

Outcomes for PSM Alumni: 2015/16

Fall 2017 Report



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Evaluation Report:
Outcomes for PSM Alumni: 2015/16
by
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The 2015/16 PSM Student Outcomes survey was administered by the PSM National Office at Keck Graduate Institute. This survey was focused on revealing students' reasons for PSM enrollment, benefits and attributes of the PSM programs, professional development, and the current conditions for their career paths and pre- and post-program enrollment base annual salary and annual income over time.

This report will be available online at the PSM National Office website at www.professionalsciencemasters.org

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Executive Summary

The PSM National Office has conducted the *Outcomes for PSM Alumni* survey since 2010. In the summer of 2016, the office sent out invitations to PSM affiliated institutions to participate in a PSM student outcomes survey. This survey was distributed to recent graduates (within the past 5 years) who earned a PSM degree, graduating during the academic years 2011/12, 2012/13, 2013/14, 2014/15, 2015/16. Please note that the survey was distributed by only those PSM affiliated institutions that agreed to distribute the survey to their recent alumni. Additionally, PSM programs affiliated within the past 2 years did not participate in this survey as they do not have a alumni population yet.

A total of 520 recent alumni from within the past 5 years completed the survey. The assessment inquired about demographic background, current employment status, reasons for enrolling in the programs, benefits of earning PSM degrees, and attributes of PSM programs, as well as levels of satisfaction. Additionally, in the 2016 survey, new questions were presented, asking about pre and post-program enrollment base annual income as well as salary over time.

A few key findings from the survey responses of recent PSM graduates include:

- PSM graduates have diverse racial and ethnic backgrounds. Moreover, the respondents were from a wide range of STEM fields including PSM programs in Biotechnology/Biomedical/Pharmaceutical, Environmental Science/Ocean Science/Sustainability/GIS, and Computer/Information Science, which were the highest three attended/chosen/graduated. This is aligned with the most frequent fields of study for current PSM programs.
- One of the questions in the survey inquires as to the student's primary reasons to attend their PSM programs. The top three reasons for enrolling in the programs were: (1) to acquire specific skills and knowledge, (2) to learn more about something in which I am particularly interested, and (3) to increase opportunities for promotion, advancement and/or pay increases. The result also aligned with the benefits of earning PSM degrees.
- Respondents were asked to evaluate the topic areas covered by their programs. A technical and/or scientific topic ranked the highest. The second, third, and fourth topics followed as teamwork, research and development, and ethics. They also selected leadership and communication skills. As other skills, they reported that finance and statistics topics were covered well in their information science and analytics programs.
- The data showed respondent satisfaction as high on the attributes of their PSM program. Attributes cited included 1) post-graduation employment prospects, 2) the quality of non-scientific professional training, and 3) internship(s) and "real world" practical experiences. Additionally, they reported that they were highly satisfied with and benefited from the quality of their scientific and/or mathematical training.

- The survey asked a series of questions regarding the participants' current jobs, employers and attributes of the PSM that contributed to finding their current positions. For example, questions were asked to determine how valuable PSM degrees have been to the respondents up to the time of the assessment. The data indicated that 93 percent of the PSM graduates who responded to this survey attained their current jobs closely related to their master's degrees. The majority of the respondents currently work in business and industry sector. The others who are not currently working reported that they decided to pursue further education, including business and doctoral degrees.

-The survey included a new question: how their base annual salary changed from their principal job when they began their PSM programs to after completing their degree. The results demonstrated that their base annual salary increased over time upon completion of their PSM programs within the 5-year or less period of graduation of a minimum of 4% upwards of 16%.

Overall, the PSM experience was found to be very effective for the respondents' professional development and achieving their career goals. Participants commented very positively to this point, including: "valuable knowledge," "opened up doors for future career," "excellent program!" "good networking," "real asset," "best opportunities," and "enhanced quality of life." On the other hand, the respondents also commented with regard to some challenges that they faced throughout their programs. Those are mostly related to one's job application and interview process, such as securing a paid internship in a specific field, lack of networking opportunity with business and industry through co-curricular activities. Respondents also identified the difficulty of completing a team project throughout online programs and anticipating their tuition loan payment immediately after the graduation. Moreover, the experiential components in their programs' curricula and the internship experiences received mixed responses. This was actually the same as the 2014 survey results. Analysis of the data revealed how the internship experience was beneficial for the students to have a real-world experience, but they did not necessarily obtain their current occupations directly due to internships.

Furthermore, the PSM alumni suggested that the PSM programs should include more business, finance, and database and programming skills courses that will be supportive for their resume and job interviews. The respondents again remarked on this point in the open-ended comments section that the reputation of the PSM for potential employers needs to be stronger and provide better support for them to have richer capstone courses experiences which will enhance their career development.

The guidelines of the PSM were found to be supportive of these masters' students' outcomes in a variety of STEM fields of study. The quality of the scientific and/or mathematical training, the non-scientific professional skills, and capstone courses were well suited with the student's goals and outcomes. This contributes to reasoning why the increasing numbers of PSM programs are receiving the recognition of the state, institutions, and institution's advisory board members. As of January 2017, the number of PSM Affiliated programs reached 355 within 165 institutions. The results of this student outcomes survey strongly support the proposition that a PSM program prepares graduates for outstanding careers in STEM disciplines.

Finally, we appreciate those institutions and PSM graduates who participated in this survey. We hope that this report will be helpful for institutions' future planning for PSM programs development and admissions to increase students' enrollment and degrees in STEM fields.

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