# Current F (fully recruited) level

- High F
  - Average of ages 7 to 9+ in 2003
- Low F
  - Average of ages 4 to 9+ in 2003
- Reason for alternatives
  - Need to recognize uncertainty
  - Uncertainty about age of full recruitment
    - A previous assessment showed full recruitment at age 4

# Forward projection and MSY calculation

- In forward projections & MSY calcs  $F_a = F_{(hi \text{ or lo}) \text{ fully recruited}} * PR_a$
- Partial recruitment at age (PR<sub>a</sub>) was calculated from mean (normalized to max value) of 1975 to 2003.

### Partial recruitment at age



## High & low F vs estimated F



## **Retrospective analyses - SSB**



#### Retrospective F (average age 7-9+)



#### Retrospective F (average age 4-9+)

