The ASEE Engineering Deans Gender Equity (EDGE) Initiative seeks to reduce barriers to effective recruitment, retention, and advancement of women faculty. In recognition of the heterogeneity of women, the EDGE Initiative staff uses “diverse women,” to represent the EDGE Initiative orientation to faculty intersectionality of gender and race/ethnicity (e.g., Black, Hispanic, Indigenous peoples, White, Asian, and international women). The target population for the EDGE Initiative is engineering deans, but recognizing that deans do not operate in isolation, the EDGE Initiative also targets institutional leaders, engineering chairs/heads, and faculty who serve to motivate and support engineering deans.

One objective of the EDGE Initiative is to provide deans with national college benchmarks to promote recruitment, retention, and advancement of diverse women engineering faculty. To that end, two applications were developed to provide deans with useful data about women faculty in engineering:

1. **Women Engineering Faculty:** shinyapps.asee.org/apps/EDGE/
   This app provides graphic visualizations of the percentage of women tenure-track/tenured faculty in engineering, by rank, region, discipline, institution type, and Carnegie class. Data can be configured and downloaded.

2. **Underrepresented Minority (URM) Women in Engineering Faculty:** shinyapps.asee.org/apps/EDGE%20URM/
   This app provides graphic visualizations of the percentage of URM women tenure-track/tenured faculty in engineering by rank, region, discipline, institution type, and Carnegie class. Data can be configured and downloaded.

Further, the leaders of the EDGE Initiative continue to seek feedback from deans and other leaders to better understand what types of data would be most useful as national college benchmarks. During the time-period of November 5-8, 2020, a series of 8 EDGE Focus groups consisting of 28* Deans (18), Executive Deans (1), Associate Deans (6), Assistant Deans (2), and Others (1) were conducted. Objectives of the focus groups were to provide background to participants on the EDGE Initiative and objectives, and to seek their input on useful faculty gender diversity, equity, and inclusion (DEI) metrics to be reflected in DEI Benchmarks.

Reported in the following pages are bulleted responses to the two questions posed, followed by suggestions offered by deans as organized by topic. The report closes with recommendations.

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**Question 1:** “What information about gender diversity, equity, and inclusion (DEI) do you think should be included as a national indicator?”

**Confirmation of benchmarks currently collected by ASEE**

Focus group participants expressed a variety of interests in data, some of which are currently available via the ASEE data mining tool (e.g., deans confirmed interest in knowing the number of female faculty, discipline x gender x race/ethnicity, women in leadership positions).

**Desired Information**

**Broader Context**
- What are Institutional influencers on DEI positioning (e.g., state laws), DEI support and incentives available, as well as availability of faculty affiliation communities for faculty from diverse backgrounds? *(Deans recognized that there are constraints outside of their control that influence their ability to effect positive DEI change. Being able to understand the nature of those constraints, and connect with deans that have similar contexts that constrain their DEI work would be helpful.)*

**Pipeline**
- Are the pathways for women, especially women of color, different than traditional pathways for white men?
  - Are there key decision points for women embarking on academic careers such as expressed interest by high school seniors or sophomore-year college students?
  - What are the career profiles for women compared to men (see example questions below)?
    - Do men evidence greater mobility than women?
    - Are there differences in engagement and number of post-docs? Or do wo/men go right into the academy?
- What is the representation of women on various levels of academic staff (e.g., adjuncts, instructors, assistant/associate/full professors) -- % of women on FTE x institutions?

**Teaching**
- What are the characteristics of full-time teaching faculty? *(i.e., the challenge here is in the definition of “teaching faculty” who may have numerous titles across different institutions).*
- What institutions have “named positions” for non-tenure-track teaching faculty? *(Deans are seeking ways to value, and reward, expert non-tenure-track teaching faculty.)*

**Equity Practices**
- Are other institutions collecting data to determine equity of teaching, advising and service loads?
- What faculty policies have deans implemented? *(e.g., dual career hires, part-time hires, modified duties, automatic “opt-out” tenure-track delay on birth/adoption of a child, childcare available, conference travel grants for support of dependents, eldercare supports)*
  - Where is the funding to support these policies managed (e.g., central university; college)?
  - Characteristics of dual-career hiring programs?
  - Do deans collect data on:
perceptions of the usefulness of these faculty policies, especially for groups underrepresented in engineering?
- faculty awareness/knowledge about these faculty policies?
- consistency of application of faculty policies?
  - Do deans host these policies in a centralized location on their website?
- What DEI evaluation information is assessed in evaluations of teaching faculty, faculty, researchers, chairs, deans?
- How many deans have been engaged in programs like the NCWIT Extension Services program or other programs that help deans efficiently and effectively adopt evidence-based strategies to help impact DEI outcomes?
- Where do opportunities for “negotiation” occur? (e.g., recruitment/tenure promotion/advancement/other (yes/no))
  - Do deans analyze negotiation opportunity data by gender?
- Are deans employing inclusive mentoring plans/practices and professional development for mentors? If so, what are they?
- What institutional and/or college-level “DEI positive” signals indicate a “welcoming” atmosphere, especially to URG students, staff and faculty? Possible examples:
  - Shared and easily assessable DEI-friendly policies and procedures e.g., modified duties after having babies to reduce teaching load for tenure-track faculty (e.g., distributed at interview; shared on CoE website homepage)
  - DEI Programming
  - Faculty applicants required to share a diversity statement—and evaluated as part of the hiring rubric
  - Faculty recruitment allowance—signing bonus (supplement given to those in Academic Faculty Diversity program)
  - Examples of programs colleges are engaged in to support DEI (possible qualitative question or open-ended question)
  - Endowed positions named after a woman and/or URM
  - Climate surveys completed regularly, results posted, and evidence of changes made
  - personal word of mouth re: institution
  - DEI info about the institution provided,
  - Connection with someone at the institution,
  - Different notice of vacancy wording, (e.g., requesting application for people “interested” in a list of things, rather than “requiring” certain things)
  - where the NOV is advertised;
  - how NOV is advertised (e.g., personal contact?)
  - DEI award status marketed on website (e.g., ASEE Bronze Status; ADVANCE award…)
  - Evidence of regular climate surveys, results of climate surveys, evidence of change...
- Do deans collect qualitative data regarding perceptions by women faculty on things such as the following?
  - Ease of access to quality child-care (e.g., help dean’s make the case for dependent care support)
  - Eldercare support
  - Experiences of serving in leadership positions
Family-friend policies (e.g., dual career, flexible or modified duties, opt-out Stop the Tenure-clock, ...)?

- Are there programs that women faculty especially value for helping prepare them for faculty or leadership positions?
- Are equity search strategies employed (and what strategies have been found to be most effective)? Examples could include below (check all that apply):
  - Search committee chair has received implicit bias training
  - Search committee members have received implicit bias training
  - Diversity considerations have been given to selection of the search committee chair
  - Consideration given to diversifying the composition of the search committee
  - Consideration given to how to optimize recruitment through personal word of mouth,
  - DEI info about the institution provided in position announcements
  - DEI information about the college/institution provided on the college website
  - Consideration given to facilitating connection with someone at the institution, for faculty applicants
  - Position description indicates receptiveness to persons “interested” in a given area rather than requiring demonstrated performance in a given area,
  - Advertising is shared in a variety of media outlets, including those with predominant audiences of members of URGs;
  - Advertising is done through publicly available media sources as well as diverse personal networks
  - Search committee candidate use selection strategies to include applicants as “acceptable,” rather strategies to exclude people as “unacceptable”
  - Faculty friendly policies are readily available to applicants and candidates
  - DEI awards are highlighted on marketing materials and website(s) (e.g., ASEE Bronze Status; ADVANCE award...)
  - Search committees consider such factors as a candidate’s ability to attract diverse Ph.D. students

- Where are “off-ramps” for women engineers?
  - Are women leaving prior to tenure, or failing tenure at a rate higher than men?

Search & Hire
- Do deans collect search Committee Data, for example on some of the following:
  - Diversity characteristics of search committee chairs?
  - Fe/male ratio applicants in search pools?
  - Fe/male ratio of candidates interviewed?
  - Fe/male ratio of candidates offered positions?
  - Fe/male ratio of acceptance rates?
  - Fe/male ratio ranks-at-hire?
- Do deans engage in “grow-your own” diverse women faculty programs?
- Do deans engage in “novel” hiring strategies
  - Financial support for local faculty housing
Advancement/Promotion

- Do deans collect and analyze recognition, and promotion data on:
  - faculty award recipients by faculty demographics?
  - average years to promotion (i.e., tenure, full)?
  - faculty success rate (i.e., similar to student success rate)?
  - promotion rates by gender?
- Do deans collect and analyze data on leadership pathways, for example:
  - Do women evidence a different pathway to leadership than men?
  - How many faculty have utilized professional development leadership programs for advancing skills?
  - What is the perception of the usefulness of leadership professional development programs by gender?
- Do deans collect and analyze data on leadership positions x gender, for example:
  - Endowed chairs?
  - Endowed professorships?
  - Distinguished chairs?
  - Distinguished professorships?

Retention

- Do deans collect and analyze data of retention rates by gender and rank?
- Do deans collect and analyze data re: time-in-rank by all ranks x gender?
- Have deans explored motivations for promotion and whether they differ by gender and race/ethnicity?
- Do deans collect and analyze data of time-since-last-promotion by gender and race/ethnicity?

Much of the information suggested above is beyond the capability of a simple survey system and would require in-depth interviews with individual campuses. Even were such information collected, it would be challenging to consistently collect, concisely display, and coherently convey. This argues for the production of a series of research-to-practice reports wherein mixed methods research is pursued on these questions and the results are distilled for campus leadership.

Profiles currently has no way of providing deans with information about hires, exits, and time-in-rank by gender. ASEE Profiles staff propose adding the question below, that, in conjunction with other Profiles information collected, will be able to provide answer to some of the prior questions about hires, exits, and time-in-rank.

**Question 2:** “Do you think Profiles should include a question such as, ‘How many faculty by gender and race/ethnicity have continued in employment from (date) to (date)?’”

Focus group members had a variety of reactions. There was general agreement on the utility of the question, the value of national-level data, and the observation that the question is most effectively posted at the department level rather than the college level. However, there were concerns that data collection would be onerous and require access to personnel files of individual faculty. A departmental “snapshot” could be taken at two defined points in time, but this strategy risks masking individual attrition via new hiring; though this could possibly be minimized by further restricting the question to include “rank” in addition to gender and race/ethnicity. Additional concern was expressed that the data
alone could not explain underlying reasons for either strong or weak attrition without labor-intensive follow-up qualitative questions or focus groups on each campus.

Focus group members were concerned that in many cases institutions would be reluctant to provide the information for fear of damaging their reputations. This would be especially true if the data provided lent itself to misinterpretation due to unexplained circumstances (e.g., a large number of promotions, a faculty group transferring to another institution, or a large expansion/contraction in the number of faculty at the institution).

**Recommendations:**

Participants offered a variety of recommendations unrelated to suggestions for national benchmarks. Included were recommendations for resources to aid data respondents, training on data entry, harvesting of data to glean best practices, suggestions on how individual campuses could better use the data that is, or could be, available via ASEE’s Profiles database, and future research questions. These recommendations will be closely examined by the EDGE Initiative staff and considered for implementation by appropriate parts of ASEE.