



Early Influences of the Fees-Free Policy on University Students in Aotearoa New Zealand

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Abstract

In late 2017, the New Zealand Government introduced a finance policy in which citizens without prior tertiary experience could be eligible for 1 year of tertiary education without fees. The current study was conducted to examine new entrant students' self-reported influence of the Fees-Free Policy on their decision to enrol in university and whether such influence varied as a function of group characteristics. Further, the study explored relations between policy-related influence, students' early experiences during their transition to university, and semester-to-semester retention. With a cross-sectional design, participants were first-semester university students ($n = 1028$) from one New Zealand institution. Results showed that the policy influenced approximately one in three students in their decision to enrol in university, and 5.8% stated they would not have enrolled if the policy had not been implemented. Estimated policy influence differed across age, ethnicity, admission status, and priority learner status. Findings show that students who were more strongly influenced by the policy reported poorer academic self-efficacy, adjustment to university, subjective wellbeing, university satisfaction, and semester one Grade Point Average (GPA). Results indicate that students who were more strongly influenced by the policy were more likely to show interest in an early departure from the university within the first few weeks and less likely to continue their studies at the institution by the second semester. Discussion focusses on potential benefits and concerns involving the early implementation of this educational policy on students and their families/whānau, members of the tertiary sector, and Aotearoa New Zealand community.

Keywords University · Tertiary education · Policy · Educational psychology

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Introduction

Educational policy continues to evolve on a worldwide platform (e.g., Brown and Carasso 2013; Tomlinson 2014). Both in Aotearoa New Zealand and elsewhere, changes to policy—particularly those related to cost—can have cascading effects on tertiary institutions, students and their families/whānau, and the broader community. At the institutional level, financial costs often determine how things are done (e.g., operational processes and strategic planning). Such costs also influence the types of programmes offered to the learning community; indeed, this is a reality documented in Aotearoa New Zealand universities (e.g., Roberts 1999). At the student level, there is a multitude of costs, both financial and social such as fees, textbooks, transport, time away from family, and not receiving a salary. Tuition fees, however, are the most visible costs and therefore may remain prominent in student decisions about tertiary education.

As the cost of tertiary education waxes and wanes concerning government policy changes, it is likely that prospective and current student attitudes about tertiary education, too, change. International literature (e.g., Tomlinson 2014) has provided evidence that, when tuition fees increase, students report more consumeristic attitudes toward higher education, greater expectations of university quality, and greater personal responsibility for and dedication to their learning. Rooted in such an ideological stance, the recent Fees-Free Policy (hereafter FFP) in Aotearoa New Zealand has been enacted to shift the costs of the first year in tertiary education *to* the state and *away from* the individual. Thus, an intriguing question emerges: how might a decrease in tuition fees influence student behaviour?

The current research considers the decisions and experiences of new entrant university students (Semester 1, 2018) in Aotearoa New Zealand during the early implementation of the FFP. Whereas policy-related discourse is often framed in economic terms, the current research examines linkages between educational policy and individual students. Specifically, we inspected (a) students' estimated influence of the FFP on their decisions to enrol in university, and (b) the academic and social experiences of students whose decisions to enrol in university were influenced by the FFP. In doing so, we consider the relations between university students' estimated policy influence, self-perceptions as learners, academic performance, early departure intentions, and semester-to-semester retention.

Underpinnings of “Free” Higher Education

Higher education can be viewed as a collective investment between the state, society, and individual learners (Tomlinson 2014). At a macro-level, many governments work on the assumption that education—particularly university—creates cultural, social, and financial capital (Johnstone 2004). From this perspective, the state determines how to fund higher educational institutions. In many cases, decisions are rooted in ideological (and, thus, political) viewpoints.

On the one hand, some governments view university as a public good—one which benefits society—and therefore should be paid for by the state (Giroux 2002; Marginson 2011). This perspective is referenced in international policy frameworks, including the 2001 Prague Communique in the Bologna Process, the 2004 Accra Declaration on GATS and the Internationalisation of Higher Education in Africa, and the 2009 Communique from the UNESCO World Conference on Higher Education (see Singh and Little 2011). Accordingly, some countries (particularly in Europe and Russia) have shifted the cost of university to the state in order to be more aligned with the ideology that higher education is a public good (Marcucci and Johnstone 2007). Although rationales may vary across nations and governments in power, the ideology relies on specific underpinnings. For instance, such a philosophy tends to uphold the beliefs that (1) there are high returns to society from an educated population; (2) education is (and should be) a fundamental right, and (3) high tuition fees may reduce educational accessibility to individuals from particular cohorts (e.g., low-income families, those residing in rural areas, and ethnic minorities), which subsequently increase social inequality and decrease social benefit (see Marcucci and Johnstone 2007).

On the other hand, some governments view higher education as a private good—one which benefits the individual—and therefore should be paid for by the student. This ideology is embedded in a notion of competitiveness, performativity, achievement, and advancement of learners. For example, if higher education is considered to be a private good with the aims of improving the likelihood for its graduates to secure better-paying jobs, then the state would presumably have little to do with paying for individual outcomes. When universities are perceived and operated as private goods, however, there is a slippery slope where education can be viewed as a commodity designed to serve the needs and desires of an individual. Moreover, learning can be interpreted as a product, institutions as independent businesses, and prospective students to be consumers. From a private-good ideology, fiscal matters come into the fore, and the marketisation of higher education soon follows (Johnstone 2004).

The public–private debate is longstanding, and discussions about ideology are often raised regarding global concerns about dominant neoliberal trends in higher education (Singh and Little 2011). In Aotearoa New Zealand, changes to government leadership have historically led to reforms in educational policy and, as a result, the question of who should pay for tertiary education has been a recurring topic. Roberts (2007) observed that New Zealand governments have progressively shifted toward an aggressive, corporatised approach to higher education. This stance closely echoes a traditional private-good ideology: students as “rational, self-interested, choosers and consumers” (Roberts 2007, p. 350). There continues to be open dialogue around neoliberalism, and its influences on higher education policy in Aotearoa New Zealand (e.g., Collins and Lewis 2016; Gordon 2016; Olssen 2016). Such discussion is beyond the scope of the current literature review; however, it is worth highlighting that this dialogue—along with policy development and enactment—fluctuates as a function of political power. Therefore, the narrative can range from one that (a) New Zealand universities are a market which can be made more efficiently through managerialism and

institutional competition to one that (b) New Zealand universities as having a democratic function and role within society. As of 2017, the new Labour government has presented a policy change which begins to shift the costs of tertiary education away from the student to the state: the Fees-Free Policy.

Fees-Free Tertiary Education in Aotearoa New Zealand

In November 2017, the New Zealand Government introduced a finance policy in which citizens without prior tertiary experience could be eligible for 1 year of tertiary education without paying tuition fees (Tertiary Education Commission 2018). Initially, a student eligible for the provision needed to fall into one of the following categories:

- (i) A New Zealand citizen; or
- (ii) An Australian citizen or permanent resident and has lived in New Zealand for at least 3 years; or
- (iii) A New Zealand resident, and has lived in New Zealand for at least 3 years; a New Zealand resident, and be a refugee or protected person, or be a sponsored family member of a refugee or protected person.

Eligibility also stipulated that the individual must not be concurrently enrolled in a school at the start date of the course or programme (except for those enrolled in school as a returning adult student, with stipulations). In February 2018, there was a change to the policy stating that Australian citizens (and permanent residents) would not be eligible for free tuition fees. At the time of writing this article, there appears to be another change on the horizon, potentially allowing eligibility to include 1 years' fees free with provider-based study (i.e., an institute of technology, polytechnic, private training establishment, university, or wānanga) or 2 years' industry training in 2019.

The long-term intentions about the FFP were stated from its conception: to progressively roll back fees so that, by 2024, New Zealanders would be able to study all 3 years of university without fees (Hipkins 2017). From an ideological stance, the FFP would (re)position tertiary education in Aotearoa New Zealand as a public good. We neither describe in detail nor critique the strengths and weaknesses of this policy, as there are different types of finance policy related to higher education fees and such a discussion is beyond the scope of this article. We agree with Marcucci and Johnstone (2007) in stating that, in order to inform politicians and policymakers, it is valuable to know how fees affect higher education accessibility and the enrolment behaviours of students. Further, it is our position that in order to more comprehensively evaluate the impact of the FFP, it would be valuable to know how a policy which decreases the financial burden on the individual may influence individual students' enrolment decisions and experiences at university.

Considering Policy Influence on University Students

Although plausible links between educational policy and student behaviour would seem logical, there has been insufficient research to document this interplay (Titus 2006). In practice, it may be easy to overlook this dynamic as policymakers typically create principles and evaluate the impact on educational systems rather than individuals within the system. One could argue, however, that because learners are directly affected by educational policy changes, their voices and actions should be documented. Indeed, Berger and Milem (2000) proposed in their organisational model that systemic changes, such as government-mandated educational policies, directly affect an institution's resourcing and, in turn, institutional resourcing is expected to influence students. We add the possibility that policy changes which relate to student finances may not only impact academic outcomes (e.g., GPA, retention, and completion), but also the motives for enrolling in university and resulting experience once study has commenced.

The extent to which educational policy might influence a prospective student's decision to enrol in university is undoubtedly a complex process (e.g., Chen and Zimitat 2006; Moogan et al. 1999; Slack et al. 2014). Researchers have highlighted that students tend to consider multiple factors in their enrolment decision, such as the quality of teaching (Price et al. 2003), the reputation of the institution (Bowman and Bastedo 2009), and geographic proximity (Mazzarol and Soutar 2002). As one might expect—especially in a difficult economy—financial concerns are cited as a major role in the decision to enrol in university (e.g., Callender and Jackson 2008). In the United Kingdom, financial costs emerged as the most critical factor in students' reported decision to attend university, above and beyond the institution's reputation and quality of teaching and learning (Wilkins et al. 2013).

In Aotearoa New Zealand, the costs of attending university are, therefore, also expected to be a substantial determinant of enrolment behaviour. Although trends certainly fluctuate over time, the Ministry of Education (MOE 2018a) cited that, in 2016 (the most recent year reported), students 25 to 64 years old holding a Bachelor's degree in Aotearoa New Zealand reported a higher rate of unemployment (2.6%) compared to those with a short-cycle tertiary qualification (2.2%). In addition, the earning potential for different degrees varies considerably. Statistics show that 5 years upon graduating, former students with a Bachelor's-level qualification in STEM (Science, Technology, Engineering, and Mathematics), law, and business disciplines were above the national median earnings (MOE 2017). Meanwhile, students in public health, education, and the humanities were below the national median earnings; this gap is so large that, even 10 years after graduating, students in the broad fields of society, culture, and creative arts had not yet reached the national median income. These results do not capture the number of hours worked and the extent to which students ultimately enjoy their career paths; however, these findings provide concrete examples where studying at university could be viewed by students as a financial risk. In today's competitive economy, it would appear sensible for New Zealanders to take costs and benefits of university attendance into consideration.

There are no studies to our knowledge that have directly examined the policy-student relation in Aotearoa New Zealand. However, there has been recent literature elsewhere, primarily in the United Kingdom. For example, Tomlinson (2014) explored relations between educational policy (in the form of increased student fees) and student attitudes toward and experiences with higher education. His rationale was that changes to a policy where higher education is positioned as a private good, students' values and self-identities as learners might shift in a way in which their core purpose is to maximise future earnings. Although Tomlinson's qualitative sample is relatively small ($n=68$) and cannot be generalised to larger populations, some students—but not all—reported consumeristic attitudes albeit their actions still suggested the risk of not securing employment upon graduation and worries about paying off debt were widespread concerns. A noteworthy finding of this work was that students who were paying higher fees expected value for money as well as more transparency about how the university would benefit them. More recent research (e.g., Bunce et al. 2017) indicates that undergraduate students do hold consumeristic attitudes toward university, and these attitudes can mediate the relation between their identities as learners and academic performance.

We believe that such existing international literature may help to construct plausible links between educational policy and individual students in the higher education context of Aotearoa New Zealand. Following an assumption that increases in student fees would correspond to greater concerns about cost, debt, and employment as well as higher quality standards of university overall, opposite trends could begin to occur as student fees decrease (as is the case in the FFP). For instance, lower fees may increase enrolment in typically underrepresented cohorts; however, if there were issues with academic readiness as well as economic barriers, increased access will not necessarily lead to a satisfactory experience. Existing research (Sotardi and Brogt 2018) has previously demonstrated that the academic transition to university among New Zealanders is already challenging among students who had enrolled with an expectation to pay all 3 years of fees upon completion. With these concerns in mind, we wonder whether the FFP—a largely extrinsic motive for learners to enrol in tertiary study—might correspond to greater difficulty for learners as the accessibility gates open.

Further, an adverse experience for individuals whose initial motivation to pursue a university qualification as more heavily impacted by the fees-based policy could signal early departure intentions such as deferment (postponing to another semester) or discontinuation (leaving the university entirely). This phenomenon may be especially relevant in light of the current version of FFP where eligible students receive only a fee waiver for their first year of university study at the time of writing this article. In this context, these individuals must anticipate personal costs of subsequent years and, therefore, their initial experiences may be important personal determinants of academic persistence.

The Current Research

We conducted the current research during the early implementation stages of the FFP. We aimed to estimate the self-reported influence of the policy on students' decisions to enrol in university, and to what extent such policy-influenced decisions

could be linked to individuals' transitional experience. We contend that transitional experience includes not only academic behaviours (e.g., early departure intentions, semester one GPA, and semester-to-semester retention) but also motivational dynamics (e.g., self-efficacy, adjustment to and satisfaction with the university, and personal wellbeing).

Our research questions were as follow:

1. How much influence does the FFP appear to have on students' decisions to enrol in university?
2. Are there group differences in students' self-reported Estimated Policy Influence (EPI)?
3. To what extent is EPI related to students' early transitional experiences at university, specifically their subjective well-being, academic self-efficacy, adjustment to university, university satisfaction, and semester GPA?
4. Do students with higher EPI show a greater likelihood for early departure intentions from university compared to those students with lower EPI? To what extent do EPI and early departure intentions predict semester-to-semester retention?

Method

Sample

With the support of the institutional research team, the entire first-year student population¹ at one institution ($N=2612$) was invited to voluntarily complete an online questionnaire aimed to understand students' early experiences at university. Email invitations were sent in the fourth week of the first semester, and the questionnaire was accessible for five weeks. Demographics, semester one GPA, and semester two retention (i.e., whether the student was still enrolled at the same institution in the subsequent semester) were linked to questionnaire responses based on student ID. The dataset was anonymised and received an exemption from the institution's human ethics committee (#2018/01/EX).

Initially, 1261 participants accessed the questionnaire, resulting in a response rate of 48.28%. 218 cases had more than 10% of questionnaire items missing. These were identified and deleted, as imputation with a small amount of missing data (here: less than 10%) is deemed to be valid (Little and Rubin 2002). Fourteen cases had no semester GPA available and were removed. One case did not include any variation in scores, and it was removed to improve the authenticity of responses. Using a final sample of 1028 participants, missing values were imputed using the expectation maximisation procedure in SPSS. Validity of imputation was checked and no systematic cause of missingness could be identified.

Of the complete sample, 98.7% ($n=1015$) had reported as domestic students who were eligible for the FFP and had responded to the item with regards to the influence

¹ Exclusions to recruitment were students enrolled in study abroad or sub-degree programmes.

of the policy on their decision to enrol in university. With this subsample, gender was categorised as female (56.9%), male (42.8%), and gender diverse (0.3%). Student age ranged from 16 to 64 years old, with an average age of 18.58 years old ($SD=2.72$). Self-reported primary ethnicity were categorised as: New Zealand European (74.1%), Chinese (5.2%), other European (4.3%), unreported (3.4%), New Zealand Māori (3.3%), Southeast Asian (3.2%), other Asian (2.4%), Indian (1.4%), Pacific (1.1%), Middle Eastern/Latin American/African (1.1%), and other (0.5%). 4.4% of the sample was composed of priority learners (Māori and/or Pacific descent). 32.6% of the sample had first-in-family status. Student study options were grouped as campus only (83.5%), campus and distance study (10.7%), and distance only (5.7%). 36.3% of the sample reported having paid employment work responsibilities in addition to their university studies. Most housing arrangements were reported as living in university halls (47.4%) or living with family or friends (34.2%). The majority of participants were from the Canterbury region (55.2%), with representation from Wellington (9.9%), Auckland (8.0%), and various regions of Aotearoa New Zealand (26.9%).

Students' enrolled programmes of study were: Bachelor of Engineering (33.5%), Bachelor of Arts (25.4%), Bachelor of Science (20.8%), Bachelor of Commerce (11.5%), Bachelor of Teaching & Learning, Bachelor of Sports Coaching, & Bachelor of Health Sciences (6.9%), and Bachelor of Law (1.9%). The sample represents 33.41% of the total first-year student cohort for 2018 and generally approximates the first-year student population in terms of programme enrolment, with over-representation of students in Bachelor of Arts, Science, and Engineering, and under-representation of students in Commerce, Law, and Education.

Lastly, the student retention rate from semester one to semester two was very high (96.1%); thus, most participants in this sample were still enrolled at the same institution in their next semester. In terms of sample demographics, this information suggests that results could represent the best-case scenarios as it underestimates experiences by struggling students.

Instruments

Estimated Policy Influence (EPI) was measured using a single item asking students to respond to the question "How much of your decision to attend the University of Canterbury was influenced by qualifying for free fees?" Available responses were: (1) No influence—I would be coming to university regardless; (2) A little influence—the Fees-Free Policy was just one part of my decision to attend university; and (3) A great deal of influence—I definitely would not be here if I did not have free fees.

To measure Subjective Wellbeing, we used the World Health Organization Well-Being Index (WHO-5). This instrument includes five self-report items to measure participants' subjective psychological wellbeing. WHO-5 uses a 6-point, Likert-style scale ranging from (1) at no time to (6) all of the time. Estimates of internal consistency were acceptable ($\alpha=0.88$).

To measure Academic Self-efficacy, we used a modified version of the Self-Efficacy for Learning and Performance subscale of the MSLQ (Pintrich et al. 1993). This subscale estimates students' expectancies for success and self-efficacy beliefs in terms of their ability to perform tasks successfully in their overall academic studies for the semester. Participants responded to each item using a 7-point Likert-style scale ranging from (1) not at all true of me to (7) very true of me. Example items include "I believe I will receive excellent grades in my courses." Estimates of internal consistency were acceptable ($\alpha=0.93$).

To measure University Adjustment, we used a 6-item, modified scale from Baker (2003) in which students reported academic, social, and overall adjustment indicators using a 5-point, Likert-style scale ranging from (1) not well at all to (5) extremely well. Example items were "Academically, how well do you think you've adjusted to university?" and "Academically, how well do you think you've adjusted to university compared to the average first-year UC student?" Estimates of internal consistency were acceptable ($\alpha=0.87$).

Academic performance was measured using students' actual semester one GPA. The institution's GPA scale ranges from - 1 (E) to 9 (A+).

To measure Interest in Early Departure (IED) from university, we used a single item in which students responded to the following question: "Have you *at any stage* seriously considered discontinuing (withdrawing) or deferring (taking a break) from your current studies? Possible examples were (1) No; (2) Yes, I have thought about discontinuing; and (3) Yes, I have thought about deferring. Responses about discontinuing and deferring were merged to estimate a binary estimation of whether or not students were interested in early departure.

Results

Descriptive Statistics

Our analyses began by exploring characteristics of students as related to their Estimated Policy Influence (EPI) on their decision to enrol in university. Of our sample ($n=1015$), EPI was reported as follow: (a) policy had no influence ($n=663$; 65.3%); (b) policy had some influence ($n=293$; 28.9%); and, (c) policy had a lot of influence ($n=59$; 5.8%). These results suggest that approximately 1 of 3 students reported the policy as a factor in their decision to attend university.

Next, we examined group differences in EPI. Using independent-samples *t*-tests and Analysis of Variance (ANOVA) procedures, we found no group differences in EPI as a function of gender, home region from New Zealand, first-in-family status, or enrolment in campus versus distance study options. A small positive correlation was found between EPI and student age ($r=0.10$, $p=0.001$), indicating that older students had reported a slight influence from the FFP on their decision to enrol in university.

We found statistically significant differences in EPI as a function of ethnicity. Post-hoc tests using Tukey HSD revealed that students of Southeast Asian descent ($M=1.53$, $SD=0.89$) reported higher EPI than students of New Zealand European

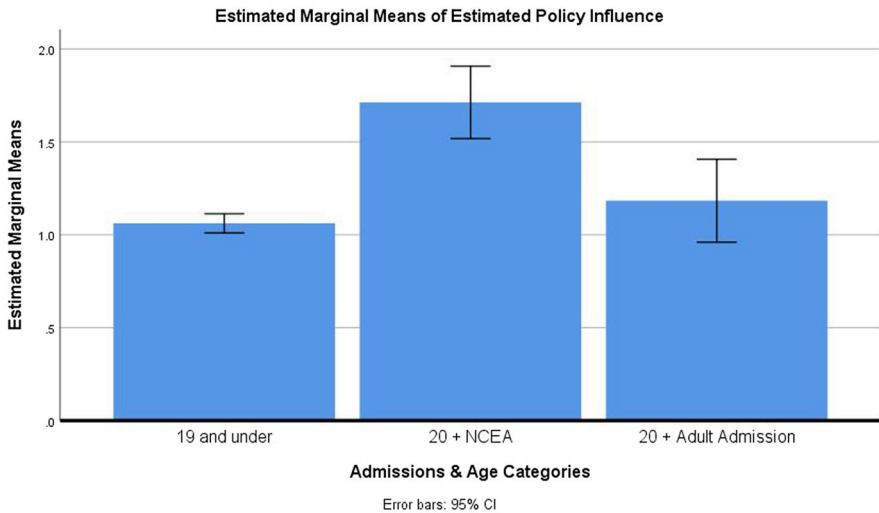


Fig. 1 Levels of estimated policy influence (EPI) among student admission categories and age cohorts ($n = 1015$)

descent ($M = 1.04$, $SD = 0.78$); $F(12, 1002) = 2.67$, $p = 0.002$, $\eta^2_{\text{partial}} = 0.03$, suggesting a small effect size and do not appear to have substantial practical importance. Thus, interpretation of these differences should be taken with the appropriate caution.

Results using independent-samples t -tests with bootstrapping procedures using 1000 samples indicated statistically significant differences in EPI between non-priority learners ($M = 1.09$, $SD = 0.78$) and priority learners ($M = 1.40$, $SD = 0.90$); $t(978) = -2.56$, $p = 0.011$. This suggests that the FFP was more influential to priority learners than non-priority learners in their decisions to attend university.

Although age had indicated a small association with EPI, we decided to inspect whether there were differences in EPI between three categories related to age and admissions status. These included (Group 1) students who were 19 years old or younger and had been awarded University Entrance (UE) through National Certificate for Educational Achievement (NCEA; $n = 904$); (Group 2) students who were 20 years old or older and had been awarded UE through NCEA ($n = 63$); and (Group 3) students who were 20 years old or older and was admitted due to Adult Admissions ($n = 48$). Using ANOVA procedures, results revealed statistically significant group differences; $F(2, 1012) = 20.32$, $p < 0.001$; $\eta^2_{\text{partial}} = 0.04$, suggesting a small-to-medium effect size. Post-hoc tests using Tukey HSD indicated that EPI did not differ between Group 1 ($M = 1.06$, $SD = 0.78$) and Group 3 ($M = 1.18$, $SD = 0.83$). As shown in Fig. 1, these groups had reported statistically lower EPI compared to Group 2 ($M = 1.71$, $SD = 0.88$). This result indicates that the FFP appeared to be more influential to students who were qualified to enter university according to admissions standards, but had not enrolled until at least 2 years after leaving school.

Last, we tested for group differences in EPI across students' programmes of study. Using ANOVA procedures, results showed no statistical differences in EPI as

Table 1 Bivariate correlations between estimated policy influence (EPI) and university-related experience ($n = 1015$)

	1.	2.	3.	4.	5.	6.
1. EPI (Estimated policy influence)	1	–	–	–	–	–
2. Subjective wellbeing	–0.064*	1	–	–	–	–
3. Academic self-efficacy	–0.137**	0.440**	1	–	–	–
4. Adjustment to university	–0.079*	0.561**	0.500**	1	–	–
5. University satisfaction	–0.111**	0.281**	0.262**	0.361**	1	–
6. Semester 1 GPA	–0.083**	0.080*	0.269**	0.175**	0.103**	1

* $p < 0.05$ (2-tailed), ** $p < 0.01$ (2-tailed)

a function of programme of study; $F(5,1009) = 0.35$, $p = 0.88$. This finding suggests that, for this sample, no programme appeared to have proportionally more enrolments as a result of the FFP. However, this estimate should be considered with caution since the convenience-based sample is not necessarily representative of enrolments in all programmes of study and thus may not capture EPI among all students who were enrolled in the institution at the time.

Correlations Between EPI and University Experience

Bivariate correlations were examined to test the strength of associations between EPI and students' university-related experiences. As presented in Table 1, weak inverse correlations were found between EPI and the following factors: subjective wellbeing, academic self-efficacy, adjustment to university, university satisfaction, and semester one GPA. These results indicate that greater policy influence linked to poorer subjective wellbeing, lower academic self-efficacy, a more difficult transition to university, less satisfaction with the university, and ultimately, a lower GPA.

Logistic Regression

Because students who were more heavily influenced by the FFP appeared to have a more challenging experience during their transition to university, we sought to inspect the extent to which EPI could predict the likelihood for students to show interest in early departure (IED) within the first few weeks of university study. Using logistic regression, we created a model containing five independent variables: (a) EPI, (b) academic self-efficacy; (c) subjective wellbeing, (d) adjustment to university, and (e) overall university satisfaction.

The full model containing all predictors was statistically significant, $\chi^2(5) = 193.47$, $p < 0.001$, indicating that the model could distinguish between participants who did and did not show interest in an early departure from university. The model was able to explain between approximately 17.4% (Cox & Snell R^2) and 27.0% (Nagelkerke R^2) of the total variance in IED, and correctly classified 81.4% of cases. As shown in Table 2, each of the five independent variables made a unique,

Table 2 Results of a logistic regression model predicting the likelihood in which first-year students reported interest in early departure (IED) from university ($n = 1015$)

Predictor variables	<i>B</i>	Std. Error	<i>df</i>	Sig.	Exp(<i>B</i>)	95% C.I. for Exp(<i>B</i>)	
						Lower	Upper
Constant	2.777	0.536	1	0.000	16.075		
EPI (Estimated policy influence)	0.513	0.102	1	0.000	1.671	1.369	2.039
Subjective wellbeing	-0.114	0.020	1	0.000	0.892	0.858	0.927
Academic self-efficacy	-0.336	0.103	1	0.001	0.714	0.583	0.875
Adjustment to university	-0.352	0.154	1	0.022	0.703	0.520	0.951
Overall university experience	-0.148	0.062	1	0.017	0.862	0.763	0.973

statistically significant contribution to the model. The strongest predictor of IED was EPI, recording an odds ratio of 1.67 (95% CI 1.37, 2.04).

These results indicate that when taking into consideration individual differences in students' subjective wellbeing, academic self-efficacy, adjustment to university, and overall university satisfaction, those who were more strongly influenced by the FFP were roughly 1.67 times more likely to report IED from university within the first few weeks of their university study.

Final logistic analyses were conducted to estimate how much EPI and IED could predict student retention from semester one to semester two. Our full model containing both predictors was statistically significant, $\chi^2(2) = 22.46$, $p < 0.001$, indicating that the model could distinguish between participants who were not enrolled at the current institution in the second semester. The model was able to explain between approximately 2.2% (Cox & Snell R^2) and 8.0% (Nagelkerke R^2) of the total variance in semester-to-semester retention, and correctly classified 96.3% of cases. Our results revealed that students who had reported higher IED in their first semester of the university were 2.85 times less likely (95% CI 1.45, 5.60) to remain at the institution compared to those with lower IED ($B = -1.05$, $SE = 0.34$, $p = 0.002$). Moreover, EPI was a statistically significant predictor of semester-to-semester retention. Results indicated that students who had reported higher EPI were less likely to remain at the institution the next semester ($B = -0.58$, $SE = 0.19$, $p = 0.003$).

Discussion

The purpose of the current research was to gain insight into the Fees-Free Policy (FFP) on students' decisions to enrol in university and early transitional experiences. Findings show that, with this sample of first-year undergraduate students, 1 in 3 participants reported the policy as a contributing factor in their decision to enrol in university. Roughly 6% of the participating students had reported that they would not be attending university had the policy not been implemented. Although these statistics do not represent the full population of all new entrant university students (and therefore variation in results would be expected in a

larger student sample), the current estimates offer unique, valuable information about policy impact. Results from the current study reveal that early implementation of the FFP appears to have had a small, albeit meaningful, self-reported influence on students' decisions to enrol in university. If such policies do contribute to enrolment decisions, then they might also guide students' implicit beliefs about the aims and ends of higher education.

A topic worthy of consideration is the timing of implementation regarding the FFP. The policy was released to the public in late 2017, and any prospective students for Semester 1, 2018, needed to be able to consider the policy and enrol within a very short window of time. There has been public criticism that, although one of the tenets of the policy was to improve accessibility for students, those who have most benefited so far are New Zealand families from higher socioeconomic backgrounds (Girritsen 2018). This critique was not supported in the current sample. Specifically, our findings provide early evidence that the FFP appears to have had a positive impact on enrolment decisions among priority learners as well as students with a particular admissions category: individuals who were 20 years old or older but had received University Entrance (UE) through NCEA. With regards to the latter, students who were eligible to attend university at the end of high school but chose to postpone enrolment could be attributed to a variety of reasons; however, it is plausible that the educational policy was perceived as a potential cost-reducing incentive. It is our current position that estimates should be carefully monitored over time to better support accessibility. We recommend that other tertiary institutions measure Estimated Policy Influence (EPI) and evaluate changes over time as the education climate responds to policy decisions.

One of the empirical challenges of estimating the effects of educational policy on students—especially in the FFP instance—is that a strong majority of first-year domestic New Zealand students are likely to qualify for the policy. Another challenge is that the phenomenon is viewed in light of a nationwide context where university participation rates have continuously dropped each year since 2009 (MOE 2018a, b). It is therefore difficult to pinpoint the extent to which the policy contributed to students' decisions to enrol in tertiary study. Importantly, such estimates of EPI do not only pertain to the university sector, as they may be worthwhile for other tertiary institutions where enrolments could be affected by the policy implementation. Future research might consider EPI in students across the New Zealand tertiary sector to understand the impact on students' decision-making behaviours (e.g., what are their reasons for enrolling?) as well the needs such individuals might need for success.

Similarly, we posit that early nationwide statistics citing the policy's impact on accessibility should be taken with circumspection because students who would potentially be incentivised by a fees reduction may not have been able to adjust their commitments swiftly. For instance, it is reasonable to expect that prospective students with personal, family/whānau, and community responsibilities may have difficulty making rapid changes in their daily lives for enrolment opportunities. As the FFP progresses, it would be unsurprising to see different accessibility trends in enrolment behaviour. Accordingly, tertiary institutions (along with students, family/whānau, and communities) may see positive educational outcomes *if* evidence-based

retention strategies are put into place in light of the potential changes to student demographics (e.g., increased enrolments in students with first-in-family status).

Findings in the current study indicate that students whose enrolment was more heavily influenced by FFP were more likely to struggle academically and socially compared to students who reported more explicit intentions about university study. During this timeframe of early policy implementation, higher EPI was linked to lower academic self-efficacy. It is plausible that students who were less confident in their academic abilities perceived the cost reduction as an opportunity to “give it a go” in the student vernacular. Although there are, indeed, many hidden costs to university study which do not include fees (e.g., textbooks, transport, and not receiving a salary), new entrant students who were incentivized by the FFP might have enrolled with the belief that the policy could be a worthwhile opportunity independent of their readiness. If this is the case, it would be essential to know how extrinsic incentives at the systemic level (e.g., cost-reduced initiatives) motivate prospective students to attempt tertiary study and potential connections to consumeristic attitudes.

Indeed, our results indicate that higher EPI corresponded to a more challenging academic and social transition to university. Building on the results related to academic self-efficacy, it may well be that the last-minute implementation of such a policy did not allow students to have well-informed decisions about what university might be like, thus stepping into a new environment with challenges related to academic requirements as well as the social transition. Increased EPI was also related to lower wellbeing. There could be multiple explanations for such an association, and it is difficult to determine such outcomes without further research. For example, socioeconomic status could be an important proxy; that is, students who are incentivised by cost reductions may come from communities where there is less readily access to support services. Another interpretation is that students who were heavily influenced by the FFP, along with lower academic self-efficacy and a poorer adjustment, may have reported having lower subjective wellbeing as a result of these self-perceptions. Our results further demonstrate that perceived competence, transitional experience, and wellbeing yielded positive correlations with students’ overall university satisfaction.

It is not surprising, therefore, that such self-perceptions might be reflected in students’ academic behaviours. From a practical stance, it may be important for tertiary institutions to monitor and develop strategic support approaches given the potential challenges which cost-incentivised students may bring to the educational setting. It may be beneficial for institutions to strategise in terms of teaching, learning, and support resources as well as strengthening the processes of staff-based referrals. It may also be worthwhile to consider increased staffing of tutors and teaching assistants in large first-year courses where increased enrolments of students who could be less prepared for university.

Although the early implementation of the policy may reveal different trends over time, the current results indicate that an increase in EPI was associated with academic and social challenges against students’ university success. There may also be the case where students who hold a naïve assumption that “free” university is equated to a win–win situation: *if I can perform well at university, then I*

will progress ahead but, if I am unable to perform well, then there will be limited financial costs at hand. As noted previously, Tomlinson (2014) highlighted that—from a private-good perspective of higher education—students tend to report greater self-responsibility; it may, therefore, be reasonable that a public-good perspective may signal less self-responsibility if the government funds tuition fees. It may be that when fees decrease, learner expectations for quality and personal accountability decrease in turn. Future research should be conducted to examine prospective students' attitudes about government-based initiatives such as the FFP to understand not only whether the policy is having an impact, but also how such an impact affects the motives and actions of individuals.

Students who were more heavily influenced by the FFP reported stronger interest in an early departure from university within the first few weeks of the semester. Further, policy influence and intentions for early departure were linked to semester-to-semester retention. This suggests that, even with a sample of particularly persistent students (i.e., a high retention rate), cost-incentivised enrolment could still predict intended and actual departure. Such findings evoke potential concerns about the short- and long-term retention of students. For example, a particular issue is that increasing university accessibility (especially among under-represented students) is only one of many steps along the path to educational success. If students enrol as a response to cost incentives and are more likely to struggle academically and socially, then they may exit the higher education system as quickly as they had entered. A revolving door of education has critical implications beyond enrolment statistics: students who have the ambition to study at university but lack essential skills may choose to depart early on and, ultimately, underestimate their own perceived abilities, talents, and competence. Those who attempt university without a clear understanding of what university entails, both in terms of standards but also the time and financial costs, may develop negative attitudes about university as an ivory tower. Such attitudes may have a broad impact; for example, recruited students may not recommend university when interacting with family/whānau, and the local community.

This potential issue is noteworthy, given the large percentage of the local community in many New Zealand tertiary institutions. When considering how recruited students view their local university, reputation matters. Similarly, we maintain a belief that educational institutions have a fiduciary duty to students, both in terms of academic support, mental health, and wellbeing, but also their families, whānau, and communities. If an educational policy is viewed solely through a population-based lens, then there is a lost opportunity to consider the practical influences on individuals within the system. From a psychological perspective, if the FFP were to effect change on the demographic composition of tertiary students, then institutions must be prepared to change so that individuals gain access not only to education but also the resources they might need for support. If increases to tertiary enrolment come into fruition, then it may be beneficial for institutions to reconsider their recruitment resourcing (which may be offset by governmental policies) with reinvestment into evidence-based retention activities such as teaching quality and student support.

Limitations

Although many have been previously noted in this article, the current research includes several limitations which should be addressed in future research. First, our study represents a sample of undergraduate students at one New Zealand institution at the university level; thus, the generalizability of the findings is limited. As noted previously, our semester-to-semester retention rate was unusually high and, therefore, findings are likely to underestimate the transitional experiences by struggling students. Retention rate estimates should be considered with appropriate caution, as we are unable to determine whether a student has transitioned from one institution to another. Second, from a measurement perspective, our observed indicator of EPI included one, 3-point Likert-style item and its validity and reliability are subject to criticism. We recommend that future research should expand the item's scaling to a 5-point range and perhaps additional items related to policy influence as a way to establish a more fine-grain measure of the construct at hand. Such changes would likely offer greater differentiation in participant responses and, hopefully, more meaningful and trustworthy results. Third, the cross-sectional data in this study are correlational and, although semester two retention estimates were available, causality cannot be assumed. However, examining such dynamics may help to illustrate and anticipate the encounters among students who might choose to enrol in university as a response to cost-related incentives.

It would be beneficial for researchers to adopt different methodologies to extend our early understandings of the FFP on prospective students in Aotearoa New Zealand. For instance, qualitative or mixed-method approaches would help to identify decision-making processes and subsequent experience of students who were heavily influenced by cost-reducing incentives. Longitudinal designs which consider the impact of educational policy on individuals over time would be beneficial to institutional and governmental understandings beyond enrolment statistics. Last, it would be helpful to work through different paradigmatic lenses to create a more holistic picture of FFP and its impacts from educational, sociological, philosophical and psychological perspectives.

Conclusion

The current research offers empirical support that early implementation of the Fees-Free Policy (FFP) has a small, albeit meaningful, influence on New Zealand students' decisions to enrol in university. With this particular sample, the policy seems to have successfully reached non-traditional student cohorts (e.g., age, ethnicity, admission status, and priority learner status). However, students who are more heavily influenced by cost-reducing incentives could be more likely to struggle academically and socially during their transition to university; further, they may be more likely to show interest in early departure and to withdraw from

the institution one semester later. If such a policy adjusts the landscape of tertiary education, then students, their family/whānau, educational institutions, and the government must be knowledgeable about potential challenges while also appropriately resourced and proactively supported for success.

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