FIRST 5 KERN

Annual Report 2018-2019

Submitted February 5, 2020

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Acknowledgments

This is a report of evaluation findings from 43 programs that received over $8 million of state investment through Proposition 10 to support early childhood services in Kern County. The assessment data are collected through collaboration of First 5 Kern staff, service providers, and parents following a research protocol approved by the Institutional Review Board of California State University, Bakersfield (CSUB).

The report completion benefited from extensive guidance and assistance from the following professionals and/or organizations:

- Commissioners: Lucinda Wasson (Chair), Dena Murphy (Treasurer), Jennie Sill (Secretary), Sam Aunai, Michelle Curioso, Mick Gleason, Susan Lerude, Leticia Perez, Kelly Richers, Rick Robles, Al Sandrini, and Debbie Wood.
- First 5 Kern Commission staff:
  - Roland Maier, Executive Director
  - Kathy Hylton, Ed.D., CPA, MPA, MSA, Chief Finance Officer
  - Theresa Ortiz, Chief Evaluation/Program Officer
  - Kevin Bartl, Communications & Media Specialist
  - Paula De La Riva-Barrera, Program Officer
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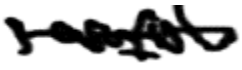
  - Charlene McNama, Administrative Finance Specialist
  - Diana Navarro, Senior Research Analyst
  - Sharon Powell, Administrative Assistant
  - Patti Taylor, Senior Finance Officer
- The CSUB Institutional Review Board led by Drs. Chandra Commuri and Isabel Sumaya.
- The Technical Advisory Committee (TAC).

TAC members are recognized in Appendix B. Alternate Commissioners are listed in Exhibit 1. While acknowledging their indispensable contributions, I conducted the data analyses and shall be fully responsible for any inaccuracies in this report.

Jianjun "JJ" Wang, Ph.D.



Professor of Research Design and Statistics
Principal Investigator

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Executive Summary

The Kern County Children and Families Commission (First 5 Kern) was created on December 15, 1998 by Kern County Board of Supervisors to administer state trust funds from Proposition 10, the California Children and Families First Act. The act levies a 50 cent-per-pack tax on cigarettes and other tobacco products to fund early childhood service programs. The state statute stipulates that 80% of the tax revenue be distributed across counties according to the rate of live births. As a result, First 5 Kern received $8,184,719 tobacco tax funds in Fiscal Year (FY) 2018-2019. This annual report is developed to justify Outcome-Based Accountability (a.k.a., Results-Based Accountability, or RBA) on the state investment.

To assess the funding impact, First 5 California (2005) produced a Statewide Evaluation Framework and the State Controller's Office was given the authority to audit expenditures across 58 county commissions. Per requirement of Proposition 10, RBA indicators are gathered in this report to document effectiveness of program performance and commission functioning in five aspects: (1) descriptive data to demonstrate the extent of early childhood support across Kern County, (2) assessment results to track value-added improvements in local service programs under a pretest and posttest setting, (3) partnership findings from social network analyses to evaluate the strength and scope of service integration, (4) trend comparison to monitor changes of program outcomes between adjacent years, and (5) future recommendations to sustain the "Turning the Curve" process according to the commission strategic plan (First 5 Kern, 2018).

New Developments

Since 2015, Kern County had an increase of 3,424 residents (Form S0901 of the Census Bureau). First 5 Kern (2019) noted that "Compared to the population of the nation as a whole, Kern residents are (in general) younger" (p. 1). The local population growth inevitably demands more early childhood services. Meanwhile, decline in tobacco sales has led to steady reduction of Proposition 10 funding. In this context, program planning and result evaluation play a critical role to ensure RBA of the state funding. This year new developments that affect grant administration and program evaluation are primarily reflected on two fronts:

- FY 2018-2019 is the year to prepare for the Request for Proposals (RFP) in funding cycle 2020-2025. After the RFP release on June 24, 2019, First 5 Kern held Bidder's conferences within the same week to clarify the application process for service providers. The time frame for Questions and Answers (Q&A) also started on June 26, 2019 according to an RFP timeline approved by the Commission on April 3, 2019. The RFP planning guided a thorough review of assessment tools for data collection in the next funding cycle.

- New methods have been developed in text analytics to justify RBA on whether local children and their families have been well-served. The method is built on an R package, Quantitative Analysis of Text Data (Quanteda), which is much faster than most text mining tools[1]. In this report, R scripts are developed to summarize sentiments and emphases of the impact stories[2] from First 5 Kern funded programs.

[1] https://www.youtube.com/watch?v=st_PEBNgMfI
[2] https://www.first5kern.org/about-us/success-stories/

In summary, First 5 Kern exercised due diligence in RFP preparation to fund much-needed programs for children ages 0-5 and their families. The ongoing challenge is to extend program support with declining state tax revenue and increasing cost for service delivery. On the methodology front, R computing incorporates both quantitative and qualitative approaches, and is aligned with the practice of several assessment projects sponsored by the federal government[3].

Summary of Commission Evaluation Activities

In FY 2018-2019, First 5 Kern followed the RBA model (see Friedman, 2005) to track service indicators on (1) how much has been done and (2) how well each program performed. In supporting the service integration, a NetDraw software was employed to analyze program networks in *Child Health, Family Functioning*, and *Child Development*. Pertinent to the domain-specific data collection, evaluation activities are categorized in four aspects:

1. Examining success stories of First 5 Kern funded programs to demonstrate the service impact in different communities.

From the perspective of qualitative inquiries, First 5 Kern gathered success stories across Kern County to illustrate the positive impact of state funding in local communities. These stories were generated from 21 programs and four Family Resources Centers (FRC) to describe extensive program influence. Plots of (a) top-impact words, (b) impact-program clusters, (c) keyword dispersions, and (d) word clouds are created by R scripts to aggregate the service outcomes from various programs. The results show frequently used words of *children, infants, toddlers, parents*, and *communities* in the impact stories to reconfirm the program focus on key stakeholders.

2. Monitoring program investment across focus areas of *Child Health, Family Functioning*, *Child Development,* and *Systems of Care*.

First 5 Kern funded programs covered 10 service categories of the state report glossary[4]. In Child Health, First 5 Kern invested $613,630 in *Early Intervention,* $646,771 in *General Health Education and Promotion*, $852,514 in *Oral Health Education and Treatment,* and $734,532 in *Prenatal and Infant Home Visiting*. In Family Functioning, the Commission spent $2,104,584 on *General Family Support* and $987,126 on *Intensive Family Support*. In Child Development, First 5 Kern used $790,046 for *Quality Early Learning Supports* and $1,556,942 for *Early Learning Programs*. In *Systems of Care*, First 5 Kern provided $1,001,205 to enhance *Policy and Public Advocacy* and $66,159 to support *Programs and Systems Improvement Efforts*.

3. Analyzing effectiveness of program support for young children and their families across local communities.

This evaluation report is based on analyses of (1) Ages and Stages Questionnaire-3 (ASQ-3) data on child growth across 21 programs; (2) Ages and Stages Questionnaire: Social-Emotional (ASQ:SE) and ASQ:SE Version 2 (ASQ:SE-2) data for early detection of potential social or emotional problems in three programs; (3) Adult-Adolescent Parenting

[3] https://www.air.org/project/nces-data-r-project-edsurvey
[4] Program affiliation can be found from http://www.csub.edu/~jwang/StateResultandServiceAreaAssignment.pdf

Inventory-2 (AAPI-2) data on parenting outcomes from six programs; (4) Child Assessment-Summer Bridge (CASB) data on preschool learning in 11 programs; (5) Core Data Elements (CDE) and Birth Survey results from 29 programs; (6) Family Stability Rubric (FSR) data from 15 programs; (7) Desired Results Developmental Profile (DRDP) data from infants/toddlers in three programs; (8) DRDP data-Fundamental View from preschoolers in three programs; (9) DRDP data-Comprehensive View from preschoolers in three programs; (10) Parenting Survey data from Nurturing-Parenting workshops across seven programs; and (11) Program-specific data from Be Choosy, Be Healthy (BCBH), North Carolina Family Assessment Scale for General Services (NCFAS-G), Dyadic Assessment of Naturalistic Caregiver-Child Experiences (DANCE), and Ready-to-Start Scorecard in different focus areas.

4. Conducting social network analyses of the Integration Service Questionnaire data on program partnership building.

Partnership patterns were analyzed in multiple dimensions, including direct/indirect support, unilateral/reciprocal connection, and primary/non-primary collaboration. A literature-based 4C (Co-Existence, Collaboration, Coordination, and Creation) model was employed to examine the strength of service integration. Data from the Integration Service Questionnaire (ISQ) were collected to assess the scope and depth of partnership building.

In combination, First 5 Kern contributed funds to support 13 programs in *Child Health*, 19 programs in *Family Functioning*, and 11 programs in *Child Development* in FY 2018-2019 (see Appendix A). In addition, *Service Integration*, including the Medically Vulnerable Care Coordination Project, has been identified as the fourth focus area in First 5 Kern's (2018) strategic plan to enhance the *Systems of Care*. Evaluation of the grant support is guided by the statutory stipulation to "use Outcome-Based Accountability to determine future expenditures" (Proposition 10, p. 4).

Support for Evaluation Result Dissemination

Evaluation findings are grounded on careful data collection under the guidance of an Institutional Review Board (IRB) at California State University, Bakersfield (CSUB). Prior to the data gathering, 29 IRB training sections were offered this year to 91 staff to ensure program compliance to federal, state, and local laws and/or regulations. Along with the IRB support, efforts on result dissemination were put forth on seven fronts:

1. An evaluation report was completed to address RBA across 43 programs in the prior year. The document was published by the Education Resources Information Center (ERIC) at https://files.eric.ed.gov/fulltext/ED593233.pdf;
2. Two reports of cost-benefit analysis (CBA) were presented at the 2019 annual meeting of the American Educational Research Association (AERA) in Toronto, Canada;
3. The Principal Investigator received training on R application at Washington, DC to acquire new methods for reporting success stories from First 5 Kern funded programs;
4. Nurturing-Parenting (NP) curriculum review was conducted to support evaluation data collection;
5. Service counts were monitored in *Child Health, Family Functioning, Child*

Development, and *Systems of Care* to track the delivery of program support;
6. Improvement of service outcomes was documented by assessment indicators under a pretest-posttest setting;
7. Program partnership data were collected to assess improvement of the systems of care across service providers.

Policy Impact of Evaluation Outcomes

Evaluation, by definition, deals with value judgement of program outcomes (Best & Kahn, 2005). With expectation of a high return to the state's investment, outcomes of early childhood services (ECS) could be represented by "use value" and "exchange value". The Use Value, according to Heckman (2017), includes reduced crime rates, increased salary incomes, better education outcomes, and more taxpayer contributions. Others argued not-so-high investment returns (Oh & Adamy, 2019) or no positive return at all (Pages, Lukes, Bailey, & Duncan, 2019) because many events occurred after age 5 and the interference could have made these use values fade away.

Instead of continuing the discussion on the use-value line, the evaluation team simplified CBA from an exchange-value perspective to reflect the fact that First 5 Kern funded programs not for its own use, but in exchange for the services to support young children and their families in the future (Sun, Wang, & Hylton, 2019; Wang & Sun, 2019). Therefore, the focus should be placed on a comparison of the current program funding with the market value. The data tracking indicates benefit of First 5 Kern funded programs above the local market value in both current and past funding cycles[5]. Policy impacts are derived from the evaluation findings to support First 5 Kern's decision on (1) continuing funding direct services that are much needed in Kern County and (2) sustaining the practice of evaluating program effectiveness in the next RFP process. The RFP undertaking is linked to over $40 million of state funding for ECS across Kern County in 2020-2025.

Report Structure

This report contains five chapters to streamline the result presentation: Chapter 1 includes an overview of First 5 Kern's vision, mission, and partnership building at the Commission level. Chapter 2 is devoted to the examination of service outcomes in focus areas of *Child Health, Family Functioning*, and *Child Development*. Chapter 3 focuses on social network analyses across programs to evaluate effectiveness of partnership building in the fourth focus area, *Systems of Care*. Chapter 4 highlights improvement on common service indicators to describe the "Turning the Curve" effects between adjacent years (Friedman, 2005). The report ends with a "Conclusions and Future Directions" chapter to review past recommendations and adduce new recommendations for the next year. Consistency of the report structure has been maintained since FY 2010-2011 with ongoing improvement of research methodology every year. All past reports have been peer-reviewed and disseminated in the ERIC database.

[5] https://files.eric.ed.gov/fulltext/ED582032.pdf

Chapter 1: First 5 Kern Overview

In implementing early childhood services, First 5 California (2019) indicated that "A key value, upon which all others are based, is Equity for Children and Families" (p. 4). This value mirrors a principle of the U.S. Declaration of Independence that pronounced "all men are created equal". In upholding the equity belief, First 5 Kern needs to strategically reduce the gap of service delivery through program investment. Shortly after the Commission inception, Robison-Frankhouser (2003) reported,

> In their efforts to deliver these programs to Kern County families, the KCCFC [Kern County Children and Families Commission, or First 5 Kern] faced geographical and demographic challenges within Kern County. The challenge of mountain ranges that surround the valley region and also isolate the desert areas limited families' access to needed services. Low-income and/or LEP [Limited English Proficiency] families often struggled to reach services that were too far from their homes. Too often, they found themselves isolated from medical care and child-care services. (p. 6)

Although Proposition 10 funds were distributed according to the local birth rate, no additional resources have been designated for program outreach. To maintain equity of the service outcomes in the third largest county of California by land area, First 5 Kern funded rural programs in remote regions to address the need of traditionally underserved communities. Meanwhile, First 5 Kern kept the administrative spending at $632,201, less than 6.76% of the program expenditure[6]. Hence, the Commission operates at a funding level lower than "eight percent (8%) of the annual fund allocation" (Ord. G-6637, 1999).

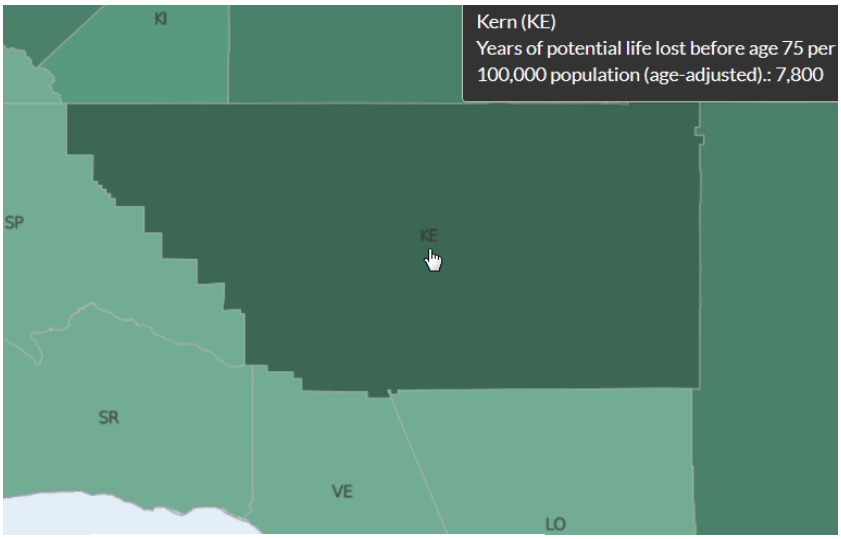
In summary, First 5 Kern funded programs to make the most impactful and achievable outcomes in Kern County. The local support is critical because few private foundations have reached the valley, mountain, and desert communities to sponsor early childhood services. Brown Armstrong Accountancy Corporation (2019), an auditing agency for the county, acknowledged that "Kern County's Commission is a leader at the state level and serves as a model for others. Contractors are held to strict standards of financial and program compliance" (Brown Armstrong Accountancy Corporation, 2019, p. 3). Following the state-mandated RBA, First 5 Kern (2018) identified four focus areas to facilitate program categorization and result evaluation.

Focus Area Designation

According to the March of Dimes (2019), a national voluntary health agency, U.S. Congress has been urged to fully fund the Children's Health Insurance Program for at least five years to preserve affordable, comprehensive high-quality care for pregnant women and children. In 2019, Kern County is ranked lower than its neighboring counties on an *annual premature death* map (Figure 1). Young children are fragile. Based on the local needs, First 5 Kern (2018) sets a focus area on *Health and Wellness* to guide the emphasis of program funding in child health.

[6] First 5 Kern's annual report to the State Commission.

Figure 1: Annual Premature Death in 2019



Source: https://www.countyhealthrankings.org/app/california/2019/measure/outcomes/1/map

In parent education, Kern County was ranked among the lowest regions in adult education across the United States (Brookings Institution, 2010). At the county seat, Zumbrun (2008) concurred that Bakersfield was one of the least educated metropolitan areas across the nation. The lack of education has prolonged a high unemployment rate at 9.2% since last recession, which was "still higher than the County's 8.2% rate before the Great Recession" (Kern County Network for Children [KCNC], 2018, p. 3). Consequently, "children born into poverty face enormous economic disadvantages and are less likely to have the same educational and professional success as children born into wealthier families" (Comen, 2019, p. 1). To close the equity gap in family functioning, Kern 5 Kern designates another focus area on *Parent Education and Support Services*.

In the current support system, "child care workers don't make enough money to live, and raising the cost of child care to fix that is not an option for most Californians" (Orr, 2019, p. 1). On the other hand, "In Kern County, if a parent does not meet the income guidelines to enroll the child into public preschool the next option is private preschool education, which can cost parents more than $7,000 a year" (Aguilar, 2018, p. 1). Because early childhood services are not covered by compulsory education, First 5 Kern attempted to fill the void by maintaining the third focus area of program funding on *Early Childcare and Education*.

Stipek (2018) further pointed out, "Early childhood education in California is a fragmented system of many federal, state, and local agencies that administer, license, regulate, and fund the various programs" (p. 3). As a leading catalyst in early childhood support, First 5 Kern continues its fourth focus area on *Integration of Services* to strengthen the local partnership building.

The strategic planning has resulted in reduction of service spending and strengthening of program networking. As Brown Armstrong Accountancy Corporation (2019) reported,

> Some expenditures were less than budgeted due to the direction of management and an administrative review of costs, including the following:
>
> - Contributions to agents were $1,047,670 less than budgeted due to contracts being executed under budget.
> - Payroll and employee benefits were under budget by $103,749 and $36,150, respectively, due to unpaid leaves of absence.
> - Administrative Costs (County of Kern) were under budget by $11,897. The Commission set aside funds for legal counsel to review contracts; however, the actual costs of the review were less than budgeted. (p. 4)

In summary, four focus areas are identified by the Commission to address Kern County needs in early childhood support. The strategic planning process also followed the state guideline. According to the Health and Safety Code of California, the State Commission shall be responsible for "Providing technical assistance to county commissions in adopting and implementing county strategic plans for early childhood development" (No. 130125). In fulfilling its responsibility, First 5 California reaffirmed that "While counties design their programs to fit their local needs, they must provide services in each of the following four focus areas: Child Health, Child Development, Family Functioning, Systems of Care."[7] In its current strategic plan, First 5 Kern recapped the four focus areas as:

> Three focus areas advance specific children's issues of Health and Wellness, Parent Education and Support Services, and Early Childcare and Education. The fourth focus area, Integration of Services, ensures collaboration with other agencies, organizations, and entities with similar goals and objectives to enhance the overall efficiency of provider systems. (First 5 Kern, 2018, p. 3).

All focus areas are aligned between First 5 Kern and the State Commission in Table 1.

Table 1: Focus Area Alignments at State and Local Levels

	State Focus Area	First 5 Kern Focus Area
I.	Child Health	Health and Wellness
II.	Family Functioning	Parent Education and Support Services
III.	Child Development	Early Childcare and Education
IV.	Systems of Care	Integration of Services

Vision Statement

Proposition 10 offered an opportunity for California to lead the nation by advocating and bridging comprehensive early childhood support with sustainable fund appropriation (Jacobson, 2018). This setting is relatively stable across governor terms to support a broad strategic planning. While First 5 California (2015a) announced its vision to have all children receive the best possible start in life and thrive, First 5 Kern (2018) added a key phrase of "supportive, safe, and loving homes and neighborhoods" in its vision statement to address the needs of Kern County:

[7] First 5 California (2010). *2009-2010 Annual Report*. Sacramento, CA: Author.

> All Kern County children will be born into and thrive in supportive, safe, loving homes and neighborhoods and will enter school healthy and ready to learn. (p. 2)

First 5 Kern uses this vision statement as a compass to ensure identification, implementation, and promotion of best practices for improving child and family wellbeing in local communities. Because of child vulnerability at ages 0-5, "gaps between the advantaged and disadvantaged open up early in the lives of children" (Heckman, 2017, p. 50). Therefore, equity of early childhood services must be achieved through program support within local communities. In soliciting community feedback, First 5 Kern also incorporates annual reviews and updates on the vision and mission statements as part of its ongoing strategic planning process per requirement of Proposition 10.

Mission Statement

Through partnership building, First 5 Kern adopts both proven and innovative practices to create, leverage, and maximize local funding for early childhood services. The system building has led First 5 Kern to embrace the following mission statement:

> To strengthen and support the children of Kern County prenatal to five and their families by empowering our providers through the integration of services with an emphasis on health and wellness, parent education, and early childcare and education. (First 5 Kern, 2018, p. 1)

As Smith et al. (2009) noted, "While many entities purportedly provide care coordination, there is a lack of communication among the multiple agencies serving the same child" (p. 7). Hence, the mission statement attached great importance to articulating early childhood supports across different programs.

By design, the mission is outcome-driven to support the best possible start for all young children in Kern County. In FY 2018-2019, First 5 Kern funded a broad spectrum of programs in each focus area. From the CBA perspective, "combining these programs and their funding streams could reduce administrative costs, reduce transactions costs for parents and improve educational quality by increasing the stability of program participation" (Barnett & Masse, 2007, p. 115). It is the dual emphases of program funding and service integration in the mission statement that differentiate First 5 Kern from other organizations with a similar vision statement.

Commission Leadership

The vision and mission statements are endorsed by the Commission that includes representations of elected officials, service providers, program administrators, community volunteers, and First 5 Kern advocates (Exhibit 1). "The commission also performs administrative site visits to monitor contractor compliance with the requirements of their general agreement and to assist in program evaluation, sustainability, and improvement" (Brown Armstrong Accountancy Corporation, 2019, p. 3). Commissioner appointments followed the California Health and Safety Code (Section 130140), i.e., "The county commission shall be appointed by the board of supervisors and shall consist of at least five but not more than nine members."

A Commissioner, by virtue of being the Public Health Officer, the Director of Human Services, or the Director of the Behavioral Health and Recovery Services Department, is authorized to designate an Alternate Commissioner to participate at any Commission meetings when the Commissioner is unavailable. Starting on January 1, 2006, any person newly appointed as a Commissioner shall complete a course in ethics training approved by the Fair Political Practices Commission and Attorney General. Repeat of the training is scheduled every two years. Commissioners also fill out a government document (i.e., Form 700) to declare no conflict of interest in the funding decisions. The Commission in Kern County collectively brings more than two decades of experience in building and improving Systems of Care for young children across various communities.

Exhibit 1: First 5 Kern Commission Members

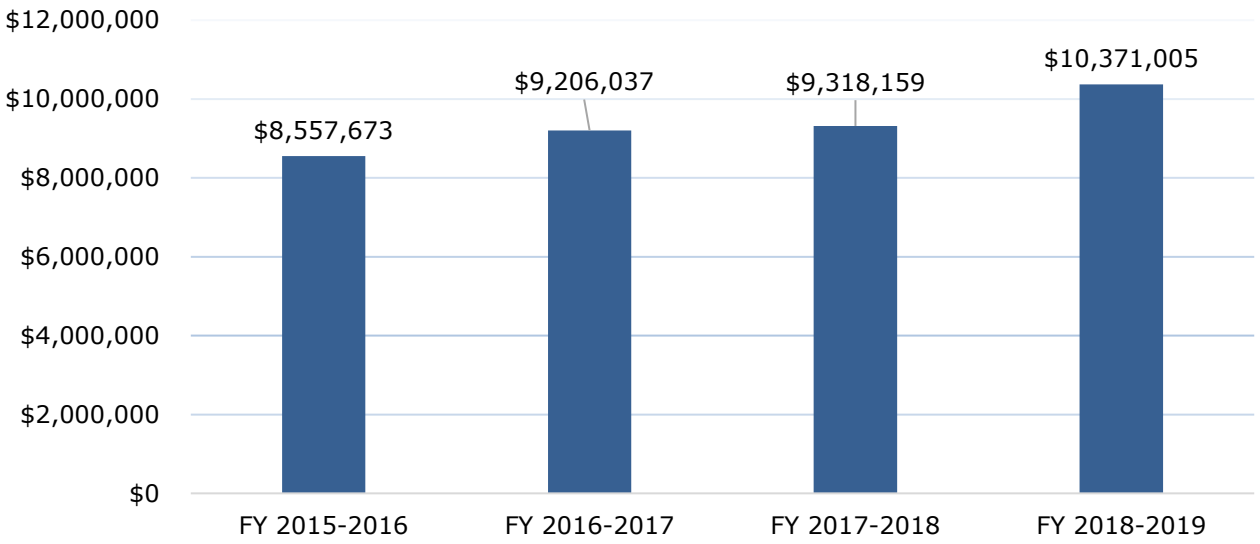
Commissioner	Affiliation
Lucinda Wasson (Chair)	Retired Kern County Director of Nursing
Al Sandrini (Vice Chair)	Retired School District Superintendent
Dena Murphy (Treasurer)	Director, Kern County Department of Human Services
Jennie Sill (Secretary)	Children's System of Care Administrator, Behavioral health and Recovery Services
Sam Aunai	Vice President of Instruction, Porterville College
Michelle Curioso	Director of Nursing and MCAH, Kern County Department of Public Health
Mick Gleason	Supervisor, Kern County Board of Supervisors
Susan Lerude	Retired Division Director, Juvenile Probation
Leticia Perez	Supervisor, Kern County Board of Supervisors
Kelly Richers	Superintendent at Wasco Union School District
Rick Robles	Retired Superintendent, Lamont School District
Debbie Wood	Retired Nurse, Bakersfield City School District

*The list of Commissioners above include all Commissioners who served in FY 2018-2019.

Commissioners are assigned to four committees, Technical Advisory Committee (TAC), Executive Committee (EC), Budget and Finance Committee (BFC), and Personnel Committee (PC). TAC includes four Commissioners and 14 community representatives to advise on all matters relevant or useful to fulfillment of the Commission responsibilities. EC is composed of the Commission Chairperson, the Vice-Chairperson, the Secretary, and the Treasurer to act on any matters pertaining to First 5 Kern operation. BFC is led by the Treasurer and three Commissioners to guide the Commission and the Executive Director on budgetary and financial planning. PC is supervised by the Commission Vice-Chairperson and three Commissioners to attend all personnel matters, including employment, evaluation, compensation, and discipline of Commission employees. The EC, BFC, and PC memberships are publicized in the agenda of each Commission meeting. TAC members are recognized in Appendix B of this report.

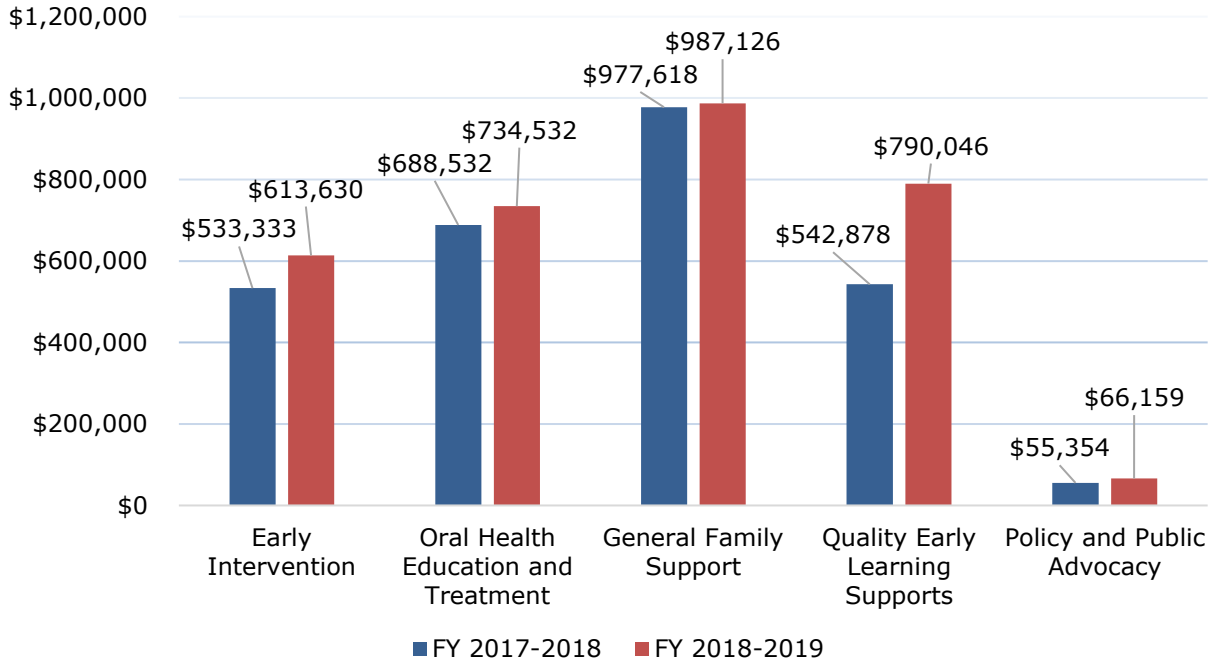
Under the Commission leadership, First 5 Kern used Proposition 10 funding and other grants (Ibid 6) to steadily increase expenditure on early childhood support (Figure 2). To meet the growth of service needs, an increase of $393,778 occurred between last year and this year in five service categories, *Early Intervention, Oral Health Education and Treatment, General Family Support, Quality Early Learning Supports*, and *Policy and Public Advocacy* (Figure 3).

Figure 2: Increase of First 5 Kern Investment in the Current Funding Cycle



Source: First 5 Kern annual reports to the state.

Figure 3: Increase of First 5 Kern Funding in Five Service Categories



Source: First 5 Kern annual reports to the state.

First 5 Kern sustained an Institutional Review Board (IRB) protocol with CSUB to support evaluation data collection for RBA justification. Throughout the year, 29 IRB training sections were offered to 91 staff to ensure program compliance to federal, state, and local laws and/or regulations. The efforts facilitated data collection and result dissemination on seven fronts:

1. An evaluation report was completed to address RBA across 43 programs in the prior year. The document was published by the Education Resources Information Center (ERIC) at https://files.eric.ed.gov/fulltext/ED593233.pdf;
2. Two reports of cost-benefit analysis (CBA) were presented at the 2019 annual meeting of the American Educational Research Association (AERA);
3. The Principal Investigator received training on R application at Washington, DC to acquire new methods for reporting success stories from First 5 Kern funded programs;
4. Nurturing-Parenting (NP) curriculum review was conducted to support evaluation data collection;
5. Service counts were monitored in *Child Health, Family Functioning, Child Development*, and *Systems of Care* to track the service delivery;
6. Improvement of service outcomes was documented by assessment indicators under a pretest-posttest setting;
7. Program partnership data were collected to assess improvement of the systems of care across service providers.

Profile of Young Children in Kern County

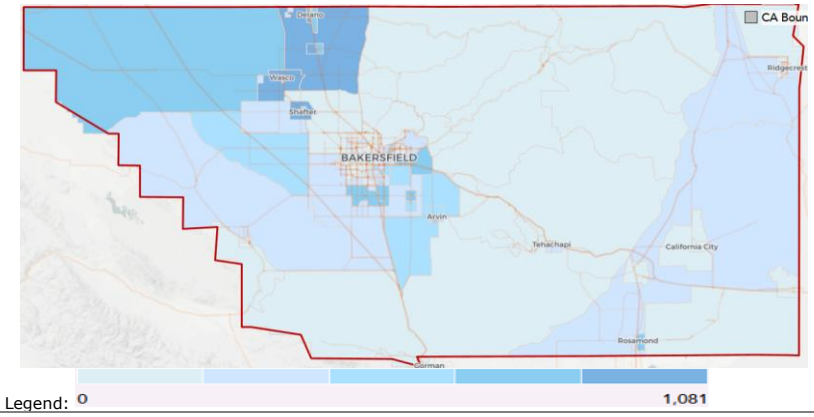
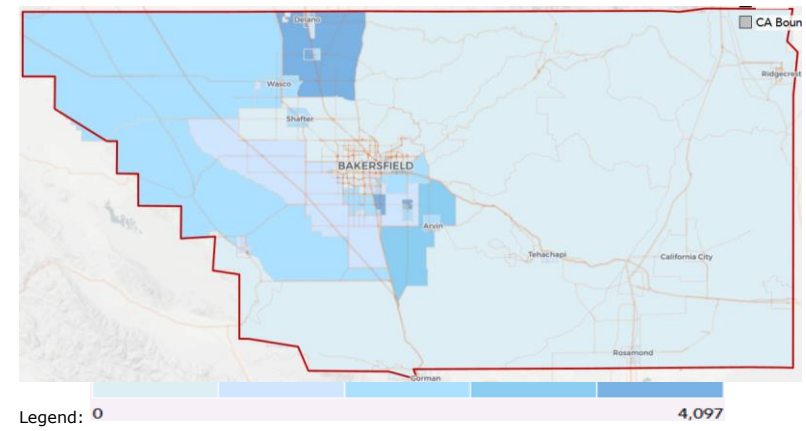
Kern County is located in the southern California Central Valley. To the east it covers a vast region beyond the slope of Sierra Nevada and Mojave Desert, including parts of Indian Wells Valley and Antelope Valley. To the west the county extends Temblor Range across the floor of San Joaquin Valley. In addition to producing oil, natural gas, hydro-electric power, wind turbine power, and geothermal power, Kern County has a vast land for agricultural farms. In particular, children in the northwestern part of Kern County are more likely to have parents who are not native English speakers and/or do not have U.S. citizenship (Table 2).

Both language barriers and immigration factors are important to the delivery of First 5 Kern funded programs. The literature indicates that "immigrant families fear that if they apply for a government program, then they will not be granted citizenship" (Dall, 2012, p. 11). This issue seemed to have intensified in FY 2018-2019. Miller (2019b) reported,

> A December survey by the Urban Institute, a nonprofit research organization, reported that nearly 14% of 1,950 adults who were foreign-born or living with foreign-born family members have avoided participating in public benefit programs in the last year because they worried it would hurt their chance to gain green cards. (p. 1)

Nonetheless, Proposition 10 imposes "no restrictions [for service access] based on immigration status" (First 5 California, 2010, p. 23). Hence, First 5 Kern funded programs, such as the Successful Application Stipend (SAS) program for health service enrollment, are much needed to assist program access for children ages 0-5.

Table 2: Population Distribution of Non-English Speakers and Non-U.S. Citizens*

Indicator	Population Count in 2019
Non-English Speakers	
Non-U.S. Citizens	

Source: https://www.healthycity.org/maps/

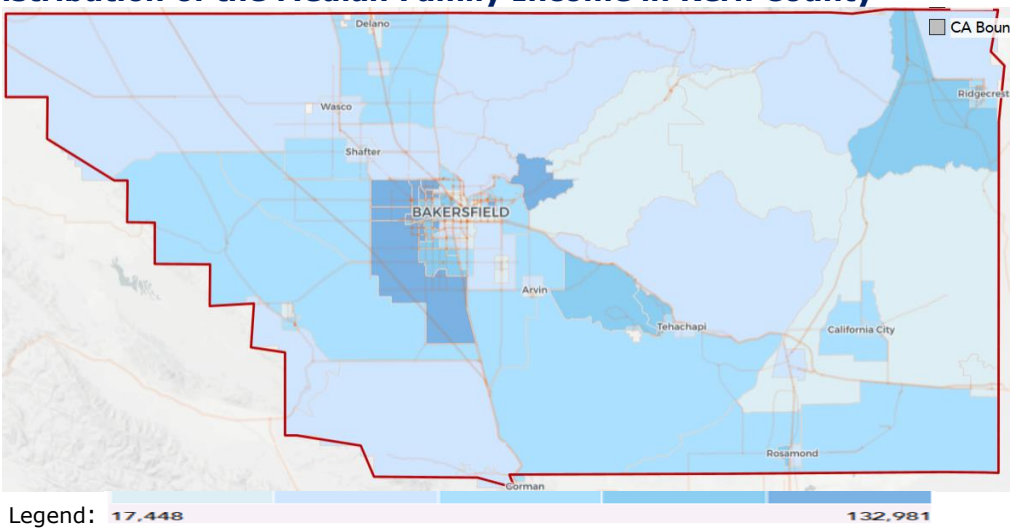
Silard and Gaskins (2019) noted, "Every child deserves a chance to thrive. That's California's promise to our children" (p. 1). Based a median income map in 2019, most families outside of Bakersfield tend to make lower earnings (Figure 4). Compared to the population of the nation as a whole, the entire Kern residents are also younger and less educated with lower income. Consequently, 37% of the county children under 5-years-old live in poverty, much higher than the state rate of 22%[8]. To reduce the equity gap in service access, nineteen of First 5 Kern funded programs are countywide and fifteen provide services outside of Bakersfield to enhance the service outreach in 59 cities and 120 communities[9].

Following First 5 Kern's (2018) strategic plan, local programs are funded in different focus areas. In *Child Health*, nutrition, breastfeeding, and safety education are classified in a service category of *General Health Education and Promotion*. The *Early Intervention* category includes care coordination and mild-to-moderate support services. Nurse Family Partnership fit in the *Perinatal and Early Childhood Home Visiting* category. In addition,

[8] https://www.first5kern.org/about-us/about-kern/
[9] https://www.first5kern.org/programs-and-initiatives/funded-programs/

First 5 Kern funded *Oral Health Education and Treatment* services. Altogether, 13 programs received funding in the *Health and Wellness* focus area in FY 2018-2019.

Figure 4: Distribution of the Median Family Income in Kern County



Source: https://www.healthycity.org/maps/

Meanwhile, First 5 Kern incorporates a family-focused, culturally appropriate and community-based approach to fund 19 programs in *Parent Education and Support Services.* Among the service recipients, the ratio between native Spanish and English speakers is approximately 1:3 in the child population and 6:7 in the parent/guardian population (Ibid 6). According to Jones (2017), Latino students face large inequities in educational achievement compared to white peers. To close the gap, parent education programs are needed to ensure that all children are born into and thrive in supportive, safe, loving families at the beginning of their life journey.

In *Child Development*, Manship, Jacobson and Fuller (2018) reported that "Several counties in the Central Valley face a complicated problem in out [sic] years: They host scarce availability of pre-k slots while experiencing rising counts of young children" (p. 6). In FY 2018-2019, First 5 Kern funded programs to serve 12,712 children at an age from third to sixth birthdays (Ibid 6), an increase from 12,503 last year. Although it was suggested that "Declining school enrollments, for instance, may free-up facilities for new pre-k classrooms in some counties" (Manship, Jacobson, & Fuller, 2018, p. 5), the service demand has been increasing in Kern County due to local population growth. First 5 Kern followed its strategic plan to fund 11 programs in *Early Childcare and Education* (First 5 Kern, 2018).

In summary, the local program funding is aligned with specific conditions of Kern County. "Tracking child population helps project a community's potential needs for education, child care, health care, and other services for children. The diversity of Kern County's population continues across a range of factors"[10]. The local programs are posted online (Ibid 9) to inform the public about service deliveries in the focus areas of *Health and Wellness, Parent Education and Support Services,* and *Early Childcare and Education.*

[10] http://kern.org/kcnc/wp-content/uploads/sites/43/2018/08/2018-Important-Facts-About-Kern_s-Children.pdf

Enhancement of Local Community Support

The new state report guidelines suggest an improvement domain in "leveraging funding to sustain the system of care"[11]. In FY 2018-2019, First 5 Kern enhanced local community support through partnership building. Table 3 shows the leveraged fund amount of $2,805,558 from 27 external sources this year.

Table 3: Sources and Leveraged Funds for Program Support in FY 2018-2019

Source	Leveraged Funds
Borax Visitor Center	$5,500
California Department of Public Health	$59,740
California Department of Social Services	$93,355
California Emergency Management Agency	$161,656
Chevron	$20,000
County of Kern	$687,970
Desert Lake Community Services District	$840
Dignity Healthcare	$112,369
Anonymous or Individual Donation	$38,349
Corporate Donation – Corporate	$19,084
Emergency Food and Shelter Program	$45,898
Fees/Tuition	$101,701
Fundraiser	$21,324
Junior League	$1,000
Kaiser Permanente	$64,000
Kern Family Health Care	$25,200
Kern Regional Center	$110,574
Medi-Cal	$50,190
Medical Administrative Activities	$109,096
Network for a Healthy California	$105,802
Other Organizations	$322,423
Southwest Healthcare District	$32,305
Successful Application Stipend	$900
Targeted Case Management	$25,137
The Wonderful Company	$1,500
Title V	$433,708
United Way	$155,937

To reciprocate the mutual support across different communities, First 5 Kern served as an active participant in 34 countywide undertakings this year (Table 4). First 5 Kern also held 12 TAC and/or Commission meetings[12] that were open to the general public for information dissemination and input gathering. The community engagement was designed to enhance "Community strengthening efforts that support education and

[11] p. 32 of www.ccfc.ca.gov/pdf/partners/data_systems/ar/Annual_Report_Guidelines_FY_2018-19.pdf
[12] http://www.first5kern.org/meetings/commission-meetings/ and http://www.first5kern.org/meetings/tech-advisory-meetings/

community awareness", Objective 4.4 First 5 Kern's (2018) strategic plan. Altogether Table 5 lists 49 outreach services at the community, county, and state levels.

Table 4: First 5 Kern's Participation in Local Undertakings

- 34th Street Neighborhood Partnership
- Bakersfield College Child Development Advisory Committee
- Bakersfield City School District – School Health Advisory Committee
- Buttonwillow Community Collaborative
- Community Action Partnership of Kern – Health Services Advisory Committee
- Delano Neighborhood Partnership
- Early Childhood Council of Kern
- East Bakersfield Community Collaborative
- East Kern Collaborative
- Kern County Network for Children – General Collaborative
- Good Neighbor Festival Committee
- Greenfield H.E.L.P.S (Healthy Enriched Lives Produce Success) Collaborative
- Head Start – Policy Council
- Health Net Kern Community Advisory Committee
- Indian Wells Valley Collaborative
- Keep Bakersfield Beautiful
- Kern Complete Count Committee (Census 2020)
- Kern County Nutrition Action Plan
- Kern River Valley Collaborative
- Lost Hills Community Collaborative
- McFarland Collaborative
- Medically Vulnerable Care Coordination Committee
- Medically Vulnerable Children Resource Fair Planning Committee
- Oildale Community Collaborative
- Richardson Special Needs Collaborative
- Safe Sleep Coalition of Kern County
- Safely Surrendered Baby Coalition
- Shafter Healthy Start Collaborative
- South Chester Partnership Collaborative
- Southeast Neighborhood Partnership General Collaborative
- South Valley Neighborhood Partnership Arvin/Lamont/Weedpatch Collaborative
- Trauma Informed Kern County Training Cohort II
- West Side "Together We Can" Collaborative
- Wasco Community Collaborative

Table 5: First 5 Kern's Outreach Effort to Promote Public Awareness

Event	Initiator	Participant
Community	• First 5 Kern Newsletter • First 5 Kern Strategic Plan • First 5 Kern Website • First 5 Kern Weekly Headlines e-blast • Gatsby gala sponsorship to raise over $40,000 for foster care • Safely surrender baby campaign	• Community Fairs – Exhibit Booth • Radio interviews on KERO and KGFM promoting First 5 Kern initiatives • Rotary Groups • Television appearances on KERO and KGET promoting early childhood issues and First 5 Kern Initiatives
County	• Ages and Stages Questionnaire Trainings • Kern County - Child Assessment Team • News Conferences • Nurturing Parenting – Trainings • Nurturing Parenting – Best Practices Meetings • Medically Vulnerable Care Coordination – Trauma Informed Care Training • Kern County Child Development Conference	• Chamber of Commerce Governmental Review Council • Kern County Child Death Review Team • Fetal Infant Mortality Review • Kaitlyn's Law: Purple Ribbon Month Committee • Kern Association for the Education of Young Children • Kern Community Foundation – Kern Pledge Kinder Readiness Work Group • Kern Council for Social Emotional Learning • Kern County Board of Supervisors Meetings • Kern County Breastfeeding Coalition • Kern County Child Assessment Team • Kern County Homeless Collaborative – Coordinated Entry and Assessment Committee • Kern County Infant Toddler Seminar • Kern County Network for Children Governing Board • Kern Early Stars Consortium • Kern Early Stars Marketing Committee • Kern Medical Safe Home, Safe Baby • Nurse Family Partnership Community Advisory Board • Outreach, Enrollment, Retention, Utilization Committee (OERUC) • Operation Saving Smiles Coalition • Safe Sleep Coalition of Kern • Safely Surrendered Baby Committee • Tobacco Free Coalition of Kern County

Event	Initiator	Participant
State	• First 5 Kern Legislative Visits • Support for California Surgeon General's visit to a First 5 Kern funded preschool program in May, 2019	• Quality Counts California Consortium • First 5 IMPACT Hub – Region 5 • Central Valley Regional Meeting • First 5 California Child Health, Education, and Care Summit • First 5 California Meetings • First 5 Association of California Meetings • First 5 California Statewide Communications Region Representative • Local Meetings with state representatives

Summary of Commission Evaluation Activities

In FY 2018-2019, First 5 Kern followed the RBA model (see Friedman, 2005) to track service indicators on (1) how much has been done and (2) how well each program performed. In supporting service integration, a NetDraw software was employed to analyze program networks in *Child Health, Family Functioning*, and *Child Development*. Pertinent to the domain-specific data collection, evaluation activities are categorized in four aspects:

1. Examining success stories of First 5 Kern funded programs to demonstrate the service impact in different communities.

From the perspective of qualitative inquiries, First 5 Kern gathered success stories across Kern County to illustrate the positive impact of state funding in local communities. These stories were generated from 21 programs and four Family Resources Centers (FRC) to describe program support for children ages 0-5 and their families. Plots of (a) top-impact words, (b) impact-program clusters, (c) keyword dispersions, and (d) word clouds are created by R scripts to aggregate outcomes of the local support from various service providers. The results will be presented in Chapter 5 to show frequently used words of *children, infants, toddlers, parents*, and *communities* in the impact stories, and thus, reconfirm the program focus on key stakeholders.

2. Monitoring program investment across focus areas of *Child Health, Family Functioning*, *Child Development,* and *Systems of Care*.

First 5 Kern funded programs covered 10 service categories of the state report glossary[13]. In Child Health, First 5 Kern invested $613,630 in *Early Intervention,* $646,771 in *General Health Education and Promotion*, $852,514 in *Oral Health Education and Treatment,* and $734,532 in *Prenatal and Infant Home Visiting*. In Family Functioning, First 5 Kern spent $2,104,584 on *General Family Support* and $987,126 on *Intensive Family Support*. In Child Development, First 5 Kern used $790,046 for *Quality Early Learning Supports* and $1,556,942 for *Early Learning Programs*. In *Systems of Care*, First

[13] Program affiliation can be found at http://www.csub.edu/~jwang/StateResultandServiceAreaAssignment.pdf

5 Kern provided $1,001,205 to enhance *Policy and Public Advocacy* and $66,159 to support *Programs and Systems Improvement Efforts*.

3. Analyzing effectiveness of program support for young children and their families across local communities.

This evaluation report is based on analyses of (1) Ages and Stages Questionnaire-3 (ASQ-3) data on child growth across 21 programs; (2) Ages and Stages Questionnaire: Social-Emotional (ASQ:SE) and ASQ:SE Version 2 (ASQ:SE-2) data for early detection of potential social or emotional problems in three programs; (3) Adult-Adolescent Parenting Inventory-2 (AAPI-2) data on parenting outcomes from six programs; (4) Child Assessment-Summer Bridge (CASB) data on preschool learning in 11 programs; (5) Core Data Elements (CDE) and Birth Survey data from 29 programs; (6) Family Stability Rubric (FSR) data from 15 programs; (7) Desired Results Developmental Profile (DRDP) data from infants/toddlers in three programs; (8) DRDP data-Fundamental View from preschoolers in three programs; (9) DRDP data-Comprehensive View from preschoolers in three programs; (10) Parenting Survey data from Nurturing-Parenting workshops across seven programs; and (11) Program-specific data from Be Choosy, Be Healthy (BCBH), North Carolina Family Assessment Scale for General Services (NCFAS-G), Dyadic Assessment of Naturalistic Caregiver-Child Experiences (DANCE), and Ready-to-Start Scorecard in different focus areas.

4. Conducting social network analyses of the Integration Service Questionnaire data on program partnership building.

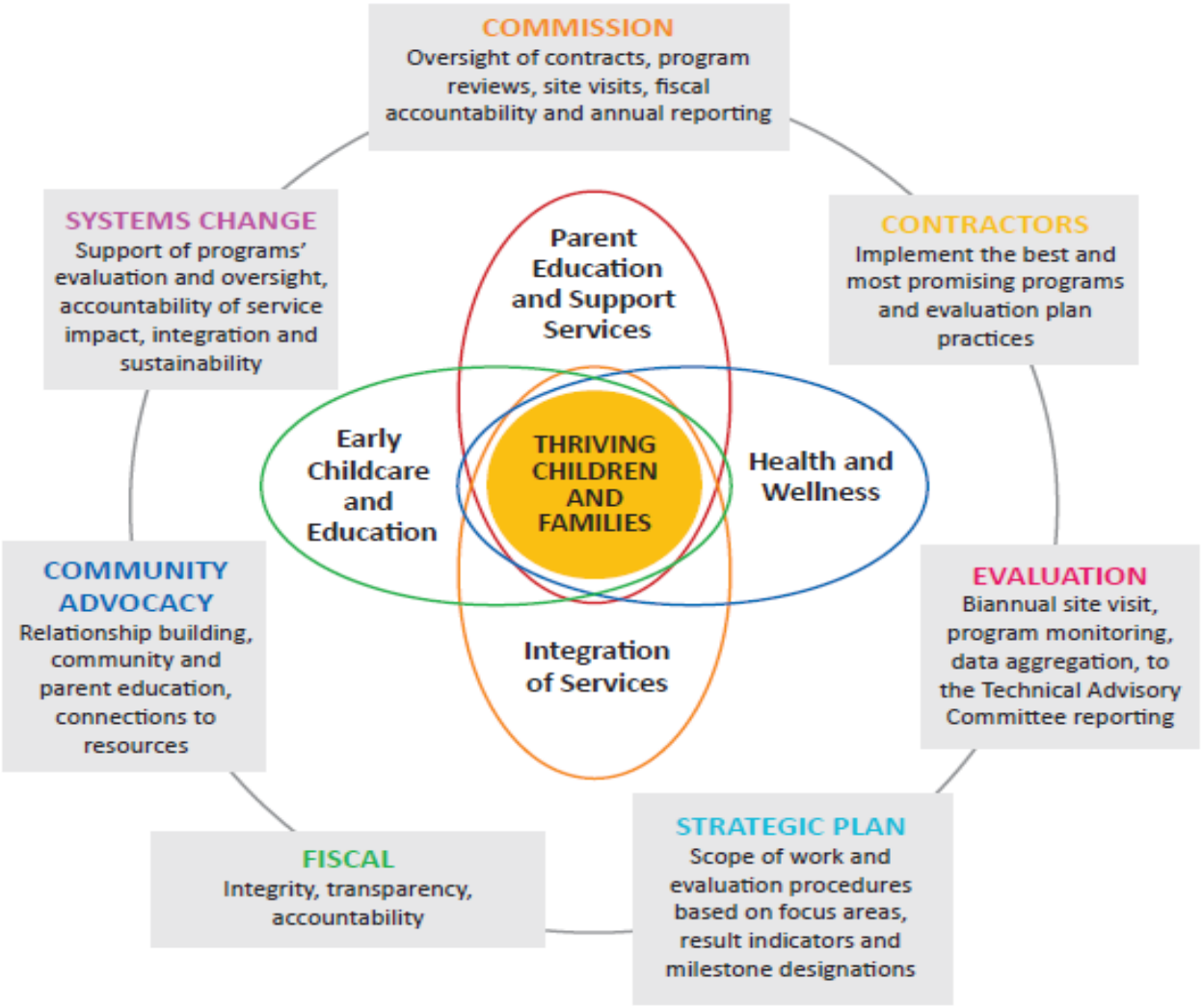
Partnership patterns were analyzed in multiple dimensions, including direct/indirect support, unilateral/reciprocal connection, and primary/non-primary collaboration. A literature-based 4C (Co-Existence, Collaboration, Coordination, and Creation) model was employed to examine the strength of service integration. Data from the Integration Service Questionnaire (ISQ) were collected to assess the scope of partnership building.

Altogether, First 5 Kern contributed funds to support 13 programs in *Child Health*, 19 programs in *Family Functioning*, and 11 programs in *Child Development* in FY 2018-2019 (see Appendix A). In addition, *Service Integration*, including the Medically Vulnerable Care Coordination Project, has been identified as the fourth focus area in First 5 Kern's (2018) strategic plan to enhance the *Systems of Care*. Evaluation of the grant support is guided by the statutory stipulation to "use Outcome-Based Accountability to determine future expenditures" (Proposition 10, p. 4).

Description of the Evaluation Framework

FY 2018-2019 is the fourth year of the current funding cycle under a five-year strategic plan. First 5 Kern followed the mandates of Proposition 10 to collect program data for demonstrating results. Hence, the program administration and evaluation are coherently combined into an inseparable system in Exhibit 2 that places "Thriving Children and Families" at the center of the commission operation. Twenty-nine IRB training sections were offered to 91 new program staff this year prior to collection of individually identifiable data at the side of service providers to support both *needs-based assessment* and *asset-based assessment*.

Exhibit 2: First 5 Kern System for Program Administration and Evaluation



The asset-based assessment was conducted quarterly to monitor state investment and service delivery at the program level. Service providers also articulated *needs statements* and *measurable objectives* in a Scope of Work-Evaluation Plan (SOW-EP) to delineate resources, data collection tools, result indicators, performance measures, and annual targets. The evaluation team attended TAC meetings regularly to meet an expectation of First 5 Kern's (2015b) strategic plan for this funding cycle, i.e., "The evaluation process provides ongoing assessment and feedback on program results. It allows the identification of outcomes in order to build a 'road map' for program development" (p. 8).

Friedman (2009) further pointed out, "RBA makes a fundamental distinction between Population Accountability and Performance Accountability" (p. 2). Whereas performance accountability is an important component of program evaluation, population accountability relies on partnership building (Friedman, 2011). As an important part of strategic planning, evaluation mechanism is fully incorporated in First 5 Kern's daily operation to facilitate assessment of program performance in *Child Health*, *Family*

Functioning, and *Child Development*, and sustain partnership building for improvement of child wellbeing in Kern County. The *evaluation design* and *evaluator responsibility* are reviewed by an Institutional Review Board (IRB) panel of CSUB to ensure *adequate, transparent*, and *accurate* data collection across 43 programs.

It was stipulated by Proposition 10 that "each county commission shall conduct an audit of, and issue a written report on the implementation and performance of, their respective functions during the preceding fiscal year" (p. 12). The RBA requires evidence-based reports on the effectiveness of funded programs, including the consideration of more resource demand to deliver services in remote areas (Waller, 2005). First 5 Kern gathered information from program reviews and site visits to identify service gaps.

Based on the description of Commission functioning in Chapter 1, program effectiveness is examined in Chapter 2 according to service outcomes in each focus area. Chapter 3 is devoted to addressing the results of program collaboration across focus areas. In combination, the first three chapters are focused on evaluation findings within FY 2018-2019. Improvement in key indicators of child-wellbeing is tracked between adjacent years in Chapter 4 to demonstrate the impact of "Turning the Curve" process under the RBA model (Friedman, 2005). Conclusions in Chapter 5 are grounded on the program impact to support First 5 Kern System for Program Administration and Evaluation in Exhibit 2.

Chapter 2: Impact of First 5 Kern Funded Programs

First 5 Kern partners with local service providers to extend program support for children ages 0-5 and their families. This chapter is devoted to reporting the impact of Proposition 10 funding in early childhood support. Based on the program affiliation, First 5 Kern's (2018) focus areas of *Health and Wellness, Parent Education and Support Services*, and *Early Childcare and Education* are used interchangeably with the corresponding focus areas of *Child Health, Family Functioning*, and *Child Development* from the State Commission.

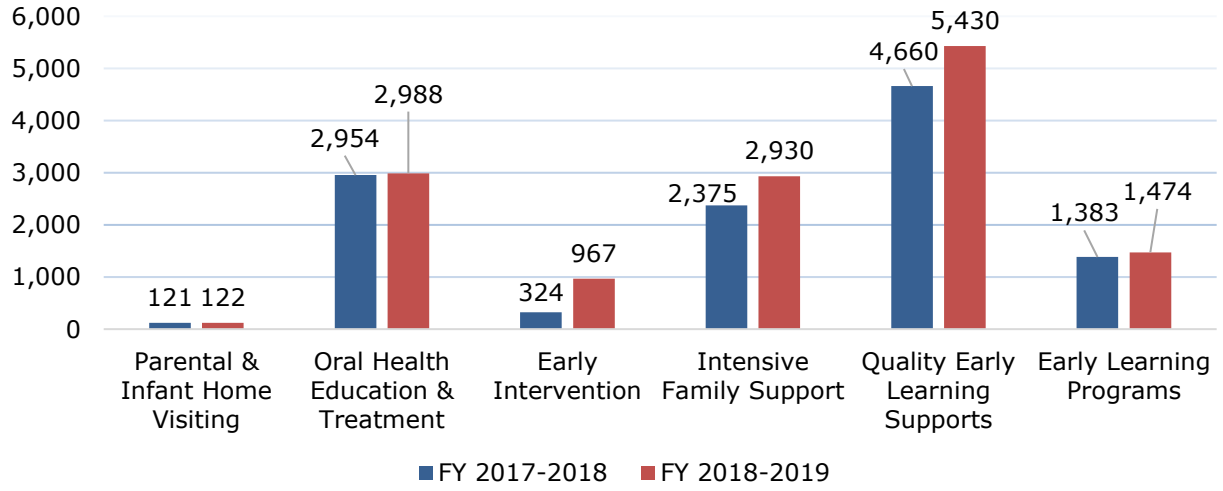
According to the state report glossaries (First 5 Association of California, 2013), local programs in Kern County cover 10 service domains. Two of the domains, *Policy and Public Advocacy* and *Programs and Systems Improvement Efforts*, belong to the fourth focus area of *Systems of Care*. The remaining eight domains address service outcomes for program beneficiaries, including children and caregivers. In addition, First 5 Kern's (2018) mission includes support for service providers. Table 6 contains the aggregated number of beneficiaries in each report domain.

Table 6: Counts of Service Beneficiaries Across Report Domains

Report Domains	Number of Beneficiaries*
General Health Education and Promotion	1,695 children; 603 caregivers; 51 providers
Parental and Infant Home Visiting	122 children; 191 caregivers
Oral Health Education and Treatment	2,988 children; 276 caregivers
Early Intervention	967 children; 219 caregivers
General Family Support	3,720 children; 6,117 caregivers; 114 providers
Intensive Family Support	2,930 children; 1,837 caregivers
Quality Early Learning Supports	5,430 children; 155 providers
Early Learning Programs	1,474 children; 1,049 caregivers; 50 providers

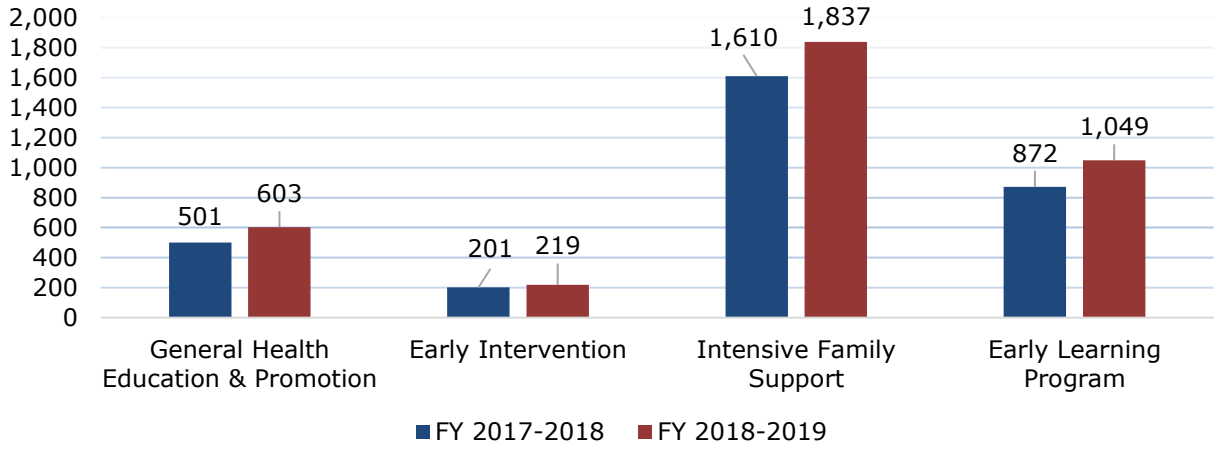
*Caregivers include parents and guardians. All numbers are based on the 2019 state report.

Figure 5: Increase of Child Service Recipients Between Adjacent Years



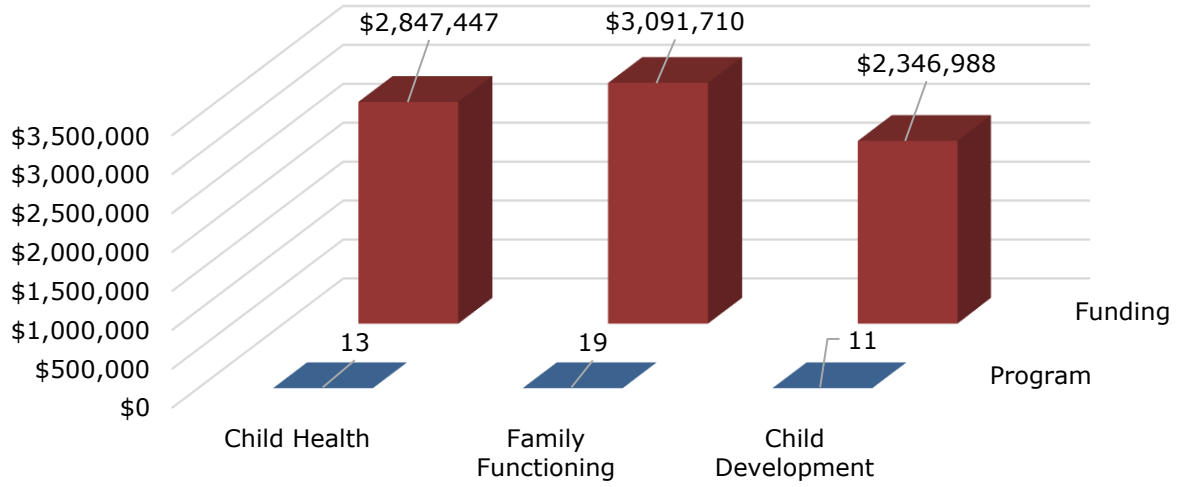
Depending on SOW-EP and service cost, program expenditures and service counts vary across service domains. In comparison to last year, Figure 5 indicates more child service recipients in *Parental and Infant Home Visiting, Oral Health Education and Treatment, Early Intervention, Intensive Family Support, Quality Early Learning Supports*, and *Early Learning Programs*. Accompanied with the addition of 2,094 children in the service coverage (see Figure 5) is an increase of caregiver counts between adjacent years for the local capacity building (Figure 6).

Figure 6: Increase of Caregiver Counts in Adjacent Years



Because affiliation of First 5 Kern funded programs is based on the primary service features, some programs have offered multiple services in *Child Health, Family Functioning*, and *Child Development*. The balanced program funding is illustrated by a proportional match between program counts and the Commission investments (Figure 7).

Figure 7: Commission Investments and Program Counts in Three Focus Areas



Source: State annual Report 2018-2019.

To streamline the result presentation in each focus area, this chapter is devoted to analyzing the program impact on children ages 0-5 and their families. Assessment data are gathered to examine improvement of the program outcomes under a pretest and posttest setting. Outcomes of fund leverage are summarized at end of this chapter to evaluate the system building effort in each program. Built on the program-specific findings, the fourth focus area, *Systems of Care*, is addressed in Chapter 3 to report effectiveness of service integration across First 5 Kern funded programs.

(I) Improvement in *Health and Wellness*

In FY 2018-2019, First 5 Kern funded programs in four service domains of the state report glossary under the *Child Health* focus area (First 5 Association of California, 2013):

[1] Early Intervention
[2] General Health Education and Promotion
[3] Oral Health Education and Treatment
[4] Prenatal and Infant Home Visiting

In First 5 Kern's (2018) strategic plan, **six objectives** are identified to support a common goal in *Health and Wellness*, i.e., "All children will have an early start toward good health" (p. 6). Table 7 shows connections between state report domains and local service objectives.

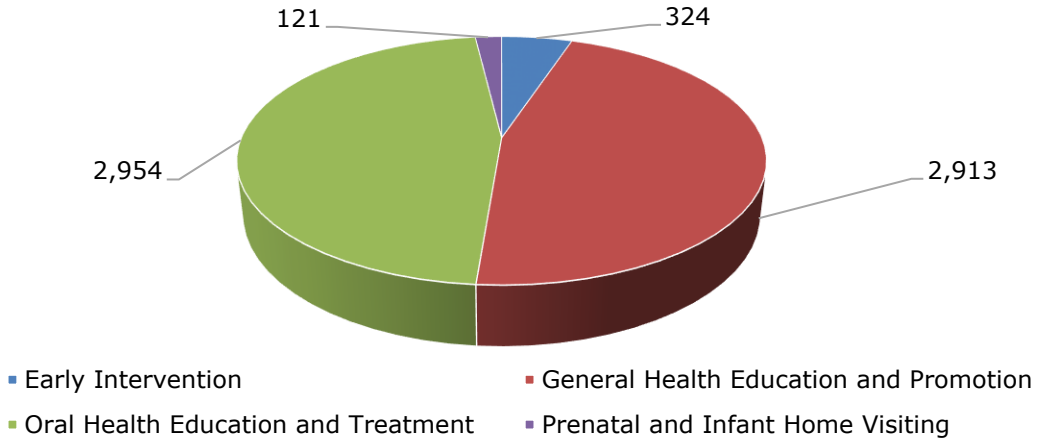
Table 7: Association between State Domains and Local Objectives

Objectives of *Health and Wellness*	Glossary Domain
1. Children will be enrolled in existing health insurance programs.	[2]
2. Pregnant women will be linked to early and continuous care.	[4]
3. Children will be provided health, dental, mental health, developmental and vision screenings and/or preventative services.	[1] [2] [3]
4. Children with identified special needs will be referred to appropriate services.	[1]
5. Children will develop early healthy habits through nutrition and/or fitness education.	[2]
6. Children and their parents/guardians will be provided with safety education and/or injury prevention services.	[2]

This year First 5 Kern invested $613,630 in Early Intervention (EI) and $734,532 in Prenatal and Infant Home Visiting (PIHV). Meanwhile, $646,771 was devoted to General Health Education and Promotion (GHEP) and $852,514 was designated to Oral Health Education and Treatment (OHET). Because PIHV involved services of nurse professionals, the door-to-door home visiting could be time-consuming and expensive. The head count in Figure 8, albeit relatively small, demonstrated fulfillment of First 5 Kern responsibility to sponsor critical programs that are otherwise not available through for-profit organizations. Across the state, home visiting is part of the policy agenda and early intervention strategy for early childhood investment[14]. In addition, EI includes care coordination and mild/moderate special need services. Due to the program specialty, the EI service count is lower than the head counts of GHEP or ORET for the general population.

[14] http://intranet.first5association.org/managed_files/Document/2959/F5ACA_2017PolicyAgenda_7.pdf

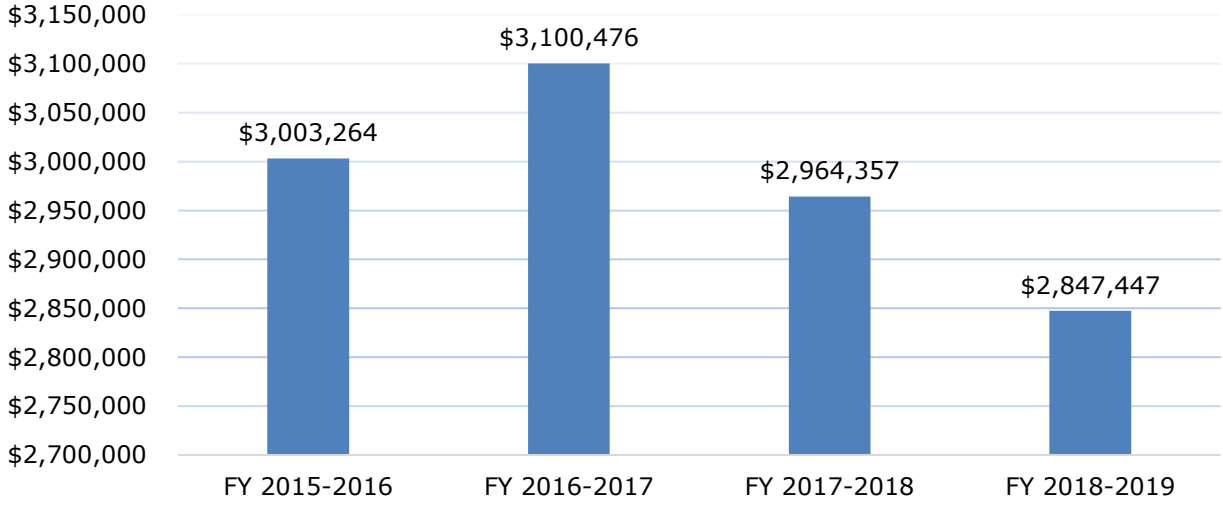
Figure 8: Client Counts in Four Domains of *Child Health*



Savings of State Revenue Spending

Figure 9 displays a trend of First 5 Kern investment in *Health and Wellness* within this funding cycle. The spending reduction in FY 2018-2019 is partially due to program support from partnership building (see Tables 3 and 8), which has made the service delivery less dependent on Proposition 10 funding. The enhancement of program sustainability served the purpose of using First 5 Kern investment as "seeds" money to fill gaps in the early service system.

Figure 9: Trend of First 5 Kern Spending in Health and Wellness



In terms of the service scope, *Child Health* has more countywide programs than *Family Functioning* and *Child Development*. Program delivery across the widely-scattered communities often increases the per-service cost. Through fund monitoring, all service providers stayed within their annual budgets this year. Table 8 shows the budget savings across programs that add to $556,363.72 in *Health and Wellness*.

Table 8: Budget Savings across Programs in *Health and Wellness*

Program	Budget Savings
Black Infant Health Program	$8,173.51
Children's Mobile Immunization Program	$72,451.71
Community Health Initiative of Kern County	$8,248.27
Health Literacy Program	$0.01
Help Me Grow Kern County	$4,871.10
Kern County Children's Dental Health Network	$246,856.79
Make A Splash	$21.81
Medically Vulnerable Care Coordination Project of Kern County	$9,534.36
Medically Vulnerable Infant Program	$88,439.35
Nurse Family Partnership Program	$22,554.37
Richardson Special Needs Collaborative	$11,957.40
Successful Application Stipend	$83,255.04

Capacity of Program Support in *Health and Wellness*

Kern County spans across a land area as large as New Jersey. Home to nearly 890,000 residents, Kern is also the 11th most populous county in California, larger than the states of South Dakota, North Dakota, Alaska, Vermont, and Wyoming. Thus, the local service demand is more extensive than most counties in California. With persistent data tracking, the Commission strategic plan includes multiple result indicators (RI) to assess the broad service capacity in *Health and Wellness*.

Depending on program offerings, health insurance enrollment (**Objective 1**), healthy habit development (**Objective 5**), and safety education for injury prevention (**Objective 6**) are linked to service capacities at both *child* and *family* levels (i.e., RI 1.1.1-1.1.7, 1.5.1, 1.5.2, 1.6.1-1.6.4 of the strategic plan[15]). **Objective 3** in Table 7 depends on delivery of various clinic services. The corresponding result indicators represent the number of children being served (RI 1.3.1-1.3.8, 1.3.11-1.3.13), as well as the program capacity on service coverage (RI 1.3.9, 1.3.10). **Objectives 2** and **4** address services for *mothers in pregnancy* and *children with special needs*, respectively. Therefore, result indicators are developed for prenatal care (RI 1.2.1-1.2.7) and special need identification (RI 1.4.1, 1.4.2) to match the service features.

According to Gearhart (2016), "Kern County often ranks as one of the poorest providers of healthcare in the country. … Not only is our population in ill health, but the county does not have the healthcare resources to alleviate these issues" (p. 13). To meet the dual challenges, Glossary Domains [1] and [4] are adopted to address special program needs for young children and their families. Additional services are funded in Domains [2] and [3] to support health education, general treatment, and dental care. The alignment between RI designation and service description is presented in Table 9.

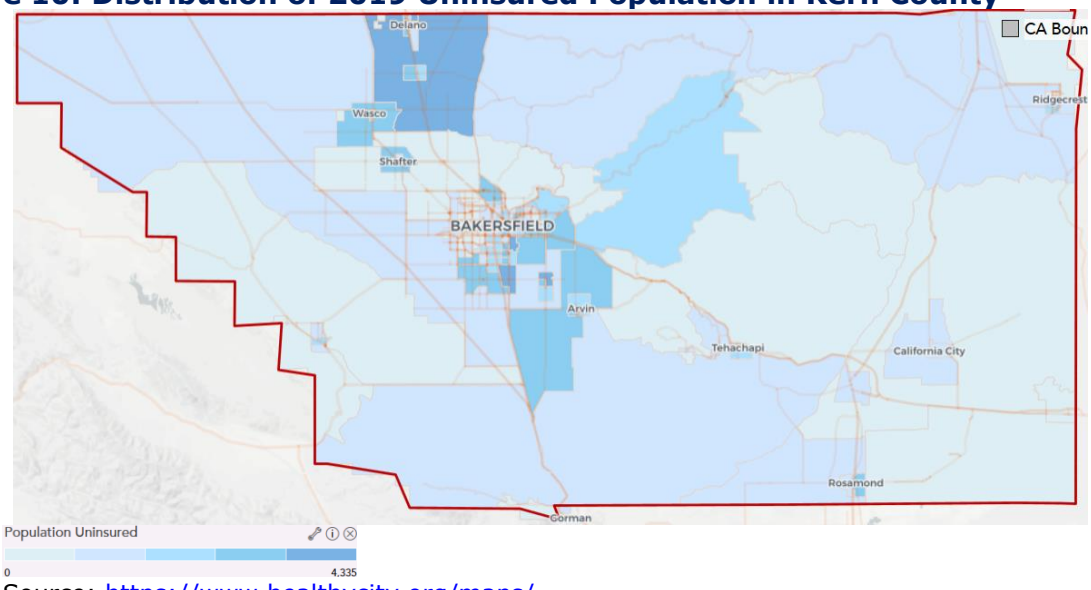
[15] https://www.first5kern.org/wp-content/uploads/2019/06/strategic-plan-booklet-2019-20-press.pdf

Table 9: Service Description and RI Designation in *Health and Wellness*

Objective	Service Description	RI Designation
[1]	Health Insurance Enrollment	Family and Child Coverage
[2]	Prenatal Services	Support for Mothers during Pregnancy
[3]	Clinic Services in Child Health	Child Service Count; Provider Support
[4]	Special Needs Referral	Support for Children with Special Needs
[5]	Healthy Habit Development	Family and Child Support
[6]	Safety Education	Services for Children and Parents

To support *Health Insurance Enrollment* in **Objective 1**, First 5 Kern funded the SAS program to assist health insurance application and facilitate medical home establishment. As shown in Figure 10, uninsured populations are primarily located outside of Bakersfield. In FY 2018-2019, SAS renewed health insurance applications for 30 children and added new insurance enrollments for 16 children. Fifteen new enrollees received support from SAS and CHI to get well-child check-ups. SAS also partnered with AFRC, BCRC, CHI, GSR, and LVSRP[16] to complete health insurance applications for 463 families, surpassing the annual target count of 290 families. CHI and MAS offered workshops to inform 52 parents/guardians of health and wellness services. BIH, CHI, MVCCP, and MVIP arranged training or other educational services in *Health and Wellness* for 335 providers.

Figure 10: Distribution of 2019 Uninsured Population in Kern County



Source: https://www.healthycity.org/maps/

In Domain [1] of the state report glossary, early interventions are introduced by MVIP to incorporate case management services for medically vulnerable infants and their families. Meanwhile, Richardson Special Needs Collaborative (RSNC) offered case management services, behavioral screenings, and referrals. A Family Resource Library was sponsored by RSNC to disseminate information about children with special needs. Special Start for Exceptional Children (SSEC) expanded its support in non-traditional hours

[16] Program acronyms are defined in Appendix A of this report.

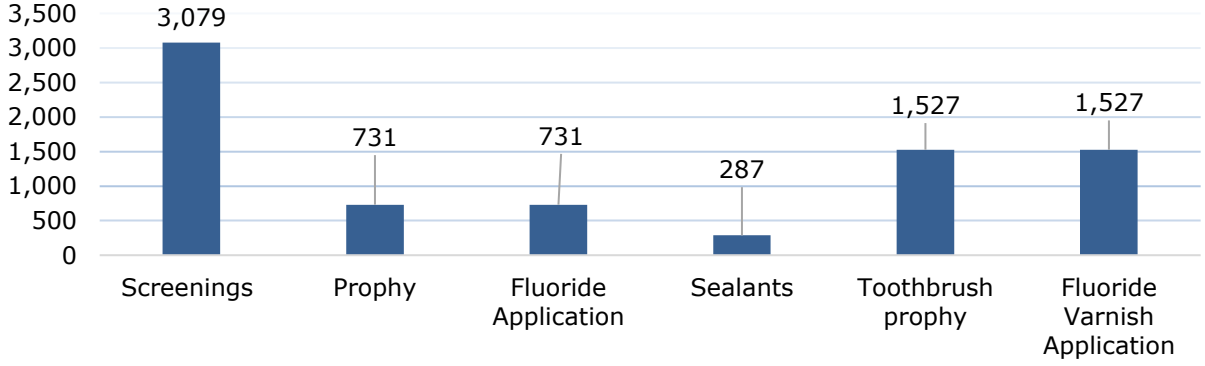
to accommodate specific needs in local communities. The broad spectrum of services reflected varieties of early childhood support for different *medical and mental health treatments*, *infant and toddler services*, and *hours of program operation*.

To address special population needs, a program has been designated to help *African-American mothers* acquire knowledge about pregnancies, babies, parenting, and local resources. In the Black Infant Health (BIH) program, 75 parents/guardians received social service referrals (RI 2.4.1) and 12 providers attended trainings or other educational services related to health and wellness this year, surpassing the target count of seven for RI 4.1.3. BIH also attained its target of providing 70 pregnant women and mothers with information on prenatal care, substance abuse, tobacco cessation, and general case management services, as prescribed in **Objective 2**. One hundred and six pregnant women and/or mothers were visited by nurses from Nurse Family Partnership (NFP) to obtain information and education on prenatal care and breastfeeding, exceeding the target count of 58 this year. Through the service alignment with State Domain [4], BIH, Children's Mobile Immunization Program (CMIP), and NFP offered education on the importance of prenatal care to 241 mothers, exceeding the scope of 205 mothers last year.

In preparation for kindergarten entry, First 5 Kern funded provision of vaccines against serious infections and diseases. The literature indicated that "Childhood vaccines prevent 10.5 million diseases among all children born in the United States in a given year and are a cost-effective preventive measure" (Medi-Cal Managed Care Division, 2013, p. 54). Under California law, immunization records or exemption must be documented prior to kindergarten entry (Shannon, 2019). This year, CMIP offered health screenings for 383 children, above the target count of 216. In addition, 144 clinics of CMIP supported immunization provisions to 882 children ages 0-5. This effort is aligned with program description in Domain [2] of the state glossary.

Clinic Services in Child Health compose another core component of **Objective 3**. According to First 5 Association of California (2017), tooth decay ranked among the most common reasons for chronic absenteeism in kindergarten. To address this issue, Kern County Children's Dental Health Network (KCCDHN) provides mobile services in dental screening, cleaning, treatment, fluoride varnish, and parent education at 97 dental clinics. A total of 7,882 preventative treatments and 1,537 restorative treatments were offered in FY 2018-2019. Distribution of the preventative service counts across different treatment types is shown in Figure 11.

Figure 11: Service Count across Preventative Dental Treatments



KCCDHN also case-managed 1,159 children. A six-month reminder was sent to families to continue the services after dental home establishment. With the needs of continuing case monitoring, 171 cases were followed after age 5 (Figure 12). Depending on the birthday, age 6 is considered as the bordering category to ages 0-5 due variation in kindergarten admission, and prolonged treatments might occur for special cases starting at age 5. The cost for continuing case monitoring at age 7 or beyond accounted less than 0.56% of the KCCDHN funding for case management (see Figure 13). Thus, First 5 Kern has primarily maintained its focus on supporting children ages 0-5.

Figure 12: Number of Children Case-Managed for Oral Health

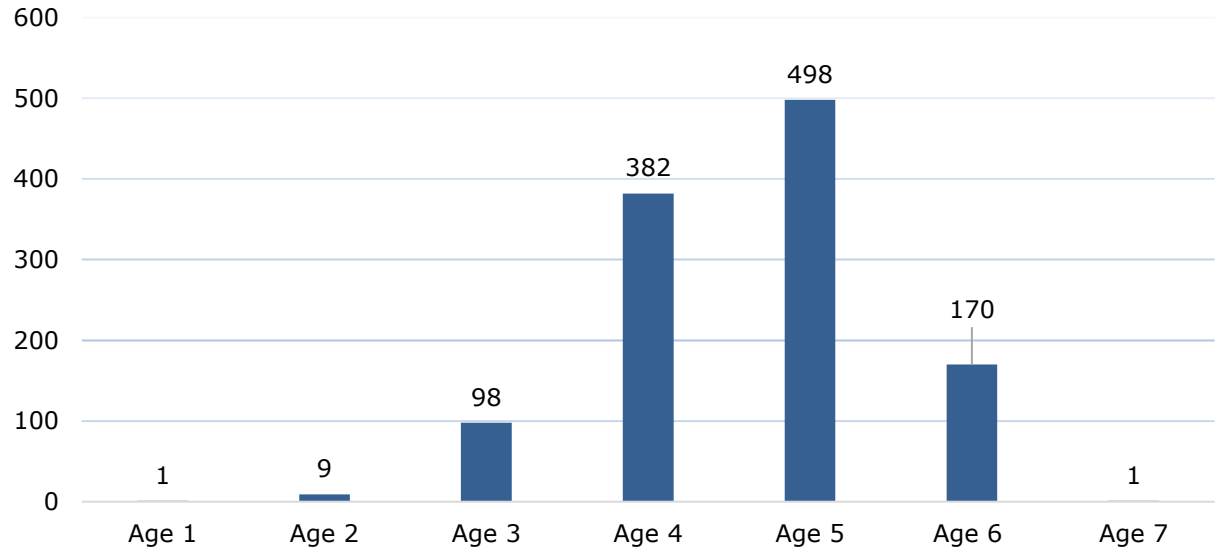
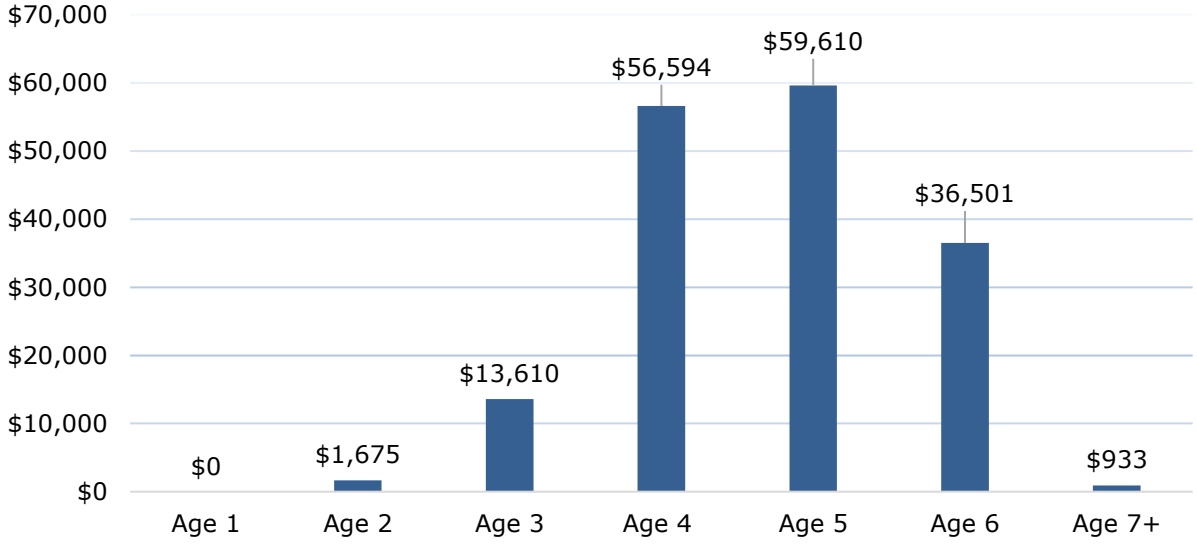


Figure 13: Fund Allocation for Oral Health Case Management



In FY 2018-2019, KCCDHN provided dental homes for 396 children and completed referrals to pediatric dentists for 1,159 children. These services generated positive outcomes in Domain [3] of the state report glossary (Table 7). For instance, it was reported this year that a case manager worked with children 3, 5, and 14-year olds in a

family. In Quarter 3, the mother was told by various medical providers that her son's development was a bit delayed and child's breathing patterns were not normal. KCCDHN referred the family to primary medical and dental care. Case management assistance was established to follow up with medical providers on youngest child's medical exams. The case manager also assisted the family with dental care.

Beyond *General Health Education and Promotion*, "Care coordination is especially critical for children with special health care needs" (Children Now, 2018, p. 35). In particular, Medically Vulnerable Care Coordination Program (MVCCP) and MVCCP Kern County (MVCCP KC) collaborated on case identification and referrals to address *Special Needs Referrals* in **Objective 4**. MVCCP started in 2008 as a Kern County Medically Vulnerable Workgroup to address the complex needs of medically vulnerable children and their families. In November 2018, First 5 Kern partnered with Kaiser Permanente, Kern Family Health Care, and Health Net to sponsor the annual MVCCP conference that was attended by healthcare professionals, social workers, case managers, parents, and childcare providers.

Through a collaborative systems-change approach, the funding is intended to bring together different partners working across a service network. In FY 2018-2019, MVCCP convened partners bi-weekly for supporting medically vulnerable children. As a result, MVCCP offered training and education in *Health and Wellness* for 198 service providers and supported 168 program staff to attend educational events on early childhood topics, larger than the corresponding counts of 124 service providers and 142 program staff last year. Together with BIH, CHI, MVIP, and NFP, MVCCP created medical homes for 953 children. The program also assisted 813 children with special needs to access appropriate services. The service is important because "Accessible, quality health care and seamless care coordination are critical to achieving positive health outcomes for children and to promoting efficient care through prevention, early detection and disease management" (Children Now, 2018, p. 35).

Across California, First 5 county commissions have been recognized as the largest funders of home visiting programs (First 5 Association of California, 2017). Effectiveness of the nurse-family partnership (NFP) support has been demonstrated through randomized trials across the nation (Heckman, 2014). In addition, BIH is another program that served children at an early age. BIH has been proven effective across 13 counties and two cities in California on reducing infant mortality in communities where over 90% of births were African-American children. In combination, the *group-based education in BIH* and *home-based consultation in NFP* contributed to enhancement of *Prenatal and Infant Home Visiting* indicators in Domain [4] of the state report glossary. The early intervention is cost-beneficial because "The highest rate of return in early childhood development comes from investing as early as possible" (Heckman, 2012, ¶. 2).

Success stories of *Child Health* service are disseminated from early interventions. For example, First 5 Kern funded the Health Literacy Program (HLP) within the Child Development Center of Bakersfield Adult School. The importance of eating healthy and staying active has been emphasized in parent/child workshops. The center activities are focused on educational and physical development of children, including (1) introduction to new vegetables, (2) maintaining the children's garden, and (3) hosting monthly parent education events. Parents are also learned from the program to read to children and promote health literacy at home. These services not only facilitated *Healthy Habit*

Development under **Objective 5**, but also addressed the glossary definition of program support in Domain [2] on core elements of *healthy weight and height*, *basic principles of healthy eating*, *safe food handling and preparation*, and *tools to help organizations incorporate physical activity and nutrition* (First 5 Association of California, 2013).

KVAP and MAS are programs that address *Safety Education* in **Objective 6**. In Kern County, an important aspect of *Safety Education and Injury Prevention* hinges on child protection against the risk of drowning around swimming pools, canals, lakes, and the Kern River. KVAP and MAS provide swimming pool access to families with children ages 0-5. The safety education includes First Aid classes, swim lessons, and water safety trainings on different devices in remotely located Weldon and densely populated Bakersfield. In FY 2018-2019, outcomes in Domain [2] of the state report glossary were reflected by swim lesson completion of 576 children. Meanwhile, 66 children participated in the water safety education from KVAP. These programs also collaborated with Supporting Parents and Children for School Readiness (SPCSR) to offer First Aid/Cardiopulmonary Resuscitation (CPR) education for 77 parents or guardians.

In summary, young children are "the most likely to experience severe injury or death" (Kern County Network for Children, 2017, p. 10). Parent education on hazard prevention, such as water safety, is particularly important for maintaining health and wellness of infants, toddlers, and preschoolers. In support of child health, CMIP, CHI, HLP, and SAS extended the local immunization coverage, family literacy, and healthcare access. In traditionally underserved communities with special needs, oral, medical, and mental health services were provided by BIH, KCCDHN, MVIP, NFP, RSNC, and SSEC. The systems of care further incorporated two programs (MVCCP and MVCCP KC) for case identification and service coordination. With the addition of MVCCP from *Integration of Services*, a total of 14 programs collectively addressed six objectives of *Health and Wellness*:

(1) Health insurance enrollment was assisted by SAS and CHI;
(2) Prenatal support was provided by BIH and NFP programs;
(3) Medical, dental, and mental health services were delivered by CMIP, KCCDHN, and RSNC;
(4) Special-needs services were supported by MVCCP, MVCCP KC, MVIP, RSNC, and SSEC;
(5) Early health education was offered by HLP for both children and parents;
(6) Injury prevention and water safety were addressed by KVAP and MAS.

In contrast, service providers in *Health and Wellness* raised $892,825.89 to enhance program sustainability. Primary features of the program support are categorized in four domains to differentiate the *general*, *special*, and *coordination* services for children ages 0-5 (Table 10).

Table 10: Program Features in *Health and Wellness*

Domain	Program	Primary Services	Age
General Health Education and Promotion	CHI	Health Insurance Enrollment and Training	0-5
	CMIP	Mobile Program for Immunizations	0-5
	HLP	Health Education	0-5
	KVAP	Safety Education in Weldon	0-5
	MAS	Safety Education in Bakersfield	0-5

Domain	Program	Primary Services	Age
	MVCCP KC	Quality Health Systems Improvement	0-5
	SAS	Health Insurance Enrollment	0-5
Prenatal/Infant	BIH	Maternal/Child Healthcare	0-2
Home Visiting	NFP	Maternal/Child Healthcare	0-2
Oral Health	KCCDHN	Mobile Program for Oral Healthcare	0-5
	MVIP	Targeted Intensive Intervention	0-2
Early	SSEC	Targeted Intensive Intervention	0-2
Intervention	RSNC	Targeted Intensive Intervention	3-5

Improvement of Program Outcomes across Service Providers

In FY 2018-2019, improvement in *Health and Wellness* has been tracked at the program level across multiple services, including oral health support, parent education, and mental health intervention. In each domain, service outcomes are gathered to evaluate the benefit for local children ages 0-5 and their families.

1. Support of Healthy Child Development

With dual foci on *thriving children and families* as major outcomes of the Evaluation Framework (see Exhibit 2), results of early childhood development are compared against age-specific thresholds of the ASQ-3 across three programs. Sample sizes from BIH, MVIP, and NFP are 13, 29, and 59, respectively. Although BIH data size seemed small, the data gathering has been improved from a size of three (N=3) last year.

MVIP was originally redesigned from another project, *High Risk Infant Program*, to promote family-centered, community-based, coordinated care for children with special health care needs. Clinica Sierra Vista received the Title V grant in June 2000 to offer nurse visits and case management services for over 2,000 infants in Kern County. In FY 2018-2019, the program focused on (1) reducing hospitalizations and ER visits; (2) identifying developmental disabilities and/or delays and referring to appropriate resources to help minimize/prevent delays; (3) linking families to community resources; (4) helping families establish safe homes for medically fragile infants; (5) empowering families through education; (6) helping families adjust to infant's special needs; (7) reducing infant mortality in high-risk population; and (8) preventing child abuse. These early childhood services have been sustained in Kern County for 19 years.

To broaden the program impact, NFP extended its services in Bakersfield, Lamont, Ridgecrest, Rosamond, Shafter and Wasco. By design, NFP filled a void in the early childhood service system to support low-income, first-time mothers at prenatal and infant care stage. The program arranged nurse visits in sequential steps: (1) weekly during the first month of enrollment, (2) every other week until the birth of the baby, (3) weekly during the first six weeks after delivery, (4) every other week until the baby is 21 months, and (5) monthly during months 22-24. Topics of the home consulting included newborn care, parenting preparation, baby-friendly environment setting, referral assistance, and healthy pregnancy. The program also offered communications in both English and Spanish to ensure proper parental engagement.

Results in Table 11 indicated no developmental delays for children across three programs. On the contrary, infant performance in BIH, NFP, and MVIP was significantly

above the corresponding thresholds in *Communication, Gross Motor, Fine Motor, Problem Solving*, and *Personal-Social* domains at α=.001. The practical difference made by each program was demonstrated by the minimum effect size of 2.62 for BIH, 4.09 for MVIP and 4.40 for NFP, all larger than 0.80 to confirm strong intervention impact.

Table 11: ASQ-3 Results from BIH, MVIP, and NFP

ASQ-3 Domains	BIH	MVIP	NFP
Communication	t(12)=12.06, p<.0001	t(28)=14.51, p<.0001	t(58)=14.70, p<.0001
Gross Motor	t(12)=4.53, p=.0007	t(28)=11.59, p<.0001	t(59)=16.92, p<.0001
Fine Motor	t(12)=22.34, p<.0001	t(28)=10.81, p<.0001	t(59)=20.80, p<.0001
Problem Solving	t(12)=5.51, p=.0001	t(28)=17.18, p<.0001	t(55)=16.82, p<.0001
Personal-Social	t(12)=11.85, p<.0001	t(28)=11.96, p<.0001	t(58)=16.00, p<.0001

2. Outcomes of Oral Health Service

In this funding cycle, First 5 Association of California (2017) developed a policy agenda to "Expand access to preventative and restorative oral health services and oral health education" (p. 5). In Kern County, KCCDHN was the program that delivered services in oral health. In FY 2018-2019, KCCDHN tracked plaque indices during initial and recheck visits for 136 children. The program impact was indicated by a drop of Average Plaque Index (API) from 86.93 in pretest to 46.31 in posttest. The improvement of oral health was statistically significant [t(135)=22.86, p<.0001]. The effect size also reached 2.65, suggesting a strong program impact (Cohen, 1988)[17].

Meanwhile, the program spending decreased from $853,381 in last year to $852,514 this year. Because program funding was negotiated in 2015, any additional savings during the five-year funding cycle reflected more efficient program operation. Despite the trend of declining Proposition 10 revenue, the service is much-needed because "Tooth decay is the most common chronic illness among children. Timely preventive dental services and treatment are essential to pregnant women's and children's overall health" (Children Now, 2018, p. 39).

3. Improvement of Parent Health Literacy

Reiley (2019) reported, "There's been a boom in unhealthy foods and beverages for children 6 months to 3 years old" (p. 1). At the seat of Kern County, Bakersfield Adult School offered HLP to improve parent health literacy. The program tracked responses of 31 parents about the content of *Be Choosy, Be Healthy* (BCBH) instrument this year. Before the workshops, 32.26% of the parents indicated that they knew "less than some" of the BCBH content. After the workshops, the number dropped to 22.58%. In the end, more than 70% of the parents indicated that they would practice at least some of the concepts from the workshops. The enhancement of health literacy has addressed RI 1.5.2 of First 5 Kern's (2018) strategic plan, i.e., "Number of parents/guardians who received nutrition and/or fitness education" (p. 5).

[17] The computing method is illustrated at https://www.youtube.com/watch?v=yVbYvn_cT5w.

4. Support of Healthy Parent-Infant Interaction

Parent-infant interaction is important in developing infant central nerve systems (Barlow et al., 2007). NFP adopted the Dyadic Assessment of Naturalistic Caregiver-Child Experiences (DANCE) to monitor parent-infant interaction. The golden standards of the DANCE *Sensitivity and Responsivity* scale[18] are listed in Table 12 to evaluate the effect of parent-infant interaction on 38 infants.

The results show that caregivers surpass the golden standards in the *Responsiveness* domain. According to the scale interpretation, caregiver responses to child's state, affect, communication are supportive of child's needs. In comparison to last year, the result on *Positioning* increased from 99.1% to 99.5%, an indication of more caregivers reading child's communications with correct positions. The *Non-Intrusiveness* rating also increased from 88.1% last year to 91.3% this year for better protection of child space. Furthermore, the NFP results show a less than 1% gap from the golden standards on *Positioning* and *Pacing*. These findings indicate caregiver-child communications complementary to child's feedback, behavior, actively level, and needs.

Table 12: DANCE Results on the Sensitivity and Responsivity Scale

Scale of Sensitivity and Responsivity	NFP Result	Golden Standard
1. Positioning	99.5%	100%
2. Visual Engagement	89.5%	95%
3. Pacing	89.2%	90%
4. Negative Touch	2.6%	0%
5. Non-Intrusiveness	88.1%	90%
6. Responsiveness	89.9%	85%

On the DANCE scale for *Emotional Quality and Behavioral Regulation*, results in Table 13 shows caregiver performance above the golden standard on *Verbal Connectedness* for supporting communication with young children. More importantly, the *Verbal Quality* indicator increased from 98.9% last year to 99.5% this year. The improvement suggests that more caregivers are maintaining kind, respectful, and cheerful communications with children. With these results near the golden standards[19] in Tables 12 and 13, the positive program impact on healthy parent-infant interaction has been demonstrated in both cognitive and emotional domains.

Table 13: DANCE Results on Emotional Quality and Behavioral Regulation

Scale of Emotional Quality and Behavioral Regulation	NFP Result	Golden Standard
1. Expressed Positive Affect	94.5%	100%
2. Caregiver's Affect Complements Child's Affect	91.8%	100%
3. Verbal Quality	99.5%	100%
4. Verbal Connectedness	88.7%	75%

[18] The DANCE Coding Sheet: Sensitivity and Responsivity Dimension
http://cittdesign.com/dance/sites/default/files/1107_12M_1_0.pdf
[19] http://www.cittdesign.com/dance/sites/default/files/Practice5_19M_1_0.pdf

5. Coordination of Infant Medical Services

To strengthen the support for network building, MVCCP and MVCCP KC "enhanced coordination of existing case management services to measurably improve long-term outcomes for children, birth to 5 years of age, who are at risk of costly, lifelong medical and developmental issues" (Thibault, 2017, p. 3). Other organizations, such as Adventist Health, Kaiser Permanente, Kern Family Health Care, Lucile Packard Foundation for Children's Health of Palo Alto, and Health Net, contributed funding to support the MVCCP effort in the past.

On November 1, 2018, the eighth annual MVCCP conference was held in the Student Union of CSUB to report on the progress made over ten years of MVCCP and the 2018 cohort training for Trauma-Informed Kern County. One hundred and thirty-three professionals attended the conference. Under a title *Tipping Point: How the System of Care is Changing in Kern County for Current and Future Generations of Children and Families*, the conference offered participants an opportunity to:

- learn more about the other attendees
- create a resource table to clarify their range of services
- share interests and experiences in helping children and families
- collaborate on reviewing a sample case of Clinica Sierra Vista

Feedback from the 2018 MVCCP annual conference was gathered from 86 attendees. Results in Table 14 were based on a 10-point scale with 1 standing for poor conference quality and 10 for excellent quality. The average ratings were 9.61 or above, indicating positive conference quality across the *adequacy, utility, efficiency*, and *applicability* dimensions. In comparison, the lowest rating from last year was 8.23 (Wang, 2018). Thus, the results in Table 14 showed more positive feedback this year.

Table 14: MVCCP Conference Attendee Responses on a 10-Point Scale

Topic		N	Mean
1. Met the Stated Objectives	Trauma-Informed Training	86	9.63
	New Specialty Clinic	85	9.52
	Kern Safety Net Services	85	9.59
	ACEs and Resilience	84	9.61
	Resource Development Cases	82	9.77
	Care Coordination across Kern	73	9.67
2. Adequacy of the panelists' mastery of their subjects		77	9.69
3. Utilization of appropriate teaching methods and materials		81	9.65
4. Efficiency of course mechanics (e.g. room, space, acoustics, handouts)		82	9.32
5. Applicability or usability of new information		83	9.61
6. Appropriateness and usability of presentations (if applicable)		81	9.63

According to Proposition 10, "A requirement of the state laws governing the county commissions is to ensure that money from the Children and Families Trust Fund is not

used to replace or 'supplant' existing local funding for programs and services."[20] In Kern County, infants in rural areas often had limited healthcare support. Prior to First 5 Kern, few organizations offered systematic coordination of medical services for infants with serious health conditions in Kern County. The local needs were further entangled by social factors, including family poverty, low parent education, cultural isolation, and teenage pregnancy. For instance, the USA Today compiled a list 40 American cities where the rate of childhood poverty is the worst in 2019. Bakersfield's child poverty rate of just under 30% landed it at the 33rd position (Comen, 2019). Because most local communities belong to Medically Underserved Areas (MUA)[21], MVCCP serves the purpose of identifying medically vulnerable infants for case management and healthcare service in much-needed areas. In terms of the program capacity, the two care coordination programs not only supported medically vulnerable children ages 0-5, but also promoted system building across service providers.

In summary, California's economy and civil society ultimately depend on offering a broad spectrum of services, "from quality, affordable child care to a rigorous education to health coverage to safety" (Children Now, 2018, p. 3). With the focus on *Health and Wellness*, program features were classified by *service types* (e.g., dental care, mental health, insurance application, parental education), *child conditions* (general support vs. special-needs assistance), *delivery methods* (group-based vs. home-based service), *facility capacities* (mobile service vs. community-based support), and *age groups* (infants, toddlers, and preschoolers). To justify the result-based accountability on these dimensions, service outcomes were triangulated across different sources of data (e.g., ASQ-3, BCBH, DANCE) and service providers (KCCDHN, HLP, and MVCCP). As First 5 Kern (2018) maintained,

> Evaluation is an important component of the Strategic Plan and the Proposition 10 implementation process in Kern County. Carefully tracked and reported information details program outcomes and the impact on the communities served. (p. 2).

The service tracking and value-added assessment consistently indicated enhancement of service quality in *Health and Wellness* across Kern County.

(II) Strengthening of *Parent Education and Support Services*

In a typical childrearing family, good parenting plays a critical role because "Parents are the medium through which child behavior and family functioning are influenced" (Van As, 1999, p. 48). Inequity in early childhood support hinges on variation of family background. As LaVoice (2016) observed, "many new moms might not have people or resources in their life to help them through such an important time" (¶. 8). Therefore, additional community-based programs are needed to "strengthen families' resilience, expand support systems, and reduce child abuse and neglect" (First 5 Association of California, 2017, p. 7).

The dual emphases of *parent education* and *community support* are grounded on the current research literature in early childhood development. Briscoe (2019) pointed out, "The need for family- and community-centered care is particularly critical in

[20] http://first5association.org/overview-of-proposition-10/
[21] http://gis.oshpd.ca.gov/atlas/topics/shortage/mua/kern-service-area

pregnancy and the first five years of life, when the architecture of the brain is established and neural connections grow at the fastest rate in a person's lifetime" (p. 1). Given the well-documented needs, First 5 Kern (2018) designated a focus area on *Parent Education and Support Services* to strengthen family functioning in Kern County.

In FY 2018-2019, countywide reduction of child abuse and neglect is achieved by services from Differential Responses (DR), Domestic Violence Reduction Project (DVRP), and Guardianship Caregiver Project (GCP) that provide intensive support in unstable home settings. Community Action Partnership of Kern (CAPK) also receives funding from First 5 Kern to offer 2-1-1 Kern County (2-1-1) and Help Me Grow (HMG) for service referrals and developmental screening. The mission of 2-1-1 is to connect families to medical facilities, family resource centers, legal assistance programs, and other community resources. HMG collaborates with community-based programs in health care, early care and/or education, and family support to address various needs of child development. Built on the existing infrastructure, First 5 Kern also funds 13 center-based programs, including 12 FRCs and Women's Shelter Network (WSN), to deliver *general parenting workshops, court-mandated parent education*, and *case management* services.

Altogether, 19 programs are designated in *Family Functioning* to ensure that "All parents/guardians and caregivers will be knowledgeable about [1] early childhood development, [2] effective parenting and [3] community services" (First 5 Kern, 2018, p. 5). The three-fold considerations are aligned with two domains of the statewide report glossary (see First 5 Association of California, 2013), [1] General Family Support and [2] Intensive Family Support. To articulate different service configurations, Table 15 shows a match between these service domains and the four objectives of *Parent Education and Support Services*.

Table 15: Service Domains and Objectives in Family Functioning

Objectives in Family Functioning	Domain
1. Children and families will be provided with targeted and/or clinical family support services.	[2]
2. Parents/guardians will be provided culturally relevant parenting education and supportive services.	[1]
3. Parents/guardians will be provided with educational services to increase family reading and/or literacy.	[1]
4. Parents/guardians and children will be provided social services.	[1]

Despite cost inflation and wage increases, program spending in this focus area has been strictly controlled within the original annual contract. The budget savings add up to $169,322 across programs in Table 16, larger than $149,453 last year.

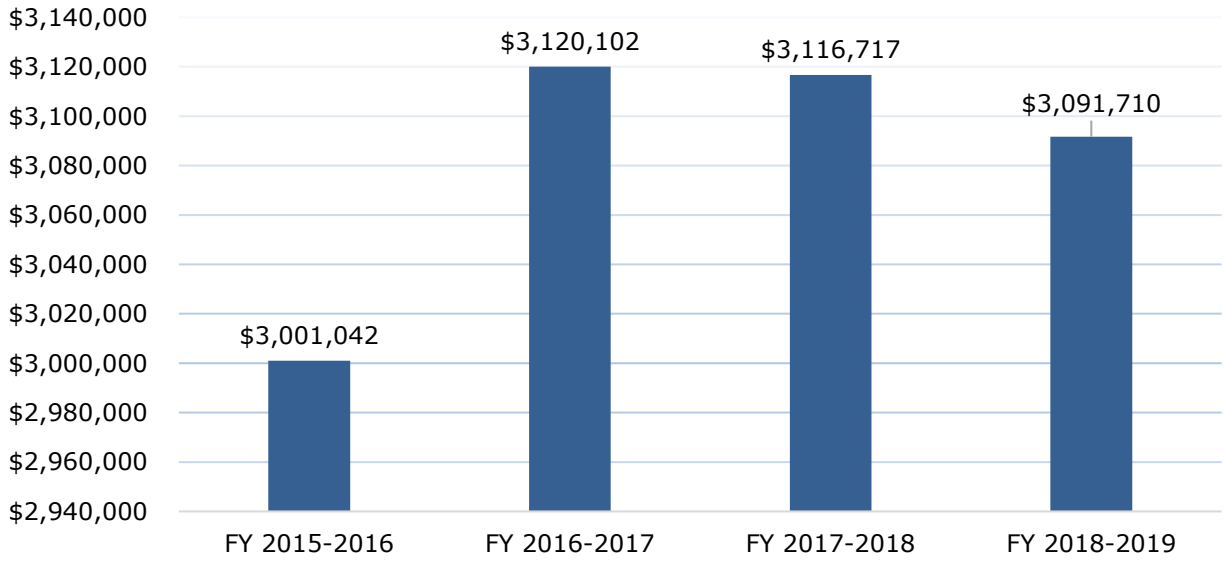
Table 16: Program Savings in *Parent Education and Support Services*

Program Name	Budget Savings
2-1-1 Kern County	$18,126.19
Arvin Family Resource Center	$924.36
Buttonwillow Community Resource Center	$404.52
Differential Response Services	$12,443.20

Program Name	Budget Savings
Domestic Violence Reduction Project	$6,056.63
East Kern Family Resource Center	$2,101.07
Greenfield School Readiness	$924.36
Guardianship Caregiver Project	$25,782.04
Indian Wells Valley Family Resource Center	$1,033.75
Kern River Valley Family Resource Center	$48,915.20
Lamont/Vineland School Readiness Program	$500.86
McFarland Family Resource Center	$1,428.40
Mountain Communities Family Resource Center	$14,232.65
Shafter Healthy Start	$0.10
Small Steps Child Development Center	$41.05
Southeast Neighborhood Partnership Family Resource Center	$14,514.35
West Side Community Resource Center	$14.38
Wind In The Willows Preschool	$0.41
Women's Shelter Network	$22,802.88

With enactment of Senate Bill 89 last fiscal year, First 5 Kern funded administrative cost of the Emergency Child Care Bridge Program (ECCBP) to assist foster care services. On August 1, 2018, the Commission approved an amendment to cap the ECCBP support at $25,318. In FY 2018-2019, however, no reimbursement request was made by ECCBP. With the cost savings from ECCBP, the Commission was able to reduce the investment to $3,091,710 in *Family Functioning* while keeping the same funding commitment to other programs in parent education and support services (Figure 14).

Figure 14: Funding Pattern in *Parent Education and Support Services*



Capacity of Program Support to Strengthen Family Functioning

The focus area of *Parent Education and Support Services* contains four objectives in First 5 Kern's (2018) strategic plan. *Targeted and/or clinical supports* in **Objective 1** are linked to service deliveries at both child (RI 2.1.1-2.1.3, 2.1.7-2.1.9, Ibid. 16) and family (RI 2.1.4-2.1.6, Ibid. 16) levels. **Objectives 2-4** depend on implementation of education and social services for enhancement of parenting. Therefore, multiple result indicators have been developed to evaluate the attainment of **Objectives 2-4**:

1. Court-mandated parent education, group parenting education, and educational workshops (RI 2.2.1-2.2.3, Ibid. 16) are assessed to reflect family support in **Objective 2**;
2. Reading strategy development and literacy workshops (RI 2.3.1, 2.3.2, Ibid. 16) are evaluated to address parent/guardian education in **Objective 3**;
3. Program referrals and transportation services (RI 2.4.1 2.4.2, Ibid. 16) are adopted to support program outreach in **Objective 4**.

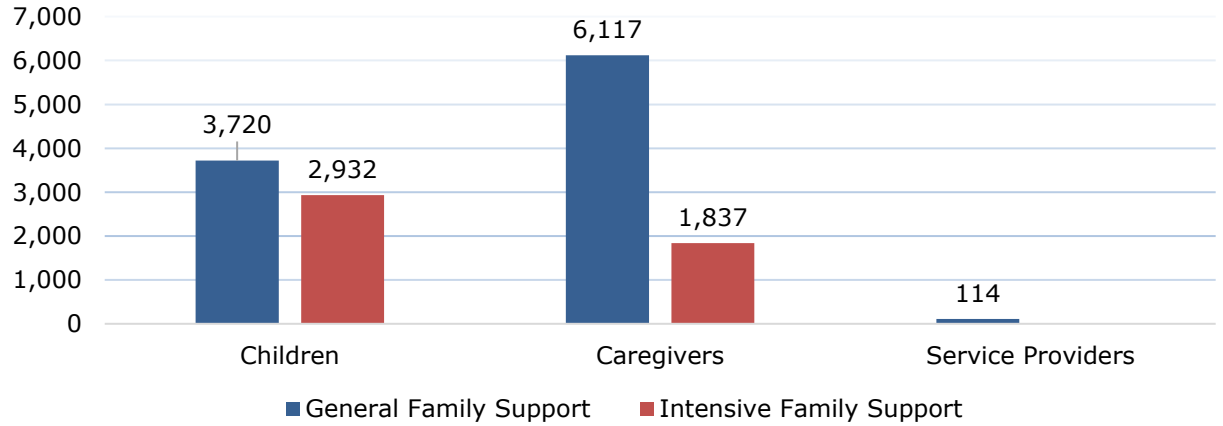
The alignment between RI designation and service description is presented in Table 17.

Table 17: Service Description and RI Designation

Objective	Target Capacity	RI Designation
[1]	Targeted/Clinical Family Support	Parent and Child Participation
[2]	Parent Education Offerings	Parent Learning Outcome
[3]	Reading Literacy Services	Parent Training Outcome
[4]	Referral/Transportation Support	Family Service Access

In reference to state report domains (see Table 15), First 5 Kern funded special services in Domain [2] to restore and/or improve the home environments. General services in Domain [1] were offered through parent education and social support. More importantly, service networking has been established through program referrals (e.g., 2-1-1 and HMG) and collaborations (e.g., WSN with DR, DVRP, and GCP). The beneficiary counts are depicted in Figure 15 to show the impact of First 5 Kern support for local children, caregivers, and service providers in these two domains.

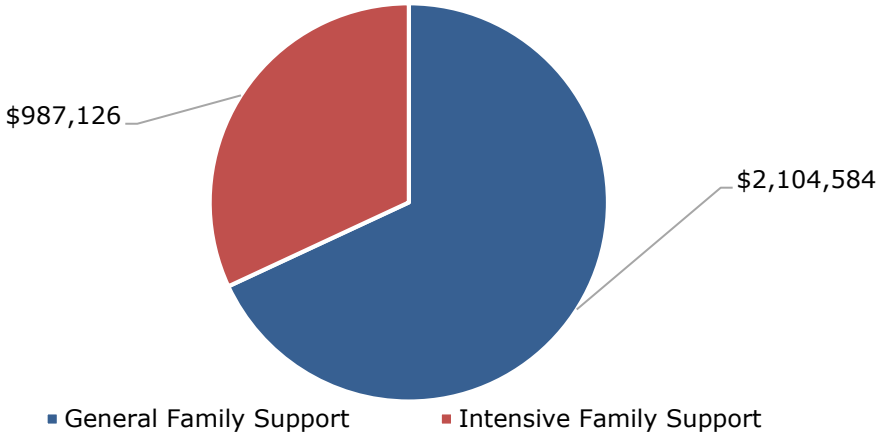
Figure 15: Capacity of General Family Support and Intensive Family Support*



Last year, 2,375 children and 1,610 caregivers received IFS. The counts have been substantially increased this year (see Figure 15). The service expansion is sustained by First 5 Kern investment of $987,126 in IFS to address special need services pertaining to critical issues of child abuse and neglect. Meanwhile, First 5 Kern did not downplay the importance of program funding in *General Family Support* (GFS). Similar to last year, First 5 Kern designated over $2.1 million to that domain to support community-based FRCs (Figure 16). The support for 114 service providers in GFS also followed First 5 Kern's (2018) mission statement. The IFS funding in Figure 16 reached $987,126 this year, an increase from $977,618 last year (Wang, 2019).

At the state level, First 5 Association of California (2017) advocated that "100% of California children receive recommended developmental screening and appropriate referrals" (p. 7). Assembly Bill 1004 further targeted on identification of development delays and referral services (Stavely, 2019). In FY 2018-2019, HMG assisted 367 families with social service referrals. As an innovative service model, HMG has been implemented across 17 states to serve families in need of social support for their young children[22].

Figure 16: Fund Allocation in Domains of Parent Education and Support Services



From the perspective of direct services, First 5 California (2015b) highlighted the need to "Support sustainability of Family Resource Centers and other community hubs for integrated services for children and families" (p. 1). As Thompson and Uyeda (2004) observed,

> Family resource centers have also emerged as a key platform for delivering family support services in an integrated fashion. They serve as "one-stop" community-based hubs that are designed to improve access to integrated information and to provide direct and referral services on site or through community outreach and home visitation. (p. 14)

In addition, 2-1-1 Kern County (2-1-1) is part of a nationwide network connecting over 14 million people to services each year. This year, 2-1-1 provided information about community services 24 hours a day, seven days a week across Kern County. In FY 2018-2019, the program responded to 6,967 new callers. As a result, social service referrals were made for unduplicated 3,335 children ages 0-5 and 511 pregnant mothers. Without

[22] http://www.first5alameda.org/files/funding/HMG_developmental_supports.pdf

the referral support, families could have been misguided, and service delays might occur to children with special needs in Kern County. Altogether 2-1-1, Blanton Child Development Center, and HMG offered developmental screenings for 42 children.

In combination, the capacity building in referral and direct service delivery created networking opportunities for strengthening the link between what is needed and what is available in Parent Education and Support Services. The emphases on parent services are well-justified because "Of all the things that influence a child's growth and development, the most critical is reliable, responsive, and sensitive parenting" (Bowman, Pratt, Rennekamp, & Sektnan, 2010, p. 2).

Overview of Program Alignment with the Strategic Plan

While children are born equal, family background may vary. To help close the gap in childrearing skills, First 5 Kern (2018) strategically funded programs to enrich caregiver knowledge about early childhood development, effective parenting, and community services. In strengthening child protection, DR examines reports of child abuse and neglect according to information from Child Protective Services (CPS). Intensive home visitations are conducted to reduce the recurrence rate. DR case managers meet weekly with service supervisors to discuss family assessments, care plans, service delivery strategies, as well as positive and negative implications to child development. Case closures are dependent on mitigation of risk factors that has been confirmed by DR supervisors.

Throughout this year, DR has completed case management services and home visits to 1,700 families that impacted 2,498 children ages 0-5. In addition, 722 parents received social service referrals from DR. As the DR provider, "Kern County Network for Children [KCNC] serves many functions benefiting children and families in Kern County."[23] Its leadership roles are illustrated by six countywide projects (Table 18). The capacity building has led to a creation of extensive partnerships with nine county agencies, 15 community-based organizations, 21 family resource centers, and five funders of local child services[24].

Table 18: DR Roles in Strengthening Family Functioning

Roles	Projects
Administrative and Fiscal Agent	Promoting Safe and Stable Families
Administrative and Fiscal Agent	Child Abuse Prevention, Intervention, and Treatment
Administrative and Fiscal Agent	Community Based Child Abuse Prevention
Administrative and Fiscal Agent	Kern County Children's Trust Fund
Administrative Agent	Foster Youth Services Program/AB490 Liaison Activities
Administrative Agent	County Accreditation of Local Community Collaborative

DR takes a best practical approach that has been adopted across the nation to prevent abuse and neglect. The funding from First 5 Kern accounts for 21% of DR's annual budget with an exclusive focus on supporting children ages 0-5. A range of supportive

[23] http://kern.org/kcnc/about/
[24] http://kern.org/kcnc/links/

services include counseling, parenting education, job training, food, utility, housing assistance and transportation. As a result, DR serves about 4,300 Kern kids a year, and 90% of the families are not re-referred to CPS (Bedell, 2019).

One of DR's key partners is DVRP that receives First 5 Kern funding to provide legal assistance and representation for victims of domestic violence. In particular, children ages 0 to 3 are most likely to experience severe injuries due to abuse or neglect (KCNC, 2017). DVRP serve multiple communities, including Bakersfield, Delano, Frazier Park, Mojave, and Shafter, for court document preparation, legal consulting, safety planning, victim representation, and resource referral (Abood, 2015).

GCP further strengthens family support and/or reduces attachment problem, mental anxiety, and psychological depression among young children (Duke, Pettingell, McMorris, & Borowsky, 2010). With GCP assistance, grandparents and non-parent caregivers are supported to obtain guardianship for children in stable and loving homes. The new settlement is critical to discontinuation of physical, mental, and emotional harm to child victims of domestic violence. Other child protection services are related to guardianship transitions under critical circumstances, such as parent incarceration or unemployment, substance or child abuse, child neglect or abandonment, physical or mental illness, parent divorce, and teen pregnancy. Through case management services, GCP supports medical homes, health insurance applications, dental services, mental health interventions, and preschool enrollments after successful guardianship placements.

Both DVRP and GCP are affiliated with a non-profit organization, Greater Bakersfield Legal Assistance (GBLA). Along with GBLA's launch of a Community Homeless Law Center Project, WSN sheltered mothers and children, and offered family counseling, group therapy, parent education, and medical or legal support. Altogether GCP, DVRP, and WSN served 467 children and 368 parents or guardians, surpassing the corresponding annual target of 417 children and 356 parents or guardians. These services contributed to prevention of domestic violence and alleviation of substantiated child abuse/neglect, which, in turn, reduced the burden of CPS in foster care facilities.

Corson (2017) noted, "On average, 50 children per day are referred to CPS for abuse or neglect with an average of 10 substantiated referrals per day" in Kern County (p. 2). Across the state, "Half of kids in foster care have endured four or more adverse childhood experiences" (Children Now, 2018, p. 49). In dealing with the widespread issue, First 5 Kern funded the following FRCs to strengthen family stability in Kern County:

1. Arvin Family Resource Center (AFRC)
2. Buttonwillow Community Resource Center (BCRC)
3. East Kern Family Resource Center (EKFRC)
4. Greenfield School Readiness Program (GSR)
5. Indian Wells Valley Family Resource Center (IWVFRC)
6. Kern River Valley Family Resource Center Great Beginnings Program (KRVFRC)
7. Lamont Vineland School Readiness Program (LVSRP)
8. McFarland Family Resource Center (MFRC)
9. Mountain Communities Family Resource Center (MCFRC)
10. Shafter Healthy Start (SHS)
11. Southeast Neighborhood Partnership Family Resource Center (SENP)
12. West Side Community Resource Center (WSCRC)

Three additional programs are funded in *Focus Area III: Early Childcare and Education* that share the scope of work in *Parent Education and Support Services*:

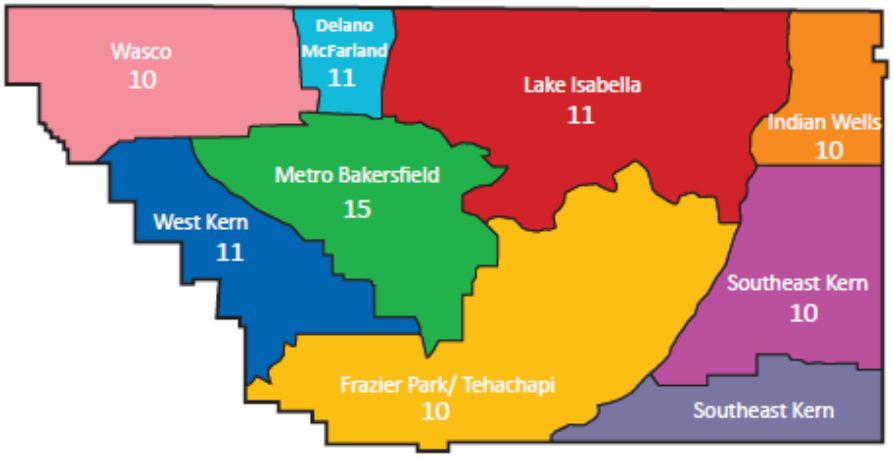
1. Delano School Readiness (DSR)
2. Lost Hills Family Resource Center (LHFRC)
3. Neighborhood Place Community Learning Center (NPCLC)

All these FRCs are set at central community locations to increase service accessibility. Resources from the National Association for the Education of Young Children (NAEYC) are employed to enrich culturally relevant parent education and support services. In remote communities, IWVFRC also offered transportation to serve 18 parents and/or guardians.

In planning for countywide service outreach, the Kern Council of Governments (KCOG) designated nine subareas according to local housing development[25]. Through First 5 Kern's strategic planning, a strong presence of 10 or more programs has been identified from *Focus Areas II* and *III* to extend parent education across various locations (Figure 17). The vast land availability in Kern County offers extensive spaces for housing development and demands service deliveries across a large area. At the county seat, the urban population in Bakersfield also surpassed the size of well-known cities like St. Louis in the 2010 census.

In balancing the program needs between hard-to-reach areas and densely populated communities, program funding is guided by the four objectives of First 5 Kern's (2018) strategic plan to improve family-focused, culturally relevant parent/guardian education and social services. Due to the overlap of program supports across focus areas, parent education outcomes are presented in the next three sections. Another section is created in this chapter to address result indicators of child development.

Figure 17: Distribution of Parent Education Programs in Kern County*



*Numbers are aggregated across countywide and local programs inside the parentheses

Implementation of Nurturing Parenting Curriculum in Parent Education

Across the broad spectrum of family support, researchers maintained that "investments in high-quality parenting education will be among the best investments any

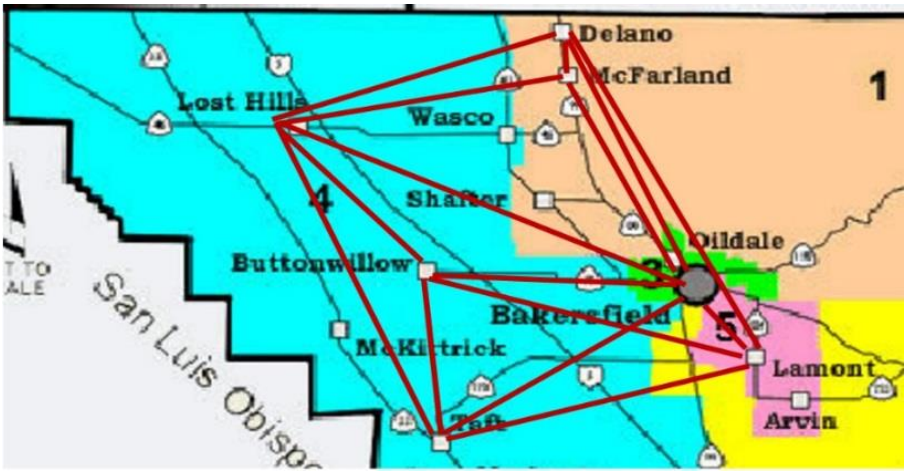
[25] http://www.co.kern.ca.us/planning/pdfs/he/HE2008_Ch1.pdf

community can make" (Bowman, Pratt, Rennekamp, & Sektnan, 2010, p. 8). In particular, the Nurturing Parenting (NP) curriculum is considered as a high-quality program, and has been employed in both court-mandated and non-court-mandated parent education settings. The NP materials on the *Infant, Toddler, and Preschooler* track are available in six languages, including English and Spanish. There is no minimum education requirement for program training. Due to its positive impact on improving parenting skills, the Departments of the Army and Navy utilized the NP program to enhance parenting skills for first-time parents in military bases worldwide (Family Development Resources, 2015). NP has also been recognized as an effective approach by the Substance Abuse and Mental Health Services Administration (SAMHSA) and the National Registry for Evidence-based Parenting Programs (NREPP).

Stephen Bavolek (2000), the NP developer, asserted that parenting patterns were learned in childhood and replicated later in life when children became parents. Thus, negative experiences may engulf children in parenting models of abuse, neglect, exploitation, and victimization. In Kern County, NP workshops were offered this year to remediate five maltreatment patterns: (1) having inappropriate developmental expectations of children, (2) demonstrating a consistent lack of empathy towards meeting children's needs, (3) expressing a strong belief in the use of corporal punishment and utilizing spanking as their principle means of discipline, (4) reversing the role responsibilities of parents and children, and (5) oppressing the power and independence of children by demanding strict obedience (Schramm, 2015).

In FY 2018-2019, seven FRCs used NP in non-court-mandated parent education. A three-day training was sponsored by First 5 Kern to introduce NP concepts and procedures to the FRC staff. The coalition of seven FRCs covered a geographic area that housed the majority of Kern County population (Figure 18).

Figure 18: Coverage of the NP Workshop Sites across Kern County



Each of the 10 workshops lasted 120 minutes. A variety of topics were presented in the workshops to improve positive lifestyles, design appropriate expectations, strengthen mutual understandings, develop self-concepts, establish family values, and handle discipline issues. An unduplicated count of 292 parents participated in these workshops at seven program sites. Specific goals have been set for these workshops in Table 19.

Table 19: Goals of Nurturing Parenting Workshops

Workshop	Goal
1	Increase parent's knowledge of nurturing parenting and nurturing as a lifestyle
2	Increase parent's awareness of appropriate expectations of children
3	Increase parents' ability to promote healthy brain development in their children
4	Help parents recognize and communicate their feelings and their child's feelings
5	Improve parent's and children's self-worth and self-concept
6	Help parents recognize and understand their feelings and their child's feelings
7	Increase parents' skills in developing family morals, values, and rules
8	Increase parents' understanding of the importance of praise
9	Increase parents' awareness of other ways to discipline besides spanking
10	Increase parents' ability to recognize and handle stress

Participants were asked to rate usefulness of the workshops on a five-point scale with 5 representing the most positive result. Table 20 showed an increase of the average participant ratings between last year and this year. Comparison has been made on the result of 2,132 responses across 10 workshops between the two adjacent years. On average, the overall usefulness rating increases from 4.57 last year to 4.72 this year, which indicates more respondents "strongly agree" that these workshops are useful in FY 2018-2019.

Workshop 1 also includes two special questions on practicing the concept of nurturing parenting:

- Before this workshop, how much did you practice the concepts of nurturing parenting?
- How likely are you to practice the concepts you learned today?

Two unique questions for Workshop 10 are about positive stress handling:

- As a result of today's workshop, how do you feel about your ability to handle your own stress in positive ways?
- As a result of today's workshop, how do you feel about your ability to help your child or children handle their stress in positive ways?

Table 20: Mean Ratings on the Usefulness of NP Workshops

Workshop	FY 2017-2018		FY 2018-2019	
	N	Mean	N	Mean
1	304	4.53	209	4.77
2	160	4.58	124	4.62
3	129	4.49	111	4.59

Workshop	FY 2017-2018		FY 2018-2019	
	N	Mean	N	Mean
4	111	4.59	99	4.76
5	143	4.71	92	4.73
6	124	4.61	81	4.84
7	99	4.36	77	4.74
8	86	4.66	55	4.75
9	77	4.53	61	4.57
10	67	4.61	58	4.78

Table 21: Mean Ratings on Special Survey Items for Workshops 1 and 10

Item	FY 2017-2018		FY 2018-2019	
	N	Mean	N	Mean
Practice nurturing parenting before Workshop 1	237	3.52	151	3.62
Practice nurturing parenting after Workshop 1	237	4.34	151	4.68
Ability to handle own stress after Workshop 10	67	4.49	58	4.53
Ability to help child handle stress after Workshop 10	67	4.61	58	4.72

On average, Table 21 shows higher positive ratings on these items since last year. Despite the decrease of respondent count this year, parents generally feel that they have learned nurturing parenting practices and increased ability to handle stress for themselves and their children.

While Workshops 1 and 10 serve as the introduction and conclusion sessions, Table 22 shows significant improvement of participant knowledge in Workshops 2-8. The effect sizes are larger than 0.80, suggesting practical impact of these workshops this year. Workshop 9 is designed to increase parents' awareness of alternative ways to disciplining children besides spanking. The data are reversely scaled with 1 representing "Children should never be spanked" and 5 indicating "Children should be spanked every time they do something wrong, no matter how small". Although the sample sizes in Table 23 are too small to conduct statistical testing at the program level, the ratings show parents more reluctant to spank children as a result of this workshop at seven FRCs.

Table 22: Increase of Participant Knowledge on the Content of Workshops 2-8

Workshop	N	Pretest Mean	Posttest Mean	t	p	Effect Size
2	124	3.23	4.40	10.17	<.0001	1.83
3	111	2.55	4.02	13.54	<.0001	2.58
4	99	3.03	3.95	5.78	<.0001	1.17
5	92	3.38	4.73	13.23	<.0001	2.77
6	81	3.49	4.54	8.37	<.0001	1.87
7	77	3.12	4.19	8.44	<.0001	1.94
8	55	4.13	4.82	5.57	<.0001	1.52

Table 23: Parent Awareness of Other Ways to Discipline Other Than Spanking*

Program	N	Pre-Rating	Post-Rating
AFRC	3	2.33	2.00
BCRC	15	2.87	3.47
DSR	4	2.00	3.25
GSR	9	2.66	3.44
LVSRP	9	2.44	3.22
MFRC	4	2.00	2.75
WSCRC	17	2.88	3.47

*The awareness of "other ways" is represented by 5 after recoding.

In summary, through the NP workshop offerings, First 5 Kern funding has been employed to support an original goal of the State Commission in *Family Functioning*, i.e., "Families and communities are engaged, supported, and strengthened through culturally effective resources and opportunities that assist them in nurturing, caring, and providing for their children's success and well-being" (First 5 California, 2014, p. 7).

Establishment of Parenting Beliefs against Child Maltreatment

FRC offers parent education to help replace abusive parenting patterns with positive ones. Depending on the program capacity, the service includes court-mandated parent education, nutrition instruction, financial training, school readiness preparation, nurse consultation, transportation support, and legal assistance. Besides First 5 Kern, nearly two-dozen partners are listed in FRC brochures for program referrals pertaining to (1) medical, dental, and mental health treatment, (2) child developmental screening, (3) parent employment and education, (4) household utility and rental assistance, (5) domestic violence prevention, (6) family insurance application, (7) health screening, and (8) clothing, food, shelter, and other emergency/safety support.

In FY 2018-2019, court-mandated parent education was offered to promote changes of parental belief according to the positive norms for nurturing parenting. Samuelson (2010) noted, "Effective parent education programs have been linked with decreased rates of child abuse and neglect, better physical, cognitive and emotional development in children, increased parental knowledge of child development and parenting skills" (p. 1). To assess the extensive impacts, researchers identified a norm-referenced Adult-Adolescent Parenting Inventory-2 (AAPI-2) for measuring the program impact on psychological constructs that negatively undermined parent-child interactions (Berg, 2011; Moore & Clement, 1998). AAPI-2 incorporated assessment of five parent beliefs pertaining to child maltreatment:

A. Inappropriate developmental expectations of children
B. Lack of parental empathy toward children's needs
C. Strong parental belief in the use of physical punishment
D. Reversing parent-child family roles
E. Oppressing children's power and independence

The instrument was recommended by California Evidence-Based Clearinghouse for Child Welfare (2014). Besides First 5 Kern, at least nine other First 5 county commissions employed AAPI-2 to evaluate effectiveness of parent education[26].

First 5 Kern funded court-mandated parent education at six FRCs: (1) East Kern Family Resource Center (EKFRC), (2) Indian Wells Valley Family Resource Center (IWVFRC), (3) Kern River Valley Family Resource Center (KRVFRC), (4) Neighborhood Place Community Learning Center (NPCLC), (5) Shafter Healthy Start (SHS), and (6) Southeast Neighborhood Partnership Family Resource Center (SENP). Bocanegra (2014) pointed out, "A critical factor in buffering children from the effects of toxic stress and adverse childhood experiences is the existence of supportive, stable relationships between children and their families, caregivers, and other important adults in their lives" (p. 3). Hence, reverse of negative parental beliefs is not only crucial in *Family Functioning*, but also important for *Child Development*.

In FY 2018-2019, the AAPI-2 instrument is employed in a pretest and posttest setting to track responses of 117 parents across six programs that offer court-mandated parent education services. In comparison, the data from last year contained 85 observations, and consequently, EKFRC and KRVFRC were excluded for gathering four and seven observations, too small for statistical analysis. With more data collection this year, significant improvement of parental empathy is found in all six programs (Table 24).

Court-mandated parent education is more rigorous than general parenting workshops. Despite the site variation, significant impact has been found on all AAPI-2 constructs for any programs with a data size of 23 or larger (see IWVFRC, SENP, and NPCLC in Table 24). Effect sizes are computed to show Cohen's d larger than .80 for strong practical impact from the parent education programs.

Table 24: Impact of Court-Mandated Parent Education in Focus Areas II & III

Construct	Focus Area	Program*	Result		
Expectations of Children	II	IWVFRC	t(27)=14.87,	p<.0001;	Effect Size=5.72
		KRVFRC	t(13)=3.35,	p=.0052;	Effect Size=1.86
		SENP	t(22)=5.00,	p<.0001;	Effect Size=2.13
	III	NPCLC	t(25)=13.19,	p<.0001;	Effect Size=1.72
Parental Empathy	II	EKFRC	t(9)=4.39,	p=.0017;	Effect Size=2.93
		IWVFRC	t(27)=10.56,	p<.0001;	Effect Size=4.06
		KRVFRC	t(13)=2.49,	p=.0272;	Effect Size=1.38
		SENP	t(22)=5.90,	p<.0001;	Effect Size=2.52
		SHS	t(15)=6.91,	p<.0001;	Effect Size=3.57
	III	NPCLC	t(25)=11.45,	p<.0001;	Effect Size=1.88
Physical Punishment	II	EKFRC	t(27)=7.92,	p<.0001;	Effect Size=3.05
		IWVFRC	t(9)=2.73,	p=.0230;	Effect Size=1.82
		SENP	t(22)=4.28,	p=.0003;	Effect Size=1.83
		SHS	t(15)=3.68,	p=.0022;	Effect Size=1.90
	III	NPCLC	t(25)=8.99,	p<.0001;	Effect Size=1.97

[26] These nine other counties are Los Angeles, Madera, Sacramento, San Bernardino, Santa Barbara, Santa Cruz, Solano, Shasta, and Tuolumne.

Construct	Focus Area	Program*	Result
Parent-Child Roles	II	IWVFRC	t(27)=9.15, p<.0001; Effect Size=3.52
		SENP	t(22)=9.42, p<.0001; Effect Size=4.02
		SHS	t(15)=2.81, p=.0132; Effect Size=1.45
	III	NPCLC	t(25)=8.87, p<.0001; Effect Size=1.33
Child Power & Independence	II	EKFRC	t(9)=2.63, p=.0273; Effect Size=1.75
		IWVFRC	t(27)=6.92, p<.0001; Effect Size=2.66
		SENP	t(22)=3.67, p=.0014; Effect Size=1.56
		SHS	t(15)=5.48, p<.0001; Effect Size=2.83
	III	NPCLC	t(25)=4.92, p<.0001; Effect Size=1.97

*Program acronyms are listed in Appendix A.

Historically, FRCs have had to piece together funding through private donations, county general funds and the shrinking Proposition 10 investment (Ellis, 2019). On October 2, 2019, Governor Gavin Newsom signed Senate Bill 436 (SB 436) to formalize FRC as a key delivery network of services and as conduits to strengthening families via family-centered, community-based and culturally sensitive services that include cross-system collaboration with the goal of helping to prevent child abuse and strengthening family connections. Thus, First 5 Kern funding has bridged a gap between past and future to strengthen FRC support ahead of SB 436. In fact, "The only Valley-based entity with written support for the bill was First 5 Kern County" (Ellis, 2019, p. 2).

Restoration of Family Functioning for Child Protection

While FRC fulfills its role in parent education to restore family functioning, external intervention is sometimes needed for child protection. For instance, Children Now (2018) pointed out,

> Children need access to quality, affordable mental health care and supports that monitor and treat mental illness, help kids build positive relationships, assist kids who have experienced trauma, and give kids the ability to face typical stressors with resilience. (p. 37)

In this funding cycle, First 5 Kern funded four programs to support restoration of family functioning for early childhood protection. The result tracking is reported in this section to assess program effectiveness.

1. DR Service to Strengthen Child Protection

It was reported that "Of the children who died because of abuse or neglect, 95% were younger than five years old between 2011 and 2015" (KCNC, 2016, p. 44). To strengthen child protection, First 5 Kern funded DR service coverage across the county. The extensive program outreach was accomplished through partnership building between DR and 45 agencies at both county and community levels. With First 5 Kern funding as its seed money, DR leveraged around 79% of its annual budget to sustain CPS.

In FY 2018-2019, DR continued adopting the North Carolina Family Assessment Scale for General Services (NCFAS-G) to monitor improvement of family functioning on eight dimensions, *Environment, Parental Capabilities, Family Interactions, Family Safety,*

Child Well-being, Social/Community Life, Self-Sufficiency, and *Family Health*. Built on the data tracking between pretest and posttest, Cronbach's alpha index was computed from 312 observations on the gain scores, and the result reached .93 to confirm consistency of the measurement outcomes.

Due to the large sample size, statistical testing has been conducted to examine significance of the DR impact. Table 25 showed significant enhancement of family functioning across all eight domains of NCFAS-G assessment. The effect size values were larger than .80 to confirm strong practical impacts from the program intervention.

Table 25: Impact of DR Services on the NCFAS-G Scales

Scale Domain	Results	
Environment	t(309)=13.14, p<.0001;	Effect Size=1.50
Parental Capabilities	t(309)=11.77, p<.0001;	Effect Size=1.34
Family Interactions	t(309)=14.01, p<.0001;	Effect Size=1.59
Family Safety	t(309)=11.50, p<.0001;	Effect Size=1.31
Child Well-Being	t(309)=13.29, p<.0001;	Effect Size=1.51
Social/Community Life	t(309)=11.17, p<.0001;	Effect Size=1.27
Self-Sufficiency	t(308)=12.62, p<.0001;	Effect Size=1.44
Family Health	t(309)=12.06, p<.0001;	Effect Size=1.37

2. DVRP Support to Reduce Domestic Violence

"Child abuse and neglect present serious threats to children's well-being" (Children Now, 2018, p. 45). DVRP created a comprehensive protocol to provide a full range of legal assistance for child protection. Upon case identification, DVRP assigned a supervising attorney and a paralegal to examine the issue of a child's exposure to domestic violence. Feasible plans were implemented to protect children and other victims with *substantiated abuse* experiences. The service also included interpretation support for clients in 21 languages[27]. In FY 2018-2019, DVRP supported 149 parents or guardians and 191 children in preventing domestic violence, child abuse and/or neglect.

At end of the DVRP services, 42 victims of domestic violence responded to a program survey. All of them strongly agreed to the following six statements:

- My sense of safety and peace of mind have been restored;
- The child(ren) live in a safe environment;
- The child(ren) live in a stable environment;
- The child(ren) are no longer exposed to domestic violence;
- I know my rights and protections as a victim of domestic violence; and
- The child(ren) in the household are not subjected to abuse and/or neglect.

Behind the positive responses are service effectiveness stories from the DVRP program. For instance, a child at age 4 was in an unsafe environment. The mother and child suffered physical abuse by the father. DVRP assisted filing of a restraining order so that the child is protected at the mother side for three years. DVRP intensive family

[27] http://gbla.org/about-gbla/history/

support also includes representation in court to obtain child custody and visitation orders for victim protection.

3. GCP Services for Child Protection

While legal procedures were established to serve adult victims from domestic violence, "increasing attention is now focused on the children who witness domestic violence" (Bragg, 2003, p. 5). GCP assisted caregivers to prevent abuse or neglect of children ages 0-5 through establishment of guardianship protection. The services include (1) representation of prospective caregivers in preparing and filing guardianship petitions, (2) responding to objections, (3) planning for mediations and guardianship hearings, and (4) completion of post-hearing letters and orders. In FY 2018-2019, goals have been set for GCP to serve 180 guardians and 200 children. GCP surpassed these goals by serving 181 guardians and 228 children.

For more than a decade, the rate of child abuse/neglect in Kern County has been around 9.2% while the state rate was kept under 7%[28]. GCP has been maintaining quality services in this much-needed region. In FY 2018-2019, exit survey data were gathered from 69 clients and over 98.5% of them "agreed" or "strongly agreed" that their children live in a safe and stable environment. These respondents also acknowledged that "I am more knowledgeable about the duties, rights, and responsibilities of legal guardianship" and "The child(ren) in the household are not subjected to abuse and/or neglect". In addition, more than 97% of the respondents "agreed" or "strongly agreed" that their children had access to medical services and mental health treatments.

GCP's direct legal services to grandparents and caregivers have created guardianship for children to avoid neglect and physical or sexual abuse. The case management enhanced economic and family stability, and supported family access to medical homes, health or mental health services, and preschool education. As Children Now (2018) suggested, "A child that has a stable placement or finds a permanent home, through reunification with parents, guardianship or adoption, is more likely to receive the services and supports they need to heal and thrive" (p. 47).

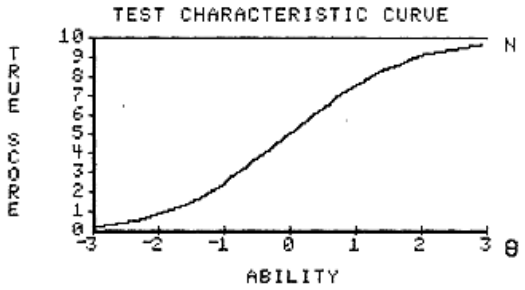
4. Collaborative Interventions on Family Support

In last year, Ages and Stages Questionnaires®: Social-Emotional (ASQ:SE) was employed to help home visiting, early intervention, and child welfare agencies screen and assess infants and young children in the area of social-emotional development. Children who are identified with social-emotional challenges can be referred to in-depth evaluation and intervention. This year, First 5 Kern funded programs started to use the second edition of ASQ:SE (ASQ:SE-2) for infant and toddler assessments.

In the United States, high-profile tests, such as SAT, ACT, and GRE, are grounded on Item Response Theory (IRT). At the core of IRT is a test characteristic curve to link the measurement outcome (i.e., true score) to the ability. If the two variables show a monotonous pattern (see Figure 19), the measurement outcome, when scaled properly, can be used to represent the ability parameter.

[28] www.Kidsdata.org

Figure 19: Monotonous Pattern between True Score to Ability

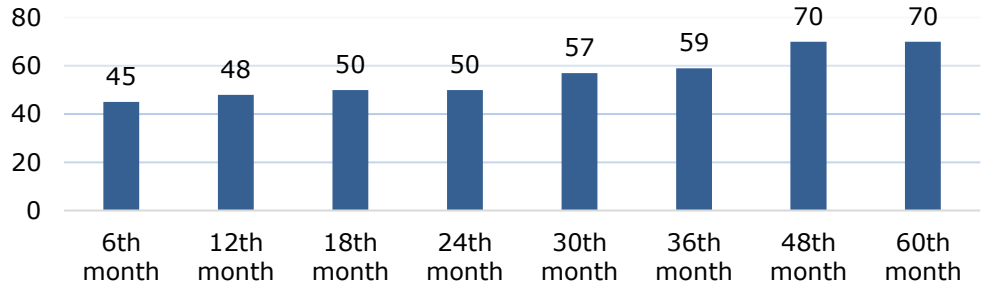
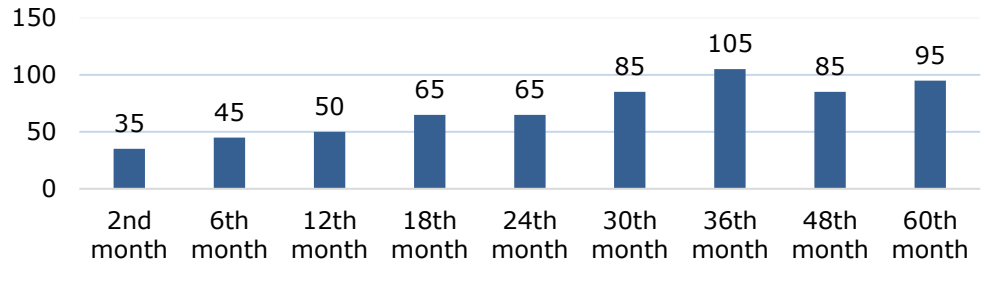


Source: http://echo.edres.org:8080/irt/baker/chapter4.pdf

However, the monotonous pattern did not exist in the ASQ:SE-2 scaling. In Table 26, the cutoff score for ASQ:SE-2 is abnormally high at 36th month, which deviates from the expected test characteristic curve. In responses, the ASQ:SE-2 developer wrote:

> Dear Professor Wang—think that you wrote to Brookes Publishing with some concerns about ASQ:SE cutoffs. These were all empirically derived, from a sample of 16,000 children. (Personal Communication on 9/11/2019)

Table 26: Age-Specific Cutoff Scores in ASQ:SE and ASQ:SE-2

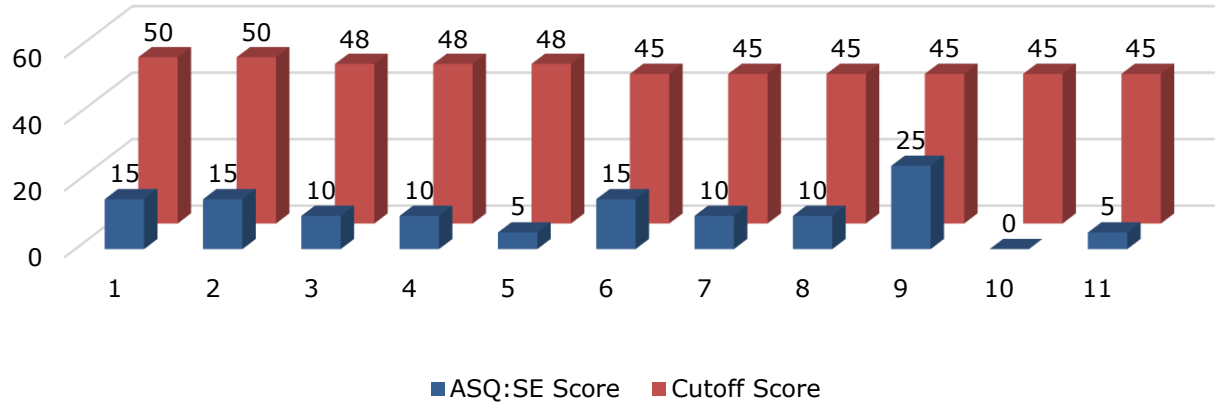
Instrument	Cutoff Score Distribution
ASQ:SE[1]	
ASQ:SE-2[2]	

Notes:
1.https://clas.uiowa.edu/nrcfcp/sites/clas.uiowa.edu.nrcfcp/files/Ages%20and%20Stages%20Questionnaires%20ASQSE.PDF
2. https://www.famsys.org/Forms/HFNJ_Asq_SE_Score.pdf

The sample of 16,000 children seems fairly large for an empirical study. But the unique pattern at 36th month, while fit this unique sample, is at odd with the monotonous child growth in general. On 9/25/2019, the developer brought in another expert from Brazil who acknowledged in an email to the Principal Investigator that,

> As you said, to achieve the monotonous pattern of characteristic curve stipulated by IRT, I reversed the original score.
> However, now I could see your printed table and I understand your point.

Figure 20: Comparison of ASQ:SE and Cutoff Scores in NFP



Although it was claimed that "Ages & Stages Questionnaires: Social-Emotional, Second Edition (ASQ:SE-2)—a parent-completed, highly reliable system focused solely on social and emotional development in young children"[29], its cutoff scores have shown the fundamental technical issue against IRT. Consequently, this report is delimited to analyses of the ASQ:SE data from NFP. As shown in Figure 20, the ASQ:SE scores for 11 children are much lower than the corresponding cutoff scores. Thus, the results reveal no concern for an in-depth evaluation in the area of social-emotional development for these children.

5. Case Management Services for General Family Support

First 5 Kern funded 20 programs to extend general case management support for children and families across focus areas. Except for NFP in *Child Health*, all programs in Table 27 delivered case management services at the family level, which justified more emphasis of the result reporting in *Parent Education and Support Services*. Altogether, 992 families and 795 children received general case management supports in FY 2018-2019, surpassing the annual target of 780 families and 545 children. A total of 81.25% of the programs reached or surpassed the service target for family case management and 88.89% programs attained or exceeded the support target for child case management.

[29] https://agesandstages.com/products-pricing/asqse-2/

Table 27: General Case Management Support across Twenty Programs*

Focus Area	Program Acronym	Family Count		Child Count	
		Total	Target	Total	Target
Child Health	BIH	70	70	38	40
	KCCDHN	276	175	--	--
	MVIP	43	45	--	--
	NFP	--	--	59	50
	RSNC	43	40	44	40
Family Functioning	AFRC	41	40	42	40
	BCRC	20	20	26	20
	EKFRC	12	30	2	2
	GSR	60	50	67	50
	IWVFRC	45	40	56	55
	KRVFRC	55	50	54	60
	LVSRP	55	40	96	40
	MFRC	37	30	43	15
	MCFRC	22	18	28	18
	SHS	33	30	37	30
	SENP	107	40	121	40
	WSCRC	16	17	32	20
Child Development	DSR	37	25	50	25
	LHFRC	20	20	--	--

*Program full names are listed in Appendix A.

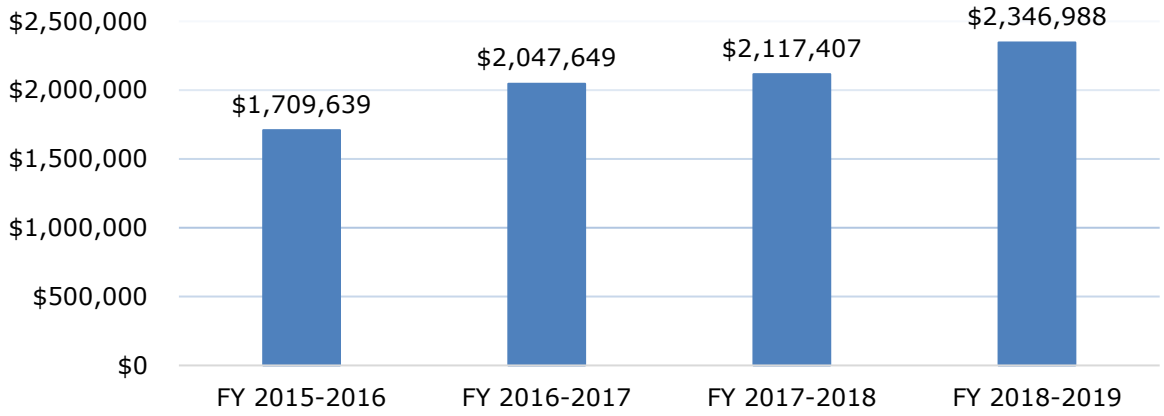
California had a low share of women working and high cost of child care (Miller, 2019a). To equip local parents with childrearing skills, First 5 Kern sponsored court-mandated and non-court-mandated parent education at 13 FRCs across Kern County. The service was designed to support early childhood development in the home setting. In addition, "When a child cannot be returned home and adoption is not in the child's best interests, then guardianship is considered to be a more permanent plan for a child" (KCNC, 2016, p. 50). In this section, parent/guardian reports were employed to indicate program effectiveness after the DR, DVRP, and GCP interventions.

The positive impact of DR was illustrated by the NCFAS-G results. The ASQ:SE outcomes were analyzed from NFP to eliminate the concern for in-depth social-emotional evaluation. Thus, the program support included parent education and counseling that kept child performance above cutoff scores of the ASQ:SE scale. Through the program offerings, First 5 Kern has addressed a state stipulation on "Parental education and support services in all areas required for, and relevant to, informed and healthy parenting" (Proposition 10, p. 7). As a result, children are not only protected in the home environment, but also mentally healthy on the social-emotional scale.

(III) Enhancement of *Early Childcare and Education*

It was reported that 93% of fathers and 72% of mothers with children at home are in the labor force (Miller, 2019a). Thus, support for early childcare and education is important for most working families. Although children from low income families often have no access to quality early education, school failure is less common for children higher up the income ladder. To reduce the equity gap, the state report glossaries offer two general domains to categorize First 5 Kern funded services in *Early Childcare and Education*: [1] Quality Early Learning Supports (QELS) and [2] Early Learning Programs.

Figure 21: Increase of First 5 Kern Funding in *Early Childcare and Education*



Families on average spend more on childcare costs than on housing, healthcare, food, and college. This unsustainable trend is a key driver of economic disparity (Bonello, 2019). To reduce the gap, the First 5 California IMPACT (Improve and Maximize Programs so All Children Thrive) grant has been channeled through QELS to expand the number of high-quality early learning settings, including supporting and engaging families in the early learning process. In Domain [2], First 5 Kern devoted $1,556,942 to fund 10 programs that offered direct services in *Early Childcare and Education*. Including the investment from IMPACT, the total program spending in FY 2018-2019 amounts to $2,346,988, larger than any other years in the current funding cycle (Figure 21).

Altogether, service counts at the child level increased from 6,043 last year to 6,904 this year. The number of caregivers also increased from 872 to 1,049 between the two adjacent years. The early childhood programs were supported by 205 service providers in Kern County (Ibid 6). Since IMPACT is not guided by the local strategic plan, outcomes in Domain [1] are excluded from this annual report. In Domain [2], South Fork Preschool (SFP) and Wind in the Willows Preschool (WWP) provided education services for three and four-year-olds at rural communities of Lake Isabella and Mojave Desert. Blanton Child Development Center (BCDC), Discovery Depot Child Care Center (DDCCC), and Small Steps Child Development Center (SSCDC) are funded to support early childcare for families with special needs.

In addition, five preschool programs also received funding to facilitate kindergarten transition:

1. Delano School Readiness (DSR)
2. Lost Hills Family Resource Center (LHFRC)
3. Neighborhood Place Parent Community Learning Center (NPCLC)
4. Ready to Start (R2S)
5. Supporting Parents and Children for School Readiness (SPCSR)

In retrospect, DSR, LHFRC, and SPCSR originated from a First 5 California School Readiness Initiative (SRI). SRI also sponsored development of Summer-Bridge classes across eight programs in Focus Area II: *Parent Education and Support Services*:

1. Arvin Family Resource Center

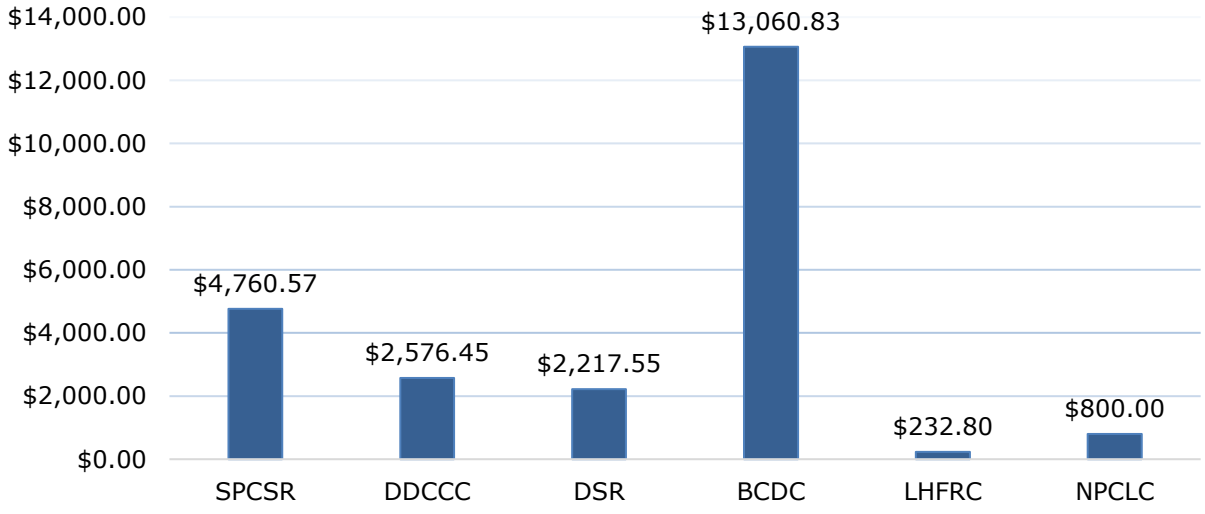
2. Buttonwillow Community Resource Center
3. East Kern Family Resource Center
4. Greenfield School Readiness Program
5. Lamont Vineland School Readiness Program
6. McFarland Family Resource Center
7. Shafter Healthy Start
8. West Side Community Resource Center

Due to the service overlap across focus areas, results from all Summer-Bridge programs are reported in this section to aggregate child development outcomes from the kindergarten transition services.

Besides the programs initiated from the past SRI, R2S is a local program with support from KCSOS. Since its inception, R2S received more than $830,000 contribution from Aera Energy to hire a Program Coordinator, classroom coaches, preschool teachers, and instructional aides for service delivery. Grounded on the private-public partnership, "The program prepares children who have no preschool experience with the skill base they'll need for kindergarten"[30].

All programs in this focus area operated within their budgets. In particular, six programs saved $81,333.46 from the original annual budget (Figure 22). One advantage from the reduction of overall program spending is an improvement of the benefit-cost ratios (BCR) for service delivery. While a high BCR was reported from early childhood services with low-income populations (Heckman, 2011), "few studies provide rigorous estimates of effects on children from across the general population" (Barnett & Masse, 2007, p. 123). Empirical data analyses are needed in this report to fill this void.

Figure 22: Program Budget Savings in *Early Childcare and Education*



In summary, First 5 Kern's support in Early Childcare and Education has addressed two objectives of the local strategic plan: (1) Children will enter school prepared as a result of their participation in early childhood education and childcare services, and (2) Special population children (e.g. non-traditional hours and/or children with special needs) will have access to early childhood education and childcare services (First 5 Kern, 2018).

[30] https://www.aeraenergy.com/aera-energys-donation-helps-get-students-ready-to-start-2/

Multiple Result Indicators (RI) have been specified in the strategic plan to link **Objective 1** to service outcomes of home-based, center-based, and Summer-Bridge programs (RI 3.1.1-3.1.3, Ibid. 16). **Objectives 2** targets on the service access by children with special needs (RI 3.2.1, 3.2.2, Ibid. 16) and/or during non-traditional hours (RI 3.2.3, Ibid. 16).

The alignment between RI designation and service description is summarized in Table 28. Service outcomes are examined in the following sections to assess effectiveness of center-based, home-based, and Summer-Bridge programs, as well as the support services for children with special needs.

Table 28: Service Description and RI Designation in Child Development

Objective	Service Description	RI Designation
[1]	Home-Based, Center-Based, and Summer-Bridge Childcare and Education	Child Service Access
[2]	Accommodation of Children with Special Needs and During Non-Traditional Hours	Service Availability

Capacity of Program Support in Child Development

Program capacities are interconnected, and "Parent education levels are also related to children's academic achievement" (American Institutes for Research, 2012, p. 7). Thus, multiple services are delivered by First 5 Kern funded programs across focus areas, which fit the original purpose of making FRCs function as a one-stop hub in local communities (Thompson & Uyeda, 2004). In Table 29, center-based service counts are listed for 19 programs across focus areas.

Except for the sole focus of R2S on Summer-Bridge education, all other programs in *Early Childcare and Education* provided center-based education. In addition, half of the programs offered child education services, and one program in *Child Health* organized education workshops to support healthy literacy development. These center-based programs provided education services for 1,011 children while the total target count was 774. Therefore, all programs in this focus area reached or surpassed their service targets.

Table 29: Delivery of Early Education Services on Center-Based Platforms

Focus Area	Program Acronym*	Child Count	
		Total	Target
Child Health	HLP	123	120
Family Functioning	AFRC	27	25
	BCRC	23	20
	EKFRC	8	0
	GSR	123	120
	LVSRP	19	15
	MFRC	41	20
	MCFRC	5	5
	SHS	41	40
	WSCRC	21	25
	BCDC	33	25
	DSR	33	30
	DDCCC	49	50
	LHFRC	27	20

Focus Area	Program Acronym*	Child Count	
		Total	Target
Child Development	NPCLC	302	166
	SSCDC	39	35
	SFP	31	24
	SPCSR	54	40
	WWP	39	34

*Program full names are listed in Appendix A.

To support program outreach, First 5 Kern also funded home-based education services. While SPCSR offered services in Bakersfield, three additional programs, i.e., EKFRC, DSR, and LHFRC, are located near the border of Kern County. In FY 2018-2019, these programs delivered home-based education for 70 children, exceeding the total target count of 68 children in Table 30.

Table 30: Delivery of Early Education Services on Home-Based Platforms

Focus Area	Program Acronym*	Child Count	
		Total	Target
Family Functioning	EKFRC	30	25
Child Development	DSR	14	15
	LHFRC	14	20
	SPCSR	12	8

*Program full names are listed in Appendix A.

For children with special needs, ages 0-5 is a critical period to close developmental gaps. Because a child's brain undergoes dramatic growth at this stage, gaps in one area could impact child wellbeing in other areas. The outcome connection supports service integration across focus areas. With its program affiliation in *Family Functioning*, LVSRP assisted children from 124 families with health insurance applications and offered preschool learning activities to 24 children.

Special needs have also been addressed in *Child Health* for 859 children through MVIP and MVCCP programs [see Section (I) of this chapter]. In Table 31, a target was set for additional programs to support a total of 55 children with *special needs*. This year a total of 76 children received center-based education during regular and/or non-traditional hours. The commitment to *special-needs* services fit a broad vision of First 5 California to "build a quality system of early care and education with access for all"[31].

Table 31: Counts of Children Receiving Center-Based, Special-Need Services

Service Type	Focus Area	Program Acronym*	Child Count	
			Total	Target
Regular Hours	Child Development	SFP	4	0
	Child Health	SSEC	40	37
Non-Traditional Hours	Child Development	LHFRC	3	0
	Child Health	SSEC	29	18

*Program full names are listed in Appendix A.

To prepare preschoolers for kindergarten transition, First 5 Kern (2018) set a result indicator on *the number of children who participated in Summer Bridge center-based*

[31] http://ccfc.ca.gov/pdf/F5CAFOCUSUG2017.pdf

activities. In FY 2018-2019, programs in Table 32 served a total of 777 preschool-aged children. With partnership support from First 5 Kern, KCSOS, and Aera Energy[32], R2S served the needs of soon-to-be-kindergartners who were not exposed to preschool. Due to Transitional Kindergarten and other policy impact from the state, the eligible student pool was shrinking in recent years. Meanwhile, external funding from Aera Energy was cut back. As Children Now (2018) pointed out, "There is a high need for these programs, yet the necessary funding to meet this need remains inadequate" (p. 25). Consequently, both R2S and SPCSR had service counts substantially below their annual targets. For the remaining 12 programs, the total enrollment target was set at 276 and these programs jointly extended education services to 309 preschoolers (Table 32). SFP and SSEC were new programs that contributed services for this result indicator in FY 2018-2019.

Table 32: Participant Counts in Summer-Bridge Programs

Focus Area	Program Acronym*	Child Count	
		Total	Target
Child Health	SSEC	40	37
Family Functioning	AFRC	20	20
	BCRC	17	20
	EKFRC	31	15
	GSR	50	50
	IWVFRC	16	14
	LVSRP	24	20
	MFRC	19	20
	SHS	26	25
	WSCRC	29	25
Child Development	DSR	33	30
	R2S	437	550
	SFP	4	0
	SPCSR	31	100

*Program full names are listed in Appendix A.

In summary, First 5 Kern led countywide efforts to champion the wide-ranging support for early childhood education across the vast valley, mountain, and desert communities. "Children who attend preschool are not only more prepared for kindergarten but some also say children are better set up for the rest of their lives" (Mauskopf, 2019, p. 2). To strengthen school readiness for children from different family backgrounds, result indicators have been monitored on the quality of home-based, center-based, and Summer-Bridge programs for early childcare and education. The early childcare services have addressed persistent issues of program access by children *with special needs* and *in remote locations*.

Assessment of Program Outcomes in Early Childhood Education

To track the improvement of program performance, assessment data have been gathered from pretest and posttest settings using several instruments, including Ages and Stages Questionnaire-3 (ASQ-3), Child Assessment-Summer Bridge (CASB), Desired Results Developmental Profile (2015) - Infant/Toddler View (DRDP-IT), Desired Results Developmental Profile (2015) – Preschool/Fundamental View, and Desired Results

[32] http://kern.org/2015/10/ready-to-start/

Developmental Profile (2015) – Preschool/Comprehensive View. The instrument features are listed in Table 33 to support data analyses in early childhood development.

Table 33: Instruments for Data Collections in Focus Areas II & III

Instrument	Feature	Population
ASQ-3	Age-appropriate measures to assess child development in *Communication, Gross Motor, Fine Motor, Personal-Social*, and *Problem Solving* domains.	Ages 0-5
CASB	Value-added assessment in child *Communication, Cognitive, Self-Help, Scientific Inquiry, Social Emotional* and *Motor* skills.	Ages 4-5
DRDP-Infant/ Toddler View	Indicators of *Approaches to Learning – Self-regulation, Cognition, Language and Literacy Development, Physical Development-Health, and Social and Emotional Development*.	Infant or Toddler
DRDP-PS Fundamental/ Comprehensive Views	Indicators of *Approaches to Learning – Self-regulation, Cognition, History-Social Science, Language and Literacy Development, Physical Development-Health, Social and Emotional Development,* and *Visual and Performing Arts*.	Preschooler

1. Ready to Start Findings

In FY 2018-2019, the R2S Foundation administered a five-week school readiness program to serve *pre-kindergarten, four-year-old* children in Greenfield Union School District (GUSD), Panama-Buena Vista Union School District (PBVUSD), Rosedale Union Elementary School District (RUESD), and Standard Elementary School District (SESD). The program accommodated English learners and children with limited or no transitional kindergarten experiences. R2S adopted a well-structured, rigorous curriculum to engage students in object counting, number recognition, shape identification, size arrangement, calendar planning, alphabet differentiation, color sorting and other supportive and social skills.

Through mandatory pretest and posttest assessments, R2S tracked kindergarten-readiness skill developments of 400 preschoolers across four school districts. The R2S standard test designated a maximum of 24 points in the areas of Reading Readiness (0-10 points), Math Readiness (0-10 points) and Supportive Skills (0-4 points). The data showed attainment of the mastery level from 42.39% in the pretest to 67.26% in the posttest on *Reading Readiness, Math Readiness*, and *Supportive Skills*. The combined mean score across these domains increased from 10.17 to 17.64 within five weeks. The effect size was 1.57, indicating a strong practical impact on the kindergarten readiness indicators. The consistent pattern was demonstrated by improvement of child performance at each school district in Table 34.

Table 34: Comparison of Average Scores from R2S Pretest and Posttest

School District	N	Math		Reading		Social Skills	
		Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
GUSD	154	5.53	7.98	5.45	7.14	2.74	3.70
PBVUSD	157	2.95	6.01	2.87	5.55	0.06	3.50
RUESD	59	5.15	9.08	5.42	7.42	2.42	3.66

School District	N	Math		Reading		Social Skills	
		Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
SESD	30	5.60	8.73	5.47	7.63	2.97	3.73

Because the program size varied across schools, both statistical testing and effect size computing were conducted to examine the mean score differences in three assessment domains. The statistical results indicated significant improvements in *math, reading*, and *social* skills at GUSD, PBVUSD, RUESD, and SESD. With the effect sizes larger than 0.80 in Table 35, the strong and practical program impact of R2S is reflected at both program and district levels.

Table 35: R2S t Test and Effect Size Results

School District	N	Math		Reading		Social Skills	
		t*	Effect Size	t*	Effect Size	t*	Effect Size
GUSD	154	17.19	2.78	15.44	2.50	13.37	2.16
PBVUSD	157	16.14	2.16	16.49	2.64	41.08	6.58
RUESD	59	22.07	5.80	10.55	2.77	10.00	2.63
SESD	30	14.71	5.46	8.24	3.06	4.89	1.82

* The t values were all highly significant for p<.0001.

2. ASQ-3 Findings

ASQ-3 outcomes include child growth indicators in *Communication*, *General Motor*, *Fine Motor*, *Personal-Social*, and *Problem Solving* domains. Among programs funded by First 5 Kern, 21 service providers tracked child growth against age-specific thresholds for 1,708 children during Months 2-60. In Section (I) of this chapter, ASQ-3 findings were reported for 102 children from BIH, MVIP, and NFP programs in *Health and Wellness*. This section is devoted to reporting ASQ-3 findings from 1,606 children, 1,181 from 13 programs in *Focus Areas II: Parent Education and Support Services* and 425 children from five programs of *Focus Areas III: Early Childcare and Education* (Table 36).

Table 36: Scope of ASQ-3 Data Collection in Focus Areas II & III

Focus Area	Program*	Months	Sample Size
II	AFRC	2-60	94
	BCRC	2-60	79
	EKFRC	2-60	85
	GSR	2-60	122
	IWVFRC	2-60	38
	KRVFRC	2-60	191
	LVSRP	2-54	114
	MCFRC	2-60	47
	MFRC	33-60	70
	SENP	2-60	218
	SHS	48-60	59
	WSCRC	6-60	35
	WSN	2-60	29
	BCDC	2-27	58
	DSR	36-60	45

Focus Area	Program*	Months	Sample Size
III	LHFRC	18-60	60
	NPCLC	2-60	152
	SPCSR	2-60	110

*Program acronyms are listed in Appendix A.

With a few exceptions, Table 37 showed certain programs reached a 100% rate for surpassing the ASQ-3 threshold in *Communication* (COM), *Personal-Social* (PerS), and *Problem Solving* (ProS) domains. On average, the per-program passing rates were 94.9%, 93.8%, and 97.5% for these domains, respectively. For the domains of *Fine Motor* (FM) and *Gross Motor* (GM), the highest passing rates reached 97.4%. But the lowest passing rate was 75.6% in GM for DSR and 66.4% in FM for NPCLC, which dragged the per-program passing rates to 89.9% in GM and 84.2% in FM.

Table 37: Percent of Children with Performance Level above ASQ-3 Threshold

Focus Area	Program*	COM	GM	FM	PerS	ProS
II	AFRC	97.9	94.7	92.6	97.9	97.9
	BCRC	96.2	89.9	82.3	96.2	97.5
	EKFRC	92.9	85.9	88.2	95.3	98.8
	GSR	99.2	90.2	89.3	97.5	98.4
	IWVFRC	97.4	97.4	97.4	100	100
	KRVFRC	89.0	86.9	80.6	89.5	93.2
	LVSRP	92.1	90.4	85.1	92.1	93.9
	MCFRC	100	86.2	93.1	89.7	100
	MFRC	95.7	95.7	74.3	97.1	98.6
	SENP	96.3	90.8	92.2	96.8	98.6
	SHS	100	89.8	72.9	91.5	98.3
	WSCRC	91.4	91.4	82.9	94.3	100
	WSN	96.6	93.1	75.9	89.7	93.1
III	BCDC	89.7	86.2	91.4	91.4	98.3
	DSR	86.7	75.6	75.6	86.7	93.3
	LHFRC	98.3	96.7	93.3	98.3	100
	NPCLC	89.5	87.5	66.4	90.1	94.7
	SPCSR	100	90.0	82.7	93.6	100

*Program acronyms are listed in Appendix A.

In general, GM skills support movement and coordination of large body parts for actions like running, crawling, and swimming. FM skills are needed for movements of smaller body parts, such as wrists, hands, fingers, feet, and toes. Development of the two motor skills is interconnected to enhance muscle coordination throughout the entire body (Nelson, 2015). Results in Table 37 confirmed the lowest passing rates in these two domains across all programs.

Based on the performance assessment data, statistical testing has been conducted to examine whether the level of child development was significantly above the corresponding ASQ-3 thresholds. The test statistic from single sample t tests was listed in Table 38. All t values were significant at α=.001. Effect sizes were larger than 0.80, indicating a strong program impact on all five ASQ-3 outcome measures across 18 programs.

Table 38: Test Statistic (t) for Significant Results in 18 Programs

Focus Area	Program*	COM	GM	FM	PerS	ProS	Effect Size
II	AFRC	21.38	18.59	20.56	21.79	26.97	>3.86
	BCRC	14.54	20.76	17.05	21.17	17.84	>3.29
	EKFRC	16.15	18.92	18.46	19.41	22.23	>3.52
	GSR	22.78	19.46	21.56	21.73	26.30	>3.54
	IWVFRC	17.61	19.66	15.65	20.29	25.75	>5.79
	KRVFRC	17.94	25.90	21.44	19.03	22.63	>2.60
	LVSRP	15.95	20.80	18.31	17.41	20.95	>3.00
	MCFRC	18.79	19.27	15.31	21.20	21.41	>4.51
	MFRC	10.70	23.97	12.93	15.33	22.61	>2.42
	SENP	32.64	34.33	34.26	43.29	36.55	>4.43
	SHS	21.51	22.08	12.37	17.05	12.83	>3.25
	WSCRC	9.20	16.05	10.05	12.56	15.82	>3.16
	WSN	7.35	8.44	6.27	6.19	6.27	>2.34
III	BCDC	9.19	14.45	15.42	15.21	14.76	>2.43
	DSR	6.54	8.51	7.39	7.69	7.48	>1.97
	LHFRC	17.43	29.88	18.50	23.52	23.90	>4.54
	NPCLC	16.86	22.58	13.24	15.71	18.43	>2.15
	SPCSR	24.81	19.82	17.32	22.49	20.78	>3.32

In summary, child developments in *Communication, Gross Motor, Fine Motor, Personal-Social*, and *Problem Solving* categories are important outcomes from ASQ-3 assessments. In *Focus Areas II* and *III*, data sizes vary from 29 in WSN to 191 in KRVFRC (see Table 36), which may have different impacts on the result attainment to statistical significance. According to the American Psychological Association (2001), "For the reader to fully understand the importance of your findings, it is almost always necessary to include some index of effect size or strength of relationship in your Results section" (p. 25). Effect sizes were reported in Table 38 to confirm the strong practical program impact.

3. Desired Results Developmental Profile-Infant/Toddler Indicators

To support infant and toddler development, First 5 Kern funded HLP in *Child Health* to educate parents' developmental milestones and behavioral norms, as well as supporting parent-child interaction through its monthly workshops. The impact on child development outcomes is examined in this section along with assessment findings from Blanton Child Development Center (BCDC) and Small Steps Child Development Center (SSCDC). BCDC is designed to assist parenting teens in childcare and education. SSCDC works with victims of domestic violence to support early childhood development. In FY 2018-2019, the *Desired Results Developmental Profile (2015) [DRDP (2015)]: Infant/Toddler* (IT) *View* was used as a formative assessment instrument to inform instruction and program improvement in early childhood support.

The IT view was part of a universal design for DRDP revision to represent the full continuum of child development from early infancy to kindergarten entry. In companion with the Preschool (PS) view, child competencies are rated in four categories, *Responding, Exploring, Building*, and *Integrating* to indicate if children are able to (1) differentiate responses, (2) explore objects, (3) build relationships, and (4) combine strategies for problem solving (California Department of Education, 2015). Depending on the IT performance at *Earlier, Middle*, or *Later* levels within these developmental categories, the

local DRDP data were scaled for five indicators in *Approaches to Learning – Self-regulation* (ATL-REG), six indicators on *Cognition* (COG), five indicators in *Language and Literacy Development* (LLD), eight indicators in *Physical Development-Health* (PDHLTH), and five indicators in *Social and Emotional Development* (SED) (Table 39).

Table 39: Domain Coverage of DRDP (2015) Assessment-IT

Domain	Knowledge and Skill Indicators
ALT-REG	(1) Attention Maintenance, (2) Self-Comforting, (3) Imitation, (4) Curiosity and Initiative in Learning, (5) Self-Control of Feelings and Behavior.
COG	(1) Spatial Relationship, (2) Classification, (3) Number Sense of Quantity, (4) Cause and Effect, (5) Inquiry Through Observation and Investigation, (6) Knowledge of the Natural World.
LLD	(1) Understanding of Language, (2) Responsiveness to Language, (3) Communication and Use of Language, (4) Reciprocal Communication and Conversation, (5) Interest in Literacy.
PDHLTH	(1) Perceptual-Motor Skills and Movement Concepts, (2) Gross Locomotor Movement Skills, (3) Gross Motor Manipulative Skills, (4) Fine Motor Manipulative Skills, (5) Safety, (6) Personal Care Routines: Hygiene, (7) Personal Care Routines: Feeding, (8) Personal Care Routines: Dressing.
SED	(1) Identity of Self in Relation to Others, (2) Social and Emotional Understanding, (3) Relationships and Social Interactions with Familiar Adults, (4) Relationships and Social Interactions with Peers, (5) Symbolic and Sociodramatic Play.

These three programs gathered pretest data from 65 children, including 19 cases with pretest conducted last year. The data tracking has resulted in a match with 25 cases with completion of posttest data this year. At the program level, the data tracking is limited to one observation in SSCDC and eight observations in HLP. Thus, no statistical testing can be conducted for these programs due the small sample sizes.

Table 40 shows significant improvement of child performance in ATL-REG, LLD, PDHLTH, and SED dimensions at α=.0001. Effect sizes for DRDP Indicators are larger than .80, suggesting a strong impact across BCDC, HLP, and SSCDC programs. In comparison, only a moderate impact was revealed from the aggregated data last year (Wang, 2019). In part, it was because of the data tracking on much smaller group of children (i.e., N=12) in the past.

Table 40: Results from DRDP-IT Matched Cases Across Five Scales

Domain	Df	t	p	Effect Size
ALT-REG	24	4.59	.0001	1.87
COG	24	8.39	<.0001	3.43
LLD	24	6.54	<.0001	2.67
PDHLTH	24	5.25	<.0001	2.14
SED	24	6.93	<.0001	2.83

Following the DRDP manual, two measures were constructed to assess *Early Childhood Development* and *Physical Development/Health*. According to the California Department of Education (2015), "These measures should be used if they assist teachers and service providers in planning a child's learning activities and supports, and documenting progress" (p. 4). The results in Table 41 demonstrated large (i.e., Effect

Size>0.8) and significant enhancements on *Physical Development/Health* and *Early Childhood Development* at α=.0005.

Table 41: Results from DRDP-IT Matched Cases on Two Scales

Domain	df	t	p	Effect Size
Early Childhood Development	24	5.66	<.0001	2.31
Physical Development/Health	24	4.48	.0002	1.83

4. Desired Results Developmental Profile-Preschool (PS) Summary

Programs like HLP and SSCDC also supported child development in preschool settings. The support for children ages 0-5 responds to a profound service call from Proposition 10, i.e., "There is a further compelling need in California to ensure that early childhood development programs and services are universally and continuously available for children until the beginning of kindergarten" (p. 1). Other programs participated in DRDP PS assessment are DSR, DDCCC, SFP, SSEC, and WWP.

Table 42: Domain Coverage of DRDP (2015)-PS Assessment

Domain	Knowledge and Skill Indicators
ALT-REG	(1) Attention Maintenance, (2) Self-Controlling, (3) Initiation, (4) Curiosity and Initiative in Learning, (5) Self-Control of Feelings and Behavior, (6) Engagement and Persistence, (7) Shared Use of Space and Materials.
COG	(1) Spatial Relationships, (2) Classification, (3) Number Sense of Quantity, (4) Number Sense of Math Operations, (5) Measurement, (6) Patterning, (7) Shapes, (8) Cause and Effect (9) Inquiry Through Observation and Investigation, (10) Documentation and Communication of Inquiry, (11) Knowledge of the Natural World.
LLD	(1) Understanding of Language, (2) Responsiveness to Language, (3) Communication and Use of Language, (4) Reciprocal Communication and Conversation, (5) Interest in Literacy, (6) Comprehension of Age-Appropriate Text, (7) Concepts about Print, (8) Phonological Awareness, (9) Letter and Word Knowledge, (10) Emergent Writing.
PDHLTH	(1) Perceptual-Motor Skills and Movement Concept, (2) Gross Locomotor Movement Skills, (3) Gross Motor Manipulative Skills, (4) Fine Motor Manipulative Skills, (5) Safety, (6) Personal Care Routines: Hygiene, (7) Personal Care Routines: Feeding, (8) Personal Care Routines: Dressing, (9) Active Physical Play, (10) Nutrition.
SED	(1) Identity of Self in Relation to others, (2) Social and Emotional Understanding, (3) Relationships and Social Interactions with Familiar Adults, (4) Relationships and Social Interactions with Peers, (5) Symbolic and Sociodramatic Play.
HSS	(1) Sense of Time, (2) Sense of Place, (3) Ecology, (4) Conflict Negotiation, (5) Responsible Conduct as a Group Member.
VPA	(1) Visual Art, (2) Music, (3) Drama, (4) Dance.

To assess the outcome of child development in preschool programs, the DRDP instrument contains two versions: Fundamental View and Comprehensive View. The indicator structure for Comprehensive View is listed in Table 42. Fundamental View is a simplified version that does not include HSS, VPA, and Indicators 8-11 for Cognition (COG). The number of levels on each indicator depends on the competencies that are appropriate for the developmental continuum. Categorizations are adopted to

differentiate early, medium, and later phases of the four stages, *Responding, Exploring, Building*, and *Integrating*, in the result rating.

In comparison, preschoolers are more mature than infants/toddlers in language development. DRDP includes four indicators of English language development (ELD), *Comprehension of English, Self-Expression in English, Understanding and Response to English Literacy Activities,* and *Symbol, Letter*, and *Print Knowledge in English*. The ratings are scaled on seven points, (1) Discovering Language/English, (2) Exploring English, (3) Developing English, (4) Building English, and (5) Integrating English.

In FY 2018-2019, three programs employed DRDP PS Fundamental View to track performance of 78 preschool children under a pretest and posttest setting. The ELD scale was excluded because of most respondents did not belong to the ELD category. In addition, the majority of HLP respondents did not have the data on the PDHLTH scale, and only three tracked case was left after the indicator aggregation. Results of statistical testing on the outcome improvement are listed in Table 43.

Table 43: Test of the Result Change in the DRDP PS Fundamental Assessment

Program	DRDP Indicator	N	t	p	Effect Size
HLP	ALT-REG	29	4.24	.0002	1.60
	COG	29	8.91	<.0001	3.37
	LLD	29	6.23	<.0001	2.35
	PDHLTH	29	4.99	<.0001	1.89
	SED	29	5.34	<.0001	2.02
SFP	ALT-REG	16	12.41	<.0001	6.41
	COG	16	7.81	<.0001	4.03
	LLD	16	6.23	<.0001	3.22
	PDHLTH	16	21.02	<.0001	10.85
	SED	16	4.98	.0002	2.57
	PDH	16	8.06	<.0001	4.16
WWP	ATL-REG	33	11.33	<.0001	4.01
	COG	33	15.14	<.0001	5.35
	LLD	33	12.84	<.0001	4.54
	PDHLTH	33	10.39	<.0001	3.67
	SED	33	11.19	<.0001	3.96
	PDH	33	9.44	<.0001	3.34

The DRDP PS Fundamental Assessment revealed significant improvement of child performance across all three programs in these DRDP domains at α=.0005. The effect sizes were larger than 0.80, indicating strong program impacts on the indicator improvement.

Like last year, the DRDP PS instrument for Comprehensive View was employed to collect pretest and posttest data by Delano School Readiness (DSR), Discovery Depot Child Care Center (DDCCC), and Small Steps Child Development Center (SSCDC). The data collection for pretest assessment was completed within the first 60 days of program enrollment and follow-up assessments were conducted at a six-month interval. Thus, the file merge included cases that had pretest measures from FY 2017-2018 and FY 2018-2019. These baseline results are matched with posttest results from FY 2018-2019.

SSEC is an exception for not participating in DRDP Comprehensive Assessment last year, nor did it gather the pretest data this year. After deleting missing responses, the posttest results were available for all scales except for ELD that gathered no data from DDCC and SSEC. As shown in Table 44, the sample sizes, even at the maximum level, was too small to conduct statistical testing for most programs. The descriptive statistics in Table 44 indicated similar posttest results across programs except for the ALT-REG scale that showed lower performance at DSR. This could be because DSR offered general FRC services and were less focused on special-needs support featured by DDCCC, SSCDC, and SSEC on these seven service outcomes in Table 42.

Table 44: Average Posttest Performance Across Four Programs

Program	N_{max}	ALT-REG	COG	ELD	LLD	SED	PDHLTH	PDHM
DSR	29	2.68	6.96	4.16	6.42	6.44	6.87	8.78
DDCCC	18	5.29	5.21	-	5.72	5.86	6.00	6.06
SSCDC	3	5.80	6.00	4.00	7.40	7.18	6.88	7.50
SSEC	6	6.17	7.14	-	7.03	6.60	8.15	6.80

Although SSCDC had three cases in the posttest assessment, only one case can be tracked to match the pretest data. With SSCDC exclusion from statistical testing, significant findings are obtained from DSR and DDCCC on ALT-REG, COG, LLD, PD, and SED scales at α=.05 (Table 45). To avoid the impact of sample size, Cohen's d is calculated to indicate effect size for practical significance. The results in Table 45 are all above .80 to confirm strong program impacts on these scales of DRDP Comprehensive View.

Table 45: Paired Pretest/Posttest Sample Sizes of DRDP PS Comprehensive View

Program	Domain	N	t	p	Effect Size
DSR	ALT-REG	16	4.88	.0002	2.52
	COG	14	9.84	<.0001	5.46
	LLD	15	9.51	.0002	5.08
	PD	15	8.06	<.0001	4.31
	SED	14	8.17	<.0001	4.53
DDCCC	ALT-REG	10	10.23	<.0001	6.82
	COG	9	11.86	<.0001	8.39
	LLD	10	5.44	.0004	3.63
	PD	9	3.05	.0158	2.16
	SED	10	8.94	<.0001	5.96

In summary, outcomes of program evaluation depend on a good master plan for data collection and data entry to ensure export of adequate information from the data management system. In FY 2018-2019, three programs (BCDC, HLP, SSCDC) tracked the infant-toddler data from 25 children. Due to the small sample sizes, no program-specific results were generated in Tables 41 and 42. Alternatively, the aggregated findings revealed strong program impacts across the seven DRDP-IT domains. For preschool data collection, the DRDP PS Fundamental Assessment revealed significant improvement of child performance across HLP, SFP, and WWP programs at α=.0005 (Table 43). The effect sizes were larger than 0.80, indicating strong program impacts on the indicator

improvement. Similarly, significant findings were obtained from DSR and DDCCC on DRDP Comprehensive View scales at α=.05 (Table 45) with strong program impacts.

5. Child Assessment-Summer Bridge Results

In strengthening school readiness, First 5 California (2015b) indicated the need for funding "Programs of all types (e.g., classes, home visits, summer bridge programs) that are designed to support the kindergarten transition for children and families" (p. 58). In FY 2018-2019, First 5 Kern funded Summer-Bridge programs to enrich early learning experiences of preschoolers prior to their kindergarten entry. The service outcomes were assessed by Child Assessment-Summer Bridge (CASB) data from 11 programs.

All the results in Table 46 showed improvement of cognitive skills in posttest across programs. A total of 226 cases were tracked through the CASB assessment. Only five cases were tracked between pretest and posttest in MCFRC and EKFRC. While all programs showed a higher score in the posttest, the WSCRC results were insignificantly different from the pretest score in the cognitive domain. With that exception, the remaining effect sizes are near or larger than .80 to suggest strong practical impacts. Statistical testing indicated significant improvement of cognitive skills in eight programs (i.e., AFRC, DSR, GSR, LVSRP, MFRC, MCFRC, SHS, SPCSR) at α=.01.

Table 46: Average Score Difference on CASB Cognitive Skills

	Mean		Tracked	T test		Effect
Program*	**Pretest**	**Posttest**	**N**	**t**	**p**	**size**
AFRC	13.45	39.40	15	10.70	<.0001	5.53
BCRC	59.06	61.45	11	1.31	.2192	0.79
DSR	34.97	39.66	29	2.96	.0062	1.10
EKFRC	48.71	58.80	5	1.34	.2511	1.20
GSR	28.88	53.47	48	10.56	<.0001	3.05
LVSRP	24.13	44.58	24	5.23	<.0001	2.14
MFRC	26.33	32.56	16	4.25	.0007	2.13
MCFRC	38.20	69.80	5	5.20	.0065	4.65
SHS	38.26	74.88	16	7.00	<.0001	3.50
SPCSR	25.97	50.53	30	11.20	<.0001	4.09
WSCRC	23.87	24.33	27	.02	.9845	0.01

*Program acronyms are listed in Appendix A.

For assessment findings in non-cognitive domains, CASB indicators of significant difference varied across programs (Table 47). All effect sizes were larger than .80 to indicate strong program impacts in these selected CASB domains that demonstrated significant improvement between pretest and posttest. In particular, AFRC and GSR illustrated significant improvement of both cognitive and non-cognitive skills across all CASB domains.

Table 47: Significant Score Difference on Non-Cognitive CASB Indicators

Program*	N	CASB Indicator	t	p	Effect Size
		Motor	12.34	<.0001	6.37

Program*	N	CASB Indicator	t	p	Effect Size
AFRC	15	Social Emotional	7.00	<.0001	3.61
		Communication	10.44	<.0001	5.39
		Self-Help	3.76	.0021	2.01
		Inquiry	7.27	<.0001	3.75
DSR	29	Motor	2.42	.0025	0.90
GSR	48	Motor	5.16	<.0001	1.49
		Social Emotional	3.73	.0005	1.08
		Communication	3.05`	.0038	0.88
		Self-Help	2.38	.0215	0.69
		Inquiry	5.88	<.0001	1.70
GSR	47	Motor	4.47	<.0001	1.30
		Social Emotional	3.82	.0004	1.11
		Communication	3.31	.0018	0.97
		Self-Help	2.93	.0052	0.85
		Inquiry	5.82	<.0001	1.70
LVSRP	24	Motor	3.96	.0006	1.62
		Self-Help	2.14	.0428	0.87
MFRC	16	Motor	2.74	.0152	1.37
		Inquiry	3.09	.0074	1.55
SHS	16	Motor	2.16	.0476	1.08
		Self-Help	2.78	.0140	1.39
		Inquiry	2.84	.0125	1.42
SPCSR	30	Motor	7.07	<.0001	2.58
		Communication	3.53	.0014	1.29
		Self-Help	5.71	<.0001	2.08
		Inquiry	5.08	<.0001	1.85
WSCRC	27	Social Emotional	2.29	.0301	0.88
		Inquiry	8.51	<.0001	3.28

*Program acronyms are listed in Appendix A.

In summary, development of cognitive skills plays an important role in preparing preschoolers for kindergarten. Barnett and Masse (2007) pointed out, "even though it appears possible to greatly enhance social outcomes while giving up little in the way of cognitive gains, it also would be possible to make the mistake of employing a curriculum that ignored cognitive development" (p. 122). Children served by eight Summer-Bridge programs showed significant impact on cognitive development from the early learning services funded by First 5 Kern (Table 46). Most of these children also demonstrated significant improvement of their non-cognitive skills across six domains of the CASB scale (Table 47).

As First 5 Association of California (2009) suggested, "To fully appreciate the effect that First 5 has had, it is necessary to understand the many roles that are served by First 5 – roles that were not being addressed or not fulfilled sufficiently before First 5 was created" (p. 7). Prior to the passage of Proposition 10, no Strategic Plan was developed for early childhood services in Kern County, nor did the service integration become a focus area to enhance sustainability of local programs for children ages 0-5 and their families.

In comparison to other organizations, First 5 Kern is unique in setting a clear goal in its strategic plan for the third focus area, i.e., "Early childcare and education services will be accessible" (First 5 Kern, 2018, p. 6). Besides the center-based support for young children, First 5 Kern funded family-based general case management services, including home visits (RI 2.1.4). A total of 1,042 parents/guardians received the services across 19 programs (Table 48), surpassing the annual target count of 780. The service providers cover all three program-affiliated focus areas of *Child Health, Family Functioning*, and *Child Development*.

Table 48: Count of Service Recipients in General Case Management

Focus Area	Program	Target Count	Actual Count
Child Health	BIH	70	70
	CHI	0	50
	MVIP	45	43
	RSNC	40	43
	KCCDHN	175	276
Family Functioning	AFRC	40	41
	BCRC	20	20
	EKFRC	30	12
	GSR	50	60
	IWVFRC	40	45
	KRVFRC	50	55
	LVSRP	40	55
	MFRC	30	37
	MCFRC	18	22
	SHS	30	33
	SENP	40	107
	WSCDC	17	16
Child Development	DSR	25	37
	LHFRC	20	20

The systematic data tracking in this chapter conforms to the Statewide Evaluation Framework (First 5 California, 2005), as well as new changes of the state report structure (Ibid 11). In this chapter, descriptive data are summarized to indicate the extent of early childhood service delivery in each focus area. Value-added assessments are conducted to monitor improvement of program outcomes under a pretest and posttest setting. Important examples are adduced to illustrate improvement of child life with First 5 Kern funded program support. Altogether, this chapter not only includes successful stories of First 5 Kern funded services in *Health and Wellness*, *Parent Education and Support Services*, and *Early Childcare and Education*, but also incorporates extensive analyses of the outcome data from AAPI-2, ASQ-3, ASQ:SE, BCBH, CASB, DANCE, DRDP, NCFAS-G, and R2S assessments.

Recent changes in the state report requirement did not alter the outcome-based accountability in Proposition 10. The State Commission still urges each county to continue mapping program support to "each Result Area/Service Category/Grantee Type" (Ibid 11). In addition to improvement on program effectiveness, most service providers used Proposition 10 investment as the seed money to strengthen program sustainability through external partnership building. Funded programs leveraged funds from other sources totaling $2,805,557.74 this year. The strengthening of partnership support has sustained service system building at the program level. At the Commission level, more results are aggregated in Chapter 3 to represent the outcomes of service integration.

Chapter 3: Effectiveness of Service Integration

Disparities in child development are established early (Kalil, 2015) and across multiple fronts (Heckman, 2008). Thus, proactive and comprehensive strategic planning is needed to help close the gap. It is stipulated by Proposition 10 that "No county strategic plan shall be deemed adequate or complete until and unless the plan describes how programs, services, and projects relating to early childhood development within the county will be integrated into a consumer-oriented and easily accessible system" (p. 10).

Guided by the statutory mandate, First 5 Kern sets the fourth focus area on *Integration of Services* to promote the early childhood support system that includes well-rounded care provisions. To evaluate the local impact, this chapter is devoted to assessment of the partnership building among service providers. The emphasis on partnership connection fit a policy agenda of First 5 Association of California (2017), i.e., "Invest in and improve coordination across systems of care to efficiently connect young children to early intervention" (p. 5). To conform to the state report glossary, two result domains, *Policy and Public Advocacy* and *Programs and Systems Improvement Efforts*, are examined to highlight Commission support for system building.

To demonstrate *Programs and Systems Improvement Efforts*, this chapter begins with a description of joint supports across service providers in *Child Health, Family Functioning*, and *Child Development*. The Integration Service Questionnaire (ISQ) is employed to gather feedback from service providers on program networking. A computer software, *NetDraw*, is adopted to analyze different partnership strengths *within* and *across* focus areas.

Enhancement of Early Childhood Supports through Service Integration

"In the childcare industry, there are two main populations involved — the children and the providers" (Morgan, 2019, p. 1). While the impact on children has been described in Chapter 2, this section focuses on mutual program supports among service providers. In FY 2018-2019, collaborative meetings were held among the funded contractors to support service integration. First 5 Kern's (2019) strategic plan designated RI 4.2.1 to represent the number of collaborative meetings among key stakeholders. Altogether, 141 collaborative meetings were held by 16 programs (Table 49).

Table 49: Number of Collaborative Meetings Held by Service Providers

Focus Area	Program*	Count
Child Health	NFP	4
	RSNC	4
Family Functioning	AFRC	10
	BCRC	4
	EKFRC	14
	GSR	9
	IWVFRC	9
	KRVFRC	9
	LVSRP	10
	MFRC	10
	SHS	11
	SENP	10

Focus Area	Program*	Count
	WSCRC	4
Child Development	DSR	10
	LHFRC	3
	SPCSR	20

*Program acronyms are listed in Appendix A.

Built on the early childhood support from local service providers, the next step is to "facilitate the creation and implementation of an integrated, comprehensive, and collaborative system of information and services to enhance optimal early childhood development" [Proposition 10, Section 5(a)]. Hence, RI 4.3.2 is demonstrated by the number of service providers attending articulation meetings to strengthen program connection. This year, 154 service providers participated in articulation meetings at 11 program sites to establish and/or review a standardized transition plan for strengthening school readiness (Table 50).

Table 50: Number of Service Providers Attending Articulation Meetings

Focus Area	Program*	Count
Family Functioning	AFRC	14
	BCRC	21
	EKFRC	10
	GSR	9
	LVSRP	19
	MFRC	9
	SHS	17
	WSCRC	13
Child Development	DSR	19
	LHFRC	7
	SPCSR	16

*Program acronyms are listed in Appendix A.

In addition, School Readiness Articulation Survey (SRAS) data were gathered from 85 teachers, school administrators, and community members this year to assess the impact of local services on child development. As a result, 85.9% of the respondents *agreed* or *strongly agreed* that "early education programs in the community provided quality early childhood education". The survey outcome also revealed strong needs for supporting parent education and early childhood learning – Only 23.5% of the respondents *agreed* or *strongly agreed* that "parents in the community knew about good parenting". Less than 34.2% of the respondents *agreed* or *strongly agreed* that "parents of children in the community knew about early childhood learning".

Through partnership building, 76.5% of the respondents *agreed* or *strongly agreed* in SRAS that "community programs integrated services for children and families". Depending on the program affiliation, three RIs have been designated to support service provider training in *Child Health* (RI 4.1.3), *Family Functioning* (RI 4.2.3), and *Child Development* (RI 4.3.1) according to First 5 Kern's (2019) strategic plan.

During the entire fiscal year, 346 service providers attended trainings related to *Child Health*, 11 service providers were trained in *Family Functioning*, and 32 service providers were educated in *Child Development* to strengthen the child support system in Kern County (Table 51). The training also expanded across focus areas. For instance,

DDCCC and SSCDC performed trainings for 11 service providers in *Child Development* and 19 partners in *Family Functioning*. To offer center-based learning opportunities according to RI 2.2.3, programs in *Child Health* (CHI, NFP, RSNC), *Family Functioning* (AFRC, IWVFRC, KRVFRC, LVSRP, MCFRC, WSCRC), and *Child Development* (BCDC, DDCCC, LHFRC, NPCLC, SSCDC, SFP, SPCSR) conducted education workshops for 1,757 parents/guardians, exceeding their annual target count of 867.

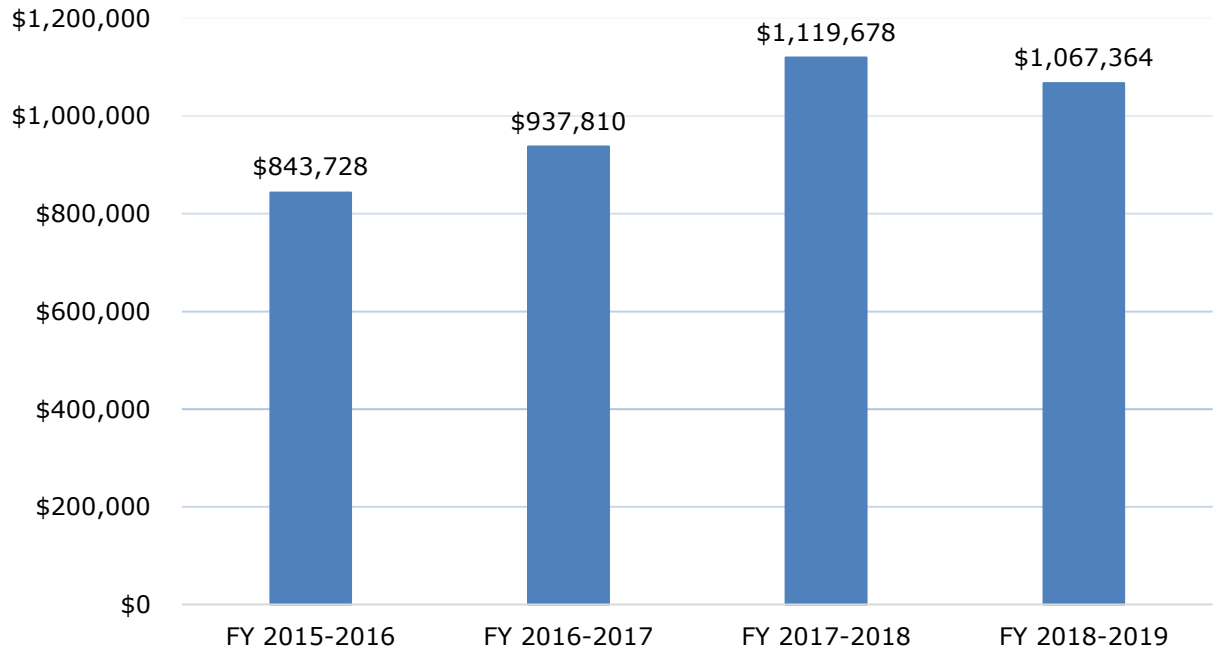
Table 51: Frequency of Service Provider Participation in Professional Training

Program*	Child Health	Family Functioning	Child Development
BCDC			9
BIH	12		
CHI	118		
KCCDHN	11		
MVCCP	198		
MVIP	7		
DDCCC		5	8
SSCDC		6	11
WSN			4

*Program acronyms are listed in Appendix A.

In the past, "families generally report higher satisfaction with services given comprehensive systems of care" (Doll et al, 2000, p.4). Figure 23 shows First 5 Kern investment in service integration across this funding cycle. In comparison, Kern County's share of Proposition 10 funding declined from $7,983,240 in last year to $7,229,714 this year. While direct services have been contracted for five years, the investment reduction in service integration was largely caused by savings from unpaid staff leave.

Figure 23: First 5 Kern Funding in Service Integration



In summary, First 5 California (2015a) confirmed, "One result area, Improved Systems of Care, differs from the others; it consists of programs and initiatives that support program providers in the other three result areas" (p. 10). In expanding the Systems of Care, First 5 Kern followed its strategic plan to address all four objectives of service integration:

1. C*ollaborative workshops and trainings* occurred in BIH, CHI, KCCDHN, MVCCP, MVIP, NFP, and RSNC to enhance "*Community health improvement efforts that support integration of services for the health and wellness of children and their families*" (First 5 Kern, 2018, **Objective 1**);
2. Supportive services of AFRC, BCRC, EKFRC, GSR, LVSRP, MFRC, SHS, and WSCRC in Table 50 met the requirement of strengthening "*Community supportive services improvement efforts that support integration of services for parent education and support services*" (First 5 Kern, 2018, **Objective 2**);
3. BCDC, DDCCC, and SSCDC trainings in Table 50 sustained "*Community improvement efforts that support integration of services for early childcare and education*" (First 5 Kern, 2018, **Objective 3**);
4. The SRAS data further indicated quality services in "*Community strengthening efforts that support education and community awareness*" (First 5 Kern, 2018, **Objective 4**).

Strengthening of Partnership Network among Service Providers

Among 43 programs sponsored by First 5 Kern, the Improve and Maximize Programs so All Children Thrive (IMPACT) grant belongs to First 5 California, and is not under the local Commission control. To describe improvement of the partnership network, ISQ data are analyzed from the remaining 42 programs to examine strength and pattern of network building. At the baseline level, programs can keep a *Co-Existing* relation with one another. Due to service outreach, however, more programs have established and maintained active partnerships beyond the co-existence category. Thus, the rate of *Co-Existing* relationships dropped slightly from 66.7% last year (Wang, 2019) to 65.9% this year.

Reciprocal Partnership Building beyond Co-Existence

Partnership building can be reciprocal when a network connection is concurrently confirmed by both parties. In general, "reciprocation rate is inversely related to the barrier level in these networks" (Singhal et al., 2013, p. 1). In this section, reciprocal relations are examined in focus areas of *Child Health*, *Family Functioning*, and *Child Development*. Active links are featured by service provider connections beyond isolated program co-existence.

In Kern County, services in *Child Health* address a wide range of special needs, such as immunizations, insurance coverage, medically vulnerable infant support, nurse-family partnership, and water safety education. These programs offer joint supports from dedicated nurses, hospitals, and mental health professionals in different service sectors. Due to the separation of program specialty, the number of reciprocal links beyond a *Co-Existing* level is relatively small in *Child Health*.

In comparison, programs in *Family Functioning* and *Child Development* deal with more interrelated services of parent education, early care, child protection, and school readiness preparation. The program overlap is widespread due to similar local needs in valley, mountain, and desert communities. In this context, the number of active links is relatively larger in *Family Functioning* because it has more programs than the other focus areas.

Altogether, a total of 286 program connections are found within each focus area (Table 52). Thirty-five active links are identified for connecting programs across focus areas. Hence, the number of active reciprocal links within a focus area is much larger than the number of program connections between focus areas, an indication of First 5 Kern's coherent service provider classification according to the local strategic plan.

Table 52: Number of Active Reciprocal Links within Each Focus Area

Focus Area	Number of Links
Child Health	39
Family Functioning	161
Child Development	86
Total	286

In summary, the reciprocal network across 42 programs included 321 mutually confirmed relations *within* or *across* focus areas above the *Co-Existing* level. Although the results were based on counts of active relationship, Albert Einstein was quoted for making a statement that "not everything that counts can be counted"[33]. To analyze the depth of service integration among First 5 Kern-funded programs, strength of the partnership links is assessed by a *Co-Existing, Collaboration, Coordination*, and *Creation* (4C) model in the next section.

Justification of Model Selection for Partnership Evaluation

In general, program features vary across different communities, so does the strength of network connection. For the baseline configuration, programs could have a reciprocal relationship at the *Co-Existing* level. For instance, Kern Valley Aquatics Program (KVAP) offers water safety and injury prevention education in Kern River Valley. Programs in Lost Hills, such as LHFRC, are not expected to transport children from 100 miles away to access KVAP services. Hence, the program *co-existence* is grounded on the scope of work pertinent to the fulfillment of First 5 Kern's (2019) strategic plan.

For active links above the *Co-Existing* level, Cross, Dickman, Newman-Gonchar, and Fagen (2009) argued, "Evaluating interagency collaboration is notoriously challenging because of the complexity of collaborative efforts and the inadequacy of existing methods" (p. 310). To simplify the undertaking, Project Safety Net of Palo Alto (2011) suggested a five-level model for network categorization that featured "formal communication" as a characteristic for *cooperation*. Because communications could be described as *frequent, prioritized,* and/or *trustworthy*, this model did not resolve the entanglement of cooperation features.

[33] www.quotationspage.com/quote/26950.html

Besides the issue of mutual exclusiveness, partnership categorization needs to comprehensively cover different strength levels. In this regard, First 5 Fresno (2013) treated coordination and collaboration as the highest levels of program interaction, which could have inadvertently left no room for partnership improvement. Therefore, the Fresno approach inherited two problems: (1) It did not conform to Bloom's taxonomy that labeled creation as another level above integration (Airasian & Krathwohl, 2000), and (2) It downplayed the adequacy of *Co-Existing* partnerships for program referrals.

To amend these issues, service integration is conceived in this report from the context of institutional learning. The model itself is grounded on a well-established SOLO [Structure of the Observed Learning Outcome] taxonomy (Atherton, 2013; Biggs & Collis, 1982) that defines four levels of learning outcomes above the pre-structure baseline (see Smith, Gorden, Colby, & Wang, 2005). Each level has been clearly delineated with specific benchmarks to support the measure of ongoing improvement. The SOLO taxonomy was employed in several profound studies before, including a validity study of the national board certification (see Smith et al., 2005). The alignment in Table 53 illustrates a one-to-one match between the SOLO taxonomy and the 4C model for service integration.

Table 53: Alignment between SOLO Taxonomy and the 4C Model

SOLO	The 4C Model
Uni-Structural: Limited to one relevant aspect	Co-Existing: Confined in a simple awareness of co-existence
Multi-Structural: Added more aspects independently	Collaboration: Added mutual links for partnership support
Relational: United multiple parts as a whole	Coordination: United multiple links with structural leadership
Extended Abstract: Generalized the whole to new areas	Creation: Expanded capacity beyond existing partnership

With the model alignment, the 4C paradigm incorporates levels of classification that are both comprehensive and mutually exclusive. The literature-based 4C model was presented at the 2013 annual meeting of the National Association for the Education of Young Children (NAEYC) in Washington, DC (Wang, Ortiz, & Schreiner, 2013) and the 2015 annual meeting of the American Educational Research Association in Chicago (Wang, Ortiz, Maier, & Navarro, 2015). Subsequently, the 4C model was employed to disseminate research findings in a nationally refereed journal (Wang et al., 2016).

Tom Angelo (1999), former director of the National Assessment Forum, maintained, "Though accountability matters, learning still matters most" (¶. 1). In the following section, the 4C model is adopted to assess strength of service integration for enhancing network building. Accountability of service integration, as delineated in First 5 Kern's strategic plan, is illustrated by *NetDraw* plots through network analysis.

Evaluation of Network Strength According to the 4C Model

Results in Table 54 demonstrated a hierarchical feature of the 4C model – The reciprocal partnership count dropped as the connection strength increased across the *Co-Existing*, *Collaboration, Coordination*, and *Creation* hierarchy, ending with the smallest

number of links at the top level. With the ISQ data alignment to the hierarchical pattern, partnership strength can be assessed to support enhancement of service integration.

Table 54: Distribution of Mutual Partnership Counts of Different Strengths

Scope	Strength	Partnership Count	Subtotal
Partnership within the same C level	Creation	17	1,049
	Coordination	88	
	Collaboration	227	
	Co-Existing	717	
Partnership across different C levels	Involving Co-Existence	52	84
	Above Co-Existence	32	

In *Child Health*, MVCCP and MVCCP-KC collaborate on case identification and referral that demand extensive program connections. The referral service belongs to the *Collaboration* category of the 4C model because it does not deal with new service creation, nor does the one-to-one phone call involve a third-party intervention. In another example, First 5 Kern funded KVAP in *Child Health*, KRVFRC in *Family Functioning*, and SFP in *Child Development* to support multiple service deliveries in the same community. *Coordination* is needed to combine the multilateral supports across different focus areas. Hence, different network strengths have been featured in the network of multiple partners. As Provan, Veazie, Staten, and Teufel-Shone (2005) reported, "In the academic literature, network analysis has been used to analyze and understand the structure of the relationships that make up multiorganizational partnerships" (p. 603).

Improvement of network building can be indicated by changes of partnership strengths on the time dimension. For program connections at the *Co-Existing* level, the number of inactive links was 730 in last year (Wang, 2019). Table 54 shows 717 links in that category this year. Across different strength levels, the involvement of *Co-Existing* partners also dropped from 65 in last year (Wang, 2019) to 52 this year (Table 54). Accompanied with these changes is an increase of active links. In particular, the number of *Coordination* links increased from 73 in last year (Wang, 2019) to 88 this year (Table 54). The number of links at the *Creation* level also increased from 12 in last year to 17 this year. In combination, the partnership comparison between adjacent years showed enhancement of service integration among First 5 Kern funded programs in FY 2018-2019.

During the ISQ data collection, service providers were asked to identify primary collaborator(s). With no restriction on the partnership choice, 42 programs identified 92 primary connections. The total number of reciprocal links is listed in Table 55. In comparison, the number of *Co-Existing* partnerships was 717 in Table 54. In Table 55, the number dropped to four in the network of primary partners. Furthermore, most primary partnerships are built on active links at the *Collaboration, Coordination*, or *Creation* levels, which is different from the pattern in an overall partnership (Table 54).

It should be noted that not all the networks in Tables 54 and 55 were agreed by the mutual partners at the same strength level. Although the same strength was acknowledged on 1,049 links in Table 54 (i.e., the total count in first four rows), the remaining for 84 connections were reported with different strengths by these partners. The overall rating agreement was above 92.5%, indicating strong consistency in the partnership assessment.

Table 55: Counts of Reciprocal Primary Partnerships

Scope	Strength	Partnership Count	Subtotal
Primary partnership within the same C level	Co-Existence	4	52
	Collaboration	19	
	Coordination	23	
	Creation	6	
Primary partnership across different C levels	Involving Co-Existence	12	40
	Above Co-Existence	28	

Although "reciprocity is a common property of many network" (Garlaschelli, & Loffredo, 2004, p. 4), partners often report different strengths on the network connections (e.g. Antonucci & Israel, 1986; Shulman, 1976). In Table 55, most primary links were reported at a level above the *Co-Existing* level. However, 40 links were assessed at different strength levels by the mutual partners. According to Kuhnt and Brust (2014), the asymmetry should be analyzed to lead partnership adjustment for network improvement.

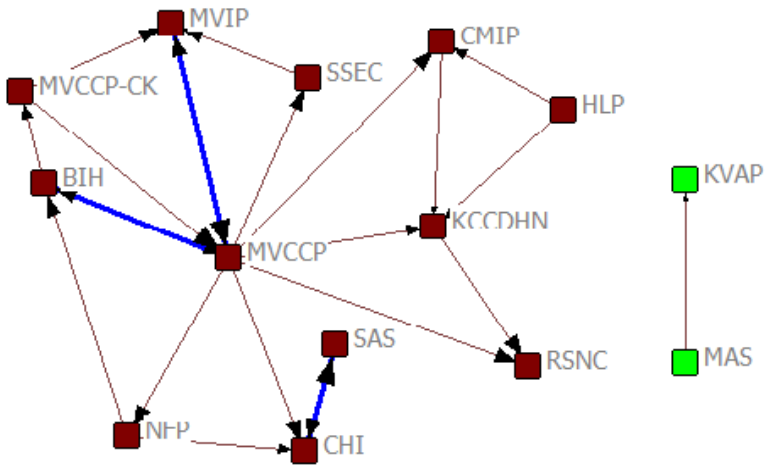
Structure of Primary Partnership Building for Service Integration

In the field of network analysis. Cross et al. (2009) pointed out, "Existing research has demonstrated that two primary features of networks, *network structure* and *the strength of ties*, have distinct effects on outcomes of interest" (p. 311). Primary partnership structure, including both reciprocal and unilateral links, is analyzed in this section. The NetDraw software is used to construct network plots across programs of *Child Health, Family Functioning*, and *Child Development*.

Network Structure with Each Focus Area

Figure 24 showed a network structure of primary partnership within *Child Health*. Only three out of 19 links were reciprocal. Provan et al. (2005) noted that "when links among organizations are not confirmed, this does not necessarily reflect the absence of a link" (p. 607). Thus, non-reciprocal links (in black color) are included with reciprocal links (in blue color) to describe the network structure in this section.

Figure 24: Network Structure among Primary Partners in *Child Health*



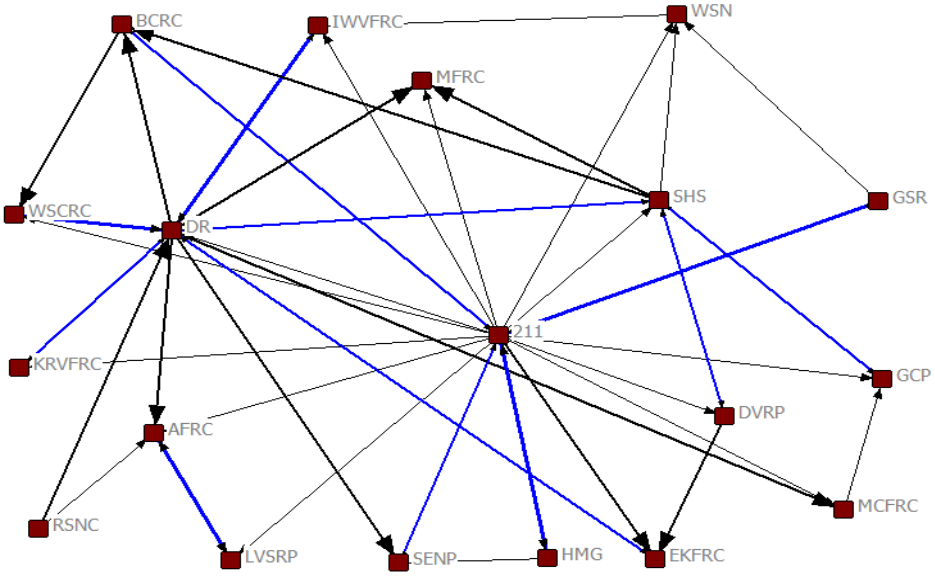
All 13 programs participated in the partnership building in *Child Health* (Figure 24). Among the reciprocal links, CHI rated SAS at a *Creation* level, but SAS rated CHI as a partner of *Coordination* (see different sizes of the arrow sign). Like in the previous section, this result indicated unequal network strengths perceived by primary partners.

By design, MVCCP was expected to support care coordination among different service providers. Thus, it played a central role in the networking to show more links in *Child Health* (Figure 24). On the other hand, infant health programs, such as BIH, MVIP, and NFP, were connected by MVCCP as primary partners to network with three countywide programs for immunization, dental and mental health services (CMIP, KCCDHN, and RSNC). Programs with isolated links, i.e., the dyads of KVAP and MAS in green nodes, shared a unique service focus on water safety education. Similarly, the reciprocal partnership between CHI and SAS was supported by a common task of health insurance enrollment. Hence, partnership strengths represented an important feature of service integration within the same focus area.

In Figure 25, 19 programs took part in a service network within *Family Functioning*. Similar to Figure 24, not all the reciprocal links have the same strength. Although GSR considered 2-1-1 as a primary partner at the *Creation* level, 2-1-1 did not have the power to invent direct services. Hence, 2-1-1 rated its network strength with GSR at a *Collaboration* level. Asymmetric strength also existed between IWVFRC and DR. While IWVFRC treated DR as a creative partner, DR reciprocally recognized IWVFRC at a *Coordination* level for service integration.

More importantly, 2-1-1 offered referrals to various service providers and generated more primary partnerships in this focus area. Likewise, DR showed numerous links in Figure 25 because of its role to relieve the referral burden for CPS (Bedell, 2019). The referral support was aimed at expanding comprehensive services. As Nichols and Jurvansuu (2008) noted, "There is currently movement internationally towards the integration of services for young children and their families, incorporating childcare, education, health and family support" (p. 117).

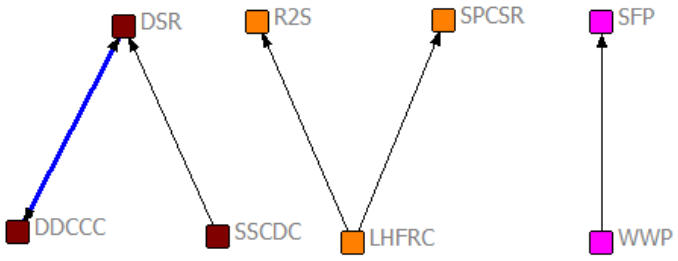
Figure 25: Network Structure among Primary Partners in *Family Functioning*



It should be noted that HMG and 2-1-1 were sponsored by Community Action Partnership of Kern. As a relatively new program, HMG reciprocally linked with 2-1-1 as a creative partner (see Figure 25) to connect programs in health care, early childcare, and family support. In addition, AFRC and LVSRP are family resource centers in two nearby communities. Due to their services to similar populations, both programs formed mutual primary partners at the *Creation* level.

In *Child Development*, eight programs indicated their primary partners within the same focus area. The network pattern in Figure 26 appeared much more sparse than the links in Figures 24 and 25 because of the small number of programs. It should also be indicated that service providers in this focus area offered community-based programs. Because of the self-contained emphasis on local needs, BCDC and NPCLC did not choose a primary partner from another community. Hence, they did not exist in the network of Figure 26. Likewise, WWP and SFP did not offer service outreach between them. Their primary partner was confined at a *Co-Existing* level.

Figure 26: Network Structure among Primary Partners in *Child Development*



While it is well-justified to attach more importance to primary partnerships, Krebs (2011) further cautioned, "What really matters is where those connections lead to – and how they connect the otherwise unconnected!" (¶. 4). In particular, R2S enrolls more preschool students than any other Summer Bridge programs and the SPCSR belongs to Bakersfield City School District (BCSD), the largest elementary school district of California. These programs, albeit their limited connections in Figure 26, may participate in more partnership networks between focus areas (see the next section).

Network Structure between Focus Areas

The pattern within a focus area only offered a partial picture. Simpson (1951) cautioned that patterns within a group tended to disappear in patterns between groups. Across focus areas, heterogeneity of organizations has made program supports more complementary. To disentangle the potential *Simpson Effect*, comparisons are made between Figures 24-26 and Figures 27-29 to contrast different partnership structures. In this section, service providers are differentiated by program nodes in green, brown, and pink colors to represent focus area affiliations in *Child Health, Family Functioning*, and *Child Development*, respectively.

In Figure 27, primary partnerships are drawn for 13 programs in Child Health (green nodes) and 10 programs in *Child Development* (pink nodes). The *Simpson Effect* is visible from comparing the MVCCP network connections. In Figure 24, MVCCP was connected to many primary partners within *Child Health*. Beyond that focus area, however, MVCCP only showed two unilateral links in Figure 27. The difference hinged on

a delimitation of MVCCP coordination within *Child Health*. Similarly, SPCSR only had one primary partner within the network of *Child Development* (Figure 26). In Figure 27, SPCSR served as a primary partner for several health-related programs outside of *Child Development*. In addition to serving a large school district, SPCSR was instrumental in expanding service outreach for many programs in *Child Health*.

The complementary roles between programs have been reflected in partnership structures. For example, CMIP, KCCDHN, and NFP provided much-needed immunization, dental, and home visiting services. Structured as countywide service providers, these programs generated more links with partners in Figure 27. Likewise, a circle of partnership links involved DDCCC, HLP, MAS, and SSCDC. All programs had one thing in common, i.e., they provided center-based education services for parents and young children. The reciprocal connection between KVAP and SFP also reflected their delivery of water safety and preschool education within the same community (Figure 27).

Figure 27: Network Structure in *Child Health* and *Child Development*

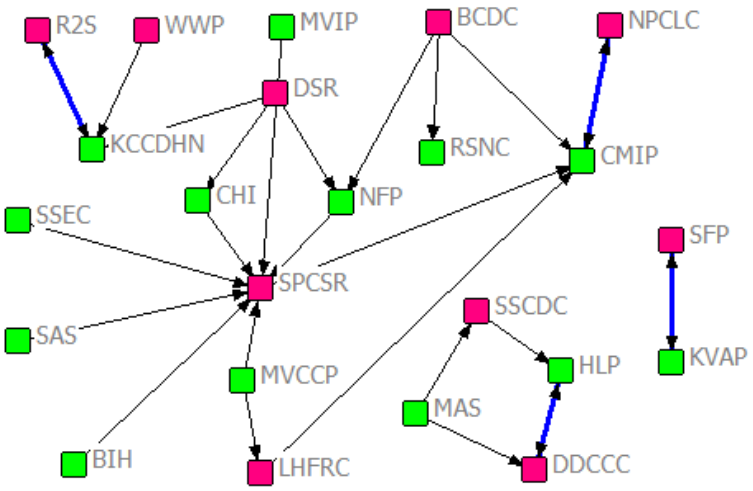
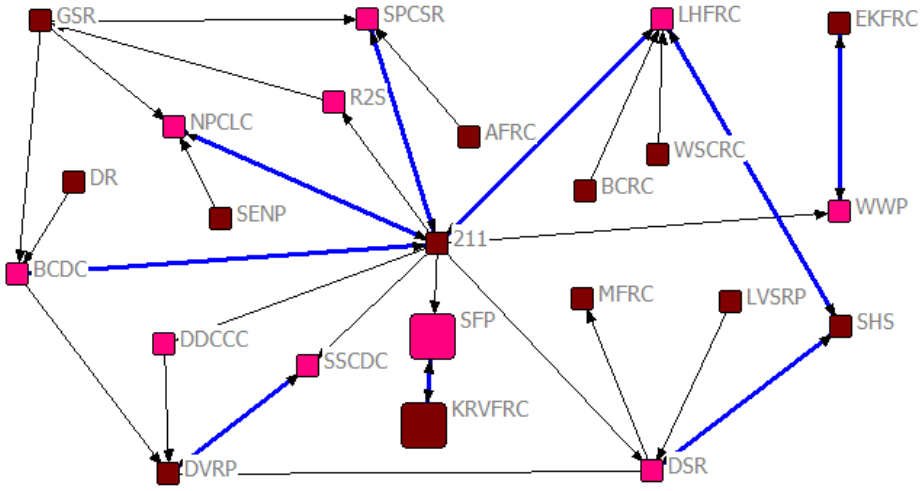


Figure 28 includes 13 programs in *Family Functioning* (brown nodes) and 10 programs in *Child Development* (pink nodes). As shown in Chapter 2, most FRCs in both focus areas offered parent education and preschool services. Accordingly, reciprocal links were found among FRCs between focus areas (see links of LHFRC-SHS & DSR-SHS). As a referral agency, 2-1-1 was well-linked in Figures 25 and 28. The consistent pattern disconfirmed *Simpson Effect* in that part of network. On the other hand, WSN delivered services at homeless shelters, which was strikingly different from programs of child development in regular family settings. Consequently, WSN did not show any primary partnerships in the network between *Family Functioning* and *Child Development* (Figure 28).

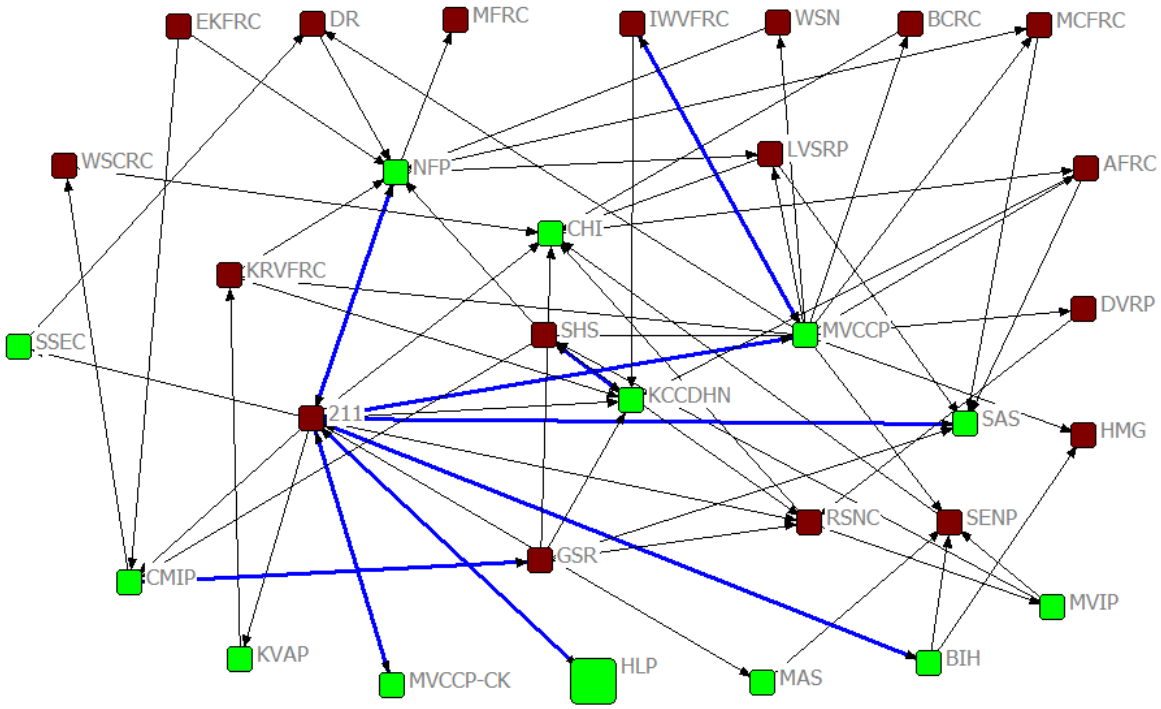
The network connection can be further strengthened when different services are provided in the same or nearby communities. For example, KRVFRC offered parent education in the same community with KVAP and SFP. Therefore, reciprocal dyads surfaced in Figure 28 between KRVFRC and SFP (see the enlarged nodes). For similar reasons, EKFRC and WWP were reciprocally linked to serve the neighboring communities in east Kern County.

Figure 28: Network Structure in *Family Functioning* and *Child Development*



In Figure 29, primary partnerships were displayed for 18 programs in *Family Functioning* (brown nodes) and 13 programs in *Child Health* (green nodes). The network had nine pairs of reciprocal links. The remaining 55 links featured unilateral connections. According to Kuhnt and Brust (2014), lack of reciprocal partnerships "is only found in relations of exploitation maintained through asymmetries of power" (p. 1). For instance, GCP offered services to support grandparents in guardianship establishment. It did not hire medical professionals to directly address health issues. Due to the asymmetry of power, no programs in *Child Health* listed GCP as a primary partner for their service integration (Figure 29).

Figure 29: Network Structure in *Child Health* and *Family Functioning*



Furthermore, network comparisons can be made to examine the *Simpson Effect* in Figures 25 and 29. Despite the partnership structure in Figure 29, three programs recognized GCP's status as a primary partner in Figure 25. Like MVCCP in *Child Health* and SPCSR in *Child Development*, GCP did not extend its network role to programs across focus areas. To reflect the hierarchy of multilevel structure, the State Commission stressed that "Evaluation should be conducted in such a way that it provides direct feedback to the County Commission and to the community as a whole" (First 5 California, 2010, p. 17).

In summary, network strengths have been categorized in this chapter at *Co-Existing, Collaboration, Coordination*, and *Creation* levels according to the 4C model. Primary partnerships were indicated by their reciprocal and unilateral links within and between focus areas. In general, "Networks that are highly centralized can spread information and resources effectively from the influential members" (Ramanadhan et al., 2012, p. 3). The information influence has been provided by referral services, as illustrated by the central role of MVCCP in Figure 24 and 2-1-1 in Figures 25, 28, and 29. Through the impactful service referrals, the network findings substantiated that First 5 Kern has led multiorganizational efforts to attain its strategic goal of Focus Area 4, i.e., "A well-integrated system of services for children and families will exist" (First 5 Kern, 2018, p. 7).

In this chapter, network analysis is considered as a useful tool to "examine indicators of service integration" (Gillieatt et al., 2015, p. 338). As postulated by an axiom that the whole could be larger than the sum of its part, partnership building has strengthened the service capacity for young children and their families in Kern County (see Tables 50-52). While it is believed that "reciprocal links play a more important role in maintaining the connectivity of directed networks than non-reciprocal links" (Zhu et al., 2014, p. 5), most primary links in Figures 24-29 are unilateral. Carmichael and MacLeod (1997) noted that asymmetric links, as represented by unilateral connections, were more likely to break the equilibrium and create stronger networks during the process of service system building. Hence, monitoring the network patterns represents an important approach to guide the future improvements of service integration. On the time dimension, First 5 Kern (2018) is expected to "facilitate turning the curve on result indicators" (p. 2). Built on the summary of partnership building in Chapter 3, aggregated findings of child wellbeing and family conditions are presented in Chapter 4 to delineate improvement of service outcomes between last year and this year.

Chapter 4: Turning the Curve

"Turning the Curve", per requirement of Results-Based Accountability, describes "What success looks like if we do better than the baseline" (Friedman, 2011, p. 3). To fulfill this requirement, First 5 Kern needs to compare program outcomes against the baseline indicators of family functioning and child wellbeing. In FY 2018-2019, a Core Data Elements (CDE) survey was conducted to gather information on child wellbeing across 29 programs. A Family Stability Rubric (FSR) was employed to collect trend indicator on family functioning from 15 programs. The local data tracking on these two aspects directly reflects First 5 Kern's status as *Kern County Children and Families Commission*.

According to First 5 Kern (2018) strategic plan, "a results-based accountability framework was employed to facilitate turning the curve on those result indicators that most accurately represent the developmental needs of Kern County's children ages prenatal through five and their families" (p. 3). In support of the data collection, a research protocol is sustained with the Institutional Review Board (IRB) of CSUB, which ensures compliance of the data collection to federal, state, and local regulations. In particular, consent forms are administered prior to data collection. Confidentiality trainings are offered multiple times throughout the year to meet the protocol requirement. In addition, evaluation site visits are conducted regularly to monitor adverse effects across programs. Exercises of the due diligence are critical because "The Children and Families Act of 1998 mandates the collection of data for the purpose of demonstrating result" (First 5 Kern, 2018, p. 2).

Following the spirit of local control in Proposition 10, First 5 Kern funded programs to support young children and their families across valley, mountain, and desert communities in Kern County. In this chapter, the FSR data are analyzed on a quarterly basis to show the strengthening of family functioning through the *turning the curve* process. To fit the timeframe of annual reporting, indicators of child wellbeing from last year are treated as a baseline in the CDE data analyses to assess improvement of child wellbeing this year.

Strengthening of Family Functioning in FY 2018-2019

The annual FSR data collection starts from the baseline quarter of Fall, 2018 to monitor improvement of the home supporting environment in 1,181 families. The data size for each program is listed in Table 56. Although family stability is primarily related to programs in *Parent Education and Support Services*, the FSR data collection also involves service providers in *Health and Wellness* and *Early Childcare and Education* (Table 56). In this section, household conditions, including the shortage of *food, childcare,* and *housing* supports, are tracked by multiple indicators in the FSR database. Based on Maslow's hierarchy, Cherry (2013) asserted that "Once these lower-level needs have been met, people can move on to the next level of needs, which are for safety and security" (¶. 2). Therefore, additional indicators of *job security* and *transportation* are analyzed within the first six months of First 5 Kern support. The period setting is intended to avoid widespread ceiling effects in the trend description.

Table 56: Scope of FSR Data Collection

Focus Area	Program	Data Size
Health and Wellness	Richardson Special Needs Collaborative	127
Parent Education and Support Services	Arvin FRC	72
	Buttonwillow Community Resource Center	41
	East Kern FRC	29
	Greenfield School Readiness	110
	Indian Wells Valley FRC	76
	Kern River Valley FRC	124
	Lamont/Vineland School Readiness Program	107
	McFarland FRC	126
	Mountain Communities FRC	43
	Shafter Healthy Start	35
	Southeast Neighborhood Partnership FRC	156
	West Side Community Resource Center	17
Early Childcare and Education	Delano School Readiness	50
	Lost Hills FRC	68

Food Needs

The U.S. Department of Agriculture (USDA) classified home food spending at four levels, *thrifty plan, low-cost plan, moderate-cost plan*, and *liberal plan*. For children ages 0-5, a thrifty plan could cost around half of the liberal plan[34]. First 5 Kern monitored financial burden on food spending in FSR data collection. At the program entry, 232 families in 12 programs indicated stress on food spending. The data tracking showed reduction of the family count to 139 and 80 in months 3 and 6, respectively. One program did not display the financial burden in any families since end of the second quarter (Table 57). The improvement is important in child health because "Children who are food insecure may go to bed hungry. Food insecurity is paradoxically related to both hunger and obesity" (Children Now, 2018, p. 43).

Table 57: Number of Families with Stress on Food Spending

Program*	Initial	3rd Month	6th Month
AFRC	25	12	5
BCRC	14	9	4
DSR	19	12	9
EKFRC	9	2	2
GSR	33	25	1
IWVFRC	11	5	5
KRVFRC	23	19	15
LHFRC	14	7	4
MFRC	17	16	16
SHS	25	1	0
SENP	37	26	18
WSCRC	5	5	1

*Program acronyms are listed in Appendix A.

[34] https://www.cnpp.usda.gov/sites/default/files/CostofFoodFeb2015.pdf.

Nutrition Considerations

Golden (2016) argued that "addressing health and nutrition needs in the early years of life has important effects on children's long-term development" (p. 3). At the beginning of FY 2018-2019, 49 families in eight programs indicated unmet nutrition needs. The family count decreased to 33 and 17 in the third and sixth month, respectively. Six programs showed elimination of the nutrition concern within half a year (Table 58). The index change is critical for young children because "The first three years of life are a period of dynamic and unparalleled brain development" (Liu, 2014, p. 3).

Table 58: Number of Families with Unmet Nutrition Needs

Program*	Initial	3rd Month	6th Month
AFRC	1	0	0
BCRC	0	0	0
GSR	1	0	0
IWVFRC	3	0	0
LHFRC	0	0	0
SHS	3	1	0
SENP	36	27	16
WSCRC	5	5	1

*Program acronyms are listed in Appendix A.

Free/Reduced Lunches

Researchers adopted the count of free/reduced lunches as an indicator of family poverty (Brown, Kirby, & Botsko, 1997). In FY 2018-2019, nine programs tracked the number of families that qualified for free/reduced lunch services. At the initial stage of program access, 169 families reported needs for free or reduced lunches for children in the households. The family count dropped to 101 and 58 in months 3 and 6, respectively. One program showed no family need for free/reduced lunches by the midyear. The data pattern in Table 59 portrays a positive trend on family support for child wellbeing because "poverty adversely affects structural brain development in children" (p. 1).

Table 59: Number of Families Needing Free/Reduced Lunches

Program*	Initial	3rd Month	6th Month
AFRC	29	17	11
DSR	12	6	6
EKFRC	7	1	1
GSR	25	22	2
IWVFRC	5	4	4
KRVFRC	19	15	10
LHFRC	15	12	8
SHS	26	2	0
SENP	31	22	16

*Program acronyms are listed in Appendix A.

Unmet Housing Needs

Researchers found strong links between housing conditions and child development (Dockery, Kendall, Li, & Strazdins, 2010). The FSR data within the first six months tracked

the number of families in temporary facilities across 14 programs. Initially, 49 families reported unmet housing needs. The number subsequently dropped to 22 in third month and 7 in sixth month. Within half a year, 12 of the programs showed no families living in temporary facilities (Table 60).

Table 60: Number of Families Living in Temporary Facilities

Program*	Initial	3rd Month	6th Month
AFRC	3	0	0
BCRC	3	1	0
DSR	1	0	0
EKFRC	1	0	0
GSR	3	0	0
IWVFRC	4	3	1
KRVFRC	3	1	1
LVFRC	4	1	0
MFRC	3	0	0
MCFRC	0	0	0
RSNC	1	1	0
SHS	2	0	0
SENP	21	15	5
WSCRC	0	0	0

*Program acronyms are listed in Appendix A.

Burden on Housing Expenditure

Alleviation of the burden on housing expenditure directly supported improvement of family finance. As Schumacher (2016) reported, "Parents with low- and moderate-incomes often struggle to stay afloat, balancing the soaring cost of child care against the high price of housing and other expenses" (p. 1). Although house prices in Kern County are not as high as most coastal regions of California, the local income is also much lower than the average income across the state. Consequently, "unaffordable housing affects children most during early childhood via its adverse impact on the family's ability to access basic necessities" (Dockery, Kendall, Li, & Strazdins, 2010, p. 2).

Table 61: Number of Families Cutting Spending Due to Housing Cost

Program*	Initial	3rd Month	6th Month
AFRC	22	12	5
BCRC	6	5	2
DSR	14	7	7
EKFRC	6	1	0
GSR	30	21	1
IWVFRC	6	3	2
KRVFRC	15	12	12
LHFRC	7	5	4
MCFRC	7	5	5
SHS	13	1	0
SENP	27	15	13
WSCRC	6	5	1

*Program acronyms are listed in Appendix A.

In FY 2018-2019, FSR data were gathered to track family economic conditions in 12 programs. Upon the program entry, the results indicated a total of 159 families facing spending cut due to housing cost. At the end of month 3, the number decreased to 92. By the midyear, the number was reduced to 52 (Table 61). Two programs reached a zero count at end of the sixth month.

Unmet Medical Insurance Needs

The American Institutes for Research (2012) reported that "Children without health insurance are less likely to get the medical care they need" (p. 15). To evaluate program support for child wellness, First 5 Kern gathered health insurance data from 10 programs. At the program entry, the issue of *unmet insurance needs* were reported by 175 families. In months 3 and 6, the total family count dropped to 117 and 63, respectively. The number of families with unmet insurance support became zero in two programs within half a year (Table 62).

Table 62: Number of Families without Medical Insurance

Program*	Initial	3rd Month	6th Month
AFRC	28	19	13
BCRC	15	14	5
DSR	18	10	7
EKFRC	15	2	2
GSR	41	29	2
IWVFRC	11	10	8
KRVFRC	26	24	18
LHFRC	15	8	8
SHS	6	1	0
WSCRC	0	0	0

*Program acronyms are listed in Appendix A.

Stress on Medical Premium/Copay

Medical premium is designed to make people more sensitive to the service costs (McKinnon, 2016). However, copayment burden could add stress to families in poverty. First 5 Kern gathered FSR data from 10 programs. The number of families feeling the stress from medical premium was 54 at the beginning. In months 3 and 6, the number dropped to 20 and 10, respectively. Despite the ongoing premium hike with the Affordable Care Act (Morse, 2019), four programs indicated no copayment stress in the midyear (Table 63).

Table 63: Number of Families with Stress on Medical Premium/Copay

Program*	Initial	3rd Month	6th Month
AFRC	7	2	1
BCRC	2	1	0
DSR	4	3	2
EKFRC	1	1	0
KRVFRC	13	5	3
LVSRP	2	2	0
LHFRC	5	3	3
SHS	10	0	0

Program*	Initial	3rd Month	6th Month
SENP	10	3	1
WSCRC	0	0	0

*Program acronyms are listed in Appendix A.

Job Security

Low family income is often related to unstable employment. Consequently, "Children who experience poverty during their preschool and early school years have lower rates of school completion than children and adolescents who experience poverty only in later years" (Brooks-Gunn & Duncan, 1997, p. 55). The unemployment issue was tracked by FSR data across 11 programs. The issue was reported by 76 families upon the program entry. The family count was reduced to 36 at end of the first quarter and 20 by the midyear. In particular, the responses from four programs indicated no issue of unemployment at the end of the sixth month (Table 64).

Table 64: Number of Families with Unemployment Issue

Program*	Initial	3rd Month	6th Month
BCRC	4	3	1
EKFRC	6	1	1
GSR	2	1	0
IWVFRC	9	6	2
KRVFRC	12	10	6
LHFRC	1	0	0
MFRC	6	4	3
MCFRC	2	1	1
SHS	8	0	0
SENP	24	9	6
WSCRC	2	1	0

*Program acronyms are listed in Appendix A.

Unmet Childcare Needs

Holmes (2019) reported from a national survey that "childcare expenses were among the most uncomfortable financial topics identified by respondents" (p. 2). While center-based programs delivered childcare services for a group of families, "For many working parents, hiring a caregiver to work in their home is the best solution for their child care and household needs" (Child Care Inc., 2012, p. 1). In either case, program effectiveness is reflected by a decreasing number of households with unmet childcare needs. Results in Table 65 were derived from the FSR data in 10 programs. At the program entry, 26 families indicated unmet childcare needs. The result declined to 13 and 1 in months 3 and 6, respectively. No family reported unmet childcare needs in nine programs by midyear.

Table 65: Number of Families with Unmet Childcare Needs

Program*	Initial	3rd Month	6th Month
AFRC	8	1	0
BCRC	0	0	0
DSR	4	3	1
EKFRC	3	0	0

Program*	Initial	3rd Month	6th Month
IWVFRC	0	0	0
LHFRC	0	0	0
MFRC	1	1	0
SHS	3	1	0
SENP	7	7	0
WSCRC	0	0	0

*Program acronyms are listed in Appendix A.

Availability of Convenient Childcare

Stipek (2018) noted that "Child care is prohibitively expensive for many families and does not meet the needs of nonstandard work schedules" (p. 3). Thus, service providers are needed to "offer convenient childcare resources to those who need to attend job trainings, interviews, school meetings" (United Way, 2016, p. 27). Based on responses from eight programs, 72 families indicated no convenient childcare provider at the program beginning. The family count was reduced to 42 in the first quarter and 22 in the second quarter of FY 2018-2019. Three programs reported no shortage of convenient childcare in the sixth month (Table 66).

Table 66: Number of Families without Convenient Childcare Providers

Program*	Initial	3rd Month	6th Month
AFRC	16	9	8
BCRC	4	0	0
IWVFRC	2	1	1
KRVFRC	16	14	7
LHFRC	4	3	0
SHS	12	0	0
SENP	13	12	5
WSCRC	5	3	1

*Program acronyms are listed in Appendix A.

Missing Work/School Due to Childcare

It was reported that "most early childhood interventions focus on outcomes for the participating child and do not attempt to assess effects on their parent(s)" (Karoly, 2012, p. 13). Inevitably, childcare needs often conflicted with job commitments and professional development opportunities for parents and other family members. As a result, parents or other family members might have to miss work or school due to lack of childcare, which could reduce job security and cause family instability. In FY 2018-2019, 10 programs showed improvement on the issue of *missing work or school due to childcare*. At the beginning, the issue was acknowledged by 34 families. At end of the first and second quarters, the number was reduced to 12 and 1, respectively. Nine programs showed elimination of this issue within six months (Table 67).

Table 67: Number of Families Missed Work/School for Childcare

Program*	Initial	3rd Month	6th Month
AFRC	4	0	0
BCRC	0	0	0
DSR	4	2	0

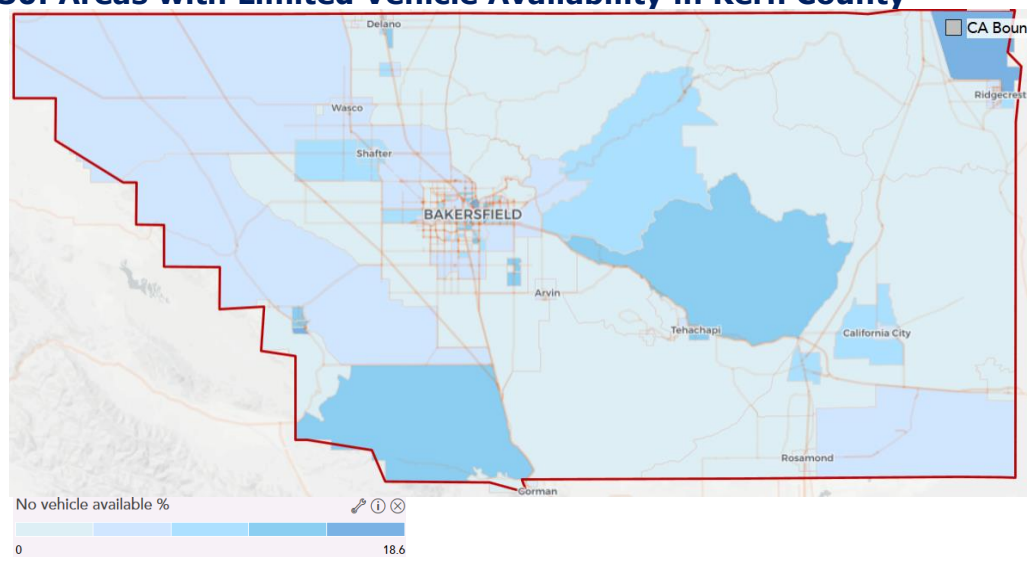
Program*	Initial	3rd Month	6th Month
EKFRC	1	0	0
IWVFRC	0	0	0
LVSRP	4	1	1
LHFRC	4	1	0
SHS	2	1	0
SENP	14	6	0
WSCRC	1	1	0

*Program acronyms are listed in Appendix A.

Unmet Transportation Needs

As shown in the dark-colored areas of Figure 30, transportation is an issue in rural communities with limited vehicle availability and public transportation. Families with young children encounter difficulties in service access due to the need of "Broader and more frequent transportation services for medical appointments, dental appointments, and other services are needed"[35].

Figure 30: Areas with Limited Vehicle Availability in Kern County



It was confirmed by FSR data from FY 2018-2019 that 77 families indicated *unmet transportation needs* prior to their service access to 11 programs. Improvement of this issue occurred by end of the first quarter when the family count dropped more than half to 37. At midyear, 11 families reported *unmet transportation needs*. The FSR data showed that seven programs eliminated transportation issues at end of sixth month (Table 68).

Table 68: Number of Families with Unmet Transportation Needs

Program*	Initial	3rd Month	6th Month
AFRC	9	2	0
BCRC	2	2	0
EKFRC	4	0	0

[35] http://www.first5kern.org/wp-content/uploads/2018/01/Ridgecrest-Area-6-Town-Hall-Recap-071317.pdf

Program*	Initial	3rd Month	6th Month
GSR	11	3	0
IWVFRC	3	3	1
KRVFRC	8	7	5
LHFRC	1	0	0
RSNC	7	7	6
SHS	3	0	0
SENP	27	12	9
WSCRC	2	1	0

*Program acronyms are listed in Appendix A.

Missing Work/School Due to Transportation

Unfortunately, "In rural areas, public transportation options are scarce and have limited hours of service" (Waller, 2005, p. 2). Table 69 contains the number of families with members *missing work or school due to transportation*. The results from 10 programs showed that 45 families reported transportation needs before receiving First 5 Kern funded services. The family count decreased to 18 in month 3 and 9 at midyear. Seven programs reported no families *missing work or school for transportation reasons in month 6*.

Table 69: Number of Families Missed Work/School for Transportation

Program*	Initial	3rd Month	6th Month
AFRC	3	0	0
BCRC	3	1	0
EKFRC	4	0	0
GSR	3	0	0
LHFRC	3	1	0
MCFRC	2	1	1
RSNC	6	5	4
SHS	0	0	0
SENP	21	10	4
WSCRC	0	0	0

*Program acronyms are listed in Appendix A.

Burden of Transportation Expenditure

In FY 2018-2019, FSR data were gathered to track the number of families *with financial burden for transportation*. The initial figure showed 117 families with the financial burden before service access in 10 programs. The family number dropped to 63 and 37 in months 3 and 6, respectively. Four of the programs showed zero family count by midyear (Table 70).

Table 70: Number of Families with Financial Burden for Transportation

Program*	Initial	3rd Month	6th Month
AFRC	17	11	4
BCRC	2	0	0
DSR	7	3	3
GSR	16	9	0
IWVFRC	14	9	7
KRVFRC	16	12	10
LHFRC	3	1	1

Program*	Initial	3rd Month	6th Month
SHS	6	0	0
SENP	35	18	12
WSCRC	1	0	0

*Program acronyms are listed in Appendix A.

In summary, local programs made extensive contributions to improvement of child wellbeing in FY 2018-2019. By saving family expenditures on early childhood support, the entangled issues of adequate *food supply, childcare, job security, housing*, and *transportation* have been alleviated within the first six months of program service. The FSR findings in Tables 57-70 demonstrated improvement of family functioning on 14 indicators in FY 2018-2019. The support is particularly important for narrowing the equity gap because childcare costs have exceeded federal subsidy payments to low-income parents (Murrin, 2019).

Improvement of Child Wellbeing between Adjacent Years

It is important to note that Proposition 10 delimits the service population in ages 0-5. "During this period, the brain shapes key abilities for long-term wellness, such as forming trusting relationships, being open to learning, and regulating emotions" (Briscoe, 2019, p. 1). To remain in the age boundary, the service population must refresh annually. Five-year-olds from last year have reached age 6 this year and newborns within the past 12 months have been added to the service population. Although the baseline characteristics, such as birth weight and ethnicity, are invariant at any two points in time, result tracking is needed to reflect the ongoing change of service recipients each year.

On the variable dimension, First 5 California (2016) noted, "First 5 Child Health services are far-ranging and include prenatal care, oral health, nutrition and fitness, tobacco cessation support, and intervention for children with special needs" (p. 15). Under these broad domains, indicators of child health and development include *breastfeeding, home reading*, and *preschool attendance*. In addition, child protection is illustrated by program support for *dental care, immunization*, and *smoke prevention* during the CDE data collection. In this section, CDE results are analyzed across programs to document the impact of First 5 Kern on improvements of child wellbeing in Kern County.

Well-Child Checkup

It was reported that "Too few California kids are receiving the health screenings they need" (Children Now, 2018, p. 29). Well-child checkups normally started a few days after birth. The purpose was to ensure healthy growth during ages 0-5. The checkup visits also provided opportunities to foster communication between parents and doctors on a variety of health care topics, including safety, nutrition, normal development, and general health care (Medi-Cal Managed Care Division, 2013). In FY 2018-2019, 13 programs indicated an increase in the percent of children with an *annual well-child checkup visit*. On average, Table 71 showed that the rate of well-child visit increased from 92.6% to 94.6% between the adjacent years. The service outcome is demonstrated by CDE data from 2,021 children this year. In particular, SSEC achieved a rate of 100% completion on well-child checkup in both years.

Table 71: Percent of Children with Annual Well-Child Checkup

Program*	FY 2017-2018		FY 2018-2019	
	N	Percent of Children	N	Percent of Children
BCDC	47	95.7	35	97.1
BCRC	80	96.3	63	96.8
DR	1,001	89.5	963	90.2
DSR	139	95.0	159	96.2
KRVFRC	118	91.5	107	96.3
LHFRC	35	91.4	58	94.8
MFRC	102	79.4	95	85.3
NPCLC	188	93.1	163	96.3
RSNC	69	95.7	78	96.2
SFP	18	94.4	19	94.7
SENP	109	93.6	132	94.7
SPCSR	231	93.1	92	93.5
WSCRC	59	94.9	57	98.2

*Program acronyms are listed in Appendix A.

Immunization

For nearly 15 years, Kern County and the entire state had a comparable rate of immunization completion for kindergartners. In preparation for kindergarten entry, First 5 Kern funded CMIP to provide immunizations across the county. Since its purchase of a service mobile unit in 2012, CMIP continues its services to raise immunization completion rate in Kern County. The support from immunization clinics has been treated as an important result indicator in First 5 Kern's (2018) strategic plan. Table 72 listed the percent of children who completed *all immunizations* across 14 programs. The average percent increased from 82.6% in last year to 89.3% this year. This improvement was demonstrated CDE data from 1,832 children since the last fiscal year. WWP showed 100% completion of the recommended immunizations in FY 2018-2019.

Table 72: Completion of All the Recommended Immunizations

Program*	FY 2017-2018		FY 2018-2019	
	N	Percent of Children	N	Percent of Children
BIH	33	24.2	26	34.6
DDCCC	67	70.1	52	94.2
DR	1,001	82.8	963	83.3
HLP	141	98.6	105	99.0
IWVFRC	77	85.7	68	95.6
LVSRP	105	86.7	83	98.8
LHFRC	35	88.6	58	98.3
MFRC	102	92.2	95	96.8
MCFRC	39	76.9	38	86.8
RSNC	69	92.8	78	96.2
SSCDC	43	90.7	43	89.5
SFP	18	88.9	19	89.5
SENP	109	80.7	132	87.1
WWP	70	97.1	72	100

*Program acronyms are listed in Appendix A.

Insurance Coverage

It is well-known that "Quality affordable health insurance helps kids access timely, comprehensive health care, and supports their overall well-being" (Children Now, 2018, p. 33). To meet this important need, First 5 Kern (2018) identified seven result indicators in its strategic plan:

- Number of families assisted with health insurance applications
- Number of children successfully enrolled into a new health insurance program
- Number of children who were successfully enrolled into a health insurance program and received well-child check-ups
- Number of children successfully renewed into a health insurance program
- Number of children with an established medical home
- Number of children with an established dental home
- Number of families referred to a local enrollment agency for health insurance (p. 4)

The CDE data showed an increase in the percent of insurance coverage across 14 programs (Table 73). More specifically, the average percent of children *with insurance coverage* increased from 94.5% in last year to 96.7% this year according to the CDE data from 1,039 children in FY 2018-2019. Five programs achieved a rate of 100% insurance coverage this year.

Table 73: Percent of Children with Insurance Coverage

Program*	FY 2017-2018		FY 2018-2019	
	N	Percent of Covered Children	N	Percent of Covered Children
BIH	33	81.8	26	88.5
BCRC	80	97.5	63	98.4
DDCCC	67	97.0	52	98.1
EKFRC	89	96.6	83	97.6
HLP	141	99.3	105	100
KRVFRC	118	98.3	107	100
MFRC	102	97.1	95	97.9
MCFRC	39	87.2	38	92.1
NPCLC	188	92.5	163	95.7
SSCDC	43	100	43	100
SFP	18	100	19	100
SENP	109	96.3	132	97.0
WWP	70	94.3	72	100
WSN	49	85.7	41	87.8

*Program acronyms are listed in Appendix A.

Dental Care

Because "children with poor dental health are almost three times as likely to miss school as their peers" (American Institutes of Research, 2012, p. 14), dental care is directly related to school readiness. First 5 Kern (2018) designated Result Indicator 1.1.6, "Number of children with an established dental home", to tackle this issue. Table 74 listed the percent of children *with annual dental checkups* across 14 programs. On average, the percent across these programs increased from 52.9% in last year to 60.1% this year.

Because infants were recommended to have the first dental visit by the first birthday,[36] dental care is generally applicable to most children ages 0-5. The results are supported by CDE data from 949 children this year.

Table 74: Percent of Children with Annual Dental Checkups

Program*	FY 2017-2018		FY 2018-2019	
	N	Percent of Children	N	Percent of Children
BIH	33	6.1	26	7.7
BCRC	80	61.3	63	65.1
DDCCC	67	32.8	52	38.5
EKFRC	89	57.3	83	57.8
HLP	141	83.0	105	92.4
KRVFRC	118	35.6	107	50.5
MCFRC	39	35.9	38	55.3
NPCLC	188	60.1	163	61.3
RSNC	69	65.2	78	69.2
SHS	75	66.7	78	73.1
SSCDC	43	58.1	43	67.4
SFP	18	44.4	19	52.6
SSEC	29	70.0	37	70.3
WSCRC	59	64.4	57	78.9

*Program acronyms are listed in Appendix A.

Preschool Attendance

"Decades of evidence show that children who attend preschool are more prepared for kindergarten than children who do not" (Weiland, Unterman, Shapiro, & Yoshikawa, 2019, p. 1). In Table 75, program information was gathered to track the percent of children *participating in preschool activities* on a regular basis. On average, the rate increased from 41.5% in last year to 47.1% this year. The positive change is demonstrated by CDE data from 2,123 children in FY 2018-2019 across 14 programs, up from 1,454 children in last year. According to First 5 California (2013), "Preschool attendance is correlated with improved kindergarten readiness and kindergarten readiness is associated with long-term achievement" (p. 17).

Table 75: Regular Attendance of Preschool Since the Third Birthday

Program*	FY 2017-2018		FY 2018-2019	
	N	Percent of Children	N	Percent of Children
BCRC	80	35.0	63	57.1
DDCCC	67	26.9	52	32.7
DR	1,001	46.8	159	47.2
DSR	139	22.4	963	26.4
HLP	141	62.8	105	68.6
IWVFRC	77	41.6	68	48.5
KRVFRC	118	33.1	107	39.3
LVSRP	105	45.7	83	47.0
MFRC	102	30.4	95	32.6
NPCLC	188	16.5	163	18.4
RSNC	69	87.0	78	92.3

[36] http://www.aapd.org/assets/2/7/GetItDoneInYearOne.pdf

Program*	FY 2017-2018		FY 2018-2019	
	N	Percent of Children	N	Percent of Children
SHS	75	26.7	78	37.2
SSEC	29	34.5	37	37.8
WWP	70	71.4	72	73.6

*Program acronyms are listed in Appendix A.

Home Reading

Barrett (2019) pointed out, "When a child reads alongside an adult, there are plenty of opportunities for that adult to model and support self-control (such as sustaining attention) and problem-solving" (p. 2). Table 76 contains information about home reading activities between adjacent years. Fourteen programs demonstrated increases in the percent of children who had *two or more home-reading activities* per week. On average, the percent across these programs increased from 62.2% in last year to 73.8% this year. This outcome is illustrated by CDE data from 1,786 children this year (Table 76). This result has a long-term implication because "Babies who are talked to and read to from the time they're born are better prepared by the time they start school" (First 5 California, 2018, p. 1).

Table 76: Children Being Read to Twice or More Times in Last Week

Program*	FY 2017-2018		FY 2018-2019	
	N	Percent of Children	N	Percent of Children
BIH	33	15.2	26	26.9
BCDC	47	57.4	35	60.0
DR	1,001	53.0	963	54.2
DSR	139	65.5	159	73.1
GSR	204	69.6	105	79.1
HLP	141	68.1	68	75.0
IWVFRC	77	81.8	107	93.4
MFRC	102	51.0	23	69.5
NFP	70	58.6	78	80.8
SSCDC	43	62.8	19	89.5
SENP	109	65.1	37	78.3
SSEC	29	65.5	37	78.3
SPCSR	231	69.5	57	87.7
WWP	70	87.1	72	87.5

*Program acronyms are listed in Appendix A. MVIP only contains two cases, and is excluded from this table.

Prenatal Smoking

According to Proposition 10, the public should be educated "on the dangers caused by smoking and other tobacco use by pregnant women to themselves and to infants and young children" (p. 3). In particular, "Secondhand smoke puts young children at risk for respiratory illnesses, including Sudden Infant Death Syndrome (SIDS), middle ear infections, impaired lung function, and asthma" (American Institutes for Research, 2012, p. 14). For child protection, First 5 Kern actively supports the local smoking cessation campaign. The CDE data indicated decline in the proportion of *mothers smoking during pregnancy* from 14.2% in last year to 7.3% this year. These 17 programs in Table 77

provided services for 1,736 newborns this year, and three of the programs reported no smoking issues in FY 2018-2019.

Table 77: Percent of Mothers Smoking During Pregnancy

Program*	FY 2017-2018		FY 2018-2019	
	N	Percent	N	Percent
BCRC	38	5.3	50	4.0
DDCCC	36	44.4	46	8.7
DR	939	21.6	898	18.5
DSR	100	5.0	82	3.7
KRVFRC	46	34.8	58	31.0
LHFRC	17	0.0	21	0.0
MCFRC	23	26.1	20	10.0
MFRC	56	7.1	63	3.2
NFP	15	13.3	23	4.4
SENP	47	12.8	69	4.4
SHS	57	3.5	75	1.3
SPCSR	201	2.0	164	0.6
SSCDC	47	25.5	21	19.1
SSEC	8	0.0	18	0.0
WSCRC	60	16.7	56	1.8
WSN	67	19.4	51	13.7
WWP	22	4.6	21	0.0

*Program acronyms are listed in Appendix A.

Full-Term Pregnancy

Early and regular prenatal care is important for the health of a mom and baby. The demand is also propelled by the rise of teen pregnancy among inexperienced mothers. The social cost is high because "infants are born preterm, making them susceptible to health and learning difficulties throughout childhood" (Children Now, 2018, p. 31). It has been revealed that "The average first-year medical costs are about 10 times greater for preterm infants than full-term infants" (Wasson & Goon, 2013, p. 28). Hence, full-term pregnancy should be pursued to save resources for other areas of early childhood support. Table 78 showed that the rate of *full-term pregnancy per program* increased from 82.9% in last year to 90.2% this year across 13 service providers. Altogether, these programs served 617 children in FY 2018-2019.

Table 78: Increase of Full-Term Pregnancy Between Two Adjacent Years

Program*	FY 2017-2018		FY 2018-2019	
	N	Percent	N	Percent
BCDC	23	87.0	23	91.3
BCRC	38	84.2	50	92.0
BIH	21	66.7	34	76.5
EKFRC	80	83.8	51	84.3
GSR	110	91.8	160	91.9
LHFRC	17	88.2	21	95.2
LVSRP	48	81.3	52	90.4
RSNC	27	89.0	40	90.0
SFP	23	78.3	18	88.9
SHS	57	86.0	75	92.0

Program*	FY 2017-2018		FY 2018-2019	
	N	Percent	N	Percent
SSCDC	47	78.7	21	95.2
WSN	67	85.1	51	90.2
WWP	22	77.3	21	95.2

*Program acronyms are listed in Appendix A.

Low Birth Weight

Low birthweight (LBW) is a term for describing babies who weigh less than 2,500 grams (5 pounds, 8 ounces) at birth. Although prenatal care could help increase full-term pregnancies, LBW has been identified as a potential cause for medical complications (Ponzio, Palomino, Puccini, Strufaldi, & Franco, 2013). Recent research also linked LBW to low educational attainment and high prevalence of socio-emotional and behavioral problems in later years (Chen, 2012). To address these issues, First 5 Kern supported *Systems of Care* that offered a combination of education, prevention, and intervention services in prenatal care. Table 79 showed reduction of the average LBW rate from 16.1% in last year to 8.8% this year in 17 programs. These programs served a total of 1,703 children this year. Two programs showed no LBW issue in FY 2018-2019.

Table 79: Proportion of Cases for Decreasing Low Birth Weight

Program*	FY 2017-2018		FY 2018-2019	
	N	Percent	N	Percent
BIH	21	28.6	34	11.8
BCDC	23	13.0	23	8.7
BCRC	38	31.6	50	8.0
DDCCC	36	13.9	46	13.0
DR	939	11.5	898	10.3
EKFRC	80	13.8	51	5.9
GSR	110	8.2	160	5.6
HLP	69	13.0	58	10.3
LHFRC	17	11.8	21	9.4
MCFRC	23	26.1	20	20.0
NFP	15	13.3	23	13.0
NPCLC	171	6.4	144	2.8
RSNC	27	18.5	40	15.0
SFP	23	17.4	18	5.6
SHS	57	8.8	75	0.0
SSCDC	47	19.2	21	9.5
WWP	22	18.3	21	0.0

*Program acronyms are listed in Appendix A.

When LBW occurred in poor families, scientists indicated that "nutritionally deprived newborns are 'programmed' to eat more because they develop less neurons in the region of the brain that controls food intake".[37] Although this issue is not confined within the local communities, Kern County is ranked at sixth and eighth positions across the state for LBW and obesity.[38] Because "More babies were born at low birth weight" in Kern

[37] http://www.sciencedaily.com/releases/2011/03/110310070311.htm
[38] http://www.kidsdata.org

County (Golich, 2013, p. i), the trend needs to be reversed by effective programs, such as the ones funded by First 5 Kern.

Breastfeeding

Because "Breast milk is rich in a chemical that combats infant infections" (Dorking, 2019, p. 1), breastfed babies are known to have plenty of good bacteria that improve immunity. As an optimal source of infant nutrition, breast milk is especially beneficial under premature birth conditions (Zimlich, 2019). Due to lack of public support, however, breastfeeding stops too soon (Alfaro, 2019). Vinopal (2019) reported that "Breastfeeding babies for at least two months cuts their risk of Sudden Infant Death Syndrome almost in half" (p. 1).

Built on the research consensus, the Children's State Policy Agenda included a target to increase the breastfeeding rate (First 5 California, 2015b). The U.S. federal government also set a national objective in 2011 to have at least 46% of children breastfed in the first three months.[39] In Table 80, the average breastfeeding rate across 15 programs increased from 65.2% in last year to 73.0% this year. This change supported healthy growth of 1,634 children in Kern County. Furthermore, the improvement has enhanced the nurturing parenting process as "Babies benefits from the closeness [with mothers] during breastfeeding" (Robison-Frankhouser, 2003, p. 28).

Table 80: Increase in Breastfeeding Rate Between Two Adjacent Years

Program*	FY 2017-2018		FY 2018-2019	
	N	Percent	N	Percent
AFRC	98	72.5	69	82.6
BCDC	23	69.6	23	73.9
DR	939	54.2	898	57.5
DSR	100	75.0	82	76.8
EKFRC	80	66.3	51	66.8
GSR	110	75.5	160	77.5
IWVFRC	43	60.5	33	69.7
LHFRC	17	58.8	21	61.9
NFP	15	73.3	23	91.3
RSNC	27	51.9	40	60.0
SENP	47	80.9	69	82.6
SFP	23	69.6	18	77.8
SHS	57	57.9	75	80.0
SSCDC	47	57.5	21	71.4
WSN	67	53.7	51	64.7

*Program acronyms are listed in Appendix A.

Prenatal Care

"For a variety of reasons, high-risk mothers may delay or avoid prenatal care" (Wasson & Goon, 2013, p. 28). To combat this issue, the "Number of pregnant women referred to prenatal care services" is listed as RI 1.1.2 in First 5 Kern's (2018) Strategic Plan. Programs received Proposition 10 funding to provide education and service access to pregnant mothers. As a result, the average rate of *monthly prenatal care* increased

[39] www.kidsdata.org/export/pdf?cat=46

from 91.4% in the last year to 95.6% this year across 16 programs that served 1,644 families (Table 81). Four of the programs reached 100% this year.

Table 81: Percent of Mothers Receiving Prenatal Care

Program*	FY 2017-2018		FY 2018-2019	
	N	Percent of Mothers	N	Percent of Mothers
BCDC	23	100	23	100
DR	898	91.8	791	91.9
DSR	100	93.0	82	98.8
EKFRC	80	83.8	51	94.1
GSR	110	96.4	160	98.1
HLP	69	82.6	58	87.9
IWVFRC	43	88.4	33	97.0
LHFRC	17	94.1	21	100
LVSRP	48	93.8	52	94.2
NFP	15	100	23	100
SHS	57	87.7	75	94.7
SSCDC	47	87.2	21	95.2
SSEC	8	100	18	100
SPCSR	201	87.6	164	90.9
WSN	67	90.0	51	96.1
WWP	22	86.4	21	90.5

*Program acronyms are listed in Appendix A.

In summary, the CDE data analyses revealed improvement of child wellbeing since the last fiscal year. Besides alleviation of healthcare issues pertaining to *preterm pregnancy, low birth weight, prenatal care*, and *prenatal smoking* at the child level, enhancement of family functioning supported *breastfeeding, well-child checkup, up-to-date immunizations*, and *insurance coverage*. Progress in early childhood education has been demonstrated by expansion of *home reading activities* and *preschool learning opportunities*. As indicated by results in Tables 71-81, value-added assessments have shown better service outcomes this year to support an assertion in First 5 Kern's (2018) Strategic Plan, i.e., "Working in partnership with its service providers in communities throughout Kern County, it [the Commission] has been able to positively impact the lives of thousands of children and their families" (p. 8).

In the RBA model, Turning the Curve is a key concept for "Defining success as doing better than the current trend or trajectory for a measure" (Lee, 2013, p. 10). Based on systematic analyses of FSR and CDE data in this chapter, ongoing improvement of child wellbeing and family support has been summarized on multiple aspects and across different program sites (see Tables 57-81). The result triangulation reconfirmed the positive impact of First 5 Kern funded services to support the *Turning the Curve* process on the time dimension.

Chapter 5: Conclusions and Future Directions

In compliance to Proposition 10 requirement, First 5 Kern's (2018) Strategic Plan "has four focus areas that correlate to the state focus areas" (p. 3). Built on the Commission description in Chapter 1, assessment data were analyzed in Chapter 2 to delineate how much has been done by First 5 Kern funded programs in each focus area of *Child Health, Family Functioning*, and *Child Development*. Chapter 3 addressed program partnership building in the fourth focus area on the *Systems of Care*. Chapter 4 provided a summary of FSR and CDE data on service improvement in the time dimension. Altogether, service outcomes were extensively examined at the program level in Chapters 1-4.

At the Commission level, First 5 Kern abided by the spirit of local control in Proposition 10 to meet the needs of young children and their families in Kern County. Within the local context, referral services were offered 24 hours a day through 2-1-1, and special-needs support was extended during non-traditional hours by SSEC (see RI 3.2.1, 3.2.2, 3.2.3, Ibid. 16). Care coordination was funded in the service delivery process through program outreach. The program networking was assessed to justify the return on state investment in the product phase. All the service accomplishments were impossible without the incoming resources from state funding. Therefore, the report design conformed to a well-established Context, Input, Process, and Product (CIPP) paradigm with a clear focus on delineating what works, for whom, and in which context.

The data triangulation at both program and Commission levels has led to a conclusion in Chapter 5, i.e., the Commission has funded "local programs that promote early childhood development for children 0 to 5 in the areas of health and wellness, early childcare and education, parent education and support services, and integration of services" (First 5 Kern, 2018, p. 2). To justify this conclusion, this chapter recaps the improvement of program outcomes in different focus areas. Two additional sections, *Dissemination of the Evaluation Findings* and *Policy Impact of Evaluation Outcomes*, are created to describe success stories following the state report template.[40] This chapter ends with a review of the past recommendations and an introduction to new recommendations for the next fiscal year.

Improvement of Program Outcomes

Allen (2004) pointed out, "Value-added assessment generally involves comparing two measurements that establish baseline and final performance" (p. 9). The value-added approach has been taken to aggregate 21 evaluation findings from Chapters 2-4:

Within FY 2018-2019, improvements were made on 10 aspects

1. Screening of Child Development

    - Twenty-one programs tracked the developmental growth of 1,708 children in months 2-60. Child performance was found significantly above the age-specific thresholds across all ASQ-3 domains (see Tables 11 and 39);

2. Assessment of Parent Education

[40] http://www.ccfc.ca.gov/pdf/partners/data_systems/ar/Annual_Report_Guidelines_FY_2018-19.pdf

- Pretest and posttest data were gathered from 269 families across six court-mandated parent-education programs. The results showed significant improvements of parenting constructs on *Expectations of Children, Parental Empathy, Physical Punishment*, and *Parent-Child Roles*. The effect sizes were larger than 0.80 to show strong practical impact from the AAPI-2 assessments (see Table 24);

3. Enhancement of Child Protection

   - The DR program demonstrated strong and significant impact on child protection across dimensions of *Environment, Parental Capabilities, Family Interactions, Family Safety, Child Well-Being, Social/Community Life, Self-Sufficiency*, and *Family Health*. The DR data tracked over 310 children across Kern County using the NCFAS-G instrument (see Table 25);

4. Satisfaction of Parent Workshops

   - A total of 909 participants attended 10 Nurturing-Parenting workshops at seven program sites. On a five-point scale with 5 representing the most positive result, the rating on the workshop usefulness increased from 4.57 last year to 4.72 this year (see Table 20);

5. Strengthening of Preschool Preparation

   - R2S tracked kindergarten-readiness of 400 preschoolers across four school districts. The combined mean score across *Reading Readiness, Math Readiness*, and *Supportive Skills* increased from 10.17 to 17.64 within five weeks. The effect size was 1.57, indicating a strong practical impact on these kindergarten readiness indicators (see Table 35);

6. Reduction of Plaque Index

   - Average Plaque Index was monitored by KCCDHN during initial and recheck visits for 136 children. Improvement of oral health was demonstrated by significant index reduction at α=.0001 (see the "Outcomes of Oral Health Service" section of Chapter 2);

7. Improvement of Health Literacy

   - HLP assessed the knowledge of 31 parents about the content of BCBH instrument this year. Before the workshops, 32.26% of the parents indicated that they knew "less than some" of the content. After the workshops, the *inadequate knowledge* group dropped to 22.58% due to the training (see the "Improvement of Parent Health Literacy" section of Chapter 2).

8. Demonstration of Desired Development

   - Three versions of DRDP (2015) instrument were adopted to assess child development. Positive outcomes were obtained from 25 infants and toddlers in BCDC, HLP, and SSCDC programs (Tables 41 and 42). Data from DRDP

Comprehensive and Fundamental View instruments also demonstrated significant performance improvement of 26 preschoolers in DDCCC and DSR (see Table 45), as well as 78 preschoolers in HLP, SFP, and WWP (see Table 43) programs.

9. Support for Kindergarten Transition

- Eight Summer-Bridge programs demonstrated significant child cognitive development in eight out of 11 programs (Table 46). Most of the 226 children also showed strong enhancement of non-cognitive skills across six domains of the CASB scale (Table 48).

10. Quality of Parent-Infant Interaction

- The DANCE assessment was conducted on 38 infants. On the *Positioning* scale, caregiver ratings increased from 99.1% last year to 99.5% this year near the ceiling level, an indication of more caregivers taking correct positions to read child's communications. The *Non-Intrusiveness* rating also increased from 88.1% last year to 91.3% this year for better protection of *child activity, emotional*, or *physical space* (Table 12). On the scale of *Emotional Quality and Behavioral Regulation*, Table 13 showed caregiver performance above the golden standard on *Verbal Connectedness*.

In comparison to last year, programs improved services on 11 aspects:

Through program funding, First 5 Kern incorporated early childhood services in a *consumer-oriented* and *easily accessible* system. The following improvement has been made in multiple programs between two adjacent years:

1. Expansion of Prenatal Care Coverage

- The average rate of monthly prenatal care increased from 91.4% in the last year to 95.6% this year in 16 programs. These programs served 1,644 families in FY 2018-2019 (Table 81);

2. Offering of Home Reading Activities

- The number of children read to twice or more times per week was tracked by a sample of 1,786 child data in 14 programs. The rate increased from 62.2% in last year to 73.8% this year (Table 76);

3. Implementation of Well-Child Checkup

- The proportion of families having annual well-child checkup increased across 13 programs from 92.6% last year to 94.6% this year. The outcome measures were based on the CDE data from 2,021 children in FY 2018-2019 (Table 71);

4. Increase of Full-Term Pregnancy

- The percent of full-term pregnancy increased from 82.9% last year to 90.2% this year across 13 programs. Altogether, these programs served 617 newborns in FY 2018-2019 (Table 78);

5. Decline of Low-Birth Weight

- The rate of low-birth weight decreased from 16.1% in last year to 8.8% this year in 17 programs. These programs served a total of 1,703 children in FY 2018-2019 (Table 79);

6. Fulfillment of Immunization Requirements

- The percent of children receiving all immunizations increased across 14 programs from 82.6% in the last year to 89.3% this year. This improvement was demonstrated by the CDE data from 1,832 children in Kern County (Table 72);

7. Expansion of Breastfeeding

- The average breastfeeding rate across 15 programs increased from 65.2% in last year to 73.0% this year. This change illustrated balanced nutrition for 1,634 children in Kern County in FY 2018-2019 (Table 80);

8. Increase of Dental Checkups

- The percent of children with annual dental checkups increased from 52.9% in last year to 60.1% this year. The results are supported by 949 child data from the CDE survey across 14 programs in FY 2018-2019 (Table 74);

9. Reduction of Prenatal Smoking

- The rate of *prenatal smoking* was reduced from 14.2% in last year to 7.3% this year across 17 programs. The result impacted 1,736 newborns this fiscal year (Table 77);

10. Expansion of Insurance Coverage

- The percent of insurance coverage expanded from 94.5% in last year to 96.7% this year across 14 programs according to the CDE data from 1,039 children in FY 2018-2019. Five programs achieved a rate of 100% insurance coverage in this report period (Table 73);

11. Increase of Preschool Participants

- The percent of children participating in preschool activities grew from 41.5% in last year to 47.1% this year. The positive change is demonstrated by the CDE data from 2,123 children across 14 programs (Table 75).

Based on the result aggregation, the program impact within this year has clearly justified results-based accountability for First 5 Kern funding. In addition, the result

improvement between adjacent years were guided by First 5 Kern's (2018) strategic plan to "facilitate turning the curve on result indicators that most accurately represent the developmental needs of Kern County's children ages prenatal through five and their families" (p. 3).

Dissemination of Success Stories at the Program Level

In triangulating the quantitative findings from last section, First 5 Kern posted qualitative stories of program impact online[41]. The story text represented different aspects of early childhood support in *Child Health, Family Functioning*, and *Child Development* to offer a more wholistic picture of program impacts (Table 82). For instance, AFRC has been categorized in *Family Functioning*. Its contribution to *Child Health* was reported by a case-managed mother whose medication prevented her from breastfeeding. Despite her low-income status, the Women, Infants, and Children (WIC) assistance was beyond her reach due to communication barriers. The program provided health education to the mother and informed her the harm of migraine medicine to the newborn while breastfeeding. It was the program support that overcame the communication barrier and helped the child gain access to healthy formula from WIC.

Table 82: Sources of Success Stories across Programs and Focus Areas

Focus Area	Program
Child Health	Black Infant Health Program
	Community Health Initiative of Kern County
	Make A Splash
	Special Start for Exceptional Children
	Kern County Children's Dental Health Network
	Health Literacy Program
	Medically Vulnerable Care Coordination Project
	Nurse Family Partnership Program
	Richardson Special Needs Collaborative
Family Functioning	2-1-1 Kern County
	Arvin Family Resource Center
	Domestic Violence Reduction Project
	Differential Response Services
	East Kern Family Resource Center
	Greenfield School Readiness
	Guardianship Caregiver Project
	Indian Wells Family Resource Center
	Lamont/Vineland School Readiness Program
	Kern River Valley Family Resource Center
	Mountain Communities Family Resource Center
	Shafter Healthy Start

[41] https://www.first5kern.org/about-us/success-stories/

Focus Area	Program
Child Development	Blanton Child Development Center
	Discovery Depot Child Care Center
	Delano School Readiness
	Neighborhood Place Community Learning Center
	Small Steps Child Development Center

The AFRC service was further extended from child health and family functioning to early childhood education. This year a five-year-old boy was moved to a few different classrooms since his entry to kindergarten. The mother raised concerns on his speech issue and possible autism. AFRC connected the family to special services of the school district to request diagnostic tests for this child. Meanwhile, parents took education classes at AFRC and gained the knowledge to participate in school committees and support the early learning activities.

Local programs also sustained timely education advancement for preschoolers. For example, upon the BCRC program entry, a boy was not potty-trained. After the Christmas break, the boy wanted to go to school, and his mother promptly enrolled him in the early learning program at BCRC. The propitious engagement has made the boy a happy learner and remains as one of the best students in the program.

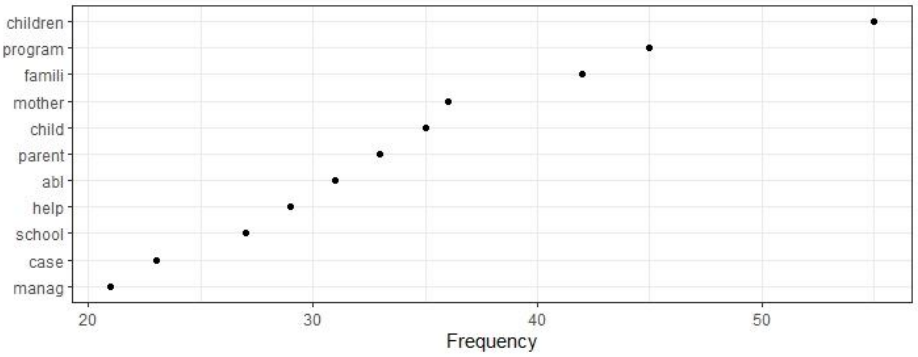
For child legal protection, a homeless mother received program support to file a restraining order against her husband. The FRC assisted the family with food baskets, strollers, donated baby clothes, hygiene products, a baby tub, and a rocking chair for the baby. Another client was in the United States on political asylum after the death of her husband due to a murder case in Mexico. With the program assistance, the family received bikes, stuffed animals, hygiene products, food baskets, clothing, Toys for Tots, diapers, car seats, and wipes for the young children.

While similarities of the impact stories are widely spread across First 5 Kern funded programs, new computing technology can be employed to expand text analytics for qualitative data aggregation. The mixed method approach is pioneered by an R package, Quantitative Analysis of Text Data (quanteda). According to Benoit et al. (2018),

> quanteda is an R package providing a comprehensive workflow and toolkit for natural language processing tasks ... Using C++ and multithreading extensively, quanteda is also considerably faster and more efficient than other R and Python packages in processing large textual data. (p. 774)

Built on the quanteda platform, R scripts are developed to plot the top-impact words according to their emerging frequencies in these 27 stories (Ibid 44). Altogether, "children" and "child" were mentioned 90 times, followed by "program" that was mentioned 45 times. In addition, "family", "mother", and "parent" were cited over 105 times (Figure 31). With no exception, all these top-impact words represent the core elements of First 5 Kern's (2018) mission statement about the key stakeholders.

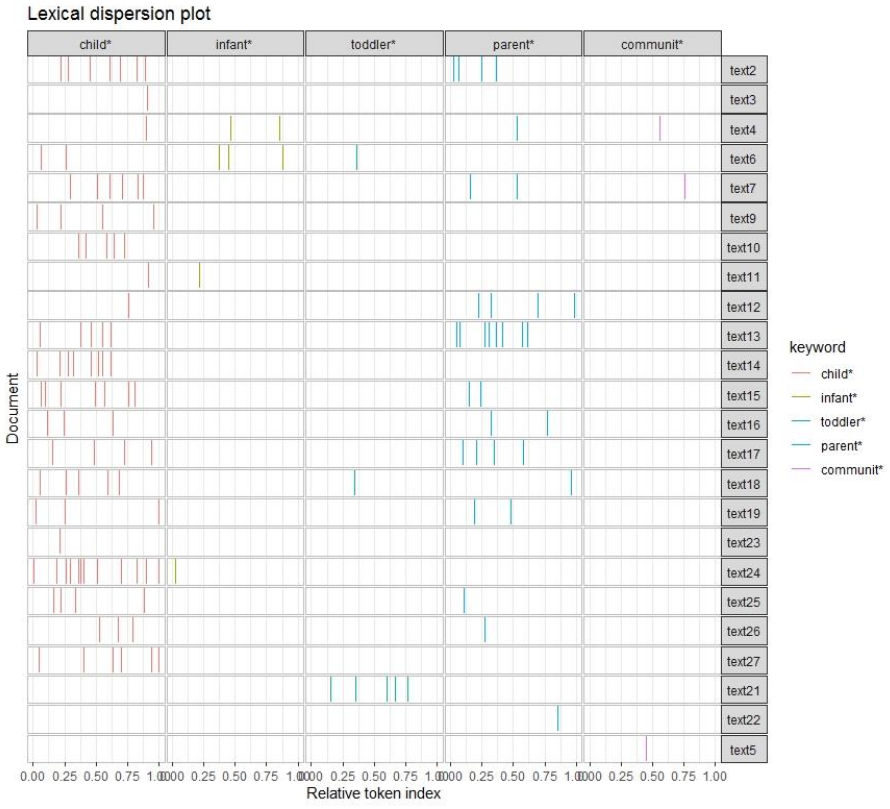
Figure 31: Top-Impact Words across Twenty-Five Stories



After subjecting the text data to a process of *tokenization, stopping-word/punctuation cleaning*, and *dictionary stemming*, a Lexical Dispersion Plot has been drawn at the program level to compare frequently-mentioned words in individual stories. As shown in Figure 32, words with stems of "child" and "parent" were reported most frequently, which confirmed alignment of the service emphases with the program foci on children and parents in these stories.

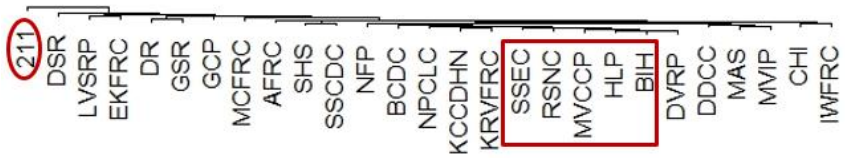
The story highlight also depends on program features. For instance, text14 represents stories from Guardianship Caregiver Project, which had frequent mentioning of "child" or "children" without much links to parents. On the other hand, DR in text12 primarily stresses the correction of abusive home environment. Hence, its stories have a more emphasis on keywords "parent", "parenting", or "parents" in Figure 32.

Figure 32: Frequently-Mentioned Words in Impact Stories at the Program Level



More importantly, these programs did not act alone. A plot of the impact-program clusters shows interconnectedness of various service providers in the success story generation (Figure 33). In comparison, 2-1-1 solely offers referral support. The unique feature has made it a separate cluster from other programs that provide direct services (Figure 33). Likewise, MVCCP is clustering with four other programs (BIH, HLP, RSNC, SSEC) due to its coordination role in *Child Health*.

Figure 33: Program Clustering Behind the Impact Stories



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At the Commission level, a word cloud plot in Figure 34 highlighted the overall impact of First 5 Kern funding. In particular, "Children" had a central position with the largest font in Figure 34. Because the Commission relied on local programs for service delivery, "Program" took a central location in the plot. Other service features were brought to light by keywords of *case management, school readiness*, and *family/mother/parent/child help*. Despite tokenization of these keywords, Figure 34 clearly captured the essence of Proposition 10 funding in Kern County.

Figure 34: Word Cloud of Keywords in Impact Stories

In summary, First 5 Kern gathered success stories across Kern County to illustrate the positive impact of state funding in local communities. While the quantitative data tracking offers a broad description of program support, qualitative data provide authentic stories to confirm that the local children and families are better off due the state investment. In this section, four plots in Figures 31-34 are created by R scripts to aggregate outcomes of the local program focus in service deliveries. The results of *top-*

impact words, impact-program clusters, keyword dispersions, and *word clouds* frequently employed "children", "infants", "toddlers", "parents", and "communities" in the impact stories to reconfirm the program design for supporting key stakeholders. The R-based approach is aligned with the methodology advancement of international and national assessment projects funded by the federal government (Caro & Biecek, 2017; Matta, Rutkowski, Rutkowski, & Liaw, 2018).

Policy Impact of Evaluation Outcomes

Evaluation, by definition, deals with value judgement of program outcomes (Best & Kahn, 2005). With expectation of a high return to the state's investment, outcomes of early childhood services (ECS) could be represented by "use value" and "exchange value". The Use Value, according to Heckman (2017), includes reduced crime rates, increased salary incomes, better education outcomes, and more taxpayer contributions. Others argued not-so-high investment returns (Oh & Adamy, 2019) or no positive return at all (Pages, Lukes, Bailey, & Duncan, 2019) because many events occurred after age 5 and the interference could have made these use values fade away.

Instead of continuing the arguments on the use-value line, the evaluation team simplified CBA from an exchange-value perspective to reflect the fact that First 5 Kern funded programs not for its own use, but in exchange for the services to support young children and their families in the future (Sun, Wang, & Hylton, 2019; Wang & Sun, 2019). Therefore, the focus should be placed on a comparison of the current program funding with the market value in Kern County. The data tracking indicates benefit of First 5 Kern funded programs above the local market value in both current and past funding cycles[42].

Policy impacts are derived from the evaluation findings to support First 5 Kern's decision on (1) continuing funding direct services that are much-needed in Kern County, and (2) sustaining the practice of evaluating program effectiveness in the next RFP process. The RFP undertaking will broadly influence over $40 million of state funding for ECS across Kern County in 2020-2025.

Past Recommendations Revisited

In the last annual report, three recommendations were made for First 5 Kern to:

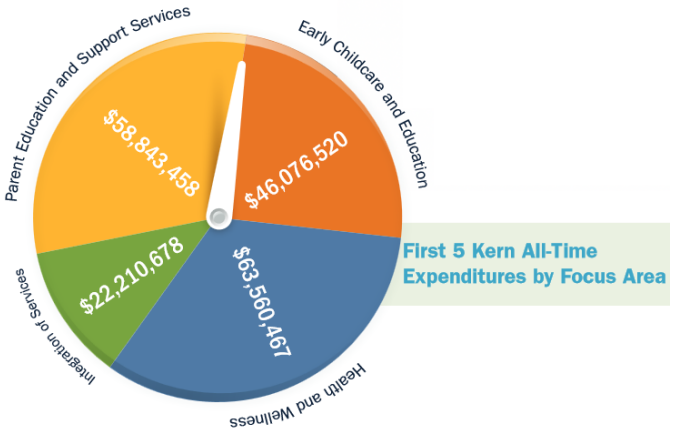
1. Advocate the needs for early childhood support while maintaining its program offerings according to the current strategic plan;
2. Make proper adjustments of the funding priorities according to a defensible estimate of future Proposition 10 funding;
3. Maintain diligent effort on data collection to inform the Commission strategic planning in 2020-2025.

First 5 Kern maintained its funding structure to support 43 programs in FY 2018-2019. Within the community, First 5 Kern worked with Adventist Health Bakersfield to prioritize free vaccination shots for children under five years of age[43]. On May 30, 2019, First 5 Kern hosted California Surgeon General's visit to further promote the needs of program support in *Child Health*. On March 6, 2019, the Commission produced a brochure

[42] https://files.eric.ed.gov/fulltext/ED582032.pdf
[43] http://first5association.org/first-5-in-the-news/

to celebrate 20th anniversary of Proposition 10 funding[44]. As shown in Figure 35, First 5 Kern has channeled over $190 million of state investment to support local children and their families across all four focus areas of First 5 Kern's strategic plan. Hence, the Commission has addressed the first recommendation through the internal program funding and external service outreach at the community, county, and state levels.

Figure 35: Proposition Fund Allocation since First 5 Kern Inception



Source: Ibid 47.

On January 25, 2019, the Budget and Finance Committee of First 5 Kern met and indicated a desire to have an ending balance of $3.78 by the end of FY 2024-2025[45]. The plan was subject to further revision because of lower revenue projections on January 30, 2019. Consequently, the Commission considered its future funding structure under two scenarios. The first one was to keep the original funding capacity and reduce the end balance to $2.78 million in five years. The second scenario had a reduction of the program investment to retain the end balance at $3.78 million. Based on a defensible estimate of future Proposition 10 funding, the Commission accepted a plan of program support under the first scenario. This decision also heeded to a caution of the professional community. According to Deborah Stipek, Stanford University professor, "First 5 was not in a position to make up for huge reductions in resources"[46]. The careful adjustment of funding structure showed First 5 Kern's fulfillment of the second recommendation from the last annual report.

It was stipulated in First 5 Kern's (2018) strategic plan that "The results-based accountability [RBA] model, as adopted by First 5 California, requires the collection and analysis of data and a report of findings in order to evaluate the effectiveness of funded programs" (p. 10). In Table 83, raw data sizes from SPSS export are listed between two adjacent years to describe the status of data collection. Despite the variation of sample sizes across different surveys and/or assessments, no data were completely missing in FY 2018-2019. Hence, First 5 Kern has met the third recommendation on maintaining diligent effort in data gathering.

[44] https://www.first5kern.org/wp-content/uploads/2019/08/20th-anniversary-brochure-FINAL-display-order-for-web.pdf
[45] Item 18 of https://www.first5kern.org/wp-content/uploads/2019/09/CFC-Agenda-Packet-060519.pdf
[46] https://www.educationdive.com/news/as-revenue-declines-from-one-sin-tax-california-considers-tapping-anothe/532702/

Table 83: Data Sizes Between Adjacent Years*

Data	FY 2017-2018	FY 2018-2019
AAPI	213	263
ASQ-3	1,751	1,708
ASQ:SE/ASQ:SE-2	116	113
BCBH Pretest	93	70
BCBH Posttest	32	31
Birth Survey	1,521	1,307
CASB	731	481
CDE	2,382	2,152
DANCE	41	38
DR Birth Survey	898	791
DR CDE	1,001	963
DRDP-Comprehensive View	135	108
DRDP-Fundamental View	191	177
DRDP-Infant/Toddler	70	69
DVRP	44	42
FSR	1,218	1,181
GCP	90	69
ISQ	1,720	1,720
NCFAS-G	1,204	312
NP Workshops 1-10	67-237	58-151
R2S	521	437
SRAS	132	85

* Raw data size from SPSS export without missing value deletion.

In summary, all three recommendations from FY 2017-2018 were addressed by First 5 Kern in FY 2018-2019. The Commission is operating according to a local strategic plan to *promote early childhood support, adjust funding priorities*, and *implement data collections*. First 5 Kern also followed Proposition 10 to update the strategic plan annually through public hearings based on *desirable outcomes of child/family wellbeing* and *defensible estimates of the state investment*.

New Recommendations

To date, "First 5 Kern has built a strong reputation in the community as an expert and advocate for children, from prenatal through age five and their families" (First 5 Kern, 2018, p. 2). Despite the ongoing decline of state tax revenue from tobacco product sale, Proposition 10 funding is likely to play a more critical role in reducing service barriers for young children. This assertion is built on a broad context that "The children's share of the federal budget is projected to drop from 9.2% to 7.5% over the next decade" (Doleatto, 2019, p. 1).

As a new change, President Trump doubles down on plan to relocate migrants to sanctuary cities in 2019 (Singman, 2019). As a result, 10 service barriers were identified from the CDE survey of more than 2,000 respondents at the program entry between two adjacent years (Table 84). The population with immigration status issues and language

barriers tend to have less family resources and work more hours to make the ends meet. Thus, *appointment delay, copayment*, and *service hours* become persistent barriers along with the complications of *language* and *immigration status*. However, Proposition 10 does not delimit the service access according to language and immigration status (First 5 California, 2010, p. 23). Based on the upsurge of service barriers in FY 2018-2019 (see Table 84), the **first recommendation** is to **urge First 5 Kern to continue supporting program enrollments for all children ages 0-5 and their families across Kern County, regardless of their social stratum affiliations**.

Table 84: Percent of Respondents with Service Barriers*

Barrier	FY 2017-2018		FY 2018-2019	
	Entry	12th Month	Entry	12th Month
Childcare support	2.42	0.56	2.02	0.00
Copayment	2.46	0.00	0.76	1.06
Health insurance	1.27	0.56	0.85	0.53
Find a comfortable doctor	0.82	0.00	0.81	0.00
Find a doctor to accept insurance	0.86	0.00	1.43	0.00
Immigration status	0.86	0.00	0.09	0.53
Language	0.78	0.56	0.94	2.66
Delay to next appointment	2.42	8.33	1.70	5.32
Service Hours	0.45	0.00	0.27	1.60
Transportation	12.10	3.89	10.45	7.98

* Sample sizes are 2,439 and 180 for initial and 12th month in FY 2017-2018 and 2,230 and 188 for initial and 12th month in FY 2018-2019.

In addition to creating a seamless system that wraparounds services for the diverse child population, First 5 Kern faces dual challenges, i.e., less support from the state tax revenue and higher cost for service delivery. In planning for the future funding, First 5 Association of California (2018) reported, "Projections are released twice a year, and ALWAYS change. We are in a new era – post Prop 56 – and we simply don't have enough data to make county-by-county projections" (p. 6). Given the budget uncertainty, partnership building becomes a feasible approach to enhancing the service resilience in Funding Cycle 2020-2025. Thus, the **second recommendation** is to **call for First 5 Kern's leadership on establishing and strengthening program network across different service providers.** This recommendation also addresses Integration of Services, one of the four focus areas in the Commission strategic plan (First 5 Kern, 2018).

When promoting partnership building, it is important for First 5 Kern to create a community of learners among service providers in the next funding cycle. Due to the RBA requirement for program funding, newly-funded programs may learn and benefit from the support for evaluation data collection in the existing programs. Specific measures, such as *consent form administration, confidentiality training*, and *adverse effect monitoring*, have been proven effective for the state fund protection in the past. Hence, the **third recommendation** is **to sustain First 5 Kern's IRB protocol for assessment data gathering.** In addressing this recommendation, site visits should be maintained as a mechanism to ensure compliance of the information management to federal, state, and local regulations.

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Appendix A – Index of Program Acronyms

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