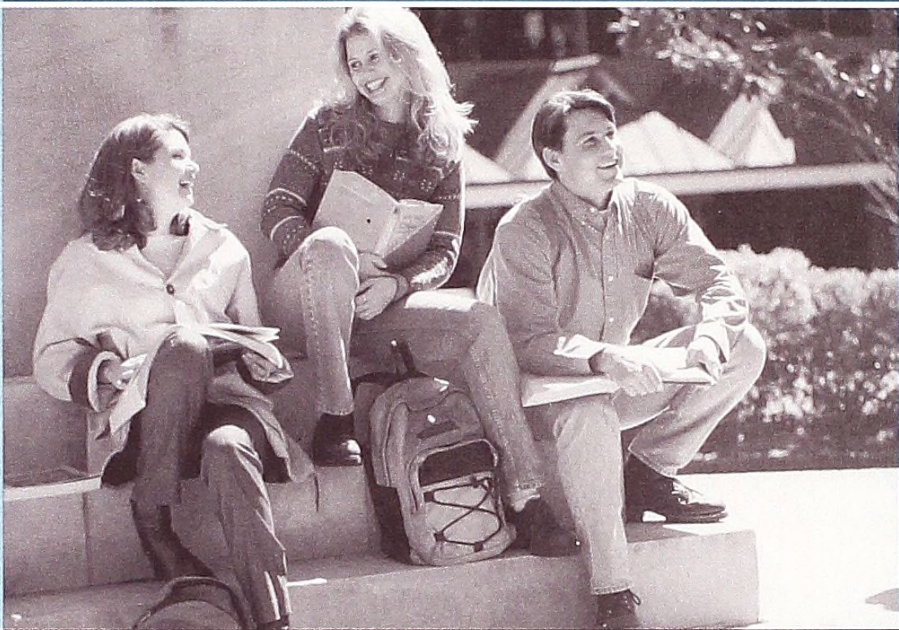# Creating Communities of Change in Higher Education

Final Evaluation Report of the Food Systems Professions Education Initiative

2003

About This Report

This document offers an overview of the lessons learned and knowledge gleaned during the eight years of the Food Systems Professions Education Initiative. It is based on "Volume I of the Final Summary Cluster Evaluation Report of Phase II of the Food Systems Professions Education (FSPE) Initiative," written by Jan Sweeney, Adrain Van Mondfrans, and Blaine Worthen of the Western Institute for Research and Evaluation (WIRE). The data for WIRE's evaluation came from many sources including:

- Surveys and annual reporting information
- Information from site visits
- Positive claims and testimonials by project personnel and others involved in the projects
- Anecdotal data, case studies, and stories showing how the initiative has changed the way universities do business, enhanced the trust between them and other institutions, led to new structural relationships, and added FSPE-endorsed values and activities into the role descriptions and behaviors of many professors

The phase 2 evaluation report focused on the original 12 university partners and their work. Another university partner, California Food and Fiber Futures at the University of California, Davis was added in 2001. Its data are not included in this evaluation because it began after the initial programs were already underway.

Other information in this report has come from various internal reports and previously published reports on the initiative. Several reports, available at the *www.wkkf.org* Web site, cover the first phase of the initiative and other activities.

Preface

To accomplish great things, we must dream as well as act.
Anatole France (1844-1924)

In 1994, the W.K. Kellogg Foundation embarked on a course to catalyze significant, positive changes in university-based education programs to better prepare food systems professionals to be responsive to the dynamic, volatile, and complex food system challenges of the 21st century. Along the way, some truly remarkable change did occur but not just in the colleges of agriculture.

We began the work by posing questions and providing the creative and energetic faculty, staff, and communities with resources to establish a food systems vision for the engaged land-grant university of the future and to identify and address barriers in achieving it. The first year of the initiative was spent in reflection, dialogue, and visioning both among FSPE institutions, with private industry, government agencies, and, most importantly, the communities they were designed to serve.

During the visioning phase the partners hoped to achieve three things:

- A vision for food systems education with implications for changes in the land grant system
- New structures for engaging citizens in vision-building, decisionmaking and agenda-setting
- New models for educational responsiveness to current and future stakeholders

Not surprisingly the answers that emerged were as diverse and dynamic as the individuals and institutions engaged in the work. Many visions emerged. Some of the work focused solely on colleges of agriculture and on their ability to prepare food systems professionals for the new century; others attempted a broader focus on institutional and community engagement for the entire university. The second phase of the initiative tried to put all these visions in motion by creating models of engagement and addressing leadership and policy changes needed to sustain identified changes. The focus of this report is on what we learned from both the vision and the practice of institutional change.

The work going on at the FSPE partner institutions and with their collaborators is just part of the story. Out of the work grew the National Association of State Universities and Land-Grant Colleges Kellogg Commission on the Future of State and Land Grant Universities. Created in 1996, the Commission combined the insight and the experience of more than 25 university presidents, provosts, and deans to make recommendations on how state and land-grant universities can remain responsive to their surrounding communities. A series of six reports
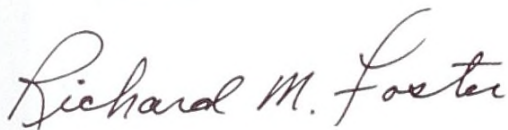
emerged from the Commission and became the focus of institutional change dialogue throughout the country. The reports are:

- Returning To Our Roots: The Student Experience
- Returning To Our Roots: Student Access
- Returning To Our Roots: The Engaged University
- Returning To Our Roots: A Learning Society
- Returning To Our Roots: Toward a More Coherent Campus Culture
- Renewing the Covenant: Learning, Discovery, and Engagement in a New Age and Different World

These reports can be accessed at *www.nasulgc.org*.

What started as a set of grants focused on food systems education grew into a body of work to advance changes in higher education itself. Of course no one effort, in less than a decade, spurs wholesale change in America's system of education. But the evidence does indicate that our work together has begun to have an impact on increasing the responsiveness and connectedness of land-grant universities with the communities they were established to serve.

The FSPE Initiative was truly a partnership of many people, working to accomplish the dream of an engaged university in service to a healthy and viable food system for this country. To all of them, we say thank you and keep the dream alive.

Richard M. Foster

Rick Foster
Vice President for Programs
Food Systems and Rural Development
W.K. Kellogg Foundation

Message from Gail Imig

When the Food Systems Professions Education Initiative began in 1994, there was a growing disconnect between land-grant universities and the communities they served. In practice, some argued that within these universities, academic priorities were replacing local priorities at the expense of communities throughout the country. In other words, the land-grant universities had veered off course from their original 1862 missions.

Recognizing that significant change was necessary within the land-grant university system, the W.K. Kellogg Foundation embarked on an eight-year effort to transform priorities, practices, and cultures within 13 universities across the country. From the beginning, many thought that this undertaking was ambitious and difficult. Drawing on its rich history of accomplishing the "impossible," however, the Kellogg Foundation knew that it's possible for the right ideas to spur change beyond what anyone can ever foresee.

And that's exactly what happened. In each university, FSPE started out as "something different" — maybe for some universities it meant a new way of looking at their work and the communities they served, while for others it meant whole-scale changes in faculty reward and tenure structures, student accreditation programs, and community stakeholder involvement. With tremendous persistence and professionalism, FSPE grantees took these ideas that many viewed as "something different" and slowly integrated them so that they are now part of "business as usual."

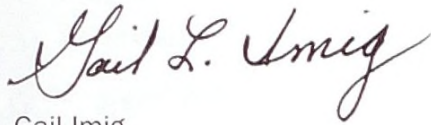Three typical examples of this excellent work include:

Clemson University-SC Alliance 2020 helped reconnect Clemson University to the community it serves through more than 60 planning grants that addressed community issues. Many of the projects funded involved community stakeholders in project planning, development, and implementation.

Ohio State University-Project Reinvent helped the College of Food, Agriculture, and Environmental Science undergo significant cultural and organizational change. One of this grantee's many major accomplishments involves the creation and adoption of a new ecological paradigm, called the "pyramid." The pyramid focuses on production as well as social, economic, and environmental impacts of the agricultural, food system, and green industries, and has been adopted by the Ohio Farm Bureau and the Ohio Plant Industry.

Pennsylvania State University-Keystone 21 supported an effort that lead to the seminal report, "UniSCOPE 2000: A Multidimensional Model of Scholarship for the 21st Century." The university's faculty senate overwhelmingly adopted the changes proposed in the report, which are directly related to the focus areas of

the FSPE Initiative. In addition, the UniSCOPE model was featured in the article "Beyond Boyer: The UniSCOPE Model of Scholarship for the 21st Century" published in the *Journal of Higher Education and Engagement*.

While these accomplishments are extremely significant in their own rights, the initiative accomplished even more. The following evaluation report discusses the overall impact of the initiative, while the appendices provide more information on the types of projects at the universities involved. It is my hope that this report will show that the impossible can be accomplished when great ideas are allowed to flourish.

Gail Imig
Program Director
W.K. Kellogg Foundation

Introduction

Although it is generally believed that the land-grant colleges established under the Morrill Act of 1862 fulfilled their 19th century missions, these and other universities came under sharp criticism in the late 20th century for being "out of touch" and not working for the interests of those they were supposed to be serving. At the same time, these universities started to experience significant declines in support in key activities, such as research, teaching programs, and outreach. Federal agencies also were cutting back on research spending, greatly increasing the need for institutional changes.

The W.K. Kellogg Foundation funded an eight-year, $30 million Food Systems Professions Education (FSPE) Initiative in 1994. The initiative started with the premise that the students preparing for the food systems of the 21st century needed to be different than those prepared for the last century. As the FSPE partners began their first year of work building their instituitional visions, the focus of the initiative began to widen to encompass the system of higher education, particularly among land-grant and state colleges and universities. Just as the 13 university partners grew into collaborations of dozens of organizations, so did the vision of FSPE grow to encompass the entire system of higher education.

Three key outcomes of the initiative revolve around:

Engagement — Individual projects made significant strides toward removing the barriers that limited opportunities for students, faculty, and community members. For instance, some universities formed joint degree or distance-learning partnerships, while others committed to extensive outreach to disadvantaged members of their communities.

Leveraged Support — Over the course of the initiative, universities and their partners leveraged W.K. Kellogg Foundation funding to gain more than $121 million in additional support — $86 million in cash and $35 million in in-kind contributions.

Sustainability — Toward the end of their support, many projects anticipated that important elements of their work would be sustained in areas such as transforming campus culture, changing faculty promotion and tenure rules, and developing partnership and collaboration opportunities.

Breaking New Ground

The initiative's story is far from over. Four of the 12 evaluated projects are still operating under grant extensions, and the data gleaned in the evaluation demonstrate that the Food Systems Professions Education Initiative continues to influence food systems professionals and American higher education in significant ways.

The W.K. Kellogg Foundation allowed each of the projects to carve out its direction and focus, as long as it kept within the broad intentions of the initiative. As a result, some projects focused on improving the impact of the disciplines and colleges closely related to food systems, while others worked toward changing the ways their university did business with its students, other universities, colleges, and others. Not every project accomplished all that it had hoped or planned, but most made significant progress.

Although some of the successes have been only partial, the initiative's impact on universities and their partners has led to long-term changes to some of the central premises and processes of many higher education institutions. Some partner universities were already building relevant infrastructure for similar efforts of their own, but this initiative helped them increase the depth or breadth of analysis of how they could and should better serve society. Even more interesting, however, is that partner universities undertook genuine change efforts, despite the fact that Foundation funding could not have been considered large in comparison to the overall budgets of many of those universities.

In seeking to understand the impact of the initiative, the evaluation team focused their research around several key questions.

How did the participating institutions change because of the initiative?

Each project pursued goals relevant to one or more of seven theme areas. Each theme and the changes that occurred are as follows:

1. Partnerships and Collaborations

Many project directors believed that changing the focus and operation of a major university was a difficult task, which could not be accomplished alone. Therefore, they sought out innovative partnerships that could help them achieve the initiative's goals. As a result, most project directors listed the creation of new partnerships and collaborations as the most outstanding accomplishment of their individual projects. Virtually every project formed significant new partnerships and collaborations, numbering in the hundreds across all projects.

Southern Food Systems Education Consortium, Tuskegee University

In Southern Food Systems Education Consortium (SOFSEC), participating institutions worked together to affect national legislation that encouraged funding of federal farm programs. These programs strengthened local minority farmers, agriculture businesses, and the SOFSEC institutions. The institutions attributed their success to the fact that they were *cooperating* instead of *competing*.

These new alliances have made the following possible for partner universities:

- Joint-degree programs
- New and/or improved courses for students across several institutions
- Research sharing and teaching resources
- High-tech approaches to instruction and information sharing
- Smooth transitions for students from institution to institution

New partnerships and collaborations were formed among higher education institutions and community organizations, government agencies, and/or businesses. At many partner campuses, these partnerships and collaborations became an integral part of the "way they do business" within their colleges of agriculture and other colleges within the universities. For instance, advisory and decisionmaking committees, such as faculty promotion and tenure committees, now have representatives from these groups to promote greater understanding of community and industry issues, and to encourage research by university faculty. In fact, community, business, and industry partners have served as directors or co-directors of outreach projects supported by the universities through faculty time, funds, and space.

> "This is the best interaction between the university and the state and community colleges that I've seen in over 25 years."
>
> — Nebraska Network 21, University of Nebraska, Lincoln

Working With K-12 Educators and Community Colleges

Linkages with K-12 and community college educators also have been a focus of partnering and collaboration in most of the projects.

Activities include:

- Career exploration projects
- Curriculum development
- 2+2 articulation programs
- Membership in leadership groups
- Other special projects designed to increase interest in agriculture among future generations of students

2. Engagement and Public Involvement

Increased openness of the administration and faculty to "outsiders" was a hallmark of many projects. As partner institutions worked with other organizations, one of the major issues regarding public involvement was how to identify and meet community needs; input from the participating communities was crucial in this process. The initiative's work in this area led to new openness among universities to their communities, which empowered community representatives with the ability to share their needs in new ways.

Visions for Change, University of Minnesota

Visions for Change's relationships with public schools and community organizations, through a mini-grant program, resulted in greenhouses and public gardens that make fresh foods available to the Sabathani Community Center, a Minnesota community center that provides emergency provisions and services to families in need. Volunteers at the center also learned gardening skills that they can implement in their own setting, allowing them to bring excess produce to the center for others to use.

> "Kellogg's investment made a huge difference. The college will be forever different and better because of this program."
>
> — Project Reinvent, Ohio State University

New Roles for Students

The involvement of students in training and service programs addressing community needs was facilitated by new campus organizations, redefined administrative responsibilities, and new course requirements. This aspect was so successful that several state governments recognized it and awarded additional funds to support faculty and student outreach activities. Furthermore, several projects also

University of Wisconsin

Due in some measure to the university's involvement with the initiative, the Morgridge Center for Public Service was established in permanent offices on campus. The Center promotes citizenship and learning through service within local, national, and global communities. The Center builds on the Wisconsin Idea, a strong tradition of service to the community by students, faculty, and alumni.
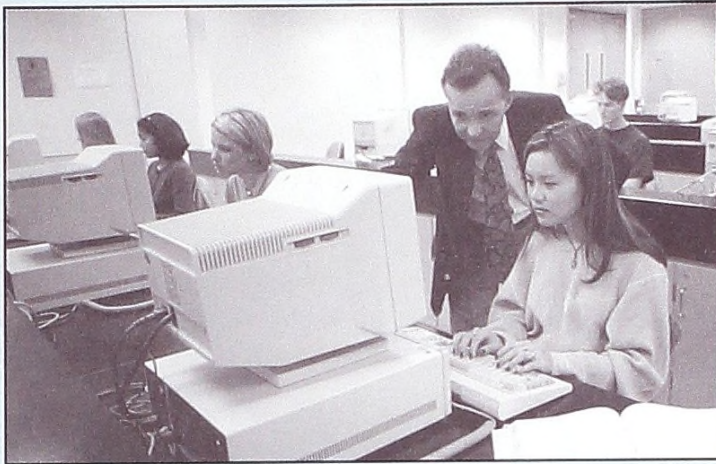
The Mid-Atlantic Consortium (MAC), Rutgers — The State University of New Jersey

Through the Internet, institutions involved in MAC made a joint animal science program available to students enrolled in all of the participating institutions. By using the Internet, living and travel expenses were minimized for students, while the institutions benefited from not needing to have all of the necessary experience in one location.

created the means to identify student internship opportunities in community and industry settings. At several of these institutions, graduating students were required to complete a community-based internship.

3. Changing Campus Culture

Another major change at partner institutions was an increasing culture of experimentation and risk-taking regarding public scholarship. Public scholarship is the professionally responsible application of faculty members' expertise to solve problems and to address issues and concerns defined by the people served by those faculty members' participating universities. Furthermore, the methodologies used and the solutions proposed must be conducted and reported in ways that are sensitive to the public's perspectives.

One of the factors supporting the concept of public scholarship was a renewed sense on the part of some faculty members that they were now "allowed/approved" by other faculty members and administrators to participate in such activities. Also, there was a blurring of departmental, college, and university lines,

> "Perhaps the most noticeable change in institutional culture is the willingness to become engaged with communities."
>
> — Alliance 2020, Clemson University

which encouraged adventurous faculty members from various disciplines to attempt new interdisciplinary courses and outreach activities. As more and more faculty members participate in this emerging culture, it should lead to more significant institutional change.

These new attitudes resulted in joint degree programs, shared course materials, individual study modules and resources, shared research equipment and facilities, and coordinated, noncompetitive proposals for funding agricultural programs and projects. In the highly competitive academic community, such cooperation represented a significant change.

InterACTION! Project, Oregon State University

In its very early stages, InterACTION! supported a national workshop on redefining faculty scholarship and rewards, which set the stage for other institutions to review and revise their promotion and tenure systems.

"There is more self-evaluation and greater openness in talking about who we are and what we want to be, especially in the area of scholarship."

— Project Reinvent, Ohio State University

4. Redefining Scholarship and Faculty Rewards

When institutions increased their outreach activities and encouraged their faculty to engage in public scholarship, it became clear that the existing promotion and tenure criteria and processes were a barrier to faculty acceptance of, and participation in, this broadened view of research. Some junior faculty members expressed the idea that they would do what was needed without concern for the promotion and tenure requirements; most, however, were anxious to see the criteria changed to reward such efforts. Many partner campuses, as well as others, held discussions about exactly what to reward and how to do it. A few partner institutions created committees to draft new promotion and tenure documents for campus-wide discussions. In the meantime, some colleges of agriculture adopted new criteria promoting and rewarding more outreach activities. Some faculty members have been promoted and/or tenured on the basis of these new criteria.

Nebraska Network 21 (NN21), University of Nebraska, Lincoln

A report prepared by an NN21 team sparked formal discussions about the faculty reward system at the University of Nebraska that continued for more than two years. The report also is being used by one of NN21's partners, and has been shared with outside land-grant colleges and universities and focuses on the Boyer model of teaching, discovery, and outreach.

Keystone 21, Pennsylvania State University

The Pennsylvania FSPE project, Keystone 21, has coordinated a learning community consisting of faculty members at various levels and disciplines to examine the issue of defining and evaluating university scholarship. In June 2000, the learning community published a suggested model of university scholarship for the 21st century, and already it is generating significant discussion campus-wide.
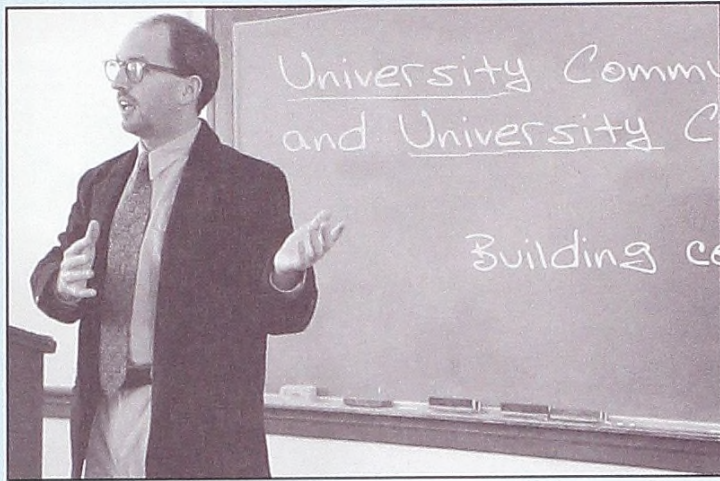
2020 Vision, Texas A&M University

Two institutions that once considered themselves rivals — Texas A&M University and Texas Tech University — now offer a joint degree doctorate program in agriculture. When students in this program earn their doctorate degrees, the diplomas have the seals from both schools.

As more sharing took place across departments, colleges, and institutions, means had to be developed for recognizing and protecting intellectual property rights and rewarding such efforts. One project developed a document spelling out these issues as well as a process and set of criteria to protect faculty members' rights. This has paved the way for more of these types of efforts to occur.

5. Institutional Change

The progress made by partner institutions in becoming more engaged with their constituencies, promoting more outreach activities, and encouraging more joint efforts created a sense among participating faculty that things really changed, although this attitude was not universal among all faculty. In fact, joint degree programs, shared academic resources and programs, and courses originally created as part of these projects are now part of the institutions' ongoing work and are supported by the continuing resources of the sponsoring institutions.

> "NN21 has helped people throughout Nebraska see that change is needed in education at all levels."
>
> —Nebraska Network 21

Keystone 21, Pennsylvania State University

A new course was developed by an agronomist and a political scientist to improve understanding of agroecosystem science, technologies, and policies as ways to manage resources for food production systems. This course is one of only 10 College of Agricultural Sciences General Education courses, and is the first course offered through the College of Liberal Arts that has attained General Education status in the natural sciences.

Incorporating Non-University Personnel

Another significant change at many partner institutions was the involvement of non-university personnel on advisory and decisionmaking committees. This has occurred primarily at the college level, and mostly in colleges of agriculture. The ongoing participation of these community representatives was a significant factor in increasing the understanding of community issues and encouraging outreach activities.

More Opportunities for Students

Because of the initiative, changes also have occurred in student residency requirements, making it possible for students to receive part of their education from other institutions.

Redefined Roles and Expectations

Furthermore, the promotion of outreach activities by faculty and students has been greatly facilitated on some campuses by the creation of new administrative roles, the appointment of new officers, the changing of job descriptions, and the clarification of expectations for faculty, administrators, and students. This has occurred mostly on those campuses that focused on this theme area as one of their desired outcomes.

The initiative's influence and impact also were expanded through increased participation of non-university personnel. To encourage this participation, stakeholders often were:

- Invited to serve on various committees

- Encouraged to attend meetings

- Sent communication media (such as newsletters, Web pages, listservs) containing information about project activities

In addition to these strategies, most projects required the inclusion of partners from outside the university during the mini-grant phase. These efforts succeeded in involving more diverse participants, resulting in expanded

> "As a result of SOFSEC, I cultivated relationships with principals and counselors and improved perceptions of the FFA program and Southern University."
>
> — SOFSEC, Tuskegee University

6. Expanding Influence and Impact

Because the spirit of cooperation characterizing these projects spawned cooperative efforts by participating institutions, government agencies have responded by allocating more funding to agriculture education. At the campuses where institutional change was a goal, the changes occurring in colleges of agriculture sometimes were used as a model to encourage similar changes in others. Also, it is notable that when changes occurred at one institution, other institutions were empowered to try something similar.

influence and impact among a variety of audiences, including government, K-12 educators, nonprofits, and businesses.

Moreover, the work of the Kellogg Commission on the Future of State and Land-Grant Universities also led to discussions on other campuses. It appears that the initiative's integral concepts gained currency in other settings, enriching other institutions' conceptions of their missions. Also, because of the migration of academic faculty and administrators among universities, several supporters have spread the word about the initiative outside of the partnering campuses.
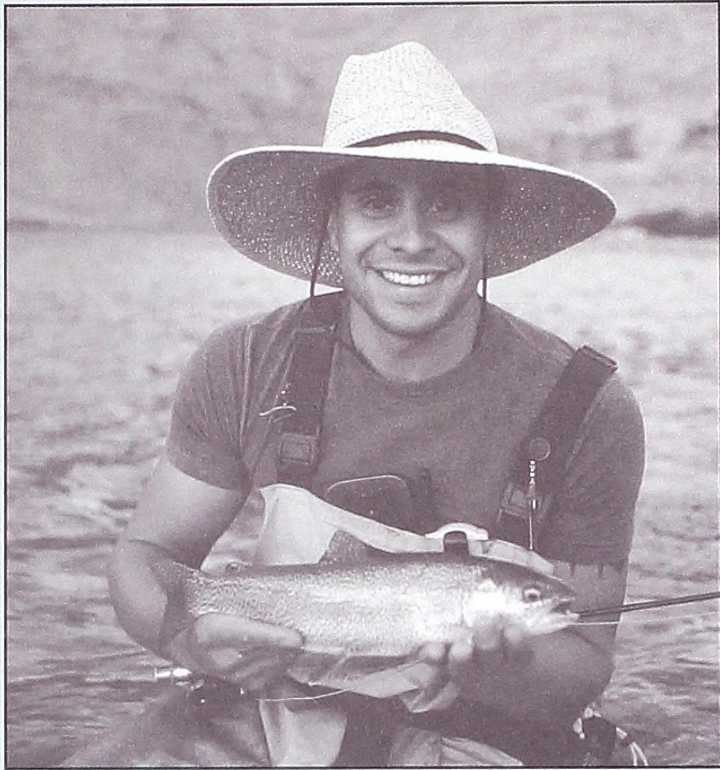
Partnership 2020, Washington State University

When Native Americans in the Northwest sought new sources of agricultural income, they asked Partnership 2020 to help them find ways to raise salmon and sturgeon — products that are a traditional part of their culture and have commercial value. This collaboration opened up a rich research field for the university and its partners, while directly benefiting one segment of the university's community.

Vision 2020, Iowa State University

Vision 2020 helped the small community of Storm Lake, Iowa, implement innovative programs to address diversity issues in this changing agricultural community of 10,000. Initiatives included a swine technician project, experiential school learning, poverty simulation, community gardens, and a parent link project.

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* One reason for this was because some projects had fewer females and ethnic minorities involved in food-systems-related endeavors in their regions than did others.

Finally, the discussion of changing campus culture is relevant here. For example, one project created and secured funding for a public policy institute that invites issues from the public and encourages university-based personnel to provide the expertise to address these issues. The Food Policy Institute at Rutgers is a unique partnership created to address policy issues and challenges facing the food industry and consumers in the mid-Atlantic region. Their mission is to build bridges between researchers and day-to-day decision makers, and raise awareness of the importance of food-related policy research.

7. Diversity and Changing Demographic

In the visioning phase of the initiative, a concerted effort was made to achieve participant diversity. Each project had its own definition of diversity that incorporated different criteria, ranging from ethnic and economic at one project to ethnic, gender, economic, age, professional affiliation, geographic region, philosophical orientation, and educational level at another. Using traditional definitions of diversity that deal primarily with ethnicity and gender as a yardstick, project success rates varied widely, with some involving far more males and non-Hispanic whites than might have been desired*, while others were very successful in involving ethnic minorities and females. Overall, however, project directors were not satisfied with the level of diversity they achieved, desiring even greater inclusiveness, although they, as well as other project participants, tended to indicate that the level of diversity in their projects increased over time.

Sustaining Participant Involvement

As time passed, it was common for some groups and organizations to drop out. The reasons for this varied. In some cases, it was because of a lack of time or interest. In others, it was because of a lack of

inclusiveness in project activities. Finally, in a few instances, it was because minority participants felt that their involvement was not genuinely welcomed. As projects continued into their later years, renewed efforts were made to re-engage most of those individuals, groups, or organizations. Most of these efforts were successful because much had been learned by project personnel about how to approach different groups (especially ethnic groups), how to involve them constructively in projects, what it took to develop trusting relationships, and

NN21, University of Nebraska, Lincoln

NN21 developed curricula used by the Native American Leadership Demonstration Project as a Native American leadership development model. The curricula were based on the "Family Community Leadership" curriculum, an earlier Kellogg Foundation-funded program. Adapting it to the needs of the Native American community was essential to the project's success.

"A migrant coalition has been developed, bringing together a wide range of migrant service organizations to work on collaborative projects and reduce redundancy in programming. This led to the creation of a new center for migrant studies on campus."

— Wisconsin Food System Partnership, University of Wisconsin, Madison

how to accommodate different expectations of timelines, processes, and goals. In addition, some of the projects that used mini-grants included diversity as a criterion for receiving mini-grants — at least one project required new mini-grant recipients to attend an orientation session where diversity was emphasized. Where one or more ethnic groups had not been constructively involved earlier in the project, project directors usually targeted that group for special invitations and opportunities. Thus the mix of ethnic groups and types of partners became richer as time passed.

Keystone 21, Pennsylvania State University

Keystone 21 worked to bring its neighborhood and citywide contacts together to develop ways to lay a foundation for food systems education. Through these collaborations, Keystone 21 eventually found a way to unite the resolve of parents, teachers, neighborhood groups, congregations, and regional universities to attack barriers to better academic success in the Chester Upland School District.

Underrepresented Populations

At several partner institutions, special efforts were made to recruit and better serve students from very underrepresented groups. These efforts included providing special educational opportunities to high school students that prepared them for success on the flagship land-grant campus.

What was learned about change through the work of the initiative and its partners?

One general learning experience related to all outcomes and impacts of the initiative was that the change was multifaced and multifaceted. The following factors contributed to achieving success:

The need for change should be identified and shared by critical leaders.

When critical leaders did not believe that change was needed for the institution's growth and health, efforts to promote change were likely to be seen as having no "real" purpose. Two related factors heavily underscored the initiative's arguments for change. One was serious shrinkage in financial resources for universities and colleges. The other was unfavorable media coverage reporting that the public was skeptical that the universities were benefiting their constituencies.

Change needs an impetus and a clear vision.

As more participants came to a common notion of what changed institutions should be, change was more likely to occur. The Kellogg Commission on the Future of State and Land-Grant Universities helped establish a shared vision for several partner institutions. The earlier visioning process each project completed also helped set local visions in place to provide direction for their efforts.

Effective leaders are necessary.

Leaders perceived by other participants as having the ability to influence change and willingness to share their power were better able to persuade others that their efforts would be fruitful. Aligned leadership at all levels was critical. Effective leaders also made it clear that input from all participants was valued. Without leaders who had these characteristics, participation waned and overall efforts lacked adequate support. On the other hand, leaders viewed as controlling and insistent on changes that would lead to their predetermined goals were least effective.

Other factors also contributed to effective leadership.

For instance, it was important for leaders to involve all parties in all phases of the change process. This included relevant government agencies, community organizations, businesses, and the full array of university personnel (including students). At the project level, project directors who were internal to their universities, knew the "ropes," and had access to top leadership were essential to facilitating meaningful change.

Existing structures, criteria, and standards need to be reviewed and changed when necessary.

Participants frequently cited existing bureaucracies and their rules, regulations, criteria, and standards as barriers to change. The change process required experimentation and interactive learning, which in turn meant that judgment needed to be suspended or at least be based on a more flexible set of criteria. For instance, trying something should have been viewed as a "success," regardless of whether or not it was instituted.

Faculty involvement is crucial to any effort to achieve change in higher education institutions.

Change that did not positively affect faculty, or did not involve them widely, was perceived not to represent "true" institutional change. Faculty were more likely to get involved when university reward structures and criteria were clearly supportive. Faculty involvement also was more likely when administration — at all levels — was supportive of the changes and willing to stand up for faculty interests.

The structure of the university should be modified to support changes as they occur.

When people with major roles in implementing changes were marginalized, changes were not as likely to survive. Therefore, one measure of the reality and depth of change was to analyze the structural changes that occurred to support and extend the universities' new means and/or goals.

Resources at universities should be aligned to support desired changes.

When old budget allocations were unmodified, it was unlikely that lasting changes would occur. Along with the budget changes, it was important to revise faculty reward systems in ways that reinforced the new behaviors needed for change to succeed. Expecting faculty to modify their behaviors without rewards or resources would have been perceived as punitive and naive.

Adopting or adapting a theory of change facilitates the effort.

A theory of change helped all participants understand what was going to happen and served as a "roadmap" for assessing where they were in the process. Such a conceptual framework facilitated broader and more informed participation. The theory, however, needed to be applied flexibly to allow for modification and improvement.

Changes should be incorporated rather than "added on."

Change efforts judged to be successful and meritorious needed to become an integral part of the way partner institutions conducted their business and not be left on the periphery. Changes that were "added on," rather than incorporated, were easily "lost" in the press of those that were considered central and fully supported.

# What were the major impacts of the initiative?

The three major impacts were:

Engagement

Across most of the institutions, the commitment to remaining engaged with their constituents in defining and conducting work of the institutions became stronger because of the initiative. Many participants reported that this engagement was one of the most significant outcomes of their efforts and those partnerships and collaborations of the initiative were likely to continue.

Stakeholder Engagement

Another major outcome of most projects was increased and enhanced relationships with stakeholders. Over the years, the attitudes of university personnel and outside stakeholders became increasingly positive, and both sides have demonstrated renewed willingness to work together.
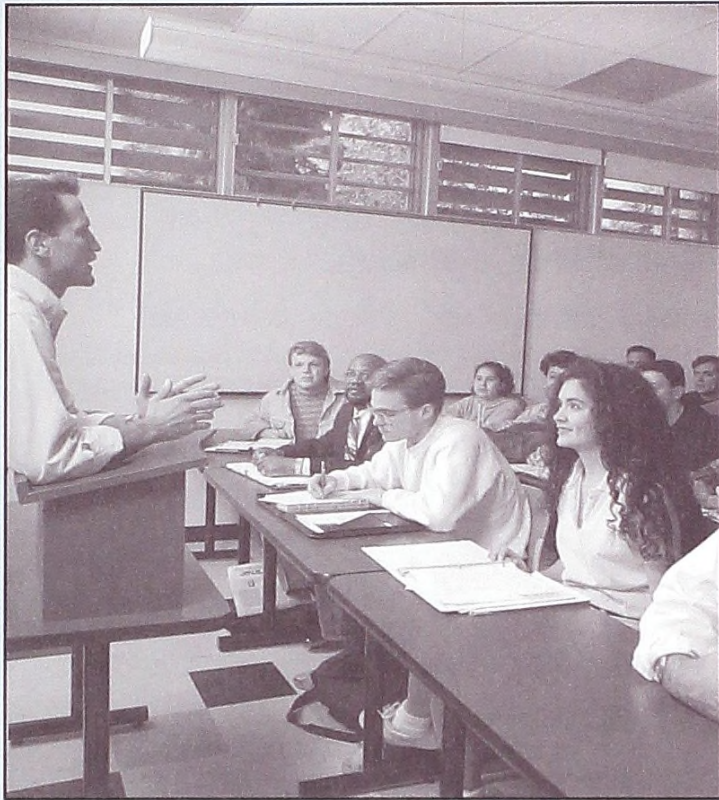
Project Reinvent, Ohio State University

Project Reinvent fostered a college-wide culture of experimentation that yielded three departmental funding experiments involving the blending of resources (human and financial) from the three distinct sources. By combining resources, micromanagement and bureaucracy were alleviated. Also, instead of the funding source, a department's strategic plan became the guiding force behind resource allocation and impact measurement. Overall, these experiments drastically lowered the walls between extension, teaching, and research.

Faculty Experimentation, Collaboration, and Student-Centered Learning

At many of the institutions, there also have been significant cultural changes in terms of focus and taking risks. The initiative led to a new "culture of experimentation," which encouraged faculty and staff to try new ideas and activities without negative repercussions, and if things "failed," to try again. Another cultural change was a shift toward student-centered learning. To do this, many partner institutions changed their faculty reward processes. In turn, this led to more engagement among faculty and students. An increase in faculty collaboration was seen in many projects.

Sustainability

Funding

As the Foundation's funding neared its end, the emphasis for projects moved toward sustainability. All the projects anticipated that important elements of their projects would be sustained following the end of the Foundation's support.

Campus Culture

Changes in campus culture that were achieved will endure if the change was deep enough to become the "way they did business." Desired changes must continue to be nurtured, however, if they are to continue.

Promotion and Tenure

The projects believed that faculty rewards would continue to receive increased attention and this would lead to more importance being placed on engagement and outreach. At some of the universities, the "real" conversations had just started, and sharing success stories will be helpful in sustaining the momentum.

Partnerships and Collaboration

Many of the partnerships and collaboration will continue because the structures and relationships for the continuation and development of new collaborative activities were well established at all of the project institutions. External stakeholders and project participants found the doors of the universities more open, reinforcing a belief that working with universities would lead to meaningful conversations and interactions.

Similarly, the relationships with policymakers and political groups also are expected to continue. The projects and activities have led to increased trust by legislators, government agencies, and community groups, and this is likely to influence their decisions to support future activities.

Leveraged Support

The projects leveraged a significant amount of Foundation support throughout the initiative. From an initial Foundation investment of $30 million, the projects that provided data reported leveraging more than $121 million in additional support.

The $121 million, however, is most likely an underestimate because many projects have continued to receive funds following their final reporting of this information. For example, one project reported that since the project's end a year ago, the institution has received more than $1 million from outside sources to support initiative-related activities.

The probability that the projects will continue to leverage funds appears to be high. For example, two of the consortium projects committed to working together in an effort to find additional support.

SC Alliance 2020, Clemson University

SC Alliance 2020 developed articulation models that give students access to any of the other partnering colleges and universities through the student's home school — at the home school's tuition rate. The relationships and opportunities that resulted from this have become new models for institutional cooperation to benefit students.

Conclusion

In 1994, the W.K. Kellogg Foundation embarked on a course to impact university-based food systems education and foster institutional change at land-grant universities. The Food Systems Professions Education (FSPE) Initiative became a partnership with 13 land-grant universities and a host of K-12 school systems, community colleges, other public and private colleges and universities as well as community organizations. Its goal at the start was to promote significant, positive institutional change to enable food systems professionals to respond to the issues they will face in the 21st century. By its conclusion, change was occuring through the higher education system.

As part of the FSPE body of work, the Kellogg Commission on the Future of State and Land-Grant Universities was created in 1996 by the National Association of State Universities and Land-Grant Colleges (NASULGC) to help define the direction public universities should go in the future and to recommend an action agenda to speed up the process of change. The commission of university presidents, provosts, and deans, funded by a Foundation grant of $1.2 million, was charged not only with defining and bringing to public attention the kinds of changes occurring at public universities today, but also with analyzing necessary reforms and suggesting ways to accomplish them and monitor the results. A series of reports document the Commission's findings and can be found at *www.nasulgc.org/Kellogg/kellogg.htm*.

The efforts of the initiative also should be put into the context of its significant and ambitious goals (e.g., creating systemic changes in America's higher education institutions and systems). Grantee universities, in partnership with the Foundation and others, undertook what even the most visionary leaders of higher education would see as a daunting task. Despite the challenges, each grantee has shown that their work was enthusiastically undertaken and has resulted in impressive progress.

The progress of FSPE can be measured as the first few steps along a journey to a more engaged university. While much was accomplished, much remains to be done to realize the vision.
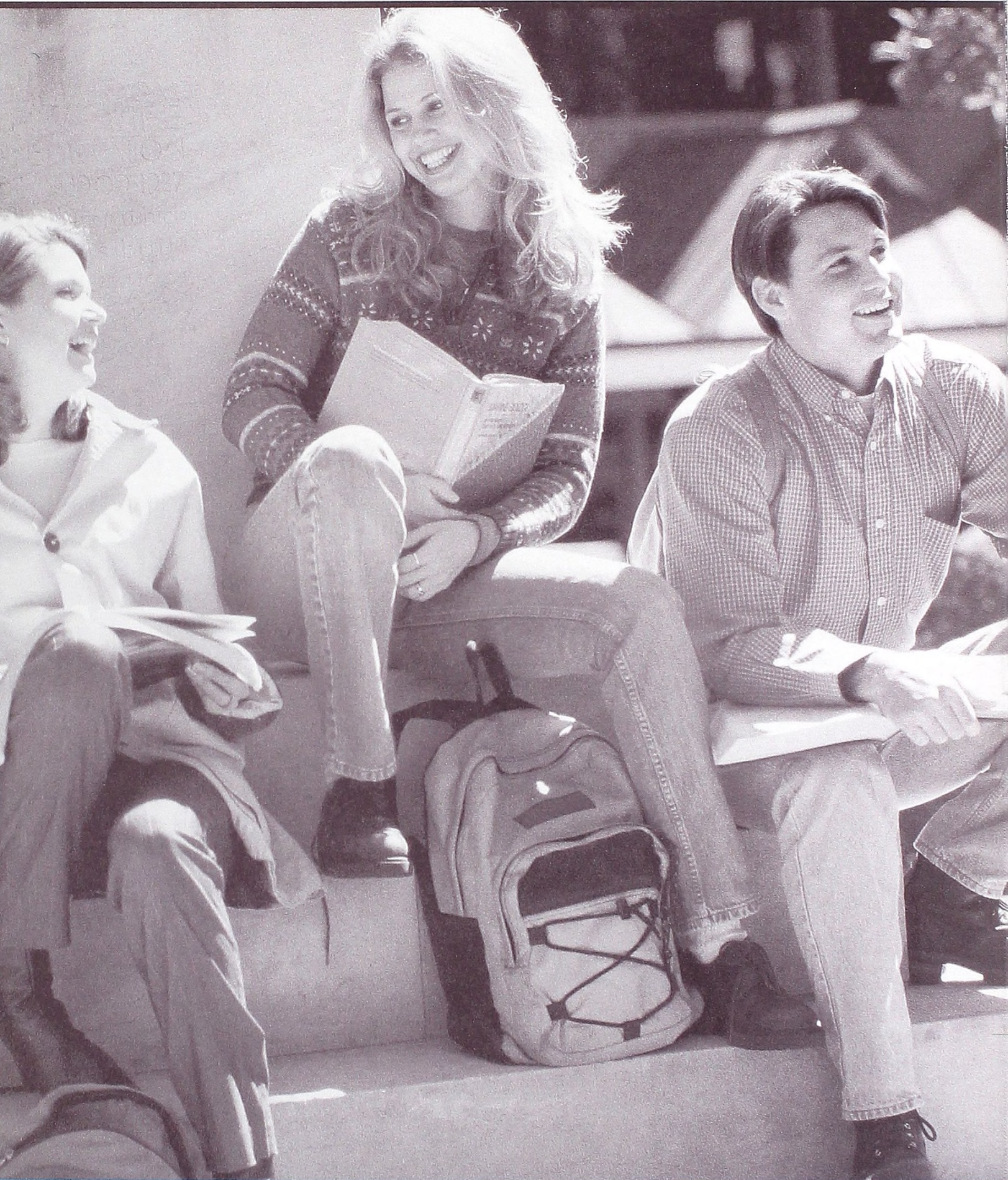
Appendix: Universities Participating in the Food Systems Professions Education Initiative

Clemson University

SC Alliance 2020 funded more than 60 mini-grant projects and several planning grants that addressed a variety of community issues. For many of these projects, local communities and "external clientele" actively participated in the development and implementation of each project. For instance, SC Alliance 2020 helped close the digital divide in rural South Carolina through a partnership between higher education and the community that made hardware, software, and training available. Projects ranged from setting up computer learning centers in rural communities to strengthening articulation models between South Carolina's community colleges and universities. Another example of this community involvement is an innovative diabetes screening, awareness, and treatment program. This program brought medical and counseling services to uninsured individuals who would have not been able to receive services otherwise.

Other examples of SC Alliance 2020 programs include: the Diversity Training Coalition; "Truancy Interns: An Integrative Approach to Truancy Reduction in Pickens County, South Carolina"; special seminars on existing and emerging technologies, particularly those related to computers, the Internet, and education; the 2002 Clemson University Public Service Summit; working with K-12 education systems to assist with revising South Carolina's State Technology Plan for Education; participating in the South Carolina Institute for Service-Learning and Ethics; a conference that provided a forum for how to meet the needs of the state's Hispanic/Latino population; "Bridging Communities: Lifelong Learning Opportunities Through Distributed Training"; and a program that increased ethical awareness among high school student government representatives.

Iowa State University

Vision 2020 helped redefine the college campus by breaking through traditional geographical boundaries and fostering a high degree of collaboration among high schools, colleges, and universities. Some of Vision 2020's many accomplishments include: new levels of collaboration among community colleges and Iowa State University (ISU) that have led to new degree programs and distance-learning initiatives; a new student-organized and -developed organic farm; the establishment of more than 200 articulation agreements

between community colleges and ISU; the creation of an introductory course on renewable resources; a new undergraduate class, "Living Well in Place: Education, Ethics, and Ecology in Rural Iowa"; a new Dairy Foundation, which raised more than $2 million in the fall of 2000; an interactive curriculum for use through the state; an academic-business partnership exchange program; the CyTech Challenge, which has received support from more than 21 corporations including Cargill, General Mills, Hallmark, Kimberly Clark, and Proctor & Gamble; the Youth Entrepreneurship Camp, which helped eighth and ninth grade students create their own business; a speakers bureau; an organic mentoring program; a traveling exhibit of outstanding women nutritionists; the creation of more than 40 urban gardens in schools, churches, correctional facilities, neighborhoods, and retirement homes; the establishment of the Iowa College Media Association; and a Pizz-a-thon teaching middle-school youth about agriculture.

Ohio State University

Project Reinvent helped the Ohio State University (OSU) College of Food, Agriculture, and Environmental Science undergo significant cultural change. OSU programs now emphasize environmental compatibility and social responsibility, as well as more traditional topics, such as production efficiency and economic viability. Specific accomplishments include the creation and adoption of a new "ecological" paradigm that focuses on production as well as the social, economic, and environmental impacts of the agricultural, food system, and green industries. This paradigm, called the "pyramid," has been adopted by the Ohio Farm Bureau and the Ohio Plant Industry. Project Reinvent also helped Ohio State University adopt leading-edge policies and practices that encourage a culture of experimentation.

Examples of this work involve providing modest funding for professional development in a new area of professional interest, a structure for the peer review of work, student-centered learning, and an increased emphasis on teaching effectiveness. Other results of Project Reinvent's work include the creation of the President's Advisory Council, a 35-member council comprised of 23 external partners, and 12 college faculty, staff, and students; the creation of a 25-member advisory council made up of representatives from the university's academic support units; the OSU Dairy Restructuring Team; the Columbus Operations Advisory Committee; the Master Facilities Planning Group; and substantial curriculum reform for the Bachelor of Science in Agriculture program.

Oregon State University

InterACTION! Project was a university-wide project aimed at building capacity for organizational change in units, departments, and colleges across campus and in Oregon's communities. InterACTION! actively involved student leaders as well as faculty, staff, and the greater community to stimulate conversation around critical issues. Over the course of the project, InterACTION! created and implemented new, more efficient, and responsive university decisionmaking models; offered workshops to the university and greater community on communications skills, including follow-up sessions; provided intensive training in meeting design and facilitation skills; offered training on coaching skills; convened critical issue groups and teams that addressed leadership issues critical to the university; increased university collaboration on and awareness of campus projects; and strengthened communication networks with community colleges, K-12 education, local and state governments, nongovernmental organizations, and the private sector. Within the university, groups impacted by this work ranged from the president's cabinet and the dean's council to the housing and dining services leadership team and student health services staff.

One example of InterACTION!'s work is the "Conversational Skills for Convening People and Influencing Decisions" workshops. Thousands were taught effective strategies on how to improve their ability to listen, engage in conversations with others, and follow through on commitments. This project won the Champion Beaver Award, which is bestowed on an Oregon State University individual or group that has made a significant contribution to the well-being and future of the university.

Pennsylvania State University

Keystone 21 supported the Unified Scholarship Concept for Overall Professional Evaluation (UniSCOPE), which grew out of the need to reward outreach activities in promotion and tenure consideration. This program produced the seminal report, "UniSCOPE 2000: A Multidimensional Model of Scholarship for the 21st Century." This report examined the full range of scholarship in the context of the Pennsylvania State University promotion and tenure system. The university's faculty senate overwhelmingly adopted the changes proposed in the report. These changes are directly related to the focus areas of the FSPE Initiative. In addition, the UniSCOPE model was featured in the article "Beyond Boyer: the UniSCOPE Model of Scholarship for the 21st Century" published in the *Journal of Higher Education and Engagement*. (Appeared in the Fall 2001/Winter 2002 issue; visit *www.uga.edu/jheoe/abs7_1&2.htm#drew* to view the abstract.)

In addition to UniSCOPE, Keystone 21 helped create a year-round community garden project that involved children in the juvenile justice system who were on probation or assigned to community service. Through the program, these youths were taught about agriculture, while also learning the value of setting goals and being responsible. Also, Keystone 21 created a traveling workshop that educated elementary school children about meat safety issues. Through the character "Patty Melt" and interactive activities, more than 50,000 children in 175 school districts were taught the four Cs — cool it, clean it, cook it, and don't cross it. Examples of other Keystone 21 projects include a "Food System Education for Youth" CD-ROM; and the creation of the Chester Community Advisory Team, which implemented the first steps toward Keystone 21's long-term goal of creating a Food Systems Community Center.

Rutgers — The State University of New Jersey

The Mid-Atlantic Consortium (MAC) worked to improve quality of life through a safer and cleaner environment; sustainable ecosystems and a renewed sense of stewardship for land and the environment; increased food quality; decreased chronic disease; less hunger; and increased opportunities for economic competitiveness among the region's food producers and businesses. MAC's leadership included educators and researchers at land-grant universities, private colleges and universities, and community colleges. One of MAC's programs, Pathways to a Better Trained Workforce, united more than 250 stakeholders to address employment challenges in the food industry, teach appreciation of food service professions, and offer academic aid and work site experience to high school students exploring food-related careers. Outside of Rutgers, MAC partners included Cornell University; Delaware State University; University of Delaware; University of Maryland, College Park; University of Maryland, Eastern Shore; Cumberland County College; Sussex County Community College; Mercer County Community College; and Delaware Valley State College.

Texas A&M University

2020 Vision made major strides toward the goals of the Food Systems Professions Education Initiative, including increasing the value of teaching in the faculty rewards structure; new university and community college collaborations in the horticulture program; integrating Houston Community College students into the Texas Tech horticulture program (students can take horticulture courses at Houston Community College and receive Texas Tech credits); statewide internship programs with a Web site; career days; initiatives to encourage students to attend graduate school and to specialize in agricultural fields; the creation of new partnerships, such as one with the Farm Bureau; and the creation of the Doc@Distance, a distance-learning project.

An example of 2020 Vision's work involves its Building Borders Partnerships. Through this program, 2020 Vision increased enthusiasm for agriculture in border towns through a coalition of partners from two U.S. states and Mexico. It introduced children along the U.S.-Mexico border to the surrounding agricultural industry and agricultural careers. At the same time, students at the university started taking active roles in shaping their curricula by working with professors to devise new ways that courses could be better taught. This effort even moved beyond the university walls to include innovative new partnerships with businesses that have led to internship opportunities in the fields of agricultural science and business.

Tuskegee University

The Southern Food Systems Education Consortium (SOFSEC) helped make significant progress toward all of the FSPE goals. Some of its accomplishments include: increasing communications and joint projects within participating universities and others across region; a U.S. Department of Agriculture (USDA)/Initiative for Future Agriculture and Food Systems Small Farm Marketing Project focusing on marketing fruits and goat meat across a nine-state area; the

Zell Miller Study for a Black Belt Commission, which found that minority groups preferred a different commission model than the ones used in the Appalachian Regional Commission or the Delta Regional Commission; working with legislators and community-based groups to ensure funding and adequate community representation for this new commission; the partnering of research and extension groups on campuses with commodity groups and African-American legislative caucuses to help locate matching funds for 1890 land-grant universities; new faculty rewards for research at A&M University; and the creation of the Alabama Agricultural Land Grant Alliance.

Some examples of SOFSEC's work include a microgrants program for elementary and high school students, which made awards of up to $2,000. Another is a nutritional awareness program developed for elementary school students and a Web site selling school supplies that was developed by middle school students. Also, SOFSEC helped minority family farmers learn how to better market their goods, set up farmers markets, and grow crops organically. Finally, SOFSEC worked with USDA and partnering SOFSEC universities to develop continuing education workshops for farmers.

University of Minnesota

Visions for Change offered national leadership on methodological and theoretical frameworks for engaged scholarship resulting in a book supported by the Kettering Foundation. It supported more than 30 different projects focused on partnerships and collaboration including urban-rural collaborations, university-K-12 partnerships, community-university partnerships, arts-humanities-sciences collaborations, indigenous and Western science interface, and joint work among conventional and sustainable farmers. Examples of Vision for Change's work include numerous afterschool and summer programs; American Indian/Native American summer camps; migrant youth partnerships; nutrition education efforts on Native American reservations; 22 separate initiatives that involved representation

and influence from historically excluded ethnic minorities; programs that encouraged greater participation of women in the food system; fundamental shifts in the scholarly practice of food systems faculty; inclusion and integration of alternative food systems programs/activities in the "fabric" of land-grant institutions; development and training; and substantially revised food systems curricula.

An instance of Visions for Change in action involved students from land-grant universities in North Dakota, South Dakota, and Minnesota who participated in four three-day experiences that explored the differences among urban, rural, and global food systems. Students visited farms, Indian reservations, inner-city community centers, alternative healthcare clinics, and the Grain Exchange, as well as Costa Rica or Mexico. Through an innovative, experiential curriculum, Visions for Change helped students develop leadership skills, critical thinking strategies, and the ability to understand and relate to other cultures. The curriculum also helped students explore the social and cultural aspects of communities and the food system.

University of Nebraska, Lincoln

Nebraska Network 21 supported a wide range of programs and projects covering the theme areas of the Food Systems Professions Education Initiative. Examples of programs and activities supported by or resulting from Nebraska Network 21 include: numerous white papers and reports; various surveys for improving reward systems and other needed changes; mini-grant projects, such as the Mead Agricultural Sciences Magnet School (see below); an agreement between community colleges and the University of Nebraska that allows a more effective transfer of academic credits; a new joint undergraduate degree in food service and restaurant management; the Native American Leadership Project; many conferences, seminars, workshops, and task forces related to FSPE

focus areas; youth development programs; lesson plans for educators; a community-based Web publishing project; the Part-Time/Beginning Farmers booklet; World Food Day events; promotion of three women of color to the University of Nebraska President's Advisory Council; the Part-Time Farmers Demonstration project; the Food Systems in 2020 Action Team; and the University Neighborhood Demonstration Project.

One example of Nebraska Network 21's work includes efforts to prepare students in rural Nebraska for careers in modern agriculture. Nebraska Network 21 did this by working with the nation's first rural agricultural sciences magnet school. Nebraska Network 21 enhanced curricula, provided high school students access to the University of Nebraska's 9,500-acre agricultural research center, and used distance learning to extend its reach to other schools in the area. Nebraska Network 21 also helped seventh grade students in Taylor, Nebraska, develop a town Web site showcasing their rural community. In addition to valuable computer skills, students gained real-world business experience by selling advertising space on the site to local companies and by securing a small business loan to purchase computer equipment.

University of Wisconsin, Madison

The Wisconsin Food Systems Partnership supported several major programs that accomplished goals under the nine FSPE focus areas. Major programs included:

- The College of Agricultural and Life Sciences Agroecology Program. Among its many accomplishments, this program created cross-college and cross-disciplinary research, teaching, and outreach efforts among faculty and students.

- The Science Education and Employment Development/Adult Role Models in Science Program. This program provided professional development for teachers; long-term partnerships with scientists; assistance with school gardens, field trips, and science materials; and regular volunteers in science classrooms.

- The Madison Food System Project. This project awarded a substantial grant around community involvement, urban development, and the Troy Gardens.

- The Community Scholars Program. This addressed community concerns and allowed young scholars to act as liaisons between the community, businesses, and the government. Specific activities included the Hispano Club, a weekly program run by University of Wisconsin undergraduates that taught Hispanic children about their heritage, and a community gardening program that monitored and maintained community green space.

- The Wisconsin Idea Endowment. This endowment supported faculty, staff, and students in activities that connected them with the broader community and with stakeholders who have had little contact with the university.

Washington State University

Partnership 2020 directly or indirectly initiated change in all of the Food System Professions Education Initiative nine theme areas. One of Partnership 2020's more profound programs was Cultivating Success: A Community-Based Sustainable Small Acre Farming and Ranching Educational Program. It offered a unique combination of experimental learning and community-based education, and included students in academic credit and non-credit programs. Another unique aspect of this program was the leadership and involvement of nonprofit organizations in the development and implementation, including the key roles that farmers and ranchers played in student mentoring.

Partnership 2020 also was actively involved in the Latino/Hispanic communities. For instance, the program created partnerships among these groups focused around food systems. To do this, Partnership 2020 conducted interviews with 135 key individuals at partner institutions, Hispanic/Latino community-based organizations, and those living in the community. Walla Walla Community College also worked with industries, agencies, and career services to explore career opportunities for Latino/Hispanic populations. This information served as the basis for internship programs, certificate programs, and 2+2 programs between community colleges and four-year institutions.

In addition to these efforts, Partnership 2020 also has supported: the use of an institutional food service provider that purchased food from a local organic farm; helped an elementary school teach, nurture, and manage a small garden; the creation of a "small growers manual" for those interested in selling to local institutions; "Cooking for Fun" classes; a new course on sustainable food systems that fulfills a mandatory undergraduate science requirement; an effort focused on identifying impediments to post-secondary agriculture education and agriculture careers for Latinos/Hispanics; and the development of a culturally acceptable and

sustainable Native American food system. Moreover, Partnership 2020 helped the rural town of Crewport, Washington, rediscover its past as a town that helped build Washington's economy in the early 1940s.

University of California, Davis (not evaluated in this report)

Although California Food and Fiber Futures was funded relatively recently, the program is making great strides toward achieving the initiative's goals. Already, it has joined forces with leaders in the migrant worker community, California state government, nonprofit housing organizations, and faculty from the University of California, Davis, to design and build affordable housing for migrant workers. Some of the other activities underway or on the horizon include: an agriculture employee development program; a plan to develop place-based marketing for small farms; various studies and reports; learning activities for college and university farm visitors; Hispanic/ Latino outreach; numerous activities to support "agricultural literacy"; activities to help community members reduce the incidence of childhood obesity; a program to increase fruit and vegetable consumption by food stamp participants; the establishment of a culturally diverse nutritional program that demonstrates the connections among agriculture, food preparation, eating, and a healthy lifestyle; and a project that taps existing partnerships with the faith community to improve the health of community members.

About the W.K. Kellogg Foundation

The W.K. Kellogg Foundation was established in 1930 "to help people help themselves through the practical application of knowledge and resources to improve their quality of life and that of future generations." Its programming activities center around the common vision of a world in which each person has a sense of worth; accepts responsibility for self, family, community, and societal well-being; and has the capacity to be productive and to help create nurturing families, responsive institutions, and healthy communities.

To achieve the greatest impact, the Foundation targets its grants toward specific areas. These include: health, food systems and rural development, youth and education, and philanthropy and volunteerism. Within these areas, attention is given to the cross-cutting themes of leadership; information and communication technology; capitalizing on diversity; and social and economic community development. Grants are concentrated in the United States, Latin America and the Caribbean, and the southern African countries of Botswana, Lesotho, Mozambique, South Africa, Swaziland, and Zimbabwe.

For further information, please visit the Foundation's Web site at *www.wkkf.org*. The site offers: in-depth information about the Foundation's programming interests; information on the Foundation's grant application process; a database of current grant recipients; and, access to numerous publications that report on Foundation-funded projects.

About the Western Institute for Research and Evaluation

Founded in 1978, the Western Institute for Research and Evaluation (WIRE) offers evaluation and evaluation-related services to government agencies, nonprofit organizations, for-profit companies, and educational institutions. Some of the services offered include whole-scale evaluations; survey research, including Internet surveys; certification program development; technical support; intervention studies; scientific research designs; workshops and seminars; data analysis; and report writing. WIRE's principals have extensive experience in evaluation research and implementation and draw from a national network of subject matter experts and evaluators.