

CENTRE FOR TAX SYSTEM INTEGRITY



Higher education loans and tax evasion:
A case of policy eroding compliance?

Eliza Ahmed



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HIGHER EDUCATION LOANS AND TAX EVASION: A CASE OF POLICY ERODING COMPLIANCE?

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The Centre for Tax System Integrity (CTSI) is a specialised research unit set up as a partnership between the Australian National University (ANU) and the Australian Taxation Office (Tax Office) to extend our understanding of how and why cooperation and contestation occur within the tax system.

This series of working papers is designed to bring the research of the Centre for Tax System Integrity to as wide an audience as possible and to promote discussion among researchers, academics and practitioners both nationally and internationally on taxation compliance.

The working papers are selected with three criteria in mind: (1) to share knowledge, experience and preliminary findings from research projects; (2) to provide an outlet for policy focused research and discussion papers; and (3) to give ready access to previews of papers destined for publication in academic journals, edited collections, or research monographs.

Abstract

Australian higher education funding policy has been a contentious and emotionally charged topic on the political agenda since the introduction of the Higher Education Contribution Scheme (HECS) in 1989. HECS may have been genuinely intended to promote access to higher education on the basis of merit rather than socio-economic background, but it is now giving rise to negative unintended consequences. Dissatisfaction with university courses undermines a sense of obligation to repay HECS debt, which in turn impairs tax morale and triggers tax evasion. HECS policy has, therefore, been counter-productive in practice in building legal compliance despite its rigorous economic developments and its intuitive appeal to policy makers. Policy needs to be not only economically sound but also emotionally intelligent if government expects to receive voluntary compliance from citizens.

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I. INTRODUCTION

Australian higher education funding policy has been a contentious and emotionally charged topic on the political agenda since the introduction of the Higher Education Contribution Scheme (HECS) in 1989. The Australian Taxation Office (Tax Office) has the legal responsibility for collecting the balance of the outstanding loan from graduates through the taxation system. The question asked in this paper is whether this responsibility poses a challenge to the efficient functioning of the Tax Office and, if so, what strategies are needed to improve its functioning. In answering this question, issues are raised that extend beyond HECS policy. Internationally, tax administrations increasingly are showing interest in taking on the role of being a collection agency for superannuation, child support, traffic fines and the like (Vehorn & Brondolo, 1999). Analyses of the kind offered here should be undertaken to ensure that the legal authority of tax administrations is not being slowly undermined by adding such functions to that of collecting tax.

Background of the present study

HECS¹ is a higher education loan scheme that enables many Australian students to defer paying their tuition fees until they reach the minimum HECS payment income threshold. The primary purpose of HECS was to provide merit-based university access to all Australians regardless of their socio-economic background. Prior to HECS, Australians had enjoyed a period of free tuition for those talented enough to win a place in Australia's largely publicly funded university system. As government started considering a user-pays system for those attending university, great concern was expressed about how tuition fees would disadvantage talented students from a lower or more marginalised socio-economic background. HECS was the government's answer to these concerns.

¹ Note that from 2005, HECS is called HECS-HELP (for details, see http://www.dest.gov.au/sectors/higher_education/policy_issues_reviews/key_issues/AIP_2005/Higher_Education_Loan_Programme/What_is_HELP.htm)

Under HECS, students can choose to pay their contribution upfront or defer it. The Commonwealth provides a 25% discount² to eligible students who pay upfront. Students who choose to defer payment take out a loan from the Commonwealth Government and are required to repay that loan when their income exceeds the minimum threshold for compulsory payment. At the time of this research, the threshold was \$21 985 a year.

Since the introduction of HECS, concern has grown about its adverse consequences for Australian graduates and the Australian economy. For example, HECS debt has caused students to defer other investment decisions (such as family commitments, house purchase, and business investments) and to engage in increased paid outside work during semester (Larkins, 2003). A recent report has revealed that 20% of HECS loans (estimated to amount to A\$2.8 billion in 2004) are unlikely to be repaid (*The Australian*, 13 November 2004). An even more alarming effect of HECS is diminished morale in relation to HECS payment and to paying tax (Braithwaite & Ahmed, in press) and an increase in tax evasion (see for example Ahmed & Braithwaite, 2004).

Against this background, it is important to consider the question: Can HECS policy be counter-productive, and if so, why? Compliance with tax laws and principles does not occur in a social and emotional vacuum, but rather in the context of other legally prescribed and socially imposed constraints such as HECS. The micro and the macro factors influencing HECS payments seem to be interconnected through the reciprocal dynamics between the emotions and motivations of graduates on one hand, and the complex characteristics of social and political systems and institutions on the other. Policy makers generally have not been interested in these micro factors, and how they affect the behaviour of individuals, and eventually the effectiveness of policy. This paper, therefore, aims to understand these social-psychological factors and explain how they render HECS policy counter-productive from the perspective of those whose job it is to administer tax law and collect HECS payments.

² From 2005, the discount rate for upfront payment is 20%.

Structure of empirical analysis

This paper draws together empirical findings from three studies to analyse the question of how psychological factors account for the way in which policy in one area (higher education funding policy) can affect the behaviour of stakeholders in another area (taxpaying). The empirical component of the paper is structured in three sections.

The next section (II) examines whether citizens who carry a HECS debt are more likely to cheat on their tax returns than those without such debt. It draws on two independent surveys: (a) the Community Hopes, Fears and Actions survey (CHFA; Braithwaite, 2001), which was conducted nationwide in Australia, and (b) the Graduates' Hopes, Visions and Actions survey (GHVA; Ahmed, 2000b), which contains data obtained from a sample of Australian graduates.

Section III highlights the important differences between graduates with HECS debt and those without in relation to their socio-demographic characteristics, their attitudes toward their education, HECS policy and the tax system, and finally their taxpaying behaviour. For this purpose, data are taken from the GHVA Survey. Section III raises the following questions:

- (a) Do graduates carrying a HECS debt experience university courses differently from those who pay upfront?
- (b) Are graduates who carry a HECS debt more likely to oppose HECS than those who pay upfront?
- (c) Do graduates carrying a HECS debt have a more antagonistic view toward the tax system than those who pay upfront? Are they more likely to engage in tax evasion?

The final empirical section investigates the psychological factors underlying tax evasion among graduates in the context of HECS policy. Section IV again uses data from the GHVA survey. The central questions addressed in this section are:

- (a) To what extent does discontent at a personal and a policy level with higher education and its funding undermine tax compliance among graduates?

- (b) What roles do shame and conscience play in mediating citizens' discontent (policy and personal) and tax evasion?

II. HECS POLICY SPILLS OVER INTO TAX EVASION

Database and methodology

The analyses presented in this section are based on two data sets – the CHFA survey and the GHVA survey.

At the outset, it should be acknowledged that the survey methodology that was used lends itself to a potential bias in recruiting a sample that was over-representative of compliant citizens. In order to encourage the less compliant to participate, a number of steps were considered. First, care was taken to be open to different views about HECS and the tax system. Sometimes people evade tax for reasons that they are very willing to explain (Braithwaite, 2003). Second, it was emphasised that the research was conducted by the Centre for Tax System Integrity at the Australian National University, and that the Tax Office would not have access to any taxpayers' individual survey responses. It was also pointed out that the survey was anonymous and that answers would remain confidential. Credible assurances of anonymity and confidentiality are essential to minimising socially desirable responses (that is, the tendency to present in a favourable way) in surveys of this kind. The two surveys on which the analyses presented in this paper are based are described below.

Community Hopes, Fears and Actions (CHFA) survey

The CHFA survey was a national survey conducted between June and December 2000 by the Centre for Tax System Integrity at the Australian National University. A stratified random sample of 7754 persons was selected from the publicly available electoral rolls. A lengthy questionnaire on tax matters was sent to each person selected, together with a letter explaining the purpose of the study and a stamped addressed envelope for the return of the completed questionnaire.

Of the households contacted, 29% (after allowing for undelivered questionnaires and ineligible respondents) completed and returned the survey after several reminders,³ providing 2,040 cases for further analysis. This response rate, while low in absolute terms, compares favorably with rates reported for other tax surveys (Pope, Fayle, & Chen, 1993; Kirchler, 1999; Wallschutzky, 1996; Webley, Adams, & Elffers, 2002).

A series of diagnostic analyses (see Mearns & Braithwaite, 2001) suggested that the sample yielded a relatively representative cross-section of the views of Australians about their tax system. Furthermore, the sample was relatively representative of the population with regard to sex, ethnicity, education, age, occupation, and marital status. Two biases were detected: an over-representation of those in scribing occupations who would have been more comfortable with a detailed response-intense questionnaire, and an under-representation of younger age groups (18–25 years) who traditionally are difficult to recruit for self-completion surveys.

Measures taken from this survey have already been described in Ahmed and Braithwaite (2004), and hence, will not be reported in this paper. However, a brief description is provided of the two key variables of interest: (a) carrying a HECS debt, and (b) tax evasion.

- (a) To determine whether respondents were carrying a HECS loan, they were asked a single question: ‘Do you pay HECS for yourself?’ - 8% replied that they were.
- (b) Tax evasion was measured by asking questions on under-reporting income, engaging in the cash economy, and exaggerating deductions.

Scores on the three evasion measures correlated positively with each other, ranging from 0.11 ($p < 0.001$) to 0.35 ($p < 0.001$). Following Braithwaite (2003), they were combined into one composite tax evasion measure.

³ Details of the methodology of the survey are available in Mearns and Braithwaite (2001).

Graduates' Hopes, Visions and Actions (GHVA) survey

The second set of data used in this paper was collected from 447 Australian graduates who completed the GHVA survey (Ahmed, 2000b; for a detail description of the survey and its responses, see Ahmed, 2004). Selection was confined to graduates whose degrees were conferred in either 1998 or 1999, since they were expected to have become employed by the time the survey was mailed out. The sample was stratified in terms of students graduating from each discipline in two universities in the Australian Capital Territory.

Of the 1500 questionnaires distributed, 447 were returned after several reminders, giving a response rate of 33% (after excluding undelivered questionnaires from the base). This response rate is comparable with rates reported for other tax-based surveys (Braithwaite, 2001; Pope et al., 1993; Kirchler, 1999; Wallschutzky, 1996; Webley et al., 2002).

Details about the measures taken from the GHVA survey have been described elsewhere (Ahmed, 2004). The two key variables – carrying a HECS debt and tax evasion – are described below.

Graduates were asked whether they carry any HECS debt: 'Do you have a HECS debt?' (yes = 1, no = 2; reverse coded for analyses). Of the total sample, 65% had a HECS debt and 35% had paid their tuition fees upfront.

Three measures were used to develop the behavioural index of tax evasion. To form the index of tax evasion, respondents were grouped as evaders if they had evaded tax in any one of the following ways:

- 'How much of your income in the 1999–2000 financial year did you get paid in untaxed cash?' (that is, notes and coins rather than cheque or directly deposited into a bank account) (less than 5% = 1, 5–20% = 2, 20–50% = 3, more than 50% = 4, did not get paid any untaxed cash = 5);
- 'How much of your untaxed cash income did you declare on your 1999–2000 income tax return?' (none = 1 through all = 10);

- ‘As far as you know, did you exaggerate the amount of deductions or rebates in your 1999–2000 income tax return?’ (a lot = 1, quite a lot = 2, somewhat = 3, a little = 4, not at all = 5);
- ‘As far as you know, did you report all the money you earned in your 1999–2000 income tax return?’ (yes = 1, no = 2).

Respondents who indicated that they were totally compliant on all three indicators were assigned to the non-evader group. Thus, tax evasion was scored as 1 if the evader was non-compliant on at least one indicator and 0 if compliant on all three indicators. This dichotomous index differs from the more refined, graduated index used in the CHFA survey. The reason is that new graduates are just entering the workforce and are relatively inexperienced with the tax system, possibly with fewer options for evasion. The data showed that the new graduates in this sample were less likely to be engaged in any more than one of these ways of evading tax.

Findings

Using the CHFA database, a Pearson product-moment correlational analysis was conducted to examine the relationship between carrying a HECS debt and cheating on tax. Carrying a HECS debt was positively and significantly related to tax evasion ($r = 0.13$; $p < 0.001$). This means that citizens who have a HECS liability are more likely to engage in tax evasion, characterised by under-reporting income, over-claiming deductions, and engaging in the cash economy.

Analysis with the GHVA survey, which contains a homogeneous sample of graduates, produced an identical result. The finding confirms that carrying a HECS debt poses a compliance problem for tax authorities. The Pearson product-moment correlation coefficient was 0.16 ($p < 0.001$).

In a further analysis using an OLS regression with the CHFA database, carrying a HECS debt remained a positive and significant predictor of tax evasion after a number of other variables were taken into account. Briefly, the findings showed that tax evasion was more

likely among those who earned less income, believed there was a lower probability of being caught and did not fear the consequences of being caught (perceived deterrence), distanced themselves from an honest taxpaying ethic (moral obligation), were inclined to displace shame (blamed the Tax Office for any tax compliance problems), and did not believe that the Tax Office could be regarded as trustworthy in the future. Having a HECS debt increased tax non-compliance further, above and beyond these effects.

While HECS debt seemed to be working on tax compliance independently of the other variables, interaction effects were observed between (a) having a HECS debt and confidence in the Tax Office; and (b) having a HECS debt and income. Citizens with a HECS debt were notably less willing to comply if they had lost confidence in their debt collector (that is, the Tax Office). Confidence in the Tax Office was assessed in terms of whether it had previously behaved in accordance with citizens' expectations. Confidence or trustworthiness, therefore, seems to be an important precondition for increasing tax compliance among those who are yet to repay their HECS loan to the government. When trust or confidence does not exist, HECS debtors are more likely to practice tax evasion.

The second circumstance making tax evasion more likely was low personal income. Tax evasion was greater among those citizens who were carrying a HECS debt and were living on a low income. The most likely interpretation of this finding is that cheating on tax may be one way of reducing financial burden. A recent parliamentary report has recognised unacceptable levels of financial hardship among Australians, particularly those on lower incomes (The Senate, Parliament of Australia 2004).⁴

The role played by income in tax evasion, however, proved to be more complicated when the graduate data set was examined. The above findings emerged from a sample of the general population (of whom HECS debtors and university graduates made up but a small part). When the sample was restricted to recent university graduates (GHVA database), a different finding emerged. In ordinary least squares regression analysis, income was not a significant predictor of tax evasion among graduates. After a number of avenues were

⁴ The Senate Inquiry found that 21% of Australians were surviving on less than \$400 per week. The minimum wage is \$431.

explored to find an explanation of the findings, attention focused on the absence of a linear relationship in the data between income and tax evasion. For the graduate sample, the middle-income earners (with an annual income between AUD\$30 000 and AUD\$50 000) were the most non-compliant. A possible explanation is that among the graduate population, the group with most need for disposable income is the middle income group. They are ambitious for acquiring the capital they need to buy a car, a house, start a family and so on. Those on a lower salary may see themselves as still struggling to find their feet, holding lower aspirations, with some not yet required to pay back their HECS debt. Presumably, those on a higher salary can meet their aspirations as well as pay their HECS debt.

When attention turns away from the graduates and toward the general population sample, it is likely that the group in most need of disposable income changes accordingly. Those struggling to make ends meet are less likely to be middle income earners and more likely to be lower income earners. It is of note that past studies (for a review, see Richardson & Sawyer, 2001) have produced conflicting results on the link between income and tax evasion. In light of the findings reported here, further study is warranted to determine whether income bears different meaning at different stages of the life cycle, and therefore differentially impacts on tax compliance.

The non-linear relationship between income and tax evasion was illustrated using a Decision Tree Analysis⁵ which confirmed that tax evasion among graduates was concentrated among those who earned between AUD\$30 000 and AUD\$50 000 a year. To gain further insight into this result, another tree analysis was performed in which age was included (see Figure 1). Citizens in their late 20s who fell in the above income range and were carrying a HECS debt were more likely to cheat on tax.⁶ Such findings can be explained by the fact that Australian citizens in their late 20s and early 30s are likely to be planning their futures in terms of getting married, starting a family and/or owning a home (Australian Bureau of Statistics, 2001). It therefore seems plausible to postulate that life

⁵ A Decision Tree Analysis is a graphic representation of a procedure for classifying or evaluating a variable of interest against one or more other variables. In the current case, we wanted to show the nodes for personal income to determine the extent to which tax evasion occurs within those nodes.

⁶ One cautionary note is that only 15 cases were in this terminal node of tax evasion.

stage is a factor affecting capacity or willingness to meet tax obligations. Of particular interest in these findings was that while tax evasion was far more prevalent among those carrying the debt, an identical pattern was evident among those who paid upfront. As Figure 1 reveals, tax evasion was also common (although to a lesser extent) among graduates who had already finished payments to HECS, and who were in their late 20s and early 30s with earnings in the mid-range of AUD\$30 000 to AUD\$50 000.

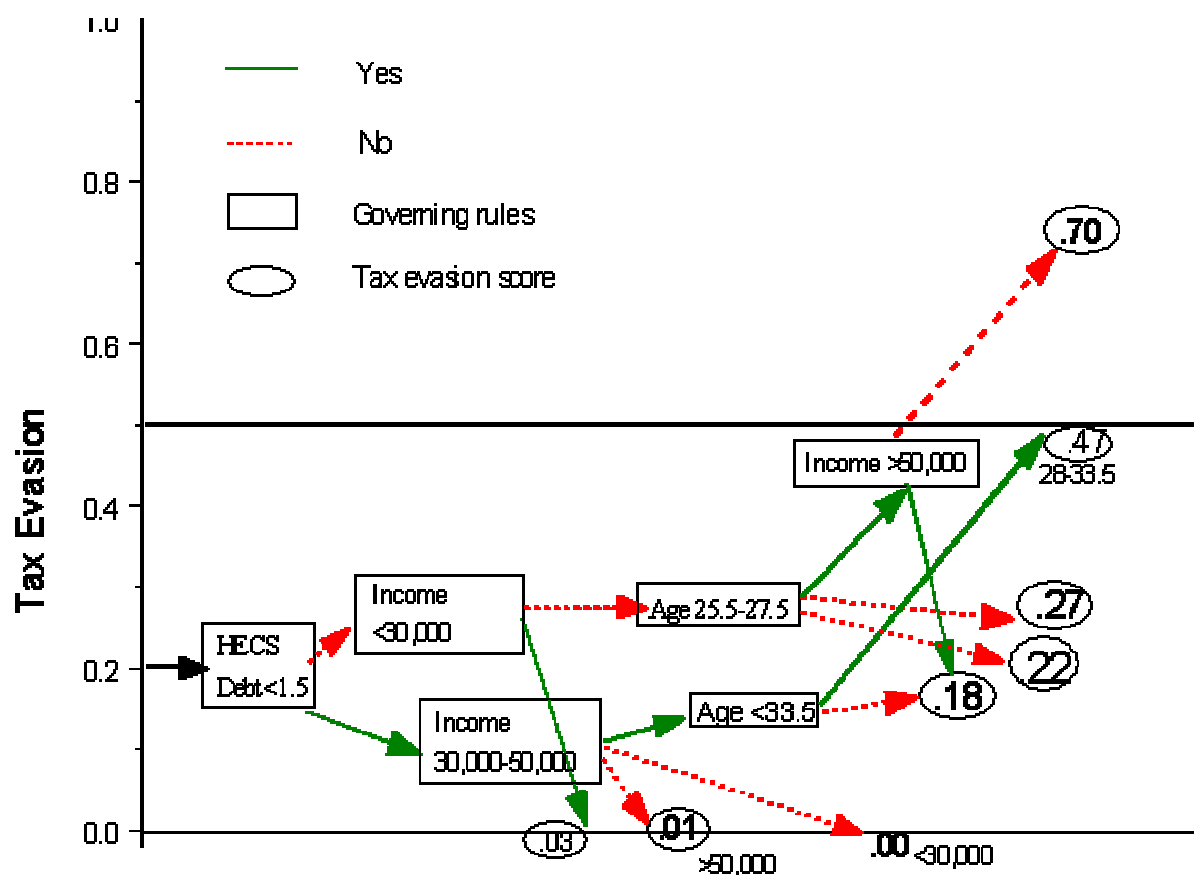


Figure 1: A Decision Tree Analysis for tax evasion using HECS debt, income and age as classifying variables

III. AUSTRALIAN HIGHER EDUCATION POLICY: SOCIAL DEMANDS AND POLITICAL RESPONSES

Section II has demonstrated that bearing a HECS debt was associated with tax non-compliance. But the Decision tree analysis demonstrated that carrying a HECS debt was not the only consideration affecting tax compliance among new graduates. Demographically, people in their late 20s in the income range of AUD\$30 000 to AUD\$50 000 were more likely to cheat on tax regardless of their HECS situation. This suggests that carrying a loan or paying it off upfront may be less important than the sheer size of the financial investment that is made by individuals to obtain a tertiary degree. This raises the question of whether HECS policy, designed to create opportunity for those who are more marginalised in terms of their likely participation in tertiary education, actually is delivering intended support.

In order to examine this question, Section III compares the two groups of graduates (those who had paid HECS upfront and those who still had a HECS debt) on a broader range of variables, including additional socio-demographic variables and an array of perceptions and attitudes towards HECS and taxation.

Database

The analyses presented in this section are based on the GHVA survey dataset. A detail account of the variables used in this section can be found in Ahmed (2004).

Findings at the bivariate level

A series of independent t-tests was conducted to explore differences between the two groups of graduates.

Findings in respect of socio-demographic variables indicated that graduates carrying a HECS debt tended to be (a) young women from less affluent backgrounds, (b) enrolled in a full-time study predominantly doing combined degrees (for example, law and arts,

economics and computer science), and understandably, (c) relatively new in the employment market.

Another important finding was that graduates who had yet to repay the debt to the government were less satisfied with the quality of their university education. Significantly, they expressed more dissatisfaction about the quality of the professional skills that they had acquired, which is crucial to their employment prospects.

Graduates' responses also reflected their adverse attitudes towards HECS as a social policy. Findings revealed that graduates who carried a HECS debt were more likely, than those who did not, to regard HECS as unfair. Not surprisingly, therefore, they felt less of an internalised obligation to repay the loan (HECS morale), and expressed less shame and remorse if caught for non-payment. Further analyses were carried out of group differences in taxpaying behaviour. Consistent with the negativity to government reflected in the above findings, cheating on tax was found to be more common among those who were carrying a HECS debt.

Table 1: Standardised Canonical Discriminant Function Coefficients, Wilk's Lambda and F-values with their level of significance from a Discriminant Function Analysis

Predictor variables	Standardised Canonical Discriminant Function Coefficients	Wilk's Lambda	F value with significance
Modes of study (full-time vs part-time)	0.46	0.76	102.68***
Perceived deterrence	-0.37	0.72	63.23***
Age	0.36	0.68	50.44***
Length of working years	0.36	0.66	42.16***
Perception of HECS as an unfair scheme	-0.32	0.64	36.91***
Shame acknowledgment	0.25	0.63	31.87***
Gender	-0.21	0.62	28.28***
Tax evasion	-0.19	0.61	25.51***
<i>Canonical R</i>	0.62		
<i>Eigenvalue</i>	0.64		
<i>Chi-Square</i>	159.45***		

*** p < 0.001

In the next stage, a discriminant function analysis was used to determine which of the above variables were the most important in discriminating between the two groups. Once we know about these variables, a better understanding of how HECS policy connected with graduates' perceptions of taxpaying responsibility should be possible. Only variables that at the bivariate level significantly differentiated those carrying a HECS debt from those not carrying a HECS debt were used in the discriminant analysis (see Table 1).

Discriminant function analysis

As is evident from Table 1, eight variables made significant contributions to the discriminant analysis in differentiating the two groups of graduates. A total of 85% of the graduates carrying a HECS debt and 74% of the graduates who paid upfront were correctly placed in their respective group, which is well above the 50% chance of correct classification. The emerged discriminant function accounted for 64% of the total variance (Wilk's Lambda = 0.61, Canonical correlation = 0.62, Chi-square = 159.45, $p < 0.001$) (see Table 1). The eigenvalue, chi-square, and Wilk's Lambda suggest that a considerable amount of discriminatory information is accounted for by the eight discriminatory variables.

Overall, the significant variables can be grouped in two categories: (1) socio-demographic and (2) social-psychological. Among the socio-demographic variables were: (1) age ($M = 31$), (2) gender, (3) full-time/part-time enrolment, and (4) length of employment. The pattern of findings suggests that graduates carrying the debt tended to be young women who were enrolled in full-time studies. Their length of employment experience was less than that of the other group, who paid upfront. Put simply, HECS debt was more common among citizens who traditionally have been viewed as more marginalised and who were relatively new to the labour market.

The analysis also revealed that four social-psychological variables were critical to understanding the psychology of HECS loan beneficiaries. Apart from being more likely to evade tax, they were: (1) more fearful of deterrent action by the tax authority for non-payment of HECS, (2) more likely to perceive HECS as an unfair scheme, and (3) less

likely to feel shame or guilt about non-payment. At first glance, it seems paradoxical that graduates carrying a HECS debt perceived deterrence as a likely outcome of non-payment of the debt, and at the same time shrugged off their feelings of shame for non-payment. This can be explained through graduates' belief that HECS is an unfair policy, which justifies the lack of shame and remorse for non-payment despite their fear of deterrence (Ahmed, 2000a). Possibly the unfair policy neutralises shame feelings (Sykes & Matza, 1957; Thurman, St. John & Riggs, 1984) However, more than this seems to be happening. Graduates seem to be flouting the law not only in relation to HECS but in relation to other laws as well (Nadler, 2002). What is not clearly understood is the path that leads graduates to tax evasion. We endeavour to gain some insight into this issue in the next section.

IV. THE NEED FOR AN EMOTIONALLY INTELLIGENT POLICY TO DETER TAX EVASION

The main findings that emerged from Section III are fourfold. First, there is overall support for the equity argument for implementing HECS policy in that the more marginalised take out a loan. Second, there is dissatisfaction with HECS policy among the group carrying a HECS debt. Third, those with a HECS debt feel less shame and remorse for not repaying the HECS loan in spite of fear of the tax authorities' deterrence measures. Finally, Section I and Section II each show that carrying a HECS debt is linked with tax evasion.

The above findings raised the possibility that psychological variables may have been responsible for undermining the legitimacy of the tax system in the eyes of graduates. The reasoning behind this speculation is as follows: HECS is undertaken by students to pursue a university education for a better future with better employment status. This is akin to a 'psychological contract' between the government and students. When students finish their education they search for employment to which they believe they are entitled and prepare to repay the HECS loan. If they feel dissatisfied with the quality of the university education they received, they regard the outcome as a violation of the 'psychological contract'. It may well be the case that such students believe that they have been 'short-changed' by the government, and that cheating on tax is the best possible way to get back at the

government. Tax cheating by graduates, therefore, is in the nature of retaliation against the debt collector.

In order to cast new light on the psychological processes leading to tax evasion by graduates, a path analytical approach was used. The path analysis included eight variables that were derived from Sections II and III. These are: HECS debt, policy discontent, university course satisfaction, shame management variables (shame acknowledgment, shame displacement, and shame avoidance over not repaying HECS debt), dissociation from the tax system, and tax evasion.

Database

The analyses presented in this section are again based on the GHVA survey dataset. A detailed description of the variables used in this section can be found in Ahmed (2004).

Briefly, *HECS debt* represents whether a respondent has a loan for his or her higher education through HECS. *Policy discontent* represents dissatisfaction with HECS as a government policy to fund higher education. *University course satisfaction* represents the degree to which graduates feel satisfied with their investment in higher education. It was operationalised as graduates' satisfaction with what they received, specifically (a) the quality of teaching, (b) skill acquisition, and (c) professional development.

Three shame management variables were used: *Shame acknowledgment* refers to admitting shame and remorse should one be caught for non-payment of a HECS loan, *shame displacement* refers to feeling angry at the tax authority should such an event occur, and *shame avoidance* refers to a lack of shame for being challenged by the authority.

Dissociation is understood as a socially distant posture that enables citizens to cut themselves off from the demands of the tax authority and successfully challenge the authority (for details, see Braithwaite, 2003). Finally, *tax evasion* is an index representing whether one has or has not cheated on tax in relation to either under-reporting income or exaggerating deductions.

Findings

Through correlational analyses, it was found that perceived policy discontent and course dissatisfaction reduced shame acknowledgment but increased shame displacement and shame avoidance. Low shame acknowledgment and high shame displacement was significantly related to dissociation; and dissociation was positively related to tax evasion. Graduates who were not satisfied with their university degree were more likely to dissociate from the Tax Office and were more likely to engage in tax evasion. The last significant correlation among the eight variables showed that bearing a HECS debt was positively linked with tax evasion, defined as over-claiming deductions or not declaring untaxed income.

Next, a path analysis took account of the inter-relationships among the same eight variables to try to understand how they were connected and leading to tax evasion. Understanding what these relationships mean at the bivariate level is impossible because of their interrelations. The findings (see Figure 2) uncovered a number of different pathways to tax evasion for Australian graduates which involved not only their experiences with HECS but also their experiences of university education, regardless of whether they paid their HECS upfront or as a loan.

First, from Figure 2, a direct link was found between carrying a HECS debt and cheating on one's tax return. Such a relationship was independent of the graduates' personal income or family income.

Second, dissatisfaction with university courses resulted in a greater inclination to cheat on tax, regardless of whether or not one carried a HECS debt. Such dissatisfaction also had an indirect effect on tax evasion via reduced levels of shame and remorse and higher levels of displaced anger, leading to dissociation from feeling any obligation to pay one's tax.

Third, discontent in relation to HECS policy also revealed an indirect pathway to tax evasion. Those who perceived HECS as being an unfair scheme showed low shame

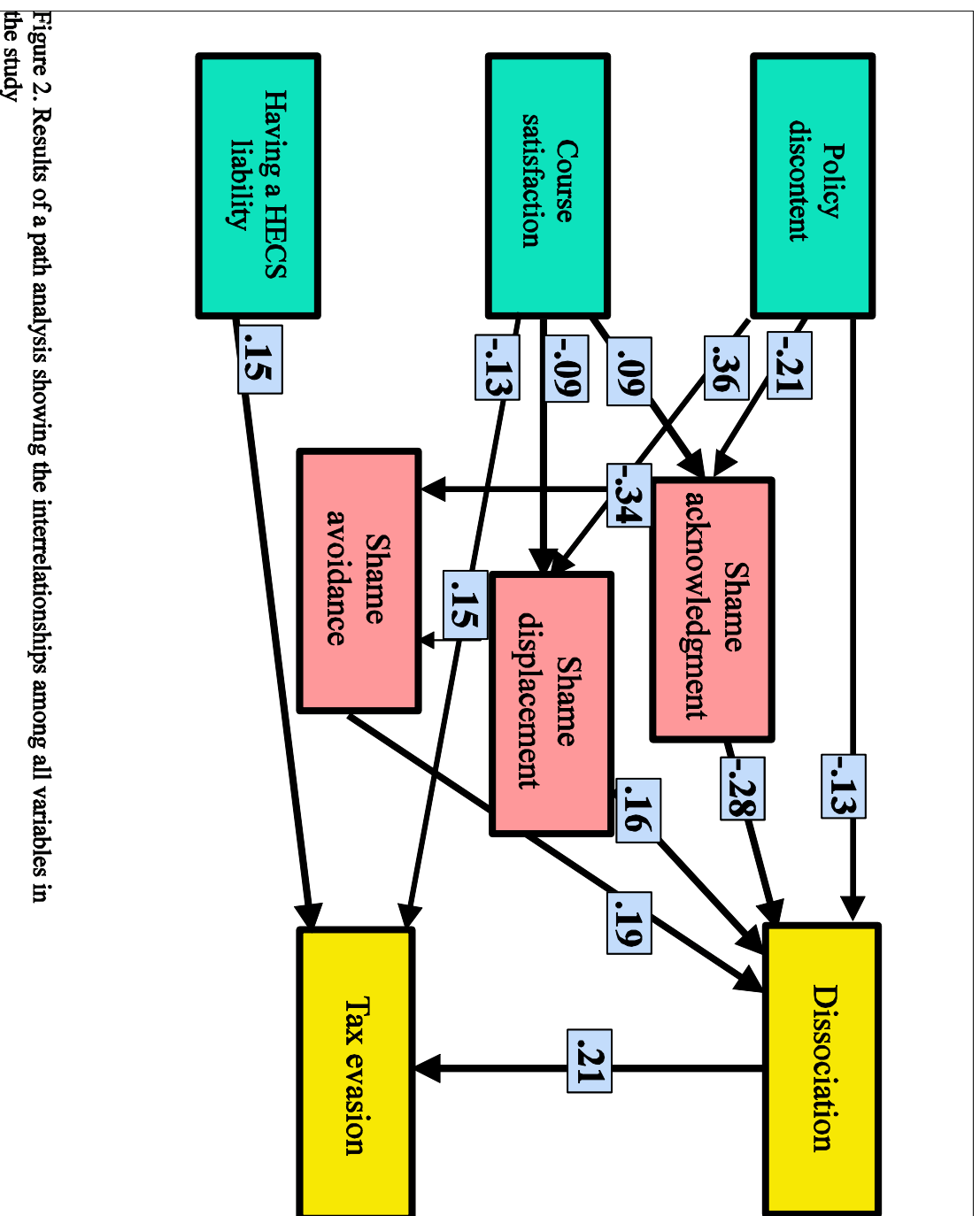


Figure 2. Results of a path analysis showing the interrelationships among all variables in the study

acknowledgment and high shame displacement which, in turn, was associated with distancing oneself from the tax system. Once they had disavowed any sense of obligation to pay taxes by shrugging off feelings of shame, they were dissociated from the system and likely to engage in tax evasion.

These results underscore the proposition that channels to tax evasion are emotional, cognitive and social – as well as economic. It is emotional because shame management (acknowledgment and displacement) played a major mediating role in affecting tax evasion. It is social because discontent with HECS policy and university education seemed to be responsible for eliciting the forms of shame management that are linked with tax evasion. The acts of evasion have a cognitive base because citizens knowingly distanced themselves from their debt collector and disobeyed tax law.

V. DISCUSSION AND CONCLUSIONS

This paper provides evidence about the circumstances under which citizens carrying a HECS loan do not comply with their tax obligations. Findings obtained from two independent surveys demonstrate that having a HECS debt carries a risk of tax evasion among Australian graduates. This in itself is an important finding for those contemplating expansion of the functions of a tax authority beyond tax collection. Equally important is the finding that evaluation of government funding and performance in one area (tertiary education) influences relationships with other parts of government (the tax authority). Tax evasion among graduates is not only a result of bearing the HECS loan, but also of the psychology of being poorly treated in relation to one's tertiary experience, by the university and by the government that funds the universities.

HECS was initiated to ensure merit-based entry to university education irrespective of Australian citizen's socio-economic background. Our analyses suggest that HECS policy probably has achieved its overall objectives in promoting accessibility of higher education to marginalised Australians. But at the same time it appears to have had some unforeseen and unintended adverse consequences over the last two decades. It seems to have provided justification for breaking the law through evading tax.

Apart from legal ramifications surrounding tax, there are economic ramifications as well. In Australia, twenty percent of HECS debt was referred to as 'HECS doubtful debt' and estimated at A\$2.8 billion in 2004. Other nations have reported similar consequences. For example, New Zealand Inland Revenue has reported substantial losses in unpaid student loans (Annual Report, Student Loan Scheme, 2003). More alarming is the fact that in the United Kingdom in 2003, three times more students than in 2002 declared bankruptcy in order to have their student loans discharged (BBC News, 2 March 2004).

Bearing a HECS liability has economic consequences through tax losses as well. In the regression analysis reported in Section 1, the effect size associated with carrying a HECS debt was 14.89%. This means that not owing a HECS debt could reduce tax evasion by 14.89%, which raises the question of whether it is not more economically sound to have tuition fees publicly funded by tax dollars in the first place (Ahmed & Braithwaite, submitted; Yu, Hume, Ingleson, & McConkey, 2002).

The HECS policy has changed the frame for higher education in Australia. It has changed from being an entitlement system to a contractual, user-pays system. Associated with this new frame is a dynamic exchange of obligations and expectations in an on-going relationship. This 'psychological contract' is complex, changeable, individualistic, and therefore unpredictable. By demonstrating that a variety of factors including course dissatisfaction, carrying a HECS debt, and opposing HECS policy can weaken resolve to pay one's tax, this study has provided insight into the level of bargaining between citizens and the state that might be expected in the future.

HECS policy has created problems for government and law enforcement agencies because its designers have disregarded the importance of legitimacy for winning compliance. Recently, it has been proposed that the tax system can also be used to collect fines for a wide variety of offences, ranging from traffic infringements to more serious criminal offences (see Chapman, Freiberg, Quiggin & Tait, 2004). Such as an extension of the Tax Office's responsibilities may only add to existing problems. The proposed Fine Enforcement Collection Scheme (FECS) seems as flawed by its shortcomings in not recognising the psychological factors at work in compliance, as by its short-sightedness in

not recognising the difficulties of reversing a process that slowly undermines tax system legitimacy.

In adopting HECS policy, policy makers seem to have dissociated its economic credentials from the social fabric in which it is embedded. Most of the economic elements, like payment, administration costs, and collection costs, have been considered outside their social, emotional and psychological contexts. Hence, the social, emotional and psychological costs of HECS policy have been largely ignored and not understood.

Thus, an argument should be made for the establishment of emotionally intelligent policy that is not only economically sound but also responsive to citizens' emotions and motivations. Such responsiveness is necessary for ethical and effective regulation, and to give government legitimacy and trustworthiness in the eyes of citizens. Without legitimacy, trustworthiness and the social conscience it generates, governments will have to rely on tax authorities becoming more coercive in order to implement and administer their policies.

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