# **CURRICULUM VITAE**

# Darek J. Nalle

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## October 2023

#### **EDUCATION:**

**Degrees:** Ph.D. (2001) Operations Research and Forest Management Science, Oregon State University

Thesis title: Optimizing Spatial and Temporal Aspects of Land Management

Actions under Economic and Ecological Objectives

Field areas: Finance; Markets and Trade; Management Science; Economics;

Applied Statistics.

M.S. (1998) Major: Operations Research, Oregon State University, Corvallis, OR

Minor: Applied Statistics.

B.S. (1993) Major: Mathematics and Statistics, Miami University, Oxford, OH

Concentration: Finance

#### **EXPERIENCE:**

Center Director and Senior Instructor (2022-present):

University of Oregon Lundquist College of Business Cameron Center for Finance and Securities Analysis

Courses taught: FIN 606 Masters Investment Group Seminar

Director and Instructor (2016-2022):

University of Idaho: College of Business and Economics, Finance Faculty

Barker Capital Management and Trading Program

Courses taught: FIN 301 Introduction to Finance (Core)

FIN 409 Case Studies in Finance (Finance Capstone) BUS 490 Strategic Management (Core Capstone) FIN 465 Introduction to Markets and Trading

FIN 468 Advanced Market Trading (Barker Capstone)

FIN 404 Speaker Series (joint with AGEC)

FIN 404 Macroeconomic Trends (joint with ECON)

Research Economist (2011-2014)

USDA Forest Service, Rocky Mountain Research Station, Missoula Fire Sciences Laboratory. National wildland fire financial risk forecasting and budget allocation.

Economic Modeling Specialists International, Moscow, ID (2009 – 2011, 2014-2016):

Financial and Economic Consultant.

Projects included Financial investment planning in the MENA region; Green workforce development for the States of California and Pennsylvania; Expert witness for Exelon Corporation

Assistant Professor (2005 – 2009):

University of Idaho: Department of Forest Products

Courses taught: Economics for Natural Resource Managers (undergraduate)

Timber harvest scheduling (undergraduate/graduate) College of Natural Resources Senior Capstone

Forecasting (undergraduate)

Advanced Trading I and II (undergraduate/graduate)
Advanced Forest Mensuration (undergraduate/graduate)

Faculty advisor, Rotchford T. Barker Capital Management and Trading Program

PhD advisees: Keith Coulter (USA), 2008-2009:

"Forecasting the state of the U.S. forest products industry"

Miguel Henry (Chile), 2006-2008:

"Ecosystem pricing"

Assistant Professor (2003 – 2005):

University of Nevada, Reno: Department of Resource Economics Courses taught: Quantitative Methods in Economics (graduate),

Decision Analysis (undergraduate)
Introduction to Statistics (undergraduate)

Independent Study (graduate).

Research Assistant Professor (2001 – 2003):

University of Nevada, Reno: Department of Resource Economics

Courses taught: Introduction to Statistical Methodology, Independent Study.

Graduate Research Assistant:

(1998 – 2001) Oregon State University: Department of Forest Resources.

(1998) Pacific Northwest Tree Improvement Cooperative, Corvallis, OR

(1997-1998) Intel Corporation, Aloha, OR

Graduate Teaching Assistant (1995-1998, 2000-2001):

Oregon State University: Department of Forest Resources and Department of Statistics.

Graduate: Linear Programming; Nonlinear Programming; Stochastic Processes;

Micro Economic Theory; Mathematical Statistics I and II.

Undergraduate: Forest Economics I and II; Introduction to Statistics; Statistics for

Engineers; Regression Analysis.

### OTHER PROFESSIONAL EXPERIENCE

Demitri Mogli Morales LLC (2023-present) Principal

Fabricure (2022 – 2023)

Co-founder

https://www.fabricure.com/

Fabric offset accreditation and credit exchange

Style Her Empowered S H E (2018 – 2023):

**Board of Directors** 

https://styleherempowered.org/

Nalle Consulting LLC (2014 – 2018):

Principal

Market and non-market valuation, analysis, and forecasting

Battelle Pacific Northwest Laboratory (1994-1995):

Data Analyst

Duties: modeling physical and chemical properties of high-level nuclear waste containers.

### **OTHER SKILLS**

Technical: R, MATLAB (advanced)

SAS, C, VBA, Python (exposure)

Organizational: Writing, Marketing, Media, Stakeholder engagement

CFA Affiliate Member

Language: Spanish (intermediate)

Mandarin, Russian, French (in progress)

### **TEACHING ACCOMPLISHMENTS:**

Areas of Specialization: Finance, Economics, Management Science, Statistics

Courses Taught: Masters Investment Group, FIN 606 2022-2023

Introduction to Finance, FIN 301, Aug, 2016 – 2022 Case Studies in Finance, FIN 409, Jan, 2017 – 2022 Advanced Market Trading, FIN 468, Aug, 2017 – 2022 Strategic Management, BUS 490, Jan, 2017 – 2022

Natural Resource Economics, NRS 383, 2005-2008, 2015-2017

Forest Measurements, FOR 275, Jan., 2008 Forest Operations, FOR 430, Aug 2006 Experimental Design, STAT 507, Jan, 2017

Introduction to Statistics, STAT 251, Aug, 2001-2005 Optimization Methods, RE 599, Aug 2002-2005

Decision-making Under Uncertainty, RE 451, Aug 2003-2005

### **Students Advised:**

Undergraduate Students: approximately 50 per year

PhD advisees: Keith Coulter (USA), 2008-2009:

"Forecasting the state of the U.S. forest products industry"

Natalia Plesha (Ukraine), 2007-2008:

"Cointegration of North American softwood lumber markets"

Miguel Henry (Chile), 2006-2008: "Ecosystem pricing"

MS Committee: Soria, Jorge A. (Ecuador), 2005:

"Estimating North American softwood lumber cross-price elasticities of

demand using discrete choice consumer preferences"

### Non-credit Classes, Workshops, Seminars, Invited Lectures, etc.:

2021: 1<sup>st</sup> Barker Student Symposium, Sole organizer
Board members, elected politicians, industry, UI President and faculty from across Colleges in attendance. Headlined by Idaho Governor Brad Little.

2018-2022: Host, Barker Capital Management Board of Directors Meetings

2018: Idaho Certified Public Manager Program, Decision-making <a href="https://cpm.idaho.gov/">https://cpm.idaho.gov/</a>

### **SCHOLARSHIP ACCOMPLISHMENTS:**

(Peer-reviewed manuscripts)

Paveglio, T.B., **Nalle, D.J.**, Edgeley, C. 2016. Measuring expected structure damage from wildland fire based on ownership attributes: a case study in Whitefish, Montana. *The International Journal of Wildland Fire*. In review.

Nalle, D.J., Hand, M.S. 2016. Optimal budget allocation among heterogeneous spatial loss functions: an application in wildland fire. In review.

Thompson, M.P., Hand, M.S., Gilbertson-Day, J.W., Vaillant, N.M., **Nalle, D.J.** 2013. Hazardous fuel treatments, suppression cost impacts, and risk mitigation. Proceedings of the fourth international symposium on fire economics, planning, and policy: climate change and wildfires. Gen. Tech. Rep. PSW-GTR-245.

Epanchin-Niell, R., **Nalle, D.J.**, Englin, J. 2009. Investing in rangeland restoration in the Arid West, USA: Countering the effects of an invasive weed on the long-term fire cycle. *Journal of Environmental Management* 91(2):370-379.

Shook, S.R., Plesha, N., and **Nalle, D.J.** 2009. Does cointegration of North American species of softwood lumber prices imply nearly perfectly substitutable products? *Canadian Journal of Forest Research* 39(3):553-565.

Shook, S.R., Soria, J.A., and **Nalle, D.J.** 2007. Examination of North American softwood lumber species substitution using discrete choice preferences and disaggregated markets. *Canadian Journal of Forest Research* 37(12):2521:2540.

**Nalle, D.J.** 2005. A comparison of fixed-site and non-fixed-site approaches for species protection. 2<sup>nd</sup> Special issue of *Environmental Modeling and Assessment* 10(3):229-238.

**Nalle, D.J.**, Arthur, J.L., and Montgomery, C.A. 2005. Economic impacts of adjacency and green-up constraints for harvest scheduling. *Journal of Forest Economics* 10(4):189-205.

Bower, A.D., Adams, W.T., Birkes, D., and **Nalle, D.J.** 2005. Response of annual growth ring components to soil moisture deficit in young, plantation grown Douglas-fir in coastal British Columbia. *Canadian Journal of Forest Research* 35(10): 2491-2499.

**Nalle, D.J.**, Montgomery, C.A., Arthur, J.L., Schumaker, N.H., and Polasky, S. 2004. Modeling joint production of wildlife and timber. *Journal of Environmental Economics and Management* 48(3):997-1017.

Nalle, D.J., Schumaker, N.H., Montgomery, C.A., Arthur, J.L, and Polasky, S. 2004. Estimating extinction risk with spatial and temporal measures. *Computers, Environment, and Urban Systems*, in review. Slawta, J.N., Wilcox, A.R., McCubbin, J.A., Nalle, D.J., Fox, S.D., and Anderson, G. 2003. Health behaviors, body composition, and coronary heart disease risk in women with multiple sclerosis. *Archives of Physical Medicine and Rehabilitation* 84(12):1823-1830.

Nalle, D.J., Arthur, J.L., and Sessions, J. 2002. Designing compact and contiguous reserve networks with a hybrid heuristic approach. *Forest Science* 48(1):59-68.

Nalle, D.J., Arthur, J.L., Montgomery, C.A., and Sessions, J. 2002. Economic and spatial impacts on an existing

reserve network on future augmentation. Special issue of Environmental Modeling and Assessment 7(2):99-105.

Calkin, D., Montgomery, C.A., Schumaker, N.H., Polasky, S., Arthur, J.L., and **Nalle, D.J.** 2002. Developing a production possibility set of wildlife species persistence and timber harvest value using simulated annealing. *Canadian Journal of Forest Research* 32: 1329-1342.

Slawta, J.N., McCubbin, J.A., Wilcox, A.R., Fox, S.D., **Nalle, D.J.** and Anderson, C.L. 2002. Coronary heart disease risk between active and inactive women with multiple sclerosis. *Medicine and Science in Sports and Exercise* 34(6):905-912.

Arthur, J.L. and **Nalle, D.J.** 1997. Clarification on the use of linear programming and GIS for land-use modeling. *International Journal of Geographical Information Science*, Vol. 11(4):397-402.

(Peer-reviewed proceedings papers)

**Nalle, D.J.** and Arthur, J.L. 2004. Transportation costs and biodiversity: an application in forestry. Fifth Triennial Symposium on Transportation Analysis. Le Gosier, Guadeloupe, French West Indies.

Niell, R., **Nalle, D.J.**, and Englin, J. 2004. Modeling economic and ecological benefits of post-fire revegetation in the Great Basin: an application of Markov processes. Proceedings of Annual Meeting of the American Agricultural Economics Association.

Montgomery, C.A., Calkin, D., Schumaker, N.H., Polasky, S., Arthur, J.L., and **Nalle, D.J.** 2000. Modeling the compatibility of biological and economic objectives on a forested landscape. Proceedings of the 2000 International Institute of Fisheries Economics and Trade Conference, Corvallis, OR.

Arthur, J.L. and **Nalle, D.J.** 2000. Quadratic zero-one problems with generalized lower bound constraints. Proceedings of the International Workshop on the Quadratic Assignment Problem and Extensions, Kasetsart University, Thailand.

Arthur, J.L, Montgomery, C.A., Calkin, D., **Nalle, D.J.**, Polasky, S., Schumaker, N. 1999. Balancing economics and conservation in forest land management. Proceedings of the Fifth International Conference of the Decision Sciences Institute, Athens, Greece.

(Book chapters and other)

Shonkwiler, S. and **Nalle, D.J.** Testing for random utility maximization. <u>Exploring Frontiers in Applied Economics, Essays in Honor of Stanley R. Johnson</u>. Berkeley Electronic Press, 2006.

**Nalle, D.J.** "Optimization in nature reserve site selection", in <u>Systems Analysis in Forestry</u>, eds. T. Barrett and G. Amacher, Society of American Foresters, Bethesda, MD 2003. (*Non-technical*)

Nalle, D. and O'Laughlin, J. 2007. "Can U.S. forest owners profit from carbon markets?". Western Forester 52(2).

O'Laughlin, J. and **Nalle, D.** 2007. "Carbon and forest management: markets, wildfires, and air quality". Western Forester 52(2).

"Red star restoration project: FEIS", K. Jones: Interdisciplinary Team Leader, Tahoe National Forest, November 2002, http://www.r5.fs.fed.us/tahoe/management/star\_restoration/red\_star\_feis/start\_here.htm.

Adams, W.T., Anekonda, T., Bauer, A., and **Nalle, D.J.** 2000. Genetic heritability of response to drought in coastal Douglas-fir. Pacific Northwest Tree Improvement Cooperative Annual Report.

**Nalle, D.J.** and Arthur, J.L. 1999. Developing heuristic algorithms for combinatorial problems in resource management. Dept. of Statistics Technical Paper, Oregon State University, Corvallis, OR.

(National and International Professional presentations)

Nalle, D.J. 2007. Carbon: the new commodity. INFORMS International Meeting. San Juan, Puerto Rico.

Nalle, D.J. 2007. Optimizing a carbon portfolio. INFORMS Annual Meeting. Seattle, WA.

Nalle, D.J. 2005. Spatial bundling strategies. INFORMS Annual Meeting, San Francisco, CA.

**Nalle, D.J.** 2005. Land use, conservation, and dynamic network analysis. INFORMS Computing Society Conference, Annapolis, MD.

Niell, R., **Nalle, D.J.**, and Englin, J. 2005. Modeling economic and ecological benefits of post-fire revegetation in the Great Basin: an application of Markov processes. Annual Meeting of the American Agricultural Economics Association, Denver, CO.

**Nalle, D.J.** 2004. Changes in systemic variable costs of timber harvest under certification-type restrictions. INFORMS Annual Meeting, Denver, CO.

**Nalle, D.J.** and Arthur, J.L. 2004. Transportation costs and biodiversity: an application in forestry. Fifth Triennial Symposium on Transportation Analysis. Le Gosier, Guadeloupe, French West Indies.

Nalle, D.J. 2003. Generalizations of optimization for species protection. SAF Symposium on Systems Analysis in Forest Resources, Stevenson, WA.

Arthur, J.L. and **Nalle, D.J.** 2003. Optimization of conservation planning methods. EURO/INFORMS Joint International Meeting, Istanbul, Turkey.

**Nalle, D.J.** 2003. Fixed- and non-fixed-site methods for species protection: comparisons for understanding and dialogue. USDA W-1133 Annual Meeting, Las Vegas, NV.

Shonkwiler, S. and **Nalle, D.J.** 2003. Testing for random utility maximization. Exploring Frontiers in Applied Economics, a Symposium in Honor of Stanley R. Johnson, Ames, IA.

**Nalle, D.J.**, and Arthur, J.L. 2002. Predicting the efficacy of harvest practice restrictions on species populations. INFORMS Annual Meeting, San Jose, CA.

**Nalle, D.J.**, Montgomery, C.A., Arthur, J.L., Polasky, S. 2002. Finding efficient management strategies for timber production and species conservation. Western Forest Economists Annual Meeting, Mt. Hood, OR.

**Nalle, D.J.**, Arthur, J.L., Montgomery, C.A., Polasky, S. 2002. Economic impacts of adjacency and green-up constraints for harvest scheduling. Invited presentation at Symposium on Systems Analysis in Forestry, sponsored by IFORS and IUFRO, Punta de Tralca, Chile.

Polasky, S., Montgomery, C.A., Arthur, J.L., **Nalle, D.J.**, and Schumaker, N. 2002 Land management with ecological and economic objectives. Economic Analysis and Land Use Policy: Proceedings of the U.S. Environmental Protection Agency's Office of Economy and Environment and National Center for Environmental Research and Quality Assurance.

Montgomery, C.A., **Nalle, D.J.**, Arthur, J.L., Polasky, S., and Schumaker, N. 2002. Land Management with Ecological and Economic Objectives: Developing a Production Possibility Set of Wildlife Species Persistence and Timber Harvest Value. ASSA Annual meeting, Atlanta, GA.

Nalle, D.J., Montgomery, C.A., Arthur, J.L., Polasky, S., and Schumaker, N. 2001. Finding efficient combinations of economic and ecological landscape uses. Invited presentation at INFORMS General Meeting, Miami Beach, FL.

Nalle, D.J., Arthur, J.L, Montgomery, C.A., and Sessions, J. 2001. The effect of existing reserves on optimal reserve

design. Invited presentation at INFORMS General Meeting, Miami Beach, FL.

Nalle, D.J., Arthur, J.L., Montgomery, C.A., and Sessions, J. 2000. Designing compact and contiguous reserve networks under a budget constraint. SAF Symposium on Systems Analysis in Forest Resources, Snowmass Village,

Nalle, D.J. and Arthur, J.L. 2000. Comparison of heuristic algorithms in sustainable land management. Invited presentation at INFORMS General Meeting, Salt Lake City, UT.

Nalle, D.J., Montgomery, C.A., Arthur, J.L., Schumaker, N.H., Polasky, S., Calkin, D. 2000. Maximal species survival as a function of timber harvest volume. INFORMS General Meeting, Salt Lake City, UT.

Nalle, D.J. and Arthur, J.L. 1998. Extensions of a decomposition-type genetic algorithm for multiple objective design. INFORMS General Meeting, Seattle, WA.

Nalle, D.J. and Arthur, J.L. 1997. A genetic algorithm with decomposition. SIAM 45th Anniversary Meeting, Palo Alto, CA.

(United States Congressional Reports)

National Cohesive Wildfire Strategy Management Strategy. (2011-2012)

Red Star Fire Environmental Impact Statement. (2001-2003)

(Referee Activity)

American Journal of Agricultural Economics Computational Statistics and Data Analysis Computers and Operations Research Environmental Modeling and Assessment European Journal of Operations Research Forest Products Journal Forest Science **Interfaces** International Journal of Wildland Fire International Transactions in Operations Research

Journal of Environmental Economics and Management

Journal of Environmental Management

McGraw-Hill (finance and economics textbooks reviewer)

Operations Research

\$285,447

Southern Nevada Public Land Management Act proposal coordinator and reviewer (2004-2005, 2008-2009)

### **Grants and Contracts Awarded:**

	suppression policies: measuring returns on investment", (2013-2016). Joint Fire Science Program.
\$74,000	PI: "Estimating softwood lumber and panel price relationships and distortions from imperfect spot price information", (2008-2010). USDA Wood Utilization Research
\$209,370	PI: "Human, physical, and natural capital investment in Patagonia: a predictive approach under the sustainability criterion", (2007-2009). National Science Foundation.

Co-PI: "Evaluating spatiotemporal tradeoffs under alternative fuel management and

\$118,500	PI: "Simultaneous optimization of public captured benefits and firm lease revenue from large land holdings: welfare effects and policy implications", (2006-2008). USDA McIntire-Stennis Program.
\$52,693	Co-PI: "Supplier reaction to news: effect of information disclosure on lumber future prices, wholesale prices, and production response", (2006-2008). USDA Wood Utilization Research.
\$11,295,717 (\$590,593)	Sub-PI: "A regional experiment to evaluate effects of fire and fire surrogate treatments in the sagebrush biome", (2005-2009). Invited submission by Joint Fire Science Program.
\$143,120	Co-PI: "Interactions between ungulate species and rangeland in Nevada", (2004-2006). Arid Rangeland Initiative.
\$74,000	Co-PI: "Valuing catastrophic wildfire risk reduction activities", (2004-2005). USDA

### **SERVICE:**

¢110 500

## **Professional and Scholarly Organizations and Committees**

### **External:**

National Cohesive Wildland Fire Management Strategy, Phase II: Report to Congress (2012), <a href="https://www.forestsandrangelands.gov/documents/strategy/reports/phase2/CSPhaseIIReport\_FINAL2012052">https://www.forestsandrangelands.gov/documents/strategy/reports/phase2/CSPhaseIIReport\_FINAL2012052</a> 4.pdf

International Federation of Operational Research Societies

- INFORMS International Puerto Rico (2007) Program Committee Co-chair and Contributed Sessions Chair
- 17<sup>th</sup> Triennial Conference of the International Federation of Operations Research Societies Cluster on Renewable and Natural Resources organizing committee co-chair (2005)
- Foresty Cluster organizing committee member (2002, 2004)

#### Society of American Foresters

- Symposium on Systems Analysis in Forest Resources (2003): program committee member
- Officer of E4 working group in Management Science and Operations Research

# **Outreach and Service:**

- 2021: Founder and Chair of the first Barker Student Conference, with Governor Brad Little sending a video message, President Green opening, Board members and industry representatives in attendance, with 100+ students. Catered lunch.
- 2019: Created new futures trading accounts for the Barker program.
- 2019: Initiated online messaging platform with Barker alumni for real time market information exchange.
- 2019: Oversaw the creation of new Barker Capital Management logos and apparel distribution.
- 2018: Chair and Organizer of The1st Annual Barker Risk Management Symposium, Moscow, ID.
- 2018-present: Barker Capital Management Federal and State tax filings; LLC updates and corrections to charter with Idaho Secretary of State.

2018-present: Created and maintained social media presence for the Barker Program.

2018-present: Recruited 20 industry experts to speak with advanced Barker students, including Dennis Gartman (The Gartman Letter and frequent CNBC guest, <a href="https://www.thegartmanletter.com/">https://www.thegartmanletter.com/</a>), Tom Sosnoff (Tastytrade, Tastyworks)

2018-present: Lead groups of 18 (2018) and 13 (2019) students to Chicago to tour the trading floor of the Chicago Board of Trade, crisis room of the Chicago Mertchantile Exchange, review new trading software (<a href="https://dough.com/">https://dough.com/</a>), meet with the chief economist of Archer Daniels Midland, co-founder of Rice Dairy, among others.

2018: National Tax Payers Union, Open Letter to President Trump and Congress on Trade Policies, <a href="http://www.aei.org/publication/1100-economists-sign-letter-to-voice-opposition-to-tariffs-and-protectionism/">http://www.aei.org/publication/1100-economists-sign-letter-to-voice-opposition-to-tariffs-and-protectionism/</a>.

2017-present: Barker Program student recruitment, University of Idaho Barker Trading Competition.

2017-present: Initiated a student working group with Northwest Farm Credit Services to research and recommend hedging strategies for NWFCS's clients, presentation to entire company via intranet.

2017-present: Judge for Idaho Pitch Competition.

2017-present: Initiated a student working group with Northwest Farm Credit Services to research and recommend hedging strategies for NWFCS's clients, presentation to entire company via intranet.

2007: Invited presentation to Idaho State legislators on state carbon policy.

2004: Lake Tahoe Summit, by Invitation of U.S. Senator Harry Reid.

2003-2006: Technical advisory board to KOLO-TV News-channel 8 and the Lake Tahoe Environment Education Coalition weekly initiative for public education to improve environmental and socioeconomic conditions at Lake Tahoe. "The Lake Tahoe Report" television segments received the Gold Award from the Association of Natural Resource Extension Professionals.

2003: Determination of poker odds and special payouts for John Acshuaga's Nuggett Casino, Reno, NV

### **Community Service:**

2018 – 2023: Style Her Empowered (S H E) Member of Board of Directors. <a href="https://styleherempowered.org/">https://styleherempowered.org/</a>

#### **AWARDS:**

Outstanding Teacher, University of Idaho, 2022