

**LiveWell Tots  
Evaluation Report  
2012-2013**

**December 2014**

## Background

The UCLA Center for Health Policy Research (the Center) was contracted by the Beach Cities Health District (BCHD) to evaluate their LiveWell Tots (LWT) Program. The evaluation assesses the program through pre- and post-program surveys, food sampling protocols, and data collection forms. The evaluation design and recommendations for data collection were developed during a previous project for BCHD, and can be found in the LiveWell Tots Evaluation Report dated June 29, 2012.

The LWT Program is an obesity prevention program developed for preschool-aged children. The program aims to educate children on both nutrition and mindfulness through age-appropriate curriculum delivered by BCHD-trained preschool teachers. By providing nutritional information and promoting discussions about food, the LWT Program seeks to increase healthy eating behaviors.

In the fall of 2012, BCHD expanded the LWT Program from three sites at South Bay Adult School (SBAS) to seven sites at two different school districts, SBAS and Redondo Beach Unified School District (RBUSD). The participating schools from SBAS were Knob Hill, North School, and Pacific Center. Overall, there were 194 participating students from this district and eight participating teachers. The participating schools from RBUSD were Alta Vista, Lincoln, Tulita, and Washington. There were 167 participating students from RBUSD and 19 participating teachers. A goal of this report is to analyze program outcomes separately for RBUSD and SBAS to identify strengths and areas for improvement at each district and to assess the expansion of LWT.

## Methods

Evaluation data was collected through self-administered teacher and parent surveys before, during, and after the LWT Program. Results from the following surveys are included in this report:

1. Parent Pre-Program Survey
2. Parent Post-Program Survey
3. Teacher Pre-Program Survey
4. Teacher Post-Program Survey
5. Teacher Post-Lesson Survey
6. Teacher Post-Lesson Survey (1<sup>st</sup> & last lesson)
7. Teacher Training Survey

The report is divided into two sections: program implementation and program outcomes. Program implementation information was gathered on a variety of issues related to the effectiveness of training and lesson curriculum. Program implementation data was collected through the teacher post-program, post-lesson, and training surveys. Program outcome data focuses on the program's ability to accomplish its goals of increasing healthy eating behaviors in preschool children, and positively impacting the teachers' and parents' self-efficacy to instill healthy eating behaviors. Program outcome data was gathered from teachers and parents, and was collected through the teacher and parent pre- and post-program surveys.

Survey questions asked teacher and parent respondents to rate their agreement on a scale of 1 to 5, with 1 being "Strongly Disagree" and 5 being "Strongly Agree". Responses were tallied to calculate a mean score for agreement questions. Program outcomes were assessed by calculating the percent difference between pre- and post-program agreement ratings. Mean agreement rating scores and percent differences are given for all respondents, and

analyzed separately by district and age group. BCHD should be aware that small sample sizes for more granular data may result in unreliable results that are difficult to interpret.

Due to lack of identifiers and ability to match pre- and post-responses for each teacher and parent, the Center could not formally test for statistical significance. BCHD should be aware that small observed increases from pre- to post-program are susceptible to the problem of regression to the mean. For example, improvements on specific measures observed in 3-4 year olds may not be sustained or increased the following school year when these students complete the 4-5 year old curriculum because these students have already been exposed to the first year of the LWT curriculum and have limited room for improvement.

## Program Implementation

The LWT curriculum included teacher training, which consisted of an orientation, ten training workshops, and lesson packets. Nearly 70% of teachers attended all ten training workshops, which are designed as a learning tool for implementing LWT lessons during the year and integrating healthy eating concepts into the broader curriculum. The training sessions ensure that teachers are providing high quality, accurate, and consistent lessons on healthy and mindful eating.

The lessons incorporate nutrition education, controlled breathing exercises, mindful awareness education, and food sampling. The curriculum for Year 1 focuses on using senses, and gratitude as a central theme that is explored throughout all of the lessons. Year 2 focuses on the seasons and the environment in order to demonstrate the connection between seasons and food availability. Parents are also educated through monthly newsletters.

	Year One Lessons	Year Two Lessons
1	Gratitude	Fall Harvest
2	Mindful Seeing	Food Marketing and Packaging
3	Mindful Smelling	Food and The Environment
4	Mindful Touching	Winter Rest
5	Mindful Tasting	Sugar and Love
6	Food and Feelings	Try New Foods
7	Farm to Table	Spring Planting
8	All About Food	Parts of the Plant We Eat
9	Thumbs Up Foods	Summer Fun
10	Eat Like a Rainbow	Water

The teachers used a variety of supplies and props to introduce healthy eating concepts to the preschool students. Examples included books, felt boards, real and pretend fruits and vegetables, music, chimes, flashcards, iPads, and farm toys. The most widely adopted of the “extended learning” components were the breathing exercises, which were incorporated by 94% of teachers. Breathing exercises are designed to build self-awareness and self-management, and help students use their senses to practice mindful eating.

Percent of Teachers who Attended Trainings and Incorporated Extended Learning

			Post Program (N= 16)	
			Frequency	Percent
<b>Number of teacher trainings attended</b>				
	All		11	69%
	Some		4	25%
	None		1	6%
<b>Number of teachers who incorporated "extended learning" components</b>				
	Breathing exercise		15	94%
	Recommended reading		13	81%
	Classroom center activity		11	69%
	Music by Jay Mankita		10	63%

Source: Teacher Post-Program Survey

**Teacher Trainings**

UCLA received post-training surveys for 12 of the 20 LWT lessons, representing 85 total post-training surveys collected. When asked if the training was “Too long”, Too short”, or “Just right”, nearly all of the respondents rated the training they attended as being “Just right” (95%). Three of the lesson trainings- Fall Harvest, Gratitude, and Mindful Seeing- were rated “Too long” by 20% or fewer of the teachers. One respondent felt that the Mindful Smelling training was “Too short”. One respondent suggested that the trainings should be restructured so there is less time spent reading through the script and more time to reflect on the outcome of the prior lessons.

Teacher Perception of LiveWell Tots Trainings, by Lesson

Lesson	Too Short	Just Right	Too Long
All About Food (N=10)	0%	100%	0%
Eat Like a Rainbow (N=5)	0%	100%	0%
Fall Harvest (N=7)	0%	86%	14%
Food Marketing and Packaging (N=2)	0%	100%	0%
Food and Feeling (N=9)	0%	100%	0%
Food and the Environment (N=5)	0%	100%	0%
From Farm to Table (N=2)	0%	100%	0%
Gratitude (N=5)	0%	80%	20%
Mindful Seeing (N=10)	0%	90%	10%
Mindful Smelling (N=15)	7%	93%	0%
Mindful Tasting (N=9)	0%	100%	0%
Mindful Touching (N=6)	0%	100%	0%
<b>Total (N=85)</b>	<b>1%</b>	<b>95%</b>	<b>4%</b>

Source: Teacher Training Survey

Overall, teachers agreed that they received adequate background information and felt comfortable teaching the topics that were covered, with both questions receiving a mean rating score of 4.70 on a 5 point agreement scale. Compared to the other lessons, respondents would like more in-depth information for the Gratitude, Fall Harvest, Mindful Smelling, and Mindful Seeing lessons.

#### Mean Agreement Rating Scores for Teacher Trainings, by Lesson

Lesson	Received adequate background information	Felt comfortable teaching topics covered	Would be helpful to have trainer provide more in-depth information
All About Food (N=10)	4.70	4.70	2.80
Eat Like a Rainbow (N=5)	4.20	4.20	3.00
Fall Harvest (N=7)	4.86	4.86	3.43
Food Marketing and Packaging (N=2)	5.00	5.00	1.50
Food and Feeling (N=9)	4.67	4.44	1.78
Food and the Environment (N=5)	4.60	4.60	2.25
From Farm to Table (N=2)	5.00	5.00	1.00
Gratitude (N=5)	4.60	4.80	3.40
Mindful Seeing (N=10)	4.60	4.50	3.80
Mindful Smelling (N=15)	4.80	4.80	3.67
Mindful Tasting (N=9)	4.78	4.89	2.33
Mindful Touching (N=6)	4.67	4.83	2.50
<b>Total (N=85)</b>	<b>4.70</b>	<b>4.70</b>	<b>2.88</b>

Source: Teacher Training Survey

After teaching the lesson, teachers were asked if they agreed that the training provided enough information. The vast majority of teachers believed that the lesson provided enough information, with an average rating score of 4.57 on a 5 point scale for all trainings combined.

#### Mean Agreement Rating Scores for Training Sessions Post-Lesson

Lesson	The training provided enough information
All About Food (N=7)	4.57
Coconut Water (N=3)	4.33
Fall Harvest (N=2)	4.50
Farm to Table (N=3)	5.00
Food Marketing and Packaging (N=4)	4.67
Food and Feelings (N=8)	4.38
Food and the Environment (N=1)	4.00
From Farm to Table (N=5)	4.33
Gratitude (N=8)	4.50

Lesson	The training provided enough information
Mindful Seeing (N=9)	4.67
Mindful Smelling (N=9)	4.33
Mindful Tasting (N=11)	4.60
Mindful Touching (N=10)	4.60
Spring Planting (N=3)	5.00
Sugar and Love (N=3)	4.67
Summer Fun (N=4)	5.00
Thumbs Up Foods (N=2)	4.50
Try New Foods (N=3)	4.67
Winter Rest (N=4)	4.67
<b>Total (N=99)</b>	<b>4.57</b>

Source: Teacher Post-Lesson Survey

### Program Lessons

Teachers are provided with a scripted curriculum to follow but there is some variability in the way that the program is delivered in the classroom. The nutrition exercise was most adopted by teachers, and physical activity was completed less often than the other lesson components. Breathing and mindfulness exercises were administered in 84% and 71% of the lessons, respectively. About half of the teachers distributed the parent newsletters. One recommendation was to share the parent newsletter in a digital format so that the newsletter could be linked to the class website or emailed.

Average Number of LiveWell Tots Student Participants and Percent of Lesson Completion, by Lesson and Lesson Component

Lesson	Average Number of Students Participating	Percent of Teachers who Completed Lesson Component				
		Breathing Exercise	Mindfulness Exercise	Nutrition Exercise	Physical Activity	Parent Newsletters
All About Food (N=7)	17	100%	83%	100%	50%	67%
Coconut Water (N=3)	12	67%	100%	0%	100%	0%
Fall Harvest (N=2)	17	50%	50%	100%	50%	50%
Farm to Table (N=3)	20	100%	100%	100%	100%	67%
Food Marketing and Packaging (N=4)	19	50%	75%	100%	0%	25%
Food and Feelings (N=8)	20	75%	88%	88%	38%	75%
Food and the Environment (N=1)	21	100%	100%	100%	100%	100%
From Farm to Table (N=5)	16	80%	40%	100%	20%	40%
Gratitude (N=8)	18	75%	63%	75%	38%	50%

Lesson	Average Number of Students Participating	Percent of Teachers who Completed Lesson Component				
		Breathing Exercise	Mindfulness Exercise	Nutrition Exercise	Physical Activity	Parent Newsletters
Mindful Seeing (N=9)	18	100%	78%	100%	56%	56%
Mindful Smelling (N=9)	18	89%	100%	100%	44%	78%
Mindful Tasting (N=11)	18	100%	82%	82%	36%	64%
Mindful Touching (N=10)	18	100%	80%	90%	50%	60%
Spring Planting (N=3)	17	100%	100%	100%	50%	50%
Sugar and Love (N=3)	18	67%	100%	100%	0%	67%
Summer Fun (N=4)	19	100%	100%	100%	50%	25%
Thumbs Up Foods (N=2)	14	100%	50%	100%	0%	0%
Try New Foods (N=3)	17	100%	50%	100%	0%	0%
Winter Rest (N=4)	18	75%	75%	100%	0%	0%
<b>Total (N=99)</b>	<b>18</b>	<b>84%</b>	<b>71%</b>	<b>90%</b>	<b>36%</b>	<b>51%</b>

Source: Teacher Post-Lesson Survey

Overall, the teachers agreed that the lessons were effectively written, age appropriate, and an adequate length, with mean agreement ranking scores varying by lesson. The teachers liked that lessons were interactive and sensory-based. Specifically, they liked the smelling and memory games. The teachers commented that their students enjoyed trying new food items within a group setting. The controlled breathing was also frequently mentioned as the most successful part of the lesson; controlled breathing or the chime used during the exercise was cited as the most successful part of the lesson by 14 respondents.

There were some lessons that were less successful than others. The All about Food lesson ranked lowest for age appropriateness, with a 3.86 mean agreement rating to the statement “the lesson was age appropriate”. The All about Food lesson also had the lowest mean agreement rating to the statement “the length of the lesson was appropriate”. One teacher commented that the All about Food lesson was their favorite lesson because of the great props and supplies, however other teachers thought that the lesson could be shortened and divided into multiple lessons.

Though the teachers felt that the majority of the lessons were an appropriate length, there were certain lessons that were considered too long, with too many objectives to cover. Additionally, the lowest scores across all lessons were related to length. On average, All about Food, Thumbs up Foods, Gratitude, Food and Feelings, Mindful Smelling, From Farm to Table, and Mindful Tasting ranked 4 or lower on a 5 point scale when asked if the length of the lesson was appropriate. Thumbs up Food was rated as being too long because the discussion was not interactive and engaging enough. A survey respondent felt that the components of the Thumbs up Food lesson could be fit into other lessons. Some of the teachers said that they liked the learning extensions for

certain lessons better than the lesson itself. For example, one teacher felt that the "Taste Train" extension activity of the Mindful Tasting lesson was more effective than the provided curriculum.

On average, all lessons were rated 4 or higher when teachers were asked if they agreed with the statement “the food samples for this lesson were simple to prepare and serve”. Though the foods were easy to prepare, teachers did comment that certain lessons were problematic for students with allergies. There were children that were allergic to the SunButter and dairy products (in the smoothie) that were incorporated into the Mindful Tasting and Mindful Smelling lessons. Several teachers felt it was difficult to obtain the food items, with it being a financial hardship to provide themselves or inconvenient for parents to supply.

LWT materials vary with each lesson but typically always include a book resource and a teaching aide, such as laminated food cards, Velcro board and felt play pieces, or model food. Teachers were asked if they agreed with the statement “the supplies and props for this lesson were readily available and easy to assemble”. The overall rating score was 4.23 for all lessons on an agreement scale from 1 to 5, however Food and the Environment, Summer Fun, Winter Rest, and From Farm to Table scored below 4. The crafts, felt play pieces, scent jar smelling activity, mystery touch box, and books were well liked by the teachers.

Mean Agreement Rating Scores for LiveWell Curriculum, by Lesson

Lesson	The lesson was effectively written	Lesson was age appropriate	Length of the lesson was appropriate	Food samples were simple to prepare and serve	Supplies and props were readily available
All about Food (N=7)	4.43	3.86	3.43	4.00	4.43
Coconut Water (N=3)	4.00	4.33	4.33	5.00	4.67
Fall Harvest (N=2)	4.50	4.00	4.00	5.00	5.00
Farm to Table (N=3)	5.00	4.00	4.00	4.33	5.00
Food Marketing and Packaging (N=4)	4.25	4.50	4.33	4.33	4.00
Food and Feelings (N=8)	4.13	4.13	3.75	4.13	4.00
Food and the Environment (N=1)	5.00	4.00	4.00	4.00	2.00
From Farm to Table (N=5)	4.00	4.20	3.80	4.20	3.80
Gratitude (N=8)	4.38	4.13	3.63	4.63	4.13
Mindful Seeing (N=9)	4.89	4.38	4.22	4.89	4.22
Mindful Smelling (N=9)	4.11	4.11	3.78	4.22	4.22
Mindful Tasting (N=11)	4.36	4.09	3.91	4.36	4.27
Mindful Touching (N=10)	4.50	4.40	4.40	4.80	4.30
Spring Planting (N=3)	5.00	4.67	4.67	5.00	4.67
Sugar and Love (N=3)	5.00	4.33	4.67	5.00	5.00
Summer Fun (N=4)	5.00	4.50	4.50	5.00	3.75
Thumbs Up Foods (N=2)	4.50	4.50	3.50	4.00	4.50

Lesson	The lesson was effectively written	Lesson was age appropriate	Length of the lesson was appropriate	Food samples were simple to prepare and serve	Supplies and props were readily available
Try New Foods (N=3)	5.00	4.67	4.67	4.67	4.33
Winter Rest (N=4)	4.75	4.25	4.33	4.25	3.75
<b>Total (N=99)</b>	<b>4.49</b>	<b>4.25</b>	<b>4.05</b>	<b>4.50</b>	<b>4.23</b>

Source: Teacher Post-Lesson Survey

The majority of teachers enjoyed teaching the lesson, and all of the teacher respondents strongly agreed (mean agreement rating 5.0) that they enjoyed teaching the Sugar and Love, Spring Planting, and Summer Fun lessons. Similarly, the majority of teachers plan to integrate concepts into daily classroom activities. However, teachers were less likely to integrate activities from Mindful Tasting and Thumbs Up Foods (mean agreement rating scores of 3.91 and 3.50 respectively).

Mean Agreement Rating Scores for Teacher Enjoyment and Future Integration in Classroom Activities, by Lesson

Lesson	Enjoyed teaching the lesson	Intends to integrate the concepts into daily classroom activities
All About Food (N=7)	4.29	4.29
Coconut Water (N=3)	4.33	4.33
Fall Harvest (N=2)	4.50	4.50
Farm to Table (N=3)	4.33	4.67
Food Marketing and Packaging (N=4)	4.50	4.75
Food and Feelings (N=8)	4.13	4.25
Food and the Environment (N=1)	4.00	4.00
From Farm to Table (N=5)	4.20	4.40
Gratitude (N=8)	4.50	4.38
Mindful Seeing (N=9)	4.67	4.11
Mindful Smelling (N=9)	4.33	4.11
Mindful Tasting (N=11)	4.18	3.91
Mindful Touching (N=10)	4.50	4.40
Spring Planting (N=3)	5.00	5.00
Sugar and Love (N=3)	5.00	4.67
Summer Fun (N=4)	5.00	5.00
Thumbs Up Foods (N=2)	3.50	3.50
Try New Foods (N=3)	4.67	5.00
Winter Rest (N=4)	4.67	4.50
<b>Total (N=99)</b>	<b>4.43</b>	<b>4.34</b>

Source: Teacher Post-Lesson Survey

## LiveWell Tots Program Characteristics

### Characteristics of Teacher Survey Respondents

The number of teacher respondents declined from the pre-program survey to the post-program survey. In the pre-program survey, Lincoln had the highest percentage of respondents, at 25%. In the post-program survey, both Lincoln and Pacific had 31% of respondents. Thirty-one percent of teachers held bachelor's degrees and 31% held master's degrees.

	Pre-Program (N=28)		Post-Program (N= 16)	
	Frequency	Percent	Frequency	Percent
<b>School site</b>				
Pacific	5	18%	5	31%
North	3	11%	3	19%
Knob Hill	1	4%	1	6%
Alta Vista	4	14%	1	6%
Lincoln	7	25%	5	31%
Tulita	4	14%	1	6%
Washington	4	14%	Not Available	Not Available
<b>Teacher's education</b>				
Associate degree	Not Available	Not Available	4	25%
Bachelor's degree	Not Available	Not Available	5	31%
Master's degree	Not Available	Not Available	5	31%
Some college but no degree	Not Available	Not Available	2	13%

Source: Teacher Pre-Program and Post-Program Survey

### Characteristics of Parent Survey Respondents

The majority of parent respondents, in both pre- and post-program, were from Pacific and North school sites. In the post-program survey, respondents were asked about their education. Overall, parents of children participating in LWT come from an educated background. Fifty-six percent of mothers and 53% of fathers who responded held bachelor's degrees, while 23% of mothers and 19% of father's held master's degrees. There is little diversity in the language primarily spoken at home, with over 88% of respondent families speaking English at home.

	Pre-Program (N=225)		Post-Program (N= 161)	
	Frequency	Percent	Frequency	Percent
<b>School site</b>				
Pacific	85	38%	75	47%
North	56	25%	48	30%
Knob Hill	12	5%	15	9%
Alta Vista	8	4%	8	5%
Lincoln	19	8%	11	7%
Tulita	24	11%	4	2%
Washington	21	9%	Not Available	Not Available
<b>Child's gender</b>				
Female	111	49%	86	53%
Male	117	51%	75	47%
<b>Child's age</b>				
3 to 4 years	116	52%	93	58%
4 to 5 years	95	43%	53	33%
5 to 6 years	14	5%	15	9%
<b>Mother's education</b>				
High school graduate or less than high school completion	Not Available	Not Available	3	2%
Vocational school	Not Available	Not Available	1	1%
Some college but no degree	Not Available	Not Available	13	8%
Associate degree	Not Available	Not Available	5	3%
Bachelor's degree	Not Available	Not Available	91	56%
Master's degree	Not Available	Not Available	37	23%
Professional school or doctorate degree	Not Available	Not Available	13	8%
<b>Father's education</b>				
High school graduate or less than high school completion	Not Available	Not Available	4	2%
Vocational school	Not Available	Not Available	5	3%
Some college but no degree	Not Available	Not Available	13	8%
Associate degree	Not Available	Not Available	9	6%
Bachelor's degree	Not Available	Not Available	86	53%
Master's degree	Not Available	Not Available	31	19%
Professional school or doctorate degree	Not Available	Not Available	13	8%
<b>Language</b>				
Asian and Pacific Islander	Not Available	Not Available	5	3%
English	Not Available	Not Available	143	88%
Spanish	Not Available	Not Available	6	4%
Other	Not Available	Not Available	9	6%

Source: Parent Pre-Program and Post-Program Survey

## Program Outcomes

### Goal 1: Increase healthy eating behaviors in preschool children

*Objective 1: Observe a positive change in children’s willingness to try new foods each school year.*

Measure 1: Percentage of students who were willing to try the food sample at each of the LWT lessons delivered during the pilot.

Of the 26 Food Sampling Forms returned, five did not identify the school district. Furthermore, 17 did not identify the school site where the activity occurred. Only two identified the age level of the class. Because of this, it was difficult to analyze the data in a meaningful way. During the food sampling exercise, the majority of RBUSD and SBAS students tried the new food – coconut water – that was introduced to them. The rest either played with but did not drink the coconut water, or showed no interest in it at all.

District	Lesson	Total Students (N)	Tried	Showed Interest (Played, Touched, Smelled) but Did Not Try	Did Not Show Interest (Played, Touched, Smelled) and Did Not Try
RBUSD	Coconut Water	140	64%	17%	19%
SBAS	Coconut Water	193	71%	20%	9%

Source: Teacher Post-Lesson Survey

Measure 2: Mean score of teacher agreement with the statement “My students are open-minded about trying new foods.”

Teachers reported that their students were more willing to try new foods from pre- to post-program. The mean score of agreement for the statement “My students are open-minded about trying new foods” increased by 25% for both RBUSD and SBAS. This finding suggests that the LWT Program has increased children’s willingness to try new foods.

	Pre-Program Rating Average	Post-Program Rating Average	Percent Difference
RBUSD	3.21	4.00	25%
SBAS	3.11	3.88	25%
<b>Total</b>	<b>3.18</b>	<b>3.93</b>	<b>24%</b>

Source: Teacher Pre-Program and Post-Program Survey

Measure 3: Mean score of parent agreement to the statement “My child is open-minded about trying new foods.”

The combined parent agreement mean score (on a scale of 1 to 5) for RBUSD and SBAS increased by 4% for the statement “My child is open-minded about trying new foods”. However, the RBUSD percent difference was much higher than the increase seen in SBAS. SBAS had a higher pre-program rating average to begin with, potentially due to the presence of the Program in previous years. Among RBUSD students, the 3-4

year olds had a higher pre-program and post-program rating average, but the 4-5 year olds experienced a higher jump in rating average. Meanwhile SBAS 3-4 year olds saw an increase in their rating average while 5-6 years olds saw a decrease.

	Pre-Program Rating Average	Post-Program Rating Average	Percent Difference
<b>RBUSD</b>	<b>3.27</b>	<b>3.74</b>	<b>14%</b>
3-4 years	3.71	3.85	4%
4-5 years	2.98	3.60	21%
<b>SBAS</b>	<b>3.62</b>	<b>3.65</b>	<b>1%</b>
3-4 years	3.48	3.57	3%
4-5 years	3.80	3.56	-6%
5-6 years	3.77	4.33	15%
<b>Total</b>	<b>3.51</b>	<b>3.66</b>	<b>4%</b>

Source: Teacher Pre-Program and Post-Program Survey

*Objective 2: Observe a positive change in children’s understanding of where food comes from each school year.*

Measure 4: Mean score of teacher agreement with the statement “My students understand where food comes from.”

Teachers from both school districts reported a high post-program increase in agreement with the statement “My students understand where food comes from.” There was a 33% improvement on this measure for RBUSD and SBAS combined, with greater improvement in SBAS (41%) compared to RBUSD (29%). This finding suggests that the LWT Program has increased children’s understanding about food and where it comes from. Lessons such as “All about Food” and “Farm to Table,” specifically target this learning objective.

	Pre-Program Rating Average	Post-Program Rating Average	Percent Difference
RBUSD	3.32	4.29	29%
SBAS	3.11	4.38	41%
<b>Total</b>	<b>3.25</b>	<b>4.33</b>	<b>33%</b>

Source: Teacher Pre-Program and Post-Program Survey

Measure 5: Mean score of parent agreement with the statement “My child understands where food comes from.”

Similar to teachers, parents also reported that their child had a better understanding of where food comes from after the LWT program. Overall, there was a 16% increase in the mean rating from pre- to post-program for RBUSD and SBAS combined. There was a larger increase in the pre- to post-program mean rating score for SBAS compared to RBUSD, and the largest increase of 26% was in the 5-6 year old classroom. This finding suggests that the LWT Program has increased children’s understanding of where food comes from.

	Pre-Program Rating Average	Post-Program Rating Average	Percent Difference
<b>RBUSD</b>	<b>3.49</b>	<b>3.96</b>	<b>13%</b>
3-4 years	3.39	3.77	11%
4-5 years	3.56	4.20	18%
<b>SBAS</b>	<b>3.41</b>	<b>4.01</b>	<b>17%</b>
3-4 years	3.28	3.89	19%
4-5 years	3.62	4.11	14%
5-6 years	3.43	4.33	26%
<b>Total</b>	<b>3.44</b>	<b>4.00</b>	<b>16%</b>

Source: Parent Pre-Program and Post-Program Survey

*Objective 3: Observe a positive change in children’s understanding that eating healthy foods gives you a healthy body and mind each school year.*

Measure 6: Mean score of teacher agreement with the statement “My students understand that eating healthy foods gives you a healthy body and mind.”

Teachers from both RBUSD and SBAS reported higher post-program agreement with the statement “My students understand that eating healthy foods gives you a healthy body and mind.” The post-program mean rating was up by 21% in RBUSD and the post-program rating of 4.57 (on a 1 to 5 point agreement scale) indicates that most teachers strongly agreed that their students understood that healthy foods are beneficial to your body and mind after participating in LWT. This finding indicates a change in children’s understanding according to the teacher’s report.

	Pre-Program Rating Average	Post-Program Rating Average	Percent Difference
RBUSD	3.79	4.57	21%
SBAS	3.44	4.00	16%
<b>Total</b>	<b>3.68</b>	<b>4.27</b>	<b>16%</b>

Source: Teacher Pre-Program and Post-Program Survey

Measure 7: Mean score of parent agreement with the statement “My child understands that eating healthy foods gives you a healthy body and mind.”

Parents were also asked about their level of agreement with the statement “My child understands that eating healthy gives you a healthy body and mind”. Parents of 3-4 year olds reported an improvement in their child’s understanding of the relationship between healthy eating behaviors and wellness from pre- to post-program, with pre- to post-program agreement ratings increasing by 10% for 3-4 year olds. There was a smaller increase from pre- to post-program for the 4-5 year olds and no improvement for the 5-6 year olds. This finding suggests that the LWT Program has increased 3-4 year old children’s knowledge about the relationship between healthy eating behaviors and wellness.

The program may have improved the 4-5 year olds understanding between the connection of healthy foods and healthy body and mind, however the small improvement could be statistically insignificant. Overall, the pre-program rating scores were much higher for the parents than the teachers, 4.18 compared to 3.68 (Goal 1, Measure 6), indicating that the parents already believed that their children had a good understanding of the positive effects of healthy eating prior to the program.

	Pre-Program Rating Average	Post-Program Rating Average	Percent Difference
<b>RBUSD</b>	<b>4.20</b>	<b>4.39</b>	<b>5%</b>
3-4 years	3.93	4.31	10%
4-5 years	4.37	4.50	3%
<b>SBAS</b>	<b>4.17</b>	<b>4.45</b>	<b>7%</b>
3-4 years	3.98	4.36	10%
4-5 years	4.37	4.57	5%
5-6 years	4.62	4.60	0%
<b>Total</b>	<b>4.18</b>	<b>4.44</b>	<b>6%</b>

Source: Parent Pre-Program and Post-Program Survey

## Goal 2: Increase teachers’ ability to instill healthy eating behaviors and mindfulness in their students

*Objective 1: Observe a positive change in teachers’ self-efficacy to instill healthy eating behaviors and mindfulness in their students each school year.*

Measure 1: Mean score of teacher agreement with the statement “I feel confident that I can have an impact on children’s eating behaviors in the school setting.”

Teachers from both RBUSD and SBAS felt confident that they could have an impact on children’s eating behaviors in the school setting. Both districts had high pre- and post-program agreement of 4.4 and higher on a 5 point scale, to the statement “I feel confident that I can have an impact on children’s eating behaviors in the school setting”. The combined RBUSD and SBAS mean score on this measure increased by 6% from pre- to post-program. For RBUSD, the mean score on this measure increased by 10% from pre- to post-program. SBAS had a lower increase between pre- and post-program of 2%, which may be due to teachers’ prior experience with the LWT program. SBAS teachers may have started the program feeling more confident about their ability to change children’s eating behaviors in the school setting, leaving less room for improvement.

	Pre-Program Rating Average	Post-Program Rating Average	Percent Difference
RBUSD	4.41	4.83	10%
SBAS	4.56	4.63	2%
<b>Total</b>	<b>4.46</b>	<b>4.71</b>	<b>6%</b>

Source: Teacher Pre-Program and Post-Program Survey

Measure 2: Mean score of teacher agreement with the statement “I feel confident that I can help my students stay calm and focused.”

There was a small, and potentially insignificant, decline in the teachers’ confidence in helping the students stay calm and focused for RBUSD and SBAS combined, and for SBAS on its own. The program appeared to have had no impact on helping teachers keep their students calm and focused in RBUSD. The teachers had high pre-program mean scores, suggesting that they felt confident in their ability to instill a calm and focused environment before LWT; teachers may not need additional training in this area.

	Pre-Program Rating Average	Post-Program Rating Average	Percent Difference
RBUSD	4.44	4.43	0%
SBAS	4.56	4.38	-4%
<b>Total</b>	<b>4.48</b>	<b>4.40</b>	<b>-2%</b>

Source: Teacher Pre-Program and Post-Program Survey

**Objective 2: Observe a positive change in the frequency of modeling of healthy eating behaviors by teachers each school year**

Measure 3: Mean score of teacher agreement with the statement “How often do you eat together with your students at least one time a day?”

Before LWT most teachers reported that they “sometimes” eat together with their students at least one time a day, with 75% of teachers from RBUSD and SBAS combined reporting “sometimes”. SBAS teachers reported “always” eating with their students more often than RBUSD teachers, 33% compared to 21%. The percent of teachers who “always” eat with their students increased for both RBUSD and SBAS after LWT, from 25% in the pre-program to 40% in the post-program. In SBAS, 50% of the teachers reported that they “always” eat together with their students at least one time a day after the program. These findings indicate that there was an improvement in how often teachers eat with their students after LWT.

	Pre-Program Percent			Post-Program Percent		
	Never	Sometimes	Always	Never	Sometimes	Always
RBUSD	0%	79%	21%	0%	71%	29%
SBAS	0%	67%	33%	13%	38%	50%
<b>Total</b>	<b>0%</b>	<b>75%</b>	<b>25%</b>	<b>7%</b>	<b>53%</b>	<b>40%</b>

Source: Teacher Pre-Program and Post-Program Survey

Measure 4: Mean score of teacher agreement with the statement “How often do you model deep breathing or other mindfulness behaviors for your students at least once a day?”

SBAS teachers were more likely to report “always” modeling deep breathing or mindfulness behaviors compared to their RBUSD counterparts. While 11% of teachers from RBUSD responded “never” in the pre-

program and 14% responded “never” in the post-program, no SBAS teachers reported “never” modeling deep breathing in either the pre- or the post-program surveys.

There was improvement for this measure in the percent of teacher who “always” modeled deep breathing or other mindfulness behaviors in the post-program compared to the pre-program. For both districts combined, only 37% of teachers modeled this behavior in the pre-program compared to 60% of teachers reporting that they “always” modeled breathing or other mindfulness behaviors in the post-program; increases were seen in both RBUSD and SBAS when analyzed independently.

	Pre-Program Percent			Post-Program Percent		
	Never	Sometimes	Always	Never	Sometimes	Always
RBUSD	11%	61%	28%	14%	43%	43%
SBAS	0%	44%	56%	0%	25%	75%
<b>Total</b>	<b>7%</b>	<b>56%</b>	<b>37%</b>	<b>7%</b>	<b>33%</b>	<b>60%</b>

Source: Teacher Pre-Program and Post-Program Survey

**Objective 3: Observe a positive change in the frequency of healthy eating behavior and mindfulness activities conducted by teachers each school year.**

Measure 5: Mean score of teacher agreement with the statement “How often do you ask your students questions about food they are eating?”

Overall, there was a slight and likely insignificant, decline in the percent of teachers who always ask their students questions about food they are eating; 50% “always” asked in the pre-program compared to 47% post-program. In RBUSD there was a larger decrease in the percent of teachers who “always” asked their students about food they are eating; 42% of teachers “always” asked students questions about the food they were eating in the pre-program, only 29% did so in the post-program. It is possible that given the small magnitude of these pre- to post-program differences, the LWT Program has had no effect on how often teachers ask their students questions about their food. However, it is important to note that 100% of teachers asked students about their food (“sometimes” or “always”) both before and after LWT.

	Pre-Program Percent			Post-Program Percent		
	Never	Sometimes	Always	Never	Sometimes	Always
RBUSD	0%	58%	42%	0%	71%	29%
SBAS	0%	33%	67%	0%	38%	63%
<b>Total</b>	<b>0%</b>	<b>50%</b>	<b>50%</b>	<b>0%</b>	<b>53%</b>	<b>47%</b>

Source: Teacher Pre-Program and Post-Program Survey

Measure 6: Mean score of teacher agreement with the statement “How often do you eat fresh fruit at least two times daily?”

Overall for RBUSD and SBAS combined, there was improvement in how often teachers eat fresh fruit. While 4% of teachers reported “never” eating fresh fruit in the pre-program survey, no one reported “never” eating fresh fruit in the post-program. Correspondingly, more teachers reported “always” eating fresh fruit with the percentage increasing from 43% in the pre-program to 64% post-program. RBUSD had more

significant increases compared to SBAS, however more SBAS teachers report always eating fruit both before and after the LWT program.

	Pre-Program Percent			Post-Program Percent		
	Never	Sometimes	Always	Never	Sometimes	Always
RBUSD	5%	74%	21%	0%	67%	33%
SBAS	0%	11%	89%	0%	13%	88%
<b>Total</b>	<b>4%</b>	<b>54%</b>	<b>43%</b>	<b>0%</b>	<b>36%</b>	<b>64%</b>

Source: Teacher Pre-Program and Post-Program Survey

Measure 7: Mean score of teacher agreement with the statement “How often do you eat fresh vegetables at least two times daily?”

Results from the teacher’s agreement to the statement “how often do you eat fresh vegetables at least two times daily” were very similar to results from Goal 2 Measure 6, the statement asking about fresh fruits. While SBAS teachers consistently “always” eat fresh vegetables before and after the LWT program, there was improvement in the percent of RBUSD teachers who ate vegetables at least two times daily. Overall, the percent of teachers who reported “always” eating fresh vegetables increased from 46% pre-program to 60% post-program.

	Pre-Program Percent			Post-Program Percent		
	Never	Sometimes	Always	Never	Sometimes	Always
RBUSD	5%	68%	26%	0%	71%	29%
SBAS	0%	11%	89%	0%	13%	88%
<b>Total</b>	<b>4%</b>	<b>50%</b>	<b>46%</b>	<b>0%</b>	<b>40%</b>	<b>60%</b>

Source: Teacher Pre-Program and Post-Program Survey

Measure 8: Mean score of teacher agreement with the statement “How often do you eat take out, delivery, or fast foods?”

SBAS teachers reported “always” eating take out, delivery, or fast foods more often than RBUSD teachers. In the pre-program, 56% of SBAS teachers “always” ate take out, delivery, or fast food, compared to 50% in the post-program. RBUSD teachers ate away from home less in the pre- and post-program with 11% and 14%, respectively, of teachers “always” eating take out, delivery, or fast foods. The findings suggest that the program did not significantly change teachers’ frequency of eating take out, delivery, or fast food.

	Pre-Program Percent			Post-Program Percent		
	Never	Sometimes	Always	Never	Sometimes	Always
RBUSD	0%	89%	11%	0%	86%	14%
SBAS	0%	44%	56%	0%	50%	50%
<b>Total</b>	<b>0%</b>	<b>74%</b>	<b>26%</b>	<b>0%</b>	<b>67%</b>	<b>33%</b>

Source: Teacher Pre-Program and Post-Program Survey

Measure 9: Mean score of teacher agreement with the statement “How often do you spend two hours or more watching TV, spending time on the computer, or playing electronic games?”

The overall results remain similar from pre-program to the post-program for RBUSD and SBAS combined; 29% of teachers “always” spent two hours or more with electronics in the pre-program compared to 27% in the post-program. However when RBUSD and SBAS were analyzed separately, RBUSD teachers spent more time with electronics in the post-program. Just over 20% of RBUSD teachers reported “always” spending more than two hours with electronics in the pre-program, compared to 43% post-program. Meanwhile, a lower percentage of SBAS teachers (13%) reported “always” using electronics post-program compared to pre-program (44%).

	Pre-Program Percent			Post-Program Percent		
	Never	Sometimes	Always	Never	Sometimes	Always
RBUSD	11%	68%	21%	29%	29%	43%
SBAS	0%	56%	44%	0%	88%	13%
<b>Total</b>	<b>7%</b>	<b>64%</b>	<b>29%</b>	<b>13%</b>	<b>60%</b>	<b>27%</b>

Source: Teacher Pre-Program and Post-Program Survey

### Goal 3: Increase parents’ ability to instill healthy eating behaviors in their preschool child

*Objective 1: Observe a positive change in parents’ self-efficacy to instill healthy eating behaviors in their child each school year.*

Measure 1: Mean score of parent agreement with the statement “I know how to provide my child with a variety of foods from each food group.”

Parents from both school districts strongly agreed that they know how to provide their child with a variety of foods from each food group. Parents from almost all age groups reported slightly stronger agreement in the post-program, however this difference was marginal and likely insignificant. The only group that saw a slight decline in the agreement rating average was the 4-5 year olds from SBAS. However, the decline of 2% was small and the parents still reported a high level of agreement.

	Pre-Program Rating Average	Post-Program Rating Average	Percent Difference
<b>RBUSD</b>	<b>4.67</b>	<b>4.77</b>	<b>2%</b>
3-4 years	4.57	4.67	2%
4-5 years	4.74	4.90	3%
<b>SBAS</b>	<b>4.66</b>	<b>4.73</b>	<b>2%</b>
3-4 years	4.59	4.75	3%
4-5 years	4.75	4.67	-2%
5-6 years	4.79	4.80	0%
<b>Total</b>	<b>4.66</b>	<b>4.74</b>	<b>2%</b>

Source: Parent Pre-Program and Post-Program Survey

Measure 2: Mean score of parent agreement with the statement “I know how to identify processed foods versus unprocessed foods.”

Similar to other measures assessing parental knowledge of healthy eating, parental agreement to the statement “I know how to identify processed foods versus unprocessed foods” was high. The majority of parents knew how to identify processed foods before the LWT program. There was a small but likely insignificant increase in parent agreement to the statement from pre- to post-program (2%). There was, however, a 6% decline for the parents of 4-5 year old RBUSD students; in the pre-program, the mean pre-program score was 4.56 on a 5 point agreement scale, compared to 4.30 post-program. The results suggest that LWT had very little impact on the parents’ ability to identify processed foods.

	Pre-Program Rating Average	Post-Program Rating Average	Percent Difference
<b>RBUSD</b>	4.46	4.35	-3%
3-4 years	4.32	4.38	1%
4-5 years	4.56	4.30	-6%
<b>SBAS</b>	4.40	4.51	3%
3-4 years	4.36	4.53	4%
4-5 years	4.45	4.48	1%
5-6 years	4.57	4.53	-1%
<b>Total</b>	<b>4.42</b>	<b>4.49</b>	<b>2%</b>

Source: Parent Pre-Program and Post-Program Survey

Measure 3: Mean score of parent agreement with the statement “I know how to help my child stay calm and focused.”

While the agreement rating average was above 4 on a 5 point agreement scale, indicating that most parents know how to help their child stay calm and focused, the score was lower for this statement compared to other questions about healthy eating behaviors. There was no significant change from pre- to post-program for this measure. These findings suggest that this may be an area that LWT could increase education. One option would be a parent workshop to share breathing exercises and mindfulness practices.

	Pre-Program Rating Average	Post-Program Rating Average	Percent Difference
<b>RBUSD</b>	4.20	4.22	0%
3-4 years	4.22	4.15	-2%
4-5 years	4.19	4.30	3%
<b>SBAS</b>	4.07	4.14	2%
3-4 years	4.05	4.14	2%
4-5 years	4.07	4.09	0%
5-6 years	4.21	4.27	1%
<b>Total</b>	<b>4.11</b>	<b>4.15</b>	<b>1%</b>

Source: Parent Pre-Program and Post-Program Survey

**Objective 2: Observe a positive change in the frequency of modeling healthy eating behaviors by parents each school year.**

Measure 4: Mean score of parent agreement with the statement “How often do you eat together with your child at least one meal a day?”

Nearly all LWT families “sometimes” or “always” eat together. Overall, 78% of parents from RBUSD and SBAS combined reported “always” eating together with their child at least one meal a day before the LWT program. There was little change post-program (77% reported “always” eating together). Meanwhile, about 1% of parents reported “never” eating together with their child in the pre- and post-program surveys. Over 90% of the 5-6 year old age group parents from SBAS reported “always” eating together pre- and post-program.

	Pre-Program Percent			Post-Program Percent		
	Never	Sometimes	Always	Never	Sometimes	Always
<b>RBUSD</b>	<b>0%</b>	<b>20%</b>	<b>80%</b>	<b>4%</b>	<b>35%</b>	<b>61%</b>
3-4 years	0%	29%	71%	0%	46%	54%
4-5 years	0%	14%	86%	10%	20%	70%
<b>SBAS</b>	<b>1%</b>	<b>23%</b>	<b>77%</b>	<b>1%</b>	<b>20%</b>	<b>79%</b>
3-4 years	1%	23%	76%	0%	17%	83%
4-5 years	0%	25%	75%	2%	30%	68%
5-6 years	0%	8%	92%	0%	7%	93%
<b>Total</b>	<b>&lt;1%</b>	<b>22%</b>	<b>78%</b>	<b>1%</b>	<b>22%</b>	<b>77%</b>

Source: Parent Pre-Program and Post-Program Survey

Measure 5: Mean score of parent agreement with the statement “How often do you model deep breathing or other mindfulness behaviors for your child at least once a day?”

While 56% of parent respondents from RBUSD and SBAS reported “sometimes” modeling mindfulness behaviors in the pre-program, 29% reported “never” modeling deep breathing or other mindfulness behaviors. Post-program results were very similar, with 63% reporting “sometimes” modeling mindfulness behaviors and 23% “never” modeling mindfulness behaviors.

There was an increase in the percent of RBUSD parents who reported “never” modeling mindfulness behaviors (39%) compared to the pre-program (25%). For SBAS, there was a decline in the percent of parents who reported “never” modeling mindfulness behaviors, down from 30% in the pre-program to 20% post-program.

Overall, the percent of parents who “never” model mindfulness behaviors was high. These findings support the need for parental lessons to be included in the LWT Program, specifically on mindfulness behavior. Teachers benefited from the mindfulness curriculum - after receiving LWT lessons, the percent of teachers who “always” model mindfulness behaviors increased from 37% before LWT to 60% after the program (Goal 2, Measure 4).

	Pre-Program Percent			Post-Program Percent		
	Never	Sometimes	Always	Never	Sometimes	Always
<b>RBUSD</b>	<b>25%</b>	<b>54%</b>	<b>21%</b>	<b>39%</b>	<b>52%</b>	<b>9%</b>
3-4 years	25%	43%	32%	38%	46%	15%
4-5 years	26%	60%	14%	40%	60%	0%
<b>SBAS</b>	<b>30%</b>	<b>57%</b>	<b>13%</b>	<b>20%</b>	<b>65%</b>	<b>15%</b>
3-4 years	35%	56%	9%	16%	69%	15%
4-5 years	25%	55%	20%	25%	61%	14%
5-6 years	17%	67%	17%	27%	53%	20%
<b>Total</b>	<b>29%</b>	<b>56%</b>	<b>16%</b>	<b>23%</b>	<b>63%</b>	<b>14%</b>

Source: Parent Pre-Program and Post-Program Survey

*Objective 3: Observe a positive change in the frequency of healthy eating behavior and mindfulness activities conducted by parents each school year.*

Measure 6: Mean score of parent agreement with the statement “How often do you ask your child questions about the food they are eating?”

Overall in RBUSD and SBAS combined, 10% of parents “never” ask their child about the food they are eating, 66% “sometimes” ask, and 24% “always” ask in the pre-program. The same trend holds in the post-program, suggesting that the program had no impact on how often parents ask their children about the foods they are eating. In RBUSD, more respondents answered “always” in the pre-program (37%) compared to the post-program (9%). In SBAS, the opposite occurred, with less respondents answering “always” in the pre-program (18%) compared to the post-program (26%).

	Pre-Program Percent			Post-Program Percent		
	Never	Sometimes	Always	Never	Sometimes	Always
<b>RBUSD</b>	<b>16%</b>	<b>47%</b>	<b>37%</b>	<b>4%</b>	<b>87%</b>	<b>9%</b>
3-4 years	11%	57%	32%	0%	85%	15%
4-5 years	19%	40%	40%	10%	90%	0%
<b>SBAS</b>	<b>7%</b>	<b>75%</b>	<b>18%</b>	<b>10%</b>	<b>64%</b>	<b>26%</b>
3-4 years	9%	80%	10%	10%	64%	26%
4-5 years	6%	62%	32%	9%	68%	23%
5-6 years	0%	92%	8%	13%	63%	33%
<b>Total</b>	<b>10%</b>	<b>66%</b>	<b>24%</b>	<b>9%</b>	<b>67%</b>	<b>23%</b>

Source: Parent Pre-Program and Post-Program Survey

Measure 7: Mean score of parent agreement with the statement “How often do you offer your child fresh fruit 1-2 times daily?”

Results were consistent between the pre- and post-program surveys for the question “how often do you offer your child fresh fruit 1-2 times daily”, which may be due to the high rates prior to the program. For RBUSD and SBAS combined, over 90% of parents reported “always” offering their child fresh fruit 1-2 times

daily in the pre- and post-program surveys. “Never” was extremely uncommon and was only reported among the 4-5 year old age group in the post-program.

	Pre-Program Percent			Post-Program Percent		
	Never	Sometimes	Always	Never	Sometimes	Always
<b>RBUSD</b>	<b>0%</b>	<b>15%</b>	<b>85%</b>	<b>4%</b>	<b>9%</b>	<b>87%</b>
3-4 years	0%	11%	89%	0%	15%	85%
4-5 years	0%	19%	81%	10%	0%	90%
<b>SBAS</b>	<b>0%</b>	<b>7%</b>	<b>93%</b>	<b>0%</b>	<b>5%</b>	<b>95%</b>
3-4 years	0%	9%	91%	0%	5%	95%
4-5 years	0%	4%	96%	0%	7%	93%
5-6 years	0%	8%	92%	0%	0%	100%
<b>Total</b>	<b>0%</b>	<b>10%</b>	<b>90%</b>	<b>1%</b>	<b>6%</b>	<b>94%</b>

Source: Parent Pre-Program and Post-Program Survey

Measure 8: Mean score of parent agreement with the statement “How often do you offer your child fresh vegetables at least two times daily?”

While over 90% of parents “always” offer their child fresh fruit at least two times daily (Goal 3, Measure 7), only 65% of parents “always” offer their child vegetables at least two times daily post-program, and even less “always” offered vegetables before LWT (59%). This may be due to the fact that the parents are not receiving lessons that their children are provided through LWT, especially if they do not receive or read the newsletter. The importance of vegetables should be reinforced heavily in the program in order to increase healthy eating behaviors, and adding a parental education component should be considered.

	Pre-Program Percent			Post-Program Percent		
	Never	Sometimes	Always	Never	Sometimes	Always
<b>RBUSD</b>	<b>4%</b>	<b>41%</b>	<b>54%</b>	<b>9%</b>	<b>39%</b>	<b>52%</b>
3-4 years	7%	25%	68%	8%	31%	62%
4-5 years	2%	52%	45%	10%	50%	40%
<b>SBAS</b>	<b>5%</b>	<b>34%</b>	<b>61%</b>	<b>2%</b>	<b>31%</b>	<b>67%</b>
3-4 years	6%	33%	62%	4%	33%	63%
4-5 years	4%	38%	58%	0%	27%	73%
5-6 years	0%	27%	73%	0%	27%	73%
<b>Total</b>	<b>5%</b>	<b>36%</b>	<b>59%</b>	<b>3%</b>	<b>32%</b>	<b>65%</b>

Source: Parent Pre-Program and Post-Program Survey

Measure 9: Mean score of parent agreement with the statement “How often does your child spend two hours or more watching TV, spending time on the computer, or playing electronic games?”

The majority of parents reported that their child “sometimes” spends two or more hours watching TV, spending time on the computer, or playing electronic games. In the pre-program, respondents from both school districts answered “sometimes” 61% of the time, as compared to 53% in the post-program. In RBUSD there were improvements, as 10% of parents reported that their child “always” spends more than two hours with electronics in the pre-program while 0% reported “always” post-program.

	Pre-Program Percent			Post-Program Percent		
	Never	Sometimes	Always	Never	Sometimes	Always
<b>RBUSD</b>	<b>30%</b>	<b>60%</b>	<b>10%</b>	<b>55%</b>	<b>45%</b>	<b>0%</b>
3-4 years	30%	59%	11%	54%	46%	0%
4-5 years	30%	60%	10%	56%	44%	0%
<b>SBAS</b>	<b>27%</b>	<b>62%</b>	<b>12%</b>	<b>31%</b>	<b>54%</b>	<b>15%</b>
3-4 years	28%	64%	8%	34%	54%	13%
4-5 years	26%	58%	16%	29%	51%	20%
5-6 years	10%	70%	20%	20%	67%	13%
<b>Total</b>	<b>28%</b>	<b>61%</b>	<b>11%</b>	<b>34%</b>	<b>53%</b>	<b>13%</b>

Source: Parent Pre-Program and Post-Program Survey

Measure 10: Mean score of parent agreement with the statement “How often do you eat fresh fruit at least two times daily?”

Parent responses to the statement “how often do you eat fresh fruit at least two times daily” stayed relatively consistent from pre-program to the post-program for RBUSD and SBAS combined. It was rare that parents “never” ate fruit at least two times daily and most parents “always” ate fruit two times daily. For RBUSD and SBAS combined, 72% “always” ate fruit at least two times daily before LWT and 74% “always” ate fruit after the program. There was improvement on this measure in RBUSD; 78% “always” ate fresh fruit two times daily in the post-program compared to 63% in the pre-program.

	Pre-Program Percent			Post-Program Percent		
	Never	Sometimes	Always	Never	Sometimes	Always
<b>RBUSD</b>	<b>1%</b>	<b>35%</b>	<b>63%</b>	<b>0%</b>	<b>22%</b>	<b>78%</b>
3-4 years	0%	29%	71%	0%	31%	69%
4-5 years	2%	40%	58%	0%	10%	90%
<b>SBAS</b>	<b>0%</b>	<b>24%</b>	<b>76%</b>	<b>0%</b>	<b>27%</b>	<b>73%</b>
3-4 years	0%	27%	73%	0%	28%	72%
4-5 years	0%	23%	77%	0%	26%	74%
5-6 years	0%	9%	92%	0%	21%	79%
<b>Total</b>	<b>0%</b>	<b>27%</b>	<b>72%</b>	<b>0%</b>	<b>26%</b>	<b>74%</b>

Source: Parent Pre-Program and Post-Program Survey

Measure 11: Mean score of parent agreement with the statement “How often do you eat fresh vegetables at least two times daily?”

Similar to the question about fruit consumption (Goal 3, Measure 10), results were consistent in the pre- and post-program for the statement “how often do you eat fresh vegetables at least two times daily”. For RBUSD and SBAS combined, 62% of parents ate vegetables at least two times daily in the pre-program, increasing to 69% post-program. There was no change in parental consumption of vegetables in RBUSD and an increase from 61% of parents “always” eating vegetables at least two times daily to 69% “always” eating vegetables post-program in SBAS.

	Pre-Program Percent			Post-Program Percent		
	Never	Sometimes	Always	Never	Sometimes	Always
<b>RBUSD</b>	<b>1%</b>	<b>34%</b>	<b>65%</b>	<b>0%</b>	<b>35%</b>	<b>65%</b>
3-4 years	4%	21%	75%	0%	38%	62%
4-5 years	0%	42%	58%	0%	30%	70%
<b>SBAS</b>	<b>1%</b>	<b>37%</b>	<b>61%</b>	<b>0%</b>	<b>31%</b>	<b>69%</b>
3-4 years	0%	39%	61%	0%	32%	68%
4-5 years	4%	33%	63%	0%	29%	71%
5-6 years	0%	50%	50%	0%	29%	71%
<b>Total</b>	<b>1%</b>	<b>36%</b>	<b>62%</b>	<b>0%</b>	<b>31%</b>	<b>69%</b>

Source: Parent Pre-Program and Post-Program Survey

Measure 12: Mean score of parent agreement with the statement “How often do you eat take out, delivery, fast foods?”

The majority of parents answered “sometimes” to the statement “how often do you eat take out, delivery or fast foods”, with 89% of LWT parents reporting “sometimes” pre-program and 85% reporting “sometimes” post-program. However, responses varied greatly among RBUSD parents from pre- to post-period. Four percent of RBUSD parents reported that they “never” eat take out, delivery or fast foods pre-program, and 96% reported “sometimes.” In the post-program, 26% of RBUSD parents reported that they “never” ate take out, delivery or fast foods, and 70% reported sometimes. This was a significant improvement. On the other hand, responses remained consistent among SBAS parents after the LWT program.

	Pre-Program Percent			Post-Program Percent		
	Never	Sometimes	Always	Never	Sometimes	Always
<b>RBUSD</b>	<b>4%</b>	<b>96%</b>	<b>0%</b>	<b>26%</b>	<b>70%</b>	<b>4%</b>
3-4 years	4%	96%	0%	31%	69%	0%
4-5 years	5%	95%	0%	20%	70%	10%
<b>SBAS</b>	<b>11%</b>	<b>86%</b>	<b>3%</b>	<b>9%</b>	<b>87%</b>	<b>4%</b>
3-4 years	13%	85%	2%	9%	85%	6%
4-5 years	10%	86%	4%	13%	88%	0%
5-6 years	0%	100%	0%	0%	100%	0%
<b>Total</b>	<b>9%</b>	<b>89%</b>	<b>2%</b>	<b>11%</b>	<b>85%</b>	<b>4%</b>

Source: Parent Pre-Program and Post-Program Survey

Measure 13: Mean score of parent agreement with the statement “How often do you spend two hours or more watching TV, spending time on the computer, or playing electronic games?”

Most parents answered “sometimes” to the statement “how often do you spend two hours or more watching TV, spending time on the computer, or playing electronic games”. There was minimal change between the pre- and post-program, with 63% of parents “sometimes” spending two or more hours on electronics pre-program compared to 60% post-program.

Parental time spent with electronics is similar to that reported of the children’s electronic activity (Goal 2, Measure 9). Just over 60 percent of parents also reported that their children “sometimes” spend two hours or more watching TV, spending time on the computer, or playing electronic games. Parents are role models for their children; the addition of parental workshops on the importance of physical activity versus sedentary activities would be beneficial for parents as well as children.

	Pre-Program Percent			Post-Program Percent		
	Never	Sometimes	Always	Never	Sometimes	Always
<b>RBUSD</b>	<b>21%</b>	<b>66%</b>	<b>13%</b>	<b>27%</b>	<b>50%</b>	<b>23%</b>
3-4 years	25%	71%	4%	15%	62%	23%
4-5 years	19%	62%	19%	44%	33%	22%
<b>SBAS</b>	<b>22%</b>	<b>62%</b>	<b>16%</b>	<b>21%</b>	<b>62%</b>	<b>18%</b>
3-4 years	24%	60%	15%	58%	23%	20%
4-5 years	19%	60%	21%	19%	60%	21%
5-6 years	17%	75%	8%	0%	79%	21%
<b>Total</b>	<b>22%</b>	<b>63%</b>	<b>15%</b>	<b>22%</b>	<b>60%</b>	<b>18%</b>

Source: Parent Pre-Program and Post-Program Survey

## Survey Design Refinements

The Center proposes refinements to the survey design in order to improve data collection and evaluation efforts. Though the surveys did include several forms with checklist options, there were areas that could be pre-populated to increase efficiency. The following fields should be either pre-populated or presented in a checklist format to prevent respondents from submitting incomplete information, or not answering correctly or consistently.

- School District/School Site (Food Sampling, Parent Surveys, Teacher Pre/Post Program Surveys, Teacher Post-Lesson Surveys, Teacher Post-Training Surveys)
- Class Age Level (Food Sampling, Teacher Post-Lesson Surveys, Teacher Post-Training)
- Teacher's Name (Parent Surveys)
- Lesson Name (Teacher Post-Lesson Surveys, Teacher Post-Training Surveys)

On the Food Sampling form, there is no field where teachers can identify their school district or school site. Furthermore, the class age level was not always completed. Answers varied as well, with some respondents entering "Pre-K" and others entering "3". Having this information available in a check list will ensure standardized data.

Parent Surveys should either be pre-populated by BCHD with school site and teacher's name, or the options should be given in a checklist format. This is not only easier for parents to complete but also minimizes inconsistencies in the spelling of site and teacher names. Of all the teacher surveys, the Teacher Post-Lesson Survey is the only survey that asked respondents to enter the age level of the class. This question should be added to the Teacher Post-Training and Pre- and Post-Program Survey to allow for age group analysis. Similar to the Pre- and Post-Program Survey for parents, all teacher forms should include a checklist for school site rather than an open-ended response. The Teacher Post-Training and Teacher Post-Lesson Surveys should include a checklist for the lesson names, since teachers entered different names for the same lesson.

Most questions on the pre- and post-program surveys ask parents and teachers to rate their agreement to statements about healthy eating behaviors on a 5-point Likert scale. However, there are several questions where respondents are asked to rate the frequency that they conduct an activity as either "never", "sometimes", or "always". For example, Goal 2 Measure 4 asked parents "how often do you model deep breathing or other mindful behaviors for your students at least once a day?" One parent respondent commented that it was difficult to fit their answer into the response categories. Similar to the agreement questions, the Center recommends using a 5-point scale for these types of questions. Instead of 3 options - "never", "sometimes", or "always" - respondents could choose between 5 options - "never", "rarely", "sometimes", "often", or "always".

The program outcome analysis presented in this report is conducted on all surveys received in the pre- and post-periods. Because we cannot identify the survey respondents, we do not know if the individuals that participated in the pre-period participated in the post, and vice versa. We are limited in the way that we can conduct analysis for this evaluation, and are unable to provide significance testing for each measure. While the current method of anonymous data collection is less resource intensive, we may be comparing results from very different groups of parents and teachers. The Center recommends using a unique

identifier to compare individual responses before the students enter the LWT Program and after. If unique identifiers were used, we would be able to link the pre- and post-program surveys to parents and teachers. The Center would then be able to provide significance testing for each measure. This would allow for a more valid and meaningful analysis of the LWT Program.

## Summary of Findings

The LWT training and lesson curriculum were well received by the teachers. Nearly all of the respondents rated the trainings as being “Just right”. Teachers felt that they received adequate background information and felt comfortable teaching the topics that were covered. Most lessons did not require more in-depth information; however some teachers felt that it would be helpful to have more information for the Gratitude, Fall Harvest, Mindful Smelling, and Mindful Seeing lessons. There were several lessons that were too long in length, with too many objectives and topics incorporated into one lesson. Teachers recommended that these lessons be spread across more than one lesson.

In general, the teachers were happy with the written lesson, food tasting activities, and controlled breathing exercises. Students were given an opportunity to try new foods, and the props and materials allowed for more interactive learning. The vast majority of teachers enjoyed teaching the lessons and planned to integrate most lessons into daily classroom activities. It is important to note that while the majority of scores were 4.0 or above when examining performance on the Likert scale, future evaluations should consider establishing a required benchmark or criterion for success. Although 4 out of 5 is a generally positive outcome, program leadership and staff will need to determine whether that is an acceptable performance threshold and whether there should be a higher anticipated score that is used to measure high vs. low performance program-wide. We caution against setting the standard based on one-year of data, but encourage BCHD to trend multiple years (3 to 5) and adopt a performance standard and identify deficiencies based on a higher threshold if the data support it.

Teachers reported that their students were more willing to try new foods after LWT. Teachers also saw improvement in the students’ understanding of where foods come from and the connection between healthy eating and wellness. Parents saw improvement in their children’s understanding of where food comes from; however there was less improvement seen in the parents’ perception of their children’s understanding of the relationship between healthy behaviors and wellness, and their children’s willingness to try new foods at home.

Overall, there was slight improvement in how confident teachers were in their ability to impact their student’s eating behavior in a school setting. There was no positive change in the teacher’s ability to keep their students calm and focused; with most teachers reporting that they felt confident before the program. Teachers “always” ate with their students, modeled mindful eating behaviors, and ate fruits and vegetables more often after LWT. All teachers asked their students about the foods they were eating either “sometimes” or “always”, however there was no improvement in this measure over the course of the program. Additionally, LWT did not have an impact on how often teachers ate take out, delivery, or fast foods, or the amount of time they spent watching TV, spending time on the computer, or playing electronic games.

There was very little improvement seen in the parents' ability to instill healthy behaviors in their preschool child. Both before and after LWT, parents felt confident that they knew how to provide their children with foods from different food groups and knew how to identify processed foods. While the vast majority of parents "always" offered their children fresh fruit 1-2 times daily, parents offered their children fresh vegetables less often. Likewise, parents consumed fewer vegetables than fruit both before and after LWT. The program had no impact on how often both parents and students ate take out, delivery or fast foods, or the amount of time they spent with electronics. There was no positive change in the parents' confidence in keeping their children calm and focused, and most parents "never" or "sometimes" used deep breathing or other mindfulness behaviors. Compared to teachers, there was less change in the modeling of healthy eating behaviors for parents because the lessons and curriculum do not target preschool parents in the same way that they provide education to preschool teachers. If there was any further expansion to the LWT program, the Center recommends additional lessons for parents, with a focus on mindfulness and deep breathing techniques.

The Center recommends the following refinements to BCHD's suite of program evaluation surveys: 1. Make use of either check-box or pre-populated survey answers, wherever possible, to minimize inconsistencies and errors in data collection; 2. Add additional options to the frequency questions, so that there are five response categories instead of three, such as "never", "rarely", "sometimes", "often", or "always"; and 3. If resources allow, add a unique identifier to the pre- and post-program surveys that would make significance testing possible.