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# Farm to School Grant Application for Douglas County School District

**Brittany Mally** 

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## Farm to School Grant Application for Douglas County School District

**Brittany Mally** 

## In partial fulfillment of requirements for a

# Masters Degree of Family and Consumer Sciences in Dietetics

Iowa State University

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# How Farm to School Programs Help to Support Child Nutrition Programs

Schools are an ideal place for establishing lifelong healthy eating habits. In 2016 44.97 million schools meals were served to children in the United States who participated in the School Breakfast Program (SBP) and/or the National School Lunch Program (NSLP).<sup>1,2</sup> A healthy lifestyle and specifically improving children's health are important topics. The most recent National Health and Nutritional Examination Survey (NHANES) from 2015-2016 revealed 18.5% of youth ages 2-19 are obese.<sup>3</sup> Childhood obesity is determined by specific criteria, specifically the body mass index (BMI).<sup>4</sup> For children and teens of the same age and sex, obesity is defined as a BMI at or above the 95<sup>th</sup> percentile on the growth chart.<sup>4</sup> Although the rise in childhood obesity rates has slowed in recent years, overall childhood obesity rates have more than tripled since the 1976-1980 NHANES, creating a national epidemic.<sup>3</sup> Children with obesity are at risk for developing other chronic diseases such as: type 2 diabetes, asthma, sleep apnea, bone and joint problems, and risks for heart disease.<sup>5</sup>

In addition to physical health problems, children with obesity are also challenged with social and emotional health issues. According to the Centers for Disease Control and Prevention (CDC) children who are obese, tend to experience more bullying and teasing than their peers who are classified as "normal weight" and subsequently report more depression, lower self-esteem and social isolation.<sup>5</sup> In addition to environmental factors, childhood obesity can result as a combination of several other factors including: lack of physical activity, increased consumption of high caloric foods, lack of fruit and



vegetable consumption, and certain genetic factors.<sup>5</sup> Fruit and vegetable consumption is a factor that can be influenced at school through the school meal programs.

Fruit and vegetable consumption has many benefits including increasing consumption of essential vitamins, minerals, and fiber.<sup>6,7</sup> Per the 2015 Dietary Guidelines for Americans, the recommendation for daily vegetable consumption for children is 1.5 cups to 3 cups equivalent per day and 1 cup to 2 cups equivalent per day for fruit depending on their age and gender.<sup>8-10</sup> For boys ages 9-13 years old and girls ages 14-18 years old the recommendation is 2.5 cups equivalent of vegetables per day.<sup>10</sup> Children fall short of this recommendation with vegetable consumption lowest, between 1-1.5 cups equivalent, among boys ages 9 to 13 years and girls ages 14 to 18 years.<sup>11</sup> Fruit consumption is not much better. Many children ages 1 to 8 years do not meet the recommended intake of 1-1.5 cups for total fruit. The average intakes of fruits, including juice, are lowest among girls ages 14 to 18 years at only 1 cup equivalent per day.<sup>11</sup>

To help remedy this limited produce consumption among youth, school meal nutrition standards have changed. In 2010, the Healthy Hunger Free Kids Act (HHFKA) required schools to incorporate more fruits and vegetables into school meals. Since the HHFKA, both selection and consumption of fruit and vegetables in school meals by children has increased.<sup>12-14</sup> Cohen and colleagues observed an increase in fruit selection of 23%, however the fruit consumption remained the same.<sup>13</sup> Schwartz and colleagues, also observed an increase in fruit selection, from 54% to 66% and a high consumption rate of 74%.<sup>14</sup> The study by Schwartz et al also found that fruit selection increased by an additional 9% for each additional type of fruit offered.<sup>14</sup> Both Cohen's



and Schwartz' studies showed no increase in vegetable selection, however both studies did find an increase in vegetable consumption by 16.2% and 20% respectively.<sup>13,14</sup> Changing the nutrition standards for school meals has been a great start to help with improving children's health;<sup>14</sup> however, it is benefiting only those children who regularly participate in the school meal programs.

In Nevada, the 2017 SBP participation averaged 139,251 meals per school day while the NSLP served 224,528 meals per school day.<sup>15,16</sup> Douglas County School District (DCSD), located in Minden, struggles with SBP and NSLP participation rates. In 2017-2018, the DCSD SBP participation was 20% and 31% for the NSLP, with a district average free and reduced price meal rate of 36%.<sup>17</sup> Possible barriers to participation in school meal programs includes student preferences, limited menu options, and the stigmatization of eating school meals.<sup>18,19</sup> Greer and colleagues<sup>20</sup> reported students from a lower income, diverse, urban community perceived local produce to be of better quality than non-local produce. Students' perception of the lunch program was "the foods served at school are 'unnatural' and 'made in a factory." Another study focused on students in a rural community reported that the parents of those students perceived the current school food as bland and unappealing.<sup>21</sup> Whether in a rural or urban community, there is a higher participation rate in school meals by children who qualify for free or reduced price meals and by children attending elementary school.<sup>19</sup> However, not all of those children who qualify for free or reduced price school meals participate in the school meal programs. Overall 63.5% of the children who qualify for free or reduced price school meals participate in the NSLP, while only 52% of those qualified participate



in the SBP.<sup>22</sup> Of those children participating, more than 70% are children living in urban households and 63% are children living in rural households.<sup>22</sup>

One possible way to help increase school meal participation is through the Farm to School program. Farm to School program evaluations have reported a potential benefit as an increase in school meal participation.<sup>23</sup> Further, Farm to School programs provide an opportunity for school districts and individual schools to: (1) bring in local foods to serve as part of the school meal programs, (2) start and expand school gardens creating a hands-on learning environment for students, and (3) improve the local economy by supporting local and regional farms.<sup>24,25</sup> The Farm to School program may be able to help improve the dietary intake and the health of children by helping to improve school meal programs and potentially increase participation in schools meals.

#### Farm to School Overview

Farm to School is a food movement in the United States that has gained significant popularity over the last 10 years. Farm to School programs provide students with access to fresh, healthy, local foods, as well as educational opportunities related to these foods.<sup>24</sup> The Farm to School concept began in the early 1990's where it focused on three core elements: (1) procurement of local foods for school meals, (2) school gardens, and (3) educating students about where their food comes from.<sup>24,25</sup> Farm to School initiatives have included building and growing school gardens, teaching cooking classes, and providing field trips to local farms to learn about agriculture.<sup>24,25</sup> Implementation of Farm to School interventions may vary; however, they all include at



least one or more of the three core elements of Farm to School: procurement, school gardens, and education.<sup>24</sup>

Initially, Farm to School programs began in states that were already successful in the produce industry such as California and Florida.<sup>26</sup> As of 2011, every state and the District of Columbia offers a Farm to School program.<sup>27</sup> The 2015 Farm to School Census suggests implementation in at least 5,254 school districts including 42,587 schools, reaching over 23.6 million children.<sup>28</sup> It is anticipated these numbers will continue to grow.

*Farm to School Funding.* The concept of Farm to School began in the early 1990's; however funding has only been offered during the last six years. An amendment to the Richard B. Russell National School Lunch Act (NSLA) established a Farm to School program to assist eligible entities, through grants and technical assistance, to implement Farm to School programs that improve access to local foods in eligible schools.<sup>29</sup> The Farm to School Grant Program (Appendix A) was created in 2004 as a part of the Child Nutrition Reauthorization Act. However, funding was not made available until 2010 with the creation of the HHFKA.<sup>30</sup> Funding for Farm to School is provided through United States Department of Agriculture (USDA) grants. Since 2012, the USDA has awarded competitive Farm to School grants to provide training on Farm to School implementation including: supporting operations, planning, purchasing equipment, developing school gardens, and developing partnerships.<sup>29,31</sup> Grant are available in three tracks: a planning grant, an implementation grant, or a training grant (Table 1). Schools are only eligible to apply for the planning or implementation grants.<sup>29</sup>



Table 1: Grant Application Tracks <sup>29</sup>

Grant Track	Description	Eligible to Apply
Planning	Intended for those just getting	Schools or districts who
	started with Farm to School	participate in NSLP and
	activities. Should primarily focus on	SBP, state and local
	goals and objectives that lay a solid	agencies, Indian tribal
	foundation for launching or scaling	organizations, agriculture
	up Farm to School work.	producers, and non-profit
		entities.
Implementation	Intended for those ready to scale up	Schools or districts who
	or further develop existing Farm to	participate in NSLP and
	School initiatives. Appropriate for	SBP, state and local
	entities with established partnerships	agencies, Indian tribal
	and initial implementation success.	organizations, agriculture
		producers, and non-profit
		entities.
Training	Intended to support eligible entities	Only state and local
	to conduct state, regional, and	agencies, Indian tribal
	national level trainings that	organizations, agriculture
	strengthen Farm to School supply	producers, and non-profit
	chains and/or increase trainees'	entities.
	knowledge and capacity related to	
	Farm to School.	



Farm to School is a way to incorporate and offer more fresh fruits and vegetables in school meal programs. The new fruit and vegetable meal pattern requirements as part of the HHFKA for the NSLP and SBP were the first major changes to the programs in the last 30 years.<sup>32</sup> The nutrition standards were modified to align more closely with the nutrition standards in the 2010 Dietary Guidelines for Americans.<sup>33</sup>

Several changes to the meal patterns for the NSLP and SBP were made to align with the 2010 Dietary Guidelines.<sup>34</sup> These changes included an increase in the availability of fruits, vegetables, whole grains, and fat-free and low-fat fluid milk in school meals. It also aimed to reduce the levels of sodium, saturated fat and trans fat in meals. Finally, both minimum and maximum calories were set to meet the nutrition needs of school children within specific calorie requirements.<sup>33</sup> Increasing the availability of fruits and vegetables focused on both getting a certain amount and variety of vegetables throughout the week (Table 2). Therefore, the weekly menu must include specific serving options of: red/orange, dark green, starchy, legume, and other vegetables throughout the week.<sup>35</sup> The new requirements require- increasing the availability, amount, and the type of fruit of vegetables offered in school meals. The Farm to School program provides the opportunity for schools to meet this dietary requirement while engaging students in the process through nutrition education methods.



Meal	Food Group	Previous K-12	HHFKA K-12
Lunch	Fruits & Vegetables	<sup>1</sup> / <sub>2</sub> - <sup>3</sup> / <sub>4</sub> cup of fruit and vegetables combined per day	<ul> <li><sup>3</sup>⁄<sub>4</sub> - 1 cup of vegetables plus <sup>1</sup>⁄<sub>2</sub></li> <li>-1 cup of fruit per day</li> <li>Note: Students are allowed to select</li> <li><sup>1</sup>⁄<sub>2</sub> cup fruit or vegetable under OVS.</li> </ul>
Lunch	Vegetables	No specifications as to type of vegetable subgroup	Weekly requirement for: • dark green • red/orange • beans/peas (legumes) • starchy • other (as defined in 2010 Dietary Guidelines)
Breakfast	Fruit	<sup>1</sup> / <sub>2</sub> cup per day (vegetable substitution allowed)	1 cup per day (vegetable substitution allowed) Note: Students are allowed to select ½ cup of fruit under OVS. Juice may be offered to meet half of the weekly requirement.

Table 2: Comparison Previous and New HHFKA Fruit and Veggie Requirements <sup>36</sup>

*Farm to School in Nevada.* Nevada is the 9<sup>th</sup> most densely populated state and is comprised of 22 school districts, with a growing number of charter schools who function as their own district.<sup>37</sup> In 2015, four (18.2%) of Nevada school districts offered a Farm to School program which included 404 schools reaching 325,485 students.<sup>38</sup> It is anticipated the future reach of Farm to School in Nevada will reach 33%. This is based on the number of districts that completed the Farm to School Census and said they plan to start Farm to School activities in the future.<sup>38</sup>

One district interested in initiating the Farm to School program is the DCSD. The DCSD consists of 12 schools serving just under 6,000 students.<sup>39</sup> The DCSD participation for the school meal programs is low. In school year 2017-2018 participation in the NSLP was 31% and 20% for the SBP.<sup>17</sup> In comparison, the most recent School Nutrition Dietary Assessment (SNDA) reported on an average day 63% of students



participated in the NSLP and 28% participated in the SBP.<sup>40</sup> Additionally, the free and reduced percentage for the district is 36% which is also low. In order to increase meal participation, promoting the meal program to students who are on full pay status is needed as they make up the remaining 74% of the student body. One way to promote the school meal program is to increase the positive perception of the programs. The Farm to School program provides an opportunity to do this.

#### Benefits of Farm to School programs

The Farm to School program benefits the school district, the community, and the local farmers. Participation in the Farm to School program has resulted in reduced plate waste, improved acceptance of healthier school meals, lower school meal program costs, increased support from parents and community members for healthier school meals, and increased participation in school meals.<sup>28,41,42</sup> Of particular interest is the increased participation in school meals. This is important to school districts and their food service departments for revenue generation.<sup>41</sup> The majority of literature on Farm to School programs has focused on school lunch participation rates. However, most of the information gathered was from self-evaluated program evaluations performed by the individual Farm to School programs.<sup>43</sup> Additionally, the program reports and program evaluations relied on self-reported intake or surveys that have not been validated. Despite the lack of peer reviewed studies on this topic, looking at the program reports can still offer useful information in regards to Farm to School programs and its potential benefits.



The Contoocook Valley School District in New Hampshire used Farm to School as a tool to help increase revenue for the school meal programs.<sup>44</sup> With the healthy, local, and fresh products purchased through Farm to School they strengthened their catering services inside and outside the district and began a Sports Nutrition Program to market meals to student athletes.<sup>44</sup> These additional services paired with the higher quality meals increased total meal revenue from \$600,000 to more than \$1 million over three years.<sup>44</sup> Although there is research showing the positive economic effect that Farm to School has on the community <sup>45,46</sup>, there is a lack of research showing a monetary return on investment for the schools.

The last Farm to School Census revealed 66 percent of respondents with Farm to School programs reported at least one of the following positive benefits: greater community support for school meals, greater acceptance of the HHFKA changes, lower school meal program costs, increased participation in school meals, and reduced food waste.<sup>23</sup> Of those 66 percent of respondents,17 percent reported an increase in school meal participation.<sup>23</sup> Although peer reviewed studies on this specific benefit of the Farm to School program are limited and rely mostly on program evaluations, some older studies report similar findings. A meta-analysis (15 studies) noted seven studies found a substantial increase of 9.3%.<sup>41</sup> Changes in student behavior included increased salad bar participation,<sup>47,48</sup> and the students preferred the new Farm to School meals compared to the meals that were being served before the start of the program.<sup>49</sup> Despite an increase in school meals participation, that alone is not sufficient to conclude that the Farm to School program resulted in an increase in fruit and vegetable consumption. Selection of



fruits and vegetables compared to actual consumption would be important data to collect in order to draw conclusions regarding an increase in fruit and vegetable consumption.

Farm to School activities not only improve the school meal program, but also have benefited communities. One major benefit is an improvement on economy and job growth. A study on Farm to School programs in two Oregon school districts found that Farm to School purchases increased both the economy and job growth.<sup>50</sup> For each dollar spent initially by these school districts on Farm to School produce there was an overall increase of \$1.86 dollars to the Oregon economy.<sup>50</sup> Additionally, for each job created by those school districts purchasing local foods, successive rounds of economic activity create another 1.43 jobs, for an overall increase of 2.43 jobs in Oregon.<sup>50</sup> Farm to School programs provide an opportunity and market for local producers and small farms resulting in a new long-term revenue stream.<sup>42</sup> Farm to School programs focus around a community-based food approach that engages schools, community partners (e.g., health agencies, Cooperative Extension, farmers, local chefs and restaurants) and families.<sup>42,44,51-53</sup> For example, the Burlington School Food Project found an increase in community awareness about and interest in purchasing local foods and foods served in school cafeterias.<sup>51</sup> The Farm to School Census also found that among the 66 percent of respondents reporting at least one positive benefit, 38 percent reported an improved acceptance of healthier school meals among the community.<sup>23</sup> These studies show that Farm to School program can be beneficial to the schools, community, and producers.

#### Characteristics of Successful Farm to School programs



There are many successful Farm to School programs located throughout the country.<sup>28,44,52</sup> How success is determined for Farm to School programs varies depending on the program goals and outcomes. When applying for a USDA Farm to School Grant the USDA has specific outcomes and impacts that need to be met (Appendix A). For those interested in starting a Farm to School program, there is *The USDA Farm to School Planning Toolkit.*<sup>54</sup> The topics covered in this toolkit include: building your team; establishing vision and goals; defining local and finding local foods; buying local foods; menu planning; food safety; promoting your program; school gardening; education and curriculum integration; evaluating your efforts; and sustaining your program.<sup>54</sup> Effective Farm to School programs share similar characteristics and align with the topics covered in the toolkit from USDA.<sup>44,52,53</sup> These characteristics include: a focus on program sustainability; providing education and curriculum related to Farm to School; and program evaluation.

*Sustainability*. Sustainability of a program revolves around planning for growth. Important questions to consider are: How will the program financially sustain growth and expansion? Who is going to run the program? Is there community support and strong partnerships with invested individuals and/or groups? Several successful Farm to School programs suggest hiring permanent positions such as a Farm to School Coordinator,<sup>52</sup> nutrition educator, and salad bar coordinator.<sup>44</sup> These positions provide essential expertise and roles to help implement and maintain Farm to School efforts.<sup>52</sup> Permanently funded positions versus grant-funded positions promote sustainability because they increase the opportunity for continuity throughout the program.



Another important aspect enhancing the sustainability of a Farm to School program is strong partnerships throughout the community that provide financial and moral support.<sup>44,52,54</sup> In addition to the community, support from the following groups is critical for long-term sustainability: the school board, school administrators, teachers, and parents.<sup>52</sup> Several Farm to School programs have relied on volunteers to maintain school gardens over the summer and to help with events throughout the year.<sup>52</sup> Additionally, non-profit partnerships in the community are beneficial and should be developed. Non-profit partnerships have helped Farm to School programs to start initiatives in the schools to help improve attitudes about school food;<sup>53</sup> and to help oversee and support school gardens.<sup>52</sup> Non-profits agencies may include county health departments; local colleges or universities; state food councils such as dairy; local or state nutrition groups or networks; local FFA; and Master Gardeners.<sup>44</sup> These partners can provide additional support and educational opportunities that are important to the success of Farm to School programs.

A third important piece to sustaining a Farm to School program is building and establishing an effective good team. This is the first step outlined in the USDA toolkit.<sup>54</sup> A successful Farm to School program cannot be run by only one or two dedicated people. A team or task force should be created for either an individual school district or for several school districts.<sup>44</sup> This team is different from partnerships that are being made in the community. This group will be responsible for carrying out Farm to School objectives and effectively running the Farm to School program. However, partners from the community can be a part of the Farm to School team. Farm to School committees have included: farmers, school nutrition directors, cooperative extension agents,



representatives from the health department, and staff from a processing facility.<sup>44</sup> At times it may be easier to create a subcommittee from a committee that is already formed and has similar objectives, such as a school wellness committee.<sup>52</sup> In areas where farming flourishes such as San Diego County in California, the Farm to School committee can be large. For example, San Diego County has its own Farm to School Task Force that consists of 21 school districts and institutional buyers, six local food and farm businesses, and six community partners; from 2013-2014 to 2015-2016 purchasing of local foods from school districts in San Diego County showed a 500% growth.<sup>55</sup>

*Education and Curriculum.* Successful Farm to School programs include educational opportunities and curriculum development. Educational opportunities include: farm tours, farmer visits in the classroom, food waste management and recycling programs, and school gardens.<sup>44</sup> School gardens provide students with an opportunity for hands-on learning and the chance to plant something, watch it grow, harvest and then eat it. Effective curriculums have included hands-on cooking and gardening classes along with regular classroom lessons, <sup>53</sup> developing school gardens and curricula that meet state standards,<sup>44</sup> or had a school garden to support their Farm to School program.<sup>44</sup> In addition to school gardens, successful Farm to School programs utilize farms and farmers to enhance student's education. Activities have included bringing the farmers into the classroom and schools,<sup>52</sup> and farm field trips.<sup>44,52</sup> These sessions have enabled students to see how their food is grown, how it is processed, and to meet who is growing it.



Another popular curriculum found in some successful Farm to School programs is the Harvest of the Month (HOM) curriculum. HOM is a nutrition education curriculum utilized in some states and it is organized and promoted by the state education or agriculture agencies.<sup>52,56-59</sup> The purpose of the HOM Program is to: (1) feature and promote a locally grown fruit or vegetable on the school cafeteria menu each month or through a taste test; (2) increase consumption of fruits and vegetables among students; (3) increase students' access and exposure to local and seasonal produce; (4) educate students on nutrition, agriculture and healthy eating; and (5) support local farmers and increase connections between schools and local producers.<sup>52,56-59</sup> Outcomes of HOM programs includes: more positive attitudes towards fruits and vegetables;<sup>52</sup> increased consumption of fruits and vegetables;<sup>60</sup> and increased knowledge, preferences and familiarity of fruits and vegetables.<sup>60</sup>

*Evaluation.* Evaluation is an important aspect of any program and a key part of planning and implementation.<sup>54</sup> Evaluation provides the opportunity to see what works, improve the program if it's not working, and demonstrate successes.<sup>54</sup> Due to the extensive growth of Farm to School programs over the past decade, a framework to help guide program evaluation has been developed by the National Farm to School Network.<sup>61</sup> The *Evaluation for Transformation: A Cross-Sectoral Evaluation Framework for Farm to School* was released in 2014 and serves as a guide for future research and evaluations in Farm to School.<sup>61</sup> The framework is recommended for programs to be successful in their planning, implementation and evaluation.

Evaluation is important albeit time consuming. As a result, some Farm to School programs have found that it is easier and more feasible for them to have an outside



agency conduct the evaluation of their program.<sup>62-64</sup> Possible outside evaluators would be – extension offices, public health research centers, or departments from the local college or university.

When evaluating a Farm to School program there are many different outcomes that can be measured.<sup>61</sup> Part of developing an evaluation plan is deciding on which outcomes to measure and the tools to gather that information. Consistent outcomes measured in Farm to School programs have included meal acceptance and likeability;<sup>52</sup> amount of local produce bought and served in school meals; change in knowledge, attitudes, and behaviors in students, teachers, parents and the community; and impacts on farmers involved in Farm to School.<sup>62,63</sup>

There are Farm to School planning and evaluation toolkits available for programs to use. The USDA Farm to School Planning Toolkit<sup>54</sup> provides resources available to use, as does the Evaluation for Transformation: A Cross-Sectoral Evaluation *Framework for Farm to School.*<sup>61</sup> The research and validation of these tools has already been completed and they are a great resource for programs working on evaluation. The successful Colorado Farm to School program has developed an evaluation toolkit <sup>65</sup> that walks through the each step of evaluation and provides data collection tools. They have developed and collected many survey tools to help programs gather data needed to effectively measure their outcomes.

#### Conclusion

Farm to School programs may improve dietary behaviors including increasing students' fruit and vegetable consumption. They provide students with the opportunity to



learn more about where their food comes from and to help them create healthier eating habits. The Farm to School program may also increase participation in school meal programs by changing the perception of school meals and making these healthy changes widely accepted by students, parents, and the community.

Successful Farm to School programs share similar characteristics including sustainability through funding, leadership, and support; providing education through farm visits, school gardens, and integrated curriculum; and conducting evaluations to make changes, improvements, and to expand on successes. Farm to School programs are well suited to help increase fruit and vegetable consumption among students, help improve school meal programs and participation, and to improve community support of school meals.



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### FY 19 USDA Farm to School

### **Planning Track Grant Application**

**Douglas County School District** 

Minden, NV

December 2018



#### Farm to School Background and Readiness

School meal participation in the Douglas County School District (DCSD) is lower than the national average. In school year 2017-2108 in DCSD participation in the National School Lunch Program (NSLP) was 31% while School Breakfast Program (SBP) participation was 20%. The most recent School Nutrition Dietary Assessment (SNDA) reported 63% of students participated in the NSLP and 28% participated in the SBP on an average day.<sup>1</sup> DCSD is well positioned and ready to begin planning a successful F2S program. Douglas County has 255 farms totaling 91,046 acres;<sup>2</sup> with 10 producers certified to sell their product to the public in Nevada.<sup>3</sup> This planning grant will lay the foundation for establishing a Farm to School (F2S) program for DCSD. To effectively plan for a F2S program and its sustainability, the following objectives will be achieved: (1) build a strong F2S team; (2) identify and build relationships with local farmers and community partners; (3) research and choose curriculum and educational activities; and (4) determine the type of evaluation to be used. These objectives are based on recommendations provided in the USDA Farm to School Planning Toolkit <sup>4</sup> as well as other successful F2S programs.<sup>5,6</sup> A F2S program will enable DCSD to incorporate local products into school meals, which is anticipated to increase school meal participation and fruit and vegetable consumption among students.<sup>7,8</sup>

The DCSD is located in Northern Nevada and consists of 12 schools (7 elementary, 2 middle and 3 high schools) that serve about 6,000 students in Minden, Gardnerville, and Zephyr Cove, Nevada. Minden is home to Bently Ranch, which consists of 50,000 acres of ranch and farmland; Jacobs Family Berry Farm; and Alpine



Farms. These local producers along with several others from neighboring counties are all potential partners for food procurement. DCSD is actively planning for the implementation of a F2S program. Currently, DCSD has a pilot school garden at Gardnerville Elementary School (GES) to identify F2S best practices. Second, it is establishing a partnership with Leadership Douglas County, which is a community leadership program designed to develop informed, involved, and knowledgeable community members; and talking with district administrators and teachers.

#### <u>Need</u>

Youth Risk Behavior Surveillance System (YRBSS) data indicates that adolescents in Nevada have low fruit and vegetable consumption.<sup>9</sup> Although produce intake among Nevada youth (40% vegetable and 41% fruit) is slightly above the national average (37% vegetable and 39% fruit), it is still not meeting recommendations.<sup>9</sup> An increase in fruit and vegetable consumption has been a reported benefit from F2S programs, especially when local foods are included in the school meal programs. DCSD would also benefit from an increase in school meal participation.

Nationally, 63.5% of children eligible for free and reduced price meals participate in the NSLP, while only 52% participate in the SBP.<sup>10</sup> Additionally, there is less participation in rural areas compared to urban areas.<sup>10</sup> In school year 2017-2108 DCSD lunch participation was 31% while SBP participation was 20%. Both of these rates are lower than the district average Fee and Reduced Lunch (FRL) rate of 36%.In order to increase meal participation, promoting the meal program to students who are on full pay



status is needed as they make up the remaining 74% of the student body. One way to promote the school meal program is to increase the positive perception of the programs. The Farm to School program provides an opportunity to do this. In the most recent F2S Census, 17% of districts reporting F2S benefits reported an increase in school meal participation.<sup>7</sup>

#### **Objectives**

The overall goal is for DCSD to complete a F2S Action Plan to establish a successful F2S program. We will do this by (1) establishing a Farm to School team comprised of at least 10 members including: school level staff, district level staff, parents, students, local producers, Extension Master Gardener, community physician or nurse, food service industry representatives, and/or church members; (2) identifying local producers and community partners we could work with in order to increase our procurement and use of local foods in school meals; (3) select curriculum and educational activities to be used for F2S program at each school; (4) determine evaluation tools to be used to measure effectiveness of a F2S program. These objectives have been selected because these programming aspects are documented to support F2S program sustainability. <sup>4-6,11-15</sup>



#### **Timeline & Activities**

Grant track will cover period of 2 years: July 1, 2019 through June 30, 2021. See Appendix C for logic model.

Activity	Person Responsible	Month(s) Year 1											
		1	2	3	4	5	6	7	8	9	10	11	12
Recruit members for F2S team.	Director SNP, teachers from GES, FFA teacher	Х	X	Х	X	x							
Define what local and regional will be for DCSD.	F2S team, Director of SNP			Х	Х								
Meet as a team once per month to work on F2S Action Plan.	F2S team members			Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Identify checklists to be used for planning a F2S program	F2S team members	х	х	х									
Host a meeting for local producers.	FFA teacher, Director SNP					Х							
Conduct interviews with school administrators and district level staff determine any challenges or needs they foresee with implementing F2S education, activities in the classroom, and school gardens.	Director SNP & F2S team members						x	X	x	x			
Conduct focus groups with students/staff/parents/community members	Director SNP & F2S team members								x	X	x	X	
Create a subcommittee to research education and curriculum.	F2S team								X				
Research and determine best educational activities and	F2S education subcommittee								Х	х	х	х	х



curriculum to use for each grade level.													
<u>Activity</u>	Person Responsible	Month(s) Year 2											
		1	2	3	4	5	6	7	8	9	10	11	12
Create subcommittee to research evaluation.	F2S team members	Х											
Based on education and curriculum chosen, determine outcomes to be measured & research best evaluation tools and framework to use to evaluate those outcomes.	F2S evaluation subcommittee		X	X	X	X	X						
Meet as a team once per month to work on F2S Action Plan.	F2S team members	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Hold one-on-one meetings with local producers interested in supplying DCSD and visit farms.	Director SNP, FFA teacher	Х	X	Х	Х	Х	X						
Have completed F2S Action Plan.	F2S team												Х

#### **Evaluation**

Evaluation efforts for this planning grant will consist of evaluating process and outcome measures related to the objectives and activities listed above.

**Building a F2S Team**: This will be evaluated by: (1) keeping a list of current team members and will be updated monthly at each F2S team meeting; (2) retaining sign-up sheets from recruiting events; (3) keeping sign in sheets and minutes from F2S team meetings held throughout the grant period. This information will all be kept by the Director of SNP.

Identifying community partners and local producers to increase procurement of local foods to serve in school meals: This will be assessed by: (1) The total number of F2S partnerships made in the community and the total number of local producers who we meet with to discuss procurement needs; (2) identifying producer challenges toward selling to the school district and creating a strategy to overcome these; (3) Gather baseline numbers on locally sourced food items currently on the menu.

**Curriculum and education:** This will be evaluated by: (1) The number and validity of educational resources and curriculums that are gathered for teachers to use in teaching F2S; (2) each school site (n=12) will complete a survey designed to determine their readiness for a school garden, including next steps needed for them to get a garden started; (3) Curriculum and education subcommittee will present identified resources to



the F2S team; the team will then choose the activities on which to focus; these will be included in the final F2S Action Plan.

**Evaluation:** This will be evaluated by: (1) The number and validity of evaluation toolkits and resources that are gathered by the evaluation subcommittee; (2) Based on the education activities found and decided on, outcome measures will be determined by the F2S team and presented in the final F2S Action Plan.

#### Staffing, Project Management, and Quality Assurance

The Director of SNP (Appendix B resume) will be the person responsible for managing this grant and starting the F2S program; building a F2S team; and meeting/building relationships with local producers. Ms. Mally is very qualified for this position. She has 2.5 years' experience in school nutrition and food services were she manages 37 employees across 12 kitchens and the district warehouse, has managed federal grants (\$800,000) for the state school nutrition program; she is the school wellness coordinator for DCSD responsible for the school nutrition program, has a strong understanding of proper procurement and food safety requirements for bringing local foods to the school meals. Additionally, being district level position, she is familiar with all schools and has a relationship with all administration. During year one, Ms. Mally will act as the F2S Coordinator and oversee the development of the F2S Action Plan.

Ms. Futch, the current FFA teacher at Douglas High School, will oversee the school garden logistics, agriculture knowledge, and building partnerships in the



community. Ms. Futch has 4 years' experience in teaching/agriculture at the high school; and over 30 years teaching agriculture through programs such as 4-H, equestrian, and an agriculture business. She maintains a large greenhouse for her classes at the school and understands garden concepts and logistics; she helped to plan the pilot garden at GES; and she is well known in the Douglas County agriculture community, which makes her an ideal person to help build and foster additional community partnerships.

The first objective is building a F2S team. As this team grows and meets on a monthly basis, the named subcommittees will be formed. These subcommittees will be responsible for completing the activities outlined in the timeline. Together as a F2S team and facilitated by the Director of SNP, the F2S Action Plan will be written and submitted by the end of the grant period.

#### <u>Sustainability</u>

We have actively included sustainability in our programming as stated under our objectives. First, we will form a F2S team comprised of local partners based in the community and outside of the school district to advise the planning process. Second, the F2S team will identify local producers who are vested in the community and work with them to determine potential barriers toward implement F2S including food procurement and develop strategies on how to overcome them. Furthermore, the F2S team will research existing F2S curricula and evaluation tools that can be used in the DCSD F2S program. Finally, DCSD will provide financial sustainability for a F2S program by securing additional grant funds, including a F2S implementation grant.



### Budget & Budget Narrative

Overview		
Source of Matching Funds		
District Personnel:		\$14,000.00
Fringe:		\$3,420.48.00
	Total	\$17,420.48

Funding Request Summary		
	Federal	Match
District Personnel:	\$31,791.20	\$14,000.00
Fringe Benefits:	\$10,000.00	\$3,420.48.00
Travel:	\$3,100.00	\$0.00
Supplies:	\$500.00	\$0.00
Total	\$45,391.20	\$17,420.48

Total project cost	\$62,811.68
Total match percentage	28%

#### Narrative

District Personnel: The total personnel cost is \$45,791.20

We are requesting \$31,791.20 for the Director of SNP and the FFA instructor for 2 years at .25 FTE each position. This amount is based on the Director's and FFA teacher's scheduled salaries for fiscal year 2019-2020. The school district will pay \$14,000 to

match the cost of .25 FTE of the Director of SNP.

The Director will serve as the F2S Coordinator during this grant period and will oversee the proposed F2S planning activities. The FFA instructor will provide guidance and expertise on all things garden related; and help to find local producers and work with them on the agriculture side of the program.

*Fringe Benefits*: The total fringe benefit cost is \$13,420.48.



The fringe benefit rate for personnel is 14.654%. The school district will pay for \$3,420.48 of the fringe benefits for the .25 FTE of the Director of SNP and .25 FTE of the FFA teacher. USDA F2S grant funds will cover the remaining amount of \$10,000.

• \$45,791.20 personnel salary X 2 year X .14654 fringe benefit = \$13,420.48

*Travel:* The total cost of travel is estimated to be \$3,100.

We are requesting \$3,100 for travel to and from the 2020 Farm to School Conference. The total conference travel cost is \$3,100. The Director of SNP and FFA instructor will attend. The estimated cost of each person to attend the conference is \$1,550. Round trip (RT) flights, hotel and per diem rates are GSA rates for Atlanta, GA.

- RT flight \$500 x 2 people = \$1,000
- GSA rate hotel room \$152 x 2 people x 3 nights = \$912
- Meal per diem for days \$231 x 2 people = \$436
- Ground transportation \$100 for transportation to and from airport = \$100
- Conference registration \$300 x 2 people = \$600

Supplies: The total supply cost is estimated at \$500.

We are requesting \$500 for supplemental materials that will be provided to F2S team members (\$33/ team member x 15). Each F2S team member will received a binder containing relevant resources for creating a F2S Action Plan.



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# Appendix A Grant Application RFP



### Farm to School Grant Program

#### Fiscal Year 2019 Request for Applications

Catalog for Federal Domestic Assistance Number (CFDA): 10.575

#### Dates:

Publication Date: October 2, 2018

Application Due Date: 11:59 PM, Eastern Standard Time (EST), December 4, 2018

Estimated Award Date: May 2019

#### 1.0 Program Description

1.1 Legislative Authority

The Richard B. Russell National School Lunch Act (NSLA) establishes a Farm to School program in order to assist eligible entities, through grants and technical assistance, in implementing farm to school programs that improve access to local foods in eligible schools.

To fulfill the farm to school mandate in the NSLA, \$5 million is provided to the United States Department of Agriculture (USDA) on an annual basis to support grants, technical assistance, and the Federal administrative costs related to USDA's Farm to School program. The USDA Farm to School Grant Program is housed within the Food and Nutrition Services' (FNS) Office of Community Food Systems (OCFS). Additional funding for the Farm to School Grant Program was made available through the FY 18 Omnibus bill, and as a result, up to \$7.5 million will be released under this solicitation.

Authorizing language in the NSLA directed the Secretary of Agriculture to award competitive grants for:

- Training;
- Supporting operations;
- Planning;
- Purchasing equipment;
- Developing school gardens;



- Developing partnerships; and,
- Implementing farm to school programs.

The Secretary of Agriculture was also directed through the NSLA to ensure geographical diversity and equitable treatment of urban, rural, and tribal communities, as well as give the highest priority to funding projects that, as determined by the Secretary –

- Make local food products available on the menu of the eligible school;
- Serve a high proportion of children who are eligible for free or reduced price lunches;

• Incorporate experiential nutrition education activities in curriculum planning that encourage the participation of school children in farm and garden-based activities;

• Demonstrate collaboration between eligible schools, nongovernmental and community- based organizations, agricultural producer groups, and other community partners; • Include adequate and participatory evaluation plans;

• Demonstrate the potential for long-term program sustainability; and,

• Meet any other criteria that the Secretary determines appropriate.

#### 1.4 FY 2019 Funding Priorities

In addition to the general program purpose and priorities outlined above, across all grant categories, USDA considers the following priorities for FY 2019:

• Applications from school districts (i.e. the school district is the lead applicant1): schools or school districts will receive at least 50 percent of the overall number of planning and implementation awards.

- Applications from Indian Tribal Organizations and entities serving Native communities.
- · Projects that reach more than one school.

• Projects that serve a high proportion of children (at least 40 percent or more) who are eligible for free or reduced price meals. In selecting successful applicants, USDA, to the maximum extent practicable, will seek to ensure geographical diversity and equitable treatment of urban and rural communities.



### Appendix B

# Current Resume: Brittany Mally, RD

<u>Education</u>	
Iowa State University GPIDEA Program MFCS Nutrition	Completion May 2019
Dietetic Internship- University of Nevada Reno 2015	January
University of New Mexico, Albuquerque, NM B.S. Nutrition and Dietetics	May 2014
Occidental College, Los Angeles, CA B.A. Kinesiology	May 2010

### Professional Experience

**Director School Nutrition Programs** Douglas County School District Minden, NV July 2017-Present

- Responsible for managing school nutrition programs, NSLP and SBP, for entire district of about 6,000 students and 12 schools.
- In charge of purchasing and procuring food for program; developing school menus and creating recipes that meet the USDA meal pattern guidelines; hiring personnel; managing the department budget, entitlement funds, and inventory.
- Has worked to improve and expand participation in NSLP and SBP by: changing menus, incorporating better quality foods and made from scratch items, and marketing programs to students, staff, and the community.
- Responsible for establishing program priorities and improvements to be made in all aspects of the programs: procurement, food quality, meals per labor hour, participation, staffing, and perception of the school meal programs.
- Supervises 37 employees including kitchen and district warehouse staff. This includes: helping them to set yearly goals and providing feedback via yearly employee evaluations; ensuring they are in compliance with the federal guidelines for the NSLP and SBP; and providing technical assistance when necessary.
- Personnel management also includes knowledge of employee contracts and meeting with union representatives when requested to discuss employee performance or issues.
- Writes and applies for grants that will help to improve the school meals programs, this includes grants such as: Chef Ann Foundation grant, NSLP Equipment Grant, a



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School Garden Grant from NDA, and currently working on a Farm to School Planning Grant.

• School wellness coordinator for the school district and oversees the wellness committee and helps to teach and enforce the school wellness policy.

**Quality Assurance Specialist** Nevada Department of Agriculture Sparks, NV July 2016-July 2017

• Responsible for scheduling, organizing, and managing all Administrative Reviews of the National School Lunch Program (NSLP) in Nevada. This includes conducting offsite assessment calls with districts, gathering all necessary documentation, and visiting each district and certain school sites in order to make sure they are in compliance with the federal regulations required for the NSLP, SBP, and FFVP.

• Wrote and submitted an application to participate in the USDA Demonstration to use Medicaid for Direct Certification for the NSLP. This project was awarded to NDA.

Helping to manage two three year federal grants, a combined total of almost
 \$800,000. The USDA Team Nutrition grant and the USDA Administrative Review
 Training grant.

• Presented webinars and trainings on various school nutrition topics and supervised dietetic interns when placed at NDA.

Program Officer 1Nevada Department of AgricultureSparks, NVDecember2015-July 20162016

- Reviewed and provided technical assistance on local school wellness polices acting as the state expert on school wellness polices.
- Presented webinars and presentations on school wellness topics to Nevada school districts and other organizations in Nevada such as Southern Nevada Health District and Nevada School Nutrition Association.
- Helped to manage federal flow-through grants such as the NSLP Equipment Assistance Grant and the FFVP grant. Tasks include writing Requests for Applications, collecting and scoring applications, writing award letters, organizing and keeping track of sub-grant awards including documents submitted for reimbursement requests, and writing quarterly reports to be sent to USDA.
- Wrote, organized, and submitted USDA Team Nutrition Grant proposal asking for \$443,510 in funding which was awarded to NDA. This included collaborating with UNCE in Las Vegas and the Center for Program Evaluation at UNR to meet requirements set by the RFA, creating the budget, a manageable timeline, and reasonable SMART goals and objectives to be met by the end of the three-year grant cycle.
- Successfully wrote and organized a grant proposal for USDA Administrative Review Training Grant proposal asking for \$388,000 in funding which was awarded to NDA.



This included collaborating with the Nevada Department of Education, creating a budget, a manageable timeline, and SMART goals and objectives to be met by the end of the 3-year grant cycle.

• Supervised dietetic interns for their 3-week rotation at NDA. Providing them with tasks and projects that will meet their competencies, and giving them guidance and support to help them complete those projects. Evaluates work and performance throughout rotation.

**Clinical Dietitian- Per Diem** Northern Nevada Medical Center Sparks, NV July 2015-February 2016

- Coordinated all phases of nutrition care in a 110-bed hospital including nutrition assessment, care planning, monitoring and education of hospitalized patients.
- Instruct patients about the need for alteration in current diets.
- Worked weekends as only RD on staff, showing ability to work independently and efficiently.

**Project Dietitian**UNR Cooperative Extension Reno, NVFebruary 2015-December2015

- Nutrition educator in charge of Team Nutrition "Smart Choices" program at four Washoe County Elementary Schools and Healthy Eating on a Budget program offered through DWSS job training program for adults receiving SNAP benefits.
- Provided nutrition education to elementary students. Organized, scheduled, and delivered lessons to four schools. Increased the amount of lessons offered (from 68 in 2014 to 140 in 5 months of 2015).
- Taught nutrition education to adults who receive SNAP benefits. This 8-lesson class included: cooking demos, education about all food groups, how to eat healthy on a budget, and increasing physical activity. This program was started in Las Vegas and I was hired to help implement, run, and teach it in Reno. Taught 72 lessons in 2015.
- Collected and analyzed data on populations taught and the effectiveness of the programs. Used data to write quarterly and annual reports for the state.

# <u>Affiliations</u>

- School Nutrition Association (Member) 2016-Present
- Nevada School Nutrition Association
  - Secretary, 2018
  - o Member, 2016-Present
- Northern Nevada Dietetic Association, Member 2014-Present



Appendix C: Logic Model for F2S Planning Grant

