



MINISTRY OF EDUCATION

*Te Tāhuhu o te Mātauranga*

# **Student decision-making by prospective tertiary students**

A review of existing New Zealand and overseas literature

Report to the Ministry of Education

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Opinions expressed in this report are those of the authors and do not necessarily coincide with those of the Ministry of Education.

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## Executive Summary

1. In May 2004 the New Zealand Ministry of Education contracted the authors from the College of Education, Massey University to review and synthesize research literature about student decision-making.
2. The research questions specified in the contract were:
  - How do people make decisions about entering or continuing tertiary education?
  - What factors influence prospective students' choices of education providers and courses?
  - Is there equitable access to information for all prospective students, including those at risk of exclusion from tertiary education?
  - What is the role of families and communities in the student decision-making processes?
  - What information sources do prospective tertiary students use to help them make decisions about tertiary education?
  - What types of information do prospective tertiary students and their families need to help them make decisions about tertiary education?
  - What is the relationship between career information, advice and guidance; and tertiary education choices?
  - What is the relationship between lack of information, poor decision-making and success or failure in tertiary education?
  - What are the gaps in information currently available on this topic, and are there research constraints that may explain these gaps?
3. Discussion with Ministry of Education staff resulted in the identification of four key themes to answer these questions:
  - How do students make decisions?
  - What factors influence student choice?
    - i. *Role of families*
    - ii. *Role of agencies*
  - What is the role of information in decision-making?
    - i. *Access to information*
    - ii. *Use of information*
    - iii. *Types of information*
    - iv. *Gaps in information*
  - How are decisions affected by diversity?
    - i. *Gender*
    - ii. *Ethnicity*
    - iii. *Class*
    - iv. *Other relevant factors*

These themes focused the systematic literature review, which was conducted between May and December 2004.

4. Being a systematic review of the literature, this project required a methodology that would enable us to locate relevant literature, select studies that were likely to be of most interest to the Ministry of Education, summarise the findings of those studies in a way that would be accessible to others, and write a critical review of the studies.
  - A qualified librarian conducted the search. He searched a variety of databases for research reports and articles using search words characterizing the themes.

- From over 90 pages of bibliographic information, we selected **57** studies for further analysis. These were selected according to exclusion/inclusion criteria. To be included, the item had to feature student decision-making, be an empirical study or literature review and provide information about the four themes.
- To make the research studies selected for review accessible to readers, we summarized each in a template summarizing key ideas.
- These templates were used as data sets to synthesize the literature in a critical review.

A more detailed description of the methodology is included at Appendix 2.

5. We synthesized 13 *findings*. These are organized under the 4 themes and are as follows.

*Theme 1: Decisions*

1. *Decision-making is a complex process.*  
Studies identified a considerable array of psychological and social decision-making processes and factors. These create a very complex process.
2. *Decision-making can be modelled.*  
A number of models attempt to capture the decision-making process. The most used, and adopted for this study, is a three-stage model – with *predisposition*, *search* and *choice* phases.
3. *Decision-making starts very early.*  
Studies consistently found that decisions are made much earlier than Years 11 and 12.

*Theme 2: Factors*

4. *Socio-economic status (SES) is a powerful factor.*  
Socio-economic status is arguably the strongest predictor of whether students enter tertiary study. One study established a causal relationship.
5. *Parents influence decisions.*  
Parents have a range of powerful effects on student decisions, particularly at the *predisposition* and *search* stages.
6. *Academic achievement is important.*  
Academic aptitude and achievement at secondary school is a recurring factor in how students decide about their future.
7. *Subject area interest affects choice of and type of institution.*  
Subject area interest often stands surrogate for career aspirations and is a powerful factor in decision-making.
8. *Full information on cost and financial support is necessary.*  
Total cost of attending tertiary studies and the availability of financial aid are very important factors for many students.
9. *Schools can influence decisions.*  
While evidence of the influence of schools on decision-making is mixed, it does exist, particularly on the decisions of non-traditional students.

*Theme 3: Information*

10. *Family experiences of tertiary education inform decisions.*  
When a family has prior experience of tertiary education, children are more likely to consider tertiary study and to be able to better navigate it.
11. *The most effective information is interpersonal.*  
The effect of mass marketing is over-rated and information obtained through interpersonal relationships is found to be more effective.
12. *Information sharing between students, families, schools and tertiary providers is effective.*



Interpersonal information is most effective when constantly exchanged by students, families, schools and tertiary providers as active partners in the decision-making process.

*Theme 4: Diversity*

*13. Additional factors for 'non-traditional' students make their decision-making process even more complex.*

Data on the decision-making of 'non-traditional' students is both scarce and mixed. Socio-economic class and membership of 'at risk' groups are major influences on decision-making, ethnicity and age have some influence, while data on gender suggest that this variable has little effect.

6. Given the large amount of research available on this topic, only a proportion of relevant literature could be synthesized in the time and with the funding available. Hence, this synthesis does not claim to capture all influences on and effects of decision-making.



## Introduction

Student decision-making about tertiary education choices has attracted a great deal more research attention in the last two decades. As a result of the influence of economic rationalism, students have been constructed as ‘autonomous choosers’ (Peters & Marshall, 1996) who make decisions about whether to enrol in tertiary studies, which course to enrol in and which institution to attend. It is important to note the studies that challenge this idea, pointing out that some students have no choice at all – the institution selects them; they don’t select the institution. James’ (1999) study showed that the ideology of student choice does not enable non-traditional students to capture the necessary information to make good decisions. There are also studies that show that decision-making is not the rational, linear process it is proclaimed to be (Tyler, 1998) and it is not well described by econometrics models (Perna, 2000). Indeed, it is “a complex nexus in which habitus, personal identity, life history, social and cultural contexts, action and learning are inter-related” (Bloomer & Hodkinson, 1997, p.46) so social and cultural capital need to be incorporated in econometrics models to help explain students’ decisions (Perna, 2000).

However, given the current context, it is understandable that there has been increased interest in the processes students use and the factors they consider when making choices. Governments around the western world, keen to increase and widen participation in tertiary education, want to know what they can do to attract students into tertiary education and training. In the New Zealand context the intention is “to enable citizens to acquire the skills, knowledge and attributes necessary for them to participate fully within, and make an effective contribution to, the knowledge society” (Tertiary Education Advisory Commission, 2000, p.11). At a local level, individual institutions are keen to find out how to market their programmes so they attract the maximum number of students.

The New Zealand Ministry of Education wanted to find out more about how prospective students make decisions about tertiary education, the dynamics of this decision-making process, the factors that influence students’ decisions to enter or return to tertiary education and the kinds of resources students need to help them make choices about their education. That interest led to the contract for this review of the literature. The research questions specified in the contract were:

- How do people make decisions about entering or continuing tertiary education?
- What factors influence prospective students’ choices of education providers and courses?
- Is there equitable access to information for all prospective students, including those at risk of exclusion from tertiary education?
- What is the role of families and communities in the student decision-making processes?
- What information sources do prospective tertiary students use to help them make decisions about tertiary education?
- What types of information do prospective tertiary students and their families need to help them make decisions about tertiary education?
- What is the relationship between career information, advice and guidance, and tertiary education choices?
- What is the relationship between lack of information, poor decision-making and success or failure in tertiary education?
- What are the gaps in information currently available on this topic, and are there research constraints that may explain these gaps?

Because these questions focused primarily on transition into tertiary education, this is the focus of this report and decisions leading to employment rather than tertiary study are covered

indirectly. Discussion with the Ministry of Education staff resulted in the identification of four key themes of interest in these questions:

1. How do students make decisions?
2. What factors influence student choice?  
*Role of families*  
*Role of agencies*
3. What is the role of information in decision-making?  
*Access to information*  
*Use of information*  
*Types of information*  
*Gaps in information*
4. How are decisions affected by diversity?  
*Gender*  
*Ethnicity*  
*Class*  
*Other relevant factors*

These themes focused the systematic literature review, which was conducted between May and December 2004.

### **Methodology**

Being a systematic review of the literature, this project required a methodology that would enable us to locate relevant literature, select studies that were likely to be of most interest to the Ministry of Education, summarise the findings of those studies in a way that would be accessible to others, and write a critical review of the studies.

- A qualified librarian conducted the search. He searched a variety of databases for research reports and articles using search words characterizing the themes.
- From over 90 pages of bibliographic information, we selected **57** studies for further analysis. These were selected according to exclusion/inclusion criteria. To be included, the item had to feature student decision-making, be an empirical study or literature review and provide information about the four themes.
- To make the research studies selected for review accessible to readers, we summarized the key ideas from each study in a template.
- These templates were used to synthesize the literature in a critical review.

A more detailed description of the methodology is included in APPENDIX 2.

### **Findings**

Having completed the templates we then used them to inform our critical review. We both read all of the templates, separately making notes on each in an effort to identify findings for each of the four themes. Using Hossler & Gallagher's (1987) model of a three stage decision-making process as a basis, we developed a matrix of potential findings from the impressions we gained and the notes we made from the templates (FIGURE 1). (See discussion of Finding 2 for more information about the model).

FIGURE 1: MATRIX OF THEMES AND DECISION-MAKING

	<b>Decisions</b>	<b>Factors</b>	<b>Information</b>	<b>Diversity</b>
Predisposition				
Search				
Choice				

We synthesized 13 findings which are organised under the 4 themes as follows.

*Theme 1: Decisions*

1. *Decision-making is a complex process.*  
Studies identified a considerable array of psychological and social decision-making processes and factors. These create a very complex process.
2. *Decision-making can be modelled.*  
A number of models attempt to capture the decision-making process. The most used, and adopted for this study, is a three-stage model – with *predisposition*, *search* and *choice* phases.
3. *Decision-making starts very early.*  
Studies consistently found that decisions are made earlier than Years 11 and 12.

*Theme 2: Factors*

4. *Socio-economic status (SES) is a powerful factor.*  
Socio-economic status is arguably the strongest predictor of whether students enter tertiary study. One study established a causal relationship.
5. *Parents influence decisions.*  
Parents have a range of powerful effects on student decisions, particularly at the *predisposition* and *search* stages.
6. *Academic achievement is important.*  
Academic aptitude and achievement at secondary school is a recurring factor in how students decide about their future.
7. *Subject area interest affects choice of and type of institution.*  
Subject area interest often stands surrogate for career aspirations and is a powerful factor in decision-making.
8. *Full information on cost and financial support is necessary.*  
Total cost of attending tertiary studies and the availability of financial aid are very important factors for many students.
9. *Schools can influence decisions.*  
While evidence of the influence of schools on decision-making is mixed, it does exist, particularly on the decisions of non-traditional students.

*Theme 3: Information*

10. *Family experiences of tertiary education inform decisions.*  
When a family has prior experience of tertiary education, children are more likely to consider tertiary study and to be able to better navigate it.
11. *The most effective information is interpersonal.*  
The effect of mass marketing is over-rated and information obtained through interpersonal relationships is found to be more effective.
12. *Information sharing between students, families, schools and tertiary providers is effective.*  
Interpersonal information is most effective when constantly exchanged by students, families, schools and tertiary providers as active partners in the decision-making process.

*Theme 4: Diversity*

13. *Additional factors for ‘non-traditional’ students make their decision-making process even more complex.*

Data on the decision-making of ‘non-traditional’ students is both scarce and mixed. Socio-economic class and membership of ‘at risk’ groups are major influences on decision-making, ethnicity and age have some influence, while data on gender suggest that this variable has little effect.

FIGURE 2 shows where each finding is located within the matrix.

FIGURE 2: MATRIX OF FINDINGS, THEMES AND DECISION-MAKING

Finding no / Decision stage	Decisions			Factors						Information			Diversity
	1	2	3	4	5	6	7	8	9	10	11	12	13
Predisposition	*	*	*	*	*	*			*	*			*
Search	*	*		*	*	*	*	*	*	*	*	*	*
Choice	*	*		*		*	*	*	*		*	*	*

**Limitations of this literature review**

The literature reviewed here is, of course, a selection. There will be studies we did not locate which may provide quite different perspectives on some findings; indeed different findings altogether. We searched only for research published in English. Projects published in other languages may offer alternative results to those discussed here.

**Recommendations for further research**

While it is gratifying to see that post-school student decision-making has been researched in New Zealand and that the New Zealand Council for Educational Research is committed to ongoing projects, there is scope for further research. The findings on the role of schools, teachers and career guidance are weak. Further research into what schools, primary, intermediate and secondary, can do to keep the pipeline into tertiary education open for more students would be valuable. Further studies of programmes set up to involve parents more in schools and decision-making, to develop interpersonal relationships with subject teachers and to help high school students plan and develop career pathways would provide useful insights. Research into programmes developed to increase academic achievement and young people’s self-concept as potential tertiary students is necessary. A particular focus on Māori and Pasifika students, and students from low socio-economic backgrounds is warranted.

**Structure of this Report**

A critical review of the literature is followed by a matrix that shows how each of the included studies relates to the themes (decisions, factors, information, and diversity). The individual annotated, evaluative templates are then presented and, finally, a bibliography of studies found is included.

## References

- Bloomer, M. & Hodkinson, P. (1997). *Moving into FE: The voice of the learner*. London: Further Education Development Agency.
- Hossler, D. & Gallagher, K.S. (1987). Studying student college choice: A three-phase model and the implications for policymakers. *College and University*, 2(3), 207-221.
- Perna, L. (2000). Racial and ethnic group differences in college enrolment decisions. In A. Cabrera & S. La Nasa. *Understanding the college choice of disadvantaged students*. New Directions for Institutional Research, 107, Fall. Jossey Bass Publishers, 65-83.
- Peters, M. & Marshall, J. (1996). The politics of curriculum: Busnocratic rationality and enterprise culture. *Delta*, 48(1), 33-46.
- Tertiary Education Advisory Commission. (2000). *Shaping a shared vision: Initial report*. Wellington: Tertiary Education Advisory Commission.
- Tyler, D. (1998). Vocational pathways and the decline of the linear model. *Vocational knowledge and institutions: Changing relationships*. Proceedings of the 6<sup>th</sup> International Conference on Post-compulsory Training, Gold Coast, Queensland, 77-87.





# Synthesis of Research Literature

## THEME 1: DECISIONS

### 1. Decision-making is a complex process

Some researchers explicitly acknowledge the complexity of the decision-making process. Nguyen and Taylor (2003) suggest that the transition from school to tertiary education is far more complex than the literature previously recognized. Payne (2003) argues in his literature review that there are considerable variations in how young people make their decisions. He notes mixed evidence for the timing of decisions and details a wide variety of factors leading to them, including parents' background, ethnicity and gender. Drawing on results from a longitudinal study in the UK, Davies (2003, p.15) suggested that decisions result from a "complex relationship between different factors ...". Tyler (1998) details some of these factors: changing social structures, less formal and lasting relationships, changing employment patterns and changing skill requirements within existing careers. She regrets that much of the analysis provided in contemporary youth research tends to ignore the complexity. Bloomer & Hodgkinson (1997) think that decision-making is highly unstable. They found in their longitudinal study "that only 45% of the 69 people we were able to track were doing what they had originally chosen in Year 11" (p.41). Maxwell et al. (2000) suggest that there is no single factor at work. There are always combinations of factors that influence the final decision.

There are also some confounding factors in the decision-making process. Brennan (2001) and James (2000b) among others make the point that many students don't have much choice as they are not given entry by certain universities. The same applies to people living in isolated communities (James, 1999). Davies (2003), among others, joins James in noting that choice is constrained in other respects as well, notably socio-economic and family and ethnic cultures. Even strong research findings seem to hide complexities. James et al. (1999) point out that field of study is a dominant factor in decision-making. However, field of study decisions are themselves complex and vary according to the subject area chosen. Field of study decisions in the business subject area, for example, tend to be made because career prospects are good; decisions made in favour of science tend to be influenced by research opportunities.

The complexity of decision-making is further illustrated by the diversity of results obtained from similarly conceived studies. A summary of the top three factors in large multi-institutional surveys seeking general reasons for decision-making, for example, reveal some quite different results. FIGURE 3 illustrates the point.

FIGURE 3. DIVERSE RESULTS FROM SIMILAR RESEARCH

Studies	Findings
Jackson (1986) (USA)	Family income Parental occupation Student's academic record
Cabrera & La Nasa (2000) (USA)	<i>At choice stage</i> Educational aspirations Occupational aspirations Socio-economic status
Institute of Employment Studies (1999) UK	Early school experiences Access to career guidance and advice Educational attainment
Payne (2003) UK	Attitudes to school and higher education Self-perception of ability Parental role
Brennan & Marriott (1996) Australia	Psychological variables (e.g. motivation, self-perception) Social influences (family, socio economic class and reference groups) Purchase opportunities (career choice, subject areas, location)
McInnis et al. (2000) Australia	Studying in a field that really interests me To improve job prospects Develop talents and creative abilities
Harris Management (2003) New Zealand	Ability in the chosen subject Interest in the chosen subject

It is true that this table obscures differences in questionnaire design, statistical analysis and reporting. Also there are some key recurring factors, for example, the importance of subject area in decision-making. Nevertheless the differences also stand out, illustrating the complexity of decision-making. Bloomer & Hodkinson (1997, p.46) characterize student decision-making as

*A complex nexus in which habitus, personal identity, life history, social and cultural contexts, actions and learning are inter-related.*

## 2. Decision-making can be modelled

It is not surprising that there is little unanimity about the process of decision-making. Martin (1996) went out of his way to justify his own somewhat aberrant results by claiming that findings differed greatly from study to study. Some studies recognize a rational process that is lineal or is characterized by some stable features (Le Claire, 1988; Choy et al., 2000; McInnis et al., 2000), but others cannot see any rational, stable decision-making process (Bloomer & Hodkinson, 1997; Tyler, 1998; Perna, 2000; Connor & Dewson, 2001). Davies (2003) suggests that the notion of choice as a rational, logical process is problematic. In order to make sense of decision-making without tying it too closely to a predetermined rational process, some authors have developed explanatory models. These are not tied to pre-set phases or processes but do try to explain the variability in decision making in a rational way. For example, Wagenaar (1987) argues that his research supports a number of explanatory models: status attainment, human capital and college choice models. The latter models tend to incorporate the first two by employing explanatory variables such as a person's background, institutional characteristics and the economic and policy environments. Brennan & Marriott (1996) support a generic decision-making model comprising psychological, social and economic drivers. In a major literature review, Payne (2003) recognizes three models to explain choices – structuralist, economic and pragmatic rationality models. However James (1999) criticises an ideology of choice inherent in such models. These models focus heavily

on purchase opportunities such as career opportunities, which he argues are based on a false assumption that all students can capture sufficient quality information to make good decisions.

These differences in how decision-making is theorized led us to question whether the decision-making process can be explained usefully at all. From the literature reviewed for this report, we think it can. A number of authors (Stage & Hossler, 1989; Cabrera & La Nasa, 2000; Brennan, 2000; Harker et al., 2001) have suggested a decision-making model that is based on a person's life span yet is independent of time; that recognizes different decision-making variables, yet does not theorize them as occurring in set sequences; that recognizes that choice is part of the decision-making process but does not burden it with neo-liberal economic assumptions. This model has three stages. The first, the *predisposition* stage, considers the family background, parental disposition to tertiary education, degree of self-belief and nature of the school attended. The second, the *search* stage, occurs when the person is searching out post-school options based on variables such as career aspirations, interest in a field of study, academic achievement, access to information and contact with tertiary institutions. At the third stage, *choices* to pursue specific tertiary programmes at certain providers are made. These are based on whether admission is achieved, whether the right courses in a preferred field of study are available, and whether costs and rewards are in balance.

We have adapted this model for this report to explain how we understand the decision-making process in terms of the four themes summarized in the templates. The first theme concerns the decision-making process. We suggest this has three phases: predisposition, search and choice. The second theme concerns the factors that inform the decision making process. The third outlines information requirements that support decision-making. The fourth theme examines the impact of diversity on decision-making. The themes are pictured in Figure 4, which represents a working model of decision-making and gives rise to the findings in this report.

FIGURE 4: WORKING MODEL FOR DECISION-MAKING

<b>Decisions</b>	<b>Factors</b>	<b>Information</b>	<b>Diversity</b>
Predisposition	<ul style="list-style-type: none"> <li>• Socio-economic status</li> <li>• Parental disposition</li> <li>• Self belief in ability</li> <li>• School</li> </ul>	<ul style="list-style-type: none"> <li>• Family experience</li> </ul>	<ul style="list-style-type: none"> <li>• Socio-economic status</li> <li>• Gender predispositions</li> <li>• Cultural habitus</li> </ul>
Search	<ul style="list-style-type: none"> <li>• Career outlook/aspirations</li> <li>• Academic achievement</li> <li>• Subject area interest</li> <li>• Institutional profile               <ul style="list-style-type: none"> <li>- <i>location</i></li> <li>- <i>courses offered</i></li> <li>- <i>reputation/ image</i></li> </ul> </li> <li>• Costs and financial aid</li> </ul>	<ul style="list-style-type: none"> <li>• Information networks               <ul style="list-style-type: none"> <li>Interpersonal information                   <ul style="list-style-type: none"> <li>- <i>school</i></li> <li>- <i>home</i></li> <li>- <i>peers</i></li> </ul> </li> </ul> </li> <li>• Contact with tertiary providers               <ul style="list-style-type: none"> <li>- <i>taster courses</i></li> <li>- <i>involving parents</i></li> <li>- <i>brochures</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Different aspirations</li> <li>• Minorities               <ul style="list-style-type: none"> <li>- <i>have community orientation</i></li> <li>- <i>job often more important</i></li> </ul> </li> <li>• Gender differences</li> </ul>
Choice	<ul style="list-style-type: none"> <li>• Right courses/degrees</li> <li>• Admission</li> <li>• Social fit</li> </ul>	<ul style="list-style-type: none"> <li>• Communication with institution of choice               <ul style="list-style-type: none"> <li>- <i>open days</i></li> <li>- <i>information on needs</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Cultural differences</li> <li>• Gender differences</li> <li>• Age differences</li> </ul>

### 3. Decision making starts very early

Studies consistently found that the decision making process starts surprisingly early - much earlier than Years 11 and 12 when young people are expected to make their post-school decisions.

The first and necessary decision is to stay on in education rather than effectively ruling it out as an option (Payne, 2003). This decision is strongly influenced by predispositions and aspirations formed over a long period of time. Student background characteristics such as socio-economic status, aptitude and level of educational aspirations influence this decision (Perna, 2000; Harker et al., 2001), which may be made as early as elementary school. In her study of Latino students Marquez (1998) found that 41% of students had decided to attend college (a form of tertiary education in the USA) while at elementary school, 39% while at high school and 18% in middle school. Of particular interest too are the 64.8% of urban high school students in Kern's (2000) study who strongly agreed with the statement "I always knew I would go to college". While the initial decision to stay on in education may be made early, specific plans about programmes and university are usually made later (Stage & Hossler, 1989; Cabrera & La Nasa, 2000; Harker et al., 2001; Payne, 2003).

Three studies suggest that the decision-making process begins at Grade 7 as students begin to identify subjects and careers of interest (Le Claire, 1988) and to secure the cultural capital they will need to fulfil their developing aspirations (Cabrera & La Nasa, 2000). Similarly James (2000) found that Year 10 to 12 students who intended going on to university had made the initial decision two to three years earlier. Looker & Lowe (2001) found that post-secondary plans are formulated slightly later, suggesting Grade 9. Stage & Hossler (1989) support this, reporting that 61% of ninth graders in one study had made the decision to continue in education. In Japan, 9<sup>th</sup> grade students must choose between general or vocational high schools (Ono, 2001). It is important to note, however, that teachers in Japan steer students into different occupational tracks. Choy et al. (2000) found that taking algebra in 8<sup>th</sup> grade and aspiring to a bachelor degree by 10<sup>th</sup> grade were critical early steps. Others were less specific about when, but found that key decisions had been made before Years 11 and 12 (The Institute for Employment Studies, 1999; James et al., 1999; James, 2001; Christie et al., 2004). However, it is useful to note Bloomer & Hodkinson's (1997) finding that early decision-making can be quite unstable.

It is not surprising to find recommendations for early interventions, particularly for under-represented students, to enable them to improve their academic achievement and systematically plan for college (St John, 1991). Boyd et al. (2001) recommend earlier identification of students' interests, strengths and skills. Whitley & Neil (1998) suggest more information be made available at Year 10 and that students should be made aware of the ramifications of subject choices. Choy et al. (2000, pp.59-60) sum up:

Efforts to help students develop college aspirations early, encourage them to follow a rigorous academic curriculum, and support them through the application and enrolment process all have the potential to keep students in the pipeline and improve college enrolment rates. The largest payoff will come from helping students to enter the pipeline and persist through the second step.

## THEME 2: FACTORS

### 4. Socio-economic status (SES) is a powerful factor

Socio-economic status (SES) is the strongest predictor of tertiary study (Stage & Hossler, 1989; Choat, 1998; Chalmers, 2001; Looker & Lowe, 2001). A causal relationship between SES and post-school choices was established by Wagenaar (1987). Studies also report that SES effects are important at all three stages of the decision-making process (Cabrera & La Nasa, 2000). Family size and family structure/ composition may add to the effects of SES (Lillard & Gerner, 1999; Maani, 2000; Nguyen & Taylor, 2003). Three forms of SES are identified - parental education, parental occupation and parental income (Looker & Lowe, 2001). These produce social capital (resources available because of connections to others) and cultural capital (non-economic assets that come from high levels of education and exposure to middle and upper class values and attitudes).

Studies report the effects for both high SES and low SES students. Students from high status homes are more likely to pursue post-secondary education, attend university and pursue postgraduate degrees (St John, 1991; James, 2000; Looker & Lowe, 2001). They also placed more significance on institutional rankings (Howard, 2002). Choy et al. (2001) identified low SES as a risk factor and found that 44% of high school graduates with any risk factors never entered the pipeline to college. James (1999) supports this, showing that lower SES students were under-represented in higher education. They also choose institutions on the basis of cost (Connor & Dewson, 2001). Choat's 1998 study shows the effects of SES in the New Zealand context: a student from Decile 9 & 10 schools is five times as likely to go to university as someone from Deciles 1 & 2; students from Decile 6-8 are twice as likely to go to polytechnic than university; 63% of those attending private schools went on to tertiary education compared with 47% from Decile 9 & 10 schools. Maani (2000, p.20) found similar effects:

... the estimated probability of attending university increases significantly with parental income decile, even when keeping IQ and academic performance constant at their mean values. In contrast the probability of attending the polytechnic decreases significantly as income decile increases. This is consistent with the effect of income and socio-economic background on the level of information available to the young person or the tastes developed for the type of training and occupations pursued.

Reay et al. (2001) use the notion of habitus to explore the ways that institutions impact on students' choices. Where there is congruence between familial and institutional habituses students are like 'fish in water' and are more likely to be channelled into higher education. Lack of social and cultural capital is experienced as dissonance or alienation. The social or personal fit (James, 2000; 2001) is not comfortable so students are less likely to continue onto higher education.

James' (1999, p.7) summary of the effects of SES applies beyond Australia:

Overall, the findings of our first study emphasise that Australia still has a higher education system significantly stratified by social class. Students' earliest decisions about the possibility of higher education are in no terms 'equal', but hinge on the social and economic circumstances of their families and communities ..."

## **5. Parents influence decisions**

Parents' influence includes parental dispositions, preferences, expectations, support and encouragement, and has a range of powerful effects. Some studies report that parents' encouragement and support is the primary factor in the college choice process at the 'predisposition' and 'search' stages but is less important at the 'choice' stage (Cabrera & La Nasa, 2000; Harker et al., 2001). Stage & Hossler (1989) claim that parental expectation was the best predictor of the predisposition to attend college for their 9<sup>th</sup> grade sample. Perhaps reflecting this shift across the phases is the finding that parental influence impacts more on school leavers than age-mature students (Maxwell et al., 2000; Harker et al., 2001).

Payne (2003) reported that parents' role was probably the most important factor in post-school choices; Walck & Hensby (2003) and Kern (2000) that family gave significant support in decision-making; Brooks (2004) that 90% of respondents claimed they had consulted their parents about choices; the Institute for Employment Studies (1999) that 73% said parents were keen for them to go to university; Boyd et al. (2001) that parents are major influences on decision-making; and Choy et al. (2000, p.60) argue that "for moderate to high risk students parental involvement was convincingly linked to an increased likelihood of attending college". However, parents' preference ranked very low as a factor in both Martin's (1996) and Lilly et al.'s (2000) studies of senior school students. Likewise high achievers scored parents' choice as only 1.68 out of 3 (Keller & McKeown, 1984) and advice of parents rated 2.2 out of 5 (James, 2000).

Some studies suggest that mothers' and fathers' involvement have different effects. Chalmers (2001) showed that mothers were the most important factor. In James' (2000) study, 80% thought mothers' influence was significant compared with 72% for fathers' influence. Looker & Lowe (2001) and Brooks (2004) showed that mothers were more likely to play an active role in a child's education but Brooks' study also suggests that fathers play a key role, indeed at times a more important role, in decision-making about post-school study, particularly when they have access to the necessary social and cultural capital to support decision-making.

Parental involvement may result in a 'push' or 'pull' effect. Reay et al. (2001) report that students in private schools experienced congruence between familial and institutional habituses. Consequently parents and the school pushed them in the same direction - towards higher education. But many students in state institutions experienced dissonance and parents who pulled them away from post-school education. Yorke (1999) identifies a negative aspect to parental involvement, finding that many students went to university as a result of parental pressure and often made wrong choices of study.

Parental involvement may also vary with gender, class and ethnicity and act as an inhibitor on choices for non-traditional students (James, 1999; Payne, 2003). It is worth noting however, that Payne's study shows that students in the main minority ethnic groups are more likely than whites to stay in full time education after age 16 and that some of the stereotypes of Muslim families are inaccurate. Overall parents exert a powerful influence on decisions. Schools and tertiary institutions need to involve parents more, particularly at the predisposition and search phases.

## **6. Academic achievement is important**

As has been noted elsewhere in this report, there are many critical factors influencing peoples' decisions about their post-school lives (Jackson, 1986; Cabrera & La Nasa, 2000; Looker & Lowe, 2001). One recurring factor is academic aptitude and achievement. This seems to play

an important role at all stages of the *predisposition, search, choice* model (Stage & Hossler, 1989; Cabrera & La Nasa, 2000; Brennan, 2000; Harker et al., 2001). Stage & Hossler suggest that within the predisposition phase, student school achievement is positively associated with plans for university study. Without this, tertiary education is rejected early as an option. When the time comes to consider options at secondary school and to actually choose a post-school career, academic aptitude is a critical factor. Wagenaar's (1987) findings from data derived from a very large study<sup>1</sup> showed that educational attainment at secondary school, when combined with social class background, reliably predicted choice for tertiary study.

This finding recurs in studies from around the world. Ono (2001) found a very close correlation in Japan between Grade Point Average (GPA) and the quality of colleges available for selection. The importance of GPA in selecting tertiary study was supported by Jackson (1986) in the United States and in a study by Nguyen & Taylor (2003) who found that academic ability has a powerful effect and was statistically significant in their study involving 10,000 American high school students. Looker & Lowe (2001) in Canada, the Institute of Employment Studies (1999) in the United Kingdom and Maxwell et al. (2000) in Australia reported similar findings. Two Australian studies support these findings by offering slightly different perspectives. James (2000b) found that affirmative answers to questions about attainability factors, such as confidence that the requirements of a course could be met and belief that they could gain entry into their chosen institution, persuaded students to have a go. McInnis et al. (2000), in their retention studies, found that respondents who averaged over 70 percent in their studies had clearer and more confident academic goals than students who scored less well. Maani (2000), in a New Zealand study, found that the choice to enrol in tertiary education was mainly influenced by academic performance. The study reported that passing the School Certificate examination<sup>1</sup> increased the probability of attendance at university by age 18 by 15.6 percent.

St. John (1991) found that inadequate academic preparation creates barriers for non-traditional groups. This finding has given rise to a number of suggestions for improving academic performance (Perna, 2000). In their major longitudinal study, Choy et al. (2000) developed the metaphor of a pipeline to picture the process by which people decided to pursue tertiary education. They found that students with any risk factors tended not to enter the pipeline. Their solution: "help students develop college aspirations early, encourage them to follow a rigorous academic curriculum, and support them through the application and enrolment process... (pp. 59-60).

## **7. Subject area interest affects choice of and type of institution**

There is strong evidence, particularly from the Australian literature, that interest in a subject area strongly influences people to choose one institution or type of tertiary education over another. This is so particularly as subject area choice is often a surrogate for career aspirations (James et al., 1999; Maxwell et al., 2000; Cabrera & La Nasa, 2000; Chalmers, 2001).

In major surveys, James and his colleagues found that students focus primarily on fields of study when choosing their tertiary education (James et al., 1999; James, 2000b; James, 2001). In another study tracing retention patterns between 1994 and 1999, McInnis et al. (2000) found that 94 percent and 96 percent of respondents said they came to university because they wanted to study in a field that really interested them. Other Australian researchers (Le Claire, 1988; Martin, 1996; Soutar & Turner, 2002) reported that a chosen field of study was a prime

reason for choosing tertiary education. While placing second in a list of factors, American researchers confirmed the importance of field of study as a key factor in decision-making (Keller & McKeown, 1984; Kern, 2000). A New Zealand study investigating entry into technology education not surprisingly, perhaps, found the key decision factors to be ‘ability in’ and ‘interest in’ a technology subject (Harris Management Solutions, 2003). Another New Zealand study, by Boyd et al. (2001), also found that personal interest was a primary motivator for making choices. Confirmation about the importance of the field of study, but from a different perspective, comes from two retention studies conducted in the United Kingdom (Yorke, 1999; Christie et al., 2004). Both found that students were withdrawing from their studies because they had chosen the wrong course. Worth noting here is James’ (2001) finding that field of study preferences are made by 56 per cent of applicants in the year of decision while 43 per cent made their choice in years prior to that.

It is important to recognize that the decision-making process is complex and other factors also influence choice, Lilly et al. (2000) researched five clusters of factors: learning support, input from advisors, institutional performance and institutional offerings, including matters connected with subject choice. Learning support and institutional performance ranked higher for their sample of students than availability of courses in a preferred subject area. Marquez (1998) found that in her sample of Latino students, distance from home and financial factors were most important. Tumblin (2002) found that convenience factors such as timing of classes rated above more academic factors such as academic reputation. Jackson (1988) found that costs, financial aid, admission requirements of institutions and student SAT scores were critical variables in student choice whereas subject area interests did not even appear as non-critical variables. Indeed, as James (2000b), Brennan (2001) and Harker et al. (2001) point out, students may not have a choice if they do not meet the entry standards of an institution. The decision-making process is never straight forward as “entry to university has been described as a courtship in which both parties are making decisions ...” (James, 2000b, p.86).

#### *Institution reputation as a factor in decision making*

Institutions offer programmes to meet the subject area interests of students. So the reputation of an institution may influence students’ choices. Reputation, however, is understood in different ways: academic reputation, prestige, desirability and ranking in league tables. Findings on reputation were somewhat mixed. In a large USA study Howard (2002) investigated the ways students used institutional rankings in their decision-making and found that 56.7% considered ranking to be a factor. In Australia, studies by Soutar & Turner (2002), Brennan (2001) and Martin (1996) identified reputation as a factor. Some studies reported that academic reputation was important to different groups of students: those that applied to research-led institutions (James et al., 1999); high-achieving students (Keller & McKeown, 1984); and age-mature students attending private colleges (Tumblin, 2002). Howard (2002) reported, from her large USA study, that institutional rankings were more likely to influence first-time, full time freshmen attending ranked, private institutions or be traditionally-aged, live on-campus, attending a college a significant distance from home and have a high financial status. College reputation was important to minority students when it was understood as ‘a great reputation in my field of study’ or ‘friendly reputation’ (Kern, 2000). In contrast, Jackson (1986) found that ‘institution’s prestige’ was a non-critical factor; James (2001) found that ‘research track record and international standing’ are not of great interest to students; and Lilly et al. (2000) that students are not particularly interested in league table positions.

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<sup>1</sup> Replaced by Level 1 of the National Certificate of Educational Achievement (NCEA) in 2002



## **8. Full information on cost and financial support is necessary**

Research studies show that total cost of attendance and the availability of financial aid are key factors for many students. While cost does not always emerge as an influential factor (Brennan, 2001; Keller & McKeown, 1984) it is important in many studies. Central to an understanding of how cost and financial aid affect decision-making is perceived ability to pay (Perna, 2000), which is made up of perceived resources and perceived costs (Cabrera & La Nasa, 2000). Perception is critical:

Whether accurate or not, perceptions do influence decision-making. Thus, if a high school student, and her/his parents, believe that the cost of post-secondary education is beyond their means, or have incomplete information on the rates of return to specific post-secondary programs, this misinformation gets built into their decision-making (Looker & Lowe, 2001, p.23).

Where students and their families perceive high costs, a lack of money, finance and resources (Marquez, 1998; Looker & Lowe, 2001; Parente et al., 2003) they are less likely to participate in tertiary education. Where programme costs seem 'good value for money' (Tumblin, 2002), 'financially most possible' (Marquez, 1998) or 'affordable' (Maxwell et al., 2000) this becomes an important factor in choice of institution. Information about costs and financial assistance are factors at each stage of the decision process (Cabrera & La Nasa, 2000).

Many studies found that students, and their parents, did not have a realistic perception of cost. The Institute for Employment Studies (1999) revealed that a significant proportion of students both over- and under-estimated the cost and that about half were likely to be deterred by cost. Connor & Dewson (2001) found that over 75% of low SES group students thought they had insufficient information about costs. Martinez & Munday (1998) found that students wanted a realistic idea of costs.

Costs have 'negative effects' (Jackson, 1986), become 'important inhibitors' (James, 1999), 'deterrents' (Institute for Employment Studies, 1999) and barriers to participation (Choat, 1998; Marquez, 1998; Parent et al., 2003) especially for students from under-represented groups (James, 1999; Connor and Dewson, 2001; Looker & Lowe, 2001).

Offsetting cost is the availability of financial aid. This is an important factor that influences dispositions to attend college from as early as Grade 9 (Looker & Lowe, 2001); decisions to apply (Keller & McKeown, 1984; Wagenaar, 1987); and has a significant and positive association with participation at college (St John, 1991). Better financial assistance was a significant factor for Blacks in one study (Keller & McKeown, 1984). It is also worth noting that low-income students were attracted more by grants than loans (St John, 1991). This may be because they do not like borrowing money, being in debt in the future, or know enough about likely financial outcomes of higher education (Connor & Dewson, 2001).

Cost is a key barrier to participation, particularly for diverse students. Parents and students need realistic information about total costs early in the decision-making process and assistance with identifying financial support options available to them to help meet the cost of post-school education.

## **9. Schools can influence decisions**

The evidence on school effects on decisions is mixed. However there is data to suggest that schools can affect decisions and that, particularly for non-traditional students, they could

intervene to influence predispositions and decision-making. The two key factors within schools are teachers, particularly subject teachers, and career guidance staff.

Studies reveal a range of effects for subject teachers. They can be very influential (Reay et al., 2001) and act as ‘positive influencers’ for low SES students, providing information and advice to make a difference for them (Connor & Dewson, 2001). Bland (2002, p.6) noted that “over 50% of the students praised particular teachers for their role in directly motivating them and providing a high degree of care”. A New Zealand study also reported that 73% of students said course teachers were an important source of support (Boyd & McDowall, 2003). But teachers earn a mid-ranking as influential advisors in Lilly et al.’s study (2000); are rated low by Keller & McKeown (1984); and do not appear at all as a factor in James (2000) or Wagenaar (1987). Career guidance/counsellors fare a little better, rating highly in some studies as support people and advisors (Brennan & Marriott, 1996; The Institute for Employment Studies, 1999; Chalmers, 2001; Boyd & MacDowall, 2003). But, like teachers, they rate low in Keller & McKeown (1984).

What does emerge is that schools, teachers and career guidance staff can have an important role, particularly for non-traditional students. Boyd & Chalmers (2001) found that schools were very important in helping students from lower socio-economic groups through the decision-making process. Connell (2004, p.238) stresses that working class families “are more heavily dependent on the school and teachers to guide, advise, support, encourage and provide information to their children ...”. St. John (1991) suggests that schools provide special programmes to improve academic achievement and to enable students to systematically plan for college. Boyd et al. (2001) also propose personal attention through career interviews, the development of career plans, especially for younger students in low decile schools, and the involvement of parents and family in information giving. Perna (2000) advocates academic intervention and increased parental involvement. Looker & Lowe (2001) also argue for teacher/student contact to help make post-school plans. Connor and Dewson (2001) see teachers and career staff as potential mentors or ‘HE champions’. In short, schools have the potential to positively influence students’ decision-making process.

### THEME 3: INFORMATION

#### 10. Family experiences of tertiary education inform decisions

When a family has some experience of tertiary education, children are more likely to consider post-school options and are better able to navigate the complex application and enrolment procedures. Parents' own education is an important factor in this process, although friends and other family members, who have current or recent higher education experience, can become 'positive influencers', particularly for low SES students (Connor & Dewson, 2001). Christie et al. (2004) found that complex social networks advise people on post-school study. Where these networks are repositories of experience of universities and courses, young people have access to reliable information and tend to be more confident about their choices. Where people do not have access to such information networks "they may be deterred because they do not have help or support in negotiating this very daunting and complex body of information" (ibid, p. 624).

Parental levels of education are especially influential at the predisposition stage, being positively associated with plans for university study (Stage & Hossler, 1989; Cabrera & La Nasa, 2000; Payne, 2003). In a New Zealand study, Chalmers (2001) found that children from professional, managerial and highly educated parental backgrounds tended to assume they would study at university. Jackson (1986) reported that both father's education and mother's education were critical variables in college choice. Nguyen & Taylor (2003) showed that the probability of enrolling in a four-year college increases as parental qualifications improve. In contrast, parents who have little or no tertiary education are less likely to encourage their children to continue. They see higher education as 'not for the likes of us' and may even 'pull' against schools' efforts to persuade their children to stay on (Reay et al., 2001). Parents with low qualifications tend to encourage children into the labour market (Nguyen & Taylor, 2003).

Choy et al. (2000) also showed that parents' education mattered. Students whose parents had no college education were only half as likely to aspire to a bachelor degree at 10<sup>th</sup> Grade and only one third as likely to enrol in a four-year college. These parents were less likely to participate in planning activities that lead to college enrolment. Connell (2004) found that even when working class parents were supportive of education and aware of the benefits for their children, their own lack of experience with and knowledge of post-school academic and training pathways was a key factor. Parente et al. (2003) found a similar effect with indigenous parents with no post-school education. While wishing their children well, they were frustrated that they were insufficiently informed about options for their children.

These findings have important consequences for schools. "The more complex the system gets, the more 'choices' are inserted, the more difficult it is for these working class parents to understand and move competently around the education system ... The implication is that working class families in the future are likely to depend *more* on the schools to get everything right for their children" (Connell, 2004, p.238). While Connell writes about working class parents these comments apply to all families where parents lack experience of tertiary education. Schools have a major role in providing appropriate information on post-school options for these students.

## 11. The most effective information is interpersonal

This finding is partially supported by evidence showing that mass information is not as influential in decision-making as institutional marketers would perhaps like and partially by evidence of the strong influence of complex interpersonal networks on decision-making.

Mass information campaigns like advertising through newspapers, television, radio and the Internet are perhaps less helpful than institutions would wish. Brennan (2001) suggests that students do not use promotional materials to a large extent when making decisions. Maxwell et al. (2000) concur, claiming that newspapers, radio and television are not influential. James et al. (1999) suggest that commercial information is used by less than one-third of applicants and Connor & Dewson (2001) note that, while information disseminated by institutions is plentiful, their respondents saw it as too general and overly complex. More specifically, the Institute for Employment Studies (1999) found in the United Kingdom that only 22 percent of their large sample used the Internet, 32 percent used newspapers/magazines, and 35 percent used television advertising as a major source of information. A survey of non-traditional respondents in nine United States institutions (Tumblin, 2002) found that only 40 percent thought newspaper advertisements were influential in informing their decision. James (2001) confirms that non-traditional students do not relate well to the mass marketing generally used by tertiary institutions. Martinez and Munday (1998) and Yorke (1999), in their major retention studies, report that mass pre-entry information received by people who left early was considered misleading. The students in Martinez and Munday's study wanted it replaced by face-to-face contact that allowed for questions to be asked.

Christie et al. (2004) pick up on the Martinez and Munday (1998) and Yorke (1999) critiques by suggesting that the most effective information recognizes that decisions are made in complex social networks that operate using interpersonal communication. They found that young people, who do not have ready access to such information networks, may be deterred because they cannot access important information. Brennan (2001) also argues that the most important source of information is interpersonal. Boyd et al. (2001), writing from a New Zealand perspective, found that students preferred personal to impersonal information. Indeed, they found that personal interest by an informant was a primary motivator for making choices. Parents, families, friends, teachers, career counsellors and tertiary staff are all involved in interpersonal information networks (Boyd & MacDowall, 2003; Brooks, 2004). In their New Zealand study, Boyd & MacDowall (2003) show that all members of interpersonal information networks have significant influences on decisions. At the senior secondary school level school teachers and career counsellors have the most influence, but parents are also influencers, as are tertiary educators who engage with students rather than merely trying to recruit them. In a synthesis of three major studies of career guidance, Watts & Sultana (2003) observe that many of the 36 countries studied attempt to provide lifelong career guidance using a variety of information networks. This synthesis suggests that institutions that engage with interpersonal information networks are more successful than those that don't. In-school taster courses, two-way visits and open days, although problematic according to James (2001), enable decision-makers an opportunity to see how well they will fit into an institution.

Peers of decision-makers are usually recognized as members of this complex web of interpersonal information networks (Brennan & Marriott, 1996; Chalmers, 2001; Boyd & MacDowall, (2003); Christie et al., 2004). It is perhaps surprising that they do not feature more prominently as information sources in the research. Brennan & Marriott (1996) for example, found that close friends only ranked halfway in a list of 5 personal influences. Family and career advisors ranked well above them. While Boyd & MacDowall (2003) found people to be generally very important in the decision-making process, only 35 per cent of

their sample thought that peers were important compared to 73 per cent who thought teachers were important and 55 per cent who thought family was important. Martin (1996) found that friends ranked third out of 9 information influences. Whitley & Neil (1998) distinguished 'in-school' and 'out of school' information flows. They suggest that 'in-school' information provided by teachers and career guidance people was more important, but that peers played a significant role in providing 'out-of-school' information, particularly among low socio-economic students. Both Whitley & Neil (1998) and Chalmers (2001) found that girls were more likely to seek information from friends than boys.

## **12. Information sharing between students, families, schools and tertiary providers is effective**

This finding builds on a number of other findings, particularly Finding 11; the most effective information is interpersonal. It shows that interpersonal information is best utilized when constantly exchanged by active partners in the choice process. These partners are tertiary providers, schools, prospective students and their networks of close advisors such as parents, family and friends (Brennan & Marriott, 1996; Kern, 2000; Brooks, 2004). According to Maxwell et al. (2000) personal outreach and connection among such partners is the most important information strategy for people deciding on vocational education and training programmes. Boyd et al. (2001) agree, suggesting that teachers, career counsellors, representatives of tertiary institutions, as well as parents and family groups, should all be involved in information giving and processing. Watts & Sultana (2003) see this process as lifelong as people move in and out of careers, education and training.

A considerable number of studies explore the rationale supporting this finding. James (2000b) and Harker et al. (2001) describe a courting dance that acts as information exchange between institution and prospective student. They argue that where the information exchange about such things as admission criteria, academic aspirations and achievements is fruitful, the decision-making process is easier. Harker et al. (2001) show that mature students in particular enjoy contacting and talking to prospective providers during the search stage of the decision-making process. According to Cabrera and La Nasa (2000) "development of expectations and perceptions about the quality of the institution, campus life, availability of majors and ability to finance enrolment are primary considerations" (p.10) for students, while meeting entry criteria is the main consideration for the institution. Tyler (1998) expands the courting dance metaphor by arguing that decision-making is nothing more than a negotiation process between different parties. Living in a 'risk society' young people cannot expect a smooth pathway into tertiary study. Brennan & Marriott (1996) suggest that information accessible from across the spectrum of social networks reduces the risk of making the wrong decision. Discussing non-traditional students' information needs, Connell (2004) suggests that schools and tertiary providers need to make efforts to bridge a cultural divide that often exists between these student's families and formal education.

Martinez and Munday (1998) mention a number of ways to improve information sharing in social networks. They suggest that the students in their sample would have benefited from greater involvement if all members of student social networks had played a part in information giving and processing. For example, they emphasise the value of tertiary providers working in schools on taster courses and even on joint tertiary and school courses. They also suggested invitations be given to parents to attend information sessions and even to include them in taster courses. In their New Zealand study, Boyd and MacDowall (2003) mirrored these findings. They also found that social networks working together in information gathering and dissemination had very good results. They mention tertiary taster and block courses, foundation courses, two-way visits, open days, in fact any activity involving tertiary

staff, school, and parents providing that tertiary staff did not focus on recruiting. Further, they found that information directed at an individual's known interests helped decision-making. Perna (2000) suggested that parents should be much more involved in school to build their own information base. James (2001) has a word of caution about open days. He suggests that they are valuable in decision-making if they involve genuine interactions between visitor and institution staff.

Reinforcing the importance of information sharing between key stakeholders is literature that describes problems resulting from poor decision-making. Yorke (1999) reports that 39 percent of students withdrawing early from their studies chose the wrong field of study. Walck & Hensby (2003) report that "an apparently high proportion of students presenting to counselling sessions as dissatisfied or distressed with their initial degree and career choices" (p.65). One in three students (34 percent) reported having insufficient or no help in making their decision. Poor information and knowledge seem to be recurrent factors in poor decision-making (James, 1999; James et al., 1999; Martinez & Munday, 1998; Maxwell et al., 2000; Yorke, 1999). Martinez and Munday (1998) comment on students' dissatisfaction with pre-entry information and the high withdrawal rate between application and enrolment. Ways for improving the quality of information noted in their study include more information about timetables, examples of the kind of work they will be expected to do, indication of workload, realistic idea of costs and an opportunity to discuss how well their capabilities fit them for the course (ibid). Similarly, Yorke (1999) argues the necessity for institutions to provide comprehensive and accurate academic advice before enrolment.

## THEME 4: DIVERSITY

### 13. Additional factors for ‘non-traditional’ students make their decision-making process even more complex

The term ‘non-traditional student’ is undoubtedly contentious. It is used in the decision-making literature, however, (James, 1999; Tumblin, 2002) and seems more inclusive than ‘minority’ and more accurate than ‘under-privileged’. It applies to a diverse range of people who have traditionally been under-represented in tertiary education - those from lower socio-economic backgrounds, minority ethnic groups, age-mature groups, women, people with no ready access to a tertiary institution and people who are generally ‘at risk’ in some way of not fulfilling their potential. They contrast with stereotypical ‘traditional students’: male school leavers from higher socio-economic backgrounds living in urban areas and belonging to the dominant culture. While there is ample information about the effects of socio-economic status on decision-making (reported in Finding 4), we have found relatively little data on the decision-making of the other ‘non-traditional students’. We synthesize here the information that we have found on minority ethnic groups, gender-related research, age-mature learners, people not in the proximity of a tertiary institution and those considered to be ‘at risk’.

#### *Decision-making of non-traditional ethnic groups*

The research supports three general observations. The first is that some ethnic minority groups do not have nor seek the social and cultural capital offered by tertiary study. The second observation is that non-traditional ethnic groups often choose study to enrich their communities. The third observation is that differences among non-traditional ethnic groups are considerable; just as marked as those between ‘non-traditional’ ethnic groups and their ‘traditional’ peers.

Unfortunately we found no specific data on the decision-making processes adopted by Māori or Pasifika people. However, the practices reported by Boyd and MacDowall (2003) on the *Innovative Pathways Project* outline some approaches that may assist decision-making for Māori and Pasifika students. These include consistent support throughout the course within a trusting relationship, learning experiences close to the students’ interests, informal ongoing discussions, visits and contact with the tertiary environment. The research we found pertains to Aboriginal-Australian students (Parente et al., 2003), Asians (Yiv & Secombe, 1999; Hagy & Staniec, 2002) Hispanics/Latinos and African-Americans (St. John, 1991; Marquez, 1998; Perna, 2000). This research suggests that decisions by minority ethnic groups to attend or not attend tertiary education are made very early (Cabrera & La Nasa, 2000; Choy et al., 2000; Christie et al., 2004). The outcome of the decision depends on whether the family has the social and cultural capital to envision an educational path for their children and, more importantly, whether they aspire to obtain the social and cultural capital offered by tertiary education. (Marquez, 1998; Cabrera & La Nasa, 2000; Choy et al., 2000; Perna, 2000). Christie et al. (2004) add that the required social and cultural capital will not be obtainable unless families can obtain useful information through knowledgeable social and cultural networks. Parente et al. (2003), researching the aspirations of Aboriginal people, and St. John (1991), examining the enrolment rates of Latinos, found that their target groups did not aspire to the social and cultural capital offered by tertiary education. Consequently the take up for these groups is disproportionately small.

Minority ethnic groups tend to make their decisions to attend tertiary education for different reasons than their traditional peers (Marquez, 1998; Yiv & Secombe, 1999; Parente et al., 2003). Whether Asian, African-American, Bengali, Hispanic or Aboriginal-Australian, a key decision-making factor centred on the needs of the family and, especially, the community.

Perna (2000) explained this key attribute in terms of social and cultural capital. Perna found that African-Americans and Hispanics saw the enrichment of their social and cultural capital as a major reason for deciding on tertiary education, whereas their traditional peers made their decisions more on the basis of perceived academic ability or job opportunities. This emphasis on meeting community needs and building social and cultural capital there creates considerable complexity for these groups in making decisions about tertiary education.

Another important observation is that the aspirations and decision-making behaviours of minority ethnic groups differ as much among themselves as with those of traditional students. Both first and second generation Asians are much more likely to enrol in tertiary education than African-Americans, Hispanics or Whites (Hagy & Stamic, 2002). But in the United Kingdom, according to the Institute of Employment Studies (1999), a greater proportion of non-traditional ethnic groups considered tertiary study than did 'traditionals'. Nguyen & Taylor (2003) confirmed that African-Americans and Hispanics decide to go to College in much greater numbers than perhaps expected. All studies researching participation and decision-making of these groups report a strong interest in tertiary education. Aboriginals in Australia, however, are an exception. They are still under-represented in tertiary education and don't seem to aspire to it (James, 1999). Parente et al. (2003) show that aboriginal life goals differed from those of other Australians. They had fewer educational aspirations, perceived greater barriers, had less knowledge about educational options and, perhaps most importantly, saw fewer advantages in tertiary education than other Australians.

#### *Differences in decision-making between women and men*

It seems an anomaly now to consider females non-traditional students. Indeed, in the United Kingdom, the Institute of Employment Studies (1999) and Payne (2003) found that girls were much more likely to consider higher education than boys. Looker & Lowe (2001) report the same from Canada. A number of studies found that girls' decision-making processes differed from those of boys. Goals for girls seemed to be more rounded and focused on relationships whereas the boys tended to be more instrumental and focused on careers (Tyler, 1998; James, 2001). However, Looker & Lowe (2001) warn of creating new stereotypes. Differences in how females and males value information and are influenced in making their decisions have also been recorded. Brennan & Marriott (1996) report one significant difference in the influence of people advising them. Boys seem to take more note of professional advisers such as career counsellors than girls while, according to Chalmers & Kumekawa (2000) and Chalmers (2001), girls prefer family members and friends as advisers. Chalmers also found that fathers play a lesser role in girls' decision-making than in boys'. Brooks (2004) does not actually contradict this, but shows that in some instances fathers have major influences in girls' decision-making.

The overall impression from reading the literature on gender difference is that the picture is highly complex. There do seem to be differences, but they don't seem significant. Rather, they happen on the fringes of the decision-making process in ways that may be stereotypical. In short, the data available does not provide great insights into any significant and differentiating decision-making for either gender.

#### *Age-mature groups*

Just four studies, including one from New Zealand, investigated differences in decision-making between age-mature students and school leavers. Davey (2002) found that work-related factors, a wish for self-improvement, and the influence of their children and work colleagues, were common reasons for the adults in her New Zealand study choosing to go to university in later life. Many also said that in their childhood they received signals from family and school that a university career was not for them. Tumblin (2002) found



remarkably similar results - that mature students deciding to study did so for professional and personal reasons. Over 90 per cent of Tumblin's sample cited each of the following objectives: to make job changes within their career; gain professional respect; acquire skills needed to perform the job and obtain salary increases. Personal objectives supported by over 90 per cent of the sample included personal satisfaction, personal growth, increased self-confidence. Like their school-leaver colleagues, they responded more to 'word of mouth' advertising than to mass advertising media. Harker et al. (2001) found little difference in decision-making between age-mature learners and school leavers. The only notable difference they found was that mature learners were more inclined to seek personal contact with institutions than their younger counterparts and that family and job requirements often affected their decisions. While we acknowledge the complexities often faced by mature learners, the research we saw did not suggest that their decision-making was significantly different from that of school leavers. Watts & Sultana (2003), in their study of career guidance in 36 countries, suggested a need for lifelong career guidance for older age groups in the light of an aging population in the developed world and adult life becoming increasingly unstable with time spent in and out of careers, education and training.

#### *Influences of geographic location*

Another factor that emerged in some studies concerns an institution's geographical location or proximity to the student's home. Geographical proximity rated quite highly in a few studies (Brennan, 2001; Martin, 1996; Maxwell, 2000) and appeared as a factor for specific groups such as immigrants in the USA (Hagy & Staniec, 2002), school leavers in one Australian study (Harker et al., 2001) and Latino students (Marquez, 1998). James (1999) reported that people living in rural or isolated areas were under-represented in tertiary institutions. Interestingly, there are two views of the effects of location. First, some students want their institution to be close to their homes, so they can maintain links with families and support networks. This view is reflected in the studies listed above. In contrast two studies showed that some students see choice of institution as a chance to move away from home (Keller & McKeown, 1984; Le Claire, 1988). Both of these studies date from the 1980s. Increasing financial pressures on students may have increased the importance of proximity as a factor in decision-making in recent years

#### *Decision-making for 'at risk groups'*

Choy et al. (2000) investigated the decision-making behaviours of 'at risk' groups. They considered students to be at risk if they belonged to a low SES, had changed school a number of times, had low grade point averages in grades 6 to 8, belonged to single-parent families, had been held back at some stage of their school careers and had one or more siblings drop out of school. Choy et al. found that 44 per cent of high school graduates with any risk factor never enrolled in tertiary education. Lillard & Gerner (1999) investigated the effects of members of disrupted families on decision-making. They found that members of disrupted (one parent) families were less likely to choose tertiary education than members of intact (two parent) families. While neither of these studies establish causal relationships between 'at risk' groups and decisions not to study, Bland ((2002) did attempt to explain why at risk students find it difficult to decide in favour of tertiary education. He suggests that students from 'at risk' groups must move away from their own cultures when they enter tertiary education. He likens this to committing cultural suicide, as they must make a clean break from the communities and cultures in which they were raised as a prerequisite for educational success. Connell (2004) explains the challenges faced by 'at risk' students less dramatically. He found that parents of such students find it difficult to be involved with their children's decision-making and found it impossible to negotiate on their behalf.

On the other hand, Choy et al. (2000) also found some strong predictors for enrolment of ‘at risk’ people. For example, those people who had friends already studying, had taken a foundation course, or had some parental involvement in their decisions, were more likely to enrol. Also, despite the complexity of decision-making for members of non-traditional groups, who are strongly affected by habitus and personal identity, positive dispositions to learning exist in all groups and cultural change can occur without cultural suicide (Bloomer & Hodgkinson, 1997).

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22	The Institute for Employment Studies; Committee of Vice-Chancellors and principals of the Universities of the United Kingdom; Higher Education Funding Council for England; Universities and Colleges Admissions Service. (1999). <i>Making the right choice: How students choose universities and colleges: The Year 11/S4 survey</i> . London: Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom. Appendix Two.	75
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32	Lillard, D. & Gerner, J. (1999). Getting to the ivy league: How family composition affects college choice. <i>Journal of Higher Education</i> , 70 (6), 706-730.	95
33	Lilly, J., Armitage, A. & Thomas, H. (2000). <i>Educational choice at post-16: A study into how students determine their preferred post-16 educational provider</i> . Brentwood, Essex: Earlybrave Publications Ltd.	97

- 34 Looker, D. & Lowe, G.S. (2001). *Post-secondary access and student financial aid in Canada: Current knowledge and research gaps*. Retrieved on 13/09/04 from: <http://www.milleniumpscholarships.ca/en/foundation/publications/parepo-rt/cprm-bkgnd.pdf> 99
- 35 Maani, S.A. (2000). *School leaving, labour supply and tertiary education choices of young adults: An economic analysis utilising the 1977-1995 Christchurch Health and Development Surveys*. Treasury Working Paper 00/3. Retrieved on 13/09/04 from: <http://www.treasury.govt.nz/workingpapers/2000/twp00-3.pdf> 101
- 36 Marquez, M. (1998). *Latino students' decision to attend College: Motivational factors and barriers*. Master of Social Work Thesis, University of California, Santa Barbara. 89 pages 103
- 37 Martin, C. (1996). Institutional research and student recruitment or how do institutions of higher education know what attracts students to their doors? Market research can help. *Journal of Institutional Research in Australasia*, 5 (2), 45-54. 105
- 38 Martinez, P. & Munday, F. (1998). *9,000 voices: Student persistence and drop-out in further education*. London: Further Education Development Agency. 107
- 39 Maxwell, G., Cooper, M. & Biggs, N. (2000). *How people choose vocational education and training programs: social, educational and personal influences on aspiration*. Leabrook, SA: National Centre for Vocational Education Research. Retrieved on 15/09/04 from: <http://www.ncver.edu.au/research/proj/nr8013.pdf> 109
- 40 McInnis, C., James, R. & Hartley, R. (2000). *Trends in the first year experience*. Evaluations and Investigations Programme, Higher Education Division 00/6. Canberra: Department of Education, Training and Youth Affairs. 111
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- 46 Reay, D., David, M. & Ball, S. (2001). *Making a difference?: Institutional habituses and higher education choice*. Sociological Research Online, 5(4). Retrieved on 14/09/04 from: <http://www.socresonline.org.uk/5/4/reay.html> 123
- 47 Soutar, G. & Turner, J. (2002). Students' preferences for university: A conjoint analysis. *The International Journal of Educational Management*, 16 (2), 40-45. 125
- 48 St. John, E. (1991). What really influences minority attendance: Sequential analyses of the high school and beyond sophomore cohort. *Research in Higher Education*, 32 (2), 141-157. 127
- 49 Stage, F. & Hossler, D. (1989). Differences in family influences on college attendance plans for male and female ninth graders. *Research in Higher Education*, 30 (3), 301-315. 129

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## Templates

TEMPLATE 1	
<b>Standard bibliographic information</b>	Bland, D. (2002). <i>Crossing the line: A study of peer influence on students from low-income backgrounds in transition from school to university</i> . Paper presented at the AARE conference, Brisbane. Retrieved from: <a href="http://www.aare.au/02pap/bla02263.htm">http://www.aare.au/02pap/bla02263.htm</a> 30/07/04
<b>Country of Origin</b>	Australia
<b>Key words</b>	Socio-economic status; Peer influence
<b>Abstract</b>	This paper is developed from a work in progress, which examines how university students from low SES backgrounds were influenced by the views and behaviours of their peers in senior secondary schooling and upon entry to a tertiary course. Using Bourdieu's concepts of cultural capital and habitus, the study explores whether the students' backgrounds, experiences and values have affected their decision-making in regard to educational options. The strategies the students have developed to survive and succeed in the transition process are investigated. The paper reports on some initial findings about the experiences of low SES students in adapting to the peer culture of secondary schools and a large tertiary institution. In particular this paper discusses the concept of cultural suicide in relation to successful transitions.
<b>Type of Research</b>	Quantitative; <b>Qualitative</b> ; Descriptive; Theoretical; Analytical; Critical; Other:
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b></p> <p><b>What factors influence student choice?</b></p> <p>Role of families</p> <p>Role of agencies</p> <p><b>What is the role of information in decision making?</b></p> <p>Access to information</p> <p>Use of information</p> <p>Types of information</p> <p>Gaps in information</p> <p><b>How are decisions affected by diversity?</b></p> <p>Gender</p>	<p><b>Factors</b></p> <ol style="list-style-type: none"> <li>1. Teachers: Individual teachers can make a difference for low SES students - "over 50% of the students praised particular teachers for their role in directly motivating them and providing a high degree of care" (p.6).</li> <li>2. Peers: Many students (now at university) had experienced a sense of isolation and alienation from school peers, either by rejection or by self-imposition. Friends were like-minded and usually from a similar background. Some chose friends strategically, for example, associating with "nerds" with whom they did not have to be concerned about obtaining good grades.</li> <li>3. Students: Successful students had a sense of personal agency, were highly motivated and even turned negative experiences into a driving force.</li> </ol> <p><b>Diversity</b></p> <ol style="list-style-type: none"> <li>1. The paper explores the concept of 'cultural suicide', which proposes that students from educationally disadvantaged backgrounds must make a clean break</li> </ol>

<p>Ethnicity Class Other relevant factors</p>	<p>from the communities and cultures in which they were raised as a pre-requisite for educational success. Bland found that, while some participants could be understood to have committed cultural suicide because they altered their habituses and distanced themselves from their peers and community, they tended not to have a class consciousness.</p>
<p><b>Methodology</b></p>	<p>Small focus groups, individual interviews and on-line discussions.</p>
<p><b>Scale of project</b></p>	<p>12 students were interviewed.</p>
<p><b>Evaluative comments</b></p>	<p>This paper focuses on one aspect of a larger project that examines the experiences of low SES students who have achieved some academic success at university. Of special interest is the concept of ‘cultural suicide’ as a price some students have to pay for educational success. The positive impact of supportive teachers for so many of these students is worth noting.</p>
<p><b>Other</b></p>	<p>The full thesis is available from Derek Bland: d.bland@qut.edu.au</p>



<b>TEMPLATE 2</b>	
<b>Standard bibliographic information</b>	Bloomer, M. & Hodkinson, P. (1997). <i>Moving into FE: The voice of the learner</i> . London: Further Education Development Agency.
<b>Country of Origin</b>	UK
<b>Key words</b>	Year 11; Decision-making; Dispositions
<b>Abstract</b>	The research reported here was designed to deepen understanding of students' experiences of learning and focused on the transfer of young people from school to Further Education. It was designed to identify factors that have a bearing on learning careers and to document the processes by which young people's dispositions to learning and their decisions about learning are reached. Furthermore, the research was designed to focus on the stories of individual young people, although patterns in those stories were also sought. This study has been effective in uncovering the complexity and variety of young people's learning careers.
<b>Type of Research</b>	Quantitative; <b>Qualitative</b> ; Descriptive; Theoretical; Analytical; Critical; Other:
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>The relationship between subjects and courses chosen, and career intentions differed widely. Four patterns were identified: <ul style="list-style-type: none"> <li>A small minority of students had strongly-held, specifically-focused career intentions</li> <li>A few were torn between alternative careers. Some of these held 'whimsical dreams'.</li> <li>A larger group wanted courses and subjects to 'keep their options open'.</li> <li>Some students chose subjects and institutions based on educational status.</li> </ul> </li> <li>The study found that initial decisions were remarkably unstable. (Some changes were forced e.g. by institutional timetabling. Others were self-induced. Some students were not aware that they had changed their minds between the two interviews). "Perhaps the most surprising finding of the whole study was that only 45% of the 69 young people we were able to track were doing what they had originally chosen in Year 11" (p.41). <ul style="list-style-type: none"> <li>18% were following an entirely different course from that originally chosen</li> <li>13% had decided not to continue into FE at all</li> <li>13% had changed one or more subjects</li> <li>7% had changed institution</li> </ul> </li> </ol>

	3. Decisions were affected by dispositions to learning: “a complex nexus in which habitus, personal identity, life history, social and cultural contexts, actions and learning are inter-related” (p.46). These dispositions are susceptible to change from context to context and time to time.
<b>Methodology</b>	Semi-structured interview using a different schedule for each phase of the study.
<b>Scale of project</b>	154 interviews were conducted with 79 Year 11 secondary school students intending to proceed to post-16 studies. 50 students were interviewed a second time; some a third. 17 school teachers, FE tutors and parents were also interviewed.
<b>Evaluative comments</b>	This study offers some important insights into Year 11 students’ decisions about Further Education. The in-depth data gathered over three phases of the project enabled the researchers to track the same students as they left secondary school and moved into Further Education. Their findings provide some useful information about the instability of students’ decisions and identify the complexity of the decision-making process.

<b>TEMPLATE 3</b>	
<b>Standard bibliographic information</b>	Boyd, S. & MacDowall, S. (2003). <i>Innovative pathways from secondary school: Gaining a sense of direction</i> . Paper presented to the 2003 NZARE/AARE Conference, Auckland. Downloaded from: <a href="http://www.nzcer.org.nz/pdfs/12744.pdf">http://www.nzcer.org.nz/pdfs/12744.pdf</a> 15/08/04
<b>Country of Origin</b>	New Zealand
<b>Key words</b>	Decision support; 'At risk' students; Programme development.
<b>Abstract</b>	This paper reports on the second phase of a three- phase study conducted into the transition support provided to 'at-risk students' by seven low decile schools. Information, advice, guidance and career development activities were provided through <i>Innovative Pathways from School</i> , using a non-conventional programme of study. The research explored the influence of the programme on student decision making. Of the 74 students interviewed, about a third were Māori and another third were Pasifika students.
<b>Type of Research</b>	Quantitative; <b>Qualitative</b> ; Descriptive; Theoretical; Analytical; Critical; Other:
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b></p> <p><b>What factors influence student choice?</b></p> <p>Role of families Role of agencies</p> <p><b>What is the role of information in decision making?</b></p> <p>Access to information Use of information Types of information Gaps in information</p> <p><b>How are decisions affected by diversity?</b></p> <p>Gender Ethnicity Class Other relevant factors</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>1. People were an important source of transition support. <ul style="list-style-type: none"> <li>• School staff: 73% said course teachers were an important source of support; 43% said career advisers; 11% said Deans and other teachers.</li> <li>• Tertiary providers: 54% said tertiary institution staff who visited; 19% said tertiary providers who taught courses attended by students.</li> <li>• Work placement providers: 55% said visiting employers; 35% said people met on work experience.</li> <li>• Family and friends: 55% said parents and family friends had provided important support; 35% said other friends or students.</li> </ul> </li> </ol> <p><b>Factors</b></p> <ol style="list-style-type: none"> <li>1. Aspirations were raised with visits by and visits to tertiary providers. <ul style="list-style-type: none"> <li>• Tertiary taster or block courses</li> <li>• Foundation courses</li> <li>• Staircasing qualifications</li> <li>• Two-way visits</li> <li>• Open days</li> </ul> </li> <li>2. Course teachers and Career Educators <ul style="list-style-type: none"> <li>• Whole class support e.g. student career interest surveys, talks, visits to expos and providers.</li> <li>• Offering groups the opportunity to explore options. This was appreciated; as students felt tertiary</li> </ul> </li> </ol>

	<p>providers were often interested only in recruiting.</p> <ul style="list-style-type: none"> <li>• Constructing individual career plans</li> <li>• Relationship building- teachers tried hard to be seen as a person.</li> <li>• Meeting raised expectations: students felt they had a clean slate in this programme. And that they were in a safe environment that supports self-esteem.</li> </ul> <p><b>Diversity</b></p> <ol style="list-style-type: none"> <li>1. This study was done with a diverse group of people – ethnicity and ability.</li> <li>2. The programme seems to have worked well for those who stayed at school for the year of the research</li> <li>3. Students’ responses to a question asking whether they had been well prepared for life were: <ul style="list-style-type: none"> <li>• Very well: 35% compared to 15% at the beginning of the year.</li> <li>• Quite well prepared: 43% compared to 26%.</li> <li>• Not well prepared: 5% compared to 23%.</li> <li>• Not at all well prepared: 0% compared to 5%.</li> </ul> </li> <li>4. In summary successful support was provided: <ul style="list-style-type: none"> <li>• Throughout the course</li> <li>• Within a trusting relationship</li> <li>• Learning experiences close to the students’ interests</li> <li>• Informal, ongoing discussions</li> <li>• By life skills</li> <li>• Visits</li> <li>• By contact with tertiary environment</li> <li>• Trying out theory learnt at school in the real world.</li> </ul> </li> </ol>
<b>Methodology</b>	A longitudinal study using interviews with 75 students.
<b>Scale of project</b>	7 low decile schools throughout New Zealand.
<b>Evaluative comments</b>	This study provides valuable background information about what school activities provide good support for decision making for diverse and at risk students. It supports findings from other studies that personal relationships are very important in decision-making.

<b>TEMPLATE 4</b>	
<b>Standard bibliographic information</b>	Boyd, S., Chalmers, A., & Kumekawa, E. (2001) <i>Beyond School</i> . Wellington: New Zealand Council for Educational Research.
<b>Country of Origin</b>	New Zealand
<b>Key words</b>	Transition; Decision-making; Recommendations
<b>Abstract</b>	This report presents findings from a two-phase study of 321 senior students from five secondary schools. The study investigated the transition experiences of students as they moved to either tertiary study or work. It investigates a number of independent variables that impact on this experience and found that ethnicity, school decile, age and year level are most significant. This template summarizes the recommendations arising from the study.
<b>Type of Research</b>	<b>Quantitative; Qualitative;</b> Descriptive; Theoretical; Analytical; Critical; Other
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Decisions, Factors, Information &amp; Diversity</b></p> <ol style="list-style-type: none"> <li>1. Personal attention provided by a career interview would benefit younger students; especially those at lower decile schools. <ul style="list-style-type: none"> <li>• The study identified a major gap in the provision of information to assist in career planning.</li> </ul> </li> <li>2. Students who do not have plans could be a focus for career programmes or individual career interviews to ensure that they leave school with at least a starter plan for next year. <ul style="list-style-type: none"> <li>• Exit interviews are valuable for the at risk students: students from lower decile schools, Māori.</li> </ul> </li> <li>3. "Personal" and "hands-on" career information and guidance should be considered a priority. <ul style="list-style-type: none"> <li>• Students in the study generally preferred personal rather than impersonal information.</li> </ul> </li> <li>4. Activities that identify students' interests, strengths and skills should be an earlier and continuous priority of career information and guidance programmes. <ul style="list-style-type: none"> <li>• The study found that personal interest was a primary motivator for making choices.</li> </ul> </li> <li>5. Parents and family groups should be involved in information giving. <ul style="list-style-type: none"> <li>• Parents and family have repeatedly been designated as major influences on decision- making.</li> <li>• Decisions based on such information are not always totally reliable and should be triangulated with school based decision guidance.</li> </ul> </li> </ol>

<b>Methodology</b>	This study reports on a survey by questionnaire conducted in 1999 with 477 students who were planning to leave school that year in 5 schools.
<b>Scale of project</b>	A multi school project.
<b>Evaluative comments</b>	The whole study is a useful one as it examines a number of important variables. Not at all surprising perhaps is the finding that personal relationships, particularly those found in families, have the greatest impact on decision-making. Not particularly surprising is the finding that socio-economic class is a second important variable. What is surprising is that gender differences were not a factor in the decision making process. These key findings are usefully pulled together in the recommendations noted here.
<b>Other</b>	This report gave rise to the following satellite studies also recorded as templates: Chalmers, A. & Kumekawa, E. (2000). Gender as a factor in the transition of secondary school students to tertiary education or other destinations: Results of a 1999 survey. <i>From awareness to action: Meeting the needs of boys in education</i> . Conference Proceedings at <a href="http://www.manukau.ac.nz/socsci">www.manukau.ac.nz/socsci</a> Chalmers, A. (2001). <i>Maximising your marketing to senior secondary school students: analysing student decision making and the implications for marketing strategies</i> . HR Conference on Marketing Education. Centra Hotel Auckland, 10 pages.

<b>TEMPLATE 5</b>	
<b>Standard bibliographic information</b>	Brennan, L. (2001). <i>How prospective students choose universities: A buyer behaviour perspective</i> . Doctoral Thesis: University of Melbourne.
<b>Country of Origin</b>	Australia
<b>Key words</b>	Buyer behaviour; Rational decision-making; Choosing universities.
<b>Abstract</b>	This thesis examines the decision-making and information search process of students choosing university courses in Victoria, Australia. The theory underpinning the thesis is informed by consumer psychology. The thesis takes a hypothesis approach, testing each against evidence derived from a questionnaire and extensive literature. It argues that education does not operate in an open market as universities choose students, therefore, in reality, student choice is restricted.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; <b>Analytical</b> ; Critical; Other
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b></p> <p><b>What factors influence student choice?</b></p> <p>Role of families Role of agencies</p> <p><b>What is the role of information in decision making?</b></p> <p>Access to information Use of information Types of information Gaps in information</p> <p><b>How are decisions affected by diversity?</b></p> <p>Gender Ethnicity Class Other relevant factors</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>1. Many students do not choose universities. Universities choose them, thus reducing the room for decision-making.</li> <li>2. Students use a combination of complex personal 'choice rules' (models) to help make decisions. The most important choice rule is based on entry criteria (ENTER scores). Other choice rules are developed from information searches.</li> <li>3. Students work with decision-making sets. For some students the decision-making set is just one institution, for others it is a related group of institutions; although all possible institutions are rarely considered. Students also operate with an exclusion set – institutions they will not consider.</li> <li>4. Students' decision making capabilities vary: <ul style="list-style-type: none"> <li>• Students' self-confidence is associated with decision-making capability.</li> <li>• Students' decision-making capability is associated with information search activity.</li> <li>• Students who have self-belief are more likely to use complex choice rules.</li> </ul> </li> </ol> <p><b>Factors</b></p> <ol style="list-style-type: none"> <li>1. The criteria for choice, in rank order were: <ul style="list-style-type: none"> <li>• The degree offerings of the institution</li> <li>• The location of campuses</li> <li>• The relevance of a degree to a desired career path</li> <li>• The image or reputation of the institution</li> <li>• Job opportunities resulting from the study.</li> </ul> </li> </ol>

	<ul style="list-style-type: none"> <li>• Fees and costs were not a key differentiation factor.</li> </ul> <p>2. Five factors derived from the criteria contributed to student choice:</p> <ul style="list-style-type: none"> <li>• Personal; functional; performance; accessibility; status.</li> <li>• The most influential factor was found to be functional criteria: educational facilities; type of people who attend; degree of difficulty of the course of study; familiarity with the institution; institution size.</li> <li>• 81% of the variance in student criteria for preference was associated with this factor.</li> <li>• The least influential factor was accessibility criteria: study mode options; fees and costs; ease of access.</li> </ul> <p><b>Information</b></p> <p>1. The most important source of information is interpersonal. These are generally informally obtained (family and friends, teachers). Formal sources of interpersonal information from universities are not very influential (people from university or career related contacts)</p> <ul style="list-style-type: none"> <li>• Students do not use promotional materials to make decisions to a large extent.</li> <li>• One caveat to the above is that students do use what is called ‘objective’ information from universities,</li> <li>• Open days are used as a screening device where a student confirms a decision to go elsewhere.</li> </ul> <p>2. Students’ decision making and their information search activities are associated.</p> <p>3. However, students’ confidence is not associated with information seeking. This implies that some students who are confident do not engage in research.</p>
<b>Methodology</b>	Highly statistical analysis of questionnaire data gathering as well as an extensive literature review.
<b>Scale of project</b>	Multi-institutional survey in one Australian state.
<b>Evaluative comments</b>	This is a useful study of decision-making from a marketing and consumer behaviour psychology point of view.



<b>TEMPLATE 6</b>	
<b>Standard bibliographic information</b>	Brennan, L. & Marriott, T. (1996). Career counsellors Influence on decision-making. <i>Australian Journal of Career Development</i> , 5 (3), 27-32.
<b>Country of Origin</b>	Australia
<b>Key words</b>	Decision-making model; Career counselling; Family influence.
<b>Abstract</b>	This study investigates the importance of the career counsellor. The relationship between university choice and the use of interpersonal sources of information is explored via a structured questionnaire administered to first year students enrolled in business related courses in a number of universities. The results confirm that the career counsellor is an important influence on decision- making.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other:
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b></p> <p><b>What factors influence student choice?</b></p> <p>Role of families</p> <p>Role of agencies</p> <p><b>What is the role of information in decision making?</b></p> <p>Access to information</p> <p>Use of information</p> <p>Types of information</p> <p>Gaps in information</p> <p><b>How are decisions affected by diversity?</b></p> <p>Gender</p> <p>Ethnicity</p> <p>Class</p> <p>Other relevant factors</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>The study supports a generic decision making model comprising three drivers involved in decision- making. <ul style="list-style-type: none"> <li>Psychological variables such as motivation, self-perception.</li> <li>Social influences such as family, socio-economic class and reference groups.</li> <li>Purchase opportunities such as career choice, subject area, locality of institution.</li> </ul> </li> <li>Decisions about study are accompanied by risk and uncertainty. Hence other channels of information than officially sourced ones are needed. This is what the authors refer to as interpersonal sources. For example <ul style="list-style-type: none"> <li>Career counsellors</li> <li>Parents</li> <li>Friends and peers</li> <li>University staff</li> </ul> </li> </ol> <p><b>Factors</b></p> <ol style="list-style-type: none"> <li>Questionnaire results indicated the following order of importance of interpersonal factors in decision making (ranked from medians on a scale of 1-6 with 6 being most important). <ul style="list-style-type: none"> <li>Family members (4.54)</li> <li>Career Counsellors (4.18)</li> <li>Close friends (3.91)</li> <li>University Students (3.88)</li> <li>Teachers (3.75)</li> <li>The mean importance rating for career counsellors was significantly greater than for close friends, acquaintances, university graduates, general public, university staff, university students and government</li> </ul> </li> </ol>

	<p>bodies.</p> <p><b>Information</b></p> <ol style="list-style-type: none"> <li>1. Interpersonal influence in decision making kicks in when “a lack of information, an ambiguous situation, or premature demands for action or decision leading the person to substitute seemingly competent information from others’ for his/her own search for direct evidence”(p.29). <ul style="list-style-type: none"> <li>• The role played by information obtained from interpersonal source is to reduce risk.</li> </ul> </li> </ol> <p><b>Diversity</b></p> <ol style="list-style-type: none"> <li>1. The study reports differences between males and females regarding the influence of interpersonal opinion leaders on choice.</li> <li>2. There is a significant difference in the importance placed on the career counsellors: <ul style="list-style-type: none"> <li>• Female mean 3.90 (Scale=1-6; 6= high)</li> <li>• Male mean 4.18.</li> <li>• The only other significant difference was on the influence of acquaintances where females scored their influence lower.</li> </ul> </li> </ol>
<b>Methodology</b>	These survey results were based on 735 questionnaire responses (54% return) administered to first-year students in three Melbourne universities. A quota sampling technique was used to ensure equal representation between gender groups.
<b>Scale of project</b>	Multiple institution study.
<b>Evaluative comments</b>	This study is particularly useful in that it reports on extensive literature, particularly on the influence of interpersonal influences on decision- making. It also refers to Engel et al.’s interesting model of consumer decision-making. See Engel, J., Blackwell, R. & Miniard, P. (1993). <i>Consumer behaviour</i> . (7 <sup>th</sup> Ed.). Orlando: Dryden Press. Given the limited, regional basis of this survey and its situation in the field of business, it is not possible to generalize from it.

<b>TEMPLATE 7</b>	
<b>Standard bibliographic information</b>	Brooks, R. (2004). My mum would be a pleased as punch if I actually went, but my dad seems a bit more particular about it': Paternal involvement in young people's higher education choices. <i>British Educational Research Journal</i> , 30 (4), 495-515.
<b>Country of Origin</b>	UK
<b>Key words</b>	Parental influences; Fathers' influences.
<b>Abstract</b>	Large- scale surveys have shown consistently that parents are the most commonly consulted group of people when young people are considering their higher education choices. However qualitative work in this area has suggested that these statistics mask considerable differences in the role of mothers and fathers - in terms of both the level and type of involvement in their children's decisions. This article draws on a longitudinal study of decision making processes and suggests that there is evidence of detailed parent involvement, including the involvement of fathers
<b>Type of Research</b>	Quantitative; <b>Qualitative</b> ; Descriptive; Theoretical; Analytical; Critical; Other
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b></p> <p><b>What factors influence student choice?</b></p> <p>Role of families Role of agencies</p> <p><b>What is the role of information in decision making?</b></p> <p>Access to information Use of information Types of information Gaps in information</p> <p><b>How are decisions affected by diversity?</b></p> <p>Gender Ethnicity Class Other relevant factors</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>1. The author quotes 4 large scale surveys conducted in the UK between 1997 and 2003 suggest that over 90% of respondents typically claimed that they had consulted with their parents about their choices.</li> <li>2. Most studies find that consultation and assistance in information seeking and physical support is mainly the role of the mother. <ul style="list-style-type: none"> <li>• This does not imply that mothers were the key decision makers.</li> <li>• "...mothers being the parent responsible for collecting information, talking to children and organizing and making visits..."(p.496). They are "the labourers of school choice"(p.496).</li> </ul> </li> <li>3. However, this study found that fathers also play a key role, indeed at times a more important role, in decision-making about post school study. <ul style="list-style-type: none"> <li>• The small sample of interviewees all came from two parent families. For 5 of the 15 families, parents had a high degree of involvement; in 7 families the degree of involvement by parents was moderate; in two families it was low.</li> <li>• In two families, one with high involvement, the other medium, the mother was the main influence.</li> <li>• In two families, both low involvement, the mother was the only influence.</li> </ul> </li> </ol>

	<ul style="list-style-type: none"> <li>• In two families, both high involvement, the father was the only influence.</li> <li>• In six families, 2 high involvement and 1 medium, the father was the main influence.</li> <li>• In two families, both medium, both parents had equal influence.</li> <li>• One respondent was not included in this analysis as she had no intention of going on to higher or further education.</li> </ul> <p>4. Reasons for the above finding were:</p> <ul style="list-style-type: none"> <li>• Active rejection of maternal influence - 1 girl, 1 boy - both from the medium involvement group.</li> <li>• Differences in access to relevant cultural and social capital. In all cases where the father had all or major influence, the mother was not aware of things like league tables, requirements etc.</li> <li>• Mothers' lack of previous experience of active engagement with educational markets.</li> </ul>
<b>Methodology</b>	Longitudinal interview study using 15 students at a public sixth form college. The data was gleaned from 6 interviews over two years.
<b>Scale of project</b>	Small scale, single institution. Results not generalisable.
<b>Evaluative comments</b>	This is an interesting study in that it examines the findings of large-scale quantitative studies using a qualitative approach. Although the results are not generalisable, they challenge the results of quantitative studies which often claim that fathers have a lesser, even negligible role in the decision making process. This study shows that in some cases, fathers do play a major role in the process. However, it must be noted that the author does not claim to be challenging the dominant view about the respective roles of parents.

<b>TEMPLATE 8</b>	
<b>Standard bibliographic information</b>	Cabrera, A. & La Nasa, S. (2000). Understanding the college-choice process. In A. Cabrera & S. La Nasa. <i>Understanding the college choice of disadvantaged students</i> . New Directions for Institutional Research, 107, Fall 2000. Jossey Bass Publishers, 5-22.
<b>Country of Origin</b>	USA
<b>Key words</b>	College choice; Diversity.
<b>Abstract</b>	<p>This chapter summarizes what we have learned regarding the process that students and their families undergo when making decisions about college. It also presents a comprehensive model synthesizing this literature.</p> <p>Decisions to go to college are the result of a three-stage process (predispositions, search, choice) that begins as early as the seventh grade. During each phase students develop predispositions to attend college, search for general information about college, and make choices leading to enrol at a given institution of higher education. The literature also suggests that these three stages also interact in complex ways.</p>
<b>Type of Research</b>	Quantitative; Qualitative; Descriptive; <b>Theoretical</b> ; Analytical; Critical; <b>Other: Synthesis</b>
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b></p> <p><b>What factors influence student choice?</b></p> <p>Role of families Role of agencies</p> <p><b>What is the role of information in decision making?</b></p> <p>Access to information Use of information Types of information Gaps in information</p> <p><b>How are decisions affected by diversity?</b></p> <p>Gender Ethnicity Class Other relevant factors</p>	<p><b>Decisions</b></p> <p>The findings suggest that the process of making a decision to enter college begins surprisingly early, at seventh grade, and acts as a trigger mechanism in securing critical cultural capital. Decisions are influenced by a range of factors that interact in complex ways.</p> <p><b>Factors</b></p> <p>Factors affecting choice are listed for each of the three stages:</p> <ol style="list-style-type: none"> <li>1. Predisposition <ul style="list-style-type: none"> <li>• Parental support and encouragement</li> <li>• Parental saving for college</li> <li>• Socio-economic status</li> <li>• Parental collegiate experiences</li> <li>• High school academic resources</li> <li>• Student ability</li> <li>• Information about college</li> </ul> </li> <li>2. Search <ul style="list-style-type: none"> <li>• Parental encouragement and support</li> <li>• Educational aspirations</li> <li>• Occupational aspirations</li> <li>• Socio-economic status</li> <li>• Saliency of potential institutions</li> </ul> </li> </ol>

	<ul style="list-style-type: none"> <li>• Student ability</li> <li>• High school academic resources</li> </ul> <p>3. Choice</p> <ul style="list-style-type: none"> <li>• Educational aspirations</li> <li>• Occupational aspirations</li> <li>• Socio-economic status</li> <li>• Student ability</li> <li>• Parental encouragement</li> <li>• Perceived institutional attributes (quality, campus life, majors, availability, distance)</li> <li>• Perceived ability to pay (perceived resources, perceived costs)</li> </ul> <p><b>Information</b></p> <p>Information has a role in each of the stages.</p> <ol style="list-style-type: none"> <li>1. At the predisposition stage it includes parental information about financial costs of college.</li> <li>2. During the search stage information about individual institutions is particularly important. “Development of expectations and perceptions about the quality of the institution, campus life, availability of majors and ability to finance enrolment are primary considerations” (p.10). <ul style="list-style-type: none"> <li>• Socio-economic factors mediate access to information</li> <li>• Knowledge of financial aid is important</li> </ul> </li> <li>3. During the choice stage information about institutional attributes and costs is key.</li> </ol> <p><b>Diversity</b></p> <ol style="list-style-type: none"> <li>1. Decisions are affected by diversity through, for example, socio-economic status, parental encouragement and parental collegiate experiences, and may have a powerful effect. However some data suggests that academic preparation for college is more important than SES in college destinations.</li> </ol>
<b>Methodology</b>	A synthesis of research literature resulting in a model of the college-choice process.
<b>Scale of project</b>	Not specified.
<b>Evaluative comments</b>	This chapter provides a comprehensive and informative model of the college-choice process. It identifies a number of factors impacting on decisions and offers useful, recent information for the New Zealand context. Of particular interest is the idea that academic preparation for college can over-ride disadvantages of low socio-economic status.
<b>Other</b>	This is the introductory chapter of a book dedicated to college choice and disadvantaged students. Other chapters are well worth reading. Two are summarised on other templates: Choy, Horn, Nunez & Chen; Perna.

<b>TEMPLATE 9</b>	
<b>Standard bibliographic information</b>	Chalmers, A. & Kumekawa, E. (2000). Gender as a factor in the transition of secondary school students to tertiary education or other destinations: Results of a 1999 survey. <i>From awareness to action: Meeting the needs of boys in education</i> . Conference Proceedings at: <a href="http://www.manukau.ac.nz/socsci">http://www.manukau.ac.nz/socsci</a>
<b>Country of Origin</b>	New Zealand
<b>Key words</b>	Intentions after school; Gender differences.
<b>Abstract</b>	This paper presents a gender analysis of data obtained from a survey of students intending to leave school in 1999 about their intentions. No significant differences between females and males were actually found but some interesting data about the usefulness of certain types of information is included. Both males and females used family members/relatives more than any other source of information.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other
<b>Key themes related to MOE's focus areas:</b>  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information Use of information Types of information Gaps in information <b>How are decisions affected by diversity?</b> Gender Ethnicity Class Other relevant factors	<b>Information</b> 1. There were differences in ranking of sources on three questions. <ul style="list-style-type: none"> <li>• What sources of information were used in making your decision?</li> <li>• What sources would you have liked to have?</li> <li>• What sources of information would you like to have when you make your next decision?</li> </ul> 2. Rankings for question one were: <ul style="list-style-type: none"> <li>• Girls: Family members then brochures and handbooks</li> <li>• Boys: Family members then career service in schools.</li> </ul> 3. Rankings for question 2 were: <ul style="list-style-type: none"> <li>• Girls: University/polytechnic liaison officer then careers service at school.</li> <li>• Boys: School teachers then university or polytechnic liaison person.</li> </ul> 4. Rankings for Question 3 were <ul style="list-style-type: none"> <li>• Girls: Family members then careers service in school</li> <li>• Boys: Careers service in school then family members.</li> </ul>
<b>Methodology</b>	This study reports on a segment of a survey conducted in 1999 with 477 students who were planning to leave school that year in 5 schools. Two of the schools were decile 9 schools.

<b>Scale of project</b>	Multi-school and multiple decile schools were sampled in largely urban areas.
<b>Evaluative comments</b>	The interesting feature of this study is that so few gender differences were found. Even the ranking differences were relatively minor when compared to the percentages ticking each option. However, a weakness in the study was the fact that the boys' sample came largely from two decile 9 schools. This suggests that these boys were largely from higher socio-economic backgrounds and therefore in receipt of much incidental information from home. A weakness in the paper is that it is largely descriptive and lacks rigorous analysis.
<b>Other</b>	This study drew heavily on Boyd, S., Chalmers, A. & Kumekawa, E. (2001) <i>Beyond School</i> . Wellington: New Zealand Council for Educational Research.



<b>TEMPLATE 10</b>	
<b>Standard bibliographic information</b>	Chalmers, A. (2001). <i>Maximising your marketing to senior secondary school students: analysing student decision-making and the implications for marketing strategies</i> . HR Conference on Marketing Education. Centra Hotel Auckland, 10 pages.
<b>Country of Origin</b>	New Zealand
<b>Key words</b>	Marketing; Socio-economic background; Families; Career advisers.
<b>Abstract</b>	In essence a literature review, this paper summarizes a variety of research on factors supporting student decision making. The paper discusses roles played by socio-economic background, gender, families and career advisers.
<b>Type of Research</b>	Quantitative; Qualitative; <b>Descriptive</b> ; Theoretical; Analytical; Critical; Other: <b>Literature Review</b>
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>Two New Zealand studies quoted found that only about half of students in their last year at secondary school seemed committed to a career on leaving school. This may suggest that career intention is not a major ingredient in deciding on tertiary study.</li> </ol> <p><b>Factors</b></p> <ol style="list-style-type: none"> <li>The paper quotes a number of studies to support its contention that socio-economic background is the strongest predictor of tertiary study.</li> <li>Students' families play a significant part in student decision-making. <ul style="list-style-type: none"> <li>Mothers are the most important factor.</li> <li>Just under 70% of respondents in one survey reported that family advice on what to do after leaving school came from family members. Families are generally seen as the most important factor in making choices.</li> <li>Socio-economic class is very important. Students from professional, managerial and highly educated backgrounds tended to assume they would study at university.</li> <li>Career advisers are important sources of information</li> </ul> </li> </ol> <p><b>Information</b></p> <ol style="list-style-type: none"> <li>In a 1999 /2000 study two-thirds of sampled senior students felt that they had enough information to make decisions about tertiary study. Among higher socio-economic group students this was even higher. <ul style="list-style-type: none"> <li>Of the students who did not think they had enough information, many wanted more career education at</li> </ul> </li> </ol>

	<p>school. This may be different from ‘career advice’ as most respondents were satisfied with career advisers.</p> <p><b>Diversity</b></p> <p>1. The paper reports that girls and boys differed in terms of primary sources of advice. Girls were more influenced by mothers and best friends than boys. Fathers played a lesser role in girls’ decision making.</p> <ul style="list-style-type: none"> <li>• Socio-economic background is an important factor in decision-making. The author suggests that lower socio-economic groups might need to be targeted with information tailored to them.</li> </ul>
<b>Methodology</b>	Literature Review
<b>Scale of project</b>	N/A
<b>Evaluative comments</b>	This is a useful paper in that it describes findings from a number of New Zealand studies. This shows that there is no shortage of New Zealand material. However, the paper is very descriptive and a rigorous synthesis would have been more useful.
<b>Other</b>	This study drew heavily on Boyd, S., Chalmers, A. & Kumekawa, E. (2001). <i>Beyond School</i> . Wellington: New Zealand Council for Educational Research.

<b>TEMPLATE 11</b>	
<b>Standard bibliographic information</b>	Choat, D. (1998). <i>The myth of equal opportunity: Wealth of school-district as a determinant of tertiary participation</i> . Wellington: Aotearoa Polytechnic Student Union & New Zealand University Students' Association, 34 pages.
<b>Country of Origin</b>	New Zealand
<b>Key words</b>	Tertiary participation; Socio-economic background; School decile ranking;
<b>Abstract</b>	This report breaks down Ministry of Education tertiary participation rate data by schools in different wealth areas. The report found that socio-economic background is a major factor in whether a secondary school leaver will attend tertiary education.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; <b>Analytical</b> ; Critical; Other
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Decisions &amp; Diversity</b></p> <ul style="list-style-type: none"> <li>• The most pronounced effect of socio-economic status is that students from the wealthiest 20% of schools (Decile 9 &amp; 10) are five times as likely to go to university as students from the poorest 20% of schools (Decile 1 &amp; 2) i.e. one in three students compared with one in 16.</li> <li>• Students from Decile 6-8 schools are twice as likely to go to polytechnic as students from the poorest schools. i.e. one in five students compared with one in 10.</li> </ul> <ol style="list-style-type: none"> <li>1. Students from the wealthiest 50% of schools are more than 2.5 times as likely to go to some form of tertiary education as students from the poorest 20% of schools.</li> <li>2. Decile 6-8 students have the same overall participation rate as Decile 9 &amp; 10 students except that Decile 9 &amp; 10 leavers are more likely to attend university whereas Decile 6-8 students are more likely to go to polytechnic.</li> <li>3. Private school students have a higher participation rate than students from state funded schools. <ul style="list-style-type: none"> <li>• 63% of private school students went on to tertiary education compared to 47% from state-funded Decile 9 &amp; 10 schools.</li> </ul> </li> <li>4. Students who did not enter tertiary education directly from school (e.g. those who entered from employment, unemployment, not in the labour force) were more likely to live in poorer school districts than school leavers.</li> <li>5. Possible reasons for students from poorer schools not taking on tertiary education are: <ul style="list-style-type: none"> <li>• Lower retention in poorer schools. 70% of students in Decile 9 &amp; 10 schools remain to Year 13</li> </ul> </li> </ol>

	<p>compared with only 46% of Decile 1 &amp; 2 schools.</p> <ul style="list-style-type: none"> <li>• There is a need to improve the experiences of students in poorer school districts.</li> <li>• Financial barriers put up by tertiary fees.</li> <li>• 7. These factors need to be addressed.</li> </ul>
<b>Methodology</b>	Statistical analysis of Ministry of Education data.
<b>Scale of project</b>	This study has national application.
<b>Evaluative comments</b>	<p>This is a different kind of decision-making study. Rather than surveying students, it surveys participation statistics. The results are stark, demonstrating that, for many students, tertiary participation is determined by socio-economic factors and there are no genuine decisions to make. Their background, experiences at school and the location of the school are powerful determinants whether they will go on to tertiary study. One possible weakness in this study is its age – nearly six years old.</p>

<b>TEMPLATE 12</b>	
<b>Standard bibliographic information</b>	Choy, S., Horn, L., Nunez, A-M. & Chen, X. (2000). Transition to college: What helps at-risk students and students whose parents did not attend college. In A. Cabrera & S. La Nasa. <i>Understanding the college choice of disadvantaged students</i> . New Directions for Institutional Research, 107, Fall 2000. Jossey Bass Publishers, 45-63.
<b>Country of Origin</b>	USA
<b>Key words</b>	At-risk students; Transition to college
<b>Abstract</b>	This chapter investigates factors that facilitate postsecondary enrolment for sub-populations of high school students. Students that find themselves at risk and those with parents who have no college experience receive primary consideration. ‘At risk’ factors include: SES; number of times changing school; grade point average from grades 6-8; single parent family; ever held back; having one or more siblings who dropped out of school; and two achievement measures.
<b>Type of Research</b>	<b>Quantitative;</b> Qualitative; Descriptive; Theoretical; Analytical; Critical; Other:
<p><b>Key themes</b> related to MOE’s focus areas:</p> <p><b>How do students make decisions?</b></p> <p><b>What factors influence student choice?</b></p> <p>Role of families Role of agencies</p> <p><b>What is the role of information in decision making?</b></p> <p>Access to information Use of information Types of information Gaps in information</p> <p><b>How are decisions affected by diversity?</b></p> <p>Gender Ethnicity Class Other relevant factors</p>	<p><b>Decisions</b></p> <p>1. The pipeline to college has five sequential ‘decision’ steps:</p> <ul style="list-style-type: none"> <li>• Aspire to bachelors degree early enough to take the necessary preparatory steps (considered to be 10<sup>th</sup> grade)</li> <li>• Prepare academically to a minimal level of qualification</li> <li>• Take admission examinations (SAT or ACT)</li> <li>• Apply to a four year college</li> <li>• Gain acceptance and enrol</li> </ul> <p><b>Factors</b></p> <p><i>At risk students</i></p> <p>1. Engagement behaviours of at risk students who had successfully enrolled in college, as well as those of their peers and parents, were investigated.</p> <ul style="list-style-type: none"> <li>• “Having friends with college plans was the strongest predictor of college enrolment” (p.53).</li> <li>• Parental involvement, college preparation activities, getting help from teachers and student participation in extracurricular activities also appeared to increase the odds of college enrolment.</li> </ul> <p><i>Parents’ education</i></p> <p>Parents’ education mattered.</p> <p>1. Students whose parents had no college education were only half as likely to aspire to a bachelor’s degree at</p>

	<p>10<sup>th</sup> grade and only one-third as likely to enrol in a four-year college.</p> <p>2. Taking advanced mathematics courses in high school is an important intermediate step to college enrolment and taking algebra in 8<sup>th</sup> grade is a critical first step. Parents' education is strongly connected to participation in such a curriculum.</p> <p>3. Parents with no college education were less likely to participate in planning activities that lead to college enrolment.</p> <p>“Efforts to help students develop college aspirations early, encourage them to follow a rigorous academic curriculum, and support them through the application and enrolment process all have the potential to keep students in the pipeline and improve college enrolment rates. The largest payoff will come from helping students to enter the pipeline and persist through the second step ...” (p.59-60).</p> <p><b>Diversity</b></p> <p>1. At risk students and those whose parents did not attend college are less likely to progress through the pipeline to college.</p> <ul style="list-style-type: none"> <li>• 44% of high school graduates with one or more risk factors never entered the pipeline to college. 56% entered; compared to 81% of those with no risk factors</li> <li>• By 1994 only 30% of graduates with risk factors had entered college – barely half of those who aspired to college in 10<sup>th</sup> grade. In comparison 58% of those with no risk factors had enrolled – 75% of those who aspired to college in 10<sup>th</sup> grade.</li> </ul>
<b>Methodology</b>	Analysis of the data from the 1988 National Educational Longitudinal Study (NELS) and the follow up studies conducted in 1990, 1992 and 1994. Descriptive statistics and logistic regression analysis used.
<b>Scale of project</b>	Nationally representative sample of students in USA surveyed four times from 1988 to 1994.
<b>Evaluative comments</b>	This chapter is important because it analyses data from a large longitudinal study. It provides some important insights into the influence of specific risk factors and of parents' education on student choices and suggests actions we can take to lessen these effects. It shows that the student decision-making process begins as early as 8 <sup>th</sup> or 10 <sup>th</sup> grades. The findings are relevant to the New Zealand context.

<b>TEMPLATE 13</b>	
<b>Standard bibliographic information</b>	Christie, H., Munro, M. & Fisher, T. (2004). Leaving university early: Exploring the difference between continuing and non-continuing students. <i>Studies in Higher Education</i> , 29 (5), 617-636.
<b>Country of Origin</b>	UK
<b>Key words</b>	Non-completion; Wrong course; Information networks; Social class gradient.
<b>Abstract</b>	This paper explores some of the issues surrounding student retention at two contrasting universities in Scotland. The research indicates that important factors in the decision to withdraw include poor choice of course, limited social support networks and lack of fit between student and institution. This template explores the implications of student-choice on withdrawal.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Decisions</b>  Withdrawal tended to be for a variety of complex reasons. The students who withdrew cited 2.9 reasons on average.</p> <ol style="list-style-type: none"> <li>1. Of 63 students who withdrew in this study, 41 said they had chosen the wrong course.</li> <li>2. 32 students cited poor motivation. This was probably the consequence of poor course choice rather than a principal reason for leaving.</li> <li>3. 32 students felt alienated by the university atmosphere and environment. This reason was linked to wrong course choice with many students.</li> <li>4. Students from disadvantaged post-code sectors were little different from their more advantaged colleagues.</li> <li>5. Evidence suggests that students make their choices about tertiary study very early (no details given). These tend to focus on course and place of study.</li> </ol> <p><b>Information</b></p> <ol style="list-style-type: none"> <li>1. Existing research evidence suggests that here is a gap between expectation of university and the actual experience.</li> <li>2. It is known that there are complex social networks giving advice to people about study after school. Parents, families, friends, teachers and counsellors are usually deemed to be included in such networks.</li> <li>3. Where these networks are repositories of experience of universities and courses, young people have access to reliable information. Such students tend to be more confident about their choices.</li> <li>4. It is also known that young people who do not have access to such information networks, "may be deterred</li> </ol>

	because they do not have help or support in negotiating this very daunting and complex body of information” (p.624).
<b>Methodology</b>	A survey study involving two contrasting universities. 169 questionnaires were returned, 106 of which were continuers and 63 had withdrawn. The analysis recorded on this template is of the withdrawn students.
<b>Scale of project</b>	Small scale study, useful in supporting other, bigger studies and not for generalization.
<b>Evaluative comments</b>	This study is strictly speaking a retention and withdrawal study but is useful to learning about decision-making because its findings are supported by other, bigger studies and because it introduces the notion of information networks. The major reason given for withdrawal was wrong choice of course. This is also reported elsewhere and is directly related to decision-making. Moreover, the article introduces the notion of information networks as one factor in helping students make good decisions. This helps explain why decisions made with the backing of an information rich network may lead to greater success than decisions made with the advice of an information poor network.
<b>Other</b>	For other research dealing with course of study as a major element in decision making see: James, R. (2000). How school-leavers choose a preferred university course and possible effects on the quality of the school-university transition. <i>Journal of Institutional Research</i> , 9 (1), 78-88. and Yorke, M. (1999). <i>Leaving early: Undergraduate non-completion in higher education</i> . London: Falmer Press.



<b>TEMPLATE 14</b>	
<b>Standard bibliographic information</b>	Connell, R.W. (2004). Working-class parents' views of secondary education. <i>International Journal of Inclusive Education</i> , 8 (3), 227-239.
<b>Country of Origin</b>	Australia
<b>Key words</b>	Working class; Parents
<b>Abstract</b>	Parents of upper-secondary students in public schools in New South Wales, Australia, gave accounts of their experience of education and their wider thinking about educational issues. Working-class families are bearers of educational histories that are often difficult or truncated, leaving parents with little familiarity with upper-secondary or post-school pathways. General views of education are strongly positive, sometimes diffuse and sometimes articulated, and are by no means narrowly instrumental. A mixture of criticism and praise for teachers responds to current family experiences with schools, parents' views often following the outlines of teachers' own perceptions. A fund of working-class support for public education has thus survived recent educational upheavals; at the same time, working-class families very much depend on the service and guidance provided by the schools.
<b>Type of Research</b>	Quantitative; <b>Qualitative</b> ; Descriptive; Theoretical; Analytical; Critical; Other:
<b>Key themes</b> related to MOE's focus areas:  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information Use of information Types of information Gaps in information <b>How are decisions affected by diversity?</b> Gender Ethnicity Class Other relevant factors	<b>Factors, Information and Diversity</b> 1. In contrast to some stereotypes about working class parents these parents were generally supportive of education and aware of the benefits for their children. Indeed they valued education and some were determined that their children would get the best possible education. The key factor was their own lack of experience with, and therefore knowledge of, post-school academic and training pathways. 2. A second factor was the institutional distance between family and school. Working-class families were not in close contact with the school or teachers so were "not in a strong position to ... negotiate on their (children's) behalf" (p.238). 3. Working class families, therefore, are more heavily dependent on the school and teachers to guide, advise, support, encourage and provide information to their children about educational strategies. "... one might think of working-class families depending on the institutions for their educational ideas as well as for the educational service, and for guidance in using the service" (p.238).

	4. “There is an important consequence for the future. The more complex the system gets, the more ‘choices’ are inserted, the more difficult it is for these working-class parents to understand and move competently around the education system ... The implication is that working-class families in the future are likely to depend <i>more</i> on the schools to get everything right for their children” (p.238).
<b>Methodology</b>	Focussed interviews with 30 parents.
<b>Scale of project</b>	<p>The full project involved approximately 160 interviews with students, teachers, parents and other school staff in 8 schools.</p> <p>This paper reports on interviews with 30 parents, four school case studies, 10 family case studies and student interviews.</p>
<b>Evaluative comments</b>	<p>While much of this article is not focused on students’ decision-making, there are important findings about the role working-class parents can play in their children’s choices. The key message is that schools and teachers have a prime responsibility for guidance, support and information if more working-class students are to move into post-school education and training. As well, it is clear that much closer relationships need to be fostered between schools and working-class parents, reducing the distance between institution and family.</p>

<b>TEMPLATE 15</b>	
<b>Standard bibliographic information</b>	Connor, H. & Dewson, S. (2001). <i>Social class and higher education: Issues affecting decisions on participation by lower social class groups</i> . Department for Education and Employment, Research Report 267. Retrieved from: <a href="http://www.dfes.gov.uk/research/data/uploadfiles/RR267.PDF">http://www.dfes.gov.uk/research/data/uploadfiles/RR267.PDF</a> 19/08/04
<b>Country of Origin</b>	UK
<b>Key words</b>	Low SES students; Decisions; Higher education
<b>Abstract</b>	Despite a major expansion in student numbers, which has enabled more people from a wider range of backgrounds to take higher education (HE) qualifications, students from lower social class backgrounds continue to be under represented. The main reasons for this have been shown by previous research to relate to educational factors and family backgrounds, and also perceptions about costs involved and benefits of HE study. The Department for Education and Employment (DfEE) commissioned a research study to explore in more detail factors influencing decisions about participation in undergraduate study by people from lower social class backgrounds. This focused on groups who were taking, or had recently taken decisions about whether or not to go to university, thus providing an up-to-date perspective on participation issues.
<b>Type of Research</b>	<b>Quantitative; Qualitative;</b> Descriptive; Theoretical; Analytical; Critical; Other:
<b>Key themes related to MOE's focus areas:</b>  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information Use of information Types of information Gaps in information <b>How are decisions affected by diversity?</b> Gender Ethnicity	<b>Decisions</b> 1. The research shows that a great many issues can affect decisions to go on to HE study and there is no one overriding factor of influence for low SES students. However they tend to take account of more factors than high SES students. 2. Low SES students choose institutions on the basis of cost (mostly to do with living away/staying close to home) and personal interest in specific subjects. 3. Prior education and family background influence decisions in various ways.  <b>Factors</b> Sets of encouraging and discouraging factors were identified. <i>Encouraging</i> 1. Belief that a higher qualification will bring improved job and career prospects, improved earnings and job security 2. Low SES students put more emphasis on expected beneficial outcomes than high SES students. They are of more importance to certain groups eg those with vocational entry qualifications, minority ethnic groups

<p>Class Other relevant factors</p>	<p>and older students</p> <ol style="list-style-type: none"> <li>3. Other factors included desire for self-improvement and personal interest in a particular subject of study.</li> <li>4. For low SES students, FE college tutors could be a key group of positive ‘influencers’ as are friends and family members with current/recent HE experience.</li> </ol> <p><i>Discouraging</i></p> <ol style="list-style-type: none"> <li>1. Employment and financial issues are the key discouragers. Students wanted to start a job, earn money and be independent; or they had a career or job goal that did not require a degree qualification</li> <li>2. The cost of studying and being in debt were key reasons for not going to HE. This included borrowing, future debt, working to earn income while studying, not knowing enough about the likely costs and income sources, or about likely financial outcomes of HE study.</li> <li>3. Having to work to earn income was seen as detrimental to study</li> <li>4. Other concerns included being able to cope with academic pressures and workload; gaining entry qualifications; the application process itself; personal issues such as childcare.</li> </ol> <p><b>Information</b></p> <ol style="list-style-type: none"> <li>1. While plenty of information seems to be available it is often seen as too general and overly complex.</li> <li>2. It needs to be more specific, better quality, more targeted and accessible.</li> <li>3. Main gaps in information are on the financial aspects of HE study and its likely benefits in terms of employment.</li> <li>4. Over 75% of students thought they had insufficient information about costs</li> </ol> <p><b>Diversity</b> All the findings relate to low SES students.</p>
<p><b>Methodology</b></p>	<p>This study used postal questionnaire, focus groups, face to face and telephone interviews.</p>
<p><b>Scale of project</b></p>	<p>The study focussed on 3 target groups:</p> <ul style="list-style-type: none"> <li>• Potential entrants to HE from low SES backgrounds. 223 students in 20 colleges and schools took part in focus groups</li> <li>• Current HE students from low SES backgrounds. 1600 students at 14 institutions responded to a postal questionnaire survey, a 41% response rate</li> <li>• Non-HE entrants (people who were qualified to enter but decided not to). 112 were interviewed by telephone.</li> </ul>
<p><b>Evaluative comments</b></p>	<p>This is a recent, major study undertaken in England and Wales and focuses explicitly on low SES students. It is especially relevant to the current NZ context, offering insights into factors that influence low SES students’ decisions. There are some useful suggestions for practice.</p>

<b>TEMPLATE 16</b>	
<b>Standard bibliographic information</b>	Davey, J. (2002). University study in mid and later life: The experiences of early school leavers. <i>New Zealand Journal of Adult Learning</i> , 30 (2), 18-33.
<b>Country of Origin</b>	NZ
<b>Key words</b>	Early school leavers; mid and later life learning.
<b>Abstract</b>	This article examines the experience of 28 Victoria University mature students aged 40 and over who had left school with less than four years of secondary education. Concepts from models of adult involvement in education and a life course perspective are used to analyse their experiences at three stages: at the time of leaving school; when they entered university study; and finally as they looked back over their educational involvement. The study found that contextual factors and external influences interacting with self-evaluation are significant factors in their choices and outcomes.
<b>Type of Research</b>	<b>Quantitative; Qualitative;</b> Descriptive; Theoretical; Analytical; Critical; Other:
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b></p> <p><b>What factors influence student choice?</b></p> <p>Role of families Role of agencies</p> <p><b>What is the role of information in decision making?</b></p> <p>Access to information Use of information Types of information Gaps in information</p> <p><b>How are decisions affected by diversity?</b></p> <p>Gender Ethnicity Class Other relevant factors</p>	<p><b>Factors</b></p> <p>A number of factors affected the decision of these early school leavers to enrol in university study in mid to later life (aged 42-82):</p> <ol style="list-style-type: none"> <li>1. Work-related factors were very important. These included aspirations to improve career prospects; a desire to increase earning power to support their families; the need for qualifications and credentials to retain employment.</li> <li>2. Different people were sources of influence, often in combination. For example, family members (including children who had experienced university study), friends, work colleagues and employers.</li> <li>3. Their view of themselves was also a factor. Several wanted to 'improve themselves'. Women in particular wanted to 'do something for themselves'.</li> <li>4. Many had to wait until they retired to "give expression to their educational aspirations" (p.29).</li> <li>5. The social environment, social norms and expectations played a key role.</li> <li>6. Parental attitudes had been a key factor in their decision to leave school at 15.</li> <li>7. For some, finances were a factor. Parents could not afford to have more than one child at secondary school let alone finance tertiary study.</li> </ol> <p><b>Diversity</b></p> <ol style="list-style-type: none"> <li>1. Participants were age-mature and had therefore been</li> </ol>

	<p>strongly influenced by the social norms of their childhood, a time when fewer people went on to tertiary study.</p> <ol style="list-style-type: none"> <li>2. Most received signals from home, school, their class and gender status and from the outside world that encouraged them to leave school early regardless of their ability or inclination.</li> <li>3. Spouses often created barriers to study, particularly for women. Several came to university study only after their marriages broke up.</li> <li>4. About half of the participants came from lower SES backgrounds so class expectations influenced their decisions. There was, for example, an expectation that they would leave school at 15 to get a job.</li> </ol>
<b>Methodology</b>	In-depth interviews.
<b>Scale of project</b>	28 participants.
<b>Evaluative comments</b>	This is an interesting New Zealand study which sheds light on factors that prevent students from enrolling in tertiary study in their youth, as well as factors that enable them to study in mid and later life. While it supports findings from other literature, of key interest is the impact of social norms and expectations on the options and decisions available to this cohort.
<b>Other</b>	This article is drawn from work done in a larger project: Davey, J. (2001). <i>Going for it! Older students at Victoria University of Wellington</i> . Education in mid and later life project, Victoria University of Wellington.

<b>TEMPLATE 17</b>	
<b>Standard bibliographic information</b>	Davies, J. (2003). <i>A taste of further education: The meaning of 'coming to college' for a group of 14-16 year olds</i> . Paper presented at the BERA research student symposium, Exeter. Retrieved from: <a href="http://www.ex.ac.uk/sell/tlc/docs/publications/EX_JD_PUB_CONF_09.03.doc">http://www.ex.ac.uk/sell/tlc/docs/publications/EX_JD_PUB_CONF_09.03.doc</a> 19/08/04
<b>Country of Origin</b>	UK
<b>Key words</b>	Decision-making; Socio-economic status; Constraints
<b>Abstract</b>	<p>This paper draws on an ongoing longitudinal case study of one of the learning sites in the Transforming Learning Cultures in Further Education (TLCFE) project. It focuses on the learning experiences of a small group of school students aged 14-16 who had chosen to replace one of their GCSE options with a vocational course in administration/information technology in their local further education (FE) college.</p> <p>Exploration of the students' perceptions, feelings and thoughts on their course offers insights into the impact of their FE experiences. Issues are raised concerning the role of vocational courses for this age group and the contrast between the government view of student choice as one of logical decision-making and the more complex realities.</p>
<b>Type of Research</b>	Quantitative; <b>Qualitative</b> ; Descriptive; Theoretical; Analytical; Critical; Other:
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b></p> <p><b>What factors influence student choice?</b></p> <p>Role of families</p> <p>Role of agencies</p> <p><b>What is the role of information in decision making?</b></p> <p>Access to information</p> <p>Use of information</p> <p>Types of information</p> <p>Gaps in information</p> <p><b>How are decisions affected by diversity?</b></p> <p>Gender</p> <p>Ethnicity</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>1. The results from this project suggest that the government's perception of educational choice as a "rational, logical process, unproblematic as long as students receive advice and guidance" is problematic.</li> <li>2. Choice and decisions result from a "complex relationship between different factors than the cause and effect relationship of 'advice' leading to 'best choice' and is an unpredictable process (p.15).</li> <li>3. Choices are constrained in several respects, namely class and gender (race was not an issue in an almost entirely white community).</li> <li>4. Decisions are culturally determined. "These young people without a background of high cultural and economic capital felt more comfortable taking an apparently work related course instead of another less 'relevant' academic GCSE" (p.16).</li> </ol> <p><b>Diversity</b></p> <ol style="list-style-type: none"> <li>1. Decisions and choices are constrained and culturally determined (see above).</li> </ol>

Class Other relevant factors	
<b>Methodology</b>	Interviews were conducted with participants.
<b>Scale of project</b>	This paper reports on just two interviews. They are part of a longitudinal case study project Transforming Learning Cultures in Further Education.
<b>Evaluative comments</b>	The relevance of this paper lies in its discussion section. While it reflects the views of only two participants, the discussion highlights key issues around how students from low SES background make decisions and the constraints they have to work within. Decision-making is not an unproblematic, logical process. These ideas are particularly relevant to New Zealand as the government tries to encourage wider participation in tertiary education. We may need to do more than provide information to encourage low SES and culturally diverse student to enrol in tertiary academic programmes.



<b>TEMPLATE 18</b>	
<b>Standard bibliographic information</b>	Hagy, A. & Staniec, J. (2002). Immigrant status, race and institutional choice in higher education. <i>Economics of Education Review</i> , 21, 381-392.
<b>Country of Origin</b>	USA
<b>Key words</b>	Choice; Immigrant students; Enrolment; Asian; Hispanic; Black
<b>Abstract</b>	This paper examines the post-secondary enrolment decisions of immigrant students, expanding on previous work by explicitly considering their choices among institution types and by examining difference across generations and racial/ethnic categories. The study uses data from the National Educational Longitudinal Study (NELS:88) to estimate a multinomial logit model of enrolment choice. Findings are that first- and second-generation Asians are significantly more likely to enrol in both two- and four-year public colleges and universities, while second-generation Hispanics and native blacks have a higher probability of enrolling in both public and private four-year colleges and universities.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other:
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Diversity</b></p> <ol style="list-style-type: none"> <li>1. The dependent variable was the first type of post-secondary institution in which the student enrolled.</li> <li>2. Independent variables included characteristics of the individual students (immigrant status; race/ethnicity; sex; ability).</li> <li>3. Enrolment pattern data masked variations between racial/ethnic groups</li> <li>4. A simple breakdown by racial/ethnic groups masked important differences due to immigration status.</li> <li>5. Analysis by immigration status revealed some surprising effects e.g. Hispanic second generation students have a greater probability of choosing to enrol at both public and private four-year institutions.</li> </ol> <p>Findings from raw percentages include:</p> <ol style="list-style-type: none"> <li>1. The behaviour of native Asians is quite similar to that of native Whites.</li> <li>2. First and second generation Asians are much less likely than natives to choose non-enrolment and much more likely to enrol in four-year schools. This pattern is particularly dramatic for second generation Asians. 70% choose a four-year college or university; only 13% do not attend postsecondary institutions.</li> <li>3. Conversely, first and second generation Hispanics are similar to each other and to native Hispanics in their</li> </ol>

	<p>behaviour. The dominant choice is non-enrolment (about 40% in all three groups) with only 25% choosing four-year institutions.</p> <p>Findings after controlling for first and second generation status include:</p> <ol style="list-style-type: none"> <li>1. College choice of immigrants differs significantly from that of native students, particularly for first generation immigrants who are more likely than natives to enrol in every type of institution except private 4-year ones.</li> <li>2. In the second generation the ‘immigrant effect’ is greatly diminished. However, second generation immigrants are still significantly more likely to enrol in community colleges than not enrol.</li> <li>3. These results seem to indicate an assimilation of the immigrant community into the larger society.</li> <li>4. Proximity to home, enabling students to live at home, may be a reason for choice of public two-year colleges.</li> <li>5. Once immigrant status and other characteristics are controlled for students’ race exerts almost no significant influence.</li> <li>6. The only significant race effect is the finding that blacks have a higher probability of enrolling in 4-year colleges than whites .</li> <li>7. “All of these results for the race variables may seem surprising, given the common perceptions fuelled by raw percentages ... . However, similar findings regarding black enrolment probabilities have been found in several other college choice studies” (p.386).</li> </ol> <p>The effects of race/ethnicity on enrolment behaviour are:</p> <ol style="list-style-type: none"> <li>1. Immigration effects are not experienced uniformly across immigrant groups</li> <li>2. In the first generation results, the higher probability of enrolment in four-year colleges and public two-year schools is attributable to the Asian students in the sample.</li> <li>3. Hispanic first generation students are more likely to enrol in community colleges.</li> <li>4. Black immigrants dramatically increase enrolments in a private vocational school.</li> <li>5. Hispanic second generation students have a greater probability of choosing to enrol at both public and private four-year schools. An analogous effect for native blacks was found.</li> </ol>
<b>Methodology</b>	Multinomial logit model of enrolment choice.
<b>Scale of project</b>	Data from 10,222 students were analysed.
<b>Evaluative comments</b>	Given the increasing level of immigration in New Zealand and increases in the number of Pasifika students, these findings may have important messages for New Zealand policy and practice.

<b>TEMPLATE 19</b>	
<b>Standard bibliographic information</b>	Harker, D., Slade, P. & Harker, M. (2001). Exploring the decision process of 'school leavers' and 'mature students' in university choice. <i>Journal of Marketing for Higher Education</i> , 11 (2) 1-20.
<b>Country of Origin</b>	Australia
<b>Key words</b>	University choice; Decision-making; New students; Marketing.
<b>Abstract</b>	This article addresses the question 'are there any differences between how mature entrants and those who have just left school make the decision to attend a (new) university?' The research was conducted on the first intake in a newly established university and introduces a staged model of decision-making.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; <b>Theoretical</b> ; Analytical; Critical; Other
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>It appears that potential university students go through a three way process when deciding on tertiary study. <ul style="list-style-type: none"> <li>There is a <i>predisposition</i> to study at university. This phase involves student background characteristics such as socio-economic status, aptitude and level of educational aspirations. This is a phase is built on experiences over a long period of time.</li> <li>There is an active <i>search</i> phase. This involves active enquiry into university characteristics like location, facilities, academic reputation, availability of courses, provision of services.</li> <li>The third stage is the <i>choice</i> stage. Once students have decided to go to university and have got the information they need, they make their choice. In this phase university courtship or negotiations become effective.</li> </ul> </li> </ol> <p><b>Factors</b></p> <ol style="list-style-type: none"> <li>The study examined different decision-making factors for mature age and school leaver students. <ul style="list-style-type: none"> <li><i>Predisposition</i>: There was little difference at this stage between the two groups. For example, levels of schooling, family background, and career development. The risk of unemployment was a factor influencing both groups to decide to go to university. However, one-third of school leavers acknowledged the influence of parents as a major factor.</li> <li><i>Search</i>: Both groups considered alternative universities-they had 6 universities to choose from. Information gathering was not so different on a</li> </ul> </li> </ol>

	<p>number of variables – brochures (21% mature vs 18% SL), consulting services, friends and families (12% vs 13%), university open day (7% vs 3%). The key difference was that mature students were much more likely to contact the university than school leavers (15% vs 2%).</p> <ul style="list-style-type: none"> <li>• <i>Choice:</i> The most important factor for mature students was continuation of lifestyle, family stability and employment. The most important factors for school leavers were the ability to continue living at home and the prospect of changing universities if things did not work out.</li> </ul>
<b>Methodology</b>	This research involved a self-administered questionnaire of 653 (407 mature & 246 school leavers) students enrolled for the first time in a new regional university. This template uses descriptive statistical analysis. The study also used t-tests to discriminate.
<b>Scale of project</b>	Single institution.
<b>Evaluative comments</b>	<p>On one hand this is a persuasive study in that the analysis is based on a logical and intuitively convincing analytic model. However, this model is lineal and does not acknowledge the diversities brought about by the post-industrial society.</p> <p>Also of interest is the lack of differences found between decision-making of mature students and school leavers. The only real difference was in the way mature learners were more pro-active in searching out information</p>
<b>Other</b>	A convincing conceptual case against linearity of decision-making is made in Tyler, D. (1998). Vocational pathways and the decline of the linear model. <i>Vocational Knowledge and Institutions: Changing Relationships</i> . Proceedings of the 6th International Conference on Post-compulsory Training, Gold Coast Queensland, 77-87.

<b>TEMPLATE 20</b>	
<b>Standard bibliographic information</b>	Harris Management Solutions Ltd. (2003). <i>Loose connections: A survey of student entry into technology sector tertiary education</i> . Commissioned by New Zealand Trade and Enterprise.
<b>Country of Origin</b>	N Z
<b>Key words</b>	Student choice; Technology industries
<b>Abstract</b>	<p>The aim of this project was to research the reasons for the lack of New Zealand graduates completing technology related qualifications (such as electronics and computing engineering and food technology) and entering related industries, and to develop some possible options for consideration by the key stakeholders. A sample survey was conducted with 323 7<sup>th</sup> Form Physics students in 7 Canterbury and 6 Hawkes Bay schools, selected to be representative of the national decile range. This was followed by structured interviews with 6 key stakeholder groups and 16 school staff.</p> <p>Data were analysed by different variables eg gender, ethnicity, nationality, location and school decile. Few significant differences between subgroups were found. Findings show that student choice is driven by two key factors – ability in the subject area and interest in the subject area. Choice of institution is influenced by whether it ‘offered a particular degree’; with ‘close to home’ being the least important of seven criteria. Information sources seen as important included ‘university liaison offices’, ‘people working in the area’ and ‘Internet’; least important were ‘libraries’.</p>
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other
<b>Key themes</b> related to MOE’s focus areas:  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information	<b>Factors</b> <ol style="list-style-type: none"> <li>1. Key factors in this survey were ‘ability in’ and ‘interest in’ the subject.</li> <li>2. ‘Family members’ did not rate highly except with Pacific Island students (but there were only 3 students (1%) in the sample).</li> <li>3. ‘Role models’ did not rate highly with any sub-group.</li> </ol> <b>Information</b> <ol style="list-style-type: none"> <li>1. These students used university liaison offices, people working in the area and Internet as primary sources of information.</li> </ol>

<p>Use of information Types of information Gaps in information <b>How are decisions affected by diversity?</b> Gender Ethnicity Class Other relevant factors</p>	<p><b>Diversity</b></p> <ol style="list-style-type: none"> <li>1. Although analysed by gender, ethnicity, nationality, location and decile, this research showed few significant differences between the sub-groups. Low participation rates for Māori and Pacific Island students meant data was not sufficient for statistical analysis.</li> </ol>
<p><b>Methodology</b></p>	<p>A student survey, and interviews with technology industry stake- holders and school staff.</p>
<p><b>Scale of project</b></p>	<p>323 students in 13 schools participated. Interviews with 6 stakeholder representatives and 16 school staff were conducted.</p>
<p><b>Evaluative comments</b></p>	<p>This report is included because it is a recent project conducted in New Zealand and therefore offers a snapshot of student choice in the local context. It is limited by its focus on student choice in relation to one specific industry group and its lack of Māori and Pacific Island participants.</p>

<b>TEMPLATE 21</b>	
<b>Standard bibliographic information</b>	Howard, M. (2002). Student use of rankings in national magazines in the college decision-making process. An EdD dissertation, The University of Tennessee, Knoxville. Retrieved from: <a href="http://etd.utk.edu/2002/HowardMichele.pdf">http://etd.utk.edu/2002/HowardMichele.pdf</a> 16/08/04
<b>Country of Origin</b>	USA
<b>Key words</b>	College rankings; Decision-making.
<b>Abstract</b>	College rankings are widely depicted as vital tools for making informed decisions about the college selection process. On the other hand, very little factual information is available about students' actual use of rankings in the college decision-making process. The paramount purpose of this study was to determine the importance of college rankings on students' choice. For this study a total of 14,541 first-time, full-time freshmen participated. The majority placed some level of importance on college rankings. Ratings in news magazines are of particular importance to first-time, full-time freshmen attending ranked, private institutions. Other students who deem rankings important are traditionally aged, live on-campus, attend a school a significant distance from home and have a high level of financial status. It is recommended that institutions rethink their stance on college rankings and acknowledge their influence on prospective students.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other:
<b>Key themes</b> related to MOE's focus areas:  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information Use of information Types of information Gaps in information <b>How are decisions affected by diversity?</b>	<b>Information</b> The purpose of this thesis was to determine the influence of institutional rankings on student decision-making and choices. <ol style="list-style-type: none"> <li>56.7% considered rankings to be a very important or somewhat important factor</li> <li>There was a significant difference in the importance placed on ratings by students attending ranked and unranked schools</li> <li>Students attending private institutions placed higher levels of importance on rankings than their peers at public schools</li> <li>There was no significant difference between men and women</li> <li>Traditionally aged freshmen placed a higher level of importance on rankings than non-traditional students</li> <li>Ratings are more important for students who live on campus and at a distance from their homes.</li> </ol>

Gender Ethnicity Class Other relevant factors	<p>7. Rankings are more important for students with higher high school grades</p> <p>8. Students with higher family incomes placed more significance on rankings.</p> <p>9. Rankings were important to Asian-American students; and less important to Hispanic/Latino freshmen.</p>
<b>Methodology</b>	One question relating to rankings in national magazines was included in a student information form administered during new student orientation. Participants ranked as very important, somewhat important or not important. Cross tabulation and chi-square analyses were conducted.
<b>Scale of project</b>	40 institutions from 13 states participated 14,541 first-time, full-time freshmen participated; 8827 from national universities and 5714 from liberal arts colleges.
<b>Evaluative comments</b>	This thesis is one of a few studies of the impact of rankings on students' decision-making. As rankings are just beginning to be published in New Zealand it offers interesting information. It should be noted that the findings of this study differ from other studies in the USA which show that rankings have a much less significant bearing on decisions e.g., Hossler & Foley, 1995; McDonough et al., 1998.



<b>TEMPLATE 22</b>	
<b>Standard bibliographic information</b>	The Institute for Employment Studies; Committee of Vice-Chancellors and principals of the Universities of the United Kingdom; Higher Education Funding Council for England; Universities and Colleges Admissions Service. (1999). <i>Making the right choice: How students choose universities and colleges: The Year 11/S4 survey</i> . London: Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom. Appendix Two.
<b>Country of Origin</b>	UK
<b>Key words</b>	Choice; Gender; Ethnicity; Socio-economic class
<b>Abstract</b>	As part of the research study on choices and participation in higher education, a separate study of Year 11 (S4 in Scotland) students was undertaken. These young people in their final year of compulsory schooling were faced with decisions about going on to university or college in the year 2000. In the traditional models of the choice or decision-making process they were currently at the 'predisposition' or 'college aspirations' stage. Some had already decided that they wanted to progress to higher education; others were still considering it; and yet others had decided against it and were looking at other options. The main purpose of the Y11/S4 study was to find out whether students' had formulated plans, to what extent, and what key factors influenced these plans. A particular focus of this study was under-represented groups including lower socio-economic groups, inner city areas and some ethnic minorities.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other:
<b>Key themes related to MOE's focus areas:</b>  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information Use of information Types of information Gaps in information <b>How are decisions affected</b>	<b>Factors</b> 1. Many students' decisions about further study had been formulated by Y11/S4. This finding confirmed other research, showing that influences on perceptions of higher education had been working at a much earlier age. However, only 29% had a specific university in mind. 2. Key factors included earlier school experiences, access to careers guidance and advice, and expectations from school and home. These varied for different student groups. 73% said parents were keen for them to go to university and that most of their friends were planning to continue their education. 3. Attainment level at GCSE and Scottish Standard Grade was a key variable affecting likelihood to progress to higher education. 4. A significant proportion both over-and under-estimated

<p><b>by diversity?</b> Gender Ethnicity Class Other relevant factors</p>	<p>the cost of higher education. About half were likely to be deterred by cost. However, no relationship was found between estimate of cost and likelihood that it would deter them from going to university/college.</p> <p><b>Information</b></p> <ol style="list-style-type: none"> <li>1. Students who were more likely to progress to higher education were more likely to have sought help from school subject teachers, whereas those students unlikely to progress were more likely to have received careers information and advice from careers or guidance teachers at school and from their parents.</li> <li>2. The most frequently used sources of information were: <ul style="list-style-type: none"> <li>• School careers/guidance teachers (89%)</li> <li>• Parents/step parents/ guardians (82%)</li> <li>• Careers advisors (80%)</li> </ul> </li> <li>3. Least used sources were: <ul style="list-style-type: none"> <li>• Internet (22%)</li> <li>• Newspaper/magazines (32%)</li> <li>• TV (35%)</li> <li>• Computer software (36%)</li> <li>• Careers tests/questionnaires (38%)</li> </ul> </li> </ol> <p><b>Diversity</b></p> <ol style="list-style-type: none"> <li>1. Gender differences were apparent in several respects: <ul style="list-style-type: none"> <li>• Girls were more likely to be considering higher education (69% girls; 56% boys)</li> <li>• Girls were more likely to be planning to take vocational qualifications and to choose business studies or arts subjects at university</li> <li>• Differences were also apparent in reasons for going to university, estimations of costs, and views of value of going to university.</li> </ul> </li> <li>2. Differences were found between white and ethnic minority students. Some of these differences can be explained by attainment expectations of different groups. 71% of ethnic minority and 61% of white students were likely to go on to higher education.</li> <li>3. It is claimed that likelihood of going on to higher education was not strongly linked to social class. 75% of professional and managerial classes and 60% of lowest social classes were in the higher education 'definite' or 'probable' groups.</li> </ol>
<p><b>Methodology</b></p>	<p>Questionnaire survey</p>
<p><b>Scale of project</b></p>	<p>16 schools participated with 1894 students responding - an overall response rate of 40% and effective response rate of 65% if non-responding schools were excluded.</p>
<p><b>Evaluative comments</b></p>	<p>A valuable research report. Of particular interest are findings about ethnic differences as some of these challenge existing ideas, showing that ethnic minorities, and girls within those groups, had quite high expectations of going on to higher education and felt they had their parents support. Also of interest are the sources of information that were not often used - including Internet and TV.</p>

<b>TEMPLATE 23</b>	
<b>Standard bibliographic information</b>	Jackson, G. (1986). <i>Workable, comprehensive models of college choice</i> . Final and technical report. US Department of Education. 105 pages.
<b>Country of Origin</b>	USA
<b>Key words</b>	Models of Choice; Psychological, social, economic modelling influences; Variables.
<b>Abstract</b>	This is the final, technical report for a major, multi-publication project – “College Choice”. This report is built around a model of college choice. The model’s variables were established by an extensive review of literature published between 1972 and 1980 in the United States. The model is then tested against new data. While the data presented is old and probably irrelevant, the section relating to the development of a model still seems very relevant as a number of the variables still feature in more recent literature also.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; <b>Analytical</b> ; Critical; Other: <b>Literature Review</b>
<p><b>Key themes</b> related to MOE’s focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Decisions and Factors</b></p> <ol style="list-style-type: none"> <li>The report establishes a number of critical variables from the literature. <ul style="list-style-type: none"> <li>Family income</li> <li>Father’s education</li> <li>Fathers’ occupation</li> <li>Mother’s education</li> <li>Mother’s occupation</li> <li>Student’s grade point average</li> <li>Student’s SAT scores</li> <li>Unemployment rate for age cohort</li> <li>Distance of institution from students’ home</li> <li>Total cost of attendance</li> <li>Financial aid available</li> <li>Institution’s admission requirements</li> </ul> </li> <li>A number of non-critical variable were also reported: <ul style="list-style-type: none"> <li>Peer plans</li> <li>Nature of high school curriculum</li> <li>Student’s aspirations</li> <li>Host community</li> <li>Institution’s prestige</li> <li>Student’s expected lifetime earnings</li> <li>Student’s ambition</li> <li>Social integration.</li> </ul> </li> <li>These variables were factorised and each factor’s effect on decision-making was estimated. <ul style="list-style-type: none"> <li><i>Very positive effects</i>: Academic ability; family</li> </ul> </li> </ol>

	<p>background.</p> <ul style="list-style-type: none"> <li>• <i>Positive effects</i>: financial aid; college availability.</li> <li>• <i>Slight positive effects</i>: High school contexts (peers' plans and aspirations; availability of appropriate curriculum); educational aspirations</li> <li>• <i>Mixed effects</i>: Labour market (local unemployment rates could have positive or negative effects); college environment (type of institution, prestige, gender, ethnicity); college effects (return on investment).</li> <li>• <i>Negative effects</i>: College costs.</li> </ul>
<b>Methodology</b>	This study tests model variables against existing literature and against an empirical study. The latter is not reviewed.
<b>Scale of project</b>	Used national data sets.
<b>Evaluative comments</b>	While dated, this study still makes two contributions to student decision- making. One, it discusses variables of a model that are still used frequently today. It thus establishes an historical credibility to some of the work recorded in this literature review. Two, it estimates the strength of clusters of variables in the literature between 1972 and 1980. This allows comparison with more recent studies.

<b>TEMPLATE 24</b>	
<b>Standard bibliographic information</b>	James, R. (1999). <i>Non-traditional students and their university participation: An Australian perspective on persistent inequities and the new ideology of 'student choice'</i> . Paper presented at the 21 <sup>st</sup> European Association of Institutional Research, Lund University, Sweden.
<b>Country of Origin</b>	Australia
<b>Key words</b>	Equity; Student choice; Non-traditional students
<b>Abstract</b>	This paper brings together research from two national projects led by the author that have examined participation by non-traditional students from lower socio-economic backgrounds and from remote locations. The paper argues that non-traditional students still tend to be absent from tertiary education and don't have sufficient information to make good choices.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; <b>Critical</b> ; Other
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>1. Non-traditional students are still underrepresented in higher education. <ul style="list-style-type: none"> <li>• In 1997 1.2% of indigenous students were studying at university when their proportion in total population was 1.7%.</li> <li>• Rural people 17.4% / 24.3%</li> <li>• Isolated backgrounds 1.8% / 4.5%</li> <li>• Lower SES: 14.5% / 25%</li> <li>• Only people with a disability and people with a non-English speaking background were over represented.</li> </ul> </li> <li>2. Cost is an important inhibitor particularly for people from SES backgrounds and those who live in remote areas.</li> <li>3. Low SES students are significantly less likely to believe that a university education will get them interesting and rewarding careers.</li> <li>4. Such people are much more likely to be faced by inhibiting factors than by encouraging factors. <ul style="list-style-type: none"> <li>• Parental and peer influences are major inhibitors.</li> <li>• "Overall, the findings of our first study emphasise that Australia still has a higher education system significantly stratified by social class. Students' earliest decisions about the possibility of higher education are in no terms 'equal', but hinge on the social and economic circumstances of their families and communities and on their geographical location"(p.7).</li> </ul> </li> </ol>

	<p><b>Information</b></p> <ol style="list-style-type: none"> <li>1. Broadly speaking the findings from the second study suggest that a surprising proportion of possible applicants for places in fields of studies, courses and universities are poorly informed. For example <ul style="list-style-type: none"> <li>• Opportunities for flexible study</li> <li>• The use of information technology</li> <li>• The quality of teaching</li> </ul> </li> <li>2. Only 66% of students, for whom field of study was a strong influence, were actually confident they understood the potential for developing a good career in their chosen field of study.</li> <li>3. Non-traditional students do not seem to take on board information/marketing provided by universities.</li> </ol> <p><b>Diversity</b></p> <ol style="list-style-type: none"> <li>1. Equity still has not been achieved for non-traditional students. The ideology of ‘student choice’ does not enable them to capture necessary information to make good decisions when they do decide to engage with tertiary education.</li> </ol>
<b>Methodology</b>	Results from two relatively large- scale (7000 and 900 participants) surveys have been synthesized to construct an argument.
<b>Scale of project</b>	Large scale and national.
<b>Evaluative comments</b>	This is an interesting paper. It synthesizes the effects of current policies on two groups of non-traditional students. Its conclusions are compelling.
<b>Other</b>	<p>This paper is based on two major reports:  James, R., Baldwin, G. &amp;McInnis, C. (1999). <i>Which University? The factors influencing the choices of prospective undergraduates</i>. Canberra: Department of education, Training and Youth Affairs.</p> <p>James et al. (1999). <i>Rural and isolated students and their higher education choices: A re-examination of student location, socio-economic background, and educational advantage and disadvantage</i>. Canberra: Australian Government Publishing Service.</p>

<b>TEMPLATE 25</b>	
<b>Standard bibliographic information</b>	James, R. (2000a). <i>TAFE, University or Work? The early preferences and choices of students in years 10, 11 and 12</i> . Leabrook, South Australia: NCVER.
<b>Country of Origin</b>	Australia
<b>Key words</b>	Decision- making; Socio-economic status; Diversity.
<b>Abstract</b>	This report investigates attitudes and aspirations of school students regarding post-secondary education and work. About 90% of the sample indicated that their post-school choice was tertiary education. However, the research reveals considerable differences in attitudes towards post-school options in higher, vocational education and employment. It finds that student intentions are strongly influenced by socio-economic background, geographic location and gender.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b></p> <p><b>What factors influence student choice?</b></p> <p>Role of families Role of agencies</p> <p><b>What is the role of information in decision making?</b></p> <p>Access to information Use of information Types of information Gaps in information</p> <p><b>How are decisions affected by diversity?</b></p> <p>Gender Ethnicity Class Other relevant factors</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>1. Overall 25% of respondents wanted to study at TAFE, 63% at university and 12% wanted to get a job.</li> <li>2. Of the females, 24% wanted to study at TAFE, 70% at university, 6% wanted to go to work. For males the percentages were 30%, 62% and 9%.</li> <li>2. Of Aboriginal or Torres Strait Islanders 39% wanted to go to TAFE, 46% wanted to go to university, 16% wanted work.</li> <li>3. Of households where English was the first language, 27% were TAFE bound, 65% wanted to go to university, 8% wanted employment. In households where English was not the first language, the decisions were 24%, 72% and 5%.</li> <li>4. Respondents from higher socio-economic backgrounds tended to favour post-school study at university compared with respondents from medium and low socio-economic backgrounds.</li> <li>5. Decisions about where to study were often (43%) made in the previous/present year by those wishing to study at TAFE, but over half of respondents (53%) who wanted to study at university had made this decision at least 2-3 years previously.</li> <li>6. Those wanting to go to university were much more definite in their plans than those pursuing the other options.</li> </ol> <p><b>Factors</b></p> <ol style="list-style-type: none"> <li>1. The research established 3 factors leading to a decision: steady and interesting employment, future income and</li> </ol>

	<p>status, personal satisfaction. The latter were more prevalent among those deciding to go to university. Similar proportions among those wishing to go to TAFE, university and employment supported the other two factors.</p> <p>2. The influences of significant others on choice were established:</p> <ul style="list-style-type: none"> <li>• Mother – for all destinations, around 80% thought influence was significant</li> <li>• Father- for all destinations, around 72% thought influence was significant</li> <li>• Best Friend- for all destinations, around 48% thought influence was significant</li> <li>• Other friends- Only 22% of those heading for university thought other friends were significant, whereas around 30% of those going elsewhere thought so.</li> <li>• Around 50% of respondents going to TAFE and university thought career advisors had significant influence, compared with 35% of people going into employment.</li> </ul> <p><b>Diversity</b></p> <p>1. Student decisions are strongly influenced by socio-economic background, geographical location and gender.</p>
<b>Methodology</b>	This is a survey of over 7000 Year 10-12 students in 3 Australian states. The project surveyed across urban, rural and isolated locations and across all socio-economic strata.
<b>Scale of project</b>	Large sample across 3 Australian states.
<b>Evaluative comments</b>	While more a study about intentions and attitudes, it nevertheless gives useful insights into what factors might influence decision making. In the case of university choice, socio-economic background, self-expectation and the influence of parents and best friends as well as school advisors seem most important.



<b>TEMPLATE 26</b>	
<b>Standard bibliographic information</b>	James, R. (2000b). How school-leavers choose a preferred university course and possible effects on the quality of the school-university transition. <i>Journal of Institutional Research</i> , 9 (1), 78-88.
<b>Country of Origin</b>	Australia
<b>Key words</b>	Course preferences; Decision-making process
<b>Abstract</b>	This paper reports research into the factors influencing the choices of prospective university students and examines how shortfalls in information and the reputational characteristics of the market may affect the quality of the school-university transition. Some suggestions are made for improving the decision-making process for school-leaver entrants.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Factors</b></p> <ol style="list-style-type: none"> <li>The questionnaire was built around three key clusters of factors: <ul style="list-style-type: none"> <li>Common to the field of study, such as the type of work involved in a career or field;</li> <li>Associated with the particular course, such as the quality of teaching, flexibility for learning, reputation;</li> <li>Associated with the university itself and not the course in question such as campus location, the institution's prestige, facilities.</li> </ul> </li> <li>Influences on school-leavers' choice of course were: (Note: numbers are means for the range 1 - no influence to 5 - very strong influence. Only factors with a mean above 3 are reported here). <ul style="list-style-type: none"> <li><i>Attainability factors</i> such as confidence to meet the demands of the course (3.9); belief that school results are likely to allow comfortable entry (3.0).</li> <li><i>Perceived course quality factors</i> such as the reputation of the course among employers (3.5); the satisfaction of graduates from the course (3.3); employment rates for graduates (3.2); approaches to teaching and learning in the course (3.1); opportunities for flexible study (2.1).</li> <li><i>'Advice of others' factors</i> such as advice from teachers (2.3); parents (2.2); friends (1.8).</li> </ul> </li> <li>Influences on school-leavers' choice of university were: <ul style="list-style-type: none"> <li>Wish to do a particular course the university offers (4.4);</li> <li>Ease of access (3.3).</li> </ul> </li> </ol>

	<ul style="list-style-type: none"> <li>• <i>Institutional characteristics and reputation factors</i> such as the prestige of the university (3.3); employment rates for graduates (3.2); the image of the university (3.1).</li> <li>• <i>Academic programmes and services factors</i> such as opportunities for higher degree study (3.2).</li> <li>• <i>Personal fit factors</i> such as belief that they will fit in (3.4); the campus surroundings (3.3); the atmosphere of the campus (3.2).</li> </ul> <p><b>Information</b></p> <ol style="list-style-type: none"> <li>1. “The entry to university has been described as a courtship, in which both parties are making decisions...” (p.86). Both parties rely on information.</li> <li>2. Universities rely on school results. Students rely on the information supply from universities. The research identifies three domains for such information: <ul style="list-style-type: none"> <li>• The nature of the teaching and learning experience on offer including such information as class size, extent of usage of technologies and work placement opportunities;</li> <li>• The anticipated knowledge and skill outcomes for graduates;</li> <li>• The career possibilities and likely prospects.</li> </ul> </li> </ol>
<b>Methodology</b>	The report is based on a survey of tertiary applicants at the time of application in 1998. The survey had 937 responses with a 29% response rate. A follow up survey at the time of offer yielded 538 responses with a 57% response rate. A series of interviews with 12 people was included.
<b>Scale of project</b>	Sample from 3 states in Australia
<b>Evaluative comments</b>	While using the same data as its host study, this article is nevertheless useful in that its clustering of factors enables the data to be perceived through a slightly different lens.
<b>Other</b>	The host study for this paper is James, R., Baldwin, G. & McInnis, C. (1999). <i>Which University? The factors influencing the choices of prospective undergraduates</i> . Canberra: Department of Education, Training and Youth Affairs.

<b>TEMPLATE 27</b>	
<b>Standard bibliographic information</b>	James, R. (2001). <i>Understanding prospective student decision-making in higher education and the implications for marketing strategies</i> . Marketing Education Conference, Sydney, 8-10 October, 7 pages.
<b>Country of Origin</b>	Australia
<b>Key words</b>	University; Decision-making; Fields of Study; Diversity; Open Days.
<b>Abstract</b>	This is a paper given to a marketing conference to provide pointers on how higher education institutions might better understand student decisions. It is a very general paper summarizing findings from previous research
<b>Type of Research</b>	Quantitative; Qualitative; <b>Descriptive</b> ; Theoretical; Analytical; Critical; <b>Other: A summary of previous research</b>
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Decisions and Factors</b></p> <ol style="list-style-type: none"> <li>1. Students focus on fields of study ahead of institutions. The practicality of university branding is not clear as students chose according to a descending order of importance: field of study preferences, course preferences, and university preferences.</li> <li>2. Intrinsic interest in a field of learning is a strong influence. The three most important influences on choice of field of study in descending order are: intrinsic interest, opportunities for career success, assessment of own talents &amp; potential.</li> <li>3. Field of study preferences were decided in the year of decision by 56%, but 43% settled on their field of study prior to the decision year.</li> </ol> <p><b>Information</b></p> <ol style="list-style-type: none"> <li>1. Students are generally badly informed about the nature of the university, its strength and its facilities.</li> <li>2. Information about research track record, international standing and state-of-the-art technology is not of great interest when making decisions.</li> <li>3. Campus open-days are important but problematic. "Most students are interested in campus appearance/ambience and the sense of personal social fit. Social fit is a highly important consideration and the personal interactions with staff and current students on open days send important signals to students. At the least, staff need to be aware of the significance of these interactions, for they are far from trivial" (p.5).</li> <li>4. The impressions left from open days can be superficial, leading to poor decisions which could have bad outcomes – e.g. retention.</li> <li>5. Marketing is important in shaping expectations. Hence</li> </ol>

	<p>make sure the message is accurate.</p> <p><b>Diversity</b></p> <p>1. Females and males have different outlooks. Males tend to be more instrumental and more focused on career outcomes. Females tend to have a more rounded conception of the university experience. They are more interested in the social and cultural aspects of life at university.</p>
<b>Methodology</b>	A summary of previous research tailored for a marketing audience.
<b>Scale of project</b>	N/A
<b>Evaluative comments</b>	This paper lifts out findings reported elsewhere in this project but gives them a marketing slant that adds value to the findings. In particular, the information on the use of open days, the importance of field of study and the female/male differences offer new insights into well-established information.
<b>Other</b>	This paper should be read in conjunction with James, R., Baldwin, G. &McInnis, C. (1999). <i>Which University? The factors influencing the choices of prospective undergraduates</i> . Canberra: Department of education, Training and Youth Affairs.

<b>TEMPLATE 28</b>	
<b>Standard bibliographic information</b>	James, R., Baldwin, G. & McInnis, C. (1999). <i>Which University? The factors influencing the choices of prospective undergraduates</i> . Canberra: Department of education, Training and Youth Affairs.
<b>Country of Origin</b>	Australia
<b>Key words</b>	Subject-choice
<b>Abstract</b>	This study investigates factors influencing tertiary applicants' selection of a preferred university, including the information sources used and their influence on decision-making.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b></p> <p><b>What factors influence student choice?</b></p> <p>Role of families</p> <p>Role of agencies</p> <p><b>What is the role of information in decision making?</b></p> <p>Access to information</p> <p>Use of information</p> <p>Types of information</p> <p>Gaps in information</p> <p><b>How are decisions affected by diversity?</b></p> <p>Gender</p> <p>Ethnicity</p> <p>Class</p> <p>Other relevant factors</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>1. Applicants seem to base their decisions largely on word of mouth information.</li> <li>2. Choices are often made on very general impressions of reputation, campus buildings, and visions of ideal types.</li> </ol> <p><b>Factors</b></p> <ol style="list-style-type: none"> <li>1. The dominant factor in decision- making is whether a university matches the preferred field of study. <ul style="list-style-type: none"> <li>• However, field of studies choices are complex.</li> <li>• Business, administration, economic course applicants tend to make choices based on career prospects.</li> <li>• Health, Arts and education applicants are less career prospect focused and are less influenced by institutional characteristics.</li> <li>• Science applicants are influenced by research reputation.</li> </ul> </li> <li>2. Applicants to different kinds of universities give different reasons for their choices <ul style="list-style-type: none"> <li>• Those applying to research led universities are strongly influenced by reputation, facilities and social life.</li> <li>• Those applying to technology universities want flexible study options and ease of access from home and work.</li> <li>• Those applying to regional universities want ready accommodation.</li> </ul> </li> <li>3. Decisions regarding the preferred field of study seemed to generally be made within the year of application (56%). A minority had made their mind up some years previously (43%).</li> <li>4. The influence of friends on decision- making was small.</li> <li>5. Applicants reported being influenced by factors about</li> </ol>

	<p>which they had little knowledge: quality of teaching, graduate satisfaction.</p> <p><b>Information</b></p> <ol style="list-style-type: none"> <li>1. Many applicants for places in universities are under-informed.</li> <li>2. Material distributed by career teachers is most influential.</li> <li>3. Tertiary admission centre guides</li> <li>4. University Open Days and hotlines</li> <li>5. Commercial Guides were used by less than one-third of applicants.</li> </ol> <p><b>Diversity</b></p> <ol style="list-style-type: none"> <li>1. Gender, socio-economic background, geographical locations are not strongly related to decision making.</li> </ol>
<b>Methodology</b>	The report is based on a survey of tertiary applicants at the time of application in 1998. The survey had 937 responses with a 29% response rate. A follow up survey at the time of offer yielded 538 responses with a 57% response rate. A series of interviews with 12 people was included.
<b>Scale of project</b>	National survey.
<b>Evaluative comments</b>	<p>This is an important baseline study. It provides valuable information about:</p> <ol style="list-style-type: none"> <li>i. The overwhelming importance of field of study as the major basis for choice.</li> <li>ii. The relatively uninformed basis of decision making</li> <li>iii. The relatively minor differences between gender, socio-economic group and location on choice.</li> </ol> <p>Nevertheless the study was disappointing in that it did not investigate other influences than subject choice and other sources of information than the official ones.</p>

<b>TEMPLATE 29</b>	
<b>Standard bibliographic information</b>	Keller, M. & McKeown, M. (1984). <i>Factors contributing to the post-secondary enrollment decisions of Maryland national merit and national achievement semifinalists</i> . Chicago: Annual meeting of the Association of Higher Education. 29 pages.
<b>Country of Origin</b>	USA
<b>Key words</b>	College choice; Academically gifted; Institutional characteristics; Choice factors.
<b>Abstract</b>	This paper reports the results of a survey of national merit and national achievement semifinalists in Maryland. The survey asked respondents to rank 22 possible factors leading to decisions about higher education.
<b>Type of Research</b>	<b>Quantitative;</b> Qualitative; Descriptive; Theoretical; Analytical; Critical; Other
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Factors</b></p> <ol style="list-style-type: none"> <li>In order of importance the factors were ranked as follows: <ul style="list-style-type: none"> <li>Overall reputation of the college. (Mean score out of 3 = 2.73)</li> <li>Has a superior major in the preferred subject area (2.62)</li> <li>The quality of the student body is superior (2.47)</li> <li>Graduates have a reputation for getting good jobs and/or getting into top graduate schools (2.39)</li> <li>The appearance/ atmosphere of campus is impressive (2.33)</li> <li>Good student/faculty ratio (2.23)</li> <li>Contacts by College left a good impression (2.19)</li> <li>Social life is good (2.06)</li> <li>The size of the College is not too large (1.99)</li> <li>Special programmes for talented people (1.93)</li> <li>Wanted to live away from home (1.93)</li> <li>Offers financial assistance (1.82)</li> <li>Has a good graduate programme (1.70)</li> <li>Knew more about it than other Colleges (1.69)</li> <li>Parents felt it was best choice (1.68)</li> <li>Wanted to go to a College in that locality (1.60)</li> <li>Tuition costs are less (1.57)</li> <li>Friends recommended it (1.39)</li> <li>Teachers or counsellor recommended it (1.39)</li> <li>Wanted to attend College close to home (1.24)</li> <li>Have friends attending the College (1.22)</li> <li>Religious considerations (1.21)</li> </ul> </li> <li>The only significant differences between males and females were <i>parents felt it was the best choice</i> and</li> </ol>

	<p><i>knew more about it than other colleges.</i> In both cases females rated the item more highly.</p> <p>3. The only significant difference between whites and blacks was <i>better financial assistance offered.</i> Blacks rated this more highly.</p>
<b>Methodology</b>	A sample of 143 highly able Maryland students were administered a questionnaire which asked them to rate 22 factors <i>very important, somewhat important, not important.</i>
<b>Scale of project</b>	State wide survey.
<b>Evaluative comments</b>	While quite old, this paper provides a very clear ranking profile of factors that were important, somewhat important or not important to a group of very able high school students. Its importance lies in the clear profile of factors it provides and in the target group it samples.



<b>TEMPLATE 30</b>	
<b>Standard bibliographic information</b>	Kern, C. (2000). College choice influences: Urban high school students respond. <i>Community College Journal of Research and Practice</i> , 24, 487-494.
<b>Country of Origin</b>	USA
<b>Key words</b>	College choice; Financial aid; Minority students; African American; Hispanic.
<b>Abstract</b>	There is an increasing need to know and understand the patterns of minority high school students' choices regarding post secondary education. The literature contains very limited information on current high school students. The information from this study will help guide community college's recruitment of traditional college-age students. An immediate outcome of participation for students in this study was heightened awareness of postsecondary education. Study results indicated that higher education was not a tradition in students' families but was strongly encouraged. Financial aid was an important consideration for many students.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; <b>Descriptive</b> ; Theoretical; Analytical; Critical; Other:
<b>Key themes</b> related to MOE's focus areas:  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information Use of information Types of information Gaps in information <b>How are decisions affected by diversity?</b> Gender Ethnicity Class Other relevant factors	<b>Decisions</b> 1. It is interesting to note that students agreed or strongly agreed with the following statements: <ul style="list-style-type: none"> <li>• "My parents want me to go to college" (88.3%)</li> <li>• "My decision to go to college is completely my own idea" (80%)</li> <li>• "In my family going to college is encouraged" (77.5%)</li> <li>• "I always knew I would go to college" (64.8%)</li> </ul> 2. They were less likely to have chosen their subject yet: <ul style="list-style-type: none"> <li>• "I have decided on an area of study" (55.3%)</li> </ul> <b>Factors</b> 1. For these students, family support seemed to be high and may have been an important factor. 2. College reputation was important: <ul style="list-style-type: none"> <li>• "I plan to attend a college with a great reputation in my field of study" (83.3%)</li> <li>• "I plan to go to a school with a friendly reputation" (73.7%)</li> </ul> 3. Social aspects were much less important. <ul style="list-style-type: none"> <li>• 44.5% <i>disagreed</i> that campus life was important</li> <li>• 73% <i>disagreed</i> that they were going to college to party</li> <li>• 66.6% <i>disagreed</i> that they were going to college to get away from home or family (72.8%)</li> <li>• Students reported <i>not</i> making their college choices</li> </ul>

	<p>because of friend or peers</p> <p><b>Information</b></p> <ol style="list-style-type: none"> <li>1. Because higher education is new to many students and their families, specific information about the decision-making process is necessary. Suggestions include: <ul style="list-style-type: none"> <li>• Career guidance and counselling in high schools</li> <li>• Visits to schools by college personnel</li> <li>• Involve parents more in the process</li> </ul> </li> <li>2. Information on financial assistance is important</li> </ol> <p><b>Diversity</b></p> <ol style="list-style-type: none"> <li>1. Some of the factors identified suggest that: “minority students may be motivated to attend college for reasons other than what previous research has reported” (p.493).</li> </ol>
<b>Methodology</b>	The College Choice Influences Scale was slightly modified to produce a 25 question survey. Demographic information was also sought.
<b>Scale of project</b>	The project was conducted in a south-western urban school district. 1179 students (mainly from grades 10 and 11) from 20 schools participated.
<b>Evaluative comments</b>	The information from this study is of particular interest because the students were predominantly minority students: 49.1% African American; 21.4% Hispanic; 19.1% Caucasian. The findings differ from some other studies because they show a high level of support for higher education in minority students’ homes and an intention to go on to tertiary education. Unfortunately this is no indication as to why this difference may exist.

<b>TEMPLATE 31</b>	
<b>Standard bibliographic information</b>	Le Claire, K.A. (1988). University choice behaviour: A preliminary analysis. <i>Education and Research Perspectives</i> , 15(2), 83-96.
<b>Country of Origin</b>	Australia
<b>Key words</b>	Decision process stages; Factors
<b>Abstract</b>	Previous research has failed to define the decision processes under-lying high school students' choice to enter higher education in Australia. The purpose of the present study was to identify and describe the decision process stages (DPS) through which Years 7-12 high school students proceed in choosing to undertake study within the university sector of higher education, and their relevant predictors. Years 7-9 students were found to be primarily concerned with the first three of seven identified DPS, which are subject and career-orientated. Years 10-12 students' primary focus is with the four later DPS which are orientated towards the university. Differences between the two student groups were found in the number, nature and strength of the predictive association between the underlying variables and the seven DPS.
<b>Type of Research</b>	<b>Quantitative;</b> Qualitative; Descriptive; Theoretical; Analytical; Critical; Other:
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b></p> <p><b>What factors influence student choice?</b></p> <p>Role of families</p> <p>Role of agencies</p> <p><b>What is the role of information in decision making?</b></p> <p>Access to information</p> <p>Use of information</p> <p>Types of information</p> <p>Gaps in information</p> <p><b>How are decisions affected by diversity?</b></p> <p>Gender</p> <p>Ethnicity</p> <p>Class</p> <p>Other relevant factors</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>1. This study identified decision stages through which students progress as they make decisions about higher education. The seven stages identified are: <ul style="list-style-type: none"> <li>• Career preferences</li> <li>• Choice of final year high school certificate subjects</li> <li>• Preferences for particular course(s) of study at university</li> <li>• Perception of differences between universities</li> <li>• Final choice of alternative course(s) of study at university</li> <li>• Awareness of differences in course availability between universities</li> <li>• Perception of differences between universities and colleges of advanced education (CAEs).</li> </ul> </li> <li>2. These decision stages extended from Year 7 to Year 12.</li> <li>3. From Year 7-9 the process focused on subjects and careers; from Year 10-12 it is oriented towards university – “identifying, evaluating and eliminating potential university courses of study and institutional alternatives” (p.93).</li> <li>4. The study also identified predictive relationships that varied between Years 7-9 (concentrated in Stages 1-3)</li> </ol>

	<p>and Years 10-12 (concentrated in Stages 4-6).  Predictive relationships included level of maturity;  school experience and expectations; family influence;  university image/convenience; gender; opportunity to  leave home.</p> <p><b>Factors</b></p> <ol style="list-style-type: none"> <li>1. The appendix lists 16 environmental and 12 individual  difference variables that have been shown to influence  transition to university.</li> </ol>
<b>Methodology</b>	<p>Survey questionnaire.  Data was analysed using Goodman and Kruskal's index of  predictive association.</p>
<b>Scale of project</b>	<p>One Australian state  Data from 127 subjects was analysed.</p>
<b>Evaluative comments</b>	<p>Although dated now this study is valuable because it  identifies a series of stages through which students progress  as they make decisions about post-school education. It  makes a useful comparison with Cabrera &amp; La Nasa (2000).  Both studies show the decision process beginning as early  as Year 7. This has significant implications for the New  Zealand context.</p> <p>It also lists 28 environmental and individual difference  variables shown to influence transition to university.</p>

<b>TEMPLATE 32</b>	
<b>Standard bibliographic information</b>	Lillard, D. & Gerner, J. (1999). Getting to the ivy league: How family composition affects college choice. <i>Journal of Higher Education</i> , 70(6), 706-730.
<b>Country of Origin</b>	USA
<b>Key words</b>	Family composition; College choice
<b>Abstract</b>	Researchers have found that family composition influences the application, enrolment and attendance rates of high school students pursuing four-year colleges and selective colleges. Complications arise from factors correlated with family disruption, such as lower incomes, larger family size, poor performance in school and low participation in extracurricular activities.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other:
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Factors</b></p> <ol style="list-style-type: none"> <li>Findings from this study show a relationship between family composition and likelihood of students applying for and attending college. <ul style="list-style-type: none"> <li><i>Family composition</i> was defined as single-(disrupted) and two-parent (intact).</li> </ul> </li> <li>Two sources of differences are posited: <ul style="list-style-type: none"> <li>Differences in levels of resources</li> <li>Differences in the impact of explanatory variables on choices of members of each group</li> </ul> </li> <li>Students from disrupted families are less likely to apply to, to be admitted to, to attend, or ever attend a four-year college.</li> <li>They are also less likely to choose a selective college.</li> </ol> <p><b>Note:</b>  The authors write: "We do not attempt to settle the question of whether disruption causes these lower probabilities. Observed differences appear to arise because of a complex interaction of factors, all of which are correlated with family disruption. These factors may include the general academic aspirations of fellow high school students, worse performance in school, lower probability of participating in extracurricular activities, lower family incomes and the size of one's family. Though it is plausible to argue that family disruption causes the above negative consequences, it must also be observed that one is more likely to observe disruption among families that are already characterized by having a lower income, by having children who perform worse in school, or by being larger families" (p.721).</p>

<b>Methodology</b>	Data from The High School and Beyond (HS&B) longitudinal survey from 1980, 1982 and 1986 were used. Descriptive and inferential statistics were used.
<b>Scale of project</b>	11,995 high school seniors and 14,825 high school sophomores were interviewed in 1980 with follow up surveys in 1982 and 1986.
<b>Evaluative comments</b>	This importance of this large-scale longitudinal study is that it alerts us to a dimension of tertiary education decision-making not often seen in the literature – family composition. It is, however, important to note that correlation not causation is identified in the study. Given concerns about the ‘break down’ of traditional families in New Zealand the findings are worthy of consideration.
<b>Other</b>	Another article which considers family structure/ composition and its impact on college choice is: Nguyen, A.N. & Taylor, J. (2003). Post-high school choices: New evidence from a multinomial logit model. <i>Journal of Population Economics</i> , 16, 287-306.

<b>TEMPLATE 33</b>	
<b>Standard bibliographic information</b>	Lilly, J., Armitage, A. & Thomas, H. (2000). <i>Educational choice at post-16: A study into how students determine their preferred post-16 educational provider</i> . Brentwood, Essex: Earlybrave Publications Ltd.
<b>Country of Origin</b>	UK
<b>Key words</b>	Post-16; Choice; Year 11; Year 12.
<b>Abstract</b>	This study investigates the process by which Year 11 students choose their post-16 educational provider. A questionnaire was completed by 269 pre-decision students (Year 11), 46 post-decision students (Year 12) and 63 members of staff with pastoral and tutorial responsibility for students in these age groups. The results of this exploratory study appear to indicate that the perception of an institution's commitment to learning support is by far the most important consideration within the choice process. Students are not particularly interested in league table positions, although information on progression rates into employment is valued. The most effective advisors to the choice process are existing students and careers advisors, whilst parents appear to have little influence with this age group. Additionally, it appears that many choice variables are under institutional control and may be used to influence the choice process to the mutual benefit of both institutions and post-16 learners.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other:
<b>Key themes</b> related to MOE's focus areas:  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information Use of information Types of information Gaps in information <b>How are decisions affected by diversity?</b> Gender	<b>Factors</b> 1. The study researched five clusters of factors: <ul style="list-style-type: none"> <li>• Learning support themes (e.g. relationships, curriculum delivery, atmosphere, access to facilities);</li> <li>• Input from advisors (e.g. parents, teachers, careers advisors, friends, siblings);</li> <li>• Institutional performance (e.g. exam results, progression rates, marketing, recruitment);</li> <li>• Institutional product offer (e.g. courses, facilities, environment);</li> <li>• Ex-curricular issues (e.g. travel, location, costs).</li> </ul> 2. The top five items for Year 11 and Year 12 students were the same: <i>friendly staff/student relationships; open access to learning resources; a well stocked library, generous computer facilities and resources; a clean attractive environment; their perception of the experience and/or qualifications of the teaching staff.</i> 3. Both groups also listed <i>a wide range of qualifications</i>

<p>Ethnicity Class Other relevant factors</p>	<p><i>and a stimulating learning environment</i> in their top ten items.</p> <p>4. The other three items important to Year 11 students were: <i>a good reputation; good transport links; and achievable entry requirements.</i></p> <p>5. For Year 12 students, the other three important items were : <i>a commitment to learners of all abilities; a wide range of students' services including careers, welfare and counselling services; and progression rates into employment.</i></p> <p>6. Learning support rated highly for both Year 11 and Year 12 students. <i>Friendly staff and student relationships, open access to learning facilities and generous learning support resources</i> ranked in the top three of 48 items listed on the questionnaire for both groups. Five of the top ten items for each group were connected with learning support factors.</p> <p>7. Influential institutional performance factors included: <i>the experience and qualifications of staff; a good reputation and progression rated into employment.</i> League table positions were unimportant. Institutional factors rating highly were: <i>a clean attractive environment, a wide range of qualifications and a stimulating learning environment.</i></p> <p>8. Ex-curricular factors ranked in the bottom half, with the exception of good transport links which Year 11 students ranked 7.</p> <p>9. Most influential advisors were existing students and careers service staff. Teachers' advice received a mid-ranking but parents' was amongst the least influential factors rating 46 out of 48 for both Year 11 and Year 12.</p>
<p><b>Methodology</b></p>	<p>A 48-item questionnaire based on Sallis's school self-assessment checklist was used. Respondents were required to rate items as <i>not, fairly, quite</i> or <i>very</i> important features of their choices. Results are presented through analysis of the most frequent response to each item. To derive the ranks, the response categories were considered as interval variables and ranked through the mean.</p> <p>Note: access and cost prevented random sampling and it was confined to a geographical area so the sample may not be statistically representative of the whole population.</p>
<p><b>Scale of project</b></p>	<p>315 students (269 Year 11 and 46 Year 12) and 63 staff members responded.</p>
<p><b>Evaluative comments</b></p>	<p>While the results of this study cannot be generalised the information from the students' responses provide useful data for consideration in the New Zealand context. They provide some insights into factors influencing Year 11 and Year 12 students' choices. Of particular interest the primary influence of learning support factors and the apparent lack of parental influence on decisions at this age.</p>



<b>TEMPLATE 34</b>	
<b>Standard bibliographic information</b>	Looker, D. & Lowe, G.S. (2001). <i>Post-secondary access and student financial aid in Canada: Current knowledge and research gaps</i> . Retrieved on 13/09/04 from: <a href="http://www.milleniumpscholarships.ca/en/foundation/publications/pareport/cprn-bkgnd.pdf">http://www.milleniumpscholarships.ca/en/foundation/publications/pareport/cprn-bkgnd.pdf</a>
<b>Country of Origin</b>	Canada
<b>Key words</b>	Post-secondary plans; Participation; Decision-making; Factors
<b>Abstract</b>	The purpose of this background paper is to assist the Canada Millennium Scholarship Foundation (CMSF) to develop a comprehensive research agenda around two broad themes – access to post-secondary education and how students finance this education. The paper identifies knowledge gaps by highlighting what we already know about factors determining access to post-secondary education and the role of various forms of student financial assistance in this access. To achieve these ends an overview of the literature relevant to addressing these topics within the Canadian context is presented.
<b>Type of Research</b>	Quantitative; Qualitative; Descriptive; Theoretical; Analytical; Critical; <b>Other: Literature Review</b>
<b>Key themes related to MOE's focus areas:</b>  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information Use of information Types of information Gaps in information <b>How are decisions affected by diversity?</b> Gender Ethnicity Class Other relevant factors	<b>Factors and Diversity</b> Many factors that affect both educational plans for participation in post-secondary education are discussed. <ol style="list-style-type: none"> <li>1. Socio-economic status in three forms (parental education, parental occupational status, and parental income) influences plans for and participation in post-secondary education. Parental status is often understood as social capital (resources available because of connections to others) and cultural capital (non-economic assets that come from high levels of education and exposure to middle and upper class values and attitudes). Research shows that those from higher status homes are more likely to pursue post-secondary education, to attend university and to pursue postgraduate degrees. Parental income affects youths' plans because of the perceived high costs of post-secondary education.</li> <li>2. Gender: the effects are complex. Females now do better in high school, like school better, are more likely to pursue a university degree and receive more diplomas and degrees. But gender stereotyping persists in field of study choices.</li> <li>3. Language: There is some indication that French speakers are less likely to go to university than English speakers.</li> <li>4. Province of origin: the structure of education varies between provinces and may impact on plans and attainments</li> <li>5. Ethnicity and/or immigrant status: ethnicity may impact because different cultures can have different attitudes towards and differential access to information about the</li> </ol>

	<p>Canadian educational system. Some recent immigrants have higher aspirations than native-born Canadians.</p> <ol style="list-style-type: none"> <li>6. Race: First Nations students still have much lower rates of participation than other Canadians.</li> <li>7. Family structure: children of single-parent families have lower aspirations and expectations.</li> <li>8. Rural/urban location: fewer rural youths plan on attending post-secondary institutions.</li> <li>9. Students with disabilities face considerable barriers and have low participation rates.</li> <li>10. Access to information and counselling services: if students are unaware of the variety of post-secondary options they are less likely to plan to attend certain institutions and may make inappropriate choices.</li> <li>11. Counselling: teacher/student contact is important, particularly for students from disadvantaged groups, in terms of their making post-high school plans that reflect their levels of academic ability.</li> <li>12. Students' attitudes such as self-esteem, and the value placed on education, shape their educational plans. "It is perhaps surprising that few students say their peers affect their educational choices although this issue has not been extensively researched" (p.10).</li> <li>13. Parental attitudes such as preferences, encouragement and expectations influence youths' plans. Mothers are more likely to play an active role in a child's education, to attend information sessions and initiate contact with schools.</li> <li>14. Academic ability and performance affect plans and participation.</li> <li>15. Access to information: those with less access to information, especially sub-groups identified as likely to be facing barriers to participation, are less likely to apply and less likely to be accepted into post-secondary programmes.</li> <li>16. Financial aid: there is growing evidence that perceived cost of post-secondary education is a barrier for lower SES families. "Whether accurate or not, perceptions do influence decision-making. Thus, if a high school student, and her/his parents, believe that the cost of post-secondary education is beyond their means, or have incomplete information on the rates of return to specific post-secondary programs, this misinformation gets built into their decision-making" (p.23).</li> <li>17. Stage of decision-making: post-secondary plans are formulated as early as Grade 9 with knowledge and perceptions about costs and financial aid part of the process.</li> </ol>
<b>Methodology</b>	Literature review
<b>Scale of project</b>	NA
<b>Evaluative comments</b>	A very useful article. This summarises recent Canadian research, identifying a number of key factors that influence youths' post-secondary plans and participation. Most findings are relevant to the New Zealand context; some providing new insights.

<b>TEMPLATE 35</b>	
<b>Standard bibliographic information</b>	Maani, S.A. (2000). <i>School leaving, labour supply and tertiary education choices of young adults: An economic analysis utilising the 1977-1995 Christchurch Health and Development Surveys</i> . Treasury Working Paper 00/3. Retrieved on 13/09/04 from: <a href="http://www.treasury.govt.nz/workingpapers/2000/twp00-3.pdf">http://www.treasury.govt.nz/workingpapers/2000/twp00-3.pdf</a>
<b>Country of Origin</b>	New Zealand
<b>Key words</b>	Economic analysis; Christchurch Health and Development Surveys; Tertiary education choices.
<b>Abstract</b>	Utilising evidence from a longitudinal data set of young adults in New Zealand, this study examines the determinants of school leaving and labour supply behaviour of young adults at ages 16 and 18. The data set employed includes a number of variables not commonly available in economic data sets. The analysis uses binary choice models to examine the effect of ability factors and household economic constraints on the choice to remain at secondary school beyond post-compulsory levels at age 16. The study further uses binary and multinomial choice models to examine the determinants of participation in tertiary education, as opposed to engaging in labour supply, or unemployment at age 18. The study finally examines the determinants of the type of institution attended. The results show that participation in tertiary education depends on a combination of family resources, ability and prior achievement.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other:
<b>Key themes related to MOE's focus areas:</b>  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information Use of information Types of information Gaps in information <b>How are decisions affected</b>	<b>Factors and Diversity</b> This analysis identified a number of factors that impact on young people's participation in tertiary education and on the type of institution they choose. <ol style="list-style-type: none"> <li>1. Tertiary education choice is mainly influenced through academic performance, school effects and intentions expressed at age 16 to attend university or polytechnic e.g. passing Sixth Form Certificate increased the probability by 15.6%; intention to attend either university or polytechnic at age 16 increased the probability of participating by another 23.6%.</li> <li>2. "The decision to attend tertiary education is influenced by a host of personal choice and household characteristics which operate significantly through academic performance by age 18" (p.17).</li> <li>3. Participation in university, but not in polytechnic, is influenced significantly through academic performance</li> </ol>

<p><b>by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p>as measured by School Certificate marks and a pass in Sixth Form Certificate exams.</p> <ol style="list-style-type: none"> <li>4. Parental income also exerts a direct effect on university attendance.</li> <li>5. Intention to attend university at age 16 is closely associated with university attendance at age 18.</li> <li>6. IQ is statistically significant in determining options, with stronger estimated links between a higher IQ and either university or employment options.</li> <li>7. The probability of choosing employment rather than tertiary study is negatively associated with parental financial assistance.</li> <li>8. A larger number of siblings, which is also likely to reflect less parental financial assistance, is positively associated with a greater probability of employment as opposed to tertiary study.</li> <li>9. Academic performance is a key factor in participation in tertiary education and in type of institution attended.</li> <li>10. The probability of attending university increases significantly with parental income decile, even when keeping IQ and academic performance constant at their mean values. In contrast the probability of attending polytechnic decreases significantly as income decile increases. “This is consistent with the effect of income and socio-economic background on the level of information available to the young person or the tastes developed for the type of training and occupations pursued” (p.20).</li> <li>11. Aspects of the analysis highlight “... how certain personal characteristics, economic conditions, school and peer effects, and earlier academic performance result in the sorting of young individuals into tertiary study or unemployment. An implication of this result is that the choices at age 18 are somewhat predetermined by family and environmental conditions and earlier results such as academic performance” (p.20).</li> <li>12. A statistically significant difference in participation of males and females was not found.</li> <li>13. The analysis provides strong support for the hypothesis that personal ability, socio-economic background and household income continue to exert an influence on the decisions of the type of institution attended, while the choices are significantly influenced through the academic performance of the young adult (p.21).</li> </ol>
<p><b>Methodology</b></p>	<p>Quantitative analysis of data from a longitudinal study. Binary and multinomial choice models were used.</p>
<p><b>Scale of project</b></p>	<p>Data from 585 individuals was analysed.</p>
<p><b>Evaluative comments</b></p>	<p>A particularly interesting study because it uses longitudinal, New Zealand data and brings an economic perspective to the analysis. Findings confirm many from other international studies.</p>

<b>TEMPLATE 36</b>	
<b>Standard bibliographic information</b>	Marquez, M. (1998). <i>Latino students' decision to attend College: Motivational factors and barriers</i> . Master of Social Work Thesis, University of California, Santa Barbara. 89 pages.
<b>Country of Origin</b>	USA
<b>Key words</b>	Latino decision-making; Influences on decisions.
<b>Abstract</b>	The purpose of this study was to identify the motivational factors and barriers that affected Latino students' decision to attend college. The study determined whether or not family support and/or school and university staff support were influential in influencing the decision. A comparison of motivational factors and barriers by gender, income and level of acculturation was included.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Decisions/Diversity</b></p> <ol style="list-style-type: none"> <li>1. Of the sample, 41% decided to attend college in elementary school, 39% decided in high school and 18% decided in middle school. This suggests that interventions at elementary school are desirable.</li> <li>2. 78% were first in their family to attend college.</li> <li>3. 20% of respondents had an 'A' grade point average at high school, 63% maintained a 'B' average; 16% achieved a 'C' average.</li> <li>4. The top four reasons for attending the particular college were: <ul style="list-style-type: none"> <li>• Proximity to home (63%)</li> <li>• Financially most possible (53%)</li> <li>• Advice from a friend (39%)</li> <li>• Advice from a parent (29%)</li> </ul> </li> </ol> <p><b>Factors/Diversity</b></p> <ol style="list-style-type: none"> <li>1. Latino students were most motivated to attend college by: <ul style="list-style-type: none"> <li>• Career goals (Mean 2.9 – possible high 3)</li> <li>• Parental expectations (2.6)</li> <li>• Support from parents (2.6)</li> <li>• Family values (2.4)</li> <li>• Desire to improve community (2.4)</li> </ul> </li> <li>2. The greatest barriers to attendance were: <ul style="list-style-type: none"> <li>• Lack of financial resources. (1.9)</li> <li>• Fear of college (1.8)</li> <li>• Not knowing how to apply (1.6)</li> <li>• Fear of failure (1.5)</li> <li>• Family responsibility. (1.4)</li> </ul> </li> <li>3. Females were significantly more likely to report support</li> </ol>

	<p>from friends as motivational support than males.</p> <ul style="list-style-type: none"> <li>• Females were also significantly more likely than males to say that lack of family support and family responsibilities served as barriers.</li> </ul> <p>4. Respondents from low income families were significantly more likely to respond that they were not capable of success at college.</p> <ul style="list-style-type: none"> <li>• Low income respondents were also significantly more likely to indicate that lack of family support was a barrier to attending college than high income respondents.</li> </ul> <p>5. The research used Burnham’s acculturation scale to determine motivation and barrier factors for respondents with a low acculturation score into mainstream American culture and those with a high acculturation score.</p> <ul style="list-style-type: none"> <li>• The respondents in the low acculturation category tended to be poorer and were from working class backgrounds.</li> <li>• They found lack of finance as a barrier to study at college.</li> <li>• The data supports the contention that Latino culture is a group culture with the finding that those with low acculturation reported “friends attended too” as a significant motivational factor.</li> </ul>
<b>Methodology</b>	This was a survey conducted with 49 Latino students in two classes at California State University, Long Beach.
<b>Scale of project</b>	Small scale, single institution project.
<b>Evaluative comments</b>	This seems a valuable study of minority group decision-making. It is applicable to New Zealand as the findings reported here support theorizing and anecdotal evidence often used to describe the motivational factors and barriers for Māori.
<b>Other</b>	The data on acculturation used an instrument developed by Burnham, M.; Telles, M.; Hough, R. & Escobar, J. (1987). Measurement of acculturation in a community population of Mexican Americans. <i>Hispanic Journal of Behavioral Sciences</i> , 9(2), 105-130. In this article, acculturation “refers to the changes in behavior and values made by members of one culture as a result of contact with another culture” (p.106).

<b>TEMPLATE 37</b>	
<b>Standard bibliographic information</b>	Martin, C. (1996). Institutional research and student recruitment or how do institutions of higher education know what attracts students to their doors? Market research can help. <i>Journal of Institutional Research in Australasia</i> , 5 (2), 45-54.
<b>Country of Origin</b>	Australia
<b>Key words</b>	University choice; Sources of information; Factors influencing choice
<b>Abstract</b>	This single institution (University of South Australia) study identifies factors of influence in student decision-making and sources of information used by students. The study includes a sizeable literature review that concludes there is little unanimity in research findings. It goes on to note that the findings in this study differ from other studies, particularly those from the United States.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Factors</b></p> <ol style="list-style-type: none"> <li>The author strongly suggests that findings differ greatly from study to study. <ul style="list-style-type: none"> <li>Findings that parents influence college choice more than friends, counsellors or teachers have been supported by many studies.</li> <li>Conversely, this study ranks the influence of parents as very low – last out of a list of 13 factors.</li> <li>The ranking of factors was as follows: (1) career preparation; (2) specific academic programme; (3) academic reputation; (4) distance from home; (5) quality of research programme; (6) library resources; (7) social life; (8) costs; (9) consulting profile of university; (10) student support programmes; (11) size of campus; (12) access to accommodation; (13) parents' or friends' preferences.</li> <li>The factors directly and strongly associated with university choice were the first six factors in the list above.</li> <li>There was no significant difference between males and females except for two factors, <i>academic reputation</i>, and <i>social life</i>. Females placed a greater emphasis on the former, males on the latter.</li> </ul> </li> </ol> <p><b>Information</b></p> <ol style="list-style-type: none"> <li>The survey reports the following rankings of information influence: (1) South Australian Tertiary Admission Centre Guide 81%; (2) High School/ College 50%; (3) Other university students/friends</li> </ol>

	<p>48%; (4) university open day 22%; (5) school counsellor 15%; (6) parents 8%; (7) visits by university staff to school 4%; (8) press/TV advertisement 4%; (9) education exhibition 1%.</p> <p>2. The high importance placed on the Information Guide was not supported by a 1994 DEET study, which found a negligible influence for admission guides.</p> <p>3. There were significant differences between how males and females responded to two sources: <i>other university students and friends</i> and <i>university open day</i>. More females attended open days. The difference on the other variable was not reported</p> <p>4. 53% reported that they had not attended an open day while 7% had attended more than 2 open days.</p>
<b>Methodology</b>	Single institution survey of 774 first year university students at the University of South Australia.
<b>Scale of project</b>	While the numbers surveyed were respectable, a 14% response rate was not.
<b>Evaluative comments</b>	This study has a number of weaknesses: low response rate, single institution, confounding results. Hence its results are not really generalisable. The value of the study lies in the way it highlights the differences in findings from various studies and gives some information about what a majority of studies have found. For example, it makes the point that parents, as a factor influencing decision-making, feature more prominently in other studies, and that, in some other studies, official university information was not a primary factor in student choice.



<b>TEMPLATE 38</b>	
<b>Standard bibliographic information</b>	Martinez, P. & Munday, F. (1998). <i>9,000 voices: Student persistence and drop-out in further education</i> . London: Further Education Development Agency.
<b>Country of Origin</b>	UK
<b>Key words</b>	Pre-entry guidance; Admissions; Information
<b>Abstract</b>	<p>This is the largest study of persistence and drop-out which has even been undertaken in the UK. It confirms earlier studies done in individual colleges that show students are more likely to drop out if they:</p> <ul style="list-style-type: none"> <li>• are not in the right course;</li> <li>• applied late;</li> <li>• find it difficult to make friends;</li> <li>• find it difficult to settle in;</li> <li>• are less satisfied with their course, timetable, quality of teaching or help to get a job or go to university;</li> <li>• are male;</li> <li>• have financial difficulties;</li> <li>• have their fees waived or reduced.</li> </ul> <p>Reasons for drop-out are complex, multiple and inter-related. The study also shows substantial differences between colleges, and challenges some widely held beliefs e.g. drop-out is caused by students' personal circumstances; students may leave to take up jobs. Suggestions are also made to improve college information and quality systems.</p>
<b>Type of Research</b>	<b>Quantitative; Qualitative;</b> Descriptive; Theoretical; Analytical; Critical; Other:
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b></p>	<p><b>Information</b></p> <p>1. Students were dissatisfied when the pre-entry information they received was inadequate or misleading and when opportunities to meet specialist tutors were limited. They wanted information about:</p> <ul style="list-style-type: none"> <li>• Course timetables</li> <li>• Examples of the kind of work they would be expected to do. "Course information doesn't give the real picture. Some students are not made to appreciate how demanding the course would be and think that GNVQ is easy" (p.80).</li> <li>• An indication of the workload required.</li> <li>• An opportunity to talk to someone with detailed knowledge about the course</li> <li>• How well their capabilities fitted them for the course</li> <li>• A realistic idea of costs</li> </ul>

<p>Gender Ethnicity Class Other relevant factors</p>	<ol style="list-style-type: none"> <li>2. Staff and students agreed that there was benefit in open days, tasters and opportunities to speak to existing students.</li> <li>3. Introductory programmes enable students to sample a range of courses and increase their understanding of the options. They also help build confidence, allow students to get used to a college environment and to build relationships with teachers.</li> <li>4. Well-developed links with partner schools that give Years 9, 10 and 11 students opportunities to visit the college work well.</li> <li>5. Open evenings for parents during the year also work well.</li> <li>6. One college provided a comprehensive enrolment pack for all prospective students in August. A high proportion of students interviewed and applying to the college actually attended courses from September.</li> <li>7. Joint college/school programmes were being developed.</li> <li>8. Some interviews for college programmes were done in the schools.</li> <li>9. The study also identified a high withdrawal rate between application and enrolment and pointed to a particular need to support and counsel students during this phase. To what extent this withdrawal rate is related to decision-making processes is not clear in this study. (See the template on Bloomer &amp; Hodkinson, 1997 for information on this aspect).</li> </ol>
<p><b>Methodology</b></p>	<p>Survey, telephone and face-to-face interviews with current students, withdrawn students and staff.</p>
<p><b>Scale of project</b></p>	<p>31 institutional case studies; over 8,500 students completed questionnaires; 500 students, teachers, managers and other college staff were interviewed.</p>
<p><b>Evaluative comments</b></p>	<p>While the focus of this research is on reasons why students drop-out, the sections concerned with pre-entry guidance and admission are relevant. They provide valuable guidance on the kinds of information students want to assist them in their decision-making.</p>

<b>TEMPLATE 39</b>	
<b>Standard bibliographic information</b>	Maxwell, G., Cooper, M. & Biggs, N. (2000). <i>How people choose vocational education and training programs: social, educational and personal influences on aspiration</i> . Leabrook, SA: National Centre for Vocational Education Research. Retrieved on 15/09/04 from: <a href="http://www.ncver.edu.au/research/proj/nr8013.pdf">http://www.ncver.edu.au/research/proj/nr8013.pdf</a>
<b>Country of Origin</b>	Australia
<b>Key words</b>	Vocational education and training; Choice; Participation
<b>Abstract</b>	This project investigates the reasons why people choose to enrol in vocational education and training (VET) programs. There were three components to the study: an analysis of existing research reports and publications; a questionnaire survey of a national sample of students in VET programs; and site visits to selected VET institutions for in-depth discussions with personnel and students. It was found that work experience or employment is substantially influential for more people than any other factor in their choice of VET program. Overall there is a combination of influencing factors, each contributory but not conclusive in itself. The central message is that choice of study is a personal decision linked to basic human aspirations. Factors influencing choice of a particular VET institution are its course offerings, convenience factors, affordability, practical experiences, reputation of the institution and institutional ambience. Three different reasons for enrolling in VET were discovered: to get a job; to realise personal aspirations, to acquire or upgrade skills.
<b>Type of Research</b>	<b>Quantitative; Qualitative;</b> Descriptive; Theoretical; Analytical; Critical; Other:
<b>Key themes</b> related to MOE's focus areas:  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information Use of information Types of information Gaps in information	<b>Factors</b> The authors note that these factors reflect the composition of the survey sample, which included mature-age students, apprentices and trainees in employment as well as school leavers. Factors in choosing a VET option. <ol style="list-style-type: none"> <li>1. Work experience or employment was the most influential factor in choice of VET programme although it had no influence on more than half of the students.</li> <li>2. Other factors included: <ul style="list-style-type: none"> <li>• Parental or guardian influence. This impacts more on school leavers than age-mature students.</li> <li>• Performance in school subjects</li> <li>• Advertising booklets or handbooks</li> <li>• Personal experience of study at college or university</li> </ul> </li> </ol>

<p><b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<ul style="list-style-type: none"> <li>• Personal friends and employers</li> </ul> <ol style="list-style-type: none"> <li>3. Newspapers, radio and TV are not influential.</li> <li>4. Personal contact is important in shaping decisions.</li> <li>5. There is no single influence but a combination of influences, which varies from person to person.</li> <li>6. It is likely that students would benefit from training in the use of more deliberate choice strategies.</li> </ol> <p>Factors in choosing a specific programme include:</p> <ol style="list-style-type: none"> <li>1. An immediate job focus. These students have usually identified possible job opportunities.</li> <li>2. Personal aspirations. These students may e.g. pursue an interest, enrol to enhance self-esteem and capabilities or study to remain marketable.</li> <li>3. Acquiring or upgrading skills for current employment. Some students are sent by an employer; others want to remain up-to-date.</li> </ol> <p>Factors influencing choice of institution:</p> <ol style="list-style-type: none"> <li>1. Its course offerings</li> <li>2. Convenience factors such as proximity to home and course timetable</li> <li>3. Programme affordability</li> <li>4. Opportunity for practical experiences</li> <li>5. Quality factors such as the reputation of the institution and its qualifications</li> <li>6. Institutional ambience – especially whether it is friendly and caring.</li> </ol> <p><b>Information</b></p> <ol style="list-style-type: none"> <li>1. Information in the form of booklets and handbooks is one of the most influential factors in student enrolment</li> <li>2. Most students were poorly informed about VET and unaware of their course options and pathways.</li> <li>3. Lack of knowledge about the field of work and job opportunities can lead to poor decision-making.</li> <li>4. They need much better information and guidance to assist them to make better choices.</li> <li>5. Information dissemination and advertising needs to involve a mix of strategies: <ul style="list-style-type: none"> <li>• Personal outreach is the most important information strategy</li> <li>• New strategies for career guidance in schools and training institutions are needed.</li> </ul> </li> </ol>
<p><b>Methodology</b></p>	<p>Questionnaire survey of students; site visits to selected institutions for in-depth discussions with staff and students.</p>
<p><b>Scale of project</b></p>	<p>1501 students returned the questionnaire.  Site visits to 11 institutions.</p>
<p><b>Evaluative comments</b></p>	<p>This research report is valuable as its focus is vocational education rather than higher education. Its findings are specific to vocational education but bring a perspective important in the New Zealand tertiary education context. Its findings also support those from other sectors of the tertiary spectrum.</p>

<b>TEMPLATE 40</b>	
<b>Standard bibliographic information</b>	McInnis, C., James, R. & Hartley, R. (2000). <i>Trends in the first year experience</i> . Evaluations and Investigations Programme, Higher Education Division 00/6. Canberra: Department of Education, Training and Youth Affairs.
<b>Country of Origin</b>	Australia
<b>Key words</b>	Purposes for study; Decision-making factors.
<b>Abstract</b>	This report provides an analysis of trends in the perceptions and behaviours of first year undergraduate students in seven Australian universities. It reports on two very similar surveys, one in 1994, the other in 1999. It shows that students' reasons for coming to university remain quite stable. Intrinsic interests in a field of study combined with the desire to improve job prospects are high on the agenda for most first year students. Around three quarters are clear about their reasons for coming to university. It is this facet of the much larger retention study that is summarized in this template.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other
<b>Key themes</b> related to MOE's focus areas:  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information Use of information Types of information Gaps in information <b>How are decisions affected by diversity?</b> Gender Ethnicity Class Other relevant factors	<b>Decisions</b> 1. A sense of purpose and clear objectives when deciding on university study are linked to self-rated academic performance. <ul style="list-style-type: none"> <li>• In the 1994 study, students who averaged over 70% in their studies were clearer on purpose and objectives than those below 70%.</li> <li>• In the 1994 study, 74% of students were clear about why they came to university. Only 13% agreed with the notion that they were 'marking time' doing university study.</li> <li>• In the 1999 study, the percentage of students saying they were clear about their reasons for coming to university declined to 72%. While small, this decline was statistically significant at the 0.05 level.</li> <li>• In the 1999 study, the proportion of students who agreed that they were 'marking time' at university increased to 13%, a seemingly small yet significant increase at the 0.01 level</li> <li>• The proportion of respondents who agreed that they knew which occupation they wanted to pursue declined from 62% in 1994 to 59% in 1999 - again statistically significant at the 0.05 level.</li> <li>• 62 and 63 per cent of respondents respectively agreed that they expected university to help them</li> </ul>

	<p>get what they wanted in life.</p> <p>2. There was very little difference between the two surveys in the reasons given for wanting to enrol in university. The reasons given are as follows, with percentages provided in brackets (1994/1999):</p> <ul style="list-style-type: none"> <li>• Studying in a field that really interests me (94%/96%).</li> <li>• To improve job prospects (84%/86%)</li> <li>• Developing talents and creative abilities (74%/73%).</li> <li>• Get training for a specific job (73%/74%).</li> <li>• Expectations of parents and family (25%/23%).</li> <li>• Poor job market (18%/18%).</li> <li>• Being with friends (10%/14%). This was a significant change at the 0.05 level.</li> </ul>
<b>Methodology</b>	Two quantitative surveys in seven Australian universities of 4028 first year undergraduate students in 1994 and 2 609 similar students in 1999.
<b>Scale of project</b>	National survey.
<b>Evaluative comments</b>	These two surveys were important studies of the first year experiences of university students. The information on decision making is valuable and supports other studies on decision- making conducted out of the Melbourne University.
<b>Other</b>	See also James, R. (2000). How school- leavers choose a preferred university course and possible effects on the quality of the school-university transition. <i>Journal of Institutional Research</i> , 9 (1), 78-88.

<b>TEMPLATE 41</b>	
<b>Standard bibliographic information</b>	Nguyen, A.N. & Taylor, J. (2003). Post-high school choices: New evidence from a multinomial logit model. <i>Journal of Population Economics</i> , 16, 287-306.
<b>Country of Origin</b>	USA
<b>Key words</b>	College choice; Black; Hispanic; Multinomial logit model
<b>Abstract</b>	A multinomial logit model is estimated to investigate the destination of students after graduating from high school. The appropriate specification of the choice set available to high school leavers is as follows: private four year college; public four year college; private two year college; public two year college; employed; and unemployed. The model is tested for possible combinations of choices. Findings show that the transition from high school to college and to work is more complex than previous studies have identified.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other:
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b></p> <p><b>What factors influence student choice?</b></p> <p>Role of families Role of agencies</p> <p><b>What is the role of information in decision making?</b></p> <p>Access to information Use of information Types of information Gaps in information</p> <p><b>How are decisions affected by diversity?</b></p> <p>Gender Ethnicity Class Other relevant factors</p>	<p><b>Factors</b></p> <p>The following factors emerged as influential on post-high school destinations:</p> <ol style="list-style-type: none"> <li>1. <i>Academic ability</i> has a powerful effect and was statistically significant.</li> <li>2. <i>Parental education</i>: for example, the probability of enrolling in a four-year college increases as parental qualifications improve. Parents with low qualifications tend to encourage their children into the labour market.</li> <li>3. <i>Parental occupation</i> has a smaller effect than parental education. The effect of mother's occupation is weaker than father's occupation.</li> <li>4. <i>Family income</i> had the expected effect on choice - an increase in income increases the probability of attendance at a four-year college and reduces the probability of being in a job.</li> <li>5. <i>Family size</i>: having three or more siblings reduces the probability of females enrolling in a private four year college but does not affect males.</li> <li>6. <i>Family structure</i>: Interestingly students living in a parent-partner family fare worse than those living in single parent families as well as intact (two parent) families. They are more likely to take a job than go on to college.</li> <li>7. <i>Schooling and geographical location</i> also showed some effects.</li> </ol> <p><b>Diversity</b></p> <ol style="list-style-type: none"> <li>1. Several of the factors above suggest ways that decision-making is affected by diversity.</li> </ol>

	<p>2. Of particular interest is the “strong evidence that Black and Hispanic students have a much higher probability of enrolling in public four-year colleges (compared to whites) than would be expected on the basis of their family background and other characteristics” (p.303). A possible explanation is that they may choose to invest in higher education to offset potential discrimination in the labour market. It may also be an effect of positive discrimination which is more prevalent for Black students than for Hispanics.</p>
<b>Methodology</b>	Data from the first four sweeps of the National Education Longitudinal Study (NELS) 1988-1994 were used. Cross tabulations of variables and a six-way multinomial logit model developed.
<b>Scale of project</b>	Data from 10 018 USA high school students in a nationally representative sample were used.
<b>Evaluative comments</b>	<p>This article is important because it is a large-scale study of a representative sample of high school students in the USA. It suggests that student decision-making is more complex than has been believed and identifies a number of factors that influence decisions. Some findings corroborate earlier research showing that family background factors, particularly parental education, strongly influence post-high school choices.</p> <p>Of special interest is the evidence that Black and Hispanic students are more likely to enrol in four-year colleges than might be expected; and that family structure and family size are factors that impact on college decisions.</p>
<b>Other</b>	See also: Lillard, D. & Gerner, J. (1999). Getting to the ivy league: How family composition affects college choice. <i>Journal of Higher Education</i> , 70(6), 706-730.



<b>TEMPLATE 42</b>	
<b>Standard bibliographic information</b>	Ono, H. (2001). Who goes to college? Features of institutional tracking in Japanese higher education. <i>American Journal of Education</i> , 109, 161-195.
<b>Country of Origin</b>	Japan
<b>Key words</b>	High school; College; Institutional tracking; Social origin.
<b>Abstract</b>	Features of institutional tracking play a key role in shaping an individual's access to and advancement through higher education in Japan. This article brings institutional tracking features to the foreground and examines the process by which individuals advance from middle school to high school and, ultimately, to college. The analysis also accounts for social origin effects. It finds support for a tournament-like mobility for individuals in the system of higher education in Japan, where those who move down do not move up again. The research also finds strong evidence that social origin matters and that institutional tracking affects men and women in different ways.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other:
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b></p> <p><b>What factors influence student choice?</b></p> <p>Role of families Role of agencies</p> <p><b>What is the role of information in decision making?</b></p> <p>Access to information Use of information Types of information Gaps in information</p> <p><b>How are decisions affected by diversity?</b></p> <p>Gender Ethnicity Class Other relevant factors</p>	<p><b>Factors</b></p> <p>In the Japanese education system is characterized by the early selection of students wishing to go to college. In the 9<sup>th</sup> grade students must choose between general high schools leading to higher education or vocational high schools leading to jobs. The general high schools themselves are ranked and gaining a place in a highly ranked high school offers better opportunities for higher education. Three factors were researched in this study.</p> <ol style="list-style-type: none"> <li>1. <i>Individual ability</i>. Grade Point Average (GPA) at 9<sup>th</sup> grade and high school ranking significantly determine placement into higher ranking colleges (p.186).</li> <li>2. <i>Institutional tracking</i>: Teachers, particularly in middle schools, strongly influence students' choices of high school and therefore their chances of higher education.</li> <li>3. <i>Social origin</i>: "plays an important role in individual's advancement through higher education not only in determining whether they advance to the next stage but also in advancing to institutions of higher rank" (p.187).</li> </ol> <p><b>Diversity</b></p> <ol style="list-style-type: none"> <li>1. Social origin plays a decisive role in placing individuals into higher ranking high schools and determining whether they advance to college but its role in sorting individuals into colleges of different ranks is weak.</li> <li>2. Institutional tracking affects men and women in different ways. Men are more likely to advance to</li> </ol>

	higher ranking schools and colleges than women. There is a persistent gender gap in college advancement.
<b>Methodology</b>	Data from the 1995 Social Stratification and Mobility Survey was used. Patterns of mobility were established. A multinomial logit model was used to calculate probability of advancing to high school once social origin or GPA were controlled for.
<b>Scale of project</b>	Data for 2168 people was used.
<b>Evaluative comments</b>	The major factors found in this study are specific to the Japanese education system and how it 'channels' people into different high schools and colleges. However the findings are of interest in the New Zealand context as they indicate that schools can have an effect on student decisions about tertiary education. It also confirms the impact of educational achievement, social origin and gender and traces the beginning of the decision-making process to Grade 9.

<b>TEMPLATE 43</b>	
<b>Standard bibliographic information</b>	Parente, A., Craven, R., Munns, G. & Marder, K. (2003). <i>Indigenous student aspirations: An in-depth analysis of indigenous students' career aspirations and factors that impact on their formulation</i> . Paper presented at the NZARE and AARE Conference CRA03800.
<b>Country of Origin</b>	Australia.
<b>Key words</b>	Decision-making; Aboriginal students.
<b>Abstract</b>	This study, part of a bigger study, reports on focus groups and interviews conducted with Aboriginal students, their parents and some career advisers. The paper highlights barriers perceived by students to further study.
<b>Type of Research</b>	Quantitative; <b>Qualitative</b> ; Descriptive; Theoretical; Analytical; Critical; Other
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Diversity</b></p> <ol style="list-style-type: none"> <li>Indigenous students' life goals differed from others in a number of respects that could impact on decision-making. <ul style="list-style-type: none"> <li>They were more likely to have low education and training aspirations;</li> <li>Identified more barriers to achieving what education/training aspirations they had;</li> <li>Had less knowledge about education and training;</li> <li>Were less likely to formulate alternative strategies to achieve aspirations;</li> <li>Had less understanding of the impact on and relevance of educational choices at school for further education and training.</li> <li>Many in the sample had aspirations that were likely to be beyond their ability to achieve. Other students did not exhibit such inflated life goals.</li> </ul> </li> <li>Indigenous students were less interested in personal careers and much more focused on working for the benefit of their communities.</li> <li>Parents, while wishing their children well, were frustrated that they were insufficiently informed about educational options. Very few had experienced post-school education themselves.</li> <li>Indigenous students were less likely to seek career or academic advice than other students. Hence they lacked information and understanding of the choices before them and thus dampened their aspirations. <ul style="list-style-type: none"> <li>The study found that career programmes were largely unable to meet the needs of indigenous students.</li> </ul> </li> </ol>

	5. Students identified many barriers to achieving their aspirations including systemic racism; lack of perceived opportunity; lack of money.
<b>Methodology</b>	148 students participated in 1 hour focus groups. 37 parents and 6 career advisers were interviewed. Data was collected in 3 states.
<b>Scale of project</b>	Multi-state with a considerable sample.
<b>Evaluative comments</b>	While not focused on the direct process of decision-making, this study illuminates many of the background factors that support and/or impede decision-making. The major finding of this study, that lack of aspiration for further study is an important factor in not making a decision to study, is also found in other studies. This suggests that realistic 'aspiration building' is an important task for schools.
<b>Other</b>	See also St. John, E. (1991) What really influences minority attendance: Sequential analyses of the high school and beyond sophomore cohort. <i>Research in Higher Education</i> , 32 (2), 141-157.

<b>TEMPLATE 44</b>	
<b>Standard bibliographic information</b>	Payne, J. (2003). <i>Choice at the end of compulsory schooling: A research review</i> . Department for Education and Skills, Research Report No 414.
<b>Country of Origin</b>	UK
<b>Key words</b>	Choices; Diversity; Decision-making process; Influences
<b>Abstract</b>	The choices that young people make about what to do at age 16, when compulsory full-time education ends, are of both private and public interest. Their choices affect both their own futures and the supply of educated and trained labour in the economy, and a major goal of government policy is to increase the numbers who decide to stay in education and training. This report reviews what existing research tells us about this topic.
<b>Type of Research</b>	Quantitative; Qualitative; Descriptive; Theoretical; Analytical; Critical; <b>Other: review of research</b>
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>1. Decision-making is a complex process. The evidence base lacks large-scale longitudinal studies so is not strong.</li> <li>2. Refers to three models used to explain choices: the structuralist, economic and pragmatic rationality models.</li> <li>3. There is considerable individual variation in how young people make their choices</li> <li>4. There is mixed evidence on the timing of decisions. The first decision, often made early, is to stay on in education. The final decision about specific options is often made later although many students effectively rule out some options quite early.</li> </ol> <p><b>Factors</b>  Several factors are influential.</p> <ol style="list-style-type: none"> <li>1. Attitudes to school and higher education</li> <li>2. Self perception of ability</li> <li>3. Parents' role is probably the most important. They set boundaries within which choices are made. Parental occupation and parental education affect the probability of staying in education after 16.</li> <li>4. Influences outside the family include careers education and guidance, teachers, individual schools, friends and classmates and the labour market.</li> </ol> <p><b>Diversity</b></p> <ol style="list-style-type: none"> <li>1. More girls stay on after 16 than boys; the difference being most marked for those with below average GCSE results.</li> </ol>

	<ol style="list-style-type: none"> <li>2. Young people from all the main minority ethnic groups in the UK are much more likely to stay in full-time education after 16 than white people. Possible reasons include the risk of unemployment and discrimination by employers and the great value placed on education by their communities.</li> <li>3. Afro-Caribbean women have a higher rate of participation than their male peers</li> <li>4. There was evidence that the stereotype of Muslim families opposing the education of their daughters is inaccurate.</li> </ol>
<b>Methodology</b>	A review of research completed in the last 10 years.
<b>Scale of project</b>	Not specified.
<b>Evaluative comments</b>	This research report is significant because it synthesises findings from recent research in England. Many of its findings will be relevant in the New Zealand context. Of particular interest are: some of the findings related to diversity, because they challenge some of the stereotypes about gender and ethnic differences; and the finding that the evidence base on decision-making in England is not strong.

<b>TEMPLATE 45</b>	
<b>Standard bibliographic information</b>	Perna, L. (2000). Racial and ethnic group differences in college enrolment decisions. In A. Cabrera & S. La Nasa. <i>Understanding the college choice of disadvantaged students</i> . New Directions for Institutional Research, 107, Fall 2000. Jossey Bass Publishers, 65-83.
<b>Country of Origin</b>	USA
<b>Key words</b>	Diversity; College enrolment decisions; African American; Hispanic
<b>Abstract</b>	This chapter reviews and synthesizes what is known from prior research about racial and ethnic differences in college enrolment and identifies areas for intervention. It expands an econometric model of explanation for college enrolment to include aspects of social and cultural capital and argues that, as different factors influence different ethnic groups, this is especially important for African American and Hispanics.
<b>Type of Research</b>	Quantitative; Qualitative; Descriptive; Theoretical; <b>Analytical</b> ; Critical; <b>Other: Literature review and synthesis</b>
<b>Key themes</b> related to MOE's focus areas:  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information Use of information Types of information Gaps in information <b>How are decisions affected by diversity?</b> Gender Ethnicity Class Other relevant factors	<b>Decisions</b> 1. Argues that econometrics models, that focus on costs and benefits, do not sufficiently explain student decisions about college 2. Argues that the econometrics model needs to be expanded to include social and cultural capital to help explain students' decisions.  <b>Factors</b> 1. Research data show "the variables that predict college enrolment vary by race and ethnicity, suggesting that the college enrolment process is different for African Americans, Hispanics and whites" (p.72). 2. For example, ability to pay, physical condition of the schools they attended, interest and assistance from teachers and counsellors, belief at an early age that postsecondary education is a realistic option and role models are factors for African Americans.  <b>Diversity</b> 1. Some research shows that "racial, class and gendered social structures and cultural norms restrict educational attainment for minority students" (p.74). 2. Some enrolment data suggests "cultural differences in the value of educational success across racial and ethnic groups" (p.74-75). 3. Perna has also shown that the relative contribution of social and cultural capital is different for African Americans and Hispanics than for whites. For white students measures of academic ability contribute most,

	<p>followed by social and cultural capital then costs, benefits and financial resources. For African American students the relative contribution of social and cultural capital is comparable to that of academic ability variables.</p> <p>4. Data also suggests there may be gender differences within ethnic groups</p> <p>5. Possible interventions include:</p> <ul style="list-style-type: none"> <li>• Improving academic preparation for college. This includes improving academic opportunities, preparation and achievement.</li> <li>• Increasing parental involvement in school.</li> </ul>
<b>Methodology</b>	A synthesis of research literature.
<b>Scale of project</b>	Not specified.
<b>Evaluative comments</b>	An informative discussion of some key factors influencing the decisions of African American and Hispanic students. Of particular interest is the recognition given to social and cultural capital and their inclusion as variables in an econometrics model of decision making. A valuable finding is that the decision making process is more complex than cost/benefit analyses. The findings are relevant in the New Zealand context.



<b>TEMPLATE 46</b>	
<b>Standard bibliographic information</b>	Reay, D., David, M. & Ball, S. (2001). <i>Making a difference?: Institutional habituses and higher education choice</i> . Sociological Research Online, 5(4). Retrieved on 14/09/04 from: <a href="http://www.socresonline.org.uk/5/4/reay.html">http://www.socresonline.org.uk/5/4/reay.html</a>
<b>Country of Origin</b>	UK
<b>Key words</b>	Higher education choice; Institutional habituses; Socio-economic status.
<b>Abstract</b>	Few studies have focused on the impact made by individual institutions on the attainment of prospective university applicants and their subsequent destination within higher education. In this paper the concept of institutional habitus is used to explore such influences. In spite of an inevitable degree of overlap and blurring of boundaries between peer group, family and institution, the authors argue that there are specific effects from attending a particular educational institution. And these become most evident when examining the choices of similar kinds of students across the private-state divide. The conclusion argues that, despite the gaps and rough edges in the seams of the concept of institutional habitus, these do not vitiate its value but, rather, suggest the need for further work. This paper is the beginning of efforts to try and develop institutional habitus at both the conceptual and empirical levels as a method for understanding the ways in which educational institutions make a difference in higher education choices.
<b>Type of Research</b>	<b>Quantitative; Qualitative;</b> Descriptive; Theoretical; Analytical; Critical; Other:
<b>Key themes</b> related to MOE's focus areas:  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information Use of information Types of information Gaps in information <b>How are decisions affected by diversity?</b>	<b>Factors and Diversity</b> This article explores the ways that the habitus of individual institutions impacts on the choices made by students. Students in private schools experience intensive and extensive careers advice, channelling them into high status careers and universities. Those in state institutions received much less information. Levels of resourcing for careers advice was markedly different between the two groups. 1. Students in private schools experienced congruence between familial and institutional habituses; parents and school were pushing in the same direction. They are like "... 'a fish in water': it does not feel the weight of the water and it takes the world about itself for granted (Bourdieu & Wacquant, 1992, p.127)" (p.6). Students in state institutions were more likely to experience dissonance; parents were often pulling in opposite directions to the school. "Parents just assume that their education terminates when they finish their GCSEs

<p>Gender Ethnicity Class Other relevant factors</p>	<p>even though many students do very well in their exams” ... we try to persuade them to stay on. But their parents don’t want them to continue” (p.5). This dissonance often culminated in a sense that higher education and even 6<sup>th</sup> form was ‘not for the likes of us’.</p> <ol style="list-style-type: none"> <li>2. Tensions of class difference are compounded by ethnicity and gender. “... often for the Bengali female pupils and, to a lesser extent, their brothers, higher education was considered a luxury ill-afforded” (p.5).</li> <li>3. The curricula offered are an integral part of institutional habitus and underpin the educational status of institutions. ‘Academic’ subjects predominate in private schools, preparing students for elite universities; ‘new’ subjects in state institutions, giving a greater match with new and redbrick universities. In this way institutional habitus limits the universe of possible university choices.</li> <li>4. ‘Coupling’ between schools/colleges and universities has a bearing on student choice e.g. private schools are linked to the elite universities through staff, a presumption of compatibility and culture of entitlement. This results in a sense of proximity; a relatively easy jump from school to university. Private schools have the academic social capital necessary to cultivate close, friendly networks with Oxbridge. State schools have much more distanced, formalised contact.</li> <li>5. Similar students in different institutions were treated differently. In one, Rebecca was pressured to apply to Oxbridge; in another no such pressure from teachers was reported. “The two schools were responding very differently to similar kinds of pupils which suggests that institutional habitus is having an impact over and above any family background influences” (p.10).</li> <li>6. Teachers can be very influential in student choices.</li> <li>7. Decision-making was more likely to be a collective process in state schools; individualised and competitive in private schools.</li> </ol>
<p><b>Methodology</b></p>	<p>Questionnaire; interviews and participant observation.</p>
<p><b>Scale of project</b></p>	<p>6 institutions participated. 500 student questionnaires were administered (the response rate is not given). 120 student interviews; 15 tutor interviews; 40 parent interviews. Field notes from participant observation.</p>
<p><b>Evaluative comments</b></p>	<p>While it could be argued that there is less distinction between different schools and tertiary institutions in New Zealand, the findings from this study are informative and useful. The concept of institutional habitus and its impact on student choices may well be an important factor here.</p>

<b>TEMPLATE 47</b>	
<b>Standard bibliographic information</b>	Soutar, G. & Turner, J. (2002). Students' preferences for university: A conjoint analysis. <i>The International Journal of Educational Management</i> , 16(2), 40-45.
<b>Country of Origin</b>	Australia
<b>Key words</b>	University preference; Adaptive conjoint analysis.
<b>Abstract</b>	Tertiary education has become more competitive in recent years due to reductions in government funding and higher student fees. As the nature of the environment grows more competitive, the role of marketing, previously non-existent in most universities, has grown significantly. One of the key pieces of information that would assist a university's marketing effort is an understanding of what determines a student's university preference. This article examines university preference using a form of conjoint analysis, known as adaptive conjoint analysis (ACA), to investigate the importance of a number of attributes to high-school leavers in Australia. Results indicate that the four most important determinants of university preference were course suitability, academic reputation, job prospects and teaching quality, which has significance for education managers developing marketing strategies and programs.
<b>Type of Research</b>	<b>Quantitative;</b> Qualitative; Descriptive; Theoretical; Analytical; Critical; Other:
<b>Key themes</b> related to MOE's focus areas:  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information Use of information Types of information Gaps in information <b>How are decisions affected by diversity?</b> Gender Ethnicity Class Other relevant factors	<b>Factors</b> The four most important factors to students were: <ul style="list-style-type: none"> <li>• Course suitability</li> <li>• Strong academic reputation</li> <li>• Good job prospects</li> <li>• Very good teaching quality</li> </ul>

<b>Methodology</b>	<p>A conjoint questionnaire was used in a face-to-face interview to lead students through four stages of the decision process. Students were asked to:</p> <ol style="list-style-type: none"> <li>1. Rate the desirability of different types of university;</li> <li>2. Consider how important each of ten attributes would be if they were choosing between two universities in which all other attributes were the same;</li> <li>3. Based on their responses to 1 and 2, students were presented with two hypothetical universities to consider. Each had a combination of attributes and students were asked to indicate which they preferred and the strength of their preference;</li> <li>4. Students were presented with some hypothetical universities and asked how likely they would be to choose each right now.</li> </ol>
<b>Scale of project</b>	<p>One Australian state. 259 school leavers in Western Australia participated.</p>
<b>Evaluative comments</b>	<p>This study is significant because it identifies key factors in students' decision-making.</p> <p>Two possible shortcomings are:</p> <ol style="list-style-type: none"> <li>1. Although the ten factors presented to the students are based on findings from earlier studies they may overlook factors that are important to students.</li> <li>2. Students were dealing with hypothetical situations and may make different decisions in 'real' situations.</li> </ol>

<b>TEMPLATE 48</b>	
<b>Standard bibliographic information</b>	St. John, E. (1991) What really influences minority attendance: Sequential analyses of the high school and beyond sophomore cohort. <i>Research in Higher Education</i> , 32 (2), 141-157.
<b>Country of Origin</b>	USA
<b>Key words</b>	Minority student attendance; Logistic regression; Factors promoting minority attendance.
<b>Abstract</b>	This paper uses national statistics of the senior high school class of 1982 to identify the factors that might improve the attendance at college of Black and Hispanic students. The study assumes that decisions about college attendance are influenced by location, social background, and achievement at high school, experiences there, student aspirations and the availability of financial aid. Using logistic regressions, the study finds three key factors: improved academic preparation, increased aspirations, and increased levels of financial aid.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other
<b>Key themes related to MOE's focus areas:</b>  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information Use of information Types of information Gaps in information <b>How are decisions affected by diversity?</b> Gender Ethnicity Class Other relevant factors	<b>Decisions &amp; Diversity</b> 1. The research tested sequentially an outcome variable-whether a student attends college. Subsets of the population enabled the researcher to identify the region of origin, whether students were Black or Hispanic, standardized achievement test scores, kind of programme taken at high school, post-secondary plans, whether applications to college were connected to financial aid. 2. The effects of the above variables on the two minority groups varied: <ul style="list-style-type: none"> <li>• Being Hispanic or Black was significantly and positively associated with non-attendance.</li> <li>• Hispanic students are not as likely as Black students to attend college.</li> <li>• Being Black was also significantly and positively associated with low educational aspirations.</li> <li>• Being male was significant and negatively associated with college attendance.</li> <li>• High post-school aspirations can mitigate low income but overall the higher the income, the more likely attendance.</li> <li>• Receipt of financial aid has a significant and positive association with attendance at college.</li> </ul> 3. Three suggestions for interventions were drawn from the above data: <ul style="list-style-type: none"> <li>• Since inadequate academic preparation creates</li> </ul>

	<p>barriers for these minority groups, special intervention programmes designed to improve academic achievement by high risk students seems desirable.</p> <ul style="list-style-type: none"> <li>• As having high aspirations seems to help minorities to overcome barriers associated with background and poor academic preparation, it is suggested that special efforts be made to enable such students to systematically plan for college.</li> <li>• Enrolment decisions by low income students are price responsive to grants but not loans, therefore more federal grants should be made available.</li> </ul>
<b>Methodology</b>	A rigorous factor analysis using logistic regressions on a national sample.
<b>Scale of project</b>	National, large scale.
<b>Evaluative comments</b>	While fairly old and very rooted in United States culture, its findings nevertheless provide an interesting comparison to initiatives like 'Innovative Pathways' in New Zealand. The variables used here and the findings reported, also triangulate well with other studies sampled. The policy advice is obvious, but nevertheless useful.
<b>Other</b>	This study relates well to the Innovative Pathways project in New Zealand. See Boyd, S. & MacDowall, S. (2003). <i>Innovative pathways from secondary school: Gaining a sense of direction</i> . Paper presented to the 2003 NZARE/AARE Conference, Auckland. Downloaded from: <a href="http://www.nzcer.org.nz/pdfs/12744.pdf">http://www.nzcer.org.nz/pdfs/12744.pdf</a> on 15 Aug 2004

<b>TEMPLATE 49</b>	
<b>Standard bibliographic information</b>	Stage, F. & Hossler, D. (1989). Differences in family influences on college attendance plans for male and female ninth graders. <i>Research in Higher Education</i> , 30 (3), 301-315.
<b>Country of Origin</b>	USA
<b>Key words</b>	Predisposition to tertiary study; Parental influences; Decision-making.
<b>Abstract</b>	This study investigates stage one of a three stage model of decision making for college. Stage 1 of this model is <i>predisposition</i> . (Stage 2 involves search for alternatives. Stage 3 is making the choice). Stage 1 assumes that parents have a major influence on how secondary school students think about further study. This project uses rigorous statistical methods to test this assumption.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other: <b>Synthesis</b>
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>1. The three stage <i>predisposition, search, choice</i> model is described more fully in the template summarizing Harker et al.</li> <li>2. Within the <i>predisposition</i> phase, the literature makes these points: <ul style="list-style-type: none"> <li>• Factors that are positively associated with plans for university study are family income, parental levels of education, students' school achievement, and parental encouragement.</li> <li>• Many studies conclude that students' decisions to attend or not attend college are made before the last two years of school; in one study, 61% made the decision by 9<sup>th</sup> grade.</li> <li>• Two variables seem to be largely unrelated to post school plans: <ol style="list-style-type: none"> <li>i. Gender</li> <li>ii. Ethnicity, where socio-economic status and ability were held constant.</li> </ol> </li> </ul> </li> </ol> <p><b>Factors</b></p> <ol style="list-style-type: none"> <li>1. For males and females, father's education, mother's education and family income had significant positive effects on parent' expectations. Father's education was the strongest influence.</li> <li>2. Mother's education and family income were positively related to parent's savings for education.</li> <li>3. Married status of parents was significantly positively related to savings for males but not for females.</li> <li>4. The level of father's education exerted the strongest indirect and direct effects on plans for post-secondary</li> </ol>

	<p>study.</p> <p>5. For females, father's level of education has little effect on saving for education whereas for males it has a significant positive effect.</p> <p>6. Parental expectation was the best predictor of the predisposition to attend college for this sample. This finding is consistent with previous research.</p>
<b>Methodology</b>	A questionnaire survey testing Part 1 of a decision-making model involving 21 schools in Indiana with responses from 703 males and 718 female ninth graders. A sophisticated array of statistical techniques was used.
<b>Scale of project</b>	Multi -school, single state project.
<b>Evaluative comments</b>	While this study is a bit old, and was confined to one mid-western state of the USA, its value is considerable. It uses an established decision-making model, uses a rigorous statistical protocol that produces useful results and, perhaps most importantly, compares its results with previous literature.
<b>Other</b>	For more detail about the model and another application of it in Australia see - Harker, D., Slade, P. & Harker, M. (2001). Exploring the decision process of 'school leavers' and 'mature students' in university choice. <i>Journal of Marketing for Higher Education</i> , 11 (2), 1-20.



<b>TEMPLATE 50</b>	
<b>Standard bibliographic information</b>	Tumblin, R.S. (2002). <i>The College choice process of non-traditional students</i> . A thesis for the Master of Education Degree in Higher Education. University of Toledo.
<b>Country of Origin</b>	USA
<b>Key words</b>	Non-traditional students; Age-mature students; Choice; Finances
<b>Abstract</b>	Non-traditional students are attending post-secondary institutions in the United States in record numbers. The college choice decision process of these students is little researched. Non-traditional (age-mature) students enrolled in bachelor degrees at nine private colleges and universities were studied to determine aspects of the college selection process that were important to them. Information was also gathered on students' concern over financing educational costs; their primary sources of funding; and their personal and professional objectives for continuing post-secondary education. Results suggest that the academic reputation of an institution and convenience factors are important in enrolment decisions.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other:
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b></p> <p><b>What factors influence student choice?</b></p> <p>Role of families Role of agencies</p> <p><b>What is the role of information in decision making?</b></p> <p>Access to information Use of information Types of information Gaps in information</p> <p><b>How are decisions affected by diversity?</b></p> <p>Gender Ethnicity Class Other relevant factors</p>	<p><b>Factors</b></p> <ol style="list-style-type: none"> <li>Nine programme features were rated in terms of their importance to students' enrolment decision. While all were rated 'important' by over 87% of students, 'convenience' factors ranked most highly: <ul style="list-style-type: none"> <li>Time of class meeting (98.5%)</li> <li>Maximize efficient use of my time (98.2%)</li> <li>Location of class meeting (96.7%)</li> </ul> </li> <li>Eight reasons for choosing to enrol in a particular degree programme were rated. The most important reasons were: <ul style="list-style-type: none"> <li>Academic reputation of this college (90%)</li> <li>Good value for money (87.7%)</li> <li>Only way I can complete my degree (79.5%)</li> <li>Only program that meets educational needs (70%)</li> </ul> </li> <li>14 criteria were rated on their relative importance to students' decision to return to college. Academic reputation again emerged as a key factor: <ul style="list-style-type: none"> <li>Academic reputation (80.9%)</li> <li>Graduates get good jobs (75%)</li> <li>Size of college (68.9%)</li> <li>Well-respected graduates (68.5%)</li> <li>Employers' financial assistance (67.2%)</li> </ul> </li> <li>Costs were a concern for many students. Two main sources of funding emerged for these students:</li> </ol>

	<ul style="list-style-type: none"> <li>• Employer tuition reimbursement (67%)</li> <li>• Personal loan or funds (54.5%).</li> </ul> <p>As the students in the study were attending private colleges and universities, it is not surprising that scholarships and grants were not a major factor.</p> <p>5. Professional objectives for returning to college included:</p> <ul style="list-style-type: none"> <li>• Make job change within career (93.6%)</li> <li>• Gain professional respect (91.1%)</li> <li>• Acquire skills required in my job (91.1%)</li> <li>• Obtain salary increase (90.8%).</li> </ul> <p>6. Personal objectives for returning to college included:</p> <ul style="list-style-type: none"> <li>• Gain personal satisfaction by earning degree (98.5%)</li> <li>• Increase opportunities for personal growth (97.1%)</li> <li>• Accept personal responsibility for professional development (96.7%)</li> <li>• Increase self-confidence by increasing skills and knowledge (96%)</li> </ul> <p><b>Information</b></p> <p>1. Five information sources were rated. ‘Word of mouth’ sources were more influential than paid sources of advertising:</p> <ul style="list-style-type: none"> <li>• Friend or relative (77.1%)</li> <li>• Employer referral (62%)</li> <li>• Radio advertisement (51%)</li> <li>• Direct mail to home or office (41.2%)</li> <li>• Newspaper advertisement (39.9%)</li> </ul>
<b>Methodology</b>	A 31-item questionnaire modelled on the CIRP Freshman Survey was developed. Simple frequencies were used in data analysis.
<b>Scale of project</b>	279 students from 9 institutions returned the questionnaire.
<b>Evaluative comments</b>	This study is of interest because it focuses on age-mature students, who are a growing proportion of those in tertiary education in New Zealand. However, it should be noted that the research was conducted in private colleges and universities so the sample is not representative of USA students generally and the results need to be treated with caution in the New Zealand context.

<b>TEMPLATE 51</b>	
<b>Standard bibliographic information</b>	Tyler, D. (1998). Vocational pathways and the decline of the linear model. <i>Vocational Knowledge and Institutions: Changing Relationships</i> . Proceedings of the 6th International Conference on Post-compulsory Training, Gold Coast Queensland, 77-87.
<b>Country of Origin</b>	Australia
<b>Key words</b>	Vocational pathways; Risk society; Linear model for decision-making
<b>Abstract</b>	This paper discusses the nature of transitions young people make from school to tertiary education and work. It challenges the assumption that young people decide on their future in a lineal way – decisions made with plans for a good career foremost in mind. Using results from a longitudinal study conducted in Victoria to support her arguments, the author suggests that young people successfully negotiate their way to tertiary study with diverse goals and in diverse ways.
<b>Type of Research</b>	Quantitative; <b>Qualitative</b> ; Descriptive; <b>Theoretical</b> ; Analytical; Critical; Other
<p><b>Key themes</b> related to MOE’s focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>1. Today’s young live in a ‘risk society’ and cannot expect to have a linear pathway between school, training, further education and work. <ul style="list-style-type: none"> <li>• Social structures within which transitions occur are constantly changing.</li> <li>• Employment is no longer permanent or life-long. Hence career paths are difficult/ impossible to plan with certainty.</li> <li>• Relationships are less formal and also tend not to be permanent.</li> <li>• Building a ‘nest’ is often not an option.</li> <li>• There is an ideology of individualization. This has weakened ‘collective experiences’ in socio-economic, gender, ability sets.</li> <li>• Hence there is more choice available, although boundaries created by class still exist.</li> </ul> </li> <li>2. “It is our view that young people negotiate their own futures, lives and meanings, but they do so in the context of specific social, political and economic circumstances and processes. However, much of the analysis provided in contemporary youth research still tends to ignore this complexity, after emphasising the deterministic nature of social life” Wyn and White, 1998 quoted on p.79. In short, young people construct their own ‘choice’ biography rather than being guided by a single tracked ‘normal’ biography.</li> </ol>

	<p>3. A typology of youth life choice patterns is introduced: vocational, occupational, contextual, altered, mixed reasons for making choices.</p> <ul style="list-style-type: none"> <li>• Approximately 40% of respondents in the longitudinal study had a focus on single, career related goals (vocational and occupational combined).</li> <li>• Approximately 60% had multiple goals and multiple reasons for making their decisions.</li> </ul> <p><b>Diversity</b></p> <p>1. The researchers found major differences in the decisions made by males and females. 34% of females gave the need to either marry or plan for children as their main reason for choosing their pathways,. Education and career planning took second place to relationship building. In contrast only 3 out of 29 men based their decisions on similar considerations.</p>
<b>Methodology</b>	The primary method is conceptual argument. However, this is backed up by data from a major longitudinal study dating from 1991, with secondary school students then in their final year at school.
<b>Scale of project</b>	State wide with over 30000 students in the initial sample.
<b>Evaluative comments</b>	A well constructed argument, this paper establishes very clearly that young people decide on their study/life paths in much more complex ways than the linear model which assumes that career goals are the major factor in choosing tertiary study.
<b>Other</b>	For further information about the longitudinal study the above argument is based on, see Dwyer, P. & Wyn, J. (1998). Post-compulsory education policy in Australia and its impact on participant pathways and outcomes in the 1990s. <i>Journal of Education Policy</i> , 13 (3), 285-300.

<b>TEMPLATE 52</b>	
<b>Standard bibliographic information</b>	Wagenaar, T. (1987). <i>Changes in postsecondary educational choices: 1972 to 1980</i> . Contractor report. Washington, DC: Center for Educational Statistics. 180 pages.
<b>Country of Origin</b>	USA
<b>Key words</b>	College choice; Theories of college choice
<b>Abstract</b>	This study reports a major national longitudinal research project in the United States. It focuses on changes in how students made choices for postsecondary education between 1972 and 1980. In the process it compares its findings with theories of national decision making and the results from other studies. It is this comparative aspect of the study that is summarized in this template.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; <b>Theoretical</b> ; Analytical; Critical; Other
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Decisions</b></p> <p>The data presented in this report are relevant and supportive of a number of theoretical explanations of how high school students make decisions about attending college.</p> <ol style="list-style-type: none"> <li>1. The data supports <i>status attainment models</i> for student choice. <ul style="list-style-type: none"> <li>• Educational plans and college attendance are related in the status attainment process.</li> <li>• There is a causal relationship between socio-economic status and post school choices.</li> <li>• Educational attainment at secondary school when combined with social class background reliably predicted choice for tertiary study.</li> </ul> </li> <li>2. The data supports the view that individuals make decisions about education in terms of perceived return on their investment in education. This decision making model is related to <i>human capital theory</i>. <ul style="list-style-type: none"> <li>• The decision of whether to go to college often depends on the perceived level of opportunities that successful study opens up.</li> <li>• However, this was rarely the sole reason for making decisions.</li> </ul> </li> <li>3. The data also supports the views of theorists who espouse special <i>college choice models</i>. Such researchers focus on a variety of variables that influence choice. <ul style="list-style-type: none"> <li>• The major component of this model focuses on the decision making process, which is deemed to be sequential. The most salient features are socio-economic status, parental encouragement, ability and academic motivation.</li> </ul> </li> </ol>

	<ul style="list-style-type: none"> <li>• Other components focus on the characteristics of institutions; their desirability, proximity, availability of desired programmes, academic quality and costs.</li> <li>• A third cluster of factors concerns the economic and policy environments within which choices are made. There is clear evidence that government policies, social constraints and economic trends affect College attendance.</li> </ul> <p><b>Factors</b></p> <p>The study found a range of factors that influence the decision making process.</p> <ol style="list-style-type: none"> <li>1. Application factors. <ul style="list-style-type: none"> <li>• Job possibilities</li> <li>• Possibility of financial support</li> </ul> </li> <li>2. Background <ul style="list-style-type: none"> <li>• Increasing numbers of females</li> <li>• Race was not considered a significant variable in college choice.</li> <li>• Aptitude is a key factor when choosing post school life.</li> <li>• Significant others have a critical role in aspirations and attainment processes.</li> <li>• Self-concept is important.</li> <li>• School related experiences. The most important factor is academic performance at school.</li> </ul> </li> </ol>
<b>Methodology</b>	This reports a national longitudinal survey of some 23,000 high school seniors in 1,318 schools. Various sophisticated statistical techniques were used but of primary interest for this template was the mapping of findings onto existing decision-making theories in a non-statistical way.
<b>Scale of project</b>	Large national study.
<b>Evaluative comments</b>	While this study is old and its statistical findings hardly seem relevant to New Zealand at this time, the study has considerable value in the way it maps its findings onto three theoretical positions on decision-making.

<b>TEMPLATE 53</b>	
<b>Standard bibliographic information</b>	Walck, D. & Hensby, S. (2003). Career and degree choice at transition to university. <i>Australian Journal of Career Development</i> , 12 (3), 64-71.
<b>Country of Origin</b>	Australia
<b>Key words</b>	Decision-making assistance
<b>Abstract</b>	First year students' degree and career decision-making has been found to be important to their eventual success. This paper reports on research that explored whether students had had enough information and support to help their decision-making processes about tertiary study. The research found that a substantial proportion of students felt that they had not had enough help. It is suggested that decision-making assistance could be helpful, but this assistance needs to be timely and match student needs. Hence the type of assistance needed will vary.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; <b>Analytical</b> ; Critical; Other
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>The paper discusses the vital importance of timing in decision-making. The authors identify three stages: <ul style="list-style-type: none"> <li>Before enrolment - the prime need is to decide on career, subject area and nature of degree.</li> <li>Prior to commencement of study the immediate need is to find out about the requirements, culture and processes of the university.</li> <li>After commencement - decisions about the suitability of career choice are made.</li> </ul> </li> <li>Time plays a pivotal role as students tend to make decisions on the basis of immediate need. <ul style="list-style-type: none"> <li>At Stage 1 of the process there is a perceived need to have made a decision, and this need is both positive and anxiety building for the next stage.</li> <li>There is a recommendation that family, school, professions and university should work together before Stage 1 decisions are needed. They suggest that small taster courses might be useful.</li> <li>One-third (34%) indicated that they had not received sufficient help/guidance in choosing their field of study.</li> <li>There is a significant correlation between 'decidedness' at the first stage and satisfaction with the course embarked on.</li> </ul> </li> </ol> <p><b>Factors</b></p> <ol style="list-style-type: none"> <li>Rank order of factors providing support in making decisions were:</li> </ol>

	<ul style="list-style-type: none"> <li>• Family - 56%</li> <li>• Friends - 44%</li> <li>• Career Guidance at school - 34%</li> <li>• Work Experience - 26%</li> <li>• Open Day-24%</li> <li>• Books/literature - 18%</li> <li>• Public Media - 10%</li> </ul>
<b>Methodology</b>	This research reports results from 506 questionnaire surveys of new arrived first year university students. A sophisticated array of statistical tools was used to provide the analysis.
<b>Scale of project</b>	A single institutional, single campus study - Griffith University, Gold Coast campus.
<b>Evaluative comments</b>	This is an important study despite its relatively small scale as it establishes a three-step process/model for decision-making. The third step actually occurs during study. This links decision making with persistence. Indications are that persistence is linked with 'decidedness' at the first stage and that the effectiveness of information is linked to the stage of decision-making.



<b>TEMPLATE 54</b>	
<b>Standard bibliographic information</b>	Watts, A. & Sultana, R. (2003). <i>Careers guidance policies in 36 countries: Contrasts and common themes</i> . Invited paper presented at the OECD and Canadian government organised conference - Career Guidance and Public Policy: Bridging the gap. Toronto, 6-8 October. 16 pages.
<b>Country of Origin</b>	UK
<b>Key words</b>	Career guidance; public policy
<b>Abstract</b>	<p>This paper summarizes and synthesizes three co-ordinated reviews of 36 national career guidance reviews carried out by OECD, the European Commission and the World Bank. Some important differences are identified with services in middle-income countries being less developed than in high-income countries. But the dynamics of globalisation, together with ‘policy borrowing’ have led to a great deal of convergence.</p> <p>The paper includes a section examining common career guidance delivery across the 36 countries. This aspect of the paper is summarized in this template.</p>
<b>Type of Research</b>	Quantitative; Qualitative; <b>Descriptive</b> ; Theoretical; <b>Analytical</b> ; Critical; Other
<p><b>Key themes</b> related to MOE’s focus areas:</p> <p><b>How do students make decisions?</b></p> <p><b>What factors influence student choice?</b></p> <p>Role of families</p> <p>Role of agencies</p> <p><b>What is the role of information in decision making?</b></p> <p>Access to information</p> <p>Use of information</p> <p>Types of information</p> <p>Gaps in information</p> <p><b>How are decisions affected by diversity?</b></p> <p>Gender</p> <p>Ethnicity</p> <p>Class</p> <p>Other relevant factors</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>1. The paper aims to establish the importance of lifelong career guidance being available as a public good.</li> <li>2. Three public policy goals are identified <ul style="list-style-type: none"> <li>• Career guidance has individual learning goals</li> <li>• It has labour market goals</li> <li>• It has social equity goals.</li> </ul> </li> </ol> <p><b>Information</b></p> <ol style="list-style-type: none"> <li>1. There must be lifelong career guidance in schools, both to lay foundations for short-term choice, and for lifelong learning and lifelong career changes.</li> <li>2. Career guidance must be a field in its own right. It should not be marginalized into a broad concept of guidance. That is, personal and behavioural guidance requirements should be dealt with separately from career guidance.</li> <li>3. Career guidance should be available in agencies outside school.</li> <li>4. ‘At risk’ people such as school dropouts and unemployed should be followed up for ongoing career guidance.</li> <li>5. Career guidance and advice should be readily available within tertiary institutions and course.</li> </ol>

	<ol style="list-style-type: none"> <li>6. Public employment services should be geared up to work with clients on an on going basis.</li> <li>7. Enhanced career guidance should be available in the workplace.</li> <li>8. Career guidance is important in adult education. This should include procedures for the accreditation and recognition of prior learning in planning new career paths.</li> <li>9. Many countries have an aging population and career guidance is becoming increasingly important for people in the third age.</li> <li>10. Providing help lines and web-based services to widen access to guidance is important.</li> <li>11. Having a regularly updated database of information about careers and study opportunities available.</li> <li>12. Redesign career guidance services so that they can be accessed on a self-help basis.</li> </ol>
<b>Methodology</b>	Extensive policy analysis document
<b>Scale of project</b>	This is a synthesis of three studies conducted by OECD, European Commission and the World Bank of the policies and practices of 36 countries.
<b>Evaluative comments</b>	This is really a policy analysis and thus has only marginal relevance to the themes of the study. However, the section headed 'Delivery' and reported on in this template has some relevance to the 'Information' theme as it surveys what countries are doing to provide a career guidance service.

<b>TEMPLATE 55</b>	
<b>Standard bibliographic information</b>	Whitley, S. & Neil, C. (1998). <i>Queensland Year 12 students' experiences about post-school options: Are there equity issues?</i> Paper presented at the AARE conference, Adelaide.
<b>Country of Origin</b>	Australia
<b>Key words</b>	Socio-economic status; Rural and remote; Information sources
<b>Abstract</b>	Since the publication of the Federal Government's discussion paper 'A Fair Chance for All' (1990) considerable attention has been paid to maximising the opportunity that all Australians have to participate in higher education. Recent reviews of the participation of equity groups in tertiary study have identified the continued under-representation of students from rural and remote areas and students from low-SES backgrounds. This paper presents findings and implications for policy and practice from a selected sample of students who completed Year 12 in 1997 and attended Queensland schools that were identified as rural and remote or socio-economically disadvantaged. Students surveyed experienced a range of post-school outcomes including TAFE, university, apprenticeships, and unemployment. The Tertiary Entrance Procedures Authority (TEPA) conducted this research as part of its legislated responsibility to identify equity groups who have difficulty accessing information about tertiary entrance and further education.
<b>Type of Research</b>	<b>Quantitative; Qualitative;</b> Descriptive; Theoretical; Analytical; Critical; Other:
<b>Key themes</b> related to MOE's focus areas:  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information Use of information Types of information Gaps in information <b>How are decisions affected by diversity?</b>	<b>Information</b> "It is clear from the results that the primary site of information acquisition is within the school environment for all students, irrespective of their equity status" (p.23). 1. Within school <ul style="list-style-type: none"> <li>• The three groups of students (low SES, rural/remote and the comparison group) exhibited similar patterns of responses to school information</li> <li>• Guidance officers, teachers, visitors to the schools or other students were key sources of information.</li> <li>• Students from low SES areas overwhelmingly viewed Guidance officers as the primary information source.</li> <li>• Rural/remote students saw teachers as key sources of information. (Writers suggest this may reflect the absences of Guidance officers in rural schools).</li> </ul> 2. Outside school <ul style="list-style-type: none"> <li>• Low SES students used friends and personal</li> </ul>

<p>Gender Ethnicity Class Other relevant factors</p>	<p>research</p> <ul style="list-style-type: none"> <li>• Rural and remote students used parents and friends</li> <li>• Comparisons group students used parents, careers events and, to a lesser extent, friends.</li> </ul> <p>3. Recommendations included:</p> <ul style="list-style-type: none"> <li>• Provide more information about future options at Year 10 and make students aware of the ramifications of choosing certain subjects</li> <li>• Develop a comprehensive, integrated resource for Guidance Officers</li> <li>• Improve teacher awareness of services and programmes for equity groups</li> <li>• Ensure Year 12 students have access to information about general issues impacting on tertiary entrance eg HECS, Austudy, course detail, life at university.</li> <li>• Investigate the optimum timing for distribution of information.</li> </ul> <p><b>Diversity</b></p> <ol style="list-style-type: none"> <li>1. Males and females obtained information from similar sources within schools</li> <li>2. Females were more likely to use other students and teachers as ‘within school’ information sources</li> <li>3. Males are more likely to use parents and, to a lesser extent, personal research as ‘additional’ sources</li> <li>4. OP-eligible students were more likely than OP-ineligible students to attend careers events, conduct personal research or contact institutions directly.</li> <li>5. For most comparison group students, the Queensland Tertiary Courses (QTC) book, the school guidance officer and careers markets were useful.</li> <li>6. For rural/remote students interaction with teachers, the QTC book and guidance officers were useful</li> <li>7. Low-SES students seemed less motivated or able to comment on helpful sources. While the QTC and guidance officers were mentioned, school visitors seemed to make an impression for these students.</li> </ol>
<p><b>Methodology</b></p>	<p>A survey estimated to take 20 minutes to complete. It included some free response questions.</p>
<p><b>Scale of project</b></p>	<p>One Australian state. 867 students returned the questionnaire - a 36% return rate. 283 (32.6%) were from rural/remote schools; 255 (29.4%) from low-SES schools; 329 (38%) from the comparison category.</p>
<p><b>Evaluative comments</b></p>	<p>This study explores issues about equity of access in Queensland and some of the factors that impact on rural/remote and low-SES students’ decisions. It provides some useful insights into the types of information students use and into some gender differences in which information is used. Data on rural/remote and low-SES students is of interest in the New Zealand context.</p>

<b>TEMPLATE 56</b>	
<b>Standard bibliographic information</b>	Yiv, C. & Secombe, M. (1999). Cambodian students and motivation to participate in higher education. <i>Education and Society</i> , 17 (2), 85-98.
<b>Country of Origin</b>	Australia
<b>Key words</b>	Motivation to study; Cultural capital
<b>Abstract</b>	This article attempts to identify motivational factors of 28 Cambodian students who enrolled in university study. The analysis of data revealed that educational and occupational values were the most frequently mentioned factors motivating their participation in higher education. These factors were associated with cultural influences.
<b>Type of Research</b>	Quantitative; <b>Qualitative</b> ; Descriptive; Theoretical; Analytical; Critical; Other
<b>Key themes</b> related to MOE's focus areas:  <b>How do students make decisions?</b> <b>What factors influence student choice?</b> Role of families Role of agencies <b>What is the role of information in decision making?</b> Access to information Use of information Types of information Gaps in information <b>How are decisions affected by diversity?</b> Gender Ethnicity Class Other relevant factors	<b>Factors</b> <ol style="list-style-type: none"> <li>1. Most of the motivation seems to come from the practical advantages a university provides - an edge over others, good job, respect in the community/family.</li> <li>2. The influence of the family was frequently mentioned - doing it for mother, pride that family would have, create better future for family.</li> <li>3. Another motivation was the value of education for its own sake - liking for study, gaining knowledge (that money cannot buy), building self-esteem, the value of a good education, openness to new ideas.</li> </ol> <b>Diversity</b> <ol style="list-style-type: none"> <li>1. The study used theoretical assumptions described as humanist sociological. The basic humanistic sociological principle is that all social and cultural activities need to be interpreted from the perspectives of the participants. Hence the focus is on the participants as cultural beings and as conscious agents in their cultural system.</li> <li>2. Hence the reported results of the study describe cultural as well as individual motivation.</li> </ol>
<b>Methodology</b>	Analysis of two open-ended questions about motivation to study, administered in a questionnaire to 28 Cambodian students.
<b>Scale of project</b>	Small scale study.
<b>Evaluative comments</b>	This is not a study of decision-making. Moreover, it is not strongly analytical. Yet it has value in that it describes the motivation of Australian students from an ethnic minority group to engage with higher education. The outcomes of the

	study suggest both intrinsic motivation - educational and family values - and extrinsic motivation - job opportunities. The findings suggest that cultural values have an influence on deciding whether or not to go to university.
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<b>TEMPLATE 57</b>	
<b>Standard bibliographic information</b>	Yorke, M. (1999). <i>Leaving early: Undergraduate non-completion in higher education</i> . London: Falmer Press.
<b>Country of Origin</b>	United Kingdom
<b>Key words</b>	Non-completion; Choice of study programme; Policy indications
<b>Abstract</b>	This book reports on a study of non-completion in higher education in the United Kingdom. "Choosing the wrong field of study" and "lack of commitment to the programme" were items on a questionnaire regarded as being of moderate or significant influence for withdrawing by 39% and 38% respectively. This result suggests that initial decision-making was awry. The book includes a chapter where this topic is addressed indirectly.
<b>Type of Research</b>	<b>Quantitative</b> ; Qualitative; Descriptive; Theoretical; Analytical; Critical; Other: <b>Policy Analysis</b>
<p><b>Key themes</b> related to MOE's focus areas:</p> <p><b>How do students make decisions?</b>  <b>What factors influence student choice?</b>  Role of families  Role of agencies  <b>What is the role of information in decision making?</b>  Access to information  Use of information  Types of information  Gaps in information  <b>How are decisions affected by diversity?</b>  Gender  Ethnicity  Class  Other relevant factors</p>	<p><b>Decisions</b></p> <ol style="list-style-type: none"> <li>1. The study found that many students have an insufficiently well-developed sense of the direction in life they want to take. There may be virtue in parents and career advisors not rushing young people straight into university.</li> <li>2. The research results suggest that choosing programmes is a key decision. <ul style="list-style-type: none"> <li>• Better advice about the realities of working in the subject area. This includes providing accurate information, but even more importantly, enabling prospective students to make their own decisions without outside pressures. The research found evidence that many students went to university as a result of parental, peer and other pressure.</li> <li>• Institutions should make it clearer to prospective students what they are offering. "Prospectuses have taken on some of the characteristics of travel brochures and may set up presumptions and expectations that visits may be unable to dispel" (100). Enrolment should be in the nature of a contract where expectations, rights and content are clear.</li> <li>• Universities need to provide timely and thorough academic advice before enrolment.</li> </ul> </li> </ol> <p><b>Information</b></p> <ul style="list-style-type: none"> <li>• It is clear that students need a wide variety of quality information to succeed at university."...This research has produced evidence to call into doubt the quality of some of the information that students</li> </ul>

	have received” (p.99).
<b>Methodology</b>	A questionnaire survey of 4461 withdrawn students in 6 north-western universities in England.
<b>Scale of project</b>	Major study with generalisable results.
<b>Evaluative comments</b>	Although this study investigated early withdrawal, the reported results also inform research on student decision making. The fact that out of more than 4000 students 39% indicated that they had chosen the wrong programme and 38% said they lacked commitment to it, shows that something had gone wrong in the decision-making process. In addition, the author has three practical suggestions that might help retention and also the decision-making process.



# Appendix 1

## Content Matrix: By country and key themes



	<b>Decisions</b>	<b>Factors</b>	<b>Information</b>	<b>Diversity</b>
<b>USA</b>	Cabrera & La Nasa Choy et al Jackson Kern Marquez Perna St John Stage & Hossler Wagenaar	Cabrera & La Nasa Choy et al Jackson Keller & McKeown Kern Lillard & Gerner Marquez Nguyen & Taylor Perna Stage & Hossler Tumblin Wagenaar	Cabrera & La Nasa Howard Kern Tumblin	Cabrera & La Nasa Choy et al Hagy & Staniec Kern Marquez Nguyen & Taylor Perna St John
<b>UK</b>	Bloomer & Hodkinson Brooks Christie et al Connor & Dewson Davies Payne Watts & Sultana Yorke	Connor & Dewson Institute Employment Studies Lilly, Armitage & Thomas Payne Reay, David & Ball	Christie et al Connor & Dewson Institute Employment Studies Martinez & Munday Yorke	Connor & Dewson Davies Institute Employment Studies Payne Reay, David & Ball
<b>Australia</b>	Brennan & Marriott Brennan Harker, Slade & Harker James, Baldwin & McInnis James (1999) James (2000a) James (2001) Le Claire McInnis, James & Hartley Tyler Walck & Hensby	Bland Brennan & Marriott Brennan Connell Harker, Slade & Harker James, Baldwin & McInnis James (2000a) James (2000b) James (2001) Le Claire Martin Maxwell, Cooper & Biggs Soutar & Turner Walck & Hensby Yiv & Secombe	Brennan & Marriott Brennan Connell James, Baldwin & McInnis James (1999) (James 2000b) James (2001) Martin Maxwell, Cooper & Biggs Whitley & Neil	Bland Brennan & Marriott Brennan Connell James, Baldwin & McInnis James (1999) James (2000a) James (2001) Parente et al. Tyler Whitley & Neil
<b>New Zealand</b>	Boyd & MacDowall Boyd, Chalmers & Kumekawa Chalmers Choat	Boyd & MacDowall Boyd, Chalmers & Kumekawa Chalmers Davey Harris Management Solutions	Boyd, Chalmers & Kumekawa Chalmers & Kumekawa Chalmers Harris Management Solutions Maani	Boyd & MacDowall Boyd, Chalmers & Kumekawa Chalmers Choat Davey Harris Management Solutions Maani
<b>Other</b> Japan Canada		Ono Looker & Lowe		Ono Looker & Lowe



# Appendix 2

## The Methodology



### **Search strategy**

We employed a qualified librarian to conduct the searches. He focused on literature written in English from New Zealand, Australia, USA, Canada and the UK, concentrating on publications between 1990 and 2004. He searched journal articles, monographs, Internet databases, published research and evaluation reports. We provided him with a list of search terms that might capture the studies we wanted to access – decision-making, tertiary study, study preferences, student choices, tertiary pathways, educational choice and transition to tertiary study. He extended and developed this list as he searched and familiarised himself with the literature and specific terminology of individual databases. He also searched specifically for literature on sub-populations such as school leavers, age mature students, Māori and Pasifika students. The initial search located 90 pages of bibliographic information about studies of interest. From this list we selected and accessed those that seemed most closely related to the themes then applied the inclusion/exclusion criteria to them. The search iteration continued for over four months. It ended when we began writing the critical review of the studies. At that point we included only articles that were too important to leave out.

### **Selection strategy: inclusion/exclusion criteria**

We proposed three steps in the inclusion/exclusion process. Each was based around a key question:

1. Is the item about student decision making processes as they go about choosing tertiary education options? If no exclude. If yes, go to step 2.
2. Does the item report **research**? If no, exclude. If yes, go to step 3.
3. Is the item about any of the four themes identified? If no, exclude. If it is about at least one content area, include. The four themes were summarised as ‘decisions’, ‘factors’, ‘information’ and ‘diversity’.

Finally we decided that if we were in doubt about a study we would *include* it in the first instance. These criteria were discussed with, and approved by, Ministry representatives.

This process was planned as an iterative one. We continued searching for articles, checking them against the inclusion/exclusion criteria, sometimes relegating ‘included’ articles to the ‘excluded’ pile. Date of publication emerged as another criterion as we searched. While some studies of student decision-making were conducted prior to the 1980s we have focused our attention on more recent work, particularly that done since the mid 1990s. We also decided to include some literature reviews when they usefully summarised a number of research studies.

### **Summarising strategy: the templates**

We contracted to complete an annotated, evaluative bibliography and proposed to achieve this by developing a template format that would summarise key information from each article. The template format was developed and agreed to by the Ministry representatives. The headings for the template were:

- Standard bibliographic information;
- Country of origin;
- Key words;
- Abstract;
- Type of research (quantitative, qualitative, descriptive, theoretical, analytical, critical, other);

- Key themes (details of any findings related to any of the four identified themes - decisions, factors, information, diversity);
- Methodology;
- Scale of the project;
- Evaluative comments (the reviewers' comments on the value, place, worth and relevance of the article for the New Zealand context); and
- Other (any other information about the article that had particular interest but was not summarised under other headings).

### Matrix

In order to get a visual impression of what information we had located and to help us identify any gaps we developed a matrix. Along one axis we listed the four themes; along the other the countries of origin (FIGURE 5).

FIGURE 5: MATRIX OF LOCATED STUDIES

	<b>Decisions</b>	<b>Factors</b>	<b>Information</b>	<b>Diversity</b>
USA				
UK				
Australia				
New Zealand				
Other				

This quickly showed where we had a lot and/or little information and enabled us to conduct specific searches in an effort to plug identified gaps. We finally selected 57 studies for inclusion in the critical literature review.

### Critical review strategy

Having completed the templates we then used them to inform our critical review. We both read all of the templates, separately making notes on each in an effort to identify findings for each of the four themes. Using Hossler & Gallagher's (1987) model of a three stage decision-making process as a basis, we developed a matrix of potential findings from the impressions we gained and the notes we made from the templates (FIGURE 6). (See discussion of Finding 1 for more information).

FIGURE 6: MATRIX OF THEMES AND DECISION-MAKING

	<b>Decisions</b>	<b>Factors</b>	<b>Information</b>	<b>Diversity</b>
Predisposition				
Search				
Choice				

After discussing and agreeing on these findings, we allocated half of them to each of us and individually wrote first drafts for the critical review. As we wrote each section of the review we reworded, amalgamated findings and identified new findings. The number varied day to day, with us eventually settling on the 12 we report here. After one of us had written a section of the critical review the other reviewed and critiqued it. Modifications were then made to accommodate the feedback.



## Bibliography

- Amaury, N. (2001). How minority students finance their higher education. *Eric Digest*. Retrieved on the 17 05 2004 from <http://www.ericdigests.org/2002-3/finance.htm>
- Blackburn, J. ((2000). *The search stage of student college choice: How students discover the range of college consideration sets*. Doctor of Education dissertation submitted to Baylor University, Texas. 159 pages.
- Bland, D. (2002). *Crossing the line: A study of peer influence on students from low income backgrounds in transition from school to university*. Paper presented at the AARE Conference, Brisbane. Retrieved 30/07/04 from: <http://www.aare.au/02pap/bla02263.htm>
- Bloomer, M. & Hodkinson, P. (1997). *Moving into FE: The voice of the learner*. London: Further Education Development Agency.
- Boyd, S. & MacDowall, S. (2003). *Innovative pathways from secondary school: Gaining a sense of direction*. Paper presented to the 2003 NZARE/AARE Conference, Auckland. Downloaded from: <http://www.nzcer.org.nz/pdfs/12744.pdf> 15/08/04.
- Boyd, S., Chalmers, A., & Kumekawa, E. (2001) *Beyond School*. Wellington: New Zealand Council for Educational Research.
- Bradshaw Jr, G. (2001). *A comparison of the college decision-making processes of different racial/ethnic student populations*. A Doctor of Philosophy dissertation submitted to the University of Utah. 250 pages.
- Brennan, L. & Marriott, T. (1996). Career counsellors Influence on decision making. *Australian Journal of Career Development*, 5 (3), 27-32.
- Brennan, L. (2001). *How prospective students choose universities: A buyer behaviour perspective*. Doctoral Thesis: University of Melbourne.
- Brooks, R. (2004). My mum would be as pleased as punch if I actually went, but my dad seems a bit more particular about it': Paternal involvement in young people's higher education choices. *British Educational Research Journal*, 30 (4), 495-515.
- Callahan, W. (2003). *Effects of factors and people of influence on college choice comparing general population and top academic students*. Doctor of Education dissertation submitted to the University of Nebraska, 163 pages.
- Cabrera, A. & La Nasa, S. (2000). Understanding the college-choice process. In A. Cabrera & S. La Nasa. *Understanding the college choice of disadvantaged students*. New Directions for Institutional Research, 107, Fall 2000. Jossey Bass Publishers, 5-22.
- Cabrera, A. & La Nasa, S. (2000). Three critical tasks America's disadvantaged face on their path to college. In A. Cabrera & S. La Nasa. *Understanding the college choice of disadvantaged students*. New Directions for Institutional Research, 107, Fall 2000. Jossey Bass Publishers 23-30.
- Ceja, M. (2001). *Applying, choosing, and enrolling in higher education: Understanding the college choice process of first-generation Chicana students*. A Doctor of Philosophy dissertation submitted to the University of California, Los Angeles. 212 pages.

- Chalmers, A. & Kumekawa, E. (2000). Gender as a factor in the transition of secondary school students to tertiary education or other destinations: Results of a 1999 survey. *From awareness to action: Meeting the needs of boys in education*. Conference Proceedings at: <http://www.manukau.ac.nz/socsci>
- Chalmers, A. (2001). *Maximising your marketing to senior secondary school students: analysing student decision making and the implications for marketing strategies*. HR Conference on Marketing Education. Centra Hotel Auckland, 10 pages.
- Choat, D. (1998). *The myth of equal opportunity: Wealth of school-district as a determinant of tertiary participation*. Wellington: Aotearoa Polytechnic Student Union & New Zealand University Students' Association, 34 pages.
- Choy, S., Horn, L., Nunez, A-M. & Chen, X. (2000). Transition to college: What helps at-risk students and students whose parents did not attend college. In A. Cabrera & S. La Nasa. *Understanding the college choice of disadvantaged students*. New Directions for Institutional Research, 107, Fall 2000. Jossey Bass Publishers, 45-63.
- Christie, H., Munro, M. & Fisher, T. (2004). Leaving university early: Exploring the difference between continuing and non-continuing students. *Studies in Higher Education*, 29 (5), 617-636.
- Connell, R.W. (2004). Working-class parents' views of secondary education. *International Journal of Inclusive Education*, 8 (3), 227-239.
- Connor, H. & Dewson, S. (2001). *Social class and higher education: Issues affecting decisions on participation by lower social class groups*. Department for Education and Employment, Research Report 267. Retrieved from: <http://www.dfes.gov.uk/research/data/uploadfiles/RR267.PDF> 19/08/04
- Davies, J. (2003). *A taste of further education: The meaning of 'coming to college' for a group of 14-16 year olds*. Paper presented at the BERA research student symposium, Exeter. Retrieved from: [http://www.ex.ac.uk/sell/tlc/docs/publications/EX\\_JD\\_PUB\\_CONF\\_09.03.doc](http://www.ex.ac.uk/sell/tlc/docs/publications/EX_JD_PUB_CONF_09.03.doc) 19/08/04
- Davey, J. (2002). University study in mid and later life: The experiences of early school leavers. *New Zealand Journal of Adult Learning*, 30 (2), 18-33.
- Eagle, L. (2000). Student decision processes: Rational investment in human capital? *Access: Critical Perspectives on Cultural and Policy Studies in Education*, 18 (2), 93-102.
- Espinoza, S. (2001). *College decision-making of enrolling undergraduates: The influence of institutional factors*. Doctor of Philosophy dissertation submitted the University of Utah. 175 pages.
- Fisher, T. (2002). *Making the transition from secondary to university education: Understanding the students' perspective*. Doctor of Education thesis submitted to Monash University. Clayton Vic: Monash University.
- Hagy, A. & Staniec, J. (2002). Immigrant status, race and institutional choice in higher education. *Economics of Education Review*, 21, 381-392.
- Harker, D., Slade, P. & Harker, M. (2001). Exploring the decision process of 'school leavers' and 'mature students' in university choice. *Journal of Marketing for Higher Education*, 11 (2) 1-20.

- Harris Management Solutions Ltd. (2003). *Loose connections: A survey of student entry into technology sector tertiary education*. Commissioned by New Zealand Trade and Enterprise.
- Higgins, J. (2002). Young people and transitions policies in New Zealand. *Social Policy Journal of New Zealand*, 18, June, 44-61.
- Howard, M. (2002). Student use of rankings in national magazines in the college decision-making process. An EdD dissertation, The University of Tennessee, Knoxville. Retrieved from: <http://etd.utk.edu/2002/HowardMichele.pdf> 16/08/04.
- The Institute for Employment Studies; Committee of Vice-Chancellors and principals of the Universities of the United Kingdom; Higher Education Funding Council for England; Universities and Colleges Admissions Service. (1999). *Making the right choice: How students choose universities and colleges: The Year 11/S4 survey*. London: Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom. Appendix Two.
- Jackson, G. (1986). *Workable, comprehensive models of college choice*. Final and technical report. US Department of Education. 105 pages.
- James, R. (1999). *Non-traditional students and their university participation: An Australian perspective on persistent inequities and the new ideology of 'student choice'*. Paper presented at the 21<sup>st</sup> European Association of Institutional Research, Lund University, Sweden.
- James, R. (2000). How school-leavers choose a preferred university course and possible effects on the quality of the school-university transition. *Journal of Institutional Research*, 9 (1), 78-88.
- James, R., (2000). *TAFE, University or Work? The early preferences and choices of students in years 10, 11 and 12*. Leabrook, South Australia: NCVET.
- James, R. (2001). *Understanding prospective student decision-making in higher education and the implications for marketing strategies*. Marketing Education Conference, Sydney, 8-10 October, 7 pages.
- James, R., Baldwin, G. & McInnis, C. (1999). *Which University? The factors influencing the choices of prospective undergraduates*. Canberra: Department of education, Training and Youth Affairs.
- Janiga, S. & Costenbader, V. (2002). The transition from high school to postsecondary education for students with learning disabilities: A survey of college service coordinators. *Journal of Learning Disabilities*, 35 (5), 462 – 476.
- Keller, M. & McKeown, M. (1984). *Factors contributing to the postsecondary enrollment decisions of Maryland national merit and national achievement semifinalists*. Chicago: Annual meeting of the Association of Higher Education. 29 pages.
- Kern, C. (2000). College choice influences: Urban high school students respond. *Community College Journal of Research and Practice*, 24, 487-494.
- Le Claire, K.A. (1988). University choice behaviour: A preliminary analysis. *Education and Research Perspectives*, 15 (2), 83-96.

- Lillard, D. & Gerner, J. (1999). Getting to the ivy league: How family composition affects college choice. *Journal of Higher Education*, 70 (6), 706-730.
- Lilly, J., Armitage, A. & Thomas, H. (2000). *Educational choice at post-16: A study into how students determine their preferred post-16 educational provider*. Brentwood, Essex: Earlybrave Publications Ltd.
- Looker, D. & Lowe, G.S. (2001). *Post-secondary access and student financial aid in Canada: Current knowledge and research gaps*. Retrieved on 13/09/04 from: <http://www.milleniumpartnerships.ca/en/foundation/publications/pareport/cprn-bkgnd.pdf>.
- Maani, S.A. (2000). *School leaving, labour supply and tertiary education choices of young adults: An economic analysis utilising the 1977-1995 Christchurch Health and Development Surveys*. Treasury Working Paper 00/3. Retrieved on 13/09/04 from: <http://www.treasury.govt.nz/workingpapers/2000/twp00-3.pdf>
- Marquez, M. (1998). *Latino students' decision to attend College: Motivational factors and barriers*. Master of Social Work Thesis, University of California, Santa Barbara. 89 pages
- Martin, C. (1996). Institutional research and student recruitment or how do institutions of higher education know what attracts students to their doors? Market research can help. *Journal of Institutional Research in Australasia*, 5 (2), 45-54.
- Martinez, P. & Munday, F. (1998). *9,000 voices: Student persistence and drop-out in further education*. London: Further Education Development Agency.
- Maxwell, G., Cooper, M. & Biggs, N. (2000). *How people choose vocational education and training programs: social, educational and personal influences on aspiration*. Leabrook, SA: National Centre for Vocational Education Research. Retrieved on 15/09/04 from: <http://www.ncver.edu.au/research/proj/nr8013.pdf>
- McInnis, C., James, R. & Hartley, R. (2000). *Trends in the first year experience*. Evaluations and Investigations Programme, Higher Education Division 00/6. Canberra: Department of Education, Training and Youth Affairs.
- Nguyen, A.N. & Taylor, J. (2003). Post-high school choices: New evidence from a multinomial logit model. *Journal of Population Economics*, 16, 287-306.
- Ono, H. (2001). Who goes to college? Features of institutional tracking in Japanese higher education. *American Journal of Education*, 109, 161-195.
- Parente, A., Craven, R.; Munns, G. & Marder, K. (2003). *Indigenous student aspirations: An in-depth analysis of indigenous students' career aspirations and factors that impact on their formulation*. Paper presented at the NZARE and AARE Conference CRA03800.
- Payne, J. (2003). *Choice at the end of compulsory schooling: A research review*. Department for Education and Skills, Research Report No 414.
- Perna, L. (2000). Racial and ethnic group differences in college enrolment decisions. In A. Cabrera & S. La Nasa. *Understanding the college choice of disadvantaged students*. New Directions for Institutional Research, 107, Fall 2000. Jossey Bass Publishers, 65-83.

- Reay, D. (2003). A risky business? Mature working-class women students and access to higher education. *Gender and Education*, 15 (3), 301-317.
- Reay, D., David, M. & Ball, S. (2001). *Making a difference?: Institutional habituses and higher education choice*. Sociological Research Online, 5(4). Retrieved on 14/09/04 from: <http://www.socresonline.org.uk/5/4/reay.html>
- Soutar, G. & Turner, J. (2002). Students' preferences for university: A conjoint analysis. *The International Journal of Educational Management*, 16 (2), 40-45.
- St. John, E. (1991). What really influences minority attendance: Sequential analyses of the high school and beyond sophomore cohort. *Research in Higher Education*, 32 (2), 141-157.
- Stage, F. & Hossler, D. (1989). Differences in family influences on college attendance plans for male and female ninth graders. *Research in Higher Education*, 30 (3), 301-315.
- Swail, W. (2000). Preparing America's disadvantaged for college: Programs that increase college opportunity. In A. Cabrera & S. La Nasa. *Understanding the college choice of disadvantaged students*. New Directions for Institutional Research, 107, Fall 2000. Jossey Bass Publishers, 85-101.
- Teese, R. (2002). Bridging the gaps between secondary and tertiary education. *Mind the gap: Transition for all perspectives*. Roundtable Conference, University of Melbourne, 1-20. Retrieved on 14/09/04  
<http://www.services.unimelb.edu.au/transition/downloads/pdf/confrepdf/Teese.pdf>
- Tumblin, R.S. (2002). *The College choice process of non-traditional students*. A thesis for the Master of Education Degree in Higher Education. University of Toledo.
- Tyler, D. (1998). Vocational pathways and the decline of the linear model. *Vocational Knowledge and Institutions: Changing Relationships*. Proceedings of the 6th International Conference on Post-compulsory Training, Gold Coast Queensland, 77-87.
- Wagenaar, T. (1987). *Changes in postsecondary educational choices: 1972 to 1980*. Contractor report. Washington, DC: Center for Educational Statistics. 180 pages.
- Walck, D. & Hensby, S. (2003). Career and degree choice at transition to university. *Australian Journal of Career Development*, 12 (3), 64-71.
- Whitley, S. & Neil, C. (1998). *Queensland Year 12 students' experiences about post-school options: Are there equity issues?* Paper presented at the AARE conference, Adelaide.
- Yiv, C. & Secombe, M. (1999). Cambodian students and motivation to participate in higher education. *Education and Society*, 17 (2), 85-98.
- Yorke, M. (1999). *Leaving early: Undergraduate non-completion in higher education*. London: Falmer Press.