

Do First-in-Family University Students Experience Lower Subjective Wellbeing?

Kei te Pāngia te Ākonga ko ia te Tuatahi o te Whānau kia Haere ki te Whare Wānanga ki te Toiora Whaiaro Iti Iho?

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Editors' Note

The Stats NZ Jacoby Prize is awarded by the Population Association of New Zealand for the best paper on a population topic written during a course of university study. The 2025 Jacoby Prize winner is Adam Glucksman for his essay on the subjective wellbeing of first-in-family university students.

Abstract

As universities compete for more and more students, the proportion of students for whom neither parent has a university degree rises. Many overseas scholars see these 'first in family' (FiF) students as a risk, pointing to their lower wellbeing and higher attrition rates. This study asks whether FiF students in Aotearoa New Zealand also experience greater psychological distress than their peers whose parents have university backgrounds. I model wellbeing outcomes among first-year students at Victoria University of Wellington | Te Herenga Waka as collected by the YOU Student WellBeing Survey in 2019, 2020 and 2021 ($n = 4000$). My results indicate that, after controlling for covariates, FiF status alone does not have a statistically significant impact on any of the wellbeing measures. This study shows how demographic and socio-economic factors jointly influence wellbeing and counters the tendency to stereotype students whose parents do not hold a degree.

Keywords: wellbeing, university students, mental health, student data analysis, first in family

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Whakarāpopotonga

I ngā whare wānanga e whakataetae ana ki te whakamanea i te tokomaha piki tonu o ngā ākongā, he pērā te piki haere o te ōwehenga o ngā ākongā kāore tētahi o ō rātou matua i whai tohu whare wānanga. Kei te kitea aua ākongā 'ko rātou te tuatahi o te whānau' (FiF) hei mea tūraru, me te tohu atu i tō rātou toiora iti iho me te nui ake o ngā pāpātanga wehe i mua i te otinga o te tohu whare wānanga. E rapu nei tēnei rangahau mēnā ka pāngia ngā Akonga FiF i Aotearoa e te auhi ā-hinengaro nui ake i ō rātou hoa whai mātua kua haere ki te whare wānanga. Kei te whakatauirā au i ngā putanga toiora i waenga i ngā ākongā tau tuatahi i Te Herenga Waka i runga anō i ngā mōhiōhio i kohia e te Rangahau Toiora Ākongā YOU i te 2019, 2020 me te 2021 (n = 4000). Kei te tūtohu aku otinga, i muri i te aronga atu ki ngā taurangi tautokorua, kāore te tūnga FiF e whai pānga hira ā-tauanga ki tētahi, ētahi rānei o ngā inenga toiora. Kei te whakaatu tēnei rangahau i te aweawenga tautokorua o ngā āhuatanga hangapori me te ohapori ki te toiora, me te aha ka kaupare i te aronga ki te whakaarotoka i ngā ākongā kāore ō rātou mātua e whai tohu whare wānanga.

Ngā kupu matua: toiora, ākongā whare wānanga, hauora hinengaro, tātaritanga raraunga ākongā, tuatahi o te whānau

A university qualification can have several positive associations including higher earning, improvement in one's socio-economic status, and better employment prospects (Wilson, 2020). These, in turn, can lead to better social wellbeing and higher levels of individual happiness (Frey & Stutzer, 2002). In many circumstances, high achievement is correlated with a positive outlook and higher levels of wellbeing in students (Adams et al., 2016; Frazier et al., 2019; Morrison et al., 2023b), as well as more robust social structures (Cheong et al., 2021). Studies suggest that equity interventions at universities can have a significant beneficial effect on both student wellbeing and student success (Bowden et al., 2021; Spiegler & Bednarek, 2013). However, access to higher education alone does not lead to equitable outcomes for all students (Naylor & Mifsud, 2019; Tinto, 1975).

As an area of interest to both universities and individuals, study of students without a family history in higher education can shed light on disparities in academic achievement and success (Padgett et al., 2012; Whitcomb et al., 2021;). In much of the literature from the United States, as well as elsewhere (Rockwell & Kimel, 2023; Spiegler & Bednarek, 2013), students entering university whose parents have not received a college or

university degree are described as *first-generation students* (FGS), although this term has no standard definition (McCarron, 2022). This type of nomenclature can often connote a type of social class or ethnic group, potentially leading to prejudicial treatment of the individual student by reason of association to these groups alone (O’Shea et al., 2024).

By contrast, the term *first in family* (FiF) is also used in much of the international literature, and like FGS, describes a matriculating student as the first among their family to attend university. A key, yet subtle, difference between describing a student as FGS versus FiF is that ‘first generation’ might be associated with a culture or ethnicity at large, while ‘first in family’ is associated with a family unit, independent of their class or social structure.

Neither term – FGS nor FiF – clarifies or resolves the ambiguity surrounding students whose siblings have attended university or who come from separated families where the education level of their primary caregiver differs from that of their biological parent. Even seemingly straight-forward questions such as “Are you the first in your family to attend university?” can come with a degree of uncertainty with respect to siblings, caregivers, etc. (Dong 2019).¹ Some scholars, like King et al. (2019), take a stricter approach, ignoring siblings and non-parental caregivers, whereas O’Shea et al. (2024) take a broader approach, defining FiF as “the first out of their immediate family, comprising siblings, parents, main caregivers, life partners and children, to attend university”.

Toutkoushian et al. (2018) constructed eight different definitions of a first-generation college student, which vary with regard to the level of education necessary for a parent to be considered ‘college educated’ and the number of parents meeting this criterion. The authors found that connection between FiF status and outcomes of university enrolment varied depending on how first-generation status was defined. There were larger deficits for first-generation college students when neither parent had any college education, compared with students who had at least one parent with a college education (defined as a bachelor’s degree or higher). Toutkoushian et al.’s results imply that researchers should be very specific about how they are defining first-generation college status and determine whether their findings are sensitive to how these attributes are defined.

For this study, I looked at three classifications of FiF and parental-education status: (1) self-reported as a binary (Yes/No) response to “Are you the first in your family to attend university?”, denoted in this paper as *self-reported FiF status*;² (2) by whether at least one parent has attained a bachelor’s degree or higher, denoted as *tertiary status*; and (3) according to the highest level of education attained by either parent, denoted as *parental education*. By broadening this definition and examining outcomes across various parental-education levels, I demonstrate how FiF status alone can recontextualise the ways higher education approaches this topic, shifting towards a more nuanced understanding of student needs.

YOU Student Wellbeing Survey

The YOU Student Wellbeing Survey from Victoria University of Wellington | Te Herenga Waka (hereafter, VUW), carried out by the YOU Student Wellbeing project, is chaired by Philip S. Morrison. The aim of the project is to develop a multidimensional measure of student mental health and wellbeing. It is named YOU to emphasise the goal of engaging students directly, to gain insight into their own perspectives on their wellbeing.

The target population for the survey was all students enrolling in first-year courses at VUW, for each of three waves: 2019, 2020 and 2021. The survey comprised 139 questions under 28 topics and was sent electronically via Qualtrics to all the first-year students starting from April 2019.³ The first survey was conducted in 2019 (sample size $n = 1591$), followed by 2020 ($n = 1461$), and 2021 ($n = 1106$).

Completion of both the baseline and panel surveys were voluntary and is thus subject to self-selection bias. This means that the study sample is non-representative of the target population, and can, therefore, lack the true characteristics of the population. A key drawback of self-selection surveys is that there is no measure for how much the sample differs from the overall population. With regard to mental health, this presents a challenge. Those with poor mental health may be less inclined to participate, leading to an over-estimation of those with positive mental health, or those with lower wellbeing may choose to participate in higher proportions, for having more to gain (Morrison et al., 2023a).

Investigations into potential biases within the YOU sample, as outlined in the supplement packet,⁴ indicate that the data are reasonably

representative. Notably, there was a higher response rate from females than from males, a pattern that aligns with established trends and is empirically anticipated. My study finds that males have a higher proportional wellbeing, despite having a lower response rate, which I discuss below, after giving my findings.

Previous findings from YOU Survey data include topics on psychological wellbeing and ill-being (Morrison et al., 2023a), wellbeing heterogeneity (Liu et al., 2024), and associations due to the COVID-19 pandemic (Li et al., 2023). Further research into these topics is ongoing.

Studies on ‘first in family’

‘First generation’ versus ‘first in family’ is associated with a deficit model in much of the literature. FGS lack ‘role mastery’, according to Collier and Morgan (2008), who discuss how various cultural barriers prevent FGS from achieving success within classroom environments. Wilson (2020) discusses pre-enrolment challenges, such as academic preparedness, financial difficulties and lower social/cultural capital, as well as challenges during and after enrolment, such as familial obstacles, academic challenges and a perceived lack of belonging – focusing primarily on international literature but then narrowing the focus to New Zealand-specific students.

Comprehensive reviews of FiF research include Spiegler and Bednarek (2013) and Rockwell and Kimel (2023). Spiegler and Bednarek (2013) highlight two problem-areas: (1) incommensurability of data on FiF from international research, and (2) the degree of burden placed on individual FiF students versus the institutions themselves. Regarding this second point, Spiegler and Bednarek argue for more transparency in organisational hierarchies, instead of offering support programmes to FiF students only. Rockwell and Kimel (2023) look at mental health in FGS across qualitative and quantitative studies, finding that FGS have heightened levels of anxiety, depression and stress measured across academic and social domains. When looked at generally, Rockwell and Kimel conclude that nearly all papers show no significant differences between FGS and “continuing generation” students. A question that arises, then, is whether these effects are a result of parental-education status alone, or conditional on other factors.

Generally, FiF tend to be disadvantaged by lack of resources: financial, educational or otherwise (i.e., social/cultural) (Capannola & Johnson, 2022; Nuñez & Cuccaro-Alamin, 1998; Rockwell & Kimel, 2023). The dominant narrative is that parents transmit skills, attitudes and interests towards engagement in educational or academically related activities, such as reading, writing or STEM-based activities (Padgett et al., 2012), and therefore, parents who do not have experience in higher education are placed at a disadvantage in transmitting these to their children.

The notion of “cultural capital” (Bourdieu 1986) is used to describe a social construct surrounding the FiF student (Collier & Morgan, 2008; Foronda et al., 2025), and is used as mechanism to establish FiF status as lacking or deficient in a certain type of cultural competency (Naylor & Mifsud, 2019).

Collier and Morgan (2008) place a significant emphasis on role mastery, as a branch of cultural capital, comparing FGS with “more traditional students” from a “more traditional background”.⁵ Here they cite Dumais, who said that “the acquisition of cultural capital and subsequent access to academic rewards depend upon the cultural capital passed down by the family, which in turn, is largely dependent on social class (Dumas, 2002, as cited in Collier and Morgan, 2008; see also, Wilbur, 2021). Wilbur, Collier and Morgan, and Dumais are all equating parental-education status (as well as gender for Dumais) to class, whereby such differentiating terminology separates the FiF student as an outcast.

These types of inequalities range from exclusionary discourse within the classroom itself to assessment policies and privileging particular communication/learning styles. This is an important distinction, especially in studying FiF status, because it offers an alternative to the need for a specific type of integration, focused on perceived cultural differences, that emphasises systemic barriers against integration. Through these false perceptions, an ideal ‘normal student’ is created to juxtapose against anyone considered an outsider, or Other – a distinction that FiF students can struggle to break free from.

There is a trend in Australian literature to take a more holistic approach towards building an understanding of student wellbeing and efficacy (Bowden et al., 2021; King et al., 2019; Naylor & Mifsud, 2019;

O'Shea et al., 2024; Wilson, 2020). US literature, on the other hand, takes a more direct approach, emphasising particular social or cultural norms as a framework for understanding FiF status (Bennett et al, 2021; Collier & Morgan, 2008; Duffy et al., 2020; Dumais, 2002; Martinez et al., 2009). Much of the American literature sees FiF status as an impediment to success (Wilbur, 2021),⁶ while the Australasian and European literature argue that there are many things overlooked, when stepping out of a strictly classist lens (Janke et al., 2017). This is not a rule, however, as there are US studies that look at FiF experience with the holistic lens seen more dominantly in the Australian literature; for example, McCarron et al. (2022).

While robust research has been carried out in various Australian studies, there is a significant deficit with regard to New Zealand FiF analysis. Foronda et al. (2025) and Wilson (2020) discuss how Aotearoa New Zealand presents a unique perspective on the experience of students, given that there are large proportions of Māori and Pacific Peoples students, as well as many collective groups from international ethnic backgrounds. Studies of students in Aotearoa New Zealand indicate that Māori and Pacific students are more likely to be FiF students, compared with their non-Māori and non-Pacific peers (Foronda et al., 2025; Wilson 2020). These groups tend to come from lower-income backgrounds and have less academic preparation, which mirrors trends of FiF students throughout the literature.

Foronda et al. (2025) discusses some of the cultural limitations of FiF students in Aotearoa New Zealand as they relate to aspects of cultural capital, although the broader implications to Māori and Pacific students are limited by their study, which reflects the experiences of four New Zealand European students only. As Wilson (2020) implores, conducting New Zealand-based research to support policies for New Zealand higher education is critical – both with regard to financial aid that affects residents of Aotearoa New Zealand, and in understanding how the make-up of student cohorts varies by comparison with other countries, which necessarily influences the university experience.

Research on FiF/ FGS students highlights the challenges and unique experiences associated with their status. A recurring question throughout the literature is whether differences between students who come from university-educated households versus those who do not, stem solely from parental education or from other intersecting factors. FiF students are

disproportionately racial/ethnic minorities, which appears to complicate the analysis, as socio-economic and cultural factors often overlap. Studies suggest FiF students are often disadvantaged due to limited resources and lack of cultural capital, a concept linked to parental education that some argue reinforces deficit narratives.

Measurement

Manipulation of data

Data for this research came from two sources: (1) the YOU Survey voluntary sample, and (2) merged student administration data, which include data on the enrolment form, that covers all first-year students; that is, the target population. Response measures, described below, have been aggregated from the YOU Survey data alone.

Philip Morrison, chair of the YOU Student Wellbeing project, oversaw the distribution of all the data analysed. Pre-processing of these data by Morrison included preparing response variables, matching and combining data with aggregate university administrative data, and binarising variables, where necessary.

For each updated subset of the data, I removed all sets of responses where the consent field indicated 'No' ($n = 11$). All identifiable information, including names, student ID numbers and contact information, were removed before all data subsets were distributed by Morrison for analysis.

FiF status

The data on parental education comprises eight levels, which I combined into three groups: (1) attainment of a bachelor's degree or higher, designated as *tertiary*; (2) attainment of a level of education above secondary school and below bachelor's, such as professional training or trade qualification, designated as *vocational*; and (3) attainment of secondary education only or below, designated as *secondary*. Grouping in this way helped to inflate the total count for the lowest tier (secondary), and thereby improve model performance.

Outcome variables

In the academic literature, there is no consensus as to how mental health and wellbeing should be measured, each having a wide range of different instruments applied (Liu et al., 2024). For this research, I examine wellbeing, including WHO-5 and life satisfaction,⁷ as well as ill-being, including loneliness, psychological distress (PHQ-9), anxiety and worry.

Control variables

The controls for FiF status comprised demographic factors such as sex, age and ethnicity; educational variables like secondary school decile rank and Guaranteed Entry Score (GES) – included to account for prior educational context and academic preparation;⁸ financial variables such as financial difficulty and forms of family support – both non-financial and financial, as well as specific support for bills; and assistance/work status, participation in a fees-free programme for tuition assistance, presence of a student loan, scholarship support, student allowance and engagement in paid work. As controls for FiF status, these help to isolate the specific effects of FiF-related factors on wellbeing. These controls range from being highly exogenous – those that are least affected by outcome variables, including ethnicity, sex and age – to endogenous – ones more likely to be influenced by outcome variables, including whether a student has taken on paid work.

The issue of *endogeneity* is a critical consideration when discussing causation. Many of the covariates, especially financial difficulty, family support and paid work, may be endogenous to wellbeing outcomes. For instance, financial difficulty and lower wellbeing may have a bidirectional relationship where one affects the other, potentially confounding causal interpretations. Similarly, family support might influence wellbeing as well as be influenced by a student's perceived need or level of wellbeing. Addressing endogeneity, either through instrumental variables or other econometric techniques, is essential to strengthen causal inference and accurately interpret the impact of these factors on wellbeing.

Statistical analysis

I tested multiple statistical models to determine if FiF status – defined as *self-reported FiF status*, *tertiary status*, and *parental education* (3-tier) – has any statistically significant effects on wellbeing. To measure these relationships, I applied two standard types of regression models: (1) linear regression for numerical measurement outcomes, WHO-5 and PHQ-9; and (2) logistic regression for binary response variables, life satisfaction, loneliness, anxiety and worry. These models test individual effects on wellbeing as well as interactions between control variables and FiF effects. I conducted multiple sensitivity tests to ensure that neither the models nor the data manipulations introduced bias into the results.

I first looked at proportions of each outcome variable with regard to FiF identifier, as well as control variables proportional to FiF identifier. This provided a context with which to compare my sample with other studies. My findings showed that many of the proportional patterns observed were consistent with those reported in the existing literature.

However, other quantitative studies focus FiF effects within a binary framework only, whereas my study explores a three-tiered approach to parental education as well as the binary whether the student is FiF. To gain a visual understanding of the proportions for each outcome variable with respect to FiF effect, I plotted FiF identifier against outcome variable to explore this key difference.

The plots in Figure 1 show a distinct pattern with regard to students whose parents only attended secondary education. These plots show that low levels of wellbeing and heightened ill-being in FiF students (for (a) and (b) plots) are nearly fully captured within the lowest tier of parental education (c). This finding suggests that grouping students into binary bins according to FiF status alone may be falsely identifying students' levels of wellbeing and ill-being.

Both density plots (the left-hand columns of Figures 1 and 2) show a trend in plots (a) and (b) where FiF, illustrated with an orange-coloured line, depict higher densities of low wellbeing and high distress. When looking at the lower-plot (c), there's a clear indication that these patterns of wellbeing, in (a) and (b), are strongly influenced by the patterns in just one category: secondary only – illustrated with a green-coloured line.

In the proportional plots, centre and right columns, this trend continues. Darker bands on the left-hand side of each plot, in comparison with lighter bands on the right-hand side of each plot, shift in size when adding a third option. In some areas, such as anxiety (Figure 2, bottom centre plot), the darkest band is roughly equal in size across all students, but in comparing these with the lightest band, the trend continues to exemplify the greater impact of secondary-only parental education within the FiF label.

When looking at FiF as a binary-only label, there are patterns of lower wellbeing in FiF students, which are illustrated clearly in each plot. However, the addition of a third classification of FiF status show that these distinct patterns exist within certain definitions of FiF only. Here, the levels of feelings of students with parents who've attended vocational training appear to mirror those of their peers with tertiary-educated parents. This puts into question the delineation of FiF itself, and how universities should consider such demarcations.

Wellbeing proportions reveal a distinct pattern among students whose parents only completed secondary education. In panels (c), the low wellbeing and elevated ill-being observed in FiF students (panels a and b) are largely concentrated within this lowest parental-education tier. This suggests that grouping students solely by FiF status may obscure more meaningful differences based on parental education.

Figure 1: Wellbeing (WHO-5) densities by FiF status

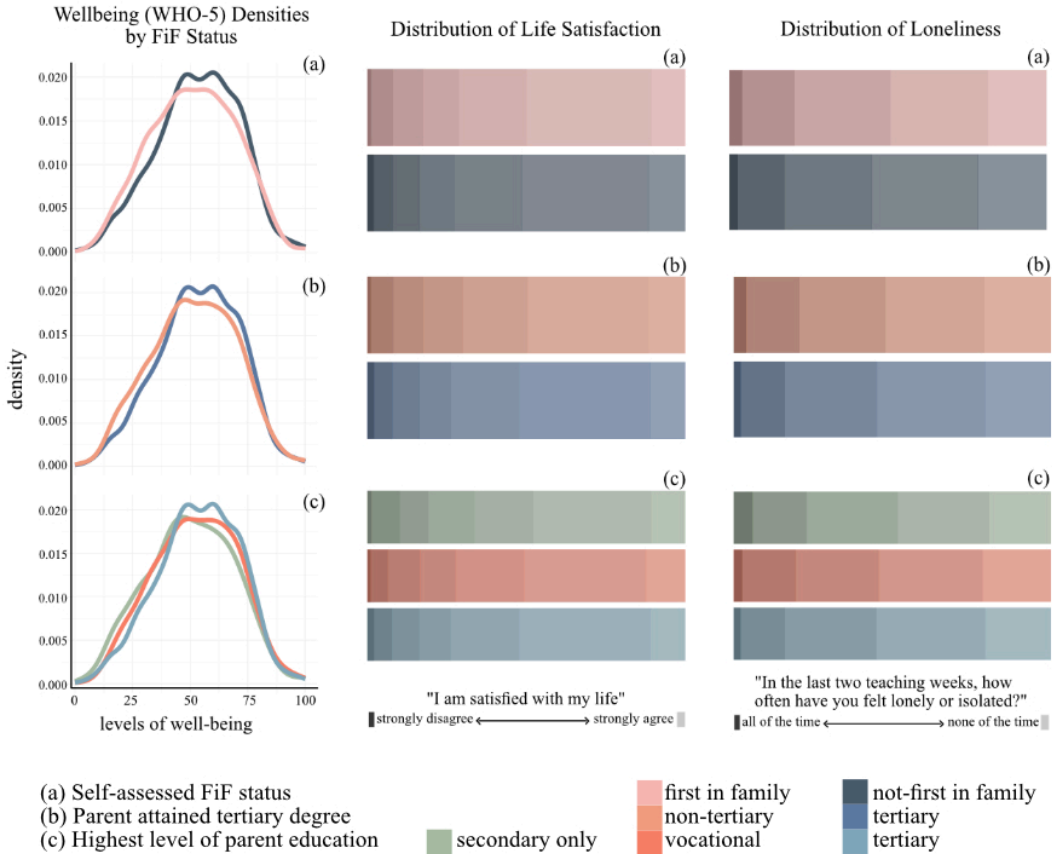
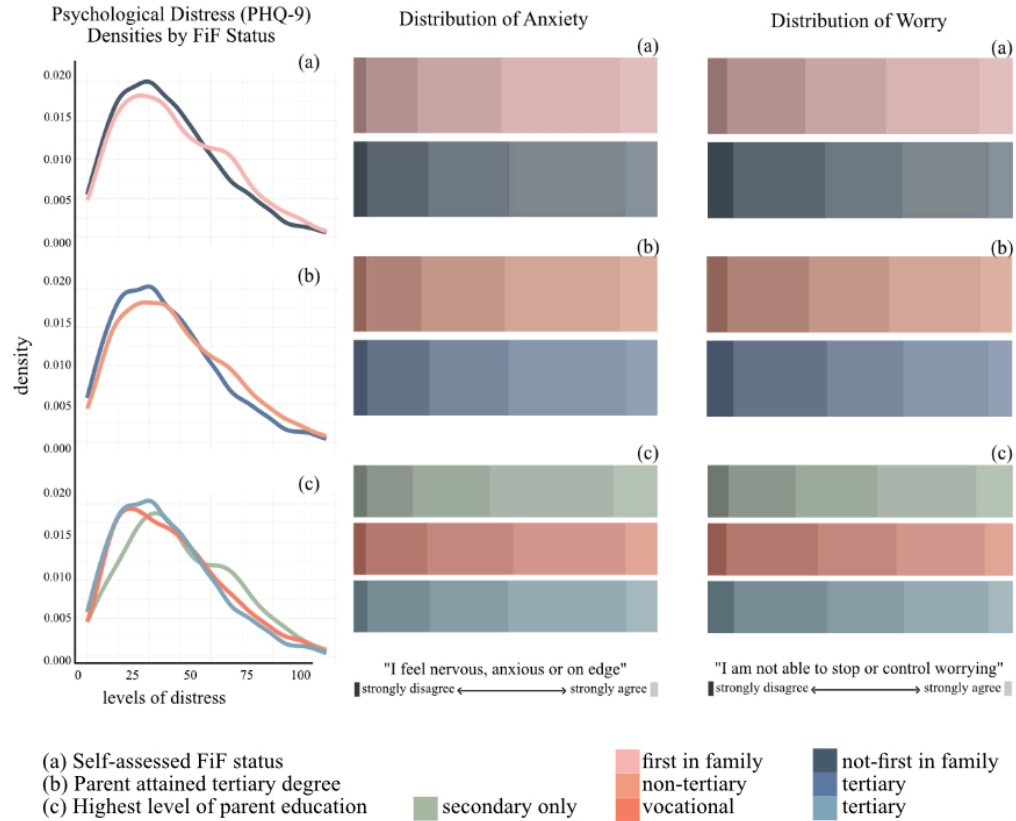


Figure 2: Psychological distress (PHQ-9) densities by FiF status



I explored each measure of wellbeing modelled on FiF status alone, without covariates, to look at the effects of FiF before adding controls to my models. The purpose of these models is to establish a baseline with which to compare with other studies and to gauge expectations. The assumption was that these models would return significant effects for FiF status, but that proved to be false. Instead, even without controls, the marker of FiF showed no associations with wellbeing measure in several outcomes.

I then fitted models with demographic and socio-economic factors, as well as their interactions with FiF. These results were surprising in that no FiF marker returned any significant effects. Some of my controls, however, were significant to effects on wellbeing in expected areas of financial difficulty, but when interacting with FiF, they added no explanatory value. Adjusting for more robust markers of wellbeing showed that FiF designation is ineffectual as a measure of wellness – and by extension, academic success.

Discussion

Measurements of university students in the Aotearoa New Zealand YOU Survey sample resemble those put forth in much of the international literature. For example, Rockwell and Kimel (2023) and Martinez et al. (2009) found that FiF have higher levels of anxiety, stress and depression, which matches patterns in my analysis for FiF students, as defined by the university. My analysis also showed, however, that many students who are assigned a FiF status, whose parents have trade qualifications, exhibited the same levels of distress as those experienced by students whose parents have a tertiary education.

The analysis also found that across three models of PHQ-9, the FiF effects were non-significant in models on ill-being. These findings are consistent with Wilbur (2021) and Grineski et al. (2024), who found that FiF status alone showed non-significant differences between FiF and non-FiF groups in studies of distress, after adjusting for other factors. This resembles my findings as well: across three models of PHQ-9, I found that FiF effects were not statistically significant in models on ill-being.

Data on each student's area of study is not collected by the survey, though there is some evidence that there exists a link between a student's chosen area of interest and their status as the first family member to attend university. O'Shea (2024) discusses this in relation to social class, saying

that there can be a higher need to translate a path of study into employment for those of lower socio-economic status; that is, for those who have less financial security to fall back on. This matter would likely overlap with other controls in this study, specifically around socio-economic variables. O'Shea argues that students from more privileged backgrounds may likely be seen choosing majors with less-specific links to areas of employment. The interplay between study major and wellbeing may be inferred elsewhere, however, circumventing the need for categorisation based on faculty alone.

The effects of financial hardships, for example, are evident and robustly significant across all types of models for psychological distress. Some, like Collier and Morgan (2008), might argue that financial difficulty and FiF status are inextricably linked, given that higher education has been shown to be associated with higher earnings in Aotearoa New Zealand (Wilson, 2020). However, interaction effects between FiF status and financial difficulty, which examine this association, were not statistically significant. This does not mean there is no association, but rather, there is no evidence that FiF status significantly modifies the relationship between financial difficulty and psychological distress within the sample. Academic work and mental health are impacted most significantly by financial difficulties, but this effect is not shaped by FiF status, nor is it unique to the university experience alone, unfortunately.

There is, however, a noticeable gap in the measured significant effects to life satisfaction, specifically with regard to financial difficulties and sex. This phenomenon could be explained by the fact that life satisfaction measures a much longer period than WHO-5, which is a more hedonic measure of current mood. There may be a tendency to brush aside current woes in favour of a more holistically positive outlook on one's life with regard to satisfaction; that is, a 'things could be worse' mentality.

These findings suggest that the financial relief from a fees-free programme could play a substantial role in boosting wellbeing for FiF students, with higher life satisfaction potentially stemming from reduced financial burden. Overall, participation in a fees-free programme likely offers notable benefits to life satisfaction by reducing financial stress, particularly for those who may otherwise experience higher financial strain as FiF students. Positive effects of a tuition-assistance programme on life satisfaction among FiF students, despite variability, support the idea that

life satisfaction may reflect a broader, long-term sense of wellbeing that diminishes the immediate impact of financial difficulties and other stressors highlighted in the WHO-5 measure.

Jeong et al.'s (2023) argument that stress and depression are negatively correlated with family support (i.e., higher levels of stress and depression are associated with lower levels of support) is not, however, fully supported by the data in the YOU study. I found that there is a non-significant association between distress and family support in models on FiF status by tertiary education and models on parental-education level. There are higher proportions of family support in non-FiF tiers, but after applying control factors, this association does not appear to have a significant effect. Instead, a family's socio-economic status is a key driver for this effect on distress – not the parental-education level.

Levels of familial support (financial and otherwise), and financial difficulty in the New Zealand data match other findings, such as those in Capannola and Johnson (2022), Rockwell and Kimel (2023), and Nuñez and Cuccaro-Alamin (1998). The highest proportions of weak family support, in all three family-support variables, are present in students with secondary-only educated parents, followed by vocationally trained parents.

However, significant effects on model response variables are sparse with regard to family support. Models on self-reported FiF status result in moderately significant main effects for family financial support on wellbeing (WHO-5). Here, associations of being lonely are different for FiF who have help paying bills compared with those who don't have such help. Similar patterns with regard to loneliness and family support appear in models with parental-education levels as FiF status. Both models have moderate degrees of significance. But while the correlation between having family support and loneliness seems clear, the *lack* of significance elsewhere in other models raises more questions regarding family support as a driver of wellbeing for New Zealand students.

Jones and Schreier (2023) report higher levels of loneliness for FiF students, which mirror patterns seen in the YOU Survey data as well, but only slightly, and with insignificant model effects. In Figure 1, plots for loneliness across all levels do show some sizeable difference in levels of loneliness, but the areas of highest visual differences are in parental-education level: in plot (c), we can see that proportion of loneliness (darker

colours towards the left side) is most starkly different for students with secondary-only educated parents, particularly for loneliness rating 'All of the time'.

The odds of being lonely by parental-education levels are moderated by being Māori if the parent only has a secondary education and Pacific Peoples if a parent has a vocational education, when compared with not-FiF students; that is, with students whose parents have a tertiary education. These interactions suggest that parental-education level can have a consequential impact on loneliness for peoples in Māori and Pacific communities. Though a more detailed analysis into these factors is beyond the scope of this research, there is evidence here to argue that NZ Māori with parents who have only a secondary education may be more closely connected to one another, perhaps by proximity, and therefore have a reduction in odds of loneliness. Conversely, Pacific students with parents who have vocational training may face types of hardships that are worthy of investigating, given that their odds of being lonely are significantly increased.

Many of the studies that include ethnicity have found that FiF comprise a majority of non-European ethnicities (House et al., 2020; McCarron, 2022; Rockwell & Kimel 2023). Our data are commensurate in that non-European ethnic categories have higher proportions of individuals with FiF labels compared with non-FiF labels; however, none of these minority groups, even when combined, form a majority in any category.

To echo O'Shea (2024), there is a major limitation here in regard to ethnicity and race – which is by design, to some extent. Inclusion of ethnicity in this study presents some unique challenges, not least of which is how best to categorise individuals who come from diverse and intersecting backgrounds. In statistical models, there is a lack of consistent significant effects across measures of ethnicity, in both main and interaction effects. We must be cautious to avoid pointing to lack of evidence here as any kind of sign that ethnicity alone has no bearing on wellbeing, but rather that there are gaps in the study that would do well to be explored elsewhere.

Therefore, in order to argue in favour of emphasising cultural capital as a mechanism through which to better understand ethnicity as a means in which wellbeing is attained – a concept used in many of the American studies (Collier & Morgan, 2008; Dumais, 2002; Wilbur, 2021) – we would

need more evidence to support any robust discrepancies between ethnic groups across all models. Instead, there is only sparse significance in effects of ethnicity across different measures. For example, Māori and Pacific students experience a statistical *decrease* in associations of feeling anxious. Though speaking about academic success and not feelings of anxiety, Wilbur, Collier and Morgan, and Dumais' notion of 'traditional' students (i.e., European) is ironically misinformed. Instead of individuals attending university trying to adapt to vague inherited norms, the data show that those who come from 'non-traditional' backgrounds (New Zealand and Pacific Indigenous peoples) retain better outcomes of wellbeing. This is likely an outcome of having closer familial and traditional cultures, a topic suitable for future research.

Notions of cultural inheritance, traditional backgrounds or even social class are stripped away in models that adjust for various demographics and socio-economic factors. While ethnicity shows no significant relationship with any wellbeing measure, identifying as male, on the other hand, is consistently associated with significant main effects in models of WHO-5, PHQ-9, anxiety and worry.⁹ Notably, there are no significant interaction effects across these models. This means that being a male is a better predictor of wellbeing than any ethnic grouping.

The implications that *maleness* plays a more significant role in understanding wellbeing is best unpacked in a study focusing on these norms. Exclusion of women in academia is well studied and also better explored elsewhere. However, my findings suggest that sex (or perhaps gender expression) is a more reliable marker of wellbeing than FiF status.

Many argue this 'male effect' reflects a weaker self-awareness among young men and may exaggerate the difference in their actual wellbeing. This trajectory can lead to harmful outcomes, such as often-overlooked patterns of male self-harm or the systemic belief that women struggle more with academic and social pressures while men are viewed as more resilient. The YOU Survey includes data on resilience, but these data are not included in this study.

Markers of wellbeing are most strongly associated with financial difficulties and gender, both of which are linked to being FiF. Financial difficulties have a cascading effect (Point & Associates, 2022), but these issues extend beyond FiF students alone. Similarly, gender expression,

particularly for male-identified individuals, points to broader social challenges rather than simply the experience of being the first in their family to attend university, as some have suggested.

Conclusions and recommendations

Different notions of FiF students dominate the international literature. Some seek to build a holistic picture in an attempt to normalise the experience and argue in favour of broad measures to improve engagement for FiF students, while others focus more on distinctions between FiF and non-FiF students in order to foster success. Building a thorough understanding of the FiF experience overall is a worthwhile pathway towards appreciating the nuances that make up student-life.

Using a data-driven approach on various indicators of wellbeing, I have attempted to discover quantifiable evidence to build on this nuanced understanding of what it means to be the first in one's family to attend university. My models measure degrees of wellbeing as well as probabilities of 'success' for outcomes conditional on demographics (age, sex and ethnicity), socio-economic background, and levels of family support.

After close examination of plots, tables and model outputs, I found that there is no evidence in the VUW sample to suggest that there is any difference between FiF and non-FiF experiences with regard to wellbeing, after adjusting for other conditional factors. Although FiF students are represented in higher proportions in categories of ill-being, statistical models demonstrate that these effects, when combined, are no different based on one's parents' education. This finding closely mirrors Rockwell and Kimel's (2023), who conclude, in a meta-analysis of FiF studies, that nearly all papers show no significant differences between FiF and non-FiF students. If inclusion is related to wellbeing, as others have argued, then this analysis shows that a framework of inclusivity produces equal levels of wellbeing, after adjusting for key controls.

The results show robust evidence that a student's wellbeing is impacted by their measurements for financial difficulties. We can, therefore, conclude that higher proportions of students returning lower wellbeing ratings are a result of disadvantage or lack of financial resources. As the literature suggests, higher levels of education are associated with better

financial prospects; therefore, it stands to reason that FiF students will have a higher likelihood of disadvantage by this association.

A danger in adhering to this association, as many do in the US literature, is to see FiF alone as a deficit. Removing other conditions results in a misattribution of response, which not only misclassifies individual students, but wrongfully overlooks many key aspects necessary to self-betterment. Meanwhile, removing the label of FiF has no effect, as seen in the body of evidence given above. There are no main effects by FiF label, and only sparsely by interaction – namely, within categories of ethnicity, which have more nuanced and complex relationships to wellbeing. Rockwell and Kimel (2023) write, “Because the first-generation college student population overlaps with a variety of other disadvantaged identities (e.g., female, low-income, older, Black and Hispanic)..., it is difficult to separate out the specific impact of first-generation college student status on mental health from a variety of other factors that also impact mental health (e.g., racism, sexism).”

A student carrying a FiF designation alone is stripped of the many overlapping layers that form a complex picture of their goals and their prospects, while the reverse does not occur. If institutions continue to fix this categorisation onto students, then they must, at the very least, recognise how little a difference it makes to the outcomes of their students’ wellbeing, after more consequential markers are in place.

Furthermore, I have found that the very notion of FiF itself to be worthy of extended debate. My study looks at three methods of classifying FiF: (1) by the student’s own admission, where they are free to select either category (FiF or non-FiF), thus opening the definition slightly to include other family members or guardians; (2) by whether at least one parent completed the equivalent to a bachelor’s degree or higher, thus narrowing the definition to attending university specifically; and (3) by highest level of parental education, thus removing the binary aspect of FiF.

While there were no distinguishable differences between FiF and non-FiF students, there are, however, examples to show that treating FiF status as a binary simultaneously dilutes the experience for some, while inhibiting the university experience for others. Many of the patterns seen throughout the various plots exhibited here depicting high ill-being or low wellbeing give different expressions based on the method of classification.

The conventional binary approach groups contented students with discontented students and calls them the same. Re-examining the boundaries of what it means to be FiF allows us to focus our attention in more productive ways.

Moving beyond a binary approach allows us to closely examine the challenges students face, preserving the full impact of these insights without diminishing their significance. Although students with parents who have only attended secondary school are no different in statistical measures of wellbeing, there is evidence to suggest that they face greater economic challenges than their peers. Meanwhile, students with parents who have vocational training, whether through a trade or career-focused course, have, throughout my study, trended towards the same outcomes as those with university-educated parents regarding economic challenges. In Aotearoa New Zealand, having a parent with a university degree does not automatically set one up for success any more than having a parent who studied a trade or vocation.

As a marker for wellbeing, the binary notion of FiF and non-FiF is outdated. It implies that opportunities granted to one's progenitors are reason enough to classify their success. This attitude oversimplifies many complex relationships and can directly lead to ill consequences: where students who need extra support are overlooked because peers within their grouping do not, or students are treated as inferior simply because of their familial background. I argue that a three-tiered approach, looking at education level, is more appropriate, as a starting place.

Future considerations

There remains much to uncover about the complexities surrounding FiF student experiences and wellbeing. Resilience, a factor of how well students can cope with difficulties, is measured in the YOU Survey, but has not been included in this study. There is evidence in the literature on FiF studies that show being FiF can have a negative impact on a student's ability to manage stressful circumstances (Bennett et al., 2021; Frazier et al., 2019; House et al., 2020). Looking at FiF as a primary driver of resilience, however, may not give significant results, contrary to other studies. Others discuss how resilience is closely related to factors that might affect a student's ability to manage stressors, such as community support, personal resources and belief

systems. Above, I showed that there is sparse evidence that family support is different for levels of FiF, and furthermore, through the interaction of family support, financial difficulty, FiF status and wellbeing variables, that there is little to no evidence that financial difficulty has a significant impact on wellbeing at levels of FiF.

A future study, therefore, motivated on understanding how FiF relates to resilience, would be better suited to focus on resilience as a key driver of wellbeing, with FiF or parental education as a control. This might show that resilience is different for FiF students, given other controls, supporting an argument about where resilience comes from, rather than justifying a deficit model of FiF students.

Notes

- 1 The phrasing “Are you the first in your family to attend university?” was used in the YOU Student Wellbeing Survey from Victoria University of Wellington | Te Herenga Waka. It did, however, include a note of clarification: “By family we mean your parents and siblings only.” Despite this clarification, the 2019 cohort included 128 (8 per cent) responses for ‘Other – please explain’, suggesting that many individuals do not easily fit inside this rubric.
- 2 The survey field has three options: Yes, No or Other. For this study, I ignored the Other response and treated only those who had selected either Yes or No.
- 3 Students who completed that year’s survey (the baseline sample) were invited to participate in a panel later that year, and follow-up panels running for four years (eight waves) or until the student graduates or otherwise leaves the university. This paper does not include any analysis of this longitudinal study.
- 4 See *Supplementary information for: Wellbeing and ill-being on campus* (Morrison et al., 2023a).
- 5 Collier and Morgan (2008) fail to define traditional versus non-traditional students, though Naylor and Mifsud (2019) satisfy the matter by defining non-traditional students as “students from low socioeconomic backgrounds, ethnic minorities, or those with disability, rather than white, middle-class students without disability”.

- 6 “In the USA, government policy specifically identifies ‘first-generation’ university students, recognising them as educationally disadvantaged” (King et al., 2019).
- 7 The World Health Organization index (WHO-5), developed in Denmark, is a set of five questions, each with six levels of response – ranging from 0 (none of the time) to five (all of the time). This total score is then scaled by four to create a numeric measure out of 100. See Liu et al. (2024) and Morrison et al. (2023a, 2023b) for more on the benchmark, WHO-5 and its applications within the YOU student survey.
- 8 Note that variables for secondary school decile and GES were merged into the YOU data set from the University’s admissions data by Morrison.
- 9 A growing field within Queer Theory explores how sexual orientation and gender identity intersect with wellbeing, a topic that Grineski et al. (2024) discuss in relation to FiF status. The YOU Survey asks, “What sex was documented at birth on your original birth certificate?” with three options to select from: Male, Female and Indeterminate. A follow-up question asks about sexual orientation, which is not included here. For some students, this question about sex may have been conflated with gender (as it relates to LGBT+ identity), as roughly 4 per cent of respondents put Indeterminate, perhaps suggesting a non-binary or alternative gender identity. My work puts aside this distinction in favour of a broader approach with regard to biological M/F sex. Non-responses ($n = 4$) and Indeterminate responses ($n = 168$) have been removed from my sample and ignored by my study.

Acknowledgements

My sincere thanks to Emeritus Professor Philip Morrison, Chair of the YOU Student Wellbeing Survey, for his guidance, feedback and supervision throughout this project. For his expertise and command of the subject matter, I am very gratefully inspired.

I am very fortunate to have the privilege of working under the supervision of Dr Louise McMillan (VUW School of Maths and Statistics, Te Kura Mātai Tatauranga), whose depth of knowledge and mentorship have been instrumental in my growth and learning.

Thank you also to Professor Ivy Liu (School of Maths and Statistics; Centre for Data Science and Artificial Intelligence, Te Whiri Kawe) for her instruction on inferential methods using general linear models. Ivy’s

expertise and approachable teaching style have made complex concepts both accessible and enjoyable to learn.

This paper is based on my Honours research paper in data science at Victoria University of Wellington | Te Herenga Waka, completed in 2024.

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