C Demand side factors

In Chapter 4 demand side reasons for the growth of part time employment were investigated. This appendix contains the results of quantitative analysis used to investigate the reasons described in that chapter.

Table C.1 **Changes in the part time share of employment in response to movements in aggregate hours of work, 1984–2007**

Variable	*Coefficient*	*Standard Error*	*t-statistic*	*Prob.*
Constant	0.15	0.08	1.97	0.05
Change aggregate hours	-0.07	0.05	-1.29	0.20

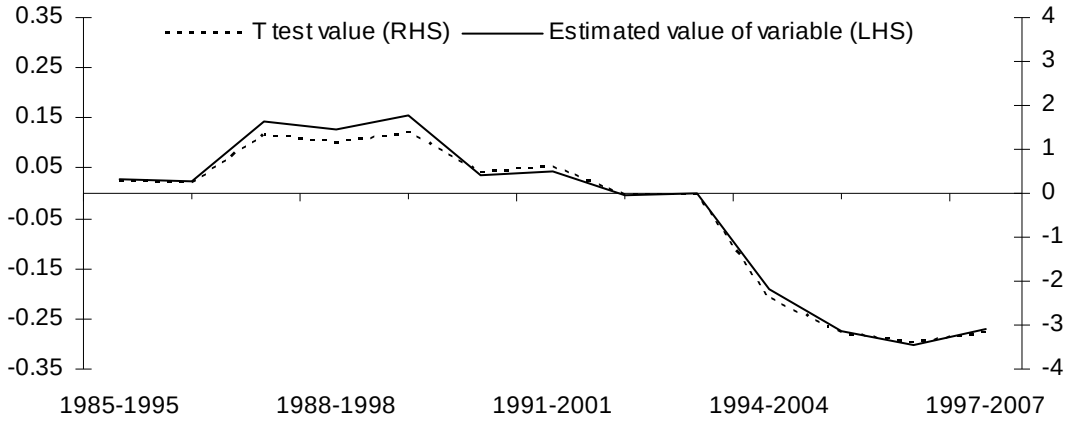
R^2	0.02	F statistic	1.67
Adj R^2	0.0077	DW stat.	2.90
SE Reg	0.68	N = 90	

Source: ABS (*Labour Force, Australia, Detailed, Quarterly*, Cat. no. 6291.0.55.003, Datacubes EO5_nov84 and E06_aug94).

Table C.2 **Chow test of stability of coefficient for the period 1984–2007**

Break period	*F statistic*	*Probability*
1986	1.83	0.17
1989	0.32	0.73
1992	0.63	0.54
1994	3.58	0.03
1996	3.28	0.04
1999	2.98	0.06
2002	2.41	0.10
2004	0.53	0.59

Figure C.1 **Changes in the response of part time share of employment to changes of aggregate hours, 1984–2007[a]**



a Sample size is equal to 40 quarters for each of the 10 year periods

Data source: ABS (*Labour Force, Australia, Detailed, Quarterly*, Cat. no. 6291.0.55.003, Datacubes EO5_nov84 and E06_aug94).

Table C.3 **Movement of weekly hours of employment for men and women, 1985–2006**

	Employment to population ratio of those working	*Employment to population ratio of those working*	*Employment to population ratio of those working*
	< 29 hours	30-34 hours	<-34 hours
Constant	0.24	-0.2	-0.03
	(0.08)	(0.12)	(0.08)
Employment to population ratio of those working **greater than 35 hours**	-0.03		-0.30
	(0.09)		(0.10)
Employment to population ratio of those working l**ess than 29 hours**		0.66	
		(0.27)	
Diagnostics			
R2	0.01	0.24	0.34
Adjusted R^2	-0.04	0.20	0.30
SE Reg	0.35	0.41	0.38
DW	2.38	2.88	2.10
F Statistic	0.14	5.85	9.62
N	21	21	21

Source: ABS (*Labour Force, Australia, Detailed, Quarterly*, Cat. no. 6291.0.55.003, table 13).

Table C.4 **Regressions of gross flows data, 1980–2007[a]**

	Hours worked[b]		*Trend*[b]		DW Stat[c]	Rho	Adjusted R^2
Full time to full time							
Women	0.008		-9.5E-05	*	1.834	–	0.645
Men	0.028	*	-5.5E-05	*	#1.822	0.089	0.423
Full time to part time							
Women	-0.164		0.002	*	#1.392	0.314	0.897
Men	-0.441	*	0.003	*	#1.342	0.376	0.889
Full time to non-employment							
Women	-0.280		0.002	*	#1.489	0.254	0.672
Men	-0.541	*	-3.7E-04	*	#0.832	0.599	0.544
Part time to full time							
Women	0.213	**	6.5E-04	*	#1.254	0.376	0.566
Men	0.019		0.001	*	#1.142	0.458	0.457
Part time to part time							
Women	0.049	**	1.4E-04	*	#1.406	0.287	0.453
Men	0.101	*	6.0E-04	*	#1.235	0.433	0.747
Part time to non-employment							
Women	-0.559	*	-0.002	*	#1.561	0.216	0.843
Men	-0.425	*	-0.001	*	#0.841	0.580	0.497
Non-employment to full time							
Women	0.534	*	0.001	*	#1.436	0.307	0.439
Men	0.367	*	0.002	*	#1.276	0.384	0.661
Non-employment to part time							
Women	0.288	**	8.1E-04	*	#1.394	0.313	0.575
Men	-0.022		0.002	*	#1.159	0.432	0.654

a Dependent variables are the transition probabilities associated with each employment flow. In April 2001, there is a series break due to changes in survey questionnaire, although definitions of labour market states remained consistent. The data is seasonally adjusted using a method developed by the US Bureau of the Census, the X11 method, which involves applying moving averages to estimate components of the time series. **b** Coefficients marked '*' are statistically significant at the one per cent level. Those marked '**' are significant at the five per cent level. **c** Durbin Watson statistics are for Ordinary Least Squares regression results. Those marked '#' were found to exhibit autocorrelation, and the results reported for these regressions are from Prais-Winsten GLS estimations.

Source: ABS (*Labour Force Australia Detailed Electronic Delivery*, Cat. no. 6291.0.55.001) ABS (*Labour Force Australia*, 6203.0).