

Higher Education Challenge (HEC) Grants Program

FY 2013 Request for Applications

Application Deadline: February 8, 2013

HEC Program:

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**Catalog of Federal Domestic Assistance Number (CFDA)
10.217 Higher Education Challenge Grants**

**NIFA Funding Opportunity Number
USDA-NIFA-CGP-003954**

U.S. Department of Agriculture



National Institute of Food and Agriculture

**NATIONAL INSTITUTE OF FOOD AND AGRICULTURE;
U.S. DEPARTMENT OF AGRICULTURE**

HIGHER EDUCATION CHALLENGE GRANTS PROGRAM (HEC)

INITIAL ANNOUNCEMENT

CATALOG OF FEDERAL DOMESTIC ASSISTANCE: This program is listed in the Catalog of Federal Domestic Assistance under 10.217, Higher Education Challenge Grants.

DATES: Applications must be received by close of business (COB) on February 8, 2013 (5:00 p.m. Eastern Time). Applications received after this deadline will normally not be considered for funding. Comments regarding this request for applications (RFA) are requested within six months from the issuance of this notice. Comments received after that date will be considered to the extent practicable.

STAKEHOLDER INPUT: The National Institute of Food and Agriculture (NIFA) is requesting comments regarding this RFA from any interested party. These comments will be considered in the development of the next RFA for the program, if applicable, and will be used to meet the requirements of section 103(c)(2) of the Agricultural Research, Extension, and Education Reform Act of 1998 (7 U.S.C. 7613(c)(2)). This section requires the Secretary to solicit and consider input on a current RFA from persons who conduct or use agricultural research, education and extension for use in formulating future RFAs for competitive programs. Written stakeholder comments on this RFA should be submitted in accordance with the deadline set forth in the DATES portion of this Notice.

Written stakeholder comments on this proposed consolidation of programs should be submitted by mail to: Policy and Oversight Division; Office of Grants and Financial Management; National Institute of Food and Agriculture; USDA; STOP 2299; 1400 Independence Avenue, SW; Washington, DC 20250-2299; or via e-mail to: Policy@nifa.usda.gov. (This e-mail address is intended only for receiving comments regarding this RFA and not requesting information or forms.) In your comments, please state that you are responding to the Higher Education Challenge Grants Program RFA.

EXECUTIVE SUMMARY: NIFA requests applications for the Higher Education Challenge Grants Program (HEC) for fiscal year (FY) 2013 to stimulate and enable colleges and universities to provide the quality of education necessary to produce baccalaureate or higher degree level graduates capable of strengthening the Nation's food and agricultural scientific and professional workforce. NIFA anticipates that the amount available for support of this program in FY 2013 will be approximately \$4.77 million. This RFA is being released prior to the passage of an Appropriations Act for FY 2013. Enactment of additional Continuing Resolutions or an Appropriations Act may affect the availability or level of funding for this program.

This notice identifies the objectives for HEC projects, the eligibility criteria for projects and applicants, and the application forms and associated instructions needed to apply for a HEC

grant. NIFA additionally requests stakeholder input from any interested party for use in the development of the next RFA for this program.

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PART I—FUNDING OPPORTUNITY DESCRIPTION

A. Legislative Authority and Background

Section 1405 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (NARETPA), as amended, (7 U.S.C. 3121) designates the U.S. Department of Agriculture (USDA) as the lead Federal agency for agriculture research, extension and teaching in the food and agricultural sciences. Authority for this program is contained in section 1417(b)(1) of NARETPA (7 U.S.C. 3152(b)(1)). Section 1417 of NARETPA authorizes the Secretary of Agriculture, who has delegated the authority to the Director of NIFA, to make competitive grants to strengthen institutional capacities to respond to identified State, regional, national or international educational needs to formulate and administer programs to enhance college and university teaching in agriculture, natural resources, forestry, veterinary medicine, human and family and consumer sciences, disciplines closely allied to the food and agricultural system, and rural economic, community and business development.

HEC supports **USDA’s Research, Education and Economics (REE) 2012 Strategic Goal #6: Education and Science Literacy** to recruit, cultivate, and develop the next generation of scientists and leaders, and to produce a highly-skilled workforce for food, agriculture, natural resources, forestry, and environmental systems.

Background

In July 2008, the National Institutes of Health, National Science Foundation, and Department of Energy asked the National Research Council’s Board on Life Sciences to convene a committee to “... *examine the current state of biological research in the United States and recommend how best to capitalize on recent technological and scientific advances that have allowed biologists to integrate biological research findings, collect and interpret vastly increased amounts of data, and predict the behavior of complex biological systems.*” The committee produced a report entitled “New Biology for the 21st Century: Ensuring the United States Leads the Coming Revolution,” and a set of recommendations that recognize the most effective leveraging of investments would come from a coordinated, interagency effort to encourage the emergence of a New Biology to address broad and challenging societal problems.

That committee outlined four broad societal challenges in food, environment, energy, and health that could be addressed by the New Biology. The four challenges are: (1) *Generate food plants to adapt and grow sustainably in changing environments;* (2) *Understand and sustain ecosystem function and biodiversity in the face of rapid change;* (3) *Expand sustainable alternatives to fossil fuels;* and (4) *Understand individual health.*

USDA – NIFA Response: Building upon the four “New Biology for the 21st Century” challenges, above, USDA-NIFA has refocused its mission to direct agricultural sciences research, education, and extension programs on addressing the following five *Priority Areas*:

- 1. Food Security and Hunger**
- 2. Climate Change**

3. **Sustainable Energy**
4. **Childhood Obesity**
5. **Food Safety**

The Higher Education Challenge (HEC) Grants Program is a NIFA-administered competitive grants program focused on improving formal, postsecondary-level agricultural sciences education. Guided by critical societal issues laid out in the “New Biology for the 21st Century” report, as well as the five, compelling NIFA *Priority Areas*, HEC-funded projects provide funding to eligible applicants to help ensure a competent, qualified and diverse workforce to serve the food and agricultural sciences system. At the same time, HEC-funded projects improve the economic health and viability of rural communities through the development of degree programs emphasizing new and emerging employment opportunities. Finally, HEC projects focus on the national challenge to increase the number and diversity (i.e., having an agricultural sciences workforce representative of the Nation’s population) of students entering other food and agriculture-related science, technology, engineering, and mathematics (STEM) disciplines.

Therefore, applications submitted to this grants program must state how the funded project will address the two **HEC Program Goals**:

1. To increase the number and diversity of students who will pursue and complete a postsecondary degree in the food and agricultural sciences, and for FY 2013, encourage study in areas that contribute to any of the five NIFA *Priority Areas* listed above; and
2. To enhance the quality of postsecondary instruction in order to help meet current and future national food and agricultural sciences workplace needs.

B. Purpose and Priorities

Reminders for the FY 2013 RFA:

1. Continued requirement for funded projects to address one of the five, NIFA *Priority Areas* listed in Part I, A.
2. Continue to encourage the submission of a *Conference/Planning Proposal* (Part II, C.1.), to fund strategic planning for *Large-scale (state or region) Comprehensive Initiatives* (LCI).
3. Continue to encourage the submission of a *Large-scale (state or region) Comprehensive Initiatives* (Part II, C.4.).
4. **Focus:** All HEC-funded projects shall focus on improving the quality of academic instruction within the postsecondary system in order to recruit and retain a greater number of qualified and diverse graduates who are: (a) capable of entering the agricultural sciences workforce with occupational competencies expected by employers, and (b) encouraged to pursue a baccalaureate or advanced degree in disciplines supporting the five NIFA *Priority Areas*. ‘Academic instruction’, as used in the previous sentence, includes improving curricula, faculty competencies, and interactions with other academic institutions or employers to increase student recruitment and retention levels in order to meet the demands of a changing U.S. agricultural sciences workforce. *Educational Need Areas* explained in Part I, C.2., provide further, specific project focus.

5. **Scale:** All HEC-funded projects shall seek to address a greater number of prospective students or qualified faculty, and demonstrate the potential for adoption by other academic institutions to address similar challenges. Projects shall also maximize available educational resources, encourage partnerships, and reduce duplication of efforts among participating academic institutions, especially in areas of faculty expertise, course offerings, and transfer or articulation agreements between institutions, all to enhance students' interests and abilities to pursue advanced degrees. Project Types explained in Part II, C., provide further, specific encouragement to scale up a funded project to create greater impact.
6. **Impact:** All HEC-funded projects shall seek to create measurable impacts or outcomes. Impacts are defined as anticipated benefits to the target project audience. Impacts shall be measurable. Measuring impacts begins with a comprehensive Project Evaluation Plan that includes developing assessment instruments. The Project Evaluation Plan explained in Part I, C.3., provides further, specific guidance on the importance of developing a compelling impact.

HEC-funded projects encourage academic institutions, organizations, and employers to work collectively to identify and address a state or regional challenge facing the food and agricultural sciences education community. An application submitted to the HEC grants program shall propose comprehensive and coordinated activities to address that challenge or opportunity. At the same time, HEC-funded project activities shall also demonstrate a state or regional impact on increasing the number, quality, and diversity of postsecondary students, and shall improve student learning and retention. Accordingly, projects are encouraged that are submitted by (or are in partnership with) eligible, minority-serving institutions that increase the diversity of graduates entering the workforce.

HEC-funded activities could include, but are not limited to, developing, evaluating, and disseminating:

- Educational materials for any postsecondary-level course, laboratory, or related curricula that encourage study in areas that contribute to any of the five NIFA *Priority Areas*;
- Instructional delivery methods to improve student retention of academic content, and/or
- Professional development approaches to improve the capacity of faculty and teaching assistants to provide effective and updated instruction.

HEC-funded project activities shall support the creation and adaptation of learning materials and teaching strategies to operationalize what we know about how students learn. Many of these concepts are identified in the National Research Council's publication: *How People Learn*, available at: http://books.nap.edu/catalog.php?record_id=9853. HEC-funded projects shall also focus on imparting both technical discipline knowledge as well as 'soft' skills such as communication, team work, and problem solving, as these are abilities expected by employers of graduates entering the food and agricultural sciences workforce. These concepts may be found in the publication: *Comparative Analysis of Soft Skills: What is Important for New Graduates?*, available at: <http://www.aplu.org/document.doc?id=3414>.

Projects shall also promote faculty expertise and encourage widespread implementation of educational innovation. This solicitation especially encourages projects with the potential to transform classroom practices at the institutional level, to address current understanding of how students learn most effectively, and in response, how faculty adopt instructional approaches.

The intent of a HEC-funded project is to make a significant impact on the challenge or opportunity being addressed, with the expectation that major portions of the impact will be sustained after NIFA funding ends. Projects are expected to encourage broad participation of students traditionally underrepresented in the agricultural sciences disciplines. All projects should be grounded by concepts documented in relevant background literature promoting innovations in education and student learning, and show an awareness of relevant prior experience and personnel adequacy in those areas.

Educational instrumentation and equipment requests are appropriate expenses in HEC-funded projects. However, such purchases must directly support the specific student learning outcome proposed by the grant application. Convincing documentation and justification for such expenses are required in the grant application.

By authorizing and funding this program, Congress expects HEC projects to: (a) produce measurable impacts aligned with HEC program goals and encourage study in areas that contribute to any of the NIFA *Priority Areas*, (b) promote innovative, educational practices within the food and agricultural sciences that improve how students learn, and (c) include a rigorous evaluation component to assess when project outcomes are met. Essentially, your application must convince a peer panel of a compelling educational challenge; clearly indicate how your methodology is both unique and with merit; offer significant promise of adoption by others; and the expectation that impacts will continue once grant funds end.

Note: Your project's NIFA Priority Area, Program Category, Educational Need Area and primary academic Discipline focus must appear on the required Project Summary/Abstract. The applicant must follow the format suggested in Part IV, B.3. Field 7, for this Project Summary/Abstract.

C. Program Area Description

1. Program Categories

Your project must support for-credit, academic instruction with a primary focus in one of the following **Program Categories**:

- (a) **Baccalaureate degree-level** projects in the food and agricultural sciences;
- (b) **Master's degree-level** projects in the food and agricultural sciences; or
- (c) **First professional degree-level** projects in **veterinary medicine (DVM)**.

Remember, a HEC-funded project must primarily focus on baccalaureate or higher level education. [Note: A funded HEC project may also, purposefully, include an ancillary, target impact on either secondary, or two-year postsecondary, students. However, the primary project focus must clearly impact postsecondary students and

instruction.] **Projects with a primary target audience of K-14 students or teachers should, instead, be referred to the Secondary Education, Two-Year Postsecondary Education and Agriculture in the K-12 Classroom (SPECA) Grants Program offered through NIFA at:**

<http://www.nifa.usda.gov/fo/educationchallengesecondaryhep.cfm>.

Applicants are strongly encouraged to refer to the recommendations for change from the National Research Council 2009 report entitled, *Transforming Agricultural Education for a Changing World*, for supporting your application and improving your project. This report recommends that academic institutions with undergraduate programs in the food and agricultural sciences implement the following nine steps to better meet the needs of students, employers, and the broader society. These recommendations are:

- [Implement Strategic Planning](#)
- [Broaden Treatment of Agriculture in the Overall Curriculum](#)
- [Broaden the Student Experience](#)
- [Prepare Faculty to Teach Effectively](#)
- [Reward Exemplary Teaching](#)
- [Build Stronger Connections among Institutions](#)
- [Start Early—K-12 Outreach](#)
- [Build Strategic Partnerships](#)
- [Focus Reviews of Undergraduate Programs in Agriculture](#)

For information on the full report, please refer to http://dels.nas.edu/ag_education/report.shtml and click on recommendations.

You are also encouraged to refer to a 2009 whitepaper on Human Capacity Development prepared by the Academic Programs Section of the Association of Public and Land Grant Universities. Copies of the whitepaper entitled “Human Capacity Development: The Road to Global Competitiveness and Leadership in Food, Agriculture, Natural Resources, and Related Sciences (FANRRS),” can be found at: <http://www.aplu.org/NetCommunity/Document.Doc?id=1639>.

2. Educational Need Areas

When preparing a HEC-funded project, focus shall be on activities contributing to a continuous pipeline of food and agriculture sciences STEM students educated for the agricultural sciences workforce. The rationale for choosing a particular *Educational Need Area* below must be explained in the context of how the project can contribute to the development of a cadre of students who will either pursue higher degrees or be prepared to enter the agricultural sciences workforce. Project activities must be planned with the students as the main beneficiaries, whether through developing or updating a new curriculum or course, establishing new instructional deliveries, pedagogical approaches, opportunities for experiential learning, faculty development, or partnerships with institutions or organizations. Thus, there is an expectation that one of the measurable

outcomes of a proposed project is an increase in the number and diversity of students entering the food and agriculture academic pipeline or the workforce.

- (a) HEC-funded projects must focus on one of the three *Educational Need Areas* listed below, and applications must demonstrate how this chosen *Need Area* will help achieve both HEC Program Goals from Part I. A. **Note: Your application must include an Evaluation Plan (Part I. C. 3.) for each Educational Need Area you select. This Plan indicates how you will measure success in completing your objectives within your chosen Need Area. Therefore, choose only those Educational Need Areas for which you can commit to develop a rigorous Evaluation Plan.**

Educational Need Areas for the HEC program are:

- (1) **Curriculum Development, Instructional Delivery Systems and Expanding Student Career Opportunities:** This Need Area promotes postsecondary-focused activities that improve the quality of academic instruction within the postsecondary system in order to recruit and retain a greater number of qualified and diverse graduates who are: (a) capable of entering the agricultural sciences workforce with occupational competencies expected by employers, and (b) encouraged to pursue a baccalaureate or advanced degree in disciplines supporting at least one of the five NIFA *Priority Areas*.

The purpose of this Need Area is to promote new and improved curricula, instructional materials, and other learning resources within postsecondary institutions to increase the quality of, and continuously renew, curricula in order to attract, recruit, and retain students in the food and agricultural sciences fields. The overall objective is to stimulate the development and use of exemplary education models and materials incorporating the most recent advances in subject matter, research on teaching and learning theory. Projects may emphasize, but are not limited to: the development of courses of study, degree programs, and instructional materials; incorporating alternative instructional methodologies that respond to differences in student learning styles; inter-institutional collaborations that deliver instruction in ways that maximize program quality and reduce unnecessary duplication; the use of new approaches to the study of traditional subjects; the introduction of new subjects, or new applications of knowledge pertaining to agriscience and agribusiness content supporting at least one of the five NIFA *Priority Areas*.

Examples of eligible projects in this Need Area may include, but are not limited to, the following strategies:

- Designing course content around overarching and unifying concepts, skills and competencies -including innovative ways to integrate scientific research experiences- within the postsecondary curricula;
- Creating model curricula, laboratory, or student research experiences, especially activities that expand students' career interests in the food and agricultural sciences through mentoring or professional shadowing activities, internships or

practicums including international learning experiences, visiting lecturers, or other similar experiential learning activities such as hands-on, remote, and virtual laboratories;

- Fostering student experiential learning opportunities where students are placed in team-oriented, problem-solving, decision-making situations in the context of real-world situations. Experiential learning in laboratory research or field-based internships is encouraged, but any activity shall expose students to experiences directly supporting topics within the five NIFA *Priority Areas*. Such experiences must: (1) demonstrate how the experience will help meet students' career goals or produce 'society-ready' graduates, and (2) contain an evaluation process—involving the faculty and/or employer or mentor—to assure that students meet project objectives;
- Forming partnerships involving a broad range of diverse institutions to better understand how students learn, how to sustain their interests, and how to acquire those skills and occupational competencies expected by employers;
- Establishing and promoting instructional methodologies to improve students' retention of subject content, develop students' analytical, interpersonal, leadership, communications, problem-solving, computational, and decision-making skills and abilities. These may take the form of undergraduate research opportunities, service learning, case studies, or other experiential learning activities;
- Creating career placement or higher education academic counseling activities, with the expected outcome of encouraging postsecondary graduates to pursue higher degrees, especially those that support at least one of the five NIFA *Priority Areas*;
- Developing Internet-based approaches and systems for multi-institutional delivery and sharing of curriculum content; or
- Other approaches to achieve HEC program goals.

(2) **Increasing Faculty Teaching Competencies**. This Need Area promotes postsecondary-focused activities that improve faculty members' teaching competency and subject matter expertise in order to address emerging student demographic composition and learning styles. Developmental activities may include both formal training and informal continuing education.

The purpose of this *Need Area* is to advance faculty development in the areas of teaching competency and leadership, subject matter expertise, or student recruitment and advising skills, in order to better advise and provide students the experience or knowledge that will encourage them to pursue advanced postsecondary degrees in the food and agricultural sciences, or prepare them for the food and agricultural sciences workforce. Training of targeted faculty recipients shall be intentional and relevant to the identified educational needs of the students, who will be the beneficiaries of such faculty development. Proposals may emphasize, but are not limited to: obtaining experience with recent developments and new applications in a discipline supporting at least one of the five NIFA *Priority Areas*, expanding competence using innovative technologies and new methods of instructional delivery, or in improving student

advising skills. Any individual recipient of federal funds must be an "eligible participant" as defined in the definitions section of this RFA (Part VIII, E.).

Examples of eligible projects in this *Need Area* may include, but are not limited to, the following strategies:

- Developing a self-sustaining model for faculty professional development that better prepares new faculty for teaching careers, or provides retraining for experienced faculty;
- Promoting teaching and advising strategies to increase faculty understanding of how to recruit and retain populations and cultures traditionally underrepresented in the food and agricultural sciences workforce;
- Increasing the number, quality and diversity of postsecondary-level students enrolled in agricultural education degree programs, and engaging these students (and/or existing faculty in agricultural education) to more effectively interact with K-14 programs, especially to increase food and agriculture sciences STEM education and career awareness among K-14 students and teachers;
- Creating assessments that document student learning outcomes or that identify conceptual areas or skills particularly challenging to students, followed by appropriate changes in instructional approaches to effectively address these issues;
- Establishing systems that improve student learning across a curriculum, and identifying ways to redesign curricula to meet goals for achieving improved student learning and competencies;
- Integrating current science and pedagogy into the teacher preparation curriculum or professional development program (this may involve actual hands-on research experiences for teachers and as applicable may be gained from partner institutions with strong research infrastructure and carried out as a summer sabbatical);
- Exploring Internet-based approaches for faculty professional development; or
- Other approaches to achieve HEC program goals.

(3) **Facilitating Interaction with Other Academic Institutions.** This *Need Area* promotes postsecondary-focused activities that promote linkages between secondary, 2-year postsecondary, and/or baccalaureate degree-granting institutions to maximize the development and use of resources supporting instruction within any of the five NIFA *Priority Areas*. Although this *Need Area* emphasizes partnerships with secondary or 2-year postsecondary academic institutions, any planned activities must primarily support postsecondary instruction (i.e., providing coursework targeted at undergraduate students, but that may also be available for advanced placement credit for secondary students; for transfer credit from associate-degree programs into baccalaureate-level programs; or for postsecondary faculty development that includes research sabbaticals). The intent of these activities is to encourage and facilitate matriculation into postsecondary programs within disciplines supporting any of the five NIFA *Priority Areas*. Emphasis between secondary and higher education institutions may focus on, but is not limited to, the development and use of articulation agreements, 2+2 or 2+2+2 arrangements, advanced placement credit

transfer, or the sharing of faculty and facilities. Partnerships, collaborative arrangements and shared resources between institutions (including course credit sharing arrangements) are encouraged.

Projects shall contribute to the academic community's understanding about how new strategies are transferred to diverse settings and about how they impact student learning. Evaluation plans shall explore opportunities for adapting new strategies in diverse educational settings. Projects that specifically address challenges to achieving widespread adoption of proven practice are especially encouraged.

Examples of eligible projects in this *Need Area* may include, but are not limited to, the following strategies:

- A project that focuses on developing and implementing comprehensive, multi-institutional practices proven to recruit and retain K-14 level graduates, with a focus on cultivating those students to pursue a postsecondary degree (Note: HEC grant funding may not be used to provide student scholarships or other tuition-remission activity);
- A collaborative project between faculty from K-12, two-year postsecondary, and baccalaureate-level schools that develops a functional plan facilitating seamless transfer of course credit between institutions;
- An activity promoting faculty exchanges to help update course content or to encourage increased, hands-on student research experiences;
- A pilot project that explores the practical aspects of using remote laboratories or instruction among several institutions;
- A program to reduce duplication of similar educational resources across institutions and to increase instructional efficiencies. Examples may include multi-institutional or interstate approaches to curriculum development, faculty sharing, cross enrollments, joint degrees, regionalization of academic programs, regional and national workshops and symposia, and similar methodologies;
- A project that will result in establishing and implementing programs or procedures (faculty sharing, articulation agreements, electronic exchange of coursework, ... etc.) to disseminate curricula, instructional methods, or training practices to faculty across the state or region; or
- Other approaches to achieve HEC program goals.

(b) **Unallowable Costs:** NIFA has determined that grant funds awarded under this authority to address any *Need Area* ***may not be used*** for student tuition remission, room and board, academic fees or other financial assistance (no scholarships or fellowships). Also, funds may not be used for the renovation or refurbishment of research, education, or extension space; the purchase or installation of fixed equipment in such space; or the planning, repair, rehabilitation, acquisition, or construction of buildings or facilities (i.e., no greenhouses, laboratories, barns, or other structures). Promotional items (e.g., T-shirts and other give-a-ways) and food functions (e.g., cookouts or other social meal gatherings) are considered 'entertainment' expenses, and are also ***not allowed*** under this grants program. Note: Under Federal cost principles, restricted items (like those

mentioned directly above) are not permitted for use as an applicant's contribution to meeting the matching funds requirement for this grants program.

- (c) HEC- funded projects shall engage more than a single course or an individual instructor. Projects must promote and strengthen academic instruction that leads to completion of a student's formal degree (non-credit or after-school instruction not contributing toward a student's degree program is not supported by this grants program).
- (d) **Stipends** to support students' experiential, academic learning activities outside of the traditional classroom are permitted (as long as such activities are clearly related to a student's degree program and are not extracurricular). Stipends may be requested for materials or supplies to facilitate a student's broad exposure to research/field techniques and methodologies, as well as for reasonable travel expenses and per diem related to student educational experiences (e.g., field trips, data collection, and scientific meetings) directly supporting this funded project. In order for the students to be provided a stipend, they must be currently matriculating in the institution(s) where the projects are being implemented. Stipends may not be used for tuition or scholarships.
- (e) Note: Any individual (eligible participant) receiving Federal funds via any *Need Area* above must be a citizen or national of the United States, as defined in this RFA (see Part VIII, E.). Where eligibility is claimed under 8 U.S.C. 1101(a) (22), documentary evidence from the Immigration and Naturalization Service as to such eligibility must be made available to NIFA upon request.
- (f) Project design shall reflect an awareness of the diversity of the food and agriculture sciences STEM education community in the United States, and the project shall include mechanisms for impacting or including a significant proportion of this community. Projects are expected to encourage broad participation of students in food and agriculture sciences STEM disciplines.
- (g) Funded project outcomes are expected to continue after NIFA funding ends (See Dissemination and Continuation Plans section #4, below).

3. Project Evaluation Plan

All projects, regardless of the scope or program component they address, must have an evaluation plan that includes both a strategy for monitoring the project as it evolves (to provide feedback to guide these efforts), as well as a strategy for evaluating the effectiveness of the project in achieving its goals and for identifying positive and negative findings when the project is completed.

Evaluation Information that Must Be in Your Grant Application:

- a) The evaluation section of your application shall briefly present from two to five main project goals that directly support the two HEC Program Goals (Part I. A.). Application reviewers and staff will be looking for an evaluation plan -and accompanying assessment measures- that focus on gains or changes in knowledge,

skills, behaviors, and/or attitudes of the target audience(s). You may want to consider including the following information in your application:

1. A proposed **measure of student knowledge/learning or interest** in the food and agriculture sciences that you think will result from your proposed project. You shall identify the measurement instrument or method that will be used, but selecting something that is valid and reliable is recommended.

Example: The purpose of the project is to develop new instructional materials in a course on human nutrition. At the conclusion of the project, the PD administers pre- and posttest surveys to students asking them to rate the degree to which the instructional materials influenced their interest in human nutrition.

2. The **anticipated number and type of products created or anticipated number of students/faculty served** based on the target area(s) proposed in the project. Examples of numeric information by target area to include in your proposal are listed below. Please note that this list is not comprehensive; quantify the number of products created and students/faculty served when possible.

Curriculum Development, Instructional Delivery Systems, and Expanding Student Career Opportunities:

- # of students enrolled in course/program, using materials, participating in experiential learning opportunities
- # of courses or credits/credit hours developed
- Type of course, curriculum, or instructional methodology
- # of student experiential learning opportunities at businesses, organizations, non-profits, academic institutions, federal agencies
- # of internships, research opportunities, study abroad opportunities, or peer mentoring opportunities developed,
- Or other, similar indicators

Increasing Faculty Teaching Competency Opportunities:

- # of faculty served
- # of workshops, professional meetings, sabbaticals attended
- # of publications, presentations that resulted from opportunity
- Type of opportunity – workshop, professional meeting, sabbatical, etc.
- Or other, similar indicators

Facilitating Interaction with Other Institutions:

- # of collaborations between institutions
- Type of institutions involved in collaborations
- # and types of meaningful products resulting from planned interactions (e.g., curricula, faculty professional development opportunities, workshops, etc.)

- # of faculty served
- # students served
- Or other, similar indicators

The evaluation may also include assessment of other outcomes, particularly if the project aims to change organizational structures, create cost-efficiencies, or achieve other ends not specifically represented by learning. Explain the data gathering procedures to monitor and assess progress toward intended project goals. When describing the measurement instruments you plan to use (surveys, interviews, focus groups, assessments of e-portfolios or capstone projects, measures of class performance, scores on standardized tests, cost-benefit analyses, etc.), be sure to mention why they are appropriate to gauging success.

- b) The evaluation plan section shall make a convincing case to reviewers that -at the conclusion of the grant- the grantee could report the extent to which learning and engagement outcomes, professional development goals, and/or organizational outcomes have been achieved. Reviewers will be looking for evidence that the applicant thought about how to measure what worked, what did not work as planned, and what adjustments could be made to enhance program outcomes in the future. Collection of this evidence is critical to achieving HEC's goal of making data about educational improvements and innovation available to the education community. An evaluation plan that only indicates a desire to develop assessment measures once the project is underway, and an eventual description of resulting project activities and outcomes, would be considered a poorly prepared and inadequate evaluation plan.
- c) The project budget shall contain funding to either hire an outside project evaluator, or to present convincing evidence that an appropriate evaluator is already on staff and available to provide assistance with assessment and evaluation throughout the life of the project. As a guide, up to 10 percent of grant funds may be used to support this purpose. The following activities are examples of items that may be included in the Evaluation Plan: project objectives that lend themselves most readily to measurement and evaluation, baseline assessment data and a planned collection process from a possible comparison or control group, possible measurement instruments (surveys, student journals, standardized tests, interviews, focus groups, analysis of e-portfolios or capstone projects, cost-benefit analyses, etc.), a strategy for what assessment measures will be a part of the annual and final Project Performance Reports (Part VI. D.), and how this information will eventually be disseminated to interested parties and to the public.
- d) Finally, the Evaluation Plan itself shall contain measures of 1. **student learning or engagement** and/or faculty professional development and 2. the **number of students or faculty impacted by your project as a result of the proposed activities**, either directly (through scholarships, experiential learning opportunities, workshops, teaching experiences, etc.) or indirectly (through taking a developed course or program, or participating in a recruitment or retention program). In addition, the PD shall specify metrics summarizing who benefited the most (and the least) from your

project, an explanation of what revisions, improvements, or enhancements you would make, funding permitting, to increase the value of this project in the future, and ideas about how to make projects like yours more cost-effective. These, and other funded project assessments determined by the project director and evaluation team shall be reported both annually and in the final performance report (Part VI. D.). The following suggested evaluation examples are derived from the Department of Education's Report of the Academic Competitiveness Council, May 2007, Federal STEM Goals and Metrics, Education Undergraduate National Goals and Metrics.

“To demonstrate progress toward increasing the number of graduates, the following metric is suggested: first **provide baseline data** for the year preceding the grant award showing the number and/or percentage of students who declare and/or complete a major program of study of agriscience or agribusiness within your unit; and second, provide similar data for the final year of the grant and include an assessment of the impact of your project on changes from the baseline data. List the expected number of students benefiting from this project and their level of education, a table is recommended.

To demonstrate progress toward increasing the quality of instruction, the following metric is suggested: first **provide baseline data** for the year preceding the grant award showing the current number and/or percentage of graduates who either graduate and pursue a vocation in the food and agricultural sciences, or who pursue advanced degrees within the food and agricultural sciences; and second, provide similar data for the final year of the grant and include an assessment of the impact of your project on changes from the baseline data”.

Suggested resources to obtain quantitative, baseline, student enrollment, degrees granted and employment data for comparison purposes; postsecondary institutions may find appropriate information in the Food and Agricultural Education Information System (FAEIS) at: <http://faeis.ahnrit.vt.edu/> , and from the publication: *Employment Opportunities for College Graduates in Food, Renewable Energy, and the Environment United States, 2010-2015* at: <http://www.ag.purdue.edu/usda/employment/pages/default.aspx>. Other, similar source(s) may also be consulted.

Applications should include elements of a logic model (see sample at the end of this document) detailing the activities, outputs, and outcomes of the proposed project. This information may be provided as a narrative or formatted into a logic model chart. The logic model planning process is a tool that should be used to develop your project **before** writing your proposal. Two additional pages are allowed for this information. See Part IV.B.3. (Field 12) for details on where to attach this information to your application. More information and resources related to the logic model planning process are provided at http://www.nifa.usda.gov/about/strat_plan_logic_models.html.

Additional Resources for Project Evaluation:

- NSF 02-057: The 2002 User-Friendly Handbook for Project Evaluation, a basic guide to quantitative and qualitative evaluation methods for educational projects
<http://www.nsf.gov/pubs/2002/nsf02057/start.htm>
- Field-Tested Learning Assessment Guide (FLAG): This website is designed for Science, Math, Engineering, and Technology Instructors who are interested in new approaches to evaluating student learning, attitudes, and performance. It has a primer on assessment and evaluation, classroom assessment techniques, discipline-specific tools, and resources - all in a searchable, downloadable data base, <http://www.flaguide.org/>
- American Evaluation Association. Online Resources
(<http://www.eval.org/resources.asp>)

4. Dissemination & Continuation Plans

Include in the project's Dissemination Plan (see Part IV, B.3. Field 8.2.e.), a description of how the applicant plans to communicate project accomplishments (products, results and impacts, etc.) to the broadest extent throughout the academic community. This may include educational journals or other professional discipline publications, and presentations at regional or national conferences and workshops, including the HEC Project Directors Conference (see Part VI, D.1.).

Continuation Plan: Applicants are also expected to include a statement describing how project outcomes are expected to continue after NIFA funding ends. This Plan should include expected outputs and how these will become institutionalized. Also, describe any strategies for adapting or expanding these outputs for a larger audience. Provide details of these changes, what are the expected outcomes, and the targeted audience who benefits from this project.

PART II—AWARD INFORMATION

A. Available Funding

NIFA anticipates approximately \$4.77 million will be available to fund applications in FY 2013, and has no commitment to fund any particular application or to make a specific number of awards. This RFA is being released prior to the passage of an Appropriations Act for FY 2013. Enactment of additional Continuing Resolutions or an Appropriations Act may affect the availability or level of funding for this program.

Awards issued as a result of this RFA will have designated the Automated Standard Applications for Payment System (ASAP), operated by the Department of Treasury's Financial Management Service, as the payment system for funds. For more information see http://www.nifa.usda.gov/business/method_of_payment.html.

B. Types of Applications

For this grants program, applications may only be submitted as one of the following types of requests:

(1) New application. This is a project application that has not been previously submitted to the HEC Program. All new applications will be reviewed competitively using the selection process and evaluation criteria described in Part V—Application Review Requirements.

(2) Resubmitted application. This is a project application that had previously been submitted to the HEC Program but not funded. Applicants must respond to the previous review panel summary (use R&R Other Project Information, (Field 12- Other Attachments) on the Form (See Part IV, B.3.)). Resubmitted applications must be received by the relevant due dates, will be evaluated in competition with other pending applications in appropriate area to which they are assigned, and will be reviewed according to the same evaluation criteria as new applications.

C. Project Types

Applicants may submit one of the following four types of projects:

1. Conference/Planning Proposal

Applicants in this Project Type may request up to \$30,000 (total conference, not per year) to facilitate strategic planning session(s) required of faculty, industry, professional association, community leaders, or other necessary participants for the specific purpose of developing a formal plan leading to a subsequent submission of a *Large-scale (state or region) comprehensive initiatives (LCI)*, as described directly below in C.4. **A**

Conference/Planning grant application may not be submitted in the same year for which a LCI application for the same project is also submitted.

2. Regular Project Proposal (Single Institution/Organization)

Applicants may request up to \$150,000 (total, not per year) for a Regular Project Proposal. In a Regular Project Proposal, the applicant executes the project without the requirement of sharing grant funds with other project partners.

3. Joint Project Proposal (Applicant + Two or more Partners)

Applicants may request up to \$300,000 (total, not per year) for a Joint Project Proposal. In a Joint Project Proposal, the applicant executes the project with assistance from at least two additional partners. The partners must share grant funds (see explanation of required funds distribution percentage among partners in the definition of a Joint Project Proposal in Part VIII, E.). [Note: This ‘Joint Project Proposal’ Project Type may be dropped entirely in future HEC grant competitions and replaced by the new *Large-scale (state or region) comprehensive initiatives* (LCI) described directly below in item C.4.]

Note: Joint Projects must include both the R&R Fed and Non-Fed Budget and the R&R Fed and Non-Fed Subaward Budget Attachment Forms. The forms should clearly identify the total grant funding anticipated for the applicant and each partner to demonstrate the required sharing percentage. All expenditures for the applicant and all partners should be further itemized in the Budget Justification. Funds **do not** have to be divided equally among project years.

4. Large-scale (state or region) comprehensive initiatives (LCI) (Applicant + Two or more Partners)

Applicants may request up to \$750,000 (total, not per year) for a large-scale (state or region) comprehensive initiatives (LCI) Project Proposal. In a LCI Project Proposal, the applicant executes the project with assistance from at least two additional partners. The additional partners must share grant funds (see explanation of required funds distribution percentage among partners in the definition of a LCI Project Proposal in Part VIII, E.). An LCI project differs from a Joint Project Proposal in project scope and impact. LCI Project Proposals must support a multi-partner approach to solving a major state or regional challenge in agricultural sciences education at the postsecondary level. LCI Project Proposals are characterized by multiple partners (each providing a specific expertise) organized and led by a strong applicant with documented project management ability to organize and carry out the initiative. To be funded, in addition to meeting this grant program’s Evaluation Criteria, a LCI project application must specifically encourage study in areas that contribute to any of the five NIFA *Priority Areas* listed in Part I, A.

Note: LCI Projects must include both the R&R Fed and Non-Fed Budget and the R&R Fed and Non-Fed Subaward Budget Attachment Forms. The forms should clearly identify the total grant funding anticipated for the applicant and each partner to demonstrate the required sharing percentage. All expenditures for the applicant and all partners should be further itemized in the Budget Justification. Funds **do not** have to be divided equally among project years.

Impacts for all LCI Projects: In addition to addressing the Evaluation Plan section of this program (Part I. C.3.) expected impacts from a LCI Project must include, but are not limited to:

- An assessment of significant progress toward addressing the national challenge of increasing the number and diversity of food and agriculture sciences STEM graduates, while addressing the specific state or regional opportunity defined in the grant application;
- Documented expansion of the number of students who enroll in postsecondary courses in the food or agricultural sciences disciplines;
- Documented enhanced retention rates of students exposed to LCI Project activities;
- A comprehensive project evaluation, using the indicators and methods defined in this grants program, that informs the undergraduate food and agriculture sciences STEM community and others about the effectiveness of this LCI Project;
- A description of completed or ongoing activities supported by this LCI Project, and a description of those same activities that will be sustained once grant funds end; and
- A description of any related activities expected to occur as an outgrowth of this funded project.

In any of the four Project Types described above, a grant recipient must match 25% of the Federal funds awarded from non-Federal sources. See Part IV, B.6. R&R Fed and Non-Fed Budget, and Field K-Budget Justification, for details.

D. Project Duration

Project periods may range from twenty-four (24) to thirty-six (36) months. Projects should conclude no sooner than twenty-four (24) months after the award start date to allow the applicant sufficient time to evaluate the results and report the impacts.

The statutory time limitation for this program is five (5) years. No project may be active for longer than five (5) years, including no-cost extensions.

For project budget and timeline purposes, the project start date should not occur prior to August 2013.

E. Number and Size of Grant Awards

The total number of grants awarded by this grant program will depend on the number and type of meritorious applications submitted in response to this notice. There is no predetermined number of Conference/Planning, Regular, Joint, or LCI Project Proposals that may be awarded in any competition.

Based on the project scope and budget of all applications selected for awards, the actual, individual grant amounts awarded by NIFA under this grants program may differ from the funds requested by the applicant. In such cases, revised budgets and revised plans of work may be required by NIFA before an award is made.

F. Application Submission & Award Limitations

There is no limit on the number of applications that may be submitted by an Eligible Applicant. However, a successful applicant institution/organization will only be awarded a maximum of two

(2) grants per year under this program. A successful LCI grant applicant institution/organization will only be awarded a maximum of one (1) LCI grant in any one, annual HEC grants program competition, and generally, an individual academic (or other) unit (a college, school of agriculture, etc.) within the institution/organization may only have one (1) active, LCI grant in effect at any time.

G. Funding Limitations per Institution

There are no limits on the total grant program funds that may be awarded to any one institution/organization in successive years of this competition. Successful award recipients may apply for additional awards in subsequent years either as a lead applicant or as a joint or LCI partner on a project (note LCI project focus restriction in item F, directly above).

PART III—ELIGIBILITY INFORMATION

A. Eligible Applicants

Applications may be submitted by: (a) U.S. public or private nonprofit colleges and universities offering a baccalaureate or first professional degree in at least one discipline or area of the food and agricultural sciences; (b) land-grant colleges and universities, (including land grant institutions in the Insular Areas); (c) colleges and universities having significant minority enrollments and a demonstrable capacity to carry out the teaching of food and agricultural sciences; and (d) other colleges and universities having a demonstrable capacity to carry out the teaching of food and agricultural sciences.

An eligible applicant must meet the definition of an Eligible Institution/Organization as stated in this RFA (see Part VIII, E., Definitions). **Failure to meet an eligibility criterion by the time of an application deadline will result in NIFA returning the application without review or, even though an application may be reviewed, will preclude NIFA from making an award.**

Eligible institutions must demonstrate capacity for, and a significant ongoing commitment to, the teaching of food and agricultural sciences generally, and to the specific need and/or discipline(s) for which a grant is requested. To demonstrate such “capacity for and ongoing commitment to...”, an applicant shall include specific information when responding to this grant program’s Evaluation Criteria (Section V. B.), specifically in regards to (but not limited to) Criterion # 3: Institutional Capability and Capacity Building.

Award recipients may subcontract to organizations not eligible to apply, provided such organizations are necessary for the conduct of the project.

For the purposes of this program, the individual branches of a State university or other system of higher education that are separately accredited as degree-granting institutions are treated as separate institutions, and are therefore eligible for HEC Grants Program awards. Separate branches or campuses of a college or university that are not individually accredited as degree-granting institutions are not treated as separate institutions. An institution eligible to receive an award under this program includes a research foundation maintained by an eligible college or university. Accreditation must be by an agency or association recognized by the Secretary of the U.S. Department of Education.

Any individual (eligible participant) receiving Federal funds above must be a citizen or national of the United States, as defined in this RFA. (See Part VIII, Definitions.) Where eligibility is claimed under 8 U.S.C. 1101(a) (22), documentary evidence from the Immigration and Naturalization Service as to such eligibility must be made available to NIFA upon request.

B. Cost Sharing or Matching

A grant recipient is required to match **25%** of the USDA funds awarded. Matching funds must come from non-Federal sources, and are not required to come in any particular amount from any one source. However, all matching funds pledged in this application must be accompanied by

documentation. Grant awards cannot be issued until ALL required matching has been documented and verified. See Part IV, B.6. R&R Fed and Non-Fed Budget and Field K-Budget Justification, for additional details.

PART IV—APPLICATION AND SUBMISSION INFORMATION

A. Electronic Application Package

Only electronic applications may be submitted via Grants.gov to NIFA in response to this RFA. **Applicants are advised to submit early to the Grants.gov system.**

New Users of Grants.gov

Prior to preparing an application, it is suggested that the PD/PI first contact an Authorized Representative (AR) (also referred to as Authorized Organizational Representative or AOR) to determine if the organization is prepared to submit electronic applications through Grant.gov. If the organization is not prepared (e.g., the institution/organization is new to the electronic grant application process through Grants.gov), then the one-time registration process must be completed PRIOR to submitting an application. It can take as much as two weeks to complete the registration process so it is critical to begin as soon as possible. In such situations the AR should go to **“Get Registered” on the Grants.gov left navigation bar (or go to http://www.grants.gov/applicants/get_registered.jsp) for information on registering the institution/organization with Grants.gov. A quick reference guide listing the steps is available as a 4-page PDF document at the following website: <http://www.grants.gov/assets/Grants.govRegistrationBrochure.pdf>.** Item 2. below mentions the “NIFA Grants.gov Application Guide.” Part II.1. of the NIFA Grants.gov Application Guide contains additional explanatory language regarding the registration process.

Steps to Obtain Application Package Materials

1. In order to access, complete and submit applications, applicants must download and install a version of Adobe Reader compatible with Grants.gov. This software is essential to apply for NIFA Federal assistance awards. For basic system requirements and download instructions, please see http://www.grants.gov/help/download_software.jsp. To verify that you have a compatible version of Adobe Reader, Grants.gov established a test package that will assist you in making that determination. Grants.gov Adobe Versioning Test Package: <http://www.grants.gov/applicants/AdobeVersioningTestOnly.jsp>.
2. The application package must be obtained via Grants.gov, go to <http://www.grants.gov>, click on “Apply for Grants” in the left-hand column, click on **“Step 1: Download a Grant Application Package and Instructions,”** enter the funding opportunity number, **USDA-NIFA-CGP-003954**, in the appropriate box and click “Download Package.” From the search results, click “Download” to access the application package.

Contained within the application package is the “NIFA Grants.gov Application Guide: A Guide for Preparation and Submission of NIFA Applications via Grants.gov.” This Guide contains an introduction and general Grants.gov instructions, information about how to use a Grant Application Package in Grants.gov, and instructions on how to complete the application forms.

If assistance is needed to access the application package (e.g., downloading or navigating Adobe forms), **or submitting the application** then refer to resources available on the Grants.gov Web site first (<http://www.grants.gov/>). Grants.gov assistance is also available as follows:

Grants.gov customer support
1-800-518-4726 Toll-Free or 606-545-5035
Business Hours: 24 hours a day, 7 days a week. Closed on [Federal Holidays](#).
Email: support@grants.gov

Grants.gov iPortal: Top 10 requested help topics (FAQs), Searchable knowledge base, self service ticketing and ticket status, and live web chat (available 7:00 A.M. - 9:00 P.M. ET). Get help now!

Please have the following information available when contacting Grants.gov, to help expedite your inquiry:

- Funding Opportunity Number (FON)
- Name of Agency You Are Applying To
- Specific Area of Concern

See http://grants.gov/applicants/app_help_reso.jsp or <http://www.nifa.usda.gov/funding/electronic.html> for additional resources for applying electronically.

B. Content and Form of Application Submission

Electronic applications should be prepared following Parts V and VI of the document entitled “A Guide for Preparation and Submission of NIFA Applications via Grants.gov.” This guide is part of the corresponding application package (see Section A. of this Part). The following is **additional information** needed in order to prepare an application in response to this RFA. **If there is discrepancy between the two documents, the information contained in this RFA is overriding.**

Note the attachment requirements (e.g., portable document format) in Part III section 3. of the Guide. **ANY PROPOSALS THAT ARE NON-COMPLIANT WITH THE REQUIREMENTS (i.e., content format, pdf file format, file name restrictions, and no password protected files) WILL BE AT RISK OF BEING EXCLUDED FROM NIFA REVIEW.** Partial applications will be excluded from NIFA review. With documented prior approval, subsequent submissions of an application will be accepted until close of business on the closing date in the RFA.

If you do not own PDF-generating software, Grants.gov provides online tools to assist applicants. Users will find a link to “Convert Documents to PDF” on http://grants.gov/help/download_software.jsp#pdf_conversion_programs.

For any questions related to the preparation of an application please review the NIFA Grants.gov Application Guide and the applicable request for applications. If assistance is still needed for preparing application forms content, contact:

- Email: electronic@nifa.usda.gov
- Phone: 202-401-5048
- Business hours: Monday through Friday, 7:00 am – 5:00 pm Eastern Time, excluding Federal holidays.

1. SF 424 (R&R) Cover Sheet

Information related to the questions on this form is dealt with in detail in Part V, 2. Of the NIFA Grants.gov Application Guide. Complete all applicable fields. The following, additional information may be helpful:

Field 2. Date Submitted and Applicant Identifier – This field is provided for the Applicant’s use if they have an internal tracking system they would like to use in tracking applications they have submitted. This field is not required.

Field 3. Date received by State and State Application Identifier – This is not applicable for HEC applications; these fields do not need to be completed.

Field 5. Applicant Information – **This must be the legal name of the eligible college or university (See Part III. A, Eligible Applicant).** Official correspondence will be directed to either the Project Director (Field 14) or the Authorized Representative (Field 19).

Field 8. Type of Application – Only ‘New’ or ‘Resubmitted’ applications are permitted.

Field 12. Proposed Project Start Date and End Date – A project’s duration should normally be at least 24 months (to allow time for assessment and evaluation) and no more than 36 months. **Project Start Date should not occur before August 2013.**

Field 15. Estimated Project Funding –

- a. **Total Estimated Project Funding** = Amount of Federal funds requested (See Part II. C. for maximum award amounts permitted)
- b. **Total Federal & Non-Federal Funds** = Federal funds + Matching Funds (Note: The Matching Requirement for this program is 25% (see Part III. B.))

Field 20. Pre-application – Not applicable to the HEC program. No attachments needed.

2. R&R Project/Performance Site Location(s)

Information related to the questions on this form is dealt with in detail in Part V, 3. of the NIFA Grants.gov Application Guide.

3. R&R Other Project Information

Information related to the questions on this form is dealt with in detail in Part V, 4. of the NIFA Grants.gov Application Guide. **Complete all applicable fields.**

Field 7. Project Summary/Abstract – (Required Attachment – Must be PDF format). See Part V. 4.7 of NIFA Grants.gov Application Guide for further instructions and a link to a suggested template.

Include the following underlined text along with your responses:

- List the Project Title;
- List the Project Director (and any) Co-Project Director(s) (include institutional affiliation for each);
- List your project’s Program Category: (see Part I, C.1.);
- List your project’s primary NIFA Priority Area: (see Part I, A.; list only one Area);
- List your project’s Educational Need Area: (Part I, C.2.);
- List your project’s primary Discipline Code/Academic Discipline: (Select one from the list below);

Discipline Codes & Academic Discipline

- | | |
|--|--|
| G - General Food and Agricultural Sciences
(includes multidisciplinary projects) | L - Environmental Sciences/Management |
| M - Agribusiness (includes Management,
Marketing, and Agricultural Economics) | F - Food Science/Technology and
Manufacturing |
| E - Agriscience (includes
Agricultural/Biological Engineering) | N - Human Nutrition |
| S - Agricultural Social Sciences (includes
Agricultural Education, Agricultural
Communications, and Rural Sociology) | H - Human Sciences/Family and Consumer
Sciences (excludes Human Nutrition) |
| A - Animal Sciences | I - International Education/Research
(enhancement of U.S. programs) |
| Q - Aquaculture | P - Plant Sciences and Horticulture |
| C - Conservation and Renewable Natural
Resources (includes Forestry) | B - Related Biological Sciences (includes
General/Basic Biotechnology,
Biochemistry, and Microbiology) |
| J - Entomology – Animal | D - Soil Sciences |
| T - Entomology – Plant | V - Veterinary Medicine/Science |
| | W - Water Science |
| | O - Other (Describe only if not listed above) |

- Joint or LCI Project Proposal: Yes or No? (If ‘Yes’, specify if ‘Joint’ or ‘LCI’ Project Application. See ‘Definitions’, Part VIII. E.);
- Partners: If Joint or LCI Project Proposal, list all partner institutions/organizations that will share grant funding (Note: Each Partner so identified needs to have their budget information submitted on a separate subaward budget attachment);
- Total Funds Requested: (List total Federal funds requested for this application. If this project is a Joint or LCI Project Proposal, also list each partner’s total funds requested next to the institution/organization’s name); and
- Summary Text - Provide a very concise (approx. 250 word) summary of your project to include:
 - Purpose: What is the major problem your project will address?
 - Audience: Who are the intended beneficiaries? Who will be impacted?
 - Products: What will be produced?

- Outcome/Impact: What is the intended result (consequence) of your project? Describe as the primary benefits to your audience. Note: outcomes/impacts should be measurable, and should be included in your project's assessment/evaluation plan to demonstrate how you will assess whether or not these benefits were achieved (See explanation of terms in Part IV, B. 3. Field 8. 2.c., below).

Field 8. Project Narrative – (Required Attachment – Must be PDF format)

Below are specifications for the Project Narrative. The Project Narrative specifications for Conference applications differ and follow the specifications noted below. PLEASE NOTE: The Project Narrative shall not exceed 20 pages of written text (excluding up to a maximum of 5 additional pages for supporting figures and tables). This maximum (25-page limit) ensures fair and equitable competition. Reviewers are instructed not to review materials in excess of this limit.

The Project Narrative in this Field 8 attachment contains the major description of your project. It follows the HEC program's Evaluation Criteria (Part V. B). Accordingly, please provide your responses in the following format:

(Note: To facilitate application review and evaluation, **include the following, underlined wording as headings in your attached Project Narrative**, followed by your response for each item.)

1. Potential for Advancing the Quality of Education; Significance of the Problem:
 - a. Identification of Educational Problem and Project Impact. Briefly state: (1) the specific instructional problem/challenge (or opportunity) to be addressed; (2) the anticipated project audience; and (3) the project's target objectives (what change in education is proposed?) and its anticipated, overall *impact* on improving the quality of food and agricultural sciences education (Note: Your *impact* shall be a change you can measure at the project's conclusion.). Clearly identify and explain how the proposed project will address your *Educational Need Area* described in Part I, C.2.
 - b. Project Justification. Describe how and by whom the focus and scope of the project were determined. Summarize the body of knowledge justifying the need for the proposed project. Discuss how the project's *Educational Need Area* (Part I.C.2) will be of value at the State, regional, national, or international level(s), and where applicable, how it will advance improving science, technology, engineering, and mathematical (STEM) in food and agriculture sciences capabilities of students. Describe any ongoing or recently completed, significant activities related to the proposed project for which previous funding was received under this program.
 - c. Institutional Long-range Goals. Demonstrate how the institution/organization attributes a high priority to the project; discuss how the project will contribute to the achievement of the institution/organization's long-term (five- to ten-year) goals; explain how the project will help satisfy the institution/organization's high-priority objectives, or how the project is linked to and supported by the institution/organization's strategic plan.
 - d. Innovation. Describe the proposal's creative approach to improving the quality of food and agricultural sciences education, solving an education problem, or promoting

- programs that advance equal opportunity for all students and using either actual experiences or literature background information, show why this approach was chosen.
- e. Multidisciplinary and/or Problem-based Focus. Indicate how the project is relevant to multiple disciplines in the food and agricultural sciences education, or with other academic curricula, and how the project will enhance students' understanding of complex agricultural systems. Also, discuss whether the project may be adapted by, or serve as a model for, other institutions.
2. Proposed Approach and Cooperative Linkages:
- a. Plan of Operation and Methodology. Describe procedures for accomplishing the objectives of the project. Describe plans for management of the project to ensure its proper and efficient administration. Describe the way in which resources and personnel will be used to conduct the project.
- b. Timetable. Identify all important project milestones (performance targets that indicate when project goals will be met) and dates as they relate to project start-up, execution, evaluation, dissemination, and closeout.
- c. Products, Results and Measurable Outcomes. Outline the expected products/results and their outcome (impact) on strengthening food and agricultural sciences education in the United States. **Important Note: Make sure to differentiate among the three terms:**
1. "Products" may be actual *items or services* acquired with funds, e.g., "...developed three, new Web-based courses";
 2. "Results" are *accomplishments* related to the products, e.g., "...additional course materials now available online to reinforce student learning during non-classroom hours"; and
 3. "Outcomes/Impacts" are the *benefits* to your audience. Outcomes/impacts are the consequences of your project and the most critical elements in your Evaluation Plan. They are a measure of the results by comparison to what might have happened in the absence of the funded project, e.g., "...an observed, overall increase in student learning based upon 8% higher average test scores of those students who both attended class and used the supplemental, Web-based course materials".)
- d. Evaluation Plans. State the methodologies to be used in assessing the accomplishment of stated products, results and measurable outcomes from the project. Discuss the strategies and metrics for evaluating progress toward meeting the two HEC Program Goals from Part I, A. Describe any data to be collected and analyzed. Demonstrate how the project will improve education. This section shall clearly indicate how you plan to measure outcomes/impacts. (See Part I.C.3. for additional *Evaluation Plan* information)
- e. Dissemination Plans. The application must document how project accomplishments (products, results and impacts...etc.) will be published or otherwise disseminated to the broadest extent throughout the academic community. Discuss the institution/organization's commitment to disseminate project results and products and potential for institutionalization. Identify target audiences and explain methods of communication. This section shall clearly indicate how you plan to publicize your project's outcomes/impacts. (See Part I.C.4. for additional *Dissemination Plan* information)

- f. Partnerships and Collaborative Efforts. Explain how the project will maximize partnership and collaborative efforts to strengthen food and agricultural sciences education (e.g., involvement of faculty in related disciplines at the same institution, joint or LCI projects with other educational institution/organizations, or cooperative activities with business or industry). Also explain how it will stimulate academia, the States, or the private sector to join with the Federal partner in enhancing food and agricultural sciences education. Provide evidence, via letters from the parties involved in the partnership or collaborative arrangement.
3. Institution Capability and Capacity Building:
- a. Institution/organizational Commitment and Capability. Demonstrate that the program administration is committed to this project and has the capability to ensure its completion.
- b. Institution/organizational Resources. Document that necessary institution/organizational resources (administrative, facilities, equipment, and/or materials), and other appropriate resources, will be made available to the project. Demonstrate how the institution/organizational resources to be made available to the project, when combined with the support requested from USDA, will be adequate to carry out the activities of the project.
- c. Academic Enhancement. Document how this project will improve and strengthen teaching at the institution (including any partner institution/organizations). Include how any project performance target(s) identified above (2.b., Timetable) will be incorporated into academic instruction at the institution. Discuss how the benefits to be derived from the project will transcend the applicant institution/organization or the grant period.
- g. Continuation Plans. Discuss the likelihood of, or specific plans for, continuation or expansion of the project beyond the period of USDA support. For example, does the institution/organization's long-range budget or academic plan provide for the realistic continuation or expansion of the initiative undertaken by this project after the grant period ends, are plans for eventual self-support built into the project, are plans being made to institutionalize the program if it meets with success, and are there indications of other continuing non-Federal support (Part I.C.4. for additional *Continuation Plan* information)?
4. Key Personnel: Discuss the adequacy and specific attributes and project responsibilities of each key person associated with the project. Also include the background and qualifications of those personnel who will be responsible for assessing project results and administering the project evaluation and reporting process.
5. Budget and Cost-effectiveness:
- a. Budget. In addition to the separate, required budget forms and budget justification, discuss how the budget specifically supports the proposed project activities. Explain how such budget items as professional or technical staff time and salary, travel, equipment, etc., are necessary and reasonable to achieve project objectives. Justify that the total budget, including funds requested from USDA and any matching support provided, are allocated adequately between the applicant and any collaborating institution/organization(s), and will be appropriate to carry out the activities of the project. Provide a summary of sources and amounts of all third party matching support. If

the application addresses more than one *Educational Need Area* (see Part I, C.2.), applicants should include estimates of the proportion of the funds requested from USDA that will support each respective area.

- b. **Cost-effectiveness.** Justify the project's cost-effectiveness. Show how the project maximizes the use of limited resources, optimizes educational value for the dollar, achieves economies of scale, or leverages additional funds. For example, discuss how the project has the potential to generate a critical mass of expertise and activity focused on an *Educational Need Area*, or to promote coalition building that could lead to future ventures.

For conference applications, the Project Narrative must describe the conference proposed, and include all of the following:

- 1) **Justification for the meeting;**
- 2) **Recent meetings on the same subject with dates and locations;**
- 3) **Names and organizational affiliations of the chairperson and other members of the organizing committee;**
- 4) **Proposed program (or agenda for the conference), including a listing of scheduled participants and their institutional affiliations; and**
- 5) **Method of announcement or invitation to be used.**

Field 9. Bibliography & Cited References - (Optional Attachment – Must be PDF format)

If needed, provide a complete list of all references cited in the application. **For each reference, provide the complete name for each author, the year of the publication, full title of the article, name of the journal or book published, volume, and the page numbers.** The references should be listed in alphabetical order using the last name of the first author.

Field 10. Facilities & Other Resources - (Optional Attachment – Must be PDF format)

Describe the types, location, and availability of instrumentation and physical facilities necessary to carry out the work proposed. **If special academic, private or government laboratories or facilities are being used, include a letter in the application from the authorized representative of the facility describing the proposed arrangements and availability.** Any such letter shall be included as a part of Other Attachments, see Field 12 below.

Field 11. Equipment Documentation - (Optional Attachment – Must be PDF format)

Field 12. Other Attachments - (Must be PDF format).

- **Response to Previous Review – PDF Attachment. 1 Page Limit.** Title the attachment as ‘Response to Previous Review’ in the document header and save file as ‘ResponsetoPreviousReview’. This requirement only applies to “Resubmitted Applications” as described under Part II, B., “Types of Applications”. PDs must respond to the previous review panel summary on **no more than one page**, titled, “RESPONSE TO PREVIOUS REVIEW”. If desired, additional comments may be included in the text of the Project Narrative, subject to the page limitations of that section.

- **Appendices to Project Narrative – PDF Attachment.** Title the attachment as ‘Appendices’ in the document header and save file as ‘Appendices’. Appendices to the Project Narrative are allowed if they are directly germane to the proposed project. The addition of appendices should not be used to circumvent the text and/or figures and tables page limitations.
- **Collaborative Arrangements – PDF Attachment. No Page Limit.** Title the attachment as ‘Collaborative Arrangements’ in the document header and save file as ‘CollaborativeArrangement’. If it is necessary to enter into formal consulting or collaborative arrangements with others, such arrangements should be fully explained and justified. If the consultant(s) or collaborator(s) are known at the time of the application, a vitae or resume should be provided. In addition, evidence (e.g., letter of support signed by the AR of the consultant/collaborating organization) should be provided that the collaborators involved have agreed to render these services. The applicant also will be required to provide additional information on consultants and collaborators in the budget portion of the application.
- **Matching Funds Documentation – PDF Attachment.** Title the attachment as ‘Matching Funds Documentation’ in the document header and save file as “MatchingFundsDocumentation”. This grants program requires applicants to provide 25% matching funds from non-Federal sources. Signed letters from each source of matching funds are required, and should be attached. Recommended contents of these letters is described below in item Field 6, R&R Fed and Non-Fed Budget, Field K, (b) Matching.

4. **R&R Senior/Key Person (Expanded)**

Information related to the questions on this form is dealt with in detail in Part V, 5. of the NIFA Grants.gov Application Guide. Part V, 5. of the NIFA Grants.gov Application Guide includes information about the individuals for which a Senior/Key Person Profile must be completed, and details about the Biographical Sketch and the Current and Pending Support including a link to a suggested template for the Current and Pending Support.

A R&R Senior/Key Person Profile should be completed, at a minimum, for the PD, each co-PD, senior associate, and other professional personnel. A paraprofessional is an individual who through formal education, work experience and/or training has the knowledge and expertise to assist a professional person. **Note: Even if no other funding is currently reported under the ‘Active’ section of this attachment, you must still list information for this grant application under the ‘Pending’ section of this attachment for each senior/key person identified above.**

The time commitments for this project stated on the Current and Pending include Federal and any cost shared salaries. Time commitments stated on the Current and Pending should not be lower than the combined Federal and match percentage of salary on the budget.

5. **R&R Personal Data**

As noted in Part V, 6. of the NIFA Grants.gov Application Guide, the submission of this information is voluntary and is not a precondition of award.

6. R&R Budget

Information related to the questions on this form is dealt with in detail in Part V, 7. of the NIFA Grants.gov Application Guide. The following, additional information may be helpful:

Complete one R&R Fed and Non-Fed Budget Form for each 12-month period. If your project involves partners with whom you plan to share Federal funds (Joint or LCI Project Proposal), make sure (a) you include a subaward attachment for each project partner (subaward/consortium), for each 12-month period and (b) your budget figures reflect the required budget sharing criteria (See 'Definitions', Part VIII. E, Joint or LCI Project Proposal). Reasonable travel expenses to attend the Project Director's Conference may be included in the travel expenses.

Field H. Indirect Costs –

Pursuant to Section 720 of the General Provisions in Title VII of the Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Programs (HR 112-284), indirect costs are limited to 30 percent of the total Federal funds provided under each award. Therefore, when preparing budgets, applicants should limit their requests for recovery of indirect costs to the lesser of their institution's official negotiated indirect cost rate or the equivalent of 30 percent of total Federal funds awarded.

If an institution/organization's official negotiated indirect cost rate exceeds the maximum allowed rate then the indirect costs are limited to 30% of the total Federal funds. In this case, the maximum allowed indirect cost of 30% may be claimed under the Federal portion of the award, or the maximum allowed indirect cost of 30% may be claimed as matching contributions (if no indirect costs are requested under the Federal portion). However, the maximum allowed indirect cost of 30% may not be claimed on both the Federal portion of the award and as matching contributions (Note: An institution/organization may, as an example, request 15% of indirect costs on both the Federal portion of the award and as matching contributions. Or, an institution/organization may request any other, similar percentage combination that, when combined, does not exceed the 30% maximum indirect cost allowed.) Nevertheless, the total combined percent of requested and contributed matching indirect costs cannot exceed 30%. This distribution of indirect costs would also apply to grantees whose official negotiated rate results in a lesser amount of indirect costs. However, the distribution would be limited to that lesser amount.

Field K. Budget Justification – (Required Attachment – Must be PDF format)

- (a) Provide a Budget Justification that reflects each 12-month period. If your project involves partners with whom you plan to share Federal funds (Joint or LCI Project Proposal), make sure the attachment reflects information (a) for the applicant institution (each project partner (subaward/consortium), for each 12-month period plus a cumulative column total for the entire project, and (b) your budget figures reflect the required budget sharing criteria (See 'Definitions', Part VIII, E, Joint Project Proposal). Letters of consent

or collaboration or other evidence should be provided to show that collaborators have agreed to participate (such letters are to be included in Field 12).

The Budget Justification should follow a standard spreadsheet format ('Budget Line Item' = row; 'Budget Year' = columns) including a detailed, itemized breakdown of each of the line item categories reported on the R&R Fed and Non-Fed Budget form. This Budget Justification attachment provides a more detailed, itemized breakdown for each budget line item reported on the R&R Fed and Non-Fed Budget form (i.e., itemize your complete list of 'Materials and Supplies' showing per unit costs and number of units to be purchased, etc.). Items should be justified and include relevance to the project objectives. Include a description for each requested budget line item found on the R&R Fed and Non-Fed Budget form (i.e., total budget amount reported on the R&R Fed and Non-Fed Budget form should equal the total budget amount reported on the Budget Justification attachment).

- (b) Matching: Note: This grants program requires applicants to provide 25% matching funds from non-Federal sources. The sources and amount of all matching support from outside the applicant institution shall be summarized on a separate page immediately following the Budget Justification. See instructions directly above, Field H, for restrictions on how to report indirect costs as matching contributions.**

Cash and non-cash contributions from the institution/organization and any third parties shall be identified.

The sources and amount of all matching support from outside the applicant institution/organization shall be summarized on a separate page and included behind the budget justification. The letters of commitment (written verification (i.e., a signed letter from the AR of the source of matching funds; including both cash and in-kind contributions)) are to be attached in the R&R Other Project Information, Field 12. For each source of non-Federal matching funds from third parties.

Include each of these signed matching letters, as well, as attachments in Field 12 of the R&R Other Project Information form.

Written verification means:

For any third party cash contributions, a separate pledge agreement for each donation submitted on Donor Organization letterhead and signed by the AR of the donor organization and the applicant organization, which must include: (1) The name, address, and telephone number of the donor; (2) the name of the applicant organization; (3) the title of the project for which the donation is made; (4) the dollar amount of the cash donation; (5) a statement that the donor will pay the cash contribution during the grant period; and (6) whether the applicant can designate cash as the applicant deems necessary or the cash contribution has been designated to a particular budget item; and

For any third party in-kind contributions, a separate pledge agreement for each contribution submitted on Donor Organization letterhead and signed by the AR of the donor organization and the applicant organization, which must include: (1) The name, address, and telephone number of the donor; (2) the name of the applicant organization; (3) the title of the project for which the donation is made; (4) a good faith estimate of the current fair market value of the third party in-kind contribution; and (5) a statement that the donor will make the contribution during the grant period.

If the contribution is to be split between cash and in-kind, the exact dollar amount for each category must be clearly stated. The letter shall also clearly state the budget categories that the contributed dollars shall be applied to and clearly state the individual items of in-kind contributions. Any cost sharing commitments specified in the application will be referenced and included as a condition of an award resulting from this announcement.

Allowable costs will be determined in accordance with the applicable program legislation, the purpose of the grant award, the terms and conditions for the grant award, and by the following Federal cost principles that are applicable to the type of organization receiving the award, regardless of the type of award or tier (i.e., prime awardee, subaward) as are in effect at the time of the award:

- (1) **2 CFR Part 220** (OMB Circular No. A-21), “Cost Principles for Educational Institutions.”
- (2) **2 CFR Part 225** (OMB Circular No. A-87), “Cost Principles for State and Local Government (including certain Indian tribal governments).”
- (3) **2 CFR Part 230** (OMB A-122), “Cost Principles for Nonprofit Organizations” other than institutions of higher education (nonprofit organizations excluded from coverage are listed in Attachment C of OMB Circular No. A-122).
- (4) **Federal Acquisition Regulations** (48 CFR Subpart 31.2), “Principles for determining costs with profit making firms and those nonprofits organizations that are specifically excluded from the provisions of OMB Circular No. A-122.”
- (5) **45 CFR Part 74, Appendix E**, “Principles for Determining Costs Applicable to Research and Development under Grants and Contracts with Hospitals.”

The Code of Federal Regulations is accessible through The FDsys Federal Digital System (<http://www.gpo.gov/fdsys/>).

Note: Funding from sources prohibited by this grants program cannot be used as an institution/organization’s matching contributions (i.e., Funding Restrictions for this grants program prohibit the use of Federal grant funds for tuition remission or to acquire or repair a building or facility (e.g., a greenhouse)). Therefore, non-Federal, matching funds for tuition remission or that acquire or repair a building or facility to support this project is not permitted as matching contributions.

7. R&R Subaward Budget (Fed and Non-Fed) Attachment (Only required if submitting a LCI or Joint Project Proposal)

8. Supplemental Information Form

Information related to the questions on this form is dealt in Part VI, I. of the NIFA Grants.gov Application Guide. Complete all applicable fields.

Field 2. Program Code -

For the 'Program Code Name' field, enter: "Higher Education Challenge Grants Program".

For the 'Program Code' field, enter: "ER".

Field 8. Conflict of Interest List - (Required Attachment – Must be PDF format) See Part VI, 1.8 of the NIFA Grants.gov Application Guide for further instructions and a link to a suggested template. Include this one-page attachment even if your responses to the questions are "N.A.".

C. Submission Dates and Times

Instructions for submitting an application are included in Part IV, Section 1.9 of the NIFA Grants.gov Application Guide.

Applications must be received by Grants.gov **by COB on February 8, 2013** (5:00 p.m. Eastern Time). Applications received after this deadline will normally not be considered for funding.

Applicants who have problems with the submission of an application to Grants.gov are encouraged to FIRST contact the Grants.gov Help Desk to resolve any problems. Keep a record of any such correspondence. See Part IV. A. for Grants.gov contact information.

Correspondence regarding submitted applications will be acknowledged by e-mail. Therefore, applicants are strongly encouraged to provide accurate e-mail addresses, where designated, on the SF-424 R&R Application for Federal Assistance.

If the AR has not received a confirmation message from NIFA within 30 days of the established deadline, please contact the Agency Contact identified in Part VII of the applicable RFA and request the proposal number assigned to the application. **Failure to do so may result in the application not being considered for funding by the peer review panel. Once the application has been assigned a proposal number, this number should be cited on all future correspondence.**

D. Funding Restrictions

Consistent with other competitive grant programs, NIFA has determined that grant funds awarded under this authority **may not** be used for student tuition remission, room and board, academic fees or other financial assistance (scholarships, fellowships, etc.).

Also, funds **may not** be used for the renovation or refurbishment of research, education, or extension space; the purchase or installation of fixed equipment in such space; or to plan, repair,

rehabilitate, acquire, or construct buildings or facilities (i.e., greenhouses, laboratories, barns or other structures). Promotional items (e.g., T-shirts and other give-a-ways) and food functions (e.g., cookouts or other social meal gatherings) are considered ‘entertainment’ expenses, and are also *not allowed* under this grants program. Federal Cost Principles governing this grant program state that items not eligible for Federal funding may also not be used as an applicant’s contribution toward meeting matching requirements.

E. Other Submission Requirements

The applicant should follow the submission requirements noted in Part IV, section 1.9 in the document entitled “NIFA Grants.gov Application Guide.”

For information about the **status of a submitted application**, see Part III., section 6. of the NIFA Grants.gov Application Guide.

PART V—APPLICATION REVIEW REQUIREMENTS

A. General

Each application will be evaluated in a 2-part process. First, each application will be screened to ensure that it meets the administrative requirements as set forth in this RFA. Second, applications that meet these requirements will be technically evaluated by a review panel.

Reviewers will be selected based upon training and experience in relevant scientific, extension, or education fields, taking into account the following factors: (a) The level of relevant formal scientific, technical education, or extension experience of the individual, as well as the extent to which an individual is engaged in relevant research, education, or extension activities; (b) the need to include as reviewers experts from various areas of specialization within relevant scientific, education, or extension fields; (c) the need to include as reviewers other experts (e.g., producers, range or forest managers/operators, and consumers) who can assess relevance of the applications to targeted audiences and to program needs; (d) the need to include as reviewers experts from a variety of organizational types (e.g., colleges, universities, industry, state and Federal agencies, private profit and non-profit organizations) and geographic locations; (e) the need to maintain a balanced composition of reviewers with regard to minority and female representation and an equitable age distribution; and (f) the need to include reviewers who can judge the effective usefulness to producers and the general public of each application.

B. Evaluation Criteria

The evaluation criteria and weights below will be used in reviewing applications submitted in response to this RFA:

- 1. Potential for Advancing Quality of Education/Significance of the Problem (30 points).**
This criterion is used to assess the likelihood that the project will have an impact upon and advance the quality of food and agricultural sciences, and make a contribution to the food and agricultural sciences STEM student pipeline, by strengthening institutional capacities to meet clearly delineated needs. Elements considered include institutional long-range goals, identification of a problem or opportunity to be addressed, justification for the project, innovation, advancing educational equity, multidisciplinary and/or problem-based focus, and potential for adoption by other institutions. The proposed project must also show its relevance to NIFA's *Priority Areas* and how it will contribute to the goals of the HEC Program of increasing the number and quality of the agriculture workforce. Potential project impacts must be stated.
- 2. Proposed Approach and Cooperative Linkages (25 points).**
This criterion relates to the soundness of the proposed approach including objectives, methodology, plan of operation, timetable, expected products and results, evaluation, and dissemination plans. The project evaluation plan shall state the methodologies to be used in assessing the accomplishment of stated products, results and measurable outcomes from the project. The approach must be based on sound research concepts and educational principles and may be documented through background literature or actual institutional data. Emphasis

is placed on the quality of educational or research support provided to the applicant institution/organization through its partnerships and collaborative initiatives, and on the potential cooperative linkages likely to evolve as a result of this project. Any perceived pitfalls and alternative strategies or approaches shall be addressed.

3. Institutional Capability and Capacity Building (20 points).

This criterion relates to the institution's capability to perform the project and the degree to which the project will strengthen its teaching or research capacity. Elements include the institution's commitment to the project, the adequacy of institutional resources (administrative, facilities, equipment, and/or materials) available to carry out the project, potential for academic or research enhancement, and plans for project continuation or expansion beyond the period of USDA support. Institutional data shall be included to show the institution's ability to support the proposed project.

4. Key Personnel (15 points).

This criterion relates to the adequacy of the number, qualifications and expertise of key persons who will develop and carry out the project, and the qualifications of project personnel who will provide for the assessment of project results and impacts and the dissemination of these findings. Specific roles for each key personnel must be defined to ensure appropriate project leadership and to avoid any duplication of effort.

5. Budget and Cost-Effectiveness (10 points).

This criterion relates to the extent to which the total budget adequately supports the project and is cost effective. Elements considered include the necessity and reasonableness of costs to carry out project activities and achieve project objectives; the appropriateness of budget allocations between the applicant and any collaborating institution(s); the adequacy of time committed to the project by key project personnel; and the degree to which the project maximizes the use of limited resources, optimizes educational value for the dollar, achieves economies of scale, leverages additional funds, and focuses expertise and activity on high-priority educational or research need areas.

For Conference Applications

In addition to the five Evaluation Criteria listed directly above, the following evaluation criteria will also be applied to applications that seek support for conferences:

1. Relevance of Proposed Conference to promote and strengthen agriscience and agribusiness education;
2. Qualifications of Organizing Committee and Appropriateness of Invited Speakers to Topic Areas Being Covered;
3. Uniqueness and Timeliness of Conference; and
4. Appropriateness of Budget Request.

C. Conflicts of Interest and Confidentiality

During the peer evaluation process, extreme care will be taken to prevent any actual or perceived conflicts of interest that may impact review or evaluation. For the purpose of determining conflicts of interest, the academic and administrative autonomy of an institution shall be determined by reference to the current Higher Education Directory, published by Higher Education Publications, Inc., 1801 Robert Fulton Drive, Suite 340, Reston, Virginia 20191. Phone: (888) 349-7715. Web site: <http://www.hepinc.com>.

Names of submitting institutions and individuals, as well as application content and peer evaluations, will be kept confidential, except to those involved in the review process, to the extent permitted by law. In addition, the identities of peer reviewers will remain confidential throughout the entire review process. Therefore, the names of the reviewers will not be released to applicants.

D. Organizational Management Information

Specific management information relating to an applicant shall be submitted on a one time basis as part of the responsibility determination prior to the award of a grant identified under this RFA, if such information has not been provided previously under this or another NIFA program. (Note: *This management information will also be required from designated Fiscal Agents.*) NIFA will provide copies of forms recommended for use in fulfilling these requirements as part of the preaward process. Although an applicant may be eligible based on its status as one of these entities, there are factors which may exclude an applicant from receiving Federal financial and nonfinancial assistance and benefits under this program (e.g., debarment or suspension of an individual involved or a determination that an applicant is not responsible based on submitted organizational management information).

PART VI—AWARD ADMINISTRATION

A. General

Within the limit of funds available for such purpose, the awarding official of NIFA shall make grants to those responsible, eligible applicants whose applications are judged most meritorious under the procedures set forth in this RFA. The date specified by the awarding official of NIFA as the effective date of the grant shall be no later than September 30 of the Federal fiscal year in which the project is approved for support and funds are appropriated for such purpose, unless otherwise permitted by law. It should be noted that the project need not be initiated on the grant effective date, but as soon thereafter as practical so that project goals may be attained within the funded project period. All funds granted by NIFA under this RFA shall be expended solely for the purpose for which the funds are granted in accordance with the approved application and budget, the regulations, the terms and conditions of the award, the applicable Federal cost principles, the Department's assistance regulations (parts 3015, 3019 of 7 CFR), and the NIFA General Awards Administration Provisions at 7 CFR 3430, subparts A through E.

B. Award Notice

The award document will provide pertinent instructions and information including, at a minimum, the following:

- (1) Legal name and address of performing organization or institution to which the Administrator has issued an award under the terms of this request for applications;
- (2) Title of project;
- (3) Name(s) and institution(s) of PDs chosen to direct and control approved activities;
- (4) Identifying award number assigned by the Department;
- (5) Project period, specifying the amount of time the Department intends to support the project without requiring recompetition for funds;
- (6) Total amount of Departmental financial assistance approved by the Administrator during the project period;
- (7) Legal authority(ies) under which the award is issued;
- (8) Appropriate Catalog of Federal Domestic Assistance (CFDA) number;
- (9) Applicable award terms and conditions (see <http://www.nifa.usda.gov/business/awards/awardterms.html> to view NIFA award terms and conditions);

(10) Approved budget plan for categorizing allocable project funds to accomplish the stated purpose of the award; and

(11) Other information or provisions deemed necessary by NIFA to carry out its respective awarding activities or to accomplish the purpose of a particular award.

C. Administrative and National Policy Requirements

Several Federal statutes and regulations apply to grant applications considered for review and to project grants awarded under this program. These include, but are not limited to:

2 CFR Part 220 – Cost Principles for Educational Institutions (OMB Circular A-21).

2 CFR Part 225 – Cost Principles for State, Local, and Indian Tribal Governments (OMB Circular A-87).

2 CFR Part 230 – Cost Principles for Non-profit Organizations (OMB Circular A-122).

7 CFR Part 1, subpart A—USDA implementation of the Freedom of Information Act.

7 CFR Part 3—USDA implementation of OMB Circular No. A-129 regarding debt collection.

7 CFR Part 15, subpart A—USDA implementation of Title VI of the Civil Rights Act of 1964, as amended.

7 CFR Part 331 and 9 CFR Part 121—USDA implementation of the Agricultural Bioterrorism Protection Act of 2002.

7 CFR Part 3015—USDA Uniform Federal Assistance Regulations, implementing OMB directives (i.e., OMB Circular Nos. A-21, A-87, and A-122, now codified at 2 CFR Parts 220, 225 and 230), and incorporating provisions of 31 U.S.C. 6301-6308 (formerly the Federal Grant and Cooperative Agreement Act of 1977, Pub. L. No. 95-224)), as well as general policy requirements applicable to recipients of Departmental financial assistance.

7 CFR Part 3016 – USDA Implementation of Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.

7 CFR Part 3017—USDA implementation of Government wide Debarment and Suspension (Nonprocurement).

7 CFR Part 3018—USDA implementation of Restrictions on Lobbying. Imposes prohibitions and requirements for disclosure and certification related to lobbying on recipients of Federal contracts, grants, cooperative agreements, and loans.

7 CFR Part 3019—USDA implementation of OMB Circular A-110, Uniform Administrative Requirements for Grants and Other Agreements With Institutions of Higher Education, Hospitals, and Other Nonprofit Organizations (2 CFR Part 215).

7 CFR Part 3021—USDA Implementation of Government wide Requirements for Drug-Free Workplace (Grants).

7 CFR Part 3022 —Research Institutions Conducting USDA-Funded Extramural Research; Research Misconduct.

7 CFR Part 3052—USDA implementation of OMB Circular No. A-133, Audits of States, Local Governments, and Nonprofit Organizations.

7 CFR Part 3405—Higher Education Challenge Grants Program

7 CFR Part 3407—USDA procedures to implement the National Environmental Policy Act of 1969, as amended.

7 CFR 3430—Competitive and Noncompetitive Non-formula Grant Programs--General Grant Administrative Provisions.

29 U.S.C. 794 (section 504, Rehabilitation Act of 1973) and 7 CFR Part 15b (USDA implementation of statute) —prohibiting discrimination based upon physical or mental handicap in Federally assisted programs.

35 U.S.C. 200 et seq. —Bayh Dole Act, controlling allocation of rights to inventions made by employees of small business firms and domestic nonprofit organizations, including universities, in Federally assisted programs (implementing regulations are contained in 37 CFR Part 401).

D. Expected Program Outputs and Reporting Requirements

Grantees are to submit initial project information and annual and summary reports to NIFA's electronic, Web-based inventory system that facilitates both grantee submissions of project outcomes and public access to information on Federally-funded projects. The details of these reporting requirements are included in the award terms and conditions. Details of annual and final technical reporting requirements also are included in the award terms and conditions.

1. Project Directors Conference

During the tenure of a grant, Project Director(s) may be invited to attend at least one national Project Directors meeting, if offered, in Washington, DC, or any other announced location. The purpose of the meeting will be to discuss project and grant management, opportunities for collaborative efforts, future directions for education reform, and opportunities to enhance dissemination of exemplary end products/results. Reasonable travel expenses to attend this meeting may be included in the proposal's travel expenses.

2. Annual Performance Report

An Annual Performance Report must be submitted within 90 days after the completion of the first year of the project, and annually thereafter during the life of the grant. Generally, the Annual Performance Reports shall include a summary of the overall progress toward meeting project objectives, current problems or unusual developments, the next year's activities, progress assessing outcomes as part of the project Evaluation Plan (Part I. C. 3.), and any other information that is pertinent to the ongoing project or which may be specified in the terms and conditions of the award. If possible, include information to date on **anticipated number and type of products created or anticipated number of students/faculty served** based on the target area(s) proposed in the project.

3. Final Performance Report

A Final Performance Report must be submitted within 90 days after the expiration date of the project. The expiration date is specified in the award documents and modifications thereto, if any. Generally, the Final Performance Report shall be a summary of the completed project, to include results of the project Evaluation Plan (Part I. C. 3.), a review of project objectives and accomplishments; a description of any products and outcomes resulting from the project; activities undertaken to disseminate products and outcomes; partnerships and collaborative ventures that resulted from the project; future initiatives that are planned as a result of the project; the impact of the project on the Project Director(s), students, the departments, the institution, and the food and agricultural sciences higher education system; and data on project personnel and beneficiaries. The report must document how project accomplishments (products, results and impacts, etc.) have been published or otherwise disseminated to the broadest extent throughout the academic community. The Final Performance Report should be accompanied by samples or copies of any products or publications resulting from or developed by the project. The Final Performance Report also must contain any other information which may be specified in the terms and conditions of the award.

Additionally, PDs may want to include the specific information described in the Evaluation Criteria section (Part V, B.) of the RFA:

1. The results from the measure of **student knowledge/learning or interest** in the food and agriculture sciences resulted from the proposed project.
2. The **number and type of products created or number of students/faculty served** based on the target area(s) used in the project. Refer to the list of examples of quantifiable information in the Evaluation Criteria section (Part V, B.) of the RFA.

PART VII—AGENCY CONTACT

Applicants and other interested parties are encouraged to contact Mr. P. Gregory Smith; National Education Program Leader; Institute of Youth, Family and Community; Division of Community and Education; National Institute of Food and Agriculture; STOP 2250; 1400 Independence Ave, SW; Washington, DC 20250-2251; Telephone: (202) 720-1973; Fax: (202) 720-2030; E-mail: HEC@nifa.usda.gov.

PART VIII—OTHER INFORMATION

A. Access To Review Information

Copies of reviews, not including the identity of reviewers, and a summary of the panel comments will be sent to the applicant PD after the review process has been completed.

B. Use of Funds; Changes

1. Delegation of Fiscal Responsibility

Unless the terms and conditions of the award state otherwise, the awardee may not in whole or in part delegate or transfer to another person, institution, or organization the responsibility for use or expenditure of award funds.

2. Changes in Project Plans

a. The permissible changes by the awardee, PD(s), or other key project personnel in the approved project shall be limited to changes in methodology, techniques, or other similar aspects of the project to expedite achievement of the project's approved goals. If the awardee or the PD(s) is uncertain as to whether a change complies with this provision, the question must be referred to the Authorized Departmental Officer (ADO) for a final determination. The ADO is the signatory of the award document, not the program contact.

b. Changes in approved goals or objectives shall be requested by the awardee and approved in writing by the ADO prior to effecting such changes. In no event shall requests for such changes be approved which are outside the scope of the original approved project.

c. Changes in approved project leadership or the replacement or reassignment of other key project personnel shall be requested by the awardee and approved in writing by the ADO prior to effecting such changes.

d. Transfers of actual performance of the substantive programmatic work in whole or in part and provisions for payment of funds, whether or not Federal funds are involved, shall be requested by the awardee and approved in writing by the ADO prior to effecting such transfers, unless prescribed otherwise in the terms and conditions of the award.

e. Changes in Project Period: The project period may be extended by NIFA without additional financial support, for such additional period(s) as the ADO determines may be necessary to complete or fulfill the purposes of an approved project, but in no case shall the total project period exceed five years. Any extension of time shall be conditioned upon prior request by the awardee and approval in writing by the ADO, unless prescribed otherwise in the terms and conditions of award.

f. Changes in Approved Budget: Changes in an approved budget must be requested by the awardee and approved in writing by the ADO prior to instituting such changes if the revision will

involve transfers or expenditures of amounts requiring prior approval as set forth in the applicable Federal cost principles, Departmental regulations, or award.

C. Confidential Aspects of Applications and Awards

When an application results in an award, it becomes a part of the record of NIFA transactions, available to the public upon specific request. Information that the Secretary determines to be of a confidential, privileged, or proprietary nature will be held in confidence to the extent permitted by law. Therefore, any information that the applicant wishes to have considered as confidential, privileged, or proprietary should be clearly marked within the application. An application will be released only with the consent of the applicant or to the extent required by law. An application may be withdrawn at any time prior to the final action thereon.

D. Regulatory Information

For the reasons set forth in the final Rule related Notice to 7 CFR part 3015, subpart V (48 FR 29114, June 24, 1983), this program is excluded from the scope of the Executive Order 12372 which requires intergovernmental consultation with State and local officials. Under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 35), the collection of information requirements contained in this Notice have been approved under OMB Document No. 0524-0039.

E. Definitions

Please refer to [7 CFR 3430](#), Competitive and Noncompetitive Non-formula Grant Programs--General Grant Administrative Provisions and [3405](#), Higher Education Challenge Grants Program, for the applicable definitions for this NIFA grant program. The following are additional definitions that apply to this program.

Citizen or national of the United States means (1) a citizen or native resident of a State; or, (2) a person defined in the Immigration and Nationality Act, 8 U.S.C. 1101(a)(22), who, though not a citizen of the United States, owes permanent allegiance to the United States.

Eligible institution means a land-grant college or university (including land-grant institutions in the Insular Areas), colleges and universities having significant minority enrollments and a demonstrable capacity to carry out the teaching of food and agricultural sciences, and other U.S. colleges and universities having a demonstrable capacity to carry out the teaching of food and agricultural sciences. An eligible institution includes a research foundation maintained by an eligible college or university.

Eligible participant means an individual who is a citizen or national of the United States as defined in this section.

Institution of higher education means an educational institution in any State that: (1) admits as regular students only persons having a certificate of graduation from a school providing

secondary education, or the recognized equivalent of such a certificate; (2) is legally authorized within such State to provide a program of education beyond secondary education; (3) provides an educational program for which the institution awards a bachelor's degree or provides not less than a 2-year program that is acceptable for full credit toward such a degree; (4) is a public or other nonprofit institution; and (5) is accredited by a nationally recognized accrediting agency or association, or if not so accredited, is an institution that has been granted pre-accreditation status by such an agency or association that has been recognized by the Secretary of Education for the granting of pre-accreditation status, and the Secretary of Education has determined that there is satisfactory assurance that the institution will meet the accreditation standards of such an agency or association within a reasonable time.

Insular Area means the Commonwealth of Puerto Rico, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia, the Republic of the Marshall Islands, the Republic of Palau, and the Virgin Islands of the United States.

Joint project proposal means a proposal for a project, which will involve the applicant institution and **two or more** other colleges, universities, community colleges, junior colleges, or other institutions, each of which will assume a major role in the conduct of the proposed project, and for which **the applicant institution will transfer at least one-half of the awarded funds to the other institutions participating in the project**. Only the applicant institution must meet the definition of "eligible institution" as specified in §3405.2(i); the other institutions participating in a joint project proposal are not required to meet the definition of "eligible institution" as specified in §3405.2(i), nor required to meet the definition of "college" or "university" as specified in §3405.2(f).

Large-scale, Comprehensive Initiative (LCI) project proposal means an application for a project: (1) which will involve the applicant institution/organization working in cooperation with **two or more** other entities not legally affiliated with the applicant institution, including other schools, colleges, universities, community colleges, junior colleges, units of State government, private sector organizations, or a consortium of institutions; and (2) where the applicant institution and each cooperating entity will assume a significant role in the conduct of the proposed project. To demonstrate a substantial involvement with the project, **the applicant institution/organization submitting a LCI proposal must retain at least 30 percent but not more than 70 percent of the awarded funds and no cooperating entity may receive less than 10 percent of awarded funds**. Only the applicant institution must meet the definition of an eligible institution as specified in this RFA; other entities participating in a joint project proposal are not required to meet the definition of an eligible institution. LCI Project Proposals must support a multi-partner approach to solving a major state or regional challenge in agricultural sciences education at the postsecondary level. LCI Project Proposals are characterized by multiple partners (each providing a specific expertise) organized and led by a strong applicant with documented project management ability to organize and carry out the initiative. To be funded, in addition to meeting this grant program's Evaluation Criteria, a LCI project application must encourage study in areas that contribute to any of the five NIFA *Priority Areas* listed above in Part I, A.

Nonprofit, as applied to a school, agency, organization, or institution, means a school, agency, organization, or institution owned and operated by one or more nonprofit corporations or associations, no part of the net earnings of which inures, or may lawfully inure, to the benefit of any private shareholder or individual.

Nonprofit organization (see Nonprofit, above)

Outcomes means specific, measurable project results and benefits that, when assessed and reported, indicate the project's plan of operation has been achieved.

Plan of Operation means a detailed, step-by-step description of how the applicant intends to accomplish the project's outcomes. At a minimum, the plan should include a timetable indicating how outcomes are achieved, a description of resources to be used or acquired, and the responsibilities expected of all project personnel.

Regular project proposal means a proposal for a project: (1) where the applicant institution will be the sole entity involved in the execution of the project; or (2) which will involve the applicant institution and one or more other entities, but where the involvement of the other entity(ies) does not meet the requirements for a joint project proposal as defined in this section.

Teaching means formal classroom and/or laboratory instruction, or practicum experience in the food and agricultural sciences and matters related thereto (such as faculty development, student recruitment and services, curriculum development, instructional materials and equipment, and innovative teaching methodologies) conducted by eligible educational institutions.

Logic Model for NIFA HEC¹ Challenge Grant Programs v. 8-06-2012

REE Priorities – Funded projects may address any one of the 7 Goals	Resources/Inputs	Target Areas	Short-Term Outcomes Food and Agricultural Sciences Academic Programs	Long-term Outcomes Food and Agricultural Sciences Workforce
<p>Goal 1. Local and Global Food Supply and Security</p> <p>Goal 2. Responding to Climate and Energy Needs</p> <p>Goal 3. Sustainable Use of Natural Resources</p> <p>Goal 4. Nutrition and Childhood Obesity</p> <p>Goal 5. Food Safety</p> <p>Goal 6. Education and Science Literacy</p> <p>Goal 7. Rural Prosperity/Rural-Urban Interdependence</p>	<p><u>Institutions:</u></p> <ul style="list-style-type: none"> • K-12 • Community Colleges • Postsecondary Institutions • Non-Profit 501(c)(3) <p><u>Human Capital:</u></p> <ul style="list-style-type: none"> • Students • Faculty • Employers 	<ul style="list-style-type: none"> • Curriculum Development • Instructional Delivery Systems • Expanding Student Career Opportunities • Increasing Faculty Teaching Competencies • Facilitating Interaction with Other Academic Institutions 	<ul style="list-style-type: none"> • Number of new curricula and/or pedagogy adopted/adapted by other academic institutions • Assessment of learning and engagement among students • Assessment of learning/professional development among faculty • Number of secondary and 2-year postsecondary students transferring into 4-year degree programs 	<ul style="list-style-type: none"> • Students better prepared to master and retain course content • Students better qualified to compete for high-quality employment opportunities • Faculty better able to effectively disseminate relevant, innovative course content • Graduates entering the workforce in adequate numbers to meet both local and national workforce needs
<p>DOCE & Program Priorities</p>				
<ul style="list-style-type: none"> • Increase number and diversity of students who complete a 4-year postsecondary degree • Meet current and future national food and agricultural sciences workforce needs 				

¹ Higher Education Challenge Grants Program (HEC) <http://www.nifa.usda.gov/fo/educationchallengehigheredhep.cfm>