but lower costs at 6, 12, 24, and 36 months (-$80, -$279, -$469, and -$490, respectively). As reported in the P-Value column "T-Test,", the 3-, 6-, 12-, and 24-month results are statistically significant, whereas the 36-month results are not.

Table 37. Service Costs Analysis Without Separate Cohort Treatment

	T Test Sample % or Average		Hurdle Expected Value		Magnitude of Effect				P-Value		
	FAR	Comparison	FAR	Comparison	T-Test	Hurdle 1	Hurdle 2	Combined	T-Test	Hurdle 1	Hurdle 2
3 months	$231	$189	$314	$217	$42	0.552	-0.422	$97	0.019	0.000	0.000
6 months	$380	$460	$554	$568	-$80	0.529	-0.730	-$15	0.029	0.000	0.000
12 months	$763	$1,042	$1,019	$1,267	-$279	0.502	-0.832	-$248	0.001	0.000	0.000
24 months	$1,918	$2,387	$2,265	$3,162	-$469	0.464	-0.842	-$897	0.018	0.000	0.000
36 months	$3,199	$3,689	$3,607	$4,990	-$490	0.434	-0.769	-$1,383	0.154	0.000	0.000

The coefficients reported under "Magnitude of Effect: Hurdle 1, Hurdle 2" are the regression coefficients on the FAR treatment indicator variable. A positive coefficient indicates FAR increased the probability of any expenses (Hurdle 1) or the amount of expenses for families with positive amounts (Hurdle 2). For all time periods in this analysis, FAR increased the probability of incurring expenditures while reducing the amount of the expenditures for those families with any expenses. We report the net effect—the expected value of expenses after controlling for all of the covariates—under "Combined."

As an example, the hurdle 1 coefficient for the 3-month expenditures is 0.552. Because this is positive, the FAR families have an increased probability of any expenses (as opposed to zero expenses). This estimate has a P-value of less than 0.001, so the result is statistically significant. This result is consistent with offering services through FAR: more FAR families than comparison families should have some expenditures. Because the hurdle 2 coefficient is -0.422, FAR families with expenses have lower expenses that comparison families with expenses. This is consistent with lower removal rates for FAR families, since removal expenses are generally larger in magnitude than the EBPs and concrete goods supplied through FAR. The combination of these offsetting forces results in average expenses $97 higher for FAR families.

According to these results, FAR increased DCYF expenditures for three months after intake. However, by six months, families who received FAR, after controlling for covariates, had expenses that were on average $15 lower than what they would have been if these same families had received investigations. These results are statistically significant for all time periods (including 36 months) and are similar but larger in magnitude to the results using difference in mean T tests. They are, likewise, consistent with the FAR model, in which services are provided to families during open cases in order to avoid future removals.

Using the same hurdle model, we used interaction terms to measure separate cohort effects (see Table 38). The pattern for each cohort was the same: FAR increased the probability of positive expenditures while decreasing the amount of expenditures for families with positive

expenditures. All first-cohort hurdles were statistically significant: FAR increased the probability of having some expenditures during all cohorts and for all periods. For those families with some expenditures, the second hurdle was negative for all cohorts and for all periods. The second hurdle was uniformly statistically significant for 12-, 24-, and 36-month outcomes. For six-month outcomes, the second hurdle was statistically significant for all cohorts except the seventh. For three-month outcomes, it was only significant for the first four cohorts. The magnitudes of the second hurdle do not follow a clear pattern, and statistical significance is likely driven by the larger sample sizes of cohorts 2, 3, and 4. The magnitudes of the combined hurdles (i.e., the first increasing the probability of any costs, while the second reducing the costs for FAR families with any costs) are very similar to results on Table 37. For example, 36-month average family savings from FAR are $1,383 when all cohorts are combined and $1,414 if each cohort is allowed to have a unique effect.

Cohort 4 had substantially lower removal rates than prior or subsequent cohorts. For most of the time periods, cohort 4 also had lower probability of any costs (hurdle 1) and, for families with any costs, lower (more negative coefficient) costs than in other cohorts.

Table 38. Service Cost Analysis with Separate Cohort Treatment

Hurdle Regression Expected Value		Proportion of Positive Values		Magnitude of Effect		Hurdle 1		Hurdle 2	
FAR	Comparison	FAR	Comparison		Cohort	Cohort Effect	P-Value	Cohort Effect	P-Value
3 months									
$315	$216	0.209	0.093	$99	**Cohort 1**	0.650	0.000	-0.467	0.044
					Cohort 2	0.560	0.000	-0.498	0.000
					Cohort 3	0.434	0.000	-0.478	0.002
					Cohort 4	0.430	0.000	-0.425	0.046
					Cohort 5	0.622	0.000	-0.425	0.258
					Cohort 6	0.738	0.000	-0.180	0.517
					Cohort 7	0.784	0.000	-0.238	0.546
6 months									
$554	$572	0.237	0.114	-$19	**Cohort 1**	0.613	0.000	-0.674	0.011
					Cohort 2	0.545	0.000	-0.824	0.000
					Cohort 3	0.415	0.000	-0.836	0.000
					Cohort 4	0.407	0.000	-0.672	0.002
					Cohort 5	0.596	0.000	-0.672	0.017
					Cohort 6	0.694	0.000	-0.626	0.018
					Cohort 7	0.783	0.000	-0.634	0.133
12 months									
$1,021	$1,272	0.268	0.140	-$250	**Cohort 1**	0.616	0.000	-0.685	0.011
					Cohort 2	0.514	0.000	-0.942	0.000
					Cohort 3	0.361	0.000	-0.847	0.000

Hurdle Regression Expected Value		Proportion of Positive Values		Magnitude of Effect		Hurdle 1		Hurdle 2	
FAR	Comparison	FAR	Comparison		Cohort	Cohort Effect	P-Value	Cohort Effect	P-Value
					Cohort 4	0.382	0.000	-0.849	0.000
					Cohort 5	0.602	0.000	-0.849	0.002
					Cohort 6	0.701	0.000	-0.670	0.021
					Cohort 7	0.759	0.000	-0.961	0.024
24 months									
$2,262	$3,192	0.307	0.177	-$930	Cohort 1	0.563	0.000	-0.767	0.007
					Cohort 2	0.528	0.000	-0.964	0.000
					Cohort 3	0.344	0.000	-0.965	0.000
					Cohort 4	0.321	0.000	-0.772	0.000
					Cohort 5	0.502	0.000	-0.772	0.016
					Cohort 6	0.630	0.000	-0.732	0.018
36 months									
$3,605	$5,019	0.331	0.204	-$1,414	Cohort 1	0.567	0.000	-0.753	0.009
					Cohort 2	0.543	0.000	-0.836	0.000
					Cohort 3	0.316	0.000	-0.734	0.000
					Cohort 4	0.275	0.000	-0.684	0.000

6.4.2 Office-Level Panel Data Results

This section summarizes results for both approaches to measuring the effect of FAR on office-level expenditures (i.e., average effect of implementing FAR, the unique effect of FAR over time) for expenditure categories of interest.

The first expenditure category, *All Expenditures*, includes a discussion of how to interpret the variables included in this analysis. Because the interpretive approach for *All Expenditures* is the same for all categories, we have included this discussion for only this first variable.

All Expenditures: Average Effect of FAR

In the following analysis, we compare average expenditures before and after FAR implementation, controlling for the effect of time and the number of intakes per office. As reported on Table 6, the effect of FAR, controlling for average office expenses in each year and the number of intakes, is an average decrease in expenditures of $147,201 as compared with the period prior to implementing FAR. However, the P-value for this coefficient is far from reaching statistical significance. As such, we cannot conclude with confidence that the $147,201 is, in actuality, different from $0. Thus, this analysis finds an **ambiguous average effect of FAR on office-level expenditures in aggregate**.

The 12 cohort-period variables show the change in expenditures over time independent of the effect of FAR or the number of intakes. We use this method to control for other factors that influence costs through time in each of these analyses. In Table 39, the coefficient on the July–December 2013 period ("Jul–Dec 2013") is $523,100. This value is statistically significant. Because of this finding's statistical significance, we have confidence in this amount, meaning that offices, on average, spent $523,100 more in that six-month period than offices spent, on average, *for all other periods*. Generally, we see increasing magnitudes of these coefficients through time, indicating rising expenditures over time. While these variables occupy much of our results tables and are often highly significant, they are included only to control for rising costs that are unrelated to FAR or additional intakes.

The "Marginal Cost of Another Accepted Intake" row shows, controlling for time and the effects of FAR implementation, the average amount another accepted intake will increase or decrease costs in the average office. In the analysis of all expenditures where we control for the average effect of FAR before versus after implementation, each new accepted intake (FAR or investigative) will cost the average office an average of $2,997 dollars.

Table 39. All Expenditures: Average Effect of FAR

All Expenditures	Estimate[44]	P-Value[45]
Average Effect of FAR Before / After Implementation	-$147,201	0.495
Expenditures Over Six-Month Periods		
Jul–Dec 2011	$121,699	0.036*
Jan–Jun 2012	-$162,381	0.027*
Jul–Dec 2012	$256,725	0.337
Jan–Jun 2013	$288,914	0.261
Jul–Dec 2013	$523,100	0.053
Jan–Jun 2014	$598,767	0.027*
Jul–Dec 2014	$787,620	0.006*
Jan–Jun 2015	$714,955	0.026*
Jul–Dec 2015	$785,851	0.017*
Jan–Jun 2016	$803,808	0.013*
Jul–Dec 2016	$1,143,618	0.002*
Jan–Jun 2017	$1,184,440	0.002*

[44] Estimates based on analysis with a P-value that is not statistically significant are presented in blue text.
[45] P-Values with an "*" are statistically significant, indicating we have confidence in the estimated increase or decrease of costs.

All Expenditures	Estimate[44]	P-Value[45]
Marginal Cost of Another Accepted Intake	$2,997	0.001*

All Expenditures: Effect of FAR Over Time

This analysis offers an alternate way of estimating the effect of FAR and allows such effects to vary over time. The interpretation for the independent time period and accepted intake variables is the same as in the previous section. The effect of FAR, however, has been portioned into seven periods, each with its own variable—each period six months in length. Similar to the interpretation of the independent effects of time on office-level costs, the average effect of FAR in a given period is being compared to the average for *all the other periods.*

This analysis produced negative but non-statistically significant coefficients for the effect of FAR over time (see Table 40). This trend is consistent for all but the final period, in which the coefficient is positive (though not statistically significant). Because of the staggered rollout, there are relatively few offices with more than 30 months of data after implementing FAR. At 37–42 months after implementation, the effect of FAR is being measured for only three offices. One of these offices is Spokane, which is disproportionately larger than many other offices in the state. Because of its size, Spokane by itself tends to drive trends in later periods. As such, coefficients on the effect of FAR beyond 30 months after implementation should be interpreted with caution.

Table 40. All Expenditures: Effect of FAR Over Time

All Expenditures	Estimate[46]	P-Value[47]
Effect of FAR Months After Implementation		
During First 6 Months of Implementation	-$104,842	0.522
7–12 Months After Implementation	-$91,416	0.680
13–18 Months After Implementation	-$115,439	0.665
19–24 Months After Implementation	-$130,535	0.693
25–30 Months After Implementation	-$62,969	0.886
31–36 Months After Implementation	-$181,727	0.739
37–42 Months After Implementation	$398,150	0.708
Expenditures Over Six-Month Periods		
Jul–Dec 2011	$122,474	0.036*
Jan–Jun 2012	-$162,608	0.029*

[46] Estimates based on analysis with a P-value that is not statistically significant are presented in blue text.
[47] P-Values with an "*" are statistically significant, indicating we have confidence in the estimated increase or decrease of costs.

All Expenditures	Estimate[46]	P-Value[47]
Jul–Dec 2012	$257,542	0.337
Jan–Jun 2013	$288,907	0.264
Jul–Dec 2013	$523,480	0.054
Jan–Jun 2014	$597,247	0.029*
Jul–Dec 2014	$787,717	0.008*
Jan–Jun 2015	$689,799	0.034*
Jul–Dec 2015	$764,004	0.029*
Jan–Jun 2016	$780,290	0.034*
Jul–Dec 2016	$1,114,354	0.012*
Jan–Jun 2017	$1,121,611	0.036*
Marginal Cost of Another Accepted Intake	$3,012	0.001*

Removal-Related Expenditures: Average Effect of FAR

The FAR model stipulates that expenditures related to removals should decline with the implementation of FAR, as some families that would have entered the investigative pathway and possibly experienced a removal are instead receiving the FAR intervention, receiving needed services, and avoiding a removal.

This logic is consistent with the lower removal rate found in the family analysis. Furthermore, the coefficient on the average effect of FAR on removal-related expenditures in this analysis is negative—$185,137. However, that value is not statistically significant. This lack of statistical significance suggests that, on average, FAR has had an ambiguous effect on removal-related expenditures (see Table 41).

Table 41. Removal-Related Expenditures: Average Effect of FAR

Removal-Related Expenditures	Estimate[48]	P-Value[49]
Average Effect of FAR Before / After Implementation	-$185,137	0.139
Expenditures Over Six-Month Periods		
Jul–Dec 2011	$63,513	0.664
Jan–Jun 2012	-$83,624	0.566
Jul–Dec 2012	$271,060	0.065
Jan–Jun 2013	$276,600	0.058

[48] Estimates based on analysis with a P-value that is not statistically significant are presented in blue text.
[49] P-Values with an "*" are statistically significant, indicating we have confidence in the estimated increase or decrease of costs.

Removal-Related Expenditures	Estimate[48]	P-Value[49]
Jul–Dec 2013	$315,516	0.031*
Jan–Jun 2014	$325,957	0.026*
Jul–Dec 2014	$436,275	0.004*
Jan–Jun 2015	$442,738	0.007*
Jul–Dec 2015	$616,056	0.000*
Jan–Jun 2016	$639,419	0.000*
Jul–Dec 2016	$839,173	0.000*
Jan–Jun 2017	$841,393	0.000*
Marginal Cost of Another Accepted Intake	$1,706	0.000*

Removal-Related Expenditures: Effect of FAR Over Time

Coefficients on the variables measuring the effect of FAR over time on removal-related expenditures are consistent with the approach that measures the average effect of FAR above. Coefficients remain negative, with the exception of the final FAR measurement period. P-Values here are even further from significance, which is likely the result of dividing the effect of FAR into many separate groups, reducing sample sizes (see Table 42).

Table 42. Removal-Related Expenditures: Effect of FAR Over Time

Removal-Related Expenditures	Estimate[50]	P-Value[51]
Effect of FAR Months After Implementation		
During First 6 Months of Implementation	-$103,391	0.456
7–12 Months After Implementation	-$166,185	0.292
13–18 Months After Implementation	-$156,701	0.372
19–24 Months After Implementation	-$192,600	0.307
25–30 Months After Implementation	-$183,453	0.392
31–36 Months After Implementation	-$188,812	0.476
37–42 Months After Implementation	$9,068	0.983
Expenditures Over Six-Month Periods		
Jul–Dec 2011	$63,695	0.665
Jan–Jun 2012	-$83,677	0.568
Jul–Dec 2012	$271,251	0.066
Jan–Jun 2013	$276,598	0.059

[50] Estimates based on analysis with a P-value that is not statistically significant are presented in blue text.
[51] P-Values with an "*" are statistically significant, indicating we have confidence in the estimated increase or decrease of costs.

Removal-Related Expenditures	Estimate[50]	P-Value[51]
Jul–Dec 2013	$315,605	0.032*
Jan–Jun 2014	$321,450	0.029*
Jul–Dec 2014	$431,143	0.006*
Jan–Jun 2015	$420,614	0.012*
Jul–Dec 2015	$604,212	0.001*
Jan–Jun 2016	$633,526	0.001*
Jul–Dec 2016	$833,500	0.000*
Jan–Jun 2017	$822,551	0.000*
Marginal Cost of Another Accepted Intake	$1,709	0.000*

Expenditures on EBPs: Average Effect of FAR

FAR was predicted to drastically increase provision of Evidence-Based Practices (EBPs). During our interviews at offices, several key informant interviews (see Process Study) stated that EBP providers were not ready to implement services in a way that could fit within FAR's relatively short timeframes.[52] Also, high caseworker turnover rates and caseload problems during implementation often hampered service provision efforts. Given these factors, a decline of $7,533 per office per six-month period is consistent with these narratives (see Table 43). However, even this reasonable amount is not statistically significant. Ultimately, this analysis did not find that FAR increased expenditures on EBPs; furthermore, it possibly decreased such expenditures. Because EBPs were not offered during investigations prior to the FAR implementation, this decline is not the result of offering fewer EBPs to investigative families and may reflect small changes in other DCYF programs. The magnitude of this coefficient is very small (less than $8,000 per office, per six-month period) and not statistically significant, suggesting it is driven by small and inconsistent changes across offices.

Table 43. Expenditures on EBPs: Average Effect of FAR

Expenditures on EBPs	Estimate[53]	P-Value[54]
Average Effect of FAR Before / After Implementation	-$7,533	0.571
Expenditures Over Six-Month Periods		
Jul–Dec 2011	-$7,304	0.090
Jan–Jun 2012	-$3,186	0.432

[52] The Process Study further discusses the complication of these timeframes and some differences between actual and perceived limitations common in offices.

[53] Estimates based on analysis with a P-value that is not statistically significant are presented in blue text.

[54] P-Values with an "*" are statistically significant, indicating we have confidence in the estimated increase or decrease of costs.

Expenditures on EBPs	Estimate[53]	P-Value[54]
Jul–Dec 2012	-$301	0.957
Jan–Jun 2013	$4,793	0.475
Jul–Dec 2013	$8,070	0.312
Jan–Jun 2014	$24,625	0.012*
Jul–Dec 2014	$41,214	0.000*
Jan–Jun 2015	$46,436	0.003*
Jul–Dec 2015	$41,748	0.007*
Jan–Jun 2016	$48,724	0.002*
Jul–Dec 2016	$46,272	0.007*
Jan–Jun 2017	$55,964	0.003*
Marginal Cost of Another Accepted Intake	-$8	0.829

Expenditures on EBPs: Effect of FAR Over Time

Consistent with EBP expenditure findings discussed above, we find that the initial implementation of FAR has a notable negative effect on EBP expenditures over time. During the initial rollout period, caseworkers reported often being focused on managing caseloads and learning a new program at the expense of engaging meaningfully in EBP provision. The FAR rollout was also disruptive to other programs as caseworkers transferred between programs in order to staff FAR. This effect lessens as time goes on, and the estimated effect on EBPs in the 37–42 months after implementation is positive but not statistically significant (see Table 44). Independently of FAR, the average expenditure by office did increase over time. The magnitude of expenditures on EBPs per additional accepted intake had a point estimate of minus $4, which is, given the scale of expenses, essentially no cost.

Table 44. Expenditures on EBPs: Effect of FAR Over Time

Expenditures on EBPs	Estimate[55]	P-Value[56]
Effect of FAR Months After Implementation		
During First 6 Months of Implementation	-$14,142	0.139
7–12 Months After Implementation	-$3,930	0.768
13–18 Months After Implementation	-$2,300	0.895
19–24 Months After Implementation	-$2,401	0.909
25–30 Months After Implementation	-$638	0.980

[55] Estimates based on analysis with a P-value that is not statistically significant are presented in blue text.
[56] P-Values with an "*" are statistically significant, indicating we have confidence in the estimated increase or decrease of costs.

Expenditures on EBPs	Estimate[55]	P-Value[56]
31–36 Months After Implementation	-$4,993	0.874
37–42 Months After Implementation	$20,941	0.620
Expenditures Over Six-Month Periods		
Jul–Dec 2011	-$7,157	0.098
Jan–Jun 2012	-$3,142	0.440
Jul–Dec 2012	-$70	0.990
Jan–Jun 2013	$4,914	0.467
Jul–Dec 2013	$8,273	0.302
Jan–Jun 2014	$25,218	0.001*
Jul–Dec 2014	$44,247	0.000*
Jan–Jun 2015	$46,919	0.003*
Jul–Dec 2015	$39,802	0.022*
Jan–Jun 2016	$45,233	0.020*
Jul–Dec 2016	$43,836	0.063
Jan–Jun 2017	$51,956	0.073
Marginal Cost of Another Accepted Intake	-$4	0.7896

Caseworker Expenditures: Average Effect of FAR

Because the FAR model is predicated on caseworkers helping families resolve problems related to accusations of abuse and neglect, we anticipated that at full fidelity caseworker expenditures would increase with the introduction of the new program. When we controlled for the number of intakes and rises in expenditures, we found that this was not the case. The coefficient on the average effect of FAR on caseworker expenditures was negative and not statistically significant (see Table 45). This result is consistent with our understanding of initial staffing levels for FAR.

Table 45. Caseworker Expenditures: Average Effect of FAR

Caseworker Expenditures	Estimate[57]	P-Value[58]
Average Effect of FAR Before / After Implementation	-$17,776	0.687
Expenditures Over Six-Month Periods		
Jul–Dec 2011	$4,229	0.847
Jan–Jun 2012	-$76,052	0.000*
Jul–Dec 2012	-$50,675	0.035*

[57] Estimates based on analysis with a P-value that is not statistically significant are presented in blue text.
[58] P-Values with an "*" are statistically significant, indicating we have confidence in the estimated increase or decrease of costs.

Caseworker Expenditures	Estimate[57]	P-Value[58]
Jan–Jun 2013	-$90,930	0.000*
Jul–Dec 2013	-$57,804	0.157
Jan–Jun 2014	-$52,066	0.201
Jul–Dec 2014	$29,314	0.426
Jan–Jun 2015	$12,132	0.787
Jul–Dec 2015	-$27,642	0.527
Jan–Jun 2016	-$61,526	0.152
Jul–Dec 2016	$21,714	0.635
Jan–Jun 2017	-$1,083	0.983
Marginal Cost of Another Accepted Intake	$547	0.009*

Caseworker Expenditures: Effect of FAR Over Time

P-Values on the coefficients on the effect of FAR over time on caseworker expenditures are mostly so large (close to 1) that the coefficients themselves are indistinguishable from 0. While the coefficient on the 37–42 month FAR effect is large and nearly statistically significant, for that time period we are essentially measuring the effect of just one very large office (Spokane). The marginal cost for caseworkers per additional accepted intake, $555, is positive and statistically significant, which is consistent with rising intakes requiring rising caseworker expenditures (see Table 46). Based on these results, FAR had no effect on caseworker expenditures.

Table 46. Caseworker Expenditures: Effect of FAR Over Time

Caseworker Expenditures	Estimate[59]	P-Value[60]
Effect of FAR Months After Implementation		
During First 6 Months of Implementation	-$1,295	0.970
7–12 Months After Implementation	-$9,290	0.853
13–18 Months After Implementation	-$31,144	0.538
19–24 Months After Implementation	-$4,353	0.941
25–30 Months After Implementation	$13,617	0.853
31–36 Months After Implementation	$10,319	0.923
37–42 Months After Implementation	$163,513	0.347
Expenditures Over Six-Month Periods		

[59] Estimates based on analysis with a P-value that is not statistically significant are presented in blue text.
[60] P-Values with an "*" are statistically significant, indicating we have confidence in the estimated increase or decrease of costs.

Caseworker Expenditures	Estimate[59]	P-Value[60]
Jul–Dec 2011	$4,634	0.834
Jan–Jun 2012	-$76,001	0.000*
Jul–Dec 2012	-$50,052	0.034*
Jan–Jun 2013	-$90,676	0.000*
Jul–Dec 2013	-$57,384	0.161
Jan–Jun 2014	-$53,006	0.194
Jul–Dec 2014	$26,215	0.488
Jan–Jun 2015	$7,709	0.866
Jul–Dec 2015	-$26,492	0.577
Jan–Jun 2016	-$65,242	0.189
Jul–Dec 2016	$6,407	0.913
Jan–Jun 2017	-$36,341	0.655
Marginal Cost of Another Accepted Intake	$555	0.005*

Administrator Expenditures: Average Effect of FAR

In comparing the average effect of FAR on caseworker expenditures versus administrator expenditures, we found little effect (see Table 47). While the coefficient on the effect of FAR on administrator expenditures is positive, the P-Value is not statistically significant.

Table 47. Administrator Expenditures: Average Effect of FAR

Administrator Expenditures	Estimate[61]	P-Value[62]
Average Effect of FAR Before / After Implementation	$12,814	0.702
Expenditures Over Six-Month Periods		
Jul–Dec 2011	$1,120	0.877
Jan–Jun 2012	-$8,112	0.130
Jul–Dec 2012	-$40,080	0.001*
Jan–Jun 2013	-$37,053	0.014*
Jul–Dec 2013	$8,714	0.625
Jan–Jun 2014	$29,047	0.199
Jul–Dec 2014	$46,824	0.155
Jan–Jun 2015	$49,489	0.243

[61] Estimates based on analysis with a P-value that is not statistically significant are presented in blue text.

[62] P-Values with an "*" are statistically significant, indicating we have confidence in the estimated increase or decrease of costs.

Administrator Expenditures	Estimate[61]	P-Value[62]
Jul–Dec 2015	$29,657	0.488
Jan–Jun 2016	$18,972	0.619
Jul–Dec 2016	$29,226	0.519
Jan–Jun 2017	$32,707	0.498
Marginal Cost of Another Accepted Intake	-$46	0.657

Administrator Expenditures: Effect of FAR Over Time

As with the effect of FAR over time on caseworker expenditures, the FAR effect for administrators is ambiguous for all periods. The point estimates are all positive, indicating FAR increases expenditures on administrators, but none are statistically significant.

Table 48. Administrator Expenditures: Effect of FAR Over Time

Administrator Expenditures	Estimate[63]	P-Value[64]
Effect of FAR Months After Implementation		
During First 6 Months of Implementation	$13,971	0.659
7–12 Months After Implementation	$27,222	0.481
13–18 Months After Implementation	$26,765	0.573
19–24 Months After Implementation	$24,543	0.660
25–30 Months After Implementation	$23,583	0.732
31–36 Months After Implementation	$44,422	0.594
37–42 Months After Implementation	$144,062	0.308
Expenditures Over Six-Month Periods		
Jul–Dec 2011	$1,387	0.836
Jan–Jun 2012	-$8,078	0.133
Jul–Dec 2012	-$39,668	0.001*
Jan–Jun 2013	-$36,830	0.013*
Jul–Dec 2013	$9,037	0.616
Jan–Jun 2014	$28,991	0.200
Jul–Dec 2014	$44,546	0.195
Jan–Jun 2015	$43,762	0.307
Jul–Dec 2015	$20,960	0.659

[63] Estimates based on analysis with a P-value that is not statistically significant are presented in blue text.
[64] P-Values with an "*" are statistically significant, indicating we have confidence in the estimated increase or decrease of costs.

Administrator Expenditures	Estimate[63]	P-Value[64]
Jan–Jun 2016	$10,442	0.826
Jul–Dec 2016	$20,011	0.750
Jan–Jun 2017	$7,837	0.919
Marginal Cost of Another Accepted Intake	-$41	0.662

6.5 Discussion

FAR is designed to increase expenditures on families during the open case but should decrease removals and re-referrals. These decreases should, ultimately, decrease later expenses. We found some evidence to support this pattern. Based on the matched comparison family level analysis, removals were lower at 3, 6, 12, and 24 months. Expenditures were higher at the 3-month point and lower at subsequent times.

The office-level analysis did not yield any statistically significant results, but many of the point estimates were consistent with the model. Removal-related costs were lower after FAR, as were non-removal-related expenditures. Other expense categories did not have the anticipated change, with lower expenditures on EBPs and social workers. These results are consistent with our key informant interview results, in which many social workers reported challenges in offering EBPs and staffing-related problems.

One factor reconciling the somewhat different results we identified in the family- and office-level cost studies is the scope of what costs were included. The family-level analysis included only expenditures that could be directly attributed to a specific family (e.g., provision of an EPB, out-of-home-care costs). The office-level analysis, however, used a less narrowly defined set of costs and included costs related to program implementation (e.g., staff turnover, staff training). Any cost savings from serving families in the FAR program can be offset by changes that the FAR implementation causes in other programs, if only because of increased staff turnover.

6.5.1 Differences Between Findings and Hypothesis

Office-Level Cost Analysis

Consistent with the family-level analysis, the point estimate for removal-related expenses was negative, showing a decrease (see Table 49). But unlike the family-level analysis, the office-level result was not statistically significant. This lack of statistical significance is likely a result of FAR reducing the probability of a removal for an accepted intake but increasing the re-referral rate, creating a larger number of total intakes, some of which resulted in removals.

Other predictions of the FAR model, such as increased expenditures on EBPs and caseworkers, were also not statistically significant—even having negative point estimates (i.e., decreases in

expenditures) whereas increases would be more consistent with the FAR model. Although this analysis did not find that FAR contributed significantly to any increases in costs at the office level, we also found little evidence that FAR reduced office-level costs.

Table 49. Expected Outcome by Category Versus Findings

Category	Expected Outcome	Point Estimate	Statistically Significant
Administrator Expenditures	Ambiguous	Increase	No
All Administrative Expenditures	Ambiguous	Increase	No
All Service Expenditures	Ambiguous	Decrease	No
Caseworker Expenditures	Increase	Decrease	No
EBP Expenditures	Increase	Decrease	No
Non-Removal Service Expenditures (incl EBPs)	Increase	Increase	No
Office Overhead Expenditures	Ambiguous	Decrease	No
Removal-Related Expenditures	Decrease	Decrease	No
Total Costs	**Ambiguous**	**Decrease**	**No**

We were able to generate statistically significant results using alternative model specifications. If we weighted offices by the number of accepted intakes, the regression coefficients measuring effect of FAR in the last three periods after implementation (from 25 months after implementation or later) were generally positive and statistically significant (meaning FAR increased costs). A careful review of the underlying data demonstrated that these results were driven only by Spokane, which was the one large office that implemented FAR early. By selecting a large office with large expenditures and weighing those expenditures by a correspondingly large number of intakes, this analytic approach showed that eventually FAR increased expenses. We determined that these results were an artifact of weighing by accepted intakes. Dropping Spokane from the model, or using unweighted data, eliminated any statistical significance.

6.5.2 Limitations

For the family-level analysis, we describe design and data limitations in the Outcome Study. Notably, the family-level matched comparison study only measures expenditures on DCYF-purchased goods and services, excluding costs such as caseworker or administrator time.

The office-level analysis uses a fixed effects panel data design, which controls for time invariant office-level characteristics and any system-wide changes that would affect all offices during each period. Other types of unmeasured change (e.g., rise of opioid use in the region serviced

by an office that also recently implemented FAR) are not controlled for through our modeling technique.

Another office analysis limitation applies to results when the effect of FAR is measured separately for different periods after implementation. For the period farthest from implementation (i.e., 37–42 months), our data are limited to three offices, one of which is Spokane. This office is disproportionately large and drives all results for analysis of this period. Because these results are generally inconsistent with other periods, and significantly change when Spokane is excluded from the analysis, we conclude that the 37–42-month analysis depends on unmeasured unique external factors in the Spokane office.

6.5.3. Recommendations

The FAR model is predicated on increased EBPs for families who would benefit from them. The Outcome Study includes analysis of the effect of EBPs on outcomes, and this chapter demonstrates that the FAR implementation did not result in a substantial increase of EBPs. Greater emphasis on EBP use should lead to higher expenses with EBPs, an intended effect of FAR.

Likewise, as noted in previous sections (specifically, fidelity analysis), the FAR model relies on family engagement, which in-turn relies on caseworkers spending sufficient time working with families. As such, caseloads must be low enough to allow this level of engagement. However, office-level analysis did not show an increase in expenditures on social workers with the implementation of FAR, suggesting that there is room for increased expenditures on caseworkers.

Based on these understandings, we recommend the following.

1. DCYF should consider approaches that are more likely to increase EBP utilization by families. This increased use will increase costs, but these costs are expected as part of the FAR model.
2. Given that expenditures on social workers was an expected cost outcome of FAR and that the Cost Study reveals that these costs did not increase, we recommend increased efforts on adding FAR caseworkers. This increase should be driven by caseload levels, specifically aiming for the intended level of caseworkers having caseloads of 15 families.

7 Summary

This report serves as TriWest's evaluation of Washington State's Title IV-E Waiver Demonstration Project, Family Assessment Response (FAR). Throughout the report, we have presented various activities, methodologies, and findings in an attempt to both describe how FAR was implemented in Washington State and the results of that implementation and ongoing FAR activity. As part of our evaluation design, we developed several research questions aimed at three components: process, outcomes, and costs. Below, we summarize select questions from these three areas and provide short descriptions of findings. For a complete list of questions and summary findings, see the Executive Summary or respective sections of the report.

Also, this Summary section briefly presents research methodologies and major findings that are developed more fully throughout the rest of the report and in the Executive Summary. We also include some final perspectives on FAR and the evaluation, noting some "Lessons Learned" on both the evaluation and on the prospect of FAR's sustainability. For extended discussion and analysis, see sections noted parenthetically throughout this summary. For example, "(see 4.4.1)" indicates that section 4.4.1, the "PRQ1 (Implementation)" section found in the Process Study, provides greater context.

7.1.1 Key Research Questions and Major Findings

For each of the three main report sections, we have provided a table that contains a label (the type of research question, the question number, and a short description of the question's focus) and a condensed response. See the Executive Summary or respective study chapters for the full questions and for expanded responses.

Process Study

The Process Study contained nine research questions. These ranged from descriptions of how FAR was implemented statewide to perspectives on caseworker and administrator agreement with the FAR process.

Table 50. Process Research Question Summaries

Question	Brief Finding
PRQ1: Implementation	Using a 10-phase rollout process, DCYF implemented FAR to all state offices between January 2014 and June 2017. (see 4.4.1)
PRQ2: Preparedness	Caseworkers and administrators, on average, reported being prepared at the office level for FAR implementation. Caseworkers noted having administrative support and resources. (see 4.4.2)
PRQ3: Effects on Casework	Caseworkers and administrators, on average, reported few negative effects of FAR. Most staff tended to agree with the FAR approach. Families with prior DCYF interaction noted that their FAR experiences had improved. (see 4.4.3)
PRQ4: Effects on Family Engagement	Both DCYF staff and FAR families noted increased interaction and improved quality in that interaction. Families tended to report that caseworkers included them in decision-making processes. (see 4.4.4)
PRQ5: Family Experience	Families generally reported high levels of satisfaction with caseworkers. Most respondents emphasized a high degree of feeling respected. (see 4.4.5)
PRQ6: Effects on Services	Although FAR staff indicated increases in all services, especially concrete goods, quantitative data show that EBP use was low among high-risk families (9%). (see 4.4.6)
PRQ7: Perceived Benefit of Services	Families who received some level of help (including services, goods, caseworker engagement) indicated that the help was both sufficient and beneficial. (see 4.4.7)
PRQ8: Fidelity to FAR Model	Fidelity levels were adequate though indicate need for improvement. Levels were higher in 2014 and 2015 than in later years. (see 4.4.8)
PRQ9: Replicability and Effectiveness	Greatest needs remain in improved delivery of services, especially EBPs. Later-stage changes to training and duration of cases will likely improve service delivery. (see 4.4.9)

Outcome Study

The Outcome Study contained four research questions. These focused primarily on safety, permanency, and family well-being.

Table 51. Outcome Research Question Summaries

Question	Brief Finding
ORQ1: Removals	FAR reduced the probability of families experiencing removals. (see 5.7.1)

Question	Brief Finding
ORQ2: Re-Referrals	FAR associated with increased levels of re-referrals, relative to investigative intakes. However, these re-referrals tended to remain at FAR levels (i.e., they did not show situations or need increasing in severity). (see 5.7.2)
ORQ3: Well-Being	We found no large difference in well-being between FAR and comparison group families. Although this finding may suggest that FAR did not positively impact well-being, it also suggests that FAR families were at no greater safety risk than were comparison families. (see 5.7.3)
ORQ4: Disproportionality	Although disproportionality for some groups (especially among Native Americans) was present through much of the program, policy changes in 2017 appear to have reduced the disproportionate rate of Native American families who declined FAR. However, rates of Native American families being assigned FAR (versus being assigned investigative pathway) at intake continue to be disproportionate. (see 5.7.4)

We also considered whether receipt of services affected outcomes. Receipt of EBPs and concrete goods associated with higher levels of removals and re-referrals. However, this association is expected and should not be considered causal. (see 5.7.5). In addition, we considered a question that was not part of the initial evaluation design: "Did fidelity to the FAR model affect outcomes?" In response, we found a strong association between high fidelity (i.e., engagement with family, contacts) scores and increased risk of removals and re-referrals. (see 5.7.6)

Cost Study

The Cost Study contained two research questions. These focused primarily on whether expenditures performed as expected and how expenditures shifted as a result of FAR.

Table 52. Cost Research Question Summaries

Question	Brief Finding
CRQ1: Increased or Decreased Costs	For most categories of spending, costs decreased as a result of FAR. The degree of decrease/increase varies based on category of expense and statistical significance. (see 6.4.2)
CRQ2: Shifting of Costs	FAR families show increased costs for the first six months after intake; however, over longer periods, FAR expenditures are considerably lower than investigative expenditures. (see 6.4.1)

7.1.2 Research Methodology

Process Study

The Process Study included multiple methodologies aimed at responding to the process research questions. Foremost, we utilized qualitative data drawn from site visits, key informant interviews, and family surveys (see 4.2.1, 4.2.2). In addition, we supplemented these sources

with administrative data sources (see 4.2.3) and DCYF case review data (see 4.2.4). For the qualitative data, we analyzed responses to surveys tools designed to the relevant sources: FAR caseworkers, administrators, investigative caseworkers, service providers, and FAR families. We conducted key informant interviews at all offices statewide shortly after each site implemented FAR. For the family surveys, we contracted with Parent Allies (parents with DCYF experience who conducted phone surveys) to interview FAR family members who agreed to be surveyed following the closure of their FAR cases.

We used administrative and caseload data, along with qualitative data, to inform our Fidelity Scoring. The fidelity methodology involved forming two types of composite scores for each office for each year and an implementation-year score for each office (see 4.3.5). The annual scores focused on four key areas: caseload levels, family assessment and engagement, family involvement in services, and FAR elements related to safety. The implementation-year rating considered training and readiness.

Outcome Study

The Outcome Study relied primarily on the creation of a family-level matched comparison study that coincided with the 10-phase implementation rollout of FAR statewide. The first group ("FAR Group") comprised families who received FAR or declined FAR. The second group ("Matched Comparison Group") comprised families who were eligible for FAR but were assigned to an office that had not yet rolled out. In total, we created seven cohorts, with each cohort consisting of an equal number of FAR Group and Matched Comparison Group families per six-month period (see 3.4.3).

This matched comparison study structure allowed for an extensive propensity score matching design (see 5.5.1 for description of variables). Through this study, we were able to measure outcomes by cohort to determine differences between the groups' outcomes. We used components of administrative data to form composite scores to perform difference-in-difference assessments of well-being (see 5.7.3). And we evaluated intakes and demographic data to determine whether disparity existed for families either receiving or declining FAR enrollment (see 5.7.4).

Cost Study

For several questions, the Cost Study followed a family-level analysis, as described above (see 6.3.1). However, the study also considered office-level analysis, using office-level expenditure data to perform a panel set data model. This approach allowed us to eliminate effects of time-invariant characteristics and the office-level. Through this method, we compared offices at equivalent periods, pre/post-implementation, to consider what effects, if any, FAR had on expenditures at the office level by six-month period. Likewise, this approach allowed us to measure how actual by-office expenditures aligned with expectations (see 6.5.1).

7.2 Program/Policy Lessons Learned and Recommendations

7.2.1 Lessons Learned

DCYF used a phased rollout to implement FAR statewide in stages (see 3.2.2). During this process, FAR leadership demonstrated a willingness to make mid-course corrections based on learnings from offices as they navigated implementation. The team used formal interim evaluation findings and less-formal office feedback to make changes to communication strategies, training content and approach, and FAR eligibility criteria. DCYF also used interim evaluation report recommendations to request two legislative changes to the FAR program: (1) eliminating a written FAR Agreement and (2) extending the amount of time that cases may remain open if needed for a family to receive services.

The phased rollout approach created programmatic and evaluation opportunities. First, given that offices gradually implemented FAR, DCYF leadership was able to rapidly apply learnings from early phases to improve the rollout in later phases. The increase in implementation fidelity scores over time is likely a result of those offices implementing FAR in later phases benefiting from FAR leadership studying earlier phase office rollouts and improving processes. Second, the existence of both FAR and non-FAR offices allowed us to form a quasi-experimental matched comparison group design that formed the basis for much of the outcome and cost portions of the evaluation.

Some of the less-encouraging evaluation findings (e.g., increase in re-referrals, high variability in EBP use) point to a need for continued program improvement. However, some of these improvements may already be occurring. For example, we theorized that increasing the time a FAR case can remain open to allow for services would positively affect the use and effectiveness of services. That change did take place; however, it came too late in the evaluation for us to assess its effect. Not only should this policy improvement encourage delivery of services, but we encourage DCYF to continue monitoring re-referrals to study whether rates decrease when cases are open longer and families receive more services.

7.2.2 Recommendations

As DCYF continues to support the FAR program and to make adjustments following the IV-E Waiver's conclusion, we recommend the following approaches:

1. Continue to monitor FAR caseloads and support offices so that caseworkers can maintain a caseload of around 15 families at a time or less. This caseload level will allow workers to have the needed contacts with families and spend the time to foster meaningful engagement.

2. Continue to encourage workers to refer families to services and evidence-based practices. Ensure that caseworker training includes information that cases can remain open for up to 120 days if a family can benefit and is willing to participate in services. Include guidance on the referral process and encourage offices to continue to develop inventories of resources available in their community.
3. Support caseworker referrals to services by implementing a standardized needs assessment tool. Moving from a risk-based service decision-making system to one that takes into account each individual family's needs will help to connect families to those services most likely to improve outcomes.
4. For future analysis, continue the process DCYF is currently engaged in to consolidate, standardize, and bring office variables into alignment between data sources. Create a data key that tracks field office naming through time so that older data sources with outdated office names can be understood or analyzed with up-to-date naming conventions.

7.3 Evaluation Lessons Learned

7.3.1 Lessons Learned

An essential component of this evaluation was the ongoing communication between the FAR team and the evaluation team. This group met monthly throughout the life of the project and, at times, included members of multiple departments, including the Research and Data Administration (RDA) and Washington State Institute for Public Policy (WSIPP). These monthly discussions allowed for earlier identification of data issues and gave each team enough time to digest early findings and explore potential program corrections or external considerations that allowed for the evaluation to be more useful to the program than it would have been otherwise.

The communication also allowed for the ability to maintain continuity despite changes in team members and leadership, most notably when the original organization, the Children's Administration (CA), was reorganized under a new agency, the Department of Children, Youth, and Families (DCYF). We remain grateful for the remarkable flexibility and earnestness among the many caseworkers, administrators, support staff, and leadership during the life of this evaluation and are confident that the evaluation's success is largely a result of good partnership.

Finally, we also encountered numerous fluctuations in data and data consistency. Most of these are addressed in the Recommendations section of the Outcome Study. Among others, we discovered that analyses using a cohort design should ensure that data are structured such that intakes can be clearly tracked through the cohort construction process and that the objects used in the analysis can be compared, on an intake-by-intake basis, to the original distribution

of intakes prior to cohort construction. Other fluctuations, such as shifts in offices, required tremendous assistance with DCYF, especially with personnel familiar with sometimes anecdotal information that provided context to changes in policies, procedures, and data entry.

7.3.2 Recommendations for Similar Programs

We are confident that the design described in this report, as well as the execution, provides a strong model for future evaluation projects, assuming the same set of circumstances existed. The most important component would be the phased rollout approach or a similar approach that allows for a matched comparison group design.

As we have stated throughout the report, continued, ongoing, and open communication about the evaluation efforts and findings was a key part in executing this evaluation and is a lesson that can be applied to any evaluation effort, regardless of the design.

7.4 Link to Evaluation Reports

DCYF posts all relevant FAR reports, both internal reports and those provided by TriWest, at the following web address: https://www.dcyf.wa.gov/practice/oiaa/reports. In particular, the two Interim Evaluation Reports (2016, 2018) are posted at that URL under the "Family Assessment Response (FAR) Quarterly Reports" header. This final evaluation is expected to be posted to the same directory.

- Interim Evaluation Report (2016): https://www.dcyf.wa.gov/sites/default/files/pdf/FARInterimEvalReport.pdf
- Interim Evaluation Report (2018): https://www.dcyf.wa.gov/sites/default/files/pdf/reports/FARInterimEvalReport2018-F.pdf

8 Technical Appendix

This Technical Appendix provides expanded and detailed presentations of data and analysis, providing more comprehensive findings on elements in the Process Study, Outcomes Study, and Cost/Fiscal Study. This appendix assumes familiarity with both the analytical/data contexts from the study sections of the chapter and, in several instances, statistical language and procedures.

8.1 Process Study

8.1.1 Aggregated Key Informant Responses

The following table (Table 53) compiles the responses and response rates, by average and by role, for all available key informant interviews. These interviews were conducted with administrators, FAR caseworkers, and investigative caseworkers during the first three years of the evaluation (2014–2017). TriWest conducted interviews at DCYF offices within three to six months after that office implemented FAR. Some questions were relevant to specific roles; specifically, several FAR-specific items do not have responses from investigative workers. The questions themselves are available in the Key Informant Interview form, found in the Document Appendix. Analysis of select questions are in the Process Study. Additionally, some questions were used as data in the Fidelity Rating Methodology.

Table 53. Key Informant Responses by Role

Item	Administrators (Max n=69)	FAR (Max n=267)	Investigations (Max n = 119)	Average Rating	Ratings Made
NPRQ4.2.1PrepStart	3.28	2.75	2.59	2.8	400
NPRQ4.2.2PrepNow	3.75	3.60	NA	3.63	126

Item	Administrators (Max n=69)	FAR (Max n=267)	Investigations (Max n = 119)	Average Rating	Ratings Made
NPRQ4.2.5FindAnsw	3.78	3.39	3.31	3.41	171
NPRQ4.2.6AdminSupport	3.50	3.39	3.07	3.3	176
PRQ8.1.1AgreeFAR	3.71	3.45	2.88	3.31	186
PRQ8.1.2PeersAgree	3.10	2.98	2.69	2.91	173
PRQ3.1.1FARVolun	0.50	0.40	NA	0.41	112
PRQ11.1.2Barriers	2.38	2.74	2.34	2.59	396
NPRQ11.3.3Positives	2.89	2.75	2.61	2.74	386
PRQ14.1.1FrqSWFamPartner	3.13	3.38	NA	3.35	123
PRQ14.3.1FrqSWFamCoord	3.27	3.43	NA	3.41	120
PRQ15.2.1FrqPrntPres	3.08	2.88	NA	2.91	116
PRQ14.2.1SWEngChng	2.96	2.67	1.54	2.42	381
PRQ15.1.1PrntEngChng	3.23	2.89	NA	2.95	277
NPRQ21.2.1FrqScreen	2.83	2.86	2.80	2.84	182
NPRQ21.2.2FrqPathway	2.89	2.86	2.74	2.82	182
NPRQ21.2.3CaseTrans	3.55	2.86	2.52	2.84	99
NPRQ21.3.1FrqCasePlan	2.00	2.06	NA	2.06	87
NPRQ21.3.2UseSafety	3.38	3.14	NA	3.17	120
NPRQ21.3.3UseCANS	1.67	1.93	NA	1.91	45
NPRQ21.3.4UseSDM	2.33	2.64	NA	2.61	117
NPRQ21.3.5UseFARFA	3.09	2.96	NA	2.97	117
PRQ9.1.1AccessEBPs	0.10	0.10	NA	0.08	382
PRQ5.1.5AccessCASupports	0.45	0.38	NA	0.3	157
PRQ5.1.6AccessComSupports	0.13	0.23	NA	0.17	158
PRQ24.1.1CommMeetsNeeds	2.31	2.60	NA	2.56	112
PRQ19.1.1SvcFamInvolve	3.38	2.99	NA	3.05	285
PRQ24.1.3ChronicDown	1.75	1.92	1.48	1.79	75
PRQ22.1.1OfficeCommPrtnr	2.48	2.40	2.12	2.38	308
PRQ22.1.2CommKnowsFAR	2.43	2.23	NA	2.26	122
PRQ26.1.1EthnNeedsMet	1.79	1.92	1.37	1.82	275

8.1.2 Family Survey Response Distribution

The following tables present accounts of all Washington offices implementing FAR, reporting the number of call attempts and the resulting number of surveys per office. Table 54 presents

these data in alphabetical order by office. Table 55 presents the same offices and counts ordered by the number of calls attempted per office.

Table 54: Calls Made by Office

Office	Calls	Surveys	Survey Response Rate
Aberdeen	107	31	29%
Bellingham	87	27	31%
Bremerton	168	55	33%
Centralia	17	4	24%
Clarkston	12	5	42%
Colfax	4	1	25%
Colville	40	11	28%
Ellensburg	19	3	16%
Everett	69	28	41%
Forks	16	7	44%
Goldendale	2	0	0%
Kelso	133	31	23%
King East DCFS	269	95	35%
King South-East	107	46	43%
King South-West	126	69	55%
King West DCFS	63	24	38%
Lakewood	187	80	43%
Long Beach	18	7	39%
Lynnwood	242	52	21%
Martin Luther King Jr.	181	50	28%
Moses Lake	77	19	25%
Mount Vernon	131	40	31%
Newport	5	1	20%
Oak Harbor	37	12	32%
Office of Indian Child Welfare - R04	11	3	27%
Omak	22	5	23%
Pierce East	361	129	36%
Pierce South	67	18	27%
Pierce West	222	77	35%
Port Angeles	53	8	15%
Port Townsend	31	6	19%
Shelton	34	15	44%
Sky Valley	101	30	30%
Smokey Point	134	39	29%
South Bend	6	2	33%

Office	Calls	Surveys	Survey Response Rate
Spokane	383	99	26%
Stevenson	3	1	33%
Sunnyside	11	3	27%
Toppenish	21	6	29%
Tri-Cities	116	35	30%
Tumwater	57	29	51%
Vancouver	556	156	28%
Walla Walla	30	9	30%
Wenatchee	51	24	47%
White Center DCFS	21	11	52%
Yakima	63	23	37%
Grand Total	**4,471**	**1,426**	**32%**

Table 55: Offices by Number of Calls Made

Office	Calls	Surveys	Survey Response Rate
Vancouver	556	156	28%
Pierce East	361	129	36%
Spokane	383	99	26%
King East DCFS	269	95	35%
Lakewood	187	80	43%
Pierce West	222	77	35%
King South-West	126	69	55%
Bremerton	168	55	33%
Lynnwood	242	52	21%
Martin Luther King Jr.	181	50	28%
King South-East	107	46	43%
Mount Vernon	131	40	31%
Smokey Point	134	39	29%
Tri-Cities	116	35	30%
Aberdeen	107	31	29%
Kelso	133	31	23%
Sky Valley	101	30	30%
Tumwater	57	29	51%
Everett	69	28	41%
Bellingham	87	27	31%
King West DCFS	63	24	38%
Wenatchee	51	24	47%

Office	Calls	Surveys	Survey Response Rate
Yakima	63	23	37%
Moses Lake	77	19	25%
Pierce South	67	18	27%
Shelton	34	15	44%
Oak Harbor	37	12	32%
Colville	40	11	28%
White Center DCFS	21	11	52%
Walla Walla	30	9	30%
Port Angeles	53	8	15%
Forks	16	7	44%
Long Beach	18	7	39%
Port Townsend	31	6	19%
Toppenish	21	6	29%
Clarkston	12	5	42%
Omak	22	5	23%
Centralia	17	4	24%
Ellensburg	19	3	16%
Office of Indian Child Welfare - R04	11	3	27%
Sunnyside	11	3	27%
South Bend	6	2	33%
Colfax	4	1	25%
Newport	5	1	20%
Stevenson	3	1	33%
Goldendale	2	0	0%
Grand Total	**4,471**	**1,426**	**32%**

Table 55 shows that some offices, such as Vancouver and Pierce East, have received a disproportionate number of calls and completed surveys relative to other offices of similar size. This disparity is primarily a consequence of the phased rollout structure of FAR. An office such as Vancouver, for example, implemented FAR in October 2014 and received heavy initial focus, whereas Yakima rolled out in April 2017. Despite these imbalances over the course of the evaluation, offices tended to receive similar focus, relative to office size, over comparable amounts of time. For example, over the final span of surveys, between August 2018 and December 2018, Vancouver received 67 attempts and Yakima received 63.

Also, some offices may be represented through the “Callback” category, which accounts for 241 calls and 187 completed surveys. This category refers to any calls and surveys that were initiated by FAR families via our call-in line. This line allows respondents to leave a short phone

message requesting a survey. That message is then forwarded to a parent ally who will attempt a survey, often within 12–36 hours of receiving the request. During this process, no identification of home office is made. In addition, this report only includes surveys conducted via parent allies; it does not account for surveys voluntarily submitted through other forms (i.e., self-initiated online survey). More information on those survey methods and results can be found in the Family Response analysis. Additionally, surveys completed via online methods are not represented in the counts above.

8.1.3 Family Survey Results

The following tables provide Family Survey results aggregated for all years and all offices. These results, as described in the Process Study, come from multiple survey modes (e.g., Parent Ally phone surveys, abbreviated online surveys). For each question, we provide the number of respondents answering a particular question or subquestion ("n"), a list of possible responses, the number of respondents who selected each possible response ("frequency"), and percentages of each response. Some questions contain multiple questions, or subquestions. We have grouped these items into combined tables.

Table 56. FS Question 1

Did a FAR caseworker contact you to set up a time to meet with you before interviewing your children? (n=1,807)		
Response	**Frequency**	**Percentage**
Yes	1,208	67%
I Don't Know	143	8%
No	456	25%
Total	**1,807**	**100%**

Table 57. FS Question 2

Did your FAR caseworker discuss your family's strengths beliefs and traditions with you? (n=1,720)		
Response	**Frequency**	**Percentage**
Always or almost always	828	48%
Some of the time	399	23%
Not very often	135	8%
Never	358	21%
Total	**1,720**	**100%**

Table 58. FS Question 3

Did your FAR caseworker help you to identify things that happen in your family life that cause problems for you and/or your family? (n=1,294)		
Response	**Frequency**	**Percentage**
Yes, very much	481	37%
Yes, a little	301	23%
Not much	155	12%
Not at all	357	28%
Total	**1,294**	**100**

Table 59. FS Question 4

My caseworker listened to my opinion about whether or not my family needed services. (n=1,570)		
Response	**Frequency**	**Percentage**
Always or almost always	1,120	71%
Some of the time	259	16%
Not very often	87	6%
Never	104	7%
Total	**1,570**	**100%**

Table 60. FS Question 5

My caseworker listened to my opinion when considering what types of services (parent classes, coaching, counseling, or referrals for mental health or substance use treatment) my family and I needed. (n=1,318)		
Response	**Frequency**	**Percentage**
Always or almost always	854	65%
Some of the time	165	13%
Not applicable	148	11%
Not very often	39	3%
Never	112	8%
Total	**1,318**	**100%**

Table 61. FS Question 6

My caseworker listened to my opinion when considering what kinds of basic needs (clothing, bus passes, help with rent, etc.) my family and I needed. (n=1,313)		
Response	**Frequency**	**Percentage**
Always or almost always	666	51%
Some of the time	143	11%
Not Applicable	286	22%
Not very often	48	4%
Never	170	13%
Total	**1,313**	**100**

Table 62. FS Question 7

7. I was actively engaged in the process. (n=1,318)		
Response	**Frequency**	**Percentage**
Always or almost always	1,081	82%
Some of the time	126	10%
Not very often	47	4%
Never	64	5%
Total	**1,318**	**100%**

Table 63. FS Question 8

My caseworker and I agreed about what led to me coming to the attention of CPS. (n=1,294)		
Response	**Frequency**	**Percentage**
Yes, very much	897	69%
Yes, a little	185	14%
Not much	66	5%
Not at all	146	11%
Total	**1,294**	**100%**

Table 64. FS Question 9

My caseworker and I agreed about my family's strengths and needs. (n=1,293)		
Response	**Frequency**	**Percentage**
Always or almost always	899	70%
Some of the time	227	18%
Not very often	57	4%
Never	110	9%

My caseworker and I agreed about my family's strengths and needs. (n=1,293)		
Response	**Frequency**	**Percentage**
Total	**1,293**	**100%**

Table 65. FS Question 10

Important decisions about my family were made without my input. (n=1,530)		
Response	**Frequency**	**Percentage**
Never	1,003	66%
Not very often	189	12%
Some of the time	202	13%
Always or almost always	136	9%
Total	**1,530**	**100%**

Table 66. FS Question 11

My caseworker helped me to get support or help from friends and family. (n=1,409)		
Response	**Frequency**	**Percentage**
Always or almost always	494	35%
Some of the time	222	16%
Not very often	104	7%
Never	589	42%
Total	**1,409**	**100%**

Table 67. FS Question 12

My caseworker helped me to get support or help from my community. (n=1,428)		
Response	**Frequency**	**Percentage**
Always or almost always	565	40%
Some of the time	247	17%
Not very often	77	5%
Never	539	38%
Total	**1,428**	**100%**

Table 68. FS Question 13

My caseworker showed respect to me and my family. (n=1,503)		
Response	**Frequency**	**Percentage**
Always	1,295	86%
Some of the time	112	7%
Not very often	33	2%
Never	63	4%
Total	**1,503**	**100%**

Table 69. FS Question 14

How would you describe family relationships?				
	BEFORE you were contacted by child services (n=1,467)		Now (n=1,465)	
Response	**Frequency**	**Percentage**	**Frequency**	**Percentage**
5 Going very well	610	42%	860	59%
4	324	22%	365	25%
3	301	21%	121	8%
2	118	8%	47	3%
1 Not going very well	114	8%	72	5%
Total	**1,467**	**100%**	**1,465**	**100%**

Table 70. FS Question 15

Thinking about how you were doing in your role as a parent, how were things going …?				
	BEFORE you were contacted by child services (n=1,314)		Now (n=1,306)	
Response	**Frequency**	**Percentage**	**Frequency**	**Percentage**
5 Going very well	556	42%	807	62%
4	392	30%	371	28%
3	228	17%	86	7%
2	89	7%	16	1%
1 Not going very well	49	4%	26	2%
Total	**1,314**	**100%**	**1,306**	**100%**

Table 71. FS Question 16

16. How did you feel about your ability to get support in your community?				
	BEFORE you were contacted by child services (n=1,294)		Now (n=1,285)	
Response	**Frequency**	**Percentage**	**Frequency**	**Percentage**
5 Going very well	427	33%	673	52%
4	279	22%	329	26%
3	276	21%	158	12%
2	168	13%	55	4%
1 Not going very well	144	11%	70	5%
Total	**1,294**	**100%**	**1,285**	**100%**

Table 72. FS Question 17

Did you receive any help or services from your caseworker or other source through FAR? (n=1,329)		
Response	**Frequency**	**Percentage**
Yes	579	44%
No	750	56%
Total	**1,329**	**100%**
If yes, was it the kind of help you needed? (n=585)		
Response	**Frequency**	**Percentage**
Yes	513	88%
No	72	12%
Total	**585**	**100%**
Was it enough to really help you? (n=594)		
Response	**Frequency**	**Percentage**
Yes	424	71%
No	170	29%
Total	**594**	**100%**

Table 73. FS Question 18

Overall, how is your family doing because of your involvement with FAR? (n=1,585)		
Response	**Frequency**	**Percentage**
Much better	418	26%
Somewhat better	444	28%
No change	607	38%
Somewhat worse	55	3%

Overall, how is your family doing because of your involvement with FAR? (n=1,585)		
Response	**Frequency**	**Percentage**
Much Worse	61	4%
Total	**1,585**	**100%**

Table 74. FS Question 19

How satisfied are you with the way you and your family were treated by the caseworker or children's services workers who visited your home? (n=1,587)		
Response	**Frequency**	**Percentage**
Very Satisfied	928	58%
Mostly satisfied	409	26%
NA	44	3%
Mostly dissatisfied	96	6%
Very dissatisfied	110	7%
Total	**1,587**	**100%**

Table 75. FS Question 20

How satisfied are you with the help you received or were offered? (n=1,750)		
Response	**Frequency**	**Percentage**
Very satisfied	772	44%
Mostly satisfied	467	27%
NA	239	14%
Mostly dissatisfied	146	8%
Very dissatisfied	126	7%
Total	**1,750**	**100%**

Table 76. FS Question 21

Was this your first time working with the CPS either in Washington or in another state? (n=1,508)		
Response	**Frequency**	**Percentage**
Yes	878	58%
Don't Know	17	1%
No	613	41%
Total	**1,508**	**100%**

Table 77. FS Question 22

How was this experience compared with your past experience? (n=509)		
Response	**Frequency**	**Percentage**
Much better	253	43%
Somewhat better	95	16%
No change	152	26%
Somewhat worse	43	7%
Much worse	46	8%
Total	**509**	**100%**

8.1.4 Delivery of EBPs and In-Home Services to High-Risk FAR families

The following table presents a by-office, by-year list showing the number and percentage of high-risk FAR families who received EBPs or any in-home service between 2015 and 2017.

Office	Year	Counts of High-Risk FAR Families			Percentages of High-Risk FAR Families	
		Total Number of Families	Received EBPs	Received Any In-Home Service	Received EBPs	Received Any In-Home Service
Aberdeen	2014	99	21	35	21.2	35.4
Aberdeen	2015	92	10	30	10.9	32.6
Aberdeen	2016	82	13	30	15.9	36.6
Aberdeen	2017	39	8	13	20.5	33.3
Bellingham	2016	5	0	1	0	20
Bellingham	2017	75	6	39	8	52
Bremerton	2015	141	19	50	13.5	35.5
Bremerton	2016	135	17	57	12.6	42.2
Bremerton	2017	57	5	32	8.8	56.1
Central Intake	2014	2	1	2	50	100
Central Intake	2015	5	1	1	20	20
Central Intake	2016	4	0	1	0	25
Central Intake	2017	1	0	0	0	0
Centralia	2016	40	5	11	12.5	27.5
Centralia	2017	57	6	14	10.5	24.6
Centralized Services Tacoma DCFS	2014	2	1	2	50	100

Office	Year	Counts of High-Risk FAR Families			Percentages of High-Risk FAR Families	
		Total Number of Families	Received EBPs	Received Any In-Home Service	Received EBPs	Received Any In-Home Service
Centralized Services Tacoma DCFS	2015	3	0	1	0	33.3
Centralized Services Tacoma DCFS	2016	4	0	0	0	0
Centralized Services Tacoma DCFS	2017	1	0	1	0	100
Clarkston	2015	4	0	0	0	0
Clarkston	2016	28	0	6	0	21.4
Clarkston	2017	18	0	6	0	33.3
Colfax	2015	3	1	1	33.3	33.3
Colfax	2016	26	1	14	3.8	53.8
Colfax	2017	10	2	6	20	60
Colville	2015	39	2	12	5.1	30.8
Colville	2016	44	2	19	4.5	43.2
Colville	2017	13	0	10	0	76.9
Ellensburg DCFS	2014	8	1	2	12.5	25
Ellensburg DCFS	2015	19	1	4	5.3	21.1
Ellensburg DCFS	2016	19	0	5	0	26.3
Ellensburg DCFS	2017	10	0	7	0	70
Everett	2016	1	0	0	0	0
Everett	2017	77	13	34	16.9	44.2
Forks DCFS	2014	3	1	1	33.3	33.3
Forks DCFS	2015	10	0	3	0	30
Forks DCFS	2016	9	1	5	11.1	55.6
Forks DCFS	2017	3	0	1	0	33.3
Friday Harbor	2016	2	0	0	0	0
Friday Harbor	2017	1	0	0	0	0
Goldendale	2016	6	0	1	0	16.7
Goldendale	2017	10	1	5	10	50
Kelso	2015	31	1	8	3.2	25.8
Kelso	2016	160	6	64	3.8	40
Kelso	2017	40	2	17	5	42.5
King East DCFS	2015	109	14	40	12.8	36.7

Office	Year	Counts of High-Risk FAR Families			Percentages of High-Risk FAR Families	
		Total Number of Families	Received EBPs	Received Any In-Home Service	Received EBPs	Received Any In-Home Service
King East DCFS	2016	101	9	29	8.9	28.7
King East DCFS	2017	46	2	10	4.3	21.7
King South-East	2017	7	0	0	0	0
King South-West	2015	1	0	0	0	0
King South-West	2016	4	0	0	0	0
King South-West	2017	17	0	3	0	17.6
King West DCFS	2016	19	3	6	15.8	31.6
King West DCFS	2017	39	4	14	10.3	35.9
Lakewood	2015	111	2	18	1.8	16.2
Lakewood	2016	141	6	49	4.3	34.8
Lakewood	2017	85	8	30	9.4	35.3
Lincoln County (Spokane/Lincoln)	2014	2	0	2	0	100
Lincoln County (Spokane/Lincoln)	2015	2	1	2	50	100
Lincoln County (Spokane/Lincoln)	2016	5	0	2	0	40
Lincoln County (Spokane/Lincoln)	2017	2	0	0	0	0
Long Beach DCFS	2015	14	0	1	0	7.1
Long Beach DCFS	2016	22	1	4	4.5	18.2
Long Beach DCFS	2017	10	0	2	0	20
Lynnwood	2014	104	14	43	13.5	41.3
Lynnwood	2015	92	15	34	16.3	37
Lynnwood	2016	87	5	41	5.7	47.1
Lynnwood	2017	41	9	24	22	58.5
Martin Luther King Jr.	2014	67	5	18	7.5	26.9
Martin Luther King Jr.	2015	101	9	34	8.9	33.7
Martin Luther King Jr.	2016	88	8	33	9.1	37.5
Martin Luther King Jr.	2017	38	0	13	0	34.2
Moses Lake	2014	16	3	10	18.8	62.5
Moses Lake	2015	86	8	37	9.3	43
Moses Lake	2016	68	7	41	10.3	60.3

Office	Year	Counts of High-Risk FAR Families			Percentages of High-Risk FAR Families	
		Total Number of Families	Received EBPs	Received Any In-Home Service	Received EBPs	Received Any In-Home Service
Moses Lake	2017	25	4	19	16	76
Mount Vernon	2014	43	4	10	9.3	23.3
Mount Vernon	2015	83	9	30	10.8	36.1
Mount Vernon	2016	71	9	36	12.7	50.7
Mount Vernon	2017	42	3	24	7.1	57.1
Newport	2015	11	2	3	18.2	27.3
Newport	2016	10	0	3	0	30
Newport	2017	6	0	0	0	0
Oak Harbor	2014	10	2	4	20	40
Oak Harbor	2015	30	2	8	6.7	26.7
Oak Harbor	2016	22	0	2	0	9.1
Oak Harbor	2017	14	0	2	0	14.3
Office of Indian Child Welfare - R04	2014	1	0	0	0	0
Office of Indian Child Welfare - R04	2015	7	1	2	14.3	28.6
Office of Indian Child Welfare - R04	2016	14	1	5	7.1	35.7
Office of Indian Child Welfare - R04	2017	19	0	6	0	31.6
Olympia DCFS (Tumwater)	2015	1	0	0	0	0
Olympia DCFS (Tumwater)	2016	98	14	66	14.3	67.3
Olympia DCFS (Tumwater)	2017	122	20	78	16.4	63.9
Omak	2017	9	1	5	11.1	55.6
Pierce East	2014	73	7	21	9.6	28.8
Pierce East	2015	147	18	58	12.2	39.5
Pierce West	2014	1	1	1	100	100
Pierce West	2015	269	21	65	7.8	24.2
Port Angeles	2014	16	0	7	0	43.8
Port Angeles	2015	62	3	33	4.8	53.2
Port Angeles	2016	34	0	13	0	38.2

Office	Year	Counts of High-Risk FAR Families			Percentages of High-Risk FAR Families	
		Total Number of Families	Received EBPs	Received Any In-Home Service	Received EBPs	Received Any In-Home Service
Port Angeles	2017	22	0	12	0	54.5
Port Townsend	2014	7	1	3	14.3	42.9
Port Townsend	2015	21	2	8	9.5	38.1
Port Townsend	2016	12	0	3	0	25
Port Townsend	2017	7	0	1	0	14.3
Puyallup Office	2016	126	14	74	11.1	58.7
Puyallup Office	2017	94	17	59	18.1	62.8
Shelton	2016	34	2	12	5.9	35.3
Shelton	2017	30	3	16	10	53.3
Sky Valley	2015	87	8	18	9.2	20.7
Sky Valley	2016	72	5	17	6.9	23.6
Sky Valley	2017	34	2	8	5.9	23.5
Smokey Point	2014	5	1	2	20	40
Smokey Point	2015	151	18	45	11.9	29.8
Smokey Point	2016	126	9	38	7.1	30.2
Smokey Point	2017	47	3	20	6.4	42.6
South Bend	2015	8	0	2	0	25
South Bend	2016	8	4	4	50	50
South Bend	2017	3	1	2	33.3	66.7
Spokane	2014	236	43	131	18.2	55.5
Spokane	2015	440	24	176	5.5	40
Spokane	2016	397	27	162	6.8	40.8
Spokane	2017	192	15	76	7.8	39.6
Stevenson	2014	7	0	3	0	42.9
Stevenson	2015	18	2	11	11.1	61.1
Stevenson	2016	10	0	6	0	60
Stevenson	2017	3	1	1	33.3	33.3
Sunnyside DCFS	2015	9	2	7	22.2	77.8
Sunnyside DCFS	2016	22	1	12	4.5	54.5
Sunnyside DCFS	2017	10	0	9	0	90
Tacoma Office	2016	216	13	75	6	34.7
Tacoma Office	2017	108	7	54	6.5	50
Toppenish	2016	29	1	23	3.4	79.3

Office	Year	Counts of High-Risk FAR Families			Percentages of High-Risk FAR Families	
		Total Number of Families	Received EBPs	Received Any In-Home Service	Received EBPs	Received Any In-Home Service
Toppenish	2017	26	2	15	7.7	57.7
Tri-Cities	2014	26	1	10	3.8	38.5
Tri-Cities	2015	99	14	45	14.1	45.5
Tri-Cities	2016	115	14	34	12.2	29.6
Tri-Cities	2017	71	5	17	7	23.9
Vancouver - Cascade	2014	29	1	10	3.4	34.5
Vancouver - Cascade	2015	90	9	32	10	35.6
Vancouver - Cascade	2016	63	4	19	6.3	30.2
Vancouver - Cascade	2017	39	2	9	5.1	23.1
Vancouver - Columbia	2014	76	6	26	7.9	34.2
Vancouver - Columbia	2015	196	10	44	5.1	22.4
Vancouver - Columbia	2016	183	13	63	7.1	34.4
Vancouver - Columbia	2017	69	7	28	10.1	40.6
Walla Walla	2015	26	1	12	3.8	46.2
Walla Walla	2016	44	2	22	4.5	50
Walla Walla	2017	15	1	9	6.7	60
Wenatchee	2017	37	6	18	16.2	48.6
White Center DCFS	2016	6	1	2	16.7	33.3
White Center DCFS	2017	19	0	3	0	15.8
White Salmon	2016	1	0	0	0	0
Yakima	2017	23	2	6	8.7	26.1
Total		**8,047**	**730**	**3,106**	**9.1%**	**38.6%**

8.1.5 Fidelity Ratings

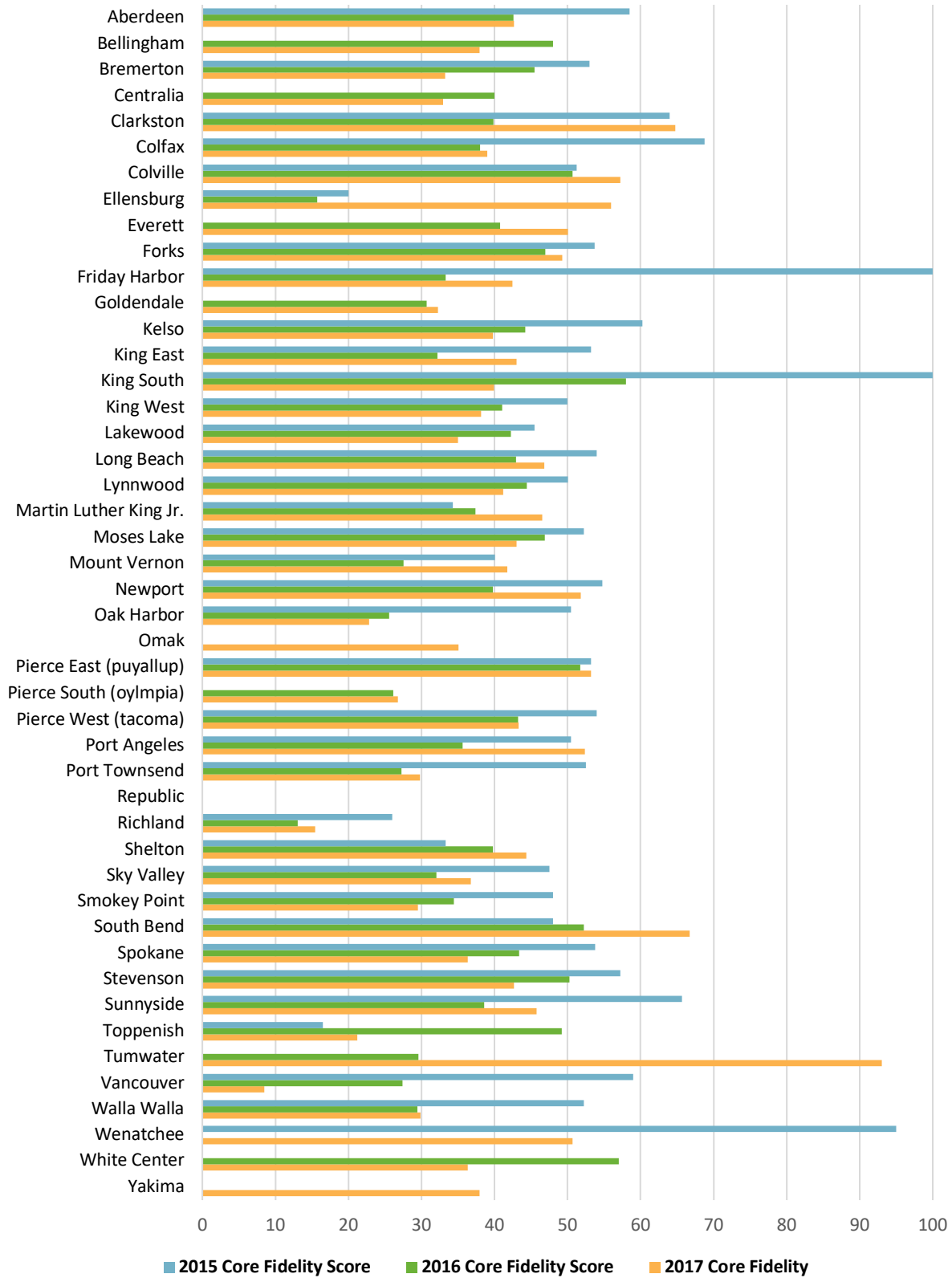
Table 78. Fidelity Rating by Office (Initial, 2015–2017)

Office Name	initial rollout/ training	2015 Core	2015 Enhanced	2016 Core	2016 Enhanced	2017 Core	2017 Enhanced
Aberdeen	71	59	85	43	64	43	60
Bellingham	66			48	61	38	59
Bremerton	71	53	79	45	66	33	61
Centralia	50			40	47	33	42

Office Name	initial rollout/ training	2015 Core	2015 Enhanced	2016 Core	2016 Enhanced	2017 Core	2017 Enhanced
Clarkston	58	64	63	40	80	65	72
Colfax	68	69	55	38	43	39	49
Colville	64	51	55	51	84	57	58
Ellensburg	68	20	11	16	40	56	59
Everett	77	0		41	54	50	66
Forks	0	54	80	47	51	49	56
Friday Harbor	0	100	79	33	50	42	55
Goldendale	80			31	56	32	42
Kelso	72	60	65	44	66	40	62
King East	72	53	54	32	69	43	65
King South	68	100	100	58	70	40	64
King West	87	50	50	41	68	38	56
Lakewood	0	46	50	42	50	35	41
Long Beach	0	54	71	43	77	47	53
Lynnwood	75	50	67	44	80	41	63
MLK Jr.	65	34	59	37	59	47	78
Moses Lake	62	52	51	47	68	43	63
Mount Vernon	61	40	33	28	54	42	52
Newport	67	55	53	40	68	52	57
Oak Harbor	66	50	69	26	33	23	54
Omak	66					35	60
Pierce East	0	53	74	52	66	53	70
Pierce South	77		58	26	39	27	51
Pierce West	61	54	70	43	52	43	63
Port Angeles	53	51	77	36	41	52	72
Port Townsend	0	53	68	27	47	30	48
Republic	0						
Richland	56	26	16	13	45	15	29
Shelton	48	33	33	40	46	44	59
Sky Valley	61	48	76	32	52	37	54
Smokey Point	54	48	47	34	60	29	41
South Bend	68	48	49	52	64	67	65
Spokane	86	54	78	43	67	36	65

Office Name	initial rollout/ training	2015 Core	2015 Enhanced	2016 Core	2016 Enhanced	2017 Core	2017 Enhanced
Stevenson	75	57	52	50	70	43	50
Sunnyside	87	66	54	39	42	46	55
Toppenish	87	17	17	49	52	21	27
Tumwater	87			30	30	93	41
Vancouver	0	59	77	27	67	9	44
Walla Walla	87	52	46	29	64	30	47
Wenatchee	87	95	95			51	73
White Center	87			57	57	36	46
Yakima	87					38	66

Figure 28. Core Fidelity Rating by Office (2015–2017)



8.2 Outcome Study

8.2.1 Imputation of Missing Values

Although deletion of observations with missing values is the most common practice in econometric analysis, the current state of the art is to impute missing values when (1) the variables in question are statistically important and (2) contain more than a trivial number of missing values. Early analysis of the *ageintk_yngst* variable (age of the youngest child), which contained thousands of missing values in our first two data sets, convinced us that excluding this variable from the analysis or excluding only observations with missing values had the potential for biasing our measurements of the effect of FAR on removal rates. Over time, this variable became more complete in the data, with only 80 missing values in the combined cohorts. However, the variables representing abuse or neglect risk scores had 7,001 missing values, and in all regression-based analysis these variables were statistically significant predictors of outcomes. Likewise, race of the youngest child had 8,749 missing values. Although imputing missing values adds significant complexity to the analysis, concerns about bias convinced us of the value of imputation.

The software program we used, Amelia, performs multiple imputations. It uses non-missing data to estimate the likely distributions of the missing data and then creates multiple data sets that are identical for the non-missing data but contain unique values for the missing data, each randomly drawn from the estimated distributions. We used five imputed data sets (the software's default number). When using these multiple data sets for outcome analysis, we analyze each data set separately. We then combine results across the data sets in a manner that accounts for the additional uncertainty of missing data. The process for sample averages and regression coefficients is to simply average the results. For standard errors, the combined standard error includes the average standard error plus a measurement of the variability in the sample means or regression coefficients. We refer to these combination procedures as "Rubin's Rules," referring to Donald Rubin and colleagues, who, in work going back to the 1970s, demonstrated that under a broad range of conditions yielding missing data, multiple imputation yields results that are unbiased and efficient.[65]

When imputing missing data for a new cohort, we combine the new cohort with all the original data from previous cohorts, impute missing values, then save the results for only the newest cohorts. This is primarily a matter of preventing confusion in reporting results; it will allow us to work with the same imputed values in all previous cohorts yet use as much original data as possible to estimate the missing data.

[65] See King, G., Honaker, J., Joseph, A., & Scheve, K. (2001, March). Analyzing incomplete political science data: An alternative algorithm for multiple imputation. *American Political Science Review, (95)*1. 49–69. This article provides explanations of the advantages and limitations of multiple imputation.

Imputing missing values is likely to reduce bias in our outcome analysis. It is not, however, without cost. Performing statistical tests on five slightly different data sets, then combining the results, adds substantial complexity. It is not clear how to combine some results, such as chi-squared tests. These complexities make reporting of results more complicated and reduce credibility when presenting results to audiences without backgrounds in econometrics and statistics.

Matching

As described in the Outcome Study, we drew a matched comparison group based on propensity score matching. We used the MatchIt program in R, and selected one-to-one matching based on nearest neighbor. Matches were selected from the same cohort, using the matching variables listed in chapter 5. The goal of matching is to identify a comparison group with similar baseline characteristics. One commonly used method of evaluating matches is the examination of the mean covariate value for pool of potential comparison families as contrasted to the selected comparison and FAR group. In Table 79, we report matching results for cohorts 2 and 4. Results for other cohorts are very similar.

The variable *Distance* is the average propensity score for each group. Other variables are descried in the Outcome Study. In general, matching resulted in a comparison group with average covariate values that were closer to the FAR group's average than the broader pool of FAR-eligible investigative families. For example, the cohort 2 average of the *abuse* score was 1.664, whereas the comparison pool had an average of 1.623. From that pool, we selected a comparison group with an average *abuse* score of 1.670. In a small number of cases, matching made the covariate averages farther apart (e.g., the race variable *Race/Ethnicity (Multiracial): Asian* for Cohort 4 as an example.

Table 79. Variable Matching Results (Cohorts 2 and 4)

Variable	Cohort 2: July–December 2014			Cohort 4: July–December 2015		
	Mean FAR	Mean All FAR Eligible	Mean Matched Comparison	Mean FAR	Mean All FAR Eligible	Mean Matched Comparison
Distance	0.381	0.297	0.373	0.450	0.273	0.398
County Urbanization 2	0.244	0.200	0.233	0.265	0.140	0.258
County Urbanization 3	0.057	0.194	0.063	0.077	0.321	0.080
County Urbanization 4	0.095	0.075	0.099	0.049	0.122	0.060
County Urbanization 5	0.064	0.027	0.051	0.052	0.001	0.003
Criminal Involvement	1.165	0.835	1.128	1.136	0.813	0.959

Variable	Cohort 2: July–December 2014			Cohort 4: July–December 2015		
	Mean FAR	Mean All FAR Eligible	Mean Matched Comparison	Mean FAR	Mean All FAR Eligible	Mean Matched Comparison
Criminal Severity	1.468	1.118	1.455	1.425	1.121	1.273
Disability (DD) Eligibility	0.307	0.265	0.325	0.299	0.286	0.283
Domestic Violence History	0.260	0.187	0.249	0.247	0.219	0.236
Emergency Room Use	16.389	13.818	16.369	17.799	15.963	16.375
First DCYF Encounter	0.151	0.216	0.146	0.182	0.215	0.224
Homelessness History	12.680	10.504	12.586	12.693	12.584	12.525
Injury History	24.618	20.164	24.201	25.380	22.249	21.986
Intake Type: Neglect	2.900	3.054	2.929	2.842	3.169	2.833
Intake Type: Physical Abuse	0.360	0.335	0.355	0.321	0.299	0.328
Intake Type: Sexual Abuse	0.002	0.000	0.000	0.000	0.000	0.000
Juvenile Justice History	1.623	1.110	1.545	1.418	1.147	1.258
Medical/Medicaid History	70.092	65.674	69.981	72.379	74.821	68.670
Mental Health History	1.785	1.470	1.774	1.790	1.586	1.643
Mental Health History Severity 1	0.031	0.049	0.034	0.028	0.041	0.032
Mental Health History Severity 2	0.068	0.063	0.065	0.051	0.056	0.058
Mental Health History Severity 3	0.329	0.252	0.339	0.307	0.284	0.287
Mental Health History Severity 4	0.009	0.007	0.010	0.008	0.005	0.006
Mental Health History Severity 5	0.218	0.170	0.221	0.219	0.184	0.209
Number of Children	2.821	2.751	2.781	2.804	2.747	2.718
Prior AOD Treatment	9.397	6.787	8.954	9.014	8.527	7.944
Prior Economic Assistance	225.849	192.115	220.753	233.502	213.421	204.847
Race/Ethnicity (Multiracial): Asian	0.019	0.020	0.020	0.021	0.020	0.018

Variable	Cohort 2: July–December 2014			Cohort 4: July–December 2015		
	Mean FAR	Mean All FAR Eligible	Mean Matched Comparison	Mean FAR	Mean All FAR Eligible	Mean Matched Comparison
Race/Ethnicity (Multiracial): Black	0.050	0.045	0.055	0.063	0.043	0.060
Race/Ethnicity (Multiracial): Native American	0.046	0.043	0.047	0.037	0.041	0.038
Race/Ethnicity: Asian Pacific Islander	0.036	0.046	0.032	0.040	0.046	0.044
Race/Ethnicity: Black	0.078	0.079	0.081	0.080	0.068	0.092
Race/Ethnicity: Hispanic	0.115	0.117	0.118	0.090	0.127	0.084
Race/Ethnicity: Native American	0.030	0.050	0.029	0.038	0.065	0.037
Risk Scores	1.664	1.623	1.670	1.617	1.636	1.622
Tribal Affiliation	0.022	0.034	0.021	0.021	0.061	0.017
Youngest Child's Age	4.988	5.139	5.010	5.185	5.364	5.214

Regression-Based Outcome Analysis

In conducting regression-based tests, we utilized the same set of covariates used in propensity score matching. For purposes of reporting, we calculate the magnitude of the effect of FAR after controlling for all covariates. Our method of making that calculation is as follows. First, we estimated a regression-based model (logistic or hurdle model) using the average regression results from the five imputed data sets. Using this estimated model, we calculated the expected value of each FAR and comparison family under two conditions: (1) with each family's FAR indicator set to 1, and (2) with each family's FAR indicator set to zero. For each family, the difference in expected value under each condition is the estimated effect of FAR.

We average these family level effects and report this as the magnitude. Because we are using all of the FAR and comparison families in making this calculation, the magnitude represents the estimated effect on both the treated and untreated families. The P-value we report is the P value from a T test on the FAR treatment variable regression coefficient, calculated over the five imputed data set regressions.

This approach is somewhat different than simply reporting regression coefficient, which do not have a natural interpretation with logistic regression or hurdle models. It would also be possible to estimate the FAR effect with the average values of the covariates, instead of the covariate

values of each family individually. This approach would give an estimate for the "average" family, but since many of the covariates have very skewed distributions, the average covariate value may not be representative of many of the families in the data. See chapter 3.3 of the MatchIt documentation[66] or Wooldridge[67] for a more detailed explanation of this process.

Removals

We have provided regression results of analysis of removals in Table 80. We first repeat the simple difference-in-sample proportions from the Outcome Study listed as *Sample Proportions* (see section 5.6). This proportion figure represents the average of the sample proportions of the five imputed data sets. The magnitude of the difference between FAR and comparison families is reported under "Magnitude of Effect: Chi-Squared." The P-Value of the difference between FAR and comparison families generated via chi-squared test is reported under "P-Value: Chi-Squared."

As reported in chapter 5, using this simple test of a difference in proportions, we found that FAR families had lower removal rates for all five periods. Differences were statistically significant at conventional significance levels at 3, 6, and 12 months. The P-value of the chi-squared test for 24-month differences was 0.06 and is marginally significant; 36-month differences were not statistically significant.

Table 80. Removal Outcome Analysis Without Separate Cohort Treatment

Time Range	Sample Proportions		Logistic Regression Expected Value		Magnitude of FAR Effect		P-Value	
	FAR	Comparison	FAR	Comparison	Chi-Squared	Logistic Regression	Chi-Squared	Logistic Regression
3 months	0.026	0.037	0.026	0.037	-0.012	-0.012	0.000	0.000
6 months	0.038	0.048	0.038	0.048	-0.010	-0.011	0.003	0.002
12 months	0.054	0.064	0.053	0.064	-0.010	-0.011	0.007	0.004
24 months	0.076	0.085	0.075	0.085	-0.009	-0.010	0.060	0.028
36 months	0.093	0.097	0.092	0.098	-0.004	-0.006	0.468	0.285

In addition to measuring the difference between the FAR and comparison groups with T tests, we also used logistic regression as described previously to estimate the difference and statistical significance of the difference. Whereas the T test results attempt to control for

[66] Ho, D., Imai, K., King, G., & Stuart, E. (2013). MatchIt: Nonparametric preprocessing for parametric causal inference. Retrieved from https://gking.harvard.edu/matchit

[67] Wooldridge, J. (2002). *Econometric Analysis of Cross Section and Panel Data*. Cambridge, MA: The MIT Press. Section 15.6.

baseline differences in the characteristics of the FAR and comparison groups through propensity score matching, the use of regression allows us to further control for remaining baseline differences.

We report the proportion of the FAR and comparison groups with removals, after controlling for differing baseline characteristics, under "Logistic Regression Expected Value." Likewise, we report the effect of FAR on removals reported under "Magnitude of FAR Effect: Logistic Regression" (see Table 80).

We have reported the P-Value of the FAR indicator in the last column of Table 80, "P-Value: Logistic Regression." This P-Value is taken directly from the logistic regression output and may be interpreted as the probability of observing an effect size of the reported magnitude when the true effect size is zero. In the case of removals within three months of intake, the estimated effect of FAR is the reduced probability of a removal by 0.012—or 1.2 percentage points. The probability of drawing a random sample from a population with a sample effect of 1.2 percentage points, when the population-level effect is really zero, is the P-Value, reported as 0 (0.0000436 unrounded). This tiny probability means that the 1.2 percentage point effect size is unlikely to be the result of chance. In other words, FAR does reduce removals, and a different sample would likely yield the same result.

Generally, logistic regression yielded similar results to chi-squared tests. FAR families had lower removal rates, and this effect was statistically significant at 3, 6, 12, and 24 months. The magnitude of the reduction at 12 months (-0.011) measured as a percentage of the comparison rate (0.064) was approximately 17%: a modest but promising reduction.

In the logistic regression results reported in Table 80, we included binary variables indicating the cohort of the FAR and comparison families. This allowed removal rates to vary over time. However, this cohort-to-cohort variation was measured as if it were the same for both FAR and comparison families within each cohort. As an example, removal rates for both FAR families and comparison families may have been lower in the second cohort than in the first cohort. Including a binary cohort variable would capture that cohort-to-cohort variation. We are also interested in estimating whether the effect of FAR on removals varies by cohort (i.e., does the difference between FAR families and comparison families vary by cohort?). For example, improved training and experience with the FAR program may plausibly improve the outcome results of FAR over time.

By interacting the binary FAR variable with the binary cohort variables and using logistic regression, we were able to measure separate effects of FAR by cohort. With this approach, both the average removal rate and the effect of FAR could vary by cohort. The following table (Table 81) reports the expected value of FAR and comparison families, measured as previously

described, and the magnitude of the effect of FAR. We also report the regression coefficients on each interaction variable (the cohort variable multiplied by the FAR treatment variable). Because the equation used for estimating separate effects of FAR by cohort differs from the equation we use when we assume FAR has the same effect in each cohort, the expected values reported below differ slightly from the previous table.

Table 81. Removals with Separate Cohort Treatment

Time Range	Logistic Regression Expected Value		Magnitude of Aggregate FAR Effect	Cohort	Cohort FAR Effects	P Value
	FAR	Comparison				
3 months	0.025	0.037	-0.012	**Cohort 1**	-0.285	0.044
				Cohort 2	-0.297	0.102
				Cohort 3	-0.285	0.140
				Cohort 4	-0.938	0.003
				Cohort 5	-0.170	0.563
				Cohort 6	-0.141	0.753
				Cohort 7	-1.520	0.060
6 months	0.038	0.048	-0.010	**Cohort 1**	-0.139	0.036
				Cohort 2	-0.191	0.225
				Cohort 3	-0.139	0.395
				Cohort 4	-0.689	0.007
				Cohort 5	-0.112	0.671
				Cohort 6	-0.226	0.535
				Cohort 7	-0.129	0.801
12 months	0.053	0.064	-0.011	**Cohort 1**	-0.242	0.064
				Cohort 2	-0.081	0.536
				Cohort 3	-0.242	0.087
				Cohort 4	-0.644	0.003
				Cohort 5	0.050	0.834
				Cohort 6	-0.171	0.550
				Cohort 7	-0.140	0.749
24 months	0.075	0.085	-0.010	**Cohort 1**	-0.095	0.022
				Cohort 2	-0.037	0.747
				Cohort 3	-0.095	0.452
				Cohort 4	-0.423	0.020
				Cohort 5	-0.015	0.938
				Cohort 6	-0.075	0.775
36 months	0.092	0.098	-0.006	**Cohort 1**	-0.097	0.081
				Cohort 2	0.136	0.212
				Cohort 3	-0.097	0.409
				Cohort 4	-0.365	0.024

The numbers reported under the "Cohort FAR Effects" column are the regression coefficients on the terms interacting the binary FAR indicator with the binary cohort variable. Negative coefficients represent a reduction in the probability of a removal for FAR versus comparison families in that cohort; positive coefficients indicate an increase in probability. The magnitude of each coefficient does not have any clear meaning. For example, for three-month removals and Cohort 1, the regression coefficient is -0.139. This means that, as compared to comparison families in Cohort 1, FAR families had a reduction in the log odds ratio of 0.139. Since log odds is a non-linear transformation, we cannot interpret this to imply a 0.139 reduction in the probability of a removal. These coefficients may be used comparatively. For three-month outcomes, Cohort 4 had the largest reduction in the probability of a removal.

In reviewing the cohort-specific regression coefficients, the following patterns stand out. First, Cohorts 4 had the largest reductions in the probability of a removal for all periods. Cohort 5 had the smallest magnitudes. Next, Cohort 4 had the lowest P-Values, indicating the increased likelihood that the identified reduction in removals attributable to FAR was not a result of sampling error, while the effect of FAR in Cohort 5 was never statistically significant.

The pattern for removals over time appears to be better results on removals for FAR during the middle of the intervention—with removals decreasing by an increasing magnitude up to Cohort 4. Cohort 5 uniformly shows drops in the effect of FAR, with a return to improving results in cohorts 6 and 7. It is surprising to see poorer results for Cohort 5. We discussed these findings with DCYF, and although there could be several explanations for this finding, we believe the primary cause was the disruption caused by the rollout "pause" that happened just after Cohort 5 was implemented. During site visits and interviews with many of the caseworkers involved in implementation after the pause, respondents did report more difficulties in implementation than they believe would have occurred had offices implemented FAR on the anticipated schedule. In addition, DCYF has reported that enthusiasm for the program was damaged somewhat when funding was not available, with many caseworkers believing the program was being cut because it was ineffective. This may have led some FAR workers to conduct their work with a lower degree of fidelity than workers in pre-pause offices.

8.2.2 Re-Referrals

We used the same logistic regression approach for estimating the effect of FAR on re-referrals, broken out by referrals categorized as and accepted intakes, FAR intake, investigative intake, or risk only. The following table (Table 82) matches the format of the corresponding removal table, listing first the sample proportions and the chi-squared test for a difference. We then list logistic regression results.

Table 82. Outcome Analysis with Additional Intakes as Binary Variables

Time Period/ Intake Type	Sample Proportion		Expected Value (Logistic Regression)		Magnitude Effect of FAR		P Value	
	FAR	Comparison	FAR	Comparison	Chi-Squared	Logistic Regression	Chi-Squared	Logistic Regression
3 months								
Accepted Intakes	0.125	0.112	0.124	0.112	0.014	0.012	0.011	0.026
Screened Out	0.193	0.179	0.190	0.182	0.013	0.008	0.040	0.252
FAR Intakes	0.095	0.066	0.094	0.066	0.029	0.028	0.000	0.000
Investigative Intakes	0.039	0.055	0.038	0.055	-0.017	-0.017	0.000	0.000
Risk Only Intakes	0.007	0.007	0.007	0.007	0.000	0.000	0.705	0.882
6 months								
Accepted Intakes	0.193	0.163	0.191	0.165	0.030	0.026	0.000	0.000
Screened Out	0.263	0.240	0.258	0.244	0.022	0.014	0.002	0.056
FAR Intakes	0.144	0.097	0.143	0.098	0.047	0.045	0.000	0.000
Investigative Intakes	0.069	0.085	0.068	0.086	-0.016	-0.017	0.000	0.000
Risk Only Intakes	0.012	0.014	0.012	0.014	-0.002	-0.002	0.385	0.402
12 months								
Accepted Intakes	0.274	0.223	0.270	0.225	0.051	0.045	0.000	0.000
Screened Out	0.342	0.312	0.337	0.317	0.031	0.020	0.000	0.009
FAR Intakes	0.207	0.131	0.205	0.133	0.076	0.073	0.000	0.000
Investigative Intakes	0.111	0.128	0.109	0.129	-0.017	-0.020	0.001	0.000
Risk Only Intakes	0.024	0.027	0.024	0.028	-0.003	-0.004	0.246	0.138
24 months								
Accepted Intakes	0.368	0.288	0.364	0.292	0.080	0.072	0.000	0.000
Screened Out	0.442	0.398	0.435	0.404	0.044	0.031	0.000	0.000
FAR Intakes	0.286	0.177	0.283	0.178	0.109	0.105	0.000	0.000
Investigative Intakes	0.164	0.174	0.161	0.176	-0.010	-0.015	0.094	0.011
Risk Only Intakes	0.047	0.050	0.046	0.051	-0.003	-0.005	0.425	0.168
36 months								

Time Period/ Intake Type	Sample Proportion		Expected Value (Logistic Regression)		Magnitude Effect of FAR		P Value	
	FAR	Comparison	FAR	Comparison	Chi-Squared	Logistic Regression	Chi-Squared	Logistic Regression
Accepted Intakes	0.430	0.337	0.425	0.341	0.093	0.085	0.000	0.000
Screened Out	0.503	0.451	0.496	0.457	0.052	0.039	0.000	0.000
FAR Intakes	0.337	0.217	0.334	0.220	0.119	0.114	0.000	0.000
Investigative Intakes	0.206	0.204	0.204	0.207	0.002	-0.002	0.788	0.741
Risk Only Intakes	0.066	0.064	0.064	0.065	0.002	-0.001	0.668	0.875

As in the case of removals, regression-based tests allowed us to control for confounding covariates that have the potential of biasing the results of a simple chi-squared test. The logistic regression results were very similar to those of chi-squared. We measured expected value using the same approach described with removal analysis.

Finally, we also used regression analysis to allow the effect of FAR to vary by cohort. Unlike the case of removals, cohort 4 did not have noticeably better performance than other cohorts, including cohort 5.

Table 83. Any New Accepted CPS Intake

Time Range	Logistic Regression Expected Value		Magnitude of Aggregate FAR Effect	Cohort	Cohort FAR Effects	P Value
	FAR	Comparison				
3 months	0.124	0.112	0.012	**Cohort 1**	0.114	0.715
				Cohort 2	0.198	0.040
				Cohort 3	0.114	0.282
				Cohort 4	0.083	0.562
				Cohort 5	0.100	0.492
				Cohort 6	-0.109	0.640
				Cohort 7	0.198	0.538
6 months	0.191	0.165	0.026	**Cohort 1**	0.143	0.483
				Cohort 2	0.287	0.000
				Cohort 3	0.143	0.111
				Cohort 4	0.140	0.248
				Cohort 5	0.133	0.299
				Cohort 6	0.099	0.603
				Cohort 7	0.400	0.152
12 months	0.270	0.225	0.045	**Cohort 1**	0.121	0.031
				Cohort 2	0.375	0.000
				Cohort 3	0.121	0.133

Time Range	Logistic Regression Expected Value		Magnitude of Aggregate FAR Effect	Cohort	Cohort FAR Effects	P Value
	FAR	Comparison				
				Cohort 4	0.148	0.171
				Cohort 5	0.268	0.017
				Cohort 6	0.208	0.208
				Cohort 7	0.516	0.037
24 months	0.363	0.292	0.072	Cohort 1	0.279	0.001
				Cohort 2	0.512	0.000
				Cohort 3	0.279	0.000
				Cohort 4	0.158	0.128
				Cohort 5	0.339	0.001
				Cohort 6	0.198	0.195
36 months	0.425	0.341	0.084	Cohort 1	0.237	0.000
				Cohort 2	0.572	0.000
				Cohort 3	0.237	0.001
				Cohort 4	0.160	0.120

Table 84. New FAR-Eligible Intake

Time Range	Logistic Regression Expected Value		Magnitude of Aggregate FAR Effect	Cohort	Cohort FAR Effects	P Value
	FAR	Comparison				
3 months	0.094	0.066	0.028	Cohort 1	0.550	0.180
				Cohort 2	0.321	0.003
				Cohort 3	0.550	0.000
				Cohort 4	0.344	0.046
				Cohort 5	0.262	0.124
				Cohort 6	0.570	0.073
				Cohort 7	1.204	0.018
6 months	0.143	0.098	0.045	Cohort 1	0.541	0.137
				Cohort 2	0.436	0.000
				Cohort 3	0.541	0.000
				Cohort 4	0.395	0.005
				Cohort 5	0.239	0.106
				Cohort 6	0.653	0.014
				Cohort 7	1.427	0.002
12 months	0.205	0.133	0.073	Cohort 1	0.509	0.003
				Cohort 2	0.563	0.000
				Cohort 3	0.509	0.000
				Cohort 4	0.452	0.000
				Cohort 5	0.395	0.003
				Cohort 6	0.935	0.000
				Cohort 7	1.689	0.000
24 months	0.283	0.178	0.105	Cohort 1	0.663	0.000
				Cohort 2	0.726	0.000
				Cohort 3	0.663	0.000

Time Range	Logistic Regression Expected Value		Magnitude of Aggregate FAR Effect	Cohort	Cohort FAR Effects	P Value
	FAR	Comparison				
				Cohort 4	0.434	0.000
				Cohort 5	0.548	0.000
				Cohort 6	0.745	0.000
36 months	0.334	0.220	0.114	Cohort 1	0.563	0.000
				Cohort 2	0.738	0.000
				Cohort 3	0.563	0.000
				Cohort 4	0.327	0.002

Table 85. New Non-FAR-Eligible Intake

Time Range	Logistic Regression Expected Value		Magnitude of Aggregate FAR Effect	Cohort	Cohort FAR Effects	P Value
	FAR	Comparison				
3 months	0.038	0.056	-0.017	Cohort 1	-0.598	0.337
				Cohort 2	-0.101	0.483
				Cohort 3	-0.598	0.000
				Cohort 4	-0.527	0.018
				Cohort 5	-0.274	0.230
				Cohort 6	-1.330	0.001
				Cohort 7	-0.552	0.166
6 months	0.068	0.086	-0.018	Cohort 1	-0.368	0.362
				Cohort 2	-0.056	0.618
				Cohort 3	-0.368	0.003
				Cohort 4	-0.413	0.017
				Cohort 5	-0.231	0.219
				Cohort 6	-0.687	0.010
				Cohort 7	-0.212	0.520
12 months	0.110	0.130	-0.020	Cohort 1	-0.348	0.719
				Cohort 2	-0.053	0.570
				Cohort 3	-0.348	0.001
				Cohort 4	-0.383	0.007
				Cohort 5	-0.037	0.801
				Cohort 6	-0.507	0.015
				Cohort 7	-0.185	0.520
24 months	0.161	0.176	-0.015	Cohort 1	-0.216	0.851
				Cohort 2	0.004	0.961
				Cohort 3	-0.216	0.016
				Cohort 4	-0.305	0.014
				Cohort 5	-0.075	0.557
				Cohort 6	-0.256	0.154
36 months	0.204	0.207	-0.003	Cohort 1	-0.122	0.867
				Cohort 2	0.129	0.087
				Cohort 3	-0.122	0.155
				Cohort 4	-0.214	0.067

8.2.3 Effect of EBPs and Goods on Outcomes

The following tables present the logistic regression coefficients and P-Values for the effect of EBPs and concrete goods/services on removals and re-referrals.

Table 86. Effect on Removals (All FAR Families)

Effect on Removals - All FAR Families		
service	**coefficient**	**P-Value[68]**
Any EBP	0.201	0.015*
FFT	-0.091	0.645
PCIT	0.328	0.401
IFPS	0.729	0.000*
Safe Care	0.517	0.016*
Triple P	-0.447	0.006*
Incredible Years	0.616	0.106
Concrete Goods	0.192	0.000*

Table 87. Effect on Re-Referrals (All FAR Families)

Effect on Re-Referrals - All FAR Families		
service	**coefficient**	**P-Value[68]**
Any EBP	-0.073	0.161
FFT	-0.218	0.035*
PCIT	0.024	0.931
IFPS	0.211	0.042*
SafeCare	-0.091	0.609
Triple P	-0.082	0.306
Incredible Years	-0.509	0.089
Concrete Goods	-0.059	0.039*

Table 88. Effect on Removals (High-Risk FAR Families)

Effect on Removals – High-Risk FAR Families		
service	**coefficient**	**P-Value[68]**
Any EBP	0.125	0.196
FFT	-0.281	0.244

[68] An "*" indicates a statistically significant P-Value.

Effect on Removals – High-Risk FAR Families		
service	**coefficient**	**P-Value**[68]
PCIT	0.291	0.523
IFPS	0.714	0.000*
SafeCare	0.512	0.039*
Triple P	-0.518	0.006*
Incredible Years	0.181	0.700
Concrete Goods	0.124	0.041*

Table 89. Effect on Re-Referrals (High-Risk FAR Families)

Effect on Re-Referrals – High-Risk FAR Families		
service	**coefficient**	**P-Value**[68]
Any EBP	-0.136	0.031*
FFT	-0.312	0.012*
PCIT	-0.181	0.589
IFPS	0.118	0.357
SafeCare	-0.147	0.507
Triple P	-0.099	0.298
Incredible Years	-0.325	0.326
Concrete Goods	-0.128	0.000*

8.3 Cost Study

8.3.1 Panel Data Analysis

The panel data analysis uses 13 periods of data, and time series models with this number of periods potentially have serial correlation in error terms, which will make standard errors invalid. As a check for serial correlation, we ran the Breusch-Godfrey/Wooldridge test for panel models. The null hypothesis of the test is no serial correlation. Because for each of our models the test statistic had a p-value of < 2.2e-16, we concluded that they suffered from serial correlation.

Our solution was to use standard error robust to serial correlation developed by Arellano.[69] Use of these did not change the statistical significance of any important variables.

[69] Arellano, M. (1987), "Computing Robust standard Errors for Within-Groups Estimators," *Oxford Bulletin of Economics and Statistics* 49, 431-434.