

Has employer satisfaction with vocational education and training changed between 2005 and 2007?

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NATIONAL CENTRE FOR VOCATIONAL EDUCATION RESEARCH

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## About the research



Has employer satisfaction with vocational education and training changed between 2005 and 2007?

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This paper investigates large differences in employer satisfaction with vocational education and training (VET) between 2005 and 2007. Employer satisfaction was measured using the Survey of Employer Use and Views of the VET System, which was first conducted in 2005 and repeated in 2007. It measures employer satisfaction with vocational qualifications as a job requirement, apprentices and trainees, and nationally recognised training.

Differences in weighted estimates of employer satisfaction were examined in light of sample sizes and the distribution of employers' responses to the survey. A model-based approach to estimation was used, which accounted for the relationship between satisfaction and the size and industry of the employer.

#### Key messages

- In three out of five cases, the large differences in employer satisfaction between years were found to be real and not as a result of the structure of the sample.
- In the remaining two cases, the differences in employer satisfaction were found not to be significant. This suggested that the structure of the sample had the potential to reveal differences that did not hold up under closer scrutiny.
- Survey estimates of large differences between years need to be treated with some caution and a model-based approach to estimation provides a tool to give assurance that large differences are real and not a result of peculiarities in the sample.

Tom Karm	nel
Managing	Director, NCVER

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## Background

The Survey of Employer Use and Views of the Vocational Education and Training (VET) System was first conducted in 2005 and repeated in 2007. One of the measures from the survey is employer satisfaction with aspects of the VET system, namely, with vocational qualifications as a job requirement, with apprentices/trainees, and with nationally recognised training. When the weighted results of 2005 and 2007 were compared, some large differences were observed in a number of jurisdictions (table 1). Note that standard errors were also large.

Table 1 Employers who are satisfied with training as a way of meeting skill needs by type of engagement with training, 2005 and 2007 (%)

State (Base: all employers within state)	vocational q	ers with qualifications equirement		ers with es/trainees	nationally	s providing recognised ning <sup>b</sup>	Employers providing unaccredited training		
	2005	2007	2005	2007	2005	2007	2005	2007	
NSW	77.1	80.7	73.7	87.1	79.4	74.2	92.8	93.4	
Vic.	77.7	85.4	84.0	82.3	86.3	82.0	93.5	90.6	
Qld	73.2	76.2	81.3	83.9	70.9	87.7	88.1	92.7	
SA	70.1	88.4	82.4	81.7	80.2	88.2	92.6	91.6	
WA	83.8	72.1	80.4	70.4	84.7	81.9	93.1	92.7	
Tas.	81.4	85.5	80.2	89.6	82.8	83.7	93.6	95.9	
NT	67.7	76.8	84.2	82.7	74.4	73.9	94.8	88.5	
ACT	77.5	84.4	69.9	81.8	83.2	83.9	93.6	94.0	

Notes:

- a 'Satisfied' was rated as either satisfied or very satisfied.
- b Nationally recognised training is defined as nationally recognised training other than as part of an apprenticeship or traineeship. For the purposes of this survey, apprenticeships and traineeships are reported separately.

Source: NCVER Employers' use and views of the VET system 2007–Summary.

The aim of this paper is to determine whether these differences are real or whether they are related to other factors, such as the distribution of the sample by industry or employer size. A model-based approach that accounts for the relationship between satisfaction and the size and industry of the employer is used.

## Methodology

A series of regression analyses were conducted to determine the underlying cause of the large differences observed in some jurisdictions between the two survey years. For each aspect of the VET system (employers with vocational qualifications as a job requirement, employers with apprentices/trainees and employers providing nationally recognised training), a logistic regression was run for each jurisdiction, using satisfaction as the dependent variable, year as an explanatory variable, together with industry by size as control variables.

A logistic regression model (logit) was run using SAS (Statistical Analysis System), which indicates the event of an employer being satisfied as 1.

Using logistic regression estimates from the analysis and logit transformation, satisfaction probabilities for 2007 can be predicted from the survey estimates of satisfaction in 2005. These predicted values are the estimated probabilities that an employer using a particular aspect of VET in a particular jurisdiction will be satisfied in 2007. Moreover, the regression enables us to see whether differences between 2005 and 2007 are statistically significant.

Predicted values for 2007 were calculated using the following equations:

Let  $p_1$  be the survey estimate at time 1, that is, 2005,  $p_2$  the estimate at time 2, that is, 2007.

The logistic regression model is:

$$\ln\left(\frac{p_t}{1-p_t}\right) = \alpha + \delta t_i + \beta x \tag{1}$$

where  $t_i$  in 2005 takes the value 0 and  $t_i$  in 2007 takes the value 1, x is a vector of control variables (industry and size),  $\boldsymbol{\beta}$  the corresponding coefficients of control variables,  $\boldsymbol{\delta}$  is the coefficient for time t and  $\boldsymbol{\alpha}$  is the intercept.

Noting that when  $t_i = 0$ :

$$\ln\left(\frac{p_1}{1-p_1}\right) = \alpha + \beta x \tag{2}$$

So the prediction  $p_2$  is obtained by substituting (2) into (1). That is;

$$\ln\left(\frac{p_2}{1-p_2}\right) = \ln\left(\frac{p_1}{1-p_1}\right) + \delta \tag{3}$$

Hence,

$$\frac{p_2}{1-p_2} = \left(\frac{p_1}{1-p_1}\right)e^{\delta} \qquad \text{and} \qquad p_2 = \frac{p_1 e^{\delta}}{\left[1-p_1\left(1-e^{\delta}\right)\right]}$$

For example, in Western Australia employer satisfaction with apprentices and trainees in 2007 was predicted to be 71.0%, based on the survey estimate of satisfaction of 80.4% in 2005. From our logistic regression result,  $\alpha = 1.2543$  and  $\delta = -0.5176$ .

 $p_1$  (the survey estimate in 2005) = 80.4%

$$p_2 = \frac{p_1 e^{\delta}}{\left[1 - p_1 \left(1 - e^{\delta}\right)\right]} = \frac{0.804 * e^{-0.5176}}{\left[1 - 0.804 \left(1 - e^{-0.5176}\right)\right]} = 71.0\%$$

### Results

By controlling for the interaction between industry and employer size, year was the only variable that accounted for the differences observed in employer satisfaction in some jurisdictions between years.

Summary results of the logistic regressions for the three aspects of the VET system by the eight jurisdictions are shown below. Detailed results of the regression analyses are provided in appendix A. The jurisdictions in which a significant difference between years was observed are shaded in the tables below.

Table 2 shows that only in Western Australia was the difference in employer satisfaction levels with vocational qualifications as a job requirement significant between 2005 and 2007.

Table 2 Results of logistic regression analysis of employer satisfaction with vocational qualifications as a job requirement using year as the explanatory variable

State	Coefficients ( $\delta$ )	Standard error	Significance levels (p-value) for $\delta$
NSW	0.13	0.20	0.52
Vic.	-0.05	0.23	0.84
Qld	0.02	0.21	0.94
SA	0.50	0.27	0.07
WA	-0.63	0.23	0.01
Tas.	0.54	0.29	0.07
NT	0.23	0.29	0.43
ACT	0.54	0.29	0.06

Table 3 shows that a significant effect of year on the difference in satisfaction with apprentices/trainees was observed between 2005 and 2007 in four jurisdictions, New South Wales, Western Australia, Tasmania and the Australian Capital Territory.

Table 3 Results of logistic regression analysis of employer satisfaction with apprentices/trainees using year as the explanatory variable

State	Coefficients ( $\delta$ )	Standard error	Significance levels (p-value) for $\delta$				
NSW	0.70	0.25	0.00				
Vic.	0.10	0.25	0.68				
Qld	0.02	0.25	0.95				
SA	0.38	0.31	0.22				
WA	-0.52	0.25	0.04				
Tas.	0.66	0.29	0.02				
NT	-0.30	0.36	0.40				
ACT	0.70	0.31	0.02				

Table 4 shows that no significant differences in employer satisfaction levels with nationally recognised training were observed in any jurisdiction between the two years.

Table 4 Results of logistic regression analysis of employer satisfaction with nationally recognised training using year as the explanatory variable

State	Coefficients ( $\delta$ )	Standard error	Significance levels (p-value) for $\delta$					
NSW	0.09	0.24	0.71					
Vic.	0.06	0.28	0.83					
Qld	0.22	0.27	0.41					
SA	0.53	0.31	0.09					
WA	0.21	0.27	0.45					
Tas.	0.29	0.31	0.33					
NT	-0.10	0.32	0.75					
ACT	0.08	0.36	0.82					

## Comparison of differences in satisfaction

Tables 5, 6 and 7 show the survey estimates for employer satisfaction in 2005 and 2007, as well as the predicted values for 2007 as a result of the logistic regression. Based on the standard error of difference, the significant differences are footnoted, and differences where year was statistically significant are shaded.

Table 5 Survey and predicted estimates of employer satisfaction with vocational qualifications as a job requirement

State	Survey e	estimates	Difference between years	Standard error of difference between	2007 predicted value	Difference between 2007 predicted value and 2005 survey		
	2005 2007			years		survey estimate		
	%	%	%	%	%	%		
NSW	77.1	80.7	3.6	5.5	79.3	2.2		
Vic.	77.7	85.4	7.7	6.5	76.9	-0.8		
Qld	73.2	76.2	3.0	7.5	73.5	0.3		
SA	70.1	88.4	18.3°	6.2	79.5	9.4		
WA	83.8	72.1	-11.7 <sup>a</sup>	5.3	73.4	-10.4		
Tas.	81.4	85.5	4.1	5.0	88.3	6.9		
NT	67.7	76.8	9.1	5.9	72.5	4.8		
ACT	77.5	84.4	6.9	5.3	85.5	8.0		

**Note:** a Difference is statistically significant based on standard error of difference.

Table 6 Survey and predicted estimates of employer satisfaction with apprentices/trainees

State	Survey estimates		Difference between years	Standard error of difference between	2007 predicted value	Difference between 2007 predicted value and 2005 survey	
	2005	2007		years		estimate	
	%	%	%	%	%	%	
NSW	73.7	87.1	13.4 <sup>a</sup>	6.3	85.0	11.3	
Vic.	84.0	82.3	-1.7	6.4	85.4	1.4	
Qld	81.3	83.9	2.6	5.5	81.6	0.3	
SA	82.4	81.7	-0.7	5.9	87.2	4.8	
WA	80.4	70.4	-10.0	6.0	71.0	-9.4	
Tas.	80.2	89.6	9.4 <sup>a</sup>	4.5	88.7	8.5	
NT	84.2	82.7	-1.5	5.9	79.8	-4.4	
ACT	69.9	81.8	11.9	6.3	80.8	10.9	

Note: a Difference is statistically significant based on standard error of difference.

Table 7 Survey and predicted estimates of employer satisfaction with nationally recognised training

State	Survey e	estimates	Difference between years	Standard error of difference between	2007 predicted value	Difference between 2007 predicted value and 2005 survey estimate	
		2007		years		•	
	%	%	%	%	%	%	
NSW	79.4	74.2	-5.2	7.2	80.8	1.4	
Vic.	86.3	82.0	-4.3	7.4	87.0	0.7	
Qld	70.9	87.7	16.8 <sup>a</sup>	6.3	75.3	4.4	
SA	80.2	88.2	8.0	5.9	87.3	7.1	
WA	84.7	81.9	-2.8	5.8	87.2	2.5	
Tas.	82.8	83.7	0.9	5.7	86.6	3.8	
NT	74.4	73.9	-0.5	6.2	72.4	-2.0	
ACT	83.2	83.9	0.7	6.6	84.3	1.1	

Note: a Difference is statistically significant based on standard error of difference.

## Discussion

One of the purposes of the Survey of Employer Use and Views is to monitor satisfaction levels over time. At the state and territory level, the standard errors associated with the estimates are quite large and few of the differences across years are significant. To investigate the extent to which the structure of the sample was masking or contributing to differences, a model-based approach that controlled for the industry and size of the employers was employed. This approach revealed a number of these differences to be statistically significant, as follows:

- ♦ a decline of 10.4 percentage points in Western Australia in employer satisfaction with vocational qualifications as a job requirement
- ♦ an increase of 11.3 percentage points in New South Wales in employer satisfaction with apprentices and trainees
- ♦ a decline of 9.4 percentage points in Western Australia in employer satisfaction with apprentices and trainees

- ♦ an increase of 8.5 percentage points in Tasmania in employer satisfaction with apprentices and trainees
- ♦ an increase of 10.9 percentage points in the Australian Capital Territory in employer satisfaction with apprentices and trainees.

In each of these significant cases, the model-based estimate of the difference is virtually the same as the survey estimate of the difference.

A comparison of the two approaches—conventional sample estimation and a model-based approach—indicates that the model-based approach confirmed the sample estimation approach (in terms of significance) in three out of the five cases where the survey estimate of the difference was significant. In the two other cases, South Australian employers with vocational qualifications as a job requirement and Queensland employers providing nationally recognised training, the differences were judged not to be significant from the model-based approach. This suggests that the structure of the sample has the potential to reveal differences which do not hold up under closer scrutiny.

In conclusion, survey estimates of large differences between years need to be treated with some caution. A model-based approach to estimation provides a tool to provide assurance that large differences are real and not a result of peculiarities in the sample.

# Appendix A: Regression results

## Regression results by jurisdiction and aspect of VET

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### Model information

The LOGISTIC Procedure

#### Model Information

WORK.ALL\_SEUV satis10 Data Set Response Variable

Number of Response Levels

binary logit Fisher's scoring Model Optimization Technique

Class	Value		Design Variables														
year	2005 2007	0 1															
industry	Accommodation, Cafes And Restaurants	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-	Agriculture, Forestry And Fishing	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Communication Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Construction	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cultural And Recreational Services	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	Education	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	Electricity, Gas And Water Supply	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	Finance And Insurance	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	Government Administration And Defence	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	Health And Community Services	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	Manufacturing	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	Mining	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	Personal And Other Services	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	Property And Business Services	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	Retail Trade	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	Transport And Storage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
A5SUM	Large (100+ employees)	1	0														
	Medium (10-99 employees)	0	1														
	Small (1-9 employees)	0	0														

## New South Wales - Vocational qualifications as a job requirement

Number of Observations Read 811 Number of Observations Used 811

Response Profile

Total Frequency	satis10	Ordered Value
145 666	0	1 2

Probability modelled is satis10=1.

Model Convergence Status

Convergence criterion (GCONV=1E-8) satisfied.

Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	763.620	777.658
SC -2 Log L	768.318 761.620	937.399 709.658

Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	51.9625	33	0.0190
Score	50.8727	33	0.0242
Wald	32.5963	33	0.4871

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	0.4205	0.5167
industry*A5SUM	32	32.3568	0.4491

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.2664	0.1844	47.1484	<.0001
year 2007		1	0.1295	0.1997	0.4205	0.5167
industry*A5SUM Accommodation, Cafes And Restaurants	Large (100+ employees)	1	0.0434	0.8059	0.0029	0.9571
industry*A5SUM Accommodation, Cafes And Restaurants	Medium (10-99 employees)	1	1.1505	1.0524	1.1952	0.2743
industry*A5SUM Agriculture, Forestry And Fishing	Large (100+ employees)	1	-0.8360	0.7471	1.2522	0.2631
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	-0.4048	0.8513	0.2260	0.6345
industry*A5SUM Construction	Large (100+ employees)	1	-0.5646	0.6242	0.8183	0.3657
industry*A5SUM Construction	Medium (10-99 employees)	1	1.3542	1.0449	1.6797	0.1950
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	0.5378	0.7753	0.4813	0.4878
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	-0.2234	0.5981	0.1396	0.7087
industry*A5SUM Education	Large (100+ employees)	1	0.2652	0.6514	0.1657	0.6839
industry*A5SUM Education	Medium (10-99 employees)	1	0.2311	0.5716	0.1635	0.6859
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	0.2295	0.6557	0.1225	0.7263
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	-2.9203	1.1070	6.9593	0.0083
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	-0.7800	0.5815	1.7989	0.1798
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	-0.0322	0.5846	0.0030	0.9561
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	2.3472	1.0248	5.2456	0.0220
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	1.3311	1.0474	1.6150	0.2038
industry*A5SUM Health And Community Services	Large (100+ employees)	1	0.4590	0.6426	0.5102	0.4751
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	0.5703	0.6383	0.7982	0.3716
industry*A5SUM Manufacturing	Large (100+ employees)	1	0.1837	0.6559	0.0785	0.7794
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	-0.2715	0.4189	0.4200	0.5169
industry*A5SUM Mining	Large (100+ employees)	1	-0.2478	0.5982	0.1715	0.6788
industry*A5SUM Mining	Medium (10-99 employees)	1	14.5183	917.3	0.0003	0.9874
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	14.5111	870.3	0.0003	0.9867
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	0.6324	1.0808	0.3424	0.5585
industry*A5SUM Property And Business Services	Large (100+ employees)	1	0.0368	0.5807	0.0040	0.9494
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	0.7398	0.5546	1.7794	0.1822
industry*A5SUM Retail Trade	Large (100+ employees)	1	1.3542	1.0449	1.6797	0.1950
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	0.6177	0.5573	1.2282	0.2678
industry*A5SUM Transport And Storage	Large (100+ employees)	1	-0.1359	0.5335	0.0649	0.7989
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	0.4744	0.6430	0.5442	0.4607
industry*A5SUM Wholesale Trade	Large (100+ employees)	1	-0.9643	0.9280	1.0798	0.2987
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	1.0357	1.0569	0.9602	0.3271

#### Odds Ratio Estimates

Point 95% Wald Effect Estimate Confidence Limits

year 2007 vs 2005 1.138 0.770 1.683

#### Association of Predicted Probabilities and Observed Responses

Percent Concordant 63.0 Somers' D 0.325
Percent Discordant 30.5 Gamma 0.348
Percent Tied 6.6 Tau-a 0.096
Pairs 96570 c 0.662

## New South Wales - Apprentices and trainees

Number of Observations Read 598 Number of Observations Used 598

#### Response Profile

Ordered Value	satis10	Total Frequency
1	0	101
2	1	497

Probability modeled is satis10=1.

#### Model Fit Statistics

		Intercept
	Intercept	and
Criterion	Only	Covariates
AIC	545.142	554.069
SC	549.535	703.451
-2 Log L	543.142	486.069

#### Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	57.0731	33	0.0058
Score	49.9110	33	0.0298
Wald	33.2267	33	0.4562

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	8.2214	0.0041
industry*A5SUM	32	27.9906	0.6698

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	0.9533	0.2216	18.5138	<.0001
year 2007		1	0.7036	0.2454	8.2214	0.0041
industry*A5SUM Accommodation, Cafes And Restaurants	Large (100+ employees)	1	0.5972	0.7862	0.5770	0.4475
industry*A5SUM Accommodation, Cafes And Restaurants	Medium (10-99 employees)	1	1.0158	1.0722	0.8976	0.3434
industry*A5SUM Agriculture, Forestry And Fishing	Large (100+ employees)	1	-0.4135	0.8699	0.2260	0.6345
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	0.7580	1.1035	0.4718	0.4921
industry*A5SUM Construction	Large (100+ employees)	1	-0.9088	0.6024	2.2758	0.1314
industry*A5SUM Construction	Medium (10-99 employees)	1	0.7492	0.7777	0.9279	0.3354
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	1.1437	1.0674	1.1482	0.2839
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	-0.2353	0.7026	0.1122	0.7377
industry*A5SUM Education	Large (100+ employees)	1	0.7012	1.0855	0.4173	0.5183
industry*A5SUM Education	Medium (10-99 employees)	1	0.8599	1.0846	0.6286	0.4279
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	0.8917	0.7829	1.2975	0.2547
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	-0.9533	1.4315	0.4435	0.5054
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	-0.1063	1.1463	0.0086	0.9261
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	0.7150	1.0793	0.4389	0.5077
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	2.4158	1.0341	5.4571	0.0195
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	0.4573	0.8050	0.3226	0.5700
industry*A5SUM Health And Community Services	Large (100+ employees)	1	-0.4933	0.5805	0.7223	0.3954
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	0.4800	1.1059	0.1884	0.6643
industry*A5SUM Manufacturing	Large (100+ employees)	1	1.3673	1.0551	1.6795	0.1950
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	0.6825	0.6467	1.1137	0.2913
industry*A5SUM Mining	Large (100+ employees)	1	14.5032	671.6	0.0005	0.9828
industry*A5SUM Mining	Medium (10-99 employees)	1	14.7187	1601.9	0.0001	0.9927
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	-0.9593	0.9474	1.0254	0.3112
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	0.2242	1.1226	0.0399	0.8417
industry*A5SUM Property And Business Services	Large (100+ employees)	1	1.3200	1.0554	1.5644	0.2110
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	-0.3583	0.6140	0.3405	0.5595
industry*A5SUM Retail Trade	Large (100+ employees)	1	14.3408	721.3	0.0004	0.9841
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	-0.1620	0.4775	0.1151	0.7345
industry*A5SUM Transport And Storage	Large (100+ employees)	1	-0.0748	0.5448	0.0188	0.8909
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	-0.7744	0.4850	2.5493	0.1103
industry*A5SUM Wholesale Trade	Large (100+ employees)	1	-1.3052	1.0344	1.5921	0.2070
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	14.3663	1138.2	0.0002	0.9899
•						

#### Odds Ratio Estimates

				Point	95% W	ald
Effe	ct			Estimate	Confidenc	e Limits
vear	2007	vs	2005	2.021	1.249	3.269

#### Association of Predicted Probabilities and Observed Responses

Percent	Concordant	68.6	Somers'	D	0.428
Percent	Discordant	25.8	Gamma		0.453
Percent	Tied	5.5	Tau-a		0.120
Pairs		50197	C		0.714

## New South Wales - Nationally recognised training

Number of Observations Read 601 Number of Observations Used 601

#### Response Profile

Total Frequency	satis10	Ordered Value
103 498	0 1	1 2

Probability modeled is satis10=1.

Model Convergence Status

Convergence criterion (GCONV=1E-8) satisfied.

#### Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	552.599	589.424
SC	556.998	738.977
-2 Log L	550.599	521.424

#### Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio Score	29.1749 25.6943	33 33	0.6581 0.8138
Wald	19.0711	33	0.8138

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	0.1405	0.7078
industry*A5SUM	32	19.0590	0.9657

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.4542	0.2308	39.6875	<.0001
year 2007		1	0.0884	0.2357	0.1405	0.7078
· ,	Large (100+ employees)	1	0.9634	1.0624	0.8223	0.3645
	Medium (10-99 employees)	1	0.2878	1.0991	0.0686	0.7934
	Large (100+ employees)	1	14.3653	1144.7	0.0002	0.9900
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	0.1118	1.1141	0.0101	0.9201
2	Large (100+ employees)	1	0.0820	1.1171	0.0054	0.9415
industry*A5SUM Construction	Medium (10-99 employees)	1	0.7929	1.0687	0.5505	0.4581
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	-0.9543	0.7623	1.5671	0.2106
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	-0.6418	0.5286	1.4745	0.2246
industry*A5SUM Education	Large (100+ employees)	1	-0.3109	0.6904	0.2028	0.6525
industry*A5SUM Education	Medium (10-99 employees)	1	0.9975	1.0606	0.8846	0.3469
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	1.0924	1.0592	1.0637	0.3024
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	-0.0852	1.1382	0.0056	0.9404
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	-0.7041	0.6360	1.2255	0.2683
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	-0.2861	0.5486	0.2720	0.6020
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	0.9953	0.6343	2.4621	0.1166
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	-0.0852	0.8188	0.0108	0.9172
industry*A5SUM Health And Community Services	Large (100+ employees)	1	0.0401	0.6677	0.0036	0.9521
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	1.1504	1.0549	1.1892	0.2755
industry*A5SUM Manufacturing	Large (100+ employees)	1	-0.4103	0.6127	0.4485	0.5030
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	1.3859	1.0473	1.7511	0.1857
industry*A5SUM Mining	Large (100+ employees)	1	-0.1203	0.6770	0.0316	0.8589
industry*A5SUM Mining	Medium (10-99 employees)	1	0.3004	1.0991	0.0747	0.7846
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	0.4372	1.0885	0.1613	0.6879
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	0.1264	1.1146	0.0129	0.9097
industry*A5SUM Property And Business Services	Large (100+ employees)	1	-0.0614	0.5922	0.0107	0.9175
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	-0.2747	0.6076	0.2044	0.6512
industry*A5SUM Retail Trade	Large (100+ employees)	1	14.3535	886.7	0.0003	0.9871
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	-0.4259	0.5596	0.5792	0.4466
industry*A5SUM Transport And Storage	Large (100+ employees)	1	0.5571	0.7798	0.5103	0.4750
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	-0.0342	0.5376	0.0041	0.9492
industry*A5SUM Wholesale Trade	Large (100+ employees)	1	14.3653	1618.8	0.0001	0.9929
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	-0.9667	0.6635	2.1227	0.1451
•						

#### Odds Ratio Estimates

				Poin	t 95	5% Wald
Effe	ct			Estimat	e Confid	dence Limits
vear	2007	vs	2005	1.09	2 0.688	3 1.734

#### Association of Predicted Probabilities and Observed Responses

Percent	Concordant	61.8	Somers'	D	0.290
Percent	Discordant	32.8	Gamma		0.306
Percent	Tied	5.4	Tau-a		0.082
Pairs		51294	C		0.645

## Victoria - Vocational qualifications as a job requirement

Number of Observations Read 587 Number of Observations Used 587

#### Response Profile

Ordered		Total
Value	satis10	Frequency
1	0	104
2	1	483

Probability modelled is satis10=1.

#### Model Fit Statistics

		Intercept
	Intercept	and
Criterion	Only	Covariates
AIC	550.350	581.609
SC	554.725	730.360
-2 Log L	548.350	513.609

#### Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	34.7411	33	0.3850
Score	27.5409	33	0.7356
Wald	15.8938	33	0.9948

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	0.0396	0.8423
industry*A5SUM	32	15.7268	0.9929

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.2502	0.2186	32.7068	<.0001
year 2007		1	-0.0466	0.2341	0.0396	0.8423
industry*A5SUM Accommodation, Cafes And Restaurants	Large (100+ employees)	1	0.0234	0.8239	0.0008	0.9773
industry*A5SUM Accommodation, Cafes And Restaurants	Medium (10-99 employees)	1	14.6148	1128.6	0.0002	0.9897
industry*A5SUM Agriculture, Forestry And Fishing	Large (100+ employees)	1	-0.5105	0.8953	0.3251	0.5686
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	0.9705	1.0711	0.8211	0.3649
industry*A5SUM Construction	Large (100+ employees)	1	0.2710	0.8047	0.1134	0.7363
industry*A5SUM Construction	Medium (10-99 employees)	1	1.3449	1.0558	1.6225	0.2027
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	1.0738	1.0658	1.0150	0.3137
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	-0.3842	0.7158	0.2880	0.5915
industry*A5SUM Education	Large (100+ employees)	1	0.6435	0.7829	0.6757	0.4111
industry*A5SUM Education	Medium (10-99 employees)	1	0.5662	0.6520	0.7541	0.3852
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	0.6191	0.6496	0.9083	0.3406
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	14.6059	1044.9	0.0002	0.9888
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	0.4870	0.7936	0.3765	0.5395
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	0.4798	0.7920	0.3671	0.5446
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	-0.0467	0.6026	0.0060	0.9382
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	14.6148	1128.6	0.0002	0.9897
industry*A5SUM Health And Community Services	Large (100+ employees)	1	0.6513	0.5710	1.3008	0.2541
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	1.8991	1.0397	3.3366	0.0678
industry*A5SUM Manufacturing	Large (100+ employees)	1	-0.4604	0.4964	0.8605	0.3536
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	0.2858	0.5867	0.2373	0.6262
industry*A5SUM Mining	Large (100+ employees)	1	14.6365	1236.3	0.0001	0.9906
industry*A5SUM Mining	Medium (10-99 employees)	1	-0.3205	0.8589	0.1393	0.7090
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	14.6225	1382.2	0.0001	0.9916
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	1.0780	1.0660	1.0226	0.3119
industry*A5SUM Property And Business Services	Large (100+ employees)	1	0.0415	0.6041	0.0047	0.9453
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	-0.3172	0.4475	0.5026	0.4783
industry*A5SUM Retail Trade	Large (100+ employees)	1	0.9752	1.0715	0.8282	0.3628
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	0.2921	0.8087	0.1304	0.7180
industry*A5SUM Transport And Storage	Large (100+ employees)	1	0.6497	0.7836	0.6876	0.4070
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	14.6284	977.4	0.0002	0.9881
industry*A5SUM Wholesale Trade	Large (100+ employees)	1	14.6148	1596.1	0.0001	0.9927
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	0.2396	0.6681	0.1286	0.7199
-						

#### Odds Ratio Estimates

Point 95% Wald Confidence Limits year 2007 vs 2005 0.954 0.603 1.510

Association of Predicted Probabilities and Observed Responses

Percent Concordant 62.7 Somers' D 0.323
Percent Discordant 30.4 Gamma 0.347
Percent Tied 7.0 Tau-a 0.094
Pairs 50232 c 0.661

## Victoria - Apprentices and trainees

Number of Observations Read 531 Number of Observations Used 531

#### Response Profile

Ordered		Total
Value	satis10	Frequency
1	0	82
2	1	449

Probability modelled is satis10=1.

#### Model Fit Statistics

		Intercept
	Intercept	and
Criterion	Only	Covariates
AIC	458.989	499.291
SC	463.264	644.633
-2 Log L	456.989	431.291

#### Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	25.6980	33	0.8137
Score	18.5113	33	0.9801
Wald	7.1078	33	1.0000

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	0.1709	0.6793
industry*A5SUM	32	6.9400	1.0000

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
		_				
Intercept		1	1.6438	0.2633	38.9772	<.0001
year 2007	- (	1	0.1047	0.2532	0.1709	0.6793
	Large (100+ employees)	1	-0.5881	0.7080	0.6901	0.4061
industry*A5SUM Accommodation, Cafes And Restaurants	Medium (10-99 employees)	1	-0.7400	0.5776	1.6415	0.2001
industry*A5SUM Agriculture, Forestry And Fishing	Large (100+ employees)	1	13.2210	1259.1	0.0001	0.9916
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	-0.00254	0.8056	0.0000	0.9975
industry*A5SUM Construction	Large (100+ employees)	1	-0.5968	0.8506	0.4923	0.4829
industry*A5SUM Construction	Medium (10-99 employees)	1	0.1732	0.7961	0.0473	0.8278
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	-0.3090	0.8257	0.1400	0.7082
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	0.1189	1.1070	0.0115	0.9145
industry*A5SUM Education	Large (100+ employees)	1	-0.5116	0.7024	0.5306	0.4664
industry*A5SUM Education	Medium (10-99 employees)	1	13.2737	562.8	0.0006	0.9812
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	0.6632	0.7773	0.7279	0.3935
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	-0.5838	0.8508	0.4708	0.4926
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	-0.7290	0.7190	1.0279	0.3107
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	13.2737	889.9	0.0002	0.9881
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	-0.1579	0.6794	0.0540	0.8163
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	13.2911	1027.6	0.0002	0.9897
industry*A5SUM Health And Community Services	Large (100+ employees)	1	-0.4258	0.5599	0.5785	0.4469
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	-0.2847	0.6897	0.1705	0.6797
industry*A5SUM Manufacturing	Large (100+ employees)	1	0.0941	0.6676	0.0199	0.8879
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	-0.2312	0.5519	0.1755	0.6753
industry*A5SUM Mining	Large (100+ employees)	1	13.2562	1027.6	0.0002	0.9897
industry*A5SUM Mining	Medium (10-99 employees)	1	13.2737	629.2	0.0004	0.9832
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	13.2911	1027.6	0.0002	0.9897
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	0.3902	1.0871	0.1288	0.7196
industry*A5SUM Property And Business Services	Large (100+ employees)	1	0.2177	0.7974	0.0745	0.7848
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	-0.1166	0.6029	0.0374	0.8467
industry*A5SUM Retail Trade	Large (100+ employees)	1	-0.3265	0.6899	0.2240	0.6360
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	13.2361	475.8	0.0008	0.9778
industry*A5SUM Transport And Storage	Large (100+ employees)	1	0.1591	0.7975	0.0398	0.8418
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	0.0816	0.8012	0.0104	0.9189
industry*A5SUM Wholesale Trade	Large (100+ employees)	1	13.2842	795.9	0.0003	0.9867
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	0.4811	1.0822	0.1976	0.6566
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#### Odds Ratio Estimates

				Point	95%	wald
Effe	ct			Estimate	Confide	nce Limits
vear	2007	vs	2005	1.110	0.676	1.824

#### Association of Predicted Probabilities and Observed Responses

Percent	Concordant	61.5	Somers	' D	0.285
Percent	Discordant	33.0	Gamma		0.302
Percent	Tied	5.6	Tau-a		0.075
Pairs		36818	C		0.642

## Victoria - Nationally recognised training

Number of Observations Read 464 Number of Observations Used 464

#### Response Profile

Ordered Value	satis10	Total Frequency
1 2	0	71 393

Probability modelled is satis10=1.

#### Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	399.098	446.376
SC	403.238	587.132
-2 Log L	397.098	378.376

#### Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	18.7220	33	0.9782
Score	14.7132	33	0.9975
Wald	7.5487	33	1.0000

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	0.0462	0.8298
industry*A5SUM	32	7.5384	1.0000

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.5495	0.2923	28.0942	<.0001
year 2007		1	0.0602	0.2800	0.0462	0.8298
industry*A5SUM Accommodation, Cafes And Restaurants	Large (100+ employees)	1	0.6300	1.0895	0.3343	0.5631
industry*A5SUM Accommodation, Cafes And Restaurants	Medium (10-99 employees)	1	13.4081	729.8	0.0003	0.9853
industry*A5SUM Agriculture, Forestry And Fishing	Large (100+ employees)	1	-1.1921	0.9614	1.5376	0.2150
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	0.3816	1.1043	0.1194	0.7297
industry*A5SUM Construction	Large (100+ employees)	1	-0.3166	0.8477	0.1395	0.7088
industry*A5SUM Construction	Medium (10-99 employees)	1	13.4031	516.0	0.0007	0.9793
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	0.2946	0.8082	0.1328	0.7155
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	0.6180	1.0900	0.3215	0.5707
industry*A5SUM Education	Large (100+ employees)	1	-0.1990	0.8396	0.0562	0.8126
industry*A5SUM Education	Medium (10-99 employees)	1	0.3629	0.8062	0.2026	0.6526
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	0.3218	0.6777	0.2255	0.6349
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	0.2082	1.1160	0.0348	0.8520
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	-0.4921	0.6459	0.5804	0.4461
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	0.7151	1.0868	0.4330	0.5105
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	-0.2800	0.7080	0.1565	0.6924
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	13.4161	799.5	0.0003	0.9866
industry*A5SUM Health And Community Services	Large (100+ employees)	1	0.0251	0.6158	0.0017	0.9674
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	0.9126	1.0765	0.7187	0.3966
industry*A5SUM Manufacturing	Large (100+ employees)	1	0.1493	0.6870	0.0472	0.8280
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	-0.2071	0.7092	0.0853	0.7702
industry*A5SUM Mining	Large (100+ employees)	1	13.3679	893.9	0.0002	0.9881
industry*A5SUM Mining	Medium (10-99 employees)	1	0.3667	1.1045	0.1102	0.7399
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	13.4281	1787.9	0.0001	0.9940
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	-0.6502	0.8809	0.5448	0.4604
industry*A5SUM Property And Business Services	Large (100+ employees)	1	0.00996	0.7021	0.0002	0.9887
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	0.2744	0.6156	0.1987	0.6558
industry*A5SUM Retail Trade	Large (100+ employees)	1	-0.2051	0.8423	0.0593	0.8076
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	0.1995	1.1188	0.0318	0.8585
industry*A5SUM Transport And Storage	Large (100+ employees)	1	-0.3870	0.7193	0.2894	0.5906
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	0.5937	1.0997	0.2914	0.5893
industry*A5SUM Wholesale Trade	Large (100+ employees)	1	13.3981	893.8	0.0002	0.9880
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	-0.1930	0.8379	0.0531	0.8178
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#### Odds Ratio Estimates

Point 95% Wald Confidence Limits year 2007 vs 2005 1.062 0.613 1.839

Association of Predicted Probabilities and Observed Responses

 Percent Concordant
 60.8
 Somers' D
 0.257

 Percent Discordant
 35.1
 Gamma
 0.268

 Percent Tied
 4.0
 Tau-a
 0.067

 Pairs
 27903
 c
 0.628

## Queensland - Vocational qualifications as a job requirement

Number of Observations Read 589 Number of Observations Used 589

#### Response Profile

Total Frequency	satis10	Ordered Value
133	0	1
456	1	2

Probability modelled is satis10=1.

Model Convergence Status

Convergence criterion (GCONV=1E-8) satisfied.

#### Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC SC	631.240 635.618	671.946 820.812
-2 Log L	629.240	603.946

#### Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	25.2938	33	0.8291
Score	25.9138	33	0.8051
Wald	22.4803	33	0.9164

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	0.0065	0.9359
industry*A5SUM	32	22.4177	0.8958

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.2930	0.2036	40.3152	<.0001
year 2007		1	0.0172	0.2132	0.0065	0.9359
	Large (100+ employees)	1	0.2033	0.8042	0.0639	0.8004
	Medium (10-99 employees)	1	-0.0478	0.8237	0.0034	0.9537
1 5 , 1	Large (100+ employees)	1	12.3364	649.8	0.0004	0.9849
1 5 , 1	Medium (10-99 employees)	1	-1.0102	0.7868	1.6486	0.1992
	Large (100+ employees)	1	-0.2072	0.6974	0.0883	0.7664
industry*A5SUM Construction	Medium (10-99 employees)	1	-0.2724	0.5549	0.2409	0.6235
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	-0.7907	0.7546	1.0979	0.2947
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	0.9008	1.0713	0.7070	0.4004
industry*A5SUM Education	Large (100+ employees)	1	0.8923	1.0730	0.6914	0.4057
industry*A5SUM Education	Medium (10-99 employees)	1	0.4927	0.7866	0.3923	0.5311
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	-0.6055	0.5342	1.2847	0.2570
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	0.0933	1.1364	0.0067	0.9346
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	-0.6113	0.8885	0.4733	0.4915
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	-0.3184	0.7026	0.2053	0.6505
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	0.0860	0.4627	0.0345	0.8526
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	-0.7380	0.6547	1.2708	0.2596
industry*A5SUM Health And Community Services	Large (100+ employees)	1	1.1840	1.0579	1.2528	0.2630
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	0.1659	0.4906	0.1143	0.7353
industry*A5SUM Manufacturing	Large (100+ employees)	1	-0.3848	0.5189	0.5501	0.4583
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	-0.6763	0.4816	1.9722	0.1602
industry*A5SUM Mining	Large (100+ employees)	1	-0.00593	0.6819	0.0001	0.9931
industry*A5SUM Mining	Medium (10-99 employees)	1	-0.7427	0.6555	1.2839	0.2572
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	-0.0497	0.8245	0.0036	0.9519
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	0.6465	1.0855	0.3548	0.5514
industry*A5SUM Property And Business Services	Large (100+ employees)	1	0.1971	0.5917	0.1109	0.7391
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	0.8897	0.7755	1.3161	0.2513
industry*A5SUM Retail Trade	Large (100+ employees)	1	-0.0516	0.8260	0.0039	0.9502
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	0.3051	0.6629	0.2118	0.6454
industry*A5SUM Transport And Storage	Large (100+ employees)	1	0.5674	0.7850	0.5224	0.4698
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	-0.4577	0.7187	0.4055	0.5243
industry*A5SUM Wholesale Trade	Large (100+ employees)	1	-1.9918	1.2391	2.5840	0.1080
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	-1.7053	0.9321	3.3474	0.0673

#### Odds Ratio Estimates

		Point 95% Wal				
Effe	ect		Estimate Confidence		nce Limits	
vear	2007	vs	2005	1.017	0.670	1.545

#### Association of Predicted Probabilities and Observed Responses

Percent	Concordant	59.9	Somers	' D	0.257
Percent	Discordant	34.2	Gamma		0.273
Percent	Tied	5.9	Tau-a		0.090
Pairs		60648	C		0.629

## Queensland - Apprentices and trainees

Number of Observations Read 547 Number of Observations Used 547

#### Response Profile

Ordered Value	satis10	Total Frequency
1 2	0	95 452

Probability modeled is satis10=1.

#### Model Fit Statistics

		Intercept
	Intercept	and
Criterion	Only	Covariates
AIC	507.062	528.268
SC	511.366	674.619
-2 Log L	505.062	460.268

#### Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	44.7942	33	0.0826
Score	44.3962	33	0.0889
Wald	33.6133	33	0.4376

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	0.0046	0.9461
industry*A5SUM	32	33.6096	0.3893

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.4775	0.2545	33.6982	<.0001
year 2007		1	0.0169	0.2506	0.0046	0.9461
industry*A5SUM Accommodation, Cafes And Restaurants	Large (100+ employees)	1	1.0791	1.0621	1.0321	0.3097
industry*A5SUM Accommodation, Cafes And Restaurants	Medium (10-99 employees)	1	0.1876	0.6687	0.0787	0.7790
industry*A5SUM Agriculture, Forestry And Fishing	Large (100+ employees)	1	-0.5733	0.8689	0.4353	0.5094
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	13.3891	1691.4	0.0001	0.9937
industry*A5SUM Construction	Large (100+ employees)	1	-0.1064	0.8294	0.0165	0.8979
industry*A5SUM Construction	Medium (10-99 employees)	1	-0.8686	0.5215	2.7738	0.0958
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	-1.3013	0.6469	4.0468	0.0443
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	0.8205	1.0740	0.5837	0.4449
industry*A5SUM Education	Large (100+ employees)	1	-0.9255	0.6663	1.9294	0.1648
industry*A5SUM Education	Medium (10-99 employees)	1	0.3071	1.1036	0.0774	0.7808
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	0.5325	0.7872	0.4575	0.4988
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	13.3891	845.7	0.0003	0.9874
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	13.3764	845.7	0.0003	0.9874
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	-0.2266	0.8378	0.0731	0.7868
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	1.0005	0.6422	2.4272	0.1192
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	0.7147	1.0789	0.4388	0.5077
industry*A5SUM Health And Community Services	Large (100+ employees)	1	13.3854	563.8	0.0006	0.9811
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	0.0182	0.5973	0.0009	0.9757
industry*A5SUM Manufacturing	Large (100+ employees)	1	0.8182	0.7755	1.1133	0.2914
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	0.2156	0.5913	0.1329	0.7154
industry*A5SUM Mining	Large (100+ employees)	1	1.2179	1.0596	1.3212	0.2504
industry*A5SUM Mining	Medium (10-99 employees)	1	-1.0822	0.9410	1.3224	0.2502
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	-0.7937	0.7427	1.1421	0.2852
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	0.3071	1.1036	0.0774	0.7808
industry*A5SUM Property And Business Services	Large (100+ employees)	1	0.4526	0.7978	0.3218	0.5705
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	0.1169	0.6799	0.0296	0.8635
industry*A5SUM Retail Trade	Large (100+ employees)	1	0.9984	1.0652	0.8784	0.3486
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	1.6454	1.0486	2.4621	0.1166
industry*A5SUM Transport And Storage	Large (100+ employees)	1	-0.7965	0.5524	2.0791	0.1493
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	-1.3337	0.6017	4.9137	0.0266
industry*A5SUM Wholesale Trade	Large (100+ employees)	1	-0.7899	1.2459	0.4020	0.5261
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	13.3891	1196.0	0.0001	0.9911
- -						

#### Odds Ratio Estimates

Point 95% Wald Confidence Limits year 2007 vs 2005 1.017 0.622 1.662

Association of Predicted Probabilities and Observed Responses

 Percent Concordant
 67.7
 Somers' D
 0.402

 Percent Discordant
 27.5
 Gamma
 0.422

 Percent Tied
 4.8
 Tau-a
 0.115

 Pairs
 42940
 c
 0.701

## Queensland - Nationally recognised training

Number of Observations Read 478 Number of Observations Used 478

#### Response Profile

Ordered Value	satis10	Total Frequency
1 2	0	88 390

Probability modelled is satis10=1.

#### Model Fit Statistics

		Intercept
	Intercept	and
Criterion	Only	Covariates
AIC	458.542	478.175
SC	462.712	619.942
-2 Log L	456.542	410.175

#### Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	46.3667	33	0.0613
Score	35.3835	33	0.3563
Wald	14.8382	33	0.9973

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	0.6863	0.4074
industry*A5SUM	32	14.1364	0.9974

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	0.8965	0.2290	15.3279	<.0001
year 2007		1	0.2225	0.2686	0.6863	0.4074
industry*A5SUM Accommodation, Cafes And Restaurants	Large (100+ employees)	1	13.7804	496.4	0.0008	0.9779
industry*A5SUM Accommodation, Cafes And Restaurants	Medium (10-99 employees)	1	0.6242	0.8036	0.6034	0.4373
industry*A5SUM Agriculture, Forestry And Fishing	Large (100+ employees)	1	-0.7136	0.9540	0.5595	0.4545
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	0.4476	1.1392	0.1544	0.6944
industry*A5SUM Construction	Large (100+ employees)	1	0.0375	0.8508	0.0019	0.9649
industry*A5SUM Construction	Medium (10-99 employees)	1	13.7851	456.6	0.0009	0.9759
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	-0.0416	0.8639	0.0023	0.9616
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	1.1367	1.0825	1.1027	0.2937
industry*A5SUM Education	Large (100+ employees)	1	0.4696	0.8137	0.3330	0.5639
industry*A5SUM Education	Medium (10-99 employees)	1	13.8609	496.6	0.0008	0.9777
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	0.3265	0.6853	0.2270	0.6337
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	0.4897	1.1412	0.1842	0.6678
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	0.9147	1.0925	0.7009	0.4025
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	-0.0730	0.8641	0.0071	0.9327
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	1.1222	0.5705	3.8696	0.0492
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	0.1215	0.8442	0.0207	0.8855
industry*A5SUM Health And Community Services	Large (100+ employees)	1	0.3896	0.6803	0.3280	0.5668
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	0.2395	0.5514	0.1886	0.6641
industry*A5SUM Manufacturing	Large (100+ employees)	1	1.0764	0.7803	1.9031	0.1677
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	13.7504	456.8	0.0009	0.9760
industry*A5SUM Mining	Large (100+ employees)	1	1.5139	1.0634	2.0268	0.1545
industry*A5SUM Mining	Medium (10-99 employees)	1	0.5871	0.8056	0.5312	0.4661
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	-0.5234	0.7649	0.4682	0.4938
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	13.8109	823.1	0.0003	0.9866
industry*A5SUM Property And Business Services	Large (100+ employees)	1	0.5800	0.6800	0.7274	0.3937
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	0.1030	0.7091	0.0211	0.8845
industry*A5SUM Retail Trade	Large (100+ employees)	1	0.1215	0.8442	0.0207	0.8855
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	13.7304	440.4	0.0010	0.9751
industry*A5SUM Transport And Storage	Large (100+ employees)	1	-0.4328	0.5562	0.6054	0.4365
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	1.2271	1.0773	1.2975	0.2547
industry*A5SUM Wholesale Trade	Large (100+ employees)	1	13.6974	1649.5	0.0001	0.9934
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	0.4043	1.1388	0.1260	0.7226
- -						

#### Odds Ratio Estimates

Point 95% Wald Confidence Limits year 2007 vs 2005 1.249 0.738 2.115

Association of Predicted Probabilities and Observed Responses

 Percent Concordant
 67.0
 Somers' D
 0.393

 Percent Discordant
 27.7
 Gamma
 0.414

 Percent Tied
 5.2
 Tau-a
 0.118

 Pairs
 34320
 c
 0.696

## South Australia - Vocational qualifications as a job requirement

Number of Observations Read 456 Number of Observations Used 456

#### Response Profile

Ordered Value	satis10	Total Frequency
1	0	88
2	1	368

Probability modelled is satis10=1.

#### Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	449.353	469.886
SC	453.476	610.051
-2 Log L	447.353	401.886

#### Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	45.4668	33	0.0728
Score	37.8080	33	0.2590
Wald	20.2495	33	0.9599

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	3.3994	0.0652
industry*A5SUM	32	18.5682	0.9719

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.1009	0.2213	24.7455	<.0001
year 2007		1	0.5034	0.2730	3.3994	0.0652
	Large (100+ employees)	1	13.3866	716.6	0.0003	0.9851
	Medium (10-99 employees)	1	-0.2896	0.7106	0.1661	0.6836
1 5 , 1	Large (100+ employees)	1	0.00159	1.1436	0.0000	0.9989
1 5 , 1	Medium (10-99 employees)	1	13.6754	808.4	0.0003	0.9865
	Large (100+ employees)	1	13.4011	605.6	0.0005	0.9823
industry*A5SUM Construction	Medium (10-99 employees)	1	0.4914	0.7910	0.3858	0.5345
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	13.5183	926.1	0.0002	0.9884
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	0.5649	1.1024	0.2626	0.6084
industry*A5SUM Education	Large (100+ employees)	1	1.2393	1.0599	1.3671	0.2423
industry*A5SUM Education	Medium (10-99 employees)	1	-0.5194	0.5087	1.0422	0.3073
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	13.4860	716.8	0.0004	0.9850
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	13.5411	606.7	0.0005	0.9822
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	0.2708	1.1101	0.0595	0.8073
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	1.2743	1.0595	1.4464	0.2291
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	0.5649	1.1024	0.2626	0.6084
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	1.2149	1.0626	1.3073	0.2529
industry*A5SUM Health And Community Services	Large (100+ employees)	1	-1.0433	0.6885	2.2962	0.1297
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	0.1766	0.5381	0.1077	0.7428
industry*A5SUM Manufacturing	Large (100+ employees)	1	-0.6163	0.5847	1.1111	0.2918
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	0.6376	0.6522	0.9559	0.3282
industry*A5SUM Mining	Large (100+ employees)	1	-1.6043	1.4411	1.2394	0.2656
industry*A5SUM Mining	Medium (10-99 employees)	1	-0.6489	0.8965	0.5239	0.4692
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	0.00159	1.1436	0.0000	0.9989
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	0.4970	1.1030	0.2030	0.6523
industry*A5SUM Property And Business Services	Large (100+ employees)	1	-0.5239	0.7215	0.5272	0.4678
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	-0.8665	0.6669	1.6884	0.1938
industry*A5SUM Retail Trade	Large (100+ employees)	1	-0.1105	0.8330	0.0176	0.8945
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	0.0352	0.6854	0.0026	0.9591
industry*A5SUM Transport And Storage	Large (100+ employees)	1	13.4934	444.6	0.0009	0.9758
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	13.6754	723.0	0.0004	0.9849
industry*A5SUM Wholesale Trade	Large (100+ employees)	1	-1.9707	1.2497	2.4870	0.1148
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	-0.7913	0.9401	0.7083	0.4000

#### Odds Ratio Estimates

				Point	95%	Wald
Effe	ct			Estimate	Confide	nce Limits
year	2007	vs	2005	1.654	0.969	2.825

#### Association of Predicted Probabilities and Observed Responses

Percent	Concordant	66.8	Somers'	D	0.412
Percent	Discordant	25.6	Gamma		0.446
Percent	Tied	7.6	Tau-a		0.129
Pairs		32384	C		0.706

## South Australia - Apprentices and trainees

Number of Observations Read 368 Number of Observations Used 368

#### Response Profile

Ordered Value	satis10	Total Frequency
1 2	0	61 307

Probability modelled is satis10=1.

#### Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC SC	332.538 336.446	365.277 494.244
-2 Log L	330.538	299.277

#### Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	31.2605	32	0.5038
Score	24.3029	32	0.8332
Wald	10.3497	32	0.9999

#### Type 3 Analysis of Effects

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	1.4848	0.2230
industry*A5SUM	31	9.3203	0.9999

NOTE: The following parameters have been set to 0, since the variables are a linear combination of other variables as shown.

industryMiningA5SUMLarge 100 e = 0

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.3956	0.2740	25.9449	<.0001
year 2007		1	0.3775	0.3098	1.4848	0.2230
industry*A5SUM Accommodation, Cafes And Restaurants	Large (100+ employees)	1	13.3290	700.6	0.0004	0.9848
industry*A5SUM Accommodation, Cafes And Restaurants	Medium (10-99 employees)	1	-0.6127	0.7270	0.7102	0.3994
industry*A5SUM Agriculture, Forestry And Fishing	Large (100+ employees)	1	13.3290	1213.5	0.0001	0.9912
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	13.3908	991.5	0.0002	0.9892
industry*A5SUM Construction	Large (100+ employees)	1	13.3081	572.0	0.0005	0.9814
industry*A5SUM Construction	Medium (10-99 employees)	1	-0.9491	0.6716	1.9972	0.1576
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	-0.5736	1.1911	0.2319	0.6301
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	-0.2199	0.8436	0.0679	0.7944
industry*A5SUM Education	Large (100+ employees)	1	13.3290	700.6	0.0004	0.9848
industry*A5SUM Education	Medium (10-99 employees)	1	13.5116	996.5	0.0002	0.9892
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	13.4213	859.4	0.0002	0.9875
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	13.3290	858.0	0.0002	0.9876
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	0.1371	1.1161	0.0151	0.9022
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	0.5087	1.1019	0.2131	0.6443
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	13.3908	572.5	0.0005	0.9813
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	0.6271	1.0861	0.3333	0.5637
industry*A5SUM Health And Community Services	Large (100+ employees)	1	-0.6476	0.7296	0.7878	0.3748
	Medium (10-99 employees)	1	-0.0213	0.6868	0.0010	0.9752
industry*A5SUM Manufacturing	Large (100+ employees)	1	0.9410	1.0719	0.7707	0.3800
	Medium (10-99 employees)	1	-0.2424	0.6193	0.1532	0.6955
industry*A5SUM Mining	Large (100+ employees)	0	0			
industry*A5SUM Mining	Medium (10-99 employees)	1	-0.3846	1.1854	0.1053	0.7456
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	13.2912	767.6	0.0003	0.9862
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	0.0984	1.1267	0.0076	0.9304
industry*A5SUM Property And Business Services	Large (100+ employees)	1	0.0790	1.1211	0.0050	0.9438
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	0.0277	0.8196	0.0011	0.9731
industry*A5SUM Retail Trade	Large (100+ employees)	1	-1.0719	0.6839	2.4567	0.1170
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	0.1627	0.6776	0.0576	0.8103
industry*A5SUM Transport And Storage	Large (100+ employees)	1	0.2467	0.8063	0.0936	0.7596
1 1	Medium (10-99 employees)	1	-0.5808	0.8768	0.4387	0.5077
	Large (100+ employees)	1	-1.0630	0.9508	1.2498	0.2636
<u> </u>	Medium (10-99 employees)	1	13.5116	1726.0	0.0001	0.9938
-						

#### Odds Ratio Estimates

Point 95% Wald Effect Estimate Confidence Limits

year 2007 vs 2005 1.459 0.795 2.677

#### Association of Predicted Probabilities and Observed Responses

Percent Concordant 65.3 Somers' D 0.366
Percent Discordant 28.8 Gamma 0.389
Percent Tied 5.9 Tau-a 0.101
Pairs 18727 c 0.683

## South Australia - Nationally recognised training

Number of Observations Read 378 Number of Observations Used 378

#### Response Profile

Ordered Value		
1 2	0	64 314

Probability modelled is satis10=1.

#### Model Fit Statistics

	Intercept	Intercept and
Criterion	Only	Covariates
AIC	345.824	374.170
SC	349.759	504.022
-2 Log L	343.824	308.170

#### Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	35.6542	32	0.3004
Score	30.7813	32	0.5281
Wald	16.9129	32	0.9867

#### Type 3 Analysis of Effects

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	2.8800	0.0897
industry*A5SUM	31	15.9348	0.9884

NOTE: The following parameters have been set to 0, since the variables are a linear combination of other variables as shown.

industryCultural\_And\_Recreationa = 0

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.8890	0.3178	35.3264	<.0001
year 2007		1	0.5322	0.3136	2.8800	0.0897
industry*A5SUM Accommodation, Cafes And Restaurants	Large (100+ employees)	1	12.7989	757.1	0.0003	0.9865
industry*A5SUM Accommodation, Cafes And Restaurants	Medium (10-99 employees)	1	12.9005	759.8	0.0003	0.9865
industry*A5SUM Agriculture, Forestry And Fishing	Large (100+ employees)	1	12.7469	1196.2	0.0001	0.9915
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	-1.0388	1.2036	0.7449	0.3881
industry*A5SUM Construction	Large (100+ employees)	1	-1.1066	0.8829	1.5712	0.2100
industry*A5SUM Construction	Medium (10-99 employees)	1	-0.8356	0.7257	1.3258	0.2495
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	0	0	•	•	•
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	-0.9732	0.8771	1.2312	0.2672
industry*A5SUM Education	Large (100+ employees)	1	12.7469	535.0	0.0006	0.9810
industry*A5SUM Education	Medium (10-99 employees)	1	-1.1524	0.6781	2.8880	0.0892
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	-0.6953	1.1652	0.3561	0.5507
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	12.8330	691.7	0.0003	0.9852
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	-0.9737	0.8700	1.2526	0.2631
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	-0.0193	1.1080	0.0003	0.9861
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	12.8573	640.9	0.0004	0.9840
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	-0.3277	0.8304	0.1557	0.6931
industry*A5SUM Health And Community Services	Large (100+ employees)	1	-2.2090	0.7165	9.5050	0.0020
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	-0.6529	0.6384	1.0458	0.3065
industry*A5SUM Manufacturing	Large (100+ employees)	1	-0.8741	0.7278	1.4422	0.2298
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	-1.4952	0.6954	4.6227	0.0316
industry*A5SUM Mining	Large (100+ employees)	1	12.4674	1209.3	0.0001	0.9918
industry*A5SUM Mining	Medium (10-99 employees)	1	12.8330	691.7	0.0003	0.9852
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	-1.0388	1.2036	0.7449	0.3881
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	-0.5958	1.1632	0.2623	0.6085
industry*A5SUM Property And Business Services	Large (100+ employees)	1	-1.2830	0.7593	2.8552	0.0911
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	-0.9149	0.6586	1.9296	0.1648
industry*A5SUM Retail Trade	Large (100+ employees)	1	-1.4221	0.9128	2.4274	0.1192
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	-0.3114	0.8261	0.1420	0.7063
industry*A5SUM Transport And Storage	Large (100+ employees)	1	-0.3382	0.8277	0.1669	0.6829
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	-0.9100	0.8760	1.0792	0.2989
industry*A5SUM Wholesale Trade	Large (100+ employees)	1	-1.3622	1.2706	1.1494	0.2837
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	12.9997	1209.3	0.0001	0.9914
-	<b>-</b>					

## Odds Ratio Estimates

Point 95% Wald Effect Estimate Confidence Limits

year 2007 vs 2005 1.703 0.921 3.149

## Association of Predicted Probabilities and Observed Responses

Percent Concordant 69.0 Somers' D 0.424
Percent Discordant 26.6 Gamma 0.443
Percent Tied 4.4 Tau-a 0.120
Pairs 20096 c 0.712

# Western Australia - Vocational qualifications as a job requirement

Number of Observations Read 556 Number of Observations Used 556

## Response Profile

Ordered		Total
Value	satis10	Frequency
1	0	115
2	1	441

Probability modelled is satis10=1.

Model Convergence Status

Convergence criterion (GCONV=1E-8) satisfied.

## Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	568.822	595.587
SC	573.143	742.493
-2 Log L	566.822	527.587

## Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	39.2353	33	0.2105
Score	38.6485	33	0.2296
Wald	28.7195	33	0.6803

## Type 3 Analysis of Effects

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	7.2645	0.0070
industry*A5SUM	32	24.0136	0.8439

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.7671	0.2382	55.0165	<.0001
year 2007		1	-0.6269	0.2326	7.2645	0.0070
industry*A5SUM Accommodation, Cafes And Restaurants	Large (100+ employees)	1	0.0530	0.8097	0.0043	0.9478
industry*A5SUM Accommodation, Cafes And Restaurants	Medium (10-99 employees)	1	-0.4381	0.7003	0.3913	0.5316
industry*A5SUM Agriculture, Forestry And Fishing	Large (100+ employees)	1	-1.4536	1.4442	1.0132	0.3141
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	13.9513	2589.4	0.0000	0.9957
industry*A5SUM Construction	Large (100+ employees)	1	-0.3167	0.6179	0.2627	0.6083
industry*A5SUM Construction	Medium (10-99 employees)	1	-0.1017	0.6779	0.0225	0.8808
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	0.4491	1.0916	0.1692	0.6808
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	0.1601	0.7977	0.0403	0.8409
industry*A5SUM Education	Large (100+ employees)	1	0.2561	0.6634	0.1490	0.6995
industry*A5SUM Education	Medium (10-99 employees)	1	-0.1456	0.6788	0.0460	0.8302
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	-1.2950	1.0268	1.5908	0.2072
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	0.3280	1.1030	0.0884	0.7662
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	0.5289	0.7826	0.4567	0.4992
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	-0.6405	0.7379	0.7533	0.3854
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	-1.1668	0.6825	2.9232	0.0873
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	-0.00591	0.5890	0.0001	0.9920
industry*A5SUM Health And Community Services	Large (100+ employees)	1	1.4486	1.0502	1.9026	0.1678
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	-0.5085	0.5197	0.9572	0.3279
industry*A5SUM Manufacturing	Large (100+ employees)	1	14.3665	770.6	0.0003	0.9851
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	-0.2534	0.6115	0.1717	0.6786
industry*A5SUM Mining	Large (100+ employees)	1	0.0808	0.8035	0.0101	0.9199
industry*A5SUM Mining	Medium (10-99 employees)	1	0.8605	1.0697	0.6471	0.4212
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	-0.6405	1.2500	0.2625	0.6084
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	-1.0106	0.7637	1.7512	0.1857
industry*A5SUM Property And Business Services	Large (100+ employees)	1	0.3168	0.8084	0.1536	0.6952
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	-0.0405	0.4756	0.0072	0.9321
industry*A5SUM Retail Trade	Large (100+ employees)	1	0.9002	1.0744	0.7020	0.4021
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	-1.4536	0.6678	4.7379	0.0295
industry*A5SUM Transport And Storage	Large (100+ employees)	1	0.3997	0.7953	0.2526	0.6152
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	-0.0589	0.6772	0.0076	0.9307
industry*A5SUM Wholesale Trade	Large (100+ employees)	1	-2.7277	1.1809	5.3355	0.0209
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	14.1797	1475.1	0.0001	0.9923
•						

## Odds Ratio Estimates

Point 95% Wald Confidence Limits year 2007 vs 2005 0.534 0.339 0.843

Association of Predicted Probabilities and Observed Responses

Percent Concordant 63.5 Somers' D 0.338
Percent Discordant 29.6 Gamma 0.363
Percent Tied 6.9 Tau-a 0.111
Pairs 50715 c 0.669

# Western Australia - Apprentices and trainees

Number of Observations Read 440 Number of Observations Used 440

## Response Profile

Total		Ordered
Frequency	satis10	Value
103	0	1
337	1	2

Probability modelled is satis10=1.

#### Model Fit Statistics

	Intercept	Intercept and
Criterion	Only	Covariates
AIC	480.872	495.793
SC	484.958	630.657
-2 Log L	478.872	429.793

## Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	49.0784	32	0.0273
Score	40.1804	32	0.1519
Wald	23.4252	32	0.8645

## Type 3 Analysis of Effects

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	4.1792	0.0409
industry*A5SUM	31	20.1394	0.9328

NOTE: The following parameters have been set to 0, since the variables are a linear combination of other variables as shown.

industryWholesale TradeA5SUMMedi = 0

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.2543	0.2428	26.6966	<.0001
year 2007		1	-0.5176	0.2532	4.1792	0.0409
	Large (100+ employees)	1	1.3868	1.0670	1.6891	0.1937
	Medium (10-99 employees)	1	0.1856	0.6106	0.0924	0.7612
	Large (100+ employees)	1	13.3634	1493.4	0.0001	0.9929
1 5 , 1	Medium (10-99 employees)	1	13.6370	1046.4	0.0002	0.9896
	Large (100+ employees)	1	0.5271	0.6831	0.5955	0.4403
industry*A5SUM Construction	Medium (10-99 employees)	1	1.1656	0.7810	2.2277	0.1356
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	-0.1348	0.7245	0.0346	0.8524
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	13.5854	661.9	0.0004	0.9836
industry*A5SUM Education	Large (100+ employees)	1	-0.0330	0.7258	0.0021	0.9638
industry*A5SUM Education	Medium (10-99 employees)	1	-0.7420	0.9435	0.6185	0.4316
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	13.7205	855.4	0.0003	0.9872
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	-0.5313	0.9427	0.3177	0.5730
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	-0.6100	0.6251	0.9523	0.3291
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	13.8810	1056.0	0.0002	0.9895
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	0.6362	0.8048	0.6249	0.4292
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	1.5226	1.0601	2.0628	0.1509
industry*A5SUM Health And Community Services	Large (100+ employees)	1	-0.0987	0.5824	0.0287	0.8655
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	0.1796	0.8701	0.0426	0.8365
industry*A5SUM Manufacturing	Large (100+ employees)	1	13.6950	410.7	0.0011	0.9734
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	0.6451	0.6796	0.9008	0.3426
industry*A5SUM Mining	Large (100+ employees)	1	0.0762	0.7015	0.0118	0.9135
industry*A5SUM Mining	Medium (10-99 employees)	1	13.6370	523.2	0.0007	0.9792
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	13.7205	855.4	0.0003	0.9872
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	-0.9955	1.0290	0.9360	0.3333
industry*A5SUM Property And Business Services	Large (100+ employees)	1	1.5515	1.0688	2.1072	0.1466
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	-0.3937	0.5324	0.5468	0.4596
industry*A5SUM Retail Trade	Large (100+ employees)	1	1.5751	1.0640	2.1914	0.1388
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	-0.3338	0.5514	0.3663	0.5450
industry*A5SUM Transport And Storage	Large (100+ employees)	1	0.1521	0.6165	0.0608	0.8052
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	-0.2883	0.6002	0.2307	0.6310
industry*A5SUM Wholesale Trade	Large (100+ employees)	1	-1.4597	0.9430	2.3961	0.1216
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	0	0	•	•	•

## Odds Ratio Estimates

				Point	95%	Wald
Effe	ct			Estimate	Confide	nce Limits
year	2007	vs	2005	0.596	0.363	0.979

## Association of Predicted Probabilities and Observed Responses

Percent	Concordant	66.7	Somers'	D	0.398
Percent	Discordant	26.9	Gamma		0.425
Percent	Tied	6.4	Tau-a		0.143
Pairs		34711	C		0.699

# Western Australia - Nationally recognised training

Number of Observations Read 454 Number of Observations Used 454

## Response Profile

Total Frequency	satis10	Ordered Value
74 380	0 1	1 2

Probability modelled is satis10=1.

## Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC SC	405.700 409.819	445.855 581.752
-2 Log L	403.700	379.855

## Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	23.8456	32	0.8499
Score	21.1090	32	0.9293
Wald	14.6846	32	0.9962

## Type 3 Analysis of Effects

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	0.5774	0.4473
industry*A5SUM	31	13.9255	0.9964

NOTE: The following parameters have been set to 0, since the variables are a linear combination of other variables as shown.

industryWholesale TradeA5SUMMedi = 0

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.1256	0.2611	18.5918	<.0001
year 2007		1	0.2073	0.2729	0.5774	0.4473
	Large (100+ employees)	1	1.0870	1.0722	1.0278	0.3107
	Medium (10-99 employees)	1	0.9722	1.0772	0.8146	0.3668
	Large (100+ employees)	1	13.6942	1227.2	0.0001	0.9911
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	-0.5692	1.2460	0.2087	0.6478
industry*A5SUM Construction	Large (100+ employees)	1	1.2950	1.0617	1.4878	0.2226
industry*A5SUM Construction	Medium (10-99 employees)	1	0.6670	0.7920	0.7091	0.3997
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	13.7089	656.0	0.0004	0.9833
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	0.7206	1.0919	0.4355	0.5093
industry*A5SUM Education	Large (100+ employees)	1	0.4223	0.8019	0.2773	0.5985
industry*A5SUM Education	Medium (10-99 employees)	1	0.7206	1.0919	0.4355	0.5093
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	-0.1805	1.1775	0.0235	0.8781
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	0.1393	1.1402	0.0149	0.9027
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	0.7836	0.7844	0.9980	0.3178
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	-0.0465	0.6945	0.0045	0.9466
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	0.1169	0.6912	0.0286	0.8657
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	0.7589	0.7901	0.9226	0.3368
industry*A5SUM Health And Community Services	Large (100+ employees)	1	1.5737	1.0526	2.2349	0.1349
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	0.3328	0.6743	0.2435	0.6217
industry*A5SUM Manufacturing	Large (100+ employees)	1	0.9722	1.0772	0.8146	0.3668
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	0.8193	1.0839	0.5714	0.4497
industry*A5SUM Mining	Large (100+ employees)	1	1.2071	1.0693	1.2743	0.2590
industry*A5SUM Mining	Medium (10-99 employees)	1	0.2011	0.8236	0.0596	0.8071
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	-0.5692	1.2460	0.2087	0.6478
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	-1.1774	1.0273	1.3135	0.2518
industry*A5SUM Property And Business Services	Large (100+ employees)	1	-0.0956	0.6992	0.0187	0.8912
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	0.9012	0.6516	1.9128	0.1667
industry*A5SUM Retail Trade	Large (100+ employees)	1	13.6827	578.5	0.0006	0.9811
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	0.5212	1.1036	0.2230	0.6367
industry*A5SUM Transport And Storage	Large (100+ employees)	1	0.5663	0.7951	0.5072	0.4764
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	-0.1946	0.6253	0.0968	0.7557
	Large (100+ employees)	1	13.6595	1002.2	0.0002	0.9891
	Medium (10-99 employees)	0	0			
•						

## Odds Ratio Estimates

				Point	95%	: Wald
Effect		Estimate	Confide	Confidence Limits		
year	2007	vs	2005	1.230	0.721	2.100

## Association of Predicted Probabilities and Observed Responses

Percent	Concordant	62.5	Somers'	D	0.313
Percent	Discordant	31.2	Gamma		0.335
Percent	Tied	6.4	Tau-a		0.086
Pairs		28120	C		0.657

# Tasmania - Vocational qualifications as a job requirement

Number of Observations Read 402 Number of Observations Used 402

## Response Profile

Ordered		Total
Value	satis10	Frequency
1	0	74
2	1	328

Probability modeled is satis10=1.

#### Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	385.929	400.487
SC	389.925	532.370
-2 Log L	383.929	334.487

## Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	49.4416	32	0.0252
Score	48.5704	32	0.0305
Wald	25.7651	32	0.7739

## Type 3 Analysis of Effects

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	3.3562	0.0670
industry*A5SUM	31	23.7854	0.8192

NOTE: The following parameters have been set to 0, since the variables are a linear combination of other variables as shown.

industryMiningA5SUMMedium 10 99 = 0

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.3944	0.2522	30.5814	<.0001
year 2007		1	0.5402	0.2949	3.3562	0.0670
	Large (100+ employees)	1	-2.2778	1.2552	3.2931	0.0696
	Medium (10-99 employees)	1	-0.2033	1.1470	0.0314	0.8593
1 5 , 1	Large (100+ employees)	1	-1.5283	1.0331	2.1883	0.1391
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	-0.8699	1.2543	0.4810	0.4880
industry*A5SUM Construction	Large (100+ employees)	1	-0.7717	0.8749	0.7781	0.3777
industry*A5SUM Construction	Medium (10-99 employees)	1	-1.7737	0.6852	6.7004	0.0096
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	-0.00815	1.1461	0.0001	0.9943
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	0.4725	1.0886	0.1884	0.6643
industry*A5SUM Education	Large (100+ employees)	1	12.1681	313.3	0.0015	0.9690
industry*A5SUM Education	Medium (10-99 employees)	1	0.6641	0.7826	0.7201	0.3961
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	12.4221	1000.5	0.0002	0.9901
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	-0.7013	1.2504	0.3145	0.5749
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	12.1143	443.1	0.0007	0.9782
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	-1.4070	0.7149	3.8734	0.0491
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	1.0067	1.0612	0.8999	0.3428
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	12.1681	350.2	0.0012	0.9723
industry*A5SUM Health And Community Services	Large (100+ employees)	1	1.2154	1.0550	1.3272	0.2493
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	-0.6752	0.4796	1.9816	0.1592
industry*A5SUM Manufacturing	Large (100+ employees)	1	-0.0848	0.6794	0.0156	0.9007
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	-0.3617	0.6148	0.3463	0.5562
	Large (100+ employees)	1	-0.8361	1.1926	0.4915	0.4833
industry*A5SUM Mining	Medium (10-99 employees)	0	0			
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	0.1910	1.1085	0.0297	0.8632
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	-0.0309	1.1247	0.0008	0.9781
industry*A5SUM Property And Business Services	Large (100+ employees)	1	-1.0513	1.2578	0.6986	0.4033
	Medium (10-99 employees)	1	0.5617	1.0821	0.2694	0.6037
	Large (100+ employees)	1	12.1298	374.4	0.0010	0.9742
<u> </u>	Medium (10-99 employees)	1	-0.6919	0.7205	0.9222	0.3369
	Large (100+ employees)	1	12.4221	707.5	0.0003	0.9860
	Medium (10-99 employees)	1	0.5292	1.0885	0.2364	0.6268
	Large (100+ employees)	1	-0.8699	1.2543	0.4810	0.4880
	Medium (10-99 employees)	1	-16.6498	1246.4	0.0002	0.9893
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## Odds Ratio Estimates

Point 95% Wald Effect Estimate Confidence Limits

year 2007 vs 2005 1.716 0.963 3.059

## Association of Predicted Probabilities and Observed Responses

 Percent Concordant
 68.2
 Somers' D
 0.440

 Percent Discordant
 24.3
 Gamma
 0.475

 Percent Tied
 7.5
 Tau-a
 0.132

 Pairs
 24272
 c
 0.720

# Tasmania - Apprentices and trainees

Number of Observations Read 440 Number of Observations Used 440

## Response Profile

Ordered		Total
Value	satis10	Frequency
1	0	73
2	1	367

Probability modelled is satis10=1.

## Model Fit Statistics

	Intercept	Intercept and
Criterion	Only	Covariates
AIC	397.419	406.472
SC	401.506	541.335
-2 Log L	395.419	340.472

## Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	54.9475	32	0.0070
Score	50.4811	32	0.0200
Wald	25.4359	32	0.7880

## Type 3 Analysis of Effects

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	5.2255	0.0223
industry*A5SUM	31	21.6370	0.8941

NOTE: The following parameters have been set to 0, since the variables are a linear combination of other variables as shown.

industryMiningA5SUMMedium\_\_10\_99 = 0

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.1686	0.2394	23.8274	<.0001
year 2007		1	0.6611	0.2892	5.2255	0.0223
	Large (100+ employees)	1	-2.0971	1.2584	2.7775	0.0956
	Medium (10-99 employees)	1	0.9867	1.0753	0.8420	0.3588
1 5 , 1	Large (100+ employees)	1	-1.3317	1.0341	1.6583	0.1978
1 5 , 1	Medium (10-99 employees)	1	-1.7465	0.8055	4.7019	0.0301
industry*A5SUM Construction	Large (100+ employees)	1	0.2838	1.1102	0.0654	0.7982
industry*A5SUM Construction	Medium (10-99 employees)	1	0.2989	0.7983	0.1402	0.7081
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	13.5859	852.8	0.0003	0.9873
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	-0.7325	0.6574	1.2417	0.2652
industry*A5SUM Education	Large (100+ employees)	1	13.4283	600.2	0.0005	0.9821
industry*A5SUM Education	Medium (10-99 employees)	1	13.5472	425.6	0.0010	0.9746
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	-0.6785	1.2564	0.2917	0.5892
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	13.7377	1220.0	0.0001	0.9910
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	13.2610	851.5	0.0002	0.9876
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	-0.0155	0.8265	0.0004	0.9850
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	-0.1475	0.6895	0.0458	0.8306
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	13.3462	600.5	0.0005	0.9823
industry*A5SUM Health And Community Services	Large (100+ employees)	1	0.2064	0.6697	0.0950	0.7579
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	1.0759	0.7719	1.9427	0.1634
industry*A5SUM Manufacturing	Large (100+ employees)	1	13.4993	400.6	0.0011	0.9731
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	0.7872	0.7779	1.0241	0.3115
industry*A5SUM Mining	Large (100+ employees)	1	-0.7311	1.1917	0.3764	0.5395
industry*A5SUM Mining	Medium (10-99 employees)	0	0		•	•
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	0.3774	1.1086	0.1159	0.7336
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	0.4874	1.0976	0.1972	0.6570
industry*A5SUM Property And Business Services	Large (100+ employees)	1	13.2610	851.5	0.0002	0.9876
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	-0.4870	0.7128	0.4667	0.4945
industry*A5SUM Retail Trade	Large (100+ employees)	1	-0.0529	0.8207	0.0041	0.9487
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	-0.2170	0.5563	0.1521	0.6966
industry*A5SUM Transport And Storage	Large (100+ employees)	1	13.7377	996.1	0.0002	0.9890
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	0.9867	1.0753	0.8420	0.3588
industry*A5SUM Wholesale Trade	Large (100+ employees)	1	-2.3198	1.2616	3.3815	0.0659
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	-0.7877	0.9044	0.7586	0.3838
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## Odds Ratio Estimates

				Point	95%	wald
Effe	ct			Estimate	Confider	ce Limits
vear	2007	vs	2005	1.937	1.099	3.414

## Association of Predicted Probabilities and Observed Responses

Percent	Concordant	70.0	Somers'	D	0.464
Percent	Discordant	23.7	Gamma		0.495
Percent	Tied	6.3	Tau-a		0.129
Pairs		26791	C		0.732

# Tasmania - Nationally recognised training

Number of Observations Read 375 Number of Observations Used 375

## Response Profile

Ordered Value	satis10	Total Frequency
1 2	0	67 308

Probability modelled is satis10=1.

## Model Fit Statistics

		Intercept
	Intercept	and
Criterion	Only	Covariates
AIC	354.024	392.081
SC	357.951	525.597
-2 Log L	352.024	324.081

## Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	27.9428	33	0.7171
Score	26.9286	33	0.7628
Wald	14.1069	33	0.9983

## Type 3 Analysis of Effects

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	0.9311	0.3346
industry*A5SUM	32	12.9749	0.9989

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.2658	0.2529	25.0495	<.0001
year 2007		1	0.2943	0.3050	0.9311	0.3346
industry*A5SUM Accommodation, Cafes And Restaurants	Large (100+ employees)	1	-1.2658	1.4366	0.7762	0.3783
industry*A5SUM Accommodation, Cafes And Restaurants	Medium (10-99 employees)	1	-0.6195	0.8989	0.4750	0.4907
industry*A5SUM Agriculture, Forestry And Fishing	Large (100+ employees)	1	-2.0601	1.2486	2.7223	0.0990
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	12.5056	505.5	0.0006	0.9803
industry*A5SUM Construction	Large (100+ employees)	1	12.4123	381.8	0.0011	0.9741
industry*A5SUM Construction	Medium (10-99 employees)	1	0.3440	0.8016	0.1841	0.6678
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	0.0658	1.1436	0.0033	0.9541
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	0.9118	1.0744	0.7201	0.3961
industry*A5SUM Education	Large (100+ employees)	1	0.3654	1.1067	0.1090	0.7412
industry*A5SUM Education	Medium (10-99 employees)	1	1.2225	1.0638	1.3205	0.2505
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	1	-0.6674	1.2485	0.2858	0.5930
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	-0.5726	1.2506	0.2096	0.6470
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	12.4039	451.7	0.0008	0.9781
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	-0.1057	0.8352	0.0160	0.8993
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	-0.1500	0.6957	0.0465	0.8293
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	0.4481	1.1056	0.1643	0.6852
industry*A5SUM Health And Community Services	Large (100+ employees)	1	-0.3274	0.6244	0.2749	0.6001
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	0.3438	0.5906	0.3390	0.5604
industry*A5SUM Manufacturing	Large (100+ employees)	1	0.6911	0.7849	0.7753	0.3786
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	0.7329	1.0833	0.4577	0.4987
industry*A5SUM Mining	Large (100+ employees)	1	-0.4614	1.1936	0.1495	0.6991
industry*A5SUM Mining	Medium (10-99 employees)	1	-16.6584	1899.2	0.0001	0.9930
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	-0.9758	0.9433	1.0701	0.3009
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	0.0658	1.1436	0.0033	0.9541
industry*A5SUM Property And Business Services	Large (100+ employees)	1	12.3438	452.2	0.0007	0.9782
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	0.3758	0.8038	0.2186	0.6401
industry*A5SUM Retail Trade	Large (100+ employees)	1	-0.1706	0.8367	0.0415	0.8385
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	0.6251	1.0890	0.3295	0.5660
industry*A5SUM Transport And Storage	Large (100+ employees)	1	12.5764	716.6	0.0003	0.9860
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	0.9118	1.0744	0.7201	0.3961
industry*A5SUM Wholesale Trade	Large (100+ employees)	1	-0.7657	1.2518	0.3742	0.5407
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	-0.8669	1.2615	0.4723	0.4919
- -						

## Odds Ratio Estimates

				Point	95%	Wald
Effect Estimate		Confide	nce Limits			
year	2007	vs	2005	1.342	0.738	2.440

## Association of Predicted Probabilities and Observed Responses

Percent	Concordant	62.9	Somers'	D	0.331
Percent	Discordant	29.9	Gamma		0.356
Percent	Tied	7.2	Tau-a		0.097
Pairs		20636	C		0.665

# Northern Territory - Vocational qualifications as a job requirement

Number of Observations Read 301 Number of Observations Used 301

## Response Profile

Total Frequency	satis10	Ordered Value
80 221	0 1	1 2

Probability modelled is satis10=1.

#### Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	350.568	373.905
SC	354.275	488.825
-2 Log L	348.568	311.905

## Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	36.6631	30	0.1872
Score	31.1479	30	0.4082
Wald	12.5235	30	0.9979

## Type 3 Analysis of Effects

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	0.6200	0.4311
industry*A5SUM	29	11.7094	0.9982

NOTE: The following parameters have been set to 0, since the variables are a linear combination of other variables as shown.

industryConstructionA5SUMLarge\_\_ = 0
industryElectricity\_\_Gas\_And\_Wat = 0
industryFinance\_And\_InsuranceA5S = 0

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	0.8909	0.2477	12.9323	0.0003
year 2007		1	0.2278	0.2893	0.6200	0.4311
	Large (100+ employees)	1	13.5737	710.0	0.0004	0.9847
	Medium (10-99 employees)	1	-1.3887	0.9382	2.1907	0.1388
1 5 , 1	Large (100+ employees)	1	-15.7361	1673.4	0.0001	0.9925
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	-0.3477	1.2456	0.0779	0.7801
industry*A5SUM Construction	Large (100+ employees)	0	0			
industry*A5SUM Construction	Medium (10-99 employees)	1	0.5137	0.8103	0.4020	0.5261
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	-0.1977	1.2495	0.0250	0.8743
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	-0.6674	0.7948	0.7053	0.4010
industry*A5SUM Education	Large (100+ employees)	1	0.8078	1.1014	0.5379	0.4633
industry*A5SUM Education	Medium (10-99 employees)	1	-0.2503	0.5132	0.2380	0.6257
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	0	0	•	•	•
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	-15.7361	1673.4	0.0001	0.9925
industry*A5SUM Finance And Insurance	Large (100+ employees)	0	0			
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	-0.3477	0.8942	0.1512	0.6974
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	13.5338	536.5	0.0006	0.9799
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	13.5973	537.0	0.0006	0.9798
industry*A5SUM Health And Community Services	Large (100+ employees)	1	1.2717	1.0710	1.4099	0.2351
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	-0.3367	0.5109	0.4344	0.5098
industry*A5SUM Manufacturing	Large (100+ employees)	1	13.6285	1421.8	0.0001	0.9924
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	-0.2356	0.6406	0.1352	0.7131
industry*A5SUM Mining	Large (100+ employees)	1	-1.0048	1.4321	0.4922	0.4829
industry*A5SUM Mining	Medium (10-99 employees)	1	-0.3477	1.2456	0.0779	0.7801
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	-0.8909	1.4357	0.3850	0.5349
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	-1.0048	1.4321	0.4922	0.4829
industry*A5SUM Property And Business Services	Large (100+ employees)	1	-0.8909	1.4357	0.3850	0.5349
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	-0.7936	0.7046	1.2685	0.2601
industry*A5SUM Retail Trade	Large (100+ employees)	1	13.5177	1003.7	0.0002	0.9893
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	0.5137	0.8103	0.4020	0.5261
industry*A5SUM Transport And Storage	Large (100+ employees)	1	13.5177	1003.7	0.0002	0.9893
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	1.0084	0.7822	1.6620	0.1973
	Large (100+ employees)	1	-15.9639	1673.4	0.0001	0.9924
	Medium (10-99 employees)	1	0.1532	1.1765	0.0170	0.8964
•						

## Odds Ratio Estimates

Point 95% Wald Confidence Limits year 2007 vs 2005 1.256 0.712 2.214

Association of Predicted Probabilities and Observed Responses

Percent Concordant 64.5 Somers' D 0.376
Percent Discordant 26.9 Gamma 0.412
Percent Tied 8.6 Tau-a 0.147
Pairs 17680 c 0.688

# Northern Territory - Apprentices and trainees

Number of Observations Read 275 Number of Observations Used 275

## Response Profile

Total Frequency	satis10	Ordered Value
45 230	0 1	1 2

Probability modelled is satis10=1.

## Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	247.108	282.077
SC	250.725	394.197
-2 Log L	245.108	220.077

## Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	25.0307	30	0.7235
Score	22.1511	30	0.8485
Wald	8.3232	30	1.0000

## Type 3 Analysis of Effects

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	0.7183	0.3967
industry*A5SUM	29	7.2137	1.0000

NOTE: The following parameters have been set to 0, since the variables are a linear combination of other variables as shown.

industryConstructionA5SUMLarge\_ = 0
industryElectricity Gas\_And\_Wat = 0
industryElectricity Gas\_And\_Wa2 = 0

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.5975	0.3166	25.4639	<.0001
year 2007		1	-0.3017	0.3559	0.7183	0.3967
1	Large (100+ employees)	1	11.3993	318.3	0.0013	0.9714
	Medium (10-99 employees)	1	-0.3424	1.1825	0.0838	0.7722
	Large (100+ employees)	1	11.6226	451.5	0.0007	0.9795
	Medium (10-99 employees)	1	-0.6027	1.2581	0.2295	0.6319
	Large (100+ employees)	0	0			
industry*A5SUM Construction	Medium (10-99 employees)	1	0.2871	0.8070	0.1266	0.7220
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	11.3209	451.5	0.0006	0.9800
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	-1.1358	0.8036	1.9979	0.1575
industry*A5SUM Education	Large (100+ employees)	1	11.4754	318.1	0.0013	0.9712
industry*A5SUM Education	Medium (10-99 employees)	1	0.2414	1.1171	0.0467	0.8289
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	0	0		•	•
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	0	0		•	
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	-15.7934	1406.4	0.0001	0.9910
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	0.3315	1.1091	0.0893	0.7650
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	-0.2045	0.8399	0.0593	0.8077
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	0.5552	1.0945	0.2573	0.6120
industry*A5SUM Health And Community Services	Large (100+ employees)	1	0.0782	0.8200	0.0091	0.9240
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	-0.3805	0.8555	0.1978	0.6565
industry*A5SUM Manufacturing	Large (100+ employees)	1	11.3209	638.6	0.0003	0.9859
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	0.5630	0.7970	0.4989	0.4800
	Large (100+ employees)	1	11.4754	449.8	0.0007	0.9796
industry*A5SUM Mining	Medium (10-99 employees)	1	11.6226	638.6	0.0003	0.9855
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	11.3209	451.5	0.0006	0.9800
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	11.4754	449.8	0.0007	0.9796
industry*A5SUM Property And Business Services	Large (100+ employees)	1	11.4754	318.1	0.0013	0.9712
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	-0.6508	0.9061	0.5158	0.4726
industry*A5SUM Retail Trade	Large (100+ employees)	1	11.4452	284.5	0.0016	0.9679
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	1.2524	1.0620	1.3906	0.2383
industry*A5SUM Transport And Storage	Large (100+ employees)	1	11.5251	367.4	0.0010	0.9750
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	0.9606	1.0733	0.8011	0.3708
	Large (100+ employees)	1	11.6226	638.6	0.0003	0.9855
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	-0.8006	1.2538	0.4077	0.5231

## Odds Ratio Estimates

Point 95% Wald Effect Estimate Confidence Limits

year 2007 vs 2005 0.740 0.368 1.486

## Association of Predicted Probabilities and Observed Responses

Percent Concordant 63.6 Somers' D 0.370
Percent Discordant 26.5 Gamma 0.411
Percent Tied 9.9 Tau-a 0.102
Pairs 10350 c 0.685

# Northern Territory - Nationally recognised training

Number of Observations Read 284 Number of Observations Used 284

## Response Profile

Ordered Value	satis10	Total Frequency
1 2	0 1	61 223

Probability modelled is satis10=1.

## Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	297.492	323.327
SC	301.141	440.094
-2 Log L	295.492	259.327

## Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	36.1656	31	0.2400
Score	29.4753	31	0.5445
Wald	9.0102	31	1.0000

## Type 3 Analysis of Effects

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	0.0979	0.7543
industry*A5SUM	30	8.9716	0.9999

NOTE: The following parameters have been set to 0, since the variables are a linear combination of other variables as shown.

industryConstructionA5SUMLarge\_\_ = 0
industryElectricity\_\_Gas\_And\_Wat = 0

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	0.9923	0.2744	13.0772	0.0003
year 2007		1	-0.1001	0.3199	0.0979	0.7543
industry*A5SUM Accommodation, Cafes And Restaurants	Large (100+ employees)	1	12.7354	419.3	0.0009	0.9758
industry*A5SUM Accommodation, Cafes And Restaurants	Medium (10-99 employees)	1	0.4144	1.1447	0.1311	0.7173
industry*A5SUM Agriculture, Forestry And Fishing	Large (100+ employees)	1	12.7950	663.2	0.0004	0.9846
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	-0.9173	1.0307	0.7920	0.3735
industry*A5SUM Construction	Large (100+ employees)	0	0			
industry*A5SUM Construction	Medium (10-99 employees)	1	0.2430	0.6993	0.1207	0.7282
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	12.6949	663.2	0.0004	0.9847
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	-1.4784	0.7693	3.6931	0.0546
industry*A5SUM Education	Large (100+ employees)	1	0.1318	1.1796	0.0125	0.9111
industry*A5SUM Education	Medium (10-99 employees)	1	0.9069	0.7961	1.2975	0.2547
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	0	0			
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	12.7454	662.9	0.0004	0.9847
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	-15.3059	1348.6	0.0001	0.9909
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	0.3056	0.8346	0.1341	0.7143
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	12.7382	354.3	0.0013	0.9713
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	0.5397	0.8173	0.4360	0.5090
industry*A5SUM Health And Community Services	Large (100+ employees)	1	12.7537	270.6	0.0022	0.9624
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	0.4547	0.6070	0.5613	0.4537
industry*A5SUM Manufacturing	Large (100+ employees)	1	12.6949	937.9	0.0002	0.9892
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	0.1941	0.8591	0.0511	0.8212
industry*A5SUM Mining	Large (100+ employees)	1	12.7454	662.9	0.0004	0.9847
industry*A5SUM Mining	Medium (10-99 employees)	1	-0.2321	1.2485	0.0346	0.8525
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	12.6949	663.2	0.0004	0.9847
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	12.6949	663.2	0.0004	0.9847
industry*A5SUM Property And Business Services	Large (100+ employees)	1	0.1569	1.1780	0.0177	0.8940
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	0.4613	0.6892	0.4480	0.5033
industry*A5SUM Retail Trade	Large (100+ employees)	1	12.7620	541.3	0.0006	0.9812
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	0.5762	0.8175	0.4967	0.4810
industry*A5SUM Transport And Storage	Large (100+ employees)	1	12.7620	541.3	0.0006	0.9812
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	0.4481	0.6863	0.4263	0.5138
industry*A5SUM Wholesale Trade	Large (100+ employees)	1	12.7950	937.9	0.0002	0.9891
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	12.6949	937.9	0.0002	0.9892

## Odds Ratio Estimates

Point 95% Wald Confidence Limits year 2007 vs 2005 0.905 0.483 1.694

Association of Predicted Probabilities and Observed Responses

Percent Concordant 66.0 Somers' D 0.398
Percent Discordant 26.2 Gamma 0.432
Percent Tied 7.8 Tau-a 0.135
Pairs 13603 c 0.699

## Australia Capital Territory - Vocational qualifications as a job requirement

Number of Observations Read 345 Number of Observations Used 345

## Response Profile

Ordered		Total
Value	satis10	Frequency
1	0	74
2	1	271

Probability modelled is satis10=1.

#### Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	360.696	381.210
SC	364.539	488.829
-2 Log L	358.696	325.210

## Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	33.4854	27	0.1815
Score	30.5586	27	0.2896
Wald	18.2250	27	0.8965

## Type 3 Analysis of Effects

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	3.4601	0.0629
industrv*A5SUM	26	15.6474	0.9443

NOTE: The following parameters have been set to 0, since the variables are a linear combination of other variables as shown.

industryAgriculture\_\_Forestry\_An = 0
industryElectricity\_\_Gas\_And\_Wat = 0
industryPersonal\_And\_Other\_Servi = 0
industryWholesale\_TradeA5SUMLarg = 0

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.1172	0.2209	25.5784	<.0001
year 2007		1	0.5404	0.2905	3.4601	0.0629
industry*A5SUM Accommodation, Cafes And Restaurants	Large (100+ employees)	1	12.5711	663.5	0.0004	0.9849
industry*A5SUM Accommodation, Cafes And Restaurants	Medium (10-99 employees)	1	-0.1492	1.1462	0.0169	0.8964
industry*A5SUM Agriculture, Forestry And Fishing	Large (100+ employees)	0	0			
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	12.3157	656.5	0.0004	0.9850
industry*A5SUM Construction	Large (100+ employees)	1	-1.6576	1.4405	1.3241	0.2499
industry*A5SUM Construction	Medium (10-99 employees)	1	-0.7125	0.7412	0.9240	0.3364
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	12.4456	465.6	0.0007	0.9787
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	-1.3874	0.8484	2.6744	0.1020
industry*A5SUM Education	Large (100+ employees)	1	1.2652	1.0562	1.4349	0.2310
industry*A5SUM Education	Medium (10-99 employees)	1	-0.8674	0.7632	1.2916	0.2558
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	0	0		•	
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	1	-15.5352	1351.6	0.0001	0.9908
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	12.3157	656.5	0.0004	0.9850
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	0.6188	0.7838	0.6233	0.4298
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	0.9413	1.0753	0.7663	0.3814
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	12.4029	536.8	0.0005	0.9816
industry*A5SUM Health And Community Services	Large (100+ employees)	1	0.0677	0.6747	0.0101	0.9201
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	-0.1446	0.6049	0.0572	0.8110
industry*A5SUM Manufacturing	Large (100+ employees)	1	12.3157	656.5	0.0004	0.9850
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	-0.7742	0.7439	1.0831	0.2980
industry*A5SUM Personal And Other Services	Large (100+ employees)	0	0			
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	12.4710	417.0	0.0009	0.9761
industry*A5SUM Property And Business Services	Large (100+ employees)	1	-1.0556	0.7954	1.7613	0.1845
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	0.5054	0.7868	0.4126	0.5207
industry*A5SUM Retail Trade	Large (100+ employees)	1	-1.3874	1.0292	1.8173	0.1776
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	-0.7545	0.5488	1.8897	0.1692
industry*A5SUM Transport And Storage	Large (100+ employees)	1	-1.1172	1.4314	0.6092	0.4351
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	-0.2713	1.1511	0.0555	0.8137
industry*A5SUM Wholesale Trade	Large (100+ employees)	0	0			
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	12.0307	938.4	0.0002	0.9898

## Odds Ratio Estimates

Point 95% Wald Confidence Limits year 2007 vs 2005 1.717 0.971 3.034

Association of Predicted Probabilities and Observed Responses

 Percent Concordant
 62.9
 Somers' D
 0.372

 Percent Discordant
 25.7
 Gamma
 0.420

 Percent Tied
 11.4
 Tau-a
 0.126

 Pairs
 20054
 c
 0.686

## Australia Capital Territory - Apprentices and trainees

Number of Observations Read 305 Number of Observations Used 305

## Response Profile

Ordered		Total
Value	satis10	Frequency
1	0	67
2	1	238

Probability modelled is satis10=1.

#### Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	323.161	337.492
SC	326.881	445.381
-2 Log L	321.161	279.492

## Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	41.6682	28	0.0466
Score	32.9371	28	0.2381
Wald	13.5710	28	0.9900

## Type 3 Analysis of Effects

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	5.1431	0.0233
industry*A5SUM	27	7.4072	0.9999

NOTE: The following parameters have been set to 0, since the variables are a linear combination of other variables as shown.

industryElectricity\_\_Gas\_And\_Wat = 0
industryElectricity\_\_Gas\_And\_Wa2 = 0
industryWholesale\_TradeA5SUMMedi = 0

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	0.5260	0.2379	4.8880	0.0270
year 2007		1	0.6963	0.3070	5.1431	0.0270
industry*A5SUM Accommodation, Cafes And Restaurants	Large (100+ employees)	1	0.4217	1.1822	0.1272	0.7213
industry*A5SUM Accommodation, Cafes And Restaurants		1	0.4217	0.8007	1.1154	0.7213
industry*A5SUM Agriculture, Forestry And Fishing	Large (100+ employees)	1	13.1429	929.3	0.0002	0.2909
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	1	12.4466	657.1	0.0002	0.9849
industry*A5SUM Construction	Large (100+ employees)	1	12.4466	657.1	0.0004	0.9849
industry*A5SUM Construction	Medium (10-99 employees)	1	1.1325	1.0868	1.0858	0.2974
1		_				0.2974
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	12.9301	373.8	0.0012	
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	-0.2498	0.9453	0.0699	0.7915
industry*A5SUM Education	Large (100+ employees)	1	0.2876	0.7144	0.1620	0.6873
industry*A5SUM Education	Medium (10-99 employees)	1	12.8500	275.4	0.0022	0.9628
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	0	0	•	•	•
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	0	0			
industry*A5SUM Finance And Insurance	Large (100+ employees)	1	13.1429	929.3	0.0002	0.9887
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	12.8193	322.9	0.0016	0.9683
industry*A5SUM Government Administration And Defence		1	12.7507	408.6	0.0010	0.9751
industry*A5SUM Government Administration And Defence		1	-0.8741	1.4501	0.3634	0.5466
industry*A5SUM Health And Community Services	Large (100+ employees)	1	1.7422	1.0612	2.6949	0.1007
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	0.5861	0.6775	0.7484	0.3870
industry*A5SUM Manufacturing	Large (100+ employees)	1	13.1429	929.3	0.0002	0.9887
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	0.5026	0.8169	0.3786	0.5384
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	-0.8741	1.4501	0.3634	0.5466
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	-0.2498	0.9453	0.0699	0.7915
industry*A5SUM Property And Business Services	Large (100+ employees)	1	-0.0456	0.8994	0.0026	0.9595
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	0.1650	0.7003	0.0555	0.8138
industry*A5SUM Retail Trade	Large (100+ employees)	1	12.7507	408.6	0.0010	0.9751
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	0.6143	0.5921	1.0763	0.2995
industry*A5SUM Transport And Storage	Large (100+ employees)	1	13.1429	929.3	0.0002	0.9887
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	0.0723	0.8533	0.0072	0.9325
industry*A5SUM Wholesale Trade	Large (100+ employees)	1	-14.8690	1301.8	0.0001	0.9909
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	0	0			

## Odds Ratio Estimates

	Point	95% Wald
Effect	Estimate	Confidence Limits
year 2007 vs 2005	2.006	1.099 3.662

## Association of Predicted Probabilities and Observed Responses

Percent	Concordant	66.9	Somers'	D	0.437
Percent	Discordant	23.2	Gamma		0.485
Percent	Tied	9.9	Tau-a		0.150
Pairs		15946	C		0.719

# Australia Capital Territory - Nationally recognised training

Number of Observations Read 315 Number of Observations Used 315

## Response Profile

Ordered Value	satis10	Total Frequency
1 2	0	44 271

Probability modelled is satis10=1.

#### Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	256.764	277.864
SC -2 Log L	260.516 254.764	382.936 221.864

## Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	32.8997	27	0.2004
Score	32.3474	27	0.2195
Wald	11.0134	27	0.9972

## Type 3 Analysis of Effects

Effect	DF	Wald Chi-Square	Pr > ChiSq
year	1	0.0513	0.8208
industry*A5SUM	26	10.4860	0.9970

NOTE: The following parameters have been set to 0, since the variables are a linear combination of other variables as shown.

industryAgriculture\_\_Forestry\_A2 = 0
industryElectricity\_\_Gas\_And\_Wat = 0
industryElectricity\_\_Gas\_And\_Wa2 = 0
industryWholesale\_TradeA5SUMLarg = 0

				Standard	Wald	
Parameter		DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept		1	1.4745	0.2849	26.7782	<.0001
year 2007		1	0.0822	0.3629	0.0513	0.8208
industry*A5SUM Accommodation, Cafes And Restaurants	Large (100+ employees)	1	10.5682	185.8	0.0032	0.9546
industry*A5SUM Accommodation, Cafes And Restaurants	Medium (10-99 employees)	1	10.5354	185.8	0.0032	0.9548
industry*A5SUM Agriculture, Forestry And Fishing	Large (100+ employees)	1	10.5845	415.5	0.0006	0.9797
industry*A5SUM Agriculture, Forestry And Fishing	Medium (10-99 employees)	0	0	•	•	
industry*A5SUM Construction	Large (100+ employees)	1	10.5023	239.9	0.0019	0.9651
industry*A5SUM Construction	Medium (10-99 employees)	1	0.5600	1.0887	0.2646	0.6070
industry*A5SUM Cultural And Recreational Services	Large (100+ employees)	1	-0.4165	1.1801	0.1246	0.7241
industry*A5SUM Cultural And Recreational Services	Medium (10-99 employees)	1	-1.4950	1.0306	2.1041	0.1469
industry*A5SUM Education	Large (100+ employees)	1	0.2885	0.8015	0.1296	0.7189
industry*A5SUM Education	Medium (10-99 employees)	1	10.5299	138.5	0.0058	0.9394
industry*A5SUM Electricity, Gas And Water Supply	Large (100+ employees)	0	0			
industry*A5SUM Electricity, Gas And Water Supply	Medium (10-99 employees)	0	0			
	Large (100+ employees)	1	10.5299	239.8	0.0019	0.9650
industry*A5SUM Finance And Insurance	Medium (10-99 employees)	1	0.1698	0.6742	0.0634	0.8012
industry*A5SUM Government Administration And Defence	Large (100+ employees)	1	0.1149	0.8139	0.0199	0.8878
industry*A5SUM Government Administration And Defence	Medium (10-99 employees)	1	-0.0882	1.1538	0.0058	0.9391
industry*A5SUM Health And Community Services	Large (100+ employees)	1	1.1270	1.0629	1.1241	0.2890
industry*A5SUM Health And Community Services	Medium (10-99 employees)	1	0.9669	0.7754	1.5548	0.2124
industry*A5SUM Manufacturing	Large (100+ employees)	1	-1.5156	1.4352	1.1151	0.2910
industry*A5SUM Manufacturing	Medium (10-99 employees)	1	10.5519	185.8	0.0032	0.9547
industry*A5SUM Personal And Other Services	Large (100+ employees)	1	10.5845	415.5	0.0006	0.9797
industry*A5SUM Personal And Other Services	Medium (10-99 employees)	1	-2.1676	1.2575	2.9715	0.0847
industry*A5SUM Property And Business Services	Large (100+ employees)	1	10.5482	138.5	0.0058	0.9393
industry*A5SUM Property And Business Services	Medium (10-99 employees)	1	0.6012	0.7963	0.5699	0.4503
industry*A5SUM Retail Trade	Large (100+ employees)	1	10.5299	239.8	0.0019	0.9650
industry*A5SUM Retail Trade	Medium (10-99 employees)	1	0.1866	0.8066	0.0535	0.8170
industry*A5SUM Transport And Storage	Large (100+ employees)	1	-15.8232	1305.5	0.0001	0.9903
industry*A5SUM Transport And Storage	Medium (10-99 employees)	1	10.5231	146.9	0.0051	0.9429
industry*A5SUM Wholesale Trade	Large (100+ employees)	0	0			
industry*A5SUM Wholesale Trade	Medium (10-99 employees)	1	10.5023	415.5	0.0006	0.9798

## Odds Ratio Estimates

	Point	95% Wald
Effect	Estimate	Confidence Limits
vear 2007 vs 2005	1.086	0.533 2.211

## Association of Predicted Probabilities and Observed Responses

Percent	Concordant	65.0	Somers'	D	0.394
Percent	Discordant	25.6	Gamma		0.435
Percent	Tied	9.3	Tau-a		0.095
Pairs		11924	С		0.697