

Fishery Income Diversification and Risk for Fishermen and Fishing Communities of the US West Coast and Alaska

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Abstract

Catches and prices from many fisheries exhibit high inter-annual variability leading to variability in the income derived by fishery participants and communities dependent on the fisheries. The economic risk posed by this variability might be mitigated in some cases if individuals and communities participate in several different fisheries, particularly if revenues from those fisheries are uncorrelated or vary asynchronously. However, specialization in particular fisheries might be expected to yield higher profitability, and regulatory changes such as implementation of limited access and vessel and permit buybacks have made it more difficult for individuals to continue participating in a mix of fisheries. We construct indices of gross income diversification from West Coast and Alaskan fisheries. Indices are constructed at the level of individuals and fishing ports. We evaluate the relationship between variability of individuals' income and income diversification to determine whether income diversification appears to reduce financial risk. We use stochastic frontier production functions to evaluate whether vessels that are more diversified are less efficient, indicating a trade-off between risk reduction through diversification and profitability. We also evaluate trends in income diversification and how they have been impacted by regulatory changes.