

SESSION 6B: National Dam Prioritization Effort

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U.S. Bureau of Reclamation

RECLAMATION

Managing Water in the West

Prioritization and Criticality For Security at Dams

February 16, 2005

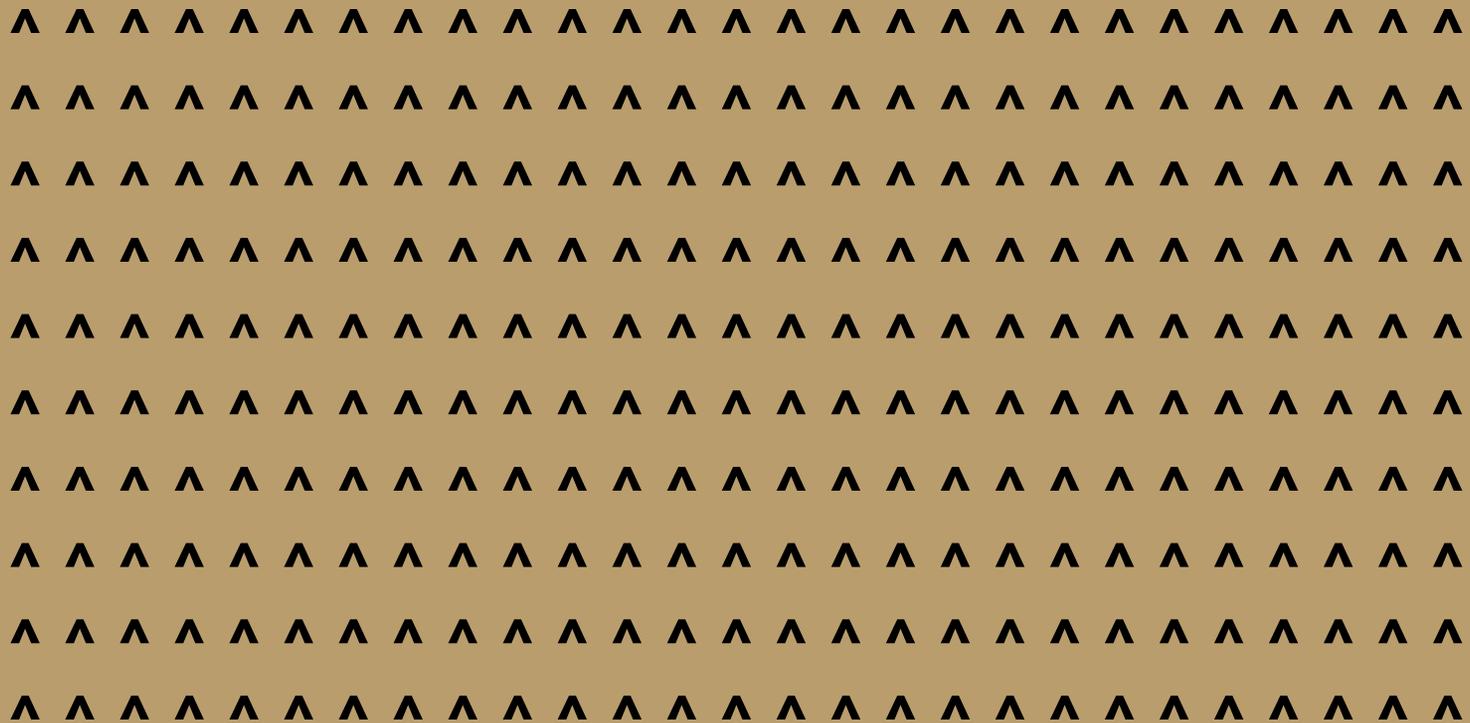


U.S. Department of the Interior
Bureau of Reclamation

What's the difference?

- Criticality is identifying those facilities that are considered critical and is based on the potential impacts or **consequences** that may result from loss of the facility. This is used to determine which facilities get evaluated first.
- Prioritization is determining the relative order of corrective actions and is based on the **risk** (consequences, vulnerabilities, and threats) posed by the facility.

An example using dams...



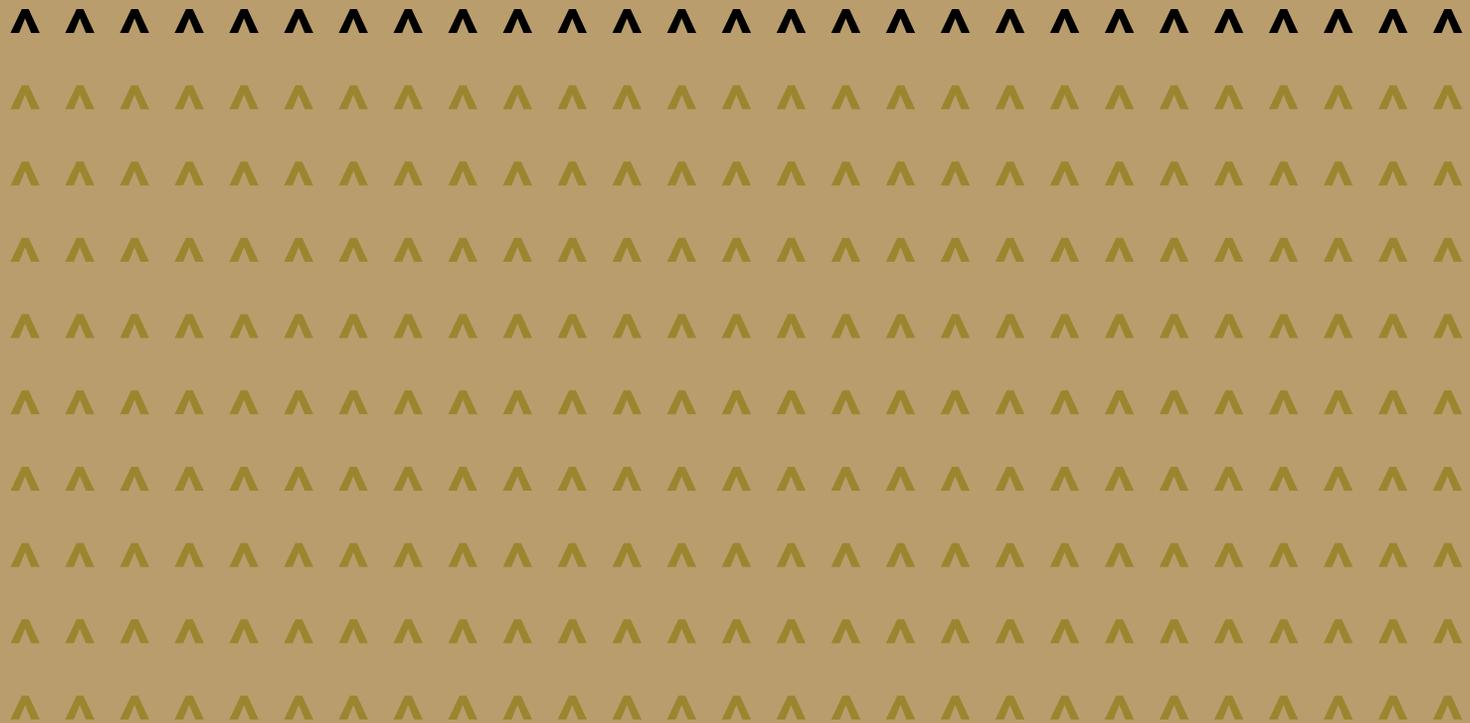
There are 100,000 \pm dams in the United States

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80,000 dams are on the National Inventory of Dams

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**10,000 dams are classified High or Significant Hazard
(some potential for loss of life downstream)**

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1000 to 2000 dams may be considered “Critical” whose failure would result in significant life loss and damages

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As applied within Reclamation...

- Reclamation owns over 350 dams
- These were ranked using a formula based on:
 - Downstream population at risk
 - Storage volume of the reservoir
 - Capacity of the powerplant
- 5 dams considered National Critical Infrastructure
- 25 dams labeled Major Mission Critical
- 150 dams labeled Mission Critical
- 100 dams labeled Project Essential
- Rest considered Low Risk

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Once criticality is determined...

- Risk assessments performed to identify the vulnerabilities and threats as well as refine the consequences at each facility
- Risk used as the basis for identifying the actions needed at each facility
- The highest risk issues get funded first

Why bother with all this?

- Gives the owner a better understanding of risks being taken and priorities for corrective actions
- Helps ensure limited funding gets applied to those facilities providing the greatest risk reduction
- Can be applied to other infrastructure besides dams
- Part of National Infrastructure Protection Plan

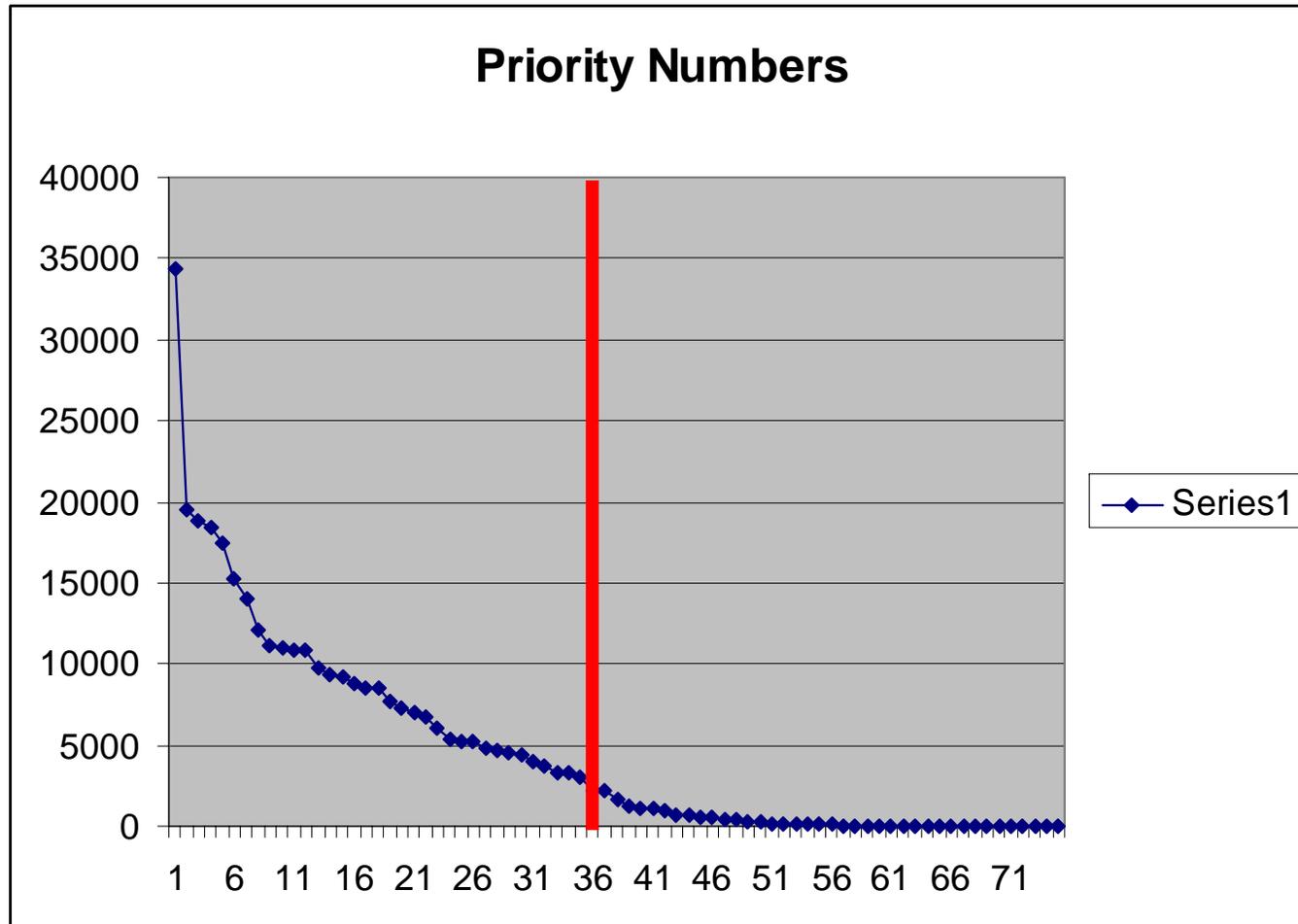
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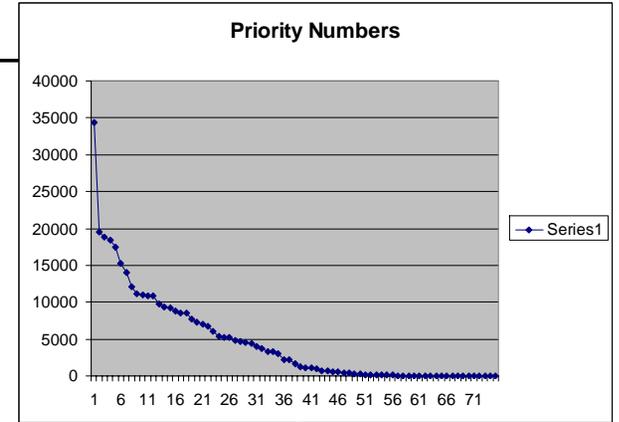
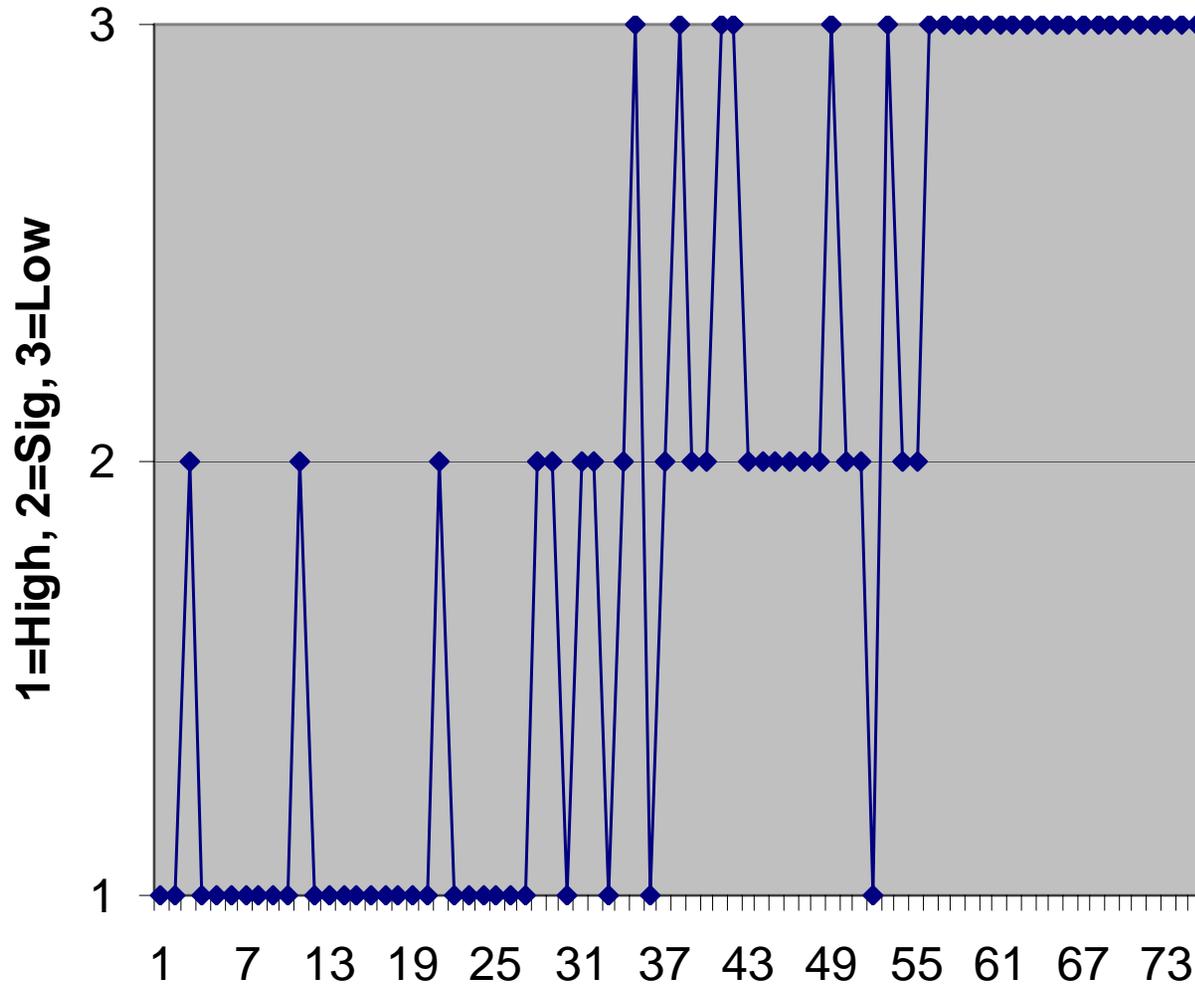
Frank Calcagno

FERC

**(Prioritization formula applied to 75
Selected FERC Jurisdictional Dams)**

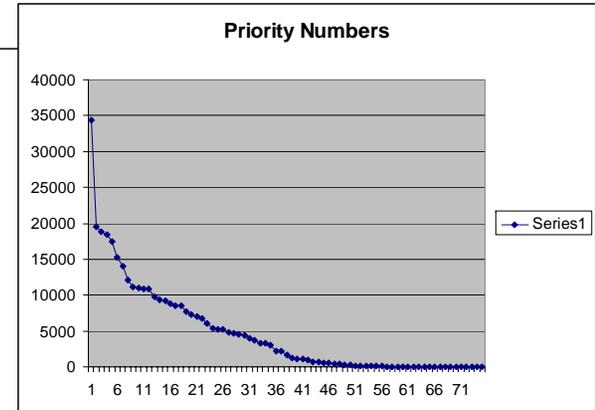
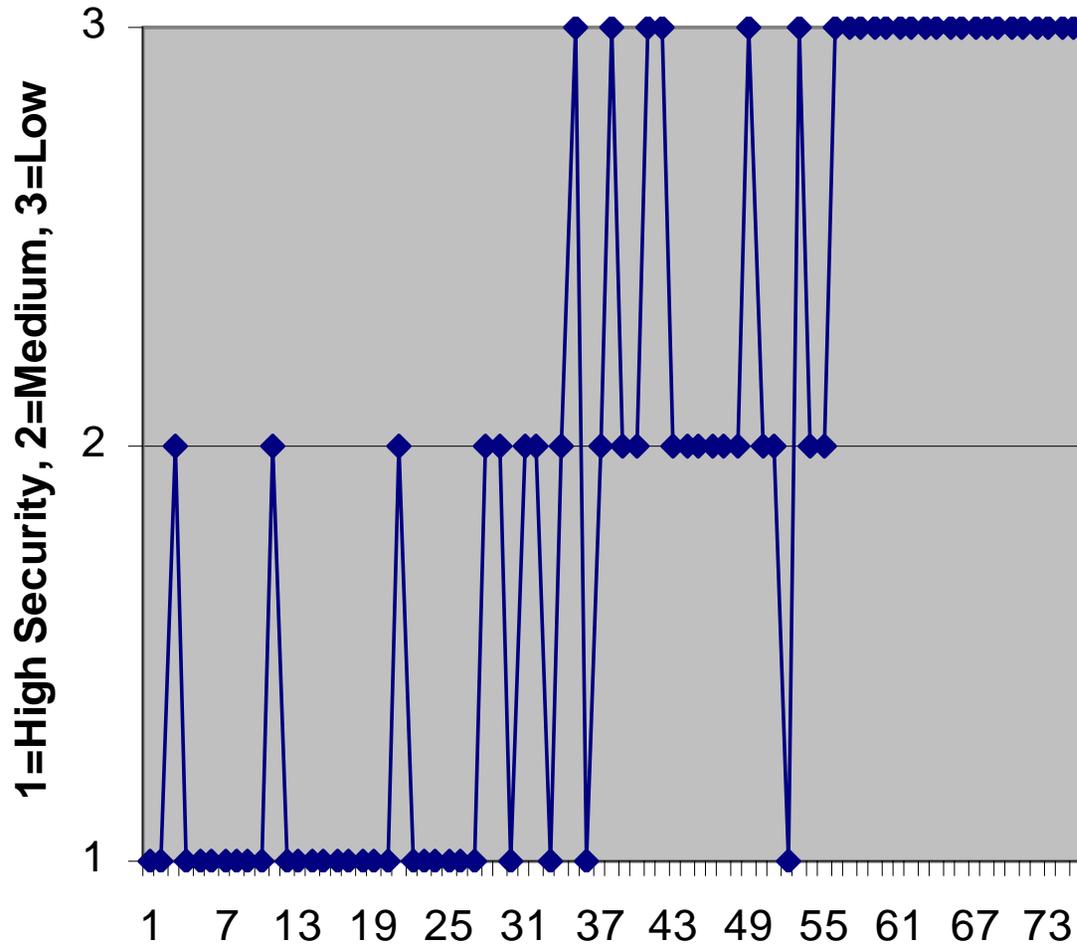


Priority versus Hazard Class



Series1

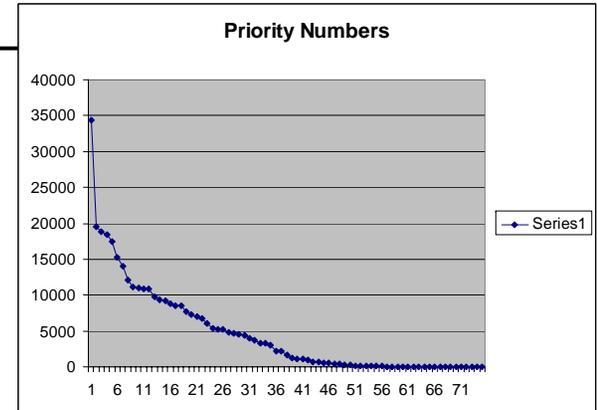
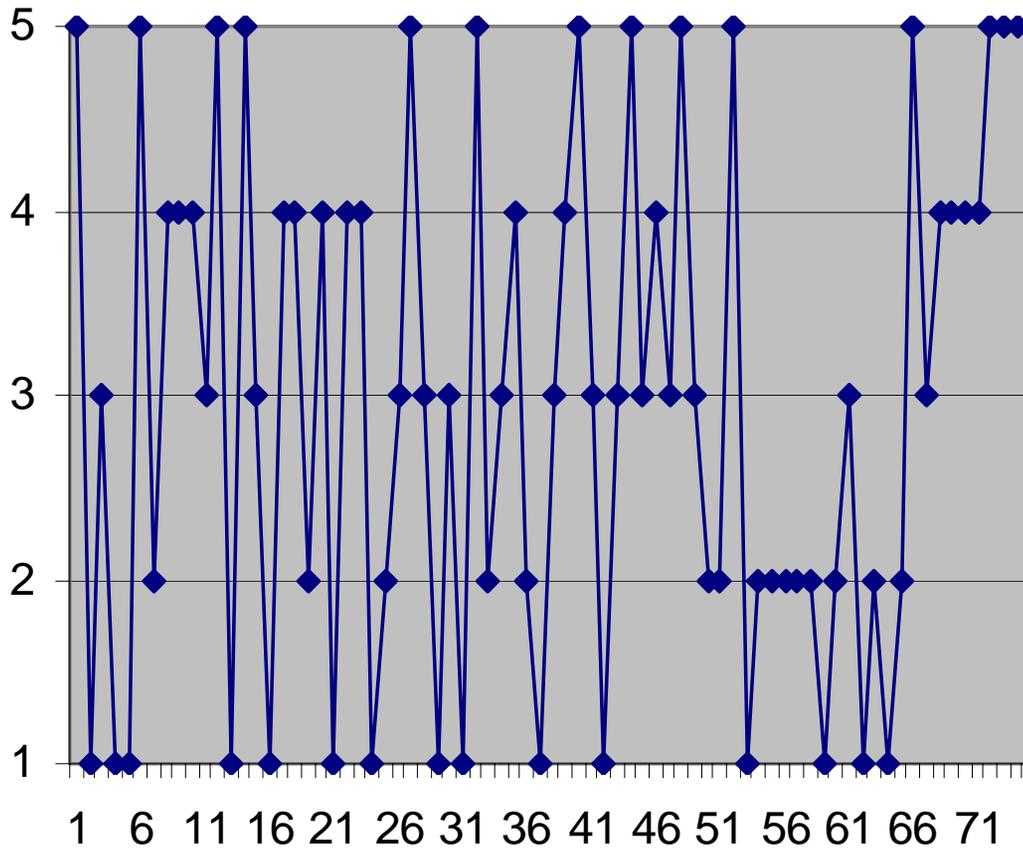
Priority versus Security Group



Series 1

Geographic Distribution

1=ARO, 2=NYRO, 3=CRO, 4=PRO,
5=SFRO



Series 1