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**Introduction**

By connecting with our recent and not-so-recent PhD graduates, CGPS and the broader USask community were able to both reengage this important group of alumni and gain valuable insights on their career progression since completing their studies with us. These insights will support our future expansion of programs to facilitate the professional growth and development of current graduate students.

**Key Findings**

Almost three-quarters of employed alumni who responded to this survey have annual salaries of more than $80,000 per year. Nearly 90% feel that the skills they acquired during their USask PhD program help them in their current employment. PhD alumni are primarily employed in three sectors – university, industry, or government.

When reflecting on their experiences as PhD students, alumni identify supportive and encouraging mentors and supervisors, the critical thinking skills acquired, and the research process and methodology expertise developed as the most important experiences of their time as students. Conversely, respondents indicated that coursework, comprehensive exams, academic-only prospective employment training, and university politics were the least important aspects of their experiences as students.

**Actions**

Our next steps will be to better promote and continue to work with campus partners to create additional professional development opportunities for PhD students; to development a tool kit to support faculty supervisors as they engage in career conversations with their students; and to continue to bolster connections between PhD alumni and USask, focusing on the areas of interest alumni have identified (mentoring current students and keeping up to date on the research agendas of their former departments).

**Thank you to the participants.**

A study like this would not be possible without the participation of our PhD alumni who gave of their time to share their experiences. By doing so, they have not only helped us better understand their experiences as PhD students and their subsequent successes but have informed the new supports we will be able to provide to current and future students. Thank you!
Message from the Dean

It is wonderful and heartening to see the results of our inaugural exploration of the employment outcomes and career trajectories of our recent PhD alumni. As an institution and a graduate studies community, we can take pride in the high employment rates of our PhD graduates overall, and in particular the notable proportion of our PhD alumni who move into faculty roles – 25% overall. In addition to those who move into faculty positions, a further 39% are employed as either researchers within university settings or working in industry.

In addition to information regarding their current employment, the information respondents provided regarding the skills they developed and how their experiences as PhD students have influenced their subsequent career paths is invaluable. As CGPS becomes more directly involved in supporting the successful career progression of graduate students and postdoctoral scholars, this feedback will guide and direct our work. As we create a suite of forthcoming professional development resources and programming for graduate students, postdoctoral scholars, and graduate faculty, this work will be firmly grounded in the findings of this study.

Our alumni work in academic, education, industry, not-for-profit, small business, and government sectors. They are instrumental in developing local, provincial, national, and global knowledge-based economies and technology sectors; they become leaders as global citizens. Through their willingness to share their experiences and engage with us regarding their post graduation career trajectories, they are helping to ensure the supports we provide to current students are relevant and will position them well for their future career paths.

To all our alumni who have participated in this project, thank you!

Debby Burshtyn
Dean, CGPS
Employment Information
Gathered via LinkedIn

In addition to the data collected through the formal survey, we also reviewed the profiles of 1,115 PhD Alumni who have active LinkedIn accounts. Based on the current position title and employer information provided for each alumni (matched on full name and listing of PhD degree from USask), we were able to categorize employment by sector. Although the overall employment sector findings from LinkedIn align with those of the formal more in-depth survey, there was a slightly higher proportion of individuals who listed faculty and researcher as their current position on LinkedIn compared to the responses from the survey.

Alumni list work in many employment sectors through their LinkedIn profiles - but most commonly work in University, Industry, or Government

*Other included self-employment, consulting, or private research or healthcare*
Forward

Methodology
An online survey, hosted on the Voxco Online platform, was distributed by the Canadian Hub for Applied and Social Research to PhD alumni in February 2023. Invitations to share their perspectives through the survey were sent to 1,378 PhD alumni. In total, 311 alumni participated.

Timeline
PhD alumni who completed their programs between 2011 and 2022 were sent survey invitations and reminders as follows:

Invitation: February 23, 2023
Reminder 1: March 2, 2023
Reminder 2: March 8, 2023
Reminder 3: March 14, 2023
Survey Close: March 19, 2023

The survey had a response rate of 22.6%.

Participant Characteristics

Degree by College (>5%)

- Arts and Science: 35.7%
- Agriculture and Bioresources: 9.3%
- Engineering: 11.6%
- Western College of Veterinary Medicine: 8.4%
- Medicine: 9.6%
- Education: 5.1%

See Appendix I for further details regarding study participants.
**Training and Guidance During PhD**

**Q:** Did you participate in supplemental development during your PhD program?

- **Yes:** 37.9%
- **No:** 60.1%

Training was provided through:

- **University of Saskatchewan:** 65.8%
- **Academic Conferences:** 15.4%
- **Other Organizations (e.g., Mitacs):** 18.8%

**Supplemental Professional Development**

More than one-third of respondents participated in supplemental professional development during their PhD program. These included:

- Instructional Training (53.4%)
- Professional Skills (30.5%)
- Career Preparation (13.6%)
- Leadership (12.7%)

**Post-PhD Trajectory**

**Postdoctoral Fellowships**

Approximately 42% of PhD alumni went on to pursue a postdoc. Of those, 71.3% were in disciplines where postdocs are generally required to secure a tenure-track faculty position. Most commonly, postdocs were at USask (38.2%) or another Canadian university (22.5%). The map shows concentration of placements by province and country.

**Did your supervisor encourage you to explore non-academic career options?**

Approximately 60% of alumni report that their supervisor did not encourage them to explore non-academic career options.
Post-PhD Trajectory (continued)

More than half of respondents secured employment prior to the completion of their PhD.

- Of the 10.6% who are not yet employed, almost two-thirds (62.5%) graduated in the past five years
- 91.7% of employment was full-time
- 57.0% of the positions required a PhD
- 82.6% were in a field related to PhD field of study

Most alumni (86.8%) are currently employed and working in a field related to their PhD program (72.0%).

Current Employment

Alumni work across many employment sectors – but most commonly in University, Industry, or Government

*Other included self-employment, consulting, or private research or healthcare.
Current Employment (continued)

Almost three-quarters of employed alumni have annual salaries of more than $80,000.*

*Statistics Canada (2023) reports median salary for Assistant Professors in 2022-23 as between $87,600 and $194,925.

87.9% of alumni feel that the skills acquired during their PhD help them in their current employment.

More than half of alumni employment involves research analysis and design, knowledge mobilization, and academic communication.

- Research analysis: 70.7%
- Research design: 68.8%
- Knowledge mobilization: 57.5%
- Academic communication: 54.1%
- Technical communication: 42.9%
- Policy development: 25.9%
- Other: 17.7%

*Other included activities such as clinical work, consulting, and administration.
Almost all PhD alumni are regularly using general skills (e.g., research, project management, writing) and knowledge from their PhD in their current employment.
Reflections on PhD Experience

Q: Respondents were asked to describe the **most** important and **least** important aspects of their PhD program.

- 267 (85.9%) comments describing **most** important aspect were submitted.
- 157 (50.5%) comments describing **least** important aspect were submitted.

### Most Important

- Learning the research processes/stages, methodology, analysis, etc.
- Supportive and encouraging supervisors and mentors
- Teaching/mentorship opportunities
- Critical thinking skills
- Learning practical, applicable, clinical skills, theory/research to practice
- Independence and autonomy to learn skills and conduct research
- Supportive and encouraging supervisors and mentors
- Teaching/mentorship opportunities
- Critical thinking skills
- Learning practical, applicable, clinical skills, theory/research to practice
- Independence and autonomy to learn skills and conduct research

### Least Important*

- Courses: unrelated, unavailable, poor-quality, too many
- Focus and training on academia-only prospective employment
- Bureaucracy, administrative approvals, university politics
- Comprehensive exams
- Poor, unsupportive supervisor, mentor, or committee members

*Themes comprising at least 20 comments were included
Reflections on PhD Experience (continued)

In retrospect, if you had to do it all over again, would you ...

Choose to pursue a PhD
- Yes: 59.8%
- Maybe: 28.6%
- No: 11.6%

Select USask to pursue your PhD
- Yes: 43.7%
- Maybe: 39.2%
- No: 17.2%

Pursue your PhD in the same field of study
- Yes: 56.9%
- Maybe: 27.8%
- No: 15.4%

A minority of alumni (11.6-17.2%) report that, if they could do it over, they would not…
- Choose to pursue a PhD
- Select USask to pursue their PhD
- Pursue their PhD in the same field of study

Current Perceptions

More than half of alumni indicated that they were likely to recommend USask and their specific program to a prospective graduate student.

<table>
<thead>
<tr>
<th>Their program</th>
<th>Not at all</th>
<th>Not very</th>
<th>Somewhat</th>
<th>Likely</th>
<th>Very likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>USask</td>
<td>5.5%</td>
<td>9.0%</td>
<td>25.4%</td>
<td>29.6%</td>
<td>30.5%</td>
</tr>
<tr>
<td>USask</td>
<td>7.4%</td>
<td>13.2%</td>
<td>23.9%</td>
<td>27.4%</td>
<td>28.1%</td>
</tr>
</tbody>
</table>
Current Perceptions (continued)

More than 60% of alumni currently feel at least somewhat connected to their home department/school and to USask; however, less than a quarter feel connected to the College of Graduate and Postdoctoral Studies.

Respondents were asked to explain their answers...

Home department/school

- **16.3%** Not at all
- **22.8%** Not very
- **26.4%** Somewhat
- **16.3%** Connected
- **18.2%** Very connected

Reasons for not feeling connected to home department/school include:
- Live far away
- No more contact/no close relationships/drift apart

Reasons for feeling connected to home department/school include:
- Close connections with some members (e.g., supervisor)
- Have research collaborations
- Currently a member of the department/school

CGPS

- **42.4%** Not at all
- **33.7%** Not very
- **12.6%** Somewhat
- **7.1%** Connected
- **4.2%** Very connected

Reasons for not feeling connected to CGPS include:
- Live far away
- Only surface-level interactions during PhD

Reasons for feeling connected to CGPS include:
- Currently supervise graduate students/postdocs

USask

- **12.3%** Not at all
- **20.6%** Not very
- **29.7%** Somewhat
- **16.8%** Connected
- **20.6%** Very connected

Reasons for not feeling connected to USask include:
- Live far away
- Bad experiences during PhD
- Little communication from USask

Reasons for feeling connected to USask include:
- Close connections with some members (e.g., supervisor)
- Current employer
Alumni Engagement

Q: Do you participate in any USask alumni activities?

Why do you participate?
- “I am a proud alumna.”
- “To give back”
- “To hear about what is happening at the U of S”
- “To keep update[d] on career and opportunity.”
- “I try to stay connected as much as I can and advocate for changes....”
- “USask alumni activities are very eventful”

Why don’t you participate?
- “Currently I live far from USask”
- “I don’t feel connected to USask at all”
- “Just not something that interests me”
- “Nothing relevant offered by USask”
- “Don’t know what activities they have”
- “I am busy with my work and family”

Respondents who do not currently engage in any USask alumni activities were asked what type of event/activity might engage them:

- **59%** Opportunity to hear about the current research being conducted in your old department/program
- **48%** Opportunity to mentor current students
- **22%** Alumni Reunion
CGPS Action Items

Professional Development
Equipping students to clearly articulate the skills they develop during their PhD programs and providing job search supports is essential to the future success of our current students. Based in part on feedback provided by alumni, we will:

- Better promote the PD opportunities currently available (i.e.: Professional Skills Certificate)
- Work with Career Services to ensure the career development supports they provide meet the needs of graduate students
- Accelerate implementation of Professional Skills modules and support program adoption

Enhancing Connections
Although over 60% of alumni feel connected with USask in some way only 9% participate in alumni activities. CGPS will work with University Relations and individual Graduate Programs to better-engage with graduate alumni at a variety of levels, but particularly in relation to areas respondents have indicated, namely:

- Ensuring departments are able to and supported in connecting with their former students in meaningful ways to share information about what is going on in the Department
- Connecting with alumni to engage them in mentoring current graduate students

Supporting Faculty
60% of respondents indicate that their supervisor(s) did not encourage them to explore jobs outside of academia. Given that nearly half of our PhD alumni are employed in non-faculty positions, CGPS will work with Career Services and other partners on campus to develop a tool kit/referral guide to support faculty supervisors as they engage in career conversations with their students.
## Appendix 1 – Participant Characteristics

### Arts and Science

<table>
<thead>
<tr>
<th>Subject</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>2.9%</td>
</tr>
<tr>
<td>Chemistry</td>
<td>5.5%</td>
</tr>
<tr>
<td>Computer Science</td>
<td>2.9%</td>
</tr>
<tr>
<td>English</td>
<td>1.3%</td>
</tr>
<tr>
<td>Geography</td>
<td>1.0%</td>
</tr>
<tr>
<td>Geological Sciences</td>
<td>2.6%</td>
</tr>
<tr>
<td>History</td>
<td>4.2%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>0.6%</td>
</tr>
<tr>
<td>Physics and Engineering...</td>
<td>3.9%</td>
</tr>
<tr>
<td>Psychology</td>
<td>9.3%</td>
</tr>
<tr>
<td>Sociology</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

### Agriculture and Bioresources

<table>
<thead>
<tr>
<th>Subject</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Microbiology</td>
<td>1.3%</td>
</tr>
<tr>
<td>Animal and Poultry Sciences</td>
<td>2.9%</td>
</tr>
<tr>
<td>Agricultural Economics</td>
<td>1.3%</td>
</tr>
<tr>
<td>Food Science</td>
<td>0.3%</td>
</tr>
<tr>
<td>Plant Sciences</td>
<td>3.2%</td>
</tr>
<tr>
<td>Soil Science</td>
<td>2.6%</td>
</tr>
</tbody>
</table>

### Engineering

<table>
<thead>
<tr>
<th>Subject</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomedical Engineering</td>
<td>2.3%</td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>1.9%</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>0.3%</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>1.9%</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td></td>
</tr>
</tbody>
</table>

### Medicine

<table>
<thead>
<tr>
<th>Subject</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy, Physiology and Pharmacology</td>
<td>1.3%</td>
</tr>
<tr>
<td>Biochemistry, Microbiology and Immunology</td>
<td>1.3%</td>
</tr>
<tr>
<td>Community and Population Health Sciences</td>
<td>2.6%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

### Western College of Veterinary Medicine

<table>
<thead>
<tr>
<th>Subject</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Animal Clinical Sciences</td>
<td>1.0%</td>
</tr>
<tr>
<td>Veterinary Biomedical Sciences</td>
<td>3.9%</td>
</tr>
<tr>
<td>Veterinary Microbiology</td>
<td>3.5%</td>
</tr>
<tr>
<td>Veterinary Pathology</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

### Education

<table>
<thead>
<tr>
<th>Subject</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education, cross-departmental</td>
<td>1.9%</td>
</tr>
<tr>
<td>Educational Administration</td>
<td>3.2%</td>
</tr>
</tbody>
</table>
### Participant Characteristics (continued)

#### Remaining Departments and Colleges (<5%)

<table>
<thead>
<tr>
<th>Department (College)</th>
<th>Participating Alumni</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kinesiology (Kinesiology)</td>
<td>2.6%</td>
</tr>
<tr>
<td>Interdisciplinary Studies (Graduate and Postdoctoral Studies)</td>
<td>2.3%</td>
</tr>
<tr>
<td>Nursing (Nursing)</td>
<td>2.3%</td>
</tr>
<tr>
<td>Public Policy (Johnson Shoyama Graduate School of Public Policy)</td>
<td>2.3%</td>
</tr>
<tr>
<td>Environment and Sustainability (School of Environment and Sustainability)</td>
<td>1.9%</td>
</tr>
<tr>
<td>Pharmacy (Pharmacy and Nutrition)</td>
<td>1.9%</td>
</tr>
<tr>
<td>Nutrition (Pharmacy and Nutrition)</td>
<td>1.3%</td>
</tr>
<tr>
<td>Toxicology (Toxicology Centre)</td>
<td>1.3%</td>
</tr>
<tr>
<td>Biostatistics (School of Public Health)</td>
<td>0.3%</td>
</tr>
<tr>
<td>Epidemiology (School of Public Health)</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

#### Year PhD Completed

![Graph showing the percentage of PhD alumni by year completed from 2011 to 2022. The percentage for each year is as follows:
- 2011: 4.8%
- 2012: 5.5%
- 2013: 5.1%
- 2014: 8.0%
- 2015: 11.3%
- 2016: 10.3%
- 2017: 9.3%
- 2018: 11.9%
- 2019: 12.5%
- 2020: 11.3%
- 2021: 8.0%
- 2022: 0.3%]
This study was conducted by the
College of Graduate & Postdoctoral Studies, USask

Data in this report was compiled by:
Canadian Hub for Applied and Social Research (CHASR)
University of Saskatchewan
Room 260 Arts Building 9 Campus Drive

Canadian Hub for Applied and Social Research