

# Narratives

## Executive Summary

FoodCorps proposes placing 11 full-time AmeriCorps members who will connect children in public schools to healthy food through nutrition education, school gardens, and improved school lunch offerings throughout Montana. At the end of the first program year, the AmeriCorps members will be responsible for measurably improving children's preferences toward eating healthy foods, thereby overcoming a key barrier in addressing the nation's costly epidemic of childhood obesity. In addition, the AmeriCorps members will leverage 360 community volunteers who will also be engaged in promoting healthy foods and healthy school food environments.

This program will focus on the CNCS focus area of Healthy Futures. The CNCS fixed amount investment of \$127,130, which represents 30% of the budget needed to support these members. FoodCorps will leverage private funding to support each AmeriCorps member from sources including an anonymous donor, New Profit, Inc., The William K. Bowes Jr. Foundation, and FoodCorps general funds.

## Rationale and Approach/Program Design

### PROBLEM NEED

A nutritious diet is essential to a lifetime of health, opportunity, and productivity, but our children face chronic barriers to eating healthfully. Inequities in our country and shortcomings in our food system have resulted in an unacceptable number of children having insufficient opportunities to learn about, access, and enjoy healthy food.

The rate of childhood obesity in the United States has tripled in the last 30 years. Today, 1 child in 3 is overweight or obese (CDC, 2011), facing a future of diminished educational attainment (Classen, 2009), lost economic productivity (RWJF, 2012) and shortened life expectancy (CDC, 2013) that threaten to reinforce the same disparities our nation is striving to overcome: a child born into poverty is twice as likely to be obese as her affluent peers (Singh et al., 2010). Children and teens in Montana suffer from average rates of overweight and obesity at 29%, with rates for males significantly higher than those of females--37% to 21% (Kids Count, 2012). The effects of obesity on a child's health and human potential are alarming. An obese child will face an increased risk of diabetes (Narayan et al., 2003), have fewer friends (Cunningham et al., 2012), miss more days of school (Kesztyus et al., 2011), and score lower on tests (Datar et al., 2011). An obese child will likely be obese as an adult, too, suffering from long-term health consequences such as heart disease, cancer, and premature death

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(CDC, 2012).

A driving force behind this epidemic among children is diet (Bishop et al., 2005), and of particular importance are the dietary habits they form at school. Montana schools feed 80,000 students daily, yet one-third of children eat less than one serving of fruits and vegetables every day as compared with the recommended minimum of five (CDC, 2011). In order for our children to eat healthfully at school, those schools need to promote healthy choices. Schools teach our kids--through both academics and culture--much of what they learn about food; to promote healthy behaviors we need to make our schools healthier places for kid to eat, learn, and grow.

FoodCorps targets our interventions in limited-resource communities where children face a disproportionate risk of obesity and diet-related disease. The vulnerable demographic, identifiable as the 43% of Montana students eligible for free and reduced-price school meals, are especially vulnerable to the influence of school food on their weight, health, and lifelong diet: for many, what they eat at school comprises half of their daily calories (Institute of Medicine, 2012; Montana Office of Public Instruction, 2014). In Montana, obesity and poverty manifest in both rural and urban communities, which is why we strive to place FoodCorps members in both settings. Combined overweight and obesity rates in the communities' member will serve are as high as 43,4% (Butte) and childhood food insecurity rates are as high as 30.2% (Glacier County).

FoodCorps, in alignment with CNCS's Healthy Futures focus area and the Montana Partnership to End Childhood Hunger, recognizes the need to address diet-related disease at its root: what we feed our children and what we teach them about food in schools. FoodCorps stands ready to direct the energy of 15 full-time AmeriCorps members in Montana to transform school food environments in ways that increase students' knowledge of, engagement with, and access to healthy food, resulting in a powerful, positive impact on the dietary habits that shape their long-term health and opportunity. Support of this proposal builds on three years of Serve Montana-supported programming designed to meet pressing community needs in more than 50 schools across the state. Through innovative, data-driven public service grounded by local and state-level partnerships, FoodCorps addresses child health through public service at a critical nexus point: school.

### THEORY OF CHANGE AND LOGIC MODEL

FoodCorps' long-term goal is to create a future in which all our nation's children -- regardless of class, race, or geography -- know what healthy food is, care where it comes from, and eat it every day. Our intermediate goals are fourfold: 1) to support the adoption of healthy school food environments in

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schools and track the associated shifts in knowledge, attitudes, skills, and behaviors; 2) grow a cadre of AmeriCorps alumni who fill or create the civic and professional roles needed at every level to scale up healthy school environments and support a healthy food system nationwide; 3) foster alignment, connection, strategy sharing, and action across a robust network of local and regional site partner organizations, and help members of that network join our alumni as effective advocates for a national vision for healthy schools, and 4) in partnership with our site partner and alumni networks, drive multi-level policy change to support the institutionalization of healthy food environments across the nation's 100,000 public schools--including more than 800 public schools in Montana--and champion human capital and community engagement as part of these solutions.

As part of achieving these goals and addressing childhood obesity, FoodCorps has developed a partnership with AmeriCorps to train and place emerging leaders in limited-resource communities to improve the health of schools--and the students who attend them--consistently and measurably nationwide, while allowing our intervention to be adapted to the realities of the schools and communities we serve. Central to the implementation of the FoodCorps program is our network of partnerships that inform our state specific strategies and approaches. Our state "host site" partner--in Montana, The National Center for Appropriate Technology (NCAT) based in Butte--and our "service sites," community-based organizations that in turn support and oversee a specific FoodCorps AmeriCorps member or team, help drive program implementation decisions in the state, ensuring our resources are directed toward achieving maximum impact in the places with the most need. Under the direction of these service sites, FoodCorps members provide an intervention designed to transform school food environments by implementing our three evidence-backed program pillars: "knowledge," "engagement" and "access."

**KNOWLEDGE:** FoodCorps AmeriCorps members teach kids about healthy food through hands-on lessons. Leading institutions, such as the California Department of Education, advise that in order to begin changing dietary behavior children receive at least ten hours of nutrition education (2011).

FoodCorps members develop lessons that are delivered during class, after school and over the summer. Members also organize school-wide healthy food promotions and events, which have been shown to increase produce consumption and promote healthy diets (Van Cauwenberghe et al., 2010; Howerton et al., 2007; Dunton et al., 2010; Knai et al., 2006). Based on past performance in Montana, we expect each member to spend an average of 700 hours preparing for and teaching kids about healthy food in the classroom, reaching an average of 800 unduplicated students per year.

**ENGAGEMENT:** FoodCorps AmeriCorps members build and tend school gardens, teach cooking

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classes, and engage students, teachers, and families in these activities as learning tools. There is strong evidence that school gardens increase children's willingness to try and consume produce (Langellotto et al., 2012). Additionally, gardens are far more effective at increasing a child's consumption of fruits and vegetables than stand-alone nutrition lessons (Morgan et al., 2010). Our members also engage students in cooking lessons, providing gateway opportunities for children to turn their school garden produce into healthy meals they take pride in enjoying. As a FoodCorps service member serving in Bozeman reported, "When trying spinach right out of the garden, a second grader told me, 'You just make me love spinach! I used to hate it, but this is the best spinach I've ever had!'" We expect each member to spend approximately 500 hours preparing for and teaching kids about healthy food in school gardens, to build or revitalize 1-2 school gardens, and tend approximately 10,000 square feet of healthy green space.

ACCESS: FoodCorps AmeriCorps members ensure that kids can access the healthy food they have learned about by bringing healthy, local foods into the cafeteria and promoting them when served. Studies have shown that children who first learn about a healthy food, try a sample of it through a taste test, and then have an opportunity to add a full serving of it to their tray, will be far more likely to choose it (Cooke, 2007). As the Food Service Director at Kalispell Public Schools explains, "With FoodCorps' help, our district has increased participation, overhauled the menu, and [begun serving] local products like apples, kale, lentils, beef, squash, cherries, and whole grains. I am in awe of the positive effects of the FoodCorps program -- it is exactly what this country needs right now. A task force of smart, engaged people who care deeply about seeing improvements in the health of young people through improved food knowledge and food choices." We expect each member to spend approximately 500 hours facilitating or promoting healthy food access in the school cafeteria and to introduce an average of 2-3 healthy recipes into full-scale school lunch menus.

FoodCorps' "three pillar" strategy is based on evidence that interventions with multiple, mutually reinforcing components have been shown to have a greater impact on children's health than single-component nutrition interventions (Seo et al., 2010). This is true for school food programs in particular: students participating in similar programs to FoodCorps with two or more components (in-class lessons, gardening programs, exposure to local food in cafeterias, farmers' visits to schools, taste testing, and field trips to farms) scored significantly higher on fruit and vegetable knowledge and consumption, and lower on preference for unhealthy foods (Evans et al., 2012).

Our AmeriCorps members meet community needs each and every day they serve. In a country where most students only receive 3.4 hours of nutrition education (Society for Nutrition Education, 2009) in

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an entire school year (compared to 40 hours of junk food ads (Henry Kaiser Family Foundation, 2007)), our members ensure that students in Montana learn about their health and the impact of their food choices daily through experiential learning and hands-on lessons. Without these committed, engaged, and selfless service members, these efforts to catalyze short term progress and help communities sustain and institutionalize long-term change in healthy school environments simply would not exist at the breadth and depth needed in these largely rural, largely under-served, and over-burdened schools and communities.

### EVIDENCE BASE

FoodCorps' moderate evidence-based program model is based on the evaluation results of comparable programs, academic research supporting individual and collective components of similar programs, and our own preliminary findings from nearly four years of impact- and inquiry-oriented program management.

Research from comparable interventions: A quasi-experimental pre/post evaluation conducted by the University of Wisconsin of a similar program operating at nine sites in that state provides strong underpinnings to FoodCorps' evidence base. The program used AmeriCorps members to conduct nutrition and garden education and increase and promote healthy options in school lunch. Through pre/post surveys of student knowledge and attitudes on food, nutrition, and agriculture, along with pre/post lunch tray photo observations to capture changes in consumption, the Wisconsin program found that AmeriCorps members were successful in increasing student knowledge, attitudes, and consumption of healthy food. (Citation: Rowe, T.L., Bontrager Yoder, A.B., Knitter, A., Meinen, A., Liebhart, J.L., Schoeller, D. (2012). Wisconsin Farm to School: One-year Evaluation Report. University of Wisconsin School of Medicine and Public Health).

In a three-year prospective study of fourth and fifth graders in the Berkeley Unified School District--looking across five schools with degrees of program implementation--researchers found that students in schools that incorporated more program components scored significantly higher in nutrition knowledge scores; elementary students' preference for fruits and vegetables; middle school students' attitudes toward school food, fresh produce, and the environment; and elementary students' fruit and vegetable intake (increasing by more than one serving). Like FoodCorps, this program aims to incorporate a "comprehensive effort to integrate cooking and gardening education into the academic school day in Berkeley elementary and middle schools while revamping the school meal offerings and dining environment." This study reviews multiple other outcomes as well, but remains especially

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relevant to FoodCorps' work given the importance of our three-pillared, multi-component program design. (Citation: Rauzon, S., Wang, M., Studer, N., and Crawford, P. (2010). An evaluation of the school lunch initiative: Final report. Dr. Robert C. and Veronica Atkins Center for Weight and Health, University of California at Berkeley).

Additionally, the evidence-based studies referenced in the previous section, "Theory of Change and Logic Model," all support the FoodCorps approach. While FoodCorps itself is relatively young, many studies (including randomized control trials) show the efficacy of the individual "knowledge" (nutrition education), "engagement" (gardening and cooking) and "access" (school lunch improvement) components that FoodCorps combines into its model, and on the added value of layering those components on top of each other. These studies include:

Systems change is necessary to support long-term health behavior change: Smedley, B.D. & Syme S.L. (2000). "A social environmental approach to health and health interventions." In Promoting health: Intervention strategies from social and behavioral research. Washington, DC: National Academy Press.

School-based obesity-prevention programs. In: Bagchi, D., ed. Global perspectives on childhood obesity: Current status, consequences, and prevention. Waltham: Academic Press, 319--31; Knai, C., Pomerleau, J., Lock, K., McKee, M. (2006). Getting children to eat more fruit and vegetables: A systematic review. Preventive Medicine, 42(2):85-95.

When children learn about healthy food that appears in the cafeteria with opportunities for tasting, they are far more likely to choose it: Cooke, L. (2007). The importance of exposure for healthy eating in childhood: A review. Journal of Human Nutrition and Dietetics, 20(4):294-301.

FoodCorps Findings: School Food Environments. In order for children to eat healthfully at school, schools need to promote healthy choices holistically. If schools hold fundraisers with cookie dough, allow soda companies to sponsor football games, or serve chicken nuggets for lunch, the dietary choices students make will follow those prompts (USDA, 2010). In order to effect healthy behaviors, we need to make our school food environments healthier places for kids to eat, learn, grow, and play. Beyond direct education of students, FoodCorps members help schools adopt healthy food environments. We measure school food environment change using FoodCorps' Landscape Assessment tool, and track the associated shifts in knowledge, attitudes, skills, and behaviors that these environments promote.

The Landscape Assessment is comprised of 30 indicators that are rated at the beginning and end of each school year in order to assess the change in the school food environment over the member's

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term. These 30 indicators, taken together, represent the most important components of healthy school food environments, which are critical to creating long-term healthy eating behaviors (Fox et al., 2009). In our analysis of last year's Landscape Assessment results from 31 schools in Montana, FoodCorps AmeriCorps members helped to improve the nutrition education environments for 81% of schools, the school garden environments for 74% of schools, and the school cafeteria for 68% of schools. These scores for each FoodCorps pillar nationwide are statically significant at the 95% confidence level. Montana schools showed the greatest level of change across all states participating in the FoodCorps program.

### MEMBER TRAINING

In addition to preparing our AmeriCorps members to make and measure the difference they catalyze during their service, we train a new generation of leaders in food, education, service and public health. Thus, FoodCorps trainings incorporate practical skill building with professional development opportunities and guided reflection on public service.

Every August, FoodCorps hosts a mandatory weeklong pre-service National Orientation for our AmeriCorps members with sessions on team-building, community engagement, cultural awareness, volunteer recruitment, nutrition education, school gardening and school food. The policies and procedures of AmeriCorps and FoodCorps, including prohibited activities, are closely covered in attendance-monitored mandatory sessions. Throughout this training we engender a culture that celebrates public service, AmeriCorps identity, and civic action. Members are provided a reference manual and in the rare instance when members are not onboarded at National Orientation, late enrollees are trained individually at the start of their service term by FoodCorps staff and supervisors. After National Orientation, our host site, NCAT (see Member Supervision section for description of host and service site roles), organizes an in-state orientation that explores concepts specific to Montana and once embedded with their community-level service site, members receive a third orientation from their service site supervisors. Midway through the service term, FoodCorps' AmeriCorps members reconvene in-person for a mid-year gathering, where they forge deeper connections with their fellow members through community service activities, receive further training on topics pertinent to their service and "Life After AmeriCorps", and learn about AmeriCorps exit procedures. Our AmeriCorps members are also provided with ongoing training opportunities throughout their terms, including monthly webinars facilitated by our national staff featuring nationally-known experts, and an online resource hub where they can access vetted third-party

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materials to support their service.

As part of a connected national network, our AmeriCorps members rely on and learn from each other, sharing successful lesson plans and best practices via listservs and in-person meetings. Members also have individual check-ins with supervisors and FoodCorps staff, and intentional reflection is fostered through our online Weekly Reporting and Reflection Logs. The success of these trainings and ongoing development and support is reflected in their satisfaction with the program. Last year 89% of members serving in Montana ranked their satisfaction with FoodCorps 8 or higher on a scale of 1-10.

Additionally, satisfaction can be measured by our high rates of returning service members. In Montana, half of service members consistently stay for a second year of service, and upon completing their terms of service more than half enter jobs or continued studies in the field of school nutrition and local food systems.

### MEMBER SUPERVISION

Our AmeriCorps members are supported and guided by three reinforcing levels of supervision and support: our community service site partners, our statewide host site partner, and our national organization. Individuals at each level provide robust support for our members based on years of experience in the fields of food, education and public service, while also working together to ensure FoodCorps and AmeriCorps compliance.

Service sites (e.g., Missoula County Public Schools and Kalispell School District) are the local organizations that provide day-to-day supervision of FoodCorps members, guide the specific goals and activities of members in their communities, provide weekly check-ins, and sign and certify electronic timesheets. Our host site, NCAT, provides the second level of supervision. Al Kurki, a Program Specialist at NCAT, will serve as FoodCorps' host site supervisor, responsible for managing FoodCorps' implementation in Montana. He oversees program monitoring, data collection, and coordination of service sites statewide. Our Montana FoodCorps Fellow, a FoodCorps AmeriCorps alumni that we embed in-state with NCAT as a team leader and mentor for our service members, also provides support by making programmatic site visits, developing local training and reflection opportunities, compiling resources for school activities, and providing support to overcome the daily challenges of service. All sites receive trainings and resources that prepare them for the administration of the FoodCorps program and the management, development, and support of FoodCorps service members. Service site supervisors are required to attend an in-person Service Site Training prior to their members starting service, where topics covering FoodCorps and AmeriCorps compliance (including

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prohibited activities, time tracking, and appropriate accompaniment) are covered in depth. Host site supervisors and fellows attend national trainings and are monitored directly by FoodCorps staff. These in-person trainings are supplemented by robust supervisor handbooks that are updated annually. FoodCorps national program staff provide overarching programmatic strategy and guidance, while completing back-end human resource administration (including processing background checks and stipend payments and providing AmeriCorps-branded apparel), orchestrating two in-person national trainings, overseeing the process and systems for evaluation and impact measurement, monitoring host and service sites for compliance, and providing targeted ongoing support to members and partners.

### MEMBER EXPERIENCE

An essential piece of FoodCorps' work is to ensure a positive member experience. We attribute our high rate of returning members, as well as our near perfect enrollment and retention rates, to service member satisfaction. One of the primary mechanisms by which we accomplish this goal is robust and ongoing training that equips members to be successful in their service and beyond. All FoodCorps trainings are designed to be platforms for service members to learn essential skills, share their successes and challenges, reflect on their service, and prepare for future opportunities.

In addition, our members complete Weekly Reporting and Reflection Logs, where they document qualitative and quantitative progress toward goals, while also sharing successes, challenges, and reflections. These Logs are powerful tools for members to learn from their service throughout their term. FoodCorps members also connect with one another and with other AmeriCorps participants via trainings, listservs, state commission-sponsored AmeriCorps gatherings and events, and National Days of Service to share resources and learn best practices. Montana FoodCorps members collaborate with Montana Conservation Corps, No Kid Hungry, and Energy Corps, with No Kid Hungry service members are invited to most FoodCorps trainings and events to facilitate program alignment.

FoodCorps believes that we can achieve greater impact and enhanced member experience when our service force reflects the communities we serve. Therefore, we rely heavily on NCAT, service sites, and our FoodCorps Montana fellow in our recruitment efforts to recruit qualified local candidates. To support and prepare sites for great recruitment, FoodCorps hosts a recruitment-focused planning call with NCAT in the late fall; shares a Recruitment Toolkit, which contains best practices, sample social media language, a sample press release, and other useful information; and distributes recruitment posters and postcards throughout the state.

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### COMMITMENT TO AMERICORPS IDENTIFICATION

Pride in public service is at the heart of our program: prospective service members and the public learn about our AmeriCorps affiliation immediately upon visiting our website or meeting one of our corps members in the field. We provide our members with uniforms proudly displaying the AmeriCorps logo, posters identifying sites as service locations ("AmeriCorps serves here"), business cards featuring members' AmeriCorps affiliation, and AmeriCorps logos for websites, newsletters, and press materials produced by our state and community partners. We coach members on how to introduce themselves, recognizing AmeriCorps and their Host and Service Sites, as well as how to coach volunteers, the public and members of the press who seek to showcase the accomplishments of FoodCorps. As a highly visible, fast-growing national AmeriCorps program, we take our stewardship of the national service story seriously----and celebrate it joyfully.

### **Organizational Capability**

#### ORGANIZATIONAL BACKGROUND AND STAFFING

Starting in 2006, NCAT partnered with Montana Campus Compact to launch a statewide team of AmeriCorps VISTA volunteers creating classroom and cafeteria programs featuring local food, and FoodCorps is based, in part, on this Montana model. In 2011, FoodCorps received a 50 MSY National Direct grant from CNCS with programming in 10 inaugural states. To date, FoodCorps has 182 AmeriCorps members, and a network of 17 Host Site partners and 145 Service Sites that implement our program across 16 states and Washington, D.C. Since 2011, FoodCorps has been awarded over \$4.5M in AmeriCorps grants and is presently a National Direct grantee in our second cycle of funding. We also currently administer grants from state service commissions in Connecticut, Hawaii, Massachusetts, and Mississippi, and the U.S. Department of Agriculture with a strong track record of compliance and reporting.

FoodCorps has 26 full-time national staff and 17 post-service fellows and maintains a three-department structure: Programs--where the bulk of our employees are located, Finance and Operations, and External Affairs. The Programs department works to develop our program in symbiosis with AmeriCorps guidance to ensure compliance is built in to all aspects of our operations. Our Finance and Operations department oversees all financial and regulatory compliance, including human resource support for our service members and fellows and our External Affairs department is responsible for fundraising and communications, including developing recruitment collateral. All staff are given a thorough introduction to AmeriCorps rules, regulations, and systems and FoodCorps

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invests in staff participation in AmeriCorps trainings. .

Central to the implementation of the FoodCorps program are the host and service site partner organizations that maximize our AmeriCorps members' impact and cost-effectiveness by leveraging, rather than duplicating, pre-existing local efforts and relationships in each place we serve. Our host and service sites are selected through a competitive application processes that evaluates their experience implementing school food programming, their community knowledge, and their ability and desire to oversee service members. Schools are selected based on need and their readiness for implementing our three-pillared program, as demonstrated by their scores on our Landscape Assessment.

In Montana, FoodCorps will continue to partner with our host site, NCAT, to deepen impact in communities where we have served over the past four years, placing AmeriCorps members at six existing service sites (Butte School District, Missoula County Public Schools, Kalispell School District, North Shore Compact, Ronan School District, and Polson School District). In addition, FoodCorps is seeking support to expand our corps to 15 members to allow us to reach new geographic areas with significant, demonstrated need (Havre, Helena, Lewistown, and Sidney). We also seek to triple our presence in tribal communities where there is an especially severe prevalence of obesity and diet-related disease among Native American youth and children. The Center for Disease Control reports that Montana Indian obesity prevalence is 60% higher than whites (2012). We propose to place one member in Browning on the Blackfeet Reservation and two members in Ronan and Polson on the Flathead Reservation. We are also seeking to place a member in Poplar with the Fort Peck Health Promotion and Disease Prevention Program, which would allow us to serve an additional tribal community that has requested our partnership. Four current sites (Ennis School District/Madison Farm to Fork, Red Lodge Area Food Partnership Council, Boulder Elementary School, and Hyalite Elementary School) will be transitioning out of the program, based on success and institutionalized change brought about by FoodCorps members, creating space for some of these new FoodCorps partners. We are excited to build on the success of our 10-member corps through increased support from Serve Montana.

### **COMPLIANCE AND ACCOUNTABILITY**

FoodCorps' mutually reinforcing tiers of support at the local, state, and national levels help ensure compliance and accountability amongst our AmeriCorps members. Members are introduced to FoodCorps and AmeriCorps requirements, such as prohibited activities, immediately in their service contracts, and again at our pre-service National Orientation, where they are required to attend

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workshops focused on AmeriCorps requirements and prohibited activities. These lessons are then reinforced at their state and local orientations, and we follow up with members via specific Weekly Reporting and Reflection Log questions to ensure they understand the rules.

Through prevention, detection, and enforcement, FoodCorps ensures compliance amongst our partners as well: national staff works with NCAT, who works in turn with service sites. Prior to the start of each term, responsibilities of these three tiers of oversight are outlined through MOUs between FoodCorps and NCAT and between NCAT and service sites. Annually, FoodCorps hosts an in-person host site gathering, where new program administration topics are covered in depth. NCAT then facilitates a mandatory in-person orientation for all service site supervisors in the summer before the start of each program year, with support from FoodCorps staff. These service site orientations cover AmeriCorps prohibited activities, our performance measurements, time tracking, service plans, performance reviews, reporting, rules of conduct, and communications guidelines. All host site and service site supervisors are provided with a comprehensive supervision manual that has been circulated as a model for other AmeriCorps programs by our CNCS national AmeriCorps Program Officer.

National program staff conduct annual site monitoring visits guided by our AmeriCorps-approved monitoring tool and informed by annual progress reports required of NCAT and all service site partners. The monitoring tool and progress report, combined with timesheet check-ups, desk audits, and monthly check-in calls all contribute to an annual risk assessment that FoodCorps completes for NCAT. If specific areas of concern are identified, a plan for corrective action is determined, communicated, documented, and followed-up on. We have also developed management systems to address compliance issues should they arise with service members: we have established robust timesheet monitoring practices followed by both the service site supervisor and Fellow; we have implemented a "three strikes" policy of escalating corrective actions based on repeat infractions that culminates in dismissal; and we have developed an AmeriCorps Program Systems Manual to ensure that new staff are trained on the proper procedures for administering AmeriCorps programs with the high level of diligence we demand.

### **PAST PERFORMANCE**

In FoodCorps' last three years of programming, our AmeriCorps members' efforts have led to some significant accomplishments. Members increased children's willingness to try new fruits and vegetables and built the foundation for one of our most significant--and durable--overall measures of success: healthy school food environments.

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In 2012-2013, much of the first year of national programming in Montana was spent building relationships and establishing buy-in with school staff and teachers. As a result, FoodCorps members reached fewer unduplicated children than expected and survey results did not indicate the level of change in attitudes toward healthy food that was anticipated in our performance measure targets. FoodCorps took several actions to address these challenges, including revising our per member estimates of the number of students served and the number of students receiving at least 10 hours, working with NCAT and Montana FoodCorps Fellow to ensure that members have the resources and training they need to teach effective series of lessons, and fostering teacher interest and trust through school-wide activities that have paved the way for us to now "go deeper" with those same schools. Our corrective action plan enabled us to meet our performance measure targets in 2013-2014 and to date, service members in Montana are on track to meet targets for program year 2014-2015.

In 2013-2014, ten FoodCorps members in Montana reached a total of 11,906 children, 1,169 of whom participated in at least ten hours of hands-on lessons on healthy eating, above our target of 1,000 children. Based on results from our sample group, survey results indicate that at least 865 (74%) of these children demonstrate improved attitudes toward trying new fruits and vegetables, well above our target of 400 children.

In our last program year, we enjoyed 100% enrollment and 100% member retention, due to our strong emphasis on member experience, our robust support networks that allow for close attention to potential human resources challenges, and our ongoing focus on improving communications regarding the program and our expectations of members before they begin service. While we will continue to work to improve our programming and sustain the impact our members are having, we remain confident in our ability to manage and deliver a strong and supportive program throughout Montana.

### **Budget/Cost Effectiveness**

#### COST EFFECTIVENESS

The Serve Montana cost per MSY is \$12,500, or \$187,500 for a full-time service team of 15. (For a full accounting of costs per MSY please see "Budget Adequacy.") As the CNCS share represents 32% of the budget needed to support these members, each FoodCorps AmeriCorps member is highly leveraged with private funding and these expenditures represent an investment that is producing big returns. Last year, our 10 AmeriCorps members taught 4,046 activities about healthy eating to over 11,900 kids in Montana. They engaged kids and families in growing food, and built or revitalized 26 gardens totaling 9,946 square feet of green space. They harvested nearly 3,000 pounds of produce from these

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gardens, much of which went into cafeteria and classroom tasting events.

Additionally, an integral part of our members' service is to recruit and train community volunteers, ensuring that the projects we start are sustained and that our investment is mirrored by the community's. Each member is expected to recruit and support a minimum of 30 volunteers. Last year, our 10 members in Montana recruited 461 total volunteers (46 each, on average) that dedicated 1,805 hours toward helping kids grow up healthy. Based on CNCS' and Independent Sector's established volunteer rate of \$22.14/hour (2012), our Montana corps recruited \$39,962 worth of volunteer effort.

We are focused on achieving financial sustainability by developing a revenue model that will bring our work to scale---and keep us there. FoodCorps has a history of successfully raising funding to more-than-match our CNCS support. We are focusing our efforts on partners willing to invest in FoodCorps over the long-term: returning funders and those with multi-year commitments financed a significant portion of FoodCorps' FY2014 budget--about 85%.

### BUDGET ADEQUACY

FoodCorps' FY2016 budget for 15 AmeriCorps members is projected to be \$38,783 per member, including \$12,500 from CNCS to be matched with \$26,283 in private funding. This covers each member's living allowance (\$17,500), health insurance and other benefits (\$3,048), travel, lodging, and programming for one in-person national training, one regional training, and site visits (\$4,275), and background check (\$90). The remaining portion of the budget (\$13,870 per MSY) covers FoodCorps' program staff salaries, equipment, and evaluation costs. It also includes support for the FoodCorps fellow program, which places one full-time support staff in Montana to provide guidance and mentorship to service members. All budget allocations have proven sufficient for members and for national staff to operate an efficient, compliant, and effective program, and we maintain a conservative supply of cash on hand to cope with unforeseen expenses. In addition to a \$5,000 per member program service fee, we rely on in-kind support from our host and service site partners. Non-CNCS funding for the proposed 15 FoodCorps AmeriCorps service members comes primarily from Service Site program service fees (\$5,000 per member x 15 = \$75,000), individuals, corporate partners and private foundations (\$319,245). To match the total funding we need to raise in conjunction with this proposal, FoodCorps has already secured commitments via an anonymous donor (\$350,000), New Profit, Inc. (\$250,000), and the William K. Bowes Jr. Foundation (\$600,000).

### Evaluation Summary or Plan

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Summary: FoodCorps will evaluate the influence our programming has on kids' healthy food consumption during school meals. The academic research in this field is young; most studies assess behavioral outcomes from interventions of only one component of FoodCorps' 3-pillared model. We see this as an opportunity to contribute to the garden-enhanced nutrition education knowledge base while gaining a better understanding of our multi-component program's impact.

Description of Intervention: FoodCorps' multi-component intervention addresses the causes of childhood obesity. FoodCorps has been endorsed by the Surgeon General's National Prevention Council Action Plan and is aligned with recommendations from the White House Task Force on Childhood Obesity. Additionally, through AmeriCorps public service experience and through FoodCorps' deliberate skill building and leadership development opportunities members learn proven strategies to address problems of food and health during their terms of service while preparing for civic and professional roles beyond their terms.

Goals and Outcomes: FoodCorps seeks is to drive systemic change in how schools approach food, so as to nurture a nation of healthy children. In order to achieve this critical goal on, four intermediate goals must be met: 1) Environment Change through Healthy Schools: FoodCorps will support adoption of healthy school food environments in schools and track the associated shifts in knowledge, attitudes, skills, and behaviors. 2) Systems Change through Leadership Development: FoodCorps will grow a cadre of AmeriCorps alumni who, transformed by their service, fill or create the civic and professional roles needed at every level to scale up healthy school environments and support a healthy food system nationwide. 3) Systems Change through Network-Building: FoodCorps will foster alignment, connection, strategy sharing, and action across a robust network of local and regional site partner organizations, and will help members of that network join our alumni as effective advocates for a national vision for healthy schools. 4) Systems Change through Policy: FoodCorps and our site partner and alumni networks will drive multi-level policy change to support the institutionalization of healthy food environments across the nation's 100,000 public schools, and will champion human capital and community engagement as part of these solutions.

Our desired outcomes span these arenas because research-based public health strategies underscore that systems change is necessary to support long-term individual health behavior (Smedley et al.,

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2000). For this evaluation project, we will assess short- and medium-term outcomes associated with the first two goals by evaluating the program's impact on healthy food consumption during school lunch as well as whether specific program elements have a stronger correlation to healthy food consumption at school.

### Theory of Change

[Due to character limits, please see the Theory of Change section of the grant narrative.]

2. Evaluation Design: Much of the evidence informing the FoodCorps model is based on studies of school garden or nutrition education programs that encompass only one component of FoodCorps' 3-pillared strategy. This study will be among the first to measure the impacts of a multi-component, holistic garden-enhanced nutrition education program.

The primary research questions are: 1) Do students who participate in the FoodCorps program consume more fruits, vegetables, and whole grains; fewer saturated fats; and a greater overall variety of foods at school than students from schools that do not participate in the FoodCorps program? 2) Does the extent of program implementation across the school environment play a role in student food consumption?

As school environment transformation can be more than an eleven-month commitment, the degree of program implementation and specific program elements may impact student behavior differently. This study aims to understand not only food choice occurring at FoodCorps schools compared to control schools, but also the degree to which is it impacted by various program elements.

Research Design: This impact evaluation will be a quasi-experimental study with a nonequivalent control group design on the impact of participation in the FoodCorps program (quasi-independent variable) on the consumption of healthy food during school lunch (dependent variable). The unit of study will be schools participating in the FoodCorps program, with non-participating schools as a control. Intervention schools will be selected for having a robust implementation of all three pillars of FoodCorps programming. To control for variability in cafeteria offerings, matched control schools will be selected from the same school districts as their FoodCorps counterparts. External evaluators will recommend the criteria for and number of matched school pairs. This presents a strong but practical

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option; because FoodCorps service sites select school partners upon multiple criteria, random assignment of students, classrooms, or schools to the programming makes for a less plausible program design. With our evaluation team, we will determine whether food consumption data should be collected from all students or a random sample of students in the intervention and control school cafeterias, and will also work to control for the other limitations of this quasi-experimental design.

To answer the primary research questions, the evaluation will measure (a) the type and amount of food consumed by students in a cafeteria setting through plate waste analysis techniques, and (b) the school food environment through FoodCorps' Landscape Assessment tool.

3. Data Collection: Data collection will happen in two primary ways, to be refined by the evaluation team. 1) Food Consumption: Plate waste analysis using visual estimation techniques. Using digital photography of lunch trays, researchers will capture before/after photos of lunch trays and use trained research assistants or photo analysis technology to assess the food consumed. Visual estimation methods are a preferred technique, as dietary recall surveys with children suffer from low accuracy, and weighted food methods (physical measurement of each individual item left on lunch trays) is resource-intensive and obtrusive, such that students may modify behavior in the presence of this method (Buzby and Guthrie, ERS, 2002). The evaluators will capture food consumption data on at least two occasions per site. 2) School Food Environment and Program Implementation: Environmental assessment using the FoodCorps Landscape Assessment, a rubric that rates a school environment across 30 features that contribute to creating a healthy environment. The assessment also tracks key changes at each school over time as a part of AmeriCorps members' terms. This tool was developed internally at FoodCorps and we will work with the evaluators to validate the tool and process by which it is used.

In partnership with evaluators, FoodCorps service members and their team of stakeholders at each school (or a team of key staff from control schools) will assess their school food environment at the beginning and end of the school year. Data about the state of the school food environments and the changes that occur will be cross-referenced with the lunchroom consumption data to understand whether certain components of a school food environment (and those most commonly addressed as a part of FoodCorps service) display a strong correlation to what foods the students eat during school meals.

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Other data collection specifics will be determined with the evaluators, including appropriate sample size (schools and children), number of sampling occurrences per site, and analysis plans. The evaluators will manage the data; FoodCorps' weekly reporting system, America Learns, will not be used for data collection.

### 4. External Evaluation

Identifying External Evaluators: FoodCorps has enlisted Teachers College at Columbia University through a request for proposals (RFP) process. The RFP was distributed via the American Evaluation Association, FoodCorps networks, and the USDA Farm to School Team evaluation contacts. The evaluators were selected based on criteria including:

- Experience conducting multiple successful school-based food consumption studies (plate waste studies) utilizing control schools
- Expertise in food environment analysis and nutritional analysis/plate waste methods
- Experience conducting multi-site evaluations
- Capacity to manage data collection across all sites, including ability to travel where necessary and to train involved parties at study sites
- Ability to obtain and manage IRB approval for all study sites

### Timeline and Budget

Summer 2014: Release RFP

October 2014: External evaluators identified

October 2014-June 2015: Planning/design; initial data collection

July 2015-February 2016: Data analysis and final report

March 2016 onward: Findings reviewed and distributed

FoodCorps has secured \$250,000 from private donors to conduct this evaluation.

5. Evaluation Use: FoodCorps has a long-standing commitment to evaluation use. Post-evaluation, FoodCorps will reflect on the results internally with national staff, board, and our network of host and service site supervisors, to review the implications for our program model and need for program design changes and continued evaluation.

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Beyond that, FoodCorps will share the evaluation results more broadly with our many networks. We will share the findings with our full network of 140+ service sites, who in turn share it within their networks. We will also share findings partner networks, the National Farm to School Network, and the USDA Farm to School Program. Evaluation results are also shared with many audiences through FoodCorps' Annual Report and other communication channels.

### Amendment Justification

N/A

### Clarification Summary

Programmatic Clarification #1: No member positions requested as part of this application are duplicated in any other application currently under review by CNCS.

Budget Clarification #3: FoodCorps' FY2016 budget for 10 AmeriCorps members is projected to be \$38,783 per member, including \$12,713 from CNCS to be matched with \$26,070 in private funding. As the CNCS share represents only 30% of the budget needed to support these members, each FoodCorps AmeriCorps member is already highly leveraged with private funding. We are requesting a cost per MSY below the maximum amount.

Performance Measure Clarification Item #1: State-specific characteristics are updated in the Problem Statement section of the Performance Measures module, as requested.

Performance Measure Clarification Item #2: Resolved.

Performance Measure Clarification Item #3: We will measure youth attitudes toward produce consumption using a Vegetable Preference Survey. This survey is a validated pre/post assessment where students rate how much they like specific vegetables.

Performance Measure Clarification Item #4: Assessments take place on a rolling timeline throughout the school year, with each sample class timeline varying according to the start and end dates of the 10-hour class series. (Service members teach nutrition education throughout the year, beginning in different months according to grade level, units, and teacher schedules.) The pre-assessment is

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administered at the beginning of the first class, and the post-assessment is administered once the students have received 10 hours of education.

Performance Measure Clarification Item #5: We have calculated a necessary sample size of 160 or more students, but will aim to include 220 or more students in the sample (using an average of 20 students per service member). Doing so will cover any attrition in the survey from pre to post, while still achieving the desired sample size. The surveys are matched pairs, so attrition can be identified and those students will be removed from the sample.

Performance Measure Clarification Item #6: Due to the time- and cost- prohibitive nature of administering matched pre/post surveys to all students served, we will assess program outcomes using one sample class per service member, selected through stratified random sampling in order to avoid selection bias. The sample is stratified to ensure representation from each FoodCorps service site and service member. Doing so ensures geographic diversity and representation of all FoodCorps sites in the sample. Within each stratum (for each service member), the sample classes are randomly selected from the population of students who participate in class series lasting 10+ hours. Service members submit a list of classes meeting the criteria, and from that list, a sample class is randomly selected, resulting in an overall sample population stratified by site and member.

Performance Measure Clarification Item #7: For Montana, we are aiming for a sample size of 160 or more students (18% sample). This sample size is calculated for the estimated population of 880, to achieve a 95% CI,  $p=0.5$ , precision rate of 7%. We expect that 220 or more students will participate in the sample, to account for attrition.

Performance Measure Clarification Item #8: Any generalization made from the selected sample would be restricted to and only apply to the population receiving the specified dosage (10 or more hours of nutrition education).

Performance Measure Clarification Item #9: FoodCorps conducts performance measurement using a sample group due to the time- and cost- prohibitive nature of administering matched pre/post surveys to all students served, as well as the staff and technology burden of cleaning and analyzing surveys from the full population nationwide for all FoodCorps programs.

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Performance Measure Clarification Item #10: FoodCorps nutrition education activities are supplemental beyond what would be otherwise provided by a teacher or a school district; service plans are developed to ensure that programming complements, not duplicates or replaces, existing school activities, and are reviewed by the service site.

2. No-Cost MSY with no program funds attached:

A. FoodCorps is requesting one (1) No-Cost MSY for a total of eleven (11) full-time member positions. The one additional service member will only engage in activities aligned with the proposed member activities outlined in this application.

B. FoodCorps' FY2016 budget for one AmeriCorps members is projected to be \$38,783. This covers each member's living allowance (\$17,500), health insurance and other benefits (\$3,048), travel, lodging, and programming for one in-person national training, one regional training, and site visits (\$4,275), and background check (\$90). The remaining portion of the budget (\$13,870 per MSY) covers FoodCorps' program staff salaries, equipment, and evaluation costs. It also covers support for the FoodCorps fellow program, which places one full-time support staff in Montana to provide guidance and mentorship to service members. All budget allocations have proven sufficient for members and for national staff to operate an efficient, compliant, and effective program, and we maintain a conservative supply of cash on hand to cope with unforeseen expenses. In addition to a \$5,000 per member program service fee, we rely on in-kind support from our host and service site partners: in overseeing our AmeriCorps members they dedicate significant amounts of time, energy, and office space and equipment.

C. Non-CNCS funding for the proposed additional No-Cost MSY will come primarily from individuals, corporate partners and private foundations. FoodCorps has already secured commitments via an anonymous donor (\$350,000), New Profit, Inc. (\$250,000), and the William K. Bowes Jr. Foundation (\$600,000). In addition to the cash resources raised by FoodCorps, we rely on in-kind support from our host and service site partners: in overseeing our AmeriCorps members they dedicate significant amounts of time, energy, and office space and equipment.

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D. FoodCorps has grown significantly since our inaugural class of 50 AmeriCorps FoodCorps members in program year 2011-2012. To date, FoodCorps has 182 AmeriCorps members in 16 states and Washington D.C. and anticipates a total corps of 205 AmeriCorps members in program year 2015-2016. In three years of programming we have not experienced any compliance issues and while we are continuously working to improve our programming and sustain the impact our members are having, we remain confident in our ability to manage an additional MSY in Montana and deliver a strong and supportive program. Over the past three years of FoodCorps programming in Montana, our statewide partner, the National Center for Appropriate Technology, has been preparing for growth of its service corps through a rigorous vetting and onboarding process for new, potential service sites, and through planning robust service member and service site supervisor trainings.

### **Continuation Changes**

N/A

### **Grant Characteristics**