Northeast Region Allocations

Overview of NER Allocations and Scup Allocation Case Study

September 23, 2014
Overview

• Review of NER allocations that may be subject to review
  • Commercial only
  • Commercial and Recreational
• Scup Allocation Case Study
  • SSC Panel Review
Allocations in the NER

- New England FMC
  - Atlantic Sea Scallops – General Category IFQ
    - Commercial only
- Northeast Multispecies
  - Commercial only for 8 species (14 stocks plus Georges Bank cod)
  - Commercial/Recreational for Gulf of Maine Cod
  - Criterion established to trigger consideration of explicit recreational allocation
Allocations in NER (continued)

- Mid-Atlantic FMC
  - Golden Tilefish IFQ
    - Commercial only
  - Surfclam/Ocean quahog IFQ
    - Commercial only
- Bluefish
  - Commercial/Recreational
  - Provision for in-season transfer of TAC
- Summer Flounder/Black Sea Bass/Scup
  - Commercial/Recreational
  - Summer flounder state allocations
Scup Allocation Case Study

• Background
  • Scup rebuilding plan implemented in 1999
  • Lower overall TAC
    • Restrictive recreational measures
    • Persistent recreational overages
    • Commercial fishery underage
  • 2009 Stock assessment scup resource rebuilt
  • MAFMC consider reallocation
    • Commercial/Recreational
    • Seasonal commercial allocation
    • Contracted with GCG to develop analytical tool
  • Subsequent change in ACL was so large that neither commercial nor recreational allocations were binding
  • Convened expert panel review of the tool
Scup Allocation Case Study

• Allocation tool consisted of 4 modules
  • Recreational marginal benefit
  • Commercial fishery producer surplus
  • Consumer surplus (compensating variation)
  • Party/Charter producer surplus
• Conceptual framework accepted by review panel
  • Note that recreational module had been previously reviewed so TOR omitted that module
• Concerns with the empirical application
Commercial Producer Surplus Module

- Estimated cost function
- Simulated marginal value of scup quota up to the total quota by adding additional trips (days-at-sea)
  - Cost data from observer program; really accounting net return and not a true measure of quasi-rent
Commercial Producer Surplus

• Recommendations
  • Treatment of costs really a means for imputing trip costs and not a well-behaved cost function
  • Substitute vessel characteristics as fixed factor in revenue function
  • Trips used in the simulation need to be consistent with the data used to estimate marginal demand for quota
  • Simulation forced all quota to be harvested, yet quota is not binding, raises issue about the model since MB should be zero
  • Model provides compensated supply and marginal value for all species groups. Means that change in scup quota changes marginal value of species groups; likewise for a change in quota for other species.
Consumer Surplus Module

• Used Synthetic Inverse Demand
• Recommendations
  • Need to properly identify the market structure for species and region of interest
  • Need to identify substitute species in the same local/regional market of species of interest
  • Similarly imports need to be associated with region
Party/Charter Producer Surplus

- Used NMFS survey data to estimate net return
  - Recommendations
    - Cost and earnings data not a measure if producer surplus
    - Need to account for opportunity cost of owner and capital
    - Need to consider whether mean is best estimator given probable skewed distributions
    - Need to examine representativeness of sample
    - If not simple random sample the estimators need to account for the sampling design
    - Party/charter trips catch many species so entire producer surplus cannot be attributed solely to scup
Summary Recommendations

• Need to distinguish between accounting profit/quasi-rent and producer surplus
• Allocation change in scup meant the quotas were not binding and allocation tool is not informative
• Need to consider valid range over which empirical estimates may be considered reliable
• Surplus estimates from empirical data are conditional on the data generating process, valuing changes in quota allocations are not independent of existing regulation
  • For commercial technical inefficiencies due to regulation
  • For recreational, bag, season, size limit