

Jay Sullivan

Professor

Department of Forest Resources and Environmental Conservation
College of Natural Resources and Environment
Virginia Tech

Professional Interests

Forest and resource economics, economics of forest conservation and restoration, forest landowner incentives and decisions, forest and land management and planning

Education

Ph.D. Forestry Economics, University of California, Berkeley, October 1988
M.S. Forestry Economics, Colorado State University, August 1984
B.S. Forest Management, Colorado State University, August 1981

Administrative Appointments

December 2015 to January 2024—Head, Department of Forest Resources and Environmental Conservation, Virginia Tech

May 2015 to December 2015—Interim Head, Department of Forest Resources and Environmental Conservation, Virginia Tech

Academic Appointments

July 2005 to present—Professor of Forest Economics and Management, Department of Forest Resources and Environmental Conservation, Virginia Tech

July 1994 to June 2005—Associate Professor of Forest Economics and Management, Department of Forestry, Virginia Tech

Nov. 1988 to June 1994—Assistant Professor of Forest Economics and Management, Department of Forestry, Virginia Tech

Experience

Aug. 1985 to Oct. 1988—Research Assistant and Graduate Student Instructor, Department of Forestry and Resource Management, University of California, Berkeley

Aug. 1985 to Aug. 1987—Consultant - Economic Analysis, Engineering-Economics Associates, Berkeley, California

May 1983 to Aug. 1985—Research Forester - Economic Analysis, USDA Forest Service Rocky Mountain Forest and Range Experiment Station

June 1981 to May 1984—Graduate Research Assistant, Department of Forest and Wood Sciences, Colorado State University

May 1982 to April 1984—Operations Research Analyst – IMPLAN (econ. impact analysis) development team, USDA Forest Service, Land Management Planning-Detached Washington Office Unit

Honors, Awards and Fellowships

Teaching Excellence Award, College of Natural Resources and Environment Curriculum Clubs, 2012
Gamma Sigma Delta Faculty Teaching Award, Virginia Tech, 2005
Certificate of Teaching Excellence, College of Natural Resources, Virginia Tech, 2001
Outstanding Graduate Student Instructor, University of California, Berkeley, 1988
USDA Forest Products Marketing/International Trade Fellowship, University of California, Berkeley, 1985-1988
Hill Memorial Fellowship, Colorado State University, 1984/85
Phi Kappa Phi, National Honor Society
Graduation with High Distinction, Colorado State University, 1981
President's Scholarship, Colorado State University, 1979-1981

Administrative Accomplishments

Petitioned US Dept of Defense/Homeland Security for forestry education to be recognized as STEM (petition March 2020, announced Federal Register 1/21/2022)
Initiated and led major curriculum reorganization, 2015-present
-10 options under 2 B.S. degrees to 5 majors under 2 B.S. degrees
-3 Pathways minors created, 17 Pathways courses approved
-FREC B.S. core created
Undergraduate enrollment increase (190 students fall 2015 to 339 students fall 2023 – limited by enrollment cap)
Oversight of number 1 US program in Forestry for 5 consecutive years by Collegefactual.com (2017, 2018, 2019, 2020, 2021, the first 5 years in which that ranking existed)
Oversaw increase in enrollment diversity (female students up over 100%, underrepresented students up 175% since 2015)
Initiated FREC participation in Howard Hughes Medical Institute grant on Inclusive Excellence, 2018-2021
Created accelerated graduate degree program and 3+2 program, 2017
Wrote Academic Program Reviews 2015, 2021
FREC Promotion and Tenure Expectations document, 2019
Led Society of American Foresters reaccreditation of Virginia Tech, 2015
Led FREC Strategic Planning, 2020
Wrote FREC Diversity and Inclusion Strategic Plan, 2017
Hired 6 tenure track faculty members and 2 Collegiate faculty members (Wildland Fire Ecology, International Forest Economics, Silviculture, Forest Biometrics, Environmental Data Science, Sustainable Forest Operations, Forest Health, Natural Resources Recreation and Education)
Promotions: 8 faculty members promoted to tenured Associate Professor, 9 faculty members promoted to Professor

Publications (*-Indicates a student for whom I was advisor/co-advisor, lead author shown first)

Refereed journal articles

- Sarr*, M.S., Seiler, J.R. & Sullivan, J. Effect of drought stress on the physiology and early growth of seven *Senegalia (Acacia) Senegal* (L.) Britton provenances. *New Forests*. 2024. <https://doi.org/10.1007/s11056-023-10027-5>
- Sarr*, M.S., J.R. Seiler, J. Sullivan, A.M. Diallo, and B.D. Strahm. Drought resistance and gum yield performances in a *Senegalia senegal* (L.) Britton progeny trial in Senegal. 2021. *New Forests*. <https://doi.org/10.1007/s11056-020-09825-y>
- Commender, K.E., J.F. Munsell, A. Ares, B.J. Sullivan, and J.L. Chamberlain. The Effects of Cost-Share Participant Experience on Forest Buffer Retention. 2020. *Small-scale Forestry*. 19:253–273: <https://doi.org/10.1007/s11842-020-09435-8>
- Sarr*, M.S., J.R. Seiler, and J. Sullivan. Growth and Physiology of *Senegalia senegal* (L.) Britton Seedlings as Influenced by Seed Origin and Salinity and Fertility Treatments. 2017. *Forests*. 8(10) 388: doi:10.3390/f8100388
- Hanzelka*, N.C., J. Sullivan, M.C. Bolding, and S.M. Barrett. Economic Feasibility of Utilizing Precommercially Thinned Southern Pine as a Woody Biomass Energy Source. 2016. *Forest Products Journal*. 66(5-6):354-361.
- Xu*, Y., G.S. Amacher and J. Sullivan. Amenities, Multiple Natural Disturbances, and the Forest Rotation Problem. 2016. *Forest Science*. 62(4): 422-432.
- Xu*, Ying, G.S. Amacher, and J. Sullivan. Optimal Forest Management with Sequential Disturbances. 2016. *Journal of Forest Economics*. Vol. 24(August):106-122.
- Hanzelka*, N.C., M.C. Bolding, J. Sullivan, and S.M. Barrett. Productivity and Costs of Utilizing Small-diameter Stems in a Biomass-only Harvest. 2016. *International Journal of Forest Engineering*. Vol. 27(1): 43-52.
- Morris, B.C., M.C. Bolding, W.M. Aust, K.J. McGuire, E.B. Schilling and J. Sullivan. Differing Levels of Forestry Best Management Practices at Stream Crossing Structures Affect Sediment Delivery and Installation Costs. 2016. *Water*. 83(3): doi:10.3390/w8030092
- Watson*, A., J. Sullivan, G. Amacher and C. Asaro. Cost Sharing for Pre-commercial Thinning in Southern Pine Plantations: Willingness to Participate in Virginia's Pine Bark Beetle Prevention Program. 2013. *Forest Policy and Economics*. 34(September):65-72.
- Sullivan, J. and G.S. Amacher. Optimal Hardwood Tree Planting and Forest Reclamation Policy on Reclaimed Surface Mine Lands in the Appalachian Coal Region. 2013. *Resources Policy*. 38:1-7.
- Sullivan, J. and G.S. Amacher. Private and Social Costs of Surface Mine Reforestation Performance Criteria. 2010. *Environmental Management*. 45(2):311-319.

- Vokoun, M., G.S. Amacher, J. Sullivan and D. Wear. Examining Incentives for Adjacent Non-industrial Private Forest Landowners to Cooperate. 2010. *Forest Policy and Economics*. 12(2):104-110.
- Sullivan, J. and G.S. Amacher. Social Costs of Mine-land Reclamation. 2009. *Land Economics*. 85(4): 712-726.
- Goodnow*, R., J. Sullivan and G.S. Amacher. Ice Damage and Forest Stand Management. 2008. *Journal of Forest Economics*. 14(4):268-288.
- Sullivan, J., J. Aggett*, G. Amacher and J. Burger. Financial Viability of Reforesting Reclaimed Surface Mined Lands, the Burden of Site Conversion Costs, and Carbon Payments as Reforestation Incentives. 2006. *Resources Policy*. 30(2006):247-258
- Sullivan, J., G.S. Amacher and S. Chapman*. Forest Banking and Forest Landowners: Forgoing Management Rights for Guaranteed Financial Returns. 2005. *Forest Policy and Economics*. 7(2005):381-392.
- Conway, M.C., Amacher, G.S., J. Sullivan and D. Wear. Decisions Nonindustrial Forest Landowners Make: An Empirical Examination. 2003. *Journal of Forest Economics*. 9(3):181-203.
- Amacher, G.S., M.C. Conway and J. Sullivan. Econometric analysis of Nonindustrial Forest Landowners: Is there anything left to study? 2003. *Journal of Forest Economics*. 9(2):137-164.
- Jenkins*, D.H., J. Sullivan, G.S. Amacher, N.S. Nicholas and D.W. Reaves. Valuing High Altitude Spruce-Fir Forest Improvements: Importance of Forest Condition and Recreation Activity. 2002. *Journal of Forest Economics*. 8(1):77-99.
- Fina, M., G.S. Amacher and J. Sullivan. Uncertainty, Debt, and Forest Harvesting: Faustmann Revisited. 2001. *Forest Science* 47(2):188-196.
- Sullivan, J. and G.S. Amacher. A Framework for Designing Forest Subsidies: Linking Landowner and Regional Impacts in the Mississippi Delta. 1999. *Forest Science* 45(3):381-393.
- Amacher, G.S., J. Sullivan, L. Shabman, L. Zepp and D. Grebner. Reforestation of Flooded Farmland: Policy Implications from the Mississippi River Delta. 1998. *Journal of Forestry* 96(5):10-17.
- Miller*, G.W. and J. Sullivan. Model for Multi-Stand Management Based on Structural Attributes of Individual Stands. 1997. *Forest Ecology and Management* 96(1997):261-271.
- Sullivan, J. and J.K. Gilles. Assessing Public Timber Harvest Impacts in a Mixed Public/Private Stumpage Market. 1996. *INFOR* 34(3):198-208.
- Reyner*, K., W. Leuschner and J. Sullivan. A Silviculture Investment Model for Industrial Forests. 1996. *Forest Products Journal* 46(1):25-30.

- Gericke*, K.L. and J. Sullivan. Assessing Regional Economic Contributions from National Park System Units. 1996. *Park Science* 16(2):24-26.
- Cox*, E.S. and J. Sullivan. Harvest Scheduling with Spatial Wildlife Constraints: An Empirical Examination of Tradeoffs. 1995. *Journal of Environmental Management* 43(4):333-348.
- Gericke*, K.L. and J. Sullivan. Public Participation and Conflict in Forest Service Planning-- An Empirical Examination. 1994. *Society and Natural Resources* 7(2):125-135.
- Johnson*, D.G. and J. Sullivan. Economic Impacts of Civil War Battlefield Preservation Options: An Ex-Ante Evaluation. 1993. *Journal of Travel Research* 32(1):21-29.
- Teeter, L., G. Somers and J. Sullivan. Optimal Forest Harvest Decisions: A Stochastic Dynamic Programming Approach. 1993. *Agricultural Systems Journal* 42(1993):1-12.
- Sullivan, J. and J.K. Gilless. Empirical Assessment of the Accuracy of a Sensitivity Formula for Technical Coefficients. 1992. *Southern Business and Economics Journal* 15(3):170-185.
- Gericke*, K.L., J. Sullivan and J.D. Wellman. Public Participation in National Forest Planning: Perspectives, Procedures, and Costs. 1992. *Journal of Forestry* 90(2):35-38.
- Sullivan, J. and J.K. Gilless. Hybrid Econometric/Input-Output Modeling of the Cumulative Economic Impact of National Forest Harvest Levels. 1990. *Forest Science* 36(4):863-877.
- Sullivan, J. and J.K. Gilless. Cumulative Employment Effects on Northern California's Wood Products Industries from National Forest Timber Harvests. 1989. *Forest Science* 35(3):856-862.
- Sullivan, J., P.N. Omi, A.A. Dyer and A. Gonzalez-Caban. Evaluating the Economic Efficiency of Wildfire Rehabilitation Treatments. 1987. *Western Journal of Applied Forestry* 2(2):58-61.
- Alward, G.S., J. Sullivan and T.W. Hoekstra. Using Socioeconomic Data in the Management of Fishing and Hunting on Public Lands. 1984. *Transactions of the Forty-Ninth North American Wildlife and Natural Resources Conference*. pp. 91-103.
- Proceedings** (*-Indicates a student for whom I was advisor/co-advisor, presenters in bold)
- Hanzelka*, N.C. M.C. Bolding, S.M. Barrett and J. Sullivan. Feasibility of Utilizing Small Diameter Southern Pine for Biomass in the Virginia Coastal Plain. In: Schweitzer, C.J.; Clatterbuck, W.K.; Oswalt, C.M., eds. 2016. Proceedings of the 18th biennial southern silvicultural research conference. e-Gen. Tech. Rep. SRS-212. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 614 p.

- Xu, Y.*, **G. Amacher**, and J. Sullivan. Optimal Forest Management with Sequential Disturbances, Presented at International Society of Forest Economics, Raleigh NC April 3-4 2016
- Hanzelka*, N.C., **M.C. Bolding**, S. Barrett , and J. Sullivan. 2015. Using Pre-commercial Thinning Residues as a Woody Biomass Feedstock: An Economic Feasibility Analysis. 38th Annual Council on Forest Engineering Annual Meeting. July 19 – 22, 2015. Lexington, KY.
- Hanzelka***, N., C. Bolding, J. Sullivan, and S. Barrett. 2015. Feasibility of Utilizing Small Diameter. Southern Pine for Biomass in the Virginia Coastal Plain. 18th Biennial Southern Silvicultural Research Conference. March 2-5, 2015. Knoxville, TN.
- Sarr***, M., **J. Sullivan**, and J. Seiler. 2015. Gum Arabic Tree Management: Combining Ecophysiology and Financial Analysis to Increase Gum Arabic Supply in Senegal. Symposium sur les projets de recherche finances par l'USAID/ERA: La recherche collaborative, le transfert des technologies et des connaissances vers les acteurs du monde agricole. January 13-15, 2015. Dakar, Senegal.
- Sarr***, M., J. Sullivan, and J. Seiler. 2014. An economic analysis of growing Acacia senegal on its natural range in Senegal. ERA Senegal: Education and Research in Agriculture. Virginia Tech. September 19, 2014.
- Leveroos***, M. and J. Sullivan. 2013. Economic Viability of Woody Bioenergy as a Mine Reclamation Procedure. Southern Forest Economics Workers Meeting. Auburn, AL. March 10-12, 2013.
- Sullivan, J.** 2012. Optimal Hardwood Planting on Reclaimed Surface Mines. Fourth International Faustmann Symposium: Forest Economics under Multiple Challenges, September 9-12. Saariselkä, Lapland, Finland.
- Leveroos***, M.K., J. Sullivan and D.M. Evans. 2012. Economic Viability of Woody Bioenergy Crops as a Potential Mine Reclamation Procedure. Powell River Project Annual Meeting, UVA College at Wise. Sept 12, 2013.
- Sullivan, J.** 2011. Optimal Hardwood Planting, Policies, and Substrate on Reclaimed Surface Mines. Appalachian Regional Reforestation Initiative Annual Meeting. Knoxville, TN. August 2-4, 2011.
- Watson***, A. and J. Sullivan. 2011. Cost share payment and willingness to participate in Virginia's Pine Bark Beetle Prevention Program. Southern Forest Economics Workshop. Little Rock, AR. March 20-22, 2011.
- Sullivan, J.** 2010. Evolution of a Client-Based Forestry Capstone Course. 8th Biennial Conference on University Education in Natural Resources. Blacksburg, VA. March 25-27, 2010.
- Sullivan, J.** and G. Amacher. 2010. Costs of Performance Standards for Forestry Reclamation of Surface Mined Lands. Southern Forest Economics Workshop. Pinehurst, NC. March 15-

17, 2010.

- Sullivan, J.** and G.S. Amacher. 2008. Private and Social Costs of Surface Mine Reforestation Performance Criteria. Proceedings of National Ground Water Association/U.S. EPA Remediation of Abandoned Mine Lands Conference. Denver, CO. Oct. 2-3, 2008. 10 p.
- Baker*, K., **J. Sullivan**, J.A. Burger, G. Amacher. 2008. Coal Mine Reclamation in the Southern Appalachians: costs of forestry versus hayland pasture. Proceedings of Joint Conference of American Society of Mining and Reclamation, 25th Annual National Conference, and International Affiliation of Land Reclamationists, June 14-19, 2008, Richmond, VA.
- Sullivan, J.** and G. Amacher. 2007. Economics of Surface Mine Reforestation: Mine Operator and Landowner Perspectives. 2007 Mined Land Reforestation Conference. Abingdon, VA. August 7-8, 2007.
- Sullivan, J. and **G. Amacher**. 2007. Performance Bonding and Reforestation of Surface Mined Lands. Southern Forest Economics Workshop. San Antonio, TX. March 4-6, 2007.
- Aggett*, J., **J. Sullivan**, G. Amacher, J. Burger. 2004. Financial Viability of Forestland Restoration Following Surface Mining: Who pays the costs? Ohio DMRM Applied Research Conference 2004: Conservation and Restoration Innovations. Ohio University, December 8, 2004.
- Aggett*, J., **J. Sullivan**, G. Amacher and J. Burger. 2004. Financial Cost to Landowners Associated with Forestland Conversion to Non-Productive Uses in the Process of Surface Mining. Proceedings of Joint Conference of American Society of Mining and Reclamation, 21st Annual National Conference, and 25th West Virginia Surface Mine Drainage Task Force Symposium, April 18-22, 2004, Morgantown, West Virginia. pp. 9-19
- Fox, T.R., J. Sullivan**, J. Aggett*, J. Burger, G. Amacher, C. Zipper, and J. Galbraith. 2003. Restoring sustainable forests on Appalachian mined land for carbon sequestration, wood products, renewable energy and other ecosystem services. U.S. DOE/NETL Carbon Sequestration Program Review. Pittsburgh, PA, June 4, 2003
- Sullivan, J.**, G.S. Amacher and S. Chapman*. 2002. Forest Banking and Landowner Incentives: Management Rights v. Annual Returns. Southern Forest Economics Annual Meeting (SOFEW), Virginia Beach, Virginia, March 17-19, 2002
- Sullivan, J.**, G.S. Amacher and S. Chapman*. 2001. The Forest Bank – An Economic Perspective. Conference on Forest Banking, Abingdon, VA, October 23-24, 2001
- Sullivan, J.**, G.S. Amacher and C. Hensyl*. 2001. Tract and Landowner Characteristics: Forest Industry Procurement from NIPF Lands, Southern Forest Economists Annual Meeting (SOFEW), Atlanta, Georgia, March 27-28, 2001
- Amacher, G.S.**, J. Sullivan, C. Conway. 2000. Changing Landowner Preferences: Forest Fragmentation and Absenteeism, presented at conference on Sustaining Southern Forests:

The Science of Forest Assessment, Southern Forest Resource Assessment (SOFRA), Research Triangle Park, North Carolina, November 7-8, 2000

- Fina, M., **G.S. Amacher** and J. Sullivan. 1999. Uncertainty, Debt, And Forest Harvesting: Is the "Volvo Theorem" Myth or Reality? 150 Years of the Faustmann Formula: The Consequences for Forestry and Economics in the Past, Present, and Future. October 3-6, Darmstadt, Germany.
- Sullivan, J.** and G.S. Amacher. 1999. Linking Landowner Rents with Policy Design: Faustmann in the Delta. 150 Years of the Faustmann Formula: The Consequences for Forestry and Economics in the Past, Present, and Future. October 3-6, Darmstadt, Germany.
- Sullivan, J.** and G.S. Amacher. 1999. A New Framework for Linking Landowner and Regional Impacts When Designing Natural Resource Policies. Ninth Annual Conference of the European Association of Environmental and Resource Economists. June 25-27, Oslo, Norway.
- Sullivan, J.** and G.S. Amacher. 1998. Reforestation Subsidy Design Using IMPLAN. Proceedings of National IMPLAN Conference, October 16-17. Washington, D.C. pp. 61-68
- Sullivan, J.** and G.S. Amacher. 1998. Gaps in Landowner and Regional Economic Returns to Reforestation. presentation at Southern Forest Economics Workshop, March 25-27. Williamsburg, VA.
- Sullivan, J.**, D.W. McCollum, and G.S. Alward. 1996. Regional CGE Models Based on IMPLAN Social Accounts: Experiments in Arizona and New Mexico. Proceedings of the National IMPLAN Conference. August 15-16. Minneapolis, MN. pp. 12.1-12.23
- Amacher, G.**, M. Aust, D. Grebner, J. Groninger, L. Shabman, **J. Sullivan**, and L. Zepp. 1996. Landowners Financial Returns to Reforestation of Marginal Farmlands. presentation at Conference on Connecting Points of View in the Delta. August 13-15. Memphis, TN.
- Jenkins*, D.**, J. Sullivan, D.W. Reaves, N.S. Nicholas and G.S. Amacher. 1996. Sensitivity of Protection Value to Forest Quality in the Southern Appalachian Spruce-Fir Forest. presentation at the Southern Forest Economics Workshop. March 28-29, Gatlinburg, TN.
- Lindall, S.**, G. Alward, J. Sullivan and A. Hussain. 1995. IMPLAN SAM: A Social Accounting Matrix for Regional IO Systems. Mid-Continent Regional Science Association Meetings. June 3-4, 1995. 14 p.
- Jenkins*, D.H.**, J. Sullivan, N.S. Nicholas, S.M. Zedaker, G.J. Buhyoff, and T.G. Gregoire. 1994. Modeling Multiple Resource Values for the Southern Appalachian Spruce-Fir Forest. presentation at Southern Man and the Biosphere Conference. Nov. 14-17. Hendersonville, NC.
- Gericke*, K.L. and **J. Sullivan**. 1994. Multiple Destination Travel and the Travel Cost Method: An Empirical Analysis of Assumptions. abstract and presentation for the

Southern Forest Economics Workshop. March 27-29. Savannah, GA

Sullivan, J. 1994. Applications of Ecosystem Management. presentation for Appalachian Regional Meeting of the Society of American Foresters. Jan. 26. Charlottesville, VA.

Miller*, G.W. and J. Sullivan. 1993. Formulating a Stand Growth Model for Mathematical Programming Problems in Appalachian Forests. Proceedings of the Ninth Central Hardwood Forest Conference, Purdue University March 8-10, 1993. North Central Forest Experiment Station, General Technical Report NC 161. pp 353-362.

Gericke*, K.L. and J. Sullivan. 1992. Public Participation in National Forest Planning: an Ex Post Facto Examination. abstract and presentation at Fourth North American Symposium on Society and Resource Management. May 17-22. Madison, WI.

Gericke*, K.L., J. Sullivan and M.P. Hite. 1992. Economic Contributions of National Park Service Operations to Virginia. poster at Fourth North American Symposium on Society and Resource Management. May 17-22. Madison, WI.

Miller*, G. and J. Sullivan. 1992. Prescribing Optimal Harvests in Forests Containing Even-Aged and Uneven-Aged Stands. abstract and presentation at The Institute for Management Sciences - Operations Research Society of America 33rd Joint National Meeting. Bulletin Number 33. April 27-29. Orlando, FL.

Gericke*, K.L., J. Sullivan and M.P. Hite. 1992. Assessing the Economic Contributions of National Park Service Operations. Proceedings of the Southeastern Recreation Research Conference. February 13-14. Asheville, N.C.

Sullivan, J. 1991. Strategic Industry Behavior and Timber Supply in a Mixed Public/Private Stumpage Market. abstract and presentation at The Institute for Management Sciences-Operations Research Society of America 31st Joint National Meeting. Bulletin Number 31. May 12-15. Nashville, TN.

Sullivan, J., and M.P. Hite. 1991. Modeling the Interaction Between Public and Private Timber Supplies in a Local Forest Economy: A Mathematical Programming Approach. Proceedings of the 1991 Symposium on Systems Analysis in Forest Resources. USDA Forest Service, GTR SE-74, pp. 160-164. (presented by **L.D. Teeter** from Auburn University)

Refereed Book Chapters

Amacher, G., C. Conway, and J. Sullivan. 2004. Econometric investigation of nonindustrial forest landowners: a synthesis with new directions. pp 241-252. in: Rauscher, H. Michael; Johnsen, Kurt, eds. 2004. Southern forest science: past, present, and future. Gen. Tech. Rep. SRS-75. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 394 p.

Jenkins*, D., J. Sullivan, D.W. Reaves, N.S. Nicholas and G.S. Amacher. 1998. Sensitivity of Protection Value to Forest Quality: Linking Economic Value and Climate Change in the Southern Appalachian Spruce-Fir Forest. in: Mickler, R. and S. Fox, eds., *Productivity and*

Sustainability of Southern Forest Ecosystems in a Changing Environment. Springer-Verlag, New York. pp. 837-854.

Other Book Chapters

Sullivan, J. 1995. Linear Programming and Forest Planning. pp. 12.1-12.30 in: D. Rideout and H. Hessel, *Principles of Forest and Environmental Economics*. Resource and Environmental Management, LLC. Fort Collins, CO.

Other selected papers and reports

Amacher, G., and J. Sullivan (eds). 2003. Proceedings of the 2002 Southern Forest Economics Workshop, Virginia Beach, VA.

Sullivan, J., D.W. McCollum, and G.S. Alward. 2000. Using IMPLAN to Develop Computable General Equilibrium Models. USDA Forest Service. 57p.

Amacher, G., J. Sullivan, L. Shabman, L. Zepp, J. Groninger. 1997. Restoration of the Lower Mississippi Delta Bottomland Hardwood Forest: Economics and Policy Considerations. Research Bulletin 185, Virginia Water Resources Research Center, Virginia Tech, Blacksburg, VA. 115 p.

Sullivan, J., M.E. Patterson, and D.R. Williams. 1993. Shenandoah National Park Economic Impacts and Visitor Perceptions, 1992. USDI National Park Service. 78p.

Sullivan, J., K.L. Gericke*, M.P. Hite, and Y. Grow. 1993. Assessing the Economic Contributions of National Park Service Units: A Handbook. USDI National Park Service. 54p.

Sullivan, J., K.L. Gericke*, M.P. Hite, and Y. Grow. 1993. Economic Contributions from National Park Service Operations in the Commonwealth of Virginia. USDI National Park Service. 105p.

Palmer, C., E. Siverts and J. Sullivan. 1985. IMPLAN Version 1.1: Analysis Guide. USDA Forest Service, Land Management Planning Systems. 238p.

Alward, G.S. and B.J. Sullivan. 1984. Estimated Impacts of Increased Federal Grazing Fees on Income and Employment in 13 Western States. USDA Forest Service, Rocky Mountain Forest and Range Experiment Station. 126p.

Dyer, A.A., L.D. Teeter and B.J. Sullivan. 1983. The Role of Private Individuals and Firms, States and the Federal Government in Protection of State and Private Lands from Hazards of Wildfire. Special Series 26, Department of Forest and Wood Sciences, Colorado State University. 32p.

Sponsored Research

Pilot Study to Identify and Mitigate Contributing Factors of Crashes and Near Crashes Among Log Truck Drivers., University of Kentucky, Department of Health & Human Services, Principal Investigators: Barrett (FREC), Camden (VTTI), Miller (VTTI), Sullivan (FREC) , 2022-2023, \$15,000

Conservation Credits for Agroforestry Production: Agroforestry Non-point Nutrient Offsets in Virginia's Region of the Chesapeake Bay Watershed. PIs: John Munsell, Kevin McGuire, Stephen Schoenholtz, Jay Sullivan. Sponsor: National Fish and Wildlife Foundation. Dates: 2015-2018 Amount: \$250,896.

Conservation Credit for Agroforestry Production: Merging Water Quality Credit Markets and Agroforestry. co-PI with J. Munsell (PI), and K. McGuire. Sponsor: Natural Resources Conservation Service. \$285,729. 2015-2018

Advancing Agroforestry Riparian Buffer Implementation for Soil Health in VA. co-PI with J. Munsell (PI). Sponsor: Natural Resources Conservation Service. \$28,673. 2015-2016.

Education and Research in Agriculture: Senegal. co-PI with J. Seiler. Sponsor: USAID. \$108,989. 2014-2017.

Advancing NTFP Agroforestry Riparian Buffer Implementation for Soil Health in Virginia. co-PI with J. Munsell (PI). Sponsor: USDA NRCS, Conservation Innovation Grant program. \$73,993. 2014-2016

Continuation of Economic Viability of Woody Bioenergy Crops as a Potential Mine Reclamation Procedure: An undergraduate research proposal. co-PI with G. Amacher. Sponsor: Powell River Project. \$3700 for data collection of bioenergy plots using undergraduate researchers. 2014-2015.

Economic Viability of Woody Bioenergy Crops as a Potential Mine Reclamation Procedure: An undergraduate research proposal. PI: Jay Sullivan. Sponsor: Powell River Project. Amount: \$12,000 for data collection of bioenergy plots using undergraduate researchers. Dates: 2013-2016

Supplement to the Prevalence and Operational Feasibility of Utilizing Pre-Commercially Thinned Pine as a Woody Biomass Source. co-PI with C. Bolding and S. Barrett. Sponsor: Virginia Department of Forestry. \$12,250. 2013-2015.

Prevalence and Operational Feasibility of Utilizing Pre-Commercially Thinned Pine as a Woody Biomass Source. co-PI with C. Bolding and S. Barrett. Sponsor: Virginia Department of Forestry. \$20,000. 2012-2014.

Inclusive Excellence in Forestry Graduate Programs at Virginia Tech. co-PI with C. Copenhaver (PI), V. Thomas, and C. Bolding. Sponsor: USDA Food and Agricultural Sciences National Needs Graduate Fellowship Grants Program. \$256,500. 2011-2015.

Financial Viability of Southern Pine Beetle Prevention Measures in an Emerging Bio-energy

- Market. co-PI with G. Amacher. Sponsor: Virginia Department of Forestry. \$60,000, 2009-2011
- A Homeowner Model to Evaluate Incentives for Fire and Pest Prevention in Risk Prone Communities. co-PI with G. Amacher. Sponsor: USDA Forest Service. \$35,000, 2009-2010
- Restoring Sustainable Forests on Appalachian Mined Lands for Wood Products, Renewable Energy, Carbon Sequestration, and Other Ecosystem Services. co-PI with J. Burger, T. R. Fox, G. S. Amacher, C. Zipper, and J. Galbraith. Sponsor: U.S. Department of Energy. \$494,400. 2002-2006
- Reservation prices, land conversion, and carbon sequestration. co-PI with G.S. Amacher. Sponsor: USDA Economic Research Service. \$26,000. 2000-2001
- Land Parcelization, Expectations, Reservation Prices, and Nonindustrial Landowner Participation in Timber and Land Market Sales: Evidence from Virginia and Mississippi. co-PI with G. Amacher. Sponsor: USDA Forest Service - Southern Forest Resource Assessment Consortium. \$60,000. 1999-2001
- The Forest Bank: Concept to Reality. co-PI with G. Amacher, T. Hall, B. Hull, J. Johnson, and R. Wynne. Sponsor: USDA Fund for Rural America. \$448,275. 1998-2000
- Differences Between Nonindustrial and Industrial Landowner Behavior in Hardwood and Pine Regions of Virginia: Implications for Timber Supply. co-PI with G. Amacher, and J. Scrivani and R. Liu with the Virginia Department of Forestry. Sponsor: USDA Forest Service, Southern Forest Resource Assessment Consortium (SOFAC). \$16,000. 1997-1998
- Effect of Population Trends and Landowner Characteristics on the Virginia Forest Sector. co-PI with G. Amacher, and J. Scrivani and R. Liu with the Virginia Department of Forestry. Sponsor: USDA Forest Service, Southern Forest Resource Assessment Consortium (SOFAC). \$11,000. 1997-1998
- Benefits and Costs of Bottomland Hardwood Reforestation in the Mississippi Alluvial Plain. co-PI with G. Amacher and M. Aust, and L. Shabman in the Department of Agricultural and Applied Economics. Sponsors: Environmental Protection Agency and Business Council for Sustainable Development of the Gulf. \$58,100. 1996-1997
- Economic Impacts of the Blue Ridge Parkway. Sponsors: Coalition for the Blue Ridge and National Park Service. co-PI with Dr. Gene Brothers at North Carolina State University. Sponsors: Coalition for the Blue Ridge and National Park Service. \$12,500. 1995-1996
- Using IMPLAN to Develop Applied General Equilibrium Models. PI. Sponsor: USDA Forest Service. \$42,000. 1994-1998
- Preparation of a Comprehensive Natural Resource Management Plan for Indian Head Naval Surface Weapons Center. co-PI with P. Bolstad, and R. Giles in the Department of Fisheries and Wildlife Sciences. Sponsor: US Navy. \$46,500. 1994-1996

Forest Resource Management Plan for the White Oak Detachment. co-PI with Paul Bolstad.
Sponsor: US Navy. \$24,850. 1994

Development of a Geographic Information System Database for the Indian Head Naval Surface Warfare Center, Indian Head, MD. co-PI with P. Bolstad. Sponsor: U.S. Navy. \$60,000. 1993-1995

Modeling Multiple Resource Values for the Southern Appalachian Spruce-Fir Forest. co-PI with S. Zedaker, G. Buhyoff, and T. Gregoire, and N. Nicholas with Tennessee Valley Authority. Sponsor: USDA Forest Service Southern Global Climate Change Program. \$40,000. 1992-1994

Shenandoah National Park: Economic Impacts and Perceptions of the Park Environment. co-PI with Daniel R. Williams. Sponsor: USDI National Park Service. \$30,000. 1991-1993

Preparation of a Comprehensive Natural Resources Management Plan for the Naval Surface Warfare Center, Dahlgren, VA. co-PI with O. Hall, J. Smith, R. Oderwald, and J. Johnson. Sponsor: US Navy. \$60,000. 1991-1993

Distributional Economic Impacts of Civil War Battlefield Preservation Options. PI. Sponsor: USDI National Park Service. \$25,000. 1990-1991

Economic Contributions from National Park Service Operations in the Commonwealth of Virginia. co-PI with M. Hite in the Department of Fisheries and Wildlife Sciences. Sponsor: USDI National Park Service. \$98,069. 1990-1993

Optimizing Silvicultural Investment Decisions. co-PI with W. Leuschner. Sponsor: S.D. Warren Company (subsidiary of Scott Paper Co., Inc. \$30,000. 1990-1991.

Educational Grants

Enhancing Student Success in the College of Forestry and Wildlife: Rapid Identification of "At Risk" Students and Intervention Strategies, Virginia Tech Enhancing Student Success Program, co-PI with J. Seiler, and R. Kirkpatrick in Dept. of Fisheries and Wildlife Sciences. \$7,500. 1996-1997

Student Theses Directed

Mame Sokhna Sarr. 2017. Morphological and Physiological Responses of *Senegalia senegal* (L.) Britton Provenances to Drought, Salinity, and Fertility. Doctor of Philosophy, Virginia Tech. (co-chair)
recent employment: Centre National de Recherche Forestière of Institut Sénégalais de Recherche Agricole, Dakar, Senegal

Nathan Hanzelka. 2015. The prevalence and operational feasibility of utilizing pre-commercially thinned pine as a woody biomass energy source. Masters of Science, Virginia Tech, 70p. (co-chair)
recent employment: Forest Carbon Analyst, Finite Carbon, Portland, OR

- Ying Xu. 2014. Three essays on forestry economics and management. Doctor of Philosophy, Virginia Tech, 116p. (co-chair)
recent employment: Research Fellow, Centre for Global Food and Resources, University of Adelaide, Australia
- Maura Leveroos. 2013. Economic Viability of Woody Bioenergy Planting for Surface Mine Reclamation. Masters of Science, Virginia Tech, 95p.
recent employment: Bioenergy Analyst, Seattle City Light, Seattle, WA
- Adam Watson. 2011. Cost share payment and willingness to participate in Virginia's Pine Bark Beetle Prevention Program. Masters of Science, Virginia Tech, 83p.
recent employment: Senior Investment Analyst, Global Forest Partners LP, Boston, MA
- Katherine Baker. 2008. Costs of Reclamation on Southern Appalachian Coal Mines: A cost-effectiveness analysis for reforestation versus hayland/pasture reclamation. Masters of Science, Virginia Tech, 103p.
recent employment: Biologist, Virginia Dept of Game and Inland Fisheries, Amelia County, VA
- Curt Hensyl. 2005. Impacts of Land and Ownership Characteristics on the Stumpage Prices on Virginia's Nonindustrial Forests. Masters of Science, Virginia Tech, 100p.
recent employment: Land Sales Team Manager, Raydient Inc. (REIT subsidiary of Rayonier Inc.), Fernandina, FL
- Jonathan Aggett. 2003. Financial Analysis of Restoring Sustainable Forests on Appalachian Mined Lands for Wood Products, Renewable Energy, Carbon Sequestration, and Other Ecosystem Services. Masters of Science, Hosner Scholarship Award, Virginia Tech, 201p.
recent employment: Senior Staff-Portfolio Manager, Hancock Timber Resources Group, Boston, MA
- Rocky Goodnow. 2002. Effects of Ice Damage on Management Decisions for Loblolly Pine Plantations Located in the Piedmont Region of Virginia. Masters of Science, Virginia Tech.
recent employment: Vice President of the North American Timber Service, Forest Economic Advisors LLC, Boston, MA
- Jared Wayman. 1998. Effects of Croptyping According to Age Class Aggregation Levels on Harvest Scheduling in a Slash Pine Forest in Northern Florida. Undergrad thesis project, School of Forestry, University of Canterbury, Christchurch, New Zealand, 40p.
- Dylan H. Jenkins. 1996. Modeling Forest Protection Values for the Southern Appalachian Spruce-Fir Forest. Masters of Science, Virginia Tech, 117p.
recent employment: Vice President of Portfolio Development, FiniteCarbon, Wayne, PA
- Kevin L. Gericke. 1993. Multiple Destination Trips and the Economic Valuation of Outdoor Recreation Sites. Doctor of Philosophy, Dann Fellowship Award Recipient, Virginia Tech, 137p.
recent employment: Professor of Economics, West Kentucky Community and Technical College, Paducah, KY

- Gary W. Miller. 1993. Prescribing Optimal Harvests in Forests Containing Even-aged and Uneven-aged Stands. Doctor of Philosophy, Virginia Tech, 111p.
recent employment: Research Forester, Ecology and Management of Invasive Species and Forest Ecosystems Research Unit, USDA Forest Service, Morgantown, WV
- Eric S. Cox. 1993. Comparing Spatial and Non-Spatial Harvest Scheduling Methods on the Naval Surface Weapons Center. Masters of Science, Virginia Tech, 130p.
recent employment: Forest Planning Analyst, F&W Forestry Services, Inc., Charleston, SC
- Kris M. Reyner. 1991. Development of a Prototype Model for Optimizing Silvicultural Investment on a Diverse Forest Ownership in Central Maine. Masters of Science, Virginia Tech, 86p.
recent employment: Senior Planning Analyst, Hancock Natural Resource Group, Charlotte, NC
- Daniel G. Johnson. 1991. Distributional Economic Impacts of Civil War Battlefield Preservation Options. Masters of Science, Virginia Tech, 81p.
recent employment: State Senator, State of Idaho
- Kevin L. Gericke. 1990. Public Participation in National Forest Planning. Masters of Science, Virginia Tech, 85p.
recent employment: Professor of Economics, West Kentucky Community and Technical College, Paducah, KY

Teaching

Course	Credits	Taught
Regular Course Assignments:		
FOR 4424 Forest Resource Management	3	25x – 1993-2015
FOR 4444 Integrated For Mgt Practicum	3	18x - 1999-2015
FOR 3434 For Econ Field Lab (co-teach)	1	18x – 1992-2008
FOR/FREC 5416 Adv. Forest Mgt & Econ	3	14x – 1989-2023
FOR 4424 Forest Resource Management	4	4x – 1989-1992
FREC 1984 Discov Forest & Environ Mgt	1	2x – 2024-2025
FREC 2414 Field Exper in FREC (co-teach)	2	1x - 2025
FREC 4014 Natural Resources Economics	3	1x – 2023
FREC 4004 Prof Skills Nat Res (co-teach)	1	1x - 2023
FOR 4434 Forest Resource Policy	3	1x – 1989
Regular Guest Lectures:		
FOR 4334 Agroforestry		economics module
FOR/FREC 4444 Integrated For Mgt Practicum		economics module
FREC 4014 Natural Resource Economics		international trade, linear programming

Reviewing

Manuscript reviews (journals)

Agricultural and Resource Economics Review
Agroforestry Systems Journal
Canadian Journal of Forest Research
Ecological Applications
Forest Ecology and Management
Forest Products Journal
Forest Science
International Journal of Forecasting
International Journal of Wildland Fire
Journal of Forest Economics
Journal of Forest Policy and Economics
Journal of Forestry
Journal of Festival Management and Event Tourism
Leisure Sciences
Natural Resources Modeling
Northern Journal of Applied Forestry
Society and Natural Resources
Southern Journal of Applied Forestry

Associate Editorships

Forest Science/Southern Journal of Applied Forestry, August 2012-2015
Forest Science, March 2001-March 2004
Journal of Forestry, January 1997-August 2001
Guest Associate Editor, *Forest Science*, 1989-94, 2000-2001, 2005

Other Reviews/Advisory Roles

Society of American Foresters, Committee on Accreditation, 2019-present
Mountain Gateway Community College, Advisory Board, 2017-2023
Virginia Forestry Association, Board of Directors, 2016-2019
Reynolds Homestead Advisory Board, 2016-2023
Appalachian Regional Reforestation Initiative Science Board
Review of University of Virginia, Weldon Cooper Center, Value of Virginia's Forests
Review of USDA Forest Service, Northern Region, Scheduling of Vegetation Management Activities in Forest Plan Revisions
National Science Foundation proposal reviews
Review of Virginia Timber Supply Assessment, Virginia Department of Forestry
Review of Sierra Nevada Ecosystem Management Project/Economic Assessment for the University of California, Berkeley and USDA Forest Service
Review of State of Minnesota Environmental Impact Statement on Timber Harvesting for the University of Minnesota
Advisor to USDI National Park Service North Atlantic Region, reviewed economic impact analysis efforts of Minuteman National Historical Park
Advisor to USDA Forest Service Region 8, region-wide economic impact analysis efforts
Advisor to USDA Forest Service Region 8, timber demand analysis efforts
Economic impact modeling of northern spotted owl preservation options in northern

California, University of California and Mason, Bruce and Girard of Portland, OR
Book review of A. Rose, B. Stevens and G. Davis. 1988. Natural Resource Policy and Income
Distribution. *Forest Science*, 34(3):820-821.

External reviewer of dossiers for promotion to full or associate professor

University of Tennessee
Auburn University
Michigan State University
Michigan Tech
Ohio State University
Oregon State University
State University of New York, ESF
University of California, Berkeley
University of Georgia