

# **The benefits of mentoring: why and how to set up a program**

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# *Why mentor?*

- Successful mentoring is associated with more positive outcomes...
- ...for mentees
  - Individuals are more likely to succeed if they see people like them in successful positions
  - From the Athena Factor 2.0 report (“Accelerating Female Talent in Science, Engineering & Technology”), women with sponsors are
    - 200% more likely to have their ideas implemented
    - 22% more likely to be satisfied with their rate of promotion
- ...for mentors
  - Develop professional networks
  - Reflect upon your own practices
- ...for organizations
  - Increase retention and buy-in
  - Improve communication between employees

# *Types of Mentoring Programs*

- Structured/unstructured
- Mentoring duration: days/weeks/months/years
- Externally- or self-assigned matches
- Ratio of mentees to mentors
- Senior, near-peer, peer
- Sharing my perspective:
  - International HPC Summer School (IHPCSS) – chair of mentoring committee
    - Structured: specific mentoring events
    - Duration: 6 days, though hopefully mentoring begins before and continues after
    - Externally-assigned matches: based on list of characteristics of importance
    - 3-4 mentees per mentor, senior or near-peer

# *Matching Mentors and Mentees*

- Vital that mentees have a mentor they respect and trust
- External selection
  - Mentors and mentees are assigned by someone external
  - For IHPCSS, mentors and mentees take survey and are matched on agreement:
    - Science topics: ('biology', 'physics')
    - Technical topics: ('HPC software engineering', 'Parallel I/O')
    - Work/life topics: ('Maintaining a healthy work/life balance', 'Finding a non-academic job')
- Self-selection
  - Good for mentor relationships which can take time to develop
  - Consider what happens if many mentees choose few mentors (or vice versa)
- Provide clear guilt-free mechanism for requesting new pairing

# *Setting Expectations*

- Mentoring is new to many individuals
- Providing guidelines helps give confidence and set tone
  - Be clear about the purpose of mentoring – not just technical
  - Explain responsibilities on both sides
  - Provide things to do and things to avoid
- Provide resources and assistance
  - Mentees (and mentors) may not know what to talk about
  - Mentors may be worried they won't have all the answers

# *Encouraging Communication*

- Structured
  - Reception/mixer
  - Speed dating
  - One-on-one
  - Group meetings
  - Topic-based
- Unstructured
  - Provide an assignment or excuse to meet, especially initially
- Ideally, over time less hand-holding is required

# *Closing Thoughts*

- Ask your participants for feedback
  - IHPCSS: “I am satisfied with the student/mentor matching process”
    - 2013: 3.02/5 (randomly assigned)
    - 2014: 3.77/5 (added science/technology categories, assigned by hand)
    - 2015: 4.18/5 (added work/life categories, used a script to help with the assignments)
  - “I plan on keeping in contact with my mentor after the summer school”
    - 3.05 in 2013 to 4.05 in 2017
- Provide opportunities for mentees to talk to other mentors
- Change things up periodically!

# Resources

- Stats from:
  - Hewlett, S.A., Sherbin, L., with Dieudonné, F., Fagnoli, C., & Fredman, C. (2014). *Athena Factor 2.0: Accelerating female talent in science, engineering, & technology*. New York: Center for Talent Innovation. Retrieved from: <http://www.talentinnovation.org/publication.cfm?publication=1420>
- For establishing expectations
  - Advisor, Teacher, Role Model, Friend: On Being a Mentor to Students in Science and Engineering (1997), National Academy of Sciences. Retrieved from: <https://www.nap.edu/read/5789/chapter/1>