



Commentary

Improving Diversity and Promoting Inclusion in the Society for Epidemiologic Research Through Choice of Conference Location

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Scientific conferences provide attendees opportunities to network, share research, learn new skills and ideas, and initiate collaborations. Conference attendance is especially important for students and early-career researchers who are establishing their research careers or looking for jobs. However, attending conferences can be expensive, and the high cost of conference attendance might hit students and early-career researchers the hardest. According to a new member survey from the Society for Epidemiologic Research, early-career members are more racially and ethnically diverse than senior members, meaning that reducing financial barriers to conference participation might be an important consideration for increasing diversity among conference attendees. In this commentary, we discuss how choice of conference location—choosing less expensive cities nearer to more Society for Epidemiologic Research members—could reduce financial and other barriers to conference attendance for all members and improve diversity and inclusion in the Society.

diversity; early career; epidemiology; inclusion; Society for Epidemiologic Research

Abbreviations: CEPH, Council on Education in Public Health; SER, Society for Epidemiologic Research.

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Scientific conferences provide attendees with a beneficial in-person forum for professional networking, sharing results from new research, learning about new methods or areas of investigation, getting perspectives from people outside their home institutions, and initiating new and strengthening existing collaborations (1, 2). Conference participation is critical for students and early-career investigators who are advancing their careers—especially for job-seekers who need to network or add presentations to their curriculum vitae (2–4). However, attending scientific meetings can be expensive. Between airfare, lodging, registration, ground transportation, meals, incidental expenses, and childcare, attending a scientific meeting can cost thousands of dollars (3, 5).

The high cost of conference attendance disproportionately limits participation from students, early-career investigators, and non-tenure-track faculty; these groups are more likely than established investigators to have lower salaries,

higher student debt loads, and limited travel funds (2, 3). In an informal survey of 213 Modern Language Association convention attendees, attendees without full funding paid about \$1,000 out-of-pocket to attend—an often unaffordable expense for students or new investigators (3, 6). For example, students receiving the National Institutes of Health predoctoral student stipend are paid \$2,110 monthly, before taxes (7).

Hospitality and tourism researchers recognize that cost is one of the main deterrents of conference attendance (8, 9). Unfortunately, little formal research on barriers to conference attendance has been conducted outside of the hospitality and tourism realm. Recently, a survey found that 42% of scientists at the Space Telescope Science Institute cited cost as a reason for not attending scientific conferences or not submitting abstracts to conferences (10).

The high cost of conference attendance not only deters conference participation but might be a barrier to increasing diversity and inclusion among conference attendees. If the high cost of attending scientific conferences disproportionately affects early-career scientists, it might also disproportionately affect minority members, making the

conference less diverse. According to the 2018 Society for Epidemiologic Research (SER) member survey, members of racial and ethnic minority groups were about twice as likely to have <10 years of SER membership—likely correlated with early-career status—compared with their White counterparts (11). In the same survey, SER used self-initiated society participation as a measure of inclusion. Of the 7 metrics used in the survey to define self-initiated participation, 4 required in-person meeting attendance: submitting an abstract, submitting a symposium, submitting a workshop, and volunteering and participating as a poster judge.

WHAT CAN BE DONE?

Registration fees for the SER annual meeting change little, year to year, and cover the necessary costs of the meeting space and audiovisual services. The overall cost of meeting attendance, however, depends on lodging, transportation, and per diem (meal and incidental expense) costs specific to the conference city.

In this commentary, we focus on conference location as a potential mechanism to increase diversity and inclusion in the annual SER meeting. While it is unrealistic for SER to make sweeping institutional changes such as offering free registration or influencing conference support procedures at individual institutions, SER could influence the cost of attendance through its choice of conference location.

To determine the feasibility of reducing financial costs through choice of conference location, we assessed the relative expenses associated with attending a hypothetical SER meeting in each of the 50 largest US metropolitan statistical areas; these metropolitan areas would have large enough venues and adequate travel infrastructure for domestic and international attendees. We used the estimated cost of a 3-night hotel stay to estimate the lodging costs associated with attending SER in that metropolitan area. We also estimated the distance between each metropolitan area and every US-based Council on Education in Public Health (CEPH)-accredited school of public health or graduate public health program as a proxy for transportation costs. Further details on our methods and data sources are given in Web Appendix 1 (available at <https://academic.oup.com/aje>).

Between 2000 and 2023, SER has been or will be held in one of the 50 largest U.S. metropolitan areas 20 times (12). In 18 (90%) of these years, SER was held in an area with a 3-night hotel stay above the median estimated cost of \$476 (Web Figure 1). In the 2 most expensive locations where SER has been held during this time—Boston, Massachusetts (3 times), and Seattle, Washington (5 times)—a 3-night hotel stay costs an estimated \$966 and \$887, respectively. Holding the meeting in cities below the median hotel price would save members at least \$490 in lodging costs over Boston and \$411 over Seattle.

The closer the SER meeting is to public health programs, the greater the number of attendees that can use lower-cost transportation options such as public transit or driving. Because of the high concentration of CEPH-accredited public health programs in the Northeast (e.g., New York,

New York; Hartford, Connecticut; Baltimore, Maryland; and Philadelphia, Pennsylvania), Mid-Atlantic cities have the greatest number of public health programs nearby. Each of these cities has 30 or more CEPH-accredited programs within 200 miles (322 km; Web Figure 2). We also identified cities with the shortest median distance to each CEPH-accredited program, a metric that might indicate shorter travel times overall for SER members. The cities with the shortest median distance were Pittsburgh, Pennsylvania (484 miles/779 km); Columbus, Ohio (501 miles/806 km); and Cleveland, Ohio (526 miles/847 km) (Web Figure 3).

Future meeting locations that might be accessible to a broader range of interested SER attendees would have low costs but also be located a moderate distance from CEPH-accredited public health programs. Examples of these locations include Hartford, Connecticut; Indianapolis, Indiana; Louisville, Kentucky; Detroit, Michigan; Charlotte, North Carolina; Raleigh, North Carolina; Cleveland, Ohio; Columbus, Ohio; and Pittsburgh, Pennsylvania. SER has not held a meeting in any of these cities since 1986 (Pittsburgh) (12).

IMPLICATIONS FOR DIVERSITY AND INCLUSION

The SER Diversity and Inclusion Committee lists early-life socioeconomic conditions, schools and institutions, and life experiences as axes of diversity and inclusion that warrant further investigation in the Society (11). Expanding the diversity in conference locations and decreasing attendance costs could have positive impacts on these 3 axes.

First, holding the meeting in expensive locations—as is currently common—favors members with greater accumulated wealth, lower debt, and the ability to cover large, one-time expenses like conference attendance. SER might therefore be disproportionately drawing its conference attendees from populations with higher early-life socioeconomic status. We acknowledge that many conference participants have institutional or grant funding to reduce the out-of-pocket expenses for conference attendance. SER also contributes financial assistance in the form of discounted registration rates and travel scholarships for student and early-career members as well as complimentary registration for student volunteers. However, even if funding is available to support meeting attendance, commonly used reimbursement policies require attendees to carry meeting expenses on a credit card for months while waiting for reimbursement—increasing their debt and accruing interest charges (13, 14). The inability to cover conference attendance costs up-front is a barrier to conference attendance that persists even with the availability of society, institutional, or grant funding that would otherwise cover the full costs of conference attendance. Students and early-career researchers might not have credit card limits high enough to cover conference costs on top of their regular expenses; some might not have a credit card. Reducing the overall cost of attending the conference could help to solve this problem.

Second, choosing less-expensive locations for SER meetings would increase diversity in participating schools and institutions. Choosing less-expensive locations would promote attendance from institutions that have fewer resources. Society, institutional, and grant support for conference

attendance, while imperative for many to attend SER, is not unlimited. Smaller schools, public or government agencies, nonprofit organizations, and newer programs might have a more constrained budget for conference support, restricting participation from these institutions. Achieving a lower conference cost by holding the meeting in less-expensive cities in closer proximity to potential conference attendees could help conference travel budgets that often cannot accommodate the overall cost of the conference or that limit the number of people who can attend. SER might also consider proximity to public health programs in historically Black colleges and universities, Hispanic-serving institutions, American Indian and Alaska Native-serving institutions, or institutions with few SER members to encourage local epidemiologists from these institutions to attend.

Third, a more diverse and less-expensive choice in SER meeting location would benefit members of all life experiences. Local attendance might promote inclusion among members who have medical conditions, disabilities, or childcare, eldercare, or pet care needs that make it difficult or costly to travel. In the SER member survey, 30% of members reported having dependents, and 23% said they had children who needed childcare (11). Although we focused on conference location in this commentary, other place-based considerations are the availability of childcare, accommodations for breastfeeding or pumping, and family-friendly spaces at the conference hotel (15). In the survey of scientists at the Space Telescope Science Institute, women with dependents were less likely to attend conferences they wanted to attend compared with men who had dependents and scientists with no dependents, suggesting that travel might be a particularly important predictor of conference attendance for women with caregiving responsibilities (10).

In future iterations of the SER member survey, we encourage the inclusion of questions about sources of conference support, barriers (financial or otherwise) to conference attendance, and opinions about the relative importance of cost and location in members' decisions to attend SER. However, relying on the SER membership survey for information on barriers to conference attendance gives an incomplete picture. Epidemiologists who join SER are likely those who suspect they will have the sustained ability to attend the meeting, whereas the epidemiologists who are the least able to travel to SER might be unlikely to join. Although SER membership provides more than conference registration discounts, there is little incentive for epidemiologists to pay membership dues to join a society whose meetings they can never attend. The underlying target population of epidemiologists is likely more diverse than indicated by the SER membership roster.

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