

Kimiko Nygaard Barrett, Ph.D.

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Wildfire researcher and policy analyst who partners with key leaders and decision makers to inform policy, support locally driven solutions, and help communities thrive in a changing world.

Education:

Ph.D. – Forestry & Conservation Sciences	University of Montana, College of Forestry & Conservation	2010 – 2014
M.Sc. – Geography	Montana State University, Department of Earth Sciences	2006 – 2008
B.S. – Political Science Minor – Japanese	Montana State University; Kumamoto University, Kyushu, Japan	1999 – 2004

Research Experience:

- **Wildfire Mitigation:** ♦ structural ignition vulnerabilities ♦ fire behavior ♦ risks and mitigation to the built environment ♦ economic analyses of wildfire costs and impacts ♦ home ignition zone (HIZ) ♦ building codes and land use planning standards ♦ home development trends in wildfire-prone areas ♦ wildfire policy and federal legislation ♦ risk and hazard assessments
- **Climate Adaptation:** ♦ adaptive capacity ♦ resiliency quantitative and qualitative methodologies ♦ geospatial modeling and analysis ♦ climate trends and projections
- **Social and Economic Vulnerability:** ♦ underserved populations ♦ unequal impacts ♦ institutional, cultural, political, and economic barriers ♦ underlying structural root causes

Research Interests:

- **Professional:** ♦ program administration, implementation, and monitoring ♦ applied research and data analysis ♦ contracting oversight ♦ budget tracking ♦ geospatial processing and mapping ♦ scientific, technical, and creative writing ♦ graphic development ♦ communications and outreach ♦ event planning
- **Software:** ♦ Microsoft Office 365, ♦ Adobe Creative Cloud (Acrobat, InDesign, Illustrator, Photoshop) ♦ ESRI Desktop 10.7+ (ArcMap, ArcGlobe, ArcScene, ArcCatalog) ♦ Tableau ♦ SPSS V.21
- **Personal:** communication (verbal and written) ♦ group and meeting facilitation ♦ community development and engagement ♦ interdisciplinary sciences ♦ project leadership ♦ public speaking and presentation ♦ independent

Experience:

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| Headwaters Economics | • Research and policy lead – conducting unique research, data collection, and analysis to inform policy and disseminate knowledge on wildfire risks, structural ignition vulnerabilities, economic costs of wildfires, land use planning and building codes, and community adaptation. |
| Lead Wildfire Researcher & Policy Analyst | • Served on the Federal Wildland Fire Mitigation and Management Commission.
• Program management – administration and oversight of Community Planning Assistance for Wildfire (CPAW), a program providing communities with free technical assistance, communication tools, research, and land use planning recommendations to live with increasing wildfire risks.
• Community development – engaging with diverse local partners to enhanced understanding, identify community wildfire risks, and implement strategies to reduce risks to the built environment. |
| July 2015 – Present | |

- Montana State University** • General project management – project tracking and monitoring, robust knowledge of government agency administration, environmental permitting processes, communications, and routine correspondence with broad range of stakeholders.
- Communications Manager
2012 – 2015
- Identification of funding resources, proposal design development, and grant submittal.
 - Drafting, editing, and generation of public outreach materials and related educational products including handouts, brochures, and reference materials; event planning.
- Association of American Geographers**
- Literature review compilation, research synthesis, data aggregation, and project presentation of geographically informed climatological and scientific contributions.
 - Design and development of AAG Climatological online content management system, including content generation, website maintenance, and database administration.
- Research & Software Consultant 2013
- University of Montana**
- In-depth analysis, review, and critique of rural collaborative development projects and the identification of multi-scalar factors enabling and inhibiting program implementation and long-term sustainability.
 - Wide dissemination of results through public outreach and peer-reviewed publications.
- Research Associate
2013

Publications

- 2023 Calkin, D., Barrett, K. Cohen, J., Finney, M., Pyne, S., and Quarles, S. 2023. Wildland-urban fire disasters aren't actually a wildfire problem. *Proceedings of National Academy of Sciences*. 120(51).
- 2023 Barrett, K. and Dale, L. 2023. *Missing the Mark: Effectiveness and Funding in Community Wildfire Risk Reduction*. Bozeman, MT: Headwaters Economics.
- 2022 Barrett, K., Quarles, S., and Gorham D.J. 2022. Construction Costs for a Wildfire-Resistant Home: California Edition. Bozeman, MT: Headwaters Economics. True Wildfire Costs
- 2020 Barrett, K. 2020. Land use planning can reduce wildfire risk to homes and communities. Bozeman, MT: Headwaters Economics.
- 2018 Barrett, K. 2018. Reducing wildfire risk in the wildland-urban interface: Policy, trends, and solutions. *Idaho Law Review: Natural Resources & Environmental Law Ed.* 55(1): 3-28.
- 2017 Barrett, K. and Bosak, K. 2018. The role of place in adapting to climate change: A case study of Ladakh, Western Himalayas. *Journal of Sustainability* 10(898). DOI:10.3390/su10040898.
- 2014 Barrett, K. 2014. "Examining Local Vulnerabilities and Adaptive Capacities to Climate Variability in High Mountain Environments: A Case Study of Northern Ladakh, India." (Doctoral Dissertation). University of Montana. ProQuest Dissertation Publishing.
- 2014 Nygaard, K. and Bosak, K. 2014. A critical assessment of the Mineral County Challenge: The role and implications of scale in collaborative development. *Journal of Rural Studies* 34: 235-245.
- 2013 Nygaard, K. 2013. "A Trickle Runs Through It: Scarcity, Surpluses and the Uncertainties of Water Resource in Montana." One Montana Technical Report. Sept. 2013.
- 2012 Nygaard, K. and Bosak, K. 2012. "Assessing the Mineral County Challenge: Understanding the Process of Community Development and Conservation Synergy in Montana." Report Prepared for McIntire-Stennis Cooperative Forestry Program.