

**DEPARTMENT OF
AGRICULTURAL AND
RESOURCE
ECONOMICS**

STRATEGIC PLAN

2024-2030



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NC STATE AGRICULTURAL AND RESOURCE ECONOMICS

2024-2030

VISION

Through impactful research, teaching, and extension, ARE will partner with its stakeholders to address the grand agricultural and resource economic challenges facing our state, nation, and world.

MISSION

ARE conducts timely and impactful research on the economics of agriculture and natural resources, equips students with the practical skills needed for professional success, and provides research-based knowledge and decision-making tools that promote the welfare of its stakeholders in North Carolina and beyond.

MISSION AREAS

★ RESEARCH

★ UNDERGRADUATE PROGRAM

★ GRADUATE PROGRAM

★ EXTENSION

STRATEGIC FOCUS AREAS

Amplifying Our Impact
Through Innovative Programs
and Partnerships

- Strengthen collaboration among faculty, staff, students, and external stakeholders
- Communicate our impact to internal and external partners
- Empower students and faculty to publish award-winning research

Preparing Students for
Professional and Personal
Success

- Equip students with the skills to enter and succeed in the workforce
- Create opportunities for students to learn more about professional opportunities
- Revise and update curriculum regularly

Fostering Sustainable Growth
and Nurturing a Productive
Work Environment

- Recruit and retain excellent faculty and staff
- Identify and pursue opportunities that foster growth and sustainability
- Cultivate a collaborative and collegial departmental culture



Overview

The Department of Agricultural and Resource Economics (ARE) at NC State developed this strategic plan to define its core identity, clarify its mission, and outline its vision through 2030. The plan identifies key focus areas and provides a clear, adaptable roadmap that can respond to changing circumstances and opportunities.

Vision

Through impactful research, teaching, and extension, ARE will partner with its stakeholders to address the grand agricultural and resource economic challenges facing our state, nation, and world.

Mission

ARE conducts timely and impactful research on the economics of agriculture and natural resources, equips students with the practical skills needed for professional success, and provides research-based knowledge and decision-making tools that promote the welfare of its stakeholders in North Carolina and beyond.

Strategic Focus Areas

- **Amplifying our Impact through Programs and Partnerships**
- **Preparing Students for Professional and Personal Success**
- **Fostering Sustainable Growth and Nurturing a Productive Work Environment**

Agricultural and Resource Economics Department at a Glance

ARE has four mission areas that fulfill distinct purposes. Synergies across the mission areas allow ARE to achieve its collective goals more effectively.

- Mission Area 1: Research
- Mission Area 2: Undergraduate Program
- Mission Area 3: Graduate Program
- Mission Area 4: Extension

Our department, housed in NC State's College of Agriculture and Life Sciences (CALs), consists of 35 faculty members, 6 staff members, 3 post-doctoral researchers, 100 graduate students, and 550 undergraduates. ARE faculty and staff partner with Cooperative Extension agents in all 100 counties across North Carolina.



Strategic Planning Process

ARE developed this strategic plan through a comprehensive and inclusive process that engaged a diverse group of internal and external stakeholders. In April 2024, the department gathered input from faculty, staff, students, and industry partners through an online survey and two focus groups. These interactions allowed participants to share their perspectives on the department's challenges and opportunities, as well as their vision for ARE's future.

The process culminated in a strategic planning retreat in May 2024, where the results from the surveys and focus groups were synthesized to form the plan's foundation. Faculty and staff used this retreat to assess the department's current state, set future goals, and collaboratively identify specific focus areas to chart a strategic course toward achieving these goals.



Our Current Context and Value

Stakeholder engagement and self-reflection identified ARE's strengths, weaknesses, opportunities, and challenges. ARE is recognized as a distinguished program with strong teaching, research, and extension programs, exceptional students at the undergraduate and graduate levels, and a unique ability to engage in policy, agribusiness, farming, and environmental and resource problems. While already robust, the department can further strengthen engagement with partners, increase program visibility, and enhance support for students, faculty, and staff.

Our Unique Strengths

- **Exceptional Faculty and Staff:** Our faculty are experts in their fields, holding endowed chairs, leadership positions in professional societies, and editorships of top journals. Their scholarship, supported by dedicated ARE staff, enhances NC State's reputation both nationally and internationally.

- **Teaching Excellence:** Our faculty are deeply invested in student success, bringing frontier research and real-world experience from the public and private sectors to the classroom. Our teaching faculty have been awarded NC State DELTA grants to enhance the quality of their instruction. They also mentor new teachers through our flagship associations, developing the next generation of educators in our discipline.
- **Highly Valued Extension Programs:** ARE has one of the most prominent extension programs in agricultural economics in the nation. Our expertise ranges from agricultural law and policy, marketing, and international trade to enterprise budgets and farm production. Our extension programs are effectively delivered and highly valued by farmers and agribusinesses throughout North Carolina, the Southeast US, and the nation.
- **Research-Based Outreach:** Our faculty's research extends beyond academia, significantly contributing to public policy making in North Carolina and beyond. Many of our faculty members serve on advisory boards for government agencies and commodity groups. They testify before Congress about the state of the rural economy and the impact of federal policies on agriculture and natural resources.
- **Robust Alumni Network and Industry Collaboration:** Strong ties with alumni and industry partners enrich the student experience and provide valuable exposure to professional opportunities in agricultural and resource economics.

Current Context

- **Enhancing Student Support:** Rapid increases in undergraduate enrollment necessitate additional resources to support student success. This could involve hiring additional faculty and advisors to assist with the growing undergraduate program. With the graduate program, a longstanding challenge is providing students with the mentorship they need to succeed in graduate school and professionally. To address this issue, ARE could encourage more faculty-student interactions at all stages of the Ph.D. program.
- **Enhancing Junior Faculty Support:** As more junior faculty members join the department, additional support and guidance are needed to help them navigate the tenure and early-career process at NC State. ARE could offer more mentoring opportunities, allowing junior faculty to regularly engage with senior faculty and departmental leadership to address their questions and concerns.
- **Improving Engagement and Collaboration:** There are opportunities to strengthen our connections internally with colleagues at NC State and externally with our industry partners. At NC State, this could involve increased engagement with college and university initiatives, more aggressive grantsmanship with our colleagues in CALS and across campus, and sponsoring an interdisciplinary workshop focused on the economics of agriculture and natural resources. Possible external collaborations include more

research projects, extension engagements, and internships that expose our faculty and students to stakeholder challenges and emerging opportunities.

A closer examination of the programs revealed the following opportunities:

- **Undergraduate mission area:** Continuously revise the curriculum to better align with our students' and industry partners' interests and needs. In particular, by updating the curriculum to align with changing student demographics (e.g., fewer students growing up on farms and ranches) and evolving employer needs (e.g., increased adoption of AI and other data-driven methods), students will be better prepared for careers in sales, management, marketing, and related agribusiness fields.
- **Graduate mission area:** Increase funding, mentoring and job placement services for students. Providing stipends that adjust with inflation and market conditions will increase ARE's ability to attract promising graduate students. Improved mentoring and creating more opportunities for students to present their research internally at practice job seminars and externally at regional and national conferences will improve their job prospects in academia, industry, and government.



Strategic Focus Areas

In pursuit of our mission and to best serve our students, faculty, staff, and external stakeholders, ARE will prioritize the following strategic focus areas:

- **Amplifying our Impact through Innovative Programs and Partnerships**
- **Preparing Students for Professional and Personal Success**
- **Fostering Sustainable Growth and Nurturing a Productive Work Environment**

Amplifying Our Impact through Innovative Programs & Partnerships

We aim to increase the impact and visibility of our research and extension programs across North Carolina. Our goal is to raise awareness among students, stakeholders, and peers about the significant impact of work conducted by our faculty, staff, and students.



Sample Performance Measures

- Peer-reviewed publications by faculty and students, especially in highly regarded journals.
- Scholarly engagement such as invited talks, seminars, conference presentations, webinars, and citations.

- Funding for interdisciplinary research projects with colleagues in CALS, NC State, and other universities.
- Internal and external grant applications for interdisciplinary collaborations with colleagues across CALS and NC State.
- Extension presentations, webinars, publications, and presentations that directly serve our stakeholders in North Carolina and beyond.
- Outreach content such as regular newsletters, social media posts, press releases, webinars, podcasts, and blogs that improve ARE's visibility and strengthen relationships with our stakeholders and the general public.

CALS Strategic Plan Alignment

- Strategic Priority 1.3: Build a more efficient, connected CALS.

Wolfpack 2030 Alignment

- Goal 2: Ensure preeminence in research, scholarship, innovation, and collaboration.
- Goal 3: Expand and advance our engagement with and service to North Carolina and beyond.

Objective 1.1 - Strengthening collaboration and partnerships among faculty, staff, students, and external stakeholders

ARE will communicate the department's successes with external partners to increase the impact of its programs. The department will provide platforms for students and faculty to present their research and extension work, learn from different perspectives, and explore collaborative endeavors.

Potential Activities for Mission Areas

- Provide funding for faculty and graduate students to present at national and international conferences.
- Incentivize NC State faculty and students to participate in interdisciplinary research.
- Strengthen our collaboration and partnership with the Department of Economics in offering the joint graduate program and joint workshops.
- Foster partnerships with universities, research institutions, and think tanks in the Research Triangle region and throughout North Carolina.
- Host brown bag events and seminars to encourage shared knowledge within ARE and across CALS and NC State.
- Continue to foster relationships with stakeholders, such as serving as economic advisors to commodity groups, and provide leadership to the agricultural and food systems in North Carolina and beyond.
- Host webinars and workshops that highlight the department's research and extension activities.

Objective 1.2 - Communicate our research to internal and external partners

ARE will communicate the knowledge and economic insights generated from its research and extension programs with its many partners to amplify their impacts. The department will also

showcase the work of faculty, staff, and students internally and externally, including sharing student and overall program success through a streamlined newsletter and displaying departmental updates and successes visually in our facilities.

Potential Activities for Mission Areas

- Through newsletters and social media content (e.g., videos, webinars, blogs, podcasts), share with internal and external stakeholders important research and extension achievements and milestones, such as publications, awards, presentations, promotions, and public service.
- To ensure all faculty and staff achievements are widely disseminated, establish a bi-monthly survey where such information is routinely collected.
- Use the ARE-sponsored NC State Economist bimonthly publication to present more in-depth summaries of current research and extension activities.
- Ensure all research and extension outputs are posted to ARE's website, RePEc, Google Scholar, and other relevant sites.
- Collaborate with government (e.g., USDA, EPA) and NGOs (C-FARE, RFF, Peterson Institute) to raise ARE's profile in the agricultural and resource economics profession and among funding agencies.
- Work closely with CALS and NC State initiatives that align with faculty research and extension interests (e.g., Plant, Animal Science, and Coastal Resiliency Initiatives, Data Science Academy).
- Continue to make relevant industry and policy information available to stakeholders such as commodity price trends, farm bill updates, and economic outlooks.

Objective 1.3 - Empower students and faculty to create and publish award-winning research

ARE will equip students and faculty with the resources and support necessary to maintain and enhance its standing as a top-10 agricultural and resource economics department.

Potential Activities for Mission Areas

- Encourage and support faculty and student participation in national and international research workshops and conferences.
- Aggressively nominate and promote faculty and their outstanding applied research for awards and recognition at NC State and beyond.
- Continue to host seminars and workshops that provide faculty and students exposure to leading scholars in economics and related fields.
- Revive internal brown bags and informal seminars for faculty and graduate students to share early-stage research with their colleagues.

Preparing Students for Professional and Personal Success

ARE will provide opportunities for undergraduate and graduate students to gain skills and connect with leaders in the industry, government, and academia. The department will equip students with the skills necessary to succeed at NC State and in their future careers.



Sample Performance Measures

- Starting salaries of graduates.
- Percentage of students with full-time jobs in their fields upon graduation.
- Graduation rates and time-to-degree completion.
- Student participation in internships with government and industry partners.
- Guest lectures, workshops, and networking events with industry leaders and academics.
- Student participation in professional development programs and certifications.
- Graduate student placements in academia, industry, and government.
- Competitiveness and quantity of graduate student stipends.
- Graduate student fellowships.
- Percentage of graduate students who publish a peer-reviewed journal article from their dissertation or master's thesis.
- Student participation in academic and extension competitions.
- Feedback from alumni and stakeholders on how well students are prepared for professional success.

CALS Strategic Plan Alignment

- Strategic Priority 1.4: Create a career-ready workforce.

Wolfpack 2030 Alignment

- Goal 1: Empower students for a lifetime of success and impact.

Objective 2.1 - Equip students with the skills to enter and succeed in the workforce

ARE will prepare students for professional success through classroom instruction, internships, and mentorship. The department will ensure that graduates are equipped with the skills that industry, government, or academia demand.

Potential Activities for Mission Areas

- Encourage and fund graduate students to present at regional, national, and international research conferences.
- Encourage and fund undergraduate and graduate students to participate in academic and extension competitions (e.g., sales and marketing competitions, quiz bowls) that develop skills and enhance their professional marketability.
- Partner with industry, government agencies, and professional organizations to offer internships and research opportunities that allow students to apply classroom knowledge, broaden perspectives, and enhance research and problem-solving skills.
- Continue our student ambassador program, where current students share their experiences and promote the department to prospective students.
- Develop innovative social media content showcasing student projects, courses, and club activities to be shared through departmental news channels.
- Engage alumni by sharing their success stories and encouraging them to serve as mentors or guest speakers.
- Increase faculty-student interactions through workshops and informal social events.
- Strengthen our collaboration with the Department of Economics in offering the joint graduate program.
- Develop collaborative student projects that encourage teamwork and foster critical thinking.
- Host more professional development workshops featuring speakers from industry, government, and academia.
- Encourage students to pursue fellowships from federal and state funding agencies (e.g., USDA, EPA, NSF, NC WRRRI).
- Involve more undergraduate students in faculty research.

Objective 2.2 - Create opportunities for students to learn more about professional opportunities

The ARE department will help students identify job prospects through fairs, participation in conferences, guest lectures, and other events. The department will help students gain valuable insights into potential career opportunities that are available to them in this industry.

Potential Activities for Mission Areas

- Strengthen our social media presence to showcase faculty and student achievements, new course offerings, advising and tutoring opportunities, and updates in the undergraduate program.
- Continue to host career fairs and networking events that connect students with potential employers and showcase the department's value added to stakeholders.
- Continue to organize industry site visits and job shadowing opportunities to give students a firsthand look at potential career paths.
- Partner with industry professionals to provide guest lectures, workshops, webinars, and networking opportunities for students.
- Establish a database of alumni willing to provide career counseling, mentorship, and networking opportunities for current students.
- Encourage student involvement in professional organizations to build networks and gain access to exclusive job opportunities.
- Organize mock interview sessions with industry professionals to help students prepare for real-world job interviews.
- Mentor graduate students to help them publish before entering the job market.
- Create opportunities for students to improve their presentation and interview skills, including presentations at meetings and internal seminars.
- Host workshops for students on programming skills like GIS, Python, R, SAS, and Stata.
- Expose undergraduate and graduate students to extension work through extension internships or competitions.

Objective 2.3 - Revise and update curriculum regularly

ARE will revisit and modify our curriculum to ensure it reflects the state of the art in science, industry needs and student interests. We will also support the revision of existing programming that supports our curriculum.

Potential Activities for Mission Areas

- Review academic curricula through regular meetings of curriculum committees that are informed by input from faculty, industry experts, students, and alumni.
- Integrate new pedagogical technologies and industry trends into course offerings to better prepare students for the workforce.
- Leverage NCSU's DELTA Resources to integrate technology and innovative teaching methods, enhancing student learning outcomes.
- Incorporate real-world case studies and projects into the curriculum to give students practical experience and problem-solving skills.
- Foster a culture of continuous improvement and innovation in teaching methods and curriculum design.
- Limit large class sizes so that instructors can assign individualized projects and provide personalized feedback, thereby enhancing the quality of student learning and engagement. For classes with large enrollments, provide adequate TA support.

- Use faculty and curriculum committee meetings to communicate planned changes in course offerings and class sizes so that advisors and instructors can prepare accordingly.

Fostering Sustainable Growth and Nurturing a Productive Work Environment

Fostering sustainable growth in ARE will critically depend on the contributions of its employees and the environment in which they work. Faculty, staff, and students are the driving force behind the department's reputation and success. Therefore, fostering a culture that prioritizes collaboration, professional development, and mutual respect is essential. Such an environment not only enhances individual performance but also strengthens the collective efforts of the entire department, creating a foundation for sustainable growth. By strategically balancing immediate needs with future aspirations, ARE can maintain financial stability, adapt to changing academic landscapes, and continue to attract top talent. This approach ensures that the department remains a vibrant, dynamic entity, capable of meeting the evolving needs of its partners and stakeholders while preserving its core values and mission.



Sample Performance Measures

- Enrollment in the undergraduate major.
- Student-to-teacher and student-to-advisor ratios.
- Enrollment in the graduate economics program (both Master's and Ph.D.).
- Funding for graduate student stipends.
- Faculty/staff retention rates.

- Grantsmanship, especially those that support multidisciplinary, transformative research.
- Engagement with interdisciplinary initiatives.

CALS Strategic Plan Alignment

- Strategic Priority 1.1: Recruit, retain, and invest in talented faculty, staff, and students.

Wolfpack 2030 Alignment

- Goal 1: Empower students for a lifetime of success and impact.
- Goal 2: Ensure preeminence in research, scholarship, innovation, and collaboration.
- Goal 7: Elevate the national and global reputation and visibility of NC State.

Objective 3.1 – Recruit and retain excellent faculty and staff

To build on its success and enhance its reputation, ARE must continue to recruit and retain top talent. This requires a sustained commitment to identify outstanding candidates and provide them with the resources and support needed to excel as researchers, instructors, extension specialists, and support staff.

Potential Activities for Mission Areas

- Strategically hire new faculty to fill critical gaps in ARE’s research, teaching, and extension programs.
- Identify staffing needs and develop hiring plans accordingly.
- Provide faculty and staff with professional development opportunities (e.g., training workshops, certificate programs, professional conference attendance).
- Use monetary (e.g., raises) and non-monetary means (e.g., internal and external awards and recognitions, flexible schedules, remote work) to increase faculty and staff well-being, productivity, and retention.
- Continue the faculty mentoring program, where experienced faculty provide guidance and support to new and junior faculty, particularly in the areas of teaching and advising.
- Foster a collaborative and inclusive departmental culture that encourages faculty to share best practices and work to achieve common goals.

Objective 3.2 - Identify and pursue opportunities that foster ARE’s growth and sustainability

NC State University is expected to expand in the coming decades, and with its valuable contributions to agriculture and natural resource-dependent industries, ARE is poised for growth as well. To achieve this, ARE must identify and pursue emerging research, teaching, and extension opportunities aligned with its vision and mission. This growth must be managed sustainably to ensure the department’s core mission remains intact and to prevent overwhelming faculty and staff with new responsibilities.

Potential Activities for Mission Areas

- Work with college leadership to identify growth opportunities that are consistent with ARE and CALS’s research and extension missions. Possibilities include the Plant Science

Initiative, the Food Animal Initiative, and various efforts related to big data and Artificial Intelligence.

- Identify growth opportunities across the NC State campus and throughout the Research Triangle region that align with faculty research and extension expertise. Possibilities include the Data Science Academy, the Sustainable Futures Initiative, the Climate Resiliency Initiative, and new partnerships with RTI International and federal agencies with local offices.
- Organize on-campus recruiting events such as open houses and campus tours for prospective students and their families.
- Identify external funding opportunities, grants, and new partners that leverage ARE's research, teaching, and extension expertise.
- Finalize and launch the Master's in Agribusiness Management (MABM) program.
- Develop a sustainable funding model to grow the Executive Farm Management program.
- Encourage our high-achieving students to enroll in our MABM or Master's and Ph.D. graduate programs in agricultural and resource economics. Offer information sessions, seminars, and guest lectures by alumni and faculty to familiarize students with these opportunities.
- Recognize that, whatever future growth opportunities arise, it is critical that ARE maintain the collegiality, culture, and work-life balance that has made the department an attractive place for its faculty and staff.

Next Steps

The work plan for implementing this strategic plan will be developed by faculty and staff. Key activities under each strategic focus area and objective will be identified on at least an annual basis. Indicators of success will be used to track progress and support shared accountability across the department.