# NCSEHE webinar — “Ghost student” failure among equity cohorts: Towards understanding non-participating enrolments

SARAH O’SHEA:  Well, welcome everyone to today's webinar. I'd just like to begin by doing an acknowledgment of country, to the country that I'm currently on. Today I'm located on the Whadjuk Noongar from the past, present and in the future.  I wish to pay my deep respect to all the ancestors and members of their communities and to their emerging leaders. Our passion it to work with all Australian people and people from across the world including our First Nations people are at the core of the work we do both here at NCSEHE and across Curtin and reflective of Curtin's values and commitment to our role as leaders in the reconciliation space in Australia. Thank you for joining us today. My name is Sarah O'Shea. I'm the director of NCSEHE. NCSEHE is housed at Curtin University and founded by the Commonwealth Government with a dedicated mission to improve the higher education outcomes that is access, participation, retention, success and completion rates for marginalised and disadvantaged people through a variety of strategies, including research practice and policy. We are really excited today to have Bret Stephenson, Michael Luckman and Beni Cakitaki from the centre for higher education, equity and diversity research at La Trobe University who will present on the phenomenon of ghost students. Those are students who remain enrolled in undergraduate units but show no evidence of participation. Having taught myself online for well over a decade, this is a situation I've come across and I've found myself trying to contact students with little or no success. As educators and equity practitioners, we know profound effect the cruel debt this can have on these students that attend. Considering this research is a really important focus moving forward. Before we begin I have a few housekeeping details. This Webinar is being live captioned by Bradley Reporting and will be recorded. The recording will be available on the NCSEHE website in the coming days. To activate closed captions click on the CC button on the tool bar. We've highlighted this on the slide that you can all see. We also have captions available via browser. Nina will add that to the chat pod now. If you're having any technological difficulties, please email us at ncsehe@curtin.edu.au. Today the presentation will run for about 35 minutes and at the end we'll have 10 or so minutes for questions. So before we begin, I'd really like to encourage everyone, because we have such a diverse group here that have registered for the session, could you all go into the chat pod and introduce yourselves. It's so nice to know who is out there in the ether and perhaps include the country that you're currently located on as well. Just remember to choose all panellists and attendees when you post. But if you have a question for the panel, could you please put it in the Q&A box. Again we've highlighted that on the slide. You can also vote on investigations posed by others. We've also received some questions from participants already. So if we have time I'll ask these as well. Okay. Well, I'm going to stop sharing my screen and I'm going to pass it over to Bret and Beni now where they'll do their presentation. Over to you two.

BRET STEPHENSON:  Thank you, Sarah. Has that worked?  Are you seeing my screen now?  Okay. Great. All right. Well, I too would like to begin by acknowledging and paying my respects to the Wurundjeri people, the traditional custodians of the land on which I, and I think most of my team, are situated today. I'd like to pay my respects to their Elders past, present and emerging and acknowledge all Aboriginal and Torres Strait Islanders here today. Thank you very much for the National Centre for organising this and all the work you've done to help us get this to where it is today. I might just start by making sure my PowerPoint works. Here we go. Just reminding everyone that we've done our best to condense a fairly extensive report into a short presentation and in doing so we've had to do quite a bit of triage and hopefully made it of interest to as wide a group as we can. Please do have a look at the full reports if you are interested in doing so. I might just start with a bit of an indulgence. A personal anecdote here. I think this will ring true to a lot of you listening today. I came across this issue in my first teaching foray here in Australia. I was teaching first year undergraduate Bachelor of Art units and I really saw two things. I saw students who attended class, some of them quite eagerly attending class, participating in class but who would never hand in a single piece of assessment. They were a very interesting group in themselves. Very small. A slightly larger group would be what we tend to think of the ghost students being those that never show up. They appear on enrolment sheets but we never see them. It was never really clear, especially in those early years, quite how widespread and common this behaviour was. Then around 2014 I was perhaps for my sins appointed to look after this new subject improvement program that was university wide. At the time we had something like 5 faculties. The idea was to get each faculty to identify eight subjects with really the highest fail rates amongst their first year subjects or units. The idea was to get teams together to kind of analyse what was going on with these fail rates and try to remediate them by working with the unit subject coordinators. So we had all kinds of subjects in this program and many different personalities and many different, kind of, statistical mixes of what was going on with these students and so, for instance, I would show up and I would be talking to a unit coordinator and I would say, the university is reporting a 30% fail rate for this subject. They would say but hang on, I never see half of those students. They are the ghosts in the machine and we don't count the ghosts. So we started to look into this. In some cases we would try and identify the ghost students and in some cases it would drop the fail rate by half, so 30% down to 15%. Then it was really the beginning of a bit of a soul searching exercise, in terms of what do we do about this. Who should be in the program?  More than that, should subject coordinators, unit coordinators, be held accountable for ghost student failures. Is this an institutional problem?  Is it saying something about university course quality, unit quality?  Does it say something about our admissions practices or perhaps prerequisites. Many of these things of course are outside the control of an individual unit subject coordinator. Others would want to take the other deficit and ask questions about the students and what's going on with them and why are they knowingly taking on this accumulation of useless debt but going through this subject support program we found that this was a much more common phenomenon in higher education than I think a lot of us have realised. So a quick note on nomenclature. We have been arguing about this for about three years, as Beni and Michael can attest. What do we call this peculiar behaviour?  We don't have a standard to follow and ghost students is, of course, probably the most commonly used amongst, colloquially, academics. It's great for marketing, puns, for all kinds of things. But there are problems, of course, with consistently referring to ghost students and I would like to talk about a few of those. So we've gone through a number of candidate phrases to talk about what's going on here. We know that ghosts, zombies, the phantoms, no-show failures. Of course, there's probably little chance that the DESE is going to adopt one of these. It is informal. It could be seen as negative in tone. Passive withdrawal is another one that's been suggested. We have basically rejected this one. It sounds a bit too much - it tunes the mind to withdrawal rather than failure. It has other problems with it as well. Another attractive one is inactive students. This one seems to be dominated already where they talk about inactive students in online discussion forums and such. It can be here in Australia referred to as AWOL or deferred students. This has a number of advantageous, NPE students. Rather than a course or student enrolment. The reasons we think this is important is because we found that some NPE behaviours are singular. They are even strategic. So we see that a student may have four subjects or units enrolled. They may sacrifice one, it seems, strategically to focus on the other three. So that's very much leading us to think of this as the unit enrolment rather than a student or course level phenomenon. It also allows us to then later, when necessary, to talk about partial or total NPEs, as we'll talk about a bit later. After much thought we have landed on non-participating enrolments that avoids confusion with other terms. It's more dignified than ghosts perhaps and makes a very tidy three letter initialism. If there's one thing I've learnt about Australians they love an initialism or an acronym. Therefore here's our, kind of, suggestion. Now, a bit of background on the ghost student phenomenon in Australian higher education. I think it's safe to say unit failure is relatively common in Australian universities. In 2019, 15.4% of all domestic commencing undergraduate unit attempts resulted in a failure. As Beni will show us, if we look at that as the percentage of students that experience failure, it's still much higher, closer to 30-33% in our study. It's fairly common yet we have comparatively little research that's directly focused on unit level failure. We focus much more on success indicators like engagement transition, retention, course completion and the student experience and as everyone who thinks about these things does, we must quote Peelo here who is observed from a UK perspective, and is really talking in an international context. She says that while failing or failure is a part of everyday experience in universities, it hardly seems to matter in the education literature. There have been few attempts to understand failing as an ever present phenomenon within higher education. Our take on this, and I'll just indulge and quote ourselves here, we do think it is unfortunate and we do spend some time in the full report discussing why this is, but the neglect of unit level failure in the research, we think, is obscuring, perhaps exacerbating harms to students for whom we have a duty of care towards. We just want to make the argument that we think it's really important that we delve into this. So the elephant in the room here is certainly the Job Ready Graduate bill that came out while we were doing this research and probably elevated the importance of what we are looking at here. Very briefly it introduces a broad set of rules and radically changes the consequences of unit level failure for CSP students and of course the universities they attend. This will take effect for commencing students in 2022 and importantly it links the unit level outcomes to failure. There are two bits of the JRG that are particularly relevant to NPE discussions. That is the 50% pass rule and the genuine student test. Now, I'm looking at the time and I might just skip through this next bit but I just want to flag that we're aware of that and the 50% pass rule is important, of course. It's a bit more clear what the implications for NPE will be there. The genuine student test is a little less clear for us anyway. So I'll skip this bit here and move on to how we define non-participating enrolments. So if this is a typical pathway through typical unit outcomes. We know, of course, that there’s the first census where a student can withdraw without financial penalty. The second census where a student can withdraw - I'm sorry. The first census they can withdraw without financial penalty. The second they can withdraw without academic penalty. Then, there is of course the academic outcomes. They can, of course, pass the unit or they may attempt the unit yet fail without participating, without attempting any assessment tasks. This is what we call the non-participating enrolments, the ghosts, the no shows. Then they may attempt the unit with full participation yet fail or perhaps attempt it with partial or low participation and fail. These are sometimes ungenerously called earn failures. We tend to refer to them all as nonzero failures. There's more to say about the significance of the second census date but for the time I think I'll just skip that for now and maybe come back to it if there's questions. So to be very clear, our definition of NPE results and failures is this: We define non-participating enrolments as any credit bearing unit attempt that results in a fail grade and a numeric mark of zero. We include only the clearest examples of unit level disengagements where absolutely no credit was achieved by the student no matter how small. Here is what I consider to be at least in the top five of greatest charts in Australian higher education history but this is a distribution of fail marks for our study from 2012 to 2017 commencing domestic bachelor students. Here you can see that the non-participating enrolments, the zero failures, account for about one quarter of all fail grades. That is not insignificant, of course. We can think of these here, the anything above zero to maybe 35. You may want to consider the low participation fails. Then we have this interesting group where it appears a student made an attempt to pass the subject but marginally failed but once again we consider all of these nonzero failures. I want to point out just what really our high level argument is here and it's this: High levels measures of learning and teaching qualities such as the binary success rate have obscured critically important subtypes of students failures. How a student fails we argue is of great importance. These subtypes of failure fundamentally matter. You can just think of the difference, for example, between the NPE side and the marginal fails. Those two things carry very different quantitative but also qualitative differences. They carry very different meanings. It means that the likelihood of academic recovery for those two types of failures is also very different as we've found and these different types of failures, these subtypes, require, we think, very different institutional responses, interventions, policies and procedures. So just to be very clear about our central argument here and now I'm going to hand over to Beni to walk through some of the quantitative results we've found.

BENI CAKITAKI:  Thanks for that, Bret. So before I start I'll also acknowledge the traditional owners of the lands which I'm presenting on, which is the Wurundjeri people of the Kulin Nation and pay my respects to Elders past, present and emerging. So as Sarah introduced, my name is Beni Cakitaki. I'm a senior researcher at CHEEDR and one of the resident data nerds there as well. Today I'll be running through quickly some of the quantitative findings of the report. It's potentially the boring part of it so I'll be as quick as possible. I'll start by outlining the aims of research and then talk a little bit about the data methodology and then I’ll go through some of the key findings of our study. So we had three primary research aims of this project. First we sought to quantify NPE as a phenomena and compare and contrast it with what's conventional unit failure. Second we wanted to examine where the student equity membership is associated with NPE behaviour and third we wanted to know to what extent NPE behaviour might be associated with course retention and six year completion outcomes. So I'll just get you to go to the next slide. Thanks, Bret. So the students we captured in our sample was only commencing domestic bachelor students between 2012 and 2018. So we pulled all these years into a single dataset. So all up this was a tick over 38,000 students and a bit over 254,000 completed units all up. So we didn't include international students. We didn't include continuing students or sub-bachelor students, postgraduates or students under 18 and also I think it's important to point out because of the years we chose, or the data we could get, we also didn't really have any online subjects, which is obviously significant for people wanting to know how COVID went. So I'll get you to go to the next - sorry, Bret. Yep. Great. So from this data we ran four logistic regression models on the following outcomes. So the first was whether a student had registered an NPE. The second, whether they'd registered a fail grade. The third, whether a student was retained at the institution and finally whether a student had completed within six years of commencement. So we included equity indicators for socioeconomic status, regional and remote status, non-English speaking background and Indigenous status. Unfortunately we didn't have access to disability or first in family indicators but that's for further research consideration. So our models did control for broad field of education and campus geography. We included covariates for gender, age, attendance type, basis of admission and also ATAR. We presented model outputs as average marginal effects. So for those not across the arcane detail of regression modelling, an average marginal effect is the average percentage point change in probability of the outcome of an interest occurring. An example is, if our model tells us a male student has a 60% probability of being retained, and our average marginal effect estimate of female students is 6 percentage points, then the model tells us female students are on average 6 percentage points more likely to be retained. Thus on average have a 66% probably of being retained. All else held equal. Just before I go through the findings themselves, I'll just flag a few notes of caution. First, our measures of retention and six-year completion don't account for transfer students. So compared to the retention and completion rates published by the government who can track students who move between universities, our six-year retention and completion numbers are biased downwards. It's important to keep that in mind when interpreting our results. Second, our data is only from a single Australian university. So it's obviously limited in what we can infer for the sector as a whole. So with that in mind on to the findings. So what we found is that unit failures are actually quite a common experience among students. So a third of students in our sample had failed at least one unit in their commencing year. This finding itself aligns quite neatly with an excellent 2019 report authored by Bernadette Walker Gibbs and Rola Ajjawi and colleagues. They used data from another Australian university and found that it was roughly over a third of universities also in their sample that had failed one or more units. So in our data we also found NPE was also relatively common. 1 in 10 students in our sample registered at least one NPE. As Bret alluded to earlier, we also found that NPE behaviour did not necessarily define the overall academic performance of students. So 8.9% of students in our sample were what we termed partial NPE. So there was some evidence in other units that they completed that they had participated to some degree. Just 1.9% of students are what we call total NPE, which is to say that every unit they only took was an NPE unit. So I'll get you to go to the next slide and I think in the interests of time we'll skip that because it takes a bit of a process and we can come back to it. I'll go straight to the model output itself from the NPE model. I'll just get you to go to the next one. Thanks, Bret. So I can talk to the chart. Yep. Thanks. So this is just a plot of the average marginal effects for the NPE regression model. So we've got the points here, the dots. So that's the point estimate of the average marginal effect. Then the lines which is the 95% confidence interval. Then whether it's red or grey signifies whether it was statistically significant or not. As you can see from this model or potentially not because it is a little arcane. We found no adverse effects of low SES, regional and remote or NESB equity groups. Importantly we did find that Indigenous students were on average 7.8 percentage points more likely to register an NPE than non-Indigenous students which was quite significant. Bret will speak to that later. Part-time students were also a large risk factor and NPE risk was universally related to ATAR. So looking at a retention and completion models, we found that NPE overall was a major risk factor for both models. Also interestingly in accordance with many other studies of completion and retention, part-time study was a large risk factor, even after you accounted for commencing year academic performance. This is just the average marginal effects for the institutional retention model. We see that NPEs associated with a 10.1 percentage point decrease in the probability of retention. Again, no adverse equity effects. NESB and low SES students are actually at a higher probability of retention again as mentioned part-time study associated with a 23.4 percentage point decrease in the probability of retention. Next slide. This is a six year completion model. Again, NPE big risk factor for non-completion. It increased the average risk by 27.4 percentage points, risk of non-completion. Again, we see no adverse equity effects except with regional or remote students actually have slightly higher likelihood of completion in 6 years. And, as mentioned, part-time study is a large risk factor for non-completion. So I guess the next question is what do we do from a quantitative perspective to improve the evidence base? First cab off the rank is we need more data from more universities so we can get a better picture of what NPE looks like. We also need to know why students are engaging in this behaviour and that takes things like qualitative and mixed methods studies. That can draw on the experiences of students themselves. So that's me. I'll hand it back to you, Bret. Thanks.

BRET:  Thanks, Beni. So in the full report we have a fairly extensive discussion of the findings but for the purposes of today we'll really just speak to the recommendations. There are nine recommendations that we landed on in the end. The first of them is that we recommend Australian university planning and performance units should carefully track, report and utilise non-participating enrolment statistics. Here we're simply saying yes we should count the ghosts and we think that fundamentally that NPE numbers and trends should be investigated and tracked and understood at all levels of an institution, subject coordinators, program coordinators, all the way up. And data dashboards, of course, can play a big role in this. Most universities have this these days. That this is part of really socialising this NPE phenomenon throughout the university so that all eyes and minds are attuned to it. Australian universities should work to particularly understand and address NPE amongst Indigenous students. We believe that additional advising and support could help lead to significant improvements in Indigenous student completion and retention outcomes. There are really two things we should focus on here that we think come out of just this study that needs to be replicated. Two critical findings. One is if not for NPE results the rate of failure for Indigenous students would be near parity with the rest of the university population. Another way of saying this is that the nonzero failures in this study are currently near parity. And so if we can effectively address NPE with effective interventions we would, we think, dramatically improve success completion and retention outcomes for this cohort. That's the hopeful bit. The worrying bit is this, and that is the JRG, the 50% pass rule, in combination of higher rates of NPE is likely to have an outsized impact on Indigenous students. We think this is urgent and universities around the country are turning their minds to this and thinking through what we can do to address this, at least the risk that the JRG will have an impact. I just want to call out those two things briefly. Recommendations three and four are really of a piece. That is that we argue Australian universities should adopt a grading scale that captures this full taxonomy of student failure and that grading scales and policies should be reviewed to capture, again, NPE and other important subtypes of failure. In saying that many universities do. They do this already. It would be a fun afternoon exercise to pick your three favourite Australian universities and have a look at their grading schemes and ask yourself, are they capturing NPE-like grade descriptions and like I say many of them do. Many of them have a problem where they have too many descriptions that sound very much like NPE results and we've seen that it looks like there's inconsistency of use and therefore the actual - what we think of as NPE as getting lost in the mix and you can think of these descriptions as, for instance, no show, did not submit, did not sit for exams and such. So you can imagine a marker trying to select which one of these categories is NPE related and it can be quite difficult. That's one of the reasons why we opted for a numeric mark of zero as our definition for NPE which works for about 98% of Australian universities but there are a few that are still tricky and we've described that in the report as well. Number five, Australian universities should create policies dedicated to NPE failures and make the tracking and remediation of NPE failures a central feature of their student success and retention and student equity strategies. I think all universities have these strategies and policies and I think we're at a point now where if these policies and strategies lack a strategy specifically dedicated to NPE that probably needs attention. We've seen the scale of which this particular type of failure achieves and it's certainly worth embedding in policy and procedure and, again, that's part of helping to socialise this problem around your institutions. Number six, Australian universities should adopt academic progression and monitoring APM policies and practices that recognise the differences in relative severity and impact of different types of student failure, but particularly of course NPE failures. So effective NPE interventions, of course, will be preventative. We want to try and capture those students before, especially that first census date. They will also of course be responsive after the fact and APM processes exist in every Australian university and that would be a natural place for institutions to, again, think hard about how they, we, respond to NPE failures and NPE results within APM processes. Again, we think that timely academic advising is key. I would point out again some universities in Australia already do this but we think there's a difference in response needed for NPE failures. Very early intervention is extremely important and job graded graduate rules are going to make that all the more important. Seven, the Australian Department of Education, Skills and Employment should adopt an NPE definition and make the reporting of NPE results a regular feature of HEIMS data collection. This may sound a bit grandiose. Again we think and we argue that the collection of only very high level binary pass/fail success rates or unit outcomes has served to help obscure this problem. It's helped obscure these subtypes. You can see the utility in having these high-level reporting requirements because the grading scales across Australian universities are so diverse that keeping it quite high level allows for that diversity to carry on but we do think that something important is being missed by not including some of these important subtypes which we think NPE is the most important. Researchers of higher education should account for and include NPE failures in relevant research studies. I think the ship has sailed on this one. If we're not counting ghosts in our success and retention research and not reporting on them then we are missing something important. A just very quick example is if we have a curriculum based retention intervention and we see it may improve outcomes for students heavily engaged in that intervention but if we're not looking it may also increase NPE results as well. So if we don't report those outcomes for the ghost students, just as we do for those who are fully engaged in the intervention, then we have very skewed results and so this is just a plea for the research community to please start making it quite clear what role ghost students, NPEs, may be playing in the outcomes. It's not saying it hasn't been done by some researchers, of course it has. Finally, researchers of higher education should seek to further extend the findings of this report by conducting qualitative research. Now, we've done, I think, a pretty good job of describing the scale and making an argument for the importance of tracking and understanding NPE but we really have little to say about the why of this peculiar behaviour. In the conclusion discussion of the full report we do make an attempt to discuss what we see in the data and challenge some of the notions out there, in terms of what might be motivating this behaviour. So we think, for instance, that it's very revealing that this behaviour is not always total. It's not always total NPEs. It's often partial. It seems to be selective and sometimes strategic. We've done very little. We're no closer to answering the why of this behaviour. So we really need some qualitative research that is survey based perhaps to better drill down on exactly what is motivating this behaviour and, again, we don't think that blame the student or simply blame the institution approaches are going to make much of a difference here. That the truth is somewhere in the middle and the truth, in terms of what motivates the behaviour is probably quite diverse and I think we have seen that in our research. So I think I'll leave it there for now. I think Sarah - is Sarah there?  Was I on time, Sarah?

SARAH:  You are bang on. I cannot fault you. Thank you, Bret. Thank you, Beni. I believe Michael is going to join us as well for the Q&A because we've had a lot of action in the Q&A area and just to remind everyone that if you'd like to vote for any questions or indeed add your own, please go into the Q&A and vote up the questions but I'll kick off questions now. Cameron posted a question which has been very much liked. A lot of thumbs up for Cameron's question. He asked, did you look at engagement metrics such as LMS access and association with NPEs?

BRET:  I'll take that. Yes, we did. We have in the past. Part of our work is predictive analytics actually, kind of our day job. So we've been quite interested in trying to predict by sifting through the digital dust who is going to ghost us and who isn't. We found - the bottom line there is LMS data is necessary but not sufficient to predicting eventual ghosting and the shortest summary point I can make there is that I think in one group of students that we looked at, we looked at all of the students who were inactive in LMS up till week 5, up till the first census. We asked how many students will eventually pass, of those students who were completely inactive. The answer was something like 20 to 25% of students are late bloomers in the subject and will motivate and actually pass the subject. That makes it very difficult for us to have an equitable or I think totally effective intervention pre-census. That's not to say there aren't things we can do but there's other data points that we can supplement with that. For those of you interested in the predictive analytic stuff, probably the best predictor of future NPE or ghosting is past NPE or ghosting. So that makes it harder for us to predict what's going to happen with the commencing student as well.  Other universities are doing this. I've been contacted by a number of universities who are interested in this question of intervening early and, again, using some form of predictive analytics to try and catch these students so they can be advised one way or another. So I hope that answers the question. It's a good one.

SARAH:  Yeah. I think that does. I think LMS data needs to be very much contextualised as well from my own experience of teaching. So Catherine also has a very popular question. Catherine is quite interested about part-time as being a risk factor and makes the point that this is thing that we as academics and support staff suggest to students or indeed we often impose on them when their progress does become problematic. Is this then bad advice?  Should we really be doing that?

BENI:  So I guess the thing to mention is a lot of these studies around retention and completion are observational. They're not actually nailing down much in the way of causation. The causational relationship could go the other way. There's part-time study causes low rate retention or completion. Or if you're already at risk of low rate retention and non-completion you're more likely to engage in part-time study. So it's like a call to arms to get better at this kind of causal evaluation. But it's kind of a student contextual call, I'd argue. For some students it makes sense to go part-time, even if it is, you know, a little bit higher risk for them to leave the institution.

SARAH:  Yeah. Thanks, Beni. Alex has also read ahead a little bit and he had - assuming a he or she sorry, had a question around suspicions or thoughts around the reasons for NPE behaviour, particularly for Indigenous students. Why are they a particular group in this study?

BRET:  Yeah. I think the short answer is we simply don't know and certainly this study gets us no closer to understanding that and so I think we simply wouldn't hazard a guess but it really is, I think, as Beni says, a call to arms to get some deeper research going and to better understand exactly what is happening so that we can shape effective interventions and such because it does seem to be clear that if we can really effectively address NPE behaviours in particular that that might be, you know, extremely beneficial, in terms of these outcomes. So I think the best we can say is we don't know.

SARAH:  Fair.

MICHAEL LUCKMAN:  I guess just linking to what Bret said earlier about the LMS data, I think we as researchers would prefer maybe nudge interventions, positive interventions, maybe to encourage students to resume their studies or encourage them to think about the status of their enrolment rather than something more draconian around un-enrolling or forcibly un-enrolling students or anything like that.

BRET:  Thank you Michael. I think that's important to stress. We've seen the damage that's been done if we run head long in terms of trying to remediate these problems. I'll leave it there.

SARAH:  Okay. Thank you, Bret. Did you notice any particular breakdown related to specific programs or disciplines or particular faculties in your research?

BRET:  So we kind of purposely avoided that for this particular study. I would say that we do see it, for instance - I don't want to say too much but we do think higher rates of NPE are likely linked to things like certainly online learning. Even that is odd and I think those listening would find it interesting that, you know, thinking of our NPE definition in that it's zero. Right. A zero return. We can actually see over the years with the introduction of blended learning, so a greater LMS component to the subject, so that means early assessment tasks that are probably LMS based quizzes, we can actually see the NPE rate ticking downwards over the years as more and more blended learning comes in. We also know simply by chatting to people around the country, and as you mentioned Sarah, NPE rates are very high for online learning too. That's something of a paradox. Strictly online learning tends to be much higher, it looks that way. But with the introduction of online learning elements and blended learning elements, the NPE rate is going down. Now, we shouldn't necessarily celebrate that because shifting a student from a zero to a 5% mark isn't something to necessarily celebrate but there is something interesting going on with online learning, full online learning and blended elements of online learning. That I'm confident to speak to.

SARAH:  Yep. Thank you, Bret. Catherine asked, were you able to distinguish in the study between students who received zero as a penalty for a serious misconduct such as cheating?

BENI:  No we weren’t. Yeah, that wasn't - we basically got the data that was handed to us more or less. Very good data but there's a limit to how much detail we can squeeze out of that stone.

SARAH:  Yeah. Actually and on that note Tailor is wondering where did you get this information from, what database did it come from?

BENI:  So it was from the university in question, kind of a user agreement. No award for which university that might be given where you work. But, yeah, it's not publicly available, let's put it that way.

MICHAEL:  It's the student information system.

SARAH:  Okay. From a particular university that we won't mention. Jack has asked, and I'm really interested in this as well, just purely from my own background and talking to students who were technically NPE, but do you think partial NPE is financially motivated?  For example, needing a certain study load to receive a payment from government, did you consider that at all?

BRET:  Yeah. I'd say we've considered it and it's been suggested to us. We've looked through the literature and in the full report we cite two earlier studies that were done on NPE like behaviours amongst pathway programs and in at least one of those papers they at least float the idea that that has something to do with the behaviours. That there's financial motivations. You hear it whispered at conferences and such. Again, sorry to carry on, but we don't know. Over the years and just anecdotally and I'm sure other teaching academics who are listening have probably seen students try to maintain a full-time status. Therefore once they get deep into the semester that may be why we see some of this sacrificing of subjects, where they prefer to for whatever reason remain full-time. Again, interesting question. We'd all love to know the answer and we're sorry to disappoint.

MICHAEL:  Just further on that, there is the element of student income support but another element is the financial cost of doing the subject or the course itself and while we didn't look at it in our study, another study did look at NPE like behaviour in enabling courses which often don't have upfront or any cost to the student involved and they found that NPE was twice as likely in their study in enabling programs than it was in our bachelor programs. So it does seem likely, you know, that the student fees, even through the HECS scheme, are a factor in NPE behaviour.

SARAH:  Okay. Thank you, Michael. Sharon has asked, she might have missed this, did you find it was a bigger problem or a similar problem in first year cohorts?

BRET:  So, Beni, do you want to speak to that?

BENI:  Yeah, it was. Basically a lot of that has to do - so we did look at continuing within our own institution and basically what it has to do with, it's like a selection effect. So because you're more likely to leave the institution if you have an NPE then over time those students kind of filter out of the institution so you're left with kind of second, third, fourth year students who are just by virtue of the fact they've stuck around, are less likely to be the kind of students that also engage in NPE behaviours.

SARAH:  Okay. Thanks, Beni. I've got a question from Cathy who says, the part-time undergraduate cohort tends to be largely mature aged students as well. So do you think there's a need to recognise that maybe mature aged students are higher risk of NPE?

MICHAEL: Beni, was age one of the covariates in your regression modelling?

BENI:  Yeah, it was. Off the top of my head I can't really speak to it though unfortunately which probably means it was less significant - it wasn't something of particular significance. Yeah.

MICHAEL:  I think the theory that we've discussed around some of the motivations for NPE, particularly those that are one-off, is that students, you know, navigating complex workloads and are making a decision in order to succeed in maybe their other units to just ghost one, and I imagine if you have caring responsibilities or employment responsibilities on top of that, that could certainly be a factor.

SARAH:  Okay. Thanks, Michael. We're getting closer to the end and I'm still conscious there's a number of questions on the Q&A. So I do know that you have all kindly agreed to, sort of, do some responses just in a written form if we don't get to them all today. But I thought we might end with Alex's question because it's very popular and it's also quite pertinent to a lot of people who are probably listening. So do you have any thoughts yourselves or sort of recommendations about how universities could better support these NPE students?

BRET:  Yes.

SARAH:  Oh good!

BRET:  I would say we have thoughts on it. I think the policy regulatory changes that have come into effect quite recently or are about to come into effect, here I'm thinking about TAXI, if I'm saying the acronym right, along with the JRG have changed things. I think a lot of universities are still struggling to understand exactly how things are going to be changing in that respect. But clearly we at least are attuned to those particular points that we can be of help and so, again, pointing our efforts towards that pre-first census kind of deadline, in terms of advising students, in terms of whether they want to keep their full enrolment or not, and again counselling students through APM processes or whatever it might be, host events. The really tricky one, I think, or the interesting one we could have talked about for some time is what can universities do post-first census and pre-second census. Right. There's a lot to consider there. There isn't a whole lot to be gained but at the very least students can protect their GPA or their WAM during that period by a late withdrawal but it still counts as a failure. It still counts towards, it looks like, that 50% fail rule in the JRG but there is some benefit to be had there as well. I'm not sure if I've fully addressed the question there.

SARAH:  I think you have. This is an enormous issue but I think what your research has so successfully done is spotlighted this as an issue and something that needs further consideration. I think at that point we might stop and I'd really like to thank you all for joining us today. I found it just a fascinating research and just to remind everyone as well that we do have a copy of the report available online. So if you want to delve in deeper and learn more about the study. It is available on the NCSEHE website and Nina has posted that in the chat pod as well. So just to finish off, I'd like to remind everyone that you can always engage with the National Centre. We do have a regular newsletter that comes out and also we have a website and as I mentioned we've got the report up there. We also have a number of reports coming out from our grant program and this is one example of the research that was funded through that. We have Twitter and Facebook as well. Just a very brief plug for our next webinar as well where we're looking at careers and student equity, in terms of the best and most appropriate ways to provide careers advice for students from disadvantaged backgrounds and we have an array of research being presented at that two-hour webinar, actually slightly less than two hours. So thank you again, Bret, Beni and Michael. We look forward to hearing more about where your research goes. Thank you.

BRET:  Thank you.

BENI:  Thanks, Sarah.