

RELATIONSHIP-RICH RECRUITMENT AND RETENTION

Enhancing Enrollment and Student Success in Forestry and Related
Natural Resources Undergraduate Degree Programs



MISSISSIPPI STATE UNIVERSITY™
FOREST AND WILDLIFE RESEARCH CENTER

Research Bulletin FO477
December 2025

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Acknowledgments

This publication is a contribution of the Forest and Wildlife Research Center, Mississippi State University.

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Citation

Burger, L.M., S. H. Bullard, J. D. Hendrix, T. J. Walker. 2025. R4: Relationship-Rich Recruitment and Retention - Enhancing Enrollment and Student Success in Forestry and Related Natural Resources Undergraduate Degree Programs. Forest and Wildlife Research Center, Mississippi State University, Bulletin FO477. 12 pp.

R⁴: Relationship-Rich Recruitment and Retention

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INTRODUCTION

R⁴: Relationship-Rich Recruitment and Retention is an initiative of the College of Forest Resources (CFR) at Mississippi State University (MSU) with two goals:

- ▶ Increase enrollment and enhance student success in CFR forestry and related natural resources (FRNR) undergraduate degree programs; and
- ▶ Serve as a national model for scalable, high-impact strategies and actions that broaden student participation and achievement in FRNR degree programs and career pathways.

The CFR's R⁴: Relationship-Rich Recruitment and Retention model is unique among FRNR education programs in its intentional focus on establishing and nurturing trust-based relations with all college education stakeholders:

- ▶ Prospective students and their families;
- ▶ High school teachers, counselors, and career coaches;
- ▶ Currently enrolled students, faculty, and mentors;
- ▶ Community-based organizations;
- ▶ Minority-serving academic institutions;
- ▶ Community colleges;
- ▶ FRNR alumni; and
- ▶ Prospective employers of FRNR graduates.

In higher education today, human relationships are crucial to success in every aspect of student recruitment and retention, and R⁴ is strategically prioritizing efforts and leveraging resources to build and operate a model of education that is effective and impactful. R⁴ is actively building a 'Culture of the Future,' as defined by Wilkinson—continually gaining new insights and taking actions

based on those insights. Figure 1 illustrates four cultures outlined by Wilkinson based on insight or learning, and focus on action or doing. Universities with FRNR degree programs have tended to focus on learning and research relating to recruitment and retention (high in insight), but have not always taken sustained actions aligned with the findings (low in action), what Wilkinson refers to as 'Culture of Learning' (Figure 1).

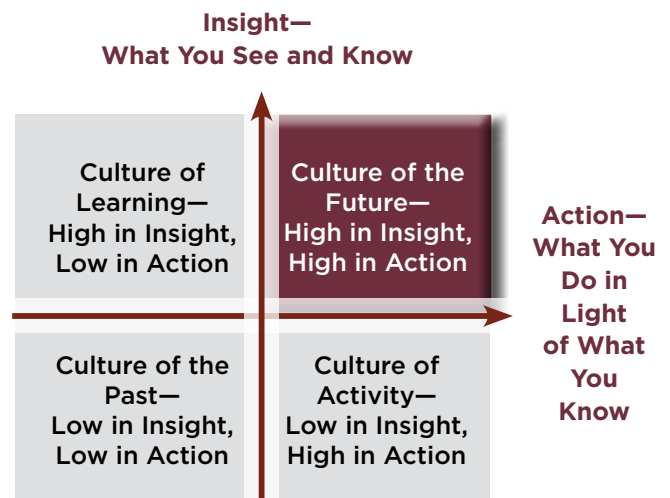


Figure 1. Wilkinson outlines four organizational cultures based on leaders' attention to insight and action.

R⁴ has adopted a 'Culture of the Future' that seeks to continually gain new insights, test new approaches, and share effective and sustainable actions that lead to greater student enrollment, participation, and success in FRNR undergraduate degree programs. This, in turn, leads to greater matriculation in related career fields.

INSIGHT

Insight from published literature and prior experience in the College of Forest Resources indicates that there are eight critical issues that must be addressed to enhance enrollment in FRNR undergraduate degree programs (Table 1).

Recruitment Issues	
Specific to FRNR	1 There is a general lack of awareness of FRNR careers and professions; this is true across society, including high school students, parents, teachers, and counselors, as well as among college recruiters, advisors, and currently-enrolled college students.
	2 Among those who are aware of FRNR professions, there is a common perception that the jobs are relatively low paying and/or not prestigious or stable.
	3 There are relatively few female and minority role models in some FRNR disciplines and professions; this is particularly true in forestry and forest industry-related disciplines.
	4 FRNR professionals and undergraduate students often cite a love or passion for the outdoors as a vocational motivator, but some groups have generally had fewer opportunities to be engaged in the outdoor environment and FRNR issues. They may see wildlife-related careers on TV or social media, but this is not true for forestry and forest industry-related professions.
General	5 College affordability is a critical issue, particularly for students from groups that are historically underrepresented in FRNR careers.
	6 College accessibility is crucial, particularly for first-generation students and their families navigating unfamiliar processes for college admission as well as for federal, state, and university financial assistance.
Retention Issues	
General	7 Cultivating a sense of belonging must be highly intentional in the student's academic program; participation means being present, but it also means being heard and truly engaged.
	8 Affordability issues continue throughout the undergraduate experience, particularly for students without a "safety-net" of financial support.

Table 1. Insight into critical recruitment and retention issues associated with Forestry and Related Natural Resources (FRNR) degree programs (adapted from Bullard et al. 2024).

The insights summarized in Table 1 are in two sections: Recruitment and Retention. The first four critical issues listed are specific to recruitment for FRNR undergraduate degree programs—they directly impact the “pipeline” for FRNR professions and careers. Affordability and accessibility, issues five and six, are labeled “general” in Table 1 because they impact recruitment in all college degree

programs. The last two critical issues relate to student retention or persistence to graduation. They are also labeled “general” since they affect students’ willingness and ability to remain enrolled in college, regardless of degree program.

Studies and reports are cited for each of the eight issues in Table 1 in Bullard et al.

ACTIONS

Fortunately for the R⁴ initiative, promising actions can be used to address these identified recruitment and retention issues and yield positive impacts. The earlier and more often these actions are incorporated throughout a student's educational path from elementary school through college, the greater the likelihood of achieving greater enrollment and participation in FRNR professions. A summary of these actions is shown in Table 2; more details can be found in Bullard et al.

1	Early Childhood - Middle School	Careers or Graduate School
	<ul style="list-style-type: none"> ▶ Incorporate hands-on, immersive experiences ▶ Use projects with real-life issues; communicate the social and community context of issues ▶ Design the content to be challenging and fun ▶ Anchor the content — connect new content to learners' experiences ▶ Ensure that students collaborate, and/or work in teams 	<ul style="list-style-type: none"> ▶ Involve engaged, knowledgeable teachers or program leaders ▶ Provide interaction with diverse role models, including relatively recent alumni ▶ Involve parents ▶ Provide career information ▶ Challenge common stereotypes
2	High School	Careers or Graduate School
	<ul style="list-style-type: none"> ▶ Partner with community-based organizations and networks ▶ Offer summer camps and other field-based programs featuring FRNR topics ▶ Build strong relationships with high school counselors, teachers, and career coaches ▶ Provide interaction with a variety of role models currently working in FRNR professions 	<ul style="list-style-type: none"> ▶ Create dual enrollment FRNR-related courses ▶ Sponsor campus visits for high school students and families ▶ Assist with college-entry and financial aid applications ▶ Offer financial support for college
3	Transition to College	Careers or Graduate School
	<p>Offer summer bridge programs that include:</p> <ul style="list-style-type: none"> ▶ Orientation to campus and resources available ▶ Support for students from all backgrounds ▶ Faculty mentoring and intensive advising 	<ul style="list-style-type: none"> ▶ FRNR instruction ▶ Peer and peer-plus mentoring and tutoring ▶ Research activities
4	College/University	Careers or Graduate School
	<p>Retain students enrolled in FRNR majors by:</p> <ul style="list-style-type: none"> ▶ Developing faculty, staff, and administration to serve as role models ▶ Ensuring focused, program-level support for first-generation, under-resourced, and underrepresented students ▶ Engaging students in extra- and co-curricular activities, as well as with FRNR alumni and other professionals <p>Recruit students enrolled in other majors by:</p> <ul style="list-style-type: none"> ▶ Connecting with and promoting opportunities to undeclared majors or other life sciences degree programs 	<ul style="list-style-type: none"> ▶ Connecting students with FRNR alumni ▶ Facilitating structured mentoring ▶ Ensuring inclusive learning environments in FRNR classes and labs ▶ Assisting with overall affordability issues on a continuing basis ▶ Strengthening relationships with community colleges ▶ Strengthening relationships with minority-serving institutions to build pipelines to graduate education

Table 2. Actions shown through scientific investigation to yield greater recruitment and retention in FRNR degree programs.

The overwhelming majority of the actions presented in Table 2 are based on and driven by relationships—relationships among the university, high schools, and community-based organizations; relationships between mentors (faculty and professionals) and students; and relationships among the university, alumni, and current and future undergraduates. Rather than being extractive, the R⁴ initiative's actions are intentionally designed to be relational and additive by addressing individuals' needs and, thereby, meeting the needs of families, communities, industry, and other partners. The R⁴ actions follow a multi-faceted, intentional approach, working together like “cogs” in the flywheel effect, an analogy made popular in the 2001 book Good to Great by Jim Collins.

“No matter how dramatic the end result, good-to-great transformations never happen in one fell swoop ... [T]here is no single defining action ... Rather, the process resembles relentlessly pushing a giant, heavy flywheel, turn upon turn, building momentum until a point of breakthrough.”

We anticipate this multi-layered approach to recruiting and retaining students to FRNR degree programs and careers will build the momentum necessary for the long-anticipated breakthrough, ensuring a lasting future impact on the professional workforce.

The R⁴ initiative begins with the end goal in mind: to produce forests and related natural resources that are healthy, sustained, and highly valued while meeting the long-term societal needs for bioproducts in Mississippi, the nation, and the world. This is best accomplished by a diverse and society-ready cadre of leaders in FRNR professions who actively manage and sustain these resources in the state and beyond.

To achieve these outcomes—to “relentlessly push the flywheel” at a national level—will require a high level of intentionality, including effectively communicating with an entire ecosystem of interdependent groups, illustrated in Figure 2.

Several examples of relationship-based activities exist in the CFR. Summer camps such as Conservation Camp, Science Scholar Camp, and Nature Dawgs have provided extracurricular learning and career awareness opportunities for junior and senior high school students in FRNR topics since 2006. Grant funds awarded by state and federal agencies have been leveraged by scholarships provided by non-profit organizations to enable students recruited by community-based organizations and local schools to attend campus-based camps.



GUIDING PRINCIPLES

R⁴ is informed by a set of guiding principles selected to positively impact total enrollment and graduation success of all FRNR undergraduates. These principles include:

- ▶ Set an aggressive and measurable goal. For the CFR, the goal is for FRNR undergraduate enrollment to reflect Mississippi's high school graduating class by 2035.
- ▶ Address all eight critical issues outlined in Table 1.
- ▶ Fully implement the promising actions shown in Table 2.
- ▶ Invest in actions with measurable outcomes that can be scaled up and sustained.
- ▶ Learn from activities and share results and insights through a national network of FRNR undergraduate program leaders and partnering groups of vested agencies, organizations, and corporations.



High school students participate in a summer camp experience at MSU's College of Forest Resources.

OUTCOMES

The end goal of the R⁴ initiative is to produce forest systems that are healthy, sustained, and highly valued while meeting the long-term societal needs for bioproducts in Mississippi, the nation, and the world. This is best accomplished by a robust and sustained, society-ready workforce of FRNR professionals who actively manage and sustain these resources.

This goal will be met by achieving the following outcomes:

Outcomes in 2030

- ▶ Relationship-Rich Recruitment and Retention practices are fully implemented in the CFR and a strong network of community-based organizations is established.
- ▶ Practices that effectively address the critical issues affecting FRNR enrollments are widely shared through a national coalition so that data and other evidence can inform actions.

Outcomes by 2035

- ▶ The CFR undergraduate student body at MSU reflects Mississippi's high school graduating class.
- ▶ A national coalition of partners help develop, revise, and implement R⁴ practices in other FRNR university programs.

Longer-term Outcomes

- ▶ FRNR teaching, research, and outreach programs in Mississippi and across the nation are viewed as highly relevant by the public and by elected leaders at local, state, and national levels.
- ▶ FRNR staffing and a strong alumni base ensure effective, continuing relationships with key communities and social networks.
- ▶ FRNR enrollment is sustained at universities across the nation, ensuring a strong cadre of leaders in the FRNR workforce.

To “relentlessly push the flywheel” and achieve these outcomes at a national level will require a high level of intentionality, including effective working relationships with an entire ecosystem of highly interdependent groups, illustrated in Figure 2.

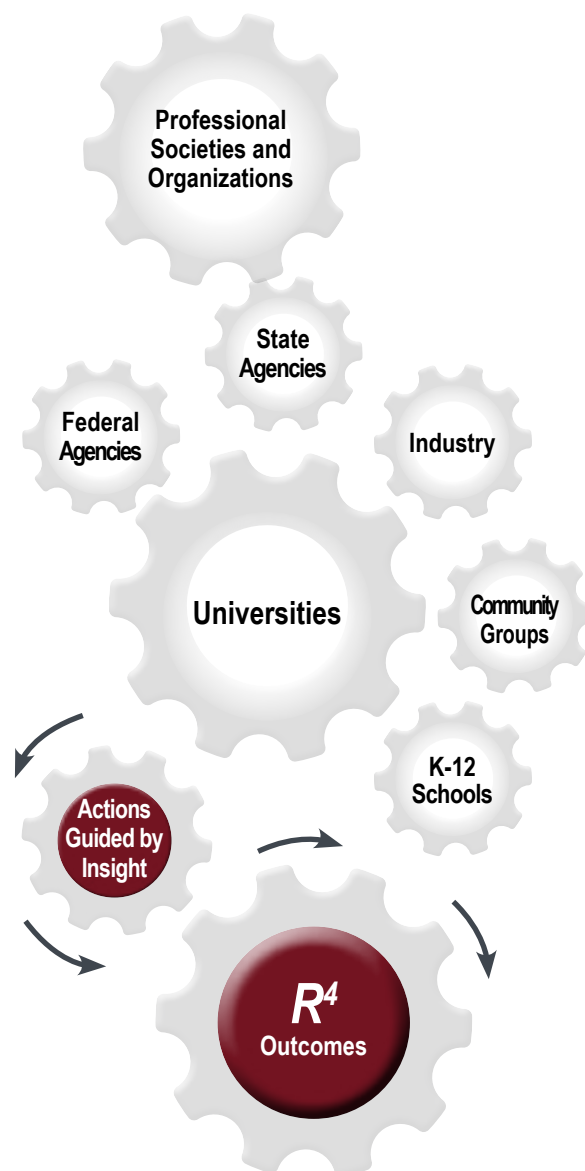


Figure 2. Vested partners necessary for R⁴ actions and outcomes that increase undergraduate enrollment and matriculation to FRNR professions.

EXAMPLES AND EXPERIENCES

Several examples of relationship-based activities exist in Mississippi State College of Forest Resources. Summer camps such as Conservation Camp, Science Scholar Camp, and Nature Dawgs have provided extracurricular learning and career awareness opportunities for high school students in FRNR topics since 2006. State and federal grant funding and scholarships provided by non-profit organizations have been leveraged to enable students recruited by community-based organizations and local schools to attend campus-based programs.

Insight from Conservation Camp data indicates approximately 10% of participants enroll in FRNR undergraduate degree programs. Similarly, in-school and after-school programs such as Youth Environmental Science and CRUISE have engaged local students in experiential learning and mentoring relationships that have led to documented improvements in FRNR knowledge, career awareness, and self-efficacy as college students and science professionals.



Students participate in relationship-based learning and career awareness opportunities in forestry and natural resources topics, offered by MSU's College of Forest Resources.

A CALL TO ENGAGE

Ultimately, to enhance the FRNR professional workforce across the nation, the work to enhance FRNR enrollment and retention must be:

- ▶ Highly interdependent—actively engaging all groups illustrated in Figure 2;
- ▶ Fully comprehensive—addressing all eight issues shown in Table 1;
- ▶ Highly effective—programs must be evaluated and made increasingly impactful, with insights shared regionally and nationally; and
- ▶ Sustained—programs to enhance FRNR enrollment and retention cannot be sporadic, but must be supported on a continuing basis.

In the College of Forest Resources at Mississippi State, we are poised to make the Relationship-Rich Recruitment and Retention approach a model for change in Mississippi and beyond. CFR leaders are actively recruiting like-minded partners from industry, schools and universities, non-governmental organizations, professional societies, and state and federal agencies who will work collaboratively in this critical effort to recruit and retain the next generation of FRNR professionals. The authors invite other leaders to join us in forming an R⁴ national network—expanding and sharing insights while engaging in meaningful, sustained actions to achieve an effective and society-ready workforce of FRNR professionals.

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