

VIRGINIA FRANCES FAY

Assistant Professor of Economics
Institute of Social and Economic Research
University of Alaska Anchorage
3211 Providence Drive
Anchorage, Alaska 99508
907-786-5402
vfay@alaska.edu

EDUCATION

M.A., University of Washington, Seattle, Washington, Economics (specializing in Natural Resources)

B.A., Evergreen State College, Olympia, Washington, Biology

M.A.T., Masters of Teaching, University of Alaska Southeast

PROFESSIONAL EXPERIENCE

2008-present-Assistant Professor of Economics primarily responsible for applied energy research, state energy policy development, economic review of alternative energy projects and fuel price and quantity research.

2001-2008 -Economist (Principal, *EcoSystems*): Economic Research and Analysis, emphasis on energy and environmental economics projects.

1996-2001-Director, Alaska Office of Tourism and Economic Development, and Special Assistant to the Commissioner of Commerce

Responsible for tourism marketing, business and community development and planning activities, budget and personnel management, research, legislative hearings and presentations. Project manager for Alaska Visitor Statistics Program IV, a \$2 million survey research and economic analysis project.

1992-1997-Research economist on natural resource management, oil spill prevention and response, environmental assessments, land use planning, invasive species, community and tourism development, business evaluations, and labor market analysis.

1986-1992-Economist, Alaska State Legislature and Office of the Governor

Principal research analyst of public policy issues and legislation. Prepare written and oral briefings, and testify at legislative hearings. Areas of specialization include energy economics; oil spill planning, prevention, and response; natural resource taxation; fisheries; public finance; and higher education. Principal economist for the legislative review of the Alaska salmon enhancement program.

1980-1986-Economist

Principal economist and author for the Alaska Department of Fish and Game, Alaska Habitat Guides Project, Economic Overview of Fish and Wildlife Use, a comprehensive report on the economic role of commercial fishing, sport fishing, hunting, subsistence, and nonconsumptive use of fish and wildlife in the Alaska economy. Other major projects included development of an entry limitation program and regulations and fiscal modeling of Alaska commercial fisheries.

Research ecologist and economist for the A.W. Mellon Foundation study on the 1985 Alaska National Interest Land Conservation Act Tongass National Forest review.

Research Economist, Institute of Economic Research, University of Washington. Developed a bioeconomic model to determine the economic loss to a fishery perturbed by oil contamination and conducted economic analysis of predator-prey relationships.

1974-1980-Wildlife Biologist, U.S. Forest Service, Sitka, Alaska, Enterprise, Oregon.

Project leader for field study of Vancouver Canada geese, passerines, brown bear, and small mammals. Conducted field research monitoring the effect of DDT applications on forest birds in northeastern Oregon.

OTHER EXPERIENCE

University of Alaska Southeast: Adjunct faculty, economics.

University of Alaska Southeast Natural History of Glacier Bay and Birds of Southeast Alaska courses instructor; wilderness back country guide and natural history instructor for kayaking, mountaineering. Director and teacher of environmental education and youth conservation program. Designed and implemented projects integrating environmental education with job training.

Attended high school in La Paz, Bolivia- Proficient in Spanish.

Private pilot certification, July 1981.

Alaska Governor's Oil and Gas Policy Council, member

SELECTED PUBLICATIONS AND TECHNICAL REPORTS

Fay, Ginny and Ben Saylor, 2014, Alaska Energy Data Gateway, *Witness the Arctic*, Volume 18, No. 1, Arctic Research Consortium of the United States.

Colt, S.; Fay, Ginny, 2014. Economics of Wilderness: Contribution of Alaska Parks and Wilderness to the Alaska Economy. *Alaska Park Science*. Submitted 1/29/14, in press.

Fay, Ginny, Tobias Schwörer, Mouhcine Guettabi, Jeffrey Armagost, 2013, *Analysis of Alaska Transportation Sector to Assess Energy Use and Impacts of Price Shocks and Climate Change Legislation*, Institute of Social and Economic Research, University of Alaska Anchorage, prepared for the Alaska University Transportation Center pp. 94.

Fay, Ginny and Nataliya Udovik, 2013, Factors Influencing Success of Wind-Diesel Hybrid Systems in Remote Alaska Communities: Results of an Informal Survey, *Renewable Energy Journal*, 57: 554-557.

Fix, P. J., A. Ackerman, & G. Fay. 2013. *2011 Denali National Park and Preserve visitor characteristics*. Natural Resource Technical Report NPS/AKR/NRTR—2013/669. National Park Service, Fort Collins, Colorado.

Fay, G. and Villalobos-Meléndez, A. and Pathan, S. and Armagost, J. 2013. Alaska Fuel Price Projections 2013-2035, Technical Report, Institute of Social and Economic Research, University of Alaska Anchorage, prepared for the Alaska Energy Authority, 19 pages.

Fix, P. J., A. Ackerman, & G. Fay. 2012. *Estimating visits to Denali National Park and Preserve: Spring/Summer 2011*. Natural Resource Technical Report NPS/AKR/NRTR—2012/641. National Park Service, Fort Collins, Colorado.

Fay, G. and Villalobos-Melendez, A. and Pathan, S. 2012. *Alaska Fuel Price Projections 2012-2035*, Technical Report, Institute of Social and Economic Research, University of Alaska Anchorage, prepared for the Alaska Energy Authority.

Fay, G., P. Crimp, and A. Villalobos-Melendez, 2012, Alaska Renewable Energy Fund: How it Works and Lessons We've Learned, Institute of Social and Economic Research, University of Alaska Anchorage presented at the *International Journal of Environmental, Cultural, Economic and Social Sustainability Conference*, Vancouver, B.C., January 2012.

Fay, Ginny and Neal Christensen, 2012, Economic Significance Analysis of Visitation to Remote Alaska Public Lands: A Case Study of Katmai National Park and Preserve, *The George Wright Society Forum*, vol. 29, no. 1, 2012.

Fay, Ginny and Neal Christensen, 2012, Katmai National Park and Preserve Economic Significance Analysis and Model Documentation, in: Weber, Samantha, ed. 2012. *Rethinking Protected Areas in a Changing World: Proceedings of the 2011 George Wright Society Biennial Conference on Parks, Protected Areas, and Cultural Sites*. Hancock, Michigan: The George Wright Society.

Fay, Ginny, Alejandra Villalobos Meléndez, Amber Converse, 2012, *Alaska Energy Statistics 2010*, prepared for Alaska Energy Authority, June 2012.

Fay, Ginny and Alejandra Villalobos Meléndez, *All-Alaska Rate Electric Power Pricing Structure*, University of Alaska Anchorage, Institute of Social and Economic Research, prepared for the Alaska State Legislature, Senate Finance Committee, March 2012, 61 pages.

Fay, Ginny, Alejandra Villalobos Meléndez and Tobias Schwörer, *Power Cost Equalization Funding Formula Review*, University of Alaska Anchorage, Institute of Social and Economic Research, prepared for the U. S. Department of Energy National Renewable Energy Laboratory, March 2012, 82 pages.

Tobias Schwoerer, Ginny Fay, and Dennis Meiners, "The Chaninik Wind Group," chapter in *The Cool 100*, edited by James Haselip and David Pointing. UNEP Riso Centre on Energy, Climate and Sustainable Development, Riso DTU National Laboratory for Sustainable Energy, November 2011.

Fay, Ginny, Alejandra Villalobos Meléndez, Amber Converse, 2011, *Alaska Energy Statistics 2009*, prepared for Alaska Energy Authority, September 2011.

Fay, Ginny and Anna Anna Karlsdóttir, Social indicators for arctic tourism: observing trends and assessing data, *Polar Geography*, Vol. 34, Nos. 1-2, March-June 2011, pp. 63-86.

Kruse, Jack, Marie Lowe, Sharman Haley, Ginny Fay, Larry Hamilton and Matthew Berman, 2011, Arctic Observing Network Social Indicators Project: Overview, *Polar Geography*, 34 (1-2), Special Issue: Social Indicators for Observing Arctic Change (March-June 2011): 1-8.

Holdmann, G., Fay, G., Witmer, D., Williams, F., Schwörer, T., Pride, D., and Stevens, R., *Small Scale Modular Nuclear Power: an option for Alaska?*, prepared for the Alaska Energy Authority, June 2011.

Fay, G. and Villalobos-Melendez, A. and Pathan, S. 2011. *Alaska Fuel Price Projections 2011-2035*, Technical Report, Institute of Social and Economic Research, University of Alaska Anchorage, prepared for the Alaska Energy Authority, 13 pages.

Fay, G. and Schwörer, T., 2011, *Economic viability of CO2 Sequestration Technology in Alaska: How much would Carbon Capture and Storage add to the per-gallon-cost of producing liquid fuels from coal?* Technical Report, Institute of Social and Economic Research, University of Alaska Anchorage, prepared for the U.S. Air Force, 19 pages.

Fay, Ginny, Alejandra Villalobos Meléndez, Ben Saylor and Sarah Gerd, 2011, *Alaska Energy Statistics 2008*, prepared for Alaska Energy Authority, May 2011, 184 pages.

Steve Colt, Ginny Fay and Molly McCammon, A Simple, Effective Project Selection System for the Alaska Ocean Observing System, *Marine Technology Journal*, Volume 45, Number 1, January/February 2011.

Villalobos M., Alejandra, Sarah C. Gerd, Ginny Fay, *Greenhouse Gas Emissions Inventory from Transportation*, University of Alaska Anchorage, Institute of Social and Economic Research, University of Alaska Anchorage, prepared for the UAA Office of Sustainability, January, 2011.

Fay, Ginny, Katherine Keith and Tobias Schwörer, 2010, *Alaska Isolated Wind-Diesel Systems: Performance and Economic Analysis*, prepared for Alaska Energy Authority, June 2010.

Fay, Ginny and Neal Christensen, 2010, *Katmai National Park and Preserve Economic Impact Analysis and Model Documentation*, prepared for: National Park Conservation Association and National Park Service, Katmai National Park and Preserve.

Fay, Ginny; Colt, Steve; White, Eric M. 2010. *Data survey and sampling procedures to quantify recreation use of national forests in Alaska*. Gen. Tech.Rep. PNW-GTR-808. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 59 p.

Szymoniak, Nick; Fay, Ginny; Villalobos-Melendez, Alejandra; Charon, Justine; Smith, Mark. 2010. *Components of Alaska Fuel Costs: An Analysis of the Market Factors and Characteristics that Influence Rural Fuel Prices*. University of Alaska Anchorage, Institute of Social and Economic Research. Prepared for the Alaska State Legislature, Senate Finance Committee, 78 pages.

Fay, Ginny, Ben Saylor, Nick Szymoniak, 2010, *Alaska Fuel Price Projections 2009-2030*, University of Alaska Anchorage, Institute of Social and Economic Research, prepared for the Alaska Energy Authority, November 12, 2009, revised January 13, 2010, ISER Working Paper 2009.3.

Fay, Ginny, 2009, "Literature Review of Carbon Sequestration Costs and a Model of Capture and Sequestration Costs", in: Hanks, C., and Holdmann, G. (Eds.). 2009. *CO2 sequestration options and other environmental issues related to the proposed coal-to-liquids facility at Eielson Air Force Base*. Prepared for the U.S. Air Force by the Geophysical Institute and the Alaska Center for Energy and Power, University of Alaska Fairbanks, 191 pp.

Colt, Steve, Ginny Fay, and Molly McCammon, 2009, *Identifying Benefits and Costs of an Alaska Ocean Observing System*, Institute of Social and Economic Research, University of Alaska Anchorage.

Haley, Sharma, Ginny Fay, Hannah Griego, and Ben Saylor, 2009, "Social Conditions," Appendix G, "Kivalina and Noatak Community Descriptions," Appendix F in *Red Dog Mine Extension Aqqaq Project, Final Supplemental Environmental Impact Statement*, U.S. Environmental Protection Agency.

Darcy Dugan, Ginny Fay, Hannah Griego, Steve Colt. *Nature-Based Tourism in Southeast Alaska*, ISER Working Paper 2009.1, March 2009.

Fay, Ginny, 2009, *Economic Consequences of Recent Mount Redoubt Eruptions on Transportation*, Alaska University Transportation Center Newsletter, Vol. 3, Num. 1, May 2009.

Brigham, Tom, Charles Loeb, Robert Bush and Ginny Fay, 2009, *Denali Park Road Alternatives for Vehicle Management*, prepared for the National Park Service, Denali National Park and Preserve.

Foster, Mark A , Cady Lister , and Ginny Fay, 2008. *Lake & Peninsula Borough Energy Plan*, Prepared for the Lake & Peninsula Borough, July 2008.

Wilson, Meghan, Ginny Fay, Ben Saylor, Nick Szymoniak, and Steve Colt. 2008. *Components of Delivered Fuel Prices in Alaska*. Anchorage: University of Alaska Anchorage, Institute of Social and Economic Research.

Fay, Ginny and Stephen Colt, 2007, *Southwest Alaska Network Long-Term Visitor Use Monitoring Protocol Development, Final Report*, prepared for National Park Service, Southwest Alaska Network, Inventory and Monitoring Program, October 11, Contract Agreement Number: CA9088A0008.

Fay, Ginny. 2007. *Review and Recommendations on the Proposed US Forest Service Alaska Region Outfitter Guide Regulations*. Prepared for the Alaska Wilderness Recreation and Tourism Association.

Fay, Ginny; Darcy Dugan, Ian Fay-Hiltner, Meghan Wilson, and Steve Colt. 2007. *Testing a Methodology for Estimating the Economic Significance of Saltwater Charter Fishing in Southeast Alaska*. Anchorage Anchorage: University of Alaska Anchorage, Institute of Social and Economic Research.

Haley, Sharman, Ginny Fay, and Jane Anvik, 2007, *Viable Business Enterprises for Rural Alaska*, University of Alaska Anchorage, Institute of Social and Economic Research, prepared for the USDA, Rural Development-Alaska.

Dugan, Darcy, Ginny Fay, and Steve Colt. 2006. *Nature-Based Tourism in Southeast Alaska: Results from 2005 and 2006 Field Study*. Anchorage: Prepared for Alaska Conservation Foundation.

Brigham, Tom, Ginny Fay and David Sharfarz, 2006, *Needs Assessment & Feasibility Study for a Community Transportation System, Denali National Park and Preserve*, Task Order Number T2000041414, April, 2006.

Colt, Steve, and Ginny Fay. 2007. *The Regional Economy of Southeast Alaska*. Anchorage: Institute of Social and Economic Research.

Fay, Ginny. 2005. *Sustainable Economic Development for the Prince William Sound Region*. Prepared for the National Wildlife Federation, Alaska Office, in collaboration with Steve Colt and Tobias Schwoerer. University of Alaska Anchorage, Institute of Social and Economic Research, September 2005.

Fay, Ginny. 2005. *Analysis of the Benefit-Cost, Socioeconomic, and Traffic Demand Studies of the Juneau Access Environment Impact Statement*. Prepared for the Alaska Transportation Priorities Project.

Fay, Ginny. 2005. *Visitor and Employment Forecast, 2005-2015, Denali National Park and Preserve*. Prepared for the National Park Service.

Fay, Ginny, SuzAnne Miller and Dan McCollum, 2005. *Tourism Development Opportunities in Rural National Park Gateway Communities in Alaska*. Prepared for the National Park Service.

Fay, Ginny. 2004. *An Economic Vision for a Prosperous Alaska*. Prepared for the Prosperous Future Development Coalition.

Fay, Ginny. 2003. *A History of Alaska's Mega Projects*. Prepared for the Alaska Conservation Alliance.

Fay, Ginny. 2003. *Where the Rubber Meets the Road: Annual Alaska Road Maintenance Costs*. Prepared for the Alaska Conservation Alliance.

Fay, Ginny. 2003. *An Economic Review and Analysis of the Alaska State Land Disposal Program*. Prepared for the Alaska Conservation Alliance.

Fay, Ginny. 2003. *Alaska Timber Harvests and Export Volumes*. Prepared for the Alaska Conservation Alliance.

-
- Fay, Ginny. 2002. *Alaska Aquatic Nuisance Species Management Plan*. Prepared for the Alaska Department of Fish and Game.
- Fay, Ginny, and P. Saunders. 1996. *Community Response Center Manual*. Prepared for the Prince William Sound and Cook Inlet Regional Citizens' Advisory Councils.
- Fay, Ginny, et al. (Co-author). 1995. *Petition Submitted to State Local Boundary Commission for Annexation of the Dillingham-Nushagak-Togiak Territory to the Lake and Peninsula Borough and Transition Plan for Annexation of the Dillingham-Nushagak-Togiak Territory to the Lake and Peninsula Borough*, prepared for the Options for the Future Committee.
- Fay, Ginny, et al. (Co-author). 1994. *Juneau Access Improvements, Land Use and Coastal Zone Technical Report and The Socioeconomic Effects of Juneau Access Improvements*, technical reports, prepared for the Alaska Department of Transportation and Public Facilities.
- Fay, Ginny. 1994. *The Nickel-Per-Barrel Conservation Surcharge: A Review of Legislative History and Intent*. Prepared for the Prince William Sound Regional Citizens' Advisory Council.
- Fay, Ginny. 1993. *Funding Sources: City of Unalaska Proposed Capital Improvement Projects*. Prepared for the City of Unalaska.
- Fay, Ginny. and E. Read. 1991. *Child Support in Alaska: An Evaluation of the Effectiveness and Impact of Alaska's Child Support Guidelines*. Office of the Governor, Alaska Women's Commission, prepared for the Alaska Department of Revenue, Child Support Enforcement Division.
- Read, E. and Ginny Fay. 1991. *Alaska Civil Rule 90.3 and Child Support in 1989*. Alaska Justice Forum, Fall 1991, Vol. 8, No. 3.
- Fay, Ginny. 1989. *Higher Education Financing: Getting More for Less*. State of Alaska, House Research Agency, Report 89-A.
- Oakley, K. and Ginny Fay. 1989. *State of Alaska Budget: FY 84 - FY 89*. State of Alaska, House Research Agency, Report 89-E.
- Fay, Ginny, and Gretchen Keiser. 1988. *Energy Planning in Alaska: Past Efforts and a Future Direction*. State of Alaska, House Research Agency, Report 88-B.
- Fay, Ginny. 1986. *Sitka Black-Tailed Deer Hunter Economic Expenditure and Use Survey, Southeast Alaska*. Alaska Dept. of Fish & Game, Habitat Tech. Rept. 86-10, Nov. 1986.
- Fay, Ginny. 1986. *Moose Hunter Economic Expenditure and Use Survey, Southeast Alaska*. Alaska Dept. of Fish & Game, Habitat Tech. Rept. 86-8, Oct. 1986.
- Fay, Ginny. 1986. *Mountain Goat Hunter Economic Expenditure and Use Survey, Southeast Alaska*. Alaska Dept. Fish & Game, Habitat Tech. Rept. 86-9, Oct. 1986.
- Fay, Ginny. 1986. *Alaska Habitat Management Guide, Economic Overview of Fish and Wildlife*, Vol. I, II. Alaska Dept. of Fish & Game, Juneau, June 1986.
- Fay, Ginny. 1986. "Wildlife and Fisheries Resources of Southeast Alaska," and "Subsistence and Local Use of Forest Resources," in *America's Vanishing Rain Forest*. Washington, D.C.: The Wilderness Society.
- Fay, Ginny. 1975. "Douglas-fir Forest and Alder/Cedar Forest, Wintering Bird Census Studies." *American Birds* (Spring).

SELECTED POLICY ANALYSES (TECHNICAL MEMORANDA) PREPARED FOR ALASKA LEGISLATURE:

Child Support Guidelines in Alaska and Other States
Economic Impact of Alaska's Child Support Court Rule 90.3 on Family Income
Review of Healy Coal Power Generation Project Financial Feasibility Study
Railbelt Electrical Power Generation Capacity
Review of the Economic Feasibility Study of the Railbelt Utilities' Proposed 138 Kilovolt Electrical Intertie
Information on the Healy Cogeneration-Clean Coal Project
Local Raw Fish Taxes in Alaska
State Funding for Power Cost Equalization and Four-Dam Pool Projects
Railbelt Energy Capital Projects and Power Cost Equalization Appropriations
State Land Leasing for Wind Power Generation Facilities
Alaska Personal Tax Burden: Relationship to Income and State Spending
State Business and Occupation Taxes
Alaska Hardrock Mining Taxes and Tax Policy
Alaska Student Loan Bonding: Fiscal Effects
Tax Incentives to Encourage Recycling
State Procurement of Recycled Products
State of Alaska Natural Resource Revenues and Expenditures in FY 88
Rate Impacts of a Ten Percent Power Cost Equalization Budget Reduction
Overview of Railbelt Energy Projects
Seward Transmission Line Upgrade and Financing
Cost of Surplus Electricity from the Healy Coal Cogeneration Project
Amoco Cadiz Oil Spill Settlement and Cleanup
Computer-Based College Study
Incentives to Settle Outstanding Tax Liabilities
Corporate Unitary Taxation and its Effect on Alaska Revenues
Privatization of the Alaska Student Loan Program
Distribution of State Energy Project Funds and Power Cost Equalization Disbursements
Alaska Student Loans for Part-Time Students
State Revenue from Repayment of Energy Loans
State School Tax: History, Potential Revenues, and Policy Considerations
Power Cost Equalization Endowment Fund
Fiscal Effects of Changes to the Power Cost Equalization Formula and Structure
Independent Analyses of the Alberta Heritage Savings Trust Fund
Mining in Other Western States: Reclamation and Taxation Policies
Adjustment of the FY 79 Budget for Inflation and Population Growth
FY 89 Capital Budget by Election District
FY 89 Operating Budget: "Mandatory" and "Discretionary" Expenditures
Yukon River Fisheries Research and Historic Catch Information
Higher Education Financing: Savings Programs
Alaska Student Loan Information
PFD Program Modifications to Avoid Minors' Tax Liability
Chugach Electric Association Gas Contract Analysis
An Analysis of the Wasilla-Fairbanks Gasline Proposal
Alaska Energy Planning Statutes
Regulation of Cooperative and Publicly-Owned Electric Utilities

Cost of Natural Gas to Produce Power Equivalent to the Bradley Lake Hydroelectric Project

Gasoline and Fuel Oil Price Regulation

Bradley Lake Power Sales, Service, and Transmission Agreements

Interest Rates on the Four Dam Pool and Bradley Lake Hydroelectric Projects

Using the Permanent Fund to Finance the Bradley Lake Hydroelectric Project

Farmers' Markets: Competition and Regulation

State Child Care Programs

Programs for Alaska Seniors and Youths: Per Capita Expenditures

State Noise Pollution Statutes

Regulatory Exemptions for Small Utilities in Other States

Proposed Upgrade of the Fairbanks-Anchorage Electrical Intertie

Utility Advertising and Lobby Costs

Improving State Employment Opportunities for Rural Residents

Alberta Heritage Savings Trust Fund: Background and Financial Status

Alaska Permanent Fund Capital Gains

Permanent Fund Dividend Checks to Minors: Effect of 1986 Tax Law

Underground Storage Tanks Legislation and Regulation

Summary of the History of the Raw Fish Tax

Commercial Fishing Revolving Loan Program: Active Participation Criteria

Least-Cost Energy Programs and States' Energy Agencies

Bristol Bay Set and Drift Net Fisheries Permits