



THE UNIVERSITY OF BRITISH COLUMBIA

Faculty of Graduate and Postdoctoral Studies

Postdoctoral Fellows Office (PDFO)

UBC Postdoctoral Fellows 2022 Finance Survey: Final Report

A collaboration between the UBC Faculty of Graduate and Postdoctoral Studies (Postdoctoral Fellows Office) and the UBC Postdoctoral Association

Contributors

UBC Postdoctoral Fellows Office (Faculty of Graduate and Postdoctoral Studies): The Postdoctoral Fellows Office (PDFO) within the Faculty of Graduate and Postdoctoral Studies is the central unit supporting postdoctoral fellows ('postdocs') appointed at UBC. PDFO-led activities such as onboarding, advocacy, professional development, administration of funding opportunities, and other supports aim to enhance the experiences of postdocs at UBC while assisting in their preparation for long-term employment in their chosen fields.

UBC Postdoctoral Association: The UBC Postdoctoral Association (PDA) is an interdisciplinary group of postdocs at UBC. Entirely postdoc-led, the PDA's elected executive team works closely with the PDFO to represent UBC postdocs. Their mission is to enhance the academic experience, offer professional development opportunities, and encourage peer engagement between postdocs at UBC. This is accomplished by advocating on behalf of the postdoctoral community to all levels of UBC administration. Membership with the PDA is free and open to all currently-appointed postdocs at UBC.

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Executive Summary

Addressing the ‘precarity of postdocs’: The postdoctoral fellowship is a relatively brief but intense time of development and research activity following a doctoral degree. Bringing expertise, knowledge, and skill to their positions, postdoctoral fellows (**postdocs**) are the engines that power universities’ research missions. However, in recent years, there have been urgent calls to address the ‘precarity of postdocs’ largely driven by low stipends in the midst of inflationary pressures.

From advocacy to collaboration: The value of postdoctoral stipends at UBC is not regulated other than the requirement for stipends to be greater than minimum wage (UBC Postdoctoral Fellows Policy, AP10). What began as an advocacy initiative by the UBC Postdoctoral Association (**PDA**) became a collaboration with the Postdoctoral Fellows Office (**PDFO**) in the Faculty of Graduate and Postdoctoral Studies to evaluate UBC postdoc stipends. Triangulating data sources including a jointly-administered survey to UBC-appointed postdocs and payroll data led to key findings and corresponding recommendations and strategic areas.

Key findings: The primary findings in Part 1 of this report relate to stipends of postdocs at UBC. On average, postdocs at UBC earn approximately \$55,000 per annum – a value that is not different based on important variables such as: age, sex, gender, or field of research. We also found that stipends typically do not increase systematically on an annual basis. While this average stipend is less than other research-intensive universities worldwide, it is consistent with other universities in Canada. However, the high cost of living and difficulty finding housing in Vancouver presents challenges to many postdocs. In Part 2 of this report, we provide some recommendations to help ensure UBC’s ability to attract and retain the best and brightest postdocs.

Supporting the UBC’s postdoc community: The PDFO’s and PDA’s collective aim is for this report to serve as a resource for current and prospective postdocs, supervisors, departments, and general university administration. In synthesizing the financial landscape for postdocs at UBC, the report may aid in determining sustainable stipends and/or support and negotiation of stipends. Information from this report may also support advocacy efforts for improved research funding in Canada, particularly for postdocs.

Findings on Postdoc Stipends at UBC



Part 1: Postdoc Landscape at UBC

UBC has a vibrant postdoc community with approximately 1,300 postdocs from around the world appointed at the university each year. UBC postdocs conduct research at over 120 units at both Vancouver and Okanagan campuses.

Postdocs contribute immeasurably to UBC’s research enterprise, and provide significant teaching and mentorship towards UBC’s educational mission.

In the 2022-23 fiscal year alone, postdocs brought to the

70 Banting Postdoctoral Fellows at UBC (as of 2022)

university over eight million dollars in fellowship funding from provincial, federal, and international funding agencies. UBC postdocs have gone on to academic careers in institutions both in Canada and internationally, with over 45

> 45 former UBC postdocs have held Canada Research Chairs

having held Canada Research Chairs. UBC

postdoc alumni have also assumed research and leadership positions in prominent organizations across both public and private sectors throughout Canada and around the world.

Selected Organizations of UBC Postdoc Alumni	
GOVERNMENT	
Federal	Agriculture and Agri-Food Canada; Canadian Forest Service; Natural Research Council of Canada; Natural Resources Canada; Privy Council Office
Provincial	BC Emergency Health Services; BC Forest Safety Council; Office of the Provincial Health Officer
INDUSTRY	
	AbCellera; Amazon; Apple; Ballard Power Systems; Bayer; Boeing; Eli Lilly; Fluor; FPInnovations; Golder; Goldman Sachs; Google; Huawei; IBM; Intel; IPSOS; Lululemon; Microsoft; Novo Nordisk; Pfizer; Proctor & Gamble; Salesforce; Samsung; SAP; STEMCELL Technologies; TELUS; Wood; Zymeworks
INTERNATIONAL POST-SECONDARY INSTITUTIONS	
United States	Brown; California Polytechnic University; Columbia; DePaul University; Emory; Georgia Tech; Harvard; Michigan State; Northwestern; Penn State; Purdue; Rutgers; University of California; Yale
International	Chinese Academy of Sciences; ETH Zürich; Hong Kong University; Indian Institute of Astrophysics; King's College London; Korea University; Kyoto University; Monash University; National University of Ireland; National University of Singapore; Oxford; University College London; University of Auckland; University of Copenhagen; University of Essex; University of Melbourne; University of Milan; University of Queensland; University of Tasmania; University of Tehran; University of the Philippines; Vrije Universiteit Amsterdam

UBC postdocs may receive funding through one or more of: stipend from their supervisors’ research grant(s) or other source(s); competitive fellowship; or salary from a teaching position at UBC (in addition to their funding for research activities). Appointments are done by respective units (e.g. faculties), with postdocs classified as either [Employees](#) or [Award Recipients](#), depending on the source of their funding. An **Employee** postdoc is funded by a faculty supervisor and is subject to statutory withholdings which

include Canada Pension Plan, Employment Insurance and taxes. Employees receive Workers' Compensation coverage, and are issued a T4 from the University. An **Award Recipient** postdoc is funded by a competitive fellowship from a granting agency (e.g., Tri-Agency). Award Recipients do not have an employment relationship with UBC, and may be paid directly from their granting agency or have their funding administered through UBC. Award Recipients whose funding is administered through UBC are subject to income tax but no other statutory withholdings at source and are issued a T4A from the University. Award Recipients whose funding is paid directly to them and not administered by UBC are not subject to any statutory withholdings. Both Employees and Award Recipients are entitled to benefits provided they meet the [eligibility criteria](#).

The UBC Postdoctoral Fellows Policy ([Policy AP10](#)) is the governing policy for postdoctoral appointments, compensation, and conditions.¹ It stipulates that the determination of an employee postdoc's stipend should follow a consultation between the postdoc and supervisor, and requires approval by the unit head. At a minimum, it must be in accordance with the *BC Employment Standards Act* (i.e., minimum wage). An award recipient postdoc may receive a top up, in addition to their fellowship funding, from their supervisor, which requires approval from the unit head, and results in the postdoc becoming classified both as an Award Recipient and Employee. Policy AP10 states broadly that postdocs' compensation should be based on their relevant experience and responsibilities. All postdocs hold a formal appointment at UBC regardless of classification (Employee or Award Recipient). Appointments are administered at the department/unit level and are typically for successive one-year terms for up to three years. With the approval of the Dean at their appointing unit, a postdoc may hold an appointment for up to five years.

Report Data Sources

This report uses two sources of information: a survey of postdocs conducted collaboratively by the PDA and the PDFO, and income data from UBC payroll from the same time period. Analyses of these data sources addressed questions including:

- What are postdocs' stipends overall and according to postdoc sociodemographic characteristics?
- What are postdocs' stipends according to academic field and experience?
- Do postdocs stipends increase year over year, and if so, for what reason(s)?

¹ University of British Columbia Board of Governors, "Policy AP10: Postdoctoral Fellows" (University of British Columbia, July 2019): https://universitycounsel.ubc.ca/files/2022/05/Postdoctoral-Fellows-Policy_AP10.pdf.

Survey data

A survey was developed and administered jointly by the PDFO and PDA. It comprised 19 questions (for details see **Appendix A**) covering:

- **Stipend(s) and source(s)**, with options including external fellowship, Killam fellowship, stipend from supervisor, UBC teaching income, UBC service income, and ‘other’ income (with free text options);
- **Academic history**, including field of research, number of months as a postdoc, and number of prior postdoc appointments;
- **Sociodemographic characteristics**, including questions on year of birth, sex, gender, race, citizenship, country of origin, and household dependents;
- **Narrative**, comprising a single open-ended invitation for any additional comments.

The survey was anonymous and sent to all UBC-appointed postdocs through PDFO and PDA channels. Data were collected from May 17, 2022 to July 5, 2022. There were **271** individual respondents.

Payroll data

We also drew payroll data from Workday, UBC’s Human Resources Enterprise Management System, including stipend(s) and source(s) (e.g., UBC salary, external fellowship). Payroll data was drawn for UBC postdocs with appointments of 1.0 full-time equivalent (FTE) (n = **830**) during the survey administration period of May 17 to July 5, 2022.

Respondents

Characteristics for the **271** survey respondents are shown in **Table 1** and **Figure 1**. Female postdocs are older than males (mean 34.9 vs. 33.5 years).

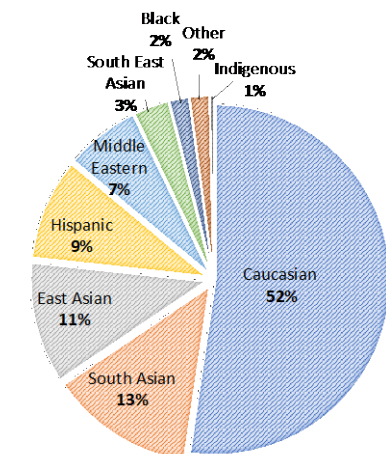


Figure 1. Ethnicity
(*Other: respondents reporting ≥1 ethnicity)

Table 1. Characteristics	
Age (year) mean ± SD	34.3 ± 4.3
Age group (year), n (%)*	
25-29	25 (10)
30-34	132 (50)
35-39	75 (28)
≥40	33 (12)
Sex, n (%)*	
Female	155 (57)
Male	115 (43)
Gender, n (%)*	
Woman	150 (56)
Man	106 (39)
Non-binary	5 (2)
Prefer not to say	9 (3)
Self-reported disability, n (%)	
Mental health disability	14 (5)
Physical health disability	9 (3)

*Based on non-missing responses

Postdoc stipends and sources

Mean stipend reported from the survey was **\$56,222 ± 11,338** (median **\$55,000**), with values ranging from \$20,000 to \$92,000 (**Figure 2**). Mean postdoc stipend as determined from payroll data was **\$56,416 ± 12,391** (median **\$55,000**), with values ranging from \$22,500 to \$135,000.

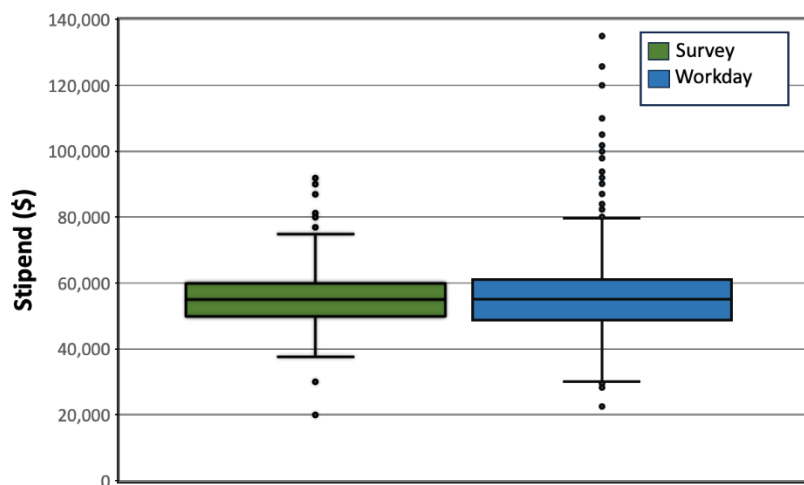


Figure 2. Box plot showing postdoc stipends as reported in the survey and extracted from Workday

In the survey, sources of postdoc stipends were pre-specified in the question stem, with respondents having the ability to indicate ≥ 1 source. Among respondents, 39% had stipends from external fellowships, 59% from their supervisors, and 14% from teaching income. More than one-quarter of respondents (28%) received stipends from multiple sources. About 11% of external fellowship holders received top-up stipends from supervisors.

- Survey questions regarding postdoc funding were limited to pre-specified source(s) and annual amount(s) received. As information on FTE was not collected, survey data were cautiously interpreted as based on 1.0 FTE.
- Postdoc appointments are processed by each department/unit and thus payroll data on postdoc funding may be inconsistent and/or incomplete.

Postdoc stipends according to academic field and history

There was no significant difference in mean stipend according to **number of postdoc appointments**. However, those with prior appointments tended to have higher stipends than those on their first postdoc: those on their first appointment received a mean stipend of \$54,435, followed by those with one prior appointment (\$56,927), then those with 2 or more prior appointments (\$61,474) (**Figure 3**).

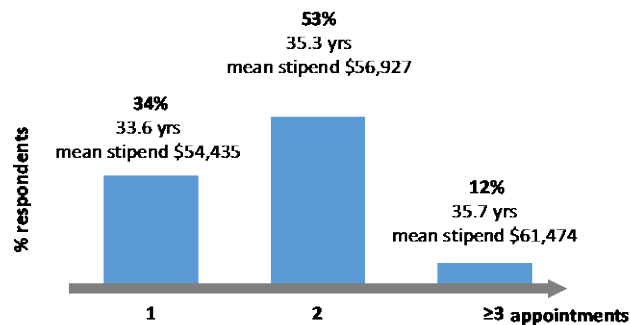


Figure 3. Postdoc appointments, including current one (Corresponding mean age of respondents also indicated)

Relative to the **length of time spent as a postdoc**, those in their first two years tended to have lower funding levels than those who had been a postdoc for a longer time. However, the differences were not significant. There were **no significant differences** in mean postdoc stipends with **field of research** (Physical sciences, \$59,092; Social sciences/Humanities, \$57,331; Life/Health sciences, \$56,166; Engineering, \$51,571) (Figure 4).

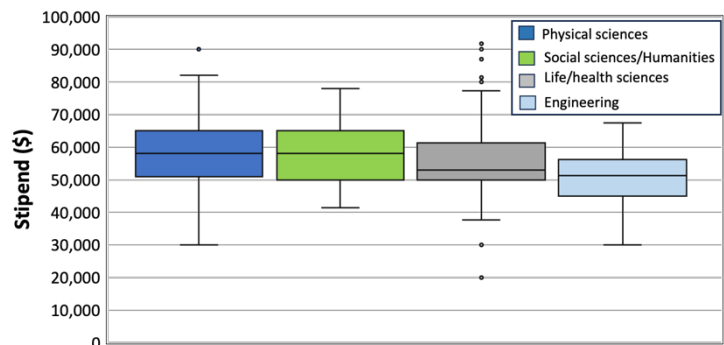


Figure 4. Boxplot showing postdoc stipends according to field of research

Academic field and experience

Nearly all respondents (98.5%) held a PhD degree while 2 (0.7%) held a professional doctorate (e.g., MD) and 2 (0.7%) held both a PhD and professional doctorate degree. As shown in Figure 3 above, just over half of respondents (52.7%) were on their second postdoctoral appointment and these tended to be older than those on their first.

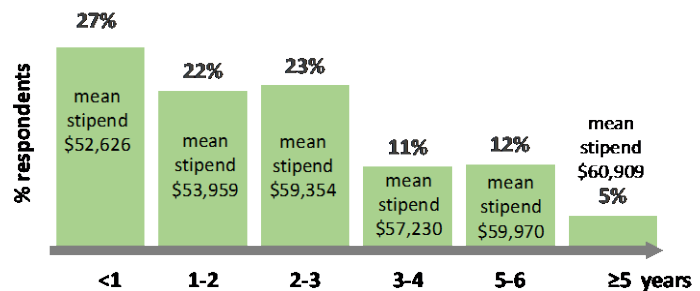


Figure 5. Years as a postdoc

The timeline in Figure 5 represents total years as a postdoc, including the current appointment at UBC and any prior appointments. At the time of the survey, 50% of respondents had spent less than two years as a postdoc. With respect to field of research, 58% of respondents were in life or health sciences, 16% were in physical or computational sciences, and 13% each were in engineering and social sciences and humanities. There were more females than males in the life/health sciences (39% vs. 19% of the total sample) and social sciences/humanities (9% vs. 3%). There were more males than females in engineering (11% vs. 2%) and physical/computational sciences (10% vs. 7%). The average ages of postdocs were 33 years in engineering and physical sciences, 34 years in life sciences, and 37 years in social sciences and humanities.

Postdoc stipends according to sociodemographic characteristics

There were **no significant differences in stipends according to sex or age**. Average stipend by sex was \$56,747 for females and \$56,641 for males. Average stipend by age was \$55,462 for 25-29 years, \$55,646 for 30-34 years, \$56,959 for 35-39 years, and \$56,979 for ≥40 years.

One-third (33.7%) of respondents were Canadian citizens or permanent residents at the start of their fellowship, and two-thirds (66.3%) were international. There was a **significant difference** in stipends according to **citizenship/visa status**. Specifically, Canadian citizens or permanent residents received higher stipends than international postdocs

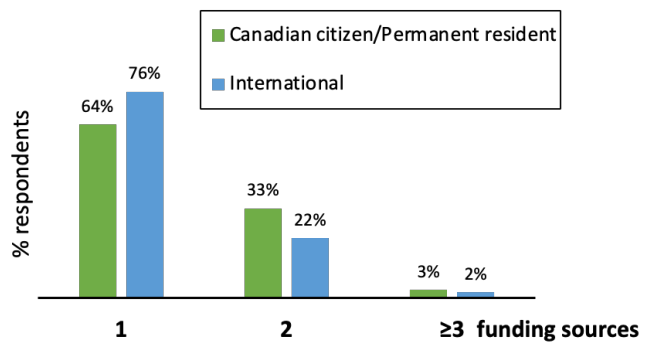
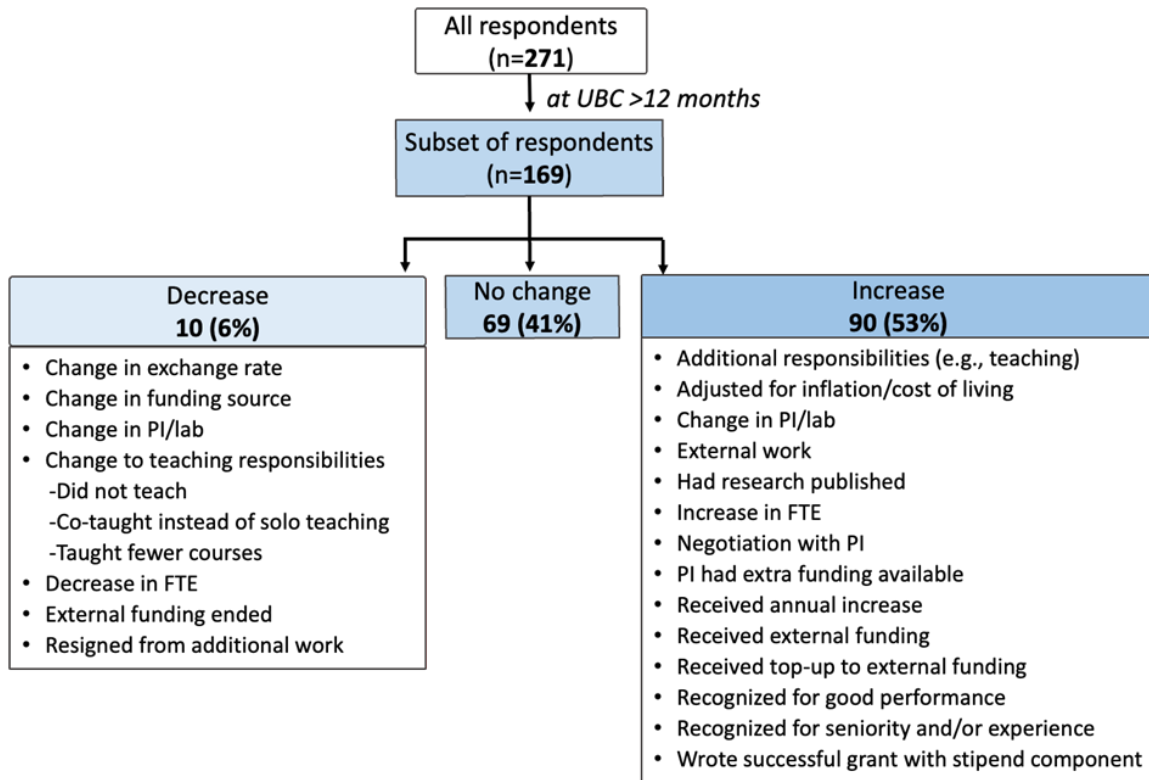


Figure 6. Number of stipend source(s) according to citizenship/status

(mean, **\$57,263** vs. **\$55,575**, respectively). This difference was held after accounting for sex, age, field of research, and number of postdoc appointments. This difference may be explained by funding source(s), especially from external fellowships. Canadian citizens and permanent residents are eligible for many more national fellowships than are international postdocs. Approximately 48% of postdocs who are Canadian citizens/permanent residents received external fellowships compared to 33% of international postdocs. Survey data also indicated that international postdocs were more likely to have their stipend from only a single source (76%), most often from their supervisor, compared to citizens/permanent residents whose stipend was derived from 2 or more sources (**Figure 6**).

Changes to postdoc stipends

Survey respondents who have been at UBC for more than 12 months were asked if they had a change in their stipend during their time at the University. Of the **169** survey respondents who responded to this question, **53%** indicated they had had an **increase**, **41%** indicated **no change**, and **6%** said their stipend had **decreased**. Reasons for an increase included adjustments for cost of living, positive performance, and seniority, as well as external factors including additional responsibilities or new fellowship earnings. Representative quotes from narrative responses provided are shown below.



Stipend decrease

“New position with funding from PI as opposed to previously being funded by an award.”

“I have been teaching fewer courses.”

Stipend increase

“I took additional project work, and this past semester was a sessional instructor.”

“I negotiated with my supervisor to have a supplemental increase to my pay in order to stay.”

“I asked for a raise after my first year, which lead to a raise in salary for all postdocs [at unit].”

Postdocs' households and dependents

To contextualize findings on postdoc stipends, we summarized information on household and dependents. Approximately half of respondents had a partner/spouse in the same household (**Figure 6**), and 27% had a child or children in their household, with a higher proportion of the latter among females (17%) than males (10%) (**Figure 7**). Female postdocs with children were on average three years older than male postdocs with children (39 vs. 36 years).

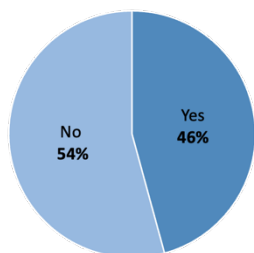


Figure 7. Have partner/spouse in same household

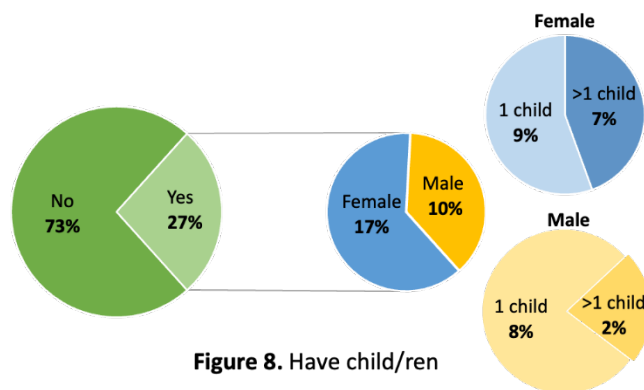


Figure 8. Have child/ren

Comments from postdocs

Asked to provide comments on the survey, **93** postdocs responded and shared about their financial situation. Some comments noted on low stipends received and that these were not as competitive as those in other jurisdictions, especially other countries. Responses also highlighted the high cost of living in Vancouver and the burden of living expenses, particularly housing. Representative quotes are presented here and in the subsequent sections of the report.

“After completing a PhD, our qualifications and abilities far exceed the incredibly low pay postdoctoral fellows receive considering the lack of income during the many years in a PhD. This leads to incredible financial instability considering our age and education.”

“Postdocs at UBC are paid much less than their American counterparts even after accounting for things like healthcare. Also, UBC postdocs do not get retirement/401K benefits which are standard in the United States. This poses a major competitive disadvantage for retaining top talent at Canadian universities in my opinion.”

Comparing findings with prior postdoc surveys

To contextualize findings, reference will be made to several prior postdoctoral surveys conducted nationally and internationally. To facilitate comparisons with our survey, we converted amounts reported in prior surveys to 2022 CAD using the [Consumer Price Index](#).

- The 2016 joint Canadian Association of Postdoctoral Scholars (**2016 CAPS**) and Tri-Agency Canadian National Postdoctoral Survey² included 1,630 respondents from Canadian universities
- The **2020 CAPS** Canadian National Postdoctoral Survey Report³ included 847 respondents from Canadian universities
- The 2016 (US) **National Postdoc Survey**⁴ included 7,603 respondents based at US institutions
- The 2020 **Nature** survey of postdocs⁵ included 7,670 respondents across 93 countries

Postdoc stipends do not differ by sociodemographic characteristics other than citizenship/residency status

Our finding of no differences in postdoc stipends by sex, gender, or age in our survey, is consistent with prior postdoc surveys, which also found no difference by sex (**2016 CAPS**), gender (**Nature**) or ethnicity (**Nature**). Our finding that postdocs who are Canadian citizens/permanent residents receive, on average, higher stipends than international postdocs likely correlates with the receipt of external fellowships, which are less common among international postdocs (at least partly due to limited eligibility). The UBC Killam Postdoctoral Research Fellowship, an internal program, may help to make up for this difference, as this fellowship is available to both domestic and international postdocs, and domestic postdocs are required to relinquish the Killam funding if they are successful in external fellowship competitions. In 2023, UBC raised the Killam Postdoctoral Research Fellowship stipend from \$50,000 to \$60,000 CAD per year.

Postdoc stipends are not systematically increased based on length of tenure

Unique to our survey, respondents were asked about changes to their stipends. Findings suggest that postdoc stipends are not increased systematically, for example per year or based on experience/performance.

“My base salary has remained the same (\$54k) since I started at UBC in September 2017.”

“I did not receive any raise when I renew [sic] my contract but I believe a mandatory annual raise (e.g., 2%) is important for PDFs to counter inflation.”

² Nafisa M. Jadavji et al., “The 2016 Canadian National Postdoctoral Survey Report” (Canadian Association of Postdoctoral Scholars- L’Association Canadienne de Stagiaires Post-doctoraux, 2016): https://www.caps-acsp.ca/wp-content/uploads/2016/11/2016_CAPS-ACSP-National_Postdoc_Survey_Report.pdf.

³ Joseph S. Sparling et al., “The 2020 Canadian National Postdoctoral Survey Report” (Canadian Association of Postdoctoral Scholars / L’Association canadienne de Postdoctorantes et Postdoctorants, 2023), <https://capsacpp.ca/en/resources/publications/surveys/>.

⁴ Sean C McConnell et al., “Research: United States National Postdoc Survey Results and the Interaction of Gender, Career Choice and Mentor Impact,” *Elife* 7, no. e40189 (December 18, 2018), <https://doi.org/10.7554/eLife.40189>.

⁵ Chris Woolston, “Postdoc Survey Reveals Disenchantment with Working Life,” *Nature* 587, no. 7834 (November 18, 2020): pp. 505–8, <https://doi.org/10.1038/d41586-020-03191-7>.

Postdoc stipends at UBC may be similar to many or most institutions in Canada

There is limited information on the current **average** postdoc stipends in Canada with which to compare our survey findings. However, what information we do

have suggests that postdoc stipends at UBC are similar to those of many or most institutions across the country. The **2016 CAPS** survey reported an average postdoc stipend of \$47,798 **nationally**, which amounts to approximately \$57,000 in 2022 CAD. Also in the **2016 CAPS** survey, postdoc stipends were reported by province/region with averages in **BC** of \$49,687 (\$59,000 in 2022 CAD), in **Ontario** of \$47,901 (\$57,000 in 2022 CAD), and in **Quebec** of \$42,338 (\$50,000 in 2022 CAD). The **2020 CAPS** survey reported a national average postdoc stipend of \$52,622 (which amounts to approximately \$58,860 in 2022 CAD); however, there were no reports of average postdoc stipends according to province in that survey.

Postdoc stipends at UBC (and in Canada) are lower than incomes internationally (in research-intensive countries)

Relative to other research-intensive countries, UBC (and Canada) have lower stipends for postdocs. In the same **2016 CAPS** survey, the average income for **postdocs**

outside of Canada was reported as \$55,218 CAD (\$65,000 in 2022 CAD). In the **US**, the 2016 **National Postdoc Survey** of 7,603 US postdocs found average earnings to be \$46,988 USD (a currency conversion and inflation-adjusted value of approximately \$77,000 in 2022 CAD). **Internationally**, a 2020 survey of 7,670 postdocs across 93 countries by **Nature** found that 42% earned over \$75,000 (converted and inflation-adjusted to 2022 CAD); however, stipends were not reported by country.

Part 1 Summary

Postdocs at UBC earn, on average approximately **\$55,000** per annum. Although this amount did not differ by age, sex, gender, or field of research, it differed based on citizenship/residency status. We found no systematic increases to postdoc stipends, considering experience, performance or cost of living. The average postdoc stipend at UBC is less than other research-intensive universities internationally and comparable with stipends at other Canadian universities. However, this relative comparability is reduced when the cost of living in Vancouver is considered.

“The salary is not nearly enough to live in Vancouver, and hasn’t increased with the inflation going on.”

Recommendations and Considerations



Part 2: Recommendations and Considerations

Analysis of our survey for this report and contextualization of these findings lend to key recommendations for addressing financial and living challenges experienced by postdocs at UBC.

Recommendation 1: Implement an institutional minimum postdoc stipend with rising scale.

Recommendation 2: Prioritize on-campus housing for postdocs.

Recommendation 3: Continue advocating for increased postdoctoral funding, particularly from the Tri-Agencies, and improved research funding in Canada overall.

In addition to report findings in **Part 1**, considerations to support these recommendations were drawn from various sources, including environmental scans. Representative quotes from comments from survey respondents are also included.

Considerations for Recommendation 1: Addressing postdoc stipends

Cost of living for UBC postdocs

Although findings in **Part 1** suggested that postdoc stipends at UBC are comparable to those nationally and with major provinces (based on **CAPS 2016 survey**), the high cost of living in Vancouver reduces this relative comparability.

Vancouver's cost of living is the second-highest in Canada and rent is the highest

After Toronto, Vancouver is the most expensive city to live in Canada. Vancouver has the highest apartment rental rates in Canada (60% higher than the national average for a purpose-built two-bedroom apartment and 30% higher for a two-bedroom condominium apartment in 2002),⁶ and is among the 50 highest in the world.⁷

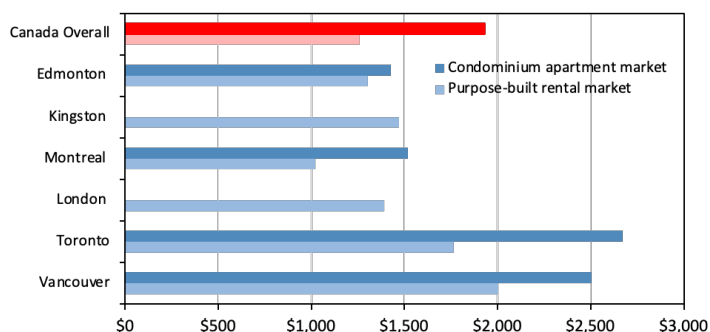


Figure 9. Average rent, two-bedroom apartment (CMHC Rental Market Report, Jan 2023)

“When I first started as a postdoc at UBC, I was living paycheque to paycheque, and really struggling to make ends meet - especially given the high rent prices of the Lower Mainland.”

These high rental rates in Vancouver have been compounded by the surging inflation rates since 2021. As of August 2023, the average rent in Vancouver has been estimated to be \$2,800-\$3,000 for a one-bedroom apartment and \$3,800-\$4,700 for a two-bedroom apartment.⁸ **At current rental rates, a postdoc earning the average income at UBC may be paying up to 60% of their income (before taxes) to rent an average one-bedroom apartment in Vancouver.** This is double the

“I actively discourage PhDs from pursuing a postdoc in Vancouver and will continue to do so until wages improve. Compensation is actually on par with that of recent BSc undergrads. It's embarrassing to not be able to save money or go to restaurants with friends - or even travel within the province. I actually can't afford to register my car here.”

⁶ Canada Mortgage and Housing Corporation, “Housing Market Information Rental Market Report: January 2023 Edition,” January 2023: <https://assets.cmhc-schl.gc.ca/sites/cmhc/professional/housing-markets-data-and-research/market-reports/rental-market-report/rental-market-report-2022-en.pdf>.

⁷ Rentals.ca, “National Rent Report,” <https://rentals.ca/national-rent-report>.

⁸ Liv Strategies Inc., “August 2023 Metro Vancouver Rent Report,” Rent Reports, August 4, 2023, <https://liv.rent/blog/rent-reports/august-2023-metro-vancouver-rent-report/>.

amount commonly recommended as financially prudent, and about 10% higher than that currently paid by the average resident of Metro Vancouver.⁹ This of course leaves significantly less income for other necessities (e.g., food, childcare, etc.) let alone recreational or other activities.

Determination of minimum postdoc stipend

There are many factors to informing a determination of ‘appropriate’ stipends for postdocs at UBC:

- What is **appropriate** – considering the critical contributions they make to UBC’s research enterprise?
- What is sufficiently **competitive** to attract the very best to UBC – especially given the high (and increasing) cost of living in Vancouver?
- What best supports the broader goals of ensuring an outstanding **future research workforce** – considering the opportunity costs of doing a postdoc, and the financial and other concerns for those starting families?
- What is **affordable** – particularly for supervisors who primarily provide stipends for postdocs, and for units that may provide top-ups and/or additional incentives?

Appropriateness: It is reasonable to aim for a minimum postdoc stipend that, at the very least, allows a postdoc to carry out their research without significant financial worries or the need to work elsewhere to earn a sufficient amount to live. To this effect, the living wage for Greater Vancouver (**\$24.08 per hour** in 2022⁹) may be a reasonable **absolute minimum** (rather than the minimum stipend level). Applying this to the 40-hour work week as set out in the UBC postdoc offer letters¹⁰ would equate to an annual pre-tax wage of **\$50,086.40**. Although by definition of living wage this may afford “*a decent if still very modest standard of living*”,¹¹ it includes neither debt repayment nor future savings.

Competitiveness: The recruitment and retention of research talent is particularly critical for a research-intensive university. As previously described, although **Part 1** findings suggest that average postdoc stipends at UBC are comparable to those nationally and with other provinces, the high cost of living in Vancouver reduces this relative comparability. For further context, an environmental scan of publicly reported information for the U15 Group of Canadian Research Universities showed that UBC is the only institution without a minimum stipend (**Table 2**). With respect to international comparisons, most notably

⁹ Living Wage Canada, “Rates,” accessed March 10, 2023, https://www.livingwageforfamilies.ca/living_wage_rates.

¹⁰ UBC Human Resources, “Postdoctoral Fellows (Employees),” accessed February 3, 2023, <https://hr.ubc.ca/working-ubc/faculty-titles-ranks-and-descriptions/postdoctoral-fellows/postdoctoral-fellows>.

¹¹ Igljka Ivanova, Shannon Daub, and Anastasia French, “Working for a Living Wage: Making Paid Work Meet Basic Family Needs in Metro Vancouver” (Canadian Centre for Policy Alternatives - BC Office and Living Wage for Families BC, November 2022). p. 4: <https://policyalternatives.ca/sites/default/files/uploads/publications/BC%20Office/2022/11/CCPA-BC-Living-Wage-Update-2022-final.pdf>.

with the US, many if not most major research-intensive US universities use the National Institutes of Health (NIH) Ruth L. Kirschstein Postdoctoral Individual National Research Service Award as the universal minimum which previously started at \$56,484 USD¹² but as of April 2024, increased to \$61,008 USD.¹³

Table 2. Selected Institutional Minimum Annual Stipends as posted at December 1, 2023	
Canadian U15 Institutions	
<i>For Postdoctoral Fellows with an employment relationship with their institution</i>	
Dalhousie University	\$38,500 CAD
McGill University	\$41,500 CAD
McMaster University	\$42,500 CAD
Queen's University	\$35,958 CAD
UBC	BC Minimum Wage (approx. \$36,000 CAD)
Université de Montréal	\$37,102.74 CAD
Université Laval	\$38,789 CAD
University of Alberta	\$39,565.97 CAD
University of Calgary	\$40,000 CAD
University of Manitoba	\$40,000 CAD
University of Saskatchewan	\$42,500 CAD
University of Toronto	\$36,601 CAD
University of Waterloo	\$30,000 CAD
uOttawa	\$34,000 CAD
Western University	\$35,466 CAD

Future Workforce: A consistent finding among our survey and previously mentioned surveys (**CAPS, US National Postdoc Survey, Nature**) is the inadequacy of postdoc incomes. As described in a 2023

“It is impossible to survive with a family with this pay...Because of that I am thinking of quitting this field and change [sic] my line of career.”

Nature Career News article, postdocs are often “barely scraping by.”¹⁴ This is a challenge for all postdocs, particularly for those from financially marginalized groups who have little access to savings and/or family support, and those with children or who wish to start families. In our survey, we found a higher proportion of female postdocs with children than male postdocs (17% vs. 10%) and that female postdocs with children were on average three years older than males with children (39 vs. 36 years). The latter findings suggest that **female postdocs with families experience this financially challenging time longer and/or later in their career lives than do male postdocs with families**. This has problematic implications in light of the well-known metaphor of the *leaky pipeline* in academia, that is that there are more females exiting

¹² Ferguson, Kryste et al., “National Postdoctoral Association Institutional Policy Report 2014” (National Postdoctoral Association, 2014), p. 19: https://cdn.ymaws.com/npamembers.site-ym.com/resource/resmgr/docs/npa_policyreport2014_final.pdf.

¹³ National Institutes of Health, “Ruth L. Kirschstein National Research Service Award (NRSA) Stipends, Tuition/Fees and Other Budgetary Levels Effective for Fiscal Year 2024,” accessed May 6, 2024, <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-24-104.html>.

¹⁴ Laurie Udesky, “Postdoc Survey Confirms Widespread Dissatisfaction among US Researchers,” *Nature*, February 2, 2023, <https://doi.org/10.1038/d41586-023-00332-6>.

the academy due to challenges that include parental/maternity leave but also sexism and imposter syndrome.¹⁵ While this metaphor applies in all career stages, there is evidence that the postdoctoral stage seems to be the most vulnerable time for women potentially leaving academic careers.¹⁶ As a current postdoctoral position pays much less than staff positions both within or outside of the academy, there are significant opportunity costs of the postdoctoral years.¹⁷ Kahn and Ginther's 2017 study suggests that these losses are either never compensated for later in careers, or only after many years.¹⁸ These issues are increasingly seen as urgent equity and pragmatic concerns for the health of the current and future research workforce, to the extent that a recent NIH working group established to look at improving postdoctoral training will be recommending among other things, "*drastic changes in compensation...which is going to mean that we have fewer postdocs in the system overall.*"¹⁹

Affordability: It seems likely for UBC that a **drastic** change in compensation structure even with recent increases in external funding, particularly from the Tri-Agencies as announced in the 2024 federal budget, would be challenging. As we await the implementation of these increases, the number of available fellowships remains unclear. Although promising, these increases may also potentially enhance disparity by way of a two-tiered funding system. Options to address these considerations include to:

- **Continue** to advocate for investment in research in Canada;
- **Devote** substantial effort to fundraising for postdoctoral fellowships. UBC currently has very few internal fellowships, and far less funding per capita than that available for doctoral students.
- **Consider** the number of postdoc positions within units to accommodate higher stipend levels.

¹⁵ Ysseldyk, Renate et al., "A Leak in the Academic Pipeline: Identity and Health among Postdoctoral Women," *Frontiers in Psychology* 10 (June 4, 2019), <https://doi.org/10.3389/fpsyg.2019.01297>.

¹⁶ Martinez, Elisabeth D. et al., "Falling off the Academic Bandwagon," *EMBO reports*, 8, no. 11 (2007): pp. 977–81.

¹⁷ Reviewed in Devin Powell, "The Price of Doing a Postdoc," *Science*, January 10, 2017, <https://doi.org/10.1126/science.caredit.a1700003>.

¹⁸ Khan, Shulamit and Ginther, Donna K., "The Impact of Postdoctoral Training on Early Careers in Biomedicine," *Nature Biotechnology* 35, no. 1 (January 2017): pp. 90–94.

¹⁹ Virginia Gewin, "Postdoctoral Researchers Warn NIH That Cost-of-Living Pressures Are Gutting the Workforce," *Nature*, June 29, 2023, <https://doi.org/10.1038/d41586-023-02202-7>.

Considerations for Recommendation 2: Addressing housing

As previously described, a significant contributor to the high cost of living in Vancouver is the housing/rental market. With respect to the off-campus option, the Canada Mortgage and Housing Corporation estimates that less than a third of purpose-built rental

"I would love to stay and work as a PDF at UBC, however, due to high costs of living, I am leaving UBC this summer. This is so sad!"

units in Vancouver are affordable to households earning less than \$55,000 per year.²⁰ With respect to on-campus options, full-time postdocs are eligible for housing at below-market rent through Village Gate Homes, an affiliate of UBC and a division of UBC Properties Trust. However, availability for this housing is limited and waitlists are long: housing is allocated on a priority basis, with priority going first to tenure-track faculty, followed by tenured faculty, and then to staff and other eligible groups which includes postdocs.²¹ In addition to a lack of affordable housing, the general availability of housing in Vancouver is low, with the vacancy rate estimated at 0.9% (at time of survey administration).²² These are common problems in many large cities and some universities have prioritized on-campus housing for postdocs, either for their entire stay or as transitional accommodation while they look for longer-term housing. For example, at Stanford University, postdocs receive the highest priority for an on-campus apartment complex, and transitional housing is available.²³ Prioritizing affordable housing for UBC's postdoc community will align with the **UBC Housing Action Plan's** strategy *"to ensure that the still challenging local housing market does not become a barrier to UBC's recruitment and retention of exceptional talent."*²⁴

²⁰ Canada Mortgage and Housing Corporation, "Housing Market Information Rental Market Report: January 2023 Edition," January 2023, p. 14: <https://assets.cmhc-schl.gc.ca/sites/cmhc/professional/housing-markets-data-and-research/market-reports/rental-market-report/rental-market-report-2022-en.pdf>.

²¹ Village Gate Homes, "FAQs," accessed March 13, 2023, <https://www.villagegatehomes.com/faqs/>.

²² Canada Mortgage and Housing Corporation, "Rental Market Survey Data Tables," Rental market data, 2022, <https://www.cmhc-schl.gc.ca/professionals/housing-markets-data-and-research/housing-data/data-tables/rental-market/rental-market-report-data-tables>.

²³ Stanford University Office of Postdoctoral Affairs, "Housing," Prospective Postdocs, n.d., <https://postdocs.stanford.edu/prospective-postdocs/housing>.

²⁴ UBC Campus and Community Planning, "The University Community on Campus: UBC's Housing Action Plan" (University of British Columbia, 2018), p. 11: www.hr.ubc.ca/housing-relocation/files/HAP-Consolidated-Update-April-2018-BoG.pdf.

Considerations for Recommendation 3: Continuing advocacy

Nationally, the most significant sources of postdoctoral funding in Canada are Tri-Agency fellowships and stipends funded through supervisors' research grants. At the time of survey administration in 2022, the value of Tri-Agency postdoctoral fellowships had remained stagnant, with the annual CIHR Postdoctoral Fellowship Program stipend amount at \$40,000 since 2003.²⁵ In 2015, the NSERC Postdoctoral Fellowship Program increased its annual stipend from \$40,000 to \$45,000 and in 2018, the SSHRC Postdoctoral Fellowship Program increased its annual stipend from \$40,000 to \$45,000, which marks the most recent increase to Tri-Agency funding.

The stagnancy of Tri-Agency funding was one of the key findings identified by **the Advisory Panel on the Federal Research Support System**, established to advise on how best to modernize the federal systems supporting research in order to *“maximize the impact of investments and position Canadian researchers for success.”*²⁶ In their March 2023 report, the Panel called for

“I had to make the hard choice to leave my post-doctoral fellowship and academic trajectory due to financial reasons. I would encourage UBC to think about the stagnation of post-doctoral salaries and UBC's role in advocating for higher funding from CIHR and other external funders.”

significant increases in investments to granting councils by the Government of Canada, noting especially the recent inflationary pressures and the importance of supporting the future research workforce. Furthermore, the Panel recommended that postdoctoral and graduate funding increase to an internationally competitive level to maintain global relevance for Canadian science and research. Despite significant advocacy for such increases from universities, graduate student and postdoctoral organizations across Canada,²⁷ no significant increase was made to the Tri-Agency budget in the 2023 federal budget.²⁸ Recently, the 2024 federal budget tabled new investments (\$825M over 5 years) including an increase in the annual value of Tri-Agency postdoctoral fellowships to \$70,000 starting in 2024-2025.²⁹ The budget also includes investments (\$1.8B over 5 years) to the Tri-Agencies to increase research grant funding, also starting in 2024-2025. However, the full scope of these changes is still unclear. Continued efforts are

²⁵ Courtney Robichaud and Wishart, Andrea, “Support Our Science: The Need for Increased Graduate Students and Post Doctoral Scholars in Canada,” Canadian Science Policy Centre, November 2022, <https://sciencepolicy.ca/posts/support-our-science-the-need-for-increased-graduate-students-and-post-doctoral-scholars-in-canada/>.

²⁶ Government of Canada, “Report of the Advisory Panel on the Federal Research Support System,” Advisory Panel on the Federal Research Support System, p. 43, accessed April 24, 2023, <https://ised-isde.canada.ca/site/panel-federal-research-support/en/report-advisory-panel-federal-research-support-system>.

²⁷ Support Our Science, “Actions,” accessed October 13, 2023, <https://www.supportourscience.ca/actions>.

²⁸ “Budget 2023 a Missed Opportunity to Keep Canada Competitive in Science and Research” (Universities Canada, March 28, 2023), <https://www.univcan.ca/media-room/media-releases/budget-2023-a-missed-opportunity/>.

²⁹ Department of Finance Canada, “Budget 2024: Fairness for All.” Accessed May 1, 2024. <https://budget.canada.ca/2024/home-accueil-en.html>.

needed to ensure competitiveness to attract the best research talent, including postdocs, to Canada (and UBC).

Provincial and institutional funding: In British Columbia, the Michael Smith Health Research BC Research Trainee Program has provided postdoctoral fellowships in the area of health research since 2001. Recognizing the stagnancy of funding for research trainees in Canada, the agency has implemented increases to their postdoctoral stipends; in 2020, the stipend was increased from \$40,000 per annum to \$45,000 per annum and more recently in September 2023, the stipend was further increased to \$60,000 per annum.³⁰ Canadian citizens, permanent residents, and international postdocs are eligible to apply. However, fellowships are targeted to those working in health research.

There are very limited internal fellowships at UBC. UBC’s Killam Postdoctoral Research Fellowship is the largest program, with the number of awards offered every year varying between three and five. As previously described, UBC raised the Killam Postdoctoral Research Fellowship stipend from \$50,000 to \$60,000 CAD per year starting in 2023. **Table 3** provides a summary of the aforementioned national, provincial and institutional fellowships.

Fellowships	Annual Stipend Amount		Scaled
Institutional Fellowships			
	Pre 2023	2023 Onwards	
UBC Killam Postdoctoral Research Fellowship	\$50,000 CAD	\$60,000 CAD	No
Provincial Fellowships			
	Pre 2023	2023 Onwards	
Michael Smith Health Research BC Research Trainee Program	\$45,000 CAD	\$60,000 CAD	No
National Fellowships			
	Pre-2024 Federal Budget	Proposed in 2024 Federal Budget, starting in 2024-2025	
Banting Postdoctoral Fellowships	\$70,000 CAD	\$70,000 CAD	No
Canadian Institutes for Health Research	\$40,000 - \$50,000 CAD	\$70,000 CAD	No
Natural Sciences and Engineering Research Council of Canada	\$45,000 CAD	\$70,000 CAD	No
Social Sciences and Humanities Research Council	\$45,000 CAD	\$70,000 CAD	No

³⁰ “Unlocking Breakthrough Research: Health Research BC Funds 41 Research Trainees to Improve Health and Health Outcomes,” Michael Smith Health Research BC, September 21, 2023, https://healthresearchbc.ca/news_article/research-trainee-awardees-2023/.

Part 2 Summary

Postdoctoral fellows are integral to the research engine at UBC, but face many challenges and difficulties in staying at the University, and in the Lower Mainland. Establishing a minimum stipend with a rising scale that adequately recognizes experience and ongoing contributions will make UBC more competitive in attracting and retaining quality postdocs. Also relevant, particularly given the cost of living in the Lower Mainland, is prioritization for postdocs for on-campus housing. These strategic areas align with recent proposed and implemented increases in annual fellowship amounts at the institutional, provincial and national (Tri-Agency) levels. Altogether, consideration and implementation of a minimum stipend with rising scale will contribute to a thriving postdoc community and continue to propel UBC's Research Enterprise and mission.

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Appendix A: UBC Postdoctoral Fellows Finance Survey 2022

UBC Postdoctoral Fellows Finance Survey 2022

Welcome to the UBC Postdoctoral Fellows Finance Survey 2022, conducted by UBC's Postdoctoral Associations in collaboration with the Postdoctoral Fellows Office (PDFO).

The UBC Postdoctoral Associations will use the survey results to determine the range of incomes that UBC-appointed postdoctoral fellows receive, and whether compensation differs according to demographic characteristics. Additionally, the survey results will be used for advocacy work with the university moving forward.

The Postdoctoral Fellows Office will use the data collected from this survey to analyze how and from where UBC-appointed Postdoctoral Fellows are being compensated. This will help the PDFO better understand the salaries and salary sources of UBC's appointed postdocs.

Please note that no question in this survey is mandatory, but we ask that respondents complete all questions that they are comfortable with. Higher completion rates will ensure that we capture the most accurate picture of UBC's postdoctoral community.

We anticipate respondents to take 10 minutes, on average, to complete this survey.

Question and Response Format	Available Response(s)
<p>Which faculty are you appointed in? <i>Drop-down menu, single answer.</i></p>	<ul style="list-style-type: none"> • UBC Vancouver – Faculty of Applied Science (eg. Chemical and Biological Engineering, Medical Engineering, etc.) • UBC Vancouver – Faculty of Arts • UBC Vancouver – Faculty of Dentistry • UBC Vancouver – Faculty of Forestry • UBC Vancouver – Faculty of Land and Food Systems • UBC Vancouver – Faculty of Medicine • UBC Vancouver – Faculty of Pharmaceutical Sciences • UBC Vancouver – Faculty of Science (eg. Botany, Chemistry, Mathematics, Physics, Zoology, etc.) • UBC Vancouver – Peter A. Allard School of Law • UBC Vancouver – Sauder School of Business • UBC Okanagan – Faculty of Creative and Critical Studies • UBC Okanagan – Faculty of Health and Social Development • UBC Okanagan – Faculty of Management • UBC Okanagan – Faculty of Medicine, Southern Medical Program • UBC Okanagan – Irving K. Barber Faculty of Arts and Social Sciences • UBC Okanagan – Irving K. Barber Faculty of Science • UBC Okanagan – Okanagan School of Education • UBC Okanagan – School of Engineering

<p>Which department/unit are you appointed in?</p> <p><i>Free-form text box.</i></p>	
<p>What is the primary field of research that best matches your current position?</p> <p><i>Multiple choice, single answer.</i></p>	<ul style="list-style-type: none"> • Life sciences • Physical sciences /engineering • Social sciences / humanities • Interdisciplinary
<p>Which doctoral degrees have you earned?</p> <p><i>Multiple choice, multiple answer.</i></p>	<ul style="list-style-type: none"> • Research doctorate (PhD or equivalent) • Professional/clinical doctorate (MD, PharmD, DDS, etc.)
<p>Since your most recent doctoral degree, how many months have you worked in total (including previous appointments) as a postdoctoral fellow?</p> <p><i>Multiple choice, single answer.</i></p>	<ul style="list-style-type: none"> • Less than 12 • 12-23 • 24-35 • 36-47 • 48-59 • More than 60
<p>Since your most recent doctoral degree, how many postdoctoral appointments have you held in total, including your current one?</p> <p><i>Sliding scale.</i></p>	<p>1 2 3 4 5 6 7 8 9 10</p>
<p>What is your year of birth?</p> <p><i>Drop-down menu, single answer.</i></p>	<ul style="list-style-type: none"> • Drop-down range from 1920 to 2015
<p>Were you a citizen or permanent resident of Canada prior to being hired for your current postdoctoral position?</p> <p><i>Multiple choice, single answer.</i></p>	<ul style="list-style-type: none"> • Yes • No
<p>What is your current country of citizenship?</p> <p><i>Drop-down menu, single answer.</i></p>	<ul style="list-style-type: none"> • Drop-down box of 193 country selections generated by Qualtrics.
<p>If you hold citizenship in another country, please indicate this country:</p> <p><i>Free-form text box.</i></p>	
<p>How would you best describe yourself?</p> <p><i>Multiple choice, multiple answer.</i></p>	<ul style="list-style-type: none"> • Black, African American • Caucasian, White • East Asian • First Nations, Inuit, Métis • Hispanic, Latinx • Middle Eastern, North African • Pacific Islander • South Asian • Southeast Asian • Other, please specify:
<p>What sex were you assigned at birth?</p> <p><i>Multiple choice, single answer.</i></p>	<ul style="list-style-type: none"> • Female • Male

	<ul style="list-style-type: none"> • Intersex 	
What is your current gender identity? <i>Multiple choice, single answer.</i>	<ul style="list-style-type: none"> • Woman • Man • Indigenous or other cultural gender (e.g. two-spirited) • Non-binary • Gender fluid • Prefer not to say 	
What do you consider your sexual orientation to be? <i>Multiple choice, single answer.</i>	<ul style="list-style-type: none"> • Heterosexual • Homosexual • Bi/pansexual • Asexual • Other (text response) • Prefer not to say 	
Do you consider yourself to have a disability? <i>Multiple choice, multiple answer.</i>	<ul style="list-style-type: none"> • Yes – physical disability • Yes – mental disability • No 	
Are you in the first generation of your family to obtain a university degree? <i>Multiple choice, single answer.</i>	<ul style="list-style-type: none"> • Yes • No 	
How many financial dependents do you have? <i>Numerical entry.</i>	<u>Dependent Type</u> Children in Same Household Spouse/Partner in Same Household Other in Same Household Other in Different Household Total	<u>Number</u> Auto-Sum
What is/are the source(s) and the amount(s) of your current income on an annual basis in Canadian Dollars (CAD)? Please round to the nearest dollar. <i>Please use the format 00,000</i> <i>Numerical entry.</i>	<u>Funding Source</u> External Fellowship (eg. TriCouncil, Mitacs) Killam Fellowship Stipend from PI UBC: Teaching UBC: Other service Other If other, please specify funding sources: TOTAL INCOME (all sources)	<u>Total</u> \$0 \$ \$ \$ \$ \$ Text Entry Field \$
If you have been at UBC for more than 12 months, have you experienced a change in your income during your time here? <i>Multiple choice, single answer.</i> If 'Increase' or 'Decrease' is selected:	<ul style="list-style-type: none"> • Increase • No Change • Decrease • Not Applicable 	

<p>What was the reason for the change in income?</p> <p><i>Free-form text box.</i></p>	
<p>Do you have any additional comments that you would like to share with the PDAs/PDFO regarding this survey?</p> <p><i>Free-form text box.</i></p>	
<p>Thank you for taking the time to participate in this survey. Would you like to be entered into the draw for the chance to win one of three gift cards worth \$25 each? These data will be collected separately from the main survey, ensuring anonymity.</p> <p><i>Multiple choice, single answer.</i></p>	<ul style="list-style-type: none"> • Yes <ul style="list-style-type: none"> ○ Response opens a separate prize draw survey in a new window and submits survey. • No <ul style="list-style-type: none"> ○ Response submits and terminates survey.