CAHNRS 2022 Strategic Plan

College of Agricultural, Human, and Natural Resource Sciences

2017-2022



WASHINGTON STATE UNIVERSITY

Introduction

The College of Agricultural, Human, and Natural Resource Sciences (CAHNRS) at Washington State University is an expansive and diverse college that includes 16 academic units, 13 subject matter centers, four research and extension centers, one tribal office, and 39 county Extension offices distributed across the state. CAHNRS fosters disciplines that serve at the interface of scientific discovery and its application to the advancement of society and improvement of the human experience.

Our mission is to provide global leadership through premier research, transformational instruction, and world-class Extension programs. By bridging WSU's land grant mission to the development of innovative future leaders who elevate stewardship of agricultural, natural, ecological, and economic systems, and improve the well-being of individuals and communities in Washington and beyond, CAHNRS translates its discoveries to improve quality of life on a global scale.

CAHNRS interfaces with society. Everything we do matters to people.

Vision

The WSU College of Agricultural, Human, and Natural Resource Sciences (CAHNRS) will be one of the nation's premier colleges focused on the expansion, translation, and transmission of society's knowledge base in agricultural, human, and natural resource sciences.

Values

Discovery Excellence Diversity Integrity Collaborative Accountability Teamwork Empowerment Diligent

Why a Strategic Plan?

The CAHNRS Strategic Plan is a narrative map that communicates *where* the college wants to go and identifies *how* it intends to get there.

CAHNRS 2022 is guided by the 2014–2019 WSU Strategic Plan and links resource allocations to strategic decisions guiding by prioritization of initiatives.

THEMES

Theme 1. Exceptional Research, Innovation, and Creativity

- **Goal 1.** Generate scientific discoveries that address substantial agricultural, human, and natural resource challenges as an integral component of the CAHNRS research mission.
- **Goal 2.** Create a collaborative research environment that addresses complex issues, regionally, nationally and globally.

Theme 2. Transformative Student Experience

- **Goal 3.** Provide excellent and impactful teaching and learning opportunities in agricultural, human, and natural resource sciences to a large and diverse student population, preparing graduates to be job ready, day one.
- **Goal 4.** Enrich student learning experiences by providing rigorous content, integrated context, and translation to the workplace.

Theme 3. Outreach and Engagement

- Goal 5. Ensure ready access to CAHNRS' research and associated educational programs in the state and abroad.
- **Goal 6.** Leverage the impact of CAHNRS faculty, staff, and students' contributions to economic vitality, educational outcomes, and quality of life at the local and global levels.

Theme 4. Institutional Diversity, Integrity, Openness, and Accountability

- Goal 7. Create and sustain a college community that is diverse, inclusive, and equitable.
- Goal 8. Uphold a culture of integrity, excellence, stewardship, and accountability in pursuit of CAHNRS's goals and economic viability.

2017-2022 Strategic Plan Implementation

Department Chairs and Directors will partner with CAHNRS Administration in supporting the CAHNRS strategic plan, ensuring that initiatives are implemented. Quantitative and qualitative metrics (benchmarks) that measure progress towards goals will be reviewed by CAHNRS Administration, in collaboration with Department Chairs and Directors, on an annual basis and acted upon appropriately.

CAHNRS leadership will work with college unit leaders to define appropriate targets and milestones for benchmarks.

Theme 1. Exceptional Research, Innovation, and Creativity

Goal 1. Generate scientific discoveries that address substantial agricultural, human, and natural resource challenges as an integral component of the CAHNRS research mission.

Goal 2. Create a collaborative research environment that addresses complex issues, regionally, nationally and globally.

INITIATIVES	TACTICS	BENCHMARKS
		(number refers to related metric number in WSU's Strategic Plan 2014–2019)
Generate scientific discoveries that address	Support inventory of research programs that address the University's Grand Challenges.	Total research and development expenditures, as well as rank among public institutions. (1)
substantial agricultural, human, and natural resource challenges	Support focus on overarching research themes that include health and wellness; food security and systems; food production, quality, and safety; animal health; livestock and crop breeding, production, and utilization; economics; human development; natural resources and water; and related advanced technologies.	 Number and impact of refereed publications per faculty FTE. (4) Sponsored research awards to projects engaging multiple units and disciplines. (14)
Attract and retain high- quality research faculty members, system-wide	 Hire and retain creative and highly productive faculty. Support competitive salaries and appropriate incentives for faculty performance and retention. 	 Number and impact of publications, juried or adjudicated shows, and presentations by CAHNRS faculty. (5) Number of prestigious faculty awards. (6) Citations per faculty member (H Index). (7) Number of endowed research chairs and professorships filled. Comparison of faculty performance to peer and aspirant institutions, by discipline.
Support infrastructure for increased research and scholarly productivity system-wide, including core laboratories and academic computing	Invest in infrastructure and provide administrative support that is closely aligned with research priorities.	 Total capital expenditures on research and academic infrastructure. (9) Square footage allocated to and utilized by research and development activities per tenure-track faculty FTE. (10) Number and size of core research facilities supporting CAHNRS research efforts statewide. Number of sponsored project infrastructure awards to CAHNRS statewide.
Uphold a collaborative research environment to address complex issues	 Sponsor forums, symposia, and workshops for faculty focusing on collaborative partnerships. Invest in collaborative seed grant programs that address Grand Challenges and overarching CAHNRS research themes. 	 Sponsored research expenditures in identified areas marked by collaborative research teams. (12) Federal research and development expenditures, as well as rank among public institutions. (2) Number of private-public partnerships with CAHNRS participants.

Increase engagement and productivity of graduate students, postdoctoral associates, and undergraduates in mentored research, innovative projects, and creative endeavors	 Provide administrative support for collaborative ventures and large mentor-intensive activities. Support seminars and capstone classes focused on research. Provide travel support for student attendance and presentation of research at professional meetings. Support a dynamic and diverse undergraduate research internship program. 	 Total research and development expenditures, as well as rank among public institutions. (1) Sponsored research awards to projects that engage multiple units, postdoctoral associates, and graduate students. (14) Number of funded trainee grants. Number of pre- and post-doctoral trainees supported by competitive fellowships. Number of graduate student co-authored papers published and/or delivered at professional conferences.
Advance CAHNRS' reach both nationally and internationally in existing and emerging areas of achievement	 Support efforts to promote achievement of faculty awards and recognitions. Encourage and reward faculty in leadership roles in regional, national and international organizations, initiatives, editorships, and state and federal grant panels. Increase two-way communication and engagement with stakeholders. Increase institutional support for faculty serving as editors of prestigious and high impact journals. 	 Number of prestigious faculty awards. (6) Number of funded international collaborations with CAHNRS participants. Number of faculty that serve in leadership roles for national and international initiatives and are recognized by external organizations. Number of faculty advisory and management committees/councils that engage in shared governance. Number of faculty serving as editors of prestigious journals.

Theme 2. Transformative Student Experience

Goal 3. Provide excellent and impactful teaching and learning opportunities in agricultural, human, and natural resource sciences to a large and diverse student population, preparing graduates to be job ready, day one.

Goal 4. Enrich student learning experiences by providing rigorous content, integrated context, and translation to the workplace.

INITIATIVES	TACTICS	BENCHMARKS (number refers to related metric number in WSU's Strategic Plan 2014–2019)
Enhance student engagement and achievement in academics	 All academic programs in CAHNRS will generate assessment data for informing continual program improvements. 	 Percent of undergraduate degrees with all program assessment elements in place, including use of student learning assessment results in decision-making or planning. (16)
and co-curricular activities	 Continually expand opportunities for undergraduates to experience an internship having research, industry or international experience as part of the curriculum. The nature and content of student experiential-based learning will be informed in part by the college-supported Student Experience Advisory Council. 	 Percent of graduate degree programs using student learning assessment results in decision-making or planning. (17) Bachelor's degrees awarded (total, high-demand fields, low-income students). (18) Number of graduate degrees awarded. (19) Number of internship or practicum experiences. (20)

	 Strategically engage faculty and instructors in professional development to improve teaching quality. Strategically provide additional instructor and TA support to improve classroom experiences. Support, recognize, and reward innovation in teaching, learning, and student life through PhD assistantships for course builds, internships to support undergrad experiences, and immersion-based study abroad experiences. Support student-led co-curricular activities, including registered student organizations. Curriculum mapping for all academic programs will be completed strategically, and no less than every five years. Provide course design and delivery support through workshops, online tutorials and trainings, the Office of Assessment of Teaching and Learning (ATL) and Global Campus (GC). Monitor student success and satisfaction through course evaluations, advisor surveys, senior exit surveys and strategically implemented focus groups. Support student job readiness skills and opportunities through the Center for Transformational Learning and Leadership (CTLL). 	 Enrollment in Global Campus on-line programs and courses. (37) Number of CAHNRS students on the Dean's and President's honor rolls or in the Honors program. Number of undergraduates publishing undergraduate research and/or receiving national merit and other prestigious fellowships. Number of graduate student co-authored papers published and/or delivered at professional conferences.
Increase the size, diversity, and academic preparedness of undergraduate and graduate students	 Expand the number of bachelor's and graduate degrees awarded; emphasizing enrollments in high demand and STEM fields. Recruit and enroll graduate students from Tier One research institutions into graduate training programs. Refine and implement strategies to support graduate recruitment. Strengthen the funding platforms for graduate students. Increase articulation agreements to support undergraduate graduation in four years. Increase support for graduate student recruitment and mentoring initiatives for underrepresented groups. Increase student scholarships and fellowships. 	 Enrollment in CAHNRS programs. (22) Percent of CAHNRS student body from underrepresented groups. (23) Number of CAHNRS graduate students from Tier One research institutions. Number of transfer students. Number of bachelor's degrees awarded. Number of graduate degrees awarded.

Produce graduates who are recruited by post-baccalaureate and post-graduate employers and graduate/professional	 All CAHNRS units will monitor job placement and alumni survey results. All CAHNRS departments will establish advisory boards for creating industry-relevant experiences and opportunities. 	 Alumni survey: percent of graduates employed within one year, and in a job relevant to their degree. (24) Employer feedback concerning the quality of CAHNRS graduates. Feedback from graduates concerning career readiness.
programs, from day one	 Every unit in CAHNRS will be provided opportunities to engage with CTLL. Promote opportunities for students to receive careergrowth external experiences prior to graduation. Implement four-year pathways for students that integrate career and personal development activities. Ensure faculty are informed about student competencies that are valued by employers. 	
Align student recruitment, admissions, and retention system-wide to enhance student success	 Develop and use retention strategies to support retention rates in all units. Strategic curriculum assessment, no less than every five years in frequency, to support undergraduate CAHNRS majors graduating within four years. Develop early detection of at-risk students for all units. Support programs and strategies for engaging at-risk students. 	 Freshmen retention rate (all students, low income, underrepresented groups, first generation). (25) Four-year graduation rate (all students, low income, underrepresented groups, first generation). (26) Six-year graduation rate (all students, low income, underrepresented groups, first generation). (27) Percent of students who complete master's degree within four years as compared to peers in similar disciplines. Percent of students who complete doctoral degree within eight years as compared to peers in similar disciplines. (28)
Expand experiential and leadership learning within CAHNRS academic, research and extension programs	 Increase the number of internships supported by CAHNRS. Expand development efforts to enhance the funding pool for CAHNRS-sponsored internships. Enhance development campaign to solicit industry support for graduate student experiences. Partner with the WSU Writing Center on scientific writing workshops for students to improve writing skills. Support a graduate leadership development experience. 	 Number of students participating in CAHNRS-sponsored internships. Number of undergraduates involved in co-authoring peer-reviewed journal articles based on their research. Number of graduate student co-authored papers published and/or delivered at professional conferences. Enrollment in leadership trainings experiences.

Enhance the role of Research and Extension Centers in academic training functions within CAHNRS	 Increase the number of research, Extension, and county faculty having student involvement, including undergraduate interns. Enhance MS in agriculture program recruitment efforts for industries near the Research and Extension Centers. Enhance support for summer internship experiences with research, Extension, and county faculty. Provide recruitment material to all Research and Extension Centers and county Extension offices. 	 Number of faculty located at RECs involved in graduate student training. Number of faculty at RECs and county Extension offices mentoring undergraduate interns.
Increase and diversify the funding base for CAHNRS academic programs	 Increase enrollment-based revenue to CAHNRS. Enhance industry and privately-funded sponsored funding base to support academic program activities. 	 Revenue generated from the enrollment-based funding model. Number and size of grants submitted and awarded within AP. Amount of industry and privately-supported funding for academic programs.

Theme 3. Outreach and Engagement

Goal 5. Ensure ready access to CAHNRS' research and associated educational programs in the state and abroad.

Goal 6. Leverage the impact of CAHNRS faculty, staff, and students' contributions to economic vitality, educational outcomes, and quality of life at the local and global levels.

INITIATIVES	TACTICS	BENCHMARKS
		(number refers to related metric number in WSU's Strategic Plan 2014–2019)
Improve delivery of research-based information to clients	 Create a premier CAHNRS web presence. Implement a "web first" model for Extension publications. Increase CAHNRS capacity to develop and support decision support tools (systems, apps). 	 Number of Extension publications, category, and measures of use. Number of news articles released. Uptake of releases by national and international media; readership. Number of decision support tools developed and utilized.
Increase integration of Extension and non- credit/continuing education (CE) activities to improve access to CAHNRS	 Systemize the creation and delivery of online CE programs. Recruit and enhance enrollments in CAHNRS-GC CE programs. Create new online CE programs each year as appropriate to meet demand. Grow revenue streams from fee-based CE programs. Develop certification and other credentialing opportunities for CAHNRS CE offerings. 	 Revenue generated from CAHNRS continuing education programs. Number of credential-granting programs offered by Extension.

Strengthen communication and engagement with external stakeholders	 All CAHNRS units will convene external advisory boards. Reestablish the previous Ag Kitchen Cabinet into a new Food and Agriculture Advisory Council. 	 Number of academic units with advisory boards that include alumni and constituency representation. (41)
Enhance faculty engagement in strategic coalitions at the local, state, and national levels	Support and recognize engagement of CAHNRS faculty, students, and professional staff with institutions, communities, and governments.	 Amount of faculty service on key coalitions and boards establishing or informing policy.
Develop new strategies for engagement in metropolitan areas of Washington	 Establish an Extension Center to serve metro areas of Washington. Liaison with WSU Government Affairs and strategic communications staff on planning. 	Center is established, meeting funding is provided, and engagement programming is designed and it impact benchmarked.
Increase annual participation in Extension programs	 Improve reporting accuracy of program participation. Promote and document participants' accessing of information and use of distance delivery modes. 	 Number of participants in non-credit educational programs offered by Global Campus and WSU Extension. (34)
Improve CAHNRS ability to assess, document, and report impacts	 Develop robust, quantifiable indicators of CAHNRS impacts in major programmatic areas. Create an interactive, online platform to host and exhibit CAHNRS impact. 	Number and content of published impact reports in CAHNRS.
Increase and diversify CAHNRS funding	 Grow Extension expenditures annually. Increase Extension and outreach funding sourced from federal competitive grants. Increase capacity for grant development via faculty training and pre- and post-award support in Extension. 	 Total research and development expenditures from industry. (32) Total annual expenditures in outreach/Extension. (35) Percent of Extension funding from federal competitive grants. Total amount of gifts and sponsorships.
Improve the student experience through internships and service learning by direct engagement in outreach	 Enhance the number of undergraduate student internships in Extension programs each year. Increase number of Extension program faculty advising graduate students as chair or committee members. Increase Extension faculty members' contributions to forcredit teaching programs. 	 Number of undergraduate interns in Extension programs. Number of Extension faculty participating in graduate student mentoring as major advisor or committee member. Number of Extension faculty contributing to for-credit teaching programs.
Build a culture of excellence for, and acceptance of, the scholarship of engagement	Increase peer-reviewed journal articles or Extension publications by Extension faculty per year.	Number of peer-reviewed journal articles and Extension publications overall, and per Extension faculty FTE per year.
Enhance the national rankings of CAHNRS units	 Strategically target marketing of CAHNRS achievements to enhance reputation and rankings. Strengthen CAHNRS strategic communications plan. 	 Unit rankings based on national standards in comparison to our peer institutions.
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Increase the amount and	Increase yield on patent applications.	Patents applied for/awarded. (33)
impact of intellectual	Increase number of patents awarded annually.	Royalties and other revenue in CAHNRS from commercialization
property (IP) resulting from CAHNRS activities	Increase royalties from CAHNRS IP in each year of the strategic plan.	activities. (36)
	Increase capacity to support commercialization of IP.	
	 Improve faculty understanding of IP commercialization opportunities and process. 	
Expand CAHNRS' reach	Promote participation in international engagement	Number of faculty participating in international activities. (45)
across the globe in	activities.	Number of students participating in study abroad and other
strategic areas of excellence and impact	 Promote undergraduate and graduate student participation in international activities. 	significant international experiences. (46)
(e.g., health, agriculture, and sustainability)	Enhance opportunities to engage in intercultural exchange and outreach for faculty, students, and international partners.	

Theme 4. Institutional Diversity, Integrity, and Openness

Goal 7. Create and sustain a college community that is diverse, inclusive, and equitable.

Goal 8. Uphold a culture of integrity, excellence, stewardship, and accountability in pursuit of CAHNRS's goals and economic viability.

INITIATIVES	TACTICS	BENCHMARKS
		(number refers to related metric number in WSU's Strategic Plan 2014-2019)
Enhance the recruitment, retention, and advancement of a diverse faculty, staff, and student body	 Develop and implement a social media plan to improve outreach to underrepresented groups. Assess, implement, and recognize improved recruitment of specific underrepresented groups of faculty, staff, and students. Reflect minimum of state average percentage of underrepresented groups employed as faculty and staff. Reflect minimum of academic peer average percentages of women and underrepresented groups tenured and promoted to associate/full professor in CAHNRS units. 	 Number of staff from underrepresented groups. (49) Number of students from underrepresented groups. (50) Numbers of women and faculty from underrepresented groups tenured or promoted to associate/full professor (rolling ten-year average) in CAHNRS units. (52)

Maintain respectful, inclusive, and equitable behavior in all CAHNRS environments	 Advance units and programs that promote community building, intercultural exchange, and a diversity of voices. Develop and strategically implement appropriate training. Recognize contributions to an inclusive and respectful work environment in employee performance evaluations. 	 Key positive/negative indicators for CAHNRS from the biennial institution-wide Employee Engagement Survey. (53) Number of letters of concern issued by CAHNRS administration. Number of HRS investigations or actions involving CAHNRS faculty/staff/students. Improved indicators in 360 evaluations over time.
Increase employee productivity and satisfaction	 Include explicit appreciation and recognition for high productivity in employee performance evaluations. Engage in open and timely communication on issues of relevance to students, faculty, staff, and external constituencies. Implement a balance among applicable competing position expectations, spanning research, teaching, outreach, support tasks, and service assignments that are appropriate for each particular faculty and staff member. Use information gathered from the employee engagement survey to improve work environment. 	Average CAHNRS employee satisfaction rating from Employee Engagement Survey (faculty, staff). (54)
Strengthen administrative accountability, innovation, creativity, openness, and collaboration to advance the CAHNRS mission	 Continued development of web-based tools and standardized user interfaces to meet major financial/data/analysis needs of chairs/admins/business center staff/CAHNRS administration. Strengthen financial/data/analysis tools that generate broad efficiencies within the college by automating or standardizing work performed and/or that improves the quality of key data. Enhance regular evaluation of academic units, programs, centers, and institutes to ensure resource alignment is consistent with CAHNRS needs and productivity goals. Continual evaluation of administrative processes. Remove administrative barriers that prevent entrepreneurial innovation. Improve administrative and academic analytics capabilities to improve decision making. Engage in open and timely communication on issues of relevance to students, faculty, staff, and external constituencies. Improve integration of research, teaching and extension activities. 	 Financial priorities addressed – PBL reconciliation, Compensated Balances, and Enhanced Revenue Management tools in place. Number of Strategic Plan benchmarks implemented and completed Annual assessment of CAHNRS communication to gauge and demonstrate continuous improvement Evaluation criteria for research, teaching and extension that are clearly defined

Utilize CAHNRS strategic plans, data, and evaluation indicators to align investments of resources with CAHNRS priorities	 Plan for full achievement of strategic goals by the end of the strategic planning period. Operate fewest number of programs necessary to optimally achieve CAHNRS strategic priorities. Report annually and analyze progress toward goals of strategic plan. Establish a clear process for eliminating programs that no longer demonstrate viability or contribute sufficiently to achieving CAHNRS strategic initiatives and goals. 	Annual reported progress towards goals of strategic plan.
Expand, diversify, and effectively steward funding to advance the CAHNRS mission	 Expand private support and endowment assets that meets or exceeds the rate of inflation. Increase revenue generated from summer session, online education, and not-for-credit offerings. Support deployment of individuals and units who partner on large, programmatic initiatives that advance CAHNRS. Support CAHNRS development resources at levels that will assure robust annual fund raising. Develop private-public partnerships to access outside capital and increase the impact of CAHNRS. Accumulate funds to upgrade and improve facilities for college research, teaching and extension programs. Improve integration of research, teaching and extension activities. 	 Annual private support to CAHNRS. Endowment assets for CAHNRS. Capital project funding for CAHNRS. MCI funding for CAHNRS. Total revenue generated from summer session, online education, and not-for-credit offerings. Amount of development resources, measured in terms of personnel and budget.