

Report on the financial situation of McGill Physics graduate students

From the results of a survey conducted in July & August 2022

McGill Graduate Association of Physics Students (MGAPS)

27 January 2023

1 Overview

Stipends are the primary source of income of graduate students in the Department of Physics. While rent, cost of living and tuition fees increase over time, the student stipend is not guaranteed to follow; students are not unionized, and so no collective agreements are signed. This enables situations where the stipend stagnates and students become *poorer* over the course of their studies. For example, while the stipend was increased from \$15,200 to \$18,200 from academic year 2011-2012 to 2015-2016, the stipend was not reviewed and did not see an increase over the next *five years*.

In March 2021, a committee formed by students and faculty reviewed the rising cost of living in Montréal and proposed that (1) the stipend be raised, to \$20,500 in the 2021-2022 academic year, as would have been reached if a 2.0% increase had been applied every year since 2016-2017, and (2) the stipend receive a guaranteed 2.0% increase per year, with a review each year to determine if this amount was adequate. The solution adopted in the end was a retroactive raise to \$20,100 in 2020-2021, followed by \$20,500 in 2021-2022, \$20,900 in 2022-2023, and \$21,300 in 2023-2024 (1.99%, 1.95%, and 1.91% increase, respectively).

Entering the third year of the COVID-19 pandemic, the financial situation in Canada in 2022 was unanticipated. Inflation in Québec reached 8% in June 2022¹. The agreed-upon \$400 increase was deemed insufficient, and several students voiced their concerns. A team led by graduate students Tim Hallatt, Matheus Pessôa, and Nick Vieira tackled this problem in July and August 2022 on behalf of the McGill Graduate Association of Physics Students (MGAPS). The approach to this problem was data-driven: we conducted an anonymous survey to assess the financial situation of students in the Department of Physics. We asked questions covering the topics of:

- rent,
- ability to save money,
- workload and hours,
- transportation and commute,
- housing and dependants, and,
- pay and how it affects students' ability to work and likelihood of remaining in their field.

A total of $N = 107$ students responded to this survey. This represents *over 50%* of all graduate students in the Department. This is an unprecedented response rate for any survey or vote organized by MGAPS, and was reflective of the fact that we were facing significant challenges. We collected both quantitative and qualitative data, including the opportunity for students to anonymously share comments, questions, or concerns regarding their financial situation. The responses to this free-form qualitative section were alarming, with students frequently mentioning thoughts about leaving the program due to their financial situation or even food insecurity. While this survey was in circulation, stipends became a common topic of discussion at informal events such as the daily coffee & cookies at the McGill Space Institute. These themes emerged in those settings as well.

¹<https://statistique.quebec.ca/en/document/consumer-price-index-cpi>

We presented this data at a Department faculty meeting on the 11th of August 2022. At this meeting, we argued that the projected increase was insufficient, and proposed a temporary solution to counter the rampant inflation and skyrocketing rents being faced by students: **a one-time, emergency, variable top-up to bring all students up to a stipend of \$24,000 per year**. This would amount to an extra \$3,100 for students on the base stipend, \$0 for students with awards or scholarships which already put them above \$24,000, and in between for those in between those two cases. We asked for this solution to be implemented by Winter 2023 at the latest. A friendly amendment to the proposal suggested that this solution should be implemented earlier, in Fall 2022. The faculty voted in favour of this proposal with this amendment, and it was accepted. These top-ups were rapidly disbursed over the Fall term, thanks in large part to the tireless administrative staff of the Department.

In the following, we present the results which motivated our negotiations with the Department. We discuss rent and students' (in)ability to save in Section 2, sources of income and working hours in Section 3, and the impact of finances on graduate students in Section 4. In Section 5, we present a breakdown of student funding. At the end of each section, we include relevant written testimonies. In Section 6, we interpret these results and motivate our negotiations with the Department. Finally, we conclude in Section 7.

We are now working to implement a longer-term solution and negotiate a permanent raise to the stipend and a guaranteed % increase in the coming years. We release this report alongside a new survey which will support these endeavours. This document should serve as both a reference and an example of the importance of an active, organized graduate student body. We hope that this report is also useful to other departments who are interested in conducting similar surveys to improve their situations.

2 Rent & savings

2.1 Evolution of rent

Monthly rent is the primary expense for most graduate students, and for some students amounts to over 50% of their income. While Montréal offers cheaper rent than other cities in Canada, rents saw an uncharacteristically large increase throughout the COVID-19 pandemic. Figure 1 shows the evolution of monthly rent over the 2020-2021, 2021-2022, and 2022-2023 academic years (past, present, and future, at the time of conducting the survey). **In 2021-2022, on average, students paid \$756 more in rent than in the previous year. This represents a 7.7% increase.** The \$400 stipend increase was thus insufficient to cover this increase, let alone other rising costs of living. Similarly, in the 2022-2023 academic year (the coming year, at the time of the survey), students anticipated paying \$329 more in rent over the course of the year. This represents a 3.1% increase. Given other rising costs of living and the extreme inflation over this period and up to the time of writing, the \$400 stipend increase would have once again been insufficient.

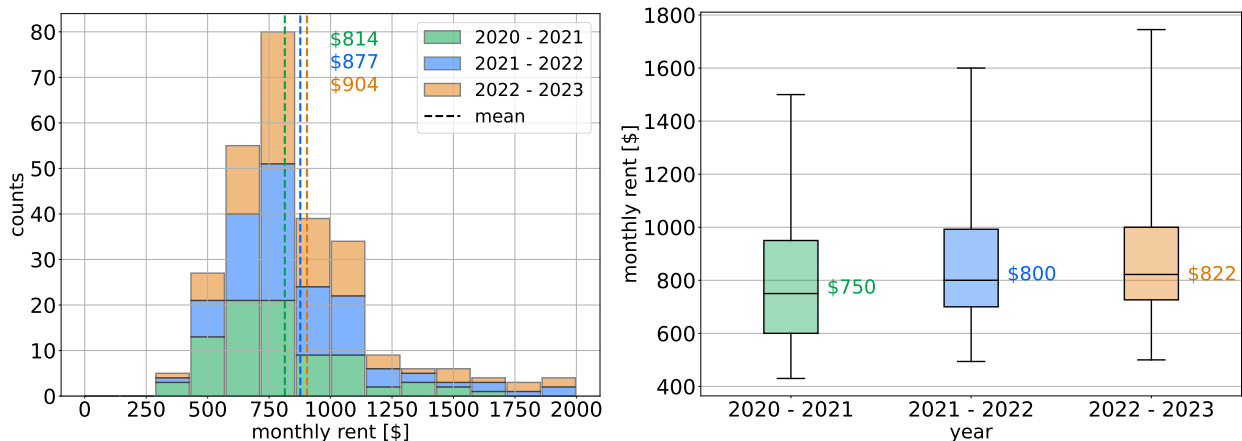


Figure 1: Evolution of monthly rent in the 2020-2021, 2021-2022, and 2022-2023 years (past, present, and future, at the time of conducting the survey). **Left:** Stacked histograms showing the evolution of rent. **Right:** Aggregate statistics showing the median, 2.5% percentile, and 97.5% percentile rents each year. Median, mean, minimum, and maximum rents have all significantly risen.

The increases in rent over the course of the pandemic greatly exceed the rates set forth by the government of Québec.² Students who are unaware of their rights as tenants have evidently been taken advantage of

²<https://www.tal.gouv.qc.ca/en/news/calculation-of-the-2022-rent-increase>

over the course of the pandemic. Note also that these increases were driven in part by an increase in abusive practices such as “evictions-for-profit” or “renovictions”.³ International students, which make up over 50% of the Department, may be placed in an especially precarious situation if they are less aware of their rights.

“I am steadily using my savings from home to be able to live in Montreal. The stipend is nowhere near enough to live here. It’s quite sad, to be honest.”

2.2 Saving money

We asked students how much money they are able to save per month. Shortsightedly, we did not allow students to enter any number on a continuum, but instead had them select from $\leq \$0$, \$100, \$200, ..., \$900, $\geq \$1000$. Nonetheless, we present results for this question in Figure 2. **We find that 49/107 students are unable to save any money or are losing money by depleting their savings over time.** This fraction is 45/103 if we exclude students living outside Montréal.

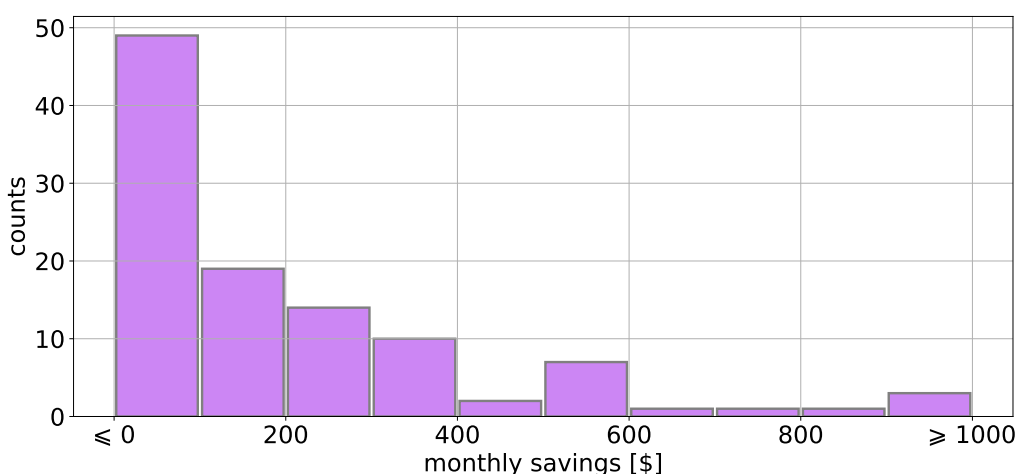


Figure 2: Students’ monthly savings. Note that students were only able to select $\leq \$0$, \$100, \$200, ..., \$900, $\geq \$1000$ as options in the survey. Nonetheless, 49/107 students indicated that they are either saving no money or are depleting their savings over time.

In Figure 3, we compare 2021-2022 monthly rent and monthly savings. There is an obvious anti-correlation between rent and students’ ability to save. Importantly, most students paying the average rent (or more) during this period were unable to save any money or depleted their savings over time.

“... I can also save almost nothing so I can never be prepared for any unexpected expense.”

“My weekly food budget allowed me this week to purchase of a single loaf of bread and one bag of chips and some coffee grains. I am very hungry. The amount of money I am able to save per month is in the negatives.”

“In an uncertain time of COVID pandemic, I’m constantly worried that falling sick even once will leave me with close to no savings and negatively impact my research and life in Montreal.”

<https://www.tal.gouv.qc.ca/en/calculation-for-rent-increase>
³<https://montreal.ctvnews.ca/tenants-group-calls-for-vigilance-against-rent-hikes-in-quebec-in-2022-1.5747186>
<https://montreal.ctvnews.ca/housing-evictions-in-quebec-have-increased-for-second-straight-year-says-housing-rights-group-1.5706829>

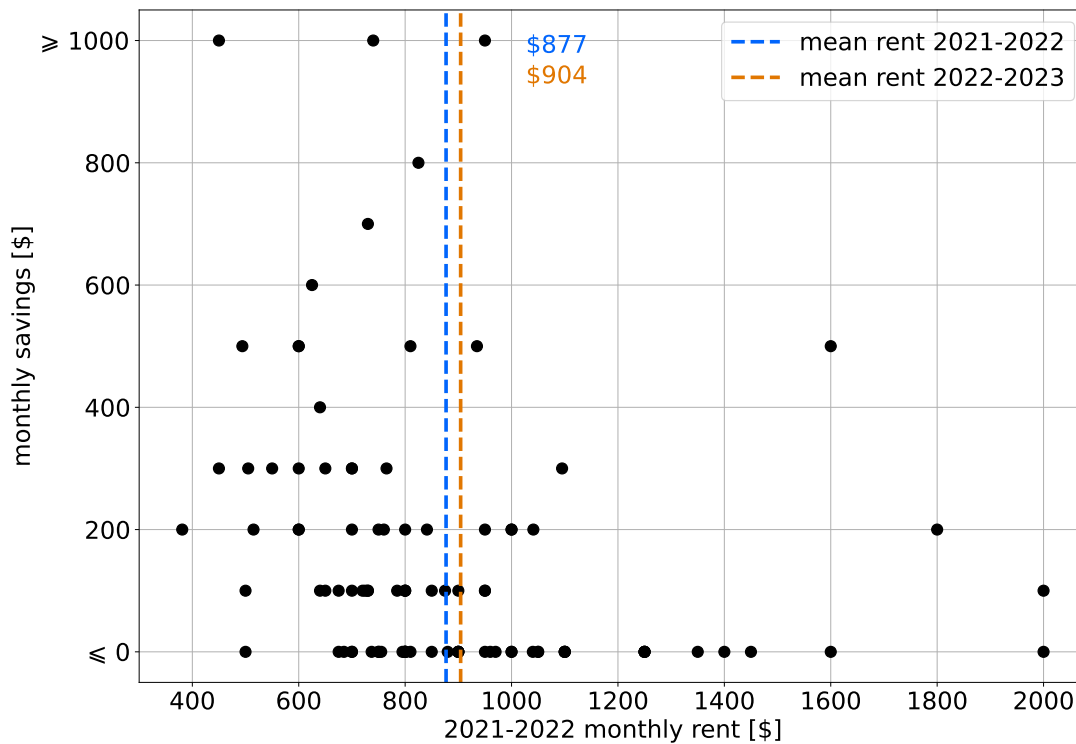


Figure 3: Students’ monthly savings as a function of their rent in the 2021-2022 year, *i.e.*, the current year at the time of conducting the survey. Recall that students were only able to select $\leq \$0$, $\$100$, $\$200$, ..., $\$900$, $\geq \$1000$ as options for their monthly savings. Nonetheless, there is a clear anti-correlation between monthly savings and rent, and the majority of students at or above the mean 2021-2022 rent are either unable to save money or are depleting their savings over time.

3 Work & money

3.1 Sources of income

We next aimed to understand where students are currently working. Unsurprisingly, we find that $86/93 = 92.5\%$ of students also work as teaching assistants (TAs).⁴ $3/93 = 3.2\%$ of students also have a non-TA, non-research source of income. The graduate student stipend is evidently the primary source of income for most students, while most students also TA to cover the cost of tuition (see Section 5). However, some students work additional jobs, or have considered doing so.

“... As someone who doesn’t come from a super wealthy family, I’ve always felt like this put me at a disadvantage financially as many of my peers were receiving 1000s of dollars in support from their parents. Meanwhile I’m struggling to make ends meet and working 2 side jobs. ...”

“... Personally, I am currently living paycheck to paycheck and considering getting another job on weekends to make ends meet.”

3.2 Hours

We find that $96/104$ students, nearly all, work at least 35 hours per week.⁵ Moreover, half of all students in the department work more than 41.2 hours per week, with the average student working 44.5 hours. Over a third, $40/104 = 38.5\%$, work over 50 hours per week. Finally, $13/104 = 12.5\%$ of students work over 60 hours per week.

⁴14 students did not respond to this question.

⁵3 students did not report their hours.

We note that the question we asked was: “Approximately how many hours do you work per week?”. It is thus possible that some students included both research and TA work in their calculation. However, TA’ships in the Department of Physics are only 90 hours per term, split over approximately 16 weeks. This is less than 6 hours per week and shifting the entire histogram by this amount under the assumption that every single respondent overestimated would not dramatically change the results.

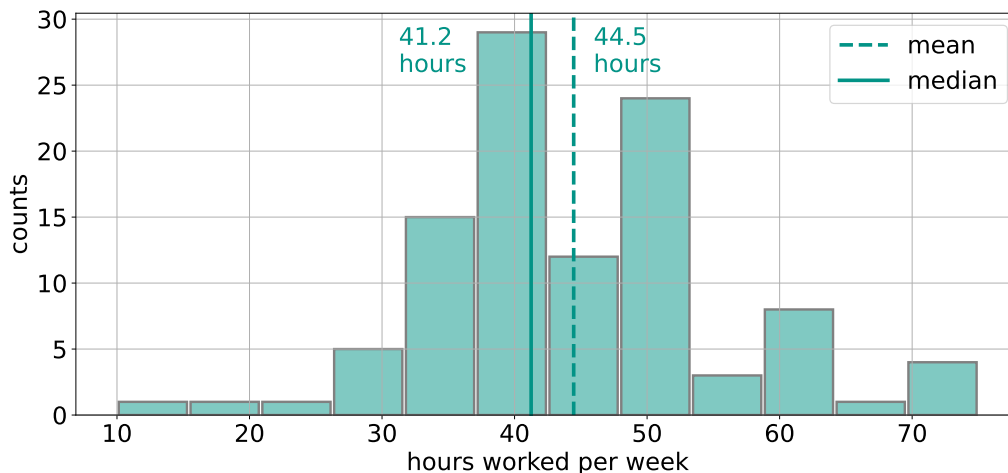


Figure 4: The number of hours worked by students per week. Half of students in the department work over 41.2 hours per week, while the average student works 44.5 hours.

“I think about dropping out of my PhD about every other week (often when a large bill is due) [...]. However, given that I work usually around 50 hours a week on my RA’ship I have no ability to bring in extra income. If I were to work <30 hours on my research I wouldn’t be able to get much done in the 3-5 years allotted for PhDs. It’s a terrible position to be in.”

4 Impact on graduate students

4.1 Living without dignity, impacts on research, and leaving academia

After asking the previous quantitative questions, we presented the following statistics:

1. **Inflation** in Québec, as measured by the Consumer Price Index (CPI), is currently $\sim 7.5\%$ ⁶ (<https://statistique.quebec.ca/en/document/consumer-price-index-cpi>); the rate in the U.S. hit a 40-year high of 9.1% on 13 July 2022 (<https://www.politico.com/news/2022/07/13/us-inflation-new-40-year-high-june-00045541>);
2. **Minimum wage** in Québec is **\$14.25 / hour as of 1 May 2022**, and is expected to rise to **\$15.00 / hour in May 2023** (<https://www.ledevoir.com/politique/quebec/693816/le-ministre-jean-boulet-voit-poindre-un-salaire-minimum-a-15-voire-plus>);
3. The required annual income for a single person to **live with dignity** in Montréal⁷ in 2021 is between **\$24,433 and \$32,607 (after taxes)**, depending on the community where they live (<https://montreal.ctvnews.ca/socioeconomic-research-institute-establishes-minimum-income-levels-to-live-with-dignity-1.5405235>)

And asked students to respond to a series of qualitative questions in light of these numbers. First, to assess students’ feelings about the projected stipend increases, we asked: “Do you believe that the projected stipend increases accurately reflect increasing inflation and cost of living?” The vast majority of students, 91.5% (Figure 5), do not believe that the projected stipend increases accurately reflect the increasing cost of living. This aligns with the observations in Section 2 that the projected \$400 increase barely covers projected increases in rent (which may be underestimated), let alone other rising costs of living.

⁶This was the rate of inflation in mid-July 2022.

⁷We mistakenly reported the range of numbers across Québec. The actual amount to live with dignity in Montréal is higher: closer to \$28,000.

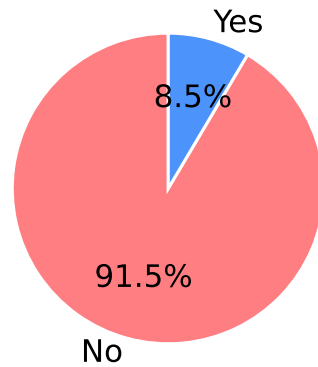


Figure 5: Responses to the question “Do you believe that the projected stipend increases accurately reflect increasing inflation and cost of living?” 91.5% of students do not believe that the projected stipend increases accurately reflect the increasing cost of living.

Next, students were asked: “Do you feel that you are ‘living with dignity’, as a student?” We find that approximately 2/3 of students (62.3%; Figure 6) feel they are not living with dignity. Feelings of not living with dignity may arise from frequent financial worries. Students were asked: “How often do you worry about your financial situation?” We find (Figure 6) that nearly 70% of students “always” or “often” worry about their financial situation, with the majority worrying “always”. Only 8.4% “rarely” worry about their finances. Students were given the option to select “never”, but no students selected this option.

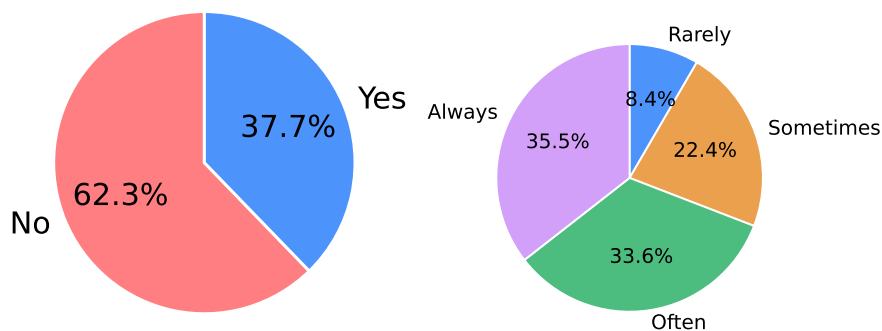


Figure 6: Assessing students’ feelings of living with dignity and their financial worries. **Left:** Responses to the question “Do you feel that you are ‘living with dignity’, as a student?” Approximately 2/3 of students (62.3%) feel they are not living with dignity. **Right:** Responses to the question “How often do you worry about your financial situation?” Nearly 70% of students “always” or “often” worry about their financial situation, with the majority worrying “always”. 8.4% “rarely” worry about their finances. Students were given the option to select “never”, but no students selected this option.

Finally, we assessed the impact of financial worries on students’ research. Students were asked: “Is your financial situation negatively impacting your ability to effectively carry out research?” Approximately 2/3 of students report that their ability to carry out research is negatively impacted by their financial situation (Figure 7). Financial worries and feelings of not conducting effective research can impact students’ decision to continue in academia. To this end, we asked: “Is your financial situation impacting your decision to remain in physics/astrophysics research in the future?” Nearly half (47.1%) of students report that their financial situation significantly impacts their decision to remain in their field. Only 13.1% report that their decision is not impacted by their finances.

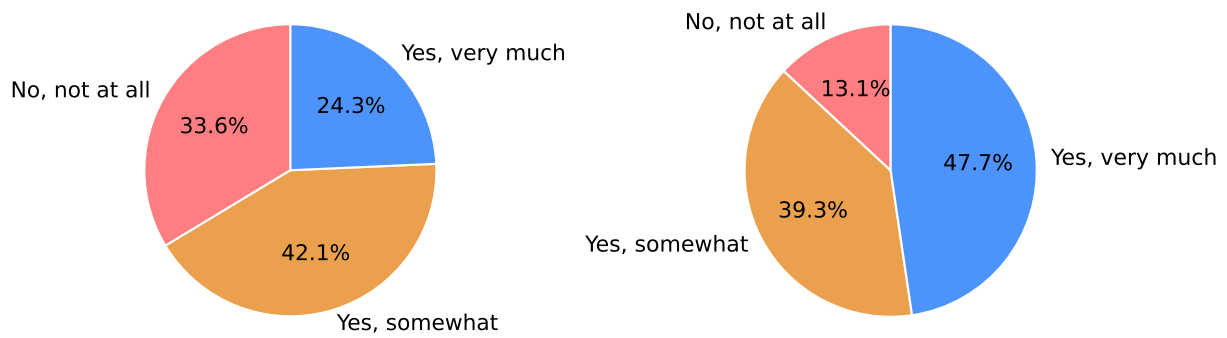


Figure 7: Assessing the impact of financial worries on students’ research. **Left:** Responses to the question “**Is your financial situation negatively impacting your ability to effectively carry out research?**” 2/3 of students report that their ability to carry out research is negatively impacted by their financial situation. **Right:** Responses to the question “**Is your financial situation impacting your decision to remain in physics/astrophysics research in the future?**” Nearly half (47.1%) of students report that their financial situation *significantly* impacts their decision to remain in their field. Only 13.1% report that their decision is not impacted by their finances.

“I could take any minimum wage job and have a healthier lifestyle (time to cook well, exercise, take time for mental health care, no academic guilt) and still earn more than I do. We are promised well paying jobs when we graduate, but I am graduated. I am skilled. Yet I cannot make savings, I have to pay tuition though I am not taking classes etc., as an international student I cannot have a credit card with more than \$1000, all I do is worry about money. BOTH pay cheques this month have been late. Academia feels like I fell for a giant pyramid scheme. I can’t wait until I’m free of it.”

4.2 Testimonies

After collecting qualitative data, we asked students for any general questions, comments or concerns to be shared with MGAPS and/or the Department. A complete list of testimonies is included in Appendix B. Examining all testimonies, they shed light on several issues—we highlight those issues and corresponding testimonies here:

- **Students experience frequent thoughts about dropping out or leaving academia:** *“... If this pattern continues, I think I have to consider quitting McGill or quitting physics at all; or consider becoming a food deliver guy after the work – what a fantastic and diverse life.”*
- **Students are accruing debt, are unable to save money, and have no safety nets in case of emergencies:** *“... I budget carefully and manage to get by, but I know most students in my group are either going into debt during their studies or are receiving family support.”*
- **Students feel frustrated regarding tuition, especially those who do not take courses; some students feel they are not being fairly compensated:** *“it should be remembered that we also have to pay tuition: I pay ~ 4k a year in order to get the stipend...”* ; *“... Tuition for research based students makes no sense anyway. Why am I being charged for working. ...”*
- **Some students are facing food insecurity:** *“I am forced to make sacrifices with regards to the groceries I get and the food I eat, such as sacrificing protein in my diet if I have even a minor unexpected expense of around \$50-75. I also have to almost never get coffee or lunch out, and if I don’t have the energy to make myself a meal, I am forced to eat something like instant ramen or just go hungry, since even spending \$15 on a meal is quite stressful.”*
- **The inadequate stipends exacerbate inequities between different students based on their background and/or family situation:** *“Financial compensation is also an equity issue, not all students have the same backgrounds or needs”*; *“... I’ve also noticed wealth disparities between graduate students that many professors are not aware of. Some students have families that can afford to pay their \$1400 rent every month for them while others make more than their families in their home countries as grad students. This then becomes an EDI issue. ...”*
- **The quality of research in the department is lowered due to significant financial stresses on students:** *“Good research cannot be performed if I have to choose between buying food/making rent/paying*

required bills and “luxuries” like anything beyond what our insurance costs, like new glasses every two years. ...”

These alarming testimonies, in addition to the quantitative data, motivated our negotiations with the Department.

5 Breakdown of funding

Before proceeding to discussion of the results and ensuing negotiations, we present a breakdown of student funding which motivated those negotiations.

The previously agreed-upon stipend in 2022-2023 was \$20,900, up from \$20,500 in 2021-2022, up from \$20,100 in 2020-2021 (following the retroactive pay increase). In Table 1, we calculate students’ net funding given this \$20,900 stipend. We highlight two key points:

1. A TA’ship for both Fall and Winter terms approximately matches the cost of tuition and insurance fees to within \$100 for Canadian students, effectively cancelling each other out. **Thus, the stipend is what students take home, and the quantity which should be negotiated.**
2. **A TA’ship for both Fall and Winter terms is insufficient to pay for tuition and insurance fees for international students.** While international students’ tuition is partially subsidized to match those paying Canadian rates, the calculation of this subsidy does not account for the higher cost of insurance for international students. International students are ineligible for the Post-Graduate Student Society (PGSS) health insurance and must instead opt for the more expensive Blue Cross. **The result is that international students, who make up over 50% of the Department, make \$624 less per year.** Note also that while Canadian students may opt out of dental and/or health insurance, international students must be insured.

2022-2023 stipend		\$20,900
2022-2023 TA’ship (2 terms)		\$5,053.59
2022-2023 tuition		\$2,270.39 + \$2,145.51 = \$4,415.90
2022-2023 dental + health insurance	Canadian (PGSS)	\$200 + \$375 = \$575
	International (PGSS dental, Blue Cross health)	\$200 + \$999 = \$1,199
net annual income	Canadian	\$20,962.69
	International	\$20,338.69

Table 1: Sources of income and tuition/fees for graduate students. Tuition is the same for both groups due to departmental tuition subsidies which match international tuition to Canadian. Different insurance fees result in different net incomes for Canadian and international students. Note:

- (1) The TA income assumes a 15% tax.
- (2) The value originally reported for tuition was \$4,415.10, which was based on an estimate of the Winter 2023 tuition given the previous year and expected increase, as these were not known at the time in August 2022. The now-known value is only 80¢ larger.

6 Discussion

Key takeaways from the survey are:

- The 2020-2021 to 2021-2022 stipend increase did not account for the mean/median increase in rent, let alone other rising costs of living.
- The 2021-2022 to 2022-2023 increase would have similarly been inadequate.
- Approximately half of all students are unable to save money or are depleting their savings over time; those who do not have savings are going into debt.
- TA’ing for 2 terms almost exactly matches tuition & insurance fees for Canadian students, but is insufficient to cover the higher insurance fees for international students, who make up over 50% of the department.

- Research is a full-time commitment for students, even if one assumes that every single student has over-estimated their hours; the majority work over 40 hours per week, and more than a third work over 50.
- Insufficient compensation for students affects every aspect of the Department: students are less happy and less healthy, students frequently think about leaving academia, and the research output of the Department decreases in quantity and quality.

From the results of this survey, it was evident in Summer 2022 that the projected stipend increases were insufficient. This motivated our advocacy for a **one-time, emergency, variable top-up to bring all students up to a stipend of \$24,000 per year** (see Appendix A for the full text of the original proposal). The aim of this *temporary* solution was to provide financial relief to counteract rampant inflation and rising rents on a short timescale, given the urgency of students' situations. A permanent raise will be needed to solve this problem in the long-term, but, negotiating a permanent raise might have delayed any financial aid to the 2023-2024 year.

Importantly, this issue is not localized to the Department of Physics, nor McGill. At the federal level, student funding through National Sciences and Engineering Research Council (NSERC) and other funding agencies **has not increased since 2003**⁸. The Minister of Innovation, Science and Industry of Canada, François-Philippe Champagne, has acknowledged some of these issues, following a rally by Support our Science⁹ in Fall 2022 to include increases to science funding in federal budget considerations. Despite the success of Support our Science in getting the attention of the federal government, there have been no direct solutions to student funding issues in the federal budget to date. This follows a similar call for science funding in 2017, where the Advisory Panel on Federal Support for Fundamental Science was formed to review federal support for science agencies. Though this panel came to the conclusion that science funding needed to increase rapidly, the federal budget of 2018 did not meet the recommendations of the panel. The inadequate funding for early career researchers is not unique to Canada, and reports of similar financial issues are available for early career researchers and graduate students in the United States¹⁰.

Indeed, while the Canadian government is aware of the imminent need to increase funding for science researchers, progress has not been made on incorporating these items into the budget, nor distributing funds to funding agencies. **Institutional stipend increases are essential for supporting students during times in which federal budgets lag behind what is required for us to live with dignity.**

7 Moving forward

The emergency stipend top-up distributed in Fall 2022 provided much-needed financial relief to many graduate students. However, inflation remains high and rents continue to increase. Inflation remains at 6.3% in Québec as of December 2022¹¹. The graduate stipend should *at least* increase with inflation on a consistent, yearly basis so that students are not faced with an effectively decreasing income every year. It is also imperative that these increases continue to happen each year in lieu of emergency top-ups, so that students are not faced with the financial stress of worrying that they may become *poorer* over the course of their studies, nor the burden of having to frequently renegotiate their stipends.

We release this report in anticipation of another survey, which will be used to inform negotiations of a *permanent* raise to the stipend for the 2023-2024 academic year and beyond. This new survey will expand on the previous one using the lessons we have learned from conducting the previous survey and preparing this report. We reiterate that the success of the emergency top-up would not have been possible without all of us answering the survey, speaking openly about our concerns, and taking collective action. As early career researchers, graduate students are the lifeblood of the Department of Physics. We invite you all to join us in this next step in improving the department for ourselves, our lab mates, and future physicists to come.

Acknowledgements

The original collection of data and ensuing negotiations were led by Nick Vieira, Matheus Pessôa, and Tim Hallatt. This report was prepared by David Gallacher, Matheus Pessôa, Nayyer Raza, Nick Vieira, and Sam Wong, on behalf of the McGill Graduate Association of Physics Students. We thank all students who took the time to respond to this survey: their responses illuminated serious issues in the department and ultimately made these negotiations successful. We are also grateful for all the candid discussions with students, faculty, and staff which took place in the Summer of 2022; these guided and fueled our efforts. We thank Graduate

⁸https://can-acn.org/science-funding-in-canada-statistics/#NSERC_Statistics

⁹<https://www.supportourscience.ca/>

¹⁰<https://www.nature.com/articles/d41586-022-03472-3>

¹¹<https://statistique.quebec.ca/en/document/consumer-price-index-cpi>

Program Director Nikolas Provatas and Department Chair Sangyong Jeon for their support and allowing us to speak to the Department. We also thank a professor (who will remain unnamed) for making the friendly amendment to our proposal that the emergency funds be disbursed earlier, in Fall 2022, at the Department meeting. Finally, we are deeply grateful to the administrative staff for implementing the emergency top-up on exceptionally short notice.

A Original text of the proposal to the Department

Here, we include the original text of the proposal which was made to the Department at the August 11th 2022 meeting.

Solution

As a *temporary* solution to this crisis, we propose a **variable, needs-based emergency stipend top-up** for the 2022-2023 academic year, to be delivered by **Winter 2023 at the latest**, which brings **all students up to a livable income of \$24,000 CAD**.

This would be, at most, \$3100 for students on the base stipend with no awards or scholarships.

Rationale

- Not all students' needs are the same; the goal of this solution is equity
- The current / projected stipends are unlivable. All students will be able to make rent and save some money at this increased amount
- This solution will diminish inequities between students who come from wealthier families and those who do not
- This amount keeps pace with rising inflation. We are not asking for a raise, we are asking to be able to keep up.

[†]Given that 13.6% of students have a scholarship which puts them above \$24,000, for N=213 students, this costs the department an **upper limit** of \$570,400 in total. (Upper limit because this assumes all students make either > \$24,000 or the base stipend).

[†]These numbers were provided by the department.

B Testimonies

Prior to the 11 August 2022 meeting, all written responses to the survey were coded: dominant words, concepts, or themes were identified. A representative set of testimonies was selected and four broad themes were identified:

1. *Thoughts about dropping out,*
2. *Frustration regarding tuition,*
3. *Inability to save money & fear of emergencies or surprise expenses, and,*
4. *Food insecurity*

Here, we present these testimonies and indicate which theme they fell under in the presentation to the Department. Some testimonies could not be firmly placed in any one of the above categories but were presented anyways due to their relevance.

B.1 Presented to the department

Do you have any other comments, questions, or concerns which should be shared with us, or, shared with the department during discussions on the status of the graduate student stipend?	Theme
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¹² I think about dropping out of my PhD about every other week (often when a large bill is due) because of the difficulty [...] with an RA'ship and TA'ship (even with my partner's more reasonable income). However, given that I work usually around 50 hours a week on my RA'ship I have no ability to bring in extra income. If I were to work <30 hours on my research I wouldn't be able to get much done in the 3-5 years allotted for PhDs. It's a terrible position to be in.	(1)
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¹²This comment has been partially redacted to protect the anonymity of the respondent.

Honestly, the graduate student stipend at McGill has been one of the main factors in my decision to continue graduate school here. As an international student where flights are expensive, it is somewhat impossible to live on the salary without savings or help from family.	
I've also noticed wealth disparities between graduate students that many professors are not aware of. Some students have families that can afford to pay their \$1400 rent every month for them while others make more than their families in their home countries as grad students. This then becomes an EDI issue. As someone who doesn't come from a super wealthy family, I've always felt like this put me at a disadvantage financially as many of my peers were receiving 1000s of dollars in support from their parents. Meanwhile I'm struggling to make ends meet and working 2 side jobs. Obviously, this is something that could be greatly alleviated by raising the graduate student stipend	(1)
Tuition fee also rises ~ \$200 for 2022-2023 cycle. Given this fact, stipend only increases ~1% instead of 2% for the next year; which doesn't match the order of magnitude of the inflation rate. As an international student who have to pay extra health insurance and have less availability to other financial assistance, the only way I found that I can save a little money, is to restrain myself from any eating-out and social event. Cooking by myself on the weekend and freezing the leftover for my weekday meals is literally the ONLY way I find to survive in the city in year 2021-2022. Now the inflation is going like crazy but the stipend is not increasing, I don't even sure how to feed myself this year. If this pattern continues, I think I have to consider quitting McGill or quitting physics at all; or consider becoming a food deliver guy after the work – what a fantastic and diverse life.	(1)
The cost of tuition also increases. We have no saving for medical emergencies or medical necessities.	(2)
it should be remembered that we also have to pay tuition: I pay ~4k a year in order to get the stipend...	(2)
I think a point to be made should be as followed. The department/university in their letter of accept states financial support will be provided quoting both the stipend and the ta ship. The combined quantity of this is roughly enough to meet (minimum of) condition 3. In other words the issues about living conditions could be easily met with the funding provided as is. The problem is this is a misleading statement as the university will charge almost the same amount of the ta ship for tuition. In other words TAships are providing the university with essential free labour. Tuition for research based students makes no sense anyway. Why am I being charged for working. No company/industry job charges you for working there. In fact any of those position would pay more but that's not I'm making here. The heart of this problem is students are feeling cheated of the financial support they were promised and did the work for. If the university wants to claim they are providing fair financial support either raise the stipend, ta ship, and/or lower tuition such that condition 3 is always met.	(2)
Any emergency/medical/travel expenses would have to come from personal savings since the stipend is spent entirely on my monthly cost of living	(3)
Good research cannot be performed if I have to choose between buying food/making rent/paying required bills and "luxuries" like anything beyond what our insurance costs, like new glasses every two years. I budget carefully and manage to get by, but I know most students in my group are either going into debt during their studies or are receiving family support.	(3)
I am steadily using my savings from home to be able to live in Montreal. The stipend is nowhere near enough to live here. It's quite sad, to be honest.	(3)
I am forced to make sacrifices with regards to the groceries I get and the food I eat, such as sacrificing protein in my diet if I have even a minor unexpected expense of around \$50-75. I also have to almost never get coffee or lunch out, and if I don't have the energy to make myself a meal, I am forced to eat something like instant ramen or just go hungry, since even spending \$15 on a meal is quite stressful. I can also save almost nothing so I can never be prepared for any unexpected expense.	(4)
My weekly food budget allowed me this week to purchase of a single loaf of bread and one bag of chips and some coffee grains. I am very hungry. The amount of money I am able to save per month is in the negatives.	(4)
Due to the ridiculous inflation occurring right now, i do believe there should be some sort of temporary supplement to the stipend in addition to the usual fixed increase of \$400 per year.	-

Financial compensation is also an equity issue, not all students have the same backgrounds or needs	-
The reimbursement situation sometimes take a toll on monthly budget. We have more than thousand dollars invested for a conference and it exhausts are savings. It takes a long time for the money to return and in meantime we don't have reserve in case of an emergency. Stipend should take all of this into account.	-
I could take any minimum wage job and have a healthier lifestyle (time to cook well, exercise, take time for mental health care, no academic guilt) and still earn more than I do. We are promised well paying jobs when we graduate, but I am graduated. I am skilled. Yet I cannot make savings, I have to pay tuition though I am not taking classes etc., as an international student I cannot have a credit card with more than \$1000, all I do is worry about money. BOTH pay cheques this month have been late. Academia feels like I fell for a giant pyramid scheme. I can't wait until I'm free of it.	-

B.2 Other comments & testimonies

Some testimonies and comments were not presented to the Department due to time constraints. We include them here. Note that some testimonies have been omitted here because their inclusion would risk de-anonymizing individuals in the Department.

Do you have any other comments, questions, or concerns which should be shared with us, or, shared with the department during discussions on the status of the graduate student stipend?

I think PhD students should be given a higher stipend than MSc students, because of having to live with below minimum wage for a longer period of time – and it's usually around the time period where some students start to build a family (and if MSc students switch to PhD they get a higher stipend)

I think currently the financial situation of international students is often even worse than for Canadian students because there are so many additional costs like higher costs for health care,

...

I am in a privileged situation:

(1) I have a FQRNT scholarship. While I don't get enough to save much per year, the scholarship provides me with enough extra money that I don't worry about missing rent payment or not being able to afford groceries. I also have enough to indulge in my hobbies every once and a while.

(2) I share my living with my partner who has a salary job. This means that I do not have to share my living space with strangers/roommates. It also means that I have a large and comfy living space. It is a huge improvement from when I was living in a studio.

Because of (1) and (2), I believe that I have a higher than normal living standard for a student. Things were more uncomfortable before I was in situations (1) and (2).

Going into this PhD program without any other source of money for emergencies, would feel like the most stupid thing to do, financially speaking.

Tuition should be covered so that we can keep the entire stipend

The Phd program needs to be restructured to clarify if graduate students are 'students' or 'employees'. In Europe, graduate students are hired very much like employees to work on specific projects, offered a living wage with a well-defined end date for their contracts. The Phd program needs to be structured a similar way for us. After clearing the first year of course work and prelims, students should become employees of the Dept. with clearly defined work hours and contract-end dates which would result in timely completion of the program. Restructuring the program is critical to ensure healthy working conditions and ending the long history of never-ending Phds, and often toxic working environments arising due to student being used as cheap labour with little options for escape.

I experience less financial stress than a person who is single since I share expenses with a partner who is a working professional (making significantly more than a graduate student's stipend). If we were both graduate students things would be much more difficult.

I receive some financial support from my family which makes it possible for me to actually have some savings. Without it, my savings would be close to none as they would go to pay for medical insurance/care (international student). Going to an international conference only taking into account the money I get paid as a Grad student would literally leave me at 0 until I get reimbursed.

It's a very odd situation to be in. On the one hand, I'm getting a fully funded degree, and I genuinely don't mean to sound ungrateful. On the other hand though, I often feel like an indentured slave. No one forced me to do this, but the fact that a PhD has an average length of 5 years gives graduate studies a potent sunk-cost flavour. This combined with the uncertainty of future job prospects locks many PhD students into a state of depressed poverty. The fact is, I don't know a single PhD student who is happy and or financially secure, including those with scholarships.

If it's financially unfeasible for the department to significantly increase the base stipend, I would suggest that they either mandate that students secure additional funding as a "don't do this to yourself" precaution. Or offer part time programs / coops so that students can support themselves during their studies.

There is also the aspect of a deepening existential crises that compounds the above situation, which nobody really talks about. Our generation is apostatizing at a prodigious rate, throwing away traditional religious belief systems in favour of half-baked political ideologies - rather arrogantly I might add.

All things considered, the climate in grad-studies is grim, with many poor and miserable students who like to experiment with dubious and potentially dangerous systems of thought. It's a perfect storm really, and I'm sure that the situation is much worse in other departments.

If nothing else, my PhD has taught me to think harder about my life choices, which will hopefully be better in the future. Thank you for listening to my rant ;D and good luck with the survey!

Thank you for the work you're doing!

The value of stipend some times make me to change my PhD program or my university. Thinking all the times about financial issues does not allow to think concentrated about research. Also, I always wanted to stay in academia. Now, I doubted about my decision. unfrotunately!!!

Thank you for this initiative :)

I manage to feel like I'm living with dignity because I am a very positive person and feeling otherwise would simply be unbearable. That doesn't mean I shouldn't be adequately compensated for my work.

Thanks for setting up this very useful survey :)
400\$...!

In an uncertain time of COVID pandemic, I'm constantly worried that falling sick even once will leave me with close to no savings and negatively impact my research and life in Montreal. At the very least they could match the inflation rate.

The income we have from TA ship is \$5800 per year, and with the stipend together I could live with dignity. The reason I could do that is because my parents pay the tuition fee. If I also need to pay for the tuition fee by myself, I couldn't support myself. Also, as an international student, I would like to travel back to see my family once a year. My parents covered my flight tickets before, and I also couldn't afford them without my parents' help.

I should add that I'm marginally okay with the current stipend, only because I have savings from previous jobs and support from my partner who's working in industry. I think we deserve more for sure. My financial situation now also makes me less inclined to stay in academia after completing my degree.

I have been very privileged by friends and family assisting in my living and financial situation and should potentially be considered an outlier

I am especially concerned for incoming students who are not aware of their rights and will be paying rent which has been hiked hundreds of dollars past what it was prior to them moving in, in the Fall. Property owners have been introducing abusive rent hikes all over the city for the last 2 years. Inflation is >7% and rising in Quebec. Montreal's reputation as a 'cheap' city is no longer accurate and our stipend needs to reflect this.

Personally, I am currently living paycheque to paycheque and considering getting another job on weekends to make ends meet.

Is there any way to make the stipends more needs-based? Obviously, I'm happy for the extra money, but I feel like I have some colleagues that would receive much more benefit for the same increase.

I want to add the huge increase of rents in the past year that makes it very hard to rent a studio near mcgill with my current stipend.

with 9% inflation rate , more correct Potential solution of this issue would be to increase the (base amount) yearly stipend upto a reasonable number(26K at least), emergency top-up will only provides the temporary relief for limited period of time. !

We are supposed to be paid every month on the 1st and the 15th, however, it often happens that these days fall on a holiday/weekend meaning we rarely get paid on time. This month alone, I was paid on July 6th and 18th. Given that my rent is due every month on the 1st, getting paid consistently 3+ days late causes a great deal of stress.

I feel the stipend now is just enough for grads without any dependent to live in Montreal area in a frugal way. It does become harder when you have a child.

C Rent across the city

Students are primarily concentrated in two boroughs, Le Plateau Mont-Royal (33.7%) and Ville-Marie (26.0%), with some in Le Sud-Ouest (6.7%), Verdun (5.8%), and Villeray–Saint-Michel–Parc-Extension (4.8%). A full breakdown of where students live is given in Figure 8. The division of boroughs used in the cartographic data was taken from the official website of the City of Montreal: <https://montreal.ca/en/boroughs>, though some students put in other responses.

Unsurprisingly, rent is not uniform across the city. We show rent as a function of borough in Figure 9. Rent is highest in Le Sud-Ouest, though we caution that only 6.7% of students live in this borough and thus this result may be sensitive to outliers. Rent is second-highest in Le Plateau Mont-Royal, which, in contrast, houses the most students in the Department and is thus less sensitive to outliers.

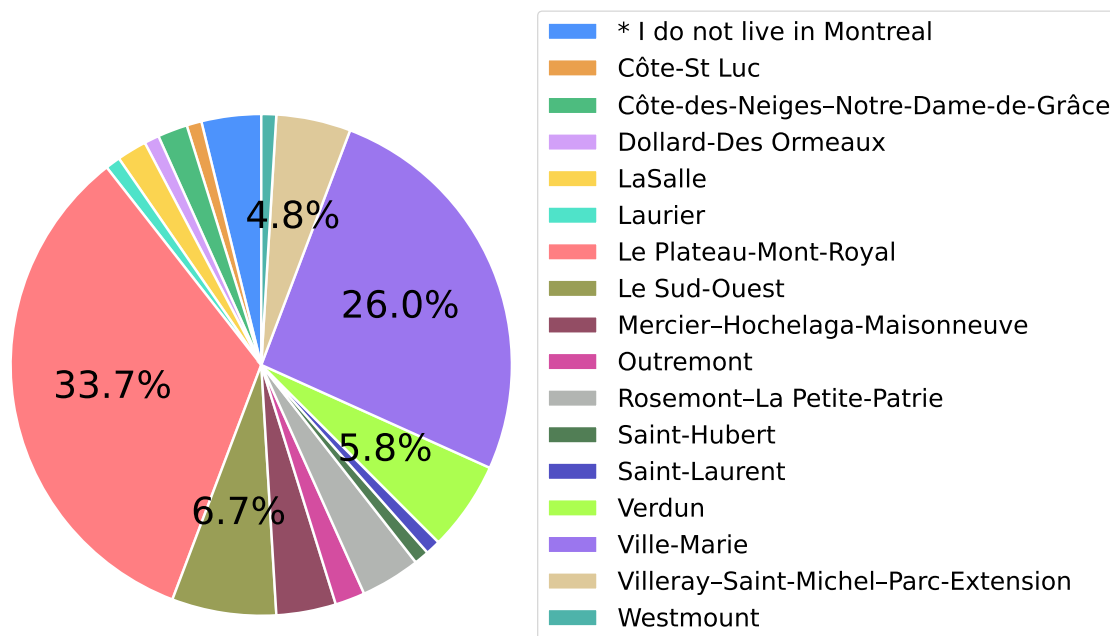


Figure 8: Boroughs or general neighborhoods in which students live. Students were given the option to choose any of Montreal's official 19 boroughs (<https://montreal.ca/en/boroughs>) or input their own response. For legibility, wedges have been labelled with their percentages for only the boroughs in which over 4% of students live: Le Plateau Mont-Royal (33.7%), Ville-Marie (26.0%), Le Sud-Ouest (6.7%), Verdun (5.8%), and Villeray–Saint-Michel–Parc-Extension (4.8%).

D Transportation & commute

Figure 9 also shows the cost of transportation, and the time spent in transit, as a function of borough. This data, as well as method of commute, is further broken down into histograms in Figure 10. Most students take the metro to work. This is also reflected in the median monthly cost of transportation (\$52), which is approximately the cost of a 1-month STM bus & metro pass.

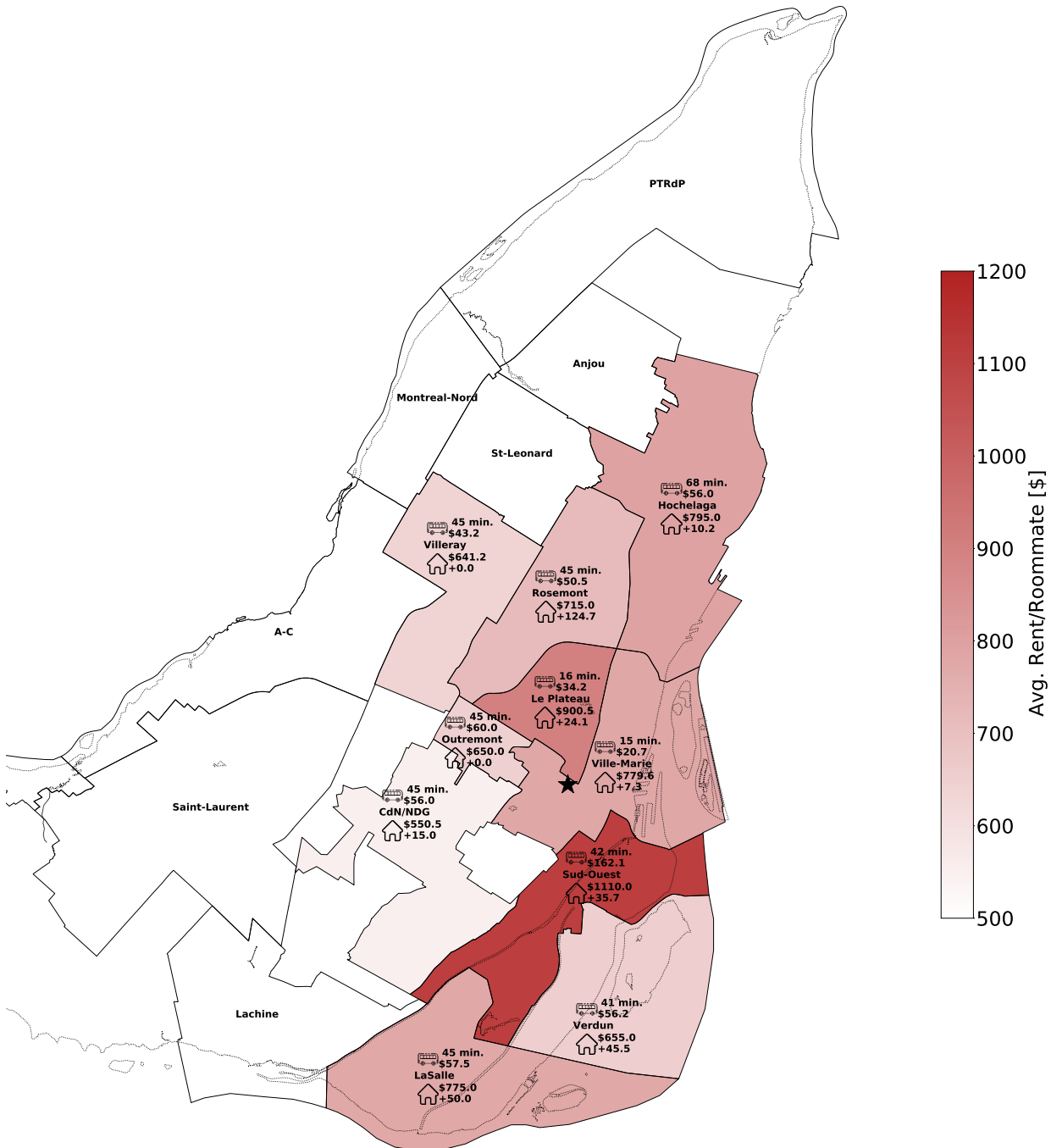


Figure 9: Rent and commutes across the city. Each borough is labelled with the average rent for 2022-2023 (normalized by number of roommates) and the increase with respect to the previous year. Also shown are the average cost of transit and average time spent in transit, for each borough. Values are omitted for boroughs which contain only one or no respondents.

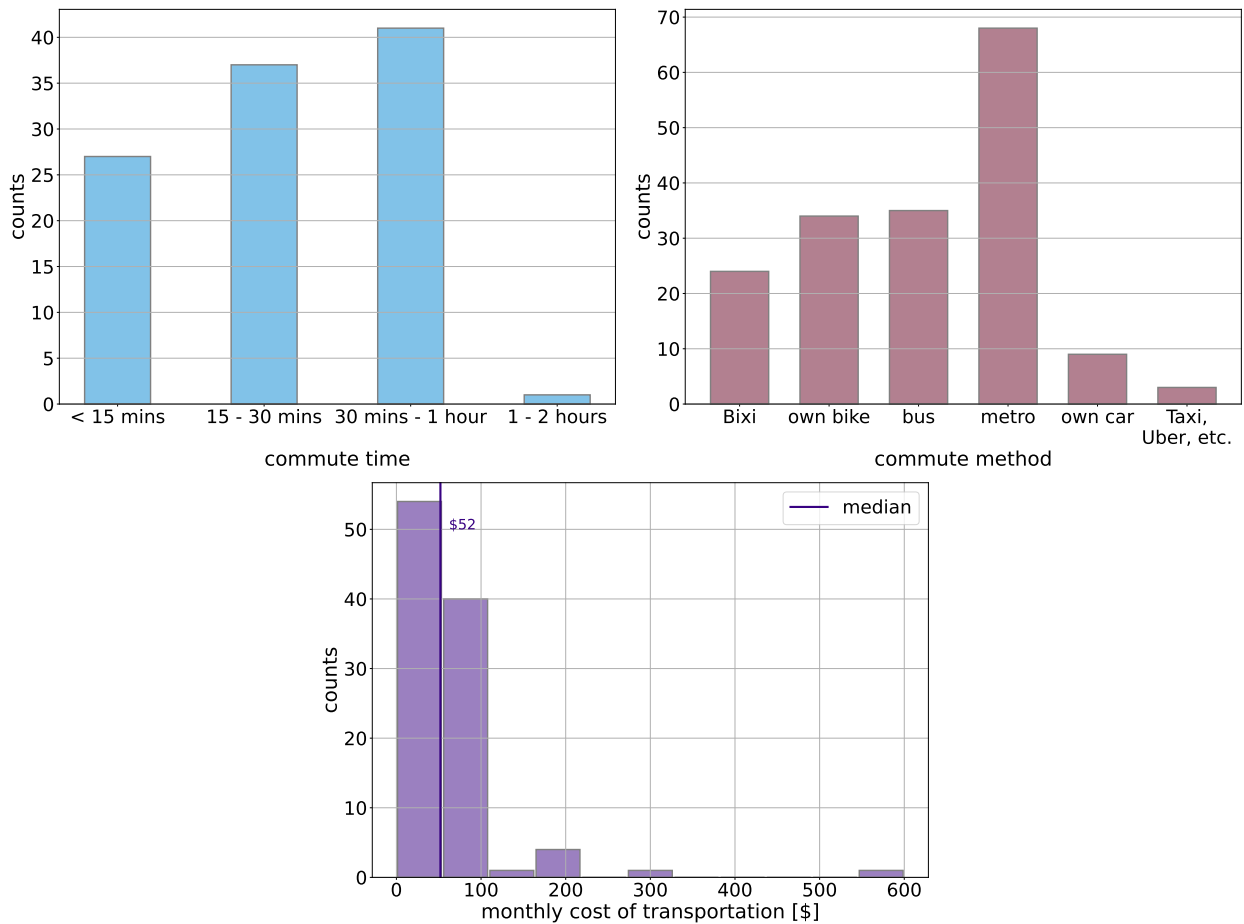


Figure 10: Students' commutes. **Top left:** Time spent commuting to work. **Top right:** Students' methods of commuting to work. Students were allowed to select multiple methods, if applicable. **Bottom:** Monthly cost of transportation, for all types of commute. The median \$52 is approximately the cost of a 1-month STM metro/bus pass at the time of conducting the survey.

E Housing & dependents

In Figure 11, we present students' housing situations. We find that the most common (27.4%) housing situation for students is a $4 - 1/2$ apartment ("four and a half": generally, two bedrooms, one kitchen, one living room, one bathroom). A $4 - 1/2$ apartment can accommodate two people, which aligns with the observation that a large number of students live with a single roommate. However, a significant number of students live in a $3 - 1/2$ (21.7%) or a studio (21.7%).

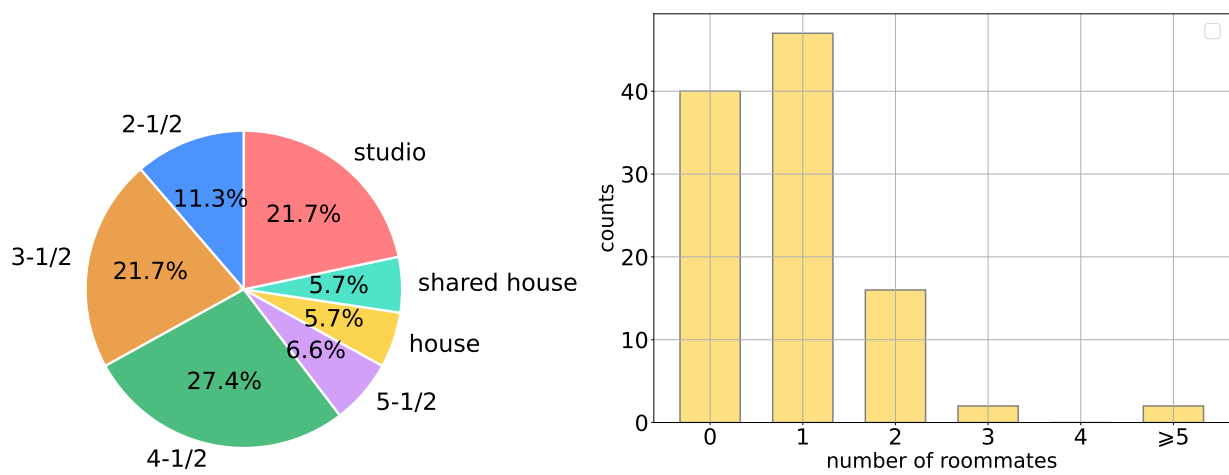


Figure 11: Students' housing situations. **Left:** The type of apartment in which students live. A $3 - 1/2$ (“three and a half”) apartment corresponds to one bedroom (+1), one living room (+1), one kitchen (+1), and a bathroom (+1/2); a $4 - 1/2$ contains one more room, and so on. **Right:** Number of roommates with which students live.