Stipend survival

Graduate-student pay levels mean tight budgets and inventive cost-cutting, but is the five-year pay freeze worth it? Kendall Powell calculates the bottom line.

Matt McNatt drives what he describes as a "third-generation, family hand-me-down" 1989 Chevrolet Caprice with 212,000 miles on the clock. It’s unreliable, so most days the third-year graduate student in cell biology bikes to his lab at the University of Colorado, Boulder. McNatt brings in US$1,791 a month and says one-third of that used to go on rent before he found more people to share housing costs with.

All over the world, graduate students stretch their take-home pay to cover daily living expenses. To make ends meet, students forgo or share cars, limit shopping to sales and take advantage of free campus activities. The low income leaves little room for savings or an extravagant lifestyle. While college friends may go on to high-paying ‘real’ jobs, graduate students face five years or more of living hand to mouth.

Not surprisingly, graduate student spending closely follows psychologist Abraham Maslow’s pyramid of needs: basic needs come first, followed by social needs — if there’s money left over. Most PhD candidates, however, find that the top two tiers of the pyramid, ego needs and self-actualization, remain out of reach.

LIVING LIKE KINGS ON THE CHEAP

Shelter is on the foundation layer of Maslow’s pyramid, and for most graduate students that’s what eats up the bulk of their pay. Buying a house is generally an unattainable goal, much less a source of additional income. But when Brook Brouha entered his MD/PhD programme at the University of Pennsylvania in Philadelphia about eight years ago, he shrewdly put $500 down on a house in a “slightly sketchy” area near the university. As a first-time buyer, he soon had a two-bedroom house with a $600 per month mortgage and rented out one bedroom for $425. Recently, Brouha moved out, took advantage of the lower interest rates to refinance the house, brought the mortgage down to $200 per month, then rented it to new tenants for $1,300 a month.

“The house made me rich in terms of grad student life,” says Brouha, now in his third year of medical school at the University of Pennsylvania. He also says the big financial risks of buying a house and investing in the stock market helped him take scientific risks in the lab in his stride. “Money never meant anything more than a concept — you are as rich as you feel,” says Brouha. “Ninety per cent of success is just walking in the door each day.”

Tale of two stipends

In 2003, the US National Science Foundation (NSF) raised the graduate stipend for its training grant programme to $25,000, making it competitive with the highest-paying departments in the country. Meanwhile, the US National Institutes of Health (NIH) graduate fellowship stipend for 2003 was $19,968. Jade Zee, a neuroscience PhD candidate at the University of Oregon in Eugene, says an awkward situation arose in her department, with graduate students in the same lab receiving different pay because of the different scope of their projects.

The NIH’s research training officer Walter Schaffer says his programme has set a goal of bringing the graduate stipend up to $25,000 by 2006. Schaffer admits that the programme lags behind other federal graduate fellowships. But the NIH funded 69% of all federal graduate awards in 2003, shouldering a much heavier burden than all other agencies.

The NSF, which funded 15% of federal awards last year, has taken a more aggressive stance. “We are trying to make going to graduate school competitive with other jobs,” says Lenore Clesceri, acting programme director for NSF training grants. The 2003 stipend has been set at $30,000.

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Principles of parsimony, from left: Jade Zee eats at recruitment dinners to save the food budget for her four-legged friends; Matt McNatt drives an elderly car that doesn’t always get there; Brook Brouha funds skiing trips through a wise housing investment.

Others look for ways to save on this biggest of expenses. Jade Zee, a sixth-year neuroscience student at the University of Oregon in Eugene, makes about $19,000 a year, but saves money on rent by living in subsidized graduate student housing (see Nature 421, 766–767; 2003). Frederic Laporte, a second-year student at McGill University in Montreal, Canada, lived in an ultra-low-rent district and saved enough to purchase a condominium this year.

His labmate Catherine Au, a third-year student, says that the province’s student-friendly stance and the city’s low cost of living drew her to the university. “My choice in McGill was that it is a first-class university and there was no financial burden.” The low cost of living in Montreal means that their stipend of about Can$14,500 (US$10,800) goes pretty far.

Transport comes a close second in the list of expenses, especially in places without a good public system. Andrea Sweigert jumped on an ad in her department for a free old car. She and another graduate student at Duke University in Durham, North Carolina, share it, using it to “go to Chapel Hill or go out on weekends”, she says. “It floats between our houses with a bike rack on the back and it works really well.”

Besides housing and cars, students find other ways to pinch pennies, such as shopping in the sales and being creative with leftovers. And those pennies go into the social calendar fund. Brouha has shown that, using a bit of cleverness and taking some risks, it’s possible for a postgrad to climb Maslow’s pyramid at least as high as ego gratification. He used his rental income to make trips to a friend’s house in Utah and go skiing nearby. Laporte manages about 20 rounds of golf a summer. The key, he says, is to choose cheap courses and tee times and ask for new equipment as Christmas presents. Zee says she takes advantage of free activities such as local hiking and department recruiting dinners. She spends her savings on her two biggest extravagances — Luna the black labrador and Jasmine the tuxedo cat.

WORTH VERSUS WEALTH

But not everyone gets by so swimmingly. In Sweigert’s biology department, the $16,000 teaching assistantships cover nine months’ salary, and only about half the labs pay students during the summer. Sweigert says students resort to extra teaching, mentoring jobs, or even being a dorm adviser to make ends meet. “They are spending 20 hours a week on something else, not working on their projects,” she says.

Stipends in ecology and evolutionary biology have typically been lower than in the biomedical sciences. It’s not uncommon for students to make up the difference with unsanctioned, non-campus work such as babysitting, yoga instruction or bartending. The discrepancy between biomedicine and the rest could be set to do an about-face, however, as a major US funding agency for non-biomedical science training recently set a markedly higher stipend level (see ‘A tale of two stipends’).

Even those doing reasonably well wouldn’t turn down a pay rise. Laporte acknowledges that, although he and many others see the system as somewhat exploitative, it would take “a worldwide strike” to change it. Many say that, compared to other professions, it’s hard to tell when training ends and cheap labour begins. “For the high qualification — after almost a decade at university — salaries are miserable, even as a postdoc,” says Christian Haering, a postdoc at the Institute of Molecular Pathology (IMP) in Vienna, Austria, where he also completed his PhD. Even so, it’s difficult to find any ‘starving students’ in the sciences. In fact, the IMP, funded by a private company, pays postgraduates a salary (with benefits) that is about €2,000 (US$2,542) more than stipends at Austrian universities.

In China, Rong Xu, a fourth-year genetics student at Fudan University in Shanghai, reports that his monthly stipend of 1,450 yuan (US$175) puts him just below the average city worker’s income of 2,000 yuan. Stipends at the Fudan–Yale Biomedical Research Center include supplements for housing and for lunch and dinner on days spent in lab.

TOP OF THE HEAP

But intellectual freedom and originality of research rank high among most postgrads’ explanations for why getting a doctorate is worth the low pay. Xu’s colleague, Congwu Chi, knows that you don’t need to get to the top of the mountain to reach the top of the pyramid. He realizes he could make a little more money working at a company, but says he can learn more in an academic lab. “In the company, I might only be responsible for one part of the work and just repeat this part every day.”

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