

# Where Are They Now? Charting Careers for 32 Years of New England Surgical Society Podium Presentation Winners

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## ABSTRACT

**BACKGROUND:** The New England Surgical Society (NESS) has been a pillar of the regional medical community since 1916, founded to promote surgical knowledge sharing across a small but diverse geographical region. Annual podium awards recognize high-quality research by surgical trainees.

**DESIGN:** We described trends among 81 research abstracts and career trajectories for their trainee authors (1987–present).

**RESULTS:** Among abstracts, 80.2% were clinical research, 12.3% basic science, and 7.4% education. 87.6% resulted in publications. Awardees represented 19 institutions and were predominantly residents (74.0%), with the remainder being fellows and students. 71.4% are now practicing attendings in 14 surgical subspecialties while 18.2% remain in surgical training. 44.2% currently reside in New England.

**CONCLUSION:** NESS attracts a range of high-quality research and winners demonstrate a range of successful careers with a propensity for academic surgery. Findings of low attrition and many currently living in New England highlight the value of regional conferences for strengthening local professional connections.

**KEYWORDS:** regional conference, graduate medical education, surgery, resident awards, academic research, gender parity

## INTRODUCTION

The New England Surgical Society (NESS) was founded in 1916 with 18 founding members from 6 states. 13 papers were presented that year.<sup>1</sup> Since its founding, NESS has held a commitment to research and education across a small but diverse geographic region. Its inaugural president, Dr. Samuel Mixer, stated “the great value of medical meetings is to meet men, to know men, and to get their views,” and he charged the society with the task of “add[ing] materially to the sum of surgical knowledge.”<sup>2</sup> Dr. John Wheeler, NESS’ second president, further elaborated on the importance of the society. He believed that all surgeons, even “those of us who inhabit the smaller towns of New England” had

meaningful expertise to offer: “If each of us will contribute his mite to the cause of surgical progress and see to it that his mite represents his very best effort, I venture to say that the effect on the Society as a whole and on its individual members will be startlingly beneficial.”<sup>2</sup>

Records show that a Resident Award, later renamed the Podium Prize Award, was bestowed annually to trainees at NESS beginning some time in or before 1987. Initially given only to the single best podium presentation, as of 1996 the society began recognizing the three top trainee presentations. The presentation of such awards recognizes some of the best surgical research in New England and reflects the ideals of NESS. This project was initiated to describe the content of this research and the career trajectories of award winners.

## METHODS

Using the list of prior award-winning abstracts provided on the NESS website, investigators used Internet search, PubMed, and correspondence with current program directors to collect data about winning abstracts and authors. Searches for publication history were conducted predominantly using PubMed. Most data about award winners were available from U.S. News (health.usnews.com) and profiles on department webpages. Data was collated and described using summary statistics.

## RESULTS

The award list spans 32 years (1987–2019) and cites 81 abstracts. Given some repeat winners, this represents the work of 77 awardees.

Trends among abstracts are described in **Table 1**. 80.2% (65/81) of winning abstracts were for clinical research, 12.3% (10/81) for basic science, and 7.4% (6/81) for surgical education or history, spanning 14 different surgical specialties. At least 87.6% (71/81) went on to full publication in peer-reviewed research journals.

Awardees hailed from 19 different research institutions. At the time of their award, 74.0% (57/77) of recipients were residents and 14.3% (11/77) were surgical fellows, with the remainder being research fellows (7.8%, 6/77) and students (3.9%, 3/77). Four awardees went on to win a subsequent second award. These awardees were all female, and therefore, while women made up 40.2% (35/77) of awardees, they received 43.2% (39/81) of awards. (See **Table 2**.)

**Table 1.** Trends among winning NESS research presentations

| Specialty                                | Frequency % (n) |
|--|-----------------|
| Breast                                   | 4.9% (4/81)     |
| Cardiac                                  | 1.2% (1/81)     |
| Colorectal                               | 7.4% (6/81)     |
| Critical Care                            | 6.2% (5/81)     |
| Endocrine                                | 3.7% (3/81)     |
| General Surgery                          | 4.9% (4/81)     |
| Vascular                                 | 6.2% (5/81)     |
| Minimally Invasive                       | 2.5% (2/81)     |
| Pediatric Surgery                        | 9.9% (8/81)     |
| Plastics                                 | 1.2% (1/81)     |
| Surgical Oncology                        | 17.3% (14/81)   |
| Thoracic                                 | 1.2% (1/81)     |
| Burn                                     | 1.2% (1/81)     |
| Hepatobiliary                            | 3.7% (3/81)     |
| Trauma/Emergency General Surgery         | 19.8% (6/81)    |
| Surgical Education or History            | 7.4% (6/81)     |
| Medicine                                 | 1.2% (1/81)     |
| <b>Type of Research</b>                  |                 |
| Clinical Research                        | 80.2% (65/81)   |
| Basic Science Research                   | 12.3% (10/81)   |
| Other (Medical Education, History, etc.) | 7.4% (6/81)     |
| <b>Research Institution</b>              |                 |
| Baystate                                 | 3.7% (3/81)     |
| Beth Israel                              | 4.9% (4/81)     |
| Boston Children's                        | 1.2% (1/81)     |
| Boston Medical Center                    | 3.7% (3/81)     |
| Brigham and Women's                      | 3.7% (3/81)     |
| Brown                                    | 11.1% (9/81)    |
| Dartmouth                                | 11.1% (9/81)    |
| Grand Rapids                             | 1.2% (1/81)     |
| Hartford Hospital                        | 1.2% (1/81)     |
| Lahey                                    | 1.2% (1/81)     |
| Maine Medical                            | 3.7% (3/81)     |
| MD Anderson                              | 1.2% (1/81)     |
| MGH                                      | 14.8% (12/81)   |
| New England Deaconess                    | 1.2% (1/81)     |
| St. Mary's                               | 1.2% (1/81)     |
| U Conn                                   | 7.4% (6/81)     |
| U Mass                                   | 4.9% (4/81)     |
| University of Vermont                    | 8.6% (7/81)     |
| Yale                                     | 11.1% (9/81)    |

**Table 2.** Trends among NESS presentation award winners

| Trainee Level at Time of Award      | Frequency % (n) |
|-------------------------------------|-----------------|
| Student                             | 2.6% (2/77)     |
| Resident                            | 74.0% (57/77)   |
| Fellow                              | 14.3% (11/77)   |
| Researcher                          | 7.8% (6/77)     |
| <b>Current Position</b>             |                 |
| Resident                            | 11.7% (9/77)    |
| Fellow                              | 6.5% (5/77)     |
| Attending Surgeon                   | 71.4% (55/77)   |
| Attending in Non-Surgical Specialty | 2.6% (2/77)     |
| Other                               | 7.8% (6/77)     |
| <b>Surgical Specialty</b>           |                 |
| Breast                              | 2.6% (2/77)     |
| Cardiac                             | 3.9% (3/77)     |
| Colorectal                          | 7.8% (6/77)     |
| Critical Care                       | 5.2% (4/77)     |
| Endocrine                           | 3.9% (3/77)     |
| General                             | 20.8% (16/77)   |
| Vascular                            | 9.1% (7/77)     |
| Minimally Invasive                  | 7.8% (6/77)     |
| Pediatric Surgery                   | 5.2% (4/77)     |
| Plastics                            | 1.3% (1/77)     |
| Surgical Oncology                   | 15.6% (12/77)   |
| Thoracic                            | 2.6% (2/77)     |
| Transplant                          | 3.9% (3/77)     |
| Trauma                              | 2.6% (2/77)     |
| Other                               | 7.8% (6/77)     |
| <b>Gender</b>                       |                 |
| Male                                | 59.7% (46/77)   |
| Female                              | 40.3% (31/77)   |

Compared to the estimated 18% attrition rate for surgical trainees nationally<sup>3</sup>, NESS awardees demonstrated a relatively low attrition rate: 89.6% (69/77) continued their careers in a surgical field, 71.4% (55/77) as attendings and 18.2% (14/77) still in residency or fellowship training. They pursued 14 different surgical subspecialties, although only a minority pursued the same subspecialty as their winning abstract. Of the awardees who had completed residency at the time of this publication, only 35.9% (23/64) had pursued the field to which their abstract pertained.

Among the remaining awardees who do not practice surgery, 2.6% (2/77) each work in other medical specialties, in biomedical industry, or as post-doctoral researchers and one awardee (1.3%) retired after completing surgical fellowship to be a full-time parent.

Among those who became attendings in surgery and other medical fields, at least 57.6% (n=34/59) currently hold university-affiliated faculty positions. 44.2% (n=34/77) of awardees reside in New England.

## DISCUSSION

Every year, NESS attracts a range of high-quality abstracts, and the winners of the top abstract presentation awards go on to a range of successful careers. Receiving a NESS Podium Presentation award likely reflects a propensity for academic surgery, as a majority of its recipients continue in surgical careers as university-affiliated faculty. We noted that many of these individuals eventually go on to settle in New England, suggesting that NESS provides a valuable opportunity for trainees to strengthen their regional professional network among potential collaborators and employers.

We noted that only a minority of award winners ultimately went into the same surgical subspecialty as the field of research they presented at NESS. This suggests that developing a solid foundation of research experience, and producing high quality academic work, is perhaps more valuable to trainees than conducting research in their ultimate field.

An optimistic finding was the high rate of female winners. To explain this, one would need the baseline proportion of women among training programs in New England during the study period, or at least among the authors submitting abstracts to NESS – both were outside the scope of this study. However, it is a notable contrast to a recent study showing female surgical trainees are disproportionately underrecognized by departmental awards. That study, which included 10 programs (out of 24 participating) from the Northeast, showed female trainees accounted for 36.6% of the resident population but only 31.4% of award winners.<sup>4</sup> It is unclear whether this difference is the result of any directed efforts by NESS leadership or perhaps a reflection of a more diverse and supportive culture within New England medical organizations. However, this study demonstrates the feasibility of evaluating organizations for evidence of gender bias and that there may be something to learn from those which achieve better gender parity.

In summary, the diversity among the winning abstracts seen over the last three decades of NESS is laudable, as evidenced by the diversity of award winners, the representation of research from 19 different regional institutions, and the breadth of research across 14 sub-specialties. Furthermore, the finding that many of the trainees recognized in this work have remained in New England highlights the value of regional conferences as potential opportunities for trainees to develop local professional relationships that may last their entire careers. Together, this study confirms that NESS continues to hold up ideals set forth by its great founding surgeons: the importance of getting to know one another, advancing each other's surgical knowledge, and the belief that great contributions come from across the whole of New England.

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