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Appendix A

SRN/SYP Usage Data
Appendix A  
SRN/SYP Usage Data

One means to assess community members’ view of the University as a knowledge resource is their use of the major Web catalogs designed to provide access to the wide variety of institutional and faculty outreach and engagement activities and expertise for the public. The site contains approximately 1,800 entries searchable by keyword, location, topic, and type of activity.

The Statewide Resource Network (SRN) site (Figure 1) initially went online on August 28, 2000 and was launched to the public in a media event held September 25, 2000. Since its launch the site has responded to well over 2,680,000 requests for page views, serving over 4,100,000 total file requests (figures exclude six months of log data lost by the Web server). On average the SRN provides 50,655 page views per month (estimate based on full months for which data are available), but actual usage of the site has tended to rise and fall and includes two large surges in activity. The chart below shows activity of the SRN throughout its existence.

Low activity recently may be the result of problems in changing over to a different Web server and less promotional activity rather than loss of usefulness. However, from the beginning we have conducted user testing via focus groups to assess usefulness and usability of this site. It may be time to do so again.

The Spartan Youth Programs (SYP) site (Figure 2) was launched on February 26, 2001, amid a marketing campaign targeting schools and community-based youth program fairs. The site contains approximately 100 entries searchable by age-level, topic, and type of activity.
service life, it has served over 360,000 page views, comprising over 1,500,000 total file requests (figures exclude two to three months of log data lost by the Web server). On average the SYP provides 6,944 page views per month, though actual usage seems to reflect highest activity during periods during which parents are planning for their children’s summer activities. The chart below shows activity of the SYP since its beginning operations in 2001.

Use of this site is tied directly to the several months preceding the summer activities. As with the SRN, this site is also user tested with consumer focus groups.
Appendix B

Research Centers, Institutes, and Facilities
Appendix B
MSU Research Centers, Institutes, and Facilities

College of Agriculture and Natural Resources

Advanced Technology for Eastern Hardwood Utilization
Beef Cattle Research & Teaching Center
Camp Wa Wa Sum, Grayling, MI
Center for Food and Pharmaceutical Packaging Research
Center for Integrated Plant Systems
Center for Plant Products and Technologies
Consortium for Distribution Packaging
Culinary & Experimental Foods Lab (FSHN)
Dairy Foods Complex (FSHN)
Food and Nutrition Database Research Center (FSHN)
Housing Education and Research Center
Human Dimensions Lab
Institute of Agricultural Technology
Institute for Food and Agricultural Standards
Institute for Food Laws & Regulations
Institute of International Agriculture
Institute of Water Research
Meat Laboratory (FSHN)
Michigan Sea Grant Program (jointly with University of Michigan)
MSU Center for Animal Functional Genomics and National Bovine Functional Genomics Consortium
MSU-DOE Plant Research Laboratory
MSU Product Center for Agricultural and Natural Resources
Native American Institute
Pavilion for Agriculture and Livestock Education
Plant Transformation Center
Pest Management Laboratory
Rogers Reserve, Jackson County, MI
Rose-Dell Property, Albion, MI
Telfarm Center
Tollgate Education Center, Novi, MI
Travel, Tourism and Recreation Resource Center
University Farms

Michigan Agricultural Experiment Station

Clarksville Horticultural Experiment Station, Clarksville, MI
Dunbar Forest Experiment Station, Sault Ste. Marie, MI
East Lansing Field Research Facilities, East Lansing, MI
Fred Russ Forest Experiment Station, Decatur, MI
Lake City Experiment Station, Lake City, MI
Montcalm Research Farm, Lakeview, MI
Muck Soils Research Farm, Laingsburg, MI
Northwest Michigan Horticultural Research Station, Traverse City, MI
Saginaw Valley Beet and Bean Research Farm, Saginaw, MI
Southwest Michigan Research and Extension Center, Benton Harbor, MI
Trevor Nichols Research Complex, Fennville, MI
Upper Peninsula Experiment Station, Chatham, MI
Upper Peninsula Tree Improvement Center, Escanaba, MI
W.K. Kellogg Biological Station, Hickory Corners, MI
W.K. Kellogg Experimental Forest, Augusta, MI

MSU Extension

Victor Institute
Zebra Mussels/Aquatic Nuisance Species Office
College of Arts and Letters

Center for Great Lakes Culture
Center for Language Education & Research
English Language Center
Great Hall Theatre
Kresge Art Museum
Pasant Theatre
Women’s Resource Center
Writing Center
Writing In Digital Environments (WIDE)

Eli Broad College of Business and Eli Broad Graduate School of Management

Center for Leadership of the Digital Enterprise
James B. Henry Center for Executive Development
Management Education Center, Troy, MI
MSU-CIBER (Center for International Business Education and Research)

College of Communication Arts & Sciences

Anechoic-Reverberant Lab
Artificial Language Laboratory
Comm Tech Lab
Health and Risk Communication Center
Hearing Aid Research Laboratory
Institute of Public Utilities
Knight Center for Environmental Journalism
Language Development/Disorders Laboratory
Language Sciences Laboratory
M.I.N.D. (Media Interface and Network Design) Labs
MSU Broadcasting Services
Oyer Speech-Language-Hearing Clinic
Quello Center for Telecommunication Management and Law
Rehabilitative Audiology Laboratory
Vocal Tract Performance Laboratory

College of Education

Athletic Training Research Laboratory (ATRL)
Biomechanics Research Station (BRS)
Center for Curriculum Materials in Science
Center for the Improvement in Early Reading Achievement (CIERA)
Center for Physical Activity and Health (CPAH)
Center for the Scholarship of Teaching Center for Teaching and Technology Education Policy Center at MSU
Fibrinolysis and Genetics Research Laboratory (FRAGL)
Human Energy Research Laboratory
Institute for Research on Teaching & Learning (IRTL)
K - 12 Outreach
Mathematics Assessment Resource Service (MARS)
Michigan Center for Career & Technical Education
Muscle and Metabolism Laboratory
Office of International Studies in Education (ISP)
Sports Skills Program (SSP)
Technology Enhanced Learning Environments (T-ELE)
Third International Mathematics and Science Study (TIMSS)
Virtual Interactive Teaching And Learning (VITAL)
Youth Sports Institute

College of Engineering

Advanced Materials Engineering Experiment Station
Biological Wet Laboratory
Center for Fundamental Materials Research
Center for Nanostructured Biomimetic Interfaces
Center for Underground Infrastructure Research and Education
Composite Materials and Structures Center
Engineering Testing Services (multiple facilities)
Fraunhofer Center for Coatings and Laser Applications
Great Lakes Mid-Atlantic Center for Hazardous Substance Research
MDOT Pavement Research Center for Excellence
Micro and Nano Engineering Facility
Midwest Hazardous Substance Research Center (site/center based at Purdue)
MSU LASER Laboratory
NSF Center for High Speed, Low Cost Polymer Composites Processing
NSF Center for Sensor Materials
Protein Expression Lab
Starch Institute for Non-traditional Applications of Starch (SINAS)
Traffic Operations and Safety Research Center of Excellence

**College of Human Ecology**

Child Development Laboratory
Family and Child Clinic
Institute for Children, Youth, and Families
Spartan Child Development Center (SCDC)

**College of Human Medicine**

AIDS Education and Training Center
Brain Biodiversity Bank
Breast Cancer and the Environment Research Center
Center for Ethics and Humanities in the Life Sciences
Comprehensive Breast Health Clinic
Core Flow Cytometry Facility
Cytogenetics Laboratory
Data Coordinating Center
Electron Microscopy Lab
Electrophysiology Lab
Grand Rapids Area Medical Education Center
Great Lakes Cancer Institute

**College of Law**

Business and Tax Law Center
Chance at Childhood Clinic
Indigenous Law & Policy Center and Clinic
Legal Institute of West Michigan
Rental Housing Clinic
Small Business/Nonprofit/Entrepreneurial Law Clinic
Tax Clinic

**College of Natural Science**

Center for Advanced Microscopy
Center for Fundamental Materials Research
Center for Microbial Ecology
Charles Drew Science Enrichment Lab
Institute for Quantum Science
Kellogg Biological Station
Laboratory for Advanced Applications in Glycochemistry
Macromolecular Structure, Sequencing and Synthesis
Michigan Center for Structural Biology
NSF Center for Sensor Materials
Quantitative Biology and Modeling Initiative
Research Technology Support Facility
Southern Astrophysical Research Consortium

**College of Nursing**
Center for End-of-Life Research
MSU Nursing HealthCare Center
Veterans Clinic

**College of Osteopathic Medicine**
Carcinogenesis Laboratory & Research
Geriatric Education Center of Michigan
Institute of International Health
Orthopaedic Biomechanics Lab

**College of Social Science**
Center for Global Change & Earth Observations
Center for Research and Professional Development (National Juvenile Detention Association)
D.A.R.E. Michigan Training Center
Global Community Security Institute
Great Lakes Forest Information Center
Human Resources Education and Training Center
Humanities & Social Science Online (H-Net)
Institute for Public Policy & Social Research
Julian Samora Research Institute
Kinship Care Center
MATRIX: The Center for Humane Arts, Letters, and Social Sciences Online
Michigan Justice Statistics Center
Michigan Regional Community Policing Institute
National Center for Community Policing
Remote Sensing & Geographic Information Science Research and Outreach Services
Upper Midwest Regional Earth Science Applications Center
Workers’ Compensation Center

**Office of University Outreach & Engagement**
Center for the Study of University Engagement
MSU Museum
Usability and Accessibility Center
Wharton Center for the Performing Arts

**College of Veterinary Medicine**
Brinker Surgical Suite
Center for Emerging Infectious Diseases
Center for Feline Health and Well-being
Center for Integrative Toxicology (formerly the Institute for Environmental Toxicology)
Diagnostic Center for Population and Animal Health
Laboratory for Comparative Orthopedic Research
Laboratory of Molecular Medicine and Canine Genetics
McPhail Equine Performance Center
Molecular Respiratory and Equine Genetics Laboratory
National Food Safety and Toxicology Center
Office of Clinical Research
Population Medicine Center
Preservation and Research Education (PARE)
Veterinary Teaching Hospital

**International Studies and Programs (ISP)**
African Studies Center
Asian Studies Center
Canadian Studies Centre
Center for Advanced Study of International Development
Center for European & Russian Studies
Center for Latin American and Caribbean Studies
Below is listed, by college, 213 research centers, institutes, and facilities such as laboratories and clinics that have been included in the Statewide Resource Network. Although there are approximately twice this number of such entities, these have been identified as having a significant outreach and engagement component. Many others may in fact have outreach activities, but do not list them on their Website.

College of Agriculture and Natural Resources (including Michigan Agricultural Experiment Station and Extension): 49

College of Arts and Letters: 9

The Eli Broad College of Business and The Eli Broad Graduate School of Management: 4

College of Communication Arts and Sciences: 15

College of Education: 21

College of Engineering: 18

College of Human Ecology: 4

College of Human Medicine: 25

College of Law: 7

College of Natural Science: 13

College of Nursing: 3

College of Osteopathic Medicine: 4

College of Social Science: 17

University Outreach & Engagement: 4

College of Veterinary Medicine: 14

International Studies and Programs (ISP): 6

Total: 213
Appendix C

Provost’s Committee on University Outreach, 1993:

Implementation Status
### Appendix C

**Provost’s Committee on University Outreach, 1993:**

**Implementation Status of Strategic Recommendations for Outreach**

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<thead>
<tr>
<th>Recommendations</th>
<th>Current Status</th>
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<tr>
<td>1. Michigan State University should formally adopt the conception and definition of outreach articulated in this report: Outreach is a form of scholarship that cuts across teaching, research, and service. It involves generating, transmitting, applying, and preserving knowledge for the direct benefit of external audiences in ways that are consistent with university and unit missions.</td>
<td><strong>What has been accomplished?</strong>&lt;br&gt;• In principle, this has been the definition since the 1993 report. In practice, the definition has been used consistently in major documents and data collection since then as well.&lt;br&gt;<strong>What needs to be done?</strong>&lt;br&gt;• It has never been formally adopted by academic governance.&lt;br&gt;Steps to achieve this are in process for Spring 2006 review by academic governance.&lt;br&gt;• The definition also needs to become part of the mission statements of the departments and colleges. A new university-wide mission statement currently being considered fully incorporates outreach and engagement (O&amp;E).</td>
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<td>2. Michigan State University should establish a system for measuring, monitoring and evaluating outreach. This system should have sufficient standardization to permit aggregation at the unit, college, and university levels, and also offer sufficient flexibility to accommodate important differences across disciplines, professions, and units.</td>
<td><strong>What has been accomplished?</strong>&lt;br&gt;• Points of Distinction: A Guidebook for Planning &amp; Evaluating Quality Outreach (1995-1996). The four dimensions of quality outreach (significance, context, scholarship, and impact) and their defining characteristics are distributed annually to all units as part of the merit and promotion and tenure (P&amp;T) packet of information.&lt;br&gt;• Revision of P&amp;T to incorporate outreach, 2001.&lt;br&gt;• Outreach and Engagement Measurement Instrument (OEMI; 2004-2005): database system, requires input at the individual faculty level, is integrated into university data systems, and generates aggregate data for unit, college, and university benchmarking. The first set of aggregated data was distributed to administrators Spring Semester, 2005.&lt;br&gt;<strong>What needs to be done?</strong>&lt;br&gt;• Develop the National Data System for University Outreach, a database located at MSU that can generate national benchmarks on an annual basis.</td>
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<td>3. Outreach planning at Michigan State University should involve multiple parties in an open, continuous, and interactive dialogue. This planning process should be undertaken with the understanding that primary responsibility for outreach resides at the unit level.</td>
<td><strong>What has been accomplished?</strong>&lt;br&gt;• APP&amp;R until recently reflected O&amp;E priorities.&lt;br&gt;• Advancing Knowledge/Transforming Lives Networks (5 established and in continued development: Flint, Detroit, Lansing, Grand Rapids, Upper Peninsula.&lt;br&gt;• Sessions for department administrators.&lt;br&gt;• Planned: Lilly teaching sessions on civic engagement for faculty.&lt;br&gt;• MSU Outreach staff: Outreach staff organized as learning community.&lt;br&gt;<strong>What needs to be done?</strong>&lt;br&gt;• APP&amp;R needs to reflect O&amp;E priorities again and colleges’ funding requests should receive input from Assistant Provost for University Outreach and Engagement in order to achieve better campus-wide coherence.&lt;br&gt;• Outreach and Engagement Community Fellows (in development)</td>
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<td>4. Efforts should be undertaken at Michigan State University to reward outreach consistently and appropriately at the college and unit levels.</td>
<td><strong>What has been accomplished?</strong>&lt;br&gt;• Seed Grants for Community-Based Research&lt;br&gt;• Families And Communities Together (FACT) Seed Grants&lt;br&gt;• Community Vitality Seed Grants&lt;br&gt;• UOE – MSU Extension Seed Grants&lt;br&gt;• Annual Award Recognition for Public Service&lt;br&gt;• Funding service learning/civic engagement initiatives&lt;br&gt;<strong>What needs to be done?</strong>&lt;br&gt;• Funded annual award for scholarly engagement</td>
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<tr>
<td>Recommendations</td>
<td>Current Status</td>
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| 5. Each academic unit at MSU should create explicit, written guidelines regarding the criteria to be used in making faculty merit salary increase and tenure and promotion decisions. These guidelines should include a clear indication that outreach is valued in the decision-making process. | **What has been accomplished?**  
- Revision of Reappointment, Promotion, and Tenure (2001) to incorporate outreach  
- Points of Distinction and OEMI are part of the P&T documentation distributed to units.  
- Planned: Study of 2002-2004 promotion and tenure documentation for outreach and engagement inclusion.  
**What needs to be done?**  
- Outreach and engagement (teaching, research and service) need to be fully integrated into the faculty merit, promotion, and tenure process at the unit level.  
- Not yet in institutional alignment. Part of Spring 2006 planning process involves academic governance and the proposed University Committee on Outreach and Engagement. This will require changes in governance bylaws as well as those at the unit level. |
| 6. Creative programs to stimulate outreach should be developed at MSU. | **What has been accomplished?**  
- Seed funding – See 4 above.  
- AKTL Networks – See 3 above.  
- Cultural Engagement Council  
- Families Initiative  
- Annual Award Recognition for Community Service  
- Outreach and Engagement Senior Fellows (22 fellows, all colleges represented)  
- Center for the Study of University Engagement  
- For more, see Statewide Resource Network (msustatewide.msu.edu) and UOE (outreach.msu.edu) Web sites.  
**What needs to be done?**  
- A Service-Learning Fellows program  
- A National Consortium of Engaged Colleges and Universities (47 institutions have been invited to be founding members) |
| 7. Unit and faculty participation in instructional outreach should be stimulated and rewarded at MSU. | **What has been accomplished?**  
- There has been continued growth in noncredit and for-credit professional continuing education, distance education, and Web-based courses and programs. Instructional outreach has been decentralized to units, with oversight through a university committee, chaired by the Dean of the Graduate School.  
- The Outreach and Engagement Measurement Instrument (OEMI, an online survey) collects data on off-campus, distance education and noncredit instruction, including CEUs and CMEs. |
| 8. Involving students—undergraduate, graduate, and graduate-professional—in outreach should be a distinguishing feature of the MSU educational experience. | **What has been accomplished?**  
- Center for Service-Learning and Civic Engagement Director jointly appointed through Student Affairs and Services and UOE.  
- Academic service-learning courses have been implemented across campus, primarily in the interdisciplinary social sciences and interdisciplinary arts and humanities.  
- Over 10,000 undergraduate students participate annually in CSLCE.  
- Approximately 4,000 students participate in a study abroad experience annually.  
- The graduate school sponsors grad students on Meet Michigan.  
- Numerous students participate in 490/491 courses, student internships, etc.  
**What needs to be done?**  
- Tracking system for academic service-learning courses where it is required and optional. This is a major emphasis nationally and MSU needs to be able to contribute data as well as insights and statements of policy.  
- Relationship to the newly developing residential college  
- Tools for faculty working with graduate students in community-based research and a way to make graduate work visible |
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<th>Recommendations</th>
<th>Current Status</th>
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| 9. As a land grant, research-intensive institution, MSU is uniquely qualified to be a world-class institution in the area of outreach research. This should be valued by the university as high priority work. | What has been accomplished?  
- Seed Grants – See 4 above.  
- AKTL Networks encourage and facilitate cross-disciplinary community-based research.  
- The new, state-of-the-art Usability & Accessibility Center is encouraging research and grant-seeking in collaboration with other MSU centers.  
- Scholarship about outreach and engagement has been a facet of the work, which will now be part of the newly formed Center for the Study of University Engagement. The data collection through the OEMI will result in a variety of reports and articles about MSU processes and practices.  
- Exemplars of outreach research are continuously being produced, some to be used as part of a CIC study on benchmarking engagement. | What needs to be done?  
- Overall, MSU’s scholarship-based approach to outreach and engagement needs to become a high priority in all disciplines.  
- The establishment of a new “discipline” nationally, which at MSU could be linked to the Department of Educational Administration’s Higher Adult and Lifelong Education program. |
| 10. Responsible, innovative, and sustainable strategies should be established with the goal of providing adequate resources for outreach at MSU. | What has been accomplished?  
- The Provost’s office has clearly established O&E as a high priority by making it a clearly identified part of the academic mission of the institution and by providing general fund support for the office as well as a variety of programs and seed funding. The Assistant Provost works with every college and numerous institutes and centers to advance rigorous outreach scholarship across the teaching, research, and service components of the institution’s mission. |  |
| 11. MSU should work aggressively to develop systems, structures, and policies that encourage outreach. | What has been accomplished?  
- During the past fifteen years, we have worked to infuse MSU’s approach to O&E across the mission, focusing on institutional alignment, faculty development, measurement, and national leadership to have O&E an integral part of the university’s scholarship mission. |  |
| 12. The Offices of the President and Provost should assume leadership for declaring the importance and value of outreach at MSU. | What has been accomplished?  
- As Provost, Lou Anna K. Simon fueled development of the outreach components of the university and as President continues to support the approach we have taken to infuse the scholarship of discovery, application, preservation, and dissemination to all aspects of campus-community partnerships. |  |
| 13. Outreach should be appropriately recognized in the awards system at MSU. | What has been accomplished?  
- Annual award for public service.  
- Annual award for community-university partnerships (teaching, research, or service) has been funded starting with 2005-2006. | What needs to be done?  
- Proposals pertaining to all aspects of Outreach and Engagement will be presented to Academic Governance in Spring 2006 for review and action. |
| 14. Outreach at MSU should be appropriately recognized in the academic governance system. | What has been accomplished?  
- Models and exemplary programs at all appropriate national conferences.  
- A benchmarking conference in May 2005 that involved representatives from 47 research extensive universities.  
- Active leadership within all key higher education, outreach, and service-learning professional societies and associations, as well as specialized assistance in such areas as evaluation, infant mental health, usability and accessibility, technology, and more.  
- Web-based showcase of outreach and engagement; press releases; stories in various media. |  |
| 15. Exemplary outreach at MSU should be strategically showcased on and off campus. | What has been accomplished?  
- We are developing a National Consortium to coordinate programs nationally. | What needs to be done? |
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<tr>
<th>Recommendations</th>
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| 16. Investment in, and optimal use of, advanced technology in outreach should be a continuing priority for MSU. | **What has been accomplished?**  
- Usability and Accessibility Lab (Outreach and Engagement)  
- Matrix (College of Social Science)  
- Mind Lab and CommTech Lab (College of Communications Arts and Sciences)  
- UOE Director of Communication and Information Technologies  
- Reorganization of the outreach advisory committee (formerly Service/Outreach Technology Committee) to one focusing on the scholarship of engagement (advisory to Vice Provost Gift).  
**What needs to be done?**  
- Secure major funding for infusion of information technology upgrades across the campus. Efforts to achieve this are underway and involve several units, including the development fund.  
- Investigate digitizing Museum collections. |
| 17. MSU should enhance the awareness of external constituents regarding its outreach activities, and then help them gain efficient access to these offerings. | **What has been accomplished?**  
- Web portals (Statewide Resource Network, Spartan Youth Programs)  
- New communicators information network in University Relations office  
- University calendar  
- Cultural Engagement Council  
**What needs to be done?**  
- Continued updating of Web portals, with connection to major OEMI data systems, to keep descriptions of faculty work timely and available  
- AKTL Network Information System  
- Community Informatics pilot  
- Faculty Expertise/Portfolio Web-based access |
| 18. MSU should join others in forming a confederation of organizations with learner-focused outreach as its goal. | **What has been accomplished?**  
- A National Consortium of Engaged Colleges and Universities has been proposed to 47 institutions.  
- Chair, CIC Committee on Engagement  
- Member, NASULGC’s CECEPS and Benchmarking Task Force.  
- Participant, pilot of Carnegie Classification of Higher Institutions to include engagement  
- Member, University Continuing Education Association’s Community of Practice on Outreach  
**What needs to be done?**  
- Ongoing development with chairs and directors, particularly incoming hires. |
| 19. The Office of the Vice Provost for University Outreach should provide University-wide leadership, coordination, and support for the institution’s outreach mission, as well as spearhead the implementation of recommendations made in the Provost’s Committee report. But, as stated earlier, MSU should continue to lodge primary leadership for outreach in the academic units. | **What has been accomplished?**  
- This is exactly the guiding metric that underlies our work in UOE.  
**What needs to be done?**  
- Ongoing development with chairs and directors, particularly incoming hires. |
| 20. Leadership, in the form of commitment, capacity, and vision, must emanate from across MSU—from the faculty, students, and staff, to the Board of Trustees. This leadership, when exercised, will create an institutional environment that consistently demonstrates to all that outreach is a fundamental feature of the university’s mission. | **What has been accomplished?**  
- We continue to work toward these goals for full institutional alignment. |
Appendix D

Analysis of NCA Unit Submissions
Appendix D

Analysis of NCA Unit Submissions:
The Evolutionary Journey toward MSU’s Model of Outreach and Engagement at the Unit Level

MSU defines outreach and engagement as scholarship-based. While every major academic unit articulates outreach and engagement within the perspective of their missions, there are three common criteria. First, in the MSU model, outreach and engagement is reciprocal. There is mutual planning, implementation, and assessment among engagement partners. Second, outreach and engagement cuts across the missions of research, teaching, and service. Third, outreach and engagement is scholarly. Both the act of engaging (bringing universities and communities together) and the product of engagement (the spread of discipline generated, evidence-based practices in communities) involve scholarship.

University Outreach and Engagement undertook a study. At the unit level, the ongoing adoption of these criteria is evolutionary. This is evidenced at the unit or program level through the NCA self studies. Approximately 21% of the respondents (based on their own submissions) are conducting scholarship-based outreach and engagement; that is, they describe actions that embody all three criteria. Fifty-one percent (51%) of the respondents, however, are still on the journey toward scholarship-based outreach and engagement; their self studies show outreach and engagement actions based on one or two of the criteria. Finally, about thirty percent (30%) of the respondents are still at the beginning stages of their journeys.

We have selected one exemplar from the self studies to illustrate a departmental program that demonstrates all three criteria of the MSU model.

Unit Exemplar: The German Program

An exemplary submission of MSU’s model of scholarship-based outreach and engagement is the German Program of the Department of Linguistics and Germanic, Slavic, Asian, and African Languages. In keeping with the University’s commitment to service, the German Program made outreach and engagement part of its mission and included the following commitment in its mission statement:

[The program] seeks to serve all undergraduate and graduate students in their acquisition of the German language and of critical knowledge about the cultures of German-speaking countries in their historical context. This is achieved by broad-based knowledge dissemination and effective language instruction…and by creating innovative outreach strategies to integrate various local, state, national, and international needs. [German Studies]

In light of that mission statement, the program’s outreach goals are threefold: (1) to engage the Lansing/East Lansing community; (2) to create interest in German; and (3) to instill in graduate students the ethic that outreach and engagement is an important part of professional life.
Convinced of the importance of early language study for increasing language proficiency and for increasing cultural tolerance in a global context, the German Program sought to convince (K-4) educators about the benefits of foreign language acquisition – German or others. These benefits include:

- enhanced communication skills
- increased language creativity
- improved self-image
- more acceptance of different cultural norms and values
- better foundation for participation in global economy and increased employment opportunities.

To understand the early language learning environment in the communities around MSU, the German Program conducted a review of area elementary school curricula. Additional dialogue with local German teachers and the Greater Lansing German Language Alliance confirmed that there were very few opportunities for early language learning in the local elementary schools. In response, the German Program decided to establish a pilot program in German on the elementary school level.

A faculty member who was appointed outreach coordinator identified appropriate methodologies and materials for a trial elementary school German program. The 5-week Foreign Language Exploratory (FLEX) program was selected, and a local elementary school was recruited. The coordinator obtained a grant from the American Association of Teachers of German to purchase needed materials. FLEX programs are self-contained, short-term language experiences (3 weeks to 1 year) with the following goals:

- Introduction to language learning
- Awareness and appreciation of other cultures
- Appreciation of the value of a second language
- Enhanced understanding of English
- Motivation to pursue language study

Utilizing FLEX, a lunchtime German language enrichment program for grades K-4 was developed in partnership with Winans Elementary School in Delta Township. The principal found 30 elementary school students to volunteer for the program. Sessions took place in spring term over a 3-5 week period of time. The coordinator and graduate students or teacher education/German seniors conducted three 25-minute sessions. Topics and vocabulary were taken from the students’ immediate environment—food, family, friends, pets, weather, and the classroom. Each session also contained games and songs to playfully interest students in exploring a foreign language and integrated cultural information about Germany where appropriate.

Evaluation of the program was held after each session. The coordinator also held a debriefing session with the principal. The instructors evaluated and adjusted the teaching strategies and assessed the level of interest of the children in relationship to the materials presented. The
The coordinator also observed and offered feedback on the body language of the children, their ability to grasp the material, and their level of enjoyment.

The pilot was successful. The German Program has been invited back every year since that time and has experimented with smaller group sizes and various lengths of the program. As a result of high student demand, the principal no longer asks for volunteers but has the teachers’ select ten students from each class to keep the group sizes manageable.

Based on levels of student interest, and parent request for follow-up activities, the German Program developed materials for a summer play-based language day camp at MSU that utilizes on-campus amenities (the children’s gardens, the museum, the ice cream parlor) for language enrichment in German. Because of the increased interests by graduate students, the German Program is now in the process of developing a FLEX program for the middle school level.

A side outcome, in response to graduate and advanced undergraduate student interest, was to classify this outreach experience as one option within their pre-professional mentoring activities. MSU students have also been able to translate the experience into papers they presented at various regional and national conferences. This, in turn, has led to more interest in the program from the community and from graduate students alike.
Appendix E

OEMI University-Wide Summary Data, 2004
#1a: Summary by College

<table>
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<tr>
<th>College</th>
<th>Academic staff time committed to outreach</th>
<th>Number of respondents/ responses (Each respondent can have up to 2 responses)</th>
<th>Number of responses where the activity focused on Promoting accessibility and diversity</th>
<th>International development</th>
<th>Urban issues</th>
<th>Attendees/ Participants</th>
<th>Activity helped generate revenue for University</th>
<th>Activity helped generate revenue for Partner</th>
<th>Value of partner's in-kind contribution</th>
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<td>COLLEGE OF AGRICULTURE &amp; NATURAL RESOURCES</td>
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<td>113 / 201</td>
<td>77</td>
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<td>71 / 100</td>
<td>25</td>
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<td>11</td>
<td>23,574</td>
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<td>14</td>
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<td>3</td>
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<td>16</td>
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<td>3</td>
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<td>$17,612,150</td>
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<tr>
<td>COLLEGE OF VETERINARY MEDICINE</td>
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<td>15</td>
<td>6</td>
<td>157,083</td>
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<td>325</td>
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<td>$35,000</td>
<td>$4,700</td>
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<tr>
<td>PROVOST + OTHER CENTRAL OFFICES</td>
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<td>25</td>
<td>43,200</td>
<td>$4,049,772</td>
<td>$6,337,510</td>
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<tr>
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<td>297</td>
<td>208</td>
<td>1,426,044</td>
<td>$132,428,365</td>
<td>$80,441,191</td>
<td>$15,406,290</td>
</tr>
</tbody>
</table>

Colleges not reporting any outreach activity: James Madison College
### #1b: Summary by Area of Concern University-wide

<table>
<thead>
<tr>
<th>Area of Concern towards which the activity was focused</th>
<th>Academic staff time committed to outreach</th>
<th>Number of responses (Each respondent can have up to 2 responses)</th>
<th>Number of responses where the activity focused on</th>
<th>Attendees/Participants</th>
<th>Activity helped generate revenue for</th>
<th>Value of partner's in-kind contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FTE</td>
<td>Salary Value</td>
<td>Promoting accessibility and diversity</td>
<td>International development</td>
<td>Urban issues</td>
<td>University</td>
</tr>
<tr>
<td>Arts and Humanities</td>
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<td>30</td>
<td>9</td>
</tr>
<tr>
<td>Children, Youth, and Family (non-school related)</td>
<td>27.90</td>
<td>$1,575,537</td>
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<td>10</td>
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<tr>
<td>Community and Economic Development</td>
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<td>$1,222,104</td>
<td>96</td>
<td>66</td>
<td>20</td>
<td>35</td>
</tr>
<tr>
<td>Education, Pre-Kindergarten through 12th Grade</td>
<td>22.39</td>
<td>$1,509,636</td>
<td>168</td>
<td>88</td>
<td>24</td>
<td>29</td>
</tr>
<tr>
<td>Food and Fiber Production and Safety</td>
<td>23.44</td>
<td>$1,695,851</td>
<td>80</td>
<td>32</td>
<td>18</td>
<td>2</td>
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<td>Governance or Public Policy</td>
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<td>$487,639</td>
<td>56</td>
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<td>21</td>
<td>14</td>
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<tr>
<td>Health and Health Care</td>
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<td>153</td>
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<tr>
<td>Labor Relations, Training, and Workplace Safety</td>
<td>3.77</td>
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<td>Natural Resources, Land Use, and Environment</td>
<td>29.73</td>
<td>$1,793,938</td>
<td>128</td>
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<td>23</td>
<td>21</td>
</tr>
<tr>
<td>Public Safety, Security and Corrections</td>
<td>7.98</td>
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<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Public Understanding and Adult Learning</td>
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<td>18</td>
<td>10</td>
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<td>Science and Technology</td>
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<td>Technology Transfer and Diffusion</td>
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</table>

#1c: Summary by Primary Form of Engagement University-wide (UPDATED FORMS)

<table>
<thead>
<tr>
<th>Primary Form of Engagement the activity took</th>
<th>Academic staff time committed to outreach</th>
<th>Number of responses (Each respondent can have up to 2 responses)</th>
<th>Number of responses where the activity focused on</th>
<th>Attendees/Participants</th>
<th>Activity helped generate revenue for</th>
<th>Value of partner’s in-kind contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FTE Salary Value</td>
<td>Promoting accessibility and diversity</td>
<td>International development</td>
<td>Urban issues</td>
<td>University</td>
<td>Partner</td>
</tr>
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<td>Outreach Research</td>
<td>61.82 $5,350,097</td>
<td>384 168 109</td>
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<td>$66,734,277</td>
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<td>$1,940,651</td>
</tr>
<tr>
<td>Outreach Instruction: Credit Courses and Programs</td>
<td>12.06 $1,123,911</td>
<td>62 26 23</td>
<td>9,959</td>
<td>$6,892,473</td>
<td>$1,069,020</td>
<td>$86,100</td>
</tr>
<tr>
<td>Outreach Instruction: Non-Credit Classes and Programs</td>
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<td>358 178 77</td>
<td>412,528</td>
<td>$34,801,052</td>
<td>$18,499,119</td>
<td>$7,540,433</td>
</tr>
<tr>
<td>Experiential/Service-Learning</td>
<td>8.94 $618,302</td>
<td>70 46 11</td>
<td>38,786</td>
<td>$1,945,910</td>
<td>$5,257,310</td>
<td>$1,514,888</td>
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<tr>
<td>Clinical Service</td>
<td>15.69 $2,166,801</td>
<td>64 23 9</td>
<td>74,125</td>
<td>$17,669,703</td>
<td>$4,963,802</td>
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<td>Public Events and Information</td>
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<td>350,851</td>
<td>$14,384,950</td>
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<td>$3,620,642</td>
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<tr>
<td><strong>Pilot Test Total</strong></td>
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<td><strong>1247 589 297</strong></td>
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<td><strong>$132,428,365</strong></td>
<td><strong>$80,241,191</strong></td>
<td><strong>$15,350,940</strong></td>
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</tbody>
</table>

Outreach Research: May include applied research, capacity-building, evaluation studies and services, policy analysis, consulting and technical assistance, and technology transfer. Such activities are considered outreach when they are conducted in collaboration or partnership with schools, health organizations, nonprofit organizations, businesses, industries, government agencies, and other external constituents.

Outreach Instruction, Credit Courses and Programs: Courses and instructional programs that offer student academic credit hours and are designed and marketed specifically to serve those who are neither traditional campus degree seekers nor campus staff. Such courses and programs are often scheduled at times and in places convenient to the working adult. Examples include: a weekend MBA program, an off-campus Master's program in Nursing offered in a rural area, an online certificate in medical technology for laboratory professionals, etc.

Outreach Instruction, Non-Credit Classes and Programs: Classes and instructional programs, marketed specifically to those who are neither degree seekers nor campus staff, that are designed to meet planned learning outcomes, but for which academic credit hours are not offered. In lieu of academic credit, these programs sometimes provide certificates of completion or continuing education units, or meet requirements of occupational licensure. Examples include: a short-course for engineers on the use of new composite materials, a summer writing camp for high school children, a personal enrichment program in gardening, leisure learning tours of Europe, etc. Programs designed for and targeted at MSU faculty and staff (such as professional development programs) or MSU degree-seeking students (such as career preparation or study skills classes) are not included.

Experiential/Service-Learning: Civic or community service that students perform in conjunction with an academic course or program and that incorporates frequent, structured, and disciplined reflection on the linkages between the activity and the content of the academic experience. Other forms of experiential learning may include career-oriented practica and internships, or volunteer community service.

Clinical Service: All client and patient (human and animal) care provided by university faculty through unit-sponsored group practice or as part of clinical instruction and by medical and graduate students as part of their professional education. For example, this may include medical/veterinary clinical practice, counseling or crisis center services, and tax or legal clinic services.

Public Events and Information: Resources designed for the public include managed learning environments (e.g., museums, libraries, gardens, galleries, exhibits); expositions, demonstrations, fairs, and performances; and educational materials and products (e.g., pamphlets, websites, educational broadcasting, and software). Most of these experiences are short-term and learner-directed.
#1d: Summary by Area of Concern/Form University-wide (UPDATED FORMS)

<table>
<thead>
<tr>
<th>Area of Concern towards which the activity was focused</th>
<th>Number of responses (Each respondent can have up to 2 responses)</th>
<th>Outreach Research</th>
<th>Outreach Instruction: Credit Courses and Programs</th>
<th>Outreach Instruction: Non-Credit Classes and Programs</th>
<th>Primary Form of Engagement *</th>
<th>Experiential/Service Learning</th>
<th>Clinical Service</th>
<th>Public Events and Information</th>
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<td>6</td>
<td>1</td>
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<td>29</td>
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<td>16</td>
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<td>Children, Youth, and Family (non-school related)</td>
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<td>42</td>
<td>13</td>
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<tr>
<td>Education, Pre-Kindergarten through 12th Grade</td>
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<td>10</td>
<td>63</td>
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<td>17</td>
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<tr>
<td>Health and Health Care</td>
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<td>0</td>
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<tr>
<td>Natural Resources, Land Use, and Environment</td>
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<td>34</td>
<td>4</td>
<td>2</td>
<td>32</td>
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<tr>
<td>Public Safety, Security and Corrections</td>
<td>27</td>
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<td>2</td>
<td>8</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Public Understanding and Adult Learning</td>
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<td>4</td>
<td>1</td>
<td>26</td>
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<tr>
<td>Science and Technology</td>
<td>135</td>
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<td>4</td>
<td>25</td>
<td>5</td>
<td>4</td>
<td>35</td>
<td></td>
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<tr>
<td>Technology Transfer and Diffusion</td>
<td>88</td>
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<td>1</td>
<td>26</td>
<td>3</td>
<td>0</td>
<td>16</td>
<td></td>
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</table>

Pilot Test Total: 1343

*: Since the Primary Form is specified after the Area of Concern in the Survey, the number of responses for a Primary Form aggregated over an Area of Concern will be less than or equal to the total number of responses for an Area of Concern.
Appendix F

Higher Education Research Institute (UCLA):

MSU Faculty Survey Findings, 2005
Appendix F
Higher Education Research Institute (UCLA):
MSU Faculty Survey Findings Specific to Outreach & Engagement, 2005

Total number of respondents: 739

Additional Questions (optional) – MSU

37. How much time are you spending on scholarly activities that directly benefit audiences external to the university compared to three years ago? (n = 437, 302 missing)
   a. Significantly more (20.4%)
   b. A little more (21.5%)
   c. No change (49.2%)
   d. A little less (5.0%)
   e. Significantly less (3.9%)

38. Over the next three years do you plan to spend more or less time on scholarly activities that directly benefit audiences external to the university? (n = 436, 303 missing)
   a. Significantly more (15.1%)
   b. A little more (32.8%)
   c. No change (46.1%)
   d. A little less (3.0%)
   e. Significantly less (3.0%)

39. How supportive is the university of the scholarly activities you are involved in that directly benefit audiences external the university? (n = 429, 310 missing)
   a. Very supportive (14.0%)
   b. Supportive (41.7%)
   c. Not very supportive (24.2%)
   d. Unsupportive (8.9%)
   e. NA (11.2%)

40. How many scholarly activities that directly benefit audiences outside the university have been funded by entities external to the university? (n = 431, 308 missing)
   a. All (18.6%)
   b. Most (30.2%)
   c. Few (21.1%)
   d. None (14.2%)
   e. NA (16.0%)

41. How successful are you in integrating your scholarly activities that directly benefit audiences external to the university with your teaching of on-campus students and your research directed at scholarly audiences? (n = 424, 315 missing)
a. Very successful  (25.5%)
b. Successful  (41.7%)
c. Not very successful  (14.2%)
d. Unsuccessful  (3.5%)
e. NA  (15.1%)

42. How many times in the last year have you been asked to apply your expertise for the direct benefit of audiences external to the university? (n = 429, 310 missing)

a. More than 5  (38.0%)
b. 4 or 5  (15.2%)
c. 2 or 3  (20.3%)
d. 1 or 2  (12.8%)
e. None  (13.8%)

43. What is the longest period you have been involved in a single scholarly activity that directly benefits audiences external to the university? (n = 420, 319 missing)

a. 5 years or more  (43.1%)
b. 3-4 years  (18.1%)
c. 1-2 years  (13.1%)
d. Less than 1 year  (11.2%)
e. NA  (14.5%)

Other Relevant Questions from HERI Faculty Survey

Community-based Research/Teaching

Percent who collaborated in community in research/teaching: 45.2% (299 of 661 respondents)
Percent who use scholarship to address community needs: 45.8% (334 of 730)

Importance at university of creating/sustaining partnerships with communities (n = 707)

<table>
<thead>
<tr>
<th>Priority</th>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low priority</td>
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</tr>
<tr>
<td>Medium priority</td>
<td>42.3%</td>
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</tr>
<tr>
<td>High priority</td>
<td>28.6%</td>
<td>202</td>
</tr>
<tr>
<td>Highest priority</td>
<td>8.1%</td>
<td>57</td>
</tr>
</tbody>
</table>

Importance at university of providing resources for faculty to engage in community-based teaching or research (n = 702)

<table>
<thead>
<tr>
<th>Priority</th>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low priority</td>
<td>26.1%</td>
<td>183</td>
</tr>
<tr>
<td>Medium priority</td>
<td>45.7%</td>
<td>321</td>
</tr>
<tr>
<td>High priority</td>
<td>21.5%</td>
<td>151</td>
</tr>
<tr>
<td>Highest priority</td>
<td>6.7%</td>
<td>47</td>
</tr>
</tbody>
</table>

Colleges have a responsibility to work with surrounding communities (n = 713)
<table>
<thead>
<tr>
<th></th>
<th>Disagree strongly</th>
<th>Disagree some</th>
<th>Agree some</th>
<th>Agree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Colleges should be involved in solving social problems (n = 715)</strong></td>
<td>3.9% (28)</td>
<td>19.6% (140)</td>
<td>53.3% (381)</td>
<td>23.2% (166)</td>
</tr>
</tbody>
</table>

**Service-Learning/Outreach Instruction**

Percent who taught a service learning course: 19.2% (122 of 630 respondents)
Number of respondents who reported teaching non-credit courses: 36 of 506
Number of respondents who reported teaching vocational or technical courses: 25 out of 511

**Student Civic Responsibility**

Colleges should encourage students to do community service (n = 713)

<table>
<thead>
<tr>
<th></th>
<th>Disagree strongly</th>
<th>Disagree some</th>
<th>Agree some</th>
<th>Agree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Including community service as part of a course is a poor use of resources (n = 706)</strong></td>
<td>26.2% (185)</td>
<td>48.0% (339)</td>
<td>20.1% (142)</td>
<td>5.7% (40)</td>
</tr>
</tbody>
</table>

Instill in students a commitment to community service (n = 716)

<table>
<thead>
<tr>
<th></th>
<th>Not important</th>
<th>Somewhat important</th>
<th>Very important</th>
<th>Essential</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prepare students for responsible citizenship (n = 713)</strong></td>
<td>18.9% (135)</td>
<td>52.0% (372)</td>
<td>22.9% (164)</td>
<td>6.3% (45)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Not important</th>
<th>Somewhat important</th>
<th>Very important</th>
<th>Essential</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>F-3</strong></td>
<td>7.0% (50)</td>
<td>39.7% (283)</td>
<td>35.2% (251)</td>
<td>17.5% (129)</td>
</tr>
</tbody>
</table>

Appendix G

Analysis of OEMI Data

Related to Collaborative Work of the Faculty
Appendix G
Analysis of OEMI Data Related to Collaborative Work of the Faculty

Of the 656 respondents who provided qualitative data on their engagement work via the Outreach and Engagement Measurement Instrument (OEMI), 484 or 74% reported involvement with at least one partner external to the University. Of these, 451 cited at least one external collaborator by name, the largest number of collaborations between faculty and academic staff and existing with partners representing the government or governmental agencies (196) and professional organizations (113).

The rest of this section focuses on the 209 (32%) whose description of their engagement work indicated a relationship between this type of work and ongoing research.

Overview

External partnerships. Eighty-two percent reported having partners with individuals or entities outside the university. The average number of partners across the sample was 3.02. Table G-1 outlines the average number and total number of respondents by type of partner.

<table>
<thead>
<tr>
<th>Type of Partner</th>
<th>Average</th>
<th>Total Number of Respondents*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Service</td>
<td>2.06</td>
<td>18</td>
</tr>
<tr>
<td>Community Organization</td>
<td>13.07</td>
<td>27</td>
</tr>
<tr>
<td>Professional Organization</td>
<td>1.96</td>
<td>28</td>
</tr>
<tr>
<td>Business</td>
<td>2.58</td>
<td>40</td>
</tr>
<tr>
<td>Government</td>
<td>2.27</td>
<td>93</td>
</tr>
<tr>
<td>Health Agency</td>
<td>1.67</td>
<td>12</td>
</tr>
<tr>
<td>Schools (PreK-12)</td>
<td>2.75</td>
<td>8</td>
</tr>
<tr>
<td>University</td>
<td>1.80</td>
<td>40</td>
</tr>
<tr>
<td>Foundation</td>
<td>1.46</td>
<td>13</td>
</tr>
<tr>
<td>Other</td>
<td>1.89</td>
<td>27</td>
</tr>
</tbody>
</table>

* The total number of respondents is larger than the sample because respondents reported multiple partners.

Internal partnerships. In addition to external partners, survey respondents provided data on partners within the institution. Twenty-six percent reported that their activities involved tenure-stream faculty members and/or graduate students; the average number involved was 2.67 and 3.26 respectively. Almost 30% indicated that undergraduate students were involved in collaborative engagement activities. Twenty-five percent of the respondents worked with academic departments other than their home academic department. The number of departments listed ranged from 1 to 3.

Collaborative activities. More than 70% of the respondents (n = 149) described collaborative activities in ways that suggested their work extended beyond the university
or engaged individuals/entities outside of MSU. The researchers identified six indicators of engagement, as follows: joint planning and assessment, needs assessment, sustained relationships (2 years or more), future plans for sustainability, dissemination of knowledge to public, community/partner capacity building. Table G-2 reports the percent of respondents whose description of their work illustrates each of the indicators.

Table G-2. Collaborative Activities

<table>
<thead>
<tr>
<th>Indicator of Engagement</th>
<th>Percent of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint planning and assessment</td>
<td>39</td>
</tr>
<tr>
<td>Needs assessment</td>
<td>26</td>
</tr>
<tr>
<td>Sustained relationships</td>
<td>60</td>
</tr>
<tr>
<td>Future plans for sustainability</td>
<td>57</td>
</tr>
<tr>
<td>Dissemination of knowledge to the public</td>
<td>54</td>
</tr>
<tr>
<td>Community/partner capacity building</td>
<td>30</td>
</tr>
</tbody>
</table>

**Impacts.** Indicators of impacts or outcomes were analyzed in two ways: scholarly work and non-scholarly impact. Nearly 60% of those involved in collaborative activities illustrated a relationship between these activities and scholarship. Of those who reported scholarly outcomes, 113 respondents indicated production of scholarly work, defined in terms of publications, presentations, etc., or the production of intellectual property (training materials, patents, evaluation protocols, etc.). Thirty-three of the respondents reported both. About 50% of the 209 respondents reported impacts or outcomes that were not related to their scholarly work. These include impacts or outcomes for the partner or the partners’ constituencies.

**Highly Engaged**

As a means to determine the degree to which OEMI respondents’ work not only extended beyond the university but also indicated a high level of engagement, the qualitative data provided by the 656 respondents were coded in accordance with the six indicators of engagement listed above. Of the total sample, 187 (or 29%) faculty or academic staff were identified as being highly engaged with individuals or entities outside the university. “Highly engaged” was defined as meeting four or more of the six indicators of community engagement. More than 90% of the work reported by these faculty and staff illustrated indicators of sustained relationships and future plans for sustainability. Ninety-two percent of the work described included indicators of disseminating knowledge to the public, 70% joint planning and assessment, 71% community/partner capacity building, and 55% needs assessment.

**Form of engagement.** The majority of faculty and staff highly engaged with entities external to the university reported their primary form as outreach research (40%), followed by outreach instruction—noncredit (32%), public events and information (20%), experiential/service learning (3.2%), outreach instruction—credit (3%), and clinical service (1%).
**External partners.** Ninety-two percent of those (n = 172) who were identified as being highly engaged reported having partners external to the university. The average number of partners named by the respondents was 3.84 with the number ranging from 1 to 26. Table G-3 indicates the average number of partners by type:

<table>
<thead>
<tr>
<th>Type of Partner</th>
<th>Average</th>
<th>Total Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Service</td>
<td>2.17</td>
<td>23</td>
</tr>
<tr>
<td>Community Organization</td>
<td>1.98</td>
<td>43</td>
</tr>
<tr>
<td>Professional Organization</td>
<td>2.29</td>
<td>48</td>
</tr>
<tr>
<td>Business</td>
<td>2.91</td>
<td>44</td>
</tr>
<tr>
<td>Government</td>
<td>2.07</td>
<td>97</td>
</tr>
<tr>
<td>Health Agency</td>
<td>2.00</td>
<td>14</td>
</tr>
<tr>
<td>Schools (PreK-12)</td>
<td>2.92</td>
<td>12</td>
</tr>
<tr>
<td>University</td>
<td>2.74</td>
<td>39</td>
</tr>
<tr>
<td>Foundation</td>
<td>1.39</td>
<td>18</td>
</tr>
<tr>
<td>Other</td>
<td>1.95</td>
<td>38</td>
</tr>
</tbody>
</table>

**Impacts.** Sixty-two percent of the respondents (n = 115) who were identified as highly engaged also provided evidence to suggest a relationship between their work and scholarly activity. More respondents indicated production of scholarly work in terms of intellectual property (52%) than publications and presentations (30%). In addition to scholarly impact, 137 of the respondents defined as highly engaged reported impacts or outcomes other than scholarly.
Appendix H

MSU Extension Flyer:
Mission and Statewide Themes
Late in 2001 MSU Extension announced the results of an intensive, statewide process to identify important topics that the organization could and should address. These focus areas offer overarching themes for statewide programming through our Area of Expertise teams and other program development efforts. Within each focus area is a set of core priorities that all of our Extension professionals contribute to through programs. Partner reports will regularly share the measurable results that improve the lives of Michigan residents. These statewide themes will drive our program delivery through the year 2004.

**Our Mission**

Michigan State University Extension helps people improve their lives through an educational process that applies knowledge to critical issues, needs, and opportunities.

**Serving Michigan Families and Communities through our Focus areas and Core Priorities**

### Building Strong Communities
- Building capacity for rural and urban community development and revitalization.
- Building community capacity for creating an environment where people of different cultures, backgrounds and life circumstances can reach their full potential.
- Assisting elected and community decision-makers to develop leadership and public affairs skills.
- Promoting entrepreneurial development and business expansion.
- Encouraging communities to develop dialogue, collaboration and emergency response capability.

### Helping Youth Succeed
- Supporting youth asset development to reduce vulnerabilities.
- Enhancing leadership and skill development of volunteers to be a positive force for youth.
- Creating more opportunities for community-based partnerships and collaborations in support of positive youth development.
- Providing community-based, positive youth development experiences.
Enhancing Profitability in Agriculture
• Balancing inputs to agricultural systems to increase profitability and efficiency.
• Managing outputs in agricultural systems to increase profitability and efficiency.
• Supporting entrepreneurial and consumer-center product agriculture.
• Identifying and responding to threats and emerging problems for the food and agricultural industry.
• Identifying and supporting agriculture systems that are socially and environmentally balanced within communities.

Encouraging Responsible Land and Natural Resources Use
• Improving community planning and policy development through access and use of research-based information.
• Building awareness and understanding of the ecology of natural systems, and capacity to make positive changes.
• Identifying and promoting best practices for responsible use of natural resource, land and water systems.

Building Healthy Families
• Collaborating with community partners to enhance family support systems.
• Promoting healthy lifestyles across the lifespan.
• Improving parenting and caregiver skills.
• Educating families to manage their resources.
• Strengthening families’ capacity to deal with change and transition.
• Improving practices to reduce food safety hazards.

These aren’t just subjects that will be part of our Extension programs — they comprise the nucleus of our efforts, the very heart of our work. They have been shared across the organization with employees at all levels, and with our stakeholders in government, the private sector, nonprofits and communities. We are fully committing ourselves and our resources to producing unbiased, research-based programs to address these issues and priorities for communities, businesses, farms and families across the state.

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e-mail: msue@msue.msu.edu
www.msue.msu.edu

MSU is an affirmative-action, equal-opportunity institution. Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, marital status, or family status.
Appendix I

MSUE/MAES Sample White Papers
Government is Effective

MSU Extension (MSUE) offers education and the Michigan Agricultural Experiment Station (MAES) provides research. Together they support Michigan communities, businesses and individuals as they strive to improve their economic situations. Efforts concentrate on providing unbiased, research-based information that encourages sustainable growth and development.

Citizen Participation: Citizens are contributing community members — active and ready to serve as volunteers and elected officials.

More than 2,000 citizens have gained a better understanding of land use planning and contributed in excess of 30,000 hours of volunteer time in Michigan communities, which is valued at more than $515,000. Approximately 350 more citizen leaders will join their ranks in 2005. Additional elected and appointed officials and citizens will be trained in conducting effective meetings, using technical tools and computer software that contribute to community development and improvement.

Develop citizen and leadership skill in 120,000 youth who contribute more than 1.2 million hours of community service annually. State and national 4-H programs improve leadership skills to help youth envision themselves as leaders in professional and community service roles. Outreach encourages youth to take part in hands-on projects that engage them in local civic affairs.

Training & Development: Elected officials are prepared to seek elected or appointed office and receive adequate training to carry out the tasks of state, county and local government.

Train a minimum of 450 Michigan officials to be efficient, effective leaders in their communities. Programs equip county and municipal officials serving as members of boards and commissions, both elected and appointed, with technical, leadership and facilitation skills.

Provide technical assistance to at least 15 counties and 75 municipalities related to intergovernmental contracting, consolidation of services, and financial and strategic planning. This outreach assists local government leaders in managing shrinking budgets, optimizing their resources and governing efficiently.

For more information:

Thomas Coon, director, MSU Extension (517-355-2308 or msuedir@msu.edu)
John Baker, acting director, Michigan Agricultural Experiment Station (517-355-0123 or maesdir@msu.edu).
MSU Extension (MSUE) offers education and the Michigan Agricultural Experiment Station (MAES) work together to keep Michigan's vulnerable populations safe and contributing to the economy up to their maximum potential. MAES conducts critical research on Michigan's priority concerns, and MSUE uses that research as the basis for educational programs for communities and families.

**Highlighted Programs**

**Financial**
- All My Money
- Earned Income Tax Credit initiative
- Financial Champions
- Financial Security in Later Life
- Finding Paths to Prosperity
- High School Financial Planning
- Investing for Your Future
- Money Mentors
- Money Smarts – FDIC
- On the Path

**Caregiving/parenting**
- Better Kid Care
- Building Strong Adolescents
- Building Strong Families
- ReTHINK: Anger Management
- SMILE (Start Making It Livable for Everyone) divorce management

**Out-of-school**
- 4-H Youth Development
- 4-H After School
- Youth mentoring

**Family support**
- Breast-feeding Initiative
- Caring for My Family
- Connecting Michigan Families
- Expanded Food and Nutrition Education Program
- Family Bookbag
- Healthy Hispanic Project
- Healthy Kids, Healthy Families
- Watch Me Grow calendar

**New opportunity**
- Vital Aging Initiative

**Today's Programs for Strengthening Self-Sufficiency**

**Family Stability: Stable families require improved skills in parenting and problem solving and access to needed healthcare and other resources.**

Educate at least 5,000 Michigan parents annually on how to improve their parenting skills and prenatal care, saving the state at least $50 million cumulatively in costs related to low-birthweight babies, infant mortality, special education, protective services, foster care, crime reduction and psychological services. Education improves childrearing skills, provides peer support and networking, facilitates positive growth in adolescents and improves anger management skills.

Increase ability to manage financial resources for more than 15,000 struggling families per year. Programs encourage full use of federal tax credits, provide access to financial and tax services, increase family financial management skills, improve financial literacy in young people, and teach adults how to better plan for retirement and build investment skills.

Meet the needs of diverse families. Training equips single mothers and fathers to make healthy family decisions, teaches families to cope with divorce and educates community leaders on how to develop creative programs for senior citizens.
Provide breast-feeding peer support to 2,500 new mothers in the WIC population annually, saving the state $2.3 million each year in Medicaid and HMO costs. At least 97 percent of participants in the Breast-feeding Initiative will start breast-feeding, compared with just 44 percent of other new mothers in the WIC population.

Raise cancer risk awareness in 20,000 Hispanic/Latina women within the next three to five years, with at least 1,500 screened for breast and/or cervical cancer. The Healthy Hispanic Project offers breast and cervical cancer education for this vulnerable group and provides assistance in finding testing facilities and follow-up support.

**Self Support:** *Quality childcare must be available while parents are working and children are not in school.*

Improve skills of caregivers providing childcare for nearly 12,000 children each year. More than 2,100 new family childcare businesses will be established in 2005-6, and their providers will be trained. Programs provide childcare training to providers who typically are not reached through other means, enhance caregiver skills and recruit potential providers from low-income neighborhoods to become licensed.

Improve the quality and quantity of out-of-school programs available to nearly 120,000 children and their families each year. Outreach offers safe and practical after-school activities for K-12 kids, provides hundreds of hands-on, quality out-of-school-time options to engage youth and offers positive role models as mentors.

**For more information:**

Thomas Coon, director, MSU Extension (517-355-2308 or msuedir@msu.edu)

John Baker, acting director, Michigan Agricultural Experiment Station (517-355-0123 or maesdir@msu.edu).
People Are Healthy

Michigan State University Extension (MSUE) and the Michigan Agricultural Experiment Station (MAES) work together to keep Michigan's population healthy. MAES conducts critical research into Michigan's priority concerns, and MSUE uses that research as the basis for educational programs for communities and families.

Highlighted Programs

Health
- 4-H Health Challenge
- Children and Weight: What Communities Can Do
- Clean Hands, Be Well
- Diabetes Health: It's in Your Hands
- Don't Croak on Secondhand Smoke
- Healthy Hispanic Project
- Healthy Kids, Healthy Families
- Home Safe Kids
- Jump Into Foods and Fitness
- Life's a Kick: Don't Start Tobacco
- Personal Action Towards Health
- Physician Peer Education Project on Immunization

Nutrition
- 5-A-Day for Better Health
- Breast-feeding Initiative
- Low-income nutrition education
- Project FRESH
- Pyramids Between the Pages
- Team Nutrition

Food safety
- Consumer Food Safety education
- Hazardous Analysis and Critical Control Points training
- ServSafe

Environment
- Agroterrorism education
- Michigan Groundwater Stewardship
- Pork Quality Assurance certification
- Vet Net
- Volunteer Stream Monitoring
- Wellhead Protection
- West Nile virus education

Healthy families
- Building Strong Adolescents
- Furthering Families
- Youth mentoring

New opportunity
- Expansion of court-associated youth mentoring programs

Today's Programs to Promote Positive Health and Lifestyle Decisions

Personal Health: Michigan citizens make wise health choices and minimize risky behaviors.

Educate 92,000 Michigan families annually on eating and living healthier, saving the state an estimated $193 million in future healthcare costs. Programs give communities tools to address childhood obesity, teach about nutrition and activity in weight management, promote food safety, provide food budget training, maximize use of Food Stamps, improve school nutrition and nutrition education (including applying national nutrition guidelines), and encourage purchase and consumption of locally grown fruits and vegetables.

Prevent health problems for more than 10,000 Michigan families annually, saving the state an estimated $6.6 million in annual healthcare costs. Outreach gives peer support to breast-feeding mothers, increases health literacy, improves food safety, increases immunization, targets Hispanic women for breast and cervical cancer testing, and prevents exposure to secondhand smoke.

Show 400 Michigan citizens annually how to manage chronic disease. Every $1 spent on healthcare education saves the state $8.76 in future healthcare costs. Programs teach diabetics how to reduce and maintain lower blood sugar levels, and show chronic disease sufferers how to become more knowledgeable about their diseases and empowered to deal with them in positive ways.
Teach 37,500 Michigan vulnerable youth annually to find constructive alternatives to drug and alcohol use and refrain from risky behavior, saving the state an estimated $2.65 million in costs associated with the juvenile justice system each year. Programs provide hands-on, practical after-school activities, build self-esteem and leadership skills, teach kids how to resist peer pressure, provide positive role models (mentors), teach concepts of citizenship, prevent tobacco use, encourage seatbelt and sun safety, and address difficult subjects such as substance use and sexuality.

Environment: *Risks to health created by environmental and contamination factors are either remediated or minimized.*

Protect the food supply from intentional and accidental contamination. Programs teach food safety to adult and youth audiences, train food handlers on safe procedures, train producers and others on agrosecurity and agroterrorism, help veterinarians share vital animal disease and emergency information, and provide a statewide reporting and monitoring system for food safety outbreaks. The National Food Safety and Toxicology Center ensures the safety of all food types through research, education and collaboration.

Work to minimize disease from natural sources, protecting millions of people in Michigan, neighboring states and Canada. Programs teach how to keep Michigan’s water supply safe from contamination, reduce risk and spread of West Nile virus, and help prevent the spread of disease from animals to people. MSU supplies the state with a number of high-tech laboratories that safeguard Michigan’s food supply. These facilities also support innovative research and communication networks that position Michigan to be keenly responsive to rapid changes.

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**For more information:**

Thomas Coon, director, MSU Extension (517-355-2308 or msuedir@msu.edu)

John Baker, acting director, Michigan Agricultural Experiment Station (517-355-0123 or maesdir@msu.edu).
Today’s Programs to Prepare People for the New Economy

*Preparation: Communities create a climate of support for pursuit of postsecondary education for youth and adults.*

Provide communities with resources to improve the science and technology skills of more than 135,000 youth. Programs give youth in grades pre-K to 12 hands-on experience in science basics, aerospace, computer technology, electronics, Great Lakes ecosystems, natural resources management and animal science.

Assist communities in improving overall literacy levels from pre-K on. Programs increase family reading time, encourage more reading to toddlers, offer literacy activities in out-of-school programs and incorporate nutrition information into school-based literacy activities.

Offer 231,000 youth career exploration opportunities and exposure to options for postsecondary education. Programs bring youth to MSU to learn about career options, give youth many opportunities to complete practical projects along numerous career paths, let high school students see the legislative process up close and give students chances to earn postsecondary education scholarships. More than 29,000 teens are actively engaged in career exploration and employability skills programs.

New opportunity: Michigan State University and the University of Michigan are jointly pursuing a project to help improve Michigan's postsecondary education rate. The proposal, which is supported by the governor and both university presidents, would work with 15 to 20 community-based coalitions to identify obstacles to the pursuit of postsecondary education and recommend strategies to overcome these obstacles.
Family Support: Families actively help prepare their youth for postsecondary education.

Provide 275,000 families with resources to create an atmosphere of learning for pre-K children. Programs incorporate early literacy concepts into play activities, equip parents to prepare their preschoolers for school, and provide monthly parenting tips and activities to promote learning and overall good health.

Skills to Meet Demands: Lifelong learning to enhance employability and productivity is recognized and put in practice by adults.

Provide training options and resources to keep workforce skills up-to-date. Programs provide research and education/training options on revenue- and production-enhancing best practices in such areas as forestry, community planning, enterprise management, crops and soil, livestock, pest management and all other aspects of the $37 billion Michigan agricultural industry. In addition, the Better Kid Care program offers childcare training, which will help establish 2,100 new family childcare businesses in 2005-6 and train their providers.

Certify at least 500 employees annually in floriculture and dairy education programs. Certification programs teach about growing greenhouse crops, entry-level dairy employee skills and dairy farm management.

For more information:

Thomas Coon, director, MSU Extension (517-355-2308 or msuedir@msu.edu)

John Baker, acting director, Michigan Agricultural Experiment Station (517-355-0123 or maesdir@msu.edu).
Natural Resources Are Conserved and Protected

MSU Extension (MSUE) and Michigan Agricultural Experiment Station (MAES) work together to conserve and protect Michigan’s natural resources. MAES conducts critical research on Michigan’s priority concerns, and MSUE uses that research as the basis for educational programs for communities and citizens.

Highlighted Programs

**Smart Community Development**
- Citizen Planner
- Junior Citizen Planner
- MSU Land Policy Program

**Protecting Water Resources**
- Institute of Water Research
- Volunteer Stream Monitoring
- Michigan Lake and Stream Leaders Institute
- Michigan Sea Grant
- Michigan Watershed Management Short Course

**Conserving and Using Natural Resources**
- MSU Environmental Science and Policy Program
- Michigan Natural Features Inventory
- Sustainable Forestry Education
- Wind Energy Initiative

**Protecting Michigan from Disease**
- MSU Diagnostic Center for Population and Animal Health
- North Central Integrated Pest Management Center
- MSU Plant Diagnostics Services

**New Opportunity**
- Conservation Stewards Training Program

Today's Programs to Conserve and Protect Natural Resources

**Stewardship: Wise stewardship is evident in natural resource management.**

Train citizens to conserve ecosystems across Michigan. Programs provide expert guidance to citizens, elected officials, biologists, agency personnel and land managers to help them better manage Michigan’s plant and animal communities. Programs will reach more than 2,000 adults representing dozens of agencies and organizations in 2005.

Protect Michigan’s vast water resources, an important economic contributor to Michigan’s $12 billion tourism industry. Programs help businesses and industry segments explore options for improving economic opportunities while maintaining a vibrant and sustainable ecosystem.

Teach citizens, communities and industries how to control non-native disease and pest threats. Programs provide education and prevention strategies for such threats as emerald ash borer, soybean aphid, bovine TB and West Nile virus. Programs will reach about 3,000 individuals this year.

Protect against plant and animal disease threats. Programs help identify and prevent the spread of diseases that may affect livestock, wildlife and humans, and identify and treat disease, insect and nutrient problems that affect Michigan’s field and greenhouse crops and private property. State-of-the-art facilities on the MSU campus — including the Diagnostic Center for Population and Animal Health, the North Central Integrated Pest Management Center and the College of Veterinary Medicine — provide educators and researchers with immediate access to critical information.
**Tomorrow's Research Priorities**

**Supporting Conservation and Protection of Natural Resources**

- Investigate the effects of non-native invasive species such as zebra mussels, emerald ash borer and soybean aphid to maintain balance in Michigan's delicate ecosystems.
- Provide rapid diagnosis of diseases such as West Nile virus and bovine TB to manage the health of wild animal populations while monitoring associated human health risks.
- Develop research-backed models to help inform Michigan's farmland preservation and land use planning efforts.
- Answer questions of basic science that may help boost productivity of crops and trees to advance alternative energy technologies.
- Assess plans for Michigan's second ethanol plant to accelerate practical applications of alternative energy technologies.
- Develop computer models and Internet technologies to help state policy-makers improve decision making on issues from air pollution to soil erosion to urban sprawl.

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**Land use: Land is conserved and responsibly developed.**

Teach 500 citizens and elected officials to make wise land use decisions. Programs will help planners make informed decisions, provide an online option for planners who are limited by location or schedule, and show young people the varied effects of land use options.

**Alternative Energy: New sources are developed and used.**

More than 300 landowners, farmers and others are learning about energy production alternatives, including wind, biodiesel and ethanol, that could add $2 million annually to Michigan's economy and create new jobs. Entrepreneurs understand the potential in developing alternative energy sources, including harnessing wind power and developing farmer-owned cooperatives to build plants for processing corn into ethanol or soybeans into biodiesel fuels.

**Volunteer Citizen Involvement: Citizens are actively involved in natural resource conservation and protection.**

Provide opportunities for 250 citizens to learn about science-based tools and strategies for protecting Michigan's natural resources and contribute $800,000 in volunteer time. Programs teach Michigan citizens to monitor water quality, care for woodland resources and manage other natural areas.

**Education and Outreach: Public policy reflects balanced priorities between conserving and protecting resources and wise development.**

Offer university-backed research to help policy-makers make informed decisions about natural resource use in Michigan. Conduct studies of many of Michigan's most crucial natural resource use issues and convert the outcomes into education opportunities for communities, policy-makers, landowners, businesses and individuals.

Provide access to technology to help municipal and resource managers across the state make critical assessments and development decisions. For example, the MSU Institute of Water Research uses Web-based geographic information system (GIS) computer programs for easy mapping of watersheds. The programs assess soil erosion and changes in runoff and non-point source pollution resulting from past or proposed development.

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**For more information:**

Thomas Coon, director, MSU Extension (517-355-2308 or msuedir@msu.edu)

John Baker, acting director, Michigan Agricultural Experiment Station (517-355-0123 or maesdir@msu.edu).
Today's Programs Needed to Build a Safer Michigan

Prevention: Families and communities must provide safe, stable places to live and grow.

More than 11,000 parents and children will build life skills and prevent situations and behaviors that threaten family safety. Program topics include nutrition education, healthful living practices, home environment safety, violence prevention and increased community involvement. Improved parenting skills and prenatal care for as many as 5,000 citizens per year will accrue to save the state $50 million annually in treatment costs related to infant mortality and low-birthweight babies, crime reduction, protective services and foster care, and psychological services. Programs are provided in community settings, after and during school time, through peer counseling and with interagency cooperation.

Thirty community leaders will receive indepth training about the needs of and opportunities related to senior residents, which will reduce costs related to senior care and increase seniors' quality of life. In collaboration with the Office of Services to the Aging and other senior service providers, programs encourage municipalities to create certified communities for seniors to extend services in cost-effective ways.
Reduced Recidivism: Support systems are in place to provide at-risk youth with opportunities to develop positive coping skills.

Mentor at-risk youth in 22 counties, giving them skills to be productive, contributing members of society. Youth in mentoring programs remain in school longer, improve academic achievement, have better relationships with peers and family members, and are less likely to engage in negative social behaviors. In seven counties, Extension mentoring programs work with youth involved in the juvenile justice system. Evaluation data indicate that these programs reduce by 90 percent the likelihood that these youth will return to the court system and will ultimately save taxpayers in those counties approximately $15 million annually. These programs are collaborative efforts with local school systems, the Department of Human Services and local court systems.

Effective Response: People must be prepared to respond to emergencies as families and communities.

Provide continued research and education to help protect families and communities against food-borne illnesses, West Nile virus, bovine TB and waterborne pathogens. Campus-based labs include the Diagnostic Center for Population and Animal Health and the National Food Safety and Toxicology Center. MSU supplies the state with these and other high-tech laboratories that safeguard Michigan’s food supply. These facilities also support innovative research and communication networks that enable Michigan to be keenly responsive to rapid changes.

Train 3,500 disaster first-responders, teachers, local officials, farmers, homeowners, business operators and private citizens. These programs will prepare the state to handle any emergency or disaster, from flood to fire to attack. Some programs will be offered in both English and Spanish.

Promote homeland security measures by providing education about agricultural security and food safety procedures to more than 3,200 food producers and processors.

Educate the state’s 3,600 veterinarians and operators of every grade. A dairy farm in the state, as well as a large percentage of other dairy and livestock farm operators, to improve their awareness, preparedness and response to animal disease-related emergencies. Programs provide the latest information on biosecurity mitigation, foreign animal diseases, emerging infectious diseases, agroterrorism agents and zoonotic diseases.

Tomorrow’s Research Priorities in Support of Keeping People Safe

- Develop quick, inexpensive sensors to detect multiple pathogens in the food supply.
- Identify and track emerging and reemerging diseases and food pathogens.
- Develop recommendations to reduce metal toxicity and hypoxia because of metal contamination in the food supply.
- Formulate food safety recommendations to reduce microbial food-borne illnesses such as listeriosis, botulism and salmonellosis.
- Identify food processing weak points to improve federal Hazard Analysis and Critical Control Points (HACCP) system recommendations.
- Investigate new ways to reduce microbial contamination of fresh produce.
- Adapt nanotechnology for use in food safety protection devices.
- Create meat processing models that will improve the safety of Michigan-produced meat products.
- Develop sensors to detect pathogens in water.

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John Baker, acting director, Michigan Agricultural Experiment Station (517-355-0123 or maesdir@msu.edu).
Today's Programs Build a Thriving Economy

Skilled Work Force: Agriculture is a strong contributor to the Michigan economy and holds promise for diversification and global markets.

Provide research, training and education in every area of Michigan's No. 2 industry — agriculture. These programs support the employment of more than 500,000 people and the economic contributions of the:

- $794 million dairy industry
- $1.2 billion field crop industry
- $173 million swine industry
- $361 million vegetable industry
- $207 million beef industry
- $250 million fruit industry
- $169 million poultry industry
- $580 million floriculture, nursery and Christmas tree industry
- $1.8 billion turfgrass industry and Christmas tree industry

For every one producer, six other people are connected to the agricultural industry nationally. This includes those involved in processing, transportation and the restaurant industry. This number is likely much higher in Michigan because processing in Michigan ranks significantly above the national average.

The potential for expansion of the agricultural industry in Michigan is strong because Michigan is located within 500 miles of half of the U.S. population and produces agricultural products that readily lend themselves to value-added production. Programs assist producers, small businesses and others to develop new products and markets.

It is vital to have continued research and education to help protect a $37 billion industry that is vulnerable to weather, zoonotic diseases and other threats. MSU's high-tech laboratories safeguard Michigan's food supply. These facilities also support innovative research and communication networks that position Michigan to be keenly responsive to rapid changes.

Research, technology and knowledge transfer: Crucial innovations for agriculture and natural resource industries.

Provide research-based information to help agriculture and natural resource industries balance economic and environmental impacts. Extension educators report reaching more than 45,000 producers, agribusiness owners and agency collaborators to explore ways to profitably produce healthy, wholesome plants and animals, from managing inputs to taking quality products to markets.
Teach farmers to prevent environmental degradation. Programs provide nutrient management strategies that keep crops growing and prevent animal waste from affecting surface and groundwater. With education, producers use nutrients to build soil fertility and improve crop yields while reducing chemical inputs.

Michigan Sea Grant will lead community-based efforts to design sustainable shoreline development that will reach more than 500 coastal community leaders. Focus includes incorporating coastal aquatic habitat, planning for water-dependent tourism and recreation enterprises, and brownfield redevelopment issues. Small-business owners, harbor and port stakeholders, and entrepreneurs will consider economic, security and transportation issues.

Entrepreneurial Spirit: Entrepreneurs and small businesses need assistance to launch successful startups.

Nearly 30 innovation counselors across the state are working with more than 450 clients to pursue commercially successful ventures. This program connects those interested in developing food and fiber-related products to economists, test kitchens, nutritionists, marketing, advertising and packaging professionals on the MSU campus.

Identify and intensively train 30 up-and-coming leaders in the food systems, natural resources, manufacturing and environmental communities every two years. This ANR Leadership Program is building a dynamic leadership network with the capacity to provide collaborative approaches for identifying and dealing with the complex sustainability issues that affect Michigan.

Desirable Communities: Communities must provide a desirable climate for economic growth and quality of life.

Work with 30 communities and business leaders to identify economic opportunities and enhance community sustainability. Programs teach community leaders to create plans that improve commercial, residential and recreational areas.

Provide the expertise to help local planners in 50 communities make informed economic planning decisions. Programs dispatch expert consultants to help make assessments, create new possibilities, provide nonprofit organizations with leadership training, and facilitate strategic planning and visioning sessions.

Educate owners/managers of 100 existing businesses on how to maximize business potential. Programs will identify needs related to training and retaining employees, navigating the processes for acquiring business development loans, and capturing grant funds for expansion and infrastructure improvements.

Assistance to Entrepreneurs: New jobs can be created by adding value to Michigan agricultural commodities and by commercializing high value, consumer-responsive products and businesses.

Provide more than 330 potential small and new business owners access to research and services to help mitigate startup risks. The Product Center for Agriculture and Natural Resources develops feasibility studies and connects businesses with expertise at MSU and other major universities, reducing the uncertainties and providing a faster progression from concept to final product.
Michigan State University Extension (MSUE) and the Michigan Agricultural Experiment Station (MAES) work together to provide resources, education and training to help Michigan's youth succeed. MAES conducts critical research into Michigan’s priority concerns, and MSUE uses that research as the basis for educational programs for communities and families.

**Highlighted Programs**

- Positive Out-of-school Youth Development
- 4-H Youth Development
- 4-H Health Challenge
- Youth mentoring

- **Family support**
  - ABC’s at Home with Me
  - Better Kid Care
  - Breast-feeding Initiative
  - Building Strong Adolescents
  - Building Strong Families
  - Caring for My Family
  - ReTHINK: Anger Management
  - SMILE (Start Making It Livable for Everyone)
  - divorce management

- **School and community**
  - 4-H antibullying and diversity
  - 4-H Character Counts
  - 4-H literacy and reading
  - 4-H science and technology
  - Children and Weight: What Communities Can Do!
  - Family Bookbag
  - Head Start on Science
  - Jr. Citizen Planner
  - Pyramids Between the Pages

- **Health and nutrition**
  - Don’t Croak on Secondhand Smoke
  - Low-income family nutrition
  - Healthy Kids, Healthy Families
  - Home Safe Kids
  - Physician Peer Education Project on Immunization
  - Project FRESH
  - Jump Into Foods and Fitness
  - Team Nutrition

- **New opportunity**
  - Expansion of Court-associated Youth Mentoring Programs

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**Today's Programs that Support Successful Youth**

**Basic Needs Are Met: Kids must have a healthy foundation for successful living and learning.**

Provide tools to assist 59,000 Michigan youth in eating right, exercising and receiving the nurturing they need through 4-H and other programs. In the family arena, programs encourage early literacy at home and in childcare, teach nutrition concepts, encourage preventive health practices, build strong parenting skills, boost immunization rates, and increase fruit and vegetable consumption. They also provide parents with the skills to keep a home stable, show how to incorporate exercise into everyday activities and teach kids how to make healthy choices.

**Improve the literacy levels and technology skills of more than 34,000 Michigan youth.** Education encourages classroom and out-of-school reading, teaches providers how to incorporate literacy activities into childcare and offers hands-on opportunities for science study in and out of school. 4-H and other MSUE programs teach a variety of technology skills in such areas as aerospace, computer technology and electronics; provide resources for increased family reading time; and show parents the benefits of increased reading to toddlers.

**Keep kids safer at home and at school.** 4-H health programs directly affect nearly 3,000 youth, and family programs affect nearly 6,500. Programs challenge youth to make healthy choices about alcohol, drugs, tobacco, sun safety and seatbelt use; train parents to look for in-home hazards such as lead, radon and mold; teach parents how to communicate effectively with their adolescents; and teach anger management skills to prevent incidents of abuse.
**Safe Schools:** *Schools must provide safe, stable environments for learning.*

Allow 5,000 students to feel more comfortable at school, so they can concentrate on learning. Programs deter bullying, teach about diversity and incorporate character education into school curriculums.

Make schools healthier places for 87,000 students. Outreach shows schools how to meet national nutrition and activity recommendations by providing healthier school lunches, provides resources for at least 300 teachers to teach students about nutrition and exercise, and helps schools find ways to incorporate more physical activity into the school day.

**Communities Reinforce Education:** *Communities provide positive out-of-school opportunities for learning and achieving.*

4-H improves the quality and quantity of out-of-school programs available to 232,000 youth per year. Programs offer safe and practical after-school activities for K-12 kids, provide hundreds of hands-on, quality out-of-school-time options to engage youth and offer positive role models.

**Augment Formal Education:** *Kids have positive adult mentors who invest in their achievement and contribute to their learning.*

Use 24,000 4-H volunteers and/or mentors to help 230,000 youth maximize their potential. 4-H programs rigorously screen and train volunteers to lead youth programs and mentor individuals, provide mentoring for at-risk youth, and use a variety of hands-on projects to teach youth self-sufficiency, goal setting, responsibility, teamwork and more.

**Access to Childcare:** *Quality childcare must be available during out-of-school time.*

Improve skills of caregivers providing childcare for an estimated 12,000 children each year. More than 2,100 new family childcare businesses will be established in 2005-6, and their providers will be trained. Programs provide childcare training to providers who typically are not reached through other means, enhance caregiver skills, and recruit and train potential providers from low-income neighborhoods to become licensed.

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**For more information:**

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Enhancing economic development and improving quality of life for Michigan citizens

MSU Extension (MSUE) offers education and the Michigan Agricultural Experiment Station (MAES) provides research. Together they support Michigan communities, businesses and individuals as they strive to improve their economic situations. This paper shows a sample of the work we do in Michigan's priority areas.

Environmental Stewardship and Natural Resources Management
- Train more than 2,000 citizens and elected officials through the Citizen Planner program since 2001
- Study land use planning and communicate research findings such as:
  - Every house built in developed areas instead of sprawl development areas saves local government more than $17,000
  - If just 5 percent of the homes built in Michigan are shifted to existing development, annual savings would be $43 million

Food and Health
- Reach 92,000 families with nutrition education programs
- Save $193 million in future healthcare costs
- Achieve a high level of external grant support

Secure Food and Fiber Systems
- Run more than 1 million tests for bovine TB, West Nile virus, emerald ash borer and other pests and diseases in MSU diagnostic laboratories
- Reduce agriculture and natural resources losses due to natural disasters
- Prevent economic losses due to bioterrorism, animal disease outbreaks plant pests and diseases

4-H / Youth, Family and Community Vitality
- Support MSUE 4-H Youth Development programs
- Reach more than 230,000 youth; 33 percent of 4-H youth receive mostly A's in school compared with 19 percent of nonparticipating youth
- Engage more than 22,000 volunteers; volunteer time valued at $55 million each year

Enhancing Profitability in Agriculture and Natural Resources
- Provide educational programs to more than 45,000 producers each year
- Support a sustainable forestry industry
- Conduct research on development of biofuels
- Assist more than 70 entrepreneurial projects via the MSU Product Center for Agriculture and Natural Resources
  - In one project, the west Michigan apple industry benefited from market and production research for fresh cut apple slices

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May 5, 2005
Appendix J

MSUE 2003-2004

Annual Report of Accomplishments and Results
Michigan State University
Extension 2003-04 Annual Report
of Accomplishments and Results

Thomas Coon
Director
Overview

Since its beginning, Michigan Extension has focused on bringing knowledge-based educational programs to the people of the state to improve their lives and communities. Today, county-based staff members, in concert with on-campus faculty members, serve every county with programming focused on agriculture and natural resources; children, youth and families; and community and economic development.

Today’s problems are very complex. Solutions require the expertise of numerous disciplines and the collaboration of many partners. Operating synergistically with the Michigan Agricultural Experiment Station and other Michigan State University units, MSU Extension extends the University’s knowledge resources to all Michigan citizens and assists them in meeting their learning needs through a variety of educational strategies, technologies and collaborative arrangements.

Michigan State University Extension (MSUE) uses an ecological model in approaching community needs by providing educational programs and information at multiple levels, which results in blended funding sources, programs crossing over goal areas, integration of research and educational instruction, and multiple delivery approaches (direct and indirect). For example land use in Michigan plays a critical role in agriculture, environment, and community and economic development, which is addressed by multiple resources (federal, state, county, and other) and through multiple Area of Expertise (AoE) teams. In addition, environmental factors (i.e., reduction of state and county dollars, early retirements of senior staff) have affected resources, number of staff, and the educational programs.

Stakeholder Input

MSUE used stakeholder input to identify critical issues, prioritize programming, improve program designs and provide feedback (see 2004 Update to Plan of Work). During 2002 MSUE used the results of a statewide initiative of community input called “Sharpening Our Program Focus” that identified five priority areas: Building strong communities; Helping youth succeed; Enhancing profitability in agriculture; Encouraging responsible land and natural resources use; and Building healthy families. A survey was done in the spring of 2002 by the Institute for Public Policy and Social Research (IPPSR) called the State of the State Survey (SOSS) assessed a variety of public topics with one set of questions asking for reactions to the identified program priorities for MSU Extension. The 1012 random surveys were conducted in all six regions of the state. The findings supported the five priority areas with 78% of the respondents rated as a high priority to help youth succeed as well as building healthy families, followed by 70% indicating high priority for encouraging responsible land and natural resource use, 62% for building strong communities, and 51% for enhancing profitability for agriculture. It is noteworthy to state that only 3%-5% indicated any of these areas as a low priority. Local, regional and state focus areas were used by the 29 AoE teams, in collaboration with their advisory
committees, partners and stakeholders, to strengthen existing goals, drop completed or obsolete goals, and create new initiatives. The following report describes the outcomes and impacts of the programs and initiatives that were the result of this process. Overall, MSUE:

• Impacted educational programs and applied research projects that addressed health and obesity issues, helped officials and communities deal with land use issues, taught and supported parents, provided strong mentoring and other educational programs for children and youth (including 4-H), promoted value-added agriculture, helped protect the state’s environment and natural resources, and controlled and eradicated the spread of infectious diseases.

• Conducted long-term research projects affecting various agricultural and natural resource industries (including forestry and tourism) that made major contributions to the state’s economy.

• Strengthened the capacity to address threats to Michigan’s food security and the health of its citizens. Key examples of current research included bovine tuberculosis, West Nile virus, chronic wasting disease, hoof and mouth disease, emerald ash borer etc.

• Worked with countless collaborations in communities in which MSU Extension provided the educational component to complement the services provided by other organizations and agencies (e.g., FIA, MDCH, WIC, DNR and MDA). This also included mandated continuing education programs for a variety of industries.

• Strengthened the research and educational capacity of Michigan’s land grant university with the loss of MSUE educators and MAES scientists.

• Strengthened the funding partnerships that created the state’s land grant system of public access. These partnerships fund positions at the state and local levels and they ensure that state and local issues are addressed.

Presently the Institute for Public Policy and Social Research (IPPSR) is conducting another State of the State Survey (SOSS). Findings from this will be used as one source of stakeholder input in developing the 2007-2011 Plan of Work in the future.

Inputs and Resources

Table 1. shows the overall expenditures for MSUE for the 2003-04 federal programming year to be $75.4 million, with $7.6 million being Federal B and C formula dollars. These dollars have been critical in contributing to base programming in the counties as well as enhancing programs by matching state and county dollars. The match from the state is over 300%, demonstrating strong support for MSU Extension’s partnership with USDA. Because Federal 3B and 3C dollars, like the state and county dollars, are integrated into virtually every MSUE program, the following report reflects the whole rather than a part.
One major part that is missing from the following report is in-kind contributions, which include volunteer time (more than 28,000 volunteers assisted programming in 2003-04) and tangible resources, such as building space, materials, and travel that would be valued in the millions of dollars.

<table>
<thead>
<tr>
<th>Goal</th>
<th>FedBC</th>
<th>Fed3D</th>
<th>State</th>
<th>Local</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Agriculture</td>
<td>1,755,073</td>
<td>38,339</td>
<td>7,260,664</td>
<td>3,940,391</td>
<td>1,478,053</td>
<td>14,472,520</td>
</tr>
<tr>
<td>2) Food Safety</td>
<td>789,701</td>
<td>558,420</td>
<td>4,008,429</td>
<td>3,364,515</td>
<td>3,636,342</td>
<td>12,357,407</td>
</tr>
<tr>
<td>3) Food, Nutrition, and Health</td>
<td>751,594</td>
<td>1,174,788</td>
<td>3,472,994</td>
<td>4,586,619</td>
<td>6,860,033</td>
<td>16,846,027</td>
</tr>
<tr>
<td>4) Environmental</td>
<td>1,671,702</td>
<td>50,838</td>
<td>6,158,875</td>
<td>4,198,549</td>
<td>3,340,737</td>
<td>15,420,701</td>
</tr>
<tr>
<td>5) Community, Human, and Youth</td>
<td>2,497,913</td>
<td>19,592</td>
<td>7,003,201</td>
<td>4,439,459</td>
<td>2,345,363</td>
<td>16,305,528</td>
</tr>
<tr>
<td>Total</td>
<td>7,465,982</td>
<td>1,841,976</td>
<td>27,904,163</td>
<td>20,529,533</td>
<td>17,660,528</td>
<td>75,402,183</td>
</tr>
</tbody>
</table>

Graph 1. Overall MSU Extension Expenditures by Source of Funding and Federal Goal

Graph 1. shows 10% of MSUE funds were **Federal 3b and 3c**, 2% **Federal 3d** (mainly EFNEP), 37% **State**, 27% **County**, and 23% **Other** (competitive grants – multiple sources with FNP being the largest),
Graph 2. shows overall funding for MSUE by Federal Goals: 19% of funding involved programs that addressed Goal 1) An agricultural system that is highly competitive in the global economy; 16% for Goal 2) A safe and secure food and fiber system; 22% for Goal 3) A healthy, well-nourished population; 20% for Goal 4) Greater harmony between agriculture and the environment; and 22% for Goal 5) Enhanced economic opportunity and quality of life for Americans.

Table 2. shows that in 2003-2004, MSUE staff consisted of 1,012 full time equivalents (FTE) with 50% Professional (506 FTE's), 25% Para-Professional (252FTE's), and 25% (254 FTE's) Office and Clerical staff members. Two changes have taken place in the past three years: a decrease in senior staff (i.e., County Extension Directors, field agents, specialists, and administrators); and an increase in starting level para-professionals, which have mainly been in parenting and 4-H Food and Nutrition programs. Nine percent of the total FTE’s (89 FTE’s) were funded by Federal 3b&c with 79 FTE’s being Professional. Twenty-four percent of the total FTE’s (243 FTE’S) were county funded employees.

<table>
<thead>
<tr>
<th></th>
<th>Goal 1</th>
<th>Goal 2</th>
<th>Goal 3</th>
<th>Goal 4</th>
<th>Goal 5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td>116</td>
<td>46</td>
<td>65</td>
<td>123</td>
<td>156</td>
<td>506</td>
</tr>
<tr>
<td>Para-Professional</td>
<td>15</td>
<td>61</td>
<td>138</td>
<td>15</td>
<td>23</td>
<td>252</td>
</tr>
<tr>
<td>Office/Clerical</td>
<td>57</td>
<td>33</td>
<td>38</td>
<td>51</td>
<td>75</td>
<td>254</td>
</tr>
<tr>
<td></td>
<td>188</td>
<td>140</td>
<td>241</td>
<td>189</td>
<td>254</td>
<td>1,012</td>
</tr>
</tbody>
</table>

Table 2.
Total FTE by Professional/Para-Professional by Federal Goal
Graph 3. shows the percentage of FTE by Federal Goal for Professional Staff members, where the largest group fell in Goal 5 (Community, Human, and Youth Dev.).

![Graph 3. Percentage of Professional FTE’s by Federal Goals]

### Outputs

Table 3. shows AOE teams grouped by Federal Goal. The number of participants reached for each AOE’s is provided:

<table>
<thead>
<tr>
<th>Goal 1 - Agriculture</th>
<th>Adult</th>
<th>Youth</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef</td>
<td>914</td>
<td>6,282</td>
<td>7,196</td>
</tr>
<tr>
<td>Consumer Horticulture</td>
<td>10,549</td>
<td>1,399</td>
<td>11,948</td>
</tr>
<tr>
<td>Dairy</td>
<td>5,607</td>
<td>3,300</td>
<td>8,907</td>
</tr>
<tr>
<td>Equine</td>
<td>790</td>
<td>17,857</td>
<td>18,647</td>
</tr>
<tr>
<td>Field Crops</td>
<td>15,371</td>
<td>2,964</td>
<td>18,335</td>
</tr>
<tr>
<td>Floriculture</td>
<td>2,439</td>
<td>130</td>
<td>2,569</td>
</tr>
<tr>
<td>Forage/Pasturing/Grazing</td>
<td>2063</td>
<td>28</td>
<td>2,091</td>
</tr>
<tr>
<td>Fruit</td>
<td>4,948</td>
<td>3,633</td>
<td>8,581</td>
</tr>
<tr>
<td>Livestock - Overall</td>
<td>3,096</td>
<td>1,149</td>
<td>4,245</td>
</tr>
<tr>
<td>Nursery/Landscape</td>
<td>2,103</td>
<td>0</td>
<td>2,103</td>
</tr>
<tr>
<td>Ornamentals - Overall</td>
<td>5,043</td>
<td>1220</td>
<td>6,263</td>
</tr>
<tr>
<td>Sheep</td>
<td>12</td>
<td>4,368</td>
<td>4,380</td>
</tr>
<tr>
<td>Swine</td>
<td>150</td>
<td>9,009</td>
<td>9,159</td>
</tr>
<tr>
<td>Turfgrass</td>
<td>670</td>
<td>130</td>
<td>800</td>
</tr>
<tr>
<td>Vegetables</td>
<td>1,874</td>
<td>5,449</td>
<td>7,323</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>55,630</strong></td>
<td><strong>56,918</strong></td>
<td><strong>112,548</strong></td>
</tr>
</tbody>
</table>

**Goal 2 - Food Safety**

<table>
<thead>
<tr>
<th>Food Safety*</th>
<th>Adult</th>
<th>Youth</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td><strong>11,137</strong></td>
<td><strong>15,050</strong></td>
<td><strong>26,187</strong></td>
</tr>
</tbody>
</table>

**Goal 3 - Food, Nutrition, and Health**

<table>
<thead>
<tr>
<th>Food, Nutrition &amp; Health*</th>
<th>Adult</th>
<th>Youth</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td><strong>47,547</strong></td>
<td><strong>48,749</strong></td>
<td><strong>96,296</strong></td>
</tr>
</tbody>
</table>

**Goal 4 - Environmental**

<table>
<thead>
<tr>
<th>Forestry</th>
<th>Adult</th>
<th>Youth</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Use</td>
<td>4,703</td>
<td>9,450</td>
<td>14,153</td>
</tr>
<tr>
<td>Manure</td>
<td>1,635</td>
<td>686</td>
<td>2,321</td>
</tr>
</tbody>
</table>
In 2003-04, through the efforts of these twenty-nine AoE teams and volunteers, MSUE reached 430,123 participants directly through educational programs. This was a decrease of 9% from the previous year, which was due to reduced funding and loss of senior staff who took early retirements. Table 4. shows the number of participants reached directly for each of the five Federal Goal areas. Goal 5 (Community, Human, and Youth Development) had the largest number of participants with 136,454, followed by Goal 1 (Agriculture) and Goal 3 (Food, Nutrition, and Health). The numbers below do not include the millions of people that are educated through newsletters, TV, internet, radio and conferences on topics that include: Emerald Ash Borer, Helping Children and Their Families Cope with Disasters, and MSUE Emergency Management.

<table>
<thead>
<tr>
<th>Goal Area</th>
<th>Adult</th>
<th>Youth</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>55,630</td>
<td>56,918</td>
<td>112,548</td>
<td>26.17%</td>
</tr>
<tr>
<td>Food Safety*</td>
<td>11,137</td>
<td>15,050</td>
<td>26,187</td>
<td>6.09%</td>
</tr>
<tr>
<td>Food Nutrition and Health*</td>
<td>47,547</td>
<td>48,749</td>
<td>96,296</td>
<td>22.39%</td>
</tr>
<tr>
<td>Environmental</td>
<td>23,141</td>
<td>35,497</td>
<td>58,638</td>
<td>13.63%</td>
</tr>
<tr>
<td>Community, Human and Youth Development**</td>
<td>60,899</td>
<td>75,555</td>
<td>136,454</td>
<td>31.72%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>198,354</strong></td>
<td><strong>231,769</strong></td>
<td><strong>430,123</strong></td>
<td></td>
</tr>
</tbody>
</table>

* To avoid duplication, participants who received both food safety and food nutrition were counted only once (20% Food Safety and 80% Food, Nutrition, and Health).
** To avoid duplication, youth who crossed goals were not counted again in youth development.

Table 4.
Total Participants Reached Directly by Federal Goal
Graph 4. shows the ethnic distribution of the 430,123 participants educated directly.

Seventy-nine percent (81%) of the participants were Caucasian, 11% African American, 4% Hispanic, 2% Native American, 1% Asian, and 2% Multi-Cultural. This distribution is representative of Michigan’s population: 80.9% Caucasian, 14.3% African American, 2.8% Hispanic, .6% Native American, and 1.7% Asian (Multi-Cultural was not used).

Outcomes and Impacts

MSUE is dedicated to educating tomorrow's leaders and scholars. Innovative and hardworking MSUE faculty and staff members create knowledge and extend learning to serve Michigan, the nation and the international community. At MSU, faculty and staff members are expected to be active, learner-focused scholars, exemplifying scholarship across the land-grant mission. The essence of this scholarship is the thoughtful discovery, transmission and application of knowledge based in the ideas and methods of recognized disciplines, professions and interdisciplinary fields. What qualifies an activity as scholarship is that it be deeply informed by the most recent knowledge in the field, that the knowledge is skillfully interpreted and deployed, and that the activity is carried out with intelligent openness to new information, debate and criticism. The primary mechanism for educational program planning, implementation and evaluation for Michigan State University Extension is the Area of Expertise (AoE) team concept, which brings stakeholders, collaborators, faculty members, field
staff members, and communities together for community need assessments, prioritization of MSUE programming goals, program development and implementation, and assessment of impact. Documented impacts focused on information that reflect changes in knowledge, attitudes, skills, aspirations, and communities that ultimately lead to transformational education and scholarship of discovery, integration, and application (see Figure 1.)

In 2003-04 MSU Extension used the 29 Area of Expertise (AoE) teams as its central vehicle to assess community needs (see Figure 2.) through stakeholders, advisory groups, and community (constituents) involvement in identifying and prioritizing community needs, integrating research with program development, delivering the program, and evaluating impact and reassessing the need and situation.
From this process, key areas for the AoE Teams in 2003-04 were:

- Adding Value to New and Old Agricultural Products
- Agricultural Profitability
- Animal Health
- Animal Production Efficiency
- Emerging Infectious Diseases
- Home Lawn and Gardening
- New Uses for Agricultural Products
- Ornamentals/Green Agriculture
- Plant Health
- Plant Production Efficiency
- GIS/GPS
- Food Handling
- Food Safety
- HACCP
- Human Nutrition
- Agricultural Waste
The following sections (organized by the five federal areas) highlight some of Michigan State University Extension’s impacts in 2003-04.
Overview of Goal 1: An agricultural system that is highly competitive in the global economy

Over 100,000 participants (110,158) were directly involved in MSUE educational programs that focused on the agricultural system. Table 5. shows the number of participants and the Federal Key Themes for each of the sixteen AoE teams that worked in Goal 1. Key themes highlighted in this report demonstrating impact were: adding value to new and old agricultural products, agricultural profitability, animal health, animal production efficiency, emerging infectious diseases, home lawn and gardening, new uses for agricultural products, ornamentals/green agriculture, plant health, and plant production efficiency.

<table>
<thead>
<tr>
<th>Goal 1</th>
<th>Adults</th>
<th>Youth</th>
<th>Total</th>
<th>Federal Key Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef</td>
<td>914</td>
<td>6,282</td>
<td>7,196</td>
<td>Animal Production Efficiency, Agricultural Profitability, Emerging Infectious Diseases</td>
</tr>
<tr>
<td>Consumer Horticulture</td>
<td>10,549</td>
<td>1,399</td>
<td>11,948</td>
<td>Home Lawn and Gardening, Ornamentals/Green Ag</td>
</tr>
<tr>
<td>Dairy</td>
<td>5,607</td>
<td>3,300</td>
<td>8,907</td>
<td>Animal Production Efficiency, Agricultural Profitability, Emerging Infectious Diseases</td>
</tr>
<tr>
<td>Equine</td>
<td>790</td>
<td>17,857</td>
<td>18,647</td>
<td>Animal Production Efficiency, Adding Value</td>
</tr>
<tr>
<td>Field Crops</td>
<td>15,371</td>
<td>2,964</td>
<td>18,335</td>
<td>Adding Value, Precision Ag, Agricultural Profitability, IPM</td>
</tr>
<tr>
<td>Goal 1 (continued)</td>
<td>Adults</td>
<td>Youth</td>
<td>Total</td>
<td>Federal Key Themes</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------</td>
<td>-------</td>
<td>-------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>Floriculture</td>
<td>2439</td>
<td>130</td>
<td>2,569</td>
<td>Adding Value, Agricultural Profitability, Biotechnology, IPM, Ornamentals/Green Ag</td>
</tr>
<tr>
<td>Forage/Pasturing/Grazing</td>
<td>2063</td>
<td>28</td>
<td>2,091</td>
<td>Adding Value, Grazing, Emerging Infectious Diseases</td>
</tr>
<tr>
<td>Fruit</td>
<td>4,948</td>
<td>3,633</td>
<td>8,581</td>
<td>Adding Value, Ag Profitability, Niche Market, IPM</td>
</tr>
<tr>
<td>Livestock - Overall</td>
<td>3,096</td>
<td>1,149</td>
<td>4,245</td>
<td>Animal Production Efficiency, Agricultural Profitability, Emerging Infectious Diseases</td>
</tr>
<tr>
<td>Nursery/Landscape</td>
<td>2,103</td>
<td>0</td>
<td>2,103</td>
<td>Home Lawn and Gardening, Ornamentals/Green Ag</td>
</tr>
<tr>
<td>Ornamentals - Overall</td>
<td>5,043</td>
<td>1220</td>
<td>6,263</td>
<td>Adding Value, Agricultural Profitability, Biotechnology, IPM, Ornamentals/Green Ag</td>
</tr>
<tr>
<td>Sheep</td>
<td>12</td>
<td>4,368</td>
<td>4,380</td>
<td>Animal Production Efficiency, Small Farm Viability</td>
</tr>
<tr>
<td>Swine</td>
<td>150</td>
<td>9,009</td>
<td>9,159</td>
<td>Adding Value, Animal Production Efficiency, Manure Management</td>
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<tr>
<td>Turfgrass</td>
<td>670</td>
<td>130</td>
<td>800</td>
<td>Agricultural Profitability, Ornamental/Green Ag</td>
</tr>
<tr>
<td>Vegetables</td>
<td>1,874</td>
<td>5,449</td>
<td>7,323</td>
<td>Adding Value, Precision Ag, Agricultural Profitability, IPM</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>55,630</td>
<td>56,918</td>
<td>112,548</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.
Number of Participants and Key Themes by AoE for Federal Goal 1.
Highlights

• Floriculture College of Knowledge--Greenhouse employees in Michigan’s $342 million floriculture industry had very limited educational opportunities. At the same time, there was a void in the industry for technically trained workers. Michigan State University is helping fill the demand in the greenhouse industry for certified personnel by presenting the MSU Extension Floriculture college of Knowledge Greenhouse Grower Career Development Certificate Program. The program offers 12 courses in English or Spanish for greenhouse employees who want to expand their technical knowledge and skills for career advancement. This is the only bilingual certification program of its type in the United States. To date, more than 400 people from 21 states and four countries have participated and learned more about growing greenhouse crops. Greenhouse owners have been supportive of the certificate program and willing to pay the workshop fees and provide time off work for their employees to attend classes. Owners comment that communication with employees has improved, and students demonstrate greater knowledge on the job and ask more technical questions.

• CAT-ALERT newsletter/Web site/e-mail notification system--Farmers need timely information about weather, crop and pest conditions to make informed growing season decisions about field work, purchasing inputs like fertilizers, pesticides and herbicides, and treating for unexpected insect, weed or disease pests. Michigan State University’s Integrated Pest Management Program instituted the CAT (Crop Advisory Team) Alert newsletters in 1985 to provide Michigan growers with timely growing season information. Extension specialists and agents combine their knowledge of the latest research and current crop conditions to produce articles and regional updates. Separate editions are printed almost weekly throughout the season for field crop, fruit, vegetable, greenhouse and landscape growers. The CAT Alert Web site, launched in 1998, includes a copy of each edition and allows producers to search alerts from the past five seasons. Farmers can also sign up to receive e-mail notifications that announce when new issues become available and access links to more information about their production area. The 2004 growing season brought a wet spring and cold summer. The weather conditions affected many of the pest and agronomic decisions made by growers, and the information in CAT Alerts helped producers in the decision-making process. An estimated 3,000 to 4,000 people read the Alerts each week either in print or at the program’s web site.

• MSUE is helping establish an ethanol plant in southeastern Michigan that will employ more than 200 laborers and skilled-trades employees during construction and 40 high-wage workers and more than 50 truck drivers upon completion.

• In a national survey, agricultural and horticultural producers were asked, “To whom would you turn if you discovered a crop disease outbreak on your farm that you didn't recognize?” Eighty percent stated that Extension would be their first contact.
According to surveys by the Sugarbeet Advancement Program, growers who participate in the program realize a $30 per acre enhancement of their revenue, a total increase of $1 million each year.

The MSU Product Center has worked closely with the west Michigan apple industry to conduct market and production research for fresh cut apple slices. In April 2004, McDonald's announced that it would offer fresh cut apple slices on its children's meals and allow restaurants to offer the product on their adult menu. A Michigan processor was one of three chosen to produce the slices. McDonald's reports that movement of fresh cut apple slices exceeded expectations, with annual consumption of 35 million pounds. MSU research has identified an additional seven potential market channels for the Michigan product.

Consumer awareness of animal welfare issues led to the development of the Swine Welfare Assurance Program (SWAP). SWAP helps consumers understand pork producers' practices that protect animal health and lead to wholesome and safe food products. An MSUE specialist has certified five veterinarians and three Extension specialists to offer this program to farmers. More than 200 producers representing 60 percent of the swine produced in Michigan have participated in SWAP.

MSUE has partnered with the MDA, the Michigan Department of Natural Resources and the U.S. Department of Agriculture to educate producers, veterinarians and the public about bovine TB. MAES research improved a laboratory technique for isolating the TB-causing bacteria on a farm, which makes it possible to assess whether M. bovis still exists there after livestock are removed.

Soybean aphid was first confirmed in Michigan in 2000. In 2001, infestations caused yield losses of up to 40 percent. In 2003, about 40 percent of the state's crop was treated for soybean aphid according to MSUE recommendations, preventing more than $55 million in losses. MAES research will likely lead to new soybean varieties with improved resistance to soybean aphid.

Examples of Impact in Goal 1.

Key Theme: Agriculture Profitability
Educational Initiative Title: Legume-Grass Mixtures for Pasture and Hay Production in The Upper Peninsula of Michigan
Doo-Hong Min: Upper Peninsula Region

Description of Program
The Upper Peninsula (UP) of Michigan has a relatively shorter growing season and lower temperatures than the Lower Michigan, which results in fewer selections of forage species and lower forage yield. However, there is very good snow cover over the winter period, sometimes resulting in better winter survival in the UP region than the Lower Michigan. Soil types in the UP region of Michigan are diverse from sandy to heavy clay soil so there is a limit in selecting certain species for both hay and pasture production. Perennial ryegrass and festulolium (a cross of meadow fescue and either perennial ryegrass or annual ryegrass) are relatively new cool-season grasses in the Upper Peninsula of Michigan as compared to orchardgrass, tall fescue, and timothy. The objective of this program was to evaluate the best performing legume-grass mixtures suitable for pasture and hay production in the central and western Upper Peninsula of Michigan and disseminate the findings to farmers through Extension training programs throughout the UP.

Impact

A field study was conducted in 2001 through 2003 to evaluate the best performing legume-grass mixtures suitable for pasture and hay production in the central and western Upper Peninsula of Michigan. In the central Upper Peninsula of Michigan (MI), alfalfa, red clover, and kura clover were seeded with either perennial ryegrass or festulolium. In the western Upper Peninsula of Michigan, birdsfoot trefoil, red clover, and kura clover were seeded with either perennial ryegrass or festulolium. Based on production year data, alfalfa-festulolium had significantly higher forage yield than kura clover with perennial ryegrass and festulolium mixtures and red clover-festulolium mixture. There was no significant yield difference between perennial ryegrass and festulolium within alfalfa, red clover, and kura clover, respectively. Alfalfa and red clover-grass mixtures generally had higher crude protein than kura clover-grass mixtures. Fiber contents were not affected by different legume-grass mixtures. In the western Upper Peninsula of Michigan, based on a two yr average, birdsfoot trefoil, red clover, and kura clover with festulolium had significantly higher yields than those with perennial ryegrass. In particular, there was a more obvious difference in yield between perennial ryegrass and festulolium during the drought year of 2003. No difference was found in forage yield of festulolium mixtures with birdsfoot trefoil, red clover, and kura clover. This was also true for perennial ryegrass. In conclusion, alfalfa and red clover with either perennial ryegrass or festulolium in the central Upper Peninsula of MI, and birdsfoot trefoil and red clover with festulolium in the western Upper Peninsula of MI appear to be better performing legume-grass mixtures. The ability to assess suitable annual forage crops in different regions of the Upper Peninsula of Michigan, dairy and livestock producers will save in future feed costs and make the farming system more sustainable and profitable in an estimated economic impact of $3.5 million annually. This information was disseminated to over 120 UP farmers and presented at the American Forage and Grassland Council Annual Meeting in Roanoke, VA.
Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State
Description of Program

The Five-State Beef Initiative (FSBI) was formed to address common concerns and issues impacting profitability and sustainability of the beef cattle industry in the Eastern Corn Belt. The FSBI is a unique partnership between producers, beef cattle associations, land grant universities, state departments of agriculture, Farm Bureaus and a livestock marketing cooperative in IL, IN, KY, MI, and OH. The goal is to help beef producers capture more value from their cattle by meeting consumer expectations through a responsive production, marketing and information sharing system. Beginning as part of two USDA grants in 2000, the FSBI created action teams consisting of producers and partner group members to address the following areas of regional beef improvement: Producer Certification for Beef Quality Assurance (BQA); animal health; animal handling and well-being; environmental stewardship; genetics; and use of performance, carcass and economic data. There are both face-to-face and online formats of the training and certification. Genetic requirements have been developed using performance and carcass Power Scores for sires. The objective is to increase the likelihood that calves will meet production and economic targets set by the initiative.

Impact

The AoE beef team delivered a state wide program that targeted cow/calf producers. The emphasis of the program was long term sustainability of Michigan cow/calf producers. Discussion areas included herd health, marketing, and increased profitability. More than 75 producers were in attendance at the conference and of those 85% said that they had learned more than one thing that will directly impact their feedlot operation. The largest impact seemed to be in the area of feedlot health. Over 90% of attendees gaining knowledge on feedlot health.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

Multi-State
Key Theme: Agriculture Profitability
Educational Initiative Title: MCA Grade Vaccinated Feeder Cattle Program
Beef AoE, Kevin Gould: State

Description of Program

.

Impact

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State

The AoE teams in Goal 1 met its 2003-04 Plan of Work goals by reaching its targeted population. The team and members have become more active in recruiting stakeholder input and involving collaborators in setting priorities and designing and implementing programs. Examples of collaborators included Michigan Cattlemen’s Association, Department of Natural Resources, Michigan Department of Agriculture, Michigan Farm Bureau, Farm Credit Services, Michigan Bean Commission, Upper Peninsula Potato Growers Association, Soil Conservation District, Citizens Bank, Saginaw Valley State University/SBDC, Michigan Pork Producers, Michigan Department of Career Development, Michigan Grape Society, Cornell University, Ohio State University, Rutgers University, Michigan Apple Commission, and Michigan Migrant Legal Services.
Overview of Goal 2: A safe and secure food and fiber system

Funding and programming for Goal 2 overlaps Goal 3 by approximately 80% through EFNEP (Expanded Food and Nutrition Education Programs) and FNP (Family Nutrition Program) which provide education in both food safety and food nutrition. For this reason, it is difficult to separate the two goals without duplication. On the other hand, it is clear that the majority of effort in each of these programs is focused on food nutrition (approximately 80% of the effort is spent on nutrition). Therefore, the estimate of 26,187 participants is low for food safety and does not include the majority of It is estimated that 109,872 participants, who received both food safety and food nutrition instruction to avoid duplication. Table 6. shows the number of participants and Key Themes addressed by the Food Safety AoE Team.

<table>
<thead>
<tr>
<th>Goal 2</th>
<th>Adults</th>
<th>Youth</th>
<th>Total</th>
<th>Key Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Safety*</td>
<td>11,137</td>
<td>15,050</td>
<td>26,187</td>
<td>Food Handling, Food Safety, HACCP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal 3</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Food, Nutrition &amp; Health*</td>
<td>47,547</td>
<td>48,749</td>
<td>96,296</td>
<td>Birth Weight, Human Health, Human Nutrition</td>
</tr>
</tbody>
</table>

* To avoid duplication, participants who received both food safety and food nutrition were counted only once (20% Food Safety and 80% Food, Nutrition, and Health).

Table 6. Number of Participants and Key Themes by AoE for Federal Goal 2. and Goal 3.

Highlights

• In the past two years, MSUE provided more than 700 Michigan food producers and processors with intense training on agricultural security. MSUE is helping prepare the industry for a variety of scenarios, including contamination of the food supply and potential pathogens.

• Hazardous Analysis and Critical Control Points (HACCP) training is provided by MSUE and required for all 500 Michigan food processors. MSU faculty members and MSUE educators ensure that microprocessors with limited resources have access to this training, along with the major food manufactures. Sixty-five completed the training last year.

Examples of Impact in Goal 2.
Description of Program

Consumer awareness regarding the safety of fresh produce has risen sharply over the last 10 years in response to media coverage of microbial contamination in fruits and vegetables. Retailers in southeastern Michigan and northern Ohio who purchase fresh produce are placing more demands on local growers to ensure a safe produce supply in the supermarket. In response to these issues MSUE with the help of the Monroe County Environmental Health Sanitarian and a MSUE specialist designed a multidisciplinary program called, “Fresh Produce Production: Reducing Risks,” to assist producers in ensuring the produce they grow and market remains free of microbial contamination.

Impact

In a written post workshop evaluation, a significant number of producers said they planned to make changes in their operation to ensure produce safety as a result of what they learned in the workshop. A one year follow-up mail survey was conducted to determine the outcome. There was a 70% response rate. One hundred percent of respondents reported that they had changed at least one management practice in their operations. Fifty seven percent made two or more changes in their management practices. Examples of the kinds of management practices that were instituted included monitoring of chlorine level of water in which produce is washed or rinsed, developing a procedure for sanitation of the packing area, and providing workers with training. The most significant management practice that was adopted was instituting a hand washing policy in the operation. One hundred percent of respondents had developed and adopted a hand washing policy for their produce handlers. Growers who participated in the program represented over 2000 acres of produce production in the Monroe county area and employed approximately 400 workers in their operations. Given the scope of the growers who were involved in this program and the reported changes they made in their operations in the past year this program has demonstrated a major impact on fresh produce safety in Monroe county as well as southeastern Michigan as most of the growers supply produce to the metro Detroit area.

Source of Funds

Smith-Lever 3b&c, state, local, county

Scope of Impact

Multi-State

Key Theme: Food Safety and Food Handling
Educational Initiative Title: Food Safety Education: ServSafe Training
Darci Seamon and Cynthia Warren: Bay and Cass Counties

Description of Program

The Bay County Department of Environmental Health as well as members of the Bay County Extension Council determined that there was a need to provide education to individuals and organizations preparing food for others. The Tri-County Food Safety Task Force comprised of schools, health departments, division on aging, FDA, MDA and Extension Educators also recognized this as a need. A survey of the recipients of the local Family Focus newsletter showed that residents of Bay County were unaware of the new pathogens causing foodborne illnesses. Individuals and businesses involved in selling and preparing food were confused as to the requirements under the new Food Code. Due to new pathogens, food preservation and storage techniques ServSafe workshops were implemented to help restaurants, schools, and others serving food. In a similar fashion, the Cass County Health Department identified the need for MSUE to provide these types of trainings.

Impact

Evaluation of the Bay County workshops found that 90% of the participants gained knowledge regarding food safety and handling. One of the organizations reported in a follow-up that it is saving $3,000 a year from information gathered at a ServSafe 4-hour class. The organization realized that they were sanitizing dishes and utensils twice what the recommendation was. A six month follow-up evaluation of the Cass County workshops found 86% indicated that they had made changes in their food handling practices as a result of the program and 100% stated that they would recommend the ServSafe program to others. Topics that showed the greatest change were knowledge about food temperatures during cooking and the use of thermometers, wearing gloves, and preventing cross-contamination through proper sanitizing.

Source of Funds

Smith-Lever 3b&c, state, local, county

Scope of Impact

State
Description of Program

Michigan State University Extension (MSUE) worked in collaboration with the state of Michigan’s Family Independence Agency (FIA) to provide education through the Family Nutrition Program (FNP) for persons eligible for or receiving food stamps in all of Michigan’s 83 counties during the 2002-03 program year. The educational efforts of FNP did not duplicate or supplant the efforts of other food and nutrition education programs such as the United States Department of Agriculture’s (USDA) Expanded Food and Nutrition Education Program (EFNEP), Supplemental Nutrition Program for Women, Infants and Children (WIC), or the Commodity Supplemental Food Program (CSFP). In counties that have both FNP and EFNEP, FNP provided education to audiences not reached through EFNEP, such as seniors without children. FNP enabled county Extension Educators to reach a more diverse audience. The primary objective of the FNP was to provide education to help individuals and families eligible for or receiving food stamps make safe, nutritious, and economical food choices. Education provided through FNP addressed four of the core elements identified by the Food and Nutrition Service (FNS) of the USDA: dietary quality, food resource management/shopping behaviors, food safety, and food security. The fifth core element, systems and environmental change, was addressed in a variety of ways. Examples include working with the Michigan Department of Community Health, Michigan Department of Education – Commodity Supplemental Food Program, Michigan Office of Services to the Aging, and three Indian Tribal Organizations to pilot the Senior Farmers’ Market Nutrition Program.

Impact

FNP educated 52,614 participants directly during 2002-2002. These direct contacts included adults reached through either a series of lessons (7,574 adults) or one-time presentations (44,383 adults). There was a total of 52,693 direct educational contacts with youth. Approximately 2,000 adult participants who received a series of lessons completed both pre and post surveys. Results regarding food safety from this tool indicated: 44% fewer participants reported thawing frozen meat on the counter; 26% fewer participants reported letting food such as milk or meat sit out for more than two hours; and 17% more participants reported washing their hands before preparing or eating food.

Source of Funds

Smith-Lever 3b&c, federal, state, county

Scope of Impact

State

The Food Safety AoE team in Goal 2 met its 2002-03 Plan of Work goals by reaching its targeted population. The team and members have become more
active in recruiting stakeholder input and involving collaborators in setting priorities and designing and implementing programs. Examples of collaborators included U.S. Food and Drug Administration, Health Departments, Substance Abuse Rehabilitation Centers, schools, juvenile centers and courts, Oakland Livingston Human Services Agency, Older Persons Commission, Child and Family Services of Southwest Michigan, University of Michigan, USDA, Kalamazoo Loaves & Fishes, Child Care Network, Great Lakes Indian Fish and Wildlife Commission, food banks, Hunger Action Coalition, Michigan Partnership for Community Caring, Michigan Department of Agriculture, and Salvation Army.
Overview of Goal 3: A healthy, well-nourished population

As previously stated, funding and programming for Goal 2 overlaps Goal 3 by approximately 80%. EFNEP (Expanded Food and Nutrition Education Programs) and FNP (Family Nutrition Programs) provide education in both food safety and food nutrition. For this reason, it is difficult to separate the two goals without duplication. It is estimated that 105,882 received nutrition and health information. Table 7 shows the number of participants and Key Themes addressed by the Food, Nutrition, and Health AoE Team.

<table>
<thead>
<tr>
<th>Goal 2</th>
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* To avoid duplication, participants who received both food safety and food nutrition were counted only once (20% Food Safety and 80% Food, Nutrition, and Health).

Table 7. Number of Participants and Key Themes by AoE for Federal Goal 2. and Goal 3.

Highlights

- Nearly 9,000 low-income families learned how to improve health through nutrition in 2004 as participants in MSUE nutrition education programs.*

- The Expanded Food and Nutrition Education Program (EFNEP) provides direct nutrition education to low-income families. Every $1 invested in EFNEP reduces health care costs by $10.64. For the number of families reached, EFNEP saves Michigan about $158.5 million annually in health care costs. As a health bonus, more than 60 percent of program participants increase consumption of fruits and/or vegetables.*

- Project FRESH gave farmers' market coupons to 34,000 low-income women and children — 63 percent reported eating more fruits and vegetables.*

- WIC-eligible women who participated in MSUE’s Breast-feeding Initiative show double the rate of breast-feeding compared with non-participants, saving $2.3 million annually in Medicaid and HMO costs.*

- In 2004, more than 800 Michigan schools participated in Team Nutrition, an effort spearheaded by MSU Extension and the Michigan Department of Education and carried out in collaboration with a variety of other partners. Participating schools reported improvements in their school nutrition and physical
activity environments. Team Nutrition has secured more than $1,900,000 in grants and more than $65,000 in private contributions since 1996.

• More than 6 million federal dollars were brought into Michigan during 2004 by leveraging state funding for Food Stamp Nutrition Education (FSNE). The FSNE program provided direct education to more than 60,000 adults and more than 50,000 youths in all of Michigan’s 83 counties. FSNE, in partnership with private companies, state agencies and MSU faculty members provided education focused on nutrition and physical activity, obesity prevention, food safety and food resource management. More than 200 partners collaborated to reach more than 200,000 people with messages about the importance of eating breakfast.

• More than 5,000 pregnant or breast-feeding women completed MSU Extension’s Breastfeeding Initiative, a mother-to-mother peer education program, between 1994 and 2004. Among the women enrolled in the program in 2003-2004, about 95 percent initiated breast-feeding, compared with 44 percent of women in the overall Michigan WIC population. At six months old, twice as many babies enrolled in the program were still breast-feeding when compared to the overall Michigan WIC population. A research study has estimated that for every infant that breastfeeds exclusively for the first 12 weeks of life (instead of formula feeding), HMO medical cost savings would be $331-$475 dollars during the child’s first year. Another study found savings to Medicaid and WIC of $478 in the first 6 months of life for infants exclusively breastfed for the first 12 weeks.

• More than 9,000 parents of young children enrolled in MSUE nutrition education programs in 2004. Upon completion, 53 percent of participants reported making healthier family food choices, and 23 percent reported that their children ate breakfast more often.

Examples of Impact in Goal 3.

Key Theme: Human Nutrition
Educational Initiative: Family Nutrition Program
Gayle Coleman: State

Description of Program

Michigan State University Extension (MSUE) worked in collaboration with the state of Michigan’s Family Independence Agency (FIA) to provide education through the Family Nutrition Program (FNP) for persons eligible for or receiving food stamps in all of Michigan’s 83 counties during the 2002-03 program year (see full description in Food Safety).
Impact

FNP educated 54,534 participants directly during 2001-2002. These direct contacts included adults reached through either a series of lessons (7,317 adults) or one-time presentations (47,217 adults). There was a total of 48,647 direct educational contacts with youth. These direct contacts included youth reached through either a series of lessons (20,328 youth) or one-time presentations (28,319 youth). Approximately 2,000 adult participants who received a series of lessons completed both pre and post surveys. Results regarding nutrition and food preparation from this tool indicated:

- 52% more participants reported using information on food labels to compare the fat or other nutrients in the food.
- 51% more participants reported thinking about healthy food choices.
- 48% more participants reported eating three or more kinds of vegetables during each day.
- 43% more participants reported eating more than one kind of fruit each day.
- 25% more participants reported preparing foods without adding salt.
- 25% more participants reported that their children ate within two hours of waking up.
- 56% more participants reported planning meals for a few days ahead before going grocery shopping.
- 45% more participants reported using a grocery list when shopping for food.
- 41% more participants reported comparing prices when shopping to find the best buy.
- 34% fewer participants reported running out of food at the end of the month.

In 2003, Michigan FNP worked in partnership with the Center for Civil Justice to increase participation in the Food Stamp Program (FSP). The Center for Civil Justice offered a toll-free Helpline that assisted low-income families in understanding how to apply for the FSP and offered telephone screening. MSU Extension staff members across the state provided information on this Helpline to the families with whom they worked, and distributed flyers and similar information to agencies such as WIC and emergency food providers in an effort to increase awareness of the Helpline and FSP. As a result of this project, over 2500 callers contacted the Helpline for screening or assistance. Of these callers, 95% of the callers were not receiving Food Stamps at the time they called, 82% received a Food Stamp screening, and 98% of the households screened appeared eligible for Food Stamps. The average amount for which callers were eligible was $178.64. Many childless adults, immigrants, and recently unemployed persons were happy to hear that they could qualify for food stamps.

Source of Funds
Scope of Impact

State

Key Theme: Human Nutrition
Educational Initiative: Breastfeeding Initiative
Gayle Coleman: State

Program Description

Breastfeeding rates are low among limited income women. Low income mothers have higher infant mortality rates, premature births and low birth weight infants. Breastfeeding has been identified as one of the most important contributors to infant health, yet breastfeeding is not a well established practice in low income communities. There is a significant lack of role models, family/community support and knowledge of the practice of breastfeeding. This need was identified by the state WIC, local health departments, community programs and local hospitals serving indigent and limited income populations. MSUE responded through a breastfeeding initiative with two main program goals: to increase breastfeeding rates among low income mothers; and lengthen the time mothers breastfeed.

Impact

During the 2002-03 program year, 96% of the 1106 pregnant/breastfeeding mothers who enrolled in the Mother-to-Mother breastfeeding project reported initiating breastfeeding. At the end of two months, 61% reported that they were still breastfeeding and at the end of 6 months 34% reported that they were still breastfeeding. The average duration of breastfeeding among participants was 20 weeks for this program year compared to 18 weeks last year.

Source of Funds

Smith-Lever 3b&c, federal, state, county, local

Scope of Impact

State

Key Theme: Human Nutrition
Educational Initiative: Family Nutrition Program
Joan Miller: Washtenaw County

Description of Program
In the year 2000, 33,450 persons in Washtenaw County lived below the poverty line. This represents an increase from 31,777 persons in 1990. In Ypsilanti and Willow Run respectively, 3.5% and 4.25% of children come from households below the poverty line, while in Ann Arbor, only 1% of children come from poverty status. While services for those in poverty exist in these geographical areas, they are not as organized and well developed as they are in Ann Arbor. At the request of two organizations, Washtenaw County FNP formed special collaborations to bring needed nutrition education to the residents of Ypsilanti and Willow Run. These collaborations included: Hope Administration, a non-profit faith based organization identified the need for nutrition education for many of their clients in the Ypsilanti area and Oasis Cafe, a restaurant in downtown Ypsilanti is supported by Hope Administration and provides sound nutrition for low-income Ypsilanti residents offered at special discounts of 70% on meals.

Impact

During 2002-2003, over 150 seniors were educated through the program. Telephone surveys to Senior Nutrition Network participants found: 85% of participants increased their nutritional knowledge and food preparation skills; 100% of them used less animal fat, sugar and salt in cooking; 100% of them reported using more fresh fruit, vegetables and whole grains; and 63% believed they were able to prepare healthier meals at lower cost.

Source of Funds

Smith-Lever 3b&c, federal, state, county, local

Scope of Impact

State

The Food, Nutrition, and Health AoE team in Goal 3 met its 2002-03 Plan of Work goals by reaching its targeted population. The team and members have become more active in recruiting stakeholder input and involving collaborators in setting priorities and designing and implementing programs. Examples of collaborators included WIC, Head Start, Work First, Early On, pregnant teen programs, Michigan Family Independence Agency, Michigan Department of Public Health, hospitals, Commodity Foods, shelters, Sault Tribe of Chippewa Indians Youth Services, Alpena Community College, U.S. Food and Drug Administration, Health Departments, Substance Abuse Rehabilitation Centers, schools, juvenile centers and courts, Oakland Livingston Human Services Agency, Older Persons Commission, Child and Family Services of Southwest Michigan, USDA, Kalamazoo Loaves & Fishes, Child Care Network, Great Lakes Indian Fish and Wildlife Commission, food banks, Hunger Action Coalition, Michigan Partnership for Community Caring, Michigan Department of Agriculture,
and Salvation Army. In addition, the team is engaged in identifying underserved populations and developing strategies, collaborations, and programs to address these populations.
Overview of Goal 4: Greater harmony between agriculture and the environment

Forty six thousand three hundred ninety (46,390) participants received direct training on key themes in Goal 4. Table 8. shows the AoE Teams in this area, the number of participants, and the federal key themes for Goal 4.

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<th>Goal 4</th>
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<td><strong>35,497</strong></td>
<td><strong>58,638</strong></td>
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</table>

Table 8. Number of Participants and Key Themes by AoE for Goal 4.

**Highlights**

- Citizen Planner—Local Planning Commissioners and Zoning Boards of Appeals are often called upon to make important decisions to guide the growth and development of their communities. Issues surrounding land use planning and regulation, and the tools and techniques available within Michigan to address them, have become increasingly complex. To help local, often volunteer land use decision makers, MSU Extension developed the Citizen Planner program. The seven-week, non-credit course series leads to an optional certificate of competency. Earning the certificate involves the successful completion of seven core courses and the performance of community-oriented service and land use planning or related activities. Curriculum was developed in partnership with the Michigan Society of Planning, and in each location it is offered, the base curriculum is supplemented with topics related to local planning challenges.
Since 2001, more than 2,000 citizens and elected officials representing 76 Michigan counties have learned about tools available to conserve land while allowing community growth and development through the Citizen Planner program. Nearly two-thirds (64 percent) of those participants are serving on local planning and zoning boards, and they indicated that they paid closer attention to legal issues after attending the program.

- Studies have shown that fourth grade students in Michigan generally have little understanding of the Great Lakes and local water resources. At the same time, science education is a critical component of elementary education and Michigan teachers need programs that can help them meet state guidelines for science education while giving their students the chance to “get turned on” to science. Michigan Sea Grant Extension offers fourth-grade students the opportunity to experience the Great Lakes Education Program. The program introduces students to the unique features of the Great Lakes through a combination of classroom learning and hands-on experience. It is designed to stimulate interest in the Great Lakes and help students understand their role in protecting these vital freshwater resources. The program integrates elements of geography, history, biology and physical sciences. Participants go aboard ship on a field trip to take plankton samples, test water clarity, practice marine knot tying, take temperature readings, and more. Using data they've collected on the field trip, students conduct experiments and discuss what they've learned. More than 50,000 students, teachers, adult chaperones, and volunteers in southeast Michigan have participated in the Great Lakes Education Program since it began in 1991. In a fall 2004 participant satisfaction evaluation teachers rated the overall GLEP experience at 3.89 on a 1 (poor) to 4 (excellent) scale. The GLEP curriculum received an Excellent rating in the Great Lakes Fisheries Assessment and Summary of Needs published by the Great Lakes Fishery Trust.

- Water use reporting--2004 brought Michigan farmers new legislation in water use reporting and new generally accepted agricultural management practices (GAAMPS) for irrigation as part of the Michigan Right-to-Farm Act. The water use reporting legislation relies heavily on the management practices outlined in the irrigation GAAMPS. MSU Extension staff members were integral in more than a dozen educational meeting opportunities that gave producers the chance to learn more about the new legislation and changes in agricultural water use requirements. MSU Extension educators developed seven educational fact sheets to help farmers accurately estimate water use and other factors required in the water use reporting process. More than 1,200 farmers gained information and a better understanding of new water use reporting legislation during the educational meetings. Nearly 5,000 copies of the water use fact sheets have been distributed to farmers. During 2004 MSU Extension educators created 16 or more educational opportunities for irrigation users to learn more about the management practices outlined in the GAAMPS. Five new fact sheets on best management practices were developed and presented at these events. Four events offered in-field training about irrigation management practices for irrigators and agency personnel. Two MSU Extension-maintained Web sites provide electronic copies of the fact sheets, computerized irrigation system
evaluation tools and presentation materials for use by agency personnel and farmers.

- Volunteer Stream Monitoring--Water quality is a major concern in a state like Michigan. Citizens interested in helping protect surface waters, waterfront property owners and members of environmental protection organizations are a few of the groups who are interested in maintaining Michigan’s lakes, streams and rivers. With help from MSU Extension’s Water Quality Team, MSU Extension educators at MSU’s W.K. Kellogg Biological Station Land and Water Program developed and delivered “Introduction to Volunteer Stream Monitoring”, an intensive, hands-on training program for southwestern Michigan citizens interested in becoming volunteer stream monitors. Residents of nine counties attended the course and improved their water monitoring skills dramatically. For example, when asked to compare water sample collection skills before and after the program, participants reported a fifty-percent increase in skill level. The ability to design a stream study increased by 61 percent.

- More than 3,000 people have participated in the Sustainable Forestry Education (SFE) program, which teaches forest ecology, silviculture techniques, forest water quality management and safety practices. Virtually every load of raw wood moved on Michigan roads will have been produced by an individual who has participated in MSUE’s Sustainable Forestry Education program. Every industrial private landowner that MSUE reaches represents up to 600,000 acres of forestland.

- MSU Extension led efforts to secure the designation of the Detroit River as an American Heritage River. The presidential designation has resulted in government and business investments of more than $40 million.

- MSUE, through the Michigan Natural Features Inventory, provided expert guidance to Oakland County officials to guide them in selecting conservation areas. Through the ecologically based multivariable analysis, areas were designated as having high, medium and low priority for conservation. This study provided information that was useful to land planners and local nature conservancies in directing conservation efforts.

Examples of Impact in Goal 4.

Key Theme: Nutrient Management and Water Quality
Educational Initiative Title: Promoting Environmental Stewardship Among Dairy Producers
Dann Bolinger, Marilyn Thelen, Natalie Rector and Katherine Lee: State

Description of Program
Mid-Michigan Manure Management Field Day was held June 26 at Green Meadow Farms. The program was a representation of a MSUE led partnership with the Michigan Agriculture Environmental Assurance Program (MAEAP),
North Central Region SARE funds, and local industry through a planning committee and financial support. The one day event’s theme was "Issues of Today & Technology of Tomorrow." The "issues of today" addressed were associated with field application of manure including the proper crediting of manure nutrients in a cropping system, appreciating the dollar value of manure nutrients, and avoiding discharges to surface water from field applied manure. The technologies experienced by participants at Green Meadow Farms included using a system approach to managing and handling manure, utilizing constructed wetlands for treatment of nutrient laden wastewater, and the chemical treatment of manure to remove nutrients from the liquid stream. MSU research was highlighted through the technology portion while touring the associated facilities on the farm. Participants also were able to visit with more than 20 manure related service providers who were also sponsors of the event.

Impact

More than 320 farmers, agribusiness persons, and agency personnel participated in Manure Tour 2003. A post-event evaluation revealed the following impact: 61% feel more comfortable about crediting manure nutrients as fertilizer in a cropping system; 67% have a greater appreciation for the dollar value of manure; 78% have a greater understanding of the risk to surface water from field applied manure; 52% are more likely than not to improve or implement practices to reduce risk associated with winter application of manure; 56% are more likely than not to improve or implement practices to reduce risk associated with applying manure on tile drain fields; 79% are more likely than not to consider the impact on manure management when making decisions in other areas of manure management; 74% are more likely to consider non-traditional, new and innovative manure management technologies in future decisions. Farmers in attendance represented more than 26,000 dairy cows and 55,000 hogs (nearly 9% of all dairy cows and 6% of all hogs in the state of Michigan).

During 2002-2003, 3,766 participants were trained by the Manure AoE Team and 25,748 participants by the Water Quality AoE Team.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

Multi-State

Key Theme: Nutrient Management and Water Quality
Educational Initiative Title: Manure Management System Plans (MMSP)
Charles Gould, Ira Krupp, Paul Wylie, and William Robb: Ottawa, Barry, Kent, Muskegon and Allegan Counties
Program Description

Livestock producers in Michigan are under increasing pressure by the public to improve their ability to manage manure. This has been due to documented surface water contamination in Allegan, Barry, Kent, Muskegon, and Ottawa Counties, some of which can be tied directly back to agriculture. In addition, there has been state and national pressure, typically in the form of laws and public perception, to hold the animal agriculture industry accountable for how it manages manure. Producers are asking Extension agents for direction on how to deal with this increased scrutiny. Extension agents are responding by helping individual producers put together Manure Management Systems Plans (MMSP) for their farms that eventually will lead to the completion of Comprehensive Nutrient Management Plans (CNMP). There is a need to: change attitudes and perceptions that manure is an asset, not a liability; manage manure better to recoup the economic benefits from not having to purchase commercial fertilizer; and help the horticulture industry to develop at least Nutrient Management Plans as they use a significant amount of manure on ornamentals. To utilize manure in an environmentally response manor, livestock farmers need to put together manure application plans for their farms. If farmers wish to be in compliance with MDA Right to Farm Guidelines they need a Manure management system Plan (MMSP). With EPA looking over Agriculture's shoulder more and more in Michigan, livestock producers need to be able to better document responsible use of livestock manure.

Impact

During 2002, 60 Manure Management workshops were put together in Allegan and Ottawa Counties to assist farmers with writing Manure Management System Plans for their farms. Over 120 MMSP's were developed in the West Michigan area from 2002-03. A post-then-pre survey (n=94) was developed to measure the effectiveness of these workshops in changing producer attitudes, knowledge and skills. Mean score differences for the questions were calculated and determined to be significant at p<0.05 using the paired t-test. The five largest changes were: increased understanding of becoming “environmentally assured” through the Michigan Agriculture Environmental Assurance Program (MAEAP); increased understanding of conformance with Michigan Right to Farm guidelines; increased willingness to develop a Comprehensive Nutrient Management Plan (CNMP); increased confidence in managing manure by following the Generally Accepted Agricultural Management Practices for Manure Management and Utilization; and increased willingness to maintain a recordkeeping system. A follow up survey of producers (n=26) was conducted during this quarter to assess their management changes as a result of developing a MMSP. The top five changes were: started to keep manure application records, reduced commercial fertilizer use, developed a manure spreading plan, stopped spreading manure on fields testing over 300 lbs. phosphorus/acre, and improved current manure application recordkeeping. Seven farms began development of a CNMP. Seventy-five percent of the respondents thought that their manure plan will help them reduce or minimize accidental manure releases. The substitution value of
manure nutrients for fertilizer averaged $10.50/acre or $106,000 on 10,150 acres. One farm reported as a result of following their plan during one cropping season, they reduced their total commercial fertilizer expense by $20,000 with no crop yield loss attributable to lack of nutrients. Implementing the plans demonstrated three things: 1. Farms can in fact, cut out excess commercial fertilizer and not have yield losses. This is an economic benefit. 2. That you can be environmentally friendly and still farm. 3. While CNMPs take time to develop, they don't bite. If a plan is developed correctly, based on factual information, it can be a valuable decision making tool for the producer.

**Source of Funds**

Smith-Lever 3b&c, state, county

**Scope of Impact**

State

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**Key Theme: Pesticide Application**  
**Educational Initiative Title: Fruit Sprayer Technology**  
Philip Schwallier, Amy Irish-Brown, and Richard Ledebuhr, West Central Region and Clarksville Horticulture AES

**Description of Program**

At fruit grower meetings the need had been identified that pest control had become more difficult, expensive and less effective. Fruit growers in the West Central Region expressed the need to reduce pest application time and improve pest control using new sprayer technology that replaced conventional single point air blast sprayers. This was a perfect Land-Grant project. MSU researchers developed the new improved technology. MSU extension agents brought the new technology to the industry and growers. Through this process, growers learned how to use the new technology. Extension agents and specialist demonstrated the new sprayers at sprayer demonstrations, at meetings and on personal farm demonstrations. Growers learned from extension personal the benefits of the new technology sprayers. Agents informed growers on the proper usage of the machine and the proper rate of pesticides applied by the sprayer.

**Impact**

Fifteen growers purchased high tech sprayers built by MSU. These sprayers and others were used to reach over 100 growers. Evaluation of the process found that spray rates were reduced by 33% and time was cut in half. Approximately 5,000 acres of fruit trees were impacted by this project.

**Source of Funds**
Smith-Lever 3b&c, state, county

Scope of Impact

State

Key Theme: Pesticide Application
Educational Initiative Title: Pesticide Education
Field Crops AoE Team, George Silva: State

Description of Program

In 2000 the Michigan pesticide dealerships sought assistance from the MSUE Field Crops AoE Team to dedicate a special pesticide update meeting to assist them in making year end pesticide sales and purchasing decisions. It is worthwhile to note that pesticide manufacturing and marketing is exclusively handled by private dealerships, but pesticide recommendations are determined by MSUE. Pesticide dealerships and applicators feel that the MSU research data is both scientific and unbiased and is a source of 'information you can trust'. A workshop was developed with the input from MSU faculty, private pesticide industry, and the Michigan corn and soybean organizations. This is an example of MSU Extension demonstrating leadership amongst pesticide users.

Impact

Judging from the participant interest and high attendance, 145 in 2000, 175 in 2001, and 217 in 2002, this event has been an overwhelming success. Participants were from 33 Michigan counties and 5 representatives from Ohio and Indiana. Some highlights from the 2002 evaluation were: understanding MSU's 'Insect and Nematode Control Recommendations' for field crops at the changed from the start of the session to the end from 66% to 88%; understanding of MSU's 'Weed Control Recommendations' changed from 75% to 90%; and 88% stated that the educational information they received at the session benefited them in terms of changing to more effective pest management practices and making better business decisions in 2003 towards enhancing agricultural profitability. Approximately 96,950 acres were impacted by the training with a rough estimate of $257,000 were saved or added revenues. Another impact was in regards to MDA Pesticide credits that were granted for the session in 2000, 2001, and 2002 that were 2, 2, and 4 respectively. Participants in 2000 and 2001 had requested MSUE to offer more re-certification credits in 2002, particularly in the 'commercial core' category because most of them were pesticide dealerships and commercial applicators. By collaborating with the speakers and altering the content and the time duration of the talks, MSUE was able to convince the MDA to double the number of credits in 2002. The doubling of credits in 2002 and the inclusion of the commercial category credits reflected a close coordination with MDA officials.
Source of Funds
Smith-Lever 3b&c, state, county

Scope of Impact
Multi-State

Key Theme: Wildlife Management
Educational Initiative Title: Northeast Michigan Deer Management Workshops
Robyn Oliver: Northeastern Michigan

Since the 1970’s, many individuals relied heavily on supplemental feeding and baiting as a viable way to attract wildlife, especially white-tailed deer, to their property for recreational viewing and hunting opportunities. In 1994, Bovine TB was discovered in wild deer in Northeastern Michigan. Since then these practices have been banned or severely restricted. Previous deer meetings have been sponsored by regulating authorities and have focused on discussing deer harvest regulations. Initially, these meetings were intended to be an educational forum. However, due to the emotional and political issues surrounding management of Michigan's deer herd, many participants became disillusioned with this format. As a result of new regulations and the apparent need for an unbiased approach, MSUE determined that landowners would benefit from attending deer trainings to learn sound scientific management practices that can be implemented to manage deer and deer habitat. The program called, “Improving Your Land for Wildlife: Alternatives to Supplemental Feeding," was one of MSU Extension's programming responses to the Bovine TB issue in Michigan. Due to tremendous interest by private landowners and hunters throughout the state to use scientific management practices to improve the deer herd on their property, this program was converted to focus specifically on white-tailed deer and is used as a base for "MSU Extension Deer Management Workshops". Helping landowners to scientifically manage the deer herd on their property will most likely spread the deer population (by reducing concentrations) across the landscape, thus reducing deer-to-deer or deer-to-cattle interactions which might be effective in reducing the spread of Bovine TB.

Impact

The evaluation process included determining the effectiveness of the program (e.g., did participants learn techniques that can be applied to their property) and encouraging a change in behavior (e.g., do participants plan to implement these techniques to manage deer as opposed to feeding or baiting). General survey results were pooled over 3 workshops. Participant survey returns were 74% (n = 228), an outstanding response rate based on survey literature. Survey results indicated that this program was effective in providing educational opportunities to participants. Overall, the "Deer Management Workshops" received an informative
to very informative rating of 87% (n = 199). In addition, changes in behavior were calculated for the West Branch responses (n = 77). Change in behavior was favorable with 34% of participants indicating they would no longer use bait. We should note that many respondents who used bait either extensively or occasionally before the workshop, left the "what would you do after today" portion blank. Intended food plot use was positive with 51% of respondents indicating they would either start incorporating food plots into their management plans or would increase their use of food plots. Timber management showed a positive increase of 49%. Opening management was also favorable with 56% indicating an increase in intended usage. This is especially encouraging because we strongly advocated mowing and fertilizing existing forest openings as opposed to tilling them and planting annuals or non-native plant species. Many participants were already involved in varying degrees with a scientific deer management program. However, 43% of respondents indicated they would implement a program that focused on scientific deer management.

**Source of Funds**

Smith-Lever 3b&c, state, county

**Scope of Impact**

State

The AoE Teams in Goal 4. met their 2002-03 Plan of Work goals by reaching their targeted population. All teams and members have become more active in recruiting stakeholder input and involving collaborators in setting priorities, and designing and implementing programs. Examples of collaborators have included: Northwest Michigan Council of Governments, planning departments, Western Michigan University, watershed groups, Rotaries, Chambers of Commerce, League of Women Voters, Farm Bureau, schools, DNR, U.S. Forest Service, drain commissioners, and Michigan Milk Producers Association.
Overview of Goal 5: Enhanced economic opportunity and quality of life for Americans

Table 9 shows the AoE Teams, number of program participants, and federal key themes address by the AoE teams for Goal 5. It is important to note that youth were distributed by the content area and were not duplicated in Goal 5., whereby, an additional 164,115 youth from Goals 1 through 4 should be added to make the total number of youth to be 281,273.

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<th>Goal 5</th>
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* Number of adult volunteers who were trained on specific topics (i.e., youth development, conflict resolution). A total of 21,601 adults volunteered for 4-H and 3,122 for Master Gardeners contributed to MSUE in 2003-04.  
** To avoid duplication, youth who crossed goals were not counted again in youth development.

Table 9.  
Total Participants Reached Directly by AOE for Federal Goal 5.

**Highlights**

- 4-H Club Read --The need to better prepare children to read well is critical across Michigan. About 35,000 students from kindergarten through third grade in 24 Michigan counties developed reading skills through the 4-H Club Read program since the start of the program in 2001. At least 78 percent of participants were from low-income families. Ninety percent of the children in Club
Read’s in-school tutor/mentoring programs improved reading skills by at least one grade level. Seventy-seven percent of the children in the out-of-school tutor/mentoring programs improved their reading skills by at least one grade level.

- Disaster Response and Emergency Management Education—Disasters can strike communities. They can be natural, like tornadoes or floods, or manmade, like chemical spills, fires, and acts of terrorism. When disaster happens, Extension is there to assist with local resources and university support. The national Extension Disaster Education Network (EDEN), a collaboration of Extension systems across the nation, is there to help provide resources and training to state and local Extension staff, so that they are better prepared to respond. EDEN now includes 49 Land Grant Universities in 46 states, Guam and Puerto Rico. An MSU Extension specialist led the 17-state USDA grant to train Extension staff members in homeland security and emergency management from 2002-2004. Since 9/11, MSU Extension has provided general emergency management, homeland security, and wildfire training to more than 300 township officials, municipal clerks, migrant councils, and shelter directors for abused women and children. Staff members have also trained more than 30 county commissioners in general and agricultural emergency management, and are currently working with the MSU College of Human Medicine and the Michigan Association of Local Public Health to jointly offer general emergency management training and public health/security training to county commissioners.

Examples of Impact in Goal 5.

Key Theme: Promoting Business Programs and Agricultural Profitability
Educational Initiative Title: Fast Track and Business Education
Economic AoE Team, Mark Thomas: State

Description of Program

Business Education program obtained training with assistance from the Extension Economic Development AoE and the USDA RBE Grant. Eight Extension agents and three Iosco County Extension contractors received certification for facilitator training by FastTrac programs in Bay City due to cooperation among the AoE leadership, Bay County Extension Director, Kauffman Center FastTrac national staff and Iosco County Extension. Iosco County advertised and began its first New Venture FastTrac class with 14 enrollees. In addition, the Business educator and the CED began intensive marketing toward producing a FastTrac Planning class for people already in business. Attended "Going Solo" youth entrepreneurship curriculum training in Chicago, Illinois. Promotion and recruitment for the NxLevel "Tilling the Soil of Opportunity Business planning program was in full swing. A join program with Marilyn Thelen in Clinton Co. Open the Window of Opportunity was an excellent program to kick off this project and motivate participants. The sign up for NxLevel
has ended up at about 15. Nine potential new business start-ups are examining their business dreams in light of cold reality. These individuals (and one team of two) are developing business feasibility plans that will be more realistic and have greater chances of success. Some thirty businesses have a better sense of community appreciation for their efforts and their problems. Most have expressed interest in seeing the summary report from the BRE work group this fall. NxLevel Entrepreneurship Course for individuals looking at launching new business enterprise, or those with existing businesses who are seeking to enhance their business skills. A partnership with the Broad School of Business allowed MBA students to work with my class participants in further developing their business plans.

**Impact**

The participants indicated that they intend to create 24 new jobs (10 full time, 14 part-time) as a result of growth within their business. Agricultural Entrepreneurial Training - Fourteen individuals are better prepared to expand or launch an agricultural value added business as a result of a 10-week entrepreneurial business planning program conducted by Clinton, Gratiot, and Isabella MSU-Extension staff. Eight participants have projected an estimated combined sales for the next year of $966,000, an increase of over $360,000 from previous levels. Business training such as this will help provide more profitable agricultural operations and a financially stronger community. Assistance was provided to 18 existing or start-up businesses.

In 2002-2003, the Economic Development Area of Expertise Team trained 3,646 participants throughout the state.

**Source of Funds**

Smith-Lever 3b&c, state, county

**Scope of Impact**

State

**Key Theme: Agricultural Financial Management**

**Educational Initiative Title: Farm Information Systems - Telfarm**

Roger Betz: Southwest Region

**Description of Program**

Many of the commodity groups and AoE teams identify financial management and profitability as an important goal. In order to improve profitability, one has to understand what one's actual profitability is in order to compare. Besides useful income tax information, producers need to have accurate business analysis information to evaluate if the farm is actually making money, or is cash flow being
obtained from outside sources? Businesses also need a comparative tool so that they can evaluate their business compared to others to help identify strengths and weaknesses within their business. State summaries are used from the individual’s input data in order to create state type of farm reports. Individuals can use information to compare from one year to the next. Also, Michigan uses the information for various activities including the status of individual commodity groups. This is used, for one example, to help law makers determine state and federal programs to assist producers. This helps secure and maintain a national healthy and adequate food supply.

Impact

120 Financial Business Analysis were completed in the southwest region through the cooperation of the southwest staff. The number of people impacted was much higher as many operations have 2 or more operators for the business. Producers were asked to rate their understanding of 11 financial indicators and ratios for their business, both before and after the Telfarm Business Analysis session. Of these indicators, producers indicated a change from 7.3% to 68.0% increase in their understanding of these individual ratios and financial indicators for their business. Additional questions from the formal written evaluation: 1) How valuable do you consider this session to be to your farm business? 90% rated very valuable, with 10% somewhat valuable, 0 of little, and 0 of no value, indicating a very strong feelings of the importance of this session; 2) Did you learn something about your business today that you did not know before? Even though several of these producers have participated in these sessions for many years, 83% of them indicated yes, only 17% indicated no. When asked if yes, what they’ve learned? Examples included: Can see trends and assumptions quantified that I had a better year than what I realized; that we should continue in the business; gain an understanding of the previous year’s balance sheet and how you have to use both of them; profitability appears to be low because of land values (in other words, a person understands the difference between profitability and inflation of land in terms of their balance sheet); we learned that debt to asset ratio isn’t bad, and that we need to get our operating expenses down; how to make an expansion budget plan for the lender; that an expansion may be okay; understand the need for accurate records; that their draw was more than what their income was for the year; what areas to watch for as to not to get into financial trouble; good job of explaining things; business is in better shape than we anticipated; 3) Will the information received about your farm business influence your decision making in the next year? 80% indicated yes, only 20% indicated no. As a result of participating in the Telfarm system, producers from Southwest Michigan benefited by over $1.5 Million in income tax savings for the year.

Source of Funds

Smith-Lever 3b&c, state, county
Scope of Impact

State

Key Theme: Promoting Housing Programs
Educational Initiative Title: Washtenaw Housing Education and Partners Collaboration
Caton Gauthier: Washtenaw County

Description of Program

Washtenaw County and the City of Ann Arbor have identified affordable housing as a key community issue which needs to be addressed. Working class households are priced out of the county's housing market and this is creating a void of lower paid workers for area businesses. Helping individuals and families to purchase affordable homes benefits the general economy as well as households directly. As there are many barriers to attaining affordable homeownership in Washtenaw County, MSUE focused program efforts on collaborating with government and non-profit agencies to provide a variety of educational and Down Payment Assistance options in the community. MSUE organized the MSDHA Certified Housing Counseling agencies, including Community Housing Alternatives and POWER, Inc. to collaborate to offer comprehensive education and counseling services for the MSHDA Links to Homeownership program. The three-agency partnership known as the Washtenaw Housing Education Partners (WHEP), now collectively markets its homebuyer education program and, cooperates to support shared clientele.

Impact

In the three years of partnership the WHEP collaborative has helped 58 families attain homeownership and helped them receive over $560,000 in down payment assistance, buy down funds and rehab assistance through state and local funding sources. WHEP has gained an excellent reputation within the community and its recognition has been exemplified by funding that partner agencies have subsequently received. Partner agency POWER, Inc. received $100,000 of administration and matching funds for 27 participants in the Washtenaw County IDA program. Partner Agency Community Housing Alternatives received $75,000 for a County Funded Down Payment Assistance program in 2002. Community Housing Alternatives launched its Acquisition and Rehab program with $430,000 from Washtenaw County and received an additional $30,000 in Down Payment Assistance funds, all which serve WHEP customers. The WHEP partnership is currently collaborating with the City of Ann Arbor and Vaneck and Associates to find and educate families for a 55-unit affordable Stone School Townhome project. The City of Ann Arbor is providing $480,000 in buy down subsidies to purchasers of the units and $300,000 in revolving loan funds. The Builder is contributing $110,000 to WHEP for services and is foregoing a $3,000,000 profit by to provide a builder subsidy. The partnership is currently focusing on
preparing buyers for the Stone School Townhome project in Ann Arbor, which will provide 55 two- to four-bedroom unit condos which will be subsidized to be affordable to individuals and families at the 60%, 80% and 100% Area Median Income levels. Each agency serves on the Stone School Townhome Steering Committee and specializes on specific areas of the homebuyer education program.

In 2002-03, over 12 hundred participants received training on affordable housing throughout the state.

**Source of Funds**
Smith-Lever 3b&c, state, county, local

**Scope of Impact**
State

**Key Theme: Children, Youth and Families At-Risk**

**Educational Initiative Title: Dawn Farm: A Drug and Alcohol Rehabilitation Center**

**Caton Gauthier: Washtenaw County**

**Description of Program**

Dawn Farms, a residential treatment program for adults, recognized a need for life skill education. Participants of this program have numerous issues stemming from their addiction and are preparing to go out and make changes to their lives. Many have low levels of life skills, especially in the area of communication. Dawn Farms requested MSUE to provide communication workshops to participants in a drug and alcohol treatment center. Washtenaw County/MSU Extension has been working with Dawn Farms for approximately three years.

**Impact**

An evaluation of the program found: 83% of survey respondents gave examples of knowledge gained on communication skills as a result of the class; and 100% of survey respondents indicated that they plan to use assertive communication and active listening skills in their every day lives. In addition, evaluations have found: 63% increased in the understanding of the difference between assertive, passive and aggressive communication styles; 32% increased in knowledge level of factors that contribute to how a message is heard and interpreted; 36% increased in their awareness of their own communication style; 22% increased in their understanding of the ways "I" influence people by what "I" say and how "I" say it; and 37% increased their understanding of how "I" respond to other peoples' communication styles.
Source of Funds

Smith-Lever 3b&c, state, county, local

Scope of Impact

State

Key Theme: Community Development
Educational Initiative Title: Small Town Success Strategies
David Ivan and Dave Thomas, Economic AoE Team: Clinton County and State

Description of Program

While some communities in Michigan have prospered during the past decade, According to USDA Rural Development, and the Michigan Economic Development Corporation (MEDC) many rural communities (less than 10,000 in population) have struggled. Vacant storefronts, half-filled industrial parks, and limited programs/activities for their youth/senior populations have resulted in a declining population base. In visiting with representatives of the Michigan Municipal League, and community leaders from Mid-Michigan, communities were eager to pursue new strategies, however, they were unsure of proactive initiatives to pursue, and the potential costs involved. Succinctly put, many communities were unaware of where to turn for assistance, advice and ideas for improvement. Utilizing an advisory committee composed of community leaders from six rural communities, the most pressing issues facing their communities were identified, and sorted into three areas of concern: economic development, land use coordination, and overall quality of life. Additionally, representatives from Michigan Municipal League, MEDC, and MSU Extension, were solicited to identify "best-practice" communities. Each best practice community visited was solicited for additional progressive communities in which they benchmark against. The goals of the initiative were: assist downtown development authorities, economic development corporations and other units address priorities and reinvigorate groups toward broader development actions; implement Premier Fast Trac programs for small business development in rural communities; enhance community capacity through facilitation, resource linkage, and leadership development; and through a best-management practices approach, enhance the knowledge and skill level of sustainability strategies for smaller communities in mid-Michigan.

Impact

A statewide seminar, entitled "Small Town Success Strategies" was conducted in December with 160 participants from all regions of the state attended. The
evaluations spoke highly of the program, and the materials presented were "institutionalized" for AoE use statewide. Based on a follow-up survey of 100 participants of the statewide community sustainability seminar, 88% of the program participants indicated that the program improved their understanding of the various tools of community development. 90% of the survey participants indicated that they brought at least one new idea back to their community from the program. Individual written comments were also highly supportive of the initiative's impact. The curriculum and materials were used at three regional Michigan Municipal League meetings and an article was printed in MML publication.

During 2002-03, seventeen counties had local initiatives addressing violence prevention.

**Source of Funds**

Smith-Lever 3b&c, state, county, local

**Scope of Impact**

State

**Key Theme: Youth Development**

**Educational Initiative Title: Teaching Our Kids to Kill**

**Julie Moberg: Delta County**

**Description of Program**

MSUE assisted the Family Coordinating Council in completing a full community assessment. The Compass, a United Way tool, was utilized for the survey process. Telephone interviews, mailed surveys, face to face surveys, and data collection were utilized in the process. One of the needs identified was community violence prevention. MSUE participated on a collaborative community violence prevention council which coordinated a workshop on "Teaching our Kids to Kill". A national speaker was brought into Escanaba. He presented to 72 participants. The focus was upon the effect of media violence and children.

**Impact**

Pretests and posttests were completed for the workshop "Teaching Our Kids To Kill". MSUE assisted in the development of the survey tool. The pretest indicated that 31% of the participants had a high knowledge of the effect of TV violence on children's behavior. Posttest indicated 95% of the participants had a high knowledge of the effect of TV violence on children's behavior with a net increase of 64%. The pretest indicated that 37% of the participants had a high knowledge
of the effect of movie violence on children's behavior. Posttest indicated 95% of the participants had a high knowledge of the effect of movie violence on children's behavior with a net increase of 58%. The pretest indicated that 35% of the participants had a high knowledge of the effect of video game violence on children's behavior. Posttest indicated 97% of the participants had a high knowledge of the effect of video game violence on children's behavior with a net increase of 62%. The pretest indicated that 32% of the participants had a high knowledge of the media's role in desensitizing youth to violent behavior. Posttest indicated 98% of the participants had a high knowledge of the media's role in desensitizing youth to violent behavior with a net increase of 66%. One of the next steps is a community plan to address media violence in children that is being developed by the Community Violence Prevention Council.

Source of Funds

Smith-Lever 3b&c, state, county, local

Scope of Impact

State

Key Theme: Children, Youth and Families at Risk
Educational Initiative Title: PLANT-A-ROW FOR THE HUNGRY PROGRAM
Mary Wilson and George Silva: Genesee and Eaton Counties

Description of Program

PLANT-A-ROW FOR THE HUNGRY PROGRAM This is a national project in cooperation with the Garden Writers Association of America and the Home and Garden Television Network. The mission is to provide an avenue through which more than 70 million gardeners in this country can help more than 35 million men women and children who go to bed hungry daily. Seven counties started programs to help feed the poor in their communities.

Impact

During 2002-03 in Genesee County, Plant-a-Row for the Hungry donated over 19,000 pounds of fresh produce to the Food Bank of East Michigan this season. Since the program started in 1999, 56,500 pounds of fresh produce has been donated for the hungry and homeless in Genesee County. In Eaton County, Channel 6 TV(CBS) covered this story on six separate prime time newscasts. Radio and print media were highlighted on this project. Aided by this publicity, our gardening community pledged unconditional support by donating a bountiful supply of fresh food. We ignited the spirit of goodwill in our communities and rallied support for this worthwhile cause. As a result, MSUE donated over 1,500 pounds of fresh produce to the Salvation Army, Cristo Rey Community Center, and the Eaton SIREN Shelter.
Source of Funds
Smith-Lever 3b&c, state, county, local

Scope of Impact
State

Key Theme: Family Resource Management
Educational Initiative Title: On the Path
Resource Management AoE Team, Linda Huyck: State

Description of Program

Through stakeholder input and focus groups, the need for an educational program that focused on family resource management for low income families was identified. The family skills needed were effective money management practices to purchase food and provide proper nutrition for their families, to be able to provide housing and clothing for their family members and to gain assets for future needs. In response to this need, MSUE developed a program called, On the Path, that offers hands-on activities to help low-literacy adults to understand and recognize the need for assistance with organization, tracking of expenses, and paying of their bills. MSUE developed a curriculum and the program that focused on family strengths rather than deficits.

Impact

Thirteen counties tested the new program and collected evaluation information. Approximately 110 individuals completed the program. Evaluation of the program found: 86.4% felt they were more able to organize bills and papers; 78% had attitude changes and 88.8% intended to use the organizational tools learned in the future. The program continues to expand and train more participants.

During 2002-03, the Family Resource Development AoE Team trained 39,258 participants.

Source of Funds
Smith-Lever 3b&c, state, county, local

Scope of Impact
State
Description of Program

Several governmental and human services agencies look to MSU Extension to provide sound research base parenting education. In 1989, the Extension Home Economics Program developed a comprehensive parenting program called "Building Strong Families: Parenting Young Children." "Building Strong Families" is designed to deliver parenting information to limited-resource parents of children aged 0 to 3 in small groups or one-on-one. The educational materials that are part of "Building Strong Families" include multicultural, cartoon-style flipcharts and real-life videotapes. The flipcharts present scenarios that parents often encounter with their children and prompt discussion of behavioral choices parents can make. The curriculum stresses the importance of parenting in the child's early development. It is intended to empower the parents to positively affect their children's future.

Impact

During 2002-03, 1061 parents received training. Evaluation of the program found parents significantly interacted differently with their children, where parents were more likely to encourage their child to play pretend (Pre-36%, Post-56%), make up games for their child to play (Pre-43%, Post-72%), encourage child to do things on his/her own (Pre-65%, Post-81%), talk to their child about how things look or happen (Pre-53%, Post-73%), let their child make choices (Pre-48%, Post-67%), and encourage their child to move and explore safely (Pre-74%, Post-88%). In addition, parents were more likely to set limits for their children (Pre-59%, Post-77%), teach their children through example (Pre-63%, Post-78%), act calm when child has temper tantrum (Pre-56%, Post-77%), give child time to calm down (Pre-66%, Post-82%), and discipline child without spanking (Pre-62%, Post-75%). Finally, parents were more likely to read to their child (Pre-65%, Post-83%).

Source of Funds

Smith-Lever 3b&c, state, county, local

Scope of Impact

State

Key Theme: Youth Development
Educational Initiative Title: Building Youth Assets in 4-H Clubs
Cynthia Mark and Bruce Haas: State
Description of Program

The vision of Michigan 4-H is that involvement in 4-H helps kids explore new ideas, experience a variety of new opportunities and friendships, and build skills designed to help them achieve. In 2002-2003, 276,377 youth participated in 4-H with 70,000 involved in intensive ongoing club activities. To date, little information has been available about the impact of these clubs. During 2002, nine counties volunteered to collect information from their clubs to better understand the impact of their programs and improve them. Counties involved were: Allegan, Cheboygan, Clinton, Grand Traverse, Ingham, Isabella, Kalamazoo, Leelanau, and Wexford.

Impact

Evaluation of 200 youth in clubs found 95% were highly satisfied with their clubs, 90% felt the club leaders cared about them, 88% felt their 4-H club was a caring environment, and 87% felt safe in their 4-H club. In addition, 90% stated they learned new things (i.e., knowledge about animals, nutrition, and photography) and 83% learned new skills (i.e., skills that included archery, raising sheep, growing plants, working with wood, and writing calligraphy). Research from the youth asset data revealed several findings useful for program design and evaluation that included: youth at the age of 13-14 dropped in all of the six youth asset areas assessed (i.e., positive identity, positive values, service to others, social competencies, safety and support, and commitment to learning); and adult support and encouragement was significantly correlated with youth positive identity (r=.513), youth positive values (r=.420), and youth’s commitment to learning (r=.416).

Source of Funds

Smith-Lever 3b&c, state, county, local

Scope of Impact

State

The AoE Teams in Goal 5. met their 2002-03 Plan of Work goals by reaching their targeted population. All teams and members have become more active in recruiting stakeholder input and involving collaborators in setting priorities, and designing and implementing programs. In addition, the teams are engaged in identifying underserved populations and developing strategies, collaborations, and programs to address these populations. Examples of collaborators have included: Farm Credit Services, Intermediate School Districts, Chambers of Commerce, Community Foundations, Capital Area United Way, Kellogg Community College, Community Mental Health, Michigan Townships Association, Farm Bureau, Michigan State Police, Spectrum Health, Michigan
Stakeholder Input Process

MSU Extension is committed to creating access to research-based knowledge to meet the needs of Michigan residents. As an organization, we are constantly gathering input on RESPONSIVE program direction based on a variety of inputs, including:

• Extension councils.
• AoE advisory groups.
• Industry or stakeholder groups.
• Partnering agencies and organizations.
• Current community or industry issues.

Michigan residents’ needs and interests are the driving force behind MSU Extension programs. In 2001, volunteer county Extension council members, along with staff members in every Michigan county, selected focus areas for local programming. Regional Extension council conferences provided an important opportunity to highlight the issues identified by stakeholders across the state.

The primary purpose of the sharpening our program focus process was to identify local needs for educational programming. Each county undertook a customized process and selected initiatives specific to its communities. Five major statewide themes emerged from these processes:

- Building strong communities.
- Helping youth succeed.
- Enhancing profitability in agriculture.
- Encouraging responsible land and natural resources use.
- Building healthy families.

Developing action strategies

MSU Extension’s 34 area of expertise (AoE) teams were each asked to carefully review the statewide program input, synthesize the results with their external stakeholder and advisory groups, refine the needs cited and develop program plans supporting attention to broader focus areas (see Update to 5-Year Plan of Work). In addition, all field staff are now reporting each year on their progress in Civil Rights that uses stakeholder and advisory group input to clearly identify goals and priorities, target audiences that include underserved audiences, researched based information, program planning and implementation, methodology for evaluation of impact, and, sometimes, feedback.

An example of the impact of stakeholder input and the county advisory council process of Sharpening Our Program Focus, was that many counties reported collaboration building as one of the most important roles for MSUE in Building Strong Communities. As a result of this identified need, the Community
Development AOE team formed a collaboration with USDA Rural Development, Michigan Economic Development Corporation and Michigan Housing Development Authority to provide informational workshops locally to better inform local decision-makers and leaders of educational opportunities and resources available for their communities.

**Reaching Underserved Audiences**

All agents identify in their educational initiative plans their target audiences for their programs and assess who is being reached and who is underserved. Based on these assessments, agents develop new educational initiatives to address reaching underserved populations. During 2003-04 MSU Extension reported progress and impact on over 60 educational initiatives that reached new underserved audiences in their counties. Progress was made in reaching new audiences for programs, involving new stakeholders from underserved areas and groups, expanding programs in new geographic (underserved) areas, and development of new programs.

Examples of progress in 2003-04 towards reaching underserved audiences included:

- more diverse audiences in 4-H Youth Development;
- more males in food and nutrition programs;
- more commodity marketing workshops that specifically targeted farm wives/spouses;
- more seniors and underserved youth recruited through a variety of organizations serving these populations;
- more fathers recruited for parenting programs;
- more low-income mothers recruited for parenting programs;
- more pork producers served, where they indicated they have recently become an underserved audience because feed companies and producer organizations no longer provide educational events;
- more low-income African American youth targeted through 4-H;
- more leaders were trained from underserved areas and populations;
- more outreach through Chambers of Commerce and local libraries to provide local community contacts, (especially underserved groups) through which information on classes, programs and volunteer opportunities was distributed;
- more services to Amish farmers;
- more collaboration with county health department clinics that resulted in more educational services to underserved audiences;
- and more housing programs for low-income audiences.
- more youth involved in state and local government issues.

In addition, AoE teams are examining the stakeholder input from Sharpening Our Program Focus to address new needs and underserved populations.

An example of addressing underserved audiences in 2002-2003 was a program in Clare County that helped Project FRESH clients receive housing assistance.
In the Clare community, WIC and the Allen Foundation identified WIC participants needed not only nutrition education, but also housing assistance. MSUE expanded its Project FRESH program to include housing education. Integrating the WIC families reached during Project FRESH with the housing programs provided one more avenue to reach a previously underserved population.

**Program Review Process**

MSU Extension continues to use the AoE team structure for the Program Review Process as stated in the Plan of Work with no changes. As mentioned above, the teams have begun to incorporate the information from the Sharpening Our Program Focus process into their goals and priorities.

In addition to the above process, counties and AoE teams during 2002-03 used over 200 advisory groups to identify local needs and action strategies. Information regarding the advisory groups have been added to the Extension Information System (EIS) that include names and demographics of the members, purpose and role of the advisory group, recommendations, and, in time, impact of the group. These groups ranged from local 4-H Foundations to Technical Advisory Committee Southwestern Michigan Solid Waste Consortium. This information will continue to be used for stakeholder input and Civil Rights compliance.

**Evaluation of the Success of Multi-state and Joint Activities**

MSU Extension met its goal of 2% or $164,511 as proposed in the Plan of Work by spending $227,379 on multi-state activities (see Appendix A). The majority of these activities involved sharing information and educating others from other states. Some of the major collaborations consisted of: Floriculture Programming in Michigan, Ohio, Indiana, Illinois; National Issues Forum leadership with The Ohio State University Extension; "Learning From Land Use Change Models" with The Ohio State University; leadership academy and diversity training with The Ohio State University; developed with The Ohio State University a training on yellow perch aquaculture; trained Ohio and Michigan greenhouse industry personnel in response steep increases in fuel costs (from two to five times year-ago costs) that threatened profitability and even survival of these family-owned firms; collaborated with University of Wisconsin Extension on poverty issues; the Tri-State Dairy Management Conference with Purdue University and The Ohio State University; five state beef alliance with North Central Region states; national Emergency Management & Disaster Response; North Central Region Aquaculture Conference; North Central Show Stock Producers; Michigan-Ohio Grain Marketing Expo; and National Extension Tourism Conference. In all of these collaborations, staff members reported sharing resources and information as well as building stronger relationships between the states.
A detailed example of multi-state activity (Michigan, Ohio, Indiana, and Illinois) was Great Lakes International Grazing Conference (GLIGC) CD-ROM Project. In terms of total costs, “Conferences” are very expensive and are extremely inefficient. With a great deal of trust and cooperation from the Conference presenters and the CD-ROM Project Team an entire two day conference was digitized and captured on a series of interactive CD-ROM disk. The Great Lakes International Grazing Conference is a highly successful Conference that just completed it’s tenth annual Conference. This year’s Conference and Trade Show was held in Battle Creek with 200 participants. The Conference is a multi-state Extension event committed to rotating to a different state every two years. This multi-state leadership and support has helped to create new audience potential, maintained program quality and attracts leading speakers and trade show exhibitors while spreading the overhead cost and labor. This year 27 speakers and producer/industry panel members made presentations. These were identified by a Multi-State Planning Committee as the best available resource people to share research and acquired knowledge with the conference participant. In spite of this continued success this Conference is very expensive in terms of total costs typical of many Extension events. This years Conference cost over $20,000 in cash expenses and another estimated $130,000 of other cost for a total cost of $150,000 to hold and attend this event. That results in approximately $1,000 cost per registered conference attendee at this year’s event. By the production of this CD-ROM Project this year’s GLIGC has a realistic audience potential in the thousands instead of what has been it’s traditional several hundred attendees. This would not have been possible without the multi-state cooperation and contributions. The potential of expanding outreach of this conference information as well as the financial savings and impact is in the thousands of dollars.

Evaluation of the Success of Integration Activities

MSUE has partnered with the MDA, the Michigan Department of Natural Resources and the U.S. Department of Agriculture to educate producers, veterinarians and the public about bovine TB. MAES research improved a laboratory technique for isolating the TB-causing bacteria on a farm, which makes it possible to assess whether M. bovis still exists there after livestock are removed.

Michigan State University Extension achieved its Integrated Activities goal with $329,023 spent in this area that exceeds the 4% goal of $329,023 (see Appendix B). Examples of integrated activities conducted during 2002-03 included: conducted MCP studies to determine methods to increase storage life of apples, that included work with Janice Harte in Food Science to develop the protocol/mechanism for proper scientific evaluation; development of farm Manure Management System Plans (MMSP) with Maynard Hogberg from Animal Science; feeding strategies to lower Nitrogen and Potassium in manure through Dave Beede from Animal Science; pathogen kill in morts and manure project with Margaret Bensen from Animal Science; dairy nutrition updates from Herb Bucholtz; Mathieu Ngouajio from Agriculture and Natural Resources helped in
the late summer evaluation of plots and determining the differences in the nitrate levels in the various plots; Dr. Annemiek Schilder from Plant Pathology worked with farmers on disease control in grapes and the importance of bloom sprays; and Dr. Sharon Hoerr from Food Science worked with extension staff on an obesity project.

An example of integration activities was the development and implementation of a new fruit sprayer technology, MSU researchers developed the new improved technology and MSU extension agents brought the new technology to the industry and growers. Extension agents and specialist demonstrated the new sprayers at sprayer demonstrations, at meetings and on personal farm demonstrations. Growers learned from extension personal the benefits of the new technology sprayers. Agents informed growers on the proper usage of the machine and the proper rate of pesticides applied by the sprayer. Evaluation of the process found that spray rates were reduced by 33% and time was cut in half. Approximately 5,000 acres of fruit trees were impacted by this project.

For further information regarding this report or MSU Extension contact Bruce E. Haas, Ph.D. at haasb@msue.msu.edu or (517) 432-3491.
Appendix K

Michigan Multistate Extension Form and Documentation

Michigan Integrated Extension Form and Documentation
Appendix
U.S. Department of Agriculture
Cooperative State Research, Education, and Extension Service
Supplement to the Annual Report of Accomplishments and Results
Multistate Extension Activities and Integrated Activities
(Attach Brief Summaries)

Institution____Michigan State University Extension______________
State_____Michigan________________________________

Check one: __X__ Multistate Extension Activities
____ Integrated Activities (Hatch Act Funds)
____ Integrated Activities (Smith-Lever Act Funds)

Actual Expenditures

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Tom Coon
3/31/05

Director
Date

Form CSREES-REPT (2/00)
Appendix

U.S. Department of Agriculture
Cooperative State Research, Education, and Extension Service
Supplement to the Annual Report of Accomplishments and Results
Multistate Extension Activities and Integrated Activities
(Attach Brief Summaries)

Institution____Michigan State University Extension______________
State_____Michigan________________________________

Check one: ____ Multistate Extension Activities
____ Integrated Activities (Hatch Act Funds)
__X__ Integrated Activities (Smith-Lever Act Funds)

Actual Expenditures

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Form CSREES-REPT (2/00)

Tom Coon 3/31/05
Director Date
Appendix L

Changes to Five-Year Plan of Work
for Michigan State University Extension
Changes to Five Year Plan of Work for Michigan State University

The foundation of the Five Year Plan of Work is the mission of Michigan State University Extension:

Michigan State University Extension helps people improve their lives through an educational process that applies knowledge to critical issues, needs, and opportunities.

The following changes to the Five Year Plan of Work reflect a process of constituent and stakeholder input that moved from local communities to regional and state teams and back to local communities as MSUE identified and responded to critical issues, needs, and opportunities. The plan is based on stakeholder input from thousands of participants, parents, and volunteers, hundreds of collaborators and partners, over 500 advisory groups, 1,000 community organizations, funders, and citizens. The plan places the identified Michigan residents’ needs and interests as the driving force behind MSU Extension programs. In 2001, volunteer county Extension council members, along with staff members in every Michigan county collected stakeholder input for establishing local and state goals (see Figure 1.). Collectively this data provided the basis for identifying Michigan State University Extension’s Focus Areas and Core Priorities (see Appendix A) and MSUE’s Sharpening Our Program Focus (see http://www.msue.msu.edu/eis/reports/Statewide_report_by_theme.pdf) that in turn has been used to and provide information to AoE Teams in setting their plans and goals.
From a state perspective, five main themes and corresponding Michigan Critical Issues (see http://ceenet.msue.msu.edu/home/criticalissues/Michigan%27s_Critical_Issues.html) were highlighted that included:

- **Building strong communities**
  - Building capacity for rural and urban community development and revitalization.
  - Building community capacity for creating an environment where people of different cultures, backgrounds and life circumstances can reach their full potential.
  - Assisting elected and community decision-makers to develop leadership and public affairs skills.
  - Promoting entrepreneurial development and business expansion.
  - Encouraging communities to develop dialogue, collaboration and emergency response capability.

- **Helping youth succeed**
  - Supporting youth asset development to reduce vulnerabilities.
  - Enhancing leadership and skill development of volunteers to be a positive force for youth.
  - Creating more opportunities for community-based partnerships and collaborations in support of positive youth development.
  - Providing community-based, positive youth development experiences.

- **Enhancing profitability in agriculture**
  - Balancing inputs to agricultural systems to increase profitability and efficiency.
  - Managing outputs in agricultural systems to increase profitability and efficiency.
  - Supporting entrepreneurial and consumer-center product agriculture.
  - Identifying and responding to threats and emerging problems for the food and agricultural industry.
  - Identifying and supporting agriculture systems that are socially and environmentally balanced within communities.

- **Encouraging responsible land and natural resources use**
  - Improving community planning and policy development through access and use of research-based information.
  - Building awareness and understanding of the ecology of natural systems, and capacity to make positive changes.
  - Identifying and promoting best practices for responsible use of natural resource, land and water systems.

- **Building healthy families**
  - Collaborating with community partners to enhance family support systems.
  - Promoting healthy lifestyles across the lifespan.
  - Improving parenting and caregiver skills.
  - Educating families to manage their resources.
  - Strengthening families’ capacity to deal with change and transition.
  - Improving practices to reduce food safety hazards.
A survey done in Spring 2002 by the Institute for Public Policy and Social Research (IPPSR) called the State of the State Survey (SOSS) assessed a variety of public topics. One set of the questions dealt with reaction to the identified program priorities for MSU Extension. The 1012 random surveys were conducted in all six regions of the state. A full report can be found on the IPPSR website at:
http://www.ippsr.msu.edu/SOSS/SOSSdata.htm

Results around the Focus areas found:

Enhancing Agricultural Profitability
  High Priority - 51%
  Some Priority - 43.8%
  Low Priority -  5.3%

Encouraging Responsible Land
  and Natural Resource Use
  High Priority - 70%
  Some Priority - 27.6%
  Low Priority -  2.5%

Building Strong Communities
  High Priority - 62.4%
  Some Priority - 32.5%
  Low Priority -  5.1%

Helping Youth Succeed
  High Priority - 78.3%
  Some Priority - 18.1%
  Low Priority -  3.6%

Building Healthy Families
  High Priority - 78%
  Some Priority - 17.6%
  Low Priority -  4.4%

Keeping in mind that this was a statewide survey, the results suggest the citizens surveyed agreed that these are important areas for Extension to address. Information from Sharpening Our Program Focus was used to provide feedback to stakeholders through plans, recommendations, and identified priorities and local goals at Regional Extension council conferences, forums, meetings with legislators, commissioners, and citizens, and working with collaborators. In 2002-2003, Area of Expertise Teams (AoE) teams used the Sharpening Our Program Focus data and identified MSUE Focus Areas and Core Priorities to examine their existing goals and create new goals. AoE Teams are the foundation of MSUE’s previous 5-Year Plan of Work and Extension work. MSU Extension’s 29 area of expertise (AoE) teams were asked to carefully review the statewide program input, synthesize the results with their external stakeholder groups, refine the needs cited and develop program plans supporting attention to broader focus areas. The following Plan of Work reflects the changes made to the AoE goals identified in the previous 5-Year Plan of Work and the goals created from this process.
Goal 1: An agricultural system that is highly competitive in the global economy

Enhancing profitability in agriculture

Farm economics and viability concerns echoed across the state. Residents asked MSU Extension to help them explore agricultural diversity, niche markets and value-added opportunities and to continue farm management education for producers.

They also asked for increased emphasis on animal health issues, the economic impact of manure issues, maintaining profitability of small and part-time farmers, and maintaining profitability while enhancing environmental stewardship.

In line with this critical need the Swine AoE Team strengthened its goal to: Enhance Michigan's swine competitiveness & profitability via educational programs that address labor, alternative business arrangements, efficient production, environmental compliance and enterprise analysis. In addition, the Swine AoE Team added the following goals based on stakeholder input: “Increase awareness of environmental issues through Environmental Compliance that will address GAAMP Standards, Manure Management System Plans along with Comprehensive Nutrient Management Plan compliance, and mortality;” and “Deliver PQA recertification designed to deliver current information on farm disease identification and treatment along with PQA recertification.”

The Dairy AoE Team has continued to focus on profitability with the goal: Assist dairy producers improve business management skills to increase profitability. An extension of this goal is to teach dairy producers the use of partial budgeting to make sound business decisions. In addition, due to stakeholder input, the AoE is strengthening its goal on manure management where the goals is to increase dairy producers’ knowledge and understanding of acceptable environmental management practices with 90% of dairy producers capable of diagramming the systems approach to manure nutrient management by September 2005. A secondary goal is to develop a Manure Applicator Training Program to teach dairy producers/manure applicators how to apply manure at agronomic rates and implement basic conservation practices to reduce field application discharge risks by March 2004.

The Beef AoE Team echoed similar goals with its primary goal: “Improve beef profitability via retained ownership and pricing strategies;” “Identify strategies for reducing production costs on beef farms and assist managers in the implementation of needed changes;” “Improve the understanding of environmental issues and provide expertise for addressing them;” “Make farm managers aware of all market opportunities and provide information on the application of risk management;” and “Develop coordinated marketing system called Five State Beef Initiative with the goal of to help beef producers capture more value from their cattle by meeting consumer expectations through a responsive production, marketing and information sharing system.” Input has been taken from producers, beef cattle associations, land grant universities, state departments of agriculture, Farm Bureaus and a livestock marketing cooperative in IL, IN, KY, MI, and OH. In addition, the AoE team used input from its annual surveys to cattle feeders in Michigan.
The **Field Crops AoE Team** primary goals include: “Work with growers and agri-business to develop new profit centers and value-added opportunities for Michigan agriculture;” and “Help farmers deal with low commodity prices.” New goals and priorities were set using the Field Crops AoE farmer and agribusiness advisory council that included: 1.) Laws, Regulations (bulk storage, Farm Bill); 2. Board & leadership training; 3.) Information Delivery Task Force Research Data Sharing Pest data, tillage, weed control, soil fertility, variety trials On-Farm Demo Book (multi-state & Canada) CAT Alert Education of General Public (Agricultural Literacy); 4.) New Profit Centers (Value Added/Organics); 5.) Northern MI Field Crops; 6.) Farm Business MGMT/Economics; and 7.) Crop Systems Nutrient Management (Manure) Precision Agriculture.

The primary goal for the **Fruit AoE Team** is: “Enhance profitability and competitiveness of the Michigan fruit industry.” Specific new goals under this area includes: “Identify new plum rootstock to increase profitability for the Michigan plum industry;” “Develop ripening and quality profiles for Michigan Peaches;” and “Improved mechanization for juice grape industry with refinement & demonstration of a mechanical vine positioner.” In addition, stakeholder input has highlighted the need for goals that address the water quality and usage due to, for example, tart cherry orchards tend to be near bodies of water, on sandy sites where agrichemicals are relatively mobile and because this industry uses a significant amount of water to cool cherries in the harvest tanks.

The two primary goals for the **Vegetable AoE Team** are: “Assist vegetable producers adopt integrated crop/pest management;” and “Enhance vegetable marketing.” Working with organizations (the Michigan State Horticultural Society and the Michigan Vegetable Council), local Extension advisory councils, and state commodity associations, Extension agents in the AoE Team identified issues that would help producers and farm marketers improve the management skills, enhance profitability, and utilize land and resources in a responsible manner. As a result new goals were added that include: “Strengthen the competitive position and profitability of the Michigan vegetable industry;” and “Improve water use with vegetable producers.”

New goals were established by the **Forage/Pasting/Grazing AoE Team** from using an advisory council composed of forage producers, suppliers, and members from the Michigan Hay & Grazing Council. The goals included: “Enhance livestock enterprise profitability utilizing grazing/pasture management;” “Improving production of alternative crops to extend grazing seasons; and “Improving production of high quality forages.”

The main goal for the **Christmas Tree AoE Team** is “Stabilize and enhance Michigan Christmas tree industry.” New goals include, “Improving growers’ knowledge and skill levels in the area of Fraser Fir production and marketing;” “Improving weed control;” “Improving cone production;” and “Development of a glyphosate-ready Fraser Fir.”

The main goal for the **Swine AoE Team** is “Improve swine competitiveness and profitability.” New goals include, “Improving Environmental Compliance that include GAAMP standards, Manure Management Plans, comprehensive Nutrient Management Plans, and mortality;” and “Recertifying farmers on Producer Assurance (PQA/SWAP) and encourage SWAP participation.”
Goal 2: A safe and secure food and fiber system

Building healthy families

Extension council members and other stakeholders in nearly every county asked MSU Extension to focus on enhancing family assets. Concerns about nutrition and food were prevalent. Stakeholders asked for educational focus on the safety of our food supply.

The primary goal of the Food Safety AoE Team is: “Offer food nutrition education to low income adults regarding food preservation, food safety and healthy hygiene practices around food.” A second focus area is HACCP training and ServSafe training on food safety for restaurants and school food server personnel. Using stakeholder input, a new goal was established: “Improving Good Agricultural Practices (GAPs) training.” This goal focuses on the safe production of fresh fruits and vegetables. AoE members have become more active in farm-level educational programs on animal health, especially on issues related to bovine tuberculosis. It is anticipated that future government regulations and educational efforts will place increasing emphasis on farm-level food safety practices.

One initiative that goes across Federal Goals and AoE Teams is the MSUE Emergency Management and Homeland Security Program with the Goal: “Assist in reducing losses to both the farm economy and to producers through increased awareness and security to the agricultural and food industry.” To attain this goal, training will be provided to Extension educators who work with the animal, plant, and food industries in Michigan to help them better understand the vulnerabilities, threats, and opportunities to protect the food supply, from farm to table. Information will then be distributed through local Extension educators. Extension publications will be produced that target Spanish speaking audiences, as well as agricultural security in general. Extension will also continue to be involved in the State of Michigan’s strategy to develop a statewide food and agriculture security plan. Extension educators, specialists, and program staff will also be provided training in information through both classroom training and electronic delivery through the MSUE Emergency Management 1-Minute Tips, which has over 1090 subscribers. Partners and stakeholders include the Michigan Department of Agriculture, Extension Disaster Education Network, Michigan State Police Emergency Management Division, North Central and National Plant Diagnostics Networks, Michigan State University College of Veterinary Medicine, and various USDA offices including the Animal and Plant Health Inspection Service (APHIS).

Goal 3: A healthy, well-nourished population

Building healthy families

Extension council members and other stakeholders in nearly every county asked MSU Extension to focus on enhancing family assets. Concerns about nutrition and food were prevalent. Stakeholders asked for educational focus on the safety of our food supply, development of healthy lifestyles, and family nutrition education.
The Food, Nutrition and Health AoE Team primary goal is: “Improve dietary quality of adults and children by adopting healthy eating and lifestyle behaviors.” New goals identified through stakeholder input are: “Reduce obesity through a portion control initiative;” “Integrate physical activity promotion with nutrition and health education programming;” “Implement chronic disease management and prevention education for families and communities;” and “Implement diabetes education and support for families and communities.”

Goal 4: Greater harmony between agriculture and the environment

Encouraging responsible land and natural resources use

Decision making and leadership development around natural resources and land use issues is important to Michigan residents. In the land use arena, they especially cited farmland preservation, sprawl and planning and zoning issues as areas where MSU Extension should focus resources, along with brownfield redevelopment and urban land use concerns. County Extension council members asked for more information and education about such issues as environmental quality, forestry, natural resources, water quality and wildlife management.

The primary goal for the Land Use AoE Team is: “Enable citizens to participate in informed land use decisions.” This goal in response to Michigan critical needs has led to the development of a statewide program called the Citizen Planner. The goal is to train citizens as well as involve participants in meaningful volunteer activities that will facilitate stakeholder involvement in local land use decisions. One of the new initiatives for the Land Use AoE Team is the result of local governments identifying a need for education and materials on infrastructure development and management as it relates to land use planning, development and community investments, especially given growing interest in neo-traditional designs and cluster zoning. Additionally, MSU Extension is a funding collaborator with the John Hannah Land Use Professorship position that will provide overall leadership for MSU land use effort.

The primary goals of the Water Quality AoE Team are: “Encourage Michigan citizens to adopt or refine practices to protect water quality on their homesteads and in their communities;” “Help Michigan farmers improve nutrient management to maintain and improve quality ground and surface water;” and “Work with riparians and lake users to enhance their understanding of watershed management and inland lakes water quality issues. New initiatives from stakeholder input focus on Alternative Waste Systems, development of the Lake and Stream Leader's Institute, and development of a statewide Watershed Conference.

The main goal of the Manure AoE Team is: “Protect the environment through manure management planning and nutrient management.” A new goal added is: “Improving horse manure management.”

The primary goals of the Forestry AoE Team are: “Address environmental issues effecting Michigan forests;” “Enhance logger education.” New goals from stakeholders
and community needs that emerged are: “Educating youth on the stewardship of forests;” “Addressing the Emerald Ash Borer;” “GPS for Beginners;” and “Master Woodland Manager.”

The goals of the Sea Grant AoE Team address: “Increase awareness and understanding of the dynamics and interrelationships of the Great Lakes and their biological resources;” “Assist and lead in the efforts to limit the introduction of new aquatic nuisance species in the Great Lakes while working to reduce the spread and density of existing aquatic nuisance species;” “Improve coastal ecosystem health and the economic quality of life for coastal communities by strengthening community leadership, promoting development and wise land-use decision making, identifying barriers, and increasing municipal communication and collaboration links;” “Reduce the incidence and severity of water-related accidents through preventive education, enhancement of rescue response and management of injured individuals;” and “Expand awareness of relevant international issues and situations and assist people from and within other countries by sharing relevant Great Lakes information.”

**Goal 5: Enhanced economic opportunity and quality of life for Americans**

**Building strong communities**

Michigan citizens identified a variety of opportunities for MSU Extension to assist them in their quest for strong communities. They spoke of the need for increased education in community development and collaboration, economic development, housing and health care. Other focus areas identified include education, diversity, leadership, tourism and volunteer development. These themes were prominent in both urban and rural communities.

The primary goals of the Community Development AoE Team are: “Aid community groups in linking, networking, and identifying educational resources;” and “Facilitate visioning, revisiting, strategic planning and implementation primarily for rural communities.” New goals created from stakeholder input are “Building capacity for creating an environment where people of different cultures, backgrounds and life circumstances can reach their full potential;” “Provide assistance for organizational assessment and planning for agencies, organizations and local units of government;” “Encouraging communities to develop dialogue, collaboration and emergency response capability;” and “Provide assistance in accessing, analyzing, interpreting and presenting demographic and economic data for communities.”

The primary goals of the Economic Development AoE Team are: “Develop programs of business retention and expansion;” “Implement FastTrac (Entrepreneurship) program for small business development in rural communities;” and “Implement Fund for Rural America.” New goals from stakeholder input are: “Building capacity for rural and urban community development and revitalization;” and “Promoting entrepreneurial development and business expansion;” and “General Workforce Development Assistance” that focuses on issues related to workforce development and methods by governmental and private employers to improve the understanding of and utilization of the existing and potential workforce utilizing wage surveys as well as skill surveys.
The primary goals of State and Local Government AoE Team are: “Assisting elected and community decision-makers to develop leadership and public affair skills;” “Educate local government officials on state and local taxation, financing state and local government, and conflict resolution.” New goals from stakeholder input include: “Integrating Michigan Municipal Clerks Institute and Master Municipal Clerk Academy,” where MSUE reached agreement with the Michigan Secretary of State’s Bureau of Elections to formally combine required elections certification training with the MMCI and MMCA programs, allowing clerks to meet both training requirements in a single set of programs for clerks seeking their Master Municipal Clerk (MMC) designations; and “Implementing the Michigan Agricultural Mediation Program,” where MSUE has assumed responsibility for the Michigan Agricultural Mediation Program (MAMP) formerly administered by the Michigan Supreme Court’s State Court Administrator’s Office;” and “Development of the Local Unit Fiscal Database,” where MSU is working with the Michigan Department of Treasury, the Michigan Municipal League and municipal accounting software providers to develop a single database for the financial reports required to be filed by Michigan’s county, township, city and village governments.

The MSUE Emergency Management and Homeland Security Program goal in this area is to work with applicable Area of Expertise teams, MSUE resources, and external stakeholders to increase Extension educator, specialist, and program staff knowledge of Extension roles during disasters, and to increase their ability to provide programming related to prevention, preparedness, response and recovery when disasters strike. Specific areas include family security, stress management due to the trauma of disaster whether natural or man-made, talking to children about terrorism and trauma, hazard mitigation, and protecting the food supply. New Extension publications will be developed for the Youth and Family Security Series of Extension bulletins, including Spanish language versions, which address the aforementioned topics. Extension educators, specialists, and program staff will also be provided training in information through both classroom training and electronic delivery through the MSUE Emergency Management 1-Minute Tips, which has over 1090 subscribers. Partners and stakeholders include the Michigan Department of Agriculture, Extension Disaster Education Network, Michigan State Police Emergency Management Division, Michigan Department of Community Health, and National Food Safety and Toxicology Center.

Another initiative that goes across Federal Goals and AoE Teams is the LeadNet AoE Team that focuses on leadership development. The LeadNet team is developing three major initiatives. One is a comprehensive guide to community leadership development at the local level. The intent is to provide Extension Educators with the tools to organize and facilitate a leadership development process or program in collaboration with various community organizations. A second effort involves a three-day training on facilitation that has been piloted within Extension for the last year. This program, which has received rave reviews, will be offered to state and local organizations and agencies. The third initiative focuses on approaches to conflict resolution in the work place and in the community. A number of different approaches to teaching this are being tested within Extension, with the intention of making workshops available to the general public.
Another initiative that goes across Federal Goals and AoE Teams is MSU’s new **Product Center for Agriculture and Natural Resources**. MSU Extension and AES will work with the Product Center on the following goals: “To provide a coordinated, university-wide response for assisting agriculture, food, and natural resource entrepreneurs and managers in improving economic opportunity; and “To cooperate with existing agriculture, food, and natural resource organizations to develop new businesses, new products, and more successful existing business.”

**Building healthy families**

Extension council members and other stakeholders in nearly every county asked MSU Extension to focus on enhancing family assets. They asked for educational programming on quality day care, family relationships, human development and parenting, and family resource management.

The **Human Development AoE Team**’s primary goal is: “To provide parents and caregivers the knowledge/skills needed to help their children reach their potential by increasing knowledge about: child development, breastfeeding education/support, parent-child interactions, guidance/discipline, and decision making.” New goals from stakeholder input include: “Helping youth deal with anger;” “Helping parents interact better with adolescents;” “Helping families cope with divorce;” “Improving indoor air quality for children;” and “Helping the quality of life for seniors and dealing with aging issues.”

The primary goals of **Family Resource Management AoE Team** are: “Improve the organization and management of personal/family financial affairs;” “Increase savings and reduce consumer debt;” and “Develop home buying and decision making and action skills.” New goals are: “Collaborating with AARP/Michigan to raise the awareness level of seniors regarding home maintenance scams and predatory lending practices;” “Improving financial security of Michigan citizens in later life;” and “Increasing Income Support for Working Households through the Earned Income Tax Credit.”

**Helping youth succeed**

Residents expressed strong desire for educational programming to help young people avoid behaviors that place them at risk. Positive youth development programming should be enhanced, they said, and particular emphasis should be placed on reducing violence involving youth.

The primary goals of **Youth Development AoE Team** are: “Supporting youth asset development to reduce vulnerabilities;” “Providing Community-based, positive youth development experiences;” and “Creating more opportunities for community-based partnerships and collaborations in support of positive youth development.” New goal areas are focusing on: “Mentoring Programs;” “Global Education (including Diversity and Multiculturalism);” “Character Education”, “Stewardship,” and “Reducing Bullying.”
The primary goal of the **Volunteer Development AoE Team** is: “Enhancing leadership and skill development of volunteers to be a positive force for youth.” A new emerging goal for this AoE is: “Extend the resources of MSUE Extension and the Volunteerism Area of Expertise Team to outside partners to build community leadership capacity.”

It is important to note that many of the AoE’s, in addition to the Youth Development AoE, focus on youth learning and succeeding, where during 2002-03 over 67,000 youth learned about agriculture, 50,000 youth learned about food safety and nutrition, and 36,000 youth learned about environmental issues and stewardship.
Appendix A
Michigan State University Extension’s Focus Areas and Core Priorities
Our Mission

Michigan State University Extension helps people improve their lives through an educational process that applies knowledge to critical issues, needs, and opportunities.

Serving Michigan Families and Communities through our Focus areas and Core Priorities

Late in 2001 MSU Extension announced the results of an intensive, statewide process to identify important topics that the organization could and should address. These focus areas offer overarching themes for statewide programming through our Area of Expertise teams and other program development efforts. Within each focus area is a set of core priorities that all of our Extension professionals contribute to through programs. Partner reports will regularly share the measurable results that improve the lives of Michigan residents. These statewide themes will drive our program delivery through the year 2004.

Building Strong Communities

- Building capacity for rural and urban community development and revitalization.
- Building community capacity for creating an environment where people of different cultures, backgrounds and life circumstances can reach their full potential.
- Assisting elected and community decision-makers to develop leadership and public affairs skills.
- Promoting entrepreneurial development and business expansion.
- Encouraging communities to develop dialogue, collaboration and emergency response capability.

Helping Youth Succeed

- Supporting youth asset development to reduce vulnerabilities.
- Enhancing leadership and skill development of volunteers to be a positive force for youth.
- Creating more opportunities for community-based partnerships and collaborations in support of positive youth development.
- Providing community-based, positive youth development experiences.
Enhancing Profitability in Agriculture

- Balancing inputs to agricultural systems to increase profitability and efficiency.
- Managing outputs in agricultural systems to increase profitability and efficiency.
- Supporting entrepreneurial and consumer-center product agriculture.
- Identifying and responding to threats and emerging problems for the food and agricultural industry.
- Identifying and supporting agriculture systems that are socially and environmentally balanced within communities.

Encouraging Responsible Land and Natural Resources Use

- Improving community planning and policy development through access and use of research-based information.
- Building awareness and understanding of the ecology of natural systems, and capacity to make positive changes.
- Identifying and promoting best practices for responsible use of natural resource, land and water systems.

Building Healthy Families

- Collaborating with community partners to enhance family support systems.
- Promoting healthy lifestyles across the lifespan.
- Improving parenting and caregiver skills.
- Educating families to manage their resources.
- Strengthening families’ capacity to deal with change and transition.
- Improving practices to reduce food safety hazards.

These aren’t just subjects that will be part of our Extension programs — they comprise the nucleus of our efforts, the very heart of our work. They have been shared across the organization with employees at all levels, and with our stakeholders in government, the private sector, nonprofits and communities. We are fully committing ourselves and our resources to producing unbiased, research-based programs to address these issues and priorities for communities, businesses, farms and families across the state.

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MICHIGAN STATE UNIVERSITY EXTENSION
Appendix M

Public Events and Information:
Managed Learning Environments
## Appendix M

### Public Events & Information: Managed Learning Environments

Requests for information focused on the following:

- **Name of learning environment resource and contact**
- **Staffing**: What is the resource’s staffing complement; how many of what kind of folks?
- **Usage/Access**: What kinds of activities do these resources provide; how many people from the community use them?
- **Community Input**: What kind of reciprocity exists between the public and the resources; how are the resources informed by the community?
- **Evaluation**: Are the resources and their activities evaluated; by what kinds of methods; to what affect?

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<th>Community Input</th>
<th>Evaluation</th>
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<td>Wharton Center for Performing Arts</td>
<td>The staffing complement of the Wharton Center includes one executive director, six assistant directors, and 21 other full time staff members. 65 volunteers also support the operations of the Center.</td>
<td>In a typical season, Wharton Center presents more than 50 attractions in its four theatres, totaling over 100 individual shows, known as “curtains.” During the 2004-2005 Season, the Wharton Center Box Office provided ticketing services for 203 events (including rentals), accounting for almost 200,000 tickets sold (134,629 tickets were for Wharton Center attractions). During the 2004-2005 Season, 1,076 events and/or services took place in theatres managed by Wharton Center. An event is defined as a stage being in use for rehearsal, performance, or special event. A service is defined as support areas in use for meetings, corporate dinners/receptions, etc. Wharton Center’s primary rental users are the MSU School of Music (60 rehearsals, 51 performances), the MSU Department of Theatre (four student production in three-week increments: 32 set-up and rehearsal days, 36 performances), and the Greater Lansing Symphony Orchestra (seven rehearsals, 12 performances).</td>
<td>Wharton Center’s Advisory Council is comprised of 35 mid-Michigan business and community leaders committed to ensuring the quality of life in our region through the arts. Their efforts helped position Wharton Center as one of the premier performing arts centers in the country. Funds raised and contributed by Council members ensured that the arts at Wharton Center were accessible to the entire community. The 273 volunteer members of Wharton Center’s Inner Circle remained active in every aspect of the Center’s operations and continued to serve as an integral part of its success. Last season, Inner Circle volunteers contributed more than 4,700 hours of service including ushering for Arts In Education</td>
<td>Wharton Center is currently in the process of developing a comprehensive research program focused on audience perceptions, buying habits, etc. To date, we’ve conducted limited focus groups with underserved audiences as part of our Community Outreach initiative.</td>
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<tr>
<td>Kent Love</td>
<td>Director of Communication</td>
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<tr>
<td>(517) 353-1982 Ext 113</td>
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| Arts In Education programs are an integral part of Wharton Center's mission and include the following primary programs: Act One School and Family Series (52 performances; over 28,000 in attendance including students from 108 public, private and home-school groups; more than 2,800 free tickets given for school shows); Jazz Kats-Jazz For Kids (10 performances; over 3,800 in attendance); The Young Playwrights Festival, a collaboration between Wharton Center and the MSU Department of Theatre now in its ninth year. The program focuses on high school students who submit original one-act plays to a juried panel and work with industry mentors; and Additional activities include internship programs, life-long learning evening college, master classes, and more. Approximately 1,300 people attended tours of Wharton Center, which is a popular activity for school groups, boy and girl scout troops, and groups from all over the world including groups from Japan, Ukraine and Kenya in 2004-2005. | The Museum employs 23 full time staff members, including one director and one associate director, and 14 part time employees. The Museum is also supported by the work of 50 volunteers. | The MSU Museum and its programs attracted an estimated attendance of 240,000 last year. This number includes general visitation and attendance at the Great Lakes Folk Festival (80,000); MSU classes, labs, assigned gallery tours, lectures (6,800); scheduled groups (12,700); and distance learning classes broadcast from the museum facility (1,100). The Museum's Traveling Exhibition Service attracted an attendance of 303,000, programs, serving as docents in local classrooms, and operating the gift shop with revenues exceeding $102,000 to support Wharton Center programs. Wharton Center's newly formed Cultural Advisory Groups assist with helping guide the staff’s efforts to reach underserved communities. Currently formalized are the African-American Advisory Group and the Hispanic/Latino Advisory Group, which met on a semi-regular basis. | The MSU Museum employs a combination of visitor surveys, in-gallery surveys, and focus groups to evaluate services to its publics. Since many of its programs are funded by outside agencies, external reviews are also conducted to evaluate programmatic impact. An external reviewer from the}
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<th>Learning Environment</th>
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<tr>
<td>Kresge Art Museum</td>
<td>Susan J. Bandes, Director (517) 353-9834 <a href="mailto:bandes@msu.edu">bandes@msu.edu</a> [Information also provided in NCA Report and by Rachel Vargas, KAM Registrar]</td>
<td>Kresge Art Museum is staffed by eight full time employees, including its director. 15-20 part time employees also work for Kresge, including students, as well as 75 volunteers. KAM offers a large number of lectures, symposia, and film series, frequently in collaboration with the Capital Area District Library, East Lansing Public Library, and East Lansing Film Society. Kresge attracts an attendance of approximately 25,000 per year. KAM has done some tracking of visitors by postal zip code, and found that most people who attend shows are from East Lansing, Lansing, and the surrounding suburbs. On average each show also attracts individuals who live four countries other than the U.S.</td>
<td>advocacy group for fundraising and donated services.</td>
<td>National Endowment for the Arts, for example, has attended the Great Folk Festival. This review is an important, broad-based tool for assessing the Museum’s effectiveness in planning, execution, and impact.</td>
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<td><strong>MSU Libraries</strong></td>
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<td>Faye Backie</td>
<td>The Libraries are administered by one director, two associate directors, and five assistant directors. It employs 63 librarians, 112 fulltime equivalent staff members, and approximately 500 students during fall and spring semesters.</td>
<td>In addition to the Main Library, the Libraries operate nine branch libraries including one off-campus branch at Gull Lake, Michigan. In addition to managing a research university collection, which it makes available to any adult citizen of Michigan as community borrowers. The Libraries currently serves 14,925 community borrowers (people who have checked out at least one book in the last four years). Between August 2004 and July 2005, community members borrowed 19,404 items (accounting for 4.8% of the Libraries’ circulation that year). In 2000, the MSU Libraries and several multi-type (public, academic, school, etc.) library partners from around the state began an IMLS grant-funded demonstration project to model a state-wide resource</td>
<td>The MSU Libraries do not have a formalized means of getting input from the community. Much of its feedback comes from a prominently placed suggestion box which is available to all users. Staff members encourage patrons to communicate with the Director in this fashion. Comments made in this way are taken seriously and acted upon when feasible. The Libraries web site also includes suggestion forms. Many changes are made on the basis of input received this way. Staff members also forward suggestions, often</td>
<td>The Libraries have not conducted formal surveys of the community, but informal feedback provided by the public has been positive. It is noted that this has been particularly true since the Main Library hours were expanded to 24 hours per day, seven days per week during fall and spring semesters. The longer hours make it easier for patrons to get to use the Library after work or on weekends. Parking is often a complaint, but the Library is not responsible for campus planning. The Library is available when community</td>
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### Learning Environment

This project was selected to form the basis for the statewide resource sharing system which began in January 2005, with the name MeLCat. The system allows patrons to view all participating libraries' holdings in one online catalog and to initiate their own request to borrow materials from the other libraries. The number of libraries participating will grow to more than 80 multi-type libraries this year. From the inception of MeLCat in January 2005 until June 2005, the MSU Libraries filled almost 4,400 requests for materials that came to us through the program.

The Libraries also conduct a number of seminars and events that are open to the public.

### Staffing

Sharing system. This project was selected to form the basis for the statewide resource sharing system which began in January 2005, with the name MeLCat. The system allows patrons to view all participating libraries' holdings in one online catalog and to initiate their own request to borrow materials from the other libraries. The number of libraries participating will grow to more than 80 multi-type libraries this year. From the inception of MeLCat in January 2005 until June 2005, the MSU Libraries filled almost 4,400 requests for materials that came to us through the program.

The Libraries also conduct a number of seminars and events that are open to the public.

### Usage/Access

VVL is part of the MSU Library’s Digital and Multimedia Center, and is primarily managed by portions of three of its staff. VVL is patronized primarily by MSU faculty and students in support of course work, however, it also serves as a resource to the wider public in a number of ways. Individuals from greater Lansing, the state, nation, and other countries access recordings in the Library both on site and through the Internet. Broadcast outlets and production companies in particular review and make use of the recordings. School teachers also use the Library for pieces to share with their students. In addition to the access it provides to its holdings, the VVL serves the community by: maintaining collections of local interest (recordings from East Lansing history); providing technical assistance to the Michigan Oral history Association and serving as a repository of a dozen major oral histories; offering public talks by its staff; providing media

### Community Input

Input is also provided by a variety of professional relationships, notably with the Library of Michigan, East Lansing Public Library and the MeLCat Board and staff.

It is also supported by a Friends of the Library group that advises the Director on issues related to the Libraries.

### Evaluation

Patrons want to access it, providing quality reference assistance and access to its resources.

### G. Robert Vincent Voice Library

John Shaw
Library Assistant
(517) 432-6123 Ext 287

VVL is part of the MSU Library’s Digital and Multimedia Center, and is primarily managed by portions of three of its staff. VVL is patronized primarily by MSU faculty and students in support of course work, however, it also serves as a resource to the wider public in a number of ways. Individuals from greater Lansing, the state, nation, and other countries access recordings in the Library both on site and through the Internet. Broadcast outlets and production companies in particular review and make use of the recordings. School teachers also use the Library for pieces to share with their students. In addition to the access it provides to its holdings, the VVL serves the community by: maintaining collections of local interest (recordings from East Lansing history); providing technical assistance to the Michigan Oral history Association and serving as a repository of a dozen major oral histories; offering public talks by its staff; providing media

The Vincent Voice Library is not supported by any separate advisory groups other than those more broadly serving to advise the MSU Library on the whole.

VVL staff gauge success in terms of measures of how much additional older material they have digitized, cataloged, and provided access.
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<td><strong>Human Environment and Design Collections</strong></td>
<td>No paid staff. The curator has no official time allocation for processing accessions, collection development, or maintenance.</td>
<td>Public access is handled case by case. They try to accommodate anyone who wants access for research or exhibition purposes. They don’t solicit use. The curator did presentations to local groups in the past, but not recently.</td>
<td>They gather detailed information about artifacts when accepting them, and sometimes use a recent donation as a theme for an exhibition. This approach was especially helpful when developing an MSU Museum exhibit commemorating the College of Human Ecology centennial in 1996. Alumni donated artifacts and contributed information related to college history. Advisory board: None. Curator is currently exploring fundraising strategies with community resources (now that College of Human Ecology is gone).</td>
<td>Evaluation is anecdotal. The collection remains affiliated with the Apparel &amp; Textile Design program (since the demise of HE college), and is used in three ATD classes. However, there are no specific questions about the collection in the class evaluations. It seems to be very important to college alumni and has served as a resource to help the college remain connected to its alumni.</td>
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<td><strong>Abrams Planetarium</strong></td>
<td>Abrams Planetarium employs three fulltime professional educators and one clerical support staff member.</td>
<td>Abrams draws an attendance of approximately 30,000 visitors each year. It is estimated that half of the visitors are school-age children attending instructional shows. The other half is comprised of members of the general public and students in MSU courses (the public accounting for</td>
<td>The Planetarium does not currently have an advisory board. In the past there was such a board, but it was not be useful and was discontinued. Public input is provided through</td>
<td>Abrams does not currently engage in formal evaluation. Some surveying had been done in the past, but responses often suggested changes that were and are not fiscally possible given</td>
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<td>MSU Observatory</td>
<td>The Observatory does not employ a dedicated staff onsite, but is operated by one faculty member and graduate students on public open house nights.</td>
<td>Each year the Observatory offers 18 public open houses. Attendance varies but averages between one and several thousand per year. It is estimated that the open houses have attracted 30,000 since there inception in 1986.</td>
<td>The Observatory is not supported by a formalized advisory body.</td>
<td>Though more formalized evaluation is not conducted, the Observatory solicits feedback from visitors by way of a book placed at its entrance with space for comments.</td>
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<td>Horace Smith</td>
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<td>Professor, Physics Astronomy</td>
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<td>(517) 355-9200 Ext 2415</td>
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<td>W. J. Beal Botanical Garden and Campus Arboretum (Woody Plant Collection)</td>
<td>Beal Garden and Wood Plant Collection are managed by one curator, two full time botanical garden technicians, and one- two additional seasonal student employees. The Garden and Collection are supported by an active volunteer program which helps with outreach and garden tours. The Curator trains the volunteers. Per Ann Hancock at Hort., in 2005 they had 24 volunteers who put in a total of 790 hours.</td>
<td>The Garden and Collection provide healthy and documented plants for use in teaching and research. Many plants are tagged with interpretive labels listing common name, scientific name, geographic origin, and some natural history or economic usage. The labels facilitate self-guided education. The staff also: provides an annual seed list to over 400 botanical institutions internationally; participates in professional societies and local events (eg. “Be a Tourist In Your Own Town”); provides international forum for exchange of plant information; conducts tours and talks to schools and clubs; offers a volunteer opportunity for public to work and learn in the Garden. For the past 10 years the number of tour attendees has ranged from 180 to almost 1,000. School budget cuts dramatically reduced those numbers in 2005.</td>
<td>The Garden and Collection do not receive public input through an advisory body. Garden’s mission is posted on the Beal web site and elsewhere. Plant collections policy is shared with professional societies, provided for review to member institutions, and is periodically assessed. Staff conduct surveys of faculty and other users regarding collection content and needs. Outreach activities are assessed via direct feedback from individuals. User recommendations are given serious consideration.</td>
<td>The majority of activities are periodically accessed via feedback directly from individual constituencies. Comments regarding improvements or changes in the program elements are given serious consideration and after comparison to the mission of the Garden and evaluation of available resources to implement changes, the recommendations are either implemented, held for future consideration or rejected. Each element continuously receives feedback from constituencies via meetings, exchange of communications (telephone, e-mail, written responses), or in a forum setting. Additionally, plants are semi-annually monitored for viability. Interpretive plant label information is</td>
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<td>Frank Telewski</td>
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<td>Curator</td>
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<td>(517) 432-2060 <a href="mailto:telewski@hlg.msu.edu">telewski@hlg.msu.edu</a></td>
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<td>and from Ann Hancock in Hort.]</td>
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<td>Hidden Lake Gardens</td>
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<td>Frank Telewski</td>
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<td>Interim Director</td>
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<td>Hidden Lake Gardens</td>
<td>Hidden Lake Gardens employs five fulltime employees: grounds manager, education program coordinator, clerical support assistant, conservatory botanical garden technicians, and a mechanic. 23 seasonal staff and approximately 150 volunteers also support the Gardens.</td>
<td>Hidden Lake attracts an attendance of approximately 45,000 visitors each year. The facility offers educational programs (e.g., master gardening for adults and many for children), tours, and is available as a wedding venue. Hidden Lake Gardens also includes an 8,000 square foot indoor conservatory for year-round viewing of its collections.</td>
<td>The Gardens are supported by the Friends of Hidden Lake Gardens. This membership group helps to finance new gardens and plant collections, renovate existing ones, and label the plants. (They do not serve in advisory capacity.)</td>
<td>They do evaluation forms for new programs. Questions include how did you hear about it, how far did you travel for it, was the price OK.</td>
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<td>Clarence E. Lewis</td>
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<td>Landscape Arboretum</td>
<td>The Landscape Arboretum does not employ a dedicated staff onsite, but is</td>
<td>The Landscape Arboretum was designed as an instructional arboretum for students interested in landscape development. It contains several demonstration gardens and</td>
<td>The Arboretum gets public advisory input from its donors, both financial donors and donors of plants to its</td>
<td>There is no formal evaluation process in place for the Landscape Arboretum other than</td>
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<td>Horticulture Gardens and Michigan 4H Children's Garden</td>
<td>administered by one Horticulture Dept. faculty member who serves as curator (.2 FTE) with responsibility for development and operations. Additionally, the Arboretum is staffed by a portion of the time of a professional assistant (.10-.15 FTE) and undergraduate students (approximately five fulltime in summer, six part-time in fall, and three part time in spring.)</td>
<td>collections. It is also used as a site for hosting events, like weddings. The arboretum continues to grow, providing learning opportunities for students, industry professionals, gardeners, and community members. Currently, the Arboretum does not track attendance. Visitors to the Horticulture and Michigan 4H Children’s Gardens are thought to include the Arboretum in their visits. The staff hopes to be able to track attendance once the planned construction of a parking lot in the area is complete.</td>
<td>collections. The staff also works with a professional association. The Landscape Arboretum is not supported by any formalized advisory bodies.</td>
<td>receiving informal input from donors.</td>
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[Note: out thru 8/24]
Doug Badgero
Manager
(517) 355-5191 ext. 1328
badgero@msu.edu
http://www.hrt.msu.edu/gardens/

[Info provided by Dan Bulkowski (517) 355-5191 ext 1329 and Ann Hancock (Hort.)]

<p>| Horticulture Gardens and Michigan 4H Children's Garden | MSU Horticultural Gardens and Greenhouse have a staff complement of one manager, two fulltime gardeners (one for the annual garden and one for the perennial garden), one part time event coordinator, and as many as 13 student employees in the summer. Michigan 4-H Children’s Garden does not employ a dedicated staff, but is operated by one faculty member and an education | It is estimated that 250,000 people visit the Horticulture Gardens and Michigan 4H Children's Garden each year. Though there is no tracking data on where visitors come from, the gardens are the destination of many school tours in the spring. The gardens are also site of many weddings. | The gardens are not supported by formal advisory bodies. The staff does, however, ask the gardens’ volunteers and docents for input. Also, the 4H education coordinator solicits feedback from teachers informally. | There is no formal evaluation process in place for the gardens. |</p>
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<td>coordinator (both from the Dept. of Horticulture), Horticulture Gardens staff, and two student employees in the summer. Both gardens are also served by a large contingent of volunteers. 50 - 100 people volunteer in spring and fall, the gardens’ busiest seasons. In 2005 a total of 66 volunteers put in 1,030 hours at the Hort. Gardens.</td>
<td>The Herbarium staff is primarily engaged in research and teaching, including teaching groups from off campus. Outreach is one of the Herbarium’s priorities and although there are no public exhibits, it is open for public visitors. Its main outreach is responding to requests by the public for plant identification. The Herbarium also offers a specimen loan/exchange program. Between 100 – 150 visitors come to the MSU Herbarium each year. While visits are tracked, data is not consistently gathered on whether the visitors are from MSU or the public. It estimated, however, that nearly three-quarters of the visitors are from outside MSU. Inclusive of visitors and written and telephone inquiries, the Herbarium has approximately 500 contacts each year, an estimated 90% of which are</td>
<td>The Herbarium is not supported by formal advisory bodies.</td>
<td>There is no formal evaluation process in place for the Herbarium.</td>
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<td><strong>MSU Herbarium</strong></td>
<td>(has a loan/exchange program). The MSU Herbarium is staffed by one doctoral specialist who is responsible for coordinating information requests and one halftime graduate student.</td>
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<td>L. Alan Prather</td>
<td>Director Associate Professor, Plant Biology (517) 355-4695 <a href="mailto:alan@msu.edu">alan@msu.edu</a> herbarium.msu.edu</td>
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<td><strong>MSU Bug House</strong></td>
<td>The MSU Bug House is staffed by one fulltime professional outreach coordinator (who oversees the Bug House, Insect World Science Camp, Mentor Program and other outreach commitments) and students. 10-12 undergraduate and graduate students work at the House each semester, serving as tour guides and assistant tour guides.</td>
<td>Grade school students are the target audience of the Bug House. Approximately 8,000 visitors tour the House each year, more than half from April through June. The Bug House had its peak attendance during spring of 2002, during which it provided 78 tours per month. More recently tours have decreased somewhat due to school district budget cuts. A mentor program that pairs graduate students with classrooms for long-term science projects was discontinued due to loss of funding. The situation is unfortunate as the students are believed to learn a great deal from doing these programs in the local schools and having the opportunity to work with elementary teachers. The Bug House staff is exploring external funding possibilities. Still, summer Bug Camps for elementary and middle school children continue to fill every summer. Bug Camps generate enough revenues to be self-supporting.</td>
<td>Although the Bug House does not receive public input through a formal body, its relationship with the community is viewed as excellent as evidenced by the number of requests to attend programs at their facilities and also to request mentors for their classrooms. In turn, the MSU students learn from doing programs in the local schools and working with elementary teachers.</td>
<td>The Bug House evaluates its programs. Evaluations are sent to teachers randomly after each tour. This is done on an every other year basis as many of these teachers are repeat visitors. Teacher evaluations have been overwhelmingly positive. Evaluation forms are also provided for all camp programs, asking questions of both the camper and the camper's parents or guardians. The response rate on these evaluations runs at about 45%. Participating students also provide feedback, which has also been overwhelmingly positive.</td>
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<td><strong>Entomology Museum</strong></td>
<td>The Entomology Museum is open by appointment to all interested researchers, societies, and the public. Display presentation is limited. Public education about insects is being developed through live examples and other exhibits in the Butterfly House and Insect Zoo.</td>
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<td><strong>Bird Sanctuary, Kellogg Biological Station</strong></td>
<td>The Sanctuary is managed by three fulltime staff members including a wildlife biologist, an animal keeper, and a book</td>
<td>For 77 years the Kellogg Bird Sanctuary has been an innovator in wildlife conservation efforts. The Sanctuary regularly cooperates with such public agencies as the U.S. Fish and Wildlife Service and the Michigan Department of natural Resources to provide</td>
<td>The Sanctuary does not draw on public support through a formalized advisory body, however, it engages the community in other mutually supportive activities.</td>
<td>The Bird Sanctuary has gathered assessment data through both formal evaluations of specialized educational programs and, currently, visitor exit</td>
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<td>(269) 671-2511 <a href="mailto:jjohnson@kbs.msu.edu">jjohnson@kbs.msu.edu</a></td>
<td>store manager. One-three interns support the facility as do 34 community volunteers (who serve as guides and book store staff). Volunteers at KBS are asked to commit to one or two half-days per month.</td>
<td>population estimates through banding and surveys. School groups and the public learn about preserving and protecting natural habitats that we share with wildlife. Guided tours and non-formal workshops are led by university experts and volunteers year-round. Families and individuals find the walking paths an enjoyable place to spend time watching wildlife. Ecologists and biologists from around the world conduct their research here. The Sanctuary attracts an annual attendance of 12,000 from the general public, 3,500 from school-related tours, and another 1,000 for specialized educational programs; for a total attendance of 16,500. Sanctuary staff also respond to approximately 1,600 telephone inquiries from county extension service staff.</td>
<td>Sanctuary staff members serve on public boards lending their expertise to public planning efforts. The community actively participates in an annual Disabled Deer Hunt. This activity engages disabled and other hunters in decreasing the overpopulated deer herd that feeds on KBS grounds. Over the past three years the hunt has removed 700 deer from the herd, allowing for a donation of 2,000-3,000 lbs in venison to local food banks. A public bow hunt is also held.</td>
<td>surveys. The surveys will be used to evaluate the reasons why people visit the Sanctuary, what they come to see, and how their experience might be enhanced.</td>
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<td>Farming Systems Center, Kellogg Biological Station</td>
<td>Volunteers at KBS are asked to commit to one or two half-days per month.</td>
<td>The FSC is a support unit for field research focusing on traditional, sustainable and organic crop production for a variety of commodities. Unique projects such as the Long Term Ecological Research Site (LTER) and the Living Field Laboratory (LFL) are among the many studies supported by the FSC. Research at the Dairy Center focuses on traditional and alternative livestock management as well as field scale crop research. Each unit also offers teaching and outreach opportunities for a variety of audiences, including farmers, veterinarians, students and agribusiness. The Dairy Center is open to the public every day of the year with guided group tours available through the Volunteer Program.</td>
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