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Major Research Instrumentation Program (MRI)

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Major Research Instrumentation (MRI) Program

*…serves to **increase access to shared scientific and engineering instruments***
*…seeks to improve the quality and expand the scope of **research** and **research training** in science and engineering,*
*… **Development and acquisition** of research instrumentation for shared inter- and/or intra-organizational use are encouraged…*

- **Annual Competition:** Proposals due 4th Thursday in January
- Congressional Line Item
- $90M NSF wide funding in 2012
- ~ 800 proposals
- $100k - $4M request per proposal.
- 30% cost sharing required of Ph.D. granting institutions
- 3 proposals per institution, maximum 2 instrument acquisition proposals.
- Primarily undergraduate institutions advantages:
    - NO Cost sharing
    - NO $ minimum, and
    - Congressional mandated allocation (PUI and MSI)

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Rules / Tips

- **Read the MRI Solicitation carefully**, then read it again
- MRI is extremely **competitive**
  - Especially for large $ items
- Review Criteria
  - Intellectual Merit
  - Broader Impacts
  - Management Plan
- **Shared** Instrumentation, not start-up packages or single investigators
- **Single integrated instrument** not multiple tools
- Enthusiastically describe **compelling research / research training** activities undertaken by the participants
  - Focus on the science enabled by the instrument
  - Describe impact on institution, region, State, or Nation.
- **Justify** the requested instrument with the scope of the projects –ask for what is needed not wanted.

Resources

- **MRI Program page**
  http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5260
  - solicitation
  - Lists, abstracts, and maps of recent award

- **MRI Homepage**

http://www.nsf.gov/od/oia/programs/mri/

Near the bottom look for:

- MRI Program Overview Webcast (December 6, 2011)
- QEM MRI Workshop Presentation (November 4-5, 2011)

MRI Proposal Review

- **OIA Completes Compliance – Sends to Divisions.**
- **Each Division reviews per their community needs.**
- **2012 DMR MRI competition:**

  126 proposals reviewed in 9 Panels + *ad hoc* review

  - Thin Film Deposition
  - SQUIDS, Mechanical Properties, Rheometry
  - Nanofabrication/Lithography
  - TEM
  - Optical Methods
  - X-Ray Techniques
  - Scanning Microscopy (AFM, STM, etc…)
  - Other Spectroscopies (AES, XPS, SIMS)
  - SEM
  - Beamlines (*ad hoc*)
  - Cyber (*ad hoc*)

- **Divisions receive an MRI budget based on total request**
- **Divisions compete for additional resources through internal Large Proposal (>$1M) Panels**

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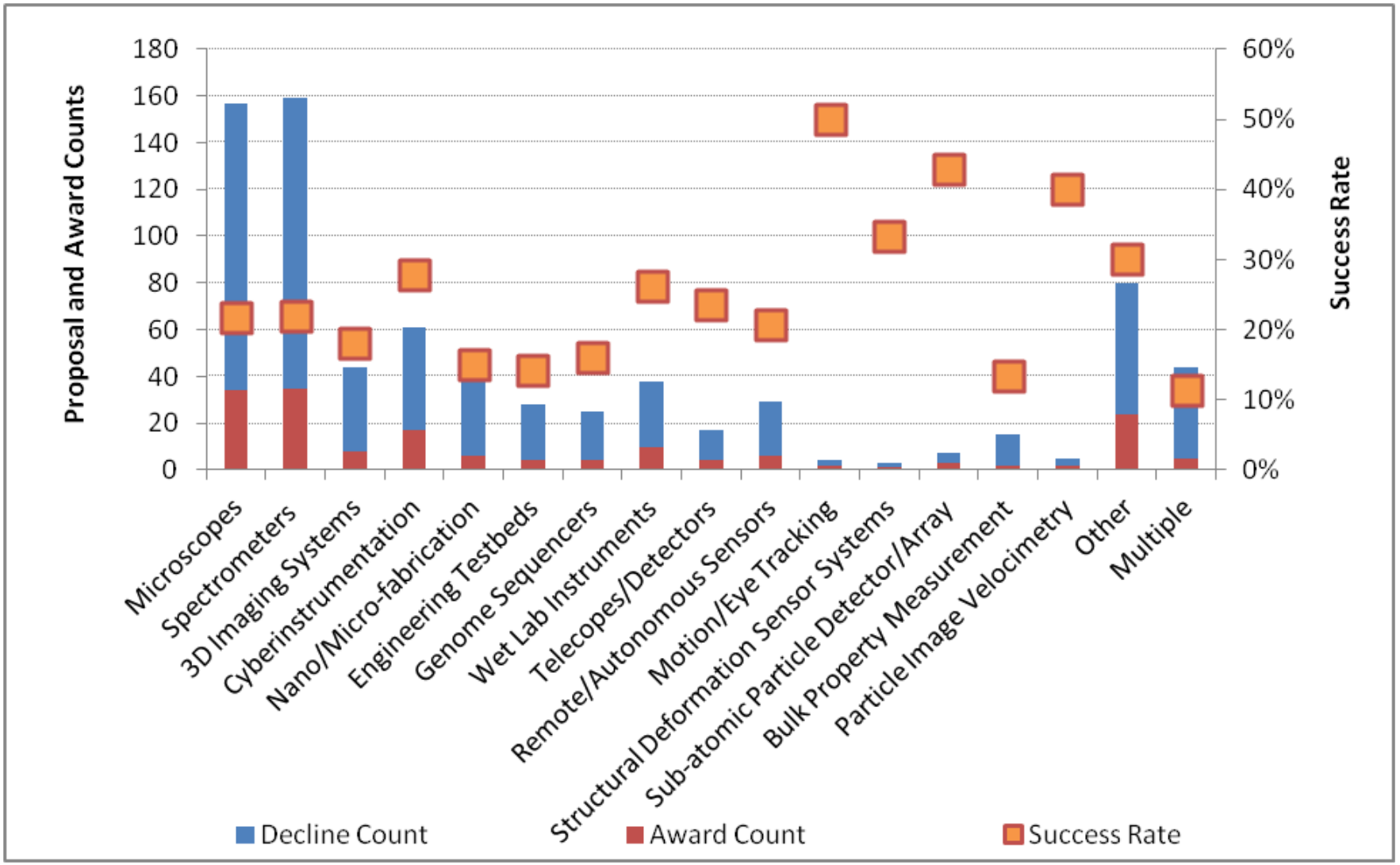
Request By Instrument Type



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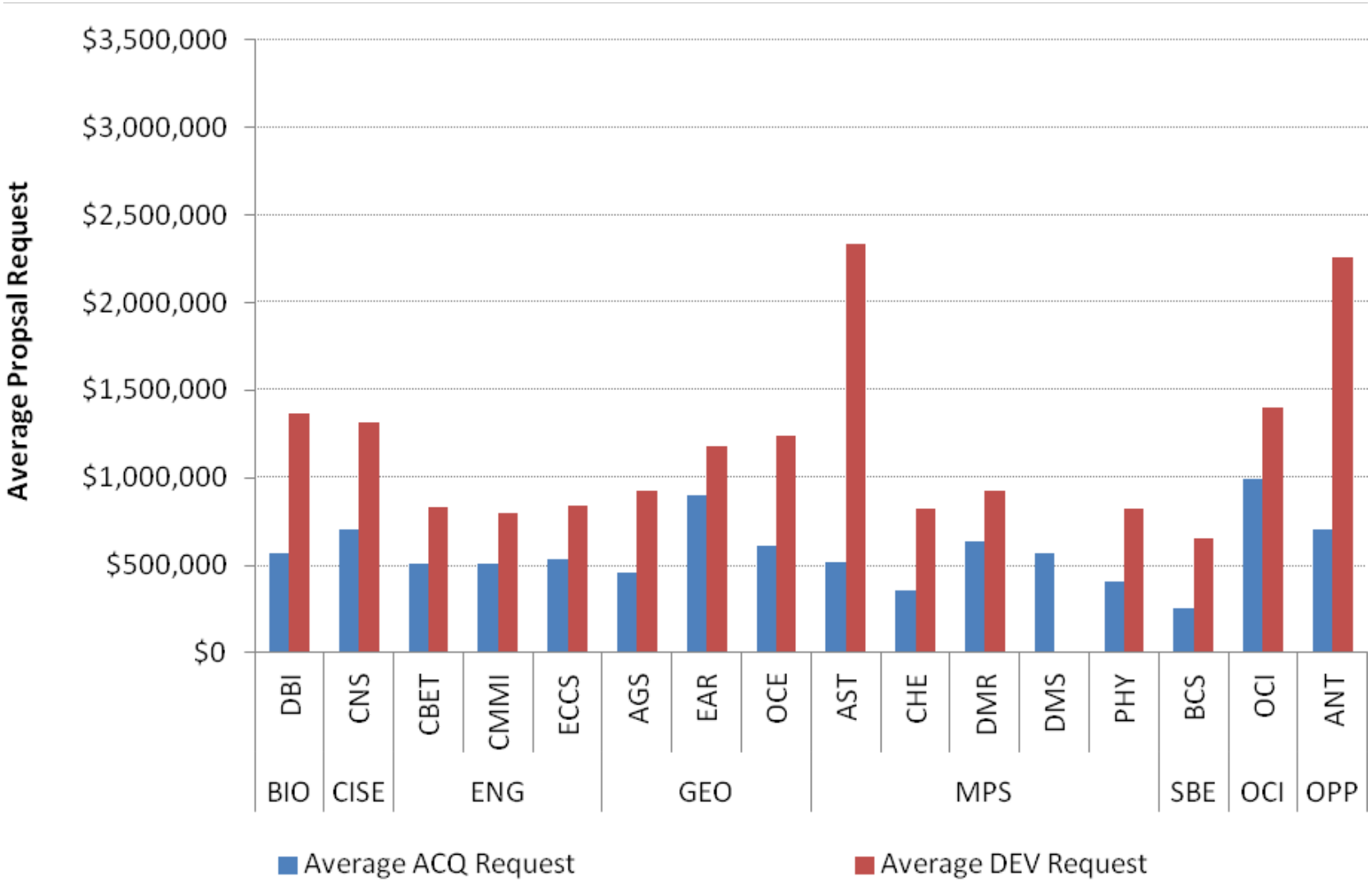
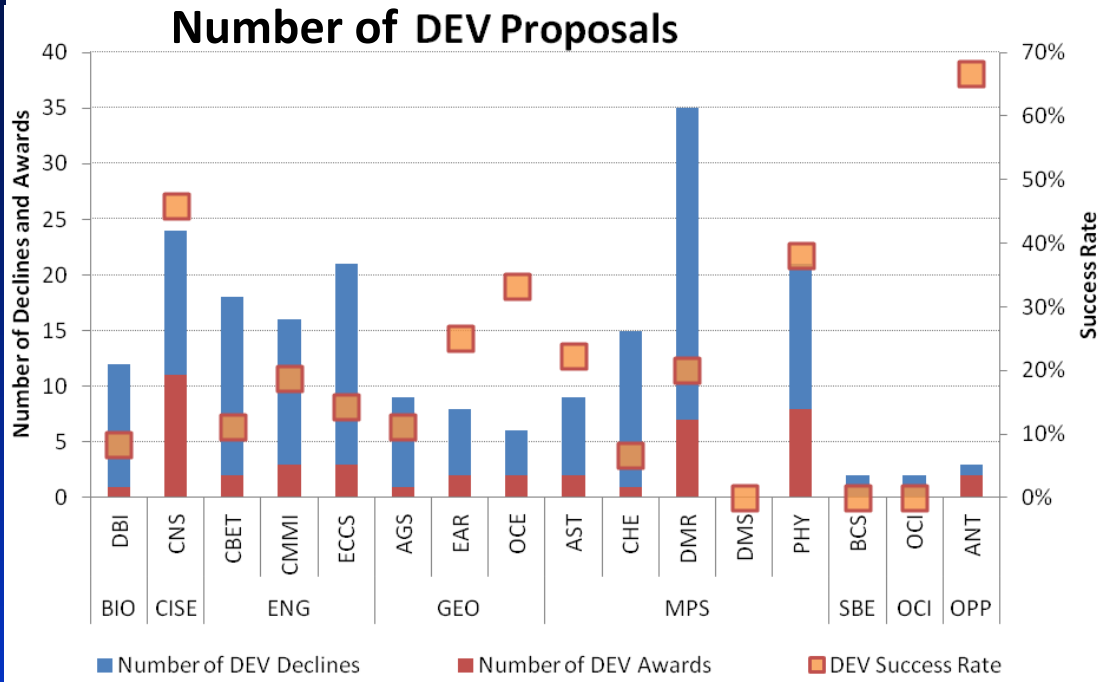
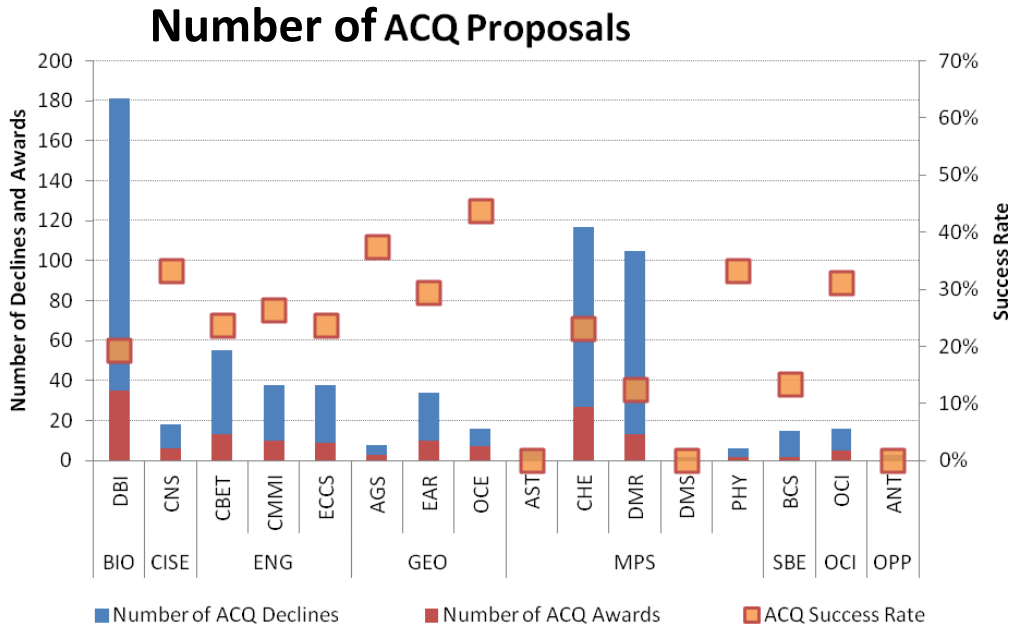
2011 MRI Average Request by Type



ACQ/DEV Proposals by Division





- DMR served as the primary Division for instrument development.

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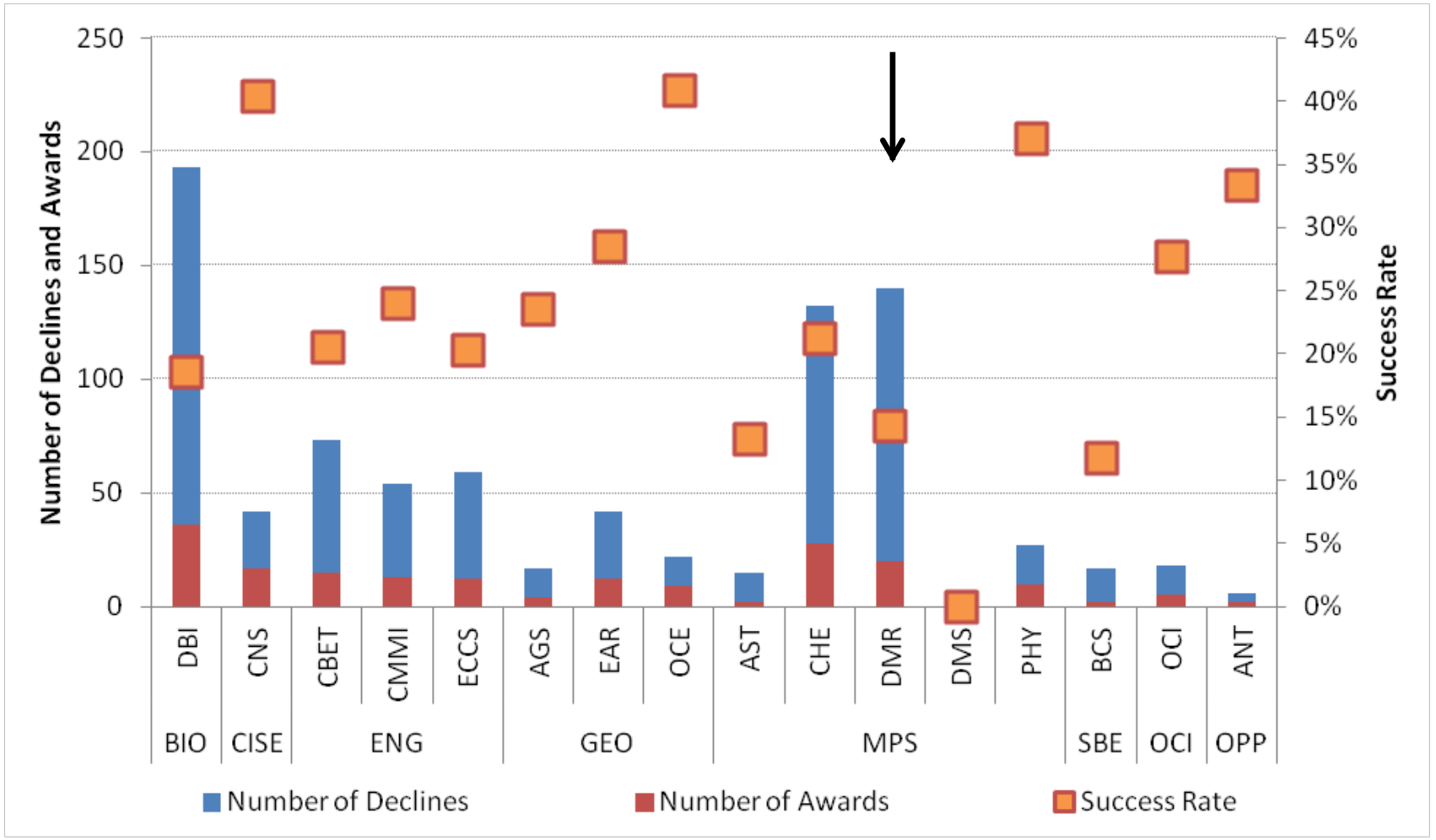
2011 Success Rates by Division

The NSF wide MRI success rate in 2011 was 22%



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Questions?