SUPPORT DOCUMENT

To train or not to train: The role of education and training in prison to work transitions—Support document

MARGARET GILES

ANH TRAM LE

MARIA ALLAN

CATHERINE LEES

ANN-CLAIRE LARSEN

LYN BENNETT

This document was produced by the authors based on their research for the report *To train or not to train: The role of education and training in prison to work transition*, and is an added resource for further information. The report is available on NCVER's website:
<http://www.ncver.edu.au>

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Summary Tables

Table S1: Socio-Demographic Characteristics of Prisoner Sample (n=453)

Characteristic	Females	Males	Total	Total (%)
Age				
18 to 25 years	28	77	105	23.2
26 to 40 years	51	185	236	52.1
41 + years	16	96	112	24.7
Total	95	358	453	100.0
Partner Status				
Partnered	41	183	224	49.5
Not partnered	53	175	228	50.3
Unsure/don't know	1	0	1	0.2
Total	95	358	453	100.0
Children				
Children	65	233	298	65.8
No children	30	125	155	34.2
Total	95	358	453	100.0
Last residence				
WA metro	62	292	354	78.1
WA rural	2	12	14	3.1
Interstate	25	49	74	16.3
Overseas	0	1	1	0.2
Not stated	6	4	10	2.2
Total	95	358	453	100.0
Country of Birth				
Australia	82	273	355	78.4
Elsewhere	13	85	98	21.6
Total	95	358	453	100.0
ATSI				
ATSI	30	65	95	21.0
Not ATSI	65	292	357	78.8
Unsure/ don't know	0	1	1	0.2
Total	95	358	453	100.0
Siblings				
Siblings	92	346	438	96.7
No siblings	3	11	14	3.1
Unsure/ don't know	0	1	1	0.2
Total	95	358	453	100.0
Father's Employment Status				
Father working	37	126	163	36.0
Father not working	28	90	118	26.0
Father deceased	23	108	131	28.9
Unsure/ don't know	7	34	41	9.1
Total	95	358	453	100.0

Characteristic	Females	Males	Total	Total (%)
Mother's Employment Status				
Mother working	30	111	141	31.1
Mother not working	40	173	213	47.0
Mother deceased	22	63	85	18.8
Unsure/don't remember/don't know	3	11	14	3.1
Total	95	358	453	100.0
Highest parent's occupation				
Managers and administrators	20	60	80	21.1
Professionals	9	47	56	14.8
Associate professionals	1	13	14	3.7
Tradespersons etc	17	52	69	18.2
Advanced clerical etc	0	1	1	0.3
Intermediate clerical etc	8	25	33	8.7
Intermediate production etc	7	20	27	7.1
Elementary clerical etc	0	7	7	1.8
Labourers etc	4	32	36	9.5
Others	2	8	10	2.6
Unsure/don't know/don't remember	10	36	46	12.1
Subtotal	78	301	379	100.0
Deceased/missing information	17	57	74	
Total	95	358	453	

Table S2: Most Recent Job - Types of Work

Types of Work	Females	Males	Total	%
Manual labour	5	140	145	40.5
Own business/self-employed	3	40	43	12.0
Hospitality	15	16	31	8.7
Clerical/administration	11	10	21	5.9
Sales	3	16	19	5.3
Manager/supervisor	1	12	13	3.6
Others	21	65	86	24.0
Subtotal	59	299	358	100.0
No paid work in 5 years prior to prison	36	59	95	
Total	95	358	453	

Table S3: Most Recent Job - Hours of Work

	Hours of Work	Female	Male	Total	%
Paid work in 5 years prior to prison	Part-time	28	63	91	25.4
	Full-time	30	233	263	73.5
	Don't know/unsure/don't remember	1	3	4	1.1
	Subtotal	59	299	358	100.0
No paid work in 5 years prior to prison	18 to 24 years	8	9	17	17.9
	25 to 54 years	27	43	70	73.7
	55 to 64 years	1	5	6	6.3
	65 years and over	0	2	2	2.1
	Subtotal	36	59	95	100.0
Total		95	358	453	

Table S4: Most Recent Job - Overtime

Overtime	Female	Male	Total	%
Overtime worked	21	112	133	37.2
No overtime worked	36	169	205	57.3
Not stated	2	18	20	5.6
Subtotal	59	299	358	100.0
No paid work in 5 years prior to prison	36	59	95	
Total	95	358	453	

Table S5: Most Recent Job - Gross Hourly Wage Rate

Gross Hourly Wage Rate	Female	Male	Total	%
Below the minimum wage	21	57	79	22.1
Minimum wage[1] - between $11.01 and $12.00 per hour	3	14	17	4.7
Above the minimum wage	33	210	243	67.9
Else[2]	1	5	5	1.4
Don't know/unsure/don't remember	1	13	14	3.9
Subtotal	59	299	358	100.0
No paid work in 5 years prior to prison	36	59	95	
Total	95	358	453	

Notes:

1. Minimum wage as at November 2003 is $11.35/hour.
2. Includes making a loss and payments denominated in other currencies.

Table S6: Labour Force Status - Prisoner and Parents

Labour force characteristic[1]	Female	Male	Total	%
Prisoner not working; both parents not working[2]	23	36	59	13.4
Prisoner not working; one parent not working[2]	9	13	22	5.0
Prisoner working; prior periods of unemployment	40	236	276	62.9
Prisoner working; no prior periods of unemployment	19	63	82	18.7
Subtotal	91	348	439	100.0
Else	4	10	14	
Total	95	358	453	

Notes:

1. These categories are constructed from variables related to the labour force status of the prisoner in the five years before their current prison sentence, the labour force status of parents and whether the prisoner ever received Newstart (or similar) allowance. There is no overlap between the categories.
2. Parent(s) may have retired or the mother may have home duties.

Table S7: Highest Level of Education Completed Prior to this Prison Sentence

Category	Female	Male	Total	Total (%)
Post graduate degree, Graduate diploma/graduate certificate, and Bachelor degree	6	13	19	4.2
Advance diploma/diploma, Certificate, Year 12, and Year 11	24	97	121	26.7
Year 10, and Year 9/below	64	247	311	68.7
Other	1	1	2	0.4
Total	95	358	453	100.0

Table S8: Main Field of Study (Above Year 12)

Category	Female	Male	Total	Total (%)
Sciences & technologies[1]	0	3	3	9.1
Humanities[2]	9	13	22	66.7
Other main field of study	2	6	8	24.2
Total	11	22	33	100.0

Notes:

1. Includes 'Natural & Physical Sciences', 'IT', Engineering & Related Technologies', and 'Architecture, Environmental & Related Studies'.

2. Includes 'Health', 'Education', 'Management & Commerce', 'Society & Culture', and 'Creative Arts'.

Table S9: Type of Secondary School Attended

Category	Female	Male	Total	Total (%)
Government/public	72	288	360	79.5
Catholic, and non-catholic private/independent	16	45	61	13.5
Other type of secondary school	2	10	12	2.6
Subtotal	90	343	433	95.6
Didn't go to secondary school	5	15	20	4.4
Total	95	358	453	100.0

Table S10: Completion of Trade Certificate/Apprenticeship/Traineeship

Category	Female	Male	Total	%
Completed outside prison	14	100	114	25.2
Completed during this prison sentence	5	22	27	6.0
Completed during a previous prison sentence	2	9	11	2.4
Subtotal	21	131	152	33.6
No trade certificate/apprenticeship/traineeship	74	227	301	66.4
Total	95	358	453	100.0

Table S11: Completion of Other Educational Studies

Category	Female	Male	Total	%
Completed outside prison	21	54	75	16.6
Completed during this prison sentence	27	116	143	31.6
Completed during a previous prison sentence	7	27	34	7.5
Unsure/don't remember/don't know	0	1	1	0.2
Subtotal	55	198	253	55.8
No trade certificate/apprenticeship/traineeship	40	160	200	44.2
Total	95	358	453	100.0

Table S12: Started but Not Completed Any Educational Studies & Intention to Complete

Category	Female	Male	Total	%
Intends to complete during this prison sentence	36	74	110	24.3
Intends to complete after this prison sentence	12	45	57	12.6
Does not intend to complete	7	55	62	13.7
Not sure	2	2	4	0.9
Subtotal	57	176	233	51.4
No qualification started	38	182	220	48.6
Total	95	358	453	100.0

Table S13: Sentence Characteristics

Category	Females	Males	Total	Total (%)
Length of Sentence by Months				
1 month – 12 months	27	59	86	19.0
13 months – 60 months	40	150	190	41.9
61 months – 180 months	16	119	135	29.8
181 months – 360 months	7	14	21	4.6
Life sentence	1	6	7	1.5
Unknown length of sentence	4	10	14	3.1
Total	95	358	453	100.0
Start of Sentence				
From 1 Jan. 2003	66	153	219	48.3
Between 1 Jan. 2002 to 31 Dec. 2002	11	73	84	18.5
Between 1 Jan. 1982 to 31 Dec. 2001	18	129	147	32.5
Unsure/don't remember/don't know	0	3	3	0.7
Total	95	358	358	100.0
Been in prison before this current sentence?				
Yes	42	196	238	52.5
1 time	12	52	64	14.1
2 – 5 times	22	117	139	30.7
6 – 10 times	4	16	20	4.4
11 – 15 times	0	7	7	1.5
Unsure/don't remember/don't know	4	4	8	1.8
No	53	162	215	47.5
Total	95	358	453	100.0
Most serious charge/offence for this current sentence				
Offences involving drugs	12	66	78	17.2
Offences involving money &/or property	23	69	92	20.3
Offences involving money &/or property & against people	13	57	70	15.5
Offences against people	30	106	136	30.0
Other offences	16	58	74	16.3
Unsure/don't remember/don't know	1	2	3	0.7
Total	95	358	453	100.0

Table S14: Interviewed Prisoners in Work and Education/Training by Characteristic

Characteristic[1]	Work (%)	Education/ Training (%)	No education/ training or work (%)
Sex***			
Female	35.8	61.1	3.2
Male	49.7	47.5	2.8
Age			
18 - 25 years	41.9	54.3	3.8
26 - 40 years	50.0	46.2	3.8
41 years +	44.6	55.4	0.0

Characteristic[1]	Work (%)	Education/ Training (%)	No education/ training or work (%)
Spouse/Partner			
Partnered	47.8	49.6	2.7
Not partnered	46.1	50.9	3.1
Children			
Children	46.6	51.0	2.3
No children	47.1	49.0	3.9
Race			
ATSI	49.5	45.3	5.3
Non-ATSI	46.2	51.5	2.2
Country of birth			
Australia	48.2	48.7	3.1
Overseas	41.8	56.1	2.0
Prior prison terms*			
Prior prison term	53.8	42.9	3.4
No prior prison terms	39.1	58.6	2.3
Length of sentence**			
1 - 12 months	53.5	40.7	5.8
13 - 60 months	47.9	50.5	1.6
61 + months	41.2	56.5	2.4
Employment in five years prior to this prison term*			
Any work	44.7	52.8	2.5
No work	56.0	40.0	4.0
Mother's labour force status			
Employed	44.7	51.8	3.5
Unemployed/deceased/unsure	47.8	49.7	2.6
Father's labour force status			
Employed	47.2	50.3	2.5
Unemployed/deceased/unsure	46.6	50.3	3.1
Parent occupation			
Managers/administrators	51.3	46.3	2.5
Professional/associate professional	34.3	57.1	8.6
Tradespersons	49.3	50.7	0.0
Clerical	46.3	51.2	2.4
Intermediate production and transport	48.1	51.9	0.0
Labourers, related workers, others	56.5	39.1	4.3
Prison work[2]			
Industries/Commercial services	56.7	43.3	0
Domestic services	49.1	50.9	0
No prison work	0	67.5	32.5
Total	46.8	50.3	2.9

* denotes significance at 1% level, ** denotes significance at 5% level, *** denotes significance at 10% level

Notes: 1. Cells contain row percentages. 2. No test of significance was used for this recoded variable.

Table S15: Distribution of Gratuities

Gratuity per week		Hours of work		Education/ training	Numbers work and education/ training	Work only	Else	Total
Level	Amount	Range	Median					
1	49	1-70	30	0	70	58	0	128
2	37.52	1-70	30	0	74	82	0	156
3	29.4	2-55	24	0	55	63	0	118
4-5, DK	15.47 - 20.86	1-40	25	0	2	9	0	11
Subtotal	-	-	-	0	201	212	0	413
n.a.	0	0	-	25	2	0	13	40
Total	-	-	-	25	203	212	13	453

The Models

In this project, the contribution of opportunities to improve labour market outcomes within prisons is examined with two approaches. First, whether or not prisoners take up education/training or work is examined. Second, how optimistic prisoners feel about their choices in terms of their perceived future labour market outcomes will be evaluated.

In the first approach, assuming voluntary choice between education/training and work in prison as is the case in WA prisons, a prisoner's preference for education/training or work can be modelled as a comparison of utilities. That is, the prisoner will choose education/training when the utility from doing this exceeds the utility that would be derived from participating in work.

A prisoner's utility will depend on income and other factors such that $U_w = U_w(Y_w, Z)$ and $U_{et} = U_{et}(Y_{et}, Z)$

where

U_w = utility to the prisoner from work,

U_{et} = utility to the prisoner from participating in education/training,

Y = the prisoner's perceived level of income (given their current qualifications and in prison education/training/work, if any), and

Z = vector of personal characteristics that might affect utilities via their impact on education/training or work (e.g. age, gender, race/ethnicity, marital status, number of dependent children, prior work experience, prior criminal record, highest level of education attained).

The decision to participate in education/training or work will be based on the difference, y^*, between U_{et} and U_w. Thus, y^* is the prisoner's underlying propensity to participate in education/training. If $y^* > 0$, then the prisoner will seek education/training opportunities rather than work. If $y^* \leq 0$, then the prisoner will not participate in education/training and will undertake work. The difference in utilities can be written $y^* = y^*(Y_w, Y_{et}, Z)$. A functional form that might be used to estimate this model is $y^* = \alpha_0 + \alpha_1(Y_{et} - Y_w) + \alpha_2 Z + \varepsilon$ where $\alpha_1 > 0$.

In this project, it is envisaged that the prisoner characteristics, Z, will be identified. The income premium, $Y_{et} - Y_w$, itself cannot be directly estimated. A binary logistic regression technique will be used to examine the relative impact of prisoner characteristics on their decisions to undertake, or not, education/training relative to work. The functional form here will be

$$y = \alpha_0 + \alpha_2 Z + \upsilon$$

where $y = 1$ if $y^* > 0$ and $y = 0$ if $y^* \leq 0$,

and υ captures random effects plus the effect of the unobserved income premium.

In the second approach, prisoner expectations are binary. That is, they either expect 'good work prospects' as defined by the data or they don't. The expectations are conditional upon the activity prisoners were undertaking (training, other education and/or work). Three equations were estimated using three not mutually exclusive samples. For example, the sample of those doing prison work (n = 205) was used to estimate whether or not there is an expectation of good work

prospects following current work experience in prison. A binary logistic regression technique was used for the estimation of the three equations which took the general functional form of

$$y = \beta_0 + \beta_1 Z + \varepsilon$$

where y is the expectation of good work prospects,

and Z is a vector of personal, prison and education, training or work characteristics.

Life Orientation Test (LOT)

The LOT index (Scheier & Carver, 1985) is a measure of optimism - a generalised tendency to expect positive outcomes. The LOT consists of eight statements (plus four filler statements) to which respondents indicate their agreement on a 5-point Likert scale. There are four positively and four negatively stated items and the latter are reverse scored.

In their large sample of American undergraduate college students, Scheier and Carver's (1987) found the mean LOT score was 21.03 (*SD* = 4.56) for the 357 men and 21.42 (*SD* = 5.22) for the 267 women. They reported a Cronbach's alpha of 0.76 and for a separate sample of 142 students, test-retest reliabilty of 0.79 after a 4-week interval. Table S16 summarises these statistics for this and other recent studies that used the LOT.

Table S16: LOT Means – Canada, Sweden, US Studies – 1985 to 2003

Author	Year	Where	Who	Mean (Sd)	Other statistics
Dolbier et al. (2001)	2001	US	270 undergraduate psych students	20.10 (6.00)	Cronbach's alpha = 0.86
Hjelle, et al. (1996)	1996	US	436 psych: Male students Female students	 19.90 (5.21) 18.77 (5.45)	Split-half reliability = 0.71
Long and Schultz (1995)	1995	Canada	230 managers in non-traditional occupations; 135 retested After 6 months After 24 months	 23.38 (4.67) 23.05 23.16	n.a.
Montgomery et al. (2003)	2003	US	300 college students	20.50 (6.40)	n.a.
Scheier and Carver (1987)	1985	US	357 undergraduate men; 267 undergraduate women	21.03 (4.57) 21.42 (5.22)	Cronbach's alpha = 0.76
Scott and Melin (1998)	1998	Sweden	2500 national representative sample	20.70 (4.54)	Cronbach's alpha = 0.76

n.a. = not available

As shown in Table S16, the recent studies that provide mean LOT scores for their samples predominantly used American students, mostly psychology students. Dolbier, Soderstrom & Steinhardt (2001) investigated the correlation between self-leadership, coping styles, personality characteristics and health outcomes in a sample of 270 American undergraduate psychology students. They reported a mean LOT score of 20.1 (*SD* = 6.0) and a Cronbach alpha of 0.86. Hjelle, Belongia and Nesser (1996) investigated the psychometric properties of the LOT in another sample of 436 American psychology students and reported mean LOT scores of 19.90 (*SD* = 5.21) and 18.77 (*SD* = 5.45) for men and women respectively. They also reported the mean scores for positively worded items (*M* = 9.32 for males and *M* = 9.11 for females) and

negatively worded items (M = 5.65 for males and M = 6.31 for females). The split-half reliability was 0.71 for the total score. Montgomery, Haemmerlie and Ray (2003) investigated the correlates of optimism in a sample of 300 American college students and reported a mean LOT score of 20.5 (SD = 6.4)

Scott and Melin's (1998) Swedish standardization study for a number of self-report scales employed a national representative sample of 2500. They report a mean LOT score of 20.7 (SD = 4.54) for the total sample and Cronbach alpha of 0.76. The scores were slightly higher for males than females, and for higher education and job levels, than for lower levels.

Long and Schutz (1995) investigated the stability and replicability of a stress-coping model in a longitudinal study of a Canadian sample of 230 female managers in non-traditional occupations. They reported a mean LOT score of 23.38 (SD = 4.67) at the initial assessment. The LOT was administered again after 6 months and 2 years. Though Long and Schutz did not report test-retest reliability, the mean scores changed very little over time for the 135 participants who did not drop out of the study (M = 23.05 after 6 months, and M = 23.16 after 24 months). The LOT scores in this study are higher than scores found in most studies with college students and Scott and Melin's (1998) Swedish standardization sample, even when compared to the scores of those with higher job and education levels in the latter study.

The internal consistency of the LOT is acceptable. Cronbach's alpha ranged from 0.76 to 0.86 in the studies discussed above, while Hjelle and Belongia (1996) reported split-half reliability of 0.71. In his discussion of the psychometric properties of the LOT, Steed (2002) refers to studies with a variety of samples (e.g. salespeople, older women, older men) which reported Cronbach's alphas greater than 0.75, while it was 0.74 in his sample of 347 undergraduate psychology students. Scheier and Carver (1985) reported a moderate to high test-retest reliability coefficient of 0.79, but none of the studies above investigated test-retest reliability. However, Long and Schutz (Long & Schutz, 1995) found very little change in the mean LOT scores over time.

Scheier and Carver's (1985) factor-analysis of their data yielded two factors, one for positively phrased items (optimism), and a second for negatively phrased items (pessimism). However, a single factor model also provided an acceptable fit to the data with the two factor model only slightly better, and they argued that the scale be treated as one-dimensional. A one factor model also provided an acceptable fit to the data in Steed's (2002) study. Steed suggests that researchers can treat the scale as either one or two dimensional, as the factor structure remained stable across multiple studies, although most studies have adopted a one dimensional model (Creed, Patton, & Barton, 2002).

While Scheier and Carver's (1985) found higher LOT scores for females than males, the findings of these studies are somewhat varied in respect of gender. Dolbier et al. (2001) and Montgomery, et al. (2003) only reported mean LOT scores for their total sample, presumably because they did not find any significant gender differences. On the other hand, Hjelle et al. (1996) and Scott and Melin (1998) reported slightly higher scores for males than females. The higher scores of females in the study of Long and Schutz (1995) are in line with Scheier and Carver's (1985) findings. The scores in this study are higher than in all the other studies discussed above, perhaps because of their relatively high job levels, and the non-traditional occupations.

When Scheier, Carver and Bridges (1995) re-evaluated the LOT, they inter alia examined how well the items measured what they were supposed to measure. Two of the items, namely "I always look on the bright side of things" and "I am a believer in the idea that 'every cloud has a silver lining'" did not measure "generalised expectations of good versus bad outcomes in life", but rather refers to "a particular way of reacting to problems and stress" (p. 1072). These items were deleted from the scale, and to keep the number of positively and negatively worded items the same, one new item "Overall, I expect more good things to happen to me than bad" was

added (p.1073). Scheier et al. envisaged that the LOT-R would slowly replace the LOT in research. From the studies above it is clear that this has not happened yet. In fact, the authors still used the LOT in a recent research project (Brisette, Scheier, & Carver, 2002).

In the current project, the questionnaire included the Life Orientation Test (Scheier & Carver, 1987). The LOT score has a theoretical range from 0 to 32. In Table S16, the mean LOT score in previous studies ranged from 18.77 for female psychology students in the US (Hjelle et al., 1996) to 23.38 for managers in non-traditional occupations in Canada (Long & Schutz, 1995). In this study of 453 adult prisoners in WA, the LOT score ranged from 4 to 32 with a mean of 19.82 and a standard deviation of 4.729. Means for various characteristics are shown in Table S17.

Table S17: LOT Means by Characteristics

Characteristic	Mean	Number	Sd	F test	Sig.
Sex				1.500	0.221
Female	19.29	95	5.239		
Male	19.96	355	4.581		
Age				2.147	0.118
18 - 25 years	19.06	105	4.853		
26 - 40 years	19.91	235	4.590		
41 years +	20.36	110	4.853		
Spouse/Partner				3.519***	0.061
Partnered	20.23	222	4.550		
Not partnered	19.39	227	4.853		
Children				0.441	0.507
Children	19.93	296	4.731		
No children	19.62	154	4.734		
Race				2.313	0.129
ATSI	19.19	95	3.805		
Non-ATSI	20.02	354	4.922		
Country of birth				2.905***	0.089
Australia	19.62	352	4.576		
Overseas	20.54	98	5.203		
Prior prison terms				0.998	0.318
Prior prison term	19.61	236	4.387		
No prior prison terms	20.06	214	5.080		
Length of sentence				3.655**	0.013
1 - 12 months	18.95	86	4.812		
13 - 60 months	20.10	188	4.434		
61 + months	20.15	169	4.832		
Employment in five years prior to this prison term				1.613	0.170
Any work	20.05	356	4.760		
No work	19.12	75	4.274		
Mother's labour force status				1.023	0.312
Employed	20.16	141	4.603		
Unemployed/deceased/unsure	19.67	309	4.785		
Father's labour force status				0.139	0.710
Employed	19.93	163	4.428		
Unemployed/deceased/unsure	19.76	287	4.898		
Overall	19.82	450	4.729		

Notes: ** denotes significance at the 5% level, *** denotes significance at the 10% level

Table S17 shows higher mean LOT scores for males relative to females, those with partners relative to those without, those with children relative to those without children, those who are non-ATSI or born overseas relative to those who are ATSI or born in Australia respectively, those whose current sentence is their first relative to those who were in prison again, those who had worked in the five years prior to serving the current sentence relative to those who had no work in that period, and those whose mother and/or father was employed relative to those whose parents were not employed. In addition, the mean level of optimism rose by age and by length of prison term.

Consideration has been given to the usefulness of the LOT index to the population of prisoners. In particular, the study considered the possibilities of splitting the LOT index components/statements into those indicative of a relatively pessimistic outlook and those indicative of a more optimistic outlook. A factor analysis (KMO = 0.798) of the eight LOT statements suggests that, as expected, there are two underlying factors with 57.8% of the variance in all eight statements being explained by these two factors. The statements have communalities ranging from 0.469 to 0.665 suggesting that the two factors/components are good explicators of the variance in all eight statements. The rotated component matrix (using varimax with Kaiser normalisation (De Vaus, 2002: 190)) is shown in Table S18.

Table S18: Rotated Component Matrix for LOT Statements/Variables

Statement/Variable[1]	Factor/Component	
	1	2
I am always optimistic about my future	0.056	0.733
In uncertain times, I usually expect the best	0.044	0.695
I always look on the bright side of life	0.153	0.801
If something can go wrong for me, it will	0.753	0.067
I hardly ever expect things to go my way	0.792	0.176
Things never work out the way I want them to	0.790	0.096
I rarely count on good things happening	0.766	0.108
I'm a believer in the idea that "every cloud has a silver lining"	0.174	0.663

Note:

1. Only coded LOT statements are included.

Table S18 shows that the statements/variables that load on factor/component 1 tend to reflect a pessimistic outlook on life, for example "I hardly ever expect things to go my way". The statements/variables that load on factor/component 2 tend to reflect an optimistic outlook, such as "In uncertain times, I usually expect the best".

There are two ways to include the LOT statements/variables in the multivariate analyses. A simple approach is to use the aggregate score. As discussed, this score has a theoretical range from 0 to 32. Values closer to zero suggest low levels of optimism; values closer to 32 indicate high levels of optimism. This approach is taken by most users of LOT.

An alternative approach is to use the coefficients computed by the factor analysis and shown in Table S18 to compute weighted scores for two new variables that reflect the two factors/components. Table S19 shows the means and standard deviations for these two new variables.

Table S19: Means for LOT Factors/Components

Factors/components	Mean	Standard devation	Range
Optimism	7.749	1.969	1.33 - 11.45
Pessimism	6.999	2.445	0.75 - 12.40
N =450			

Thus the higher are the optimism and pessimism scores the more optimistic or pessimistic respectively is the individual. The expectation is that an individual with a relatively high optimism score will also have relatively low pessimism score. For the optimism score, one third had values below 7.20 and one third had values above 8.59. For the pessimism score, one third had values below 6.16 and one third had values above 8.51. The values of the middle third of each score are called moderate (De Vaus, 2002: 192).

The LOT score was included in the multivariate analyses of factors affecting choice of education/training or work and of factors affecting expectations of good work prospects using the simple aggregate score approach.

The Project

Stages

The first stage of the project involved obtaining approval from both the WA Department of Justice (DoJ) Research Committee and The University of Western Australia's Ethics Committee and designing and piloting the survey instrument. The DoJ appointed two liaison persons from head office as the principal points of contact for the project. One participated in the design, interview and encoding stage of the study; the other was involved with the analysis and report writing stages. The DoJ research committee chair wrote to the superintendents at each of the participating prisons introducing the project and project team leader and encouraging prison staff cooperation for the interview process. Each prison superintendent offered a member of staff as the day-to-day liaison officer for the project team leader and the interview team.

In the second stage of the project, access to the prisons and the interview process appropriate to each prison was decided. In addition to receiving a letter of invitation to participate in the survey, all prisoners at two prisons were addressed by the project team leader. At another two prisons, the project team leader spoke with the prisoner support team members. At one prison, neither approach was taken, nor were prisoners advised, other than by letter, of the project prior to the commencement of interviews.

Interviewers attended a full day training session led by the project team leader and were also addressed by a Department of Justice officer for one hour. The agenda included explaining the aims and methodology of the project. The questionnaire was discussed on a question by question basis. A role play was then conducted with the interviewers taking turns as interviewers and interviewees. During and following this process a number of concerns about the wording and order of questions were raised. These were subsequently addressed in the revisions to the draft survey. In their interview packs, the interviewers were given summaries of the instructions – DoJ regulations, interview procedures and questionnaire guidelines, and administrative matters.

The main survey was conducted between September 29 and October 24 2003. A debriefing session was held with the interviewers on October 27, covering issues related to the questionnaire, the interview process and access to prisoners inside the prisons. Data encoding commenced as the completed questionnaires were returned and was completed by early November. The dataset was cleaned and ready for analysis by mid November.

Survey Instrument

The survey instrument included personal information (such as age and sex), past work history (such as type of jobs and hours of work), past education and training experience (such as highest level of schooling), prison information (such as current sentence length and current offence), current prison education/training and/or work participation, and the LOT statements. Names and identification numbers were not included in the questionnaire.

The survey questions were preceded by a brief synopsis of the project, the questionnaire and the interview process. There were two versions of this synopsis. The interviewer read out the version entitled 'What is this interview about?'. The UWA Ethics Committee requested that prisoners receive this information in a very simple way. The second version gives more information including the complaints procedure. This is also a requirement of the UWA Ethics Committee.

Prisoners received a double-sided information sheet containing both versions at the conclusion of their interviews. These could be shown to lawyers or family members. Some prisoners refused the information sheet.

The instrument was, in the first instance, based on the Monthly Labour Force Survey conducted by the Australian Bureau of Statistics. However, whilst some of the questions and wording of questions were retained, in many cases the questions were reworded to comprehend the varied literacy backgrounds of the respondents. Some questions were included on the basis of comparable research. For example, a question on type of secondary school attended was included as this has been shown to be a determinant of successful labour market outcomes.

A review of career and optimism scales and questionnaires was undertaken. Whilst two of these looked useful (the Work Potential Profile and the Campbell Interest and Skill Survey), neither could practically be adapted for inclusion in the survey instrument as both were designed for completion by individuals on their own (not in an interview situation). The LOT, discussed earlier, appeared to offer the best array of questions with sound psychometric properties. As the questionnaire was to be administered by an interviewer and the respondents were thought to have varied literacy backgrounds, the responses to these LOT statements in the pilot questionnaire were reduced from five (strongly agree, agree, neutral, disagree, strongly disagree) to three (yes, unsure/don't know, no). After the pilot test revealed some inadequacies in the permitted responses, the five-point Likert scale was reinstated. The test has twelve statements, four of which are filler (uncoded) items. The aggregated responses give an index that can take values between 0 and 32. High values indicate a high degree of optimism; low values indicate a low degree of optimism.

The LOT score was included in estimations of both the choice and the expectations models. High LOT index values are expected to correlate with anticipated labour market outcomes such as more money or a more enjoyable job. Low LOT index values are more likely to link to anticipation of poor labour market outcomes. The LOT index values are also compared with previous and current education/training and work. High values are expected to be linked to more consistent employment and/or greater education experience. Low values are expected to be linked to lower levels of education and poorer labour market experience.

The draft survey instrument was examined by members of the project team, the interview team, the UWA Ethics Committee and DoJ staff. Some changes were incorporated into the draft. For example, DoJ staff pointed out that traineeships are more common in prisons than apprenticeships. Hence responses to questions on previous and current training were expanded to include both types of formal training.

The revised draft questionnaire was used in pilot surveys at two prisons. As a result of queries and difficulties with some of the questions, some changes were made. For example, the revised draft questionnaire included a question on the type of offence related to the prisoner's current sentence. The question was included in an attempt to differentiate between prisoners whose crimes are 'economic', that is they have poor labour market skills so earn low wages which may encourage them to supplement their income in illegal ways, from those prisoners whose crimes are not 'economic'. The difficulty in labelling mutually exclusive responses and the reluctance of some prisoners to respond to this question resulted in the inclusion of a 'Nil response' answer category. A showcard was used so that prisoners could select an offence group rather than give their exact offence. In the pilot interviews, some prisoners were uncomfortable with stating their offence.

Prisoners involved in the pilot surveys were selected by prison management, were given a letter of introduction to the project and agreed to be interviewed. A number of other surveys have been conducted in the prisons in recent months so the prison staff suggested that the response rate to the main survey would be low.

In lieu of gratuities, the Department of Justice asked that funds be used to purchase books for the library or toys for the visitors centres on the prisoners' behalf. At the conclusion of the interview, prisoners were asked to choose which of these options, books or toys, they would prefer. This choice applied to respondents in the pilot survey also and was a well received incentive.

For the main survey, the questionnaire was printed as a double-sided A4 booklet. This provided an easy format for the interviewers to progress through the questions.

Concerns re prisoners' mental health and/or language difficulties by the project team regarding the accuracy of self report in the interviews resulted in the inclusion of a set of three questions at the end of the questionnaire. The three questions were designed to assess the abilities of the prisoners to provide accurate and reliable responses. These were to be answered by the interviewers from their perception of each interviewed prisoner after the prisoner has departed the interview. The questions do not comprehend rigorous definitions. For example, 'literacy' is not defined in terms of standards for reading and writing. Rather it refers to the respondents apparent ability to comprehend the voiced questions, use the showcards or give appropriate responses. Despite some 'illiteracy' (about 20%), almost all interviewed prisoners were deemed competent and reliable in their responses.

The selection bias reflected in the difference between the sample of 453 interviewed prisoners and the metropolitan prison population at the time of the interviews, about 2,200, cannot be corrected in the multivariate analyses as no information was obtained from non-respondents. Self report bias is also possible due to the power imbalance in the correctional environment. However, this may have been minimised by the nature of the interviews, the introduction emphasising the interviewers independence from DoJ and prison management, and the interview venue. Eighty per cent of interviews were conducted in outdoor locations without direct supervision by prison staff.

Interview Process

The interview process was slightly different in each of the prisons. The minimum security prison for women located in the inner metropolitan area has a capacity of 32 – 45 inmates with about one fifth of metropolitan female prisoners. Prior to the start of interviews here, the project team leader addressed the muster. This talk summarised the project, invited participation and highlighted the benefits of participation. The prison duty officer paged each prisoner one at a time from the muster list to come to the office. Here the interviewer invited the prisoner to do the survey. If the prisoner concurred, then the interview was conducted in the library. As a minimum security prison, it was easy for interviewers and prisoners to move from one part of the main building to another without prison staff escort or surveillance. Twenty-five interviews were completed at this prison by two interviewers over two full and three half days. Interviews in the afternoons were preferred because many of the prisoners were working outside the prison earlier in the day. The response rate was about 50% of sentenced prisoners. About 40% of interviewed prisoners had highest educational level at or above Year 11; 70% had offences against people and/or involved money or property; about 30% were Aboriginal or Torres Strait Islander (ATSI) descent; and there was an even split between women undertaking prison work (including domestic and commercial services inside prison and, some work outside prison on community projects) and education/training.

A second women's prison houses maximum, medium and minimum security prisoners. It is located in the outer metropolitan area and can house 85 -164 inmates. About 80% of metropolitan female prisoners are housed here. Although the possibility of addressing prisoner peer support team members was raised during early negotiations with prison management, this did not eventuate as the peer support officer was on sick leave during the period arranged for the

interviews. Because of the range of security levels at this prison, an address to the muster was not considered feasible. As with the minimum security female prison, prisoners here were paged by the prison duty officer and invited by the interviewer to participate in the project. Two interview rooms were allocated to the interviewers. Seventy-four interviews were conducted by two interviewers over twelve full days. This is a response rate of about 50% of sentenced prisoners. About 30% of interviewed prisoners had highest level of educational attainment of at least Year 11; about 30% had offences against people; about 30% were ATSI; and about 60% were undertaking education/training.

The maximum security male prison houses 401 – 493 maximum security male prisoners and is located in bushland in the outer metropolitan area. The project team leader was able to meet with the prison support officer and prisoner support team members to discuss the project. The team members distributed the letters of invitation to other prisoners and made lists of those prisoners who were willing to participate. These lists were passed to the prison officer in charge of the official interview rooms where the interviews were to be conducted. Unlike at the other prisons these interview rooms were subjected to continual visual surveillance and the interview corridor was locked at both ends. Moreover prisoners participating in the interviews in this part of the prison were required to be searched and to change clothes before entering and when leaving the interview rooms. The interviewers, in the debriefing, reported that this was a significant deterrent to participation as evidenced by prisoners who had agreed to have their names added to the interview lists by the prisoner support team members but who, when called up to the interview rooms, decided not to proceed. Fifty-two interviews were completed at this prison by two interviewers over three full days and 2 half days. This is a response rate of about 13% of sentenced prisoners. About one quarter of interviewed prisoners at this prison had highest level of educational attainment of at least Year 11; about 70% had offences against people; 13% were ATSI; 10.6% were not involved in work or education/training; and there was an even split between those undertaking prison work and those doing education/training.

A minimum security men's prison located outside the metropolitan area south of Perth, provides food for the entire WA prison system with an abattoir, dairy, poultry shed and market garden. Between 160 and 172 prisoners are housed here. The project team leader addressed the muster prior to the commencement of the interviews. The interviewers were able to use the muster list with the prison duty officer paging each prisoner. Due to the spread of the facilities at this prison, the interviewing process was a lot slower than at the other prisons. Interviews were conducted in the outside visitor's area. Two interviewers conducted 155 interviews over 17 full days. The response rate was 86.6% of sentenced prisoners. Of those prisoners who were not interviewed about half refused and the remainder were unavailable. About 30% of interviewed prisoners at this prison had highest level of educational attainment at or above Year 11. Of these, one third had higher education qualifications. This is not unexpected as this facility houses prisoners convicted of non-violent sex offences - these men tend to have high levels of education attainment and white collar jobs. About 11.5% of interviewed prisoners were ATSI and the most prevalent offence category was offences against people (45%).

Another minimum security men's prison located outside the metropolitan area east of Perth. A number of prisoners are based at work camps during the week so were unavailable for interviews. The interviewers used the muster list and prisoners were paged by the duty officer. The interviewers were able to conduct the interviews in the garden adjacent to the centrally located duty office. This reduced time taken to access the prisoners and provided an enjoyable ambience for the interviews. The interviewers were also able to respond to prisoners who approached them about the project and bypass the paging system and ask prisoners in the vicinity to participate. 153 interviews were completed by two interviewers over 15 full days. The response rate was about 90% of sentenced prisoners. Over one third of interviewed prisoners at this prison had Year 11 as their highest level of education. Of these, about 17% had higher education qualifications. One quarter had minor offences and another quarter had offences related to drugs;

26.6% were ATSI; and 51.3% and 46.8% were undertaking work and education/training respectively.

The forgoing discussion highlighted some of the differences between interviewed prisoner profiles at the five prisons. Whilst the educational profiles of interviewed prisoners differed across the different prisons, this is not statistically significant ($\chi^2 = 33.015, df = 32, p = 0.417$). The offence profile of interviewed prisoners differed by prison as the prisons have different security levels and offences attract different sentencing penalties in terms of security rating and length of imprisonment. The difference in these profiles is statistically significant at the 1% level ($\chi^2 = 78.033, df = 24, p = 0.000$). Another difference between prisons is the proportion of ATSI prisoners. This is statistically significant at the 1% level ($\chi^2 = 19.838, df = 4, p = 0.001$). Prisoners involvement in work and education/training differs between the prisons and this is statistically significant at the 5% level ($\chi^2 = 19.768, df = 8, p = 0.011$).

In the debriefing session the interviewers suggested that, in addition to the project team leader being introduced to the prisoners at muster or to the prisoner support team members, the interviewers could also have been introduced. This was done only at Karnet and Wooroloo with the key interviewer at each prison being introduced alongside the project team leader. This familiarity may have contributed to the high response rates at these prisons. However, the interview timetable – which interviewer(s) was going to which prison and when – evolved over the interview period depending on the response rates and the interviewers' availabilities. Hence whilst the suggestion had merit it was not practical at the time.

Prison staff, particularly the duty officers handling the paging of prisoners, were helpful and cooperative. Some difficulties at the maximum security male prison have already been mentioned and were due to the restrictions necessitated by a recent security breach.

Data Encoding

A database was developed from the survey instrument in SPSS before the interviews commenced. Then, the encoding of the data was able to proceed as the completed interviews were handed in. In their first week of interviewing, interviewers handed in completed interviews twice. This enabled the project team leader and the encoders to troubleshoot any unforeseen problems with the questionnaire and the responses. After this time, completed surveys were handed in at least weekly. The encoding was completed by early November.

The open-ended questions required developing lists of codes which were used for encoding. However, subsequent recoding was necessary for these analyses. The sample included 453 completed questionnaires from the main survey. The ten completed questionnaires from the pilot survey have not been included due to subsequent changes in valid responses on many questions.

Three types of checks of the encoding process were undertaken. The first was a typing/coding check of a randomly selected 5% (33 observations) of the questionnaires. Second, validity checks (Australian Institute of Health and Welfare (AIHW), 2002/03) were undertaken to ensure that values for both continuous and categorical variables were within the valid range. Finally, logic checks (Australian Institute of Health and Welfare (AIHW), 2002/03) were completed on pairs of variables. For example, if the respondent states ' never been in prison before' then 'number of previous prison sentences' is zero. The validity and logic checks resulted in some editing of the database prior to the analyses being performed.

One of the difficulties encountered when encoding the prisoners' responses to questions about the education/training courses they had undertaken or were undertaking in their current prison sentence was the precise course title. Traineeships have been identified accurately but the correct titles for other VET and non-VET units, modules and courses are less certain. The project team attempted to manually link the courses listed on the completed questionnaires with enrolment

information provided by the DoJ. Unfortunately, the latter information was for December 2003 so some interviewed prisoners with September/October course enrolments may not be matched to offered courses. Also, without names, the matching process relied on comparing gender, prison and course combinations. In summary, five of twenty DoJ listed traineeship enrolments and 42% of 74 other DoJ listed courses could be matched. In view of this poor matching, further recoding of the courses for each interviewed prisoner was not pursued. From the point of view of the project aims, prisoner perceptions of their course labelling - title, qualification, length - are important. A result of this lack of clarity is that the summary information on education/training by interviewed prisoners will not correspond to published DoJ statistics on course enrolments and completions in the period of the data collection. Importantly, and as mentioned elsewhere, certificates of completion or statements of attainment, will show the correct course, unit or module title. As mentioned elsewhere, these documents are not stamped 'Department of Justice'.

Sentence Length

Sentence lengths for interviewed prisoners in this study range from under one month to 30 years (excluding those with life sentences). Twenty six (5.7%) interviewed prisoners gave sentence lengths over 17 years which is the maximum period of incarceration (life sentence of twenty years minus a parole period) for WA sentenced prisoners. Given the self report nature of the interviews, it is possible that some interviewed prisoners who responding to the length of sentence question in terms of non-parole periods and others in relation to the statutes. It is also possible that the sentence length reported in the sum of two or more terms of incarceration irrespective of whether these are concurrent. Most of these sentences were reported by prisoners whose most serious offences were related to drugs or against people. For the multivariate analysis, life sentences are recoded as 20 years as per statutory sentencing.

Figure S1 shows the distribution of sentence lengths by gender. The modal category for both male and female interviewed prisoners is 13 to 60 months. Figure S2 shows the distribution of sentence length by age group.

Most interviewed prisoners are aged under 40 years (shown in Figure S2), giving them the potential to re-enter the workforce on their release. Without gainful employment or education/training in prison, these prisoners would be less attractive applicants for jobs. This is compounded by the effect of criminal records on recruiting practices. Holzer, Raphael and Stoll (2002: 44) in their study of the labour market for ex-offenders concluded that "we can say with some certainty that employer demand limits the job prospects facing ex-offenders in the labor market, in addition to the many other disadvantages and difficulties they face".

Figure S1: Frequency distribution of sentence length by gender

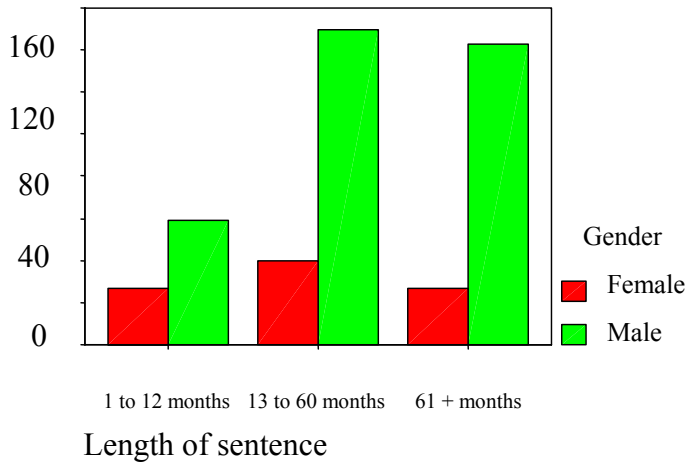
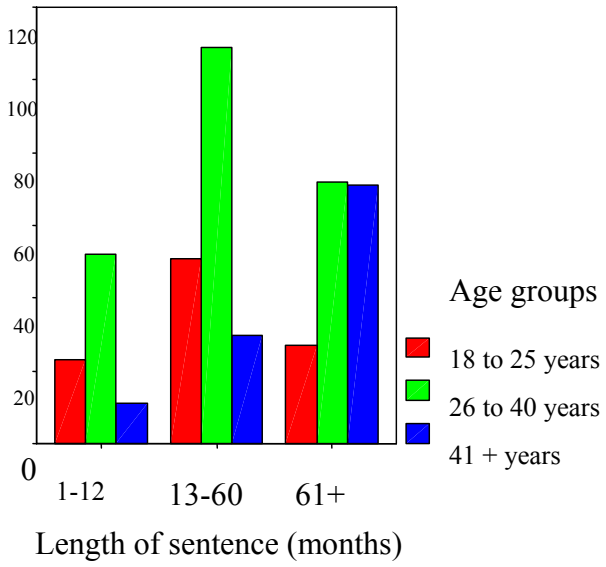


Figure S2: Frequency distribution of sentence length by age group



The Choice Model: Education/Training versus Work

Table S20: Logistic Regression of Factors Affecting Choice of Education/Training and Work

Variables	Coefficients (standard errors)				
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Age	-0.111*** (0.060)	-0.080 (0.056)	n.i.	n.i.	-0.139** (0.054)
Age Squared[1]	0.127*** (0.072)	0.093 (0.069)	n.i.	n.i.	0.158** (0.064)
Male	-0.673** (0.268)	-0.593** (0.256)	-0.732* (0.263)	-0.719* (0.264)	-0.713* (0.269)
Living with partner or spouse	0.038 (0.207)	n.i.	n.i.	n.i.	n.i.
With children	0.217 (0.253)	n.i.	0.116 (0.215)	0.120 (0.215)	0.274 (0.239)
Australian born	n.i.	n.i.	-0.262 (0.254)	-0.254 (0.255)	-0.299 (0.261)
Aboriginal or Torres Strait Islander	0.118 (0.304)	0.039 (0.271)	n.i.	n.i.	n.i.
Mother employed	0.057 (0.265)	n.i.	n.i.	n.i.	n.i.
Father employed	-0.106 (0.250)	n.i.	n.i.	n.i.	n.i.
Year 11 or above education	0.134 (0.233)	0.148 (0.233)	0.154 (0.231)	0.152 (0.231)	0.130 (0.228)
Attended government secondary school	-0.108 (0.259)	-0.161 (0.254)	-0.163 (0.251)	-0.152 (0.252)	-0.137 (0.258)
Did paid work in 5 years prior to current prison term	0.554** (0.276)	n.i.	0.559** (0.268)	0.542** (0.269)	0.531** (0.268)
Drug, money or property crime	0.093 (0.216)	0.093 (0.213)	n.i.	n.i.	n.i.
LOT index	0.017 (0.022)	0.023 (0.022)	n.i.	n.i.	n.i.
Length of current prison term[2]	0.004** (0.022)	0.004** (0.002)	0.003** (0.002)	0.003*** (0.002)	0.003** (0.002)
Been in prison before	-0.516** (0.221)	-0.586* (0.217)	-0.516** (0.211)	-0.517** (0.211)	-0.437** (0.216)
Manager, professional, associate professional (ASCO)	n.i.	-0.225 (0.275	-0.400 (0.279)	-0.410 (0.279)	n.i.
Completed a trade certificate/apprenticeship/traineeship	n.i.	n.i.	n.i.	-0.037 (0.214)	0.030 (0.217)
Completed any other educational qualification	n.i.	n.i.	n.i.	0.161	0.194

				(0.203)	(0.205)
Constant	1.863	1.796	0.583	0.496	2.936
	(1.236)	(1.134)	(0.475)	(0.489)	(1.076)
N[3]	429	430	434	434	434
-2 log likelihood	562.901	568.580	572.923	572.286	567.095
Pseudo R^2	0.093	0.080	0.083	0.085	0.100

n.i. not included
* significant at the 1% level
** significant at the 5% level
*** significant at the 10% level

Notes:
1. Age squared = age*age/100.
2. Life sentences are included as 20 years.
3. Excludes 13 prisoners not in work or education/training. Others are excluded depending on missing values.

Table S21: Logistic Regression of Factors Affecting Expectations of Good Work Prospects

Variables	Coefficients (standard errors)		
	Work (1)	Training (2)	Education (3)
Age	-0.079	-0.050	0.020
	(0.123)	(0.155)	(0.112)
Age Squared[1]	0.013	-0.044	-0.027
	(0.169)	(0.194)	(0.133)
Male	-0.368	-1.163	-0.235
	(0.475)	(0.786)	(0.569)
Working in prison industries	0.552	-0.931***	-0.066
	(0.382)	(0.537)	(0.575)
Aboriginal or Torres Strait Islander	-0.007	-0.001	-0.502
	(0.439)	(0.685)	(0.700)
Year 11 or above education	-0.169	-0.479	0.933***
	(0.424)	(0.560)	(0.562)
Attended government secondary school	0.057	-0.148	-0.005
	(0.477)	(0.615)	(0.543)
Drug, money or property crime	-0.398	-0.544	0.463
	(0.380)	(0.516)	(0.508)
LOT index	-0.012	0.056	-0.069
	(0.038)	(0.061)	(0.050)
Length of current prison term[2]	0.007**	0.001	0.001
	(0.003)	(0.004)	(0.003)
Been in prison before	0.251	-0.480	0.818***
	(0.382)	(0.539)	(0.482)
Manager, professional, associate professional (ASCO)	0.179	-2.022*	-0.260
	(0.504)	(0.746)	(0.572)
Constant	1.201	4.531	0.702
	(2.254)	(3.062)	(2.298)
N[3]	205	127	98
-2 log likelihood	207.963	109.242	123.656
Pseudo R^2	0.137	0.393	0.149

* significant at the 1% level

** significant at the 5% level

*** significant at the 10% level

Notes:

1. Age squared = age*age/100.

2. Life sentences are included as 20 years.

3. 212 interviewed prisoners are working but not studying in prison, 129 prisoners are in training but 9 of these are not working, 99 prisoners are doing other studies with 18 of these not working. The models are estimated on these sub-samples excluding missing values.

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