2021 Annual report

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As is true for many non-profit organizations, 2021 has been a year of flux for NAGT. Overall, we have weathered this pandemic year well, but it has not been without its challenges. Despite the challenges, we have made substantial progress in strategic planning and taking action on our goals.

NAGT Activities
The strategic planning process we engaged in over the last year has allowed us to establish new goals and prioritize our activities in order to make progress on those goals. Below I report on the progress made on our prioritized actions.

Goal 1: To promote high-quality Earth education.
Goal 2: To foster and disseminate research in geoscience education.
Goal 3: To drive change toward an equitable and inclusive system of geoscience education.
Goal 4: To support current and future geoscience educators throughout their careers.

Prioritized actions

**Action 1:** Increase the value of NAGT membership and programming for K-12 teachers.

**Rationale:** Currently, <10% of our members are K-12 educators, which represents a vanishingly small fraction of K-12 teachers who engage their students in learning about Earth. K-12 schools are a large component of the system of geoscience education, and a component where Earth science has not traditionally had a strong presence. The adoption of the NGSS and other Framework-based standards across much of the United States has the potential to elevate the Earth sciences, and both current and future teachers need to support in implementing the new standards effectively.

**Progress on objectives:**
1. Ensure continued K-12 representation on committees and in leadership, promoting opportunities for involvement through targeted email and social media efforts.
   - *Ongoing*
2. Develop a welcoming entry page for K-12 educators on the website that helps them navigate the NAGT site, find high-quality, useful, and relevant resources, and see the benefits of NAGT membership.
   - *Website redesign is just beginning; new page of K-12 educators is planned*
3. Work with section leaders to streamline and elevate the OEST award process, celebrate OEST award winners, and develop opportunities to keep them engaged in NAGT.
   - *OEST award winners are being celebrated on social media (Facebook) during Earth Science Week*
   - *Seeking new chair of the OEST Award process to lead streamlining efforts*
4. Make use of social media and our publications to highlight new K-12-focused research and activities published in JGE, ITT and on the web.
   - *Not started.*
5. Actively recruit K-12 teachers and future teachers to become members of NAGT through multiple strategies, including collaborations with other organizations and such as the UTeach STEM Educators Association (USEA), strengthening state- and section-level coordination within NAGT, and increasing our PD offerings for K-12 educators.
   - Joined USEA and exhibited at annual meeting (virtual)
   - Section coordination is underway

6. Reduce the cost for K-12 educators to participate in our professional development activities, considering both targeted fundraising strategies and reducing the cost of registration.
   - Fundraising allowed us to support 13 K-12 educators to attend the Rendezvous

**Action 2: Increase the value of NAGT membership and programming for students**

**Rationale:** Approximately 10% of our current membership is students, primarily graduate students. Bringing new members in while they are students gives them an early affinity with the organization and supports long-term membership. Our current programming supports graduate students seeking academic careers, but we have many opportunities to expand our support for students, including future teachers.

**Progress on objectives:**

1. Develop a welcoming entry page for students (graduate and undergraduate) on the website that helps them navigate the NAGT site, find high-quality, useful, and relevant resources, and see the benefits of NAGT membership.
   - Website redesign is just beginning; new page for students is planned

2. Work with TA Award and USGS/NAGT internship committee leaders to highlight and celebrate award winners, and develop opportunities to keep them engaged in NAGT.
   - Establishing new Outstanding Teaching Assistant Award committee and soliciting for a chair and committee members
   - Meeting with USGS leaders at GSA

3. Consider appropriate opportunities for student representation on committees and in leadership, and promote these through targeted email and social media efforts.
   - Soliciting nominations for committees will begin after GSA; we will include targeted emails to student members where appropriate

4. Develop and offer a certificate/credential for graduate students in geoscience teaching, building on the Preparing for an Academic Career Preparation
   - Not yet started

5. Work with the Travelling Workshops Program and sections to increase regional opportunities for graduate students (e.g. workshops at regional GSA meetings and NAGT section meetings, TWP workshops targeted for graduate students)
   - Not yet started

6. Develop a presence on LinkedIn and make use of the site in programming for students
   - LinkedIn page established
   - Beginning discussions with USGS about how to incorporate LinkedIn into internship program
Action 3: Re-envision and strengthen our framework for sections

**Rationale:** Regional sections allow members to interact with Earth educators in their region and can be a hub for sharing and facilitating place-based geoscience education. Regional and place-based know-how can be particularly valuable to K-12 and 2YC members. Sections run the Outstanding Earth Science Teacher award programs and provide leadership opportunities. Currently, some sections have been inactive for several years, others are struggling to maintain leadership, and a few are thriving. Yet sections are the primary interaction that many members have with the organization.

**Progress on objectives:**
1. Conduct review of sections
   - Questionnaire developed and sent to leaders; feedback received from two sections
   - Discussion will take place at GSA Council meeting
2. Develop schedules and templates to ensure consistent practices across sections and to align with divisions
   - Not started, awaiting additional responses from section leaders and discussion at GSA Council meeting

Action 4: Diversify and expand our membership, leadership, programming participants, and award winners

**Rationale:** NAGT has signed on to a call to action and made commitments to produce data-rich reports that highlight our organizational demographics; we have pledged to diversify nomination pools and awardees, to actively recruit Black, Indigenous, Latinx, and other minoritized geoscientists as editors, reviewers, participants. Now is the time to act on those pledges. Our disciplinary diversity has also been narrow, and we have the opportunity to provide more support for geoscience educators in atmospheric sciences, oceanography, and environmental science. We have established the Diversity, Equity, and Inclusion committee to lead these efforts, but we need additional data and efforts throughout the organization.

**Progress on objectives:**
1. Establish and implement demographic data collection for members
   - New demographic questions implemented in member profile
   - Campaign initiated to encourage members to update their data
2. Grow our membership
   - Exhibited at NABG and USEA (virtually), continuing to assess the landscape and options for meetings in order to determine where to focus our efforts
   - Membership renewals are currently slightly higher than 2019 at this time
3. Expand and diversify nominations for committees, leadership, and awards by actively promoting nominations processes through targeted efforts and making the process as transparent as possible.
   - Ongoing
4. Support members with networking and mentoring opportunities
   - Not started
5. Develop a reporting framework for DEI efforts within the organization to coordinate and share information
   - Not started

Other
- Our proposal to NSF to support administrations of the National Geoscience Faculty Survey was declined, with substantial useful feedback from reviewers. We revised the proposal and resubmitted it in July.
- As mentioned in my mid-year report, I co-led (with Walt Robinson) a traveling workshop at the University of Montana last spring. This fall, fortuitously, I visited the university for research purposes, and met with the chair of the department. He said that our workshop, "broke a log-jam that had been in place in the department for 20 years," and that they were able to see how much they really were in agreement. Yay, TWP!

Related activities
Much of my work is not explicitly for NAGT, but is related.
- I began a four-year term as co-chair of one of my departments, Geological Sciences, at Central Washington University. We have a new president, who is beginning a strategic planning process, and we are in a mid-cycle evaluation year of our accreditation. This year, our department needs to focus on revising our program outcomes and capstone experience, and I am leading that process.
- My TIDEs project (Teaching with Investigation and Design in Science) is entering its second year. I am working with two post-docs to document how a classroom centered on investigation and design is different from one with active learning, and we’ve begun our observations of the 13 materials developers that will be engaged in this transformation.
- I served on a Committee of Visitors for the Division of Earth Science at the National Science Foundation. The charge of the COV is to “review and comment on the quality and integrity of program operations and program-level technical and managerial matters pertaining to proposal decisions.” Within the committee, there was substantial experience and expertise in “broader impacts,” and many of our recommendations focused on elevating and substantiating the broader impacts review criteria. The COV report has been finalized, although it is not yet available on the NSF website.