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Ruston, LA 71272

May 13, 2021

Dear Award Committee,

Please accept my packet for consideration for the Virgil Orr Junior Faculty Award. My statements on research and service are below, followed by a table summarizing my teaching experience, followed by my statement on teaching, and finally by selected publications, grants, and service.

My appointment is Instruction: 66 % Research: 20 % Service: 14 %. I have been the Linnie McGee Leggett Endowed Professor in Agriculture since 2019 and the Director of the Center for Rural Development since 2018. As Assistant Professor of Agricultural Business here at Louisiana Tech University, I am responsible for teaching six classes per year, quality advising and service, and peer-reviewed research. The classes and my ratings are detailed in the table below, and my statement on teaching follows the table. I have omitted the over 80 YouTube videos I have created for instructional content since the transition online last spring to keep the packet length down.

The research component of my position is relatively small. However, I enjoy research and try to do as much as possible. My research since coming to Tech has shifted from primarily looking at the impacts of wild pigs on US agriculture to a more timber-focused agenda. This has been driven in part by the people I can work with and the importance of forestry to the region. My roots in forestry research predate my Ph.D. Part of my master's degree was funded by research on agroforestry, and the mentor that convinced me to go to graduate school was ABD in Forestry Economics at the time. He was a co-author of my first peer-reviewed journal article. His mentorship has influenced how I approach student research. I have been able to involve students in research with outputs varied from a poster presented in Washington, DC, to small grants to fund a project shut down by the pandemic.

Service is the smallest portion of my appointment. I do my best to advise agribusiness students, serve on committees and as a representative as needed, and serve on the University Senate. I represented a veterans organization in Washington DC twice and would like to make that more of my role, but I have not found the right way to integrate a function like this into my teaching and research. As a veteran, taking care of veterans is important to

me. I will continue to look for ways to build this part of my service portfolio.

Figure 1: Courses Taught and Associated Instructor Rating By Quarter

	F17	W17-18	SP18	F18	W18-19	SP19	F19	W19-20	SP20	F20	W20-21
AGBU 220 Principles of Ag. Econ.	2.7			3.1			3.2			2.8	
AGBU 230 Ag. Mktg.		3.3			2.1			2.7			2.9
AGBU 310 Ag. Policy			3.3			2.8			2.0		2.7
AGBU 402 Farm and Agribus. Mgmt.			3.1			4.0			3.0		
AGBU 450 Natural Resource Economics	2.0			4.0			2.0			3.0	
AGSC 320 Statistical Methods		3.3			3.9					2.6	3.5

Statement of Teaching Philosophy

I am a firm believer in the the liberal arts education mission and that students need to be challenged. As such, I receive a variety of student evaluation comments ranging in a single report from "FIRE HIM" to "Dr. Holderieath, is one of the most impactful and critical components to the Department of Agriculture and Science for the school of Applied and Natural Sciences at Louisiana Tech University. He goes above and beyond for his students to excel and does his best to translate the material taught."

The difference between the two comments is a difference in mindset. The first expected the information that he or she would be tested on to be handed to him or her on a platter. He or she did not feel she needed to work in a class that was *not organic chemistry*. The second appreciated that college coursework requires effort and the process is a critical part of the outcome.

We (academia) have a serious problem. Undergraduate students are graduating, unable to independently learn, ask good questions, accept and apply critique and direction in the workplace, listen effectively, communicate accurately and concisely, navigate change and ambiguity, identify and analyze problems, or transfer knowledge from one situation to another [1], exactly the hallmark of a true liberal arts education [2, 3]. Employers have noticed this lacking of independent thought and want it addressed [1]. Further, if we do not address this shortcoming our graduates will not have success in the long-run.

In the workforce of the immediate future it is absolutely essential that workers possess skills such as higher order thinking, problem solving, empathy, and communication that are difficult to automate [4–7]. Problem solving and clear communication are among the top skills in demand for leaders in agricultural and natural resources [8, 9]. My role is to help students succeed in the world beyond the university, to give them opportunities and guide them on that journey. Both Brown [10] and Dweck [11] emphasize the importance of difficult learning. Not difficult for the sake of being difficult to understand, rather difficult for the sake of stretching a person. Students must be stretched out of their comfort zone or there is no growth. My role is to support while providing a rigorous and challenging experience.

Critical evaluations have valid content. I will integrate the specific concerns of this student, such that those integrations do not prevent the course from meeting my goals. I am re-evaluating using the CORE Economics text that I have been using. In general, I am constantly reflecting on best practices and student engagement techniques. With all of my courses, my goal is to provide the opportunity for students to engage with the material, gain the core skills, and improve critical thinking and communication skills. For example, Pack-

Back has been a useful and integral part of the AGBU 230 Agricultural Marketing class. The feedback was very positive. Students even gave the vendor positive feedback. Also useful in this offering of AGBU 230, has been a commodity trading simulation. This combination of me presenting the information, assigning reading, reinforcing with a trading simulation, small and simple homework assignments, and the writing process in PackBack has led me to believe that I am finally on the right track with this class. I am already considering the next offering of AGBU 230. I will be evaluating which components are not useful after student evaluations are returned. I would like to help students realize their role in learning and the likely challenges they will encounter professionally, so I am looking to integrate either Dweck [11] or Pink [7].

Finally, please consider me for this award because my work is being recognized outside of ANS and Louisiana Tech University. Until COVID altered the conference landscape, I was scheduled to speak at two conferences on undergraduate education. I have been working with faculty from COES and this will result in a publication at a minimum, an industry leading curriculum and integration of our disciplines at best. Along with Dr. Crosby I have been funded to adopt and create open academic resources. Finally, our (myself, Drs. Crosby, McConnell, and Jackson) evaluation of student outcome changes as a result of the COVID induced shift online was recently published in Applied Economics Teaching Resources.

*References

1. Crawford, P. & Fink, W. *From Academia to the Workforce: CRITICAL GROWTH AREAS FOR STUDENTS TODAY* tech. rep. (Association of Public & Land-Grant Universities, Washington, D.C., 2020). <https://www.aplu.org/projects-and-initiatives/agriculture-human-sciences-and-natural-resources/employability-skills-in-agriculture/>.
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10. Brown, P. C. *Make It Stick* ISBN: 9780674419384. <https://books.google.com/books?id=t9JoAwAAQBAJ> (Harvard University Press, 2014).
11. Dweck, C. S. *Mindset: The New Psychology of Success* ISBN: 9781588365231. <https://books.google.com/books?id=fdjqz0TPL2wC> (Random House Publishing Group, 2006).

Publications (♦ notes student coauthor, * notes presenter)

Holderieath, J.J., M.K. Crosby, T.E. McConnell, and D.P. Jackson. “Impact of COVID-19 Related Transition to Online Instruction on Student Achievement.” *Applied Economics Teaching Resources (AETR)*. doi: 10.22004/ag.econ.310265

Crosby, M.K., T.E. McConnell, **J.J. Holderieath**, B.P. Kjartansson, B. Traustason, P.H. Jónsson, A. Snorrason, and E.S. Oddsdóttir. (2021). “Urban street tree characteristics and benefits in City Centre, Reykjavik, Iceland.” *Trees, Forests and People*. Article 100066. doi: 10.1016/j.tfp.2021.100066.

McConnell, T.E., M.K. Crosby, **J.J. Holderieath**, and C.L. Vanderschaaf. (2020). “Financial Assessment of Future Stand Conditions Required to Recover the Opportunity Costs of a North Louisiana Streamside Management Zone.” *Forest Products Journal*. 70(1) 39–49. doi: 10.13073/FPJ-D-19-00040.

Crosby, M.K., T.E. McConnell, **J.J. Holderieath**. (2020). “Forest canopy benefits in small urban areas of Louisiana.” *Mathematical and Computational Forestry & Natural-Resource Sciences (MCFNS)*. 12(2) 79-91.

Gay, D.C.♦, M.K. Crosby, **J.J. Holderieath**, and T.E. McConnell. (2020). “Using Landsat 8 imagery to determine a threshold for land cover change: a simulation approach.” *Mathematical and Computational Forestry & Natural-Resource Sciences (MCFNS)*. 12(2) 74-78.

McConnell, T.E., C. VanderSchaaf, **J.J. Holderieath**, and M. Crosby. (2019). “Adequacy of timber trespass civil awards: A Louisiana case study.” *Journal of Forestry* 117(6): 533–542. doi: 10.1093/jofore/fvz052.

Ernst, K., J. Elser, G. Linz, H. Kandel, **J. Holderieath**, S. Shwiff, and S.A. Shwiff. (2019). “The economic impacts of blackbird (Icteridae) damage to sunflower in the United States.” *Pest Management Science* 75(11): 2910–15. doi: 10.1002/ps.5486.

Holderieath, J.J., D. Pendell, J. Hadrich, A. Anderson, C. Sloomaker, E. Harper, and S.A. Shwiff. 2018. “Valuing the absence of feral swine in the United States: A partial equilibrium approach.” *Crop Protection* 112:63-66.

Shwiff, S.A., S.S. Shwiff, **J.J. Holderieath**, W. Haden-Chomphosy, and A. Anderson. 2017. “Economics of Invasive Species Damage and Damage Management.” In *Ecology and Management of Terrestrial Vertebrate Invasive Species in the United States*, edited by W. C. Pitt, J. C. Beasley, and G. W. Witmer, 400. CRC Press.

Grants and Fellowships

Holderieath, J.J. 2020. Adapting Open Educational Resources for AGSC Statistical Methods. LOUIS: The Louisiana Library Network OER Commons Adopt. \$1,500 awarded.

Crosby, M.K., J.J. Holderieath, P. Jackson, Joshua Adams. Acquiring a Sensor Package for High-Resolution Data Collection in Natural Resources \$3,000

Crosby, M.K. and J.J. Holderieath. 2020. Creating a process for syncing and linking spatial analysis and agricultural economics. LOUIS: The Louisiana Library Network OER Commons Adopt. \$7,000 awarded.

A quantitative impact assessment of the recent southern pine beetle outbreak in Mississippi utilizing high-resolution, geo-referenced imagery and GIS data. Google GCP Research Credit Program. \$5,000

Crosby, M., J. Holderieath, and T.E. McConnell. Assessing beetle-stressed trees in national forests in Mississippi. Contract with the USDA Forest Service. \$50,000

Hedonic analysis of cattle sale data. \$2,000

Travel Grant for 12th Southern Forestry and Natural Resource Management GIS Conference, December 8-10, 2019. \$1,369

Travel Grant for Southern Regional Science Association Conference for Student, April 4-6, 2019. \$1,151

Travel Grant for SAEA Annual Meeting, February 2-5, 2019. \$1,646

Co-PI with Michael Crosby (PI). Developing a Spatially-Explicit Agent-Based Model of Impacts from Climate Change on Louisiana Agriculture. \$1,979

Materials for creating illustrative videos with agricultural economics content. ANS Innovative Instruction in Undergraduate Courses Mini-Grant. \$696.

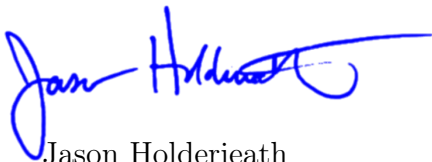
Community Involvement/Outreach

October and December Storm the Hill with Iraq and Afghanistan Veterans of America

Invited Talks

Holderieath*, J.J. 2017. "What can Wild Pig Damage Estimates for Crops Teach Us About Wild Pig Management in Timber?" Lecture to *The North Louisiana Group of the Society of American Foresters*, Ruston, LA.

Sincerely,



Jason Holderieath