The State of
FARM TO SCHOOL
in San Diego County
2016-17

THE FARM TO INSTITUTION CENTER

CHIP

a project of:
COMMUNITY HEALTH
IMPROVEMENT PARTNERS
making a difference together

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List of Abbreviations and Acronyms	
CHIP	Community Health Improvement Partners
F2I Center	Farm to Institution Center
F2S	Farm to School
F2ST	Farm to School Taskforce
GFRP	Good Food Rebate Program
HOTM	Harvest of the Month
SDC	San Diego County
SY15-16	School Year between July 2015 – June 2016
SY16-17	School Year between July 2016 – June 2017

I. Executive Summary

Farm to School (F2S) programs, which link schools with fresh and healthy food, have grown significantly from fewer than 10 participating schools in 1997 to more than an estimated 42,000 schools in all 50 states in 2018.[1] In San Diego County (SDC), F2S programming has an opportunity to serve all 42 public school districts, which enroll roughly 500,000 students each year. Currently in SDC, more than $19M is spent on local, California-sourced food procurement, 11% of which is sourced directly from SDC growers. The fifth annual *State of Farm to School in San Diego County* report provides a thorough analysis of F2S activities amongst SDC school districts, the growing trends across multiple years, and recommendations for future F2S success.

Community Health Improvement Partners (CHIP)'s *Farm to Institution Center* is facilitating the F2S movement in San Diego County (SDC) through the SDC Farm to School Taskforce (F2ST) - a collaborative group fostering innovative strategies to grow F2S within school districts. Expansion of F2S programming provides multiple benefits for student nutrition, health, social and emotional skills, academic achievement and school engagement.

Data collected from the Farm to Institution Center's annual *State of Farm to School in San Diego County Survey* provides a comprehensive analysis of F2S activities and trends in SY16-17 and across multiple years. The report findings detail school food purchasing strategies, with SDC school districts significantly increasing local food spending despite decreased spending in overall food procurement during SY16-17. Although food purchasing developments are encouraging, opportunities to address challenges in local food sourcing is discussed. Detailed analysis offers suggestions around barriers including higher food prices, year-round availability of products, kitchen infrastructure and distributer relationships.

Noteworthy developments in F2S programming is discussed, showcasing SDC trends in school gardens, salad bars, Harvest of the Month (HOTM) and California Thursdays participation. Additionally, a comprehensive analysis of F2ST member engagement and its impact on F2S programming within the county is included.

Recommendations are made at the end of the report for school districts, community partners, local SDC growers and distributers around generating collective impact, raising F2S education and developing local sourcing best practices. Appendix A highlights San Diego County resources around food procurement, F2S education, school gardens and food policy. Appendix B details the Good Food Rebate incentive pilot program as a potential opportunity to shift school district buying practices.

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II. Benefits of Farm to School

The Farm to School (F2S) movement has grown rapidly over the past two decades, with the mission to connect communities with healthy, local food and change education practices within schools settings. ***According to the USDA Farm to School Census, over 42% of schools in the United States participate in F2S activities, engaging over 23.6 million students.*** F2S activities are becoming widespread and abundant. In 2015, the Farm to School Census reported 7,101 school gardens and 17,089 salad bars in K-12 schools nationally.

F2S programming allows students to access healthy, local foods and education opportunities through the following three elements: local food procurement, nutrition education and school garden development. To provide context around the benefits of F2S programming in SDC, this section highlights F2S impact on student health, academic achievement, and long-term environmental and economic sustainability.

Student Nutrition & Public Health Benefits:

In the United States, the percentage of children and adolescents affected by obesity has nearly tripled since the 1970s.[2] Across the United States, 2015-2016 data from the Center for Disease Control and Prevention found the prevalence of obesity was 39.8% in adults and 18.5% in youth, with obesity prevalence amongst youth ages 6-11 years (18.4%).[3,4] Childhood obesity trends in SDC were slightly more pronounced. In 2016-2017, data from the California Department of Education Physical Fitness Test reported nearly one-third (34.9%) of SDC's fifth, seventh and ninth grade children enrolled in public schools overweight or obese.[5]

San Diego County (SDC) data also indicates student disparities in childhood obesity rates by both race/ ethnicity and by socioeconomic levels. According to the 2016 *State of Childhood Obesity in San Diego County Report*: [6]

> ***"Data indicate[s] wide disparities in childhood obesity rates in San Diego County by race/ethnicity. In school year 2014-15, the childhood obesity rate for Hispanic students (23.1%) was just over twice the rate for non-Hispanic students (10.8%), and almost 2.5 times higher than childhood obesity rates among white students (8.9%)."***

In the same year, 22.9% of economically disadvantaged students were reported as obese, over twice the rate of students who were not economically disadvantaged (10.0%).[7] Hispanic students represent approximately half of all public school students in SDC with respect to race/ ethnicity (see pg. 8), and low-income students account for half of all public school students with respect to socioeconomic status. Given the student demographics in SDC, school districts represent a broad demographic range, including at-risk populations, and provide pathways for F2S programs to provide healthy food to populations which may not otherwise be served.

F2S activities improve childhood eating habits, while improving access to fresh, healthy and affordable meals.[8] Students who are exposed to F2S programming choose healthier options at school meals, consume more fruits and vegetables at home (+0.99 to +1.3 servings/day), reduce television exposure and increase daily exercise.[9] F2S programming positively impacts student willingness to trying new and healthy options.[10] Widespread studies indicate farm to school programming can also positively increase consumption of produce, leading to reductions in plate waste.[11,12]

Academic Achievement & Community Engagement

F2S programming also offers cognitive and emotional benefits for student academic success. Studies found F2S programming builds positive attitudes towards schools, and provides students exposure to gardening, agriculture, healthy eating, local foods, seasonality, and STEM (i.e. science, technology, engineering, math) subjects. [13,14] F2S programming also improves student life skills in teamwork, self-esteem, social skills, compassion and respect for the environment.[15] By visiting farms and bringing hands-on work back to the classroom, students gain practical skills in nutrition, farming, and meal preparation.[16] Cognitive and emotional skills provided through F2S support students achieving higher grades, better test scores, more engagement in school, and social and emotional growth.[17]

School districts who adopt F2S activities also report benefits in increased food security and positive diet changes at home. Dawn Stone, Nutrition Service Specialist with Escondido Union School District describes opportunities she has observed associated with F2S programming in her school district.

> ***"With our F2S programs, our students are going home to teach their parents about the fruits and vegetables they are eating. When students go to the grocery store, they show their parents how to make healthy decisions." – Dawn Stone, Nutrition Service Specialist***

Increased consumption of healthy school meals motivates students to influence household purchases. Family food security is important in SDC; according to the San Diego Hunger Coalition, an estimated 1 in 7 people in SDC experienced food insecurity in 2015, and approximately 163,000 children (22.3% of total SDC child population) lived below the 200% of the Federal Poverty Level in SDC.[18] F2S programs increases student consumption of school meals, which studies have shown reduces food insecurity and improves childhood access to fresh, healthy and affordable meals. [19]

Environmental & Economic Impacts

F2S programs also encourage environmentally-friendly practices between production, processing and packaging local food products. Sourcing locally consumes less fossil fuel for transportation and less packaging materials.[20] Additionally, plate waste studies show a decrease in overall food waste following F2S interventions.[21] School districts are interested in promoting local, healthy foods through F2S programming to motivate children to consume more and waste less. According the U.S Department of Agriculture Food and Nutrition Service, 18% of school districts nationally reported interest in F2S programming for reduced food waste.

With regards to local growers, school districts provide a steady, reliable demand for locally produced food, which helps aid local farmers. Local food sourcing provides direct marketing relationships and

sales opportunities between farmers and institutional buyers.[22] On average, farmers and producers who source to institutions and schools increase their income by 5%, creating new jobs and a viable revenue stream for individual businesses.[23]

The USDA Farm to School Census estimates buying local food has a multiplier effect of 1.4-2.6 throughout the local economy. In other words, for every dollar spent locally, another $0.40- $1.60 of local economic activity is generated.[24][25] Census data indicates schools purchased nearly $790 million of local food in the 2013-2014 school year. Conservatively, this suggests school districts' local food purchases may lead to over one billion dollars in local economic activity.[26]

Benefits to Students, Farmers & Communities

Overall, F2S programming is growing to enrich students, teachers, staff, and community members with exposure to fresh, healthy, local food. Given nationwide growth, F2S is highly influential on both a national and local scale. Nationally, F2S programming provides a catalyst and model for changing food purchasing and education practices at K-12 schools and childcare sites. In SDC, F2S programming has been shown to increase opportunities for student achievement, family wellness, and local farmer engagement. CHIP's F2I Center has made a concerted effort to study current F2S activities and the trends, challenges and opportunities associated in SDC.

III. Methodology

Between January and April 2018, CHIP's F2I Center conducted their fifth annual *State of Farm to School in San Diego County Survey*. All data was collected to reflect the 2016-2017 school year (SY16-17). The Center prioritized gathering data from school district food service decision makers on:

- Local food sourcing (i.e. types of local products purchased and dollar amount spent on all food and local food),
- F2S activities (e.g. school gardens, curriculum integration and activity involvement), and
- Needs and concerns around participating in F2S activities to determine opportunities and recommendations.

Responses were collected primarily electronically via SurveyMonkey, and schools had the option of completing a hard-copy version. Data collection officially closed on April 3, 2018.

The SY16-17 survey is intentionally consistent with the previous year's survey (SY15-16) to provide a multi-year analysis on the trends in F2S in SDC. Survey analyses comparing trends from SY15-16 and SY16-17 used data from the 31 school districts who responded during both years.

From the 42 total SDC school districts, 37 responded to the SY16-17 survey, with a completed response rate of 88%. This is a 7% improvement from the 2015-16 year response rate. The 37 school districts that responded account for 94.9% of all students in the County.

Publicly available data sets from the California Department of Education on school meal participation rates, free and reduced-price meal eligibility, student enrollment and student demographic information were also used for the F2S analysis.

San Diego County F2S Taskforce

The San Diego County Farm to School Taskforce (F2ST) formed in 2010 as a subcommittee of the San Diego County Childhood Obesity Initiative (COI), a project facilitated by CHIP. For more than 10 years, CHIP has served as a "backbone organization" to the COI and F2ST to advance long term solutions to priority health needs through collaboration and community engagement.

CHIP's Farm to Institution Center (The Center) emerged from the need to provide more holistic support of a SDC local food systems and prioritize community-wide access to healthy food procured from local farms. The Center focuses on 1) improving access and support for local, healthy foods through institutions (e.g. school districts), 2) increasing business potential for local farms, and 3) furthering environmental sustainability within our food system. Facilitated by the Center, the F2ST provides opportunities for growers, school districts, distributors, and other F2S stakeholders to network, share best practices, promote peer-to-peer education, identify and develop common solutions, and leverage resources.

The vision of the F2ST is for school children to enjoy healthy foods that maximize seasonal and local products and bolster student achievement and wellness. The key objectives of the F2ST are to:

- Increase education and awareness between regional food systems and student health
- Foster opportunities for collaboration among F2S stakeholders
- Promote F2S activities in San Diego County
- Advance F2S programs through policy changes

In SY16-17, the F2ST included 37 member organizations consisting of 22 school districts, 7 local food and farm businesses, and 8 community and non-profit partners. F2ST members are defined as any entity that participates in three or more of the F2ST's key activities or meetings per year. Beyond those qualifying for membership, roughly 60 different entities directly participated in the F2ST in 2017 including 32 school districts, 16 community partners, 5 distributors, 3 local growers, and 4 government organizations.

2016-2017 Farm to School Taskforce Members

School Districts and Institutional Buyers

Alpine Union School District
Bonsall Unified School District
Cajon Valley Union School District
Chula Vista Elementary District
Encinitas Union School District
Escondido Union High School District
Escondido Union School District
Fallbrook Union Elementary School District
Grossmont Union High School District
La Mesa-Spring Valley School District
Lakeside Union School District
Lemon Grove School District
National School District
Oceanside Unified School District
Poway Unified School District
San Diego Unified School District
San Ysidro School District
Santee School District
Solana Beach School District
South Bay Union School District
Sweetwater Union High School District
Vista Unified School District

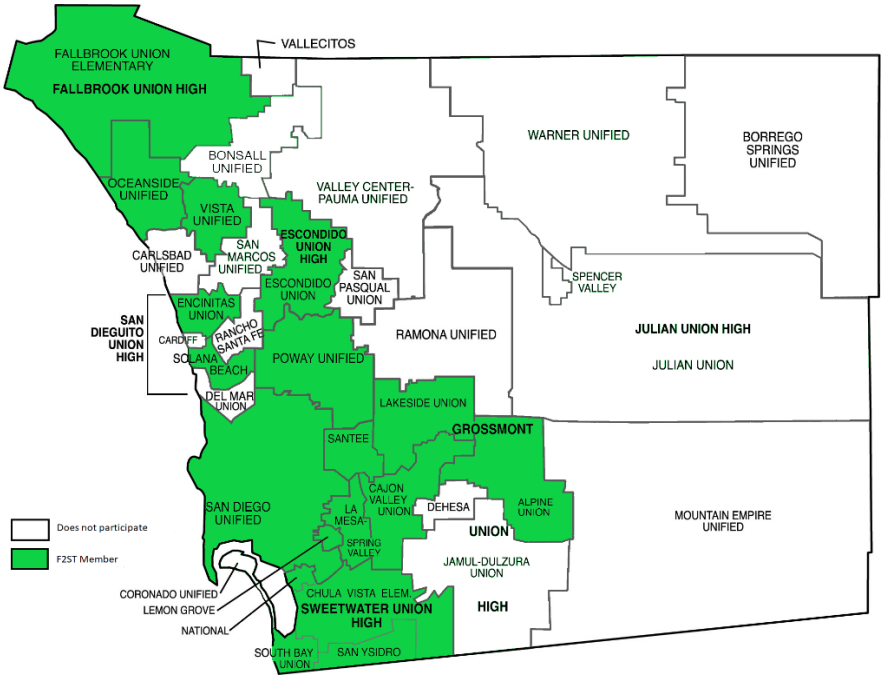
Community Partners

Alchemy
San Diego Hunger Coalition
Center for Ecoliteracy
County of San Diego Health & Human Services Agency
Dairy Council of San Diego
San Diego Hunger Coalition
UCSD Center for Community Health
YMCA

Farm and Food Businesses

American Produce
Dickinson Farm
Catalina Offshore Products
Coastal Roots Farm
Solutions for Change/Solutions Farms
Sundial Farms
Sunrise Produce

2016-2017 Farm to School Taskforce Member Map

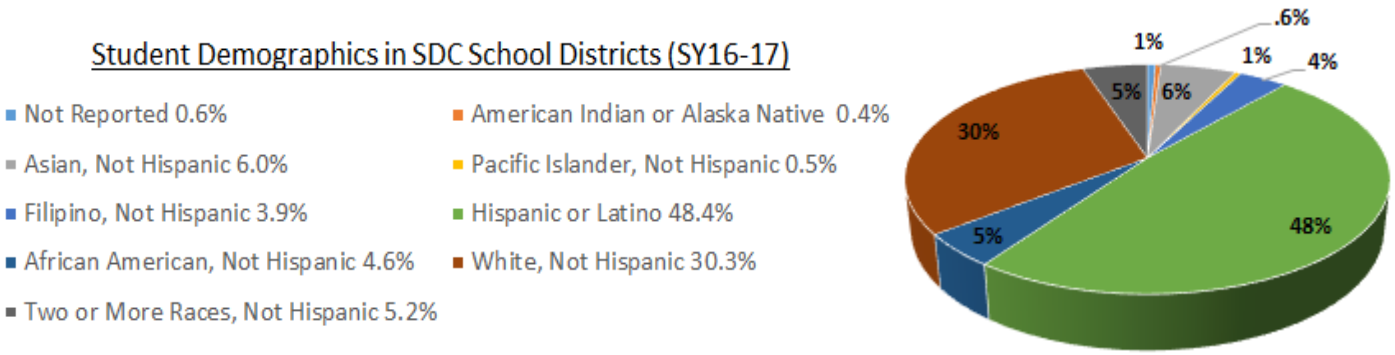


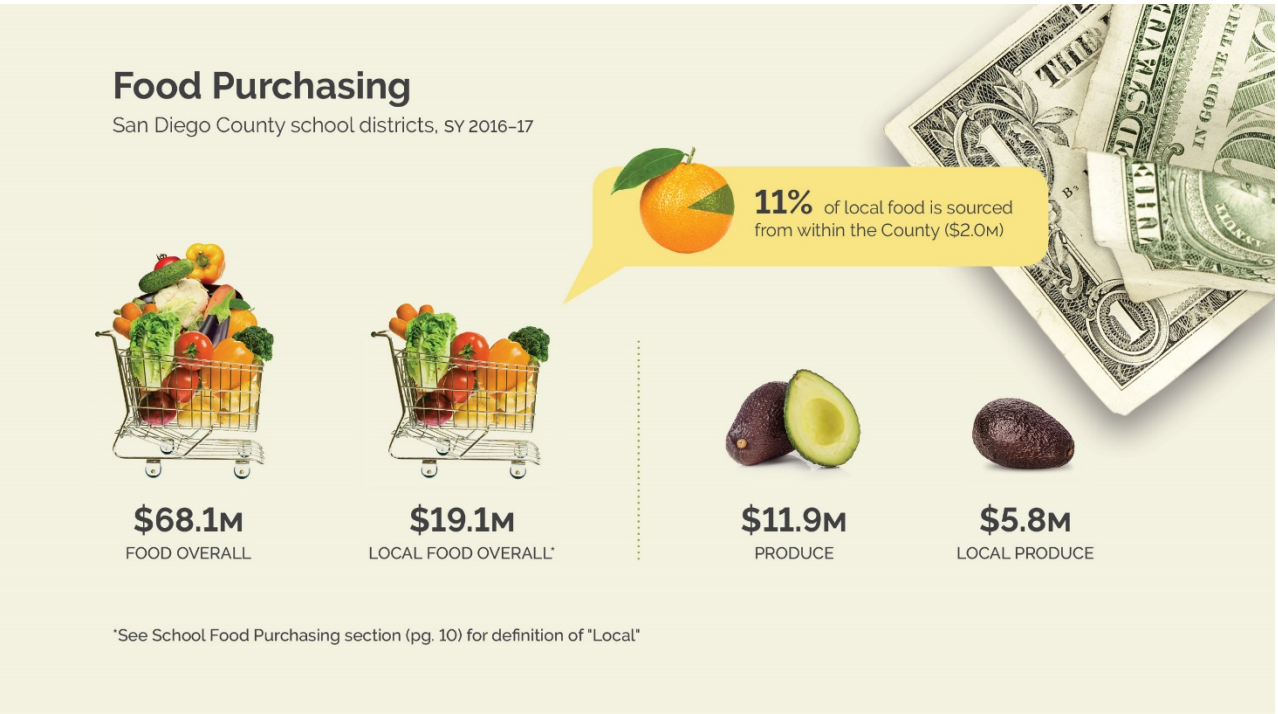
IV. Findings

San Diego County School District Demographics

San Diego County (SDC) has 42 public school districts comprised of 748 schools with a total enrollment of 500,904 students in SY16-17. San Diego County's 42 school districts include 122 charter schools, with a student enrollment of 68,781 students in SY16-17.

Across SDC schools, 69.7% are non-white minorities. Roughly half of SDC students (48.4%) are from Hispanic or Latino ethnicity. Research broadly indicates higher food insecurity and childhood obesity rates in low income, African-American, Hispanic and American-Indian populations.[27,28,29] Of the total students enrolled in both public and charter schools in SY16-17, 40% of students (201,376 students) qualify for free or reduced price meals. In public schools alone, almost half (46%) of students are eligible for free or reduced price meals based on household income level. These findings point to the beneficial opportunities for cafeteria meal programs to provide SDC school students with healthy, fresh and affordable meals.





School Food Purchasing

Overall Food & Produce Spending

In SY16-17, SDC's 42 school districts served a total of 58.9 million (M) meals, or an average of 175,406 lunches and 68,335 breakfasts per day. The 37 school districts surveyed spent a combined $68.1M on all food procurement in SY16-17. Notably, total food procurement spending declined significantly among the 31 overlapping school district respondents between SY15-16 and SY16-17 by 5.2% (-$3,740,904). Data trends both locally and nationally could explain why overall food procurement spending significantly decreased from SY15-16 to SY16-17.

In SDC, the student meal participation decline could suggest less funds for total food spending. Changes in total food spending could also be due to types of meals served in SDC school districts. ***Despite declines in overall food spending, overall produce procurement spending increased by +1.8% (+$215,169) between SY15-16 and SY16-17 (between 31 overlapping school district respondents).*** SDC school districts may be shifting purchasing to fruits, vegetables and other less expensive products. A minor shift in school districts purchasing more produce and less meat could decrease food spending needs.

Nationally, the decrease in food purchasing noted could partially be explained through the decrease in overall food value. Based off the U.S Bureau of Labor Statistics, the average inflation on U.S food went from 1.075 between July 2015 and July 2016 to 0.125 between July 2016 and July 2017.[30] Since the cost of food did not rise during SY16-17 at typical levels, food could have required less spending than district budgets had allocated.

Local Food & Local Produce Spending

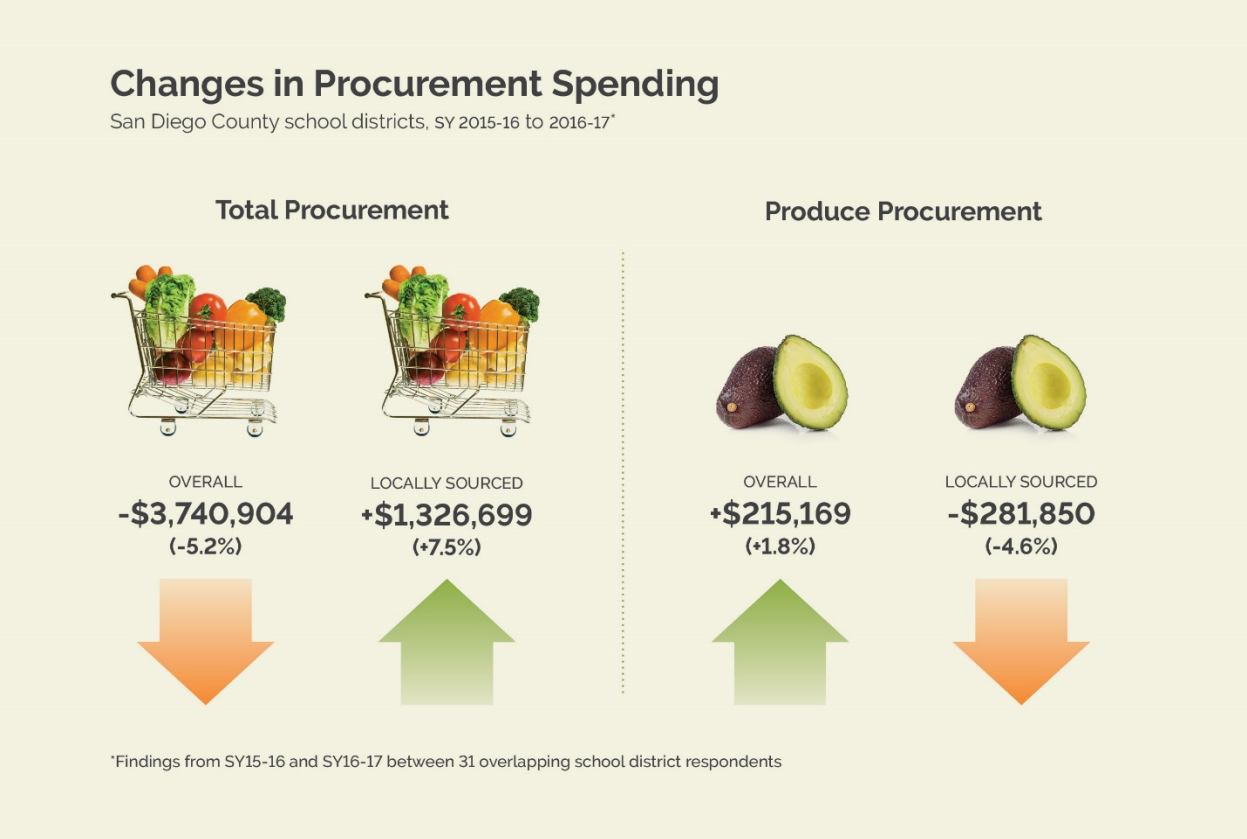
Despite declines in total procurement spending between SY15-16 and SY16-17, SDC districts are continuing to highly prioritize and increase local food spending. Local food spending increased from $17.7M in SY15-16 to $19.1M across all survey respondents for both years.

Comparison between SY15-16 and SY16-17 shows a similar trend, with locally sourced food increasing by 10% ($1,714,199) among the 31 overlapping school districts who responded to both surveys. The growth in total local food spending showcases the continued emphasis SDC districts place on serving students fresh and healthy meals.

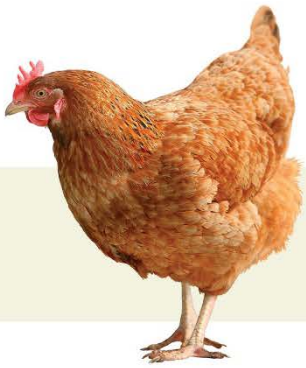
While definitions of "local" vary across SDC school districts, 40% of SY16-17 survey respondents use the F2ST definition of local. The F2ST has adopted a three-tiered definition of local as food grown, raised or produced:

- In San Diego County (Tier 1)
- Within 250 miles of San Diego County (Tier 2)
- In California (Tier 3)

The F2ST definition is designed to prioritize food grown in SDC (Tier 1), but incorporates 250 mile radius (Tier 2) and California state level (Tier 3) to allow for greater volume and range of products at competitive prices to be considered in districts' efforts to source local. Other school districts reported using alternative definitions of local during SY16-17 including: 50 mile radius around school district, California grown, and any product grown within California and Arizona.



While procurement of overall local food products increased, SY16-17 survey respondents reported a decrease in spending on locally sourced produce between SY15-16 and SY16-17 (among 31 overlapping school district respondents). The finding could suggest school districts are sourcing more local products beyond fruits and vegetables (i.e. meat, dairy, protein, etc.), or that produce costs may have decreased nationwide compared to prices of local produce, leading to tougher competition.



9 school districts purchase direct from local farms

San Diego County school districts, SY 2016-17

Perhaps most remarkably, school districts in SDC are sourcing locally ***within*** the County. In SY16-17, school districts reported a total of $2.0M spent on local food sourced directly within SDC (11% of local food spending). ***Of the 37 school districts surveyed in SY16-17, 9 school districts purchased directly from a local SDC farm.*** Increased local food purchasing from SDC emphasizes the massive impact of the collaborative efforts of SDC school districts, distributers and local growers around sourcing regional and local food.

Total Meal Costs

Locally sourced food has the common perception of being more expensive. ***Surprisingly, despite SDC districts increasing local food spending from $17.7M in SY15-16 to $19.1M in SY16-17, cost per meal comparisons show a decrease of 2 cents from SY15-16 to SY16-17.*** Adjusting for inflation,[31,32] costs per meal declined from $1.22/meal in SY15-16 to $1.20/meal in SY16-17 during the same period. Given school food quality needs to meet USDA guidelines, the findings imply either more efficiency in school food procurement, preparation and serving food and/or reduction in food and labor costs.

*Findings from SY15-16 and SY16-17 between 31 overlapping school district respondents

Challenges to Buying More Local Food

The integration of fresh, nutritious, locally and regionally sourced food into a school cafeteria is a major component of increasing student awareness and engagement in the local food system and consumption of healthy food.[33] Successful integration of locally and regionally sourced food depends on many factors including: food service budgets, kitchen infrastructure, availability of key agricultural products, and distributer relationships. Top concerns and needs around sourcing locally are addressed below.

Top Local Food Procurement Priorities for School Districts (SY16-17)

Prioritized Topics	Top 5 Concerns About Buying Local Food	Top 5 Needs to Buy Local Food
Budgeting for Local Food	1. Higher prices: 49%*	1. Competitive pricing of local foods: 62%*
Year-Round Availability of Local Produce	2. Hard to find year-round availability of key item: 24%*	2. Better information on availability of local foods: 38%* 3. Variety of available products: 24%*
School Food Service & Kitchen Infrastructure	3. Lack of availability of processed/precut products: 22%*	4. Lightly processed products available: 19%*
Sourcing Local Produce through Distributer	4. Local items not available from primary vendor: 22%* 5. Hard to coordinate procurement of local with regular procurement: 16%*	5. Single ordering method for ordering local product: 22%*
* Percent (%) reported of total school district respondents reported during SY16-17		

Budgeting for Local Food

The higher cost of buying local food was the top barrier reported (49% of the 37 school district respondents during SY16-17). Similarly, 62% of SDC districts reported competitive pricing as a top need for sourcing locally. While locally grown food continues to have higher costs for various reasons (e.g. lack of economies of scale in production, higher labor costs per product, etc.), ***data from SY16-17 illustrates that SDC districts are continuing to increase local food spending and keep food costs low.*** Surprisingly, despite SDC districts increasing local food spending from $17.7M in SY15-16 to $19.1M in SY16-17, costs per meal decreased.

Closer examination of only F2ST-member participating school districts continues to support this trend. During SY16-17, F2ST members spent significantly more on local food than non-F2ST members: F2ST members purchased 91% of total local food and 89% of local produce across SDC districts. With significantly more SDC district spending on local food, you might expect SDC districts to spend more on costs per meal. However, the data seems to tell another story. F2ST member districts spent on average $1.18/meal, compared to non-F2ST member school districts who spent on average $1.40/meal

(between 31 overlapping district respondents). Even with significantly more spending on local food, F2ST members were able to keep meal costs down.

While the data does not explain how F2ST members are able to maintain low meal costs while buying local foods, possibilities include: higher meal participation rates leading to higher cost reimbursements, relationships with local farmers reducing transaction costs, menu-planning designed to counter higher local food costs, and staff trained in scratch cooking.

Although school districts have proven it is possible to buy local food while keeping costs in line, many districts do not have the budget flexibility to attempt the shift to local buying.
Incentive programs have sprouted in various parts of the country to motivate school districts to make this shift without the risk of financial loss. The Center developed this type of approach through its *Good Food Rebate Program*, piloted in the 2016-17 school year. See Appendix B for details on the program, along with results from implementation.

Year-Round Availability of Local Produce

SDC agriculture provides opportunities for school districts to purchase local food. Per USDA's 2012 Census of Agriculture, San Diego County has 3,932 small farms of less than 10 acres, the highest number of small farms of any county in America. Based on the 2017 County of San Diego Crop Statistics and Annual Report, an estimated 27% of small farms in SDC produce fruits, vegetables and nuts.[34] San Diego County ranks nationally as the #1 producer of avocados, #5 producer of lemons and #9 producer in strawberries.[35] Top production value crops include avocados ($112M), lemons ($69M), tomatoes ($52M) and oranges ($49M).[36]

Despite San Diego's farming landscape, much work remains sourcing SDC produce in school cafeterias. Survey responses indicate 24% of school districts reported difficulty finding year-round availability of key agricultural products in SY16-17 (an increase of 6.1% between SY15-16 and SY16-17 for overlapping respondents). This significant increase could point to changes in agriculture and increased barriers to year-round produce sourcing in SDC.

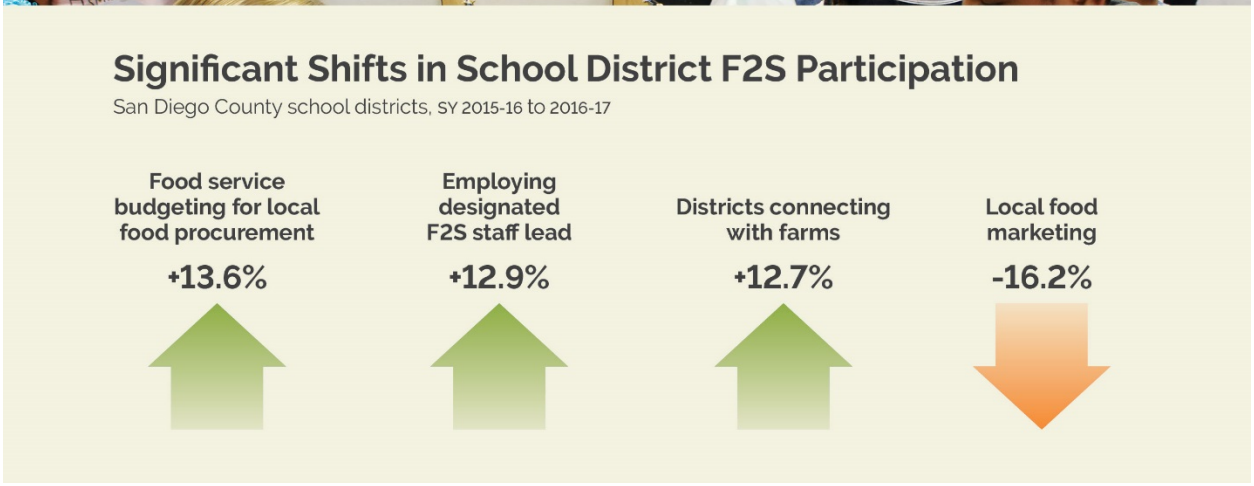
Closer examination is needed on why SDC districts reported availability of sourcing year-round produce as a significant barrier to local sourcing. ***In SY16-17, 38% of school district respondents mentioned a high need for information on availability of local foods (i.e. what products are in season and available). Additionally, school districts cited a top need for variety of local products (24% of school districts surveyed) in SY16-17***. These findings suggest school district barriers to sourcing year-round products may come from lack of produce availability. Alternatively, both above findings may point to a lack of information on seasonal product availability by farm.

San Diego School Food Service & Kitchen Infrastructure

Kitchen capacity remains a top need when procuring local food in SDC, given local food is not normally processed upon delivery and a notable lack of processing facilities in SDC. ***In SY16-17, survey respondents from 37 school districts reported a total of 204 production kitchens and 399 satellite kitchens.*** A comparison between SY15-16 and SY16-17 (between 31 overlapping district respondents) indicate relatively no changes (0.5%) in new satellite kitchens in SY15-16. Access to kitchen infrastructure was indicated as a determinant of whether school nutrition service personnel could procure, prepare and serve local and regional foods.

Over half (65%) of respondents indicated limited or no capacity to process fresh produce. Given school district limitations of processing fresh produce, 19% of school districts from SY16-17 reported a need for lightly processed products (i.e. sliced apples, peeled carrots, etc.).

However, school districts could be finding new and innovative ways to incorporate scratch cooking and local food processing into kitchen operations. Overall, only 5% of school districts in SY16-17 reported lack of kitchen equipment to process and prepare local food as a top concern to local food purchasing. These findings could be due to other top priority needs, or decreased barriers in kitchen capacity for local sourcing. Additionally, only 8% of school district respondents reported a need for staff training (e.g. food safety, kitchen skills and recipe planning) in SY16-17, which could suggest kitchen infrastructures have improved or more resources have been recently put towards staff training.



Sourcing Local Produce through Distributers

Examination of school district relationships with distributers provides insight into school district sourcing trends. For 73% of SDC school district respondents, the primary produce distributers in SDC are either American Produce, Sunrise Produce, or Diamond Jack.

Methods to address top concerns around local food sourcing are explored in connection with local and regional produce distributers. In SY16-17, 22% of school districts reported having a single ordering method for sourcing locally was a top need (i.e., through distributor, food hubs, etc.), which has decreased from 38% of schools who reported in SY15-16. The decrease suggests school districts have other major constraints to sourcing local food, or, school districts are becoming more efficient and growing capacity to work with multiple vendors.

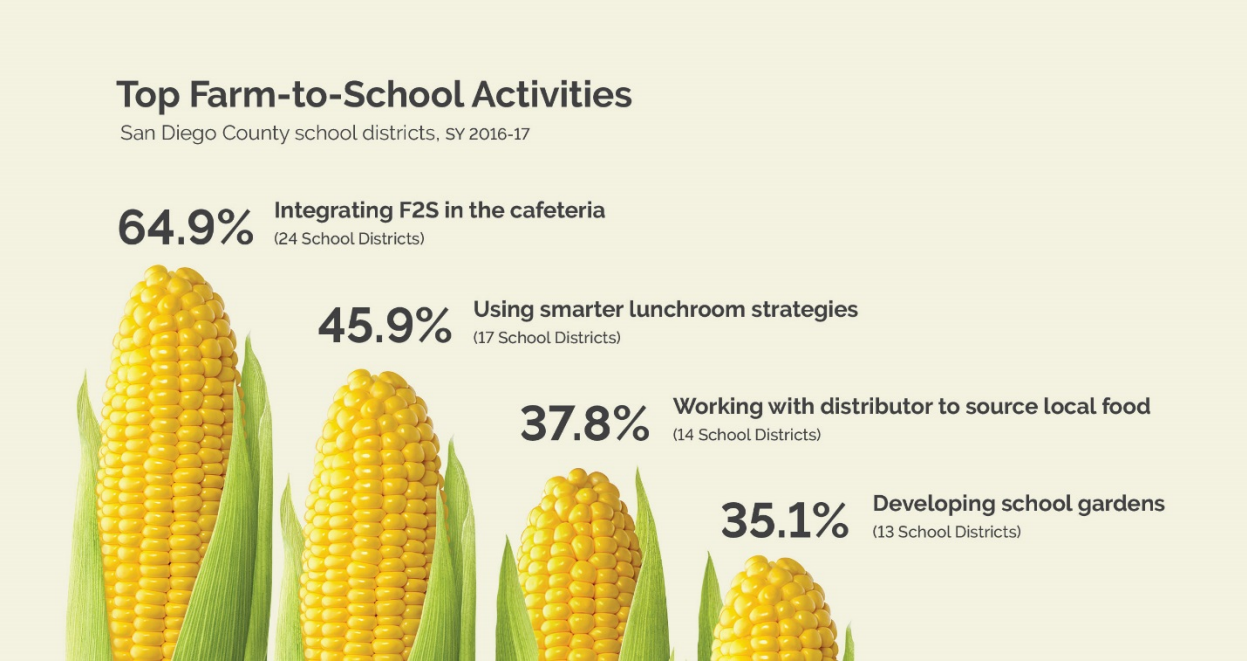
Distributor businesses continue to show varying degrees of engagement with local procurement efforts. Of the SY16-17 respondents reporting on top challenges to sourcing locally, 8 school districts (22%) reported lack of availability of local items from primary vendors. 6 school districts (16%) reported difficulty coordinating local food procurement with their regular procurement processes.

In contrast, some SDC distributor businesses have made proactive steps towards local food distribution and F2S connections. CHIP's F2I Center recognizes and appreciates the active involvement of these businesses in the F2ST, and their continued partnerships with school districts, local growers and the broader F2S community. As school districts continue to prioritize local food sourcing, the Center recommends increased local grower connections and transparency with these distributor businesses (see Recommendations, pg. 23).

V. Farm to School Activities

SDC school districts are continuing to grow F2S activities in their gardens, cafeterias and classrooms. The average number of F2S activities per school district has nearly tripled since SY13-14. ***Of the 37 responding school districts, 29 (78%) led F2S programming activities during SY16-17. Comparison between survey respondents of SY 15-16 and SY16-17 (between 31 overlapping SDC districts) indicates 6 additional school districts implemented F2S activities in 2016-2017 (19% increase).***

Designated F2S staff has increased from only 6 school districts in SY15-16 to 11 school districts in SY16-17. F2S staff leads are important particularly when school districts have not institutionalized support for F2S programming through wellness policies. As of now, a lack of F2S policies is the norm for school districts. Without district policies, F2S leads are critical for growing these efforts, particularly as the work is chiefly passion-driven.



Noteworthy trends in F2S Programming:

1) **Harvest of the Month (HOTM) programming:** The Harvest of the Month initiative is supported by the California Department of Public Health, and implemented locally through the University of California San Diego's Center for Community Health, a long term community partner of the SDC F2S Taskforce. HOTM provides numerous nutrition education resources to support healthy eating and active living, including support for procurement and promotion of sourcing local and seasonal produce. School districts are provided a collective "Harvest of the Month Calendar", which displays local and seasonal fruits and vegetables available within SDC throughout the year. The HOTM program provides lessons and activities for students, families, and the community to engage in hands-on opportunities to explore taste, and learn about the importance of eating fruits and

vegetables and being active every day.[37]

Comparison between SY15-16 and SY16-17 (between 31 overlapping school district respondents) highlights a slight decline in HOTM programming from 16 school districts in SY15-16 to 14 school districts in SY16-17. Even so, the number of school districts who implemented HOTM *with support from* UCSD Center for Community Health remained the same across both years (7 school districts in SY15-16 and SY16-17). These findings could suggest a decline in HOTM programming only from school districts implementing the program informally without direct program support.

Despite this, of the SY16-17 survey respondents, 5 school districts currently not participating in HOTM expressed interest in implementing the HOTM program. The data shows opportunity for support from community partners to increase HOTM programming.

2) **Local Food Sourcing:** Local food sourcing has gone from being a trend to the norm for school districts. The number of school districts which purchased local food is rapidly growing from 24 in SY14-15 to 28 in SY15-16 to 32 school districts in 2016-17.

In 2013-2014, school districts spent a total of $3.1M on local food. In SY16-17, school districts reported spending over six times that amount, with over $19.1M of local food spending.

From the 2015-2016 to 2016-2017 school year, 13.6% more school food services budgeted for local food procurement, indicating increased school district support around local sourcing. Additionally, from 2015-2016 to 2016-2017, 24% more school districts reported connecting with local farms (9 school districts total).

3) **California Thursdays:** The California Food for California Kids initiative and its signature program California Thursdays is a collaboration between the Center for Ecoliteracy and a network of public school districts to serve healthy, freshly prepared school meals made from California-grown food.[38] The idea behind California Thursdays is for school districts to serve California-grown food at least one day a week, and to gradually change school district practices to serving fresh, healthy, local food every day. The California Food for California Kids initiative utilizes a collective impact model to activate networks with shared goals around supporting local food systems.

California Thursdays expanded in San Diego County from 5 participating school districts in 2014-2015, to 12 in SY15-16, and 13 school districts in 2016-17. In the 2014-2015 school year,

the Center for Ecoliteracy partnered with CHIP's F2I Center to drive a concentrated effort to regionally expand the California Thursdays program in SDC. During the 2016-2017 school year, San Diego County now has 13 participating school districts in the California Thursdays program (30% of all SDC school districts).

4) **Salad Bars & School Gardens:** The number of salad bars and school gardens remained roughly the same from SY15-16 to SY16-17. School salad bar trends remained similar from previous years. Total school gardens slightly declined by .5% (12 fewer school gardens), while total number of salad bars slightly increased by .04% (2 more salad bars) in comparing 31 overlapping school district respondents between SY15-16 and SY16-17. While total number of school gardens in SDC presents a decline between 15-16 and 16-17, closer observation of the data seems to reflect only a few outlier school districts. Additionally, school gardens vary throughout SDC in terms of size and F2S programming styles. While the data reflects the number of school gardens in SDC, recommendations are given around working with community partners and school districts to distinguish types of school gardens, best practices and future needs. ***Among all SDC district respondents, a total of 481 salad bars and 228 school gardens were reported in 16-17.***

5) **F2S Marketing:** While substantial progress has been made in F2S in SDC school districts, most school districts have not communicated this progress to the public effectively. School district respondents in SY16-17 reported only 9 school districts actively marketing their F2S efforts, compared to 14 school districts in SY15-16. SDC school districts are continuing to encounter barriers around marketing local, fresh and healthy food served. Given the development of F2S activities in SDC, there is strong, evidence-based need for building F2S community awareness to improve school meal participation rates. Studies have shown improved parental perception of school food leads to increased meal participation rates among school children.[39]

   While the quality of school meals has improved in several school districts (i.e. improved scratch cooking methods, increased local food procurement, additional fresh and healthy options), school meal participation has remained stagnant countywide. School meal participation rates across SDC school districts averaged 39.6% in SY15-16, and remained roughly the same in SY16-17 (slightly decreased to 38.3%). Local food marketing to improve parental perception would increase school meal participation, providing school district food service additional funds for improving kitchen infrastructure, improving meal quality, and purchasing local foods. The Center is currently working with SDC school districts to grow F2S marketing efforts and form public support for the movement starting in the 2018-19 school year. See forthcoming *State of Farm to School in San Diego County* reports for results and recommendations based on this work.

F2ST members San Diego County school districts, SY 2016–17

…are a large, influential group

Out of SDC school districts, the F2ST represent:

74% of overall school district enrollment

77% of schools

85% of meals served

…had more active and robust F2S activities

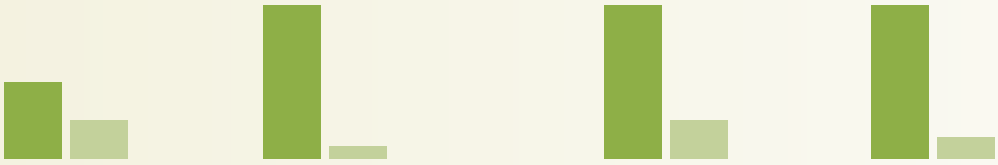
Compared to non-F2ST school districts, F2ST school districts had:

Higher F2S Index Scores
0.36 F2ST
0.25 NON-F2ST

More CA Thursdays participation
12 OF 18 F2ST
1 OF 18 NON-F2ST

More HOTM participation
12 OF 18 F2ST
3 OF 18 NON-F2ST

More school gardens
200 F2ST
28 NON-F2ST



…were more engaged in local food purchasing

Out of SDC school districts, F2ST school districts purchased:

83% of Total Food

91% of Total Local Food

87% of Total Produce

89% of Local Produce

Despite this, F2ST members have kept food costs low.

Average food $/meal is $0.22 less in F2ST school districts than non-F2ST

VI. F2ST & Non-F2ST Members

This section showcases the strength and influence of the F2ST group within the overall school district landscape in SDC. Facilitated by CHIP's F2I Center, the F2ST provides opportunities for F2S stakeholders to network, share best practices, promote peer-to-peer education, identify and develop common solutions, and leverage resources. While the research does *not* verify whether F2ST participation has led to growth in F2S programming (i.e. F2ST participation *causing* more F2S activities), results do show 1) the immense size and collective strength of the F2ST, 2) the amount and intensity of F2S participation within the group, and 3) the ability the group has to sustain their progress in both F2S activity and quality of school meals.

F2ST member school districts carry significant influence over the quality of school meals, nutrition education, and emphasis on farm to school provided to SDC K-12 students as a whole. Although the 22 F2ST member districts account for just less than half of the County's 42 school districts, these school districts account for many of the larger districts in the SDC region, and thus work with large staff and student populations to carry out F2S programming. ***Overall, F2ST members represent 84.8% of all San Diego County schools' meals served, 76.9% of all schools, and 74% of total student enrollment.***

Survey data indicates F2ST member districts were more likely to conduct F2S activities than non-members. Compared to non-member districts, F2ST members were significantly more likely to participate in CA Thursdays, HOTM, school garden programs, and use the F2ST definition of local foods. Given the collective influence of F2ST member school districts on the County student population, this F2S activity is likely to positively impact a large amount of schoolchildren in a number of ways, based on the evidence provided in the earlier *Benefits of Farm to School* section on pg. 3.

Furthermore, F2ST member districts were more likely to prioritize local foods in their produce contract and dedicate a higher portion of their produce budget to local food costs. Overall, F2ST member districts spent on average $46.64/per student on local food procurement during SY16-17, while non-F2ST member districts spent on average $13.40/per student in SY16-17. F2ST districts account for nearly all local foods purchased (91%) and local produce purchases (89%) made across surveyed school districts in SY16-17.

While the SY16-17 survey results indicate that the main concern for SDC school districts buying local food is cost, the survey data indicates F2ST member school districts are buying local and keeping average per meal costs down. Notably, F2ST members had a significantly *lower* average per meal food cost ($1.16/meal) in SY16-17 than non-F2ST members ($1.40/meal) by 24 cents. The data goes against the common perception that school districts cannot afford local produce because of costs (i.e. cooking unprocessed food, buying locally, training staff on scratch cooking, menu planning, etc.). F2ST members have found successful strategies to buy local foods while still keeping average per meal costs low.

In summary, F2ST members are continuing to challenge perceptions of F2S programming and local food sourcing by finding new and innovative solutions. The group is leading the way in both F2S programming participation and implementation of creative strategies to solve key challenges. ***The F2ST is growing, and continues to influence F2S programming throughout the County.***

VII. F2S Index

During the *2014-15 State of Farm to School in San Diego County* report, CHIP introduced a new metric for measuring and tracking the level of school district participation in F2S programs: **the Farm to School Index (F2S Index).**

The F2S Index ensures small and medium-sized district who have robust F2S programs do not get overlooked by virtue of their size. ***The F2S Index is a balancing measure that provides equal emphasis to the prevalence of local foods purchasing, nutrition education, and school gardens within a district. The measure is also normalized, meaning that it can compare districts of varying size on the same scale.***

How It Works

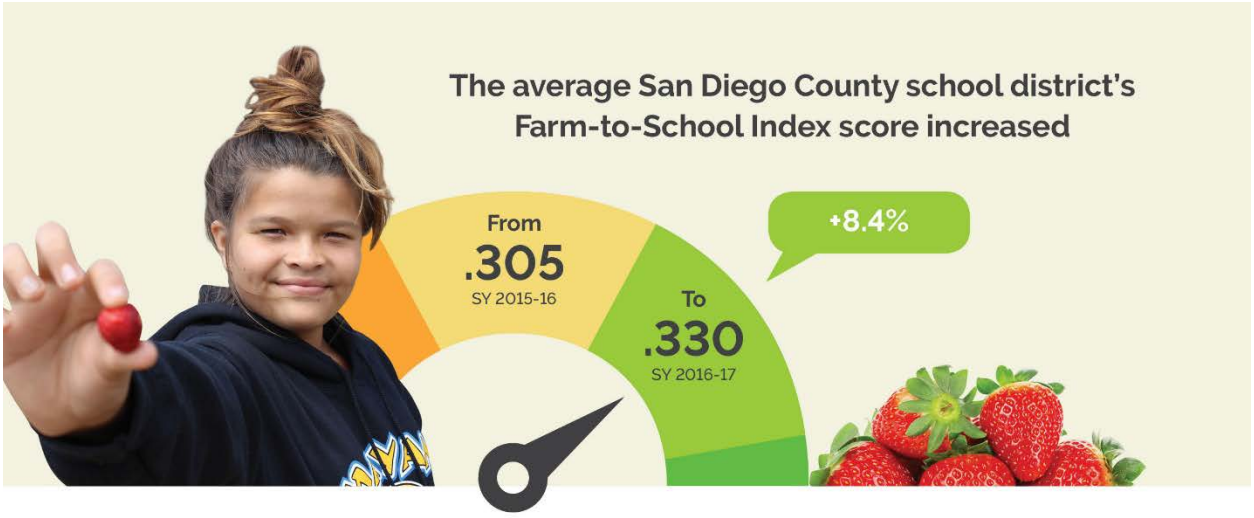
- The F2S Index uses a 0 to 1 scale in which districts scoring "1" represent the most active, robust F2S program.
- The F2S Index is made up of three subcomponents, one for each of the three prongs of F2S: local foods procurement, nutrition education, and school gardens.
- The F2S Index is a relative measure in which the maximum score in each sub-component is established by the highest performer in each sub-component.

The F2S Index can be a useful evaluation tool for F2S advocates and researchers as they seek to better measure F2S activity and track its growth across communities, regions, states, and the country. ***For more information on how the F2S is measured, see the 2014-2015 State of Farm to School in San Diego County report.***[40]

Trends in F2S Index Scores in SY15-16

In 2016-2017, the average F2S Index was .330, an increase from the 2015-16 average of .305.[i] Overall, this figure represents a 8.4% increase in the region's average overall F2S Index. This figure showcases how F2S activities in San Diego have steadily increased in San Diego County over the past year.

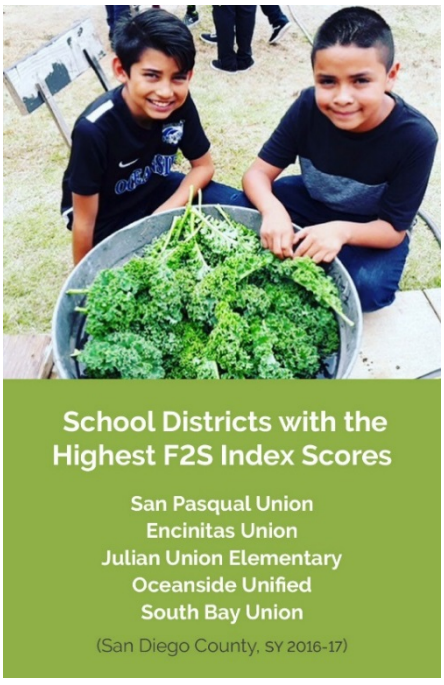
[i] The 2015-16 average F2S Index result is a correction from the 2015-2016 State of Farm to School Report



Non-F2ST member school districts reported an overall F2S Index Score average of 0.20 in SY16-17. Comparatively, F2ST member districts averaged a 0.38 F2S Index Score in SY16-17. The higher F2S Index Score averaged from F2ST member districts indicates a higher level of engagement and participation in F2S programming from F2ST member districts.

The F2S Index Score is a combined measurement of the three components of F2S (school gardens, procurement of local foods and nutrition education). ***School districts with the highest F2S Index Scores contribute to the three F2S areas in new and innovative ways, including the following***:

- **San Pasqual Union** is making strides developing F2S programming and school gardens, despite being a very small school district.
- **Encinitas Union** is focused on providing school garden programming and exposure to the Farm Lab, an innovative indoor and outdoor educational campus, for all district students.[ii]
- **Julian Union Elementary** places a strong emphasis on nutrition education for students in the district, including through their annual Food Day Farm to School workshops.
- **Oceanside Unified** prioritizes procurement of local foods and budgets a large portion of their annual food budget to sourcing locally.
- **South Bay Union** incorporates F2S programming with after school programs and Smarter Lunchrooms cafeteria programming integration.



[ii] For more on the Farm Lab, visit: http://www.eusdfarmlab.com/

VIII. Recommendations

Recommendations
School Districts
Commit to using the common F2ST definition of "local"- Collective buyer support around a common "local" definition allows for better reporting and tracking potential. Unified sourcing requests also lead distributors to adjust their source "local" labeling and provide better supply chain reports to buyers.
Participate in the F2ST- The F2ST group has a great deal of experience in making F2S happen as well as streamlined access to knowledge, resources, community partners, and relationships with food and farm businesses that can be mobilized to help school districts grow their F2S program.
Create wellness policies supporting Farm to School- By creating F2S district policies, SDC school districts can leverage this support in creating district-wide buy in of F2S, leading to F2S budget allocations into Local Control and Accountability Plans (LCAP) to ensure program sustainability.
Grow efforts around local food marketing- While substantial progress has been made in developing F2S activities in SDC school districts, school districts have not communicated this progress to the public effectively overall. Focused marketing to shift community perception can ultimately lead to higher school meal participation rates.
Community Partners
Provide education materials on Seasonal Produce- Educational materials on availability of key agricultural products in SDC (e.g. CHIP's Crop Availability Charts[41]) supports local procurement efforts within SDC school districts by making it easier to determine product availability by farmer.
Generate lessons and technical assistance around scratch cooking- Over half of SDC school district respondents reported limited or no capacity to process fresh produce during SY16-17. Access to kitchen infrastructure and training for school nutrition service personnel to procure, prepare and process foods develops school district capacity for integrating unprocessed (or minimally processed), locally sourced food.
Continue supporting school gardens & salad bar programs- SDC trends in school gardens and salad bar programs have remained roughly unchanged from previous years. Support growing infrastructure and capacity for new farm/garden-to-cafeteria programs, as well as determining types of school gardens in SDC and best practices.
Local Growers/ Distributers
Strengthen practices around local sourcing- Increase sourcing transparency and provide SDC districts information on seasonal, local and sustainable products.

IX. Appendix A- San Diego County F2S Resource Guide

The following resource guide includes a number of local, state, and national resources that can help grow and sustain school districts' F2S programs. The guide is organized into the three pillars of F2S: local procurement, nutrition education, and school garden development.

Procurement		
Local foods are purchased, promoted and served in the cafeteria.		
Member Resource/Support	**What they do/provide**	**Contact**
Center for Good Food Purchasing	Provides resources for public institutions to purchase good, sustainable food including technical assistance and branding materials.	https://goodfoodpurchasing.org/
CHIP's F2I Center	Manages and facilitates the F2ST group; provides technical support on procurement bid development, F2S strategic planning, and seasonal crop availability; mediates sales relationships between school districts and local farms.	nstewart@sdchip.org / 858-609-7978 or pdurairaj@sdchip.org / 858-609-7962 www.sdchip.org www.f2icenter.org
Community Alliance with Family Farmers	Facilitates technical support on local procurement, food safety, etc.	https://www.caff.org/programs/ftc/farm-to-school/
Good Food Showcase	Connects local farms and good food producers with institutional buyers including school districts.	www.f2icenter.org/initiatives/good-food-showcase/ for more information

Education		
Students participate in educational activities related to agriculture, food, health, or nutrition.		
Member Resource/Support	**What they do/provide**	**Contact**
Center for Ecoliteracy – California Thursdays®	Provides technical support for school districts.	www.californiathursdays.org

Dairy Council of California	Distributes nutrition education resources for schools and teachers.	www.healthyeating.org
Dunk Tank Marketing	Manages education-based Farm to School Marketing support for school districts.	www.dunktankmarketing.com
Smarter Lunchroom Movement	Brings technical support for schools to build a lunchroom environment which makes healthy food choices the easy choice.	www.smarterlunchrooms.org
UCSD Center for Community Health	Manages Harvest of the Month programming, educational materials, support, and policy materials.	https://ucsdcommunityhealth.org

School Gardens		
Students engage in hands-on learning through gardening.		
Member Resource/Support	**What they do/provide**	**Contact**
Ecology Center	Provides support around building sustainable organic campus garden programs.	www.theecologycenter.org/
Good Neighbor Gardens	Manages school gardens and community support.	www.goodneighborgardens.com
Master Gardeners	Provides technical assistance and resources for school garden support.	www.mastergardenerssandiego.org/schools/ppt.php
Resource Conservation District	Provides school/community garden program education.	www.rcdsandiego.org
San Diego Community Garden Network	Mentors and supports community gardens and education.	http://sdcgn.org
Solana Center	Educates on composting and gardening, along with	www.solanacenter.org

	provides classroom curriculum and resources.	
Victory Gardens San Diego	Shares resources on garden curriculum and manuals.	www.victorygardenssandiego.com

Other; policy, access to data, etc.		
Additional resource hubs for farm-to-school stakeholders.		
Member Resource/Support	**What they do/provide**	**Contact**
CA Farm-to-School Network	Provides statewide support network expanding and supporting farm-to-school across California.	www.cafarmtoschool.org
Kitchens for Good	Supports free meals during the school year and summer through the CCFP program.	https://kitchensforgood.org/
San Diego County Childhood Obesity Initiative	Has resources including tools for schools, wellness policy language, healthy fundraising, etc.	http://ourcommunityourkids.org
Healthy Works – Live Well San Diego, County HHSA	Manages county-funded programs and interventions on healthy eating, school wellness, etc.	www.healthyworks.org
National Farm to School Network	Provides information, advocacy and networking hub for F2S stakeholders.	www.farmtoschool.org
San Diego Food Systems Alliance	Supports efforts in Food Waste and Reduction.	www.sdfsa.org/savethefoodsd
San Diego Hunger Coalition	Manages research, education, and advocacy on ending hunger in San Diego County.	www.sandiegohungercoalition.org
USDA	Facilitates grants, resources, and support around farm to school.	www.fns.usda.gov/farmtoschool/farm-school

X. Appendix B- Good Food Rebate Program

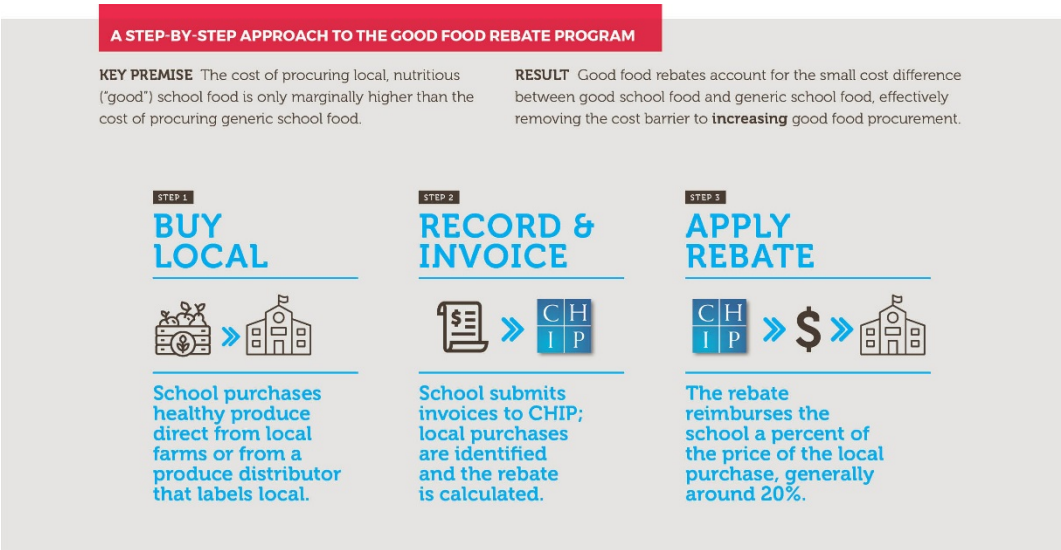
The Good Food Rebate Program (GFRP)[iii] is an initiative, developed by the F2I Center, offering institutions targeted financial incentives for increasing purchasing of local and sustainable foods. The idea is to provide institutional food buyers with 20% rebates on local, good food purchases over a specific period of time to catalyze a shift in their long-term purchasing practices.

The program was designed based on feedback collected from SDC school districts through F2I Center's *State of Farm to School in San Diego County* surveys, which consistently show that the main challenge to school districts in purchasing local foods is the high cost An economic barrier calls for an economic solution, and the GFRP is one such solution.

The key premise of the GFRP is that 'good food' may cost, on average, more than 'conventional' food, but the cost difference is often only a fraction of the conventional price. The aforementioned 20% good food rebates account for the small cost difference between good food and generic school food, effectively removing the cost barrier to increasing good food procurement.

CHIP's F2I Center developed and implemented the GFRP in Fallbrook Union Elementary School District (FUESD) during the 2016-2017 school year. **Over the 7-month period, the pilot deployed $5,277 in rebates to support $26,385 FUESD purchases of local, sustainable, and/or fairly produced foods**. **This is over 250% of FUESD's total good food purchasing in the prior year**. Approximately half of the products purchased through the program were bought at or below the price of the non-local, non-organic alternatives.

The pilot demonstrated that a relatively small amount of rebates can be used to shift a substantial amount of a school district's food purchasing into local, sustainable, and/or fairly produced foods. The power of the program lies in its design as an economic solution to what stakeholder institutions identify as an economic problem. By covering the costs of a district's increased good food purchasing for a year, the GFRP provides an efficient and accountable mechanism to bring more good food to those who need it most. Although the program revealed maintaining these gains over the long-term requires more holistic support, the rebate program was successful as a strategy to catalyze good food purchasing.



[iii] To read more about the Good Food Rebate Program, visit: https://f2icenter.org/resources/

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OUR VISION

San Diego County school children enjoy healthy foods that maximize seasonal and local products to bolster student achievement and wellness.

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