

Outcomes for PSM Alumni: 2012/13



PSM
PROFESSIONAL
SCIENCE MASTER'S

CGS COUNCIL OF
GRADUATE SCHOOLS

Outcomes for PSM Alumni: 2012/13

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The *2013 Professional Science Master's (PSM) Student Outcomes Survey* was conducted by the Council of Graduate Schools with a grant from the Alfred P. Sloan Foundation. The survey is designed to capture initial hiring outcomes of PSM graduates and follow them for up to five years after graduation. A pdf version of this report is available online at www.sciencemasters.com and www.cgsnet.org. For more information about the survey or report, please contact:

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Some institutions interpret privacy protection laws in ways that disallow or discourage institutions from sharing student and/or graduate contact information with third parties. As a result, PSM program directors were asked to forward survey invitations and reminders to their graduates on behalf of CGS. Thanks to all of those graduate deans and PSM program directors who assisted in communicating this survey to their graduates. The survey would not have been possible without your assistance.

Leila Gonzales and Jeannette Remington played major roles in the collection and analysis of data, as well as preparing and proofing the final report, and CGS is grateful for their contribution. Finally, and most importantly, a special "thank you" goes to the PSM graduates who participated in this survey. Your input provided invaluable insight into the career outcomes of PSM graduates, and CGS appreciates the time you took to share your experiences and opinions.

INTRODUCTION

Created in 1997 with support from the Alfred P. Sloan Foundation, Professional Science Master's (PSM) programs are a relatively recent innovation (Council of Graduate Schools, 2011; Kaplan, 2011; Teitelbaum & Lynch, 2010). The PSM degree is designed to allow students to pursue advanced training in science, while simultaneously developing workplace skills highly valued by employers. PSM programs prepare graduates for careers in business, government, and non-profit organizations, combining rigorous study in science and/or mathematics with coursework in management, policy, law, or related fields. Along with an emphasis on the development of professional skills such as writing, leadership, and communication, most PSM programs require an experiential component that must include a final project that is developed with an employer, often during the course of an internship.

As of August 2013 there were 300 PSM programs at 137 institutions of higher education (ScienceMasters, 2013). Despite their growth, however, PSM programs are still new and not yet fully understood (Borbye, 2008). The extent to which data can describe some of the attributes of PSM programs and the outcomes experienced by their graduates may be useful in ensuring their continued growth and success (Kaplan, 2011).

Research Design

In December 2010, the Council of Graduate Schools (CGS) received a grant from the Alfred P. Sloan Foundation to capture initial hiring outcomes of PSM graduates and follow them for up to five years after graduation. The aim of the *2013 Professional Science Master's (PSM) Student Outcomes Survey* was to ascertain career placements and perceived satisfaction with the PSM degree. It is the last of three such surveys that will be conducted by CGS. This survey effort will be transferred to the Keck Graduate Institute at the end of 2013.

The design of the *2013 Professional Science Master's (PSM) Student Outcomes Survey* was based upon a review of more than 40 outcomes-related data collection efforts from more than 30 governmental agencies, non-profit organizations, and educational institutions. A draft version of the questionnaire was reviewed by numerous individuals affiliated with the PSM initiative, including members of the Board of Directors of the National Professional Science Master's Association (NPSMA) and members of the Council of Graduate Schools PSM Advisory Board. The final questionnaire, which appears in the Appendix, includes 23 questions.

Eligible survey participants needed to have: (1) earned their degree from a Professional Science Master's (PSM) program; and (2) earned their PSM degree during the 2010/11 academic year (between July 1, 2010 and June 30, 2011), the 2011/12 academic year (between July 1, 2011 and June 30, 2012), or the 2012/13 academic year (between July 1, 2012 and June 30, 2013). The first three questions of the survey were designed to screen out ineligible respondents.

Data Collection

Many institutions interpret privacy protection laws in ways that disallow or discourage them from sharing student and/or graduate contact information with third parties, such as CGS. As result, PSM program directors, with the support of their graduate deans, were asked to forward survey invitations and reminders to their graduates on behalf of CGS.

In June 2013, the CGS research team e-mailed a survey pre-notification to PSM program directors and graduate deans (or equivalent) who oversee PSM programs, alerting them to the fact that they would be asked to invite 2010/11, 2011/12, and 2012/13 graduates to participate in the survey. The survey was launched on June 25, 2013. Program directors were provided an invitation text, which they were asked to e-mail directly to their 2010/11, 2011/12, and 2012/13 graduates. The invitation text included a link to the online survey. Two reminder texts were sent to program directors in July of 2013, prior to closing the survey.

The survey generated 633 total responses, 490 of which were usable. The 143 unusable responses either did not meet the sampling frame criteria (i.e., either respondents did not earn a degree from a *bona fide* PSM program or they did not earn a PSM degree during the 2010/11, 2011/12, or 2012/13 academic years), or the response was blank. The 490 usable responses represent 78 PSM programs from 42 institutions of higher education. Of these, 219 respondents graduated in the 2012/13 academic year, 164 graduated in the 2011/12 academic year, and 107 graduated in the 2010/11 academic year.

Because the target population is difficult to reach (i.e., they are no longer students) and potentially difficult to motivate (i.e., they may not feel compelled to participate), the CGS research team incorporated a sweepstakes into the research design. Invitees were informed of the sweepstakes in the introductory and reminder e-mail texts. At the conclusion of the survey, respondents were offered the opportunity to win an Apple 16 GB iPad with Retina display (grand prize) or one of three Amazon Kindle Fire HD tablets (second prizes). Rules and regulations were posted online, and winners were required to complete an Affidavit and Release Form affirming their compliance to those rules and regulations.

Data Analysis

Data were reviewed, cleaned, and edited using a process outlined by Van den Broeck, Argeseanu, Eeckels, and Herbst (2005). The dataset was screened for instances where data were lacking, in excess, inconsistent, revealed strange patterns, or were otherwise suspect. Anomalies were recorded and diagnosed as being missing, erroneous, or seemingly extreme. Irregularities were treated accordingly.

This report includes descriptive statistics regarding the status of respondents prior to enrolling in the PSM program, their experience in the PSM program, their current employment situation, and their perceived value of the PSM degree. This report also includes an examination of two parallel sets of questions. Responses to questions 6 and 20 were examined to evaluate the extent to which expectations established before the PSM program were met once the student completed their

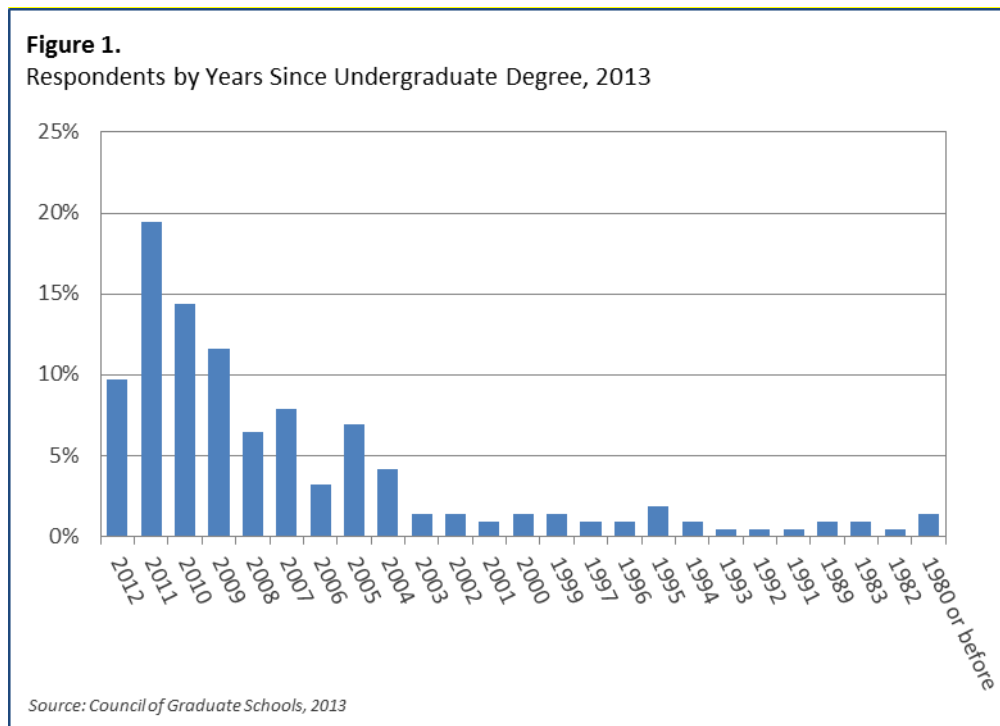
degree. Responses to questions 8 and 21 were used to evaluate differences between students' satisfaction with and perceived value of the PSM degree.

Limitations

Since there were 490 usable responses, most attempts at performing cross-tabulations yielded unreportable findings due to small cell sizes. This report also refrains from performing comparisons with a similar earlier effort conducted by the National Professional Science Master's Association (2009). Whereas the NPSMA study surveyed all PSM graduates to date, the CGS study utilized a narrower sampling frame (i.e., 2010/11, 2011/12, and 2012/13 graduates from PSM programs). Moreover, the questionnaires used by CGS and the NPSMA differed significantly.

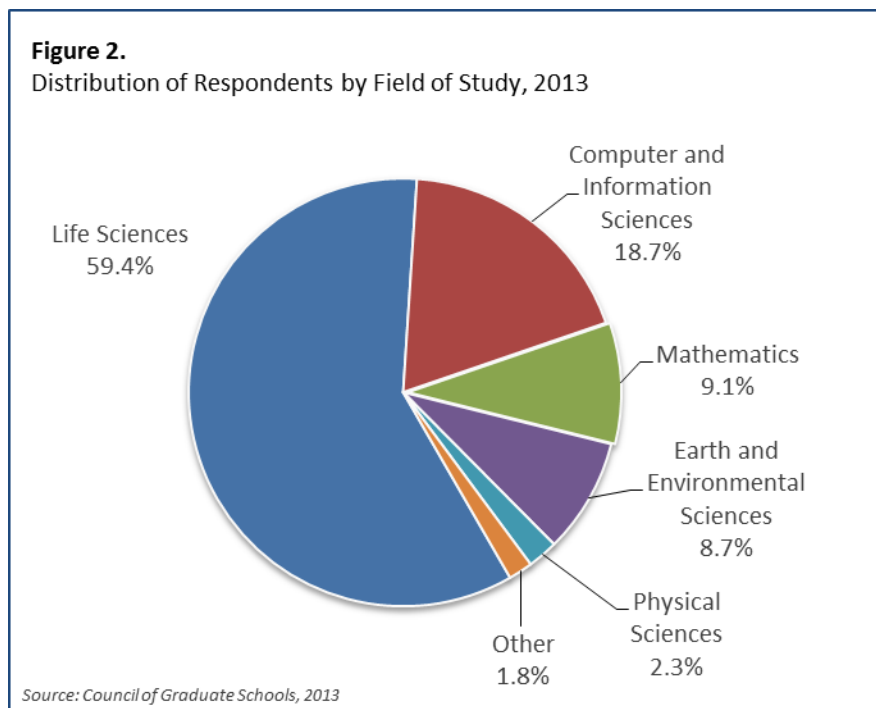
FINDINGS

A large percentage of PSM graduates responding to the *2013 Professional Science Master's (PSM) Student Outcomes Survey* earned their undergraduate degree within the past four years. As depicted in Figure 1, 9.7% of 2012/13 PSM graduates earned their undergraduate degree in 2012, and 19.4% earned their undergraduate degree in 2011. More than one-half (55.1%) of 2012/13 PSM graduates earned their undergraduate degree between 2009 and 2012. More than four out of five (83.8%) respondents earned their undergraduate degree between 2004 and 2012.



More than one-half (59.4%) of survey respondents enrolled in fall 2012 were in the field of life sciences (see Figure 2). The next most common programs of study were computer and information

sciences, mathematics, and earth and environmental sciences, constituting 18.7%, 9.1%, and 8.7% of enrollments respectively.



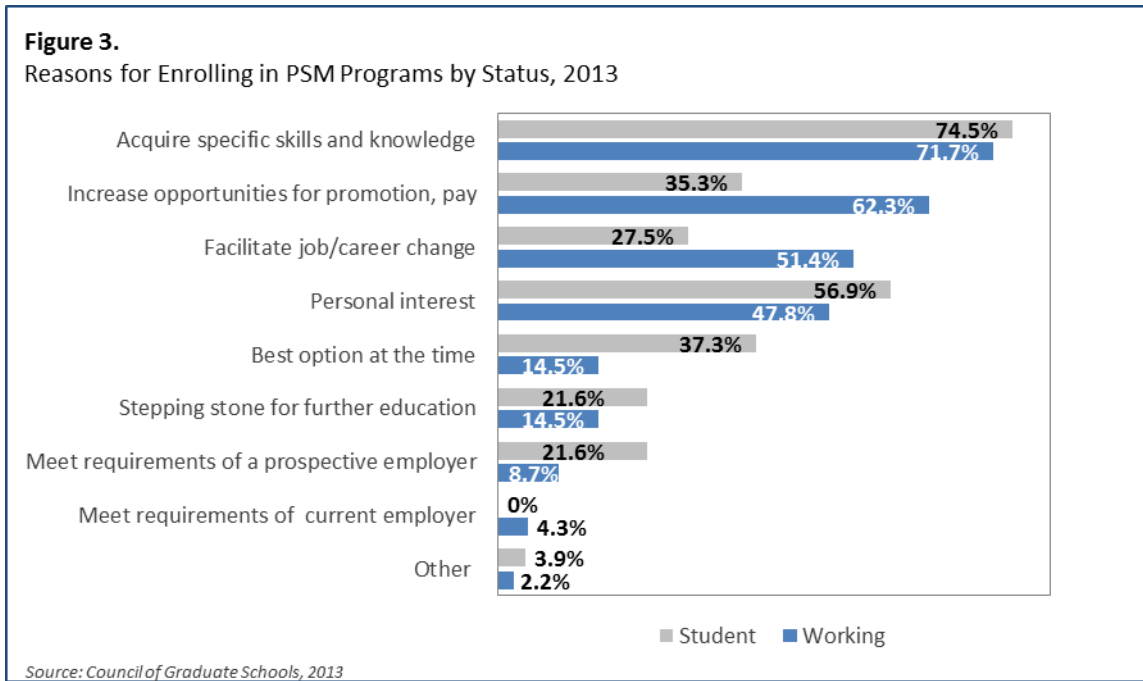
When asked to describe their situation immediately prior to enrolling in the PSM program, the majority (63.0%) of respondents reported that they were working, while smaller percentages reported that they were students (23.3%), not working but seeking work (6.8%), and not working and not seeking work (6.8%).

Reasons for Enrolling

Using a list of nine possible reasons for enrolling in a PSM program, respondents were asked to select up to three that best explained their motivations for enrolling. The most frequently cited reasons included: to acquire specific skills and knowledge (70.8%); to increase opportunities for promotion, advancement, and/or pay (53.0%); and to learn more about something in which they were particularly interested (52.1%). Nearly one-half (45.7%) of respondents enrolled to facilitate a job/career change; 21.5% enrolled because it was the best option at the time; and 16.0% enrolled as a stepping stone for more advanced education (e.g., Ph.D.). The least frequently cited reasons for enrolling included: meeting the requirements of a prospective employer (13.2%); other reasons (2.7%); and to meet the requirements of a current employer (2.7%).

A comparison of reasons for enrolling by employment status reveals some differences (see Figure 3). Among respondents who were working immediately prior to enrolling in the PSM program, the most frequently cited reasons for enrolling were: to acquire specific skills and knowledge (71.7%); to increase opportunities for promotion, advancement, and/or pay (62.3%); and to facilitate a job/career change (51.4%). Two reasons for enrolling tended to be most prominent among respondents who were students immediately prior to enrolling in the PSM program: to acquire

specific skills and knowledge (74.5%); and to learn more about something in which they were particularly interested (56.9%). There were not enough responses from individuals who were not working but seeking work, or not working and not seeking work immediately prior to enrolling in the program, to report their reasons for enrolling.



Experience in PSM Programs

Respondents were given a list of 15 topics often covered in PSM programs and were asked to select those which were covered in their specific program. As illustrated in Figure 4, the most commonly reported skills included technical and/or scientific (88.1%), project management (68.5%), research and development (66.2%), and leadership (61.6%). Other frequently cited topics covered in PSM programs included ethics (60.3%) and communications (50.2%). Among the least frequently cited topics covered by PSM programs, aside from other non-specified topics, were public policy (22.4%) and teaching and/or training (16.4%).

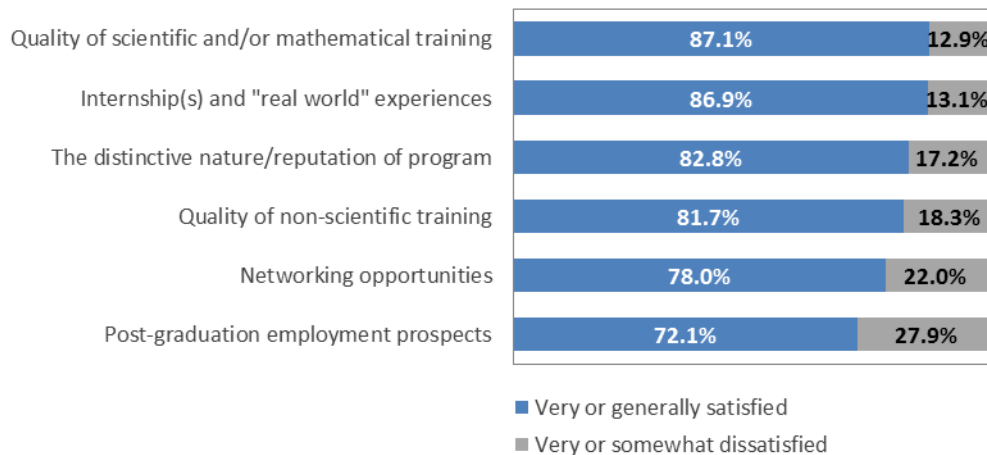
Figure 4.
Topics Covered by PSM Programs of Study, 2013



Source: Council of Graduate Schools, 2013

Survey respondents indicated high levels of satisfaction with all attributes of their PSM program (see Figure 5). Respondents were satisfied with three attributes in particular: 87.1% of respondents were either “very satisfied” or “generally satisfied” with the quality of scientific and/or mathematical training; 86.9% were either “very satisfied” or “generally satisfied” with the quality of internships and “real world” experiences; and 82.8% were either “very satisfied” or “generally satisfied” with the distinctive nature/reputation of the program.

Figure 5.
Satisfaction with PSM Programs by Attribute, 2013



Source: Council of Graduate Schools, 2013

Mean satisfaction ratings were calculated in order to compare respondents' satisfaction between the various PSM program attributes. For each survey respondent, a numerical rating of 1 to 4 was assigned to each satisfaction item (1 for "very dissatisfied," 2 for "somewhat dissatisfied," 3 for "generally satisfied," and 4 for "very satisfied").

As shown in Table 1, the PSM program attributes with the highest mean satisfaction ratings were: internships and "real world" experiences (3.42); the quality of scientific and/or mathematical training (3.26); and the distinctive nature/reputation of the program (3.19). Mean satisfaction ratings were somewhat lower for: quality of non-scientific professional training (3.15); networking opportunities (3.13); and post-graduation employment prospects (3.12).

Table 1.
Mean Satisfaction Ratings of PSM Program Attributes, 2013

PSM Program Attribute	Mean satisfaction rating (1=lowest, 4=highest)
Internships and "real world" experiences	3.42
The quality of scientific and/or mathematical training	3.26
Distinctive nature/reputation of program	3.19
Quality of non-scientific professional training	3.15
Networking opportunities	3.13
Post-graduation employment prospects	3.12

Current Outcomes

The majority of survey respondents (77.6%) reported that they were working during the week of June 25, 2013, while 5.0% reported that they were students, 12.8% were not working but seeking work, and 4.6% were not working and not seeking work during that same week. Among respondents who were working, 91.2% were working in a job that was closely or somewhat related to their field of study.

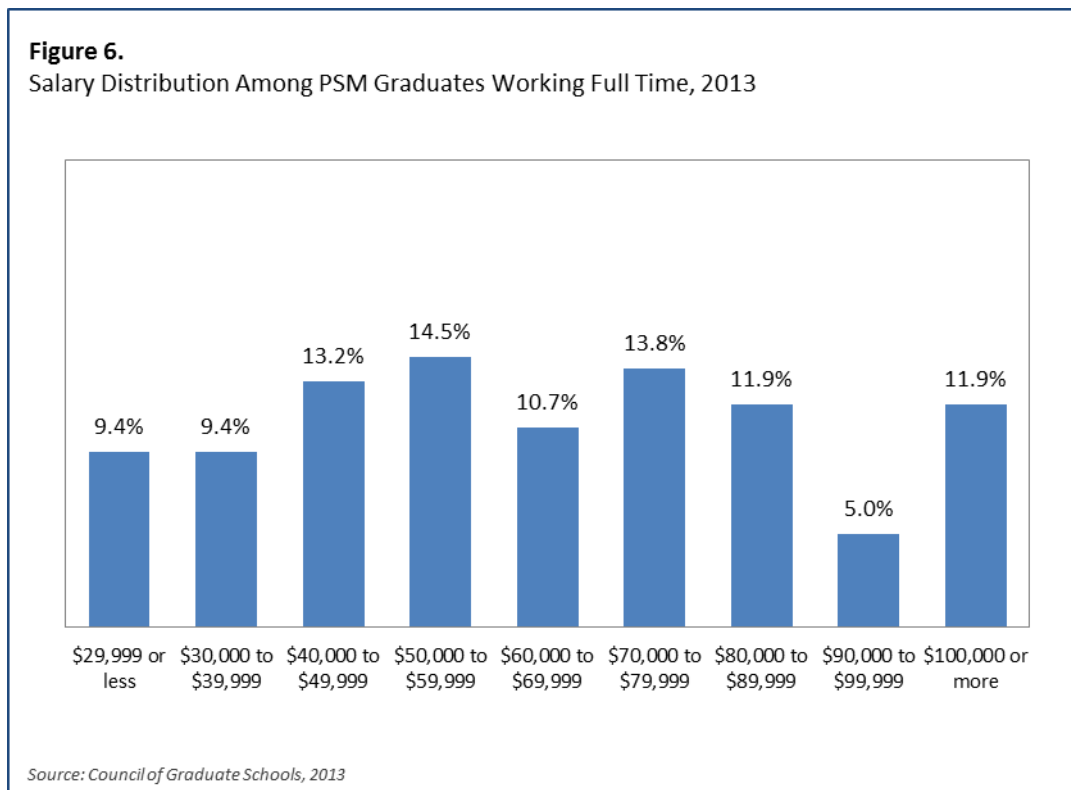
Of those respondents who were working during the week of June 25, 2013, 19.4% were working in the same job they had before they began their PSM program, 58.2% were working in a different job than the one they had before they started their PSM program, and 22.4% were not working before they began their PSM program. Among respondents who were working in a new job during the week of June 25, 2013, 18.8% reported that they secured this job because of an internship affiliated with their PSM program.

Of all respondents who were working in the week of June 25, 2013, just over one-half (57.4%) were working in business and industry, 10.7% were working in government, 8.9% were working in academia, 8.9% were working in start-ups, 8.3% were working in non-profit organizations, and 5.9% of respondents were working in other fields, including research and healthcare.

Salaries

The majority (94.7%) of respondents working during the week of June 25, 2013 were employed full-time, and a minority (5.3%) were working part-time. Respondents indicating that they were employed full-time were given several salary ranges from which to indicate their base annual salary for their principal job as of June 25, 2013. It is important to note that many factors that influence salary levels (e.g., prior work experience, years of work experience, field of bachelor's degree, additional qualifications, geographic location, etc.) were not captured by this survey. Therefore, these salary findings should be interpreted with caution.

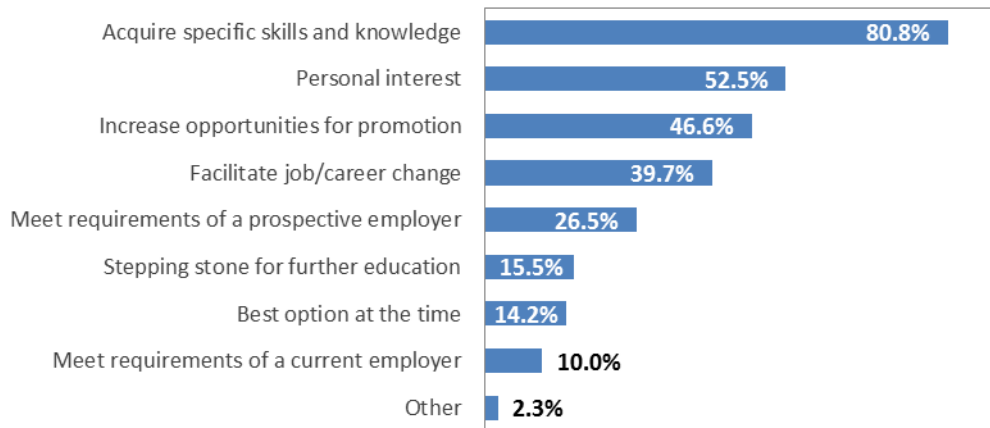
Over two-thirds (67.8%) of respondents who worked full-time during the week of June 25, 2013 reported earning more than \$50,000 annually. The remaining 32.2% earned less than \$50,000 per year. The largest single salary range (14.5%) was those who made between \$50,000 and \$59,999 on an annual basis. The distribution of salaries appears in Figure 6.



Value and Benefits of a PSM Degree

Respondents, regardless of their employment status as of June 25, 2013, were given a list of nine possible benefits of having earned a PSM and were asked to select up to three that resonated with them the most. As shown in Figure 7, the most commonly cited benefits were that they acquired specific skills and knowledge (80.8%), learned more about something of particular interest (52.5%), and increased opportunities for promotion, advancement, and pay (46.6%).

Figure 7.
Benefits of Having Earned a PSM Degree, 2013



Source: Council of Graduate Schools, 2013

Respondents generally found value in all attributes of their PSM program (see Figure 8). Aspects of PSM programs that were deemed of highest value included: the quality of scientific and mathematical training, which 91.2% of respondents felt was either “very valuable” or “generally valuable;” internship(s) and “real world” experiences, which 87.5% of respondents felt was either “very valuable” or “generally valuable;” and quality of non-scientific professional training (e.g., business, law, communications, etc.), which 84.8% of respondents felt was either “very valuable” or “generally valuable.”

Figure 8.
Value of PSM Attributes, 2013



Source: Council of Graduate Schools, 2013

Mean value ratings were calculated to evaluate the overall value of various PSM program attributes, and to facilitate comparison with mean satisfaction ratings discussed earlier in this

report. A numerical rating of 1 to 4 was assigned to each value item (1 for “not at all valuable,” 2 for “minimally valuable,” 3 for “generally valuable,” and 4 for “highly valuable”).

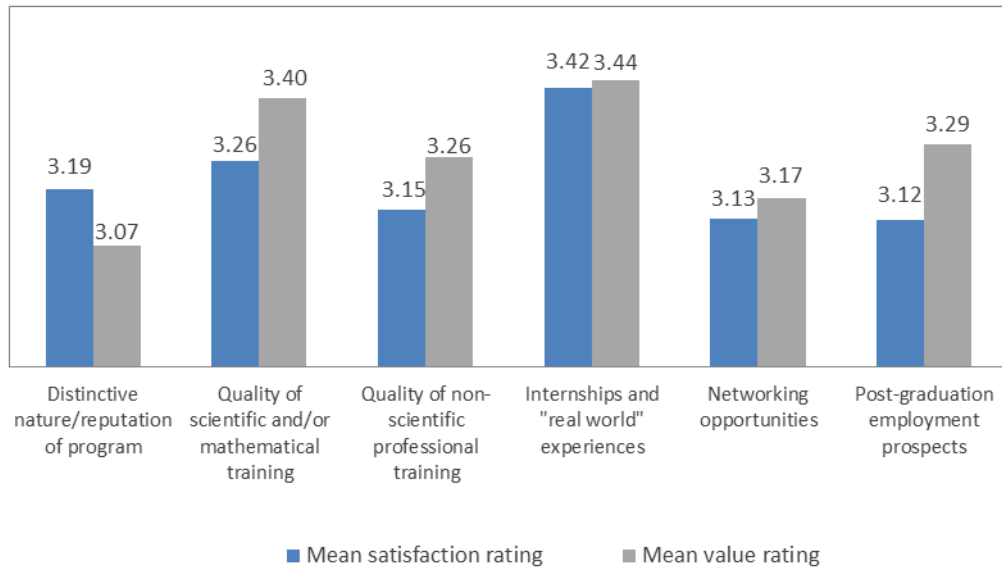
As shown in Table 2, mean value ratings ranged from a high of 3.44 to a low of 3.07. The attribute most highly valued by all respondents was internship(s) and “real world” experiences (3.44), followed by quality of scientific and/or mathematical training (3.40), and post-graduation employment prospects (3.29).

Table 2.
Mean Value Ratings of PSM Program Attributes, 2013

PSM Program Attribute	Mean value rating (1=lowest, 4=highest)
Internships and "real world" experiences	3.44
Quality of scientific and/or mathematical training	3.40
Post-graduation employment prospects	3.29
Quality of non-scientific professional training	3.26
Networking opportunities	3.17
Distinctive nature/reputation of program	3.07

A comparison of mean value ratings and mean satisfaction ratings reveals that mean value ratings for the PSM program attributes were equal to or higher than the mean satisfaction ratings for these same attributes for all cases except for distinctive nature/reputation of program. In other words, respondents generally rated the value of these attributes of their master’s experience slightly higher than their satisfaction with these aspects of their master’s program (see Figure 9). Mean value ratings of two PSM program attributes in particular (quality of scientific and/or mathematical training and post-graduation employment prospects) were substantially higher than mean satisfaction ratings.

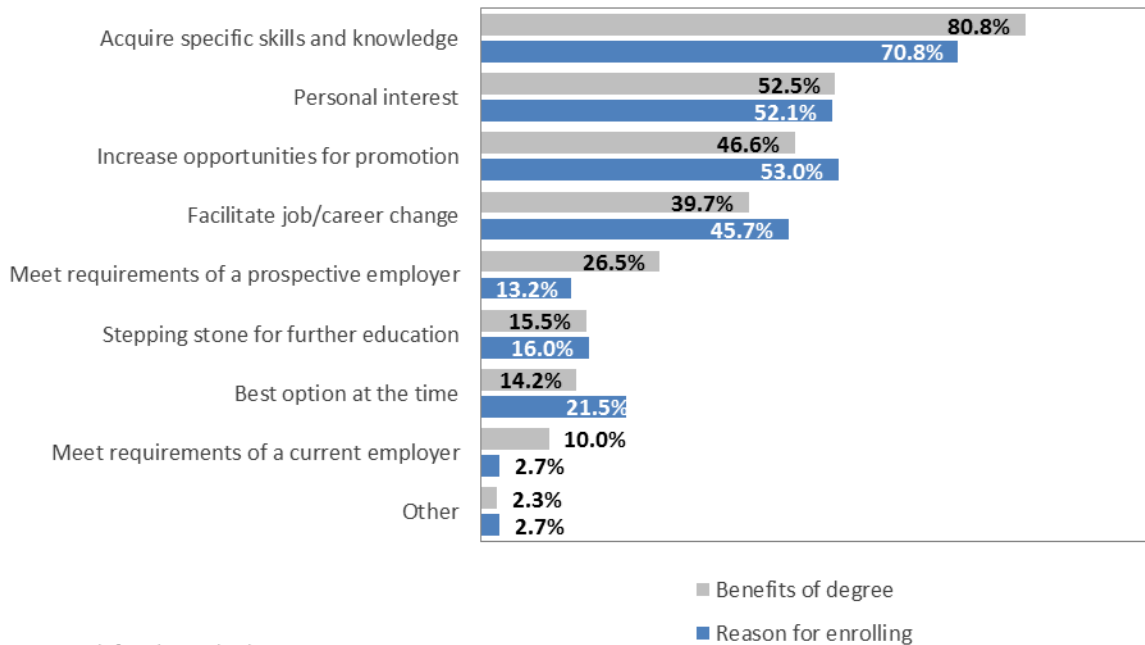
Figure 9.
 Mean Satisfaction and Value Ratings for PSM Program Attributes, 2013



Source: Council of Graduate Schools, 2013

Respondents were given lists of nine reasons for enrolling in the PSM program and nine benefits to having earned their degree. In each case, respondents were asked to select up to three reasons or benefits that most closely represented their opinion. The nine reasons and benefits were identical in order to facilitate comparisons. The most frequently cited reason for enrolling in the PSM program, and the most frequently cited benefit of earning a PSM degree was to acquire specific skills and knowledge, 70.8% and 80.8% respectively. The second most frequently cited reason for enrolling in the PSM program was to increase opportunities for promotion and pay (53.0%), which was the third most frequently cited benefit of earning a degree (46.6%). The third most frequently cited reason for enrolling in the PSM program was to learn more about something of particular interest (52.1%), which was the second most frequently cited benefit of earning a degree (52.5%).

Figure 10.
Reasons for Enrolling and Benefits of Degree Comparison, 2013



Source: Council of Graduate Schools, 2013

DIFFERENCES BETWEEN 2010/11, 2011/12, AND 2012/13 GRADUATES

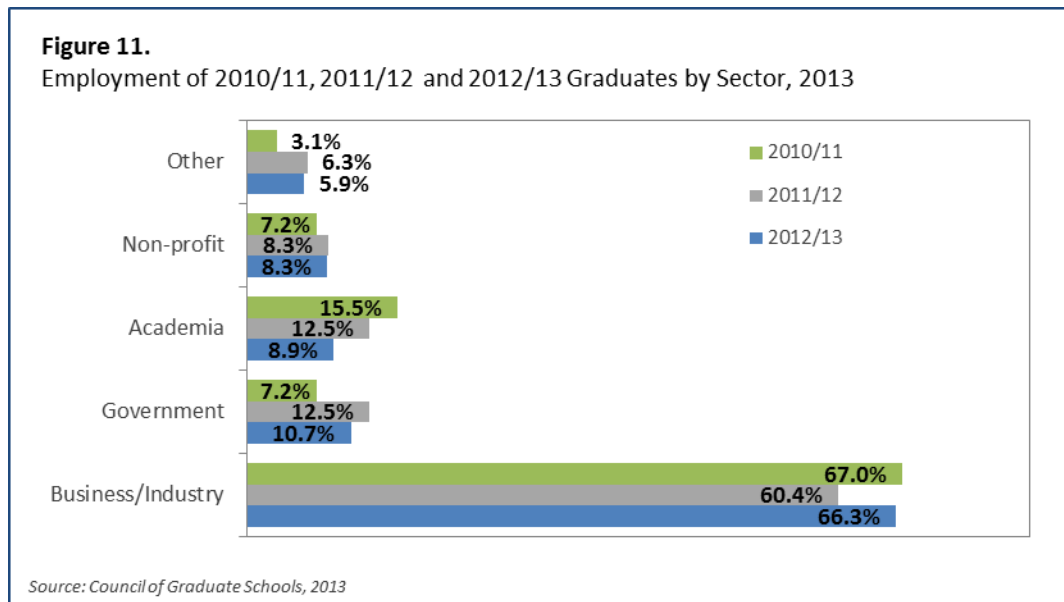
There were some differences between 2010/11, 2011/12, and 2012/13 graduates responding to the *2013 Professional Science Master's Student Outcomes Survey*. Respondents who graduated in 2010/11 were more likely to be working than respondents who graduated in 2011/12 or 2012/13, 90.7%, 87.8%, and 77.6% respectively (see Table 3). Similarly, 0.9% of 2010/11 graduates were not working but seeking work, while 4.9% of 2011/12 graduates and 12.8% of 2012/13 graduates were in the same situation. This may be explained, in part, by the fact that the survey was fielded in June and July, only a short time after the 2012/13 class graduated with their PSM degrees, and perhaps before they became fully employed.

Table 3.

Status of 2010/11, 2011/12, and 2012/13 PSM Graduates, 2013

Status	2010/11	2011/12	2012/13
Working	90.7%	87.8%	77.6%
Student	6.5%	6.1%	5.0%
Not working but seeking work	0.9%	4.9%	12.8%
Not working and not seeking work	1.9%	1.2%	4.6%

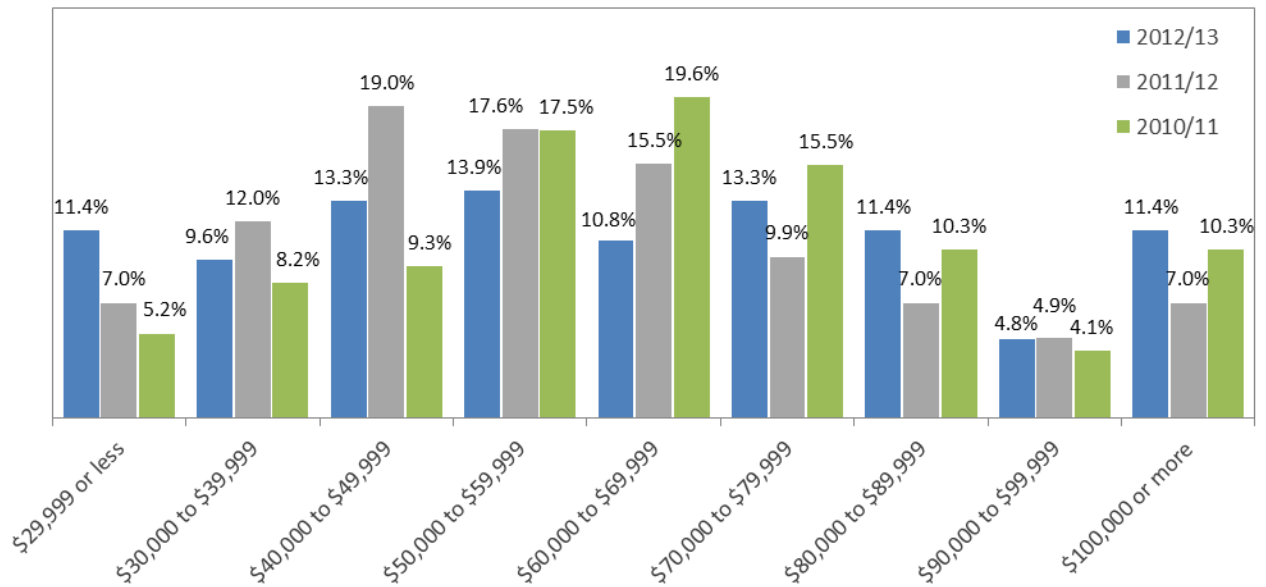
As depicted in Figure 11, the majority of 2010/11, 2011/12, and 2012/13 graduates responding to the survey were employed by the private sector, 67.0%, 60.4%, and 66.3% respectively. Considerably smaller percentages of graduates worked in academia, government, and the non-profit sector.



There were some differences between 2010/11, 2011/12, and 2012/13 graduates with respect to salary distribution. Over three-fourths (77.3%) of 2010/11 graduates earned more than \$50,000 as of June 25, 2013, and more than one-half of 2011/12 and 2012/13 graduates earned more than \$50,000, 61.9% and 65.6% respectively (see Figure 12). Respondents who graduated in 2012/13 were also more likely to earn more than \$100,000 than respondents who graduated in 2011/12 or 2010/11. It is important to note that these comparisons, because they reflect only a small percentage of PSM graduates, cannot be used to ascertain the capacity of the labor market to pay more or less to one graduating class than another.

Figure 12.

Salary Ranges of 2010/11, 2011/12 and 2012/13 Graduates, 2013



Source: Council of Graduate Schools, 2013

SUMMARY AND CONCLUSIONS

The 2013 Professional Science Master's (PSM) Student Outcomes Survey generated 490 usable responses representing 78 PSM programs from 42 institutions of higher education. Of these, 219 respondents graduated in the 2012/13 academic year, 164 graduated in the 2011/12 academic year, and 107 graduated in the 2010/11 academic year. More than one-half (55.1%) of 2012/13 PSM graduates earned their undergraduate degree between 2009 and 2012. More than one-half (63.0%) of respondents reported that they were working prior to starting their program of study, and more than one-fifth (23.3%) reported that they were students.

Respondents were generally satisfied with all aspects of their PSM program. Three attributes in particular were seen as being very satisfactory to 2012/13 graduates: 87.1% of respondents were either "very satisfied" or "generally satisfied" with the quality of scientific and/or mathematical training; 86.9% were either "very satisfied" or "generally satisfied" with the quality of internships and "real world" experiences; and 82.8% were either "very satisfied" or "generally satisfied" with the distinctive nature/reputation of the program.

The majority of 2012/13 graduates (77.6%) were working during the week of June 25, 2013. Among those, 91.2% were working in a job that was closely or somewhat related to their field of study. Among all respondents who were working in the week of June 25, 2013, just over one-half (57.4%) were working in business and industry, 10.7% were working in government, 8.9% were working in academia, 8.9% were working in start-ups, 8.3% were working in non-profit organizations, and 5.9% of respondents were working in other fields, including research and healthcare.

More than two-thirds (67.8%) of respondents who worked full-time during the week of June 25, 2013 reported earning more than \$50,000 annually. The remaining 32.2% earned less than \$50,000 per year. Aspects of PSM programs that were deemed of highest value included: the quality of scientific and mathematical training, which 91.2% of respondents felt was either “very valuable” or “generally valuable;” internship(s) and “real world” experiences, which 87.5% of respondents felt was either “very valuable” or “generally valuable;” and quality of non-scientific professional training (e.g., business, law, communications, etc.), which 84.8% of respondents felt was either “very valuable” or “generally valuable.”

There were some differences between 2010/11, 2011/12, and 2012/13 graduates responding to the 2013 Professional Science Master’s Student Outcomes Survey. Respondents who graduated in 2010/11 were more likely to be working than respondents who graduated in 2011/12 or 2012/13, 90.7%, 87.8%, and 77.6% respectively.

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APPENDIX

Survey Questionnaire

WELCOME

Welcome to the 2013 Professional Science Master's Student Outcomes Survey. This survey should take less than 10 minutes to complete, and will ask questions regarding your motivations for enrolling in your master's program, satisfaction with the program, and your post-graduation status. All information that you provide will be treated as confidential. Your responses will be compiled with those from graduates from around the country, and reported only in ways that do not identify you personally. Your individual response will not be shared with your university or master's program. As our way of saying "thanks," you can enter to win an Apple 16 GB iPad with Retina display (grand prize) or one of three Amazon Kindle Fire HD tablets (second prizes). Sweepstakes rules and regulations can be found here. Completed surveys and online sweepstakes entries must be submitted by Tuesday, July 24, 2013, 11:59 p.m. Eastern Daylight Time. If you have any questions about the survey, please contact Leila Gonzales (2024613886; lgonzales@cgs.nche.edu) or Jeannette Remington (2024613860; jremington@cgs.nche.edu).

Q1. Have you earned or are you about to earn a master's degree?

[ANSWER REQUIRED]

Yes **[GO TO Q2]**

No **[GO TO DISQUALIFICATION PAGE]**

Q2. From which of the following academic institutions and master's programs did you graduate?

[ANSWER REQUIRED]

[DROP DOWN MENU OF ALL INSTITUTIONS/PROGRAMS]

Air Force Institute of Technology (Combating Weapons of Mass Destruction)

American University (Applied Computing)

American University (Biotechnology)

etc...

etc...

etc...

Worcester Polytechnic (Industrial Mathematics)

None of these **[GO TO DISQUALIFICATION PAGE]**

Q3. Did you graduate between ...

July 1, 2012 and June 30, 2013 [GO TO Q4]

July 1, 2011 and June 30, 2012 [LONGITUDINAL COHORT GO TO Q9; ALL OTHERS GO TO Q4]

July 1, 2010 and June 30, 2011 [LONGITUDINAL COHORT GO TO Q9; ALL OTHERS GO TO Q4]

July 1, 2009 and June 30, 2010 [GO TO Q4]

July 1, 2008 and June 30, 2009 [GO TO Q4]

July 1, 2007 and June 30, 2008 [GO TO Q4]

None of these [GO TO DISQUALIFICATION PAGE]

[ANSWER REQUIRED]

Q4. In what year did you earn your undergraduate degree?

[DROP DOWN MENU 2012, 2011, 2010, 2009, 2008 ... 1980 or before]

REASONS FOR ENROLLING

Q5. Think back to the time period immediately before you enrolled in this master's program. Which one of the following best describes your situation then?

I was working

I was both working and a student

I was a student

I was caring for family full-time

I was not working, but seeking work

Other (*please specify*) _____

Q6. What were the THREE main reasons why you chose to enroll in this master's program?

[RANDOMIZE RESPONSE CATEGORIES]

[ALLOW NO MORE THAN 3 SELECTIONS]

To acquire specific skills and knowledge

To increase opportunities for promotion, advancement, and/or pay

To meet requirements of my current employer

To meet requirements of a prospective employer

To learn more about something in which I am particularly interested

It was the best option available at the time

To facilitate a job/career change

To use as a stepping stone for further education (e.g., Ph.D.)

Other (*please specify*) _____

SATISFACTION WITH THE MASTER’S PROGRAM

Q7. Which of the following topics were covered by your master’s program? (Select all that apply.)

[RANDOMIZE RESPONSE CATEGORIES]

- General management
- Project management
- Ethics
- Computer programming, analysis, design
- Regulatory affairs
- Leadership
- Technical and/or scientific
- Public policy
- Marketing and/or sales
- Patents, licensing, trademarks
- Communications
- Production and/or quality control
- Research and development
- Teaching and/or training
- Other (please specify) _____

Q8. How satisfied are you with each of the following attributes of this master’s program?

[RANDOMIZE RESPONSE CATEGORIES]	Very satisfied	Generally satisfied	Somewhat dissatisfied	Very dissatisfied	N/A
The distinctive nature/reputation of the program					
The quality of scientific and/or mathematical training					
The quality of non-scientific professional training (e.g., business, law, communications, etc.)					
Internship(s) and “real world” practical experiences					
Networking opportunities					
Post-graduation employment prospects					

YOUR CURRENT SITUATION

Q9. Which one of the following best describes your current situation?

[ANSWER REQUIRED]

I am working **[GO TO Q10]**

I am both working and a student **[GO/ TO Q10]**

I am a student **[GO TO Q11]**

I am caring for family full-time **[GO TO Q20]**

I am not working, but seeking work **[GO TO Q20]**

Other (*please specify*) _____ **[GO TO Q20]**

Q10. (*for workers*) Is the work you are doing now closely related to your master's degree?

[ANSWER REQUIRED]

Yes, it is closely related **[GO TO Q13]**

Yes, it is somewhat related **[GO TO Q13]**

No, it is not at all related **[GO TO Q12]**

Q11. (*for students*) Is your program of study closely related to your master's degree?

[ANSWER REQUIRED]

Yes, it is closely related **[GO TO Q20]**

Yes, it is somewhat related **[GO TO Q20]**

No, it is not at all related **[GO TO Q20]**

Q12. Why are you working in this job, as opposed to a job more closely related to your master's degree? (*Select all that apply.*)

[RANDOMIZE RESPONSE CATEGORIES]

This job is more interesting

This job is more local/convenient

This job is more secure

This job pays more

This job offers better opportunities for advancement

This job is more suitable to my skills and interests

There are no suitable jobs in my preferred field

I prefer a job not related to my master's degree

Other (*please specify*) _____

Q13. Is your current job the same job you had when you began your master's degree?

[ANSWER REQUIRED]

Yes **[GO TO Q15]**

No **[GO TO Q14]**

I was not working immediately prior to starting my master's degree **[GO TO Q15]**

Q14. (for respondents with a new job) Did you get this job because of an internship affiliated with your master's program?

Yes

No

EMPLOYMENT INFORMATION

Q15. Which one of the following best describes the SECTOR of your principal employer during the week of June 25, 2013? (By principal employer, we mean the one employer that constitutes the majority of your time. If you have more than one employer, consider the employer who compensates you the most as your principal employer.)

[RANDOMIZE RESPONSE CATEGORIES]

Business/industry (including self-employed)

Start-up business/enterprise

Government

Academia

Non-profit

Other (please specify) _____

Q16. What was the title of the principal job you held during the week of June 25, 2013?

[ESSAY]

Q17. Is your employment full-time or part-time?

Full-time (35 or more paid hours per week)

Part-time (less than 35 paid hours per week)

Q18. What primary work activities do you perform at your principal employer? (Select all that apply.)

[RANDOMIZE RESPONSE CATEGORIES]

- General management
- Project management
- Ethics
- Computer programming, analysis, design
- Regulatory affairs
- Leadership
- Technical and/or scientific
- Public policy
- Marketing and/or sales
- Patents, licensing, trademarks
- Communications
- Production and/or quality control
- Research and development
- Teaching and/or training
- Other (please specify) _____

Q19. What was your base ANNUAL salary for your principal job as of June 25, 2013? (Exclude bonuses, overtime, benefits, or secondary compensation.)

- \$29,999 or less
- \$30,000 to \$39,999
- \$40,000 to \$49,999
- \$50,000 to \$59,999
- \$60,000 to \$69,999
- \$70,000 to \$79,999
- \$80,000 to \$89,999
- \$90,000 to \$99,999
- \$100,000 to \$109,999
- \$110,000 to \$119,999
- \$120,000 or more

VALUE OF YOUR MASTER’S DEGREE

Q20. What are the THREE main benefits of having earned a Professional Science Master’s degree?

[RANDOMIZE RESPONSE CATEGORIES]

[ALLOW NO MORE THAN 3 SELECTIONS]

- I have acquired new skills and knowledge
- It increased opportunities for promotion, advancement, and/or pay
- It helped me meet the requirements of my current employer
- It will help me meet the requirements of a prospective employer
- I learned more about something in which I am particularly interested
- It was the best available option at the time
- It helped me to facilitate a job/career change
- It will be a stepping stone for further education (e.g., Ph.D.)
- Other (please specify) _____

Q21. Rate the following six attributes of your master’s experience in terms of how valuable they are to you NOW.

[RANDOMIZE RESPONSE CATEGORIES]	Highly valuable	Generally valuable	Minimally valuable	Not at all valuable	N/A
The distinction of having earned a Professional Science Master’s (PSM) degree					
The quality of scientific and/or mathematical training					
The quality of professional training (e.g., business, law, communications, etc.)					
Internship(s) and “real world” practical experiences					
Networking					
Post-graduation employment prospects					

2013 SURVEY

Q22. The Council of Graduate Schools would like to conduct this survey again in 2014 to understand changes over time among Professional Science Master's (PSM) graduates. Would you be willing to participate in the 2014 survey? By agreeing, you are not obligated to participate; you will simply be invited (although your participation would be greatly appreciated.)

[ANSWER REQUIRED]

Yes **[GO TO Q23]**

No **[GO TO Q24]**

Q23. (if yes) Please provide your name and permanent e-mail address below to be invited to the 2014 PSM Student Outcomes Survey.

Name _____ **[ESSAY] [GO TO Q24]**

E-mail _____ **[ESSAY] [GO TO Q24]**

Re-enter e-mail _____ **[ESSAY] [GO TO Q24]**

SWEEPSTAKES

Q24. As our way of saying "thank you" for your participation, the Council of Graduate Schools would like to offer you the chance to win an Apple 16 GB iPad with Retina display (grand prize) or one of three Amazon Kindle Fire HD tablets (second prizes).

To enter the sweepstakes, paste the following URL in your browser, and follow the instructions.
https://www.surveymonkey.com/s/2013_PSM_Student_Outcomes_Sweepstakes

By going to a different web site, we can assure that your sweepstakes entry will not be connected to the responses that you provided in this survey.

If you have questions about this sweepstakes, please contact Leila Gonzales (202-461-3886; lgonzales@cgs.nche.edu) or Jeannette Remington (202-461-3860; jremington@cgs.nche.edu).

DISQUALIFICATION PAGE [FOR NON-ELIGIBLE INVITEES, SCREENED BY Q1, Q2, AND Q3]

We are only seeking survey responses from individuals who graduated with selected Professional Science Master's degree at selected institutions from selected years. Thank you anyway for agreeing to participate.

THANK YOU! [FOR ALL SURVEY RESPONDENTS WHO WERE NOT DISQUALIFIED]

Thank you for participating in this survey. A summary report of the findings will be available at www.cgsnet.org and <http://www.sciencemasters.com> later this summer.

SWEEPSTAKES ENTRY FORM [LOCATED AT URL]

As our way of saying “thank you” for your participation, the Council of Graduate Schools would like to offer you the chance to win an Apple 16 GB iPad with Retina display (grand prize) or one of three Amazon Kindle Fire HD tablets (second prizes).

A. Would you like to enter this sweepstakes?

Yes **[GO TO QB]**

No **[GO TO THANK YOU]**

[RESPONSE REQUIRED: ERROR MESSAGE: A response to this question is required in order to be eligible for this sweepstakes.]

B. To enter the sweepstakes, provide your name and e-mail address in the spaces provided below. This information will be used solely for the purpose of the sweepstakes and will not be shared with the research team for any other purpose. Rules and regulations can be found here [URL].

Name _____ **[ESSAY] [GO TO THANK YOU]**

E-mail _____ **[ESSAY] [GO TO THANK YOU]**

Re-enter e-mail _____ **[ESSAY] [GO TO THANK YOU]**

THANK YOU

Thank you for entering the sweepstakes. The sweepstakes drawing will be held on July 31, 2013, and winners will be notified that day.

****** END OF QUESTIONNAIRE ******

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