

Job Satisfaction in Cancer Prevention and Control: A Survey of the American Society of Preventive Oncology

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Introduction

The American Society for Preventive Oncology (ASPO) was established in 1976 as a professional organization concerned with preventive oncology. Since that time, ASPO has evolved to address not only new scientific areas that have developed, but also the changing needs of its members in terms of professional development (1). One way ASPO has done this is through the use of surveys of ASPO membership. One area that is constantly changing is career needs and job satisfaction.

Job satisfaction is associated with professional advancement, greater productivity, and higher salary across many fields, including academia (2). There are a number of demographic (gender, discipline), environmental (relationships with colleagues and trainees, mentorship, institutional climate), and value-specific (achievement, recognition, support, advancement, salary) factors associated with job satisfaction among academic faculty (3-6). Over the past decade, numerous initiatives have examined the state of professional advancement and faculty satisfaction (7-10) and offered actionable steps to improve these conditions at the institutional level (8). Unfortunately, the recent economic downturn has endangered the attainment of these goals (11, 12).

ASPO conducted two surveys investigating this area among its members. The first was in 2001, and the second was in 2009. The goal of this report is to compare responses from ASPO members to both surveys and then provide some recommendations, based on the results, to ASPO leadership and institutional leaders to address the needs of cancer researchers in terms of career development and job satisfaction.

First Survey—2001

In 2001, the then-members of the ASPO Junior Career Development Interest Group mounted a survey to assess career needs among cancer prevention and control pro-

fessionals. They used this information to better establish their activities and guide future programming (13). They specifically examined the characteristics and career needs of junior and senior cancer prevention and control professionals. That survey identified a number of issues that called for attention. For instance, they found that significantly more male (62%) than female members (47%) held tenure track positions and that women were less likely than men to have their salaries fully supported by institutional "hard" money and more likely to be in positions that were responsible for covering 100% of their salary through "soft" money. They also identified the need for and perceived importance of mentorship and networking for junior scientists, as well as interest among senior scientists in improving skills for scientific presentations, as key career development needs for the members of ASPO. Specifically, they suggested that smaller, more specialized organizations, such as ASPO, would be ideal as a source of mentorship (13). However, no formalized mentoring program within ASPO has taken hold, outside of the New Investigators Workshop held during the Annual ASPO meeting.

Second Survey—2009

Much has changed since that 2001 survey—both for the better and the worse. Researchers have faced years of a challenging funding environment (14) and the more recent economic downturn has put pressures on academic institutions to find the means to survive and thrive (11, 12). However, the greater attention paid to faculty satisfaction and gender equity could potentially ameliorate the effect of these challenges on overall satisfaction (7-10). In an effort to assess the current career development needs of our membership, in October 2009, we (as current members of ASPO's Junior Career Development Interest Group) reassessed the characteristics and career needs of ASPO members and meeting attendees and examined how these factors relate to current job satisfaction in our membership. We also sought to assess preferences for future programming that could enhance professional development for our members, specifically through mentorship opportunities.

Although the response rate to our web-based survey was somewhat low (37%; $n = 160$ of 432), our respondents were quite similar to those of the 2001 survey in that they were mostly women (64%); were mainly employed at cancer centers (37%), schools of medicine (37%), or schools of public health (25%); and held either

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Ph.D., Dr.P.H., or Sc.D. degrees (70%). Among our respondents, 23%, 20%, and 31% held positions as Assistant, Associate, and Full Professor, respectively.

There were a number of important differences between the findings of the current survey and the 2001 survey. For instance, compared with the 2001 survey (13), a greater percentage of members reported being tenured or on the tenure track (66% versus 47%) and the previous gender differences in the attainment of tenure track positions had disappeared. However, we did find that our female respondents were less likely to hold Associate and Full Professor positions ($P = 0.002$), and were more likely to contribute a greater percentage of effort to research than male respondents ($P = 0.05$), patterns that have not changed since 2001. Perhaps reflective of the challenging funding and economic environments, 59% of respondents in our survey reported having access to bridge funding to support their salaries, compared with 72% of those in the 2001 survey.

We found promising data with regards to mentorship. More than two thirds of our respondents (70%) reported serving as mentors and more than half reported having a mentor (55%), up slightly from the 2001 survey (62% and 52%, respectively). The development of institutional mentoring programs has increased in recent years (7, 15). Indeed, half of our members (49%) indicated that their institutions had such a program. Furthermore, when asked whether they preferred to receive their career development information from solely their peers, mentors, a combination of these, or neither source, approximately half of the sample (51.8%) preferred a combination of their peers and mentors. Our respondents also indicated that they initiated career development discussions with their mentors a bit more than half of the time (55%), similar to reports from the 2001 survey. Overall, it seems that many of our members received adequate mentorship. But for many others, it seems that more is needed.

Therefore, we assessed whether our members would be interested in an ASPO-based mentoring program and what format they would prefer if such a program were offered. Two-thirds (65%) of our respondents indicated that they would see a benefit in such a program. When presented with options of what form this could take, the largest number of respondents (40%) favored a mentoring program run primarily through e-mail, supplemented with biannual phone calls and an in-person meeting at the ASPO Annual Meeting. This was followed by informal e-mail mentoring (two to three times a year; 22%), peer-mentoring conference calls on specific topics (13%), and more frequent e-mail mentoring (10%).

Finally, it seems that our respondents were satisfied with their current position—more than two-thirds (76%) reported being satisfied or somewhat satisfied. Being at an institution with a formal mentoring program, having bridge funding available, and valuing the career development information received from their mentors, either alone or in combination with advice from peers were

all related to greater satisfaction. But the factors relevant to satisfaction were not the same for everyone. For junior faculty (at the rank of Instructor or Assistant Professor), connections seemed to be key. Nearly all of those (94%) reporting a formal institutional mentoring program reported being satisfied, as compared with only 44% of those without these programs. In addition, 73% of those who reported being satisfied, compared with 20% of dissatisfied respondents, found career development information helpful from both peers and mentors. For senior faculty, the presence of bridge funding emerged as the only difference between those who were satisfied and those who were less so (69% versus 18%). One interpretation of these findings might be that early in one's career, learning the "how-to's" of the profession from peers and mentors and having supportive connections was key to satisfaction, whereas later in one's career, institutional support provided to scientists becomes more critical to satisfaction.

Summary and Recommendations

There have been many notable changes in the intervening decade since the 2001 survey was launched, some promising, others troubling. For instance, the elimination of gender differences in the attainment of tenure track positions was a welcome finding. However, attention should continue to be paid to ensure that in the coming years, the continuing gender difference in tenured faculty disappears as well. The lower percentage of members with access to bridge funding than in 2001, combined with the importance this plays in job satisfaction, especially among senior scientists, was concerning. This underscores the importance of continued career development opportunities in areas such as grant submission and re-submission strategies and funding opportunities, as well as career development offerings for senior scientists. The recent inclusion of a career development lunch for senior scientists at the 2010 ASPO Meeting is a potential venue to start to meet the unique needs of this group.

Our results also suggest a number of other recommendations.

1. **Implementation of an ASPO-based mentoring program.** Such a program would require participation not only from junior members (those most likely to be interested in such a program) but also from senior members willing to share their already-scarce time with colleagues who are within their field, but not at their home institutions. The system favored by the largest group of members, a mentoring program run primarily through e-mail, supplemented with two phone calls per year, and an in-person meeting at the ASPO Annual Meeting, might not be very labor-intensive for participants if both members of the mentoring team used the time wisely to address specific scientific or career

advancement issues. Institution-specific topics, such as the requirements for tenure, would still need to be addressed through institutional mentoring.

2. **Institutions should provide institutional mentoring programs.** Successful institutional mentoring programs are more likely to support junior faculty through a combination of both mentorship by senior colleagues and junior faculty support committees (14). Senior faculty should also receive guidance for their role of being mentors and leaders. For example, senior colleagues may benefit from "mentoring up," the concept in which junior faculty provide expertise and consultation in novel areas with their senior colleagues. Furthermore, senior faculty might benefit from a mentoring liaison at the Provost level who could help monitor departmental practices, prepare specific guidelines for the tenure process, and foster communication across the institution (16). This continued mentoring of senior leadership would certainly benefit the junior faculty within their departments and divisions. Given the importance that formalized mentoring programs play in job satisfaction among our members, any potential ASPO-based mentoring program should serve as an addendum to, rather than a replacement of, institutional mentoring programs. This plan would allow any new initiatives to complement and expand existing formal programs.
3. **Institutions should continue to provide bridge funding.** A great deal of attention has been paid re-

cently to the effect of the economic downturn on the state of research institutions, and by extension, their faculty and the research enterprise (11, 12). The financial stability that comes from the existence of bridge funding for temporary gaps in funding is one important means to allow faculty and the research that they produce, both now and in the future, to survive.

ASPO leadership will discuss the feasibility and structure of an ASPO mentoring program in the coming months. To be successful, however, the membership must "buy-in" and participate in such a program. Additionally, plans for future surveys among the membership related to job satisfaction and career development needs will help determine the success of not only ASPO-sponsored programs, but institution-specific initiatives and temporal changes. Input from readers and ASPO members is welcome.

Disclosure of Potential Conflicts of Interest

No potential conflicts of interest were disclosed.

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