

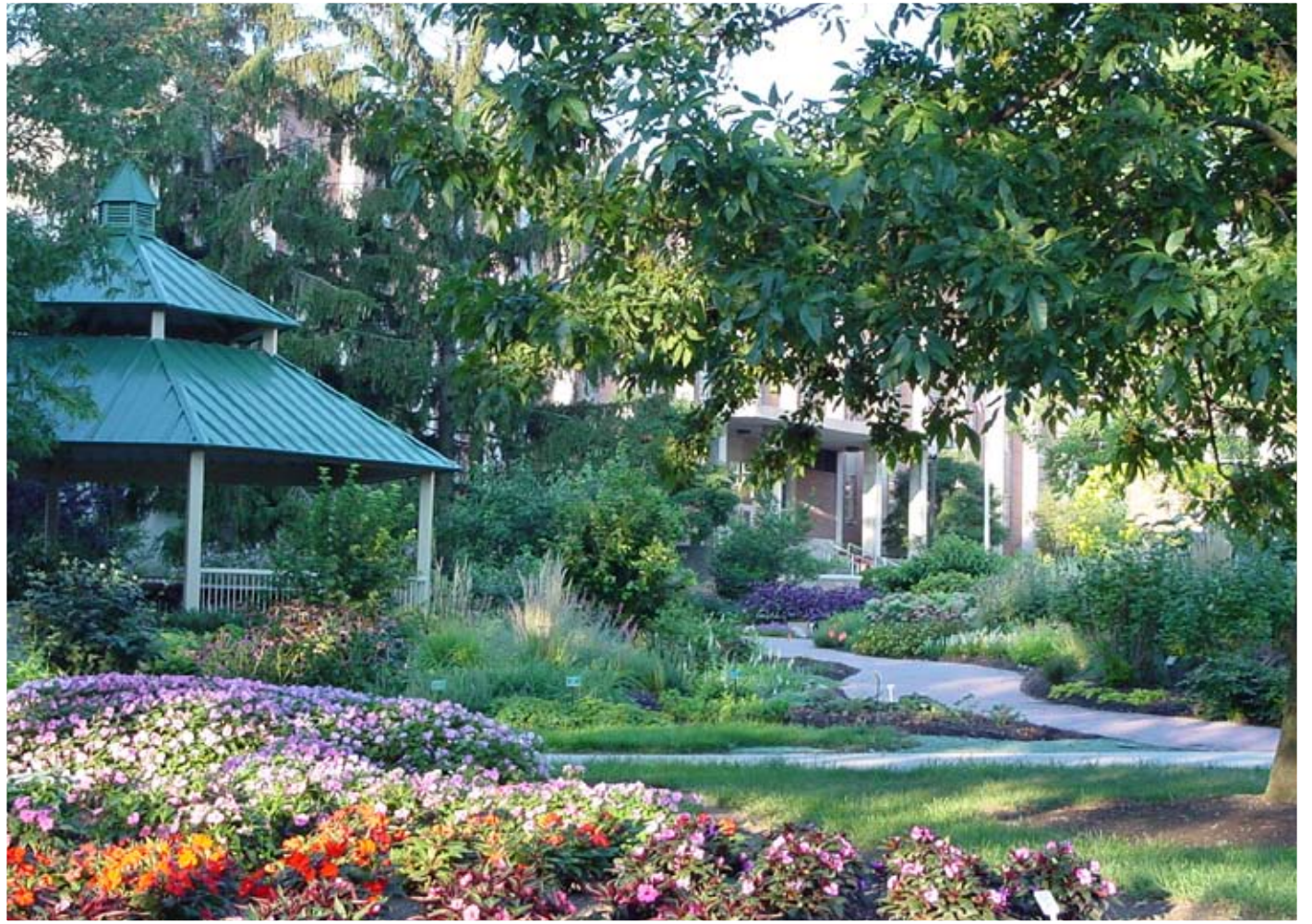


COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

# STRATEGIC PLAN

## 2009–2013



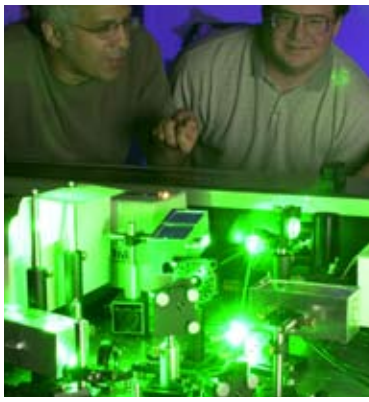


# STRATEGIC PLAN



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## Now Is Our Time!

The twenty-first century has opened to a revolution in bioscience knowledge, and the AgBiosciences are at the forefront of addressing high priority challenges and opportunities that are global in scope and importance. Rapid advancements in bioscience will provide unprecedented opportunities for economic and societal advancement in Ohio.

The College of Food, Agricultural, and Environmental Sciences (CFAES) is the singular Research and Development hub for AgBiosciences research in Ohio and is the center for associated education and human capital development. As such, it is ideally positioned to lead Ohio and The Ohio State University in realizing progress in all significant aspects of the bioeconomy.

CFAES has identified three signature areas that align the state's highest needs with the college's greatest strengths. They are focused on advancing education, scholarship, knowledge, and information dissemination in three areas.

## CFAES Signature Areas

### Food Security, Production, and Human Health

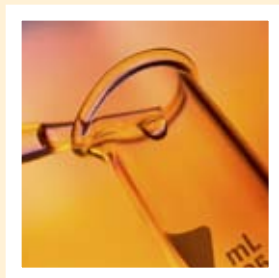
Focused on improving agricultural production; enhancing the quality of food and feed; ensuring an adequate, affordable, and safe food supply; and maintaining agrosecurity to ensure food security and the basics of nutritional health for a growing global population.

### Environmental Quality and Sustainability

Working to understand, protect, and remediate the environment and ecosystems to ensure long-term sustainability.

### Advanced Bioenergy and Biobased Products

Developing biomass-based advanced energy technologies and value-added biobased products such as fuels, specialty chemicals, and fiber products.



### The AgBiosciences are characterized by:

- ▶ Recognizing and exploiting the continuum of fundamental to applied science.
- ▶ Generating knowledge and solving problems that span multiple economic, social, and ecological systems.
- ▶ Enhancing discovery, learning, engagement, and impact through partnerships.
- ▶ Considering and integrating physical, economic, social, and ecological variables into sustainable systems that meet societal needs.

These signature areas constitute the college's strategic direction over the next five years. A key part of our strategy for making progress will be our involvement in leading or contributing to two interdisciplinary institutes, one existing and one proposed.

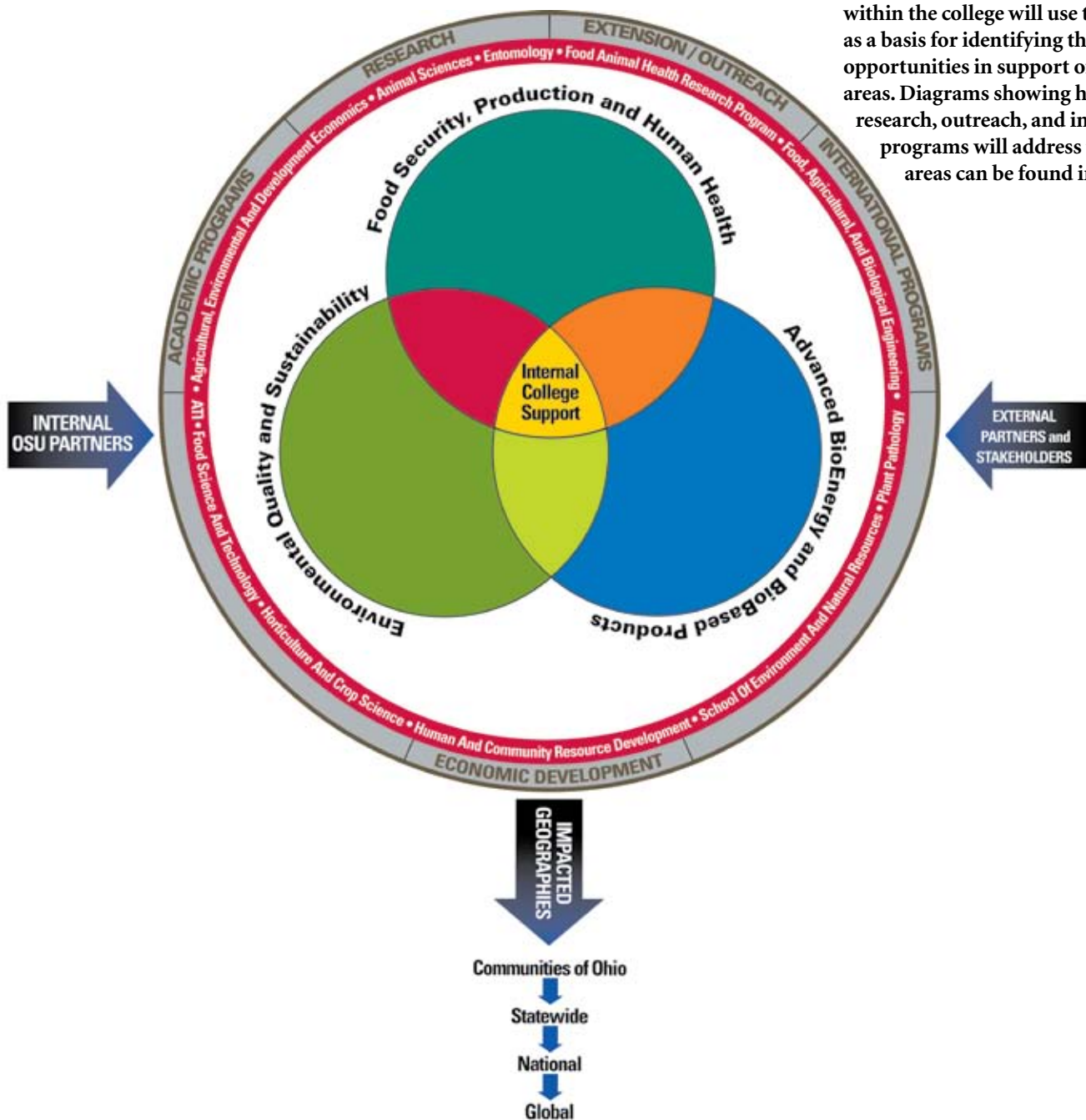
**Our plan is to aggressively pursue trans-institutional arrangements such as our participation in these two interdisciplinary institutes. As the university clarifies its intention to advance additional "centers of innovation" CFAES intends to aggressively pursue those collaborations that align with the signature areas we have committed to over the next five years.**

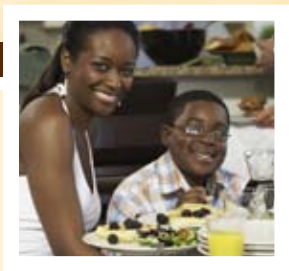
In July 2007, the OSU Board of Trustees granted permission to create the Institute for Energy and the Environment (IEE) at The Ohio State University. The mission of IEE ([www.iee.osu.edu](http://www.iee.osu.edu)) is to advance The Ohio State University's national role and success with solving global energy issues while promoting environmental sustainability by expanding and coordinating our assets and outreach. The deans of five OSU colleges: Biological Sciences; Engineering; Food, Agricultural, and Environmental Sciences; Mathematical and Physical Sciences; and Social and Behavioral Sciences along with the Senior Vice President for Research recently joined ranks to create IEE. CFAES will play a key role in IEE and believes IEE is aligned with our signature areas as denoted in this strategic plan.

We also will work with the university to initiate a Food Institute that will address the escalating importance of food security and production in the world. We have listened carefully to President Gee’s vision for Ohio State as it relates to this key initiative and are prepared to lead such an institute. It will connect current OSU expertise in several colleges and will include collaboration from the food industry. The institute will provide the latest discoveries from all disciplines to advance food broadly defined, from supply to technology to safety to distribution. The institute will focus on food safety, functional foods, sufficient quantities of food for the world, the cost of food, bioscience, business, economics, policy, engineering, medicine, and health. This institute is consistent with our investment in the Public Health Preparedness TIE and with investments we have made in our Centers of Innovation, designed to bring research discoveries to market. We envision that the work of this institute can be pivotal in propelling Ohio State to be the “land-grant to the world.”

### CFAES Signature Areas

This diagram illustrates our three signature areas, the collaborative synergies among them, the integral role of all CFAES departments in supporting the signature areas, and the key contributing components in research, extension, education, and international programs. We also use this graphic to show connections to internal OSU partners and key external stakeholders. Individual departments within the college will use this structure as a basis for identifying their roles and opportunities in support of signature areas. Diagrams showing how academics, research, outreach, and international programs will address the signature areas can be found in Appendix A.





## This strategic plan positions CFAES to address or continue to address these pressing issues:

- **Global Food Production and Security** — With a world population of 6.7 billion, projected to grow to over 9 billion by 2040, sustaining growth in food production is of singular importance to human life. Every day more than 860 million people go hungry worldwide.
- **Human Health and Nutrition** — Both quantity and quality of diet affect human health and performance. Malnutrition is the leading cause of lagging human capital performance in developing countries, while obesity increasingly plagues developed nations.
- **Biosecurity and Emerging Diseases** — Whether by natural or terrorist means, the threat of major disease outbreaks and food contamination events is a real and present danger.
- **Environmental Sustainability** — Sustaining population growth and economic growth must be balanced with preservation of natural resources and environmental assets. The twentieth century saw unprecedented growth in pollution, natural resource depletion, and environmental degradation.
- **Renewable/Green Resources and Products** — Linked hand in hand with environmental sustainability is an urgent need for the development of ecologically benign resources for economic activity.
- **Climate Change** — The effects of global warming are of worldwide concern. AgBiosciences have an extremely important role to play in multiple aspects of the issue, including carbon sequestration, alternatives to natural-gas based fertilizers, and the reduction in the use of fossil-fuel based carbon emissions.
- **Renewable Energy** — With global fossil fuel energy prices at record levels, and legitimate concerns relating to carbon emissions from fossil fuels, the race is on to develop renewable energy sources with minimal environmental impacts. Biofuels have a substantial role to play in the future of global energy supply.



# CFAES and Ohio State

In planning for the college's future, we must consider the position of CFAES within The Ohio State University. CFAES is one of the most collaborative colleges on campus, even to the extent that it is a major investor in faculty and resources in other colleges across the university. [These long-standing investments of CFAES \(via OARDC and OSU Extension funding\) demonstrate the college's commitment to joint support of faculty across college lines.](#) We provide significant funding to the colleges of Biological Science/Entomology (\$2.9 million), Education and Human Ecology (\$1.6 million), and Veterinary Medicine (\$2.5 million). Through OSU CARES, OSU Extension also provides partial appointments for personnel in the College of Engineering, the College of the Arts, and the College of Dentistry. OSU CARES has funded programs in 57 departments. Faculty from the college are key leaders in interdisciplinary centers and institutes across campus, and at the forefront of major trans-institutional initiatives such as the OSU Institute for Energy and the Environment. [Our leadership effort with OSU CARES will be expanded as we continuously seek opportunities to nurture trans-institutional teaching and research. In so doing, CFAES will facilitate extending the knowledge base of other colleges, through OSU Extension, throughout Ohio.](#)

## Placing basic life sciences in CFAES would strengthen the university and the college.

Unlike numerous peer institutions, CFAES does not contain many of the basic biological science programs integral to its mission. The agricultural science colleges at our leading competitor institutions are the central home for campus-wide biological sciences programs and, as a result, have a competitive advantage over Ohio State. We need to address this issue as a key strategic issue for the university. Now is the opportune time to further strengthen CFAES with the addition of a number of the basic life science units currently located elsewhere on campus.

## Environmental science is a core strength and established trademark of CFAES.

CFAES has been conducting research, developing curriculum, and extending knowledge related to environmental quality and sustainability since the 1960s. The college has the only undergraduate major in Environmental Science at Ohio State and is a leader of the highly successful Environmental Science Graduate Program. CFAES recognizes that environmental problems require interdisciplinary solutions and welcomes the development of interest, expertise, and collaboration across the breadth of Ohio State; however, any future efforts to reorganize environmental programs on campus should serve to enhance the strong platform provided by CFAES.



### Ecological Paradigm

Underpinning the college and its work is the **Ecological Paradigm**. Represented by a four-sided pyramid, the ecological paradigm ensures that all work in the college be measured against four imperatives. It requires that research, Extension programming, and classroom curriculum reflect:

- ▶ **Production Efficiency**
- ▶ **Economic Viability**
- ▶ **Environmental Compatibility**
- ▶ **Social Responsibility**





## College Collaborations in Targeted Investments in Excellence (TIEs)

### University and College Funded

- ▶ The Climate, Water, and Carbon Program partners CFAES with Social and Behavioral Sciences, Mathematical and Physical Sciences, the Byrd Polar Institute, the John Glenn Institute for Public Service and Public Policy among others. They attempt to address three questions: Are we causing an abrupt climate change today? Do we have enough fresh water? What adaptive strategies can be implemented?
- ▶ The Public Health Preparedness Program for Emerging Infectious Disease Threats joins CFAES in a vibrant partnership with Public Health, Veterinary Medicine, Medicine, Biological Sciences, and Pharmacy. Our researchers work together to develop emergency detection and response strategies for viral outbreaks, such as the emergence of a highly pathogenic strain of avian flu.
- ▶ The Translational Plant Sciences initiative leverages existing excellence in three subareas of molecular plant sciences to improve our ability to enhance applications in agriculture, medicine, pharmacy, and engineering. This program brings together faculty from CFAES and Biological Sciences along with programs such as the Ohio BioProducts Innovation Center.

### College Funded

- ▶ Nutrition and Health Initiative
- ▶ Youth Development

# Now Is Our Time!

## Our Vision — We Bring Knowledge to Life

CFAES will propel The Ohio State University to be the preeminent U.S. university in AgBiosciences. The college will be the standard of excellence for comprehensive food, agricultural, and environmental science programs at public research universities. We will be acclaimed for our unique strength, the integration of cutting-edge research, teaching excellence, and innovative outreach programs that advance the solving of highly complex interdisciplinary problems.

Positioned at the intersection of emerging opportunities, sponsored research growth, and the transformation of our scholarship, the college will focus on critical problems faced by Ohio, the nation, and world. [We will accomplish much of this in collaboration with other colleges at Ohio State.](#) Our programs will assure that Ohioans and the nation will have research and education needed to advance in an economically sustainable, but environmentally compatible and socially responsible way. We will educate women and men so that they are prepared to address the rapidly changing needs of a global economy. We will provide outreach programs that enable communities, including their youth, to remain economically vibrant. With growth in knowledge emanating from our scholarly pursuits, our local to global impacts will be underpinned by the best science.

[This science will emanate not just from the discoveries in units in CFAES but from discoveries resulting from collaboration with other colleges and through the expansion of OSU CARES contributions from all corners of OSU. These discoveries will be increasingly available to Ohioans.](#)

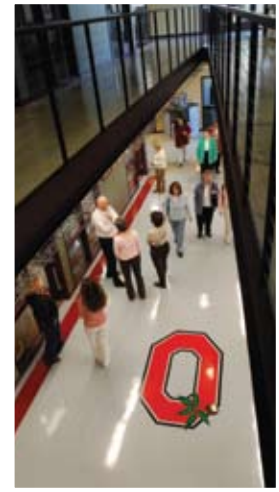
In achieving our vision, our work will concentrate in six principal areas:

1. Focusing on three signature areas of Food Security, Production, and Human Health; Environmental Quality and Sustainability; and Advanced Bioenergy and Biobased Products.
2. Continuing to be a national leader in problem solving through collaboration using a variety of methods: leadership and participation in university and college TIEs, AgBioscience Centers of Innovation, Research Enhancement Competitive Grants programs, Social Responsibility Initiative, Environmental Science Graduate Program, participation in the Plant Molecular Biotechnology Consortium, contributions to the 315 Research + Technology Corridor, sponsorship of OSU CARES, and partnerships with USDA for family nutrition programs.
3. Advancing the continuum from discovery to delivery, with ATECH, the BioHio Research Park, and the Endeavor Center in Piketon.
4. Impacting Ohio, national, and global economies, policy, and practice.
5. Embracing a high-performance culture and world-class faculty and staff.
6. Improving the quality of academic facilities and sites.

Taken together, these six principal areas are designed to work in combination to propel the College of Food, Agricultural, and Environmental Sciences to a position of preeminence in the fast growth field of modern AgBiosciences. Our competition in this very broad area of scientific inquiry is quite limited because deep AgBioscience expertise resides in a limited number of powerful land-grant research universities. Ohio State has an exciting opportunity to differentiate itself — AgBiosciences are a distinctive competitive advantage for Ohio State and they represent a major opportunity for growth, embracing a perfect storm of critically important global issues and needs.

# CFAES and Its Competitive Advantage

- Achieving preeminence in AgBiosciences is “a clear and present” opportunity for Ohio State. Comprehensive work in AgBiosciences has been the distinctive purview of land-grant universities, and among these universities Ohio State is a powerhouse research institution. There is little competition from private research universities.
- CFAES embodies the land-grant history, spirit, and mission of the university and is positioned to help President Gee realize his goal for Ohio State to be the “land-grant to the world.”
- CFAES is a unique asset for The Ohio State University within the state of Ohio. There are six colleges of medicine in the state and ten universities offering the traditional scope of engineering disciplines, but CFAES is the only comprehensive college of food, agricultural, and environmental sciences in Ohio.
- Having a single campus containing dedicated colleges with intensive and complementary expertise in AgBiosciences, veterinary bioscience, and human biomedical sciences is rare among the world’s leading research universities. As interdisciplinary science moves to the forefront in spurring groundbreaking discoveries, Ohio State’s rich bioscience tripartite represents a powerful resource for the university.
- Prospects for future funding in CFAES’s signature areas are positive. Significant public and private resources are being directed toward bioenergy, biorenewable resource development, human health needs, food security initiatives, biosecurity, and environmental sustainability. CFAES is participating in nearly \$20 million of Third Frontier awards, including an \$11.5 million award for the Ohio BioProducts Innovation Center; \$1.5 million for the Biomass to Energy facility; \$5 million for advanced granular technologies; \$3 million to develop a renewable, domestic source of natural rubber; \$2.1 million for the Entrepreneurial Signature Program in Piketon; and \$1 million for cavitation technology.
- Innovations from CFAES are likely to be principal drivers of future economic development in Ohio. CFAES has a strong emphasis on translational and applied sciences, with an established track record in knowledge diffusion, technology transfer, and technology commercialization. The college maintains strong collaborations with industry and other stakeholder groups to facilitate research commercialization.
- CFAES has experienced significant success in building its base of grants and contracts. In the current decade, OSURF expenditures for the college have increased from \$12.5 million in 2000 to over \$28.6 million in 2008 — a 127% increase.
- Agriculture is the most distributed industry across Ohio with operations in every county. It accounts for \$94 billion, or 11% of the state’s total economic output and generates more than 984,000 Ohio jobs (15% of all employment in the state). Goodwill and political capital are built for the university through the statewide presence and influence of CFAES, OARDC, and OSU Extension. As opportunities abound in biobased industrial products, AgBiosciences holds the promise of stimulating new economic growth across existing and new economic sectors throughout the state.



**The following actions and goals describe our plan to advance this pursuit. Our business plan follows, speaking to resources, facilities, talent, development, and technology. ►**

# Strategies, Actions, and Metrics



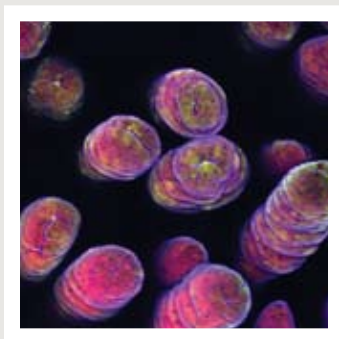
The four areas within the College of Food, Agricultural, and Environmental Sciences will play a key role in fulfilling our strategic plan. This section details how research, teaching, outreach, and international will implement the strategic plan.

## **RESEARCH: Accelerate Discovery, Innovation, and Commercialization Through Targeted Research Investment in Our Signature Areas**

**Strategy 1:** Create significant impacts by strategically redirecting resources to address state, national, and global research priorities through signature areas.

### **Action Steps**

- a. Direct investments to programs that demonstrate superior use and leveraging of resources and are positioned for preeminent signature areas.
- b. Develop and implement a grant preparation strategy to provide assistance to faculty with large grant preparation, proposal submittals, preaward and postaward requirements, as well as facilitating team building. Develop and train staff to facilitate this initiative.
- c. Reallocate funding to interdisciplinary Centers of Innovation rather than singular initiatives to leverage resources consistent with signature areas.
- d. Focus internal competitive grants on enhancing extramural competitiveness and on Ohio's current and emerging local and global AgBiosciences issues.
- e. Implement a competitive "equipment program" that will provide at least \$500,000 per year toward the purchase of high-value instrumentation and field equipment.
- f. Support graduate associateships in targeted signature areas to attract the best and brightest students.
- g. Create programs and incentives that increase the number and rate of discoveries that are commercialized.
- h. Produce research results that will leverage capacity through collaborative programs and delivery systems with OSU Extension.



### **Metrics, By FY2013**

- a. Increase grant and contract expenditures by 25%.  
*Current: \$28.4 million; Goal: \$35.2 million*
- b. Increase grant and contract submissions by 25%.  
*Current: \$90 million; Goal: \$112.5 million*
- c. Increase disciplinary/scientific impacts by 15%.  
*Current: 30; Goal: 35*
- d. Increase mission impacts by 20%.  
*Current: 30; Goal: 36*

- e. Increase invention disclosures by 20%.  
*Current: 16; Goal: 19*
- f. Increase licensed inventions by 20%.  
*Current: 7; Goal: 8*

**Strategy 2:** Enhance institutional infrastructure to support targeted research in signature areas.

### Action Steps

- a. Design and initiate the BioHio Research Park on the Wooster campus to facilitate public–private partnerships, incubate faculty-based start-up companies, and accelerate the “path to market” for Ohio State discoveries.
- b. Continue to build and document a network of public–private partnerships to enhance the application and testing of research outcomes in real-world settings and concomitantly demonstrate the benefit of funding our research.
- c. Create advisory councils composed of private, government, and corporate partners to leverage existing programs and advance new research opportunities.

### Metrics, By FY2013

- a. Fund and construct first phases of BioHio, estimated at \$8 million.
- b. Increase partnerships with existing or potential Ohio industries by 10%.  
*Current: 130; Goal: 143*

## ACADEMIC PROGRAMS: Enrich and Enhance Graduate and Undergraduate Education

**Strategy 1:** Put students first.

### Action Steps:

- a. Strengthen the college’s student-centered focus by enhancing the quality of academic advising, improving access to faculty advisors, and promoting opportunities for greater student–faculty interaction. This will be achieved by using current resources and by implementing a new fee that is estimated to generate around \$200,000 per year.
- b. Work with CFAES departments to collect exit interview feedback from graduate and undergraduate students to gather information relative to quality of teaching and academic advising, curriculum, climate, access to faculty advisors, study abroad experience, co-curricular activities and experiences, and student–faculty interaction.
- c. Advance teaching and learning, and strengthen the educational aspects of co-curricular activities and experiences through training for advisors and personal and professional development workshops in leadership, self awareness, diversity training, and other topics for students and organizational leaders. This will be supported by redirecting staff efforts and using endowment funds approved for such activities.
- d. Provide and promote opportunities for undergraduate research and scholar development.





CFAES will:

- Propose a change in the Honors designation on the diploma by creating a research designation (Honors projects will continue to be required).
  - Request that the graduation designation for the Honors program be changed to “Honors and Research Distinction in ...;” a second option for non-honors students with a designation of “Research Distinction in ...” will also be proposed.
  - Enhance the CFAES Undergraduate Research Forum by:
    - More aggressively encouraging undergraduate research (funding opportunities will be realigned as participation increases).
    - Creating a new Scholars Program in AgBiosciences, Food, and Health (the proposal will be submitted in Autumn 2008 for implementation Autumn 2010).
- e. Actively support, promote, and enhance study abroad courses and initiatives within the college. CFAES will:
- Place additional emphasis on providing short-term study abroad opportunities connected to existing courses.
  - Enhance fundraising efforts to provide additional scholarships for study abroad.
  - Increase collaboration between the Director of Study Abroad and Recruitment and the Office of Development to identify potential donors and to carry out stewardship activities.
- f. Place a high priority on hiring faculty with demonstrated excellence in teaching and advising. All candidates for CFAES faculty positions with teaching appointments are required to present a teaching seminar.
- g. Recognize and reward departmental, faculty, and staff commitment to excellence in teaching and learning, excellence in student advising and mentoring, involvement in study abroad, and participation in student-centered co-curricular activities.
- h. Ensure the college climate is welcoming to and respectful of all students. CFAES will:
- Work in cooperation with the Change Agent States Diversity Team and use funds designated for diversity initiatives in the college to administer the second Student Climate Survey during the 2008–09 academic year. Findings will be evaluated and compared to previous results and appropriate changes will be made and/or initiatives introduced.
  - Offer faculty workshops to assist with creating a more welcoming climate in CFAES departments, classrooms, and student organizations.
  - Encourage greater collaboration among Minorities in Agriculture, Natural Resources and Related Sciences (MANRRS), and other CFAES student organizations.
  - Enhance the CFAES Annual Fall Welcome Reception to more fully celebrate culture and expand the Annual International Festival to include more students.
  - Intensify recruitment efforts at the college and departmental levels to reach a more diverse prospective student base. Efforts to more actively recruit students of color into the CFAES Ambassador Program will be a priority. New recruitment efforts will require new collaborations among academic programs staff and will be supported by redirecting existing funds designated for student recruitment and CFAES diversity initiatives.

### Metrics, By 2013:

- a. Show an increase in the number of first-year and senior students responding to the National Survey of Student Engagement (NSSE) who answer “quite a bit” or “very much” with regard to measures associated with quality of advising, and educational and personal growth.  
*Current: TBD; Goal: TBD*
- b. Initiate at least one new opportunity for recognizing departmental, faculty, and staff commitment to excellence in teaching and learning, excellence in student advising and mentoring, involvement in study abroad, and participation in student-centered co-curricular activities.
- c. Achieve the goal of changing the Honors designation for CFAES and creating a new Scholars Program in AgBiosciences, Food, and Health.
- d. Increase the percentage of students participating in an international activity by 25% (study abroad, international research, or an international internship).  
*Current: 80/year; Goal: 100/year*
- e. Initiate at least one new diversity initiative as a result of information learned in the CFAES Student Climate Survey.

**Strategy 2:** Achieve international preeminence in the quality, diversity, and uniqueness of learning experiences available to our graduate and undergraduate students with particular emphasis on the three signature areas.

### Action Steps:

- a. Redirect resources to develop innovative and/or unique degree programs, curricula, courses, and/or academically based co-curricular experiences that represent emerging areas in agricultural sciences and natural resources. Particular emphasis will be placed on the signature areas of Food Security and Human Health, Environmental Quality, and Advanced Bioenergy and Biobased Products.

For example, a new program in AgBiosciences, Bioresources, and/or Bioproducts will attract students to Ohio State and to CFAES. Growing enrollment in this new major to 75 students (50 new to the college) over five years has the potential to generate new tuition dollars that will be directed specifically toward teaching faculty and programs in the signature areas of Environmental Quality, and Advanced Bioenergy and Biobased Products. In addition, developing coursework in these areas can fill a critical need for general education courses (GECs).

New minors in process or anticipated include an undergraduate minor in Animal Nutrition and a graduate minor in Food Sciences; GEC courses in process or expected include Animal Sciences 200, and ENR 155 and 203. Two Freshman Clusters in development include Human-Animal Interactions, and Energy and Earth's Environment. Unique degree programs, curricula, and courses currently being considered include AgBiosciences, AgroEcology, Bioproducts, Bioresources, Culinary Science, and Sustainability.

- b. Ensure curricula, honors, scholars, and CFAES learning communities provide students with a solid background in the concepts of the ecological paradigm (see page 7) and instill a broad understanding of the interrelationships among economic viability, production efficiency, environmental compatibility, and social responsibility.



- c. Actively support, promote, and enhance study abroad courses and initiatives within the college that focus on the three signature areas. Grants will be provided to faculty who wish to develop new study abroad programs in signature areas.
- d. Cultivate industry partnerships through ATECH, Food and Agricultural Technology Commercialization and Economic Development Program for support of graduate research and undergraduate internships, particularly in the three signature areas.
- e. Extend and enhance delivery of and access to graduate and undergraduate distance education with particular emphasis on the three signature areas. CFAES has taken the initial steps to become a member of the Agricultural Interactive Distance Education Alliance (AG\*IDEA). Participation in the alliance would provide access to coursework and faculty expertise not currently available in CFAES and would allow Ohio State and CFAES to be a provider of coursework particularly in signature areas.

### **Metrics, By 2013:**

- a. Establish at least one new instructional initiative and/or program targeted to advance signature areas.
- b. Develop at least one new study abroad program in each signature area.
- c. Host an AG\*IDEA site visit. Pending university approval, CFAES would offer coursework that would contribute to at least one AG\*IDEA program.
- d. Identify and collaborate with at least one new company per year (working with ATECH) in each of the signature areas to enhance graduate and undergraduate research and internship opportunities.

**Strategy 3:** Intensify recruitment and retention of high-ability and diverse undergraduate students.

### **Action Steps:**

- a. Intensify recruitment activities at the college and departmental levels to reach a more diverse prospective student base. Work with CFAES departments/units to develop departmental recruitment and retention strategies to attract and retain a diverse pool of high-ability students. CFAES will:
  - Initiate a Science Academy recruitment event targeted toward high-ability science-oriented students, funded through the CFAES general recruitment budget. Award scholarships to students who achieve the highest interview/test scores as a part of the Science Academy program (all students selected to participate would receive a minimum scholarship to pursue a major within CFAES). This event would help recruit high-ability science students who may not be aware of science-related majors within CFAES.
  - Establish in-school programs with Columbus Alternative High School science teachers.
  - Recruit high school students for the Food Science and Technology CSREES Grant Program.
  - Provide hands-on workshops for visiting high-ability minority students in partnership with Office of Minority Affairs.
  - Create greater awareness of support services provided through the college among coordinating advisors and department chairs.



Proposed recruitment activities will require only a redirection of academic programs staff effort, use of current funding, and/or reallocation of monies currently designated for CFAES recruitment and/or undergraduate scholarships.

- b. Further strengthen the partnership with ATI and jointly develop intentional and purposeful recruitment and retention strategies, and intensify efforts to enhance the seamless transition of students between programs. Build collaboration and strengthen partnerships with Ohio State regional campuses and other two-year programs in the state offering degrees in natural resources, and the agricultural and environmental sciences. CFAES will:
  - Expand the ATI Visit Day Program, jointly sponsored through a partnership between CFAES Ambassadors and the ATI Student Recruitment Team.
  - Enhance the regional campus outreach plan by actively identifying students with a potential interest in the college and helping them establish a connection with CFAES.
  - Develop a connection with regional campus advisors and visit each regional campus at least once per quarter to provide a resource to students and staff.
  - Provide an academic advisor for students transitioning from regional campuses for their first quarter on the Columbus campus (after which time they will be referred to a CFAES department). Enhancements will be coordinated with current efforts and should not require additional funding.
  - Plan workshops for regional campus advisors to provide them with updated information.
  - Initiate efforts to partner with regional campuses in the recruitment of prospective students at special college events.
  - Revive the Ohio Collegiate AG Educators (OCAGE) consortium to provide enhanced educational opportunities for career advancement and degree completion, and a more seamless transition among institutions.
- c. Continue to support, embrace, and/or strengthen minority-serving student groups such as Minorities in Agriculture, Natural Resources, and Related Sciences (MANRRS). Using funds designated for diversity initiatives, the college will provide financial support for MANRRS students to attend and participate in an annual workshop such as the MANRRS Regional Leadership Workshop or the MANRRS National Training Conference, and will prepare students to compete in associated events (such as, Public Speaking, Undergraduate Research, Poster Contest Discussion Contest ...).
- d. Funded through external industry support, CFAES will organize an annual professional development tour providing minority students in the college with an opportunity to make site visits to agricultural-related facilities. Students will learn about industry opportunities, meet with industry leaders, and interact with company employees.

### Metrics, By FY2013:

- a. Increase size of entering freshman class by 10%.  
*Current: 156; Goal: 172*
- b. Increase transfer enrollment by 10%.  
*Current: 143; Goal: 158*
- c. Maintain average ACT scores that keep pace with or exceed university averages.  
*Current college scores: 26.5; Current university scores: 27.0.*





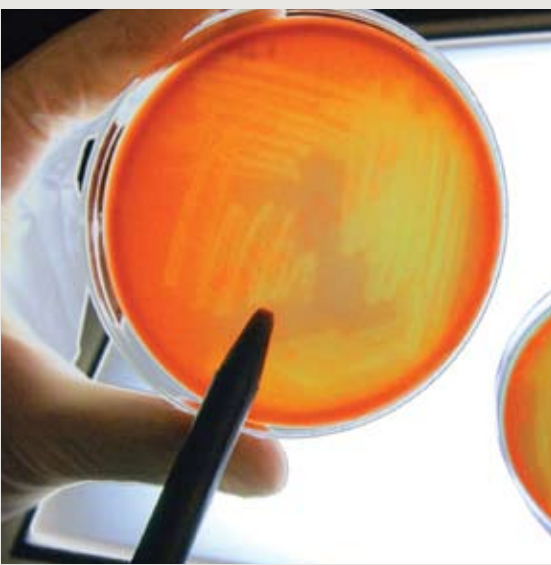
## Strategies, Actions, and Metrics

- d. Create at least three new recruitment and/or retention initiatives, collaborations, or partnerships with ATI.
- e. Organize one professional development tour per year for minority students in the college.

**Strategy 4:** Achieve and (or) maintain an international reputation of excellence for CFAES graduate programs and intensify efforts to recruit and retain high-ability, diverse M.S. and Ph.D. students.

### Action Steps:

- a. Take a more active role at the college level in ensuring graduate program quality. In response to the Ph.D. Quality Assessment Report, CFAES infused one-time resources into graduate programs in Agricultural, Environmental, and Development Economics; Food Science and Nutrition; and Horticulture and Crop Science, and recommends that these programs be considered to receive available central funding. In addition, the following programmatic changes are currently under consideration and/or have been proposed:
  - CFAES (working with associated colleges) started the process to discontinue the interdisciplinary Ph.D. program in Comprehensive Vocational Education.
  - CFAES has requested that soil science become a track within the Natural Resources graduate program.
  - Conversations are currently underway to explore future directions of Rural Sociology. Discussions thus far have focused on integrating Rural Sociology and the social sciences in the School of Environment and Natural Resources (SENR). The college is also working with faculty in Rural Sociology to access opportunities with the Department of Agricultural, Environmental, and Development Economics (AEDE) and to explore a potential partnership. Future directions will be guided by evaluating the greatest opportunity for collaboration and the degree to which the proposed changes will complement and enhance the strengths of the disciplines.
- b. CFAES departments/units have submitted an approved plan for enhancing graduate program quality. Each department/unit will be required (as a part of the departmental/unit level strategic planning effort) to establish departmental/program metrics for measures of graduate program quality including, but not limited to, undergraduate GPA, GRE, time to degree, percent completion, placement after graduation, publications, presentations of research at regional or national meetings, master's GPA (if applicable), and quality and reputation of faculty. The college will monitor measures of graduate program quality on an annual basis.
- c. Intensify graduate student recruitment to reach a more diverse prospective graduate student pool with high academic ability. CFAES will work with departments/units to create a greater awareness of support services offered through the college. Recruitment efforts will be expanded through partnerships with the Association of Research Directors. Short-term faculty exchange efforts with Historically Black Colleges and University (HBCU) partner institutions will be promoted.
- d. Encourage the development of interdisciplinary and multidisciplinary graduate programs with particular emphasis on the three signature areas.
- e. Enhance mentoring of graduate students relative to personal and professional development.
- f. Create a college Alumni Professional Mentoring Network.



### Metrics, By 2013:

- a. Successfully reorganize and/or realign departments and/or graduate programs as identified.
- b. Show improvement in measures of graduate program quality including, but not limited to undergraduate GPA, GRE, time to degree, percent completion, placement after graduation, publications, presentations of research at regional or national meetings, master's GPA (if applicable), and quality and reputation of faculty.

**Strategy 5:** Develop graduates who are highly competitive and actively recruited for employment and leadership opportunities.

### Action Steps:

- a. Intensify career development efforts at the college and departmental levels through increased classroom participation and extracurricular organizations. CFAES will:
  - Assist students and alumni in exploring and implementing effective career development plans.
  - Encourage students and alumni to utilize internship and experiential opportunities as a means to explore and build career skills.
  - Promote career management skills as a way to enhance success in obtaining satisfying career employment.
  - Strengthen industry relationships and cultivate ongoing additional partnerships and foster greater interaction between employers and career services.
  - Proposed career-related activities will be funded through the use of current funding designated for CFAES career development and with revenue generated through the initiation of student fees.
- b. Cultivate state and federal government partnerships to enhance employment opportunities.
- c. Collaborate with academic departments and colleges to better integrate career awareness concepts into the educational experience of students.
- d. Demonstrate a commitment to diversity by delivering specialized programs/services to underrepresented groups.
- e. Support CFAES departments in their efforts to accurately track placement of graduate students.

### Metrics, By 2013:

- a. Increase employer participation in career fairs by twenty new companies.  
*Current: 93; Goal: 113*
- b. Reach and maintain placement rate for CFAES undergraduates.  
*Current: 92.7%; Goal: Above 95%*
- c. Recruit and connect at least 250 alumni of all ages, experience, and professional sectors with at least 1,000 alumni mentees representing different majors and academic focus areas.
- d. Increase participation rate for on-line registration of graduating seniors with career services.  
*Current: 75%; Goal: 85%*





## Accelerate Engagement with Targeted OSU Extension Programming

**Strategy 1:** Drawing on current research, enhance Ohio's food security and food production by establishing and implementing a local and regional foods initiative and by providing educational instruction to increase profitable crop and livestock production.

### Action Step:

- a. Expand delivery of direct marketing curricula.
- b. Expand and enhance agronomic curriculum presentation to professionals and farm clientele.
- c. Enhance total productivity of available crop acres.
- d. Evaluate and adapt research-based production practices for use by Ohio producers.
- e. Develop production and management practices that will allow producers to profitably grow crops that are targeted for animal agriculture and biofuels.
- f. Enhance the adaptation of production techniques through utilization of on-farm research to work directly with producers to evaluate practices to enhance productivity and profitability.
- g. Provide advanced diagnostic training for biotic and abiotic pests (invasive species) to professionals and farmer cooperators to enhance food security.
- h. Utilize electronic methods of program delivery for clientele including podcasts, on-demand video library, and voice-over presentations available on-line.

### Metrics:

- a. Increase by 25 the number of counties receiving farmers markets, produce auctions, and other direct marketing curriculum.
- b. Increase by 20% the number of producers receiving direct marketing curriculum.  
*Current: 500/year; Goal: 600/year by 2013*
- c. Increase the number of counties participating in on-farm trials by 20%.  
*Current: 14; Goal: 17*
- d. Double the number of first detector trained individuals in the state.  
*Current: 105; Goal: 210*
- e. Increase number of users of electronic media by 30%.  
*Current: 25,000 web visits/month; Goal: 32,500 web visits/month*

**Strategy 2:** Drawing on current research, enhance human health by expanding and implementing nutrition and physical activity education programs.

### Action Steps:

- a. Expand delivery of community nutrition programs.
- b. Expand delivery of diabetes education and develop a youth component.



- c. Deliver additional modules to increase physical activity of Ohioans by expanding healthy weight management curriculum through the addition of two programs, including America on the Move and We Can.
- d. Educate communities on the benefits of establishing Walkable Communities principles in their planning activities.
- e. Expand the delivery of financial well-being programs that impact human health.

### Metrics:

- a. Increase by 20% the number of counties implementing the Family Nutrition Program.  
*Current: 66 counties*
- b. Increase by 15 the number of counties offering diabetes education programs.  
*Current: 57 counties; Goal: 72 counties*
- c. Establish weight management through physical activity in 20% of Ohio counties.  
*Currently two counties deliver these programs.*
- d. Establish Walkable Communities principles in 10 counties.  
*Currently no counties offer this program.*
- e. Increase the number of counties offering New Start for Financial Success by one per year.  
*Current: 44 counties; Goal: 49 counties*
- f. Increase by one annually the number of counties offering Real Money, Real World.  
*Current: 30 counties; Goal: 35*

**Strategy 3:** In concert with our faculty and staff, prepare youth for successful academic achievement related to science, technology, engineering, and math (STEM) leading to careers in environmental and human health professions.

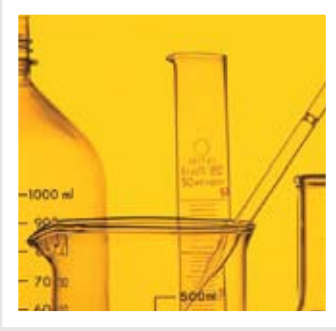
### Action Steps:

- a. Expand Preparing Youth for College efforts into additional counties.
- b. Develop additional modules for classroom science experiment instruction.
- c. Develop youth educational components on climate change and water and wastewater.
- d. Expand use of STEM curriculum in camping experiences.

### Metrics:

- a. Increase number of counties receiving college preparation curricula.  
*Current: taught in 20 counties; Goal: taught in 40 counties*
- b. Create additional STEM modules for classroom use.  
*Current: 7 classroom exercises are available; Goal: expand number of modules by 100%*
- c. Expand STEM curriculum to more camps.  
*Current: 67 OSU Extension units reported delivering 300 educational programs teaching STEM content; Goal: Goals for the next five years would be an offering of STEM programs in all 90 local OSU Extension units, and the number would be 600 programs offered annually.*





**Strategy 4:** Linking with research, educate Ohio citizens, businesses, and institutions regarding opportunities for advanced bioenergy and biobased products and technologies.

### Action Steps:

- a. Develop and deliver curriculum to increase application and utilization of bioenergy applications including waste digesters and cellulosic based technologies by directing energy team to develop and deliver educational programming.
- b. Develop and deliver curriculum to increase application and utilization of biobased products by establishing a team of OSU Extension, OARDC, ATECH, and OBIC professionals to develop curriculum and promote commercialization opportunities in Ohio.

### Metrics:

- a. 5% of participants receiving programming each year will make decisions to adopt bioenergy technology.
- b. Establish a new revenue stream from licensee agreements, rents, and royalties from commercialization activities.

## International Programs

CFAES International Programs over the next five years will increasingly include partnering with other colleges and programs at OSU such as current efforts with the climate, water, and carbon TIE, our work with various colleges and most international studies centers and our involvement of undergraduates from other colleges in study abroad programs. These collaborations with other units will strengthen our efforts and provide us with an opportunity to help strengthen the President's goal of making OSU the land-grant to the world.

**Strategy 1:** Enhance global networking of research scientists, scholars, and extension educators to facilitate access by them to novel academic, research, and development outcomes that enhance their program back on campus, with a focus on the three signature areas and identified regional foci of Central and South America including Mexico; Eastern and Southern Africa; and Southeast Asia.

### Action Steps:

- a. Prepare and submit interdisciplinary proposals to address the signature areas and regional foci, targeting these sources of funding: (1) U.S. Agency for International Development; (2) U.S. Department of Agriculture; (3) U.S. Department of Energy; (4) appropriate foundations, including the Bill and Melissa Gates Foundation, the Tata Fund, and the Kellogg Foundation; and (5) U.S. Department of State.
- b. Prepare major projects funded through grants and contracts that are consistent with the three CFAES signature areas.
  - Food Security, Production, and Human Health — Prepare grant proposals related to increased food production, more effective food distribution, and improved food quality. Proposals will focus on collaboration with partner



institutions in the selected regions of the world and will be on topics consistent with existing demand and CFAES supply capacities.

- Environmental Quality and Sustainability — Grant proposals for research on issues of environmental quality will be prepared consistent with CFAES involvement in the CWC TIE program. This will involve research scientists from CFAES as well as related colleges (MAPS; SBS; Public Health). Building on past and current programs, we have tentatively identified Costa Rica (tropical biome); Iceland (arctic biome); and South Asia — India, Bangladesh (subtropical biome) as priority regions of the world for research on climate change and carbon management. Water use in agriculture will be another priority area of research, and priority will be given to developing projects in Africa and South Asia on this topic.
  - Advanced Bioenergy and Biobased Products — Research on alternative energy sources will be pursued through preparation of grants and contracts. The focus will be on use of biomass and agricultural waste streams as sources of energy, such as through biodigesters and ethanol production. Regional foci for this research activity will be Central America, Africa, and South Asia.
- c. Attract visiting scientists to CFAES, particularly to work on topics related to signature areas. Types of programs to be explored will be Fulbright program, Borlaug international scholar program, Cochran Fellowship program, and self-funded programs initiated by institutional partners in priority world regions. These programs are all self-funded.
  - d. Target SRAs for CFAES scientists to undertake research abroad on topics related to signature research program areas. Assist CFAES scientists in obtaining funding to network abroad through participation in international symposia, conferences, etc. with a specific focus on these program areas. Help faculty obtain Fulbright and other international program funding for extended assignments abroad.

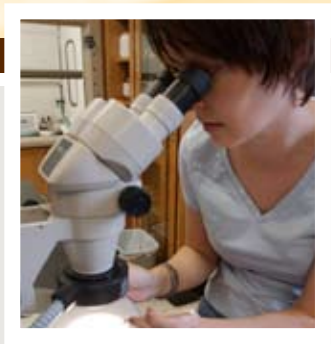
### Metrics:

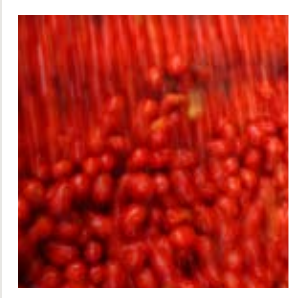
- a. Maintain grant portfolio.  
*Current: \$2 million; Goal: maintain current portfolio through 2013. In this competitive program area, we will be fortunate to maintain this level of activity.*
- b. Increase International Programs in Agriculture (IPA) sponsored visiting scientists.  
*Current: 25/year; Goal: 30/year for 5 years*
- c. Increase international SRAs and sabbaticals.  
*Current: 3/year; Goal: 5/year for 5 years*

**Strategy 2:** Enhance the ability of CFAES stakeholders to compete and contribute to the global agricultural economy by strengthening existing programs.

### Action Steps:

- a. Provide agricultural producers and other agribusinesses with the opportunity to host interns from other nations for periods of from 12 to 18 months. These interns will bring alternative agricultural practices and knowledge of alternative agricultural technologies with them and share them with their hosts. They will be bridges for global investment opportunities and for global agricultural production and marketing opportunities for hosts. They will provide opportunities for hosts and their families to understand and appreciate the cultures and values of other lands. Program to be self-funded through fees paid by hosts and by international interns.





- b. Provide opportunities for agricultural producers and agribusiness representatives to participate in international program activities of CFAES. Examples of this activity will be involvement in international study tours to Mexico and other Central American locations to better understand the cultural and economic backgrounds of migrant labor to Ohio. Another example will be to accompany CFAES faculty and administrators as they visit project sites in Central America, Africa, and South Asia with a view to better understanding the production systems and agricultural potential of these regions, as well as their ability to export to the United States. Program to be self-funded through fees paid by participants.

### Metrics:

- a. Maintain the number of international interns placed with hosts.  
*Current: 393/year; Goal: maintain at about 350/year for 5 years*
- b. Increase the number of private sector representatives in international program overseas programs.  
*Current: 3/year; Goal: 5/year for 5 years*

**Strategy 3:** Engage faculty, staff, students, and stakeholders in global outreach programs designed to improve the rural economy throughout the world.

### Action Steps:

- a. Prepare grants and contract proposals for development assistance projects with a focus on Central America, Eastern and Southern Africa, and South Asia with a focus on interdisciplinary activities that engage multiple faculty and students. Implement these projects through engagement of CFAES faculty, staff, and students, as well as other representatives of other colleges and schools on campus.
- b. Maintain linkages with institutions of excellence in Central America, Eastern and Southern Africa, and South Asia. Continue to develop exchange programs for faculty and students related to these institutional partnerships. Institutions to be included are Makerere University, Uganda; Sokoine Agricultural University, Tanzania; Egerton University, Kenya; Kwazulu-Natal University, South Africa; Cento de Investigación y Docencia Económicas (CIDE), Mexico; Colegio de Post-Graduados, Montecillo, Mexico; and Universidad EARTH, Costa Rica.

### Metrics:

- a. Maintain current grant portfolio to support this effort.  
*Current: \$1,040,000/year; Goal: maintain current level of activity each year for 5 years*



# Business Plan

To manage the goals and plans described above, a business plan is provided below. It includes our Talent Plan, Facility Plan, Technology Plan, Development Plan, and Resource Plan for the entire college, including ATI, OSU Extension, and OARDC.

## Talent Plan

### Funding Faculty and Staff Positions With Existing Resources

Decisions to fill vacant faculty or staff positions within our academic base program funding (general funds, state line-items and some federal funding) are made by prioritizing vacancy dollars for selected reinvestment largely within our focus areas. However, before that, faculty and staff vacancies are monitored to ensure that compensation and other cost increases are met and that signature areas are being serviced. Academic units are only able to compete for a faculty position if they can demonstrate sufficient productivity, can demonstrate their ability to cover their costs, and can present a compelling case showing how a position will advance the college's strategic direction. As positions are filled, we will work hard to further enhance our diversity.

Among faculty positions to be filled, at least one and perhaps two, vacant faculty positions will be filled with research faculty titles where programs can benefit from such hiring. The specific positions have not yet been determined. In the recent past, we have employed three research faculty, two in Animal Sciences and one in Entomology.

To estimate resources available for replacing faculty and staff positions, we examined turnover trends from FY2000 through December 2007. During this time, the college had 146 faculty members retire, resign, or separate. Of these, 71 or less than 50% were filled. Since FY2000, the college has decreased the number of staff positions funded by its state line items and general funds budget by 150, or 19%. These reductions helped us address recent budget constraints and compensation increases.

The demographics of our faculty and staff suggest that a similar trend will continue. As of spring 2008, we have 83 faculty members, or 19%, with 30 or more years of OSU service. More than 280, or 66%, of our faculty members are 50 or more years old. An October 2007 study by the Office of Human Resources indicated that the college has the greatest percentage of retirement eligible faculty among all colleges. Meanwhile, with an eye on all of our resources, approximately 85 current staff members, or 6%, have 30 or more years of service but more than 640, or 47%, are 50 years old or greater. This provides us with some nimbleness to meet future resource reductions and to expedite our emphasis on our signature areas.

For the resource projections presented later in this document, 11 faculty (actual figure) and 20 programmatic staff members are projected to separate in FY2009; in FY2010, we project that 6 faculty and 20 staff members will separate. From FY2011 to FY2013, we project that 6 faculty and 20 staff will separate each year. We used FY2008 average salary and benefits figures of \$114,930 for faculty, \$86,320 for unclassified staff, and \$54,941 for classified civil service staff to estimate the projected vacancy dollars available.

If these separation projections hold and state line items would increase by 3.0% per year, then we estimate that we will be able to replace 8 faculty positions (actual figure) and 10 staff positions in FY2009; 5 faculty positions and 10 staff positions in FY2010; and 5 faculty and 10 staff positions in fiscal years 2011 through 2013. To estimate replacement costs,





we have used current starting assistant professor salaries with benefits of \$95,775 and a combined staff average salary and benefits of \$57,120. If state line items do not increase as projected, then we will fill fewer positions and will have to encourage more separations via separation incentives and reductions in force. Vacant faculty positions which are filled will be directed largely toward one or more of our signature areas; vacant staff positions will be evaluated separately to determine how they will best support the college's strategic needs.

Under the projected scenario, we will generate between \$2.1 million and \$2.7 million in uncommitted annual rate each year and would plan to use at least \$1.0 million each year for redirected positions. Of course, the actual vacancies available to be filled and that are filled will be adjusted as they occur and according to the status of state and federal resources in particular. As of the FY2008 University profile snapshot, the college supported 237 faculty FTEs on its general funds and state line items. Another 98 faculty FTEs are supported on Federal funding received by OARDC and OSU Extension. Under the planned scenario, this number will decrease as some vacancies go unfilled and others are redirected into other types of positions.

Meanwhile, new staff positions will occur primarily on OSURF grants and other soft funding. As base resources have declined, our faculty members have been successful in acquiring sponsored contracts that have enabled them to self-fund such support. For example, while centrally supported staff FTEs decreased, our OSURF expenditures increased from \$12.5 million to \$28.42 million, or 127% in FY2008. Staff FTEs employed on these contracts also increased by roughly the same percentage to a high of 269 in FY2007. Our departments are being challenged to increase their OSURF contracts by 25% over the next five years. Based on this expectation and the correspondence between growth in sponsored contracts and growth in our OSURF staff FTEs, we project that staff FTEs on OSURF contracts will grow to ~300 FTEs over the next five years. These individuals will help replace some of the faculty staff support that has been reduced in recent years.

As faculty and staff vacancies occur, we also have specific program support needs that we plan to fill over the next five years. These positions are reflected on our resource analysis worksheets.

- We intend to reallocate at least five vacant positions toward the enhancement of the technology support provided college-wide over the next five years. This is described further in the technology plan.
- The approaching development campaign requires us to reallocate up to 2.5 FTE staff positions toward fundraising support. This is described in the development plan.
- We expect that our growth in OSURF awards will be facilitated with a more strategic grant preparation effort; we will reallocate at least two professional staff positions for this.
- Our aggressive enrollment and student support goals and plans require us to reallocate at least three vacant positions toward an additional prospective student service support staff, an alumni support/development position, and a graduate student support position.

### Provide Competitive Compensation

In alignment with the OSU Academic Plan, faculty and staff compensation will be a priority. These costs are projected to grow by 5% of base salaries each year to allow for average salary adjustments of 3.5% and additional increases in benefits costs. On average, about 85% of our costs are personnel.

The college provides compensatory increases based solely on merit. For example, the language sent to our academic chairs and other leaders for the FY2009 salary process said: "The aggregate average salary increase for each unit will be 3.5%. Of this amount, 3.0%

should be spread across those whose performance exceeds expectations. This means that some will receive less than 3.0% and others will receive more, based on performance. The remaining 0.5% is to be held aside by each department and school to address truly excellent/stellar performance and/or special equity/market issues. Zero percent increases can also be granted.”

When available, additional funding is directed toward improving our faculty benchmark performance and departments are directed to address special levels of excellence or equity/market situations. Since benchmark data have been generated, the college has typically been between 3.5% and 4.0% below our benchmarks in faculty compensation. We dipped to 2.1% below in FY2004-2005 and are positioned at 2.9% below benchmarks for FY2007-2008. Within this amount, a great deal of departmental variance exists. At the low end are the departments of Animal Sciences and Plant Pathology. Typically highest compared to its peers is Human and Community Resource Development. However, our analysis suggests that these figures have been greatly influenced by specific hiring situations and specific compensation trends, and so we have not varied the level of increases among units.

### **Provide a Welcoming Environment**

The college is dedicated to providing all faculty and staff with a supportive and welcoming environment so that we can recruit, re-recruit, and retain the best and brightest. In fact, the college’s vision statement speaks directly to this in two of its indicators of success: “The best faculty, staff, and students seek to work and learn here,” and “Diversity is evident throughout the college.” Toward this end, we participate in a nationwide consortium of 14 states, called the Change Agent States; this consortium strives to enhance organizational climates for diversity and inclusion. This consortium uses a framework encompassing four areas including a diversity catalyst team, leadership training, a diversity coordinator, and an organizational climate assessment. In February 2008, we invited all members of the college to participate in a climate survey. We will use the input from our colleague change agent states, the results of our climate survey, and input from our VP Staff Advisory Committee and Ag Faculty Council to formulate our strategies for improving the working climate in the college and to encourage a more diverse faculty and staff. We will soon have information sorted by college unit so that we can identify areas which have excessive problems, or conversely, are serving as models for others. We plan to repeat this survey every five years.

In addition, it is important that we invest in our staff and provide them with ongoing educational and professional development opportunities so that they can meet the changing needs of our programs. Similarly, we must provide our faculty and other supervisors with appropriate training so that they utilize their staff effectively.

## **■ Facility Plan**

In November 2004, the college completed a comprehensive and extensive master plan (see [http://www.fpd.ohio-state.edu/assets/master\\_planning/plans/faes/menu/index.html](http://www.fpd.ohio-state.edu/assets/master_planning/plans/faes/menu/index.html)) that evaluated our facilities and landholdings at all locations. It also suggested their best future usage. As mentioned earlier, it is critical that we provide quality teaching, learning, and research environments. The current dire state of many of our buildings is impeding faculty and student recruitment in particular, and detracts greatly from a high performance culture necessary for advancing our signature areas. Each of the projects below is critical to advancing one or more of these signature areas.

We are working to identify non-state funding sources that, combined with state capital dollars, will enable us to move forward on some of these projects in the next five years. Our fundraising efforts will focus largely on these needs and will accelerate with the ramping



up of the university-wide fundraising campaign. Several of the projects that follow have funding already identified or planned. Two projects, the AgBiosciences academic building and the interdisciplinary facility at WANRL, will require significant state capital funds and development gifts. Of the projects that will require Columbus campus capital funding, we anticipate that we will only be able to initiate the AgBiosciences academic building during the next five years.



- An AgBiosciences academic building on the Midwest campus is important for advancing areas of Food Security, Production, and Human Health and other areas. Functionally, it will replace an obsolete library, and provide much-needed technologies in interdisciplinary research and instructional laboratories, classrooms, and support spaces. This project requires demolition of Plumb Hall, and would allow for demolition of Vivian Hall, and perhaps the Animal Sciences building. Although our figures are preliminary and rough, we estimate need for a building that has 125,000 gross square feet (GSF). A rough construction cost estimate of \$300 per GSF plus the estimated costs for design, art, inflation, and contingencies, etc. results in a planning figure of approximately \$56.5 million. This building will be funded with a combination of funds raised through development efforts and state capital funding.
- The Plant and Animal Agrosecurity Research (BSL-3) facility in Wooster will be built to enhance competitiveness of our world-class research program in plant and food animal diseases and invasive pests. This building is critical to our Food Security, Production, and Human Health signature area. A variety of government and other sources of funding have been identified to cover the costs of this \$20-million building. Operating cost for this facility will be funded by a combination of federal grants, endowments, indirect costs recovered, and fees for usage. This facility will contribute to our Food Security, Production, and Human Health signature area and our Public Health Preparedness TIE.
- A new interdisciplinary facility at the Waterman Agricultural and Natural Resources Laboratory (WANRL) will advance instructional and research programs and allow for the collaboration and development of compelling new opportunities associated with the new interdisciplinary Institute of Energy and Environment and other related activities in partnership with the 315 Research + Technology Corridor. This facility will replace many existing structures at the Waterman Laboratory location. Our estimates for this facility are preliminary and rough, but we estimate needing a building that has 155,000 GSF. A rough construction cost estimate of \$300 per GSF plus the estimated costs for design, art, inflation, and contingencies suggest a planning figure of approximately \$71.0 million. The construction of this facility will be funded with a combination of funds raised through our development efforts, industrial partnerships, and state capital funding.
- At Don Scott Field, adjacent to the OSU Airport, we house several animal research and instructional facilities, while our School of Environment and Natural Resources is the primary user of the high quality, old growth woodlot at the property's northwest corner. The majority of the buildings here are in poor condition, although renovation dollars were provided a few years ago that provided some structural rehabilitation. This activity is secondary to the previous two projects and is not likely to be initiated in the next five years. The site supports our Food Security, Production, and Human Health areas, as well as Environmental Quality and Sustainability signature areas.
- A horticulture building at ATI will provide a much-needed academic facility for this thriving technical program, which fulfills aspects of technical instruction for Food Security, Production, and Human Health. This building is projected to cost about \$10 million and will be funded primarily with capital funding that ATI has been accruing, plus some funding raised through our development efforts. Cost increases will be recovered through increased enrollment and development support.

- The BioHio Research Park in Wooster will be designed over time and initiated to facilitate public–private partnerships, incubate faculty-based start-up companies, and accelerate the “path to market” for OSU discoveries. Initial investments have included an economic development agency grant for \$1.5 million to renovate Pounden Hall and a job ready site grant from the state to the city of Wooster to provide infrastructure support along Secrest Road. The estimated cost of the initial phase of BioHio is \$8 million.
- Ongoing enhancements will continue each year to improve teaching and learning spaces so that our students are better served. These include existing classrooms and laboratories that need basic improvements and advanced technologies to support quality teaching and student learning in all of our signature areas. These costs will be funded with a combination of general funds, development, and endowment fund earnings, and will be initiated as funding is available. We expect to invest at least \$300,000 per year in cash resources for this purpose.
- We will invest at least \$500,000 per year in core research facilities and equipment to enhance research capacity in our signature areas primarily through redirected state allocated resources.
- Our plans for construction of the Secrest Aboretum Center in Wooster as a research and outreach facility will be developed to augment programs offered there. This center supports our Environmental Quality and Sustainability signature area. We estimate that this center will cost \$2.5 million. It will be funded by private gifts.
- The obsolescence and deferred maintenance needs of our physical facilities are immense and detract from our 21st century initiatives. Some, but not all, of these needs will be addressed with the projects described above. Through capital renovation dollars and collaboration with the university, we plan to address many more of these needs.
- To the extent possible, the college also plans to reduce unneeded square footage and thus, its POM costs. As a first step, the college recently requested removal of more than 40,000 square feet from the inventory of one academic department. As part of the university’s analytical process related to our proposal, we have asked to initiate a space utilization study in the very near future. Although we have been informed that this will be delayed pending other university-wide planning efforts, we hope to move forward as soon as possible since current POM costs are not sustainable. For example, one department’s FY2009 marginal POM cost increases totaled \$105,900. After the flat tax on POM subsidy, the department earned a marginal increase of only \$33,000, leaving \$72,900 unfunded in this year alone. To offset this loss would require the department to generate an additional 452 undergraduate credit hours in a five-hour BAC 3 course, or 90 additional students. This level of increase is not achievable each year.

## ■ Technology Plan

The college is actively working to incorporate new and innovative uses of information and communication technology to enable and support our faculty, staff, and students. Nearly three years ago, we hired our first chief information officer to lead a much-needed technological transformation. Since then, we have taken steps to collapse our distributed IT infrastructure into a centrally managed core, relocated the college data center to OIT’s Kinnear Road Center facility, established college-wide web and messaging services, established an IT advisory committee, and reorganized the central IT staff to be more efficient and effective in responding to college-wide needs.

IT staff positioned throughout the college and at various state-wide locations have been organized into teams to better meet their increasingly complex mission and to address the university's IT initiatives, such as the implementation of information security policies and standards. This plan recognizes that information and communication technology, managed effectively, can be the great enabler of teaching, learning, research, the student experience, and the efficiency and effectiveness of the operation of the college and the college's outreach and broader impact.

Our interest in new and innovative uses of information and communication technology to enable and support the objectives of our strategic plan requires that we reposition the role of technology in the college. Along with a modernization of our information technology infrastructure and the incorporation of advanced technologies to improve targeted research and instructional efforts, we will manage technology as a mission-critical activity. Thus, as part of our overall strategic planning efforts, the CFAES CIO will create an IT strategic plan by spring 2009 to guide this work and to ensure that our IT efforts are aligned with the strategy and objectives of the college. Key points in that plan will include:

- Updated technology infrastructure to attract and retain faculty and to enrich student learning experiences. This update will include a help desk for students.
- Plan to identify information technology and communication trends relevant to target audiences and the incorporation of relevant solutions, such as virtual worlds and social networking, into our targeted recruitment efforts.
- Incorporation of advanced technology to improve our ability to develop and deliver high quality programs and learning opportunities in our outreach efforts. We will actively explore the expansion of the use of distance education and advanced technologies such as telepresence, virtual classrooms, and the use of high definition content.
- Research activities increasingly require advanced computing capabilities and resources, especially in the areas of large data storage, modeling, simulation, and visualization. Our ability to attract and retain world-class faculty requires that the college make these resources available across our many disciplines and geographic locations. We will place additional emphasis on the adoption and support of advanced computing by our faculty and research staff through partnerships and alliances with resource providers both internal and external.

### Investment Needed

These efforts require additional investment in IT infrastructure and resources along with a different funding approach. The college currently funds 34 FTE systems staff positions whose salaries and benefits total \$2.3 million. Of these, only seven are housed in our central IT while the remainder are distributed in departments and other units at multiple state locations. College-wide, we now spend nearly \$2 million per year on non-personnel systems costs across all funding sources, up from estimated expenditures of \$800,000 just three and four years ago.

In the first two years of this plan, the college will increase its technology investment to support implementation of the university's new information security standards and to support its own technology standards, associated policies, and a new IT help desk capability. Due to the highly distributed nature of our IT governance and the condition of our aging infrastructure, this investment will be relatively large when compared to our typical investments as we expect to invest an additional \$300,000 per year in FY2009 and FY2010 to fully comply with the standards.

In order to successfully operate and support an enhanced IT infrastructure, additional IT resources are required. We anticipate adding several technical positions over the course of

this plan through reallocated positions. Shortfalls in resources will slow the hiring timeline described below.

- In the first two years of the plan, we have identified the need for two technical support FTEs to manage and operate infrastructure components associated with the adoption of new technologies and the implementation of the information security standards. Salaries and benefits for each of these FTEs will likely approach \$75,000 in FY2008 dollars.
- One customer support position will be needed to manage the IT help desk. This position will be supported by the reallocation of existing staff and the addition of at least two student positions at an estimated cost of \$14,400.
- Over time, as the IT infrastructure incorporates additional components and evolves to support college-wide web services, instructional design, directory services, configuration management, network authentication, access control, and intrusion detection, five additional technical support positions will be needed. We project that each of these positions could cost roughly \$75,000 in FY2008 dollars and expect that at least two of them will be filled in FY2012 and FY2013.

## Development Plan

Private support will play a key role in meeting the goals of the college's strategic plan. Presently, the college's seven-year average of gift activity is \$10.8 million with 8.25 FTE staff. The total number of prospects and donors assigned is 644 with an average of 148 per major gift officer (4.25 FTE). In addition, the college has 1,891 donor-supported funds with more than 400 endowed scholarships. Thus, stewardship is a critical component of our development activities.

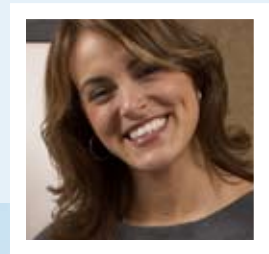
Through University Development's assessment process, we know that we have 2,602 alumni classified at the highest levels of Echelon 1–6. Of these, 38 have been evaluated and given lifetime gift capacity ratings of \$500,000 or more. CFAES Development in partnership with University Development is committed to further evaluation of this constituency as prospective donors.

To ensure that at least 10% of the 2,602 Echelon 1–6 rated alumni become major gift prospects, we are evaluating the addition of at least two major gift officers and other support staff in addition to a newly created position of assistant director of development who will focus on annual and special giving with strong emphasis on evaluation of major gift prospects. The college will partner with University Development regarding these positions over the next five years.

An existing position supported by the college has also been upgraded to a manager of stewardship and donor relations to provide a more focused effort in this area. As the college enters a comprehensive campaign, increased emphasis in this area will be needed.

## Comprehensive Campaign

We must conduct an extremely robust development campaign. Our capital needs are extreme and it is critical that we identify resources to address them along with other high-priority needs. Our development team is recently reenergized and reorganized with a newly appointed Senior Development officer. She is transforming our fundraising approach from a project-based to a prospect-based campaign, and has concrete staffing plans to enable the most aggressive campaign ever conducted by the college.



The primary goal of the college's portion of the comprehensive university campaign will be the new facilities and renovations described in greater detail in the Facility Plan section of this Business Plan and in the addendum.

While new and renewed facilities will provide the foundation for the college's physical environment, support that directly enhances the student experience and improves faculty development also will be emphasized as part of the campaign's goals. Scholarships that support access to education and study abroad will be emphasized. The college will also pursue more support for student scholarships and other forms of learning enrichment. These efforts will strategically align with our focus on undergraduate and graduate instruction.

Ten new endowed faculty programs (chairs or professorships) within the three signature areas will be emphasized to escalate the progress needed in these programs. OSU Extension also will pursue three such endowments from various counties to support our programs there. These will be the first-ever endowments of this sort, and if successful, we will pursue more.

Overall, the private support goal for the multiple-year campaign is anticipated to be an ambitious \$150 million. Strategy for achieving this goal can be found in the addendum.

Our campaign success will be measured by the following:

1. Achievement of overall dollar goal within campaign counting period
2. Achievement of specific project goals within the campaign structure
3. Execution of campaign strategy
4. 100% of development officers meeting individual annual performance metrics of
  - 10 newly qualified prospects
  - 160 face-to-face prospect visits
  - 20 prospect solicitations
  - 125 prospect management assignments

## ■ Resource Plan

The college is committed to remaining financially solvent. We have a history of taking strong, but thoughtful steps to address financial constraints. At the same time, we have moved forward on our program goals and have continued to serve our industry and the state. We will continue to take the actions needed to do both. Below is a description of our resource and expenditure assumptions and projections that we will use for the next five years as we pursue the goals of our strategic plan. Due to the magnitude of our resources and the scope of our plan, we have prepared projections at the college-wide level. As our academic units prepare their strategic plans, they are expected to develop commensurate resource plans at that detailed level. These are summarized on the spreadsheets that follow.

### Differential Allocations Reward Performance

The college allocates its state line items and general fund resources based on **demonstrated performance**. Academic units that demonstrate superior performance in alignment with the college's strategic plan typically receive additional resources, while those making less progress have received budget reductions. In addition to reviewing our programs against typical quantitative data, we examine whether: (1) targeted investments and programs fit within our signature areas, and (2) investments are bringing a return, and having impact at a critical level. For instructional programs, we also review our programs to ensure they are: (1) preparing highly competent undergraduate and graduate students who are sought after by employers, (2) attracting and retaining a sufficient number of students to meet the

needs of the industries and agencies who depend on CFAES, and (3) generating sufficient credit hours of instruction to provide the resources required to be a national leader among colleges like ours. Our OSU Extension programs must be: (1) research based, (2) making impacts in alignment with our signature areas, and (3) generating resources to support extension programming.

Each department also undergoes an **independent review every 5 to 10 years** by CSREES. As part of its efforts to enhance science and education program performance and increase resource effectiveness, CSREES, at the request of cooperating institutions, facilitates these reviews. Preparation of a forward-looking planning document by the department is an integral part of the review activity. Generally, the internal review process is followed by an in-depth on-site visit by an external team of well-qualified peers lasting two or more days.

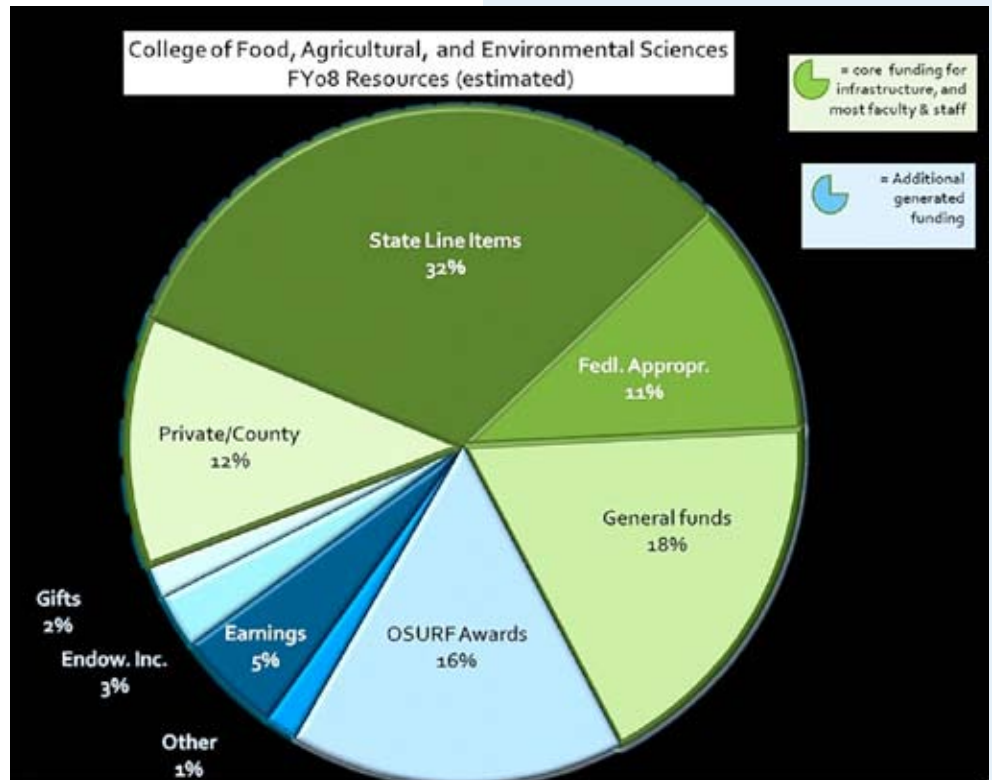
In addition, the **Research Enhancement Competitive Grants Program** was conceived as a mechanism to seed new ideas and concepts to enhance faculty competitiveness and to provide for a renewable source of competitive funds, which enhances our alignment with current society and industry needs. More than \$7 million in research awards have been allocated and these awards have enabled us to leverage an additional \$5 in external investments for every dollar we have invested. These investments are being made in our signature areas and serve to strengthen faculty, programs, and units that align with college priorities.

**Resource Assumptions for the Next Five Years**

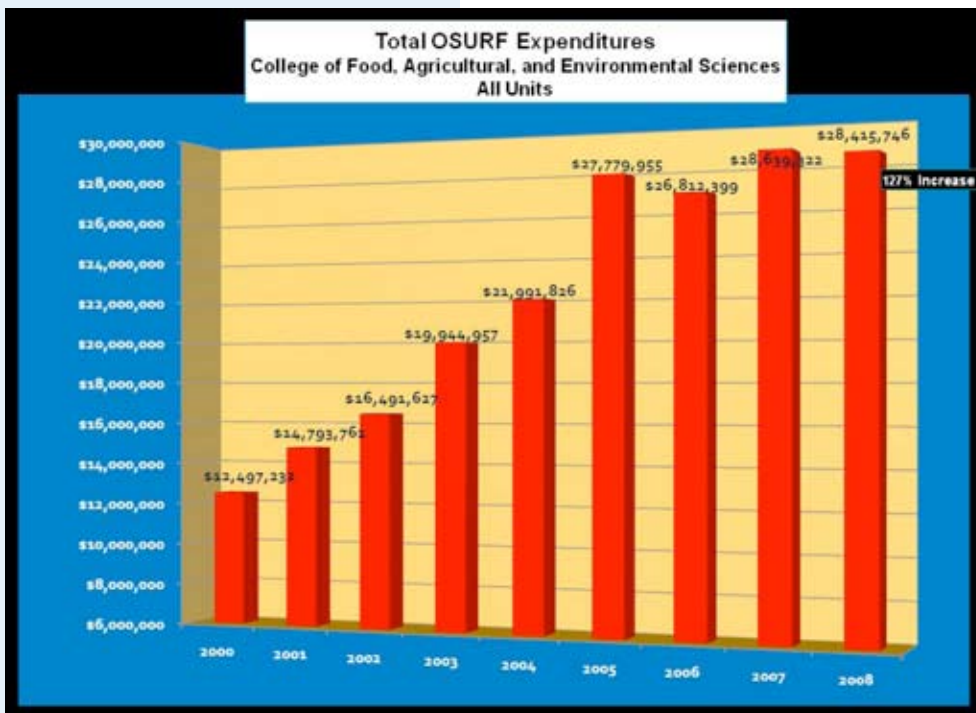
We will work aggressively with state leaders to ensure that our state line item funding, 32% of our total resources, is adjusted each year to help offset many of our projected cost increases. When combined with county and federal support generated through OSU Extension and OARDC, our state line items comprise more than half of our total resources; they are extremely important for the well being of the college. Following the direction set for the general funds, we are cautiously projecting these to increase by 3% per year after FY2009.

Changes in societal needs and in the agri-economy described earlier have meshed with our strengths so that **new revenue streams** have emerged that align with our signature areas. For example, we competed quite successfully in garnering Third Frontier funding, including an \$11.4 million award for the Ohio BioProducts Innovation Center, \$1.5 million for the Biomass to Energy facility, \$5 million for advanced granular technologies, and \$3 million to develop a renewable, domestic source of natural rubber.

In addition, the Entrepreneurial Signature Program grant in Piketon received \$2.1 million and cavitation technology efforts, which will increase the efficiency of ethanol production, received \$1 million. These most recent funds are not explicitly reflected in the following spreadsheets.



Due to new student recruitment initiatives in place and under development in Columbus, our Columbus **undergraduate credit hours of instruction and enrollments** will likely increase by at least 5% in FY2009, and 7% in FY2010 and FY2011. Due to our uncertainty and to be conservative, we project that these figures will then stabilize. Although these are solely projections at this point, we are optimistic that they are realistic. One positive indicator is that our student numbers as of this point in the summer compared to the same point one year ago are up by 10%. An additional 1% in new fee income is estimated for FY2010 and beyond as **new targeted fees** under current consideration are implemented in Columbus to support student programmatic enhancements. Overall **graduate student enrollments** will remain stable although our credit hours of instruction may decrease. Although we are uncertain how new university initiatives might impact us, we are optimistic that our efforts and incentives provided will still result in **general funds non-IDC net marginal resource increases** of at least 5% on average each year in Columbus. Although we are optimistic that our actual figures will be better, we have used the university-provided general funds resource projections in the spreadsheets that follow.



Agricultural Technical Institute (ATI) general funds are estimated to grow by 5.2% each year, similar to last year's increase, since it has more flexibility in setting its instructional fees. ATI has also invigorated its recruitment practices and has new and energized staff. We are optimistic about their financial well-being.

**Federal appropriations** are expected to remain level based on information and knowledge we have from participation in national level meetings and sources.

We continue to have successful partnerships with the commissioners and citizens of our **Ohio counties**, and in return, they have supported us well in spite of local financial challenges. These resources are expected to continue to increase by nearly 3% each year as they have in recent years.

Our **OSURF grants and contracts** expenditures are expected to grow by 25% by 2013. Since FY2000, our OSURF expenditures have grown from \$12.5 million to \$28.42 million in FY2008, or 127%. In contrast, from 2001 to FY2008, the total university increased its OSURF expenditures by 61%. (University-wide FY2000 data is not readily available.) As a percentage of the university, we have grown from 6.3% to 7.3% of total OSURF expenditures; in FY2005, we generated 8% of the university's OSURF expenditures. These figures are a source of pride given the high level of grants and contracts that traditionally are acquired by several of our colleague colleges. In fact, our figures are similar to Social and Behavioral Sciences and lag only behind Engineering, Mathematical and Physical Sciences, and the Health Sciences and Medicine.

Given the alignment of our science with emerging national trends, we have also challenged our academic units to increase grant and contract submissions by 25% in the next five years. This is one of the metrics that we use to evaluate them and directly corresponds to changes in their research support dollars. In FY2007, we submitted 421 OSURF proposals worth \$144.5 million. An increase of 25% in five years would equate to 526 proposals worth \$180.7 million by the end of FY2012.

Although our faculty numbers have decreased through retirements or resignations, we have intentionally not filled every vacancy. Thus, the increase in research funding is not a result of more faculty, but of filling faculty positions strategically into signature areas where significant research is needed and where extramural funding is available. In addition, collaborative, interdisciplinary approaches such as those used by our faculty involved in the TIE efforts are expected to accelerate our sponsored program activity even more. Our successes in competing for the Third Frontier funding are one example.

Similarly, we anticipate that our indirect costs recovered will grow by an average 5% per year. Since FY2000, our indirect costs recovered have grown from \$1.7 million to \$3.7 million in FY2008, or by 112%. This is average growth of 14% per year. Given the emphasis placed on increasing our sponsored grant activity combined with the fact that we allocate all net marginal decreases and increases in indirect costs recovered to our academic units, we believe this figure may be low but is a reasonable projection to use at this time.

As described earlier, the college has a long history of building strong public-private partnerships. We are developing programs to encourage investment in commercial development of our discoveries by private industry. Over time this will create **industry-sponsored resources** for our research programs and provide **licensing opportunities** that will allow the college to generate additional revenue through royalties, startup companies, and other related sources of revenue. In collaboration with the staff in the university's Office of Technology, Licensing and Commercialization (TLC), we are pursuing this resource aggressively, but expect it to remain a very small resource for the next five years growing to \$15,000 in FY2010 and possibly \$35,000 in FY2013. We have no significant basis for these figures other than the optimism that comes from the TLC staff. Several years ago, the feline leukemia vaccine brought significant resources to the university. There is no reason to doubt that this same level of activity is possible again with the right encouragement and management of our research.

**Endowment income and development gift support** will start growing by roughly 10% per year on average for the next few years as our five-year Campus Campaign gears up and our new development team begins to have impact. These estimates are based on past history with campaigns and not on recent experience as our development team is substantially different than it was a few years ago.

We pursue opportunities to enhance **operational efficiencies** to reduce costs on an ongoing basis. For example, ATI and OARDC in Wooster began sharing police and environmental safety services a few years ago and are now piloting a program to share human resource operations. This has eliminated the need to fill at least one administrative position there. The administrative groups of these two units meet annually to discuss areas of mutually beneficial ways to work together more efficiently. Likewise, OSU Extension has examined its programs and structure to enhance efficiency and program delivery through its strategic planning efforts. They have made significant changes in this regard. They currently operate their administrative functions using a service-center concept with most personnel and financial processes coming to the center in Columbus for review and approval. This has been an efficient method for this particular area since they are unable to fund the number of staff that would be needed throughout the state and they cannot provide the oversight/management training that would be necessary there. We also are considering various versions of a service-center approach for our academic units. At this time, we are evaluating using clusters of areas that will team up in ways that have not occurred in the past; the distributed locations of our employees adds complexity to our thinking. Estimates for such activities are not reflected specifically on the spreadsheet but do enable us to move forward with somewhat fewer support staff positions and enable some reallocations to other areas as needed.



### Resource Usage Assumptions

In alignment with the OSU Academic Plan, **faculty and staff compensation** will continue to be a priority. These costs are expected to grow by 5% of base salaries each year to allow for average salary adjustments of 3.5% and some increases in benefits costs. The estimates reflected on the accompanying spreadsheets are conservative as they do not reflect the downsizing of personnel that has and will continue to occur.

**Faculty and Staff Investment.** For the sake of developing **resource projections** on the resource model that follows, we are projecting that a hypothetical number of faculty and staff will separate from the college each year as described in the Talent Plan section. We will use a hypothetical figure to examine the impact of filling some of these vacancies in our academic program areas and have projected additional program support positions as well.

As a cautionary step, we are planning for the possibility of new **central general funds assessments** equal to 0.5% of our college general funds budgets beginning with FY2010.

**Academic Programs/Student Support.** The college will enlarge its recruitment and career development activities with staff efforts redirected from other programs and with greater and more effective uses of technology. We will enhance the technology support provided to our students, and will enhance teaching and learning spaces by renovating a number of spaces in our Columbus campus buildings. These are described in more detail in our talent and technology sections.

**Research and Outreach.** Most research-specific activities will be funded through reallocated dollars. OARDC will draw on cash allocated by the state for basic renovation to improve research facilities aside from major renovations and replacements. Most outreach-specific activities will be funded through reallocated dollars.

The college will dedicate additional resources to support ongoing education and **professional development of staff** so that they are positioned to support our signature areas with great effectiveness. We recently allocated an annual rate of \$20,000 to support our college-wide staff advisory committee, which facilitates a number of professional development activities. We must also continue to renew the knowledge base of targeted faculty members and other supervisors so that they are in position to provide adequate supervision to enable their staff to excel.

**Technology Investment.** The college must make significant one-time and ongoing investments in technology for minimum security standards, wireless capacity, and other infrastructure needs such as a college-wide help desk. Increased service and support to students must be implemented including upgrades to several computing labs. These will be funded with a combination of reallocated resources, existing cash balances, and funds raised through our development campaign. This is described in more detail in the Technology Plan section.

**Development.** We anticipate that additional support staff and operational dollars will be needed within our development team to effectively leverage additional opportunities through the robust campaign that we anticipate. We also expect resources will be needed to increase the number of fundraising special events. This is described further in the Development Plan section.

### Our Response to Past Financial Challenges

The college is quite proud that our overall financial position is stable and that we have remained financially solvent in spite of significant challenges in state funding and limited growth in its general funds budget. To accomplish this required a variety of bold actions including the reductions of faculty and staff positions. Additional details of the actions taken are provided in Appendix B.

College of Food, Agricultural, and Environmental Sciences - Projected Resource Analysis

(In FY08 Constant Dollars)

	Estimated FY2008 Base Resources	FY09	FY10	FY11	FY12	FY13	
		Estimated Net Annual Change (in FY08 \$)					
<b>Projected Annual Resources</b>							
<b>Base Program Funding</b>							
All General Funds-Non IDC	\$ 19,262,400	\$ 2,265,004	\$ 1,629,458	\$ 1,639,430	\$ 1,740,590	\$ 1,821,150	
CFAES	\$ 8,517,000	\$ 450,000	\$ 442,884	\$ 442,884	\$ 442,884	\$ 442,884	
ATI	\$ 8,333,300	\$ -	\$ -	\$ -	\$ -	\$ -	
Other (TIEs, OARDC Fee auth, Dept Resch \$)	\$ 36,112,700	\$ 2,715,004	\$ 2,072,342	\$ 2,082,314	\$ 2,183,474	\$ 2,264,034	
Subtotal Current General Funds	\$ -	\$ -	\$ 206,300	\$ 206,300	\$ 206,300	\$ 206,300	
General Funds- New Fees	\$ -	\$ -	\$ 1,905,000	\$ 1,905,000	\$ 1,905,000	\$ 1,905,000	
Slate Line Items	\$ 63,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	
<b>subtotal</b>	<b>\$ 99,612,700</b>	<b>\$ 2,715,004</b>	<b>\$ 4,183,642</b>	<b>\$ 4,193,614</b>	<b>\$ 4,294,774</b>	<b>\$ 4,375,334</b>	
<b>Other Resources</b>							
Net Indirect Costs Recovered	\$ 1,900,000	\$ 95,000	\$ 95,000	\$ 95,000	\$ 95,000	\$ 95,000	
Intellectual Property Proceeds	\$ -	\$ -	\$ 15,000	\$ 15,000	\$ 25,000	\$ 35,000	
Endowment Income	\$ 5,200,000	\$ 520,000	\$ 520,000	\$ 520,000	\$ 520,000	\$ 520,000	
Development	\$ 3,300,000	\$ 330,000	\$ 330,000	\$ 330,000	\$ 330,000	\$ 330,000	
Federal Resources	\$ 22,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	
Private/County	\$ 24,050,000	\$ 456,000	\$ 456,000	\$ 456,000	\$ 456,000	\$ 456,000	
Earnings Income	\$ 10,100,000	\$ 505,000	\$ 505,000	\$ 505,000	\$ 505,000	\$ 505,000	
OSURF Awards	\$ 30,250,000	\$ 1,512,500	\$ 1,512,500	\$ 1,512,500	\$ 1,512,500	\$ 1,512,500	
Other	\$ 3,200,000	\$ 96,000	\$ 96,000	\$ 96,000	\$ 96,000	\$ 96,000	
<b>Projected Changes in Annual Resources</b>	<b>\$ 200,112,700</b>	<b>\$ 6,229,504</b>	<b>\$ 7,713,142</b>	<b>\$ 7,723,114</b>	<b>\$ 7,834,274</b>	<b>\$ 7,924,834</b>	
<b>Projected Vacancy Credit Dollars Generated (2)</b>							
Faculty Vacancies	\$ -	\$ 1,264,230	\$ 689,580	\$ 689,580	\$ 689,580	\$ 689,580	
Staff Vacancies	\$ -	\$ 1,412,608	\$ 1,412,608	\$ 1,412,608	\$ 1,412,608	\$ 1,412,608	
<b>Total Vacancy \$</b>	<b>\$ -</b>	<b>\$ 2,676,838</b>	<b>\$ 2,102,188</b>	<b>\$ 2,102,188</b>	<b>\$ 2,102,188</b>	<b>\$ 2,102,188</b>	
<b>Total Projected Resources Available</b>	<b>\$ -</b>	<b>\$ 8,906,342</b>	<b>\$ 9,815,330</b>	<b>\$ 9,825,302</b>	<b>\$ 9,936,462</b>	<b>\$ 10,027,022</b>	
<b>Projected Annual Uses</b>							
Compensation Increases for Base Program Funds (including some fedl)	\$ -	\$ 3,800,000	\$ 3,800,000	\$ 3,800,000	\$ 3,800,000	\$ 3,800,000	
General funds Holdback/Assessments	\$ -	\$ 103,150	\$ 103,150	\$ 103,150	\$ 103,150	\$ 103,150	
Projected GFDs Marginal Cost Increases	\$ 1,134,235	\$ 1,485,671	\$ 1,485,671	\$ 1,419,788	\$ 1,522,698	\$ 1,627,814	
Academic Program Talent Replacements (2)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Projected Faculty Replacements (inclg Research)	\$ 513,047	\$ 478,875	\$ 478,875	\$ 478,875	\$ 478,875	\$ 478,875	
Projected Staff Replacements	\$ 571,200	\$ 571,200	\$ 571,200	\$ 571,200	\$ 571,200	\$ 571,200	
Program Support Needs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Teaching, Research, Outreach	\$ 62,480	\$ 198,110	\$ 198,110	\$ 73,150	\$ -	\$ -	
Development Plan	\$ 117,950	\$ 93,100	\$ 93,100	\$ -	\$ -	\$ -	
County Outreach needs	\$ 456,000	\$ 456,000	\$ 456,000	\$ 456,000	\$ 456,000	\$ 456,000	
Uses of Earnings Income	\$ 505,000	\$ 505,000	\$ 505,000	\$ 505,000	\$ 505,000	\$ 505,000	
OSURF Awards Uses	\$ 1,512,500	\$ 1,512,500	\$ 1,512,500	\$ 1,512,500	\$ 1,512,500	\$ 1,512,500	
<b>Subtotal Ongoing Uses</b>	<b>\$ 8,672,412</b>	<b>\$ 9,203,606</b>	<b>\$ 9,203,606</b>	<b>\$ 8,919,663</b>	<b>\$ 8,949,423</b>	<b>\$ 9,054,539</b>	
<b>Net Balance/(Shortfall)</b>	<b>\$ -</b>	<b>\$ 233,930</b>	<b>\$ 611,724</b>	<b>\$ 905,639</b>	<b>\$ 987,039</b>	<b>\$ 972,483</b>	

College of Food, Agricultural, and Environmental Sciences - Projected Resource Analysis (cont'd)

(In FY08 Constant Dollars)

	Estimated FY2008 Base Resources	FY09	FY10	FY11	FY12	FY13
				Estimated Net Annual Change (in FY08 \$)		
<b>Uses of Cash Balances</b>						
Additional Technology Support	\$ 300,000	\$ 300,000	\$ 300,000	\$ 200,000	\$ 200,000	\$ 200,000
Additional Development Support	\$ -	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Research Facility Needs	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
Teaching & Learning Facility Needs	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Climate/Professional Development Initiatives	\$ 20,000	\$ 20,000	\$ -	\$ 20,000	\$ -	\$ -
<b>Subtotal Cash Uses</b>	\$ 1,120,000	\$ 1,400,000	\$ 1,400,000	\$ 1,320,000	\$ 1,300,000	\$ 1,300,000

Footnotes

(1) Assumptions Used

3.0%	SLI FY12, FY13	0.5%	Grnf Funds holdback
3.0%	SLI - FY11	10.0%	Development/Endemnt
3.0%	SLI - FY10	5.0%	OSURF
5.2%	ATI General Funds	1.0%	New GF fees
Per Resch Planning	GFds non-IDC	2.9%	County Increase
5.0%	IDCs- net growth	0.0%	Federal
5.0%	Dprtl Earnings	3.0%	Other

(2) Position Vacancy Assumptions

	Est. FY08 Average Salary/Benefits - CFAES Wide		Staff # combined
	TT Faculty	Unclass. CCS	
Salary	\$ 90,000	\$ 65,000	\$ 51,900
Benefits	\$ 24,930	\$ 21,320	\$ 18,730
<b>Total</b>	<b>\$ 114,930</b>	<b>\$ 86,320</b>	<b>\$ 70,630</b>
Positions Vacated Per Year - Estimated			
FY2009	11	10	20
Year 2	6	10	20
Yrs 3 to 5	6	10	20

(2) Position Replacement Assumptions

Faculty Rplcmnts	Staff Rplcmnts	
	Est. Costs	Cmbnd Est Costs
\$ 75,000	\$ 42,000	
\$ 20,775	\$ 15,120	
\$ 95,775	\$ 57,120	
Estimated # Replacements		
8.00	10.00	10.00
5.00	10.00	10.00
5.00	10.00	10.00

Figures exclude those included under Program Support areas.

Additional Resource Assumptions Used

Program Support Area	FY09	FY10	FY11	FY12	FY13
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TECHNOLOGY PLAN					
Annual Needs					
IT Infrastructure Staff	\$ 73,150	\$ 73,150	\$ -	\$ -	\$ -
College web service/design/network, etc.	\$ -	\$ -	\$ 73,150	\$ 73,150	\$ 73,150
Ftes	1.0	1.0	1.0	1.0	1.0
Help Desk - stdt workers	\$0.00	\$ 14,400	\$ -	\$ -	\$ -
<b>Total Annual Needs</b>	<b>\$ 73,151</b>	<b>\$ 87,551</b>	<b>\$ 73,151</b>	<b>\$ 73,151</b>	<b>\$ 73,151</b>
One-Time Funding Needs					
IT Security	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -
Future Contingency	\$ -	\$ -	\$ 200,000	\$ 200,000	\$ 200,000
<b>Total One-Time Funding Needs</b>	<b>\$ 300,000</b>	<b>\$ 300,000</b>	<b>\$ 200,000</b>	<b>\$ 200,000</b>	<b>\$ 200,000</b>

DEVELOPMENT PLAN					
Annual Needs					
Major Gift Officers	\$ 93,100	\$ 93,100	\$ -	\$ -	\$ -
Support Staff	\$ 24,850	\$ -	\$ -	\$ -	\$ -
Ftes	1.5	1.0	0.0	0.0	0.0
Additional Operating	\$ 0	\$ 35,000	\$ -	\$ -	\$ -
<b>Total Annual Needs</b>	<b>\$ 117,950</b>	<b>\$ 93,100</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
One-Time Funding Needs					
Development Campaign Activities	\$ -	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
<b>Total One-Time Funding Needs</b>	<b>\$ -</b>	<b>\$ 300,000</b>	<b>\$ 300,000</b>	<b>\$ 300,000</b>	<b>\$ 300,000</b>

PROGRAM SUPPORT NEEDS					
Annual Needs					
Research Support/Grants Spt	\$ -	\$ 73,150	\$ 73,150	\$ -	\$ -
Student Support	\$ 62,480	\$ 124,960	\$ -	\$ -	\$ -
Ftes	1.0	3.0	1.0	0.0	0.0
<b>Total Annual Needs</b>	<b>\$ 62,480</b>	<b>\$ 198,110</b>	<b>\$ 73,150</b>	<b>\$ -</b>	<b>\$ -</b>
One-Time Funding Needs					
Research Facility Needs	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
Teaching & Learning Spaces	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Climate/Professional Development	\$ 20,000	\$ -	\$ 20,000	\$ -	\$ -
<b>Total One-Time Funding Needs</b>	<b>\$ 820,000</b>	<b>\$ 800,000</b>	<b>\$ 820,000</b>	<b>\$ 800,000</b>	<b>\$ 800,000</b>

# Strategic Planning Process

This strategic plan has been completed over the last year through an interactive process. Draft one was developed by the Vice President's Administrative Cabinet through ongoing consultation with the department chairs and school directors.

Early in the process (November 2007), members of the college's Agriculture Faculty Council reviewed the first draft and provided their input. The subsequent draft was reviewed by undergraduate student leaders and the Vice President's Staff Advisory Council (in late November and early December 2007). Following these meetings further revisions were made.

In mid-January 2008, the Vice President and Dean solicited input from graduate student leaders. Later in January, town meetings were held in Columbus and Wooster with an open invitation for participation. Also in late January, the plan was reviewed with the CFAES Alumni Board. In late February, the current revision of the document was shared with the Vice President's Advisory Council.

Following feedback from the Office of Academic Affairs (OAA), the Cabinet, Chairs, and School Directors have held multiple meetings as we have substantially revised the plan based on the feedback from OAA. In addition, the Vice President and Dean has consulted with a smaller group of external stakeholders several times. Also, a committee of highly regarded faculty and staff leaders offered their input to the plan as it has evolved.

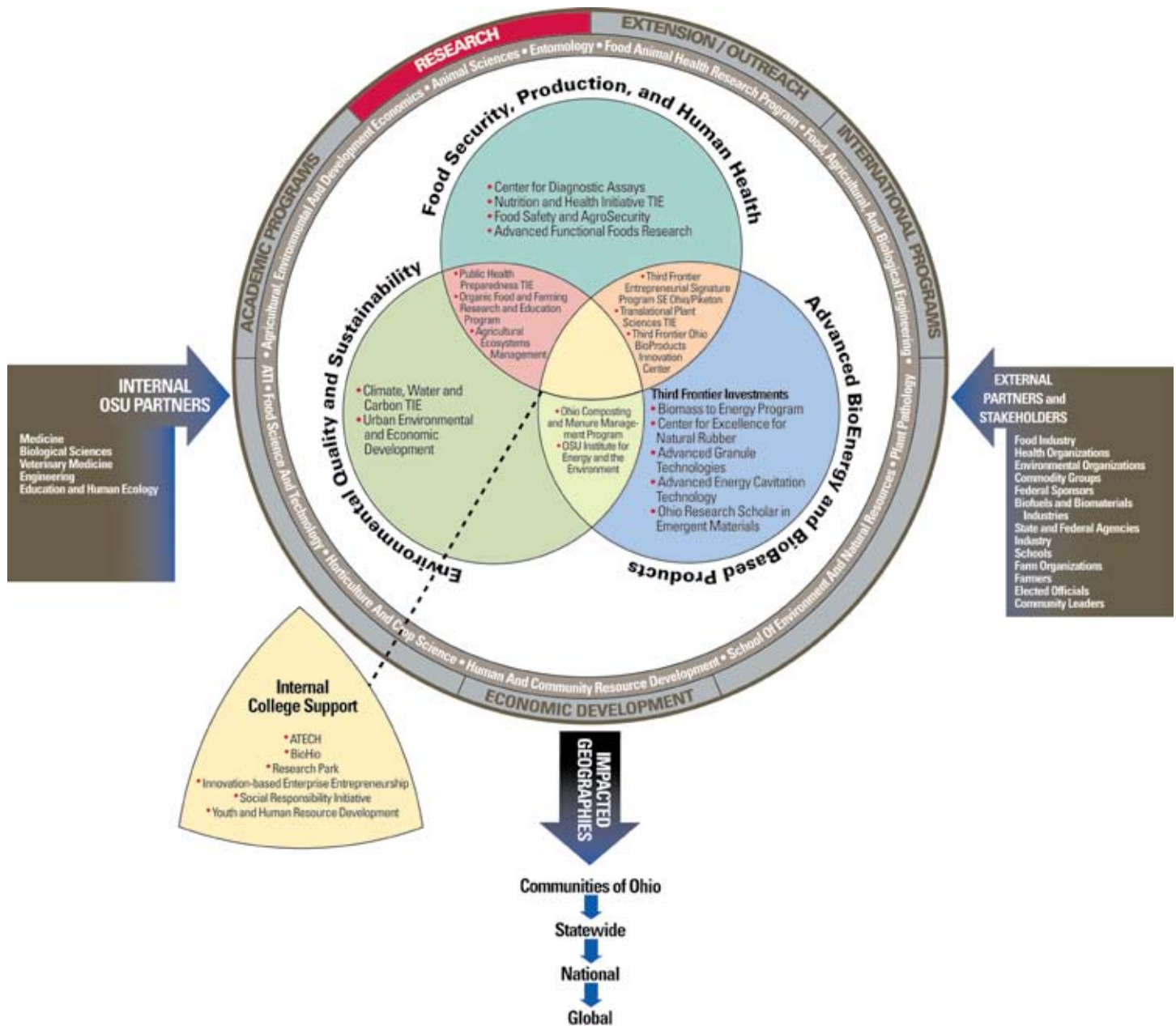
The strategic change in the college had started before the creation of this document. Progress in the development of the signature areas has already been rapid and significant. Our strategic initiatives, programs, and resource allocations are already being brought into alignment with the signature areas. CFAES's Centers of Innovation, associated Third Frontier centers, and funded university Targeted Investments in Excellence (TIEs), have specifically been developed within each of the signature areas. Furthermore, our education programs at the undergraduate and graduate levels are being evaluated for their alignment to the needs and opportunities presented by these signature areas, as are the operations of OSU Extension.

Over the past fifteen years, CFAES has established a legacy of continuous renewal and innovative responsiveness to changes in the food, environmental, and agricultural industries and in higher education. Since 2003–04 our planning has been guided by detailed assessment of core competencies and convergence with developing market opportunities. Our work in this regard has been supported by detailed and independent external analysis and strategic planning performed on our behalf by Battelle. This five-year Strategic Plan is an outgrowth of this effort and continues the college's pursuit of preeminence.

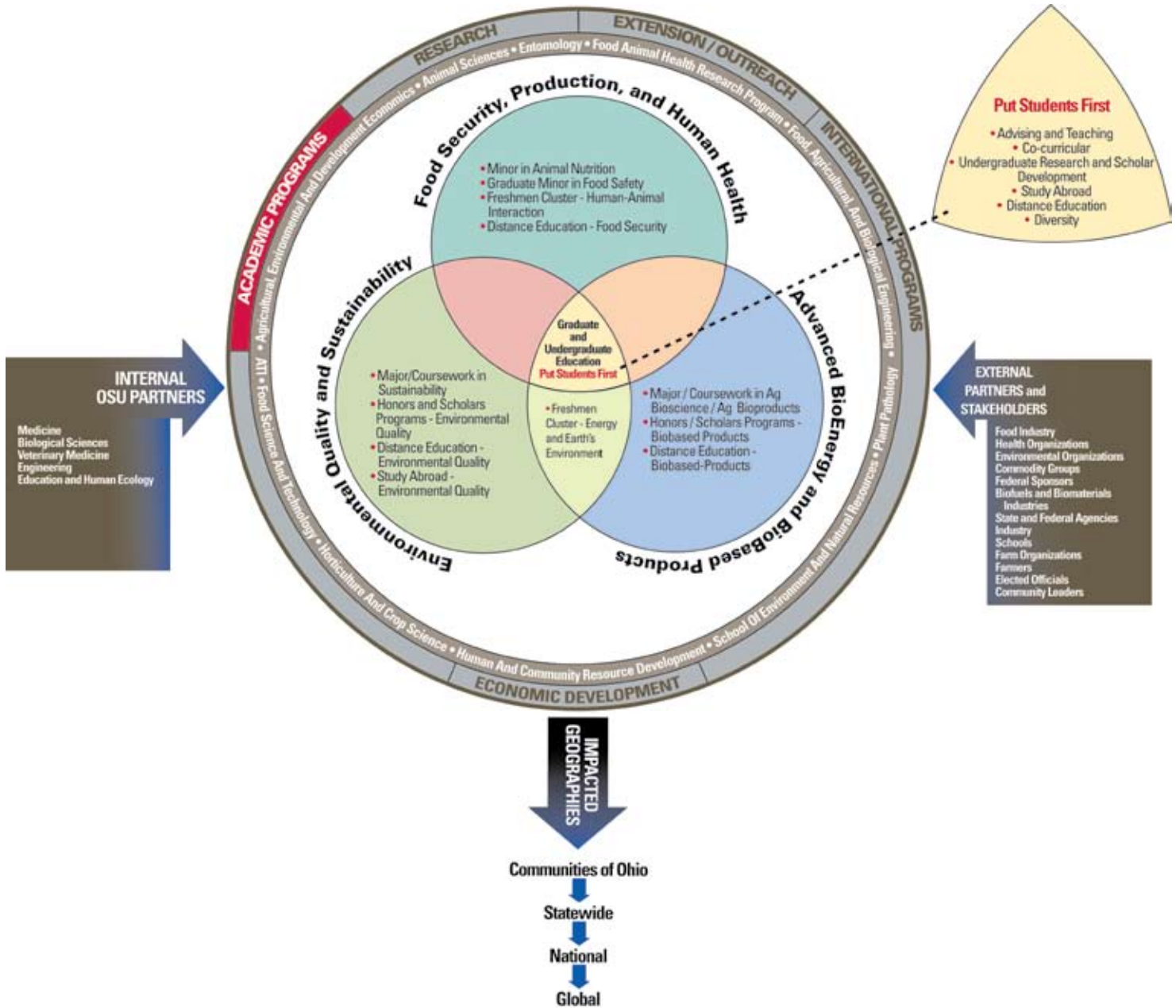
# Addendum

## Appendix A

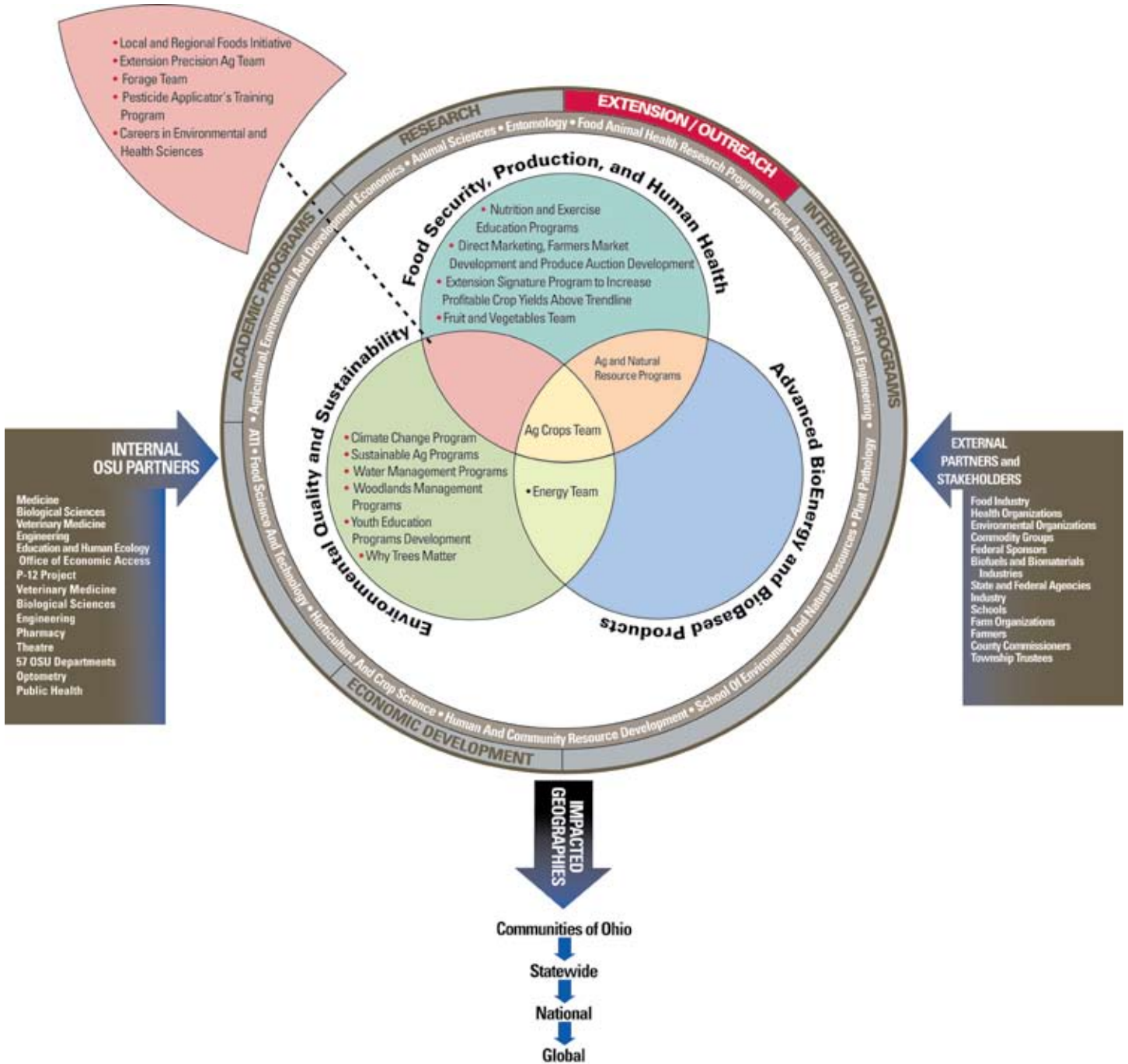
### Research: Signature Area Implementation



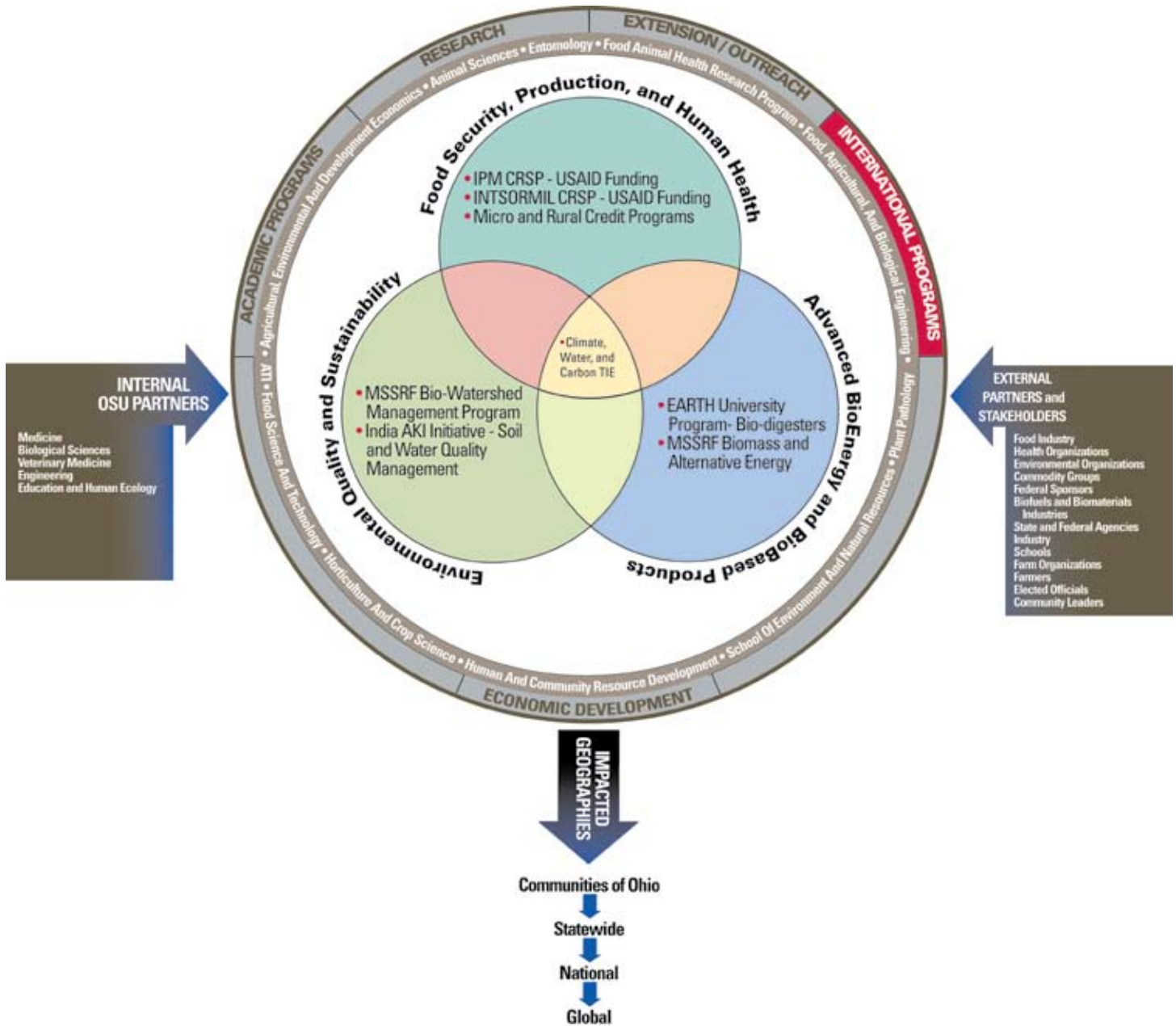
# Academic Programs: Signature Area Implementation



# Outreach: Signature Area Implementation



# International Programs: Signature Area Implementation



## Appendix B

# Our Response to Past Financial Shortfalls

The college is quite proud that our overall financial position is quite stable and that we have remained financially solvent in spite of significant challenges in state funding. To accomplish this required a variety of bold actions.

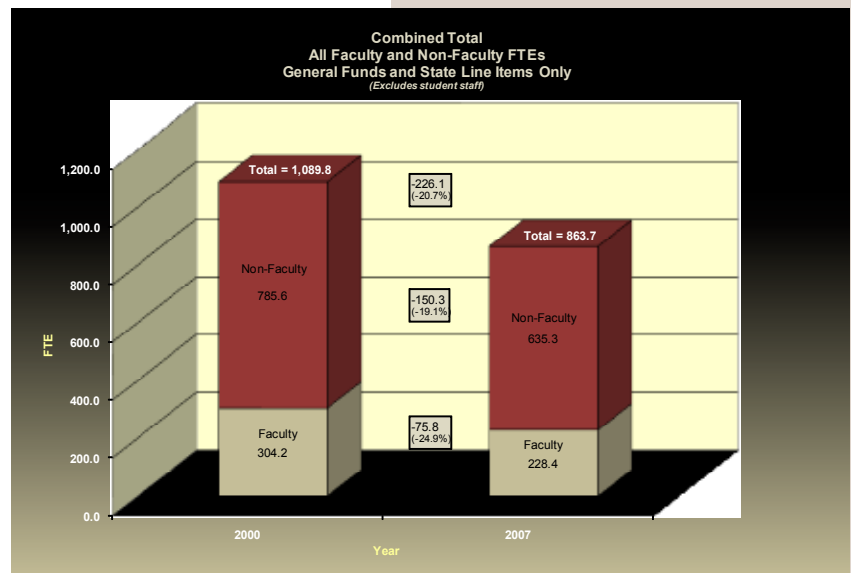
Since FY2000, our state line item funding has experienced several significant decreases especially in FY2002, FY2003, and FY2004 when they were reduced by a combined \$6.7 million. Some of these dollars were reinstated in FY2005 but were targeted for specific initiatives such as our ATECH program. Today, FY2008 funding is barely higher than FY2000 funding. Nevertheless, the impact of the loss of allocated funds has been somewhat ameliorated by our success in growing extramural funds.

Our general funds budgets have increased some, but usually not enough to cover the costs of compensation increases, which has resulted in the implementation of budget reductions to our various units.

Since FY2000, the college has decreased the number of staff funded by its state line items and general funds budget by 150, or 19%. We have decreased the number of faculty funded by state line items and general funds budget by 76, or nearly 25%. In the past five years, across all sources of funding, 146 faculty left due to retirements, resignations, or other reasons. Of these, only 70 positions were filled. Nearly all of these positions were redirected into one of our signature areas. These same hires are also largely responsible for our substantial research growth during the same time frame.

We have also implemented numerous other reductions and initiatives, such as:

- OSU Extension has streamlined its administrative operations from regions to centers to the dissolution of centers.
- In FY2003, OSU Extension initiated an extensive cost-recovery plan for services, publications, and workshops that had historically been provided for free, but which were beyond the mission-oriented activities funded by the state.
- Several programs were expected to become self-supporting. When they were unable to do so, they were eliminated.
- Hiring freezes and hiring caps have been implemented when needed. Typically faculty positions have not been authorized until departments were able to demonstrate how they could implement various levels of budget reductions.
- Separation incentives have been implemented twice and have reduced costs for many of our areas.
- Space is under review and several units have elected to eliminate square footage.
- Performance measures have resulted in base budgets being allocated differentially. For example, departmental general funds adjustments have ranged some years from -10% to +14%. The college has implemented similar reductions for its line-item funding.
- A variety of other more detailed actions have also been taken.





COLLEGE OF  
FOOD, AGRICULTURAL, AND  
ENVIRONMENTAL SCIENCES