College of Agriculture and Life Sciences

Response to Provost’s Request for Unit Strategic Plans
Amending the CALS Strategic Plan for 2005-2009 and Adding Performance Measures
July 28, 2008

Overview
This report is in response to a June 16, 2008 memorandum from Provost Hay on college strategic plans. Specific requests included:

- Develop a college strategic plan that is consonant with the university strategic plan (the four goals of the 2009-2013 plan are listed in the memo).
- Identify college-level metrics for university goals and for any more focused college goals. While these metrics may deviate slightly from the university plan but they must align with and advance the university plan, but colleges can also focus on unique elements that distinguish the college.
- Identify 3-5 benchmarks for each of four directives (there was no indication of the preferred number of metrics for each goal so we used 3-5).
- The college strategic plan will be framed by a narrative that describes the context of the college.
- The college plan will address all four directives in the context of the college (demonstrate increased student success, advance faculty success, expand philanthropic success, and extend community engagement and outreach).
- College evaluations and budget allocations will be tied to the benchmarks identified in this response.

CALS has amended its 2005-2009 strategic plan to be consonant with the current university plan. Those changes, as well as identification of metrics for college goals and benchmarks for the Provost’s directives are included in this report. The college and its programs are described, including snapshots comparing CALS with other University of Arizona colleges (Attachment 1) and detailed characteristics of CALS (Attachment 2). Performance measures (guidelines, metrics, and benchmarks) are listed in Attachment 3. The full CALS 2005 Strategic Plan (and a short version) is located at [http://cals.arizona.edu/dean/planning](http://cals.arizona.edu/dean/planning).

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Amending the CALS Strategic Plan

The current CALS Strategic Plan was developed in 2005 for a 5-year period. It was designed to have the same mission and goals as the then University of Arizona Strategic Plan. However, the university has changed its strategic plan annually and we have amended our plan so we will again have the same mission and goals as the current university plan, but with one additional goal. This makes us in sync with the university plan on both mission and goals.

The current CALS Strategic Plan includes contextual materials (including driving forces of change, Arizona issues, basic characteristics of the future, assumptions, near certainties, uncertainties, and implications of the external environment to CALS). These contextual materials are not duplicated here but are important for any understanding of why our Strategic Plan is in the current form. The plan also includes details on implementation, guiding principles for making decisions, assessment criteria, and performance indicators; these are repeated in this report because the Provost’s memo focuses in these areas.

This report has been posted to the college planning web site (http://cals.arizona.edu/dean/planning), along with a short version that includes only the plan amendments. All employees will be notified of these changes through the CALS Weekly Bulletin (electronic) and appropriate newsletters.

Mission, Values, and Goals

Mission (updated - this is now the same as the 2009-2013 University of Arizona mission):

The mission of the College of Agriculture and Life Sciences is to improve life for the people of Arizona and beyond through education, research, creative expression and community engagement.

Values (unchanged from 2005 CALS Strategic Plan)

These were similar to an earlier university strategic plan and we retain them. The university plan no longer identifies values.

- Mutual Respect in a Diverse and Inclusive Community
- Excellence
- Innovation and Entrepreneurial Action
- Integrity
- Partnerships

Goals (updated - these are now the same as the 2009-2013 University of Arizona goals):

- Prepare Arizona's Youth and Ensure Access and Opportunity.
- Engage and Graduate Students Who Can Contribute to the State, Nation and World.
- Provide World-Class Research That Improves the Human Condition in Arizona and Beyond.
- Partner With and Serve the People of Arizona.

New CALS goal:

- Manage for Effectiveness (see page 8 for text of this goal).

Programs and Performance Measures

Program Title Change

- Program #1 was changed by adding the word “energy” in the title and description. (see page 4 for new wording and a list of all six program areas).

Specific Performance Measures Added

- Metrics and Benchmarks were added at the request of the Provost. We defined metrics as the measures of change for goals (historical information) and benchmarks as a way of comparing directions of future progress in relation to the “Provost’s directives” (see page 9 for directives).
- See “The Role of Performance Measures in an Uncertain and Changing World” on page 10 for reasons why we addressed benchmarks in a particular way.
Summary of CALS Strategic Plan

Introduction

Our 5-year strategic plan was completed in fall 2005. Our college has an involved process for making revisions to the Strategic Plan, which includes participation by faculty, staff, professionals, campus administrative unit heads, research center directors, county extension directors, and clients. In addition, it has to be compatible with the Plan of Work we submit every five years to the U.S. Department of Agriculture (USDA). We use the planning process for both strategic direction setting and keeping our multiple participants involved and informed about our activities. CALS began its formal strategic planning process in 1990 and has updated the plan every five years; some updates are minor and some include significant changes.

The CALS strategic plan identifies six programmatic areas where the college focuses its efforts. It is a strategic plan and therefore provides the context for change and a roadmap for navigating what we anticipate for the next five year period; it specifically does not contain a long list of detailed objectives. Within our programmatic areas the relative focus will change over time and internal reallocation of existing resources is as important a financial tool as specific funding by state appropriation and sponsored projects. We update annually a 10-year budget plan, also with the aid of our stakeholders, to continually reevaluate the relative focus among our program areas.

CALS is a large and complex college, with 12 academic departments, 19 Cooperative Extension offices in the 15 counties, 9 off-campus agricultural centers, and 7 offices on American Indian Reservations. Our programs reach people in all 90 of the incorporated cities and towns in Arizona and a number of additional unincorporated communities, including those on Indian Reservations. The CALS budget is also complex, with a combination of normal state funding and federal competitive grants, but also with federal formula funds (for the Agricultural Experiment Station and Cooperative Extension), county funds (for Cooperative Extension), and commodity “check off” research support from several agricultural industries. In addition, we have specialized programs such as 4H Youth and training programs for primary and secondary teachers, short courses and seminars that educate professionals and practitioners and which result in a certificate, multiple publications (many peer reviewed) for specialized and general groups, and informational workshops and seminars held in all parts of Arizona. We have projects with other colleges of agriculture organized with oversight by the U.S. Department of Agriculture and our academic program reviews are joint with the University of Arizona and the USDA Cooperative State Research, Education, and Extension Service (CSREES). Our college has a wide range of disciplines (the national and international professional associations of our faculty number over 140) and we have over 1,000 employees when all state locations and employee classifications are included. CALS has 26 student clubs and organizations.

CALS senior administrators monitor overall performance and productivity and participate in a varied set of professional groups where comparisons among institutions are discussed informally. CALS remains in the top 5 colleges of agriculture in the country for successfully seeking competitive grants (CSREES data for all grants per scientist year) and as one of the top colleges for faculty productivity based on number and type of publications (Academic Analytics/Chronicle for Higher Education).

Our Strategic Plan Overall Framework

The plan was formulated by reviewing the external environment and how it may change in the next decade or so, and by working with various client groups within the state, with our faculty, professionals, and staff, and with our major partners – the State of Arizona and the U.S. Department of Agriculture. Our planning framework has changed over the years as we have become more concerned and watchful about the role of uncertainties and the complex issues that we will be facing as the world (and our budgets) becomes less predictable. So we developed a new framework for dealing with change and uncertainty. We believe we can continue to advance with acknowledgement that we are living a new type of world. But we need to make appropriate adjustments to live within that world and by use new ways of evaluating and managing our institutions. Our new framework is described by recognizing we are in a VUCA world and by incorporating a FAIR response to living in it. VUCA represents our framework for thinking about the future. The FAIR method is our way of an institutional response to the VUCA world.

- VUCA is volatile, uncertain, complex, and ambiguous.
- FAIR is to be flexible, agile, innovative, and responsive.
CALS Six Program Areas

At the broadest level, the college is involved in learning (undergraduate and graduate), discovery (research), engagement (extension - off-campus education and applied research), and public service. CALS is organized both along disciplinary departmental units and geographically distributed units, so the six focus areas below are the basis for programmatic budget allocations and annual program reviews, as well as a way to organize the blending of disciplines that are involved in a holistic approach to learning, discovery, and engagement. Each academic department, county extension office, or agricultural center is generally involved in more than one program area. The number in parentheses indicates the approximate FY 2008 percentage of total college personnel time allocated to each program area.

1. Environment, Water, Land, Energy, and Natural Resources (33%)
Is concerned with the issues related to protection, enhancement and sustainable use of our basic environmental resources. These are soil, air and water, energy, and the conservation, management and use of renewable natural resources including wildlife, fisheries, rangelands, forests, watersheds, flora and fauna ecosystems, and other landscapes on lands in both private and public ownership. Our emphasis on the sustainable use of natural resources and environmental protection requires attention to public policy as well as resource assessment, monitoring and management. Approaches and solutions to environmental and natural resource issues seek to involve an integration of ecological principles in the design, planning, and implementation of the management of ecosystems and landscapes.

2. Plant Systems (29%)
Addresses the production and biology of plants used for food, fiber, livestock feed, industrial products, and for environmental, aesthetic, conservation and ornamental purposes. Optimal and sustained productivity is based on best cultural management practices, the molecular genetics of plants and an understanding of molecular, plant, microbe and insect interactions. Emphasis will continue on integrated pest management, use of high value/specialty plants, and unique conditions of arid environments.

3. Family, Youth, and Community (13%)
Focuses on economic, social, psychological, and biological factors affecting individuals, families, and groups over their lifespan. The audiences include families broadly defined, Indian communities (on- and off- American Indian Reservations), and rural/urban and border living areas. Discovery (research) contributes to the knowledge and understanding of family processes and transitions, interpersonal relationships, and developmental pathways of children, adolescents, and adults. Educational and outreach programs target diverse youth, family, and community needs including such topics as effective parenting, violence prevention, resource management, responsible decision-making, the economic well-being of families and consumers in the marketplace, leadership, and access to community support systems.

4. Human Nutrition, Health, and Food Safety (11%)
These programs focus on the relationships of the life sciences to human health promotion, disease prevention and food safety. Programs use innovative interdisciplinary approaches to discovering, translating, and applying how nutrition and physical activity can prevent disease and promote good health and well-being. The safety and quality of food for human consumption is addressed by programs directed towards transportation, processing and consumer handling of food. Programs encompass a broad range of approaches from basic cellular and molecular research to clinical human research studies and educational programs. These programs enable people and communities in the state, nation and other countries to translate research based life sciences discoveries into nutrition, physical activity and food safety practices that promote health and prevent diseases.

5. Animal Sciences (9%)
Encompasses contemporary methods of biology to improve productivity and increase the quality, composition, safety, and desirability of animal products; promotes the use of integrated and long term, sustainable production systems that are compatible with arid environments; enhances genetic diversity and biological performance; and improves the health and well-being of food and companion animals.
6. Marketing, Trade, and Economics (5%)
Deals with economic analysis of natural resources including water, land, and the environment. It also contains the economic analysis and resource allocation processes of businesses, governments, and consumers. Also deals with the strategic analysis of the environments in which market participants operate—including competitive, consumer, economic, cultural, and technological environments—to create successful strategies and tactics in the global, value-added chain for food, fiber, services, and other consumer goods. The results of these efforts will impact on economic development, on the marketplace and the communities, on global trade and on natural resources and the environment.

Implementing the CALS Strategic Plan
The college implements the plan by setting priorities, working together at the college and unit levels, and by using available resources to achieve actions outlined in the plan. Since CALS is organized along discipline-based departmental units and geographically distributed units the plan keeps us on track and working toward the same goals. The plan is used as a backdrop for faculty hiring decisions, annual administrative unit reviews, academic program reviews, and preparation of our 10-year budget plan.

The following three sections contain excerpts from the CALS 2005 Strategic Plan and further identify our implementation process.

Guiding Principles for Making Decisions
The overall planning and management process should be viewed as constantly evolving, with the objective of continuous improvement, using the CALS vision, mission, and values as well as the CALS best practices for governance and the Kellogg Commission Seven Principles for Academic Reform.

Seven Principles to Guide Academic Reform from the Kellogg Commission are:
1. A learning Community
2. Access and Opportunity
3. An Education of Value
4. Containing Costs
5. Accountability
6. Meeting New Needs
7. Flexibility and Responsiveness

The Six CALS Best Practices for Governance are:
1. Create an atmosphere that fosters trust
2. Develop a collaborative attitude and participatory decision process
3. Communicate Extensively
4. Encourage informed participation and training
5. Focus on effective and efficient processes and subjects
6. Allow for flexibility in shared governance structures.

Additional CALS Guiding Principles are:
1. Review college Strategic Issues and Choices section of the Strategic Plan for general guidance.
2. Practice sustainable concepts in programs and operations.
3. Communicate in a consistent, timely and appropriate manner to all stakeholders (faculty, staff, students, constituents, and the public).
4. Organize and operate for flexibility, agility, innovation, responsiveness, and transparency in making and communicating decisions.
5. Maintain a strong effort at continuing to serve the public good while still pursuing entrepreneurial activities and partnerships with others, on- and off-campus.
6. Match intended behavior patterns with appropriate rewards and evaluation structures and processes.
7. Participate in shared governance practices in leading and managing the college.
8. Apply best practices as defined for appropriate areas (e.g., instruction, mentoring, staff and leadership development, shared governance, support services, communication, continuous improvement).

**Assessment Criteria**

Formal periodic assessments are conducted in concert with the University of Arizona academic program reviews, USDA Cooperative State Research, Education and Extension Service (CSREES) reviews, and the annual CALS departmental planning and resource reviews. These assessments are used to determine new directions, priority setting, and resource allocations among the six programmatic focus areas. Academic program assessments also evaluate each unit in relation to a set of comparative institutions, and consider relative changes in the demand for its services in learning, discovery, and engagement/outreach. In addition to these assessment methods, the college obtains input on programs from advisory boards associated with county extension offices, agricultural centers and various academic departments. Periodic statewide surveys and stakeholder feedback sessions are conducted to determine current needs, how well goals were accomplished, and program acceptance and impact.

On a periodic basis or when budget or other circumstances dictate, the college will make modifications in the directions taken by CALS. Informal analyses will be completed in addition to the above formal assessments. These will be directed to the future of specific programs and are based upon the following criteria:

1. Relevance to college mission and strategic plan.
2. Undergraduate education needs and relevance of the curriculum.
3. Unique academic programs (including interdependence or duplication).
4. Extent of collaborative and cooperative efforts.
5. State needs or unique geographical emphasis.
6. Existing strengths and weaknesses.
7. Developments in new knowledge for the discipline.
8. Availability of space and other non-financial resources.
9. Possible impact of any changes as they relate to other units.
10. Student outcomes assessments results as affecting programmatic changes.

**Performance Indicators (From Original CALS 2005 Strategic Plan)**

Progress toward college goals will be measured by the performance indicators listed below. As conditions change, the specific indicators may also change. Some of these indicators are done periodically and some are in a narrative format.

1. Number and types of changes in learning, discovery, and engagement/outreach programs.
2. Number of partnerships and cooperative arrangements initiated, existing, and concluded.
3. Placement rate and positions for undergraduate and graduate students.
4. Number of awards and honors and leadership positions acquired by students, faculty and staff.
5. Stakeholder surveys and meetings for program value, impact, and quality.
6. Use of effective communication methods and their acceptance by stakeholders.

These performance indicators, along with the new performance measures listed in Attachment 3 serve as an alerting mechanism for further review. When such a more detailed review is appropriate it will follow the assessment criteria listed above.

**CALS Goals and Provost's Directives Relative to Metrics, Benchmarks, and Peers**

The Provost's request for metrics to address goals and for benchmarks to address directives represents a change in the way CALS develops and uses its strategic plan. The specific metrics and benchmarks are listed in Attachment 3; also included in Attachment 3 is a description of some important factors in evaluation but that are not easily converted into numerical entries. Partly this is because we have not been collecting some of this information and partly because it is not easily accessible with existing university data systems or procedures. Appendix 3 also includes a listing of some indicators of progress that are already at maximum so they are not included in the lists of metrics and benchmarks.
We developed our listing of metrics for the goals by reviewing the 2009 University of Arizona Strategic Plan and reviewing our college-level peer institutions. This exposed us to a range of formats and we selected one that was comfortable with us, was used by a majority of our peers, and addresses the intent of the Provost’s memorandum.

**Identifying our Peer Institutions**
The process we used to identify peers is:

- Review all University of Arizona peer institutions that are land-grant (9 of the 15 UA peers).
- Review CSREES data for all colleges of agriculture for similarities in research activities.
- Compare faculty productivity for CALS disciplines with all other land grant universities (through Academic Analytics).
- Remove UA land grant peers that are not applicable (UC Berkeley, U Minnesota, U Missouri).
- Add land grant universities that have colleges of agriculture or state conditions which are sufficiently similar to our college and our conditions (University of California [Davis], Oregon State, and Washington State).

This final list contains six institutions from the UA Peer list (indicated by *) and three that are not UA peers, for a total of 9.

1. Michigan State University*
2. Ohio State University*
3. Oregon State University
4. Texas A&M University*
5. University of California, Davis
6. University of Florida*
7. University of Illinois*
8. University of Wisconsin*
9. Washington State University

We understand the Arizona Board of Regents is preparing a new peer study for the three universities so the above listing of peer may have to be reevaluated. However, we have done comparisons ourselves and these institutions seem quite reasonable for our peers. This peer listing is included in the amendment of the CALS Strategic Plan.

**Identifying Our (New) Performance Measures**
Our philosophy has been to not submerge the strategic issues identified in strategic plans by including too many operating details. We therefore selected our metrics and benchmarks based on several criteria:

- Supports CALS and University of Arizona goals.
- Relevant to the college and meaningful in relation to our strategic choices, values, and goals.
- Supports the uniqueness of the college and its role in Arizona.
- Considers the availability of data and the ease of obtaining it in a form we can use easily.
- Enhances the “big picture” by looking at a range of related but different factors.
- Supporting data are relatively easy to obtain on a continuing basis.

**Organizing Our Metrics and Benchmarks**
Following the Provost’s instructions, we structured our metrics to address goals and to show the history of each particular metric; we also indicated the general direction the metric is moving. We then took a subset of those metrics and applied them to the Provost’s directives, adding an indication of how we anticipate the metric to move in the future – thus it becomes a benchmark for comparing to conditions external to the college.

Our benchmarks are not intended to be numerical targets. All of our strategic planning efforts indicate that we are in a time of uncertainty and trying to achieve targets that may be beyond our control would be difficult (e.g., state budgets, federal grant availability). Rather, we have chosen to indicate the general direction we would like to see the trend move and identified methods of checking our progress (e.g., compare to peer institutions, compare to the University of Arizona as a whole, and develop an understanding of the trend and factors that influence it through
the various assessments we do on a continuing basis). The use of our new performance measures is addressed in more detail in “Introduction to CALS New Performance Measures” on page 10.

Describing CALS Goals

The first four CALS goals are identical to the four University of Arizona Goals. The fifth goal pertains only to CALS.

1. Prepare Arizona’s Youth and Ensure Access and Opportunity
   We will collaborate with educational partners (P-14) to prepare students for University success and support education in Arizona by preparing more teachers (especially in STEM fields), targeting underserved areas first. We will improve access by increasing enrollments and financial aid (both need and merit-based). And we will serve our growing student population by providing integrated state-of-the-art technological support.

2. Engage and Graduate Students Who Can Contribute to the State, Nation, and World
   We will educate all of our students to become creative, productive and engaged members of society by providing solid grounding in core skills, broad knowledge across disciplines, expertise in areas of special focus, and the ability to evaluate, integrate, and generate new knowledge. And we will respond to the state’s shortages of health care providers by expanding educational programs in those high priority areas. In doing so, we will expand course and major availability, improve retention and graduation rates, and improve our communications infrastructure.

3. Provide World-Class Research That Improves the Human Condition in Arizona and Beyond
   We will build on our national leadership in interdisciplinary and collaborative research and lead the nation in research and outreach activities that are critical to our state’s future, with particular emphasis on the following 16 areas (for CALS these 16 areas are replaced by our 6 program areas listed above): Climate, Environmental, Water and Energy Sustainability, Southwest, Native American, Borderlands, and Latin American Studies, Biosciences and Biotechnology, Optics, Space Exploration and Observation, Creative Arts, Languages and Language Acquisition, Law, Public Policy and Entrepreneurship, Biomedical and Behavioral Health, Youth Development Programs.

4. Partner With and Serve the People of Arizona
   We will contribute to the richness and vibrancy of the community, serve as an incubator and magnet for talent, develop partnerships with public, private and non-profit sector organizations, and share research with and provide direct services to the people of Arizona through technology transfer, Cooperative Extension programs, development of the Phoenix Biomedical Campus and provision of clinical health care services throughout the state.

5. Manage for Effectiveness (CALS Goal 5)
   We address a range of activities that come under the term “manage for effectiveness”. These include 1) supporting people (faculty, professionals, and staff) through involvement in separate college advisory councils, professional and leadership development opportunities, college-wide meetings, and awards for service; 2) financial realities require us to augment the base support from the State of Arizona by seeking more private funding for programs, endowed positions, scholarships, and to be more aggressive in obtaining grants and contracts; and 3) operating efficiently and effectively through transparency in governance procedures and decisions, communication with stakeholders and college faculty, professionals, and staff, and addressing continuous improvement in our management processes. Our diversity focus includes the traditional ethnic and gender components, but also includes different levels of economic well being and differing experiences and perspectives on a range of viewpoints and ideas. For a broader discussion of diversity see the UA Committee of Eleven report on diversity
Addressing the Provost’s Directives

Provost Hay provided four directives and requested the college to comment on how we might use each of these directives in contributing to the relevant university goals. She asked for 3-5 benchmarks for each directive. The comments below are the requested narrative statements. The actual measures and their benchmarks are listed in Attachment 3: CALS Performance Measures.

1. Demonstrate Increased Student Success
   CALS believes there are many factors to student success. Examples include 1) provide assessments of entering and graduating students, as well as baccalaureate students one year following graduation, and using those results to improve programs; 2) emphasize diversity factors such as gender, ethnicity, financial situation, family location, and exposure to new ideas and opportunities; and 3) be familiar with learning methods that are appropriate to today’s (and tomorrow’s) students (classroom and non-classroom).

2. Advance People Success (we modified the original term “Faculty” to be “People”)
   CALS has two types of faculty – tenure track professors and continuing track cooperative extension agents and specialists. In addition we have a large number of professionals in year to year appointments and classified staff. We have Advisory Councils to cover all these categories (faculty, professionals, staff) that provide advice to the college administration. In addition to the many operational committees, we have committees such as Diversity, Quality Management, and Millennium Oversight. We have faculty and staff meetings annually, leadership training opportunities for all categories but with a focus on faculty, and we have awards for individuals in all employee categories, including team efforts and diversity. The CALS website has this information as well as information related to purpose and membership of all college-level committees, how the college is governed, and all planning related documents. We have the electronic CALS Weekly Bulletin that is sent to all employees and any employee can submit an entry (with back copies archived). Central information technology and publications support is provided for all on- and off-campus units. While faculty are the primary source for grant submissions we also have various methods of alerting unit heads or individual faculty to special situations or large-scale/multi-department grant or contract opportunities. We have an Administrative Support office that checks all grant proposals so they pass through the Office of Sponsored Projects quickly and the college provides an environment where faculty can work with necessary flexibility in dealing with existing or new organizations and historic or new disciplines.

3. Expand philanthropic success
   CALS has an Alumni and Development Office that works in conjunction with the University of Arizona Foundation, department heads, and selected faculty to cultivate potential donors, work with alumni, and seek funding for special projects (currently endowed chairs, building campaigns, program endowments, and naming projects).

4. Extend community engagement and outreach
   CALS is unique in community engagement efforts because of our historic role in the “land-grant” university. We have different focuses in the rural counties and in the urban counties. While we do “outreach” in the form of providing information in many formats to many audience types, we are especially experienced at “community engagement”. Our interactions are more of a partnership with our clients, including state agencies, business and industry (including but not limited to agriculture), community leaders, various associations and organizations, and individual citizens. For example we direct Project Centr (Center for Rural Leadership) which has over 500 alumni in its 25 years of operation. We have many volunteers for a variety programs, including the 4H Youth and Master Gardener programs (over half the participants in each of these programs are in urban areas) and specialized reports for selected industries. The “Arizona Delivers” program and the “Science and Education Impacts” program has web-based lists of impact reports organized by subject area on what our research based information has done to change a community or industry. We have detailed metrics on volunteers and program participants that are reported to USDA annually. The greatest current effort goes to the 4H Youth area, which gives pre-college youth a chance to learn leadership and management skills as well as study specific subject areas, in their own community, with linkages and visits to the University of Arizona campus.
Introduction to CALS Performance Measures (New)

CALS continually reviews its performance in four areas: learning (teaching), discovery (research), outreach (engagement), and college management. These reviews are done in several ways:

- Annual administrative unit reviews that include unit performance, planning, management, and budget allocation (campus departments, county extension offices, and research centers).
- Annual faculty and staff reviews that include 100% of percent of faculty and staff. For faculty this includes a revision of the faculty position description, which is approved by the department head and dean; the next evaluation is based on the position description.
- Annual or more frequent program/functional reviews by associate deans using a range of metrics.
- Periodic combined UA Academic Program Reviews and USDA CSREES Program reviews (approximately each 7 years). These are led by and chaired by the USDA representative.
- Five years reviews for dean and department heads
- Budget reviews for County Cooperative Extension offices with County Board of Supervisors
- Revision of college strategic plan (approximately each five years)
- Annual performance evaluations for all faculty, professionals, and staff. Faculty revise a position description annually and are evaluated on the current description.

In addition to our university data evaluations there is a high-level series of reviews by USDA and other federal agencies (depending on the department being evaluated).

- **U.S. Department of Agriculture Current Research Information System (CRIS).** All colleges of agriculture in land grant universities provide comparative information to CRIS (part of USDA CSREES). While it can be sorted a number of ways, we use two methods in particular: 1) relative funding for eight “knowledge areas” and compare them to our six program areas, and 2) productivity measures of faculty based on amount of grant activity.

- **U.S. Department of Agriculture Plans of Work and Annual Reports.** CALS is required to submit a 5 year combined Cooperative Extension and Agricultural Experiment Station and report results annually. The annual reports include productivity information. A summary report allow CALS to compare program effort with the average of the other submissions.

- **Departmental Rankings by Faculty Scholarly Productivity Index.** The Chronicle of Higher Education evaluates disciplines annually. For the most recent year, 2007, the University of Arizona has 23 entries in the top 10 by discipline, and 8 of them are within CALS (Agriculture- various [in two categories], Plant Sciences, Soil Science, Entomology, Plant Pathology, Nutrition Sciences, and Natural Resources and Conservation). The index includes: books published, journal publications, citations of journal articles, federal grant dollars awarded, and honors and awards. Academic Analytics provide this service and independently lists universities that rank in the top 10 for productivity by discipline (by reviewing these results CALS compares itself to all land grant institutions).

The Role of Metrics and Benchmarks in an Uncertain and Changing World

The CALS Strategic Plan describes our planning framework as living in a VUCA world that requires us to have a FAIR response to be successful.

- VUCA is volatile, uncertain, complex, and ambiguous.
- FAIR is to be flexible, agile, innovative, and responsive.

Under these conditions it is a bit out of place to overly rely on historic methods of extrapolating trends and setting specific targets. For example, estimating research and development expenditures depends largely on available federal funds for grants and contracts, as well as the number of faculty involved in relevant research and the degree of competition from other institutions. At a time when funding is trending down, competition for those funds is trending up, and and state budgets are often reduced so we have faculty loses or increased teaching workloads on faculty, it becomes challenging to even maintain the levels we have already achieved.
Thinking strategically and having a meaningful and employed strategic plan, tracking progress, comparing with others, evaluating administrative units and all employees annually, are all important. Trying to create specific targets for the future is where we have concern.

Therefore our benchmarks listed in Attachment 3 are used in different ways depending on the specific type of benchmark. The analysis may be a narrative discussion or a review of our activities compared to the available budget and changes in the benchmark. Some benchmarks can be compared to other groups of institutions, but in general, at the college level, it is too difficult to get relevant and comparable data from other colleges within a university although we can do some of this through via USDA CSREES.

We reviewed several references on benchmark rationale and evaluations to better understand how best to approach this aspect of the report, and reviewed the approaches of several universities (our peers), focusing on a few formats that seemed relevant to our situation.

Concluding Observations

- CALS has amended its strategic plan by updating the mission and goals to be consistent with the university mission and goals, added performance measures as requested by the Provost, and selected a format for the measures that identifies the planned direction of change (increase, decrease, or remain about the same) while still allowing us the flexibility we believe necessary to function well in an uncertain world.

- The process of using performance measures (metrics and benchmarks) needs to function efficiently and the measures must be relevant, but not become too confusing by their sheer number or by having varied definitions among the colleges. Some of our own measures will change as the university and colleges revise their measures and as the university restructures data collection and presentation to provide necessary data for measures on a college basis. The university should make data available and the definitions clear, for the university and for each college, for desired metrics. This allows the data we use are uniform and developing them is not a burden for the colleges. This may even take the form of the university listing a number of possible measures (say 30-40) so colleges could select a portion that are most relevant to that college (say 15-20) and allowing the colleges to use some measures unique to the college (say 5-10).

- This report was prepared by the dean’s office by consulting with department heads and the faculty advisory council. Once it is accepted by the Provost, a summary and the full document will be posted on the dean’s planning web page and an announcement sent to all employees via the CALS Weekly Bulletin.

References and Attachments

References

2. University of Arizona Committee of Eleven. 2002. Diversity at the University of Arizona: Assessment and Action Options (this broadens the definition commonly used for diversity).
4. NEA and Blackboard Inc. 2000. Study Finds 24 Measures of Quality in Internet-Based Distance Learning. Report identifies 24 benchmarks, many of which are not numerical targets but checkpoints for actions taken or procedures followed. http://www.nea.org/nr/nr000321.html
5. We thought these universities had particularly relevant models for their approach to performance metrics and benchmarks: University of California (Davis), University of Illinois, Ohio State University, and Oregon State University.
### Attachment 1: Snapshot of CALS Relative to All UA Colleges

**CALS Rankings Compared to the 15 Colleges at the University of Arizona**  
July 2008

<table>
<thead>
<tr>
<th>Description</th>
<th>UA Rank</th>
<th>Definition or College Clusters</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student Related</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Baccalaureate Degrees awarded</td>
<td>4</td>
<td>All sessions</td>
</tr>
<tr>
<td>Number of Master’s Degrees Awarded</td>
<td>8</td>
<td>All sessions</td>
</tr>
<tr>
<td>Number of Doctoral Degrees Awarded</td>
<td>5</td>
<td>All sessions</td>
</tr>
<tr>
<td>Number of Undergrad Majors</td>
<td>4</td>
<td>Fall</td>
</tr>
<tr>
<td>Total SCH</td>
<td>6</td>
<td>Fall</td>
</tr>
</tbody>
</table>

**Faculty and Research Related**  
Amount of R&D Expenditures 1  Research and contracts plus indirect cost recovery  
Number of Interdisciplinary Faculty 1  GDIP, BIO5, ISPE, Joint Appointments  
Leadership development for faculty 1  4-7 faculty/year for 1-2 year programs  
Number of college awards to faculty and staff 1  Individual and team  
Number of honorary professorial titles 4  Regents and Distinguished Professors  
Number of instructional faculty 5  Tenure track faculty

**Citizen Engagement Related**  
Community involvement 1  Extension contacts and volunteers  
Citizens as advisory committee members 1  College-wide, instruction/extension/research  
Arizona citizen oriented publications 1  Peer reviewed publications  
Contacts with city/town elected/appointed 1  Project Centri, Off-campus locations

**Philanthropy Related**  
Number of endowed positions 2  Chairs, professorships (second after MED)

**CALS Clusters on IIW Standard Ratios**  
Ratio: state expenditures/major HUM, NUR, OS, PHAR, PH, SCI (25%)  
Ratio: state expenditures/degree LAW HUM, OS,SCI (25%)  
Ratio: state expenditures/SFTE LAW, OS, PH (25%)  
Percent graduate students/total ALA, FA, SBS (25%)  
Percent UG as Arizona residents EDU, FA, HUM, NUR, PH, SCI (10%)  
Percent Gen Ed/Total UG – SCH HUM, SCI (25%)  
Number All funds FTE MED, SBS (25%)

Source: UIS data from IIW, using approximately, University of Arizona Foundation,

**Notes:**
1. It is difficult to compare CALS to other colleges on commonly used ratios. CALS pays for its off-campus utility bills, has federal funding pass through, receives less indirect cost recovery per research expenditures than many colleges, and has a greater off-campus presence than other colleges.
2. CALS clusters using a plus/minus percentage range (selected to produce 2-5 colleges) was used to look for similarities on the IIW standard ratios. This too indicates how CALS is different and how it clusters differently depending on what variable is being compared. Data are for FY 2007.
3. Expenditure data is also complicated by the type of funding received for CALS activities, the amount of central administratively augmented budgets some other colleges receive, and the different types of CALS programs and locations.
4. Interdisciplinary ranking primarily a result of data on National Research Council Doctoral Program review project.
Attachment 2: Snapshot of CALS Employees and Students

Faculty Participation in University of Arizona Interdisciplinary Activities – June 30, 2008

<table>
<thead>
<tr>
<th>Category</th>
<th>GIDP</th>
<th>BIOS/ISPE</th>
<th>Joint Appt (out)</th>
<th>Joint Appt (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty T/TE</td>
<td>47</td>
<td>72</td>
<td>46</td>
<td>45</td>
</tr>
</tbody>
</table>

GIDP = Graduate Interdisciplinary Committee Program Committee, ISPE = Institute for Study of Planet Earth. Joint Appt (out) = CALS faculty with joint appointment in another UA department (other than BIO5 or ISPE); Joint Appt (in) is faculty from non-CALS departments with an appointment in CALS.

Includes only T/TE faculty as most C/CE faculty are in counties and do not have opportunities for joint appointments. Not included: service on doctoral dissertation committees out of the faculty member’s department. Not adjusted for duplicates.


Employee Status -- Employee Type and Location -- June 30, 2007

<table>
<thead>
<tr>
<th>Category</th>
<th>FT</th>
<th>PT</th>
<th>Total</th>
<th>%</th>
<th>Ag Center</th>
<th>Counties</th>
<th>Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty (T, TE, C, CE)</td>
<td>267</td>
<td>1</td>
<td>268</td>
<td>14</td>
<td>52</td>
<td>202</td>
<td></td>
</tr>
<tr>
<td>Academic Professionals (YY)</td>
<td>175</td>
<td>41</td>
<td>216</td>
<td>7</td>
<td>5</td>
<td>204</td>
<td></td>
</tr>
<tr>
<td>Classified Staff</td>
<td>471</td>
<td>175</td>
<td>646</td>
<td>113</td>
<td>131</td>
<td>402</td>
<td></td>
</tr>
<tr>
<td>Graduate Assistants</td>
<td>0</td>
<td>223</td>
<td>223</td>
<td>2</td>
<td>0</td>
<td>221</td>
<td></td>
</tr>
<tr>
<td>Student Wages</td>
<td>5</td>
<td>329</td>
<td>334</td>
<td>6</td>
<td>8</td>
<td>320</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>918</td>
<td>769</td>
<td>1,687</td>
<td>142</td>
<td>196</td>
<td>1,349</td>
<td></td>
</tr>
</tbody>
</table>

FT = Full time, PT = Part time. Full time faculty as percent full time employees: 29. Total classified staff as percent total employees: 38. Off-campus employees as percent total employees: 20. Ag Centers, Counties, and Campus. Total is the total employees for each category.

Source: CALS Administrative Services using UIS data.

Employee Status – Gender, Diversity, and Age - June 30, 2007

<table>
<thead>
<tr>
<th>Category</th>
<th>% Female</th>
<th>% Minority</th>
<th>Average Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty (T, TE, C, CE)</td>
<td>31</td>
<td>12</td>
<td>52</td>
</tr>
<tr>
<td>Academic Professionals (YY)</td>
<td>41</td>
<td>31</td>
<td>46</td>
</tr>
<tr>
<td>Classified Staff</td>
<td>63</td>
<td>31</td>
<td>44</td>
</tr>
<tr>
<td>Student Workers</td>
<td>62</td>
<td>31</td>
<td>24</td>
</tr>
<tr>
<td>Administrators*</td>
<td>37</td>
<td>8</td>
<td>55</td>
</tr>
</tbody>
</table>

* Administrator defined as director of school, agricultural center, county office, head of department, or with title of associate/assistant dean.

Source: CALS Administrative Services using UIS data.
Attachment 3: CALS Performance Measures

Defining Performance Measures: Metrics (for goals) and Benchmarks (for provost’s directives)

Metrics: historical performance as measured by specific numbers.

Benchmarks: directions of future performance or level of achievement. This may be in narrative format, relative rankings, or comparison with other organizations on relevant criteria.

About half of our measures listed for CALS goals are drawn from those of the University of Arizona 2009-2013 Strategic Plan and about half are focused on the unique areas of CALS or areas we wish to emphasize.

Our strategic plan indicates we believe our operating environment is going to be complex and uncertain, and we plan to address this by being flexible and agile, even in the face of constraints in state or federal budgets (and grant funds). We have experience with the impacts on our activities by faculty losses and hiring freezes and we therefore are not identifying specific targets as benchmarks. For example, simply retaining a competitive position in research expenditures might take a significant effort and thus is better measured by comparing to what other institutions were able to accomplish than trying to reach a target identified by a trend extrapolation of past data.

Our progress will thus be evaluated using four primary comparative sources, depending on what is being compared and the feasibility of obtaining data at the college level:
- University of Arizona performance relative to CALS performance.
- U.S. Department of Agriculture CSREES/CRIS database for a range of variables that apply to all colleges of agriculture in land grant institutions.
- Departmental or discipline rankings prepared by recognized groups (e.g., USNews, Chronicle of Higher Education, Academic Analytics).
- Relevant information from individual colleges of agriculture when available and appropriate.

Definitions and Sources of Performance Measures

The primary data source for our performance measures was the University Information System (UIS): these data were accessed through the Integrated Information Warehouse (IIW), the University of Arizona Fact Book, the Office of Institutional Research and Planning Support, web pages for selected University of Arizona programs or institutes, or through direct query of UIS through CALS Administrative Services. Definitions used in the IIW are at http://meta.data.arizona.edu/metadata/iiw_metadata/

The CALS goals are identical to the University of Arizona goals, but with the addition of one goal. We selected metrics for these goals, where applicable, from University of Arizona metrics as listed in the UA 2009-2013 Strategic Plan (version 12/21/07), providing about half the total metrics.

The CALS benchmarks are subsets of the metrics used to address the goals, taking about half the of the metrics. Metrics indicate the 5-year history. The benchmarks look forward and indicate the direction of the anticipated trend as well as a description of the type of change. This way each benchmark also has the 5 year performance history.

We also included some general measures that are not formally presented as metrics or benchmarks. However we thought these measures would be of interest to the reader and further clarify how the college has been performing assessments and evaluations.

The following pages are spreadsheets that identify our 18 metrics and 12 benchmarks, plus supporting data:
- CALS Metrics for Five UA/CALS Goals (one page).
- CALS Benchmarks for Provost’s Four Directives (one page).
- CALS Basic Data That Indirectly Support Metrics and Benchmarks (one page).
### CALS Metrics for Five CALS Goals (Historical Performance)

<table>
<thead>
<tr>
<th>In Plan</th>
<th>Grouped by CALS Goal and Metrics Measure</th>
<th>Trend</th>
<th>FY 03</th>
<th>FY 04</th>
<th>FY 05</th>
<th>FY 06</th>
<th>FY 07</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA</td>
<td>Prepare Arizona's Youth and Ensure Access and Opportunity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>1. Number of 4H Youth members in CALS program</td>
<td>↑</td>
<td>139,372</td>
<td>107,916</td>
<td>70,199</td>
<td>56,102</td>
<td>92,186</td>
</tr>
<tr>
<td>*</td>
<td>2. Number of youth educators participating in CALS training sessions</td>
<td>↑</td>
<td>528</td>
<td>738</td>
<td>652</td>
<td>737</td>
<td>2609</td>
</tr>
<tr>
<td></td>
<td>Engage and Graduate Students Who Can Contribute to the State, Nation and World</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>3. Six year graduation rate (percent)</td>
<td>↑</td>
<td>Fresh entering 2001: CALS 59%, UA 56%. Both trends</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Number of college-specific scholarships available</td>
<td>↑</td>
<td>117</td>
<td>146</td>
<td>151</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Percent Placement of baccalaureate graduates (after 1 year)</td>
<td>↑</td>
<td>95</td>
<td>94</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Net migration of undergraduate students into CALS from other UA colleges</td>
<td>↑</td>
<td>82</td>
<td>163</td>
<td>130</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide world-class research that improves the human condition in Arizona/beyond</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>7. Amount of R&amp;D (grants and contracts) expenditures (000)</td>
<td>↑</td>
<td>$36,486</td>
<td>$43,221</td>
<td>$40,347</td>
<td>$39,854</td>
<td>$41,043</td>
</tr>
<tr>
<td>*</td>
<td>8. Members, National Academy of Sciences (including joint but not emeritus)</td>
<td>↑</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>*</td>
<td>9. Number distinguished and regents professors (joint but not emeritus)</td>
<td>↑</td>
<td>7</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>10. Number of patent applications filed and disclosures</td>
<td>↑</td>
<td>30</td>
<td>25</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Partner with and serve the people of Arizona</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11. Number of Arizona peer-reviewed publications focused on Arizona audiences</td>
<td>↑</td>
<td>38</td>
<td>32</td>
<td>46</td>
<td>76</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>12. Number of Arizona volunteers for CALS county programs</td>
<td>↑</td>
<td>14,262</td>
<td>10,265</td>
<td>10,904</td>
<td>11,418</td>
<td>9,182</td>
</tr>
<tr>
<td></td>
<td>13. Number of Arizona volunteer hours for CALS county programs</td>
<td>↑</td>
<td>215,873</td>
<td>130,385</td>
<td>109,762</td>
<td>123,246</td>
<td>98,008</td>
</tr>
<tr>
<td>*</td>
<td>14. Number of Arizona citizens attending CALS educational activities</td>
<td>↑</td>
<td>250,032</td>
<td>194,893</td>
<td>205,997</td>
<td>209,815</td>
<td>254,525</td>
</tr>
<tr>
<td></td>
<td>Manage Effectively</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15. Percent women administrators</td>
<td>↑</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16. Number of college awards to faculty, professionals, and staff</td>
<td>↑</td>
<td>19</td>
<td>20</td>
<td>33</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>*</td>
<td>17. Number (total) of endowed positions (chairs, professorships)</td>
<td>↑</td>
<td>4</td>
<td>5</td>
<td>10</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>18. Amount of annual donations and gifts to endowment (000)</td>
<td>↑</td>
<td>$3,548</td>
<td>$4,694</td>
<td>$16,359</td>
<td>$10,627</td>
<td>$10,440</td>
</tr>
</tbody>
</table>

**Notes:**
1. 4H Youth program is urban and rural and provides organizational skills and disciplinary education. Programs allow participants to have ties to the University of Arizona.
2. Number of youth educators includes Project WET (Water Education for Teachers) and TCAI (Take Charge America Institute) Consumer Financial Education and Research (began in summer 2006). Both programs involve workshop/training formats for educators.
3. R&D numbers are less than those formally reported by NSF R&D Expenditures because of different items included.
4. Data from UIS (UA), APROL (CALS), web pages for CALS and NAS, and CALS Administration Services
These benchmarks are a subset of the Metrics under Goals. The number in the left column refers to the relevant metric under goals.

All entries, where possible, will be compared to other institutions/sources. These include:
CALS peer institutions, CSREES comparative data for all colleges of agriculture, and the University of Arizona
In addition, the trend arrow and description of benchmark activity is shown for what we anticipate in the next 3-5 years. Because of the uncertain times it may take aggressive effort to maintain our current level of achievement.

<table>
<thead>
<tr>
<th>Grouped by Provost’s Directive</th>
<th>Anticipated Trend</th>
<th>Description of benchmark activity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demonstrate Increased Student Success</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Number of 4H Youth members in CALS program</td>
<td>➤</td>
<td>Maintain at current range or slight increase</td>
</tr>
<tr>
<td>5 Percent placement of CALS baccalaureate graduates (after 1 year)</td>
<td>➤</td>
<td>Maintain at current range or slight increase</td>
</tr>
<tr>
<td>6 Net migration of undergraduate students into CALS from other UA colleges</td>
<td>➤</td>
<td>Maintain at current range or slight increase</td>
</tr>
<tr>
<td><strong>Advance People Success</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Number distinguished and regents professors (joint but not emeritus)</td>
<td>➤</td>
<td>Maintain at current range or slight increase</td>
</tr>
<tr>
<td>15 Percent women administrators</td>
<td>➤</td>
<td>Maintain at current range or slight increase</td>
</tr>
<tr>
<td>16 Number of college awards to faculty, professionals, and staff</td>
<td>➤</td>
<td>Maintain at current range or slight increase</td>
</tr>
<tr>
<td><strong>Expand Philanthropic Success</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Number of college-specific scholarships available</td>
<td>➤</td>
<td>Increase or at least hold own in this financial climate</td>
</tr>
<tr>
<td>17 Number of total endowed positions (chairs, professorships)</td>
<td>➤</td>
<td>Increase or at least hold own in this financial climate</td>
</tr>
<tr>
<td>18 Amount of annual donations and gifts to endowment</td>
<td>➤</td>
<td>Increase or at least hold own in this financial climate</td>
</tr>
<tr>
<td><strong>Extend Community Engagement and Outreach</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Number of Arizona peer-reviewed publications focused on Arizona audiences</td>
<td>➤</td>
<td>Maintain at current range or slight increase</td>
</tr>
<tr>
<td>12 Number of Arizona volunteers for CALS county programs</td>
<td>➤</td>
<td>Maintain at current range or slight increase</td>
</tr>
<tr>
<td>14 Number of Arizona citizens attending CALS educational activities</td>
<td>➤</td>
<td>Maintain at current range or slight increase</td>
</tr>
</tbody>
</table>

**Notes**
1. Anticipated trends for benchmark activity based on background information found in CALS 2005 Strategic Plan and reviewing external environment and university budget trends.
CALS Basic Data That Indirectly Supports Metrics and Benchmarks

College of Agriculture and Life Sciences

These data are collected routinely to provide basic data. They inform decisions but are not specifically identified as a metric or benchmark. In addition, some activities are already at 100% and therefore are not identified as metric or benchmark but are listed here as information.

### Students

<table>
<thead>
<tr>
<th>Metric</th>
<th>Trend</th>
<th>FY 03</th>
<th>FY 04</th>
<th>FY 05</th>
<th>FY 06</th>
<th>FY 07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of degrees awarded — Baccalaureate</td>
<td>495</td>
<td>442</td>
<td>481</td>
<td>467</td>
<td>445</td>
<td></td>
</tr>
<tr>
<td>Number of degrees awarded — Masters</td>
<td>63</td>
<td>76</td>
<td>80</td>
<td>55</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>Number of degrees awarded — Doctoral</td>
<td>33</td>
<td>25</td>
<td>38</td>
<td>40</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Percent female students</td>
<td>68</td>
<td>69</td>
<td>70</td>
<td>69</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>Percent minority students</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Percent undergraduate students that are Arizona residents</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>77</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>Percent graduate students</td>
<td>19</td>
<td>19</td>
<td>18</td>
<td>17</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

### Arizona Citizens Reached on Nutrition Programs (face to face)

<table>
<thead>
<tr>
<th>Program</th>
<th>FY 03</th>
<th>FY 04</th>
<th>FY 05</th>
<th>FY 06</th>
<th>FY 07</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFNEP Families (Expanded Food and Nutrition Education Program)</td>
<td>3,436</td>
<td>4,083</td>
<td>3,249</td>
<td>3,313</td>
<td>2,959</td>
</tr>
<tr>
<td>EFNEP Number persons in families</td>
<td>13,382</td>
<td>15,828</td>
<td>12,650</td>
<td>12,569</td>
<td>10,361</td>
</tr>
<tr>
<td>FSNEP Children (Food Stamp Nutrition Education Program)</td>
<td>30,033</td>
<td>12,532</td>
<td>14,567</td>
<td>60,454</td>
<td>51,536</td>
</tr>
<tr>
<td>FSNEP people reached in community events</td>
<td>13,680</td>
<td>13,126</td>
<td>22,370</td>
<td>73,453</td>
<td>210</td>
</tr>
</tbody>
</table>

### Faculty Participation in Interdisciplinary Programs

- Number of interdisciplinary faculty (GIDP, BIO5, ISPE, Joint Appt)

### Activities where the metric is 100% and is therefore not listed under goals or benchmarks

- Undergraduate Students
  - Percent receiving mandatory advising each semester: 100%
  - Percent sent 2 year after graduation a follow-up questionnaire: 100%
  - Percent participating in exit questionnaire upon graduation: 100%

- People (CALS Employees)
  - Percent sent electronic copy of CALS Weekly Bulletin: 100%
  - Percent faculty revision position description annually: 100%
  - Percent faculty evaluated annually: 100%
  - Percent staff evaluated annually: 100%
  - Percent faculty completing annual performance report/evaluation: 100%

### Notes:

1. Data from UIS, IIW,CALS-APROL.
2. The citizens reached with nutritional programs is given as an example; there are other audiences reached but this is representative.