

## Certification/Approval Process

- NEFSC/NERO would publish Request for Information, which also announces the provider workshop (could also include dockside monitoring).
- NEFSC/NERO would conduct workshop for interested providers (1<sup>st</sup> or 3<sup>rd</sup> week in August).
- New providers are welcome and encouraged.

## Certification/Approval Process

- NEFSC would review interested at-sea providers' qualifications to determine if they are "eligible": do they meet the requirements in Amendment 16 and acceptable strawman document?
- NEFSC would list eligible providers on website.

## Certification/Approval Process

- Provider would be determined to be certified/approved (sector-specific) on review and acceptance of Operations Plan.
- Individual at-sea monitors would be certified by NEFSC after successful completion of training and maintaining requirements under Amendment 16.

## Certification/Approval

- De-certification may apply to
  - A sector-specific provider (i.e., a provider's service to a particular sector)
  - A provider (i.e. a provider's service to any and all sectors)
  - Individual at-sea monitors

## Vessel Selection

- Is a cornerstone for statistically robust data
- “Assignment must be **representative** of fishing activities within each sector and must be able to monitor fishing activity throughout the year.”

## Vessel selection: Version 1

- Determine which vessels are operating (by gear type). (Vessel call-in requirement)
- Randomly choose operating vessels to sample on a trip by trip basis.
- (Why random? So everyone has an equal chance of being chosen.)
- E.g., every third vessel that calls in
- E.g., every vessel on a random vessel selection list.

## Vessel selection: Version 2

- Better knowledge about your sector fishing plans will enable you to deploy your sea days more effectively.
- The trick is to identify sub-sets of trips that are similar, and then sample randomly within each sub-set.

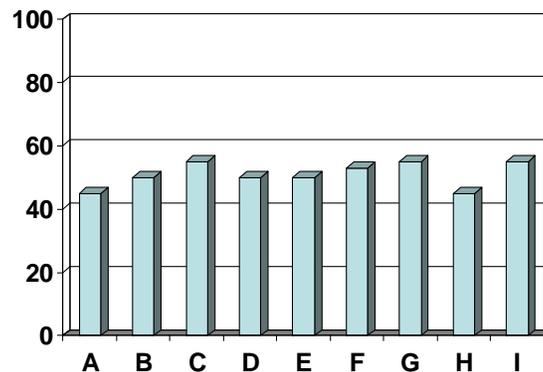
## Vessel Selection: Version 2

- Proven subsets (“strata”):
  - Gear
  - Season
  - Area
- Allocate sampling proportional to effort in each subset.
- Sample randomly within these subsets

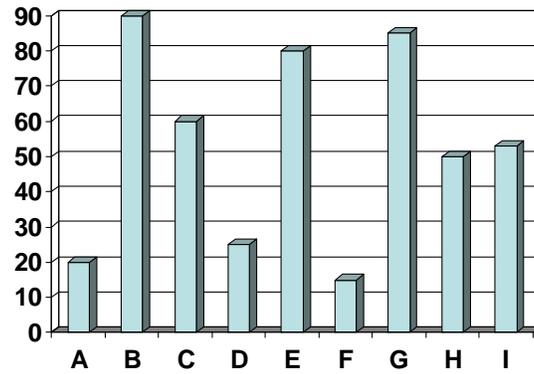
## Vessel Selection: Version 2

- The better the sector knows its fishing strategy, the more effective the sampling can be.
- If a group of vessels consistently fishes in the same way, then it takes less sampling to characterize it.

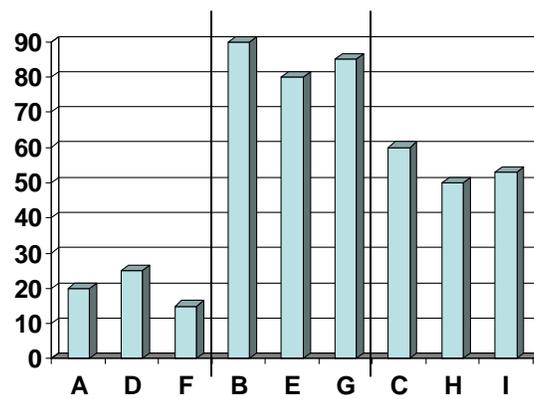
## Homogeneous



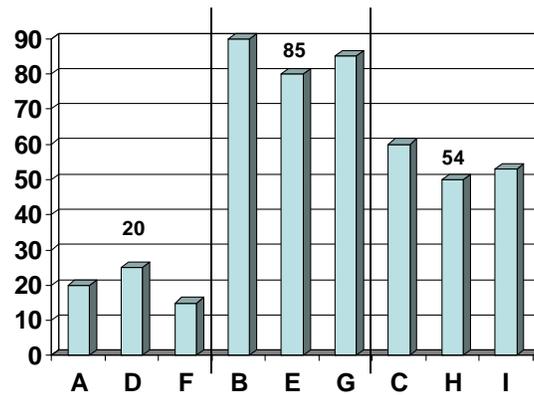
## Highly Variable



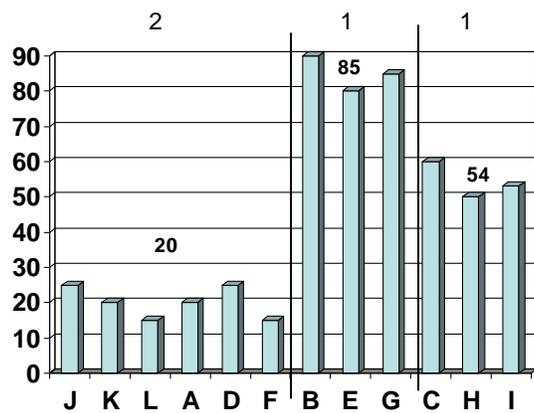
## Possible Stratification



## Possible Stratification



## Proportional Allocation



## Vessel selection

- Need to sample representatively
- Safe bet: spread sampling proportional to effort in each gear/quarter/area subset (combination).
- If you know more about how your sector is going to operate, use that information to generate better subsets.

## Pre-Trip Notification

- Provider needs time to select; monitor needs time to get to port.
- Experience: 18 hours is needed
- Could be negotiated, but must be mutually agreed between sector and provider.
- Monitor needs enough notice.

## Pre-Trip Notification in Ops Plan

- Time (how much advance notice)
- Method (phone, email)
- Information needed (e.g., time and location of departure, etc.)
- Method for tracking
- How vessel performance will be monitored (e.g., calling in early enough) and remedied if necessary

## Pre-Trip Notification

- How will waivers be issued? When will trip be exempted?
- How will waivers be requested, assessed, and recorded?

## Performance Monitoring

- Front line will involve NEFSC interactions with provider:
  - Is vessel selection executed appropriately?
  - Is data quality high?
  - Are deadlines being met?
  - Are coverage levels being achieved?
- Additional interactions with the sector and provider may be indicated:
  - Is additional coverage needed?
  - Are modifications to the vessel selection plan needed?