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## Executive Summary

FoodCorps proposes placing 10 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 New York City. 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 and other diet-related diseases. In addition, the AmeriCorps members will leverage 300 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 \$126,100 represents 33% 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 New York suffer from average rates of overweight and obesity at 32%, with rates for males slightly higher than those of females--34% to 31% (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

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child will likely be obese as an adult, too, suffering from long-term health consequences such as heart disease, cancer, and premature death (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. 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). Low-income kids in particular face barriers to making healthy choices (Food Research Access Center, 2012) and as a result, this vulnerable demographic, identifiable as the 1.7 million children that receive subsidized school meals across New York State, is 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). In order for our children to eat healthfully at school, the food environment (the physical and cultural surroundings that influence what they eat) needs to promote healthy choices. Schools teach our kids--through both academics and culture--much of what they learn about food; to encourage 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. One in four children in New York City are food insecure (Food Bank for New York City 2014) and there is a high prevalence of childhood obesity: three out of five of New York City's boroughs (Bronx, Brooklyn, and Staten Island) exhibit higher rates of overweight and obese populations than evidenced in the rest of the state (Youth Risk Behavior Survey 2011). The hardest hit county, the Bronx, has the highest obesity rates in New York City (31.7%) (Youth Risk Behavior Survey 2011) and the highest child hunger rate, with nearly a third of children in the Bronx (37.17%) food insecure (New York City Coalition Against Hunger, 2014) . FoodCorps, in alignment with CNCS's Healthy Futures focus area, 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 10 full-time AmeriCorps members in New York City 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. 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

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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 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 1,800 schools in New York City--and champion human capital and community engagement as part of these solutions.

As part of achieving these goals and addressing childhood obesity, FoodCorps--a national non-profit organization--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. In collaboration with 17 state "host site" partners, we select community-based organizations as "service sites" that in turn supervise and oversee a FoodCorps AmeriCorps member or team. Each AmeriCorps member then dedicates his or her 1,700-hour, 11-month term to implementing a nationally aligned, locally adapted service plan that improves the food environments of high-need public schools (typically 1-3 schools per member).

Under the direction of our 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;

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Howerton et al., 2007; Dunton et al., 2010; Knai et al., 2006), and provide a connection between the classroom, the cafeteria and external health resources, filling a role for which school administrators do not have the time or expertise to complete. Based on past records, 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----children like the 3rd-grader in Michigan who told our service member he "learned not to judge a healthy food by its cover."

**ENGAGEMENT:** FoodCorps AmeriCorps members build and tend school gardens, teach cooking 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 student in Bozeman, Montana told one of our service members, "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 an average member to spend 600 hours preparing for and teaching kids about healthy food in school gardens and kitchen spaces.

**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). Our members also help Child Nutrition and Food Service Directors incorporate healthy items onto school meal menus at scale, facilitating connections with local farmers who can supply fresh ingredients in abundance. We expect each member to spend an average of 300 hours facilitating or promoting healthy food access in the school cafeteria, introducing an average of 2-3 healthy recipes into full-scale school lunch menus and conducting approximately 10 cafeteria taste tests.

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

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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). When these activities are combined with school-wide events such as family nights, assemblies, or garden-builds, the likelihood of increased fruit and vegetable intake is even stronger (Perry et al., 2004). Our members combine targeted service to specific classrooms with events that reach the full school and community more broadly, and reinforce larger goals like parental civic engagement and volunteer generation that are essential to sustaining and expanding the changes our members introduce.

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 an entire school year (compared to 40 hours of junk food ads (Henry Kaiser Family Foundation, 2007)), our members ensure that students in New York 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 institutionalize long-term change in healthy school environments simply would not exist at the breadth and depth needed in these 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 in other states.

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--

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looking across five schools with differing degrees of program implementation--researchers found that students in schools that incorporated a higher number of program components scored significantly better 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 incorporated 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 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:

School-wide promotions and events have been shown to increase produce consumption and promote healthy diets and provide a connection between the classroom, the cafeteria and health-related organizations: Van Cauwenberghe, E., Maes, L., Spittaels, H., et al. (2010); 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; Gardens are far more effective at increasing a child's willingness to try and preference for fruits and vegetables than stand-alone nutrition lessons: Morgan, P.J., Warren, J.M., Lubans, D.R., et al. (2010); When children learn about healthy food that then appears in the cafeteria with opportunities for tasting, they will be 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; Programs with three or more components have been shown to have a greater impact on children's health than single-component nutrition interventions, across minority diverse populations: Seo, D-C., Sa, J. (2010). A meta-analysis of obesity interventions among US

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minority children. *Journal of Adolescent Health*, 46(4):309-23.

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 by selling 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). Beyond direct education of students, FoodCorps members help schools adopt healthy food environments. Our AmeriCorps members complete the FoodCorps Landscape Assessment, a tool developed by FoodCorps, which measures school food environment change across the three program pillars for each school that they serve. 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 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 376 schools in 15 FoodCorps states, FoodCorps AmeriCorps members reported overall positive change in the presence of health-related practices in each of these three categories: 1) KNOWLEDGE: 69% of schools reported positive change; 2) ENGAGEMENT: 71% of schools reported positive change; and 3) ACCESS: 52% of schools reported positive change.

### 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. 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 that reinforces FoodCorps and AmeriCorps policies and procedures, 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

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site will organize an in-state orientation that explores concepts specific to New York City, such as New York City school lunch regulations and successful urban school garden strategies. Once embedded within 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 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.

### 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. Service sites 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 provides the second level of supervision, overseeing program monitoring, data collection, and coordination of service sites statewide. Our New York FoodCorps fellow, a FoodCorps AmeriCorps alumni that we embed in-state as a team leader and mentor for our service members, will 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. 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.

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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 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 and in-person trainings are supplemented by robust supervisor handbooks that are updated annually.

### **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.

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

### **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

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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

To date, FoodCorps has 26 full-time national staff, 17 post-service fellows, 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, with a strong track record of compliance and reporting.

FoodCorps maintains a three-department structure: Programs--where the bulk of our employees are located, Finance and Operations, and External Affairs. The Programs department is led by Cecily Upton, a FoodCorps Co-Founder who has worked 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. This department is led by Julia Bromka, whose career includes helping another national AmeriCorps program, Citizen Schools, build the financial and compliance systems to scale from a \$9M to \$22M annual budget. 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 invests in staff participation in AmeriCorps trainings, such as the annual AmeriCorps Grantee Symposium, as well as other opportunities provided by our state commission partners. In addition, John Gomperts, former Director of AmeriCorps, will be joining our (currently) 10-member Board of Directors in 2015.

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,

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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.

FoodCorps is currently vetting a selection of finalist organizations to partner with as our inaugural FoodCorps New York host site. In turn, these organizations have identified strong community based partners that would operate as service sites under this grant. Our intention is to place inaugural FoodCorps New York members in New York City, to target communities where children face a disproportionate risk of obesity and diet-related disease and develop a presence in the largest school district in the U.S. (the New York City Department of Education serves 1.1 million students), our goal is to expand our programming to additional rural communities in New York in subsequent program years.

### **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 workshops focused on AmeriCorps requirements and prohibited activities. These lessons are 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. We also provide our members with reference manuals and conduct webinars focused on addressing questions associated with allowable fundraising and AmeriCorps-appropriate communications.

Through prevention, detection, and enforcement, FoodCorps ensures compliance amongst our partners as well: national staff works with our host site, 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 host sites and host sites and service sites. Annually, FoodCorps hosts an in-person host site gathering and our New York host site will facilitate a mandatory in-person orientation for all service site supervisors before the start of the program year, with in-person training support from FoodCorps staff. These service site orientations cover AmeriCorps prohibited activities,

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performance measurements, time tracking, service plans, performance reviews, reporting, rules of conduct, and communications guidelines.

National program staff conduct annual site monitoring visits guided by our AmeriCorps-approved monitoring tool and informed by annual progress reports required of all host and 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. 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

While FoodCorps is a new grantee to the New York State Commission, we are currently a National Direct grantee and grantee of five state commissions. In our first three years of programming (FoodCorps is currently in our fourth year of programming), our AmeriCorps members' extraordinary efforts 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.

For the past three years, we measured the shift in children's attitudes toward fruit and vegetable consumption catalyzed by our service members using a Fruit and Vegetable Neophobia Instrument. In 2012, our results were promising: 65% of our service member's classrooms demonstrably improved their attitudes toward trying new fruits and vegetables by, on average 6.1%. In 2013, however, our neophobia survey results did not demonstrate such a significant impact, despite the fact that our service members reached more than 7,500 students with 10 or more hours of garden-based nutrition education. We believe this was a result of the fact that the tool is not as effective at measuring shifts among children we have engaged for a second year -- "neophobia" should be considered a one-time indicator of a child's attitude shift. In 2014, however, our survey results once again demonstrated an impact: 52% of classrooms (totaling more than 10,000 children) demonstrably improved their

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attitudes toward new fruits and vegetables. Though these results outperform our target of 40% improvement, we decided to shift our evaluation tool starting in program year 2014-2015 to the Vegetable Preference Survey, an instrument that better measures ongoing improvements, opposed to "neophobia," which often captures only a one-time change in attitude.

In three years of programming we have not experienced any compliance issues. We have enjoyed 100% enrollment and an average retention rate of 95.5% to date (across National Direct, EAP, and state commission grants) and consistently field applications from approximately 1,000 candidates each year. Though already high, FoodCorps has taken additional steps to improve our retention rate, including: providing an anonymous Employee Assistance Program to all members; and hiring a Programs Human Resources Coordinator specifically dedicated to supporting our service member cohorts. 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 in New York.

### **Budget/Cost Effectiveness**

#### COST EFFECTIVENESS

The New York State Commission on National and Community Service cost per MSY is \$13,000, or \$130,000 for a full-time service team of 10. (For a full accounting of costs per MSY please see "Budget Adequacy.") As the CNCS share represents 34% of the budget needed to support these members, each FoodCorps AmeriCorps member is highly leveraged with private funding. Historically, FoodCorps AmeriCorps members have spent an average of 700 hours preparing for and teaching kids about healthy food in the classroom, reaching an average of 800 unduplicated students. They've engaged kids and families in growing food, and built or revitalized an average of five gardens, tending approximately 10,000 square feet of green space. Last year, they collectively harvested over 40,000 pounds of produce from these gardens, much of which went into cafeteria and classroom tasting events held by members to get kids more excited about healthy options offered in school lunch. 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, over 5,700 volunteers served for approximately 30,500 hours. Based on CNCS' and Independent Sector's established volunteer rate of \$22.14/hour (2012), our FoodCorps corps recruited \$ 675,270 worth of volunteer effort.

We are focused on achieving financial sustainability by developing a revenue model that will bring our

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work to scale---and keep us there. FoodCorps has a history of successfully raising funding to more-than-match our CNCS support. We are in the process of developing a sustainable revenue model similar to those used by other large organizations in the national service field. For example, we focus 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 10 AmeriCorps members is projected to be \$38,783 per member, including \$13,000 from CNCS to be matched with \$25,783 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 covers support for the FoodCorps fellow program, which places one full-time support staff in New York 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.

Non-CNCS funding for the proposed 10 FoodCorps AmeriCorps service members comes primarily from service site program service fees (\$5,000 per member x 10 = \$50,000), individuals, corporate partners and private foundations (\$307,830). 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

FoodCorps is applying for the first time for a competitive grant with the New York State Commission on National and Community Service. FoodCorps is also, however, presently a National Direct grantee in our second cycle of funding. Therefore, we included our Evaluation Plan since we are considered a recomplete applicant to the Corporation of National and Community Service.

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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. 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., 2000). For this evaluation project, we will assess short- and medium-term outcomes associated with

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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 option; because FoodCorps service sites select school partners upon multiple criteria, random

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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. Other data management and collection specifics will be determined with the evaluators, including appropriate sample size (schools and children) and number of sampling occurrences per site.

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### 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
- 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.

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.

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## Amendment Justification

N/A

## Clarification Summary

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

Budget Clarification Item #2: FoodCorps' FY2016 budget for 10 AmeriCorps members is projected to be \$38,783 per member, including \$13,000 from CNCS to be matched with \$25,783 in private funding. As the CNCS share represents 34% of the budget needed to support these members, each FoodCorps AmeriCorps member is already highly leveraged with private funding. As a new applicant, 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: 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 #3: 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 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 #4: 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.

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Performance Measure Clarification Item #5: 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 #6: For New York, we are aiming for a sample size of 160 or more students (20% sample). This sample size is calculated for the estimated population of 800, to achieve a 95% CI,  $p=0.5$ , precision rate of 7%. We expect that 200 or more students will participate in the sample, to account for attrition.

Performance Measure Clarification Item #7: 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 #8: 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.

### Continuation Changes

N/A

### Grant Characteristics