USC AUSTRALIA

NCSEHE
National Centre for Student Equity in Higher Education

Curtin University

CAREER CONSTRUCTION, FUTURE WORK AND THE PERCEIVED RISKS OF GOING TO UNIVERSITY FOR YOUNG PEOPLE FROM LOW SES BACKGROUNDS

Research Fellowship Project Booklet

Maria Raciti

Make tomorrow better.

ncsehe.edu.au

Research Fellowship Project Booklet

Career construction, future work and the perceived risks of going to university for young people from low SES backgrounds

Maria M. Raciti

Suggested citation:
Raciti M. M. (2019). *Career Construction, Future Work and the Perceived Risks of Going to University for Young People from low SES Backgrounds: Research Fellowship Project Booklet*, Perth: National Centre for Student Equity in Higher Education.

We live in uncertain times.

Making occupational decisions is increasingly complex and fraught with risk. Present-day secondary school students wrestle with occupational hyperchoice and speculative work futures. For those from low SES backgrounds, the risk is amplified.

With predictions that jobs in the future are more likely to require a university education, there is a need to accelerate efforts to increase the participation of people from low SES backgrounds to prevent the further deepening of social inequalities.

Indeed, stemming the deepening of social inequalities was the impetus for this Fellowship project.

Project Overview

Aim

The aim of this Fellowship project was to understand the interplay between career construction in the 21st century, future work, and the perceived risks of going to university for young people from low socioeconomic status (SES) backgrounds. This project highlights the need not only to continue but to accelerate efforts to widen participation (WP) in Australian higher education. It has been long-established that the benefits of a university qualification extend beyond the individual to their family, communities and society for the common good. Indeed, the high-level reason why people from low SES backgrounds participate in higher education is to author "a better life" for themselves, significant others in their lives and potentially future generations. In simple terms, a university qualification enables social mobility for people from low SES backgrounds, allowing them to improve their socioeconomic status and quality of life. WP seeks to uphold The United Nations (Dugarova & Lavers, 2015) vision of "a society for all" so that no one is left behind. WP safeguards the principles of *A Fair Chance for All* (Department of Employment, Education & Training, 1990), keeping the doors of opportunity open, uplifting aspirations and the hopes for a brighter future.

The variety and success of WP initiatives since the Bradly Review (2008) have been remarkable. There is no doubt that great strides have been made with increasing the proportional representation of students from the core equity groups in Australian universities (ACIL Allen Consulting, 2017). The target of achieving parity is within sight and within reach—but we still have a little way to go. By leveraging the existing WP momentum and evolving from WP practice-led research to research-led WP practice, we can close in on the parity target.

This project highlights the need not only to continue, but to accelerate efforts to widen participation in Australian higher education.

This project adds to the growing stock of research-led WP practice and centres on widening the participation of secondary school students from low SES backgrounds. Students from low SES backgrounds, being Statistical Area 1, comprise 16.8 per cent of all domestic university students; yet, 25 per cent of Australians are classified as low SES (Department of Education and Training, 2017). In usual circumstances, there is a clear case for the continued pursuit of parity for low SES participation in higher education. However, in the light of future work, the need for continued pursuit of parity for people from low SES backgrounds takes on a higher level of urgency. It is predicted that jobs in the future may be more likely to need a university education (e.g. Universities Australia, 2018a) and given low SES participation in higher education is not yet at parity, there is a need to significantly accelerate WP efforts to prevent the deepening of social inequalities.

Future work (also known as the Fourth Industrial Revolution or Industry 4.0) in essence refers to technology changing work in the future. Importantly, these future work changes are forecast for the next 10–15 years hence are pertinent to the current generation of school-aged children (Business Council of Australia, 2017). At present, technology is creating uncertainty about work in the future, with occupations disappearing due to automation and artificial intelligence and, at the same time, it is anticipated that unspecified new occupations will emerge (Kessler, 2018; Schwab, 2017). Relatedly, future work has also disrupted traditional ways of constructing careers; occupations are becoming unstable and less well-defined, with formerly predictable pathways to those occupations (such as completing a specific university degree) no longer a guarantee of employment (Productivity Commission, 2017). Consequently, enrolling in a bachelor degree at university is increasingly a risky proposition as lifelong careers have now given way to career portfolios comprised of occupational mini-cycles facilitated by platform-based freelancing in the growing gig economy (Kuhn, 2016). In sum, making occupational decisions is increasingly complex and fraught with risk as present-day secondary school students wrestle with uncertain, speculative work futures. For those from low SES backgrounds, the risk is amplified.

In brief, this project:

- focused on the role of perceived risks in the decision to go (or not to go) to university for secondary school students from low SES backgrounds
- outlined the decision-making processes of low SES secondary school students
- introduced risk tolerance as a characteristic that can explain differences in how low SES secondary school students respond to the decision dilemma of whether to go (or not to go) to university.

The underpinning research question and objectives were:

RQ: How do the perceived risks of going to university influence the decision to participate in Australian higher education by young people from low SES backgrounds?

RO1: To identify the types of perceived risks that young people from low SES backgrounds associate with going to university.

RO2: To develop and test a model of the influence of perceived risks on the decision to go to university by young people from low SES backgrounds.

Background

This Fellowship project was situated at the intersection of three seminal frameworks drawn from higher education, vocational psychology and marketing literature that converged and overlapped in unanticipated ways. There were also three key contemporary themes that shaped the project, being:

Theme 1: Interrelated global phenomena creating occupational risk	• Future Work: technology will make some jobs redundant, create new jobs and change the nature and way tasks are performed in jobs. • The Gig Economy: platformed-based work such as Air Tasker. • Occupational Hyperchoice: Over 1,000 occupations exist in Australia, and too many choices convolute decision making.	*See:* Autor, 2015; Foundation for Young Australians, 2017, Kuhn, 2016
Theme 2: An ecology of perceived risks of going to university	• Perceived risks are largely overlooked in the WP literature yet are endemic in the decision to go to university. • All human endeavours carry some level of risk. Risk taking is the intentional interaction with uncertainty where the potential for gains is assessed against the potential for losses. • Individuals vary in their risk tolerance being risk averse, risk neutral or risk seekers. • Most risk is assessed in the pre-access stage. • Perceived risks from the marketing literature are a financial risk, functional risk, time-loss risk, physical risk, psychological risk, social risk and sensory risk. Opportunity costs are also a type of perceived risk. • A university education is a high credence, almost pure service making it the riskiest of all service types.	*See*: Cline, 2015; Cunningham, 1967; Lamb & Huo, 2017; Raydugin, 2016

Theme 3: The role and magnitude of occupational aspiration	• Aspiration is a high-order, transdisciplinary concept with occupational aspiration one manifestation which refers to the development and pursuit of an occupational goal. • The role and magnitude of occupational aspiration in assessing the risk of going to university are unknown.	*See:* Gore et al., 2017a; Haller & Miller, 1967; Sellar, 2013

A comprehensive literature review was undertaken early in the project with a truncated version provided in the Final Report. The central points are summarised below.

A range of personal attributes and characteristics are known to influence university participation.

- Demographic characteristics known to influence the decision to go to university include: gender; age; older siblings who are no longer at school; socioeconomic status; location (urban, regional or remote); Indigenous Australian heritage; Pasifika heritage; language/s spoken at home; refugee status; people with disability and those who are the first in their family to go to university (*see* Cardak et al., 2017; Dockery et al., 2017; Gore et al., 2017a).
- People approach and resolve uncertainty in different ways. Risk tolerance is a continuum from risk aversion to risk seeking and is context-dependent (*see* Dohmen et al., 2012).
- Academic attainment at school is a predictor of the likelihood to go to university, but it is influenced by socioeconomic status which is entrenched by senior secondary school (*see* Gore et al., 2017b).
- Work volition is the power to choose or determine one's occupation with people from marginalised groups restricted in their ability to make career decisions freely (*see* Duffy et al., 2016).
- Adaptability is a meta-capability that future-proofs people by minimising the effects of occupational events and is vital for career construction in the 21st century (*see* Savickas, 1997, 2002; Savickas et al., 2018).
- Low SES secondary school students can be classified into four psychological personas that reflect their approach to university decision-making (*see* Russell-Bennett et al., 2016).
- The parents of low SES secondary school student can be classified into four psychological personas that reflect their approach to supporting their child to make university decisions (*see* Russell-Bennett et al., 2016).

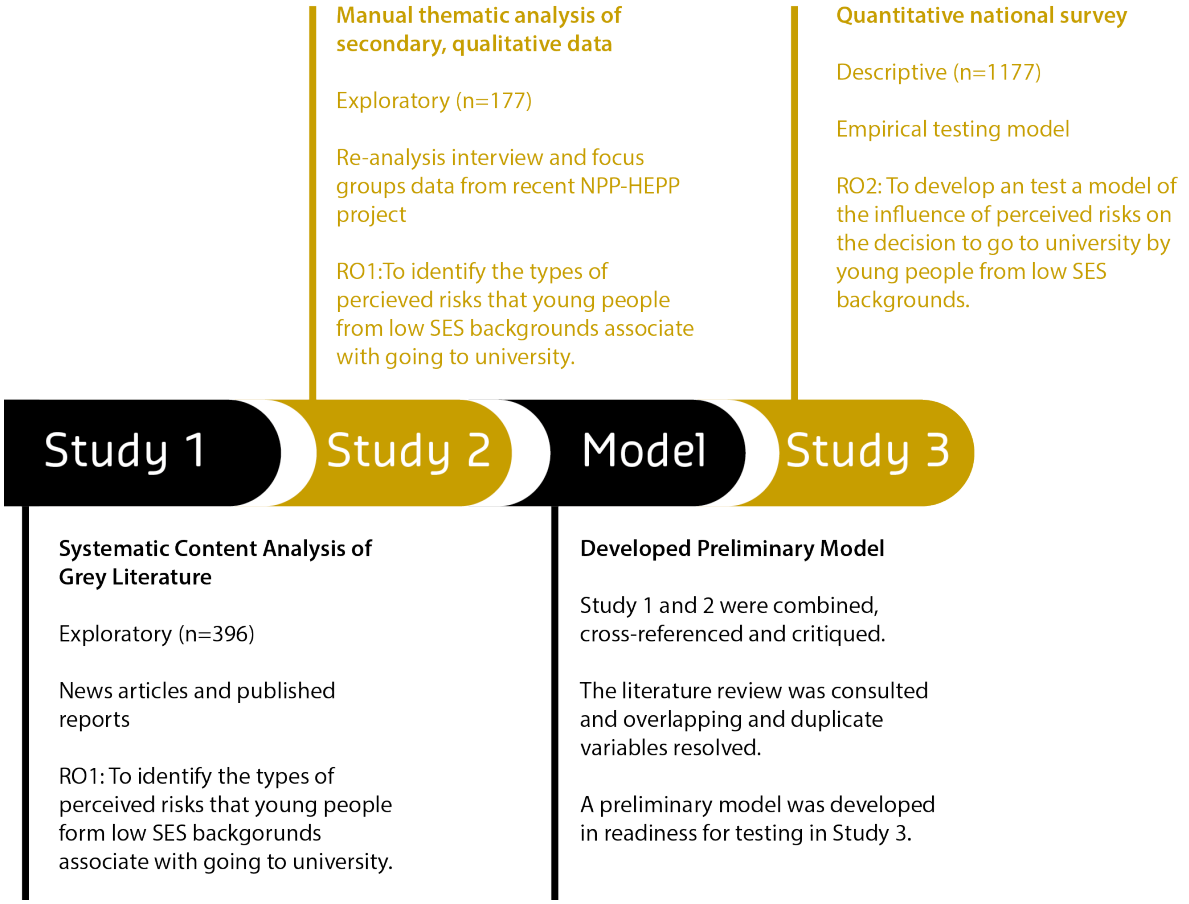
The crystallisation of occupational self is the first step in career construction (Savickas 2002; Savickas et al., 2018) and is loosely defined as the degree of clarity and congruence between a person's self-perception and their occupationally relevant abilities and interests (Tokar et al., 2003).

Exploration of occupations is the second step in career construction (Savickas 2002; Savickas et al., 2018) and involves various passive and active information search strategies.

The complex dilemma of deciding to go (or not to go) to university involves a two-step appraisal process followed by a coping, adaption strategy.

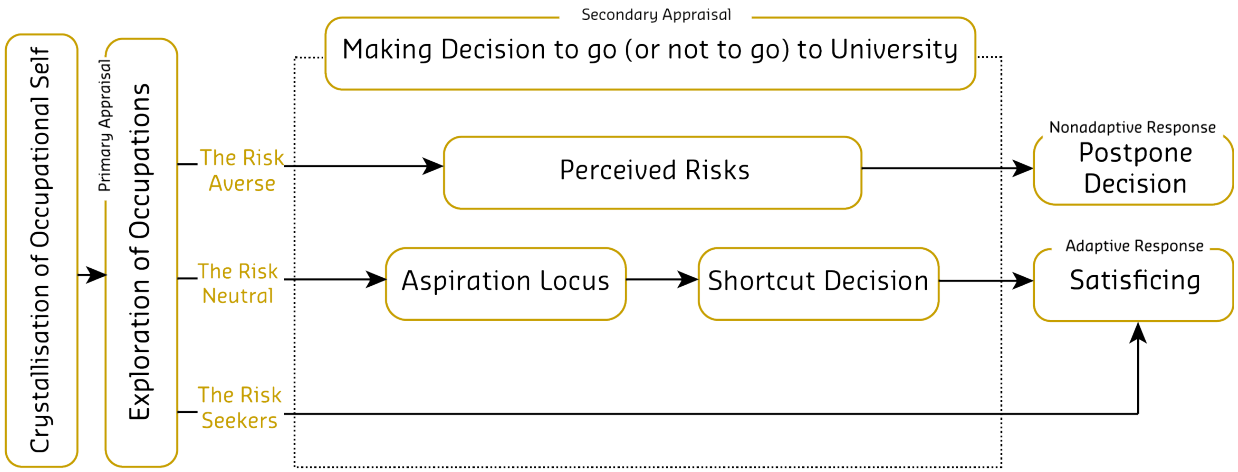
- Aspirations can be classified as having either a means-to-an-end locus or an occupational locus.
- There appear to be 10 types of perceived risks.
- Shortcutting decision making is where people attempt fast-track making a decision by using heuristics, submitting to unconflicted change or engaging in hypervigilance (see Janis & Mann 1976).
- Postponing decision making is where people attempt to evade making a decision by procrastinating, buck-passing or rationalising (see Mann et al., 1997).
- When deciding to go (or not to go) to university, people engage in satisficing whereby they choose the ”good enough” option (see Bazerman & Moore, 2009) by trading off employment likelihood, degree options and/or making delivery concessions.

Approach



The University Participation Decision Making Model

The preeminent contribution of this project is the University Participation Decision Making Model (simplified version below) which overviews how people make the decision to go (or not to go) to university.



Key Findings and Insights

1 There are 10 types of risk that secondary school students from low SES backgrounds perceive as being associated with the decision to go (or not to go) to university.

Perceived Risk	Description	Examples of Low SES Student Sentiments
FUNCTIONAL + FUTURE WORK	The likelihood that a university education will not do what it promised it would. That is, a concern that the degree may not grant access to a profession or provide relevant knowledge or skills needed for success in a preferred occupation. Functional and future work risk can be organised into four key sub-types being preferred occupation job availability; automation risk; gig economy risk; and skill portability risk.	"What if I do this degree and there are no jobs in my preferred occupation at the end?" "Automation might reduce future work opportunities in my preferred occupation." "Even with a degree, I may still end up working in the gig economy rather than getting a full-time job." "Will the university degree give me transferable skills that can be used in multiple occupations?"
FINANCIAL + RESOURCE	The monetary costs associated with going to university. That is, worries about the affordability of going to university.	"I don't want to get into debt with university expenses before I even get a job." "Going to university is very expensive."

Perceived Risk	Description	Examples of Low SES Student Sentiments
 PSYCHOLOGICAL	Personal fears or other negative emotions associated with going to university. That is, concerns about the ability to successfully enter and undertake study.	"I don't think I'm smart enough to get into university ." "I'm worried that I might not be able to understand the class material."
 SOCIAL	Concern about how others think and may react. That is, fears about not fitting in, not being able to make friends and what friends may think of the decision to go to university (for example, unsupportive, discouraging).	"People like me do not go to university." "None of my friends are going to university."
 TIME-LOSS	That the activity is not the best use of their time compared with other alternatives. That is, worries about the length of a university degree compared to other pathways to a preferred occupation or the concern that going to university may be a "waste of time" if there is no guarantee of a job at the end.	"If I don't get a job in my preferred occupation at the end, is this going to be a waste of time?" "I don't want to wait another three years to get a full-time job in my preferred occupation."
 PHYSICAL + WELLBEING	The likelihood of personal injury. That is, feeling safe on campus and when travelling to and from campus, and negative impacts of study stress on personal wellbeing.	"I don't feel safe using public transport especially when classes are scheduled for late in the evening."
 SOCIAL CLASS IDENTITY	Concerns about changing social class identity because the degree may uplift their SES. That is, students from low SES backgrounds may perceive that going to university is for "snobby" people and there is a tension between "leaving" and "holding on to" their low SES identities and not changing social class because they perceive that uplifting their socioeconomic status would be a betrayal to those close to them.	"People who go to university are snobby." "If I go to university, people will think I've got tickets on myself and that I'm trying to show them up." "I'm afraid if I go to university that I won't fit in with my friends and family anymore."
 COMPETENCY	A concern with losing momentum in terms of study motivation and skills if taking a gap year or longer between finishing school and going to university.	"I am worried that if I take a gap year, it might be too hard to come back to study."

Perceived Risk	Description	Examples of Low SES Student Sentiments
 OPPORTUNITY	The cost of forgoing the next best opportunity. As the decision to go to university is a dilemma, and a choice is made between two alternative paths, by choosing one path a person forgoes the other path (opportunity). Key opportunity costs include paid junior employment; alternative study paths; and lifestyle costs.	"If I go to university directly after school, by the time I graduate, I will be 21 years old, and an employer will have to pay me at adult rates for an entry-level job. If I get an entry-level job in my preferred occupation while I am a teen, I am more attractive to an employer as they will only have to pay me junior rates."
		"Rather than go to university I can do a traineeship where I will be paid and am more likely to get a job at the end."
		"I just want to travel, have fun and live life for a while and if I go to university, I won't be able to do that."
 OVERALL	An overall assessment of how risky going to university is perceived by the individual.	"I have a lot of concerns about going to university."
		"To me, going to university is very risky."

Data analysis revealed three insights.

Insight #1

Perceptions of functional and future work risk can predict if a low SES secondary student intends to go to university directly after school or at some time in the future (for example, after a gap year).

Translating insights into impact

WP practitioners and schools may help low SES secondary school students to objectively assess functional and future work risk such as in-class tasks exploring jobsoutlook.com projected employment rates or helping students to use critical thinking skills to identify credible sources of information about future work.

Insight #2

Perceptions of social risk can predict if a low SES secondary student intends to go to university directly after school or at some time in the future (for example, after a gap year).

Translating insights into impact

WP practitioners and schools may help low SES secondary school students to find ways to solve social risk such as student ambassadors discussing their concerns about not fitting in, and how clubs or Indigenous centres helped; or schools collating alumni profiles of past students who have gone to various universities and potentially finding ways for them to be an initial contact point for others from their school (for example, a "You're not alone" school alumni program).

Insight #3

Perceptions of overall risk can predict if a low SES secondary student intends to go to university directly after school or at some time in the future (e.g. after a gap year).

Translating insights into impact

WP practitioners and schools may help low SES secondary school students by acknowledging that going to university can be scary and encouraging an open dialogue about concerns to give voice to their fears in the first instance. This may lead to a subsequent activity whereby students to come up with an action plan to address their fears (for example, engaging with the mycourses.com.au site, the QTAC My Path planning site, university websites or YouTube channels; visiting a campus or going to an open day; and/or talking with their parents, school teachers or careers advisors).

Furthermore, explaining that all human endeavours have some level of risk and that people handle risk differently (for example, risk averse, risk neutral, risk seekers) may help students understand themselves and help them develop a personal action plan to address their concerns.

The intention is to empower and not insinuate that going to university directly after secondary school is the right path for all people. Giving young people tools and resources so that if and when they decide to go to university, they know there are key touchpoints to help guide them. For example, the school may have a designated contact teacher whom they can approach up to five years after graduation to help them navigate and connect them to others who can illuminate that pathway into university.

2

Low SES secondary school students respond in different ways to the dilemma of deciding whether to go to university.

The Risk Averse		University perceived as threatening “May do more harm than good”
The Risk Neutral		University perceived as challenging “It won’t be easy, but it will be worth it”
The Risk Seeker		University perceived as benign-positive “Only good can come out of this”

Data analysis revealed six insights.

Insight #4

Low SES secondary school students are more likely to be risk averse than their OSES peers.

Translating insights into impact

People interpret risk in different ways. For risk averse low SES secondary school students, going to university is perceived as a threat. One way that WP could address Insight #4 may be to provide a risk-remedy resource. For example, a table that lists the 10 types of risk in one column and in a corresponding column list the possible remedies (perhaps with evidence to demonstrate response efficacy) could be developed for students.

To illustrate,

Common concerns low SES students have.	Solutions that have worked for others.
"I can't afford to go to university." (financial and resource risk)	Messaging: "Scholarships and bursaries provide you with money so that you can study. You can apply for these online. Let's look some up."
"What if I can't get a job at the end of university?" (functional and future work risk)	Messaging: "Joboutlook.gov.au is a great site that can tell you the projected number of jobs there will be in specific occupations in the future and what the average pay will be. Take a look for yourself."

Insight #5

Low SES secondary school students who are risk seekers leapfrog steps faster than their OSES peers.

Translating insights into impact

For risk seeking low SES students, some types of WP may not seem relevant. These low SES risk seekers may need tools to help them with the satisficing stage of decision making. WP might focus on activities like finding out about:

- employment and income trends in their preferred occupation
- employers in their local area or where they want to live
- information about universities, their campuses and the degrees that they could enrol in that will help them gain entry to their preferred occupation
- accommodation options and transport options (for example, Will they need to catch public transport?; Do they know how?)
- degree delivery options such as part-time study, online study or studying at a nearby campus in their first year before relocating.

Insight #6

Low SES secondary school students who are risk neutral are more careful in their decision process than their OSES peers.

Translating insights into impact

Checklists, workbooks or self-evaluation questions that can guide low SES students with satisficing decisions would be advantageous. The suggestions for Insight #5 would work equally well for Insight #6. Also, WP messages that normalise a more careful process would be beneficial. For example, statements such as "people who are the first in their family to go to university often take a little longer to consider their options—don't feel you need to rush".

Insight #7

Low SES secondary school students are slower to progress to the exploration of occupations than their OSES peers.

Translating insights into impact

WP practitioners and schools could design a scaffolded range of activities that focus on this step. These could include in-class, personalised activities where, in the first instance, low SES students talk about what they are good at and what they like, using the seven job clusters developed by the Foundation for Young Australians (2017) as the central framework. The seven job clusters framework is a simple stepping stone that can help secondary school students conceptualise their occupational options. From this point, more activities could be narrowed to occupations falling within each cluster, with secondary school students selecting their "top 3" possibilities and embarking on a deeper exploration of each. A scaffolded approach prevents information overload or hyperchoice responses which typically overwhelm, stifling or paralysing progress to the exploration of occupations. Potentially, low SES secondary school students could be streamed according to interest in job cluster and targeted WP could ensue to deliver cluster-relevant messages. Similar programs could be developed for parents or parent-and-child programs.

Insight #8

Low SES secondary school students who perceive going to university as risky are less likely than their OSES peers to postpone making a decision about whether to go (or not to go) to university

Translating insights into impact

Insight #8 suggests that there is still an opportunity for WP practitioners to intervene and address low SES secondary school student's concerns (risks). An option here might be to return them to the "exploration of occupations" phase to consider the job cluster and explore other types of occupations that fit within that job cluster. Other resources such as QTAC My Path may be helpful to consider longer journeys to their occupational destination via non-university tertiary qualifications.

Insight #9

Low SES secondary school students are slower to progress to decision shortcutting than their OSES peers.

Translating insights into impact

There may be many good reasons as to why low SES secondary school students do not progress as fast. Low SES secondary school students are typically the first in their families to have the opportunity to go to university, and they do not have the social capital (including role models) to draw from. Hence, they are more measured and careful in progressing to the next step. WP online video resources along the lines of "I came from a background like you and look at me now," would be advantageous as a type of simulated role model experience.

The perspectives of low SES secondary school students and the parents of low SES secondary school students are very different.

Data analysis revealed one insight.

Insight #10 — The parents of risk averse low SES secondary school students underestimate how much their child is concerned about going to university.

Translating insights into impact — WP practitioners and schools may encourage or facilitate parent-child discussions about a range of concerns (for example, functional and future work risk, financial and resource risk) that secondary school children have. Parent events, for example, could help parents understand the degree and spectrum of concerns their risk averse children have. Similar to Insight #4, explaining to secondary school students and their parents that all human endeavours have some level of risk and how people handle risk differently (for example, risk averse, risk neutral, risk seekers) may help them to understand themselves, which will help them to develop a personal action plan to address their concerns.

Conclusions and Practical Recommendations

RO1	There are 10 types of risk that secondary school students from low SES backgrounds perceive as being associated with the decision to go (or not to go) to university.

Upstream stakeholders can assist middle and senior low SES secondary school students in making the decision to go (or not to go) to university by addressing their perceived risks through online resources (including short videos) that are embedded into existing national and state/territory resources such as QILT, CourseSeeker and QTAC My Path. For example, the CourseSeeker site could detect when a person has spent some time on the homepage without entering information. Similar to many commercial sites, a chatbot could ask if they need assistance and questions such as, “Are you still a little unsure about going to university?”. Following which it could be ascertained if the person was a secondary school student and progress to a dialogue about common concerns (for example, “A lot of other secondary school students are concerned about going to university,” to acknowledge and empathise, then, “Here are some of their concerns and some sites they looked at to help them make an informed decision”).

Midstream stakeholders can recognise the different ways that young people from low SES backgrounds may express their perceived risks and empower them to co-design solutions that help them to make an informed decision. Not all young people from low SES backgrounds may be concerned by all 10 types of perceived risk, may not know how to express their concern, or may not be aware of some types of risk. Careful WP and school practices that provide a safe outlet for low SES secondary school students in middle and senior secondary school is best to first acknowledge the concerns of students and then through co-design activities that empower and encourage positive action to “myth-bust” concerns and provide objective, credible information so they can make an informed decision.

RO2	Low SES secondary school students respond in different ways to the dilemma of deciding whether to go to university.

Upstream stakeholders can recognise that while low SES secondary school students have much in common in terms of shared experiences on the journey to higher education (i.e. points of parity like being the first in their family to go to university), they also have points of difference such as their risk tolerance. The aforementioned upstream practical recommendation for Research Objective 1 would be equally effective for Research Objective 2, bringing self-awareness of their risk tolerance and how this may be influencing their decision making. One suggestion is that existing government sites could include a career quiz to assist students in identifying compatible occupations. A similar risk tolerance profile or decision-making quiz (for example, "What's your career decision style?") could help students recognise how they make decisions, their proclivity towards risk, and then ways they can progress to make an informed decision (for example, "You're a risk seeker. Sometimes you can rush decisions like deciding on which university you want to go to. Take a little time now and identify your top three universities and look them up on the QILT site to find out a little more before settling on one institution.").

Midstream stakeholders can find low-cost ways to profile low SES secondary school students in terms of their risk tolerance (for example, a simple paper-based quiz) and then deliver targeted, relevant messages. It would also be helpful to share with the larger low SES secondary school student cohort information on how we experience risk in everyday experiences, but we respond to them differently (and all responses are okay). Furthermore, talks about decision making and how, for example, risk seekers may rush a decision, while others who are risk averse may postpone a decision. Such information may help in other parts of life beyond the decision to go (or not to go) to university.

RO2	The perspectives of low SES secondary school students and the parents of low SES secondary school students are very different.

Upstream stakeholders can embed parent-friendly resources into existing national and state/territory online resources. For example, a "For Parents" tab at the top of the QILT website next to the "For Students" tab would be a simple, low-cost yet effective way to engage low SES parents who are trying to assist their secondary school children. A "For Parents" webpage might include content related to findings from the Fellowship such as Insight #10, where students' concerns about going to university were significantly greater than that of their secondary school child. The "For parents" webpage may include "Common concerns that parents have," (for example, "How much does going to university cost?"; "How can I find out about job prospects in my child's preferred occupation?"; "How will technology influence my child's preferred occupation in the future?").

Midstream stakeholders can engage more parents of low SES secondary school students and to adapt resources accordingly. The models demonstrated that the paths that parents of low SES secondary school students were concerned with were different from the paths that secondary school students were concerned with. Indeed, there were no overlapping paths that both groups had in common. Informed by this Fellowship, WP and school engagement with low SES secondary school students are best to centre on Insights #1 to #6 while WP and school engagement for low SES parents that focused Insights #7, #8 and #9 are recommended. Furthermore, helping parents to determine if their child is risk averse, risk neutral or risk seeking, and ways they can support their low SES secondary school child, would also be advantageous.

Project Takeaway

This project has drawn attention to the interplay between career construction in the 21st century, future work, and the perceived risks of going to university for young people from low SES backgrounds. While people from low SES backgrounds share a socioeconomic background, they differ in terms of their risk tolerance. Indeed, their risk tolerance influences how they navigate the dilemma of choosing to go (or not to go) to university. The University Participation Decision Making Model, findings and insights contribute to the growing body of research-informed WP and are translatable into everyday practice for upstream and midstream stakeholders.

References

ACIL Allen Consulting. (2017). *Evaluation of the HEPPP*. Canberra. Retrieved from https://docs.education.gov.au/system/files/doc/other/final_heppp_evaluation_report_2017.03.16_0.pdf.

Autor, D. H. (2015). Why Are There Still So Many Jobs? The History and Future of Workplace Automation. *Journal of Economic Perspectives*, *29*(3), 3–30. https://doi.org/10.1257/jep.29.3.3

Bazerman, M. H., & Moore, D. A. (2009). *Judgment in Managerial Decision Making* (7th edn.). Hoboken: John Wiley & Sons. https://doi.org/10.1017/CBO9781107415324.004

Bradley, D., Noon, P., Nugent, H. & Sclaes, B. (2008). Review of Australian Higher Education: Final Report. Canberra: Commonwealth Department of Education, Employment and Workplace Relations.

Business Council of Australia. (2017). *Future-Proof: Protecting Australians through Education and Skills*. Melbourne. Retrieved from http://www.bca.com.au/publications/future-proof-protecting-australians-through-education-and-skills

Cardak, B., Brett, M., Bowden, M., Vecci, J., Barry, P., Bahtsevanoglou, J., & Mcallister, R. (2017). Regional Student Participation and Migration: Analysis of factors influencing regional student participation and internal migration in Australian higher education. Perth: National Centre for Student Equity in Higher Education. Retrieved from https://www.ncsehe.edu.au/wp-content/uploads/2017/02/Regional-Student-Participation-and-Migration-20170227-Final.pdf

Cline, P. (2004). The merging of risk analysis and adventure education. *Wilderness Risk Management*, *5*(1), 43–45.

Cunningham, S. (1967). The major dimensions of perceived risk. In D. Cox (Ed.), *Risk Taking and Information Handling in Consumer Behavior* (pp. 82–111). Cambridge: Harvard University Press.

Department of Education and Training. (2017). *2016 Full year higher education statistics*. Canberra. Retrieved from https://docs.education.gov.au/system/files/doc/other/2016_student_summary_infographic.pdf

Department of Employment Education and Training. (1990). *A Fair Chance for All: National and Institutional Planning for Equity in Higher Education: A Discussion Paper*. Canberra. Retrieved from http://www.voced.edu.au/content/ngv%3A2270

Dockery, M., Seymour, R., & Koshy, P. (2017). Parental expectations for young people's participation in higher education in Australia. *Studies in Higher Education*, *41*(9), 1–16. https://doi.org/10.1080/03075079.2017.1363730

Dohmen, T., Falk, A., Huffman, D., & Sunde, U. (2012). The intergenerational transmission of risk and trust attitudes. *Review of Economic Studies*, *79*(2), 645–677. https://doi.org/https://doi.org/10.1093/restud/rdr027

Duffy, R. D., Blustein, D. L., Diemer, M. A., & Autin, K. L. (2016). The psychology of working theory. *Journal of Counseling Psychology*, *63*(2), 127–148. https://doi.org/http://dx.doi.org/10.1037/cou0000140

Dugarova, E., & Lavers, T. (2015). *Social Inclusion and the Post-2015 Sustainable Development Agenda 1*. Paper prepared for the UNITAR's Briefing for UN Delegates on Post-2015 Development Agenda: Social Inclusion. Geneva. Retrieved from http://www.unrisd.org/unitar-social-inclusion

Foundation for Young Australians. (2017). *The new work mindset: 7 new job clusters to help young people navigate the new work order*. Melbourne. Retrieved from https://www.fya.org.au/wp-content/uploads/2016/11/The-New-Work-Mindset.pdf

Gore, J., Holmes, K., Smith, M., Fray, L., McElduff, P., Weaver, N., & Wallington, C. (2017a). Unpacking the career aspirations of Australian school students: towards an evidence base for university equity initiatives in schools. *Higher Education Research and Development*, *36*(7), 1383–1400. https://doi.org/https://doi.org/10.1080/07294360.2017.1325847

Gore, J., Patfield, S., Holmes, K., Smith, M., Lloyd, A., Gruppetta, M., … Fray, L. (2017b). When higher education is possible but not desirable: Widening participation and the aspirations of

Australian Indigenous school students. *Australian Journal of Education*, *61*(2), 164–183. https://doi.org/https://doi.org/10.1177/0004944117710841
Haller, A. O., & Miller, I. W. (1976). *The Occupational Aspiration Scale: Theory, Structure and Correlates.* East Landing. Retrieved from https://files.eric.ed.gov/fulltext/ED016712.pdf
Janis, I. L., & Mann, L. (1976). Coping with Decisional Conflict: An analysis of how stress affects decision-making suggests interventions to improve the process. *American Scientist*, *64*(6), 657–667. Retrieved from http://www.jstor.org/stable/27847557
Kahu, E. R. (2013). Framing student engagement in higher education. *Studies in Higher Education*, *38*(5), 758–773. https://doi.org/10.1080/03075079.2011.598505
Kessler, S. (2018). Gigged: The Gig Economy, the End of the Job and the Future of Work, London: Random House.
Kuhn, K. M. (2016). The Rise of the "Gig Economy" and Implications for Understanding Work and Workers. *Research in Organizational Behavior*, *9*(1), 157–162. https://doi.org/https://doi.org/10.1017/iop.2015.129
Lamb, S., & Huo, S. (2017). *Counting the costs of lost opportunity in Australian education About the Centre for International Research on Education Systems*. Footscray. Retrieved from http://www.mitchellinstitute.org.au/wp-content/uploads/2017/06/Counting-the-costs-of-lost-opportunity-in-Australian-education.pdf
Mann, L., Burnett, P., Radford, M., & Ford, S. (1997). The Melbourne Decision Making Questionaire: An instrument for measuring patterns for coping with decisional conflict. *Journal of Behavioral Decision Making*, *10*(1), 1–19. https://doi.org/https://doi.org/10.1002/(sici)1099-0771(199703)10:1<1:aid-bdm242>3.0.co;2-x.
Raydugin, Y. (2016). Integrated risk-based and economic-based (IREB) methodology for selection of project alternatives. In Y. Raydugin (Ed.), *Handbook of Research on Leveraging Risk and Uncertainties for Effective Project Management* (pp. 459–469). Hershey: Business Science Reference.
Russell-Bennett, R., Drennan, J., Kerr, G., & Raciti, M. (2016). *Social Marketing Strategy for Low SES Communities*. Canberra. Retrieved from https://www.ncsehe.edu.au/wp-content/uploads/2017/03/Final-Report-Social-Marketing-Strategy-QUT_2016.pdf
Savickas, M. L. (1997). Career Adaptability: An Integrative Construct for Life-Span, Life-Space Theory. *The Career Development Quarterly*, *45*(3), 247–259. https://doi.org/10.1002/j.2161-0045.1997.tb00469.
Savickas, M. L. (2002). Career construction: A developmental theory of vocational behavior. In D. Brown (Eds.), *Career Choice and Development* (pp. 149–205) (4th ed.). San Francisco: Jossey-Bass.
Savickas, M. L., Porfeli, E. J., Hilton, T. L., & Savickas, S. (2018). The Student Career Construction Inventory. *Journal of Vocational Behavior*, *106*(June), 138–152. https://doi.org/10.1016/j.jvb.2018.01.009
Schwab, K. (2017). The Fourth Industrial Revolution, Geneva: Penguin.
Sellar, S. (2013). Equity, markets and the politics of aspiration in Australian higher education. *Discourse: Studies in the Cultural Politics of Education*, *34*(2), 245–258. https://doi.org/10.1080/01596306.2013.770250
Tokar, D. M., Withrow, J. R., Hall, R. J., & Moradi, B. (2003). Psychological separation, attachment security, vocational self-concept crystallization, and career indecision: A structural equation analysis. *Journal of Counseling Psychology*, *50*(1), 3–19. https://doi.org/10.1037/0022-0167.50.1.3
Universities Australia. (2018). *A uni education will still be needed in future, say 8 in 10 Australians*. Deakin. Retrieved from https://www.universitiesaustralia.edu.au/Media-and-Events/media-releases/A-uni-education-will-still-be-needed-in-future-#.W1ANJdIzaHs