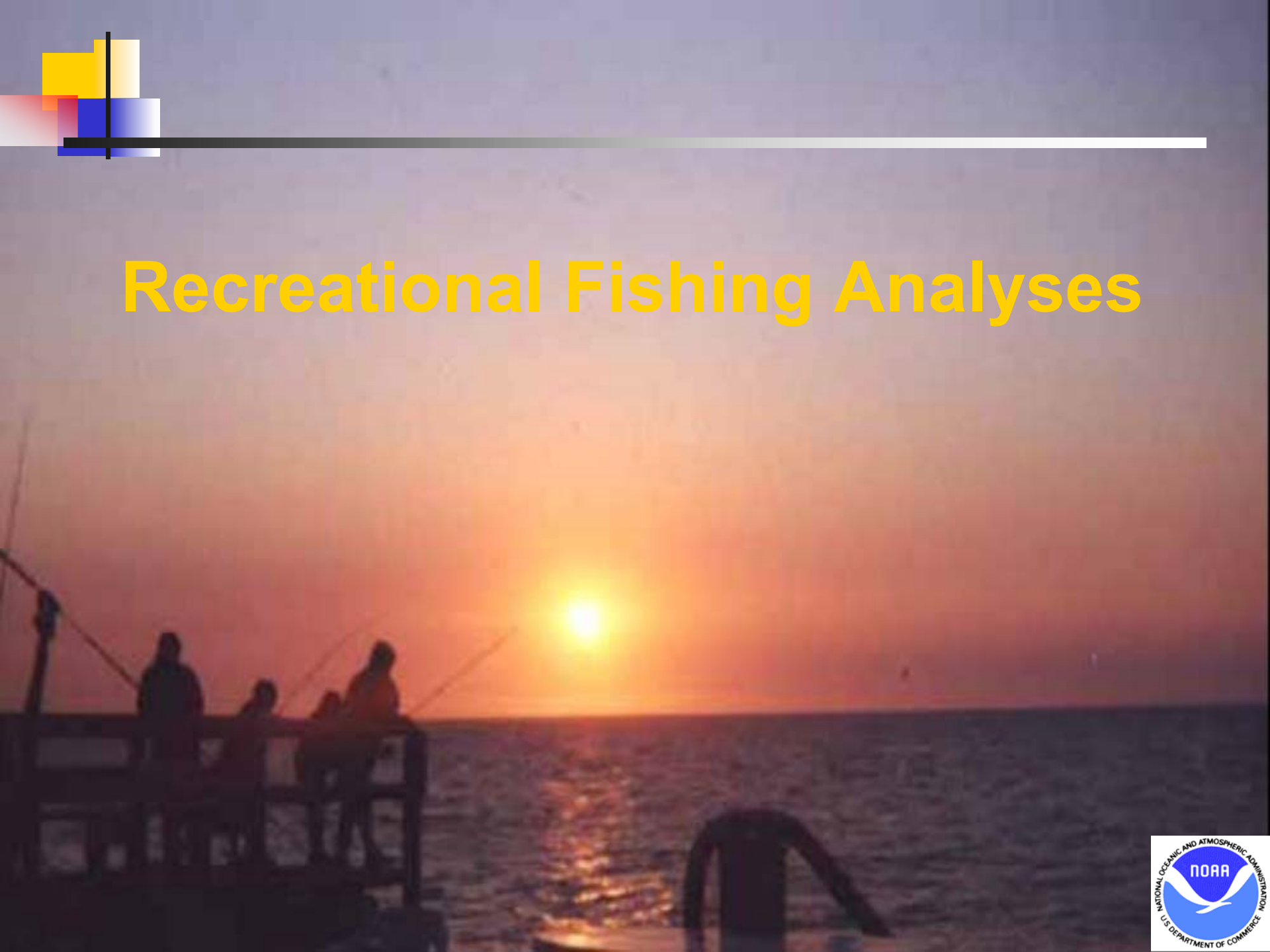


Recreational Fishing Analyses



Economic Impacts of Recreational Fishing Regulations

- Description of input-output model
 - Data sources
 - Methods for calculating numbers of affected trips
 - Analysis procedures
 - Limitations

Affected Human Environment (Recreational Harvesting Sector)

- Brief description of data and types of analyses
 - Long-term trends in NE recreational fishing
 - The role of groundfish in NE region recreational fisheries
 - Party/charter fisheries
 - Effectiveness of management regulations



Input-Output Model

- Data Sources

- MRFSS catch and effort database to identify the number of potentially affected recreational trips under each alternative
- 1998 add-on expenditure survey data (Steinback and Gentner 2001) <http://www.st.nmfs.gov/st1/econ/pubs.html>



Expenditure Items

Trip-Related Items

- Food and refreshments
- Lodging
- Private transportation
- Public transportation
- Boat fuel
- Guide or package fees
- Access/boat launching fees
- Equipment rental
- Bait
- Ice

Fishing Equipment (2-month)

- Rods, reels, and lines
- Other tackle and gear

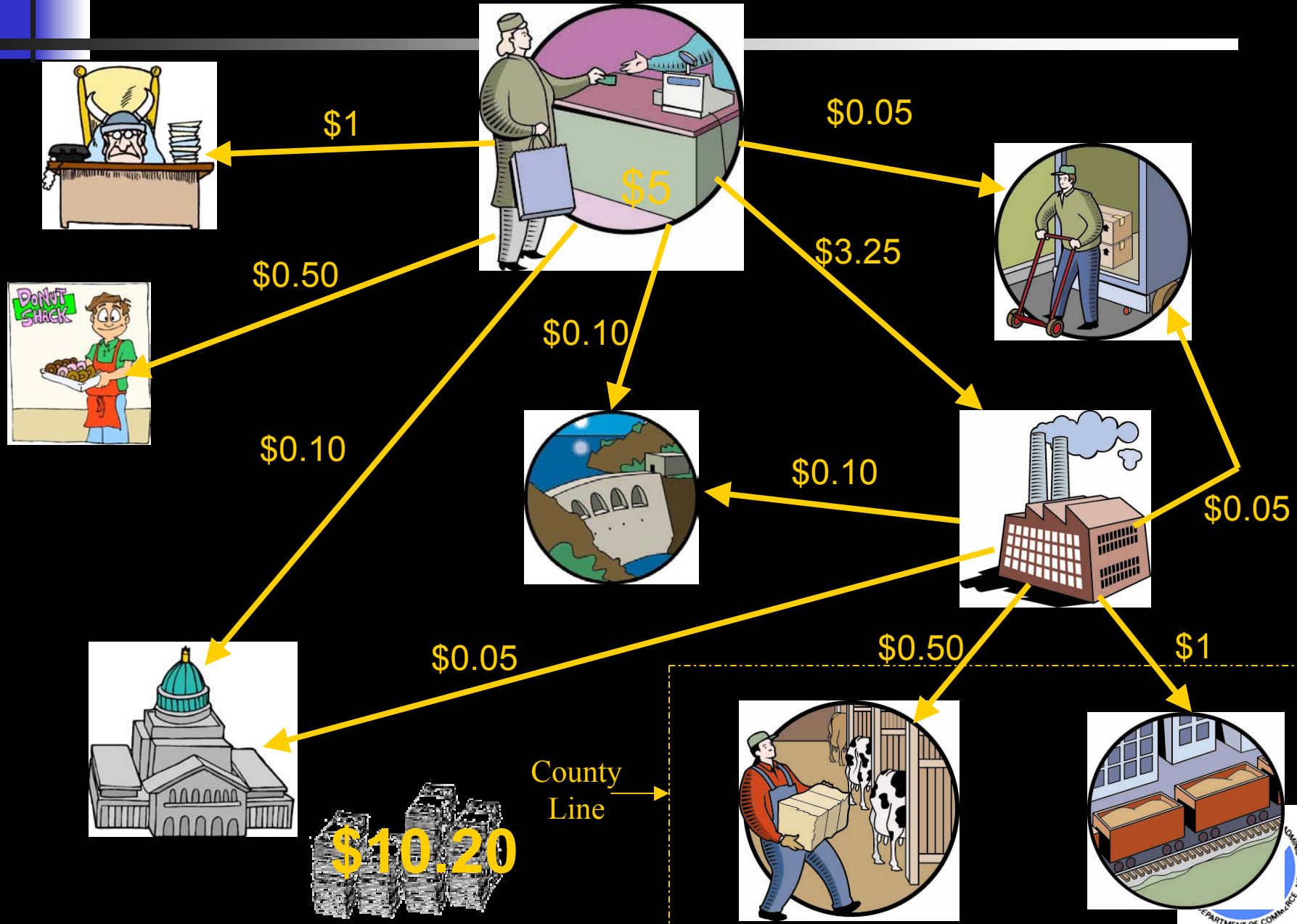
Semi-Durables (2-month)

- Camping equipment
- Binoculars
- Fishing clothing
- Taxidermy fees
- Magazines
- Club dues

Durables (annual)

- Motor boats and accessories
- Non-motorized boats
- Boating electronics
- Boat mooring, storage, maintenance, and insurance
- Saltwater fishing vehicles
- Cabin or second home

Economic Impacts





Methods for Calculating Numbers of Affected Trips

- **Retrospective assessment**
 - **Impacts examined by estimating the number of recreational fishing trips in 2001 (MRFSS data base) that would have been affected by the proposed management measures**
 - **All 2001 fishing trips estimated to be constrained by the proposed measures were considered to be “affected” trips**
- **Demand models/welfare measures are not available for Atlantic cod and haddock**
- **Losses estimated for two hypothetical scenarios:**
 - **25% reduction in the overall number of marine recreational fishing trips from ME – NY**
 - **50% reduction in the overall number of marine recreational fishing trips from ME – NY**



Analysis Procedures

- **Estimated reductions in anglers' expenditures = (predicted reduction in trips) X (average trip expenditures)**
 - **Calculated for each state and mode of fishing (i.e., private boat trips or party/charter boat trips)**
- **Regional economic impact losses = (estimated reductions in anglers' expenditures) X (IMPLAN sector multipliers)**
- **Losses in sales, income, and employment from ME – NY estimated for each trip reduction scenario (25% and 50% reduction)**



Limitations

- **Uncertainty surrounding how anglers will respond to the proposed measures**
- **Lack of welfare measures to capture losses borne by individual anglers (i.e., consumer surplus)**



Affected Human Environment (Recreational Harvesting Sector)

- **Brief description of data and types of analyses**
 - **Long-term trends in NE recreational fishing**
 - **Catch, trips, effort by mode in NE from 1990-2001**
 - **The role of groundfish in NE recreational fisheries**
 - **Trends in catch and landings of groundfish in comparison to all species from 1990-2001**
 - **Party/charter fisheries**
 - **Distribution of multispecies permits and the number of vessels reporting since implementation of logbooks**
 - **Vessel dependence on passenger income**
 - **Effectiveness of management measures**
 - **Historical compliance rates**