Most institutions reported some kind of evaluation of retention but very few conduct interviews with those who leave without a Ph.D.

Evaluation Strategies Used at 43 AGEP Institutions

- Effectiveness of retention strategies: 33 institutions
- Collecting attrition/retention data: 27 institutions
- Exit surveys of PhD recipients: 20 institutions
- Exit interviews with pre-PhD leavers: 10 institutions
- Exit surveys of pre-PhD leavers: 5 institutions
- Exit interviews with PhD recipients: 4 institutions
About half of the institutions reported that they collected retention data and were evaluating retention strategies while one in four reported neither activity.

Evaluating Graduate Strategies and Collecting Retention/Attrition Data
(43 AGEP Institutions)

- Neither evaluating nor collecting retention/attrition, 10
- Collecting retention/attrition but not evaluating, 7
- Evaluating but not collecting retention/attrition, 4
- Collecting retention/attrition and evaluating, 22
Just over a fourth of institutions collected exit data from BOTH completers and leavers but 42% reported collecting no exit data from either group.

**Exit Data Collection**
(43 AGEP Institutions)

- No exit data collection reported, 18
- Exit data only from leavers, 2
- Exit data only from Ph.D. recipients, 11
- Exit data from both Ph.D. recipients and leavers, 12
Uses of evaluation data fell into five categories. Program improvement was cited by 42% of institutions.

How Evaluation Data Are Used at 43 AGEP Institutions
(More than one use could be reported by each institution.)

- Program improvement: 18 institutions
- Summative/reporting to funders: 7 institutions
- Information sharing w/in institution: 7 institutions
- Accountability/program review: 7 institutions
- Cross-institutional research efforts*: 7 institutions
- Not used or not sure: 3 institutions
- Blank: 8 institutions

* Four institutions reported participating in the CGS Ph.D. Completion Project
Among those who said some version of “program improvement” (41.9%)

- 12 current use (27.9% of all)
- 4 planned future use
- 4 student monitoring
  - Example 1: UC Boulder made reference to intervening when a student might be faltering
  - Example 2: UMass Amherst is developing the Milestone Tracking Project

- This really should be 100%!
Accountability uses

- **Penn State**
  “Programs losing graduate students do have to answer to our dean.”

- **UC Irvine**
  “currently looking at ways to incentivize individual departments and hold them more accountable for graduate student attrition/retention.”

- **New Mexico**
  Faculty are access & program reach expanded by working with the NSF-funded ADVANCE and PAID programs at NMSU
  - Faculty & scientists at three doctoral-granting institutions and Los Alamos National Lab
  - Institutional transformation focused on climate change

http://www.cpst.org
University of Maryland, Baltimore County noted that having a research-based approach enabled the program to have stronger buy-in with faculty.

Stony Brook “engages departments on a case-by-case basis.”

This has been a key strategy in the ADVANCE: IT initiatives.
NSF-ADVANCE: Institutional Transformation (IT)

- Goals:
  - Increase women’s representation among STEM* faculty and administration.
  - Transform the culture of academia.

- Very competitive awards (less than 15% of applicants funded).
- $750,000 per year for five years.
- Cooperative agreements—for leverage to ensure IT progress:
  - Reporting of key metrics.
  - Mid-grant site visits.
  - Program evaluation.

*STEM: Science, Technology, Engineering and Mathematics
Two Toolkits
(Prepared by ADVANCE Institutional Transformation Indicators Working Group)

(1) Toolkit for Reporting Progress Toward NSF ADVANCE: Institutional Transformation Goals

(2) Using Program Evaluation To Ensure the Success of Your Advance Program

Available at:
http://www.nmsu.edu/~advprog/
http://www.advance-portal.net
# How are evaluation data used?

<table>
<thead>
<tr>
<th>Description</th>
<th>Count</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Program improvement</td>
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<td>41.9%</td>
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<tr>
<td>Accountability/program review</td>
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<td>16.3%</td>
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<td>Information sharing w/in institution</td>
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<tr>
<td>Not used or not sure</td>
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<td>7.0%</td>
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<tr>
<td>Blank</td>
<td>8</td>
<td>18.6%</td>
</tr>
</tbody>
</table>

*Note: Four institutions reported participating in the Council of Graduate Schools’ Ph.D. Completion Project.*

Commission on Professionals in Science and Technology

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