

# Modeling and Controlling NAS Resource Usage

# NAS fees & funding issues

VS

NAS performance, technical solutions, etc.

???

## **Two important relationships:**

NAS funding mechanisms → \$\$\$ for operating NAS and  
investing in NAS improvements → NAS performance

NAS fee structure → user behavior → NAS performance

# Some Research Questions

- What is impact of changes in usage patterns on total NAS funding, e.g. large jets → RJ's, increase in business jet traffic, etc.... What is impact of these same changes on NAS costs? Do revenues and costs balance?
- What is impact of changes in NAS fee structure on total revenue collected? e.g. ticket tax → fuel tax, +-segment fee, etc. Impact with/without changes in user behavior?
- How can NAS fee structure be changed to induce desirable changes in user behavior? e.g. use of larger jets, use of secondary airports, appropriate equipage, etc.
- How can market mechanisms, e.g. auctions, congestion pricing, be effectively used to control NAS congestion? → *attack NAS management problems using a “toolbox” containing both technical and economic mechanisms.*