FIRST 5 KERN

ANNUAL REPORT

Fiscal Year 2017-2018

FIRST 5 KERN

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Acknowledgements

This report contains evaluation findings from 43 programs that received approximately $10 million in state investment through Proposition 10 to support early childhood services in Kern County. The data export was handled by evaluation staff of First 5 Kern. *Program, Finance,* and *Evaluation* staff of First 5 Kern collaborated on development of an annual summary report to the state, which laid a foundation for this report.

Throughout Fiscal Year 2017-2018, parents and service providers worked with key stakeholders to collect data on scope and quality of program support. The information gathering procedure was reviewed and approved by the Institutional Review Board of California State University, Bakersfield according to federal, state, and local laws and/or regulations. Completion of this report is largely due to ongoing support from the following professionals and/or organizations:

- Commissioners: Al Sandrini (Chair), Dena Murphy (Treasurer), Sam Aunai, David Couch, Claudia Jonah, Susan Lerude, Leticia Perez, Jennie Sill, Rick Robles, and Lucinda Wasson.
- First 5 Kern Technical Advisory Committee (TAC).
- First 5 Kern Commission staff:
    - Roland Maier, Executive Director
    - Kathy Hylton, Chief Finance Officer
    - Theresa Ortiz, Chief Evaluation/Program Officer
    - Sharon Powell, Administrative Assistant
    - Christine Lollar, Communications and Media Specialist
    - Paula De La Riva-Barrera, Program Officer
    - Anastasia Lester, Program Officer
    - Analy Martinez, Program Officer
    - Diana Navarro, Senior Research Analyst
    - Crystal Gardner, Finance Specialist
    - Charlene McNama, Administrative Finance Specialist
    - Patti Taylor, Senior Finance Officer
- The CSUB Institutional Review Board led by Drs. Roseanna McCleary and Isabel Sumaya.

Members of the Technical Advisory Committee are recognized in Appendix B. Commissioners and Alternate Commissioners are listed in Exhibit 1. While acknowledging their indispensable guidance, 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 established on December 15, 1998 by Ordinance G-6565 of the Kern County Board of Supervisors to administer trust funds from Proposition 10, the California Children and Families First Act. The state revenue comes from a 50 cent-per-pack tax on cigarette and other tobacco products to support early childhood development and smoking cessation. Per requirement of Proposition 10, First 5 Kern is expected to provide an annual report for justification of Outcome-Based Accountability (a.k.a., Results-Based Accountability, or RBA) on state investment in Kern County.

Guided by the Statewide Evaluation Framework (First 5 California, 2005), this report incorporates both qualitative and quantitative information to address effectiveness of program performance and commission functioning in five aspects: (1) descriptive data to indicate the extent of early childhood support across Kern County, (2) assessment results to track value-added improvements across programs under a pretest and posttest setting, (3) 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).

Altogether, First 5 Kern contributed funds to support 43 programs, 13 in *Child Health*, 19 in *Family Functioning*, and 11 in *Child Development*, in Fiscal Year (FY) 2017-2018 (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* for children ages 0-5 and their families. These focus areas are designed to ensure compliance of First 5 Kern funding with Proposition 10 stipulation that gives the State Controller's Office the oversight authority to audit spending across county commissions.

New Developments

At the state level, First 5 California revised the annual report guidelines for FY 2017-2018[1]. A Web-based Reporting System (WRS) was established to summarize statewide expenditures and services, and a new *County Revenue and Expenditure Summary* form (Annual Report Form-1) was employed to strengthen the messaging about program funding in each county. Accompanied by the tracking of financial resources and services, WRS includes a *County Demographic Worksheet* (Annual Report Form-2) to capture background information about local populations that received services throughout the fiscal year.

In addition, the state guidelines designate a *County Evaluation Summary* (Annual Report Form-3, a.k.a., AR-3) to aggregate evaluation activities in three areas: *Improved Family Functioning, Improved Child Development*, and *Improved Child Health*. In the fourth focus area of *Improved Systems of Care*, broad-based audience is identified to guide narrative descriptions on (1) *service types,* (2) *intended results*, and (3) *community impacts*. First 5 Kern completed the report filing prior to the state deadline of October 31, 2018.

[1] http://www.ccfc.ca.gov/pdf/partners/data_systems/ar/AnnualReportGuidelinesFY_2017-18.pdf.

At the program level, the passage of Senate Bill 89[2] has led to the creation of an Emergency Child Care Bridge Program (ECCBP) pertaining to foster care. The local ECCBP program gained partnership support from four organizations, First 5 Kern, Kern County Department of Human Services, Kern County Superintendent of Schools (KCSOS), and the Community Connection for Child Care program. First 5 Kern funded the administrative cost of ECCBP to sustain service system building.

Program changes also occurred with dental service providers. In the past, West Kern Community College District (WKCCD) received funding from First 5 Kern to sponsor Kern County Children's Dental Health Network that provided comprehensive dental services, including oral health education, screenings, plaque level assessments, fluoride and sealant applications, and restorative dental treatments. In Spring, 2018, new leaders of WKCCD adjusted their institutional priority. As a result, the fiscal agency was switched to KCSOS on April 1, 2018 to continue dental services for children ages 0-5.

In summary, First 5 Kern maintained its role as a community leader to address the needs of children ages 0-5 and their families across Kern County. The Commission also followed the new state report guidelines to change the structure of its evaluation summaries for FY 2017-2018. At the local level, First 5 Kern embraced the spirit of partnership building to fill program gaps in dental support and foster-care services.

Summary of Commission Evaluation Activities

Guided by the RBA model (see Friedman, 2005), First 5 Kern gathered evaluation data on "how much has been done" and "how well the service was completed" at the program level. In addition, social network analyses and cost-benefit analyses were conducted to assess improvement of program partnership building across Kern County. These evaluation activities are categorized in four aspects:

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

First 5 Kern-funded programs covered a total of 10 service categories of the state report glossary in FY 2017-2018[3]. In Child Health, First 5 Kern invested $533,333 in *Early Intervention,* $749,536 in *General Health Education and Promotion*, $992,956 in *Oral Health Education and Treatment,* and $688,532 in *Prenatal and Infant Home Visiting*. In Family Functioning, First 5 Kern spent $2,139,099 on *General Family Support* and $977,618 on *Intensive Family Support*. In Child Development, First 5 Kern used $542,878 for *Quality Early Learning Supports* and $1,574,529 for *Early Learning Programs*. In *Systems of Care*, First 5 Kern provided $1,064,324 to enhance *Policy and Public Advocacy* and $55,354 to support *Programs and Systems Improvement Efforts*.

2. 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 (ASQ-3) data on child growth across 21 programs; (2) Ages & Stages Questionnaires: Social-Emotional (ASQ-SE) data for early detection of potential social or emotional

[2] https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB89.
[3] Program affiliation can be found from http://www.csub.edu/~jwang/StateResultandServiceAreaAssignment.pdf.

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 12 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.

3. 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.

4. Examining feedback from town hall meetings to provide in-depth analyses of community needs in the next funding cycle.

The Technical Advisory Committee (TAC) of First 5 Kern held three meetings in Fall of 2017 to review the input from 12 town hall meetings. The findings were summarized to facilitate identification of local needs and ensure that the future program funding makes children and their families thrive in the 2020-2025 funding cycle.

In summary, First 5 Kern carried out a vigorous evaluation agenda to sustain a comprehensive and integrated system of *service delivery* and *information dissemination* in Kern County. The evaluation activities are not only built on past experiences in early childhood support, but also in compliance to the statutory stipulation to "use Outcome-Based Accountability to determine future expenditures" (Proposition 10, p. 4).

Cost-Benefit Analyses (CBA) of Funded Programs

Still, "comprehensive systems of care may cost more than traditional services" (Doll et al., 2000, p. 4). In line with the accountability demands from Proposition 10, CBA incorporates critical information about the service impact and program cost to justify the return of state investment. Following stipulations from Proposition 10, CBA results cannot ignore service coverage for all children and delimit the support to low-income children only. Thus, the results may differ from the past literature (e.g., Garcia, Heckman, Leaf, & Prados, 2016; Heckman, 2017) because some of the long-term benefits, such as crime rates and/or school dropout rates, have less dramatic impact in middle class communities (Barnett & Masse, 2007).

Built on the local CBA data since 2010, a seven-year trend study revealed five findings (Wang & Sun, 2018):

- Approximately 75% of First 5 Kern-funded programs demonstrated benefit-cost ratios (BCRs) larger than 1, suggesting that the benefit has outweighed the cost for most programs;
- The effect sizes of local partnership building is represented by the leveraged funds of $23,374,630 across programs, which is nearly equivalent to two years of Proposition 10 investments in Kern County;
- According to the 95% confidence interval from the bootstrapping method, four programs would have been unavailable without First 5 Kern funding;
- Value-added assessment suggested BCR increases in 17 programs without leveraged funds and 19 programs with leveraged funds between last and current funding cycles;
- Configuration of the long-term impact reconfirmed at least $2 in returns for every dollar invested in early childhood services across Kern County.

A broad review of the current literature shows agreement of the CBA findings with similar studies conducted by leading research organizations, such as the Washington State Institute for Public Policy (Aos, Lieb, Mayfield, Miller, & Pennucci, 2004), the Economic Policy Institute at Washington, D.C. (Lynch, 2004; 2007), and the Institute for Research on Poverty at the University of Wisconsin-Madison (Reynolds, Temple, White, & Ou, 2011).

Dissemination of the Evaluation Findings

To actively communicate the impact of Proposition 10 funding in Kern County, the Commission supported completion of six reporting activities in FY 2017-2018:

1. On October 4, 2017, evaluation results were presented at the county commission meeting to highlight Neighborhood Place Community Learning Center (NPCLC) and Lamont Vineland School Readiness Program (LVSRP).

The NPCLC results showed (1) performance of 211 children significantly above the age-specific thresholds in ASQ-3 screening and (2) beliefs of 23 parents significantly improved against child maltreatment on the AAPI-2 scale. The LVSRP indicated an increase of the ASQ-3 screening from 96 children in the previous year to 134 children last year. Feedback from 10 Nurturing-Parenting workshops showed 92.3% of the 89 LVSRP participants with more confidence in handling child stress in positive ways.

2. On January 7, 2018, a CBA project was presented at the 16th Annual Hawaii International Conference on Education.

Wang, J., Sun, J., & Maier, R. (2018, January). *A cost-benefit analysis of Proposition 10 funding in early childhood development*. Paper presented at the 2018 Hawaii International Conference on Education, Honolulu, Hawaii.

3. On March 10, 2018, another CBA presentation was made at the 2018 annual conference of the American Society of Public Administration.

Sun, J., Wang, J., & Ives, K. (2018, March). *A cost-benefit analysis of early childhood education programs through Proposition 10 funding in California*. Paper presented at the 2018 annual meeting of the American Society for Public Administration, Denver, CO.

4. On April 4, 2018, a comprehensive report was presented at the county commission meeting to address evaluation findings across 42 programs that received funding in the previous year. The annual report was recruited for dissemination by the Education Resource Information Center (ERIC) of U.S. Department of Education.

Wang, J. (2018). *First 5 Kern Annual Report, Fiscal Year 2016-17*. Washington, DC: Education Resource Information Center (ERIC Document Reproduction Service No. ED 582 032).

5. On June 6, 2018, the final CBA report was presented at the county commission meeting. It has also been included in the ERIC research database.

Wang, J., & Sun, J. (2018). *Cost benefit analysis of First 5 Kern-funded programs*. Washington, DC: Education Resource Information Center (ERIC Document Reproduction Service No. ED 584 384).

6. TAC members were grouped into three subcommittees to examine the results of community needs assessments from 12 town hall meetings. A report was distributed on September 18, 2017 to summarize the needs in *Improved Child Health, Improved Family Functioning*, and *Improved Child Development*[4].

In summary, evaluation reports have strengthened visibility of First 5 Kern as a local leader in early childhood support. The findings also addressed RBA requirement from Proposition 10.

Policy Impact of Evaluation Outcomes

With the statewide implementation of *Annual Report Guidelines: Fiscal Year 2017–18*, First 5 California (2018) indicated its desire to ensure reporting consistency, "allowing counties to use the same approach in future years" (p. 3). To support the baseline establishment, the policy impact of evaluation results is aggregated in four aspects:

1. Evaluation Results Communicated with the County Commission

   - Program profiling of NPCLC and LVSRP occurred on 10/4/2018 using participant and outcome data at child and family levels;
   - Differences between actual and expected service outcomes conveyed in a CBA report for the Commission on 6/6/2018;
   - Result comparisons made on similar programs to support the Commission funding decisions this year;
   - Recommendations communicated with the county commission on 4/4/2018 to align the future annual report structure with the new state guideline;
   - Social media presence strengthened for program networking since last year. The most recent annual report indicated generation of a five-star rating from 230 Facebook followers, 894 pins in Pinterest, 4,000 impressions through LinkedIn, 155 followers on Twitter, and 71 followers on Instagram.

2. Commission Decisions Based on Evaluation Findings

[4] See Item 7 at http://www.first5kern.org/wp-content/uploads/2018/08/TAC-Minutes-09182017-finalsp.pdf.

- Evaluation findings supported activation of action plans for three service providers;
- Additional needs identified for including a new function in Persimmony to alert the due dates of program data collection;
- The Commission maintained an improvement plan in reaction to identification of unsatisfactory program performance;
- The Commission created a Chief Evaluation/Program Officer position to strengthen the leadership on service coordination and program evaluation.

3. Evaluation Findings Developed for Informing Strategic Planning

   - Needs assessments from 12 town hall meetings have been analyzed to support strategic planning;
   - First 5 Kern organized and/or participated in 37 community meetings for strengthening the local system building;
   - First 5 Kern partnered with community organizations in 25 unduplicated outreach initiatives to enhance service integration.

4. Anticipated Changes of Funding Strategies to Enhance System Building

   - According to the TAC minutes from December, 2017[5], the Executive Director explored "the possibility of creating an Immunization Coalition to address a systems of care option for the county's immunization efforts" (p. 2);
   - Ms. Michelle Krizo, Director of Child Health and Disability Prevention in Kern County Public Health Department (KCPHD), presented information on dental care coordination;
   - Ms. Michelle Curioso, Director of Maternal, Child, and Adolescent Health of KCPHD, provided an overview of Child Health and Disability Prevention (CHDP) and the CHDP dental programs;
   - A program officer of First 5 Kern shared information on partnership grant support for a Dental Transformation Initiative Program.

These joint efforts through TAC offered guidance for anticipated changes of funding strategies in the next funding cycle.

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 between adjacent years. 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 while substantial progresses are made to improve the result summary every year. All past reports have been peer-reviewed for dissemination in the ERIC database.

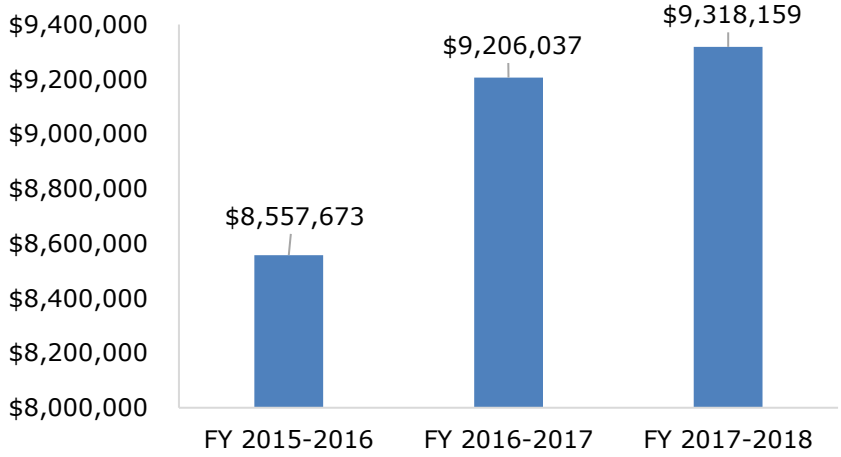
[5] http://www.first5kern.org/wp-content/uploads/2018/03/TAC-Minutes-121117.pdf.

Chapter 1: First 5 Kern Overview

California has been leading the United States in recognizing the value of quality early education and child care services for young children for over 70 years (California Department of Education [CDE], 2017). The early education system administered by CDE continues to be the largest, including over 700 private, non-profit, as well as other public agencies, to support safe, healthy, and age-appropriate educational environments for the care of some 450,000 children from low-income families. In Kern County, however, few private foundations are available to sponsor early childhood programs in hard-to-reach communities.

Fiscal Year 2017-2018 is the third year of the current funding cycle under a five-year strategic plan. Some programs elected to disperse the total funds evenly across five years while others chose to make the funds incremental to accommodate ongoing salary and rent increases. As a result, First 5 Kern increased its program investment from $9,206,037 last year to $9,318,159 this year, including an increase of $69,758 to support *Child Care and Early Education* and $181,868 to expand *Integration of Services* in the local support system. Regardless of the local measures, "early-childhood programs in California experienced over $1 billion in budget cuts during the recession and funding has not returned to pre-recession levels" (Jacobson, 2018, p. 2). To amend the resource gap, First 5 Kern has strengthened its commitment to investing in early childhood services (Figure 1).

Figure 1: Increase of First 5 Kern Investment in the Current Funding Cycle



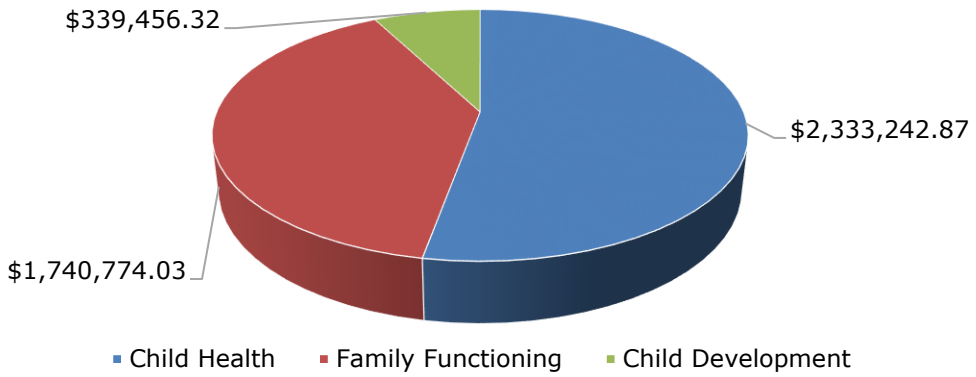
Source: First 5 Kern annual reports to the state.

According to the new state report guideline[6], county commissions are expected to document direct service outcomes at the local level for justifying return of the state investment across focus areas of *Child Health, Family Functioning*, and *Child Development*. In addition, as Stipek (2018) observed, "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). The ongoing partnership building is needed to fill service gaps and improve program sustainability. Among 43 programs that received First 5 Kern funding, 35 service providers raised $4,413,473.22 from external

[6] http://www.ccfc.ca.gov/pdf/partners/data_systems/ar/AnnualReportGuidelinesFY_2017-18.pdf.

partners this year (Figure 2). In this report, information about direct service is summarized in Chapter 2. Social network analyses are conducted on the outcome of local partnership building across service providers in Chapter 3.

Figure 2: Leveraged Funds in Focus Areas of Direct Service



Focus Area Designation

It was stipulated by the Health and Safety Code of California that 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]

Following state guidance, First 5 Kern identified four focus areas in its strategic plan for Funding Cycle 2015-20:

> 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

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

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). The setting is relatively stable across different governor terms to support statewide strategic planning. In the current funding cycle, First 5 California (2015a) has announced its vision to have all children receive the best possible start in life and thrive. In Kern County, a key phrase of "supportive, safe, and loving homes and neighborhoods" was included in First 5 Kern's vision statement to reflect the local needs:

> 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. (First 5 Kern, 2018, p. 2)

The vision statement is worded as "A broad, general statement of the desired future" based on the *Guidelines for Implementing the California Children and Families Act* (First 5 California, 2010, p. 28). Delineating what First 5 Kern is striving to achieve, it serves as First 5 Kern's compass to guide identification, implementation, and promotion of best practices for improving child wellbeing in Kern County. First 5 Kern also incorporates annual reviews and updates on the vision and mission statements as part of the ongoing strategic planning process per requirement of Proposition 10.

Mission Statement

At ages 0-5, childhood development is generally inseparable from family support. Unfortunately, "many new moms might not have people or resources in their life to help them through such an important time" (LaVoice, 2016, ¶. 8). To ensure that young children in Kern County thrive with the care and support they need, First 5 Kern offered a broad spectrum of program supports in *Child Health, Family Functioning*, and *Child Development*. From the perspective of cost-benefit analysis, "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).

Through the program collaboration, First 5 Kern adopts both proven and innovative practices to create, leverage, and maximize local resources in strategic planning. 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)

The mission is outcome-driven to support the best possible start for all young children. "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, 2018, p. 3). This unique combination of service outcomes and processes differentiates First 5 Kern's function and expertise from other organizations that share the same vision statement. 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 has clarified First 5 Kern's leadership in meeting the community demand for articulating early childhood supports.

Commission Leadership

The vision and mission statements are fully endorsed by the Commission that includes representations of elected officials, service providers, program administrators, community volunteers, and First 5 Kern advocates (Exhibit 1). Appointments of the Commissioners 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." Each Commissioner completed a government document (i.e., Form 700) to declare no conflict of interest in the funding decisions. The Commission collectively brings more than 18 years of experience in building and improving *Systems of Care* for young children in Kern County.

Exhibit 1: First 5 Kern Commission Members

Commissioner	Affiliation
Al Sandrini (Chair)	Retired School District Superintendent
Dena Murphy (Treasurer)	Director, Kern County Department of Human Services
Claudia Jonah, M.D. (Secretary)	Public Health Officer, Kern County Public Health Services Department
Sam Aunai	Vice President of Instruction, Porterville College
David Couch*, 4th District	Supervisor, Kern County Board of Supervisors
Susan Lerude	Retired Division Director, Juvenile Probation
Leticia Perez	Supervisor, Kern County Board of Supervisors
Rick Robles (Vice Chair)	Retired Superintendent, Lamont School District
Jennie Sill	Children's System of Care Administrator, Behavioral health and Recovery Services
Lucinda Wasson	Retired Kern County Director of Nursing

*Served part of the fiscal year.

Commissioners of First 5 Kern 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.

Cost-Benefit Analysis Findings

Since its passage in 1998, Proposition 10 faced a challenge of generating adequate

revenue to fund early childhood programs across California. Even at the funding peak in 2000, the state investment averaged to $200 per child. By 2020, First 5 Association of California (2017) projects a funding level at 40% of the amount at the peak. In contrast, Head Start received over $8,297 per child.[8] Because of the impact from state funding on service quality, a CBA project was completed this year to strategically inform the future funding decisions.

In the past, CBA results were reported from high-dosage early childhood service programs across the nation (Shafiq, Devercelli, & Valerio, 2018). Although a handful of randomized-control trials occurred in CBA of small samples (see Heckman, 2011), the result generalization was confined to services for socioeconomically disadvantaged children. It remains unclear whether similar benefits can be achieved in programs for general population (Baker, 2011). In particular, some benefits were configured on long-term indicators, such as crime rates and/or school dropout rates, that had less impact in middle class communities (Barnett & Masse, 2007). The restricted findings from low-income families might not be applicable to the benefit configuration for all children.

According to the Census Bureau, the total population of Kern County increased from 884,788 in 2016 to 893,119 in 2017 (Form B01003). Across the state, "Birth rates have been declining nearly every year for the last 20 years" (Governor's Budget Office, 2016, p. 139). Distribution of Proposition 10 funding is based on "the percentage of the number of births recorded in the relevant county" (Proposition 10, p. 8). Due to the local population growth, more services are needed for newborns. Hence, the population change not only alters state investment, but also impacts program demands, making studies in other counties (e.g., Stoffel, 2016) less relevant to Kern County.

Based on the local needs, CBA focuses on five questions: (1) How many programs have reached a status to pay for themselves with First 5 Kern funding? (2) What is the contribution of First 5 Kern, through partnership building, in improving the programs' financial conditions? (3) What programs would have been otherwise unavailable without First 5 Kern funding? (4) What programs became more sustainable, due to First 5 Kern's support for external fund leveraging, between the adjacent funding cycles? (5) What is the long-term return of First 5 Kern-funded programs and services?

The project resulted in five findings across focus areas of *Child Health, Family Functioning*, and *Child Development* (Wang & Sun, 2018):

- Approximately 75% of First 5 Kern-funded programs demonstrated benefit-cost ratios (BCRs) larger than 1, suggesting that the benefit has outweighed the cost for most programs;
- The effect sizes of local partnership building is represented by the leveraged funds of $23,374,630 across programs, which is nearly equivalent to two years of Proposition 10 investments in Kern County;
- According to the 95% confidence interval from the bootstrapping method, four programs would have been unavailable without First 5 Kern funding;
- Value-added assessment suggested BCR increases in 17 programs *without* leveraged funds and 19 programs *with* leveraged funds between last and current funding cycles;

[8] https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/hs-program-fact-sheet-2017_0.pdf.

- Configuration of the long-term impact reconfirmed at least $2 in returns for every dollar invested in early childhood services in Kern County.

These findings are conservative because the state fund distribution is solely based on child headcounts. Kern County is the third largest county in California by land area, but no additional funds are designated from Proposition 10 for long-distance program deliveries in remote regions.

In managing Proposition 10 funds, First 5 Kern kept the administrative spending at 5.63% this year despite the fact that the Commission could have used "eight percent (8%) of the annual fund allocation" for administrative and staff support (Ord. G-6637, 1999). Due to the frugal measures, Brown Armstrong Accountancy Corporation (2018), the auditing agency for county agencies, acknowledged that

> 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 $774,449 less than budgeted due to contracts being executed under budget.
> - Payroll and employee benefits were under budget by $82,138 and $19,429, respectively, due to unpaid leaves of absence.
> - Administrative Costs (County of Kern) were under budget by $11,469. The Commission set aside funds for legal counsel to review contracts; however, the actual costs of the review were less than budgeted. (p. 4)

The prudent measures were designed to not only direct more resources to service delivery across the widely scattered communities, but also ensure reduction of program spending under the contract provision. As a result, it was concluded 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, 2018, p. 3).

Needs Identification from Town Hall Meetings

Infants and toddlers are too young to speak for themselves. Some of the challenges are extended across the dimensions of socioeconomic status, geographic isolation, and demographic identity. Robison-Frankhouser (2003) reported,

> In their efforts to deliver these programs to Kern County families, the KCCFC [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)

Town hall meeting with key stakeholders is a way to ascertain the needs. In Fall 2017, TAC decided to designate subcommittees for analyzing results of town hall meetings in *Child Health, Family Functioning*, and *Child Development*. The report was based on feedback from Arvin/Lamont, Bakersfield (including Greenfield, Oildale, Southeast), Delano, Mountain Communities, Kern River Valley, Lost Hills, Mojave, Ridgecrest, Shafter,

and Taft. Common needs were identified on case management, parent education, health screenings, service referrals, and kindergarten transition services. The following suggestions are adduced for improvement:

Past program continuity – Mobile immunization services need to be resumed at certain family resource centers (FRC). Transportation supports are needed in several communities to access;

Ongoing support expansion – Waiting period needs to be shortened for pediatric well-child visits, and more dental service providers are needed to include low cost orthodontic care. More summer programs and child care services are needed for both low-income and working families;

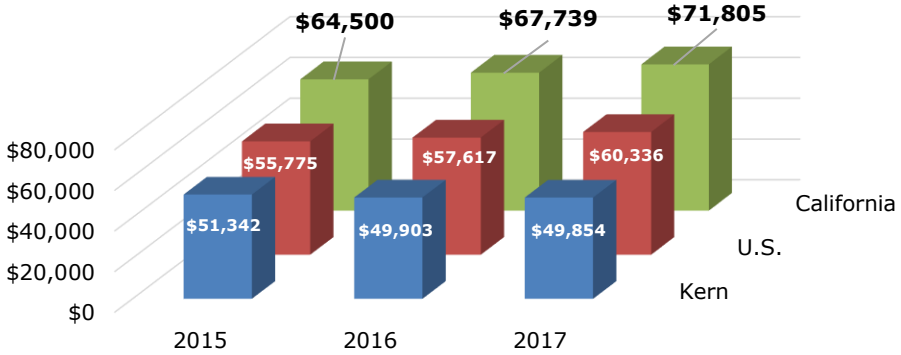
Special service creation – Special considerations are given to allow children to attend with parents in nutrition, preventive health care, and Nurturing Parenting training. More mental health services ought to be created for children and families with special needs. Parenting classes could be expanded to address generational and cultural differences, as well as the need of mothers with more than one child.

The community needs also evolve across time. More recently, Gross (2018) reported that "Kern County had the highest rate of homicides per capita in California last year, according to a new report by the Department of Justice. That rate is seeing a sharp increase this year" (p. 1). Hence, timely analyses of the town hall meeting feedback represent a feasible approach to supporting accurate evaluation of the local needs.

Profile of Young Children in Kern County

Young children in Kern County reside in diversified communities across the southern California Central Valley. The vast region extends east beyond the slope of Sierra Nevada and Mojave Desert, including parts of Indian Wells Valley and Antelope Valley. The county also covers the floor of San Joaquin Valley in the middle and Temblor Range to the west. Besides accommodating a large agricultural base, the county is an important producer of oil, natural gas, hydro-electric power, wind turbine power, and geothermal power in California. With the local economy at a recovering stage from the recent recession, the median household income in Kern County is much lower than the average of the state and the nation (Figure 3).

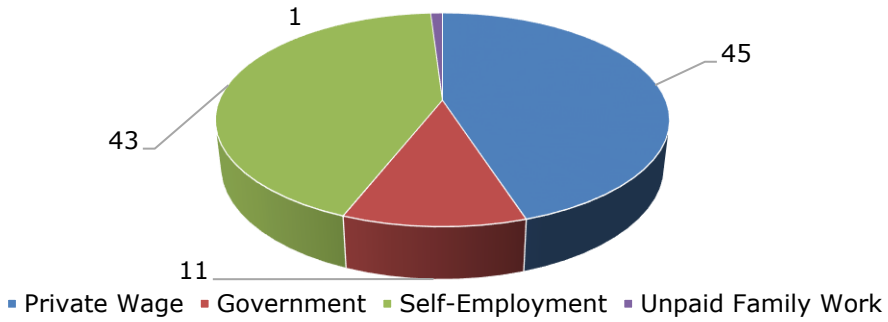
Figure 3: Median Household Income During 2015-2017



Source: US Census Bureau, Form S1901.

Self-employment and private sectors are the major categories of workers in the county workers[9]. Health benefits for young children are not automatically available in three out of the four employment sections, i.e., private wage, self-employment, and unpaid family work (Figure 4). Due to the lack of family resources, Proposition 10 funding plays an important role in early childhood support.

Figure 4: Percent of Workers across Employment Types

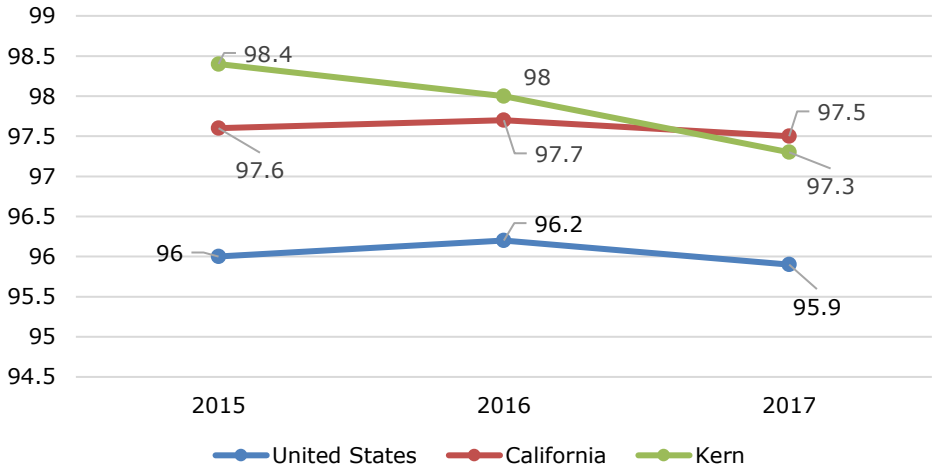


Source: http://www.city-data.com/county/Kern_County-CA.html.

In *Child Health*, the percent of children covered by health insurance under age 6 in Kern County is comparable to the state average (Figure 5). Because most states do not have a legislation like Proposition 10, the national average index remains at a much lower level. First 5 Kern-funded programs overcame the challenges of remote service delivery and increasing population demand to achieve this outcome.

In *Child Development*, U.S. Census Bureau gathered trend data on the percent of population ages 3 and 4 in preschool. Kern County demonstrated a much lower percentage in Figure 6. In contrast, the entire state and the nation showed a high proportion of children in preschool. Manship, Jacobson and Fuller (2018) confirmed that "Several counties in the Central Valley face a complicated problem in out years: They host scarce availability of pre-k slots while experiencing rising counts of young children" (p. 6).

Figure 5: Percent of Children under 6 with Health Insurance Coverage

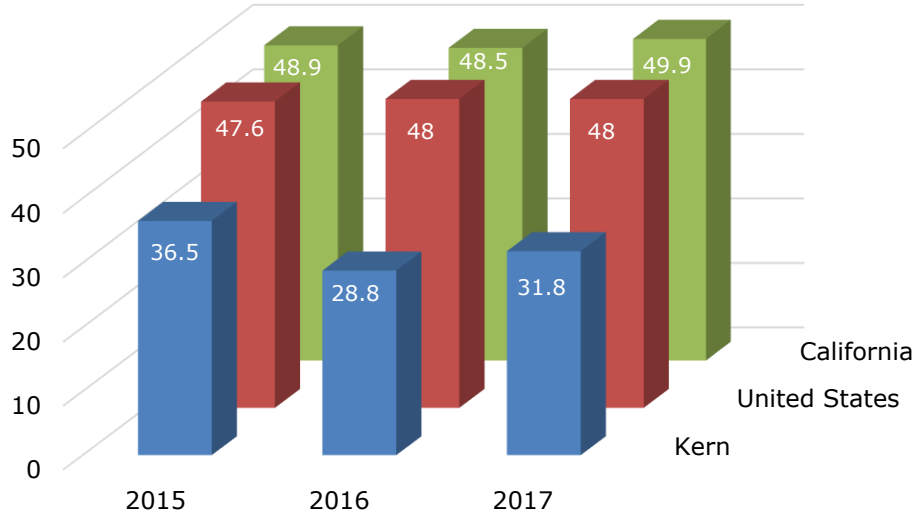


Source: US Census Bureau, Form S2701.

[9] http://www.city-data.com/county/Kern_County-CA.html.

To reach a solution, 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). Nonetheless, it does not work in Kern County where child populations are growing. Therefore, more infrastructure building is needed in Kern County to raise the low percent of preschool attendees in Figure 6.

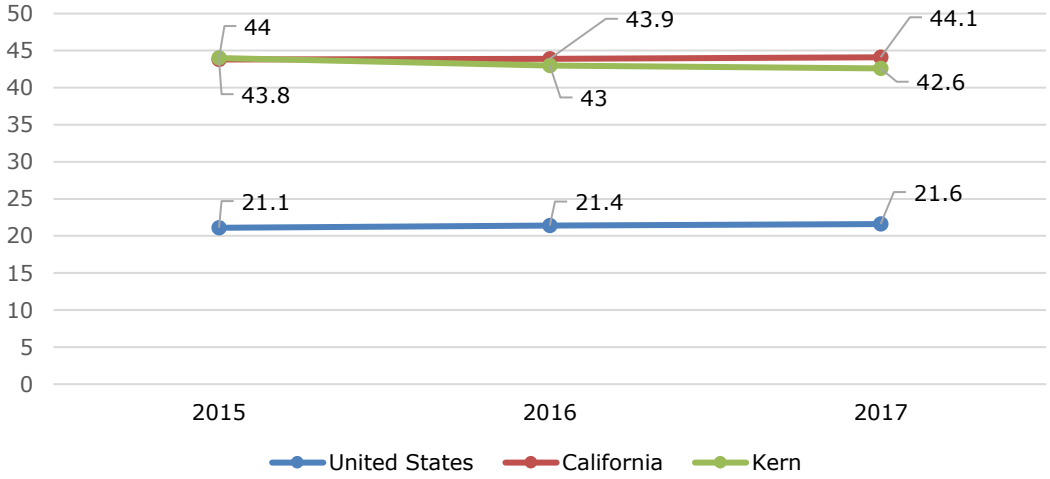
Figure 6: Percent of 3 or 4 Year Olds in Preschool



Source: US Census Bureau, Form S1401.

High-quality early learning programs have been shown to narrow the achievement gap and can be especially beneficial to low income children (Children Now, 2018). James Heckman (2017), Nobel Prize laureate, cautioned that "gaps between the advantaged and disadvantaged open up early in the lives of children" (p. 50). In particular, students from limited English-speaking (LES) households often encounter more obstacles in school (Shaw, 2014). Kern County, like the entire state of California, have a higher percent of children from LES households than the nation (Figure 7).

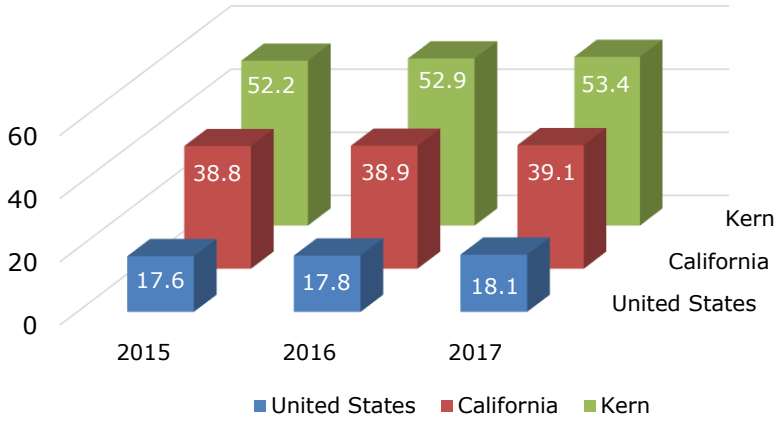
Figure 7: Percent of Children from LES Households



Source: US Census Bureau, Form S1602.

For many counties in California, however, the LES consideration is confounded with ethnic grouping due to inclusion of high achievers from Asian minority groups (Jerrim, 2014). Kern County has the majority of children from Hispanic or Latino origin (HLO). Figure 8 shows that the local HLO rate is much higher than the average indices of California and the United States. To close the gap in school, First 5 Kern envisioned the need of funding early learning programs in its focus area of *Early Childcare and Education*.

Figure 8: Percent of Children with Hispanic or Latino Origin



In retrospect, "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]. Meanwhile, Kern County unemployment rate is 9.2%, "still higher than the County's 8.2% rate before the Great Recession" (KCNC, 2018, p. 3). First 5 Kern has made a concerted effort, including analyses of the results from 12 town hall meetings, to reach deep understanding of economic conditions behind the needed support for different children ages 0-5 and their families.

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 2017-2018, First 5 Kern enhanced local community support through partnership building. Table 2 shows the change in external sources of program support from $3,207,100.81 in last year to $4,414,473.22 this year.

Table 2: Sources and Leveraged Funds for Program Support in FY 2017-2018

Source	*Leveraged Funds*
Borax Visitor Center	$2,200.00
California Association of Food Banks	$12,066.00
California Department of Education	$55,500.00
California Department of Public Health	$103,773.90
California Department of Social Services	$5,652.00
California Emergency Management Agency	$199,338.00
Chevron	$15,000.00

[10] http://kern.org/kcnc/wp-content/uploads/sites/43/2018/08/2018-Important-Facts-About-Kern_s-Children.pdf.
[11] p. 30 of http://www.ccfc.ca.gov/pdf/partners/data_systems/ar/AnnualReportGuidelinesFY_2017-18.pdf.

Source	*Leveraged Funds*
County of Kern	$768,969.35
Desert Lake Community Services District	$840.00
Dignity Healthcare	$76,170.15
Anonymous or Individual Donation	$37,339.84
Corporate Donation – Corporate	$142,773.02
Emergency Food and Shelter Program	$53,562.50
Fees/Tuition	$89,967.46
Fundraiser	$9,409.46
Kaiser Permanente	$40,000.00
Kern Family Health Care	$9,815.00
Kern Regional Center	$167,354.88
Medi-Cal	$72,371.17
Medical Administrative Activities	$107,424.96
Other Organizations[12]	$1,717,000.02
Successful Application Stipend	$3,800.00
Targeted Case Management	$115,408.68
The California Endowment	$250,000.00
The Wonderful Company	$1,050.00
USDA California Nutrition Network	$167,039.74
United Way	$189,647.09

The community support came from 27 organizations to enhance sustainability of program operation across 35 service providers. To reciprocate the mutual support across different communities, First 5 Kern served as an active participant in 25 countywide undertakings this year (Table 3).

Table 3: First 5 Kern's Participation in Local Undertakings

- 34th Street Neighborhood Partnership
- Bakersfield College Child Development Advisory Committee
- Buttonwillow Community Collaborative
- 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
- Kern River Valley Collaborative
- Lost Hills Community Collaborative
- McFarland Collaborative
- Medically Vulnerable Care Coordination Committee

[12] According to a personal communication with Ms. Charlene McNama, First 5 Kern is revising the donor list to avoid the category of "Other Organizations".

Table 3: First 5 Kern's Participation in Local Undertakings

• Oildale Community Collaborative
• Richardson Special Needs Collaborative
• Shafter Healthy Start Collaborative
• South Chester Partnership Collaborative
• Southeast Neighborhood Partnership General Collaborative
• South Valley Neighborhood Partnership Collaborative
• West Side "Together We Can" Collaborative
• Wasco Community Collaborative

First 5 Kern also held nine TAC and/or Commission meetings[13] 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 community awareness", **Objective 4.4** First 5 Kern's (2018) strategic plan. Altogether Table 4 lists 37 outreach services at the community, county, and state levels.

Table 4: First 5 Kern's Outreach Effort to Promote Public Awareness

Event	Initiator	Participant	Count
Community	• First 5 Kern Newsletter • First 5 Kern Strategic Plan • First 5 Kern Website	• Community Fairs – Exhibit Booth • Rotary Groups	5
County	• Ages and Stages Questionnaire Trainings • News Conferences • Nurturing Parenting – Trainings • Nurturing Parenting – Best Practices Meetings • Medically Vulnerable Care Coordination – Trauma Informed Care Training	• Chamber of Commerce Governmental Review Council • Fetal Infant Mortality Review Program • 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 Medical Safe Home, Safe Baby	24

[13] http://www.first5kern.org/meetings/commission-meetings/ and http://www.first5kern.org/meetings/tech-advisory-meetings/.

Event	Initiator	Participant	Count
		• 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	
State	• First 5 Kern Legislative Visits	• California Quality Rating and Improvement System (QRIS) Consortium • First 5 IMPACT Hub – Region 5 • Central Valley Regional Meetings • 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	8

Summary of Commission Evaluation Activities

First 5 Kern gathered evaluation data on "how much has been done" and "how well the service was completed" at the program level. In addition, social network analyses and cost-benefit analyses were conducted to assess improvement of program capacity. These evaluation activities are categorized in four aspects:

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

First 5 Kern-funded programs covered a total of 10 service categories of the state report glossary in FY 2017-2018[14]. In Child Health, First 5 Kern invested $533,333 in *Early Intervention,* $749,536 in *General Health Education and Promotion*, $992,956 in *Oral Health Education and Treatment,* and $688,532 in *Prenatal and Infant Home Visiting*. In Family Functioning, First 5 Kern spent $2,139,099 on *General Family Support* and $977,618 on *Intensive Family Support*. In Child Development, First 5 Kern used $542,878 for *Quality Early Learning Supports* and $1,574,529 for *Early Learning Programs*. In *Systems of Care*, First 5 Kern provided $1,064,324 to enhance *Policy and Public Advocacy* and $55,354 to support *Programs and Systems Improvement Efforts*.

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

This evaluation report is based on analyses of (1) ASQ-3 data on child growth across 21 programs; (2) ASQ-SE data for early detection of potential social or emotional problems in three programs; (3) AAPI-2 data on parenting outcomes from six programs; (4) CASB data on preschool learning in 12 programs; (5) CDE and Birth Survey data from 29 programs; (6) FSR data from 15 programs; (7) DRDP data from infants/toddlers in

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

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 BCBH, NCFAS-G, DANCE, and Ready-to-Start Scorecard across focus areas.

3. 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. ISQ data were collected to assess the scope of partnership building.

4. Examining feedback from town hall meetings to provide in-depth analyses of community needs in the next funding cycle

TAC of First 5 Kern held three meetings in Fall of 2017 to review the input from 12 town hall meetings. The findings were summarized to facilitate First 5 Kern identification of local needs to ensure that children and their families are better off in the 2020-2025 funding cycle.

In summary, First 5 Kern carried out an active evaluation agenda to sustain comprehensive and systematic information gathering in Kern County. The evaluation activities are not only built on past experiences in early childhood support, but also in compliance to the statutory stipulation to "use Outcome-Based Accountability to determine future expenditures" (Proposition 10, p. 4).

Description of the Evaluation Framework

First 5 Kern followed the mandates of Proposition 10 to collect program data for demonstrating results. Confidentiality training was completed by 57 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*. 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).

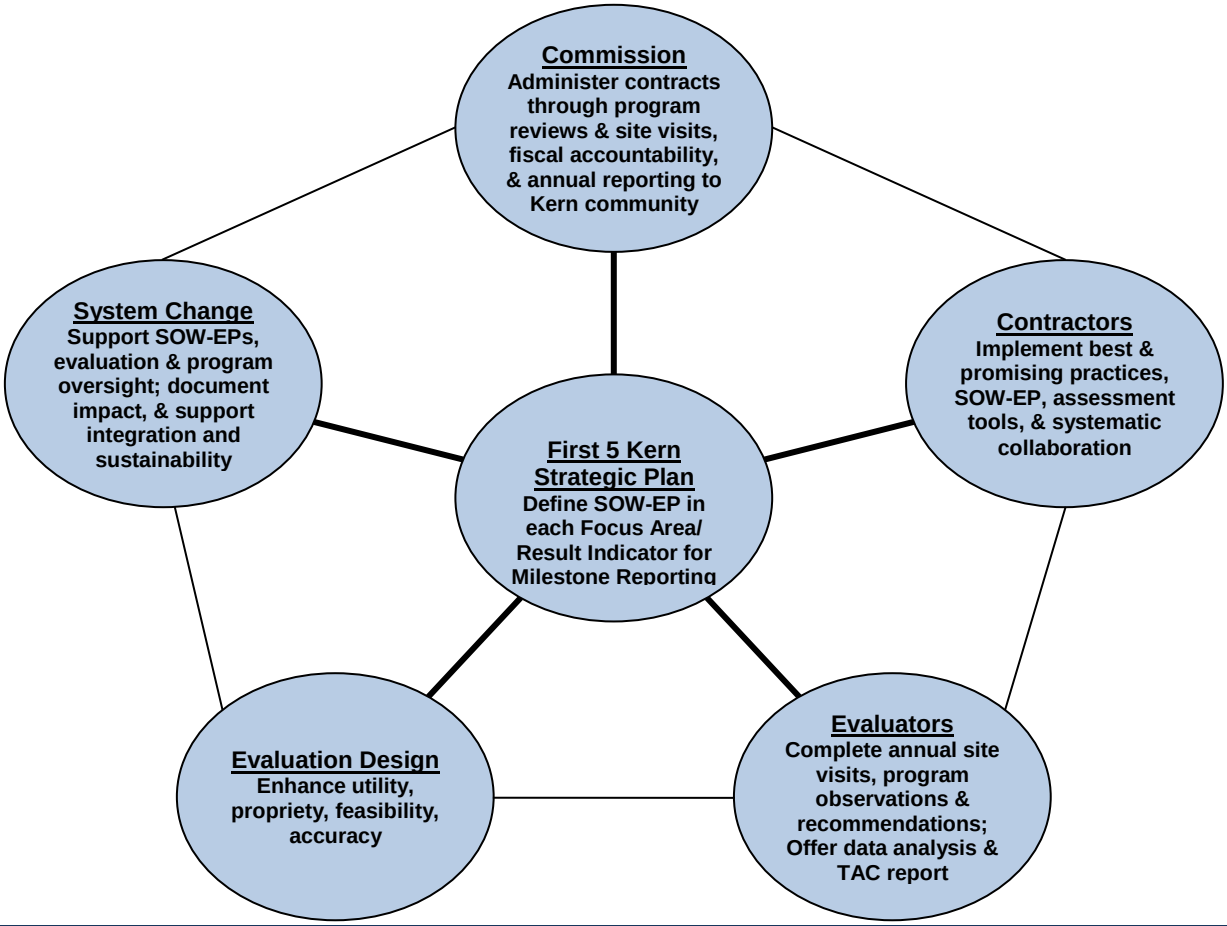
Friedman (2009) further pointed out, "RBA makes a fundamental distinction between Population Accountability and Performance Accountability" (p. 2). Whereas performance accountability is an important component of program evaluation, population accountability relies on partnership building (Friedman, 2011). 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 California State University, Bakersfield (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 and center the evaluation framework on the key stakeholders, i.e., "thriving children and families".

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 2017-2018. 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 evidences gathered under a comprehensive evaluation framework in Exhibit 2.

Exhibit 2: First 5 Kern Evaluation Framework



Chapter 2: Impact of First 5 Kern-Funded Programs

Starting in FY 2017-2018, First 5 California no longer requires submission of program-specific results. However, the new report guidelines did not change the statutory demand on RBA.[15] Instead, the impact of service delivery needs to be assessed in each county for justification of the return on state investment. In this chapter, effectiveness of local services is analyzed at the program level. To facilitate the report alignment, 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.

Based on state report glossaries from First 5 Association of California (2013), First 5 Kern-funded programs support 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 cover service outcomes for program beneficiaries, such as local children and caregivers. In addition, First 5 Kern's (2018) mission includes support for service providers. Table 5 contains the aggregated number of beneficiaries in each report domain.

Table 5: Counts of Service Beneficiaries across Report Domains

Report Domains	Number of Beneficiaries*
General Health Education & Promotion	2,913 children; 501 caregivers
Parental & Infant Home Visiting	121 children; 221 caregivers
Oral Health Education & Treatment	2,954 children; 292 caregivers; 13 providers
Early Intervention	324 children; 201 caregivers
General Family Support	4,714 children; 11,912 caregivers; 153 providers
Intensive Family Support	2,375 children; 1,610 caregivers
Quality Early Learning Supports	4,660 children; 196 providers
Early Learning Programs	1,383 children; 872 caregivers; 52 providers

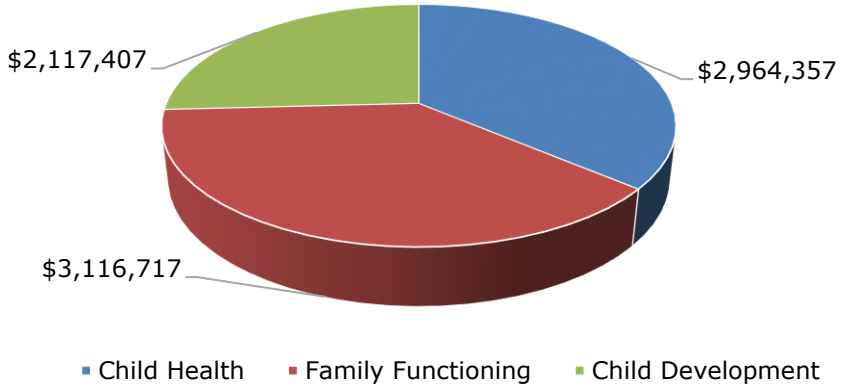
*Caregivers include parents and guardians. All numbers are based on the 2018 state report.

Depending on SOW-EP and service cost, program expenditures and service counts vary across focus areas. In comparison, *Family Functioning* is the largest focus area that has 19 programs, followed by *Child Health* with 14 programs. In the third focus area, 11 programs are funded to support *Child Development*. The fund designation is depicted in Figure 9 for each focus area. Program features are publicized online to reconfirm the service structure[16].

In a 2017 statewide survey, Executive Directors of county commissions confirmed that "The First 5s use innovative and creative approaches to leverage resources and maximize existing funding streams to ensure that young children receive the care and support they need to thrive".[17] Although the external fund leverage varies across years, service providers are encouraged by First 5 Kern to apply for at least two grants per year.

[15] http://www.ccfc.ca.gov/pdf/partners/data_systems/ar/AnnualReportGuidelinesFY_2017-18.pdf.
[16] MVCCP split into case identification and referral parts at http://first5kern.org/wp-content/uploads/sites/21/2017/07/Funded-Programs-Guide-072417.pdf.
[17] http://intranet.first5association.org/townsquare/managed_files/Document/207/First%205%20ED%20Survey%20--%20Communications,%20Connections%20&%20Policy.pdf.

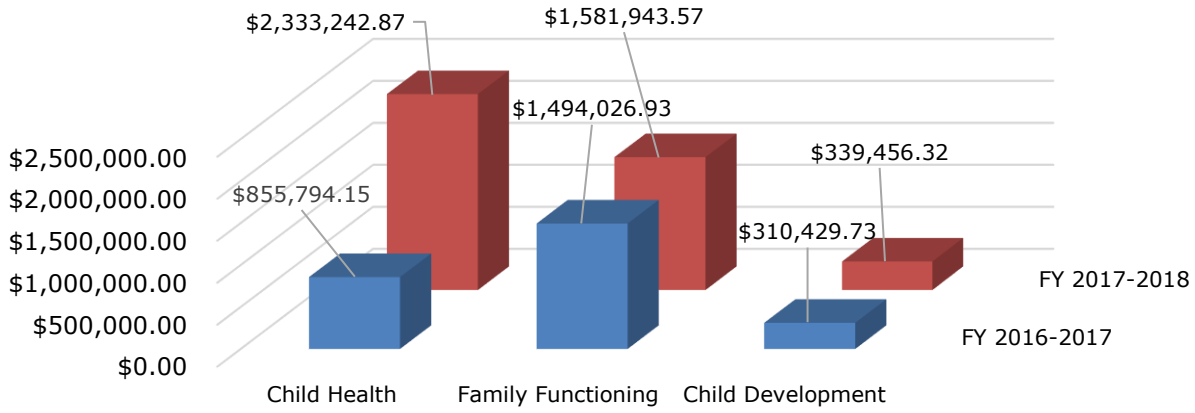
Figure 9: Funding in *Child Health, Family Functioning,* and *Child Development*



Source: State annual Report 2017-2018.

In FY 2017-2018, Nurse-Family Partnership (NFP) program increased the leveraged funds from $113,522.47 in last year to $1,271,845.84 this year, accounting for the largest partnership support in *Child Health*. On the other hand, 2-1-1 Kern County (2-1-1) seemed to have dropped the leveraged funds from $546,850.00 to $158,830.46 between the adjacent years. The number change was due to staff turnover, leaving some sustainability funds unreported[18]. With exclusion of the 2-1-1 result, more funds were raised in each focus area this year (Figure 10).

Figure 10: Total Leveraged Funds Between Adjacent Years*

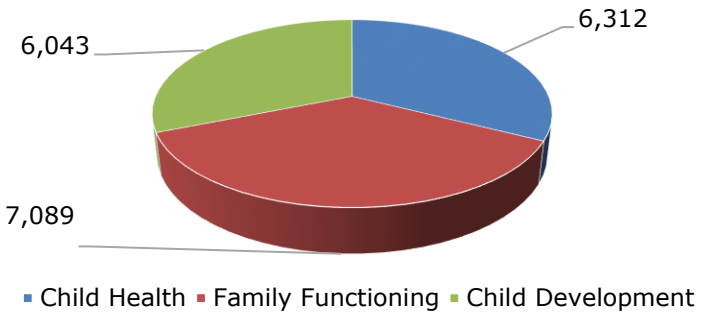


*The leveraged funds by 2-1-1 Kern County are excluded.

Altogether, First 5 Kern not only increased its program investment this year (Figure 1), but also led local service providers to enhance program sustainability with more external funding (Figure 10). As a result, the local early childhood services have been accessed by a total of 19,444 children and 15,805 caregivers in *Child Health, Family Functioning*, and *Child Development* in FY 2017-2018 (see Table 5). Because most programs delivered the support in multiple service domains, Figure 11 shows a similar number of children as program recipients in each focus area.

[18] Personal communication with Ms. Charlene McNama on October 11, 2018.

Figure 11: Total Number of Child Service Recipients in Each Focus Area



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. In addition, assessment data are gathered to examine improvement of 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. The fourth focus area, *Systems of Care*, is addressed in Chapter 3 to report the effectiveness of service integration across programs.

(I) Improvement in *Health and Wellness*

The local focus area of *Health and Wellness* corresponds to the state focus area of *Child Health* (see Table 1). In FY 2017-2018, First 5 Kern-funded programs addressed four service domains of the state report glossary (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 6 shows connections between state report domains and local service objectives.

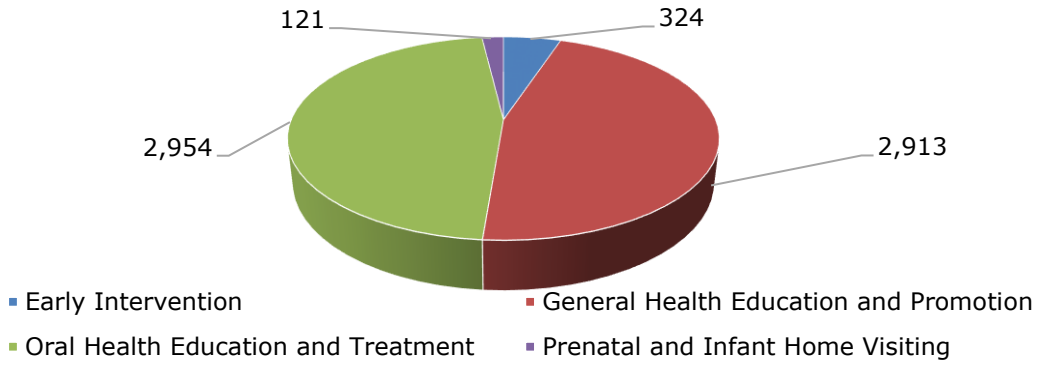
Table 6: Association Between State Domains and Local Objectives

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]

Objectives of *Health and Wellness*	Glossary Domain
6. Children and their parents/guardians will be provided with safety education and/or injury prevention services.	[2]

Altogether First 5 Kern invested $533,333 on services in the Early Intervention (EI) domain and $688,532 in the Prenatal and Infant Home Visiting (PIHV) domain this year. Meanwhile, $749,536 was devoted to General Health Education and Promotion (GHEP) and $992,956 was designated in Oral Health Education and Treatment (OHET). Across the state, home visiting is part of the policy agenda and early intervention strategy for early childhood support.[19] Due to the involvement of nurse professionals, the door-to-door service delivery tends to be expensive. However, it fits First 5 Kern's responsibility to sponsor critical programs that are otherwise not available through for-profit organizations. Annual service counts are presented in Figure 12 across the four domains.

Figure 12: Client Counts in Four Domains of *Child Health*



Savings from State Revenue Spending

In comparison, *Child Health* has more countywide programs than *Family Functioning* and *Child Development*. Program delivery across widely-scattered communities often increases the per-service cost. Through rigorous fund monitoring, all service providers stayed within their annual budgets this year. Table 7 shows the budget savings at the program level that add to $565,402 in *Health and Wellness*.

Table 7: Budget Savings across Programs in *Health and Wellness*

Program	Budget Savings
Black Infant Health	$25,607
Children's Mobile Immunization Program	$7,828
Community Health Initiative of Kern County	$2,494
Kern County Children's Dental Health Network	$236,619
Kern County Children's Dental Health Network*	$124,692
Kern Valley Aquatics Program	$392
Make A Splash	$84
Medically Vulnerable Care Coordination Projects	$23,795
Medically Vulnerable Infant Program	$22,400
Nurse Family Partnership	$37,194
Richardson Special Needs Collaborative	--

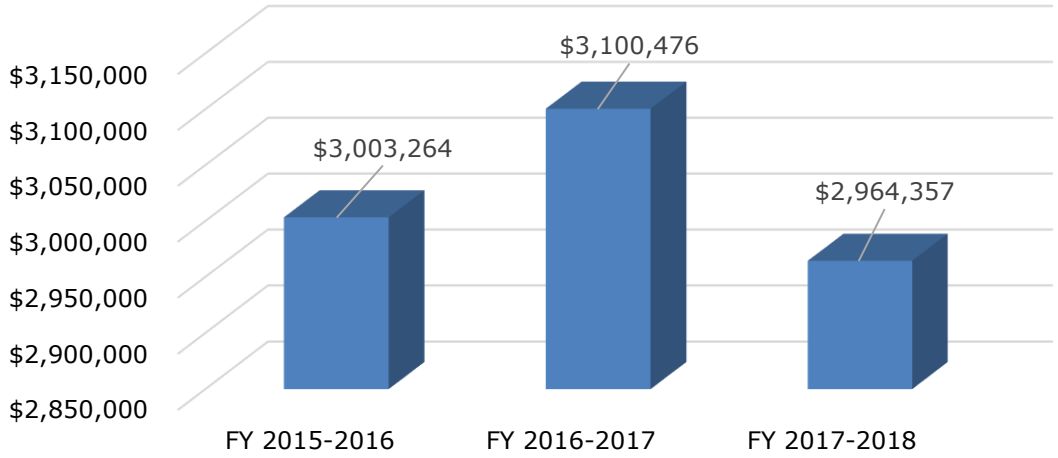
[19] http://intranet.first5association.org/managed_files/Document/2959/F5ACA_2017PolicyAgenda_7.pdf.

Program	Budget Savings
Special Start for Exceptional Children	--
Successful Application Stipend	$84,297

*After switching from WKCCD to KCSOS on April 1, 2018.

At the Commission level, Figure 13 shows the trend of First 5 Kern investment in *Health and Wellness*. In comparison to the first two years of this funding cycle, the Commission cut the program cost to the lowest level this year. The spending reduction has made local services more sustainable.

Figure 13: Trend of First 5 Kern Spending in Health and Wellness



Capacity of Program Support in *Health and Wellness*

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.

Kern County spans across a land area as large as New Jersey. In supporting the data tracking, the Commission strategic plan includes multiple result indicators (RI) to assess the 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[20]). Objective 3 in Table 6 depends on delivery of various clinic services. The corresponding result indicators not only represent the number of children being served (RI 1.3.1-1.3.8, 1.3.11-1.3.13), but also reflect 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

[20] http://www.first5kern.org/wp-content/uploads/2017/08/strategic-plan-booklet-2017-18-final-PROOFcl.pdf.

the service scope. The alignment between RI designation and service description is presented in Table 8.

Table 8: 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

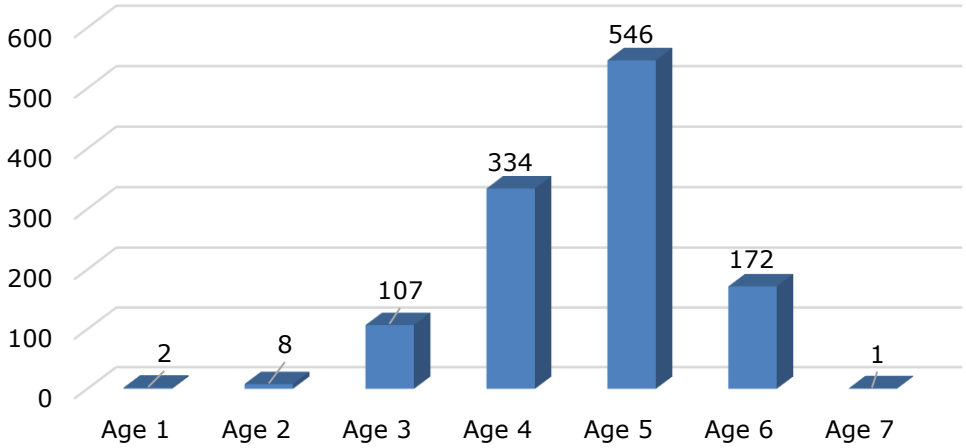
To address *Health Insurance Enrollment* in **Objective 1**, First 5 Kern funded the Successful Application Stipend (SAS) program to assist health insurance application and facilitate medical home establishment. Through mutual program supports, SAS collaborated with the Community Health Initiative of Kern County (CHI KC) to sponsor Certified Application Counselor trainings. In FY 2017-2018, SAS assisted 114 families with health insurance applications and completed new insurance enrollments for 21 children. All new enrollees received well-child check-ups, 40 children completed health insurance renewals, and 47 children gained access to medical homes. SAS also partnered with AFRC, BCRC, CHI KC, GSR, and LVSRP[21] to complete health insurance applications for 194 families.

In addressing special population needs, "children who are Black were eight times more likely than children who are Asian/Pacific Islander to visit the ER [Emergency Room] for asthma-related complications" (Children Now, 2018, p. 35). To close this gap, a program has been designed to help *African-American mothers* acquire knowledge about themselves, pregnancies, babies, and local resources. In this year, 44 children in Black Infant Health (BIH) received general case management services and home visitations. Forty-three children in BIH obtained medical homes while eight service providers attended trainings or other education supports pertaining to *Health and Wellness*. Prenatal referrals and education were offered to 87 mothers to reduce substance abuse and facilitate smoking cessation, as prescribed in **Objective 2**. One hundred and ten pregnant women and/or mothers were visited by nurses from NFP to obtain information and education on prenatal care and breastfeeding. Through the service alignment with State Domain [4], BIH, Children's Mobile Immunization Program (CMIP), and NFP offered education to 205 mothers on the importance of prenatal care. CMIP offered hemoglobin screenings for 259 children and immunizations for 1,158 children.

Clinic Services in Child Health compose another core component of **Objective 3**. To facilitate *early intervention* in Domain [1] of the state report glossary, MVIP incorporated case management services for medically vulnerable infants and their families. Meanwhile, special-need services from 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 to accommodate 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*.

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

Figure 14: Number of Children Case-Managed for Oral Health



According to First 5 Association of California (2017), tooth decay ranked among the most common reason 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 8,471 preventative treatments and 2,733 restorative treatments were offered in FY 2017-2018. The preventative treatments included 3,345 Screenings, 692 Prophy, 692 Fluoride Applications, 126 Sealants, 1,808 Toothbrush Prophy, and 1,808 Fluoride Varnish Application. KCCDHN also case-managed 1,169 children. A six-month reminder was sent to families to continue the services after dental home establishment. With the needs of continuing case monitoring, 173 cases were followed after age 5 (Figure 14).

Due to the smooth administrative transition between KCCDHN and KCSOS, KCCDHN established dental homes for 444 children and completed referrals to pediatric dentists for 1,166 children. These services fit Domain [3] of the state report glossary (Table 6). A vivid description of the oral health benefits were given by a mother in Shafter. Living in the rural community, she sought dental help at a community medical clinic for her toddler who was in pain for several months. Relief came through an emergency referral to child screening by KCCDHN. The boy was treated for severe decay and infection on the same day. The family also received education about the importance of oral hygiene.

First 5 Kern funded provision of vaccines against serious infections and diseases. It was reported 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). Prior to kindergarten entry, children received immunizations from CMIP. The mobile unit supported service outreach in remote regions. As a result, CMIP maintained 171 immunization clinics in Kern County and provided immunizations for 1,558 children ages 0-5. These efforts are aligned with program description in Domain [2] of the state glossary.

Beyond *General Health Education and Promotion*, "Care coordination is especially critical for children with special health care needs" (Children Now, 2018, p. 35). With First 5 Kern funding, Medically Vulnerable Child 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, 2017, 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.

Due to MVCCP's role of coordinating various services, such as supporting case-management programs and reducing the risk of medical and/or developmental issues, a change occurred in the program affiliation this year to switch MVCCP from *Child Health* to *Systems of Care* in alignment with the state's revised categories. To facilitate budget comparison, however, the original categorization from last year is retained by the fiscal division of First 5 Kern to keep MVCCP and MVCCPKC in local focus area of *Health and Wellness*. The program connection also reflects the inseparable roles between case identification and referral services.

Throughout the year, MVCCP convened partners bi-weekly for supporting medically vulnerable children. The network building has resulted in an increase of the medical home capacities across seven programs[22]. As a result, MVCCP offered training and education in *Health and Wellness* for 124 service providers and supported 142 program staff to attend educational events on early childhood topics. Together with BIH, MVIP, NFP, and SAS, MVCCP created medical homes for 1,112 children. The program also identified 920 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). In Kern County, NFP received funding to support nurse visits to infant homes. Effectiveness of NFP has been demonstrated through randomized trials across the nation (Heckman, 2014). 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 are disseminated about the early intervention outcomes in Domain [1]. For example, the Special Start for Exceptional Children (SSEC) program admitted a boy with challenging behaviors, such as throwing toys, running from teachers, and raging tantrums[23]. It impacted his health when he refused to eat. SSEC implemented "Tucker Turtle", an anger management technique, to intervene when children feel sad, angry, or even sometimes too excited. After a couple of months, the boy sought out Tucker and communicated with it as a friend. At the next step, staff initiated "Caring Hearts for Tucker" where children placed a paper heart on Tucker when they were caught doing a

[22] These programs are BIH, CHI KC, MVCCP, MVIP, NFP, SAS, and SPCSR in Appendix A.
[23] More compelling narratives can be found from http://www.first5kern.org/about-us/success-stories/.

good deed. This boy gradually became more calm and friendly through the program intervention. Although his old behaviors still surface occasionally, he appears more hesitant when reacting negatively. Similar behavior modification occurred with other children in SSEC, a special education preschool for medically fragile children.

To facilitate *Healthy Habit Development* under **Objective 5**, Bakersfield Adult School's Health Literacy Program (HLP) supported parent knowledge development on developmental milestones and behavioral norms through offering monthly *interactive parent/child workshops*, *take-home health kits on parent-child interactive activities*, and *parent reading strategies*. These services are aligned with the glossary definition of program support in Domain [2] to address 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 to 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 2017-2018, outcomes in Domain [2] of the state report glossary were reflected by swim lesson completion of 596 children. Meanwhile, 36 parents/guardians participated in the water safety training from KVAP and MAS. These programs also collaborated with Supporting Parents and Children for School Readiness (SPCSR) to offer First Aid/Cardiopulmonary Resuscitation (CPR) education for 86 parents or guardians.

In summary, young children are "the most likely to experience severe injury or death as a result of abuse or neglect" (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. While water safety concerns were addressed by KVAP and MAS, services of CMIP, CHI KC, HLP, and SAS have increased the local immunization coverage, family literacy, and healthcare access. In addition, oral, medical, and mental health services were provided by BIH, KCCDHN, MVIP, NFP, RSNC, and SSEC in traditionally underserved communities. The systems of care further incorporated two programs (MVCCP & MVCCP KC) for case identification and service coordination. With inclusion 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 KC;
(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.

Service providers in *Health and Wellness* raised a total of $2,333,242.87 to enhance program sustainability this year, a substantial increase from $855,794.15 in last year.

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 9).

Table 9: 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
	MVCCP KC	Quality Health Systems Improvement	0-5
	SAS	Health Insurance Enrollment	0-5
Prenatal/Infant Home Visiting	BIH	Maternal/Child Healthcare	0-2
	NFP	Maternal/Child Healthcare	0-2
Oral Health	KCCDHN	Mobile Program for Oral Healthcare	0-5
Early Intervention	MVIP	Targeted Intensive Intervention	0-2
	SSEC	Targeted Intensive Intervention	0-2
	RSNC	Targeted Intensive Intervention	3-5

Improvement of Program Outcomes Across Service Providers

In FY 2017-2018, 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. Outcomes of Oral Health Service

Across the state, 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. Because of the program discontinuation with WKCCD on April 1, 2018, the program spending decreased from $1,079,338 in last year to $853,381 this year. Services in the fourth quarter of FY 2017-2018 were administered by KCSOS with $135,808. Altogether, the total spending was $989,189, resulting in $100,811 less expenditure from the original program budget.

In FY 2017-2018, KCCDHN tracked plaque indices during initial and recheck visits for 135 children. The program impact was indicated by a drop of Average Plaque Index (API) from 67.52 in pretest to 37.28 in posttest. The improvement of oral health was statistically significant [$t(134)=13.58$, $p<.0001$]. The effect size also reached 1.17, suggesting a strong program impact (Cohen, 1988).[24] The number of restorative treatments increased from 2,685 in last year to 2,733 this year. 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).

2. Enhancement of Healthy Child Development

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

With dual foci on *thriving children and families* as major outcomes of the Evaluation Framework (see Exhibit 2), results of early childhood development were compared against age-specific thresholds from ASQ-3 across three programs in *Health and Wellness*. MVIP and NFP achieved sample sizes of 107 and 56, respectively. But the BIH data only contained three observations, too small for statistical analyses.

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 2017-2018, 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. The program sustained these early childhood services in Kern County for 18 years.

In particular, NFP filled a void in the early childhood service system by supporting 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 environment setting, referral assistance, and healthy pregnancy. To broaden the program impact, NFP extended its services in Bakersfield, Lamont, Ridgecrest, Rosamond, Shafter and Wasco. The program also offered communications in both English and Spanish to ensure proper parental engagement.

Results in Table 10 indicated infant performance in both NFP and MVIP programs significantly above the corresponding thresholds in *Communication, Gross Motor, Fine Motor, Problem Solving*, and *Personal-Social* domains at α=.0001. The practical difference made by each program was demonstrated by the minimum effect size of 0.93 for MVIP and 1.24 for NFP, both larger than 0.80 for strong intervention impact.

Table 10: ASQ-3 Results from MVIP and NFP

ASQ-3 Domains	MVIP	NFP
Communication	t(106)=20.08, p<.0001	t(55)=12.80, p<.0001
Gross Motor	t(106)=9.60, p<.0001	t(55)=14.67, p<.0001
Fine Motor	t(106)=11.31, p<.0001	t(55)=21.11, p<.0001
Problem Solving	t(106)=15.77, p<.0001	t(55)=9.26, p<.0001
Personal-Social	t(106)=14.03, p<.0001	t(55)=23.28, p<.0001

3. Improvement of Parent Health Literacy

The State Commission advocated a policy agenda to "Improve parent and young children's knowledge about and access to healthy foods and physical activity" (First 5 California, 2015b, p. 1). At the seat of Kern County, Bakersfield Adult School offered HLP to improve parent health literacy. The program tracked knowledge of 32 parents about the content of *Be Choosy, Be Healthy* (BCBH) instrument this year. The improvement of

parent knowledge was confirmed by statistical analyses from the pretest and posttest settings. The results showed significant knowledge improvement at α=.001 [i.e., t(31)=8.57, p<.0001]. In addition, all parents indicated that they would practice at least some of the BCBH concepts after the workshops. The enhancement of parent 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).

4. Support of Healthy Parent-Infant Interaction

Parent-infant interaction is important in developing infant central nerve systems (Barlow et al., 2007). The Dyadic Assessment of Naturalistic Caregiver-child Experiences (DANCE) is adopted by NFP to monitor parent-infant interaction. The golden standards of the DANCE *Sensitivity and Responsivity* scale[25] are listed in Table 11 to evaluate the effect of parent-infant interaction on 41 infants.

The results showed that caregivers surpassed the golden standards in the *pacing* and *responsiveness* domains, where *pacing* indicated that the tempo of caregiver-child interactions was complementary to child's behavior, actively level, and needs. The findings suggested that caregiver responses to child's state, affect, communication were supportive of child's needs. In other domains, caregiver performance was near the golden standards. In comparison to the DANCE results from last year (Wang, 2018), NFP showed improvement in the *visual engagement* domain, as evidenced by caregiver's visual attention toward the child or a shared focus of interest. Another enhancement domain was *non-intrusiveness* for caregivers to not interrupt child's activity, as well emotional or physical spaces.

Table 11: DANCE Results on the Sensitivity and Responsivity Scale

Scale of Sensitivity and Responsivity	NFP Result	Golden Standard
1. Positioning	99.1%	100%
2. Visual Engagement	93.3%	95%
3. Pacing	93.3%	90%
4. Negative Touch	2.2%	0%
5. Non-Intrusiveness	88.1%	90%
6. Responsiveness	91.6%	85%

On the DANCE scale for *Emotional Quality and Behavioral Regulation*, results in Table 12 showed caregiver performance above the golden standard on *Verbal Connectedness* that facilitated interactions through caregiver's verbal communication. The remaining results were near the golden standards[26] on subscales of *Expressed Positive Affect, Caregiver's Affect Complements Child's Affect,* and *Verbal Quality* (Table 12). In comparison to the results from last year (Wang, 2018), NFP caregivers also improved performance in the *Verbal Quality* domain. In conclusion, the positive program impact on healthy parent-infant interaction has been shown in both cognitive and emotional domains of the DANCE results (Tables 11 & 12).

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

Table 12: DANCE Results on Emotional Quality and Behavioral Regulation

Scale of Emotional Quality and Behavioral Regulation	NFP Result	Golden Standard
1. Expressed Positive Affect	98.1%	100%
2. Caregiver's Affect Complements Child's Affect	94.5%	100%
3. Verbal Quality	98.9%	100%
4. Verbal Connectedness	98.0%	75%

5. Coordination of Infant Medical Services

Prior to First 5 Kern, no organization 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. In FY 2017-2018, MVCCP and MVCCP KC received funding from First 5 Kern to implement "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.

Feedback from the 2017 MVCCP annual conference was gathered from 83 attendees. Results in Table 15 were based on a 10-point scale with 1 standing for poor conference quality and 10 for excellent quality. The average ratings were 8.23 or above, indicating positive conference quality across the *adequacy, utility, efficiency*, and *applicability* dimensions. In comparison, the lowest rating from last year was 8.21 (Wang, 2018). Thus, the results in Table 13 showed more positive feedback this year.

In terms of the program capacity, care coordination programs not only supported medically vulnerable children ages 0-5, but also promoted system building across service providers. 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."[27] In Kern County, infants in rural areas often had limited healthcare support. Because most local communities belonged to Medically Underserved Areas (MUA)[28], MVCCP served the purpose of identifying medically vulnerable infants for case management and healthcare service in much-needed areas.

Table 13: MVCCP Conference Attendee Responses on a 10-Point Scale

Quality Indicator	Mean
Adequacy of the panelists' mastery of their subjects	9.39
Utilization of appropriate teaching methods and materials	9.09
Efficiency of course mechanics (e.g. room, space, acoustics, handouts)	8.24
Applicability or usability of new information	9.17

In Table 14, a Likert-type scale was used to code feedback from MVCCP partners on seven statements. Responses in the "Neutral" category were scaled as 3. Answers of "Strongly Disagree" and "Strongly Agree" were represented by 1 and 5, respectively.

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

Table 14 showed the average responses above 3 across 61 service providers. Hence, the overall ratings were consistently skewed toward positive responses. The result range increased from 3.12-3.70 in last year to 3.54-4.21 this year, confirming stronger partnership building in the care coordination services.

Table 14: Average Provider Ratings on A Five-Point Scale

	Statement	Mean
MVCCP	Increased our program's ability to network and collaborate directly with other organizations.	4.15
	Provided a place for us to bring some of our more difficult cases to help find solutions.	3.84
	Increased our program's visibility among other providers across the county.	4.05
	Provided key information that has saved us staff time handling cases.	3.74
	Enhanced our training and awareness of other services in the county.	4.21
	Provided us a place to present/explain how our services are delivered, clarifying any misunderstandings about them.	3.90
	Provided a place to advocate for services for children with special health care needs.	3.54

In summary, the success of California's economy and civil society ultimately depends 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, & preschoolers). To justify the result-based accountability in these dimensions, service outcomes were triangulated across different sources of data (e.g., ASQ-3, BCBH, DANCE) and service providers (KCCDHN, HLP, & 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*

Family Functioning is a focus area of the State Commission that corresponds to First 5 Kern's focus area of *Parent Education and Support Services*. The alignment is coherent because "Parents are the medium through which child behavior and family functioning are influenced" (Van As, 1999, p. 48). At the state level, a Strategic Messaging Guide also emphasized "parent education and parent-child learning programs that

strengthen families' resilience, expand support systems, and reduce child abuse and neglect" (First 5 Association of California, 2017, p. 7).

With First 5 Kern funding, 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. Meanwhile, Community Action Partnership of Kern (CAPK) receives funding from First 5 Kern to offer 2-1-1 Kern County (2-1-1) and Help Me Grow (HMG) for service referrals. The mission of 2-1-1 is to connect families to medical facilities, family resource centers, legal assistance programs, and other community resources. Concerns of child development support establishment of collaboration by HMG across community-based programs in health care, early care and/or education, and family support. 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.

A new development in the 2017 legislative session was passage of Senate Bill 89 that allowed county participation in the Emergency Child Care Bridge Program (ECCBP) to assist foster care upon an emergency placement. First 5 Kern partnered with Kern County Department of Human Services, KCSOS, and the Community Connection for Child Care Program to fund the administrative cost of ECCBP. The program is designed to address special child needs because "Children in foster care have experienced abuse, neglect, and other traumas, which can cause serious, ongoing physical and mental health difficulties" (Children Now, 2018, p. 49).

Altogether, 19 programs are designated in this focus area 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* in First 5 Kern's (2018) strategic plan.

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 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 $149,453 across programs in Table 16.

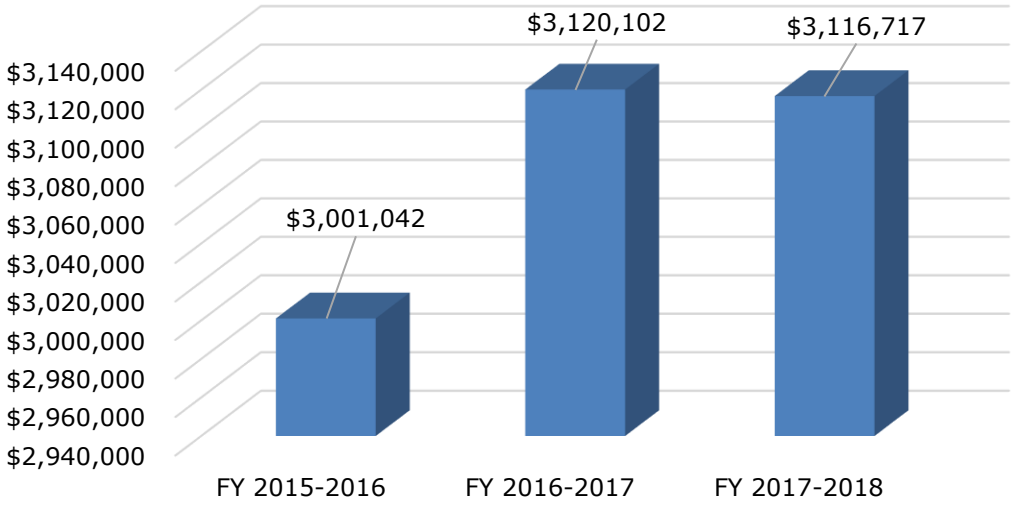
Table 16: Program Savings in *Parent Education and Support Services*

Program	Budget Savings
2-1-1 Kern County	$1,724
Arvin Family Resource Center	$13,161
Differential Response Services	$63,955
East Kern Family Resource Center	$22,922
Guardianship Caregiver Project	$1,953
Help Me Grow	$3,845
Indian Wells Valley Family Resource Center	$8,505
Kern River Valley Family Resource Center	$1,132
Lamont Vineland School Readiness Program	$2,252
Mountain Communities Family Resource Center	$7,063
Neighborhood Partnership Family Resource Center	$7,390
Shafter Healthy Start	$12,548
West Side Community Resource Center	$3,003

While children are born equal, family background could vary and the resource differences may impact child growth. Since disparities are established early, children's prospects of upward mobility are influenced by the early gap (Kalil, 2015), causing long-term inequalities in the society (Heckman, 2008). To address the broad issue, support for children ages 0-5 cannot be viewed as a piece-meal, segmented solution, especially with declining Proposition 10 revenue (Jacobson, 2018).

In this context, the stable funding from First 5 Kern is critical for establishing baseline of partnership support. Figure 15 shows the trend of First 5 Kern investment in *Parent Education and Support Services*. In last year, HMG started to receive funding for enhancing service connection, which contributed to the spending increase in Figure 15. Since then, First 5 Kern maintained nearly identical program support to sustain the ongoing service delivery.

Figure 15: Funding Pattern in *Parent Education and Support Services*



Capacity of Program Support in *Parent Education and Support Services*

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. 20) and family (RI 2.1.4-2.1.6, Ibid. 20) levels. **Objectives 2-4** depend on implementation of education and social services for enhancement of parenting (Table 17). 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. 20) are assessed to reflect family support in **Objective 2**;
2. Reading strategy development and literacy workshops (RI 2.3.1, 2.3.2, Ibid. 20) are evaluated to address home education in **Objective 3**;
3. Program referrals and transportation services (RI 2.4.1 2.4.2, Ibid. 20) are adopted to support program outreach in **Objective 4**.

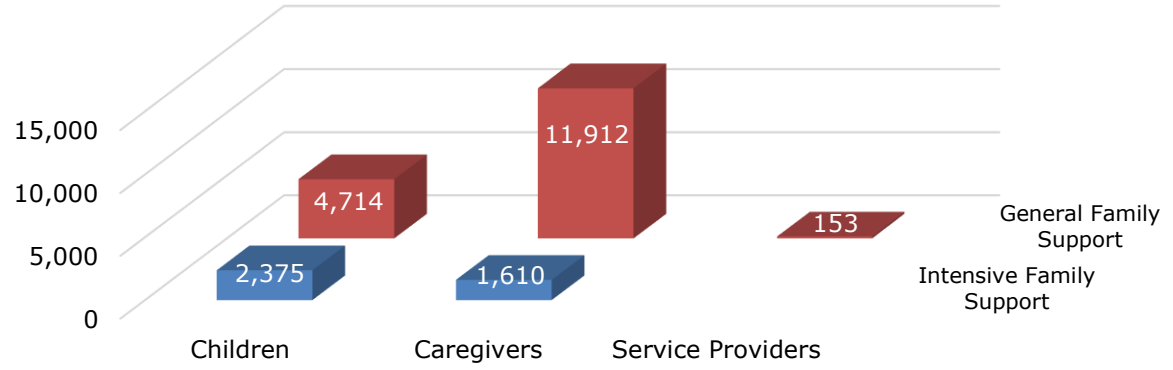
The alignment between RI designation and service description is presented in Table 17.

Table 17: Service Description and RI Designation

Objective	Target Capacity	RI Designation
[1]	Targeted/Clinical Family Supports	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 in 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). As a result, the beneficiary counts are depicted in Figure 16 to show the impact of First 5 Kern support for local children and caregivers or parents. Service providers are also supported for general family services following First 5 Kern's (2018) mission statement.

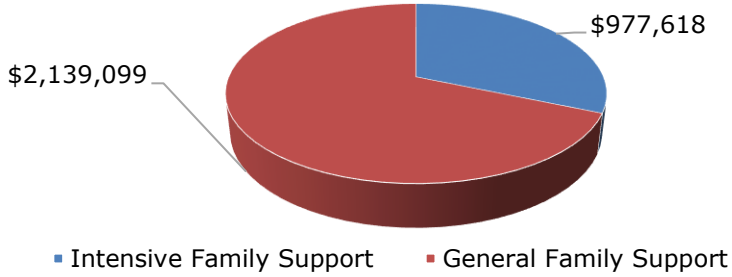
Figure 16: Capacity of General Family Support and Intensive Family Support*



*Intensive Family Support programs do not expand across service providers

With more programs funded in *General Family Support*, First 5 Kern designated over $2 million to that domain in FY 2017-2018 (Figure 17). While the majority of this funding went to community-based FRCs, countywide programs in *Intensive Family Support* are funded to solve issues of child abuse and neglect.

Figure 17: Fund Allocation in Domains of Parent Education and Support Services



At the state level, First 5 Association of California (2017) urged California policy makers to make commitment ensuring that "100% of California children receive recommended developmental screening and appropriate referrals" (p. 7). In FY 2017-2018, HMG responded to 1,609 unduplicated phone calls that assisted 494 families with referrals to a FRC, and 25 children for completing ASQ-3 assessments. As an innovative service model, HMG has been implemented across 17 states to serve families in need of social support for their young children[29].

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. A total of 6,388 calls were received throughout the year on behalf of children ages 0-5. Unduplicated 2,945 new callers were referred to services for 3,538 young children and 379 pregnant mothers. Without the referral support, families could have been misguided, and service delays might occur to children with special needs in Kern County.

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 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 parental services are well-justified because "Of all the things that influence a child's growth and

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

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

Young children are fragile and vulnerable. First 5 Kern (2018) strategically funded programs to enrich caregiver knowledge about early childhood development, effective parenting, and community services. To strengthen 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 1,140 families that impacted 1,934 children ages 0-5. In addition, 736 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."[30] 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[31].

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

According to KCNC (2017), "18,409 children were suspected as being abused or neglected, an average of 50 per day" and "51% of the Kern children who were victims of abuse were under the age of 5" (p. 3). DR takes a best practical approach that is adopted across the nation to prevent abuse and neglect. The funding from First 5 Kern accounted for 21% of DR's annual budget with an exclusive focus on supporting children ages 0-5. A range of supportive services include counseling, parenting education, job training, food, utility, housing assistance and transportation. As a result, it is reported that "the rate of substantiated child abuse/neglect in Kern County has fallen for the seventh straight year" (Corson, 2017, p. 1).

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

[30] http://kern.org/kcnc/about/.
[31] http://kern.org/kcnc/links/.

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 paper preparation, legal consulting, safety planning, victim representation, and resource referral (Abood, 2015).

GCP 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 GCP and DVRP 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 509 children and 364 parents or guardians, surpassing the corresponding annual target of 419 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 for all children across 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*:

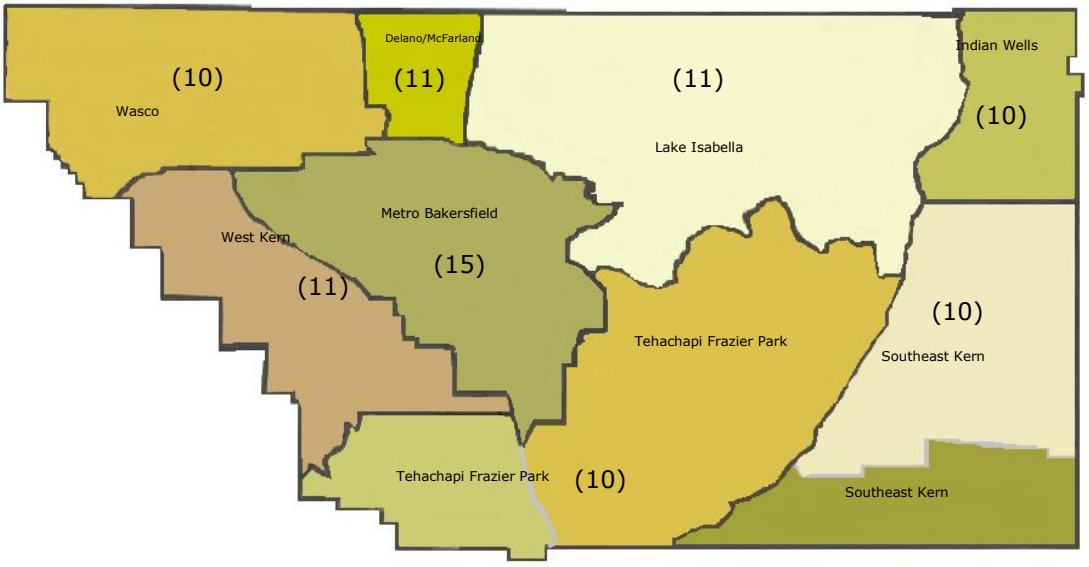
1. Delano School Readiness (DSR)

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 26 parents and/or guardians.

In planning for countywide service outreach, the Kern Council of Governments (KCOG) designated nine subareas according to local housing development[32]. Through First 5 Kern's effort on 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 18). The vast land availability in Kern County offered extensive spaces for housing development, which demanded service delivery 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. First 5 Kern has to balance the program needs between hard-to-reach areas and densely populated communities.

Figure 18: Distribution of Parent Education Programs in Kern County*



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

In this focus area, 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 between focus areas, parent education outcomes are presented in the next three sections. Another section is created in this chapter to address result indicators on child development.

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 community can make" (Bowman, Pratt, Rennekamp, & Sektnan, 2010, p. 8). In particular,

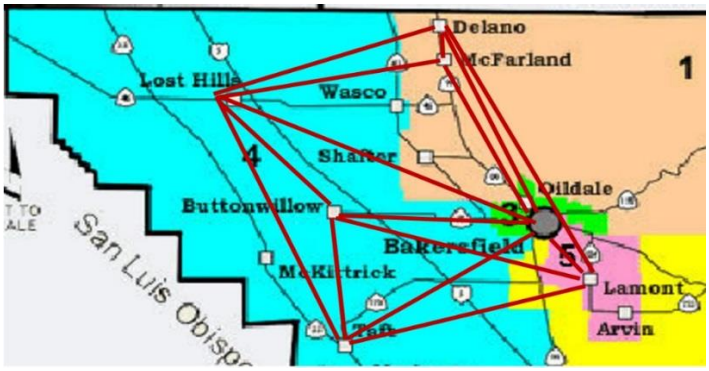
[32] http://www.co.kern.ca.us/planning/pdfs/he/HE2008_Ch1.pdf.

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 2017-2018, 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 19).

Figure 19: 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. 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

Workshop	Goal
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

A total of 284 participants attended 10 workshops across seven programs (Table 20). Workshops with the maximum number of participants were identified by the mode across the 10 sessions. The means indicated the average attendee counts at each site. Table 20 showed the most popular workshop on "increasing parent's knowledge of nurturing parenting and nurturing as a lifestyle". It attracted 304 survey respondents to attend, and six out of the seven programs identified it as the mode with the largest attendee count.

Table 20: Means and Modes of NP Workshop Attendee Counts

Program	Mean	Mode	Workshops with the Mode Occurrence
AFRC	9.1	23	Increase parent's knowledge of nurturing parenting and nurturing as a lifestyle
BCRC	25.2	42	Increase parent's knowledge of nurturing parenting and nurturing as a lifestyle
DSR	11.8	36	Increase parent's knowledge of nurturing parenting and nurturing as a lifestyle
GSR	53.1	145	Increase parent's knowledge of nurturing parenting and nurturing as a lifestyle
LVSRP	10.0	16	Increase parent's knowledge of nurturing parenting and nurturing as a lifestyle
MFRC	6.0	11	Increase parent's awareness of appropriate expectations of children
WSCRC	17.6	34	Increase parent's knowledge of nurturing parenting and nurturing as a lifestyle

Table 21 contained the percent of participants who would apply "some" or "a lot" of what they learned from these workshops[33]. Seventy percent of the cells in Table 21 reached a rate of 100% to confirm practical utility of the workshops.

Table 21: Percent of "Some" or "A Lot" Responses to Workshop Applicability

Workshop	AFRC	BCRC	DSR	GSR	LVSRP	MFRC*	WSCRC*
1	100	78.3	88.9	95.9	100	93.7	85.2
2	88.2	100	100	100	100	100	95.0
3	100	100	87.5	100	100	100	100
4	100	100	100	100	100	100	100

[33] In the workshop questionnaire, categories "some" or "a lot" were worded as "somewhat likely" or "very likely" for Workshop 1 and "uncertain/strongly agree" or "strongly agree" for Workshops 3, 5, 7, and 9.

Workshop	AFRC	BCRC	DSR	GSR	LVSRP	MFRC*	WSCRC*
5	100	87.5	100	97.0	100	100	100
6	100	100	100	98.0	100	75.0	95
7	100	82.6	66.7	95.4	100	-	94.1
8	100	100	100	95.8	100	100	100
9	100	77.3	100	96.9	100	-	82.8
10	100	100	100	100	-	-	85.7

* "-" Represents "no response" in the survey data.

Feedback from the first nine NP workshops were gathered from 1,166 participants with duplicated client counts. On a five-point scale with 5 representing the most positive result, the progress was indicated by improvement of the average rating from 3.22 in pretest to 4.07 in posttest across seven programs. The rating change across these workshops was significant at α=.0001 [i.e., t(1165)=22.71, p<.0001] with a medium effect size [Cohen's d=0.67] for practical program impact. Details of the program-specific results at each location are presented in Table 22. At end of the 10th workshop, over 97.0% of the participants showed more confidence in helping children handle stress in positive ways, which was in agreement with positive findings in Table 22.

Table 22: Improvement of Parent Confidence Ratings

Program	N	Pre-Rating	Post-Rating	t	P	Effect Size
AFRC	73	3.22	4.04	4.62	<.0001	0.54
BCRC	214	3.28	3.95	8.79	<.0001	0.60
DSR	100	3.40	4.33	7.92	<.0001	0.79
GSR	485	3.21	4.10	15.20	<.0001	0.69
LVSRP	90	3.09	4.32	8.14	<.0001	0.85
MFRC	43	3.36	4.21	4.55	<.0001	0.69
WSCRC	162	3.14	3.84	7.13	<.0001	0.56

Through the NP workshop offerings, First 5 Kern funding was 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 2017-2018, 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[34].

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 2017-2018, the AAPI-2 instrument was employed in a pretest and posttest setting to track responses of 85 parents across six programs that offered court-mandated parent education services. EKFRC and KRVFRC are excluded from the statistical analysis for gathering four and seven observations. Sample sizes for the remaining five programs reached a double digit. Except for the construct of *Child Power & Independence* in NPCLC, effect sizes in Table 23 are larger than 0.80 to indicate strong intervention effects.

Table 23: Impact of Court-Mandated Parent Education in Focus Areas II & III

Construct	Focus Area	Program*	Result	
Expectations of Children	II	IWVFRC	t(12)=8.75, p<.0001;	Effect Size=2.43
		SENP	t(22)=7.29, p<.0001;	Effect Size=1.52
		SHS	t(15)=3.81, p=.0017;	Effect Size=0.95
	III	NPCLC	t(21)=8.08, p<.0001;	Effect Size=1.72
Parental Empathy	II	IWVFRC	t(12)=10.64, p<.0001;	Effect Size=2.95
		SENP	t(22)=10.08, p<.0001;	Effect Size=2.10
		SHS	t(15)=8.70, p<.0001;	Effect Size=2.18
	III	NPCLC	t(21)=8.80, p<.0001;	Effect Size=1.88

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

Construct	Focus Area	Program*	Result	
Physical Punishment	II	IWVFRC	t(12)=5.11, p=.0003;	Effect Size=1.42
		SENP	t(22)=6.81, p<.0001;	Effect Size=1.42
		SHS	t(15)=5.26, p<.0001;	Effect Size=1.32
	III	NPCLC	t(21)=9.24, p<.0001;	Effect Size=1.97
Parent-Child Roles	II	IWVFRC	t(12)=5.05, p=.0003;	Effect Size=1.40
		SENP	t(22)=7.97, p<.0001;	Effect Size=1.66
		SHS	t(15)=4.05, p=.0011;	Effect Size=1.01
	III	NPCLC	t(21)=6.23, p<.0001;	Effect Size=1.33
Child Power & Independence	II	IWVFRC	t(12)=3.86, p=.0023;	Effect Size=1.07
		SENP	t(22)=8.30, p<.0001;	Effect Size=1.73
		SHS	t(15)=3.72, p=.0021;	Effect Size=0.93
	III	NPCLC	t(21)=3.03, p=.0064;	Effect Size=0.65

*Program acronyms are listed in Appendix A.

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 Kern County.

In FY 2017-2018, 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 616 observations on the gain scores, and the result reached .91 to confirm consistency of the measurement outcomes (Table 24).

Due to the large sample size, statistical testing has been conducted to examine significance of the DR impact. Table 24 showed significant enhancement of family functioning across all eight domains of NCFAS-G assessment. The effect size values confirmed medium practical impact from the program intervention.

Table 24: Impact of DR Services on the NCFAS-G Scales

Scale Domain	Results	
Environment	t(600)=17.01, p<.0001;	Effect Size=0.69
Parental Capabilities	t(598)=15.96, p<.0001;	Effect Size=0.65
Family Interactions	t(596)=15.72, p<.0001;	Effect Size=0.64
Family Safety	t(596)=14.59, p<.0001;	Effect Size=0.60
Child Well-Being	t(593)=16.28, p<.0001;	Effect Size=0.67
Social/Community Life	t(594)=15.47, p<.0001;	Effect Size=0.63
Self-Sufficiency	t(595)=17.01, p<.0001;	Effect Size=0.70
Family Health	t(588)=15.99, p<.0001;	Effect Size=0.66

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.[35] In FY 2017-2018, DVRP supported 136 parents or guardians and 196 children in preventing domestic violence, child abuse and/or neglect.

At end of the DVRP services, 44 victims of domestic violence responded to a program survey indicating their agreement or strong agreement 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;
- The child(ren) in the household are not subjected to abuse and/or neglect.

All respondents *agreed* or *strongly agreed* to these statements. Behind the positive responses are service effectiveness stories from the DVRP program. For instance, a 38-year-old mother of three children (ages 10, 7 and 4) requested program assistance for obtaining a restraining order. Her husband emotionally abused her for six years, and often escalated argument exchanges to physical violence. With assistance from DVRP, a judge granted her sole custody. The orders remain until the father can show the court that he is no longer a danger to children after taking mandatory domestic violence prevention classes. DVRP intensive family support has retained a peaceful environment for children.

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

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 2017-2018, goals have been set for GCP to serve 180 guardians and 200 children. GCP surpassed these goals by serving 184 guardians and 260 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%[36]. GCP has been maintaining quality services in this much-needed region. In FY 2017-2018, exit survey data were gathered from 90 clients and all of them "strongly agreed" to the following conclusions:

- The child(ren) live in a stable environment;
- I am able to access medical services for the child(ren) in the household;
- The child(ren) in the household are not subjected to abuse and/or neglect.

In addition, all respondents "agreed" or "strongly agreed" that

- The child(ren)live in a safe environment;
- I am able to access mental health treatment for the child(ren) in the household;
- I am more knowledgeable about the duties, rights, and responsibilities of legal guardianship.

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

Issues of domestic violence often led to divorce (Pollet, 2011). In the 21st century, one of the fastest growing segments of the homeless population comes from families with children (National Coalition for the Homeless, 2009). The issue is important because "Children who are homeless often demonstrate significant developmental delays in early childhood, which can contribute to later behavioral and emotional problems and poor performance in school" (American Institutes for Research, 2012, p. 8). Collaborative interventions are needed to support families with emotional disturbance. This year WSN is the primary program in *Family Functioning* to assist 53 children and 44 parents or guardians in preventing domestic violence, child abuse and/or neglect.

[36] www.Kidsdata.org.

WSN and SSCDC offered group therapies for 72 children. While SSCDC supported families through integrated services such as court visits, parent education, counseling, housing and job placement, WSN provided shelter, medical and legal accompaniments, counseling, group therapy and education for mothers and children who have experienced family violence. The services are needed because "Only 35% of California children who reported needing help for emotional or mental health problems received counseling" (Children Now, 2018, p. 37).

ASQ-SE data were employed to track alleviation of emotional difficulties for 34 children in SSCDC and 48 children in WSN who had exposure to domestic violence and/or lived in homeless shelters. Following a Technical Report of ASQ-SE[37], "Children were classified as 'at risk' on the ASQ:SE (further evaluation of their social-emotional status was indicated) if their scores were on or above the cutoff point" (p. 8). Due to the negative impact from family environment, the proportion of children below the ASQ-SE threshold was 68% in SSCDC and 67% in WSN. In contrast, the corresponding proportion from 34 children in NFP program was above 94%. Performance of the NFP children was also significantly below the threshold [$t(33)=14.07$, $p<.0001$] while insignificant differences were found from SSCDC [$t(33)=1.41$, $p=.1683$] and WSN [$t(47)=1.63$, $p=.1103$] programs. With First 5 Kern funding, emotional issues for children in SSCDC and WSN are consistently revealed from the outcome of ASQ-SE assessment.

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 25 delivered case management services at the family level, which justified more emphasis of the result reporting in *Parent Education and Support Services*. Altogether, 1,041 families and 794 children received general case management supports in FY 2017-2018, surpassing the annual target of 773 families and 563 children. A total of 89.47% of the programs reached or surpassed the service target for family case management and all programs attained or exceeded the support target for child case management.

Table 25: General Case Management Support across Twenty Programs*

Focus Area	Program Acronym	Family Count		Child Count	
		Total	Target	Total	Target
Child Health	BIH	87	70	44	40
	KCCDHN	292	175	--	--
	MVIP	66	55	--	--
	NFP	--	--	57	50
	RSNC	44	30	44	30
Family Functioning	AFRC	45	30	48	40
	BCRC	21	20	29	20
	EKFRC	19	30	37	30
	GSR	58	50	58	50
	IWVFRC	40	40	60	55
	KRVFRC	62	50	70	60
	LVSRP	42	40	71	40
	MFRC	43	30	15	15
	MCFRC	19	18	21	18

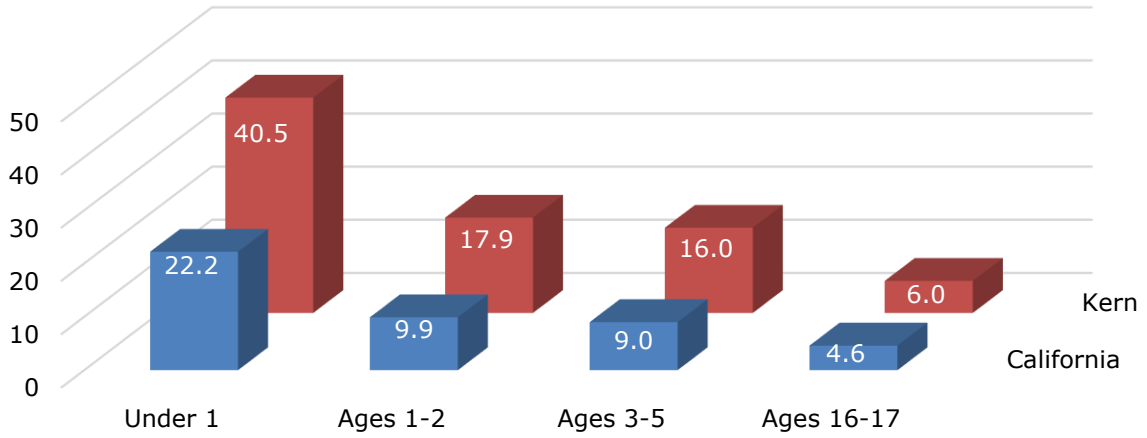
[37] http://agesandstages.com/wp-content/uploads/2015/03/asqse_technical_report.pdf.

Focus Area	Program Acronym	Family Count		Child Count	
		Total	Target	Total	Target
	SHS	33	30	49	30
	SENP	113	40	122	40
	WSCRC	21	20	29	20
Child Development	DSR	25	25	40	25
	LHFRC	11	20	--	--

*Program full names are listed in Appendix A.

In the past, Kern County's *substantiated child abuse rate* for newborns under age 1 was more than twice of the rate across California (Wang, 2018). The corresponding gap was much smaller at ages 16-17 (Figure 20). To address the local needs, First 5 Kern sponsored court-mandated and non-court-mandated education at 13 FRCs across Kern County in this funding cycle. 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.

Figure 20: Substantiated Child Abuse Rates per 1,000 Children



Source: 2016 KCNC Report Card.

The positive impact of DR was illustrated by the NCFAS-G results. The ASQ-SE outcomes were analyzed from SSCDC in Focus Area III and WSN in Focus Area II for servicing children who had exposure to domestic violence and/or living in homeless shelters. As a result, the program support included parent education and counseling to lift performance of the majority children above the risk threshold 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).

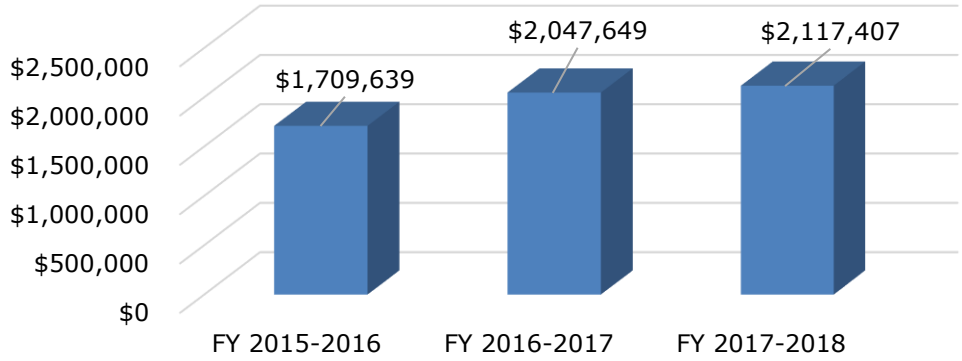
(III) Enhancement of *Early Childcare and Education*

At the beginning of this funding cycle, it was estimated that approximately half of infants and toddlers experienced regular nonparental care, and up to 75% of 4 year olds underwent child care prior to kindergarten (Burchinal, Magnuson, Powell, & Hong, 2015). Thus, support for early childcare and education is important for most middle-class,

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. Because Proposition 10 does not deny service access according to socioeconomic status, more should be learned about early childhood support for general population. To broaden the horizon, 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.

The QELS funding comes from the First 5 California IMPACT (Improve and Maximize Programs so All Children Thrive) grant that forges partnerships between First 5 California and county commissions 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 $1,574,529 to fund 10 programs that offered direct services in *Early Childcare and Education*. Including the investment from IMPACT, the total program spending in FY 2017-2018 amounts to $2,117,407, a steady increase over the past two years of the current funding cycle (Figure 21).

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



Altogether, these services have benefited 6,043 children, 872 caregivers, and 248 service providers in Kern County[38]. Due to the fact that 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)

[38] http://www.first5kern.org/wp-content/uploads/2018/10/2017-2018-Annual-Report-to-the-State-101218a.pdf.

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*:

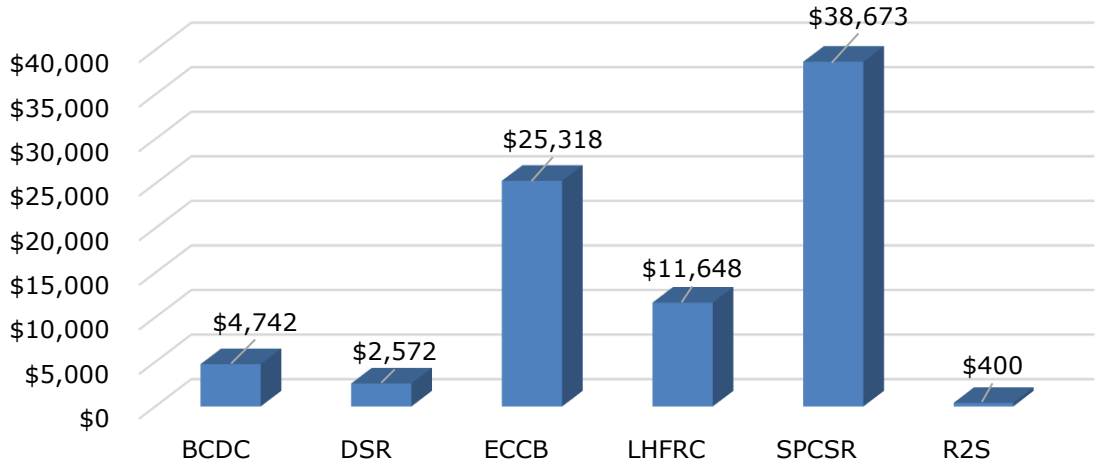
1. Arvin Family Resource Center
2. Buttonwillow Community Resource Center
3. East Kern Family Resource Center
4. Greenfield School Readiness Program
5. Lamont Vineland School Readiness Program
6. McFarland Family Resource Center
7. Shafter Healthy Start
8. West Side Community Resource Center

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, including a recent $30,000 donation, 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"[39].

All programs in this focus area operated within their budgets. In particular, six programs saved $83,353 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*



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

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). 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. 20). **Objectives 2** targets on the service access by children with special needs (RI 3.2.1, 3.2.2, Ibid. 20) and/or during non-traditional hours (RI 3.2.3, Ibid. 20).

The alignment between RI designation and service description is summarized in Table 26. 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 26: 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 27, center-based service counts are listed for 19 programs across focus areas.

Table 27: Delivery of Early Education Services on Center-Based Platforms

Focus Area	Program Acronym*	Child Count	
		Total	Target
Child Health	HLP	103	80
Family Functioning	AFRC	26	25
	BCRC	25	20
	EKFRC	26	25
	GSR	121	120
	LVSRP	22	15
	MFRC	30	20
	MCFRC	7	6
	SHS	41	40
	WSCRC	30	25
Child Development	BCDC	39	25
	DSR	32	30
	DDCCC	65	60
	LHFRC	22	20
	NPCLC	259	166
	SSCDC	36	35
	SFP	28	24

Focus Area	Program Acronym*	Child Count	
		Total	Target
	SPCSR	72	40
	WWP	38	34

*Program full names are listed in Appendix A.

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 1,022 children while the total target count was 810. Therefore, all programs in this focus area reached or surpassed their service targets.

To support program outreach, First 5 Kern also funded home-based education services. While SPCSR served the population in Bakersfield, three additional programs, i.e., EKFRC, DSR, and LHFRC, are located near the border of Kern County. In FY 2017-2018, these programs delivered home-based education for 74 children, exceeding the total target count of 58 children in Table 28.

Table 28: Delivery of Early Education Services on Home-Based Platforms

Focus Area	Program Acronym*	Child Count	
		Total	Target
Family Functioning	EKFRC	47	15
Child Development	DSR	15	15
	LHFRC	4	20
	SPCSR	8	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 147 families with health insurance applications and offered preschool learning activities to 24 children.

The service benefit for traditionally-underserved populations is echoed by success stories of children in adverse circumstances. Roland Maier, First 5 Kern Executive Director, confirmed, "The funding we provide for Discovery Depot is truly filling a gap for families. This program is unprecedented, but is successful and completely replicable" (Lollar, 2018, p. 5).

Special needs have also been addressed in *Child Health* for 987 children through MVIP and MVCCP programs [see Section (I) of this chapter]. In Table 29, a target was set for additional programs to support a total of 47 children with *special needs*. This year a total of 84 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"[40].

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

Table 29: Counts of Children Receiving Center-Based, Special-Need Services

Service Type	Focus Area	Program Acronym*	Child Count	
			Total	Target
Regular Hours	Child Development	SFP	3	0
	Child Health	SSEC	42	37
Non-Traditional Hours	Child Development	LHFRC	3	0
	Child Health	SSEC	36	10

*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 activities*. In FY 2017-2018, programs in Table 30 served a total of 887 preschool-aged children. With partnership support from First 5 Kern, KCSOS, and Aera Energy[41], 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 EKFRC and R2S had service counts substantially below their annual targets. For the remaining 10 programs, the total enrollment target was set at 324 and these programs jointly extended education services to 359 preschoolers (Table 30).

Table 30: Participant Counts in Summer-Bridge Programs

Focus Area	Program Acronym*	Child Count	
		Total	Target
Family Functioning	AFRC	20	20
	BCRC	20	20
	EKFRC	7	10
	GSR	50	50
	IWVFRC	14	14
	LVSRP	24	20
	MFRC	22	20
	SHS	25	25
	WSCRC	28	25
Child Development	DSR	30	30
	R2S	521	550
	SPCSR	126	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. It is known that "Afterschool and summer learning programs have been proven to help prevent the achievement gap from growing between students who are low-income and non-low-income" (Children Now, 2018, p. 25). 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*.

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

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 Developmental Profile (2015) – Preschool/Comprehensive View. The instrument features are listed in Table 31 to support data analyses in early childhood development.

Table 31: 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 2017-2018, 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 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 program data tracked performance of 521 preschoolers, larger than 462 in last year.

The results indicated attainment of the mastery level from 43.61% in the pretest to 70.73% in the posttest on *Reading Readiness, Math Readiness*, and *Supportive Skills*. The combined mean score across these domains increased from 10.47 to 16.98 within five weeks. The effect size was 1.03, indicating a strong practical impact on the kindergarten readiness indicators. The consistent pattern was demonstrated by child performance at each school district in Table 32.

Table 32: Comparison of Average Scores from R2S Pretest and Posttest

School District	N	Math		Reading		Social Skills	
		Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
GUSD	192	4.59	7.59	4.39	6.80	2.26	3.61
PBVUSD	241	4.43	8.19	3.93	6.63	0.55	3.41
RUESD	60	4.95	9.22	5.00	8.17	2.57	3.58
SESD	28	5.57	8.50	5.68	7.57	2.93	3.71

As 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 33, the strong program impact of R2S is reflected at both program and district levels.

Table 33: R2S t Test and Effect Size Results

School District	N	Math		Reading		Social Skills	
		t*	Effect Size	t*	Effect Size	t*	Effect Size
GUSD	192	21.80	1.57	16.98	1.23	14.16	1.02
PBVUSD	241	1.42	3.65	18.56	1.20	29.97	1.93
RUESD	60	19.60	2.53	14.35	1.85	8.82	1.14
SESD	28	8.22	1.55	6.68	1.26	4.75	0.90

*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 1,751 children during Months 2-60. In Section (I) of this chapter, ASQ-3 findings were reported for 166 children from BIH, MVIP, and NFP programs in *Health and Wellness*. This section is devoted to reporting ASQ-3 findings from 1,585 children, 1,177 from 13 programs in *Focus Areas II: Parent Education and Support Services* and 408 children from five programs of *Focus Areas III: Early Childcare and Education* (Table 34).

Table 34: Scope of ASQ-3 Data Collection in Focus Areas II & III

Focus Area	Program*	Months	Sample Size
II	AFRC	2-60	92
	BCRC	2-60	94
	EKFRC	2-60	65
	GSR	2-60	150
	IWVFRC	2-60	39
	KRVFRC	2-60	144
	LVSRP	2-54	138
	MCFRC	2-60	55
	MFRC	33-60	80
	SENP	2-60	148

Focus Area	Program*	Months	Sample Size
	SHS	48-60	79
	WSCRC	6-60	43
	WSN	2-60	50
III	BCDC	2-27	37
	DSR	36-60	28
	LHFRC	18-60	38
	NPCLC	2-60	171
	SPCSR	2-60	134

*Program acronyms are listed in Appendix A.

With a few exceptions, Table 34 showed 87% or more children surpassing the ASQ-3 threshold in *Communication* (COM) and more than 82% children exceeding the ASQ-3 threshold in *Problem Solving* (ProS) across all programs. While the domain of *Fine Motor* (FM) had the highest rate of 94.7%, *multiple* programs demonstrated 100% of the child performance above the thresholds in COM, *Gross Motor* (GM), *Personal-Social* (PerS), and ProS domains (see Table 35).

In general, "Many experts think that difficulties in fine motor skills (e.g., managing the fingers and wrist) are a reflection more of malfunctioning in the proximal areas of the upper limbs than of malfunctioning in other areas" (Nelson, 2015, p. 2). The results in Table 35 supported incorporation of more child development activities to facilitate control of small muscles that were directly linked to improvement of FM skills.

Table 35: Percent of Children with Performance Level above ASQ-3 Threshold

Focus Area	Program*	COM	GM	FM	PerS	ProS
II	AFRC	96.7	84.6	79.1	91.2	97.8
	BCRC	100	96.4	88.0	97.6	98.8
	EKFRC	87.5	76.6	73.4	76.6	93.8
	GSR	97.9	91.0	85.5	96.6	97.2
	IWVFRC	100	100	94.7	100	100
	KRVFRC	91.2	82.5	83.9	89.1	91.2
	LVSRP	93.2	86.5	85.0	91.0	91.7
	MCFRC	96.1	92.2	90.2	100	100
	MFRC	97.5	86.3	71.3	96.3	95.0
	SENP	88.3	82.5	93.4	89.8	93.4
	SHS	98.5	89.2	75.4	92.3	96.9
	WSCRC	100	90.5	81.0	92.9	97.6
	WSN	93.8	83.3	79.2	83.3	93.8
III	BCDC	97.1	88.6	88.6	97.1	97.1
	DSR	87.0	78.3	65.2	73.9	82.6
	LHFRC	100	100	91.4	97.1	100
	NPCLC	92.8	89.5	73.9	93.5	93.5
	SPCSR	90.1	91.6	77.1	87.8	92.4

*Program acronyms are listed in Appendix A.

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 35. All t values were significant at α=.0001. In DSR, the effect sizes were near 0.80 for ProS and larger than 0.80 for COM, GM, and FM, leaving the value of .37 for PerS

as an exception. All the remaining effect size values in Table 36 were larger than 0.80, indicating a strong program impact across all five ASQ-3 outcome measures.

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*, a total of 18 programs received First 5 Kern funding to support well-rounded child development. 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 36 to confirm the practical program impact.

Table 36: Test Statistic (t) for Significant Results in 18 Programs

Focus Area	Program*	COM	GM	FM	PerS	ProS	Effect Size
II	AFRC	19.11	19.06	14.52	17.75	18.63	>1.51
	BCRC	23.59	21.58	18.90	19.23	26.77	>2.06
	EKFRC	8.26	8.26	8.71	9.24	6.69	>0.82
	GSR	24.37	28.50	22.15	23.39	26.67	>1.83
	IWVFRC	28.84	25.00	26.12	24.79	25.72	>3.96
	KRVFRC	22.22	20.78	20.63	19.60	20.39	>1.63
	LVSRP	19.09	23.08	19.68	16.46	21.77	>1.40
	MCFRC	16.11	18.57	15.63	20.26	18.57	>2.10
	MFRC	16.84	16.13	13.13	14.02	19.57	>1.46
	SENP	17.75	20.41	27.45	22.37	21.45	>1.47
	SHS	14.56	18.74	11.51	10.55	13.10	>1.30
	WSCRC	28.18	14.03	9.96	12.13	15.79	>1.53
	WSN	11.88	8.18	8.86	9.63	10.37	>1.16
III	BCDC	12.19	10.18	14.15	9.72	12.66	>1.59
	DSR	5.93	5.18	4.04	1.85	3.79	>0.37
	LHFRC	19.09	23.08	19.68	16.46	21.77	>2.78
	NPCLC	20.17	22.16	16.50	18.23	22.80	>1.26
	SPCSR	15.77	21.56	17.18	16.58	15.29	>1.32

*Program acronyms are listed in Appendix A.

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 2017-2018, 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 37).

Table 37: 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 47 children, but the posttest data within this fiscal year contained 22 observations. When child identification was employed to track the data, only 12 children were involved in both pretest and posttest data collections. Table 38 shows significant improvement of child performance in ATL-REG, LLD, PDHLTH, and SED dimensions at α=.05. Effect sizes for DRDP Indicators are larger than .70, suggesting a moderate impact from these programs.

Table 38: Results from DRDP-IT Matched Cases Across Three Programs

Domain	Df	t	P	Effect Size
ALT-REG	11	2.55	.0268	0.74
COG	11	3.69	.0036	1.07
LLD	11	3.86	.0027	1.11
PDHLTH	11	3.14	.0095	0.91
SED	11	2.51	.0291	0.72

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 39 demonstrated large (i.e., Effect Size>0.8) and significant (p<.05) enhancements on *Physical Development/Health* of the infant and/or toddler development. For *Early Childhood Development*, the impact was

moderate. The small sample size might have contributed insignificant finding on this indicator at α=.05.

Table 39: Results from DRDP-IT Matched Cases Across Three Programs

Domain	Df	t	P	Effect Size
Early Childhood Development	11	1.91	.0819	0.55
Physical Development/Health	11	3.14	.0095	0.91

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.

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 40. 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.

Table 40: 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.

Domain	Knowledge and Skill Indicators
VPA	(1) Visual Art, (2) Music, (3) Drama, (4) Dance.

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 2017-2018, three programs employed DRDP PS Fundamental View to track performance of preschool children under a pretest and posttest setting. The ELD scale was excluded because of over 83% respondents not in the ELD category. Most respondents in HLP did not possess the data on the PDHLTH scale, and only one tracked case was left after the indicator aggregation. Results of statistical testing on the outcome improvement are listed in Table 41.

Table 41: Test of the Result Change in the DRDP PS Fundamental Assessment*

Program	DRDP Indicator	N	t	P	Effect Size
HLP	ALT-REG	30	3.17	.0036	0.58
	COG	39	3.31	.0020	0.53
	LLD	39	6.34	<.0001	1.02
	PDHLTH	39	3.82	.0005	0.61
	SED	39	7.01	<.0001	1.12
SFP	ALT-REG	16	5.58	<.0001	1.40
	COG	16	5.85	<.0001	1.46
	LLD	16	3.66	.0023	0.92
	PDHLTH	16	9.03	<.0001	2.26
	SED	16	13.86	<.0001	3.47
	PDH	16	6.71	<.0001	1.68
WWP	ATL-REG	19	0.33	.7486	0.08
	COG	19	1.52	.1470	0.35
	LLD	19	1.71	.1046	0.39
	PDHLTH	19	1.85	.0814	0.42
	SED	19	1.39	.1817	0.32
	PDH	19	1.71	.1036	0.39

*Nine observations were missing in the ALT-REG scale for HLP.

Program differences are reflected in the findings of DRDP PS Fundamental Assessment. Both HLP and SFP show significant improvement of child performance across these DRDP domains at α=.005. The effect sizes for SFP are larger than 0.80, indicating strong program impacts on the indicator improvement. HLP's impact was in a moderate to strong range with effect sizes from 0.53 to 1.12. WWP adopted this DRDP PS assessment for the first time this year. Although no significant improvement was demonstrated on any of the indicators in Table 41, moderate program impacts are shown on the *Physical Development-Health* scale with an effect size of 0.42.

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 2016-2017 and FY 2017-2018. These baseline results are matched with posttest results from FY 2017-2018.

Like in the DRDP PS Fundamental Assessment, the data collection did not include variables from the HSS and VPA scales. Although adequate data seemed to be gathered from pretest assessments, Table 42 shows sample attrition due to lack of data tracking on the DRDP indicators between pretest and posttest measurements. On the ELD scale, only DSR tracked more than one case to test improvement of child performance (Table 43).

Table 42: Sample Sizes of DRDP PS Comprehensive View in Three Programs

Program	Source	ALT-REG	COG	ELD	LLD	SED	PDHLTH
DSR	Pretest	62	62	21	62	62	61
	Posttest	37	37	16	37	37	37
	Tracked Pair	37	37	15	37	37	36
DDCCC	Pretest	57	55	7	55	55	54
	Posttest	17	16	2	16	16	16
	Tracked Pair	9	9	0	9	9	9
SSCDC	Pretest	27	27	20	27	27	26
	Posttest	16	14	3	14	14	14
	Tracked Pair	12	10	1	10	10	10

In other scales, a large portion of missing responses were generated by several DRDP items, including Engagement and Persistence (ALTREG6), Shared Use of Space and Materials (ALTREG7), Cause and Effect (COG8), Inquiry Through Observation and Investigation (COG9), Documentation and Communication of Inquiry (COG10), Knowledge of the Natural World (COG11), Comprehension of Age-Appropriate Text (LLD6), Concepts about Print (LLD7), Phonological Awareness (LLD8), Letter and Word Knowledge (LLD9), and Emergent Writing (LLD10). These items were excluded from the result summary to avoid excessive case deletion.

Table 43 contains the results of statistical testing on the remaining scales of DRDP Comprehensive View. In DSR, significant improvements were found on child performance across the DRDP scales at α=.0001. All the effect sizes were larger than 0.80 to indicate strong practical impacts on the DRDP outcomes. The DDCCC and SSCDC data did not include indicators of English language development, but all other results of DDCCC were significant at α=.05 with effect sizes near or above 0.80 for strong program impact. On the COG, LLD, PDHLTH, SED domains, the SSCDC impact was significant at α=.005 with large effect sizes.

Table 43: Test of DRDP Skill Improvement

Program	Domain	N	t	P	Effect Size
DSR	ALT-REG	37	5.71	<.0001	0.94
	COG	37	5.87	<.0001	0.97

Program	Domain	N	t	P	Effect Size
DSR	ELD	15	5.85	<.0001	1.51
	LLD	37	9.60	<.0001	1.58
	PDHLTH	36	8.11	<.0001	1.57
	SED	37	10.16	<.0001	1.35
DDCCC	ALT-REG	9	2.97	.0177	0.99
	COG	9	2.33	.0485	0.78
	ELD	0	--	--	--
	LLD	9	4.30	.0026	1.43
	PDHLTH	9	3.36	.0099	1.12
	SED	9	3.13	.0139	1.04
SSCDC	ALT-REG	12	-0.73	.4798	-0.23
	COG	10	4.01	.0031	1.27
	ELD	1	--	--	--
	LLD	10	12.40	<.0001	3.92
	PDHLTH	10	7.51	<.0001	2.37
	SED	10	8.88	<.0001	2.81

While SSCDC supported families with parent education, counseling, housing and job placements, stories from the program showed direct service benefits for child development. As part of the Alliance Against Family Violence and Sexual Assault, the program facilitated child growth under a new and supportive environment. For instance, doctors could not determine why one local toddler was not taking any steps. Within two months of the SSCDC program enrollment, the child received proper care and started to walk normally.

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 2017-2018, three programs gathered the infant-toddler data, but pretest and posttest results only tracked for 12 children. Due to the small sample sizes, no program-specific results were generated in Tables 38 and 39. Alternatively, the aggregated findings revealed strong program impacts across the seven DRDP-IT domains. For preschool data collection, SFP and WWP switched the instrument from *Comprehensive View* in last year to *Fundamental View* this year. Significant impacts were found from the HLP and SFP programs across multiple DRDP domains (Table 41). The data tracking also indicated strong and significant impacts of program support from DSR according to the scales of DRDP *Comprehensive View* (Table 43).

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 2017-2018, 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 12 programs.

All the results in Table 44 showed improvement of cognitive skills in posttest across programs. A total of 351 cases were tracked through the CASB assessment. Similar to last year, the smallest sample occurred in EKFRC (N=5). For the remaining programs, statistical testing indicated significant improvement of cognitive skills at α=.05. All effect sizes in Table 44 were larger than 0.70, demonstrating moderate to strong practical impacts on the CASB outcomes.

Table 44: Average Score Difference on CASB Cognitive Skills

	Mean		Tracked	T test		Effect
Program*	**Pretest**	**Posttest**	**N**	**t**	**P**	**size**
AFRC	28.76	64.41	17	6.10	<.0001	1.48
BCRC	46.95	55.92	13	4.15	.0014	1.15
DSR	45.65	50.17	29	3.99	.0004	0.74
EKFRC	72.20	67.40	5	--	--	--
GSR	35.04	53.60	47	7.80	<.0001	1.14
IWVFRC	56.00	69.47	15	2.93	.0111	0.76
LVSRP	36.62	52.67	24	3.64	.0014	0.74
MCFRC	36.57	81.29	7	4.70	.0033	1.78
MFRC	29.90	36.28	18	5.28	<.0001	1.24
SHS	38.08	67.17	23	7.19	<.0001	1.50
SPCSR	40.78	50.53	126	8.62	<.0001	0.77
WSCRC	30.67	43.85	27	12.12	<.0001	2.33

*Program acronyms are listed in Appendix A.

For assessment findings in non-cognitive domains, CASB indicators of significant difference varied across programs (Table 45). Except for two effect sizes less than 0.3, around 95% of the effect sizes indicated medium to strong program impact (i.e., value larger than 0.35). The findings were based on pretest and posttest child performances in Motor, Social Emotional, Communication, Self-Help, and Inquiry domains. In combination of the results in Tables 44 and 45, DSR, GSR, and SPCSR tracked 202 children to show unanimously significant improvement of both cognitive and non-cognitive skills across all CASB domains.

Table 45: Test of Average Score Difference on CASB Indicators

Program*	N	CASB Indicator	t	P	Effect Size
AFRC	17	Motor	6.10	<.0001	1.48
		Social Emotional	5.62	<.0001	1.36
		Self-Help	2.75	.0144	0.67
		Inquiry	5.46	<.0001	1.32
BCRC	13	Self-Help	2.66	.0207	0.74
		Inquiry	4.15	.0014	1.15
DSR	29	Motor	2.85	.0080	0.53
		Social Emotional	2.81	.0090	0.52
		Communication	2.51	.0180	0.47
		Self-Help	2.54	.0168	0.47
		Inquiry	6.15	<.0001	1.14
GSR	47	Motor	4.47	<.0001	0.65
		Social Emotional	3.82	.0004	0.56
		Communication	3.31	.0018	0.48
		Self-Help	2.93	.0052	0.43
		Inquiry	5.82	<.0001	0.85

Program*	N	CASB Indicator	t	P	Effect Size
IWVFRC	15	Motor	3.21	.0062	0.83
		Communication	2.65	.0192	0.68
		Inquiry	2.57	.0224	0.66
LVSRP	24	Motor	4.76	<.0001	0.97
MFRC	18	Motor	2.12	.0448	0.50
		Inquiry	2.56	.0204	0.60
MCFRC	7	Motor	2.83	.0300	1.07
SHS	23	Motor	4.32	.0003	0.90
		Self-Help	4.80	<.0001	1.00
		Inquiry	3.54	.0019	0.74
SPCSR	126	Motor	6.93	<.0001	0.62
		Social Emotional	3.08	.0025	0.27
		Communication	4.68	<.0001	0.42
		Self-Help	2.62	.0099	0.23
		Inquiry	4.05	<.0001	0.36
WSCRC	27	Motor	5.86	<.0001	1.13
		Social Emotional	3.57	.0014	0.69
		Self-Help	5.00	<.0001	0.96
		Inquiry	7.16	<.0001	1.38

*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). All children served by 12 Summer-Bridge programs showed significant impact on cognitive development from the early learning services funded by First 5 Kern (Table 44). The majority of these children also demonstrated significant improvement of their non-cognitive skills across six domains of the CASB scale (Table 45).

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).

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, 1). 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 1). 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 $1,206,372.41 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

It was 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 state statute, First 5 Kern set the fourth focus area on *Integration of Services*. Accordingly, this chapter is devoted to assessment of partnership building across multiple service providers.

The new annual report glossary designated two result domains, *Policy and Public Advocacy* and *Programs and Systems Improvement Efforts*, to describe Commission support for system building. The emphasis on partnership connection also 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 describe *Programs and Systems Improvement Efforts*, this chapter begins with an examination of joint efforts across service providers in *Child Health, Family Functioning*, and *Child Development*. An Integration Service Questionnaire (ISQ) is employed to gather service provider data on program networking. A computer software, Net*draw*, is adopted to support social network analyses (SNA) on partnership strength *within* and *across* focus areas.

Enhancement of Early Childhood Supports Through Service Integration

Unlike the focus on individual programs in Chapter 2, service integration is concentrated on program teamwork, which starts with collaborative meetings of service providers for system planning. As a result, the number of collaborative meetings is chosen as RI 4.2.1 in First 5 Kern's (2018) strategic plan. In FY 2017-2018, 140 collaborative meetings were held by 16 programs in different focus areas (Table 46).

Table 46: 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	10
	GSR	9
	IWVFRC	10
	KRVFRC	9
	LVSRP	10
	MFRC	10
	SHS	11
	SENP	10
	WSCRC	6
Child Development	DSR	10
	LHFRC	3
	SPCSR	20

*Program acronyms are listed in Appendix A.

Following Proposition 10, efforts need to be made by programs to "facilitate the creation and implementation of an integrated, comprehensive, and collaborative system

of information and services to enhance optimal early childhood development" [Section 5(a)]. Because all programs in *Child Development* are community-based, RI 4.3.2 is designed to document the number of service providers attending articulation meetings to strengthen program connections. This year, 184 service providers participated in articulation meetings at 11 program sites to establish and/or review a standardized transition plan for strengthening school readiness (Table 47).

Table 47: Number of Service Providers Attending Articulation Meetings

Focus Area	Program*	Count
Family Functioning	AFRC	10
	BCRC	11
	EKFRC	12
	GSR	9
	LVSRP	23
	MFRC	9
	SHS	16
	WSCRC	51
Child Development	DSR	22
	LHFRC	6
	SPCSR	15

*Program acronyms are listed in Appendix A.

In addition, School Readiness Articulation Survey (SRAS) data were gathered from 127 teachers, school administrators, and community members to assess the impact of local services on child development. In conforming to value-added assessment, past responses were retrieved from 137 stakeholders last year to compare changes in the percent of "agree" and "strongly agree" responses. The results showed increases of the positive ratings on two important items of the SRAS instrument (Table 48).

Table 48: Percent of "Agree" or "Strongly Agree" Responses to SRAS Items

SRAS Items	2016-17	2017-18
Children in the community have an early start toward good health.	60.58	64.57
Early education programs provide quality early childhood education.	87.59	88.19

To guide the local strategic planning, First 5 California (2015a) indicated that "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). Depending on 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 (2018) strategic plan. Hoagwood and Koretz (1996) asserted, "Projects on service systems typically investigate the integration of services across two or more service sectors" (p. 227). Hence, the literature has laid a solid foundation to align service integration with the focus area of *Systems of Care* from the State Commission.

In FY 2017-2018, 297 service providers attended trainings related to *Child Health*, nine service providers were trained in *Family Functioning*, and 30 service providers were trained in *Child Development* to strengthen the child support system in Kern County (Table 49). The training also expanded across focus areas. For instance, HMG, a program of

Family Functioning, offered training for 10 service providers in *Child Health*. Likewise, WSN is a program of *Family Functioning*, but its partnership building included training of three service providers in *Child Development*. DDCCC and SSCDC performed trainings for 14 service providers in *Child Development* and nine partners in *Family Functioning*. The service integration has supported broad-based *Systems of Care* across the focus area boundaries.

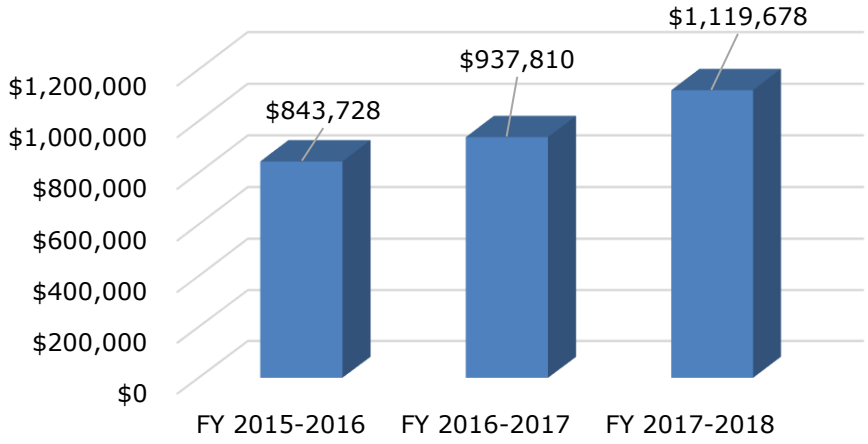
Table 49: Count of Service Provider Participation in Professional Training

Program*	Child Health	Family Functioning	Child Development
BCDC			16
BIH	8		
CHI KC	138		
KCCDHN	11		
MVCCP	124		
MVIP	6		
HMG	10		
DDCCC		4	8
SSCDC		5	6
WSN			3

*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). First 5 Kern is well-positioned to lead service integration because of its fund distribution in different focus areas. Figure 23 showed consistent increase of First 5 Kern investment in service integration across this funding cycle.

Figure 23: Increase of First 5 Kern Funding in Service Integration



In summary, First 5 Kern followed its strategic plan to address all four objectives of service integration:

1. *Collaborative workshops and trainings occurred in BIH, CHI KC, 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 Tables 47 and 48 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 tracking in Table 49 further confirmed quality services for improving "*Community strengthening efforts that support education and community awareness*" (First 5 Kern, 2018, **Objective 4**).

Strengthening of Partnership Network among Service Providers

To examine the partnership network among the remaining 42 programs, ISQ data are analyzed to assess strength and pattern of service integration. At the baseline level, each of the 42 programs can keep a *Co-Existing* relation with one another. Due to service outreach, however, more programs have established active partnerships above the baseline. Thus, the rate of *Co-Existing* relationships reduced from 67.2% in last year (Wang, 2018) to 66.7% this year.

Reciprocal Partnership Building Beyond Co-Existence

Partnership building can be reciprocal when a network connection is concurrently confirmed by both parties. Built on the mutual program support, "reciprocation rate is inversely related to the barrier level in these networks" (Singhal et al., 2013, p. 1). With the emphasis on reciprocal relations, network findings are summarized in this section across focus areas of *Child Health*, *Family Functioning*, and *Child Development*.

Services in *Child Health* address a wide range of needs, such as immunization, insurance coverage, medically vulnerable infant support, nurse-family partnership, and water safety education. These fields involve nurses, hospitals, and mental health professionals from different fields. The specialty requirement inevitably delimits the common ground for program functioning. In FY 2017-2018, reciprocal links in this focus area only accounted for 22% of the total links (see Table 51) while *Child Health* had 31% of the total program count. In contrast, *Family Functioning* and *Child Development* included similar FRC services. With the common SOW-EP to support network building, the proportion of link count was larger than the proportion of program count in these focus areas. Therefore, partnership creation did not occur automatically to make the number of active links proportional to the program counts (Table 50).

Table 50: Number of Reciprocal Links Beyond Program Co-Existence

Scope	Focus Area	Link Count	Percent
Within Focus Area Only	Child Health	67	22
	Family Functioning	196	65
	Child Development	37	13
	Total	300	100
Between Focus Areas Only	Child Health – Family Functioning	45	58
	Family Functioning – Child Development	7	9
	Child Health – Child Development	25	33
	Total	77	100

Active program outreach is also reflected in service supports between focus areas. For instance, programs in *Family Functioning* and *Child Development* often need service referrals to specialized programs in *Child Health*. Health-related programs showed more links to service providers in family and child supports (Table 50). In comparison, the number of reciprocal links within a focus area was still larger than the number of connections between focus areas, an indication of First 5 Kern's coherent program classification according to the local strategic plan.

In summary, researchers found 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). In FY 2017-2018, the reciprocal network across 42 programs included a total of 377 mutually-confirmed relations (Table 51), 300 links within each focus area and 77 links between focus areas. The emphasis on reciprocal partnerships was designed to not only reconfirm connections between collaborators beyond co-existence, but also facilitate amendment of system gaps in service integration (Singhal et al., 2013). Albert Einstein was quoted for making a statement that "not everything that counts can be counted"[42]. Beyond the number count, strength of the partnership building is assessed by a *Co-Existing, Collaboration, Coordination*, and *Creation* (4C) model in the next section.

Justification of Model Selection for Partnership Evaluation

Program features may vary across different communities, so does the strength of network connection. To guide the analysis of partnership building, a valid model is needed for assessing network strengths. 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, these program links are anticipated at the *Co-Existing* level.

Beyond the baseline, 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). For example, Project Safety Net of Palo Alto (2011) once suggested a five-level model for network categorization. But the model treated "formal communication" as a characteristic for a *Cooperation* category. Because communications could be described as *frequent, prioritized,* and/or *trustworthy*, the model did not resolve the entanglement of these overlapping features across multiple categories.

Alternatively, opposite to the lack of mutual exclusiveness is an issue of incomprehensiveness. In particular, First 5 Fresno (2013) acknowledged the impact of program funding on partnership building:

> During this time period the coordination and collaboration (highest levels of interaction) decreased from 42% to 38%. It is speculated that decrease in direct funding, staff turn-over, and other economic pressures resulted in organizations becoming more insular thus decreasing their collaboration with other organizations. (p. 102)

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

Nonetheless, treating *Coordination* and *Collaboration* as the highest levels of interaction might have inadvertently left no room for partnership improvement. Consequently, the Fresno model 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 from the context of institutional learning. The model itself should be 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.

The SOLO taxonomy was employed in several profound studies before, including a validity study of the national board certification (see Smith, Gorden, Colby, & Wang, 2005). The alignment in Table 51 illustrated a one-to-one match between the SOLO taxonomy and the 4C model for service integration. With the model alignment, the 4C paradigm incorporated levels of classification that were 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 published in a nationally-refereed journal (Wang et al., 2016).

Table 51: 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

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

Evaluation of Network Strength According to the 4C Model

Results in Table 52 reconfirmed hierarchical structure 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 (i.e., the links involving partnership creation).

Based on the partnership structure, network strength can be examined according to the 4C model. For instance, the town hall meeting at Mojave indicated that "Immunization services are needed"[43]. If the region of EKFRC had no access to the mobile immunization support from CMIP, the partnership connection between these two programs should be at the *Co-Existing* level. Similarly, Kern River Valley residents reported that "the valley is no longer being visited by a public health nurse"[44]. Thus, the partnership strength between NFP and other local programs also remains at the *Co-Existing* level. The network building is grounded on local needs, and no push has been made to move all partnerships to the top level of the 4C model.

Table 52: Features of Mutual Partnership Across Focus Areas

Strength	Partnership Count	Subtotal
Co-Existing	730	
Collaboration	246	1,061
Coordination	73	
Creation	12	
Co-Existing <-> Collaboration	39	
Co-Existing <-> Coordination	24	
Collaboration <-> Coordination	21	92
Coordination <-> Creation	4	
Co-Existing <-> Creation	2	
Collaboration <-> Creation	2	

As another example, 2-1-1 is designed to link caller needs to available community services. Hence, its partnership with other service providers may stay at the *Collaboration* level for information referrals. There is no involvement at the *Coordination* level for a third-party participation in the one-to-one phone call, nor does 2-1-1 have the authority to alter the service delivery by others at the *Creation* level. On the other hand, First 5 Kern funded KVAP in *Child Health*, KRVFRC in *Family Functioning*, and SFP in *Child Development* to support multiple service deliveries. The network investigation reconfirmed an observation of Provan, Veazie, Staten, and Teufel-Shone (2005), i.e., "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).

With adoption of the 4C model, Table 52 showed more *Co-Existing* network count than any other connections. The excessive number of co-existence links reflects the fact that not all the partnerships are the primary ones for each program. To disentangle this issue, ISQ contains questions for identification of primary collaborator(s). Forty-two programs identified 212 primary partners. The total number of reciprocal links among the primary partners is listed in Table 53. At the *Co-Existing* level, the number of reciprocal links is reduced from 730 in Table 52 to one in the primary partner network (see Table 53).

Table 53: Counts of Reciprocal Primary Partnerships

Strength	Partnership Count	Subtotal
Co-Existing	1	
Collaboration,	16	
Coordination	8	26

[43] http://www.first5kern.org/wp-content/uploads/2018/01/Mojave-Areas-7-and-8-Town-Hall-Recap-071317.pdf.
[44] https://kernvalleysun.com/wp-content/uploads/2017/10/20170329_KVSUN.pdf.

Strength	Partnership Count	Subtotal
Creation	1	
Co-Existing <-> Collaboration	12	
Co-Existing <-> Coordination	3	
Co-Existing <-> Creation	1	38
Collaboration <-> Coordination	15	
Collaboration <-> Creation	2	
Coordination <-> Creation	5	

In combination, the network analyses revealed different strengths of partnership building (see Tables 52 and 53). In Table 52, the first four rows accumulated 1,061 relations that were reciprocated at the same strength level. For the remaining for 92 connections, programs and their partners were linked, but different ranks were reported on the partnership strength. The overall rating agreement reached 92%, indicating strong consistency in the partnership assessment. In Table 53, more links were ranked with different strengths. Although "reciprocity is a common property of many network" (Garlaschelli, & Loffredo, 2004, p. 4), non-reciprocated links are often remarkably high (e.g. Antonucci & Israel, 1986; Shulman, 1976). According to Kuhnt and Brust (2014), the asymmetry can lead to partnership adjustment for network improvement.

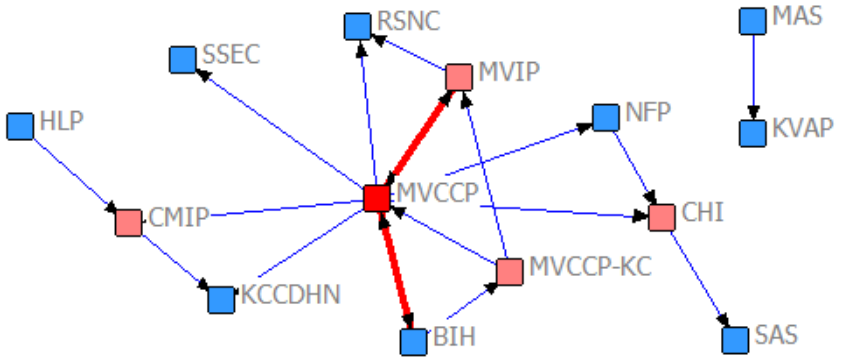
Structure of Primary Partnership Building for Service Integration

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). Network structure, including both reciprocal and unilateral links, is analyzed in this section. The Net*draw* 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 network structure among primary program partners within *Child Health*. Only four out of the 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 blue color are included with reciprocal links in scarlet color to describe the network structure.

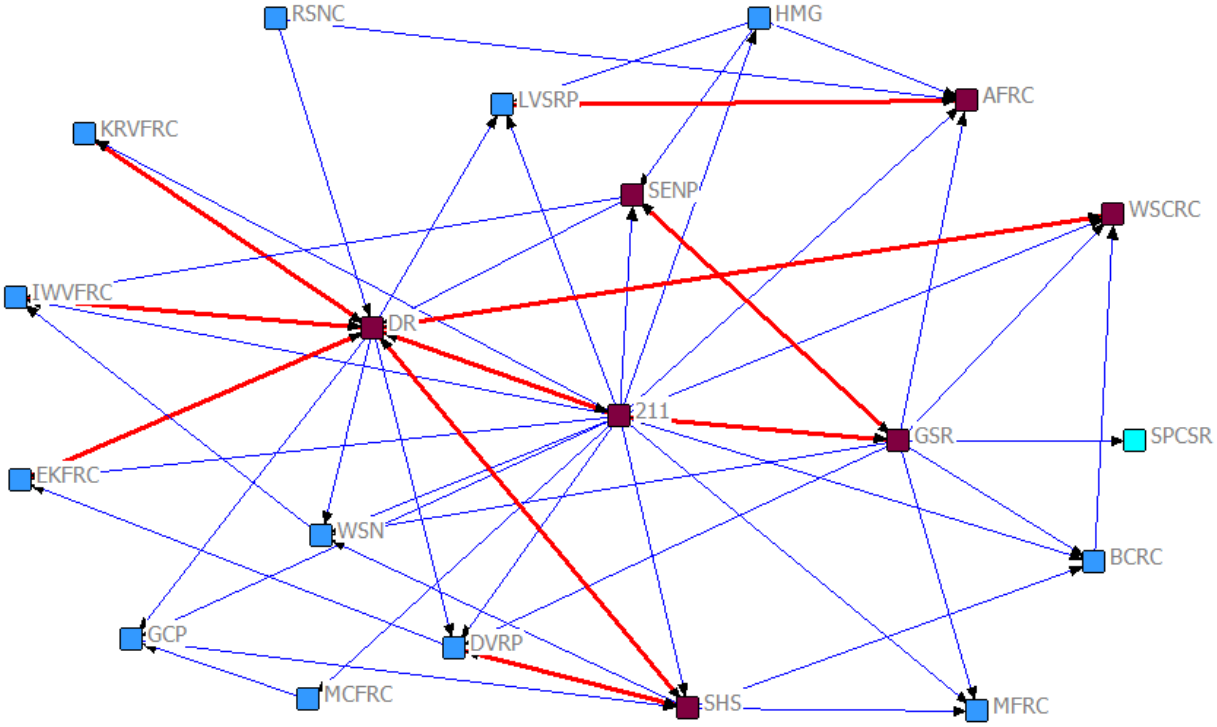
Figure 24: Network Structure Among Primary Partners in *Child Health*



At the network center is MVCCP that has eight primary partners in *Child Health*. Because of its primary responsibility on medically vulnerable children, the MVCCP network was separated from MAS and KVAP that offered regular swimming lessons for young children (Figure 24). The second most-connected programs were MVIP, CMIP, MVCCP-KC, and CHI to meet countywide service needs. In particular, HLP, SAS, and SSEC held one link in the network for supporting health education, insurance enrollment, and special-needs programs, respectively. In this context, the network reconfirmed reciprocal links between MVCCP and programs that supported medically vulnerable infants (i.e., BIH and MVIP). The entire network structure illustrated participation of all 13 programs in *Child Health* for partnership building.

Figure 25 delineated network configuration among primary partners in *Family Functioning*. Frequently-linked programs were FRCs (AFRC, GSR, SENP, SHS, and WSCRC), referral services (2-1-1), and child protection agency (DR). Reciprocal connections were highlighted in scarlet color to represent partnerships among themselves and/or with other FRCs.

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

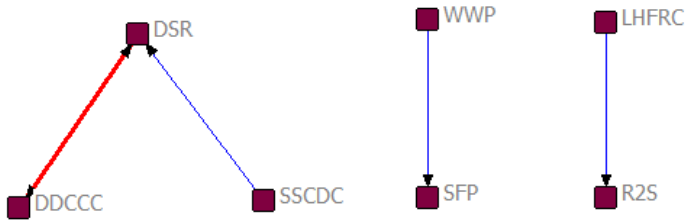


Although SPCSR has a single link in the network, its primary partner, GSR, connected extensively with eight additional partners. Krebs (2011) cautioned, "What really matters is where those connections lead to – and how they connect the otherwise unconnected!" (¶. 4). The SPCSR connection is worth noting because the program belongs to Bakersfield City School District, the largest elementary school district of California.

In comparison to other focus areas, all programs in *Child Development* are community-based. Confined by the community boundary, three programs, BCDC, NPCLC, and SPCSR, did not identify any primary partners within this focus area. Among five links

in Figure 26, two of them reciprocally connected DSR and DDCCC. DSR showed more connections not only because of the SOW-EP overlap, but also for its location in Delano, the second largest city of Kern County. Other programs were either located in small communities (LHFRC, SFP, and WWP), or offered narrowly-focused Summer-Bridge services (R2S). The network pattern of community-based programs was based on the FRC function as a one-stop shop to deliver well-rounded family support services.

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



Network Structure Between Focus Areas

Across focus areas, heterogeneity of organizations has made program supports more complementary. 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). Hence, the network between focus areas has shown more primary partners.

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

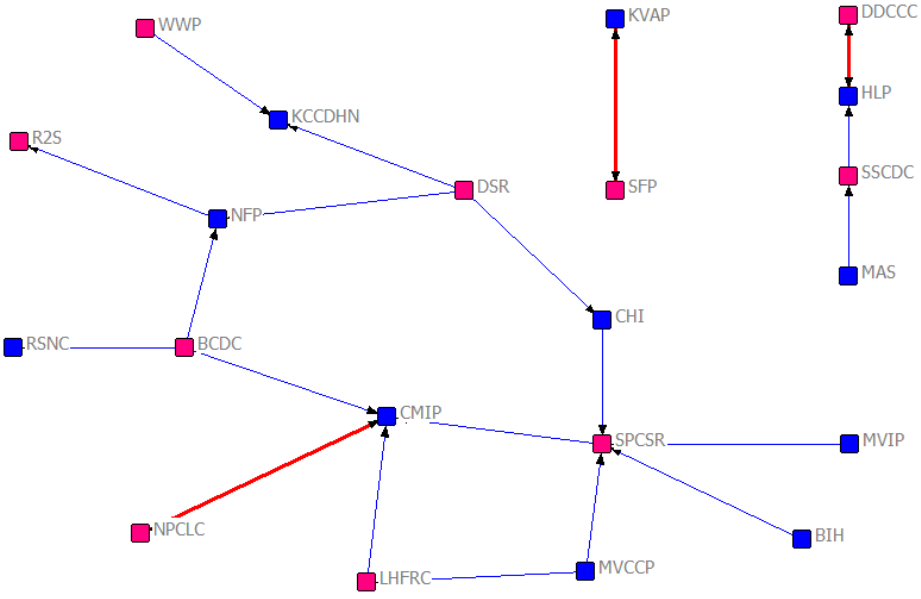
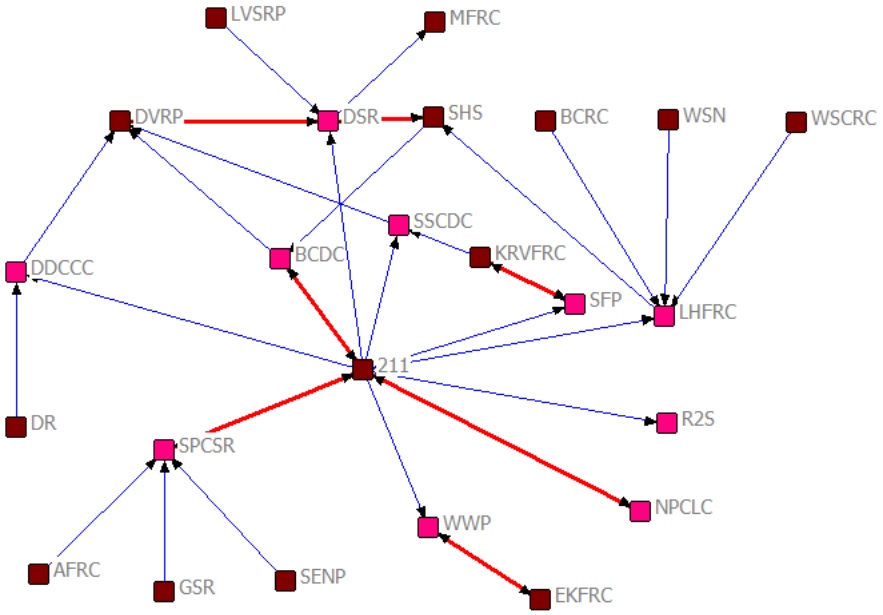


Figure 27 showed network of primary partners between *Child Health* and *Child Development*. As expected, SPCSR, the least-connected program in *Child Development* (see Figure 25), retained primary partnership connections with five programs in *Child Health* to meet service needs in a large school district. In addition, each of the programs in *Child Development* (see pink nodes) was connected reciprocally or unilaterally to a

program in *Child Health* (see blue nodes). The overall structure illustrated program partnerships across focus areas.

Likewise, programs in *Family Functioning* are extensively connected with their primary partners in *Child Development* (Figure 28). As shown in Chapter 2, most FRCs in both focus areas shared SOW-EP on parent education and preschool services. In Figure 28, two FRCs, DSR and LHFRC, had the second largest number of links after 2-1-1. While both programs are geographically isolated near the county border, Delano is much larger than Lost Hills, and thus, stronger and more reciprocal links are found between DSR and its primary partners. Other reciprocal links occurred with programs of geographic closeness (e.g., KRVFRC with SFP; EKFRC with WWP; SPCSR with AFRC, GSR, and SENP) or referral service (2-1-1). Special service programs (BCDC, DDCCC, DVRP, SSCDC) also showed more connections in the network structure because "Domestic violence and homelessness are likely to occur together" (Olsen, Rollins, & Billhardt, 2013, p. 7).

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

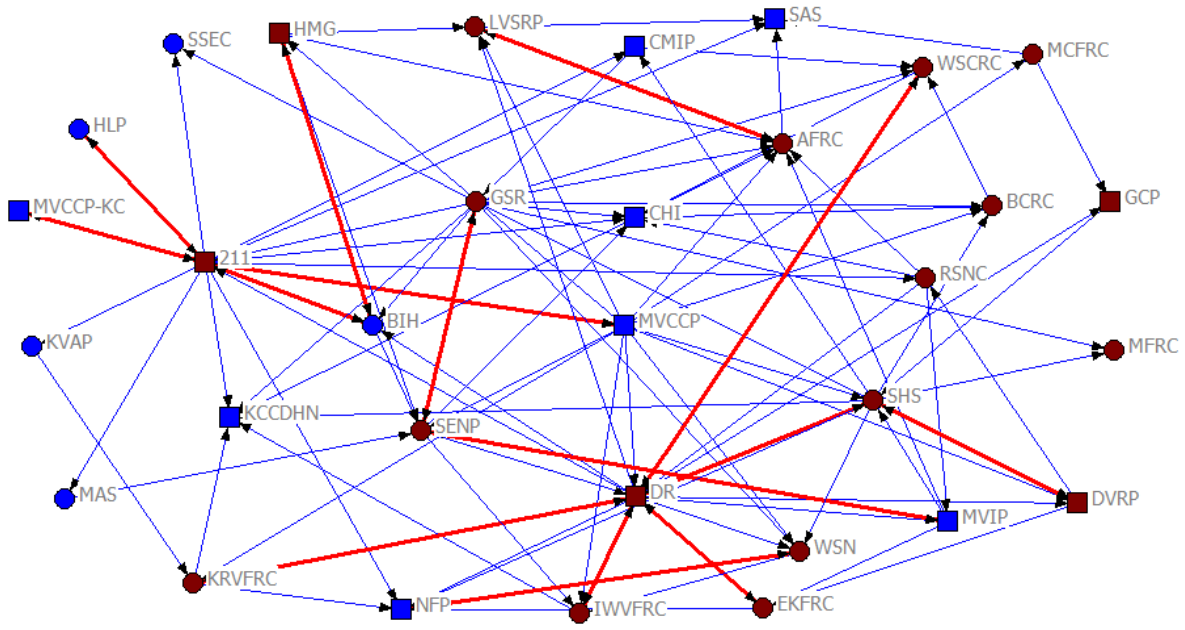


According to Kuhnt and Brust (2014), lack of reciprocal partnerships "is only found in relations of exploitation maintained through asymmetries of power" (p. 1). In Figure 29, 16 links were reciprocal, but much more links were unilateral. The asymmetry was related to more extensive service outreach from countywide programs (see square nodes). The complementary function of service providers between *Child Health* (blue-colored nodes) and *Family Functioning* (brown-colored nodes) also led to more primary partner identifications from general programs of *Child Health*, creating asymmetry of more unilateral links in Figure 29. Carmichael and MacLeod (1997) noted that asymmetric links were more likely to break the equilibrium and create stronger networks during the process of service system building.

Furthermore, countywide programs has made the mechanism of program partnership more centralized. In general, "Networks that are highly centralized can spread

information and resources effectively from the influential members" (Ramanadhan et al., 2012, p. 3). Except for HLP and MVCCP-KC that had reciprocal links with 2-1-1, all the remained countywide programs showed three or more links with their primary partners (Figure 29).

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



In summary, SNA is considered as a useful tool to "examine indicators of service integration" (Gillieatt et al., 2015, p. 338). In this section, the 4C model was employed to analyze network strengths across First 5 Kern-funded programs. Both reciprocal and unilateral links were incorporated for examining service integration among primary partners. The results showed that First 5 Kern led multiorganizational efforts to attain its strategic goal in Focus Area 4, i.e., "A well-integrated system of services for children and families will exist" (First 5 Kern, 2018, p. 7).

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). As postulated by an axiom that the whole could be larger than the sum of its part, partnership building created new opportunities to strengthen service capacity for young children and their families in Kern County (see Tables 46, 47, and 49). Through value-added assessment, the SRAS data confirmed a higher approval rating on program provision of "quality early childhood education" since last year (Table 48). The network analyses also revealed reciprocal partnerships for service outreach across focus areas of *Child Health, Family Functioning*, and *Child Development* (Tables 52 and 53). The ISQ data examination further indicated the network coverage of primary partners for service integration *within* and *between* focus areas (Figure 24-29). To "facilitate turning the curve on result indicators" (First 5 Kern, 2018, p. 2), aggregated findings of child wellbeing and family conditions are presented in Chapter 4 to delineate improvement of service outcomes between the adjacent years.

Chapter 4: Turning the Curve

By definition, "Turning the Curve" describes "What success looks like if we do better than the baseline" (Friedman, 2011, p. 3). For the annual report timeframe, baseline findings from last year are incorporated as a baseline to demonstrate better service outcomes in FY 2017-2018. 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. To track child wellbeing, results from the Core Data Elements (CDE) survey are analyzed in Chapter 4 across 29 programs for comparison of service outcomes between the two adjacent years. In addition, the Family Stability Rubric (FSR) is employed to collect quarterly data on enhancement of family functioning at 15 program sites. Alignments of the FSR and CDE findings are provided at the end of this chapter to summarize key findings of *Child Health, Family Functioning,* and *Child Development.*

In support of the data collection, a research protocol is established with the Institutional Review Board (IRB) of California State University, Bakersfield (CSUB). The data gathering is 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). Under IRB supervision, First 5 Kern ensures compliance to federal, state, and local regulations in its evaluation data collection. 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, site visits are conducted regularly to monitor adverse effects across programs.

With the comparable data from CDE and FSR, this chapter includes result indicators across different time points to describe the ongoing improvement of child health and development in Kern County. Consistency of the data tracking has been maintained throughout this funding cycle. 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).

Improvement of Child Wellbeing Between Adjacent Years

Individual characteristics, such as birth weight and ethnicity, are invariant at two time points. In this context, it is important to note that Proposition 10 delimits the service population in ages 0-5. 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. Hence, result tracking is needed to reflect the ongoing change of local service population each year.

On the variable dimension, First 5 California (2016b) 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 in CDE by program support for *dental care, immunization*, and *smoke prevention*. In this section, survey data are analyzed across programs to document the impact of First 5 Kern on improvements of child wellbeing in Kern County.

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 10 programs (Table 54). More specifically, the average percent of children *with insurance coverage* increased from 96.82% in last year to 98.45% this year across center-based programs that served a total of 1,377 children in FY 2017-2018. Five programs achieved a rate of 100% insurance coverage this year.

Table 54: Percent of Children with Insurance Coverage

Program*	FY 2016-2017		FY 2017-2018	
	N	Percent of Covered Children	N	Percent of Covered Children
BCDC	27	96.3	28	100
DR	938	97.4	915	97.8
IWVFRC	45	93.3	43	97.7
LVSRP	46	95.7	43	97.7
SFP	23	100	18	100
SHS	57	98.2	64	100
SPCSR	205	94.6	168	96.4
SSCDC	47	97.9	21	100
SSEC	8	100	18	100
WSCRC	58	94.8	59	94.9

*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 55 listed the percent of children *with annual dental checkups* across 14 programs. On average, the percent across these programs increased from 47.44% in last year to 54.33% this year. Infants were recommended to have the first dental visit by the first birthday.[45] Hence, dental care is generally applicable to most children ages 0-5. A total of 1,827 children benefited from this improvement in FY 2017-2018.

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

Table 55: Percent of Children with Annual Dental Checkups

Program*	FY 2016-2017		FY 2017-2018	
	N	Percent of Children	N	Percent of Children
AFRC	101	62.4	67	71.6
BCDC	27	18.5	28	21.4
DDCCC	37	29.7	47	31.9
DR	938	45.6	915	48.7
GSR	111	76.6	171	77.2
KRVFRC	48	29.2	57	29.8
LVSRP	46	56.5	43	60.5
NPCLC	179	53.6	148	56.8
SENP	43	39.5	67	50.7
SFP	23	43.5	18	44.4
SPCSR	205	85.4	168	85.7
SSEC	8	25.0	18	55.6
WSCRC	58	63.8	59	64.4
WWP	23	34.8	21	61.9

*Program acronyms are listed in Appendix A.

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 children were born. 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 2017-2018, 15 programs indicated an increase in the percent of children with *an annual well-child checkup visit*. Table 56 showed that the rate of well-child visit increased in these programs from 85.37% to 90.47% between the adjacent years. These programs jointly served 1,600 children this year. In particular, SSEC achieved a rate of 100% completion on well-child checkup.

Table 56: Percent of Children with Annual Well-Child Checkup

Program	FY 2016-2017		FY 2017-2018	
	N	Percent of Children	N	Percent of Children
AFRC	101	90.1	67	97.0
BCDC	27	96.3	28	96.4
BCRC	41	92.7	56	96.4
BIH	21	42.9	33	57.6
DDCCC	37	81.1	47	83.0
DR	938	88.1	915	89.4
LVSRP	46	73.9	43	88.4
MCFRC	26	84.6	23	91.3
RSNC	27	92.3	40	97.5
SFP	23	91.3	18	94.4
SHS	57	91.2	64	96.9
SPCSR	205	91.2	168	92.9
SSCDC	47	78.7	21	81.0
SSEC	8	100	18	100
WSCRC	58	86.2	59	94.9

*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 the kindergarten entry, First 5 Kern funded CMIP to provide immunizations across the county. Since its purchase of a new 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 57 listed the percent of children who completed *all immunizations* across 9 programs. The average percent per program increased from 88.08% in last year to 92.06% this year. This improvement impacted a total of 1,608 children in Kern County after the last fiscal year. HLP showed 100% of children completing recommended immunizations in FY 2017-2018.

Table 57: Completion of All the Recommended Immunizations

Program*	FY 2016-2017		FY 2017-2018	
	N	Percent of Children	N	Percent of Children
AFRC	101	92.1	67	97.0
DDCCC	37	54.1	47	68.1
DR	938	78.7	915	81.9
DSR	100	97.0	80	98.8
GSR	111	93.7	171	95.3
HLP	68	97.1	57	100
NPCLC	179	92.2	148	93.9
SHS	57	94.7	64	96.9
WSCRC	58	93.1	59	96.6

*Program acronyms are listed in Appendix A.

Preschool Attendance

Preschool attendance has been an issue because "Too few California 3- and 4-year-olds have access to preschool" (Children Now, 2018, p. 7). In Table 58, program information was gathered to track the percent of children *participating in preschool activities* on a regular basis. On average, the rate increased from 25.75% in last year to 30.55% this year. The positive change benefited 1,454 children since their third birthday across 11 programs in FY 2017-2018, up from 823 children in last year (see Wang, 2018). 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 58: Regular Attendance of Preschool Since the Third Birthday

Program*	FY 2016-2017		FY 2017-2018	
	N	Percent of Children	N	Percent of Children
AFRC	101	11.9	67	17.9
BCRC	41	19.5	56	19.6
DR	938	20.1	915	21.1
KRVFRC	48	18.8	57	21.1
LHFRC	17	0.0	22	9.1
MCFRC	26	19.2	23	26.1
RSNC	27	81.5	40	85.0
SENP	43	11.6	67	22.4
SFP	23	56.5	18	66.7

Program*	FY 2016-2017		FY 2017-2018	
	N	Percent of Children	N	Percent of Children
SPCSR	205	26.8	168	28.0
WWP	23	17.4	21	19.0

*Program acronyms are listed in Appendix A.

Home Reading

Robison-Frankhouser (2003) reported, "For many years, researchers have supported the concept that when parents and caregivers devote time to reading books to young children, they contribute to early literacy success" (p. 39). Table 59 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 70.11% in last year to 77.74% this year. This progress impacted 1,263 children this year. This result has a long-term implication because "language proficiency and early literacy development are strong indicators for later school success" (American Institutes of Research, 2012, p. 2).

Table 59: Children Being Read to Twice or More Times in Last Week

Program*	FY 2016-2017		FY 2017-2018	
	N	Percent of Children	N	Percent of Children
AFRC	119	71.4	94	80.8
BCRC	68	64.7	80	71.3
DDCCC	62	59.7	67	74.6
EKFRC	87	64.4	89	85.4
LHFRC	77	71.4	35	77.1
LVSRP	103	78.6	105	79.0
NPCLC	231	84.0	188	85.6
SENP	73	64.4	109	65.1
SFP	23	91.3	18	94.4
SHS	57	66.7	75	78.6
SPCSR	273	75.8	231	77.1
SSCDC	58	37.9	43	62.8
WSCRC	60	68.3	59	69.5
WWP	53	83.0	70	87.1

*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 anti-smoking campaign. The CDE data indicated decline in the proportion of *mothers smoking during pregnancy* from 14.24% in last year to 7.31% this year. These 17 programs in Table 60 provided services for 1,736 newborns this year, and three of the programs reported no smoking issues in FY 2017-2018.

Table 60: Percent of Mothers Smoking During Pregnancy

Program*	FY 2016-2017		FY 2017-2018	
	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

Prenatal care extends support for full-term pregnancy, and when "infants are born preterm, making them susceptible to health and learning difficulties throughout childhood" (Children Now, 2018, p. 31). It was 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, resource savings from full-term pregnancy are much needed for sustaining the government funding for early childhood support. Table 61 showed that the rate of *full-term pregnancy per program* increased from 82.88% in last year to 90.24% this year across 13 service providers. Altogether, these programs served 617 children in FY 2017-2018.

Table 61: Increase of Full-Term Pregnancy Between Two Adjacent Years

Program*	FY 2016-2017		FY 2017-2018	
	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
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 62 showed reduction of the average LBW rate from 16.08% in last year to 8.76% this year in 17 programs. These programs served a total of 1,703 children this year. Two programs even showed no LBW issue in FY 2017-2018.

Table 62: Proportion of Cases for Decreasing Low Birth Weight

Program*	FY 2016-2017		FY 2017-2018	
	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".[46] Consequently, Kern County is ranked at sixth and eighth positions across the state for LBW and obesity.[47] Because "More babies were born at low birth weight" in Kern County (Golich, 2013, p. i), the resource savings from LBW reduction helped sustain First 5 Kern support for children ages 0-5.

Breastfeeding

Kirkham, Harris, and Grzybowski (2005) found that "Breastfeeding is the best feeding method for most infants" (p. 1308). Built on the consensus from research communities, the 2015 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

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

national objective in 2011 to have at least 46% of children breastfed in the first three months.[48] In Table 63, the average breastfeeding rate across 15 programs increased from 65.15% in last year to 72.97% 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 63: Increase in Breastfeeding Rate Between Two Adjacent Years

Program*	FY 2016-2017		FY 2017-2018	
	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 Result Indicator 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 from 91.40% in the last year to 95.83% this year across 15 programs that served 853 families (Table 64). Four of the programs reached 100% this year.

Table 64: Percent of Mothers Receiving Prenatal Care

Program*	FY 2016-2017		FY 2017-2018	
	N	Percent of Mothers	N	Percent of Mothers
BCDC	23	100	23	100
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

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

Program*	FY 2016-2017		FY 2017-2018	
	N	Percent of Mothers	N	Percent of Mothers
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 54-64, value-added assessments have shown better service outcomes this year to substantiate 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).

Strengthening of Family Functioning in FY 2017-2018

In comparison to last year, the number of programs administering FSR is reduced from 16 to 15 because SPCSR modified its SOW-EP to exclude case management services. In this section, household conditions, including the shortage of *food, childcare,* and *housing* supports, are tracked by multiple indicators in the FSR database. "Once these lower-level needs have been met, people can move on to the next level of needs, which are for safety and security" (Cherry, 2013, ¶. 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.

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[49]. The family food spending could be a time-dependent variable because "The birth of a child might also result in the family eating healthier if the goal is to feed their children a proper diet" (Wethington & Johnson-Askew, 2009, p. S75). At the program entry, 254 out of 1,068 families indicated stress on food spending across 13 programs, which was equivalent to 23.78% of the family count. The data tracking showed result reduction to 15.82% and 10.77% in months 3 and 6, respectively. Two programs did not display the family stress since end of the second quarter (Table 65). The improvement is important 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).

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

Table 65: Number of Families with Stress on Food Spending

Program*	Initial	3rd Month	6th Month
AFRC	19	14	12
BCRC	8	7	0
DSR	17	12	6
GSR	28	17	1
IWVFRC	9	9	8
KRVFRC	26	14	9
LHFRC	7	7	6
MCFRC	10	8	7
MFRC	20	17	12
RSNC	29	24	19
SHS	21	1	0
SENP	51	31	27
WSCRC	9	8	8

*Program acronyms are listed in Appendix A.

Nutrition Considerations

Golden (2016) asserted 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 2017-2018, 44 out of 1,060 families indicated unmet nutrition needs in 12 programs, rendering a baseline indicator of 4.15% family count. The result decreased to 1.51% and 0.01% in the third and sixth month, respectively. Seven programs showed elimination of the nutrition concern within half a year (Table 66). The index change is important for young children because "The first three years of life are a period of dynamic and unparalleled brain development" (Liu, 2014, p. 3).

Table 66: Number of Families with Unmet Nutrition Needs

Program*	Initial	3rd Month	6th Month
AFRC	3	3	1
BCRC	0	0	0
DSR	2	1	0
GSR	7	0	0
KRVFRC	5	1	1
LVSRP	8	4	2
LHFRC	0	0	0
MCFRC	1	1	0
MFRC	0	0	0
RSNC	4	3	3
SHS	2	0	0
SENP	12	3	2

*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 2017-2018, 11 programs tracked free/reduced lunch recipients when delivering services across 754 families. At the initial stage of program access, 194 families reported needs for free or reduced lunches for some children in the households, representing 25.73% of the family count. The number dropped

to 17.24% and 11.27% in months 3 and 6, respectively. One program showed no report of free/reduced lunches in the midyear. The data pattern in Table 67 portrays a positive trend on child wellbeing because "poverty adversely affects structural brain development in children" (p. 1).

Table 67: Number of Families Needing Free/Reduced Lunches

Program*	Initial	3rd Month	6th Month
AFRC	24	17	14
DSR	16	12	5
EKFRC	8	7	5
GSR	34	15	4
KRVFRC	20	12	11
LVSRP	14	14	12
LHFRC	11	9	8
MCFRC	10	7	6
RSNC	29	26	18
SHS	23	6	0
WSCRC	5	5	2

*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 12 programs. Based on the information from 840 households, 25 families reported the living condition issue at the initial stage of service access, composing 2.98% of the family count. The number dropped to 1.19% in third month and 0.24% in sixth month. Within half a year, 10 of the programs showed no families in temporary facilities (Table 68).

Table 68: Number of Families Living in Temporary Facilities

Program*	Initial	3rd Month	6th Month
AFRC	2	1	1
BCRC	0	0	0
DSR	4	1	0
EKFRC	0	0	0
GSR	4	1	0
IWVFRC	4	3	0
KRVFRC	4	0	0
LVFRC	3	2	1
LHFRC	1	1	0
MCFRC	1	0	0
RSNC	1	0	0
SHS	1	1	0

*Program acronyms are listed in Appendix A.

Burden on Housing Expenditure

Alleviation of the burden on housing expenditure directly supported improvement of family financing. 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 the coast 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).

In FY 2017-2018, FSR data were gathered to track economic conditions across 951 households that received services from 13 programs. Upon the program entry, the results indicated a total of 183 families facing spending cut due to housing cost, equivalent to 19.24% of the total family count. During the first three months, the number decreased to 11.67%. By the midyear, the percentage index reduced to 7.36% (Table 69). One program reached 0% at end of the sixth month.

Table 69: Number of Families Cutting Spending Due to Housing Cost

Program*	Initial	3rd Month	6th Month
AFRC	18	11	11
BCRC	11	4	1
DSR	11	9	3
EKFRC	10	6	3
GSR	30	16	1
KRVFRC	18	9	6
LVSRP	9	7	5
LHFRC	4	3	3
MCFRC	11	6	4
MFRC	15	9	8
RSNC	27	24	19
SHS	11	1	0
WSCRC	8	6	6

*Program acronyms are listed in Appendix A.

Unmet Medical Insurance Needs

Young children are more vulnerable for lacking skills of self-protection. 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 on child wellness, First 5 Kern gathered health insurance data from 719 families across 10 programs. At the program entry, the issue of *unmet insurance need* was reported by 43 families, approximately 5.98% of the total family count. In months 3 and 6, the result dropped to 3.20% and 1.53%, respectively. The number of families with unmet insurance support was eliminated within half a year across six programs in Table 70.

Table 70: Number of Families without Medical Insurance

Program*	Initial	3rd Month	6th Month
BCRC	3	1	0
DSR	4	3	2
EKFRC	0	0	0
GSR	11	3	1
KRVFRC	2	0	0
MCFRC	3	0	0

Program*	Initial	3rd Month	6th Month
MFRC	9	9	6
RSNC	6	6	2
SHS	5	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, particularly the ones with young children. First 5 Kern gathered FSR data from 648 families across eight programs. The number of families feeling the stress from medical premium was 73 at the beginning, accounting for 11.27% of the family group. In months 3 and 6, the proportion dropped to 7.1% and 4.48%, respectively. Despite the premium hike with the Affordable Care Act in FY 2017-2018, two programs indicated no copayment stress in the midyear (Table 71).

Table 71: Number of Families with Stress on Medical Premium/Copay

Program*	Initial	3rd Month	6th Month
BCRC	2	0	0
DSR	9	6	3
GSR	11	5	1
IWVFRC	0	0	0
LHFRC	10	6	2
RSNC	24	22	16
SENP	13	4	4
WSCRC	4	3	3

*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 12 programs. The issue was initially reported by 93 families, equivalent to 11.07% of the total family count, upon the program entry. The number has been subsequently reduced to 6.43% at end of the first quarter and 4.52% in the midyear. This positive change impacted 840 families in FY 2017-2018. In particular, the responses from three programs indicated no issue of unemployment at the end of the sixth month (Table 72).

Table 72: Number of Families with Unemployment Issue

Program*	Initial	3rd Month	6th Month
AFRC	5	5	3
BCRC	5	2	0
DSR	13	9	4
EKFRC	5	4	3
GSR	12	4	1

Program*	Initial	3rd Month	6th Month
IWVFRC	7	3	3
KRVFRC	17	9	8
LVSRP	7	5	5
LHFRC	2	0	0
MCFRC	6	4	3
RSNC	9	8	8
SHS	5	1	0

*Program acronyms are listed in Appendix A.

Unmet Childcare Needs

Young children often have parents in the labor force. 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 73 were derived from the FSR survey of 868 families across 12 programs. At the program entry, 54 families indicated unmet childcare needs, accounting for 6.22% of the respondents. The result declined to 4.38% and 1.73% in months 3 and 6, respectively. No family reported unmet childcare needs in seven programs by midyear.

Table 73: Number of Families with Unmet Childcare Needs

Program*	Initial	3rd Month	6th Month
AFRC	2	0	0
BCRC	21	18	2
DSR	0	0	0
EKFRC	4	4	2
IWVFRC	0	0	0
LVSRP	5	3	3
LHFRC	0	0	0
MCFRC	3	2	0
RSNC	5	3	2
SHS	3	0	0
SENP	11	8	6
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 of 465 parents across eight programs, 44 families, or 9.46% of the total family count, indicated no convenient childcare provider at the program beginning. The result was reduced to 4.73% in the first quarter and 2.58% in the second quarter of FY 2017-2018. Half of the programs resolved the shortage of convenient childcare in the sixth month (Table 74).

Table 74: Number of Families without Convenient Childcare Providers

Program*	Initial	3rd Month	6th Month
BCRC	0	0	0
DSR	8	3	0
EKFRC	9	1	1
IWVFRC	0	0	0
LHFRC	6	3	3
MCFRC	4	1	1
RSNC	14	13	7
SHS	3	1	0

*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 2017-2018, 10 programs showed improvement on the issue of *missing work or school due to childcare* across 706 families. At the beginning, the issue was acknowledged by 35 families, or 4.96% of the families. At end of the first and second quarters, the number was reduced to 2.83% and 0.99%, respectively. Six programs showed elimination of this issue within six months (Table 75).

Table 75: Number of Families Missed Work/School for Childcare

Program*	Initial	3rd Month	6th Month
AFRC	1	1	0
BCRC	1	0	0
DSR	2	1	0
EKFRC	4	4	2
GSR	3	2	0
LHFRC	3	1	0
MCFRC	4	1	1
MFRC	5	5	2
RSNC	8	5	2
SHS	4	0	0

*Program acronyms are listed in Appendix A.

Unmet Transportation Needs

It is reported at a local town hall meeting that "Broader and more frequent transportation services for medical appointments, dental appointments, and other services are needed"[50]. Based on FSR data from FY 2017-2018, 47 out of 616 families, or 7.63% of the family count, indicated *unmet transportation needs* prior to their service access to nine programs. The proportion dropped to 5.03% at end of the first quarter. At midyear,

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

less than 2.11% of the families reported *unmet transportation needs*. Meanwhile, five programs eliminated transportation issues for families (Table 76).

Table 76: Number of Families with Unmet Transportation Needs

Program*	Initial	3rd Month	6th Month
BCRC	3	2	0
DSR	7	5	0
GSR	13	5	2
IWVFRC	5	4	3
KRVFRC	7	5	3
LHFRC	0	0	0
MCFRC	2	2	0
RSNC	8	7	5
SHS	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 77 contains the number of families with members *missing work or school due to transportation*. The results from 11 programs showed that 53 out of 801 families reported transportation needs before receiving First 5 Kern-funded services, accounting for 6.62% of the family count. The percentage decreased to 3.25% in month 3 and 2.12% at midyear. Four programs reported no families *missing work or school for transportation reasons* in month 6.

Table 77: Number of Families Missed Work/School for Transportation

Program*	Initial	3rd Month	6th Month
BCRC	1	1	0
DSR	4	3	1
EKFRC	6	4	2
GSR	7	2	1
KRVFRC	7	2	2
LHFRC	0	0	0
MCFRC	2	0	0
RSNC	4	4	2
SHS	1	0	0
SENP	16	6	5
WSCRC	5	4	4

*Program acronyms are listed in Appendix A.

Burden of Transportation Expenditure

In FY 2017-2018, FSR data were tracked during the first six months to indicate the number of families *with financial burden for transportation*. A total of 473 respondents provided information across eight programs. The initial figure showed 66 families with the financial burden before service access, which corresponded to 13.95% of the families. The number dropped to 7.61% and 3.81% in months 3 and 6, respectively. Two of the programs showed zero family count by midyear (Table 78).

Table 78: Number of Families with Financial Burden for Transportation

Program*	Initial	3rd Month	6th Month
AFRC	13	7	6
BCRC	5	3	0
DSR	7	5	1
GSR	18	10	2
IWVFRC	10	7	7
LHFRC	3	2	1
MCFRC	3	1	1
SHS	7	1	0

*Program acronyms are listed in Appendix A.

In summary, First 5 Kern-funded programs made extensive contributions to improvement of child wellbeing in FY 2017-2018. By saving family expenditures on early childhood support, the entangled issues of *food supply, childcare, job security, housing*, and *transportation* have been alleviated within the first six months of program service. The FSR findings in Tables 65-78 demonstrated improvement of family functioning on 14 indicators in FY 2017-2018. The support is particularly important for low-income families because "lack of economic opportunity and resources create a strain on families and can affect children's emotional, social, cognitive, and physical development and thus their readiness for school" (California Home Visiting Program, 2011, p. 52).

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 54-78). 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

Following Proposition 10, First 5 Kern's (2018) Strategic Plan "has four focus areas that correlate to the state focus areas" (p. 3). In previous chapters, service outcomes are examined across all focus areas. Built on the Commission description in Chapter 1, assessment data are analyzed in Chapter 2 to delineate how much has been done by First 5 Kern-funded programs in the first three focus areas of *Child Health, Family Functioning*, and *Child Development*. Chapter 3 addresses the fourth focus area of service integration. Chapter 4 provides a summary of annual service improvement on the time dimension. Evaluation findings from FY 2017-2018 consistently confirmed the conclusion for Chapter 5, i.e., First 5 Kern 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).

In addressing the state report requirement, First 5 Kern abides by the spirit of local control in Proposition 10 to meet the needs of young children and their families in Kern County. Through program funding, First 5 Kern incorporated early childhood services in a *consumer-oriented* and *easily-accessible* system. For instance, referral services were offered 24 hours a day through 2-1-1 or during non-traditional hours (see RI 3.2.3, Ibid. 20) to extend special-needs support (RI 3.2.1, 3.2.2, Ibid. 20; Table 29) in local communities. Care coordination was funded in the service delivery process to enhance partnership building. Outcomes of the program networking were assessed to justify the return on state investment in the product phase. 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.

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). To sustain the ongoing service improvement, this chapter recaps the improvement of program outcomes in FY 2017-2018. Two sections, *Dissemination of the Evaluation Findings* and *Policy Impact of Evaluation Outcomes*, are added this year to reflect new components of the annual report structure at the state level. This chapter concludes 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 evaluation findings from Chapters 2-4 in 20 aspects:

Within FY 2017-2018, improvements were made on 10 aspects

1. Screening of Child Development

    - Twenty-one programs tracked developmental growth of 1,751 children in months 2-60. Child performance was found significantly above the age-specific thresholds across all ASQ-3 domains;

2. Assessment of Parent Education

    - Pretest and posttest data were gathered from 85 families across six court-mandated parent-education programs. The results showed strong improvements of parenting constructs on Expectations of Children, Parental Empathy, Physical Punishment, and Parent-Child Roles. The effect sizes were larger than 0.80 (i.e., Cohen's d>0.80) from the AAPI-2 assessments;

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. DR tracked over 600 children across Kern County using the NCFAS-G instrument;

4. Satisfaction of Parent Workshops

    - A total of 1,233 participants attended 10 Nurturing-Parenting workshops across seven programs. On a five-point scale with 5 representing the most positive result, the learning outcome was indicated by improvement of the average rating from 3.22 in pretest to 4.07 in posttest across seven programs. The rating change across these workshops was significant at α=.0001;

5. Strengthening of Preschool Preparation

    - R2S tracked kindergarten-readiness skill developments for 521 preschoolers across four school districts. The combined mean score across Reading Readiness, Math Readiness, and Supportive Skills increased from 10.47 to 16.98 within five weeks. The effect size was 1.03, indicating a strong practical impact on the kindergarten readiness indicators;

6. Reduction of Plaque Index

    - Average Plaque Index was monitored by KCCDHN during initial and recheck visits for 135 children. Improvement of oral health was demonstrated by significant index reduction at $\boldsymbol{\alpha}$=.0001;

7. Improvement of Health Literacy

    - First 5 Kern funded HLP to strengthen health literacy. The program assessed knowledge of 32 parents about the content of BCBH instrument this year. Besides significant knowledge improvement, all parents indicated that they would practice at least some of the BCBH concepts after the workshops;

8. Demonstration of Desired Development

    - Three versions of DRDP (2015) instrument were adopted to assess child development. Positive outcomes were obtained from infants and toddlers in BCDC, HLP, and SSCDC programs (Tables 38 and 39). DRDP Fundamental and

Comprehensive View instruments also demonstrated favorite findings from HLP, SFP, and WWP (table 41), as well as DDCCC, DSR, and SSCDC (Table 43).

9. Support for Kindergarten Transition

- Kindergarten readiness was assessed by the CASB instrument in 12 Summer-Bridge programs. Besides improvement of cognitive outcomes in Table 44, non-cognitive results also illustrated skill enhancement in Motor, Social Emotion, Communication, Self-Help, and Inquiry domains (Table 45);

10. Quality of Parent-Infant Interaction

- The DANCE assessment was conducted to evaluate parent-infant interaction in NFP. The results showed that caregivers surpassed the golden standards in the pacing and responsiveness domains with 41 infants (Table 11). On the Emotional Quality and Behavioral Regulation scale, Table 12 indicated caregiver performance above the golden standard on Verbal Connectedness.

In comparison to last year, programs improved services on 10 aspects

1. Offering of Home Reading Activities

- The number of children being read to twice or more times per week was tracked for 1,263 families in 14 programs. The rate increased from 70.11% in last year to 77.74% this year;

2. Expansion of Prenatal Care Coverage

- The average rate of monthly prenatal care increased across 15 programs from 91.40% in the last year to 95.83% this year. These programs served 853 families. Four of them reached a rate of 100% this year;

3. Implementation of Well-Child Checkup

- The proportion of families having annual well-child checkup increased across 15 programs from 85.37% in last year to 90.47% this year. These programs jointly completed CDE surveys for 1,600 children in FY 2017-2018. SSEC achieved a rate of 100% completion on well-child checkup;

4. Increase of Full-Term Pregnancy

- The percent of full-term pregnancy increased from 82.88% in last year to 90.24% this year across 13 programs. Altogether, these programs served 617 newborns this year;

5. Decline of Low-Birth Weight

- The rate of low-birth weight decreased from 16.08% in last year to 8.76% this year in 17 programs. These programs served a total of 1,703 children in FY 2017-2018;

6. Expansion of Breastfeeding

    - The average breastfeeding rate across 15 programs increased from 65.15% in last year to 72.97% this year. This change supported healthy growth of 1,634 children in Kern County;

7. Increase of Preschool Involvement

    - The rate of children regularly attending preschool events increased from 25.75% in last year to 30.55% this year. This positive change benefited 1,454 children since their third birthday across 11 programs in FY 2017-2018;

8. Fulfillment of Immunization Requirements

    - The percent of children receiving all immunizations increased across 9 programs from 88.08% in the last year to 92.06% this year. This improvement impacted a total of 1,608 children in Kern County after the last fiscal year;

9. Monitoring of Dental Care

    - The proportion of children with annual dental checkups increased across 14 programs. On average, the percent across these programs changed from 47.44% in last year to 54.33% this year. A total of 1,827 children benefited from this improvement in FY 2017-2018;

10. Reduction of Prenatal Smoking

    - The rate of *prenatal smoking* was reduced from 14.24% in last year to 7.31% this year across 17 programs. The result impacted 1,736 newborns this year.

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

To actively communicate the impact of Proposition 10 funding in Kern County, the Commission supported completion of six reporting activities in FY 2017-2018:

1. On October 4, 2017, evaluation results were presented at the county commission meeting to highlight NPCLC and LVSRP service outcomes.

The NPCLC results showed (1) performance of 211 children significantly above the age-specific thresholds in ASQ-3 screening and (2) beliefs of 23 parents significantly improved against child maltreatment on the AAPI-2 scale. The LVSRP indicated an increase of the ASQ-3 screening from 96 children in the previous year to 134 children last year. Feedback from 10 Nurturing-Parenting workshops showed 92.3% of the 89 LVSRP participants with more confidence in handling child stress in positive ways.

2. On January 7, 2018, a CBA project was presented at the 16th Annual Hawaii International Conference on Education:

Wang, J., Sun, J., & Maier, R. (2018, January). *A cost-benefit analysis of Proposition 10 funding in early childhood development*. Paper presented at the 2018 Hawaii International Conference on Education, Honolulu, Hawaii.

3. On March 10, 2018, another CBA presentation was made at the 2018 annual conference of the American Society of Public Administration:

Sun, J., Wang, J., & Ives, K. (2018, March). *A cost-benefit analysis of early childhood education programs through Proposition 10 funding in California*. Paper presented at the 2018 annual meeting of the American Society for Public Administration, Denver, CO.

4. On April 4, 2018, a comprehensive report was presented at the county commission to address evaluation findings across 42 programs that received funding in the previous year. The annual report was recruited by ERIC:

Wang, J. (2018). *First 5 Kern Annual Report, Fiscal Year 2016-17*. Washington, DC: Education Resource Information Center (ERIC Document Reproduction Service No. ED 582 032).

5. On June 6, 2018, the final CBA report was presented at the county commission meeting. It is also included in the ERIC research database:

Wang, J., & Sun, J. (2018). *Cost benefit analysis of First 5 Kern-funded programs*. Washington, DC: Education Resource Information Center (ERIC Document Reproduction Service No. ED 584 384).

6. TAC members are grouped into three subcommittees to examine the results of *community needs assessments* from 12 town hall meetings. A report was distributed on September 18, 2017 to summarize the needs in *Improved Child Health, Improved Family Functioning*, and *Improved Child Development*[51].

In summary, these evaluation reports not only strengthened visibility of First 5 Kern as a local leader in early childhood support, but also addressed RBA requirement from Proposition 10. 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).

Policy Impact of Evaluation Outcomes

With the statewide implementation of *Annual Report Guidelines: Fiscal Year 2017–18*, First 5 California (2018) indicated its desire to ensure reporting consistency, "allowing counties to use the same approach in future years" (p. 3). To support the baseline establishment, the policy impact of evaluation results is aggregated in four aspects:

[51] See Item 7 at http://www.first5kern.org/wp-content/uploads/2018/08/TAC-Minutes-09182017-finalsp.pdf.

1. Evaluation Results Communicated with the County Commission

    - Program profiling of NPCLC and LVSRP occurred on 10/4/2018 using participant and outcome data at child and family levels;
    - Differences between actual and expected results were conveyed in a CBA report for the Commission on 6/6/2018;
    - Result comparisons made on similar programs to support the Commission funding decisions this year;
    - Recommendations communicated with the county commission on 4/4/2018 to align the future annual report structure with the new state guideline;
    - Social media presence strengthened for program networking since last year. The most recent annual report indicated generation of a five-star rating from 230 Facebook followers, 894 pins in Pinterest, 4,000 impressions through LinkedIn, 155 followers on Twitter, and 71 followers on Instagram.

2. Commission Decisions Based on Evaluation Findings

    - Evaluation findings have led to the activation of action plans for three service providers;
    - Additional needs are identified from evaluation to support creation of a function in Persimmony that alerts the due dates of program data collection;
    - The Commission has maintained a mechanism of improvement planning in reaction to evaluation findings that showed unsatisfactory program performance;
    - The Commission created a Chief Evaluation/Program Officer position to strengthen the leadership on program coordination and service evaluation.

3. Evaluation Findings Developed for Informing Strategic Planning

    - Needs assessments from 12 town hall meetings have been analyzed to support strategic planning;
    - First 5 Kern organized and/or participated in 31 community meetings to strength the local service systems in FY 2017-2018;
    - First 5 Kern partnered with community organizations in 23 unduplicated outreach initiatives to strengthen service integration.

4. Anticipated Changes of Funding Strategies to Enhance System Building

    - According to the TAC minutes from December, 2017[52], the Executive Director explored "the possibility of creating an Immunization Coalition to address a systems of care option for the county's immunization efforts" (p. 2);
    - Ms. Michelle Krizo, Director of Child Health and Disability Prevention in Kern County Public Health Department (KCPHD) was invited to present information on dental care coordination;
    - Ms. Michelle Curioso, Director of Maternal, Child, and Adolescent Health of KCPHD provided an overview of Child Health and Disability Prevention (CHDP) and the CHDP dental programs;

[52] http://www.first5kern.org/wp-content/uploads/2018/03/TAC-Minutes-121117.pdf.

- A program officer of First 5 Kern presented information on partnership grant support for a Dental Transformation Initiative Program.

These joint efforts through TAC offered guidance for anticipated changes of funding strategies.

Past Recommendations Revisited

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

1. Monitor statewide debate on reducing funding for direct services while maintaining its contractual agreement with service providers for the entire funding cycle;
2. Offer guidance for future improvement in these programs with data tracking issues;
3. Continue countywide implementation of the current mission statement unless and until statutory changes occur in the annual report structure across the state.

These recommendations were intended to sustain local service delivery while adapting to potential changes of the annual report requirement. The first recommendation hinged on future budget uncertainty. As First 5 Association of California (2018) acknowledged, "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). The second recommendation was intended to meet the demand on data tracking to offer guidance for program improvement. The third recommendation was in reaction to the effort of revising annual report structure at the state level. As First 5 California (2018) recollected,

> On April 27, 2017, commissioners approved significant revisions to guidelines for Fiscal Year 2017-18. First 5 California (F5CA) and the First 5 Association collaborated on these revisions to support improved messaging about the work of First 5 commissions. In 2018, F5CA will revise the Annual Report Web-based Reporting System Application to support these revisions.[53]

In FY 2017-2018, First 5 Kern maintained its contractual agreement with service providers. Meanwhile, the Commission (1) completed legislative visits, (2) participated in California Quality Rating and Improvement System (QRIS) Consortium, (3) assisted Region 5 Hub of First 5 IMPACT, (4) contributed to the central valley regional meetings of county commissions, (5) served as Region Representative for the 20th anniversary celebration of Proposition 10, and (6) attended First 5 California Child Health, Education, and Care Summit, as well as meetings of First 5 California and First 5 Association of California. The extensive engagement in statewide dialogue has addressed the first recommendation from the 2016-2017 annual report.

First 5 Kern also implemented the second recommendation by exploring a function in Persimmony to alert the due dates of program data collection. This change offered a sustainable mechanism for data tracking. Improvement of the tracking system is likely to reduce inadvertent missing information for annual result reporting.

[53] http://www.ccfc.ca.gov/partners/datasystems.html.

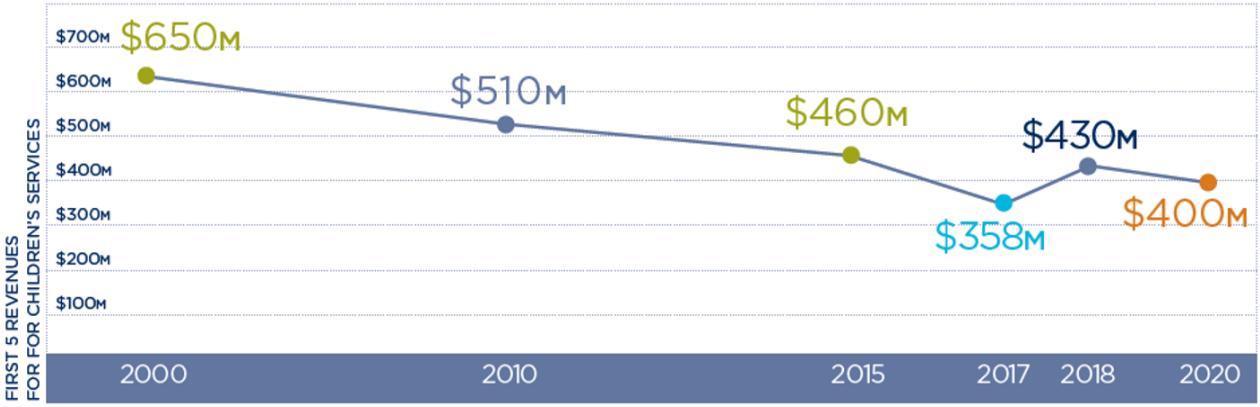
Regarding the third recommendation, changes occurred in the annual report structure across the state. In particular, a Web-based Reporting System (WRS) has been established to summarize statewide expenditures and services, and a new County Revenue and Expenditure Summary form (Annual Report Form-1) was employed to strengthen the messaging about program funding in each county. Accompanied by the tracking of financial resources and services, WRS included a County Demographic Worksheet (Annual Report Form-2) to capture background information about local populations that received services throughout the fiscal year. In addition, the state guidelines designated a County Evaluation Summary (Annual Report Form-3) on evaluation activities in *Improved Family Functioning, Improved Child Development*, and *Improved Child Health*. In *Improved Systems of Care*, broad-based audience was identified to guide narrative descriptions on (1) service types, (2) intended results, and (3) community impacts. The new annual report was submitted successfully prior to the state deadline of October 31, 2018. Hence, First 5 Kern has met the third recommendation.

In summary, all three recommendations from FY 2016-2017 were implemented this year. The Commission has also fulfilled the statutory need on data collection for demonstrating achieved results according to the local strategic plan. Public hearings were held in March, 2018 to solicit community input on the strategic plan update.

New Recommendations

Although passage of Proposition 56 occurred in November 2016, increases of tobacco tax from $.87 to $2.87 per pack of cigarettes did not happen until April 1, 2017. The starting date for taxation on e-cigarettes was postponed to July 1, 2017. Thus, the state revenue was difficult to predict prior to FY 2017-2018. Joe Fitz, Chief Economist of the State Government, reported, "In 2017, Proposition 10 backfilled a total of $14.484 million to Proposition 99 and Breast Cancer Fund, and received $17.337 million from Proposition 56" (p. 1). Consequently, minor fluctuation occurred in Proposition 10 revenue this year (see Figure 30).

Figure 30: Trend of Proposition 10 Revenue in California



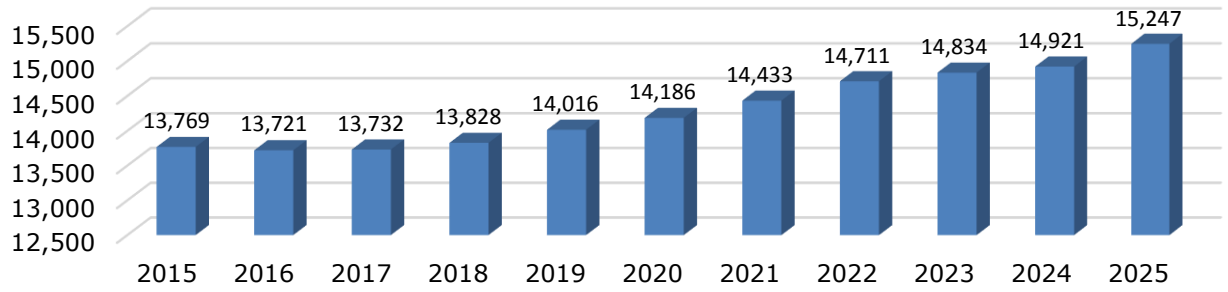
Source: First 5 Association of California.

Meanwhile, the lack of state investment has gained more public attention this year. According to Jacobson (2018), the Silicon Valley Community Foundation commissioned a survey of likely voters on their thought about future priorities for the new governor. Of

all the options for financing early-childhood programs, *sharing state marijuana tax revenue with programs for young children* was the most popular one. Avo Makdessian, administrator of the Silicon Valley Community Foundation, reconfirmed, "Voters overwhelmingly want to see marijuana money go to early-childhood programs".[54] Given the additional resource considerations supported by the general public, the first recommendation is to **encourage engagement of First 5 Kern in advocating the needs for early childhood support while maintaining its program offerings according to the current strategic plan**.

FY 2018-2019 is a critical year for planning program funding in the next funding cycle. According to trend projection from the Department of Finance of California[55], birth counts will continue increasing in Kern County during 2020-2025 (Figure 31), demanding more service deliveries for young children ages 0-5.

Figure 31: Trend of Birth Counts in Kern County



In this context, Deborah Stipek, Stanford University professor, cautioned that "First 5 was not in a position to make up for huge reductions in resources" (Ibid. 54). Regarding the top funding level in history, Jacobson (2018) also noted the use of $550 million by Camille Maben, First 5 California's executive director, while $650 million was used by First 5 Association of California (see Figure 30). The difference may impact configuration on the rate of state revenue decline. Despite the need for data checking, "For budgeting purposes, the safest approach would be to use the annual 2.6% decrease projection" (First 5 Association of California, 2018, p. 7). In preparation for the next funding cycle, the second recommendation is to **urge proper adjustments of First 5 Kern's funding priorities according to a defensible estimate of future Proposition 10 funding**. This recommendation is also aligned with conventional wisdom from sister commissions. For instance, the executive director of First 5 Sacramento reported, "None of our programs are yet on a countywide scale, rather we have had to narrow services repeatedly to specific neighborhoods and the highest risk children/parents" (Jacobson, 2018, p. 3).

According to First 5 Kern's (2018) strategic plan, an emphasis has been placed on "collection of data to demonstrate results" (p. 2). Data tracking is needed for projecting program performance in the next funding cycle. Thus, the third recommendation is for

[54] https://www.educationdive.com/news/as-revenue-declines-from-one-sin-tax-california-considers-tapping-anothe/532702/.
[55] http://www.dof.ca.gov/Forecasting/Demographics/Projections/documents/P_BirthsReport.xlsx.

First 5 Kern to **maintain diligent effort on data collection to inform the Commission strategic planning in 2020-2025**. This recommendation is based on examination of insufficient data for statistical analyses in Chapter 2. For instance, the smallest data sizes at the program level are 3, 4, and 5 from ASQ-3, AAPI-2, and CASB assessments, respectively. Table 38 shows DRDP-IT data tracking on a total of 12 children across three programs. Table 21 also indicates no NP survey data in four cells. The Commission might consider reviewing the master plan for data gathering and data entry to ensure the export of *adequate* and *accurate* information for program evaluation.

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Appendix A – Index of Program Acronyms

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Gina Perez
Ambulatory Care Service Director, Kaiser Permanente

Bill Phelps
Chief of Programs, Clinica Sierra Vista

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Rick Robles (Vice Chair and Commissioner)
Retired Superintendent, Lamont School District

Rebecca Roth
Early Care Educator, Taft College

Jennifer Sill, LMFT (Commissioner)
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