Introduction

Since 2017, WSSU has made significant strides with research productivity, and the administration has made investments in the research enterprise, including the creation of an Associate Provost of Research & Innovation (APR&I) and the purchase of a grants management platform (Cayuse) and software to assist faculty with identifying grant opportunities (PIVOT-RP), as well as investments in scientific and computing technology for a variety of disciplines. These investments have resulted in significant growth in extramural funding (**Table 1**) over this timeperiod (data from the National Center for Science and Engineering Statistics [NCSES]). Specifically, WSSU has had a 6.6-fold increase in total research-related funding (\$10.44M up from \$1.58M) and a 5.6-fold increase in federal funding (\$8.9M up from \$1.58M) since 2017.

Table 1. Higher Education R&D Survey from NCSES

Research-Related Expenditures (Total)			
Year	Amount of Funding	Ranking	
2017	\$1,575,000	542	
2022	\$10,436,000	346	
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Research-Related Expenditures (Federal Sources Only)

Year	Amount of Funding	Ranking
2017	\$1,575,000	427
2022	\$8,903,000	302

By significantly investing in research, WSSU has initiated a culture change – from a primarily teaching institution to a research and teaching institution – as we move from a Doctoral-Professional University toward obtaining Carnegie R2 status in the next 8-10 years. The existing research infrastructure at WSSU includes an established Research & Innovation (R&I) group and several strong research programs, including various institutes and centers of excellence.

To capitalize on these investments, the APR&I developed this strategic plan focusing on increasing research funding, customer service, training and support, innovation, and accountability. Although the primary outcome for this plan is to increase externally sponsored research funding, the outlined priorities contribute greatly to successful grant applications, and increased funding impacts our regional economy through direct expenditures and personnel, through innovations with commercial value (product licensing, company formation, etc.), and through changes in policy and practice.

The initial draft of this plan was created by the APR&I and reviewed by various groups on the WSSU campus. We envision this as a living document, one that will evolve to address emerging priorities campus-wide as we learn about the strategies that contribute to the greatest 'return on investment' for WSSU's research enterprise.

R&I MISSION: To foster transformative research, scholarship, discovery, and innovation in all disciplines at Winston-Salem State University to impact society nationally and globally.

R&I VISION: To provide guidance and technical assistance to faculty and staff interested in obtaining extramural funding for scholarly activities with the belief that the advancement of knowledge and creative expression are the true measures of excellence.

R&I GOALS

- 1. Prioritize extramural support for research and scholarly work campus wide.
- 2. Provide high quality support and customer service to WSSU faculty and staff for grant submission and management, program development, and compliance.
- 3. Reduce administrative burdens and workloads to ensure that investigators have more time to focus on writing grants and working on their research.

STRATEGIC PRIORITIES

1) Promote a Culture of Research Excellence

- a. Provide Exceptional Customer Service Relative to Extramural Grant Support
 - i. Update and maintain the OSP website and WSSU Research website
 - ii. Increase communication with faculty and staff around grant submission and grant management
 - iii. Create discipline-specific announcements for grant notices/opportunities
 - iv. Reduce the administrative burden for proposal preparation and grant management
 - v. Offer project development services
 - vi. Continue budget and budget justification assistance
- b. Deliver Training in the Grant Submission and Management Processes
 - i. Offer semiannual seminars for Pre-Award, Post-Award, and Compliance
 - ii. Provide Cayuse training, both virtually and in person
 - iii. Offer workshops from federal funding agencies
 - iv. Update and publish (website; handouts) Standard Operating Procedures for Pre-Award, Post-Award, and Compliance
- c. Ensure Quality and Timely Proposal Submissions
 - i. Meet all funding agency deadlines
 - ii. Guarantee all proposals meet sponsor requirements and university policy
 - iii. Provide internal review of all grant applications

- iv. Offer support to investigators for obtaining external review of grants (e.g., honorarium paid to reviewer)
- d. Support Research Proposals and Program Development
 - i. Incentivize and reward success in grant submissions and funding
 - ii. Establish a formal early career faculty training program for grant funding
 - iii. Develop and implement new programming and outreach strategies to engage groups of investigators in writing large grant applications
 - iv. Implement a Scholars Database to increase interdisciplinary collaborations
- e. Assess the "Culture of Research Excellence"
 - i. Conduct surveys of WSSU investigators
 - ii. Create reports for submissions, funding decisions, and expenditures
 - iii. Collect anecdotal information from investigators

2) Elevate WSSU's National Status through Increased Research Capacity

- a. Increase External Research Funding
 - i. Communicate with all academic and service departments to discuss research projects and overall process
 - ii. Create relationships with Federal agencies and program officers with a focus on NIH and DOD, as well as NSF and Dept of Education
 - iii. Apply for research capacity funding
 - iv. Provide timely communications on newly obtained grants to University Communications for inclusion in campus announcements
 - v. Promote release time policies for research-related activities
- b. Maintain a Knowledgeable, Professional, Service-Oriented Staff in R&I
 - i. Provide mechanisms for regular communication among staff members
 - ii. Offer investigators opportunities for feedback on R&I customer service
 - iii. Support R&I staff participation in professional development opportunities
 - iv. Hire qualified experts in grants management and grant writing
 - v. Conduct regular staff meetings and periodic evaluation
 - vi. Assess R&I staff progress on a monthly basis [Director or APR&I]
 - vii. Adopt strategies to prioritize and implement change as needed
- c. Cooperate with Research Administrators at Other North Carolina Institutions
 - i. Issue letters of collaboration/support and subcontracts in a timely manner

- ii. Support the Contracts & Grants office when working with other agencies and institutions related to subawards and reimbursement
- iii. Communicate regularly with collaborating institutions (Wake Forest, Forsyth Tech, NCA&T, FSU, etc.)
- iv. Establish strong working relationships with other Chief Research Officers at collaborating institutions
- v. Participate in North Carolina research organizations such as NC-10 (HBCUs), UNC-CRO group, and NC Research Alliance
- d. Assist Faculty, Staff, and Administration in Building Research-Related External Partnerships
 - i. Initiate partnership discussions with local entities, including foundations, companies, community leaders, and outreach partners
 - ii. Offer guidance to balance University requirements with industry needs in industry-sponsored research projects
 - iii. Provide timely responses to negotiation of industry-sponsored projects
- e. Assess the "Research Capacity"
 - i. Monitor engagement and participation with other institutions
 - ii. Assess satisfaction for collaborative proposals, subcontracts, etc. through faculty/staff surveys
 - iii. Track partnerships subawards, grants, industry, community, etc. and negotiations of industry-sponsored projects

3) Maintain Accountability and Institutional Advancement

- a. Ensure the WSSU is Capable of Meeting All Sponsor Requirements
 - i. Assure widespread compliance with all human subject, animal protocols, and ethics training for faculty, staff, and students
 - ii. Review all grants/contracts for compliance with University policies
 - iii. Guarantee the University can comply with all sponsor requirements
 - iv. Monitor agency policies for compliance and implement changes as needed
- b. Provide Oversight for Fiscal Responsibility for Grant-Related Projects
 - i. Provide information and training on financial management
 - ii. Include financial provisions in all grant/contract agreements
 - iii. Work with Contracts & Grants to maintain control systems for financial management of sponsored projects
 - iv. Prepare budgetary/audit requests in a timely manner

- c. Work with Federal, State, Private Funding Agencies to Simplify and Streamline Administrative and Regulatory Requirements
 - i. Provide all necessary information/data upon request
 - ii. Comment on draft regulations as appropriate
 - iii. Consider membership in the Federal Demonstration Partnership and/or the Council on Government Relations
- d. Assess "Accountability and Institutional Advancement"
 - i. Define and assess key metrics relevant to compliance, timely reporting, and fiscal management training
 - ii. Track requests, audits, and budget administration

4) Enhance Support for Innovation, Technology Transfer, and Commercialization

- a. Support Innovation as Part of a Research Services Division in R&I
 - i. Create a Division of Research Services within R&I to include tech transfer, patents, commercialization, data analysis, and grant writing
 - ii. Formalize partnerships with external stakeholders to leverage WSSU's emerging entrepreneurial ecosystem
 - iii. Create and fund a full-time position for commercialization and technology transfer
 - iv. Create a Research Foundation with Advisory Board to increase research donations, funding for Centers of Excellence, and outreach
- b. Publish Standard Operating Procedures for Invention Disclosures and Intellectual Property Protection, and Commercialization
 - i. Create workflows for applying for patents, copyrights, and tech transfer
 - ii. Define processes for developing business plans
 - iii. Provide training for tech transfer and commercialization efforts
- c. Assess the Culture of "Innovation, Tech Transfer, and Commercialization"
 - i. Embed metrics related to tech transfer into data collection
 - ii. Track commercialization efforts patents, copyrights, companies, etc.

It is intended that each of these *R&I Strategic Priorities* directly connects with Commitment 4 (Institutional Excellence) and Commitment 5 (Resource Sustainability) in *WSSU's 2030 "Unleash the Genius" Strategic Plan*.