

# Adolescents combining school and part-time employment

## Supplementary materials

December 2021

## MEASURES

### Employment characteristics

Employment items were developed for LSAC.

At age 16–17 (Wave 7; 2016) current employment status was classified as: 1 Employed full-time (30+ hours/week); 2 Employed part-time (or unknown hours); 3 Looking for work; 4 Currently not in the labour force. Adolescents were classified as currently employed if they were in full-time or part-time employment. The percentage of full-time students who were employed was 48%.

Those who were currently employed were further asked:

- Last week, did you do any work at all in a job, business or farm? (Yes/No)
- Did you have more than one job or business last week? (Yes/No)
- Do you work for an employer or in your own business?  
Response options were: 1 Employer; 2 Own business; 3 Other
- On what basis are you employed?  
Response options were: In a permanent ongoing position; On a fixed term contract; On a casual basis; On some other basis.
- In your main job held last week, what was your occupation?  
Adolescents were provided a list of ANZSCO (Australian and New Zealand Standard Classification of Occupations) occupations to choose from.
- How many hours do you usually work each week in all jobs? (If less than 1 hour enter 0.) (Number recorded)
- And do you usually work on weekends? (Yes/No)
- Before income tax, salary sacrifice or anything else is taken out, how much do you usually receive from wages and salary (in all jobs) in total? (Number recorded)
- What is the main reason you have worked in the last two years (since last interview)?  
Response options were: For spending money; To save up for something; For friendship or to develop social skills; To improve career prospects; To supplement family income; To help in a family business; For enjoyment; My parents said it would be a good idea; Other. Due to small numbers in the categories 'For enjoyment' and 'My parents said it would be a good idea', these were combined with the 'Other' category.

The work histories analysed in the first section of this snapshot used data reported on three different occasions: when respondents were aged 12–13 (Wave 5), 14–15 (Wave 6) and 16–17 (Wave 7). Employment status and number of hours worked at age 16–17 were determined as explained above. However, different questions had been asked at the earlier waves. Employment status at ages 12–13 and 14–15 was derived

from parent responses to the question 'In the last 12 months has child worked? (Excludes unpaid work experience, voluntary work, household chores for pocket money)'. Response options were: 1 Yes; 2: No. The number of hours worked was derived from parent responses to the questions 'Hours worked per week during school term' and 'Hours worked per week during school holidays'. The adolescent was denoted as having worked for whichever was higher if the parent reported different numbers of hours during term time or holiday time.

## Job quality

At age 16–17 (Wave 7; 2016), the LSAC K cohort study adolescents were asked to rate their agreement to a number of statements about their current (main) job on a scale of 1–7 (1 Strongly disagree; 2; 3; 4; 5; 6; 7 Strongly agree).

The job quality items were organised into three subscales of job quality.<sup>1</sup> The items related to each domain are:

- **Job control and flexibility** (responses averaged to form a subscale ranging from 1 (low) – 7 (high))
  - You have a lot of freedom to decide how you do your own work.
  - You have a lot of say about what happens in your job.
  - You have a lot of freedom to decide when you do your work.
  - You have a lot of choice in deciding what you do at work.
  - Your working times can be flexible.
  - You can decide when to take a break.

Mean of Job control and flexibility subscale is 3.5, median 3.5 and standard deviation 1.2.

- **Job demands and complexity** (responses averaged to form a subscale ranging from 1 (low) – 7 (high))
  - Your job is complex and difficult.
  - Your job often requires you to learn new skills.
  - You use many of your skills and abilities in your current job.
  - Your job provides you with a variety of interesting things to do.
  - Your job requires you to take initiative.
  - You have to work fast in your job.
  - You have to work very intensely in your job.
  - You don't have enough time to do everything in your job.
  - Your job requires you to do the same things over and over again (reverse coded).

Mean of Job demands and complexity subscale is 4.2, median 4.2 and standard deviation 0.91.

- **Job security** (responses averaged to form a subscale ranging from 1 (low) – 7 (high))
  - You have a secure future in your job.
  - The company you work for will still be in business five years from now.
  - You worry about the future of your job (reverse coded).

Mean of Job security subscale is 5.5, median 5.7 and standard deviation 1.0. The data for the job security distribution are negatively skewed (median is greater than the mean).

## Work-life interference

At age 16–17 (Wave 7; 2016), employed LSAC K cohort study adolescents were asked to rate their agreement to the following statements:

- Your job demands and responsibilities interfere with your study.
- Your job demands and responsibilities interfere with your social activities.
- Your job demands and responsibilities affect your health.
- Your job demands interfere with your ability to take part in organised activities (e.g. sports).

<sup>1</sup> Leach, L., Butterworth, P., Rodgers, B., & Strazdins, L. (2010). Deriving an evidence-based measure of job quality from the HILDA survey. *Australian Social Policy*, 9, 67–86. It should be noted that the job quality sub-scales were validated in an Australian sample aged 15 and over.

A binary indicator for each interference item was derived with responses 'Agree' or 'Strongly agree' coded 1 ('Yes' to the interference) and responses 'Strongly disagree', 'Disagree', or 'Neither agree nor disagree' coded 0 ('No' to the interference).

## Educational aspirations

At age 16-17 (Wave 7; 2016), LSAC K cohort study adolescents were asked:

Looking ahead, how far do you think you will go with your education?

- Leave school before finishing secondary school and not complete any further qualification
- Complete secondary school
- Complete a trade or vocational training course
- Complete a university degree

Adolescents who answered 'Leave school before finishing secondary school and not complete any further qualification' or 'Complete secondary school' were combined into one category (Year 12 or less). The percentage of adolescents in each category was: Year 12 or less (16.0%), Trade or vocational training (18.7%), and University degree (65.3%).

## School sector

When LSAC K cohort adolescents were 16-17 (Wave 7; 2016), a parent or guardian indicated if their child attended a government school; a Catholic school; an independent or private school; or was not in school. The percentage of adolescents in each category was: government (47.9%), Catholic (21.6%), independent (22.0%) and not in school (8.5%).

## Indigenous status

In the first wave of LSAC, a parent or guardian indicated if the study child was of Aboriginal or Torres Strait Islander origin. The percentage of teenagers who were Indigenous was 2.9%.

## Language other than English at home

When the LSAC K cohort study children were aged 16-17, a parent or guardian indicated whether or not the study child spoke a language other than English at home. Language other than English at home was coded 0 (English only) or 1 (language other than English spoken at home). The percentage of 16-17 year olds who spoke a language other than English at home was 13.1%.

## SEIFA

The SEIFA indicator used was the Index of Economic Resources (IER). This indicator is created by the Australian Bureau of Statistics from social and economic census information. It ranks geographic areas across Australia in terms of their relative socio-economic advantage and disadvantage. Index scores (Wave 7; 2016) were classified into low (lowest 25% of the distribution), middle (middle 50%) and high (top 25%).

## Financial hardship

At age 16-17 (Wave 7; 2016), LSAC K cohort study adolescents were asked:

In the last 12 months, have any of these happened to you/any members of the household because you/any of you were short of money? (Yes/No)

- Could not pay gas, electricity or telephone bills on time
- Could not pay the mortgage or rent payments on time
- Went without meals
- Were unable to heat or cool your home
- Pawned or sold something because you needed cash
- Sought assistance from a welfare or community organisation

Responses were coded: 'No financial hardship' ('No' to all items); '1 event' ('Yes' to one item) or '2 or more events' ('Yes' to two or more items).

The percentage of adolescents (Wave 7; 2016) in each category was: No financial hardship (90.2%); 1 event (7.0%) and 2 or more events (2.8%).

## Remoteness area of residence

The remoteness area indicator used was the Australian Statistical Geography Standard (ASGS) remoteness structure that divides Australia into five classes of remoteness on the basis of a measure of relative access to services. Categories for outer regional, remote and very remote were combined into a single category 'outer regional/remote'.

The percentage of adolescents (Wave 7; 2016) in each of the areas was: major city (65.4%); inner regional (22.3%) and outer regional/remote (12.4%).

## Parental employment

In Wave 7, parents or guardians reported on their current employment status. This information along with the household structure information was used to code parental employment as: 0 (Two Parents, both employed); 1 (Single Parent, employed); 2 (Single Parent, not employed); 3 (Two Parents, one parent employed); 4 (Two Parents, neither employed).

The percentage of adolescents (Wave 7; 2016) in each category was: Two Parents, both employed (60.9%); Single Parent, employed (16.2%); Single Parent, not employed (5.9%); Two Parents, one parent employed (14.0%); and Two Parents, neither employed (2.9%).

## Parent education

In Wave 7, both parents or guardians reported on the highest qualification they had completed. Parent education was coded 0 (both parents have Year 12 or less education); 1 (one or both parents have a diploma or certificate but neither parent has a bachelor's degree/postgrad degree); 2 (one or both parents have a bachelor's degree or postgrad degree).

The percentage of adolescents whose parents' highest qualification was Year 12 or less was 13.2%, whose highest qualification was a certificate or diploma was 46.5%, and whose highest qualification was a university degree was 40.3%.

## FULL RESULTS

**Table S1:** Fifteen most common patterns of employment among school students at ages 12-13, 14-15 and 16-17, according to weekly working hours at age 16-17

Status at age 12-13	Status at age 14-15	Status at age 16-17	N	%
<b>Paid work &lt;= 10 hours at 16-17</b>				
Not in paid work	Not in paid work	Paid work <= 10 hours	496	34.1
Not in paid work	Paid work <= 10 hours	Paid work <= 10 hours	213	14.7
Not in paid work	Paid work > 10 hours	Paid work <= 10 hours	53	3.6
Paid work <= 10 hours	Paid work <= 10 hours	Paid work <= 10 hours	46	3.2
Paid work <= 10 hours	Not in paid work	Paid work <= 10 hours	32	2.2
Paid work <= 10 hours	Paid work > 10 hours	Paid work <= 10 hours	13	0.9
<b>Paid work &gt; 10 hours at 16-17</b>				
Not in paid work	Not in paid work	Paid work > 10 hours	177	12.2
Not in paid work	Paid work <= 10 hours	Paid work > 10 hours	75	5.2
Not in paid work	Paid work > 10 hours	Paid work > 10 hours	47	3.2
Paid work <= 10 hours	Paid work <= 10 hours	Paid work > 10 hours	11	0.8
Paid work <= 10 hours	Not in paid work	Paid work > 10 hours	10	0.7
<b>Not in paid work at 16-17</b>				
Not in paid work	Paid work <= 10 hours	Not in paid work	142	9.8
Not in paid work	Paid work > 10 hours	Not in paid work	44	3.0
Paid work <= 10 hours	Not in paid work	Not in paid work	35	2.4
Paid work <= 10 hours	Paid work <= 10 hours	Not in paid work	31	2.1

**Notes:** Nine additional patterns of employment history were observed for between one and nine students each. Employment status at ages 12-13 and 14-15 was determined by parent reports of the study child's work in the 12 month period prior to the survey date. Employment status at age 16-17 was determined from child responses to questions on their current labour market status at the time of the survey.

**Source:** LSAC K cohort, Waves 5-7, secondary students with employment information at each wave,  $n = 1,453$ . Unweighted

**Table S2:** Employment characteristics of 16-17 year olds combining work and study

	Males (%)	Females (%)	All (%)
Worked last week if employed	78.7	86.1*	82.9
Held more than 1 job last week	5.8	7.9	7.0
Work for:			
Employer	97.0	98.3	97.7
Own business	2.6 <sup>a</sup>	0.8 <sup>a</sup>	1.6 <sup>a</sup>
Other	0.4 <sup>a</sup>	1.0 <sup>a</sup>	0.8 <sup>a</sup>
Contract type			
Permanent ongoing	11.8	10.9	11.3
Fixed term	2.8 <sup>a</sup>	2.1 <sup>a</sup>	2.4
Casual basis	83.3	85.8	84.7
Other	2.0 <sup>a</sup>	1.2 <sup>a</sup>	1.6

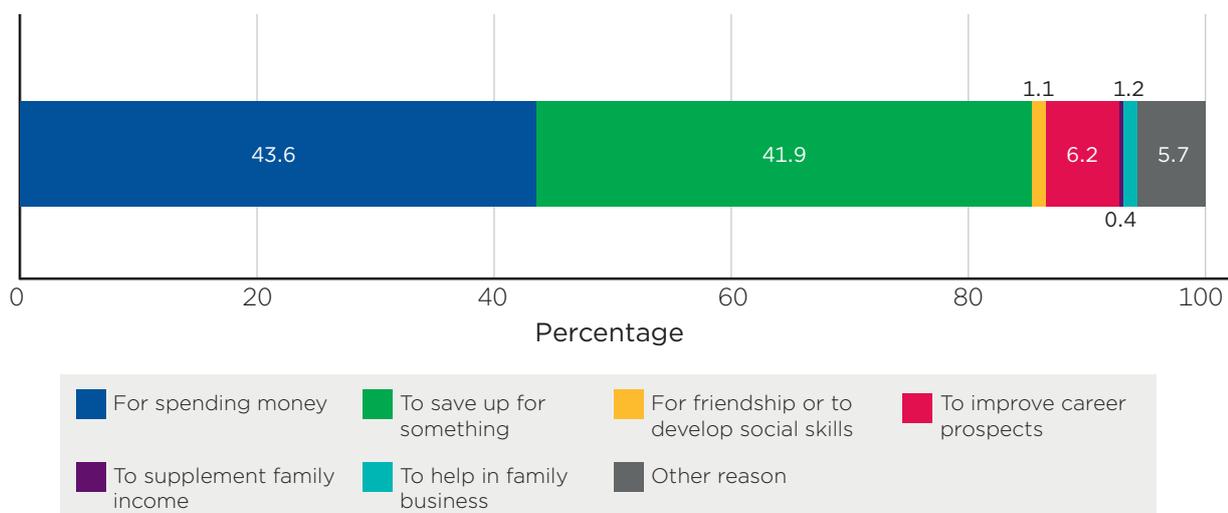
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	Males (%)	Females (%)	All (%)
Occupation in main job			
Sales assistants/salespersons/sales support	25.8	48.9*	38.9
Food trade/food preparation workers	26.9	8.1*	16.2
Other	24.0	8.3	15.1
Hospitality workers	4.3	18.5*	12.3
Sports and personal service workers	10.4	4.2*	6.9
PA/receptionists/clerks/administrative worker	3.6 <sup>a</sup>	9.2*	6.8
Cleaners and laundry workers	4.1 <sup>a</sup>	1.1* <sup>a</sup>	2.4
Education profession	0.9 <sup>a</sup>	1.7 <sup>a</sup>	1.4 <sup>a</sup>
Hours worked each week			
5 hours or less	26.0	26.1	26.1
6-10 hours	44.6	45.8	45.3
11-15 hours	20.5	17.0	18.5
16 or more	8.9	11.1	10.2
Regularly work on weekends	79.1	86.0*	83.0
Average weekly wage/salary (AUS\$)	126.7	122.4	124.3
Job quality subscales (mean)			
Job control and flexibility (range 1-7)	3.6	3.5	3.5
Job demands and complexity (range 1-7)	4.2	4.2	4.2
Job security (range 1-7)	5.6*	5.4	5.5
<b>Total, n</b>	<b>537</b>	<b>699</b>	<b>1,236</b>

**Notes:** <sup>a</sup> Estimate unreliable (cell count <20). Asterisks indicate statistically significant differences in proportions between males and females for categorical variables, and differences in means for continuous variables (as determined using t-tests). Tests were conducted at a 5% level of significance.

**Source:** LSAC K cohort, Wave 7, weighted

**Figure S1:** Reasons for working among school students aged 16-17 in paid employment



**Source:** LSAC K cohort, Wave 7, weighted; n = 1,234

**Table S3:** Socio-demographic characteristics of school students aged 16–17, by part-time paid employment status

	(a) Not employed	(b) Employed <=10 hours	(c) Employed >10 hours	(d) Chi <sup>2</sup> p-value b/w (a) & (b)	(e) Chi <sup>2</sup> p-value b/w (a) & (c)
<b>Total</b>	<b>52.3</b>	<b>34.0</b>	<b>13.7</b>		
Sex				<0.001	<0.001
Female	43.7	56.9	55.4		
Male	56.3	43.1	44.6		
Remoteness area (ABS)				0.009	<0.001
Major city	70.7	63.5	57.9		
Inner regional	18.8	23.3	28.1		
Outer regional or remote	10.5	13.2	14.0		
Indigenous				0.078	0.965
Yes	2.5	1.2 <sup>a</sup>	2.6 <sup>a</sup>		
Language other than English at home				<0.001	<0.001
Yes	19.0	9.8	7.3 <sup>a</sup>		
SEIFA Index of Relative Socio-economic Advantage and Disadvantage				0.973	<0.001
Highest 25% - most advantaged	25.2	27.0	13.2		
Middle 50%	47.6	47.3	57.4		
Lowest 25%	27.3	25.7	29.4		
Educational aspirations				0.090	<0.001
Complete Year 12 or less	19.4	16.4	14.9		
Trade or vocational training	13.6	16.9	23.2		
University degree	66.9	66.7	61.9		
School sector				0.011	<0.001
Government	50.9	47.9	62.7		
Catholic	21.8	27.7	25.6		
Independent	27.4	24.4	11.7		
Financial hardship				0.002	0.180
No hardships	91.3	94.0	88.2		
1 event	5.9	5.6	9.3		
2 or more events	2.9 <sup>a</sup>	0.5 <sup>a</sup>	2.6 <sup>a</sup>		
Parental employment				<0.001	0.058
Two Parents - both employed	58.9	71.6	62.9		
Single Parent - employed	15.7	14.8	19.3		
Single Parent - not employed	5.8	2.7 <sup>a</sup>	5.7 <sup>a</sup>		
Two Parents - one parent employed	16.3	9.6	9.0		
Two Parents - neither employed	3.3	1.3 <sup>a</sup>	3.1 <sup>a</sup>		

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	(a) Not employed	(b) Employed <=10 hours	(c) Employed >10 hours	(d) Chi <sup>2</sup> <i>p</i> -value b/w (a) & (b)	(e) Chi <sup>2</sup> <i>p</i> -value b/w (a) & (c)
<b>Total</b>	<b>52.3</b>	<b>34.0</b>	<b>13.7</b>		
Highest parent education				0.1728	0.001
Year 12 or less	11.8	11.4	15.8		
Certificate or diploma	42.0	46.6	50.4		
University degree	46.2	41.9	33.8		
<b>Total, n</b>	<b>1,321</b>	<b>887</b>	<b>349</b>		

**Notes:** \* Estimate unreliable (cell count <20). Table shows *p*-value for chi-squared test of difference in distributions for the categorical variables.

**Source:** LSAC K cohort, Wave 7, weighted

**Table S4:** Proportion of working students aged 16-17 reporting work-life interference

	Males (%)	Females (%)	Total (%)
Your job demands and responsibilities interfere with your study.	12.7	17.4	15.3
Your job demands and responsibilities interfere with your social activities.	37.8	38.2	38.0
Your job demands and responsibilities affect your health.	5.6	4.9	5.2
Your job demands interfere with your ability to take part in organised activities (e.g. sports).	15.0	19.7	17.7
<b>Total, n</b>	<b>537</b>	<b>699</b>	<b>1,236</b>

**Notes:** Percentages are for those who agreed or strongly agreed with each statement. Percentages for males and females in each row did not differ at the  $p > 0.05$  statistical significance level.

**Source:** LSAC K cohort, Wave 7, weighted

**Table S5:** Likelihood of reporting work-life interference among working students aged 16-17, odds ratios

Variables	Job interferes with study	Job interferes with social activities	Job interferes with health	Job interferes with organised activities
Study and work hours combinations (ref. = studying and working <= 5 hrs)				
Studying and working 6-10 hours	2.97***	2.28***	1.59	1.59**
Studying and working 11-15 hours	5.89***	3.18***	1.58	1.90**
Studying and working 16 or more hours	4.67***	2.85***	2.86**	1.79*
Job quality domains				
Job control and flexibility	0.82**	0.69***	0.56***	0.95***
Job demands and complexity	1.04	1.13	1.85***	1.02
Job security	0.86*	0.91	0.75**	0.88
Language other than English spoken at home	0.65	0.62	0.24	1.42
Financial hardship (ref. = no hardships)				
1 event	0.45*	0.93	0.41	1.17
2 or more events	0.22	1.09	1.98	1.43

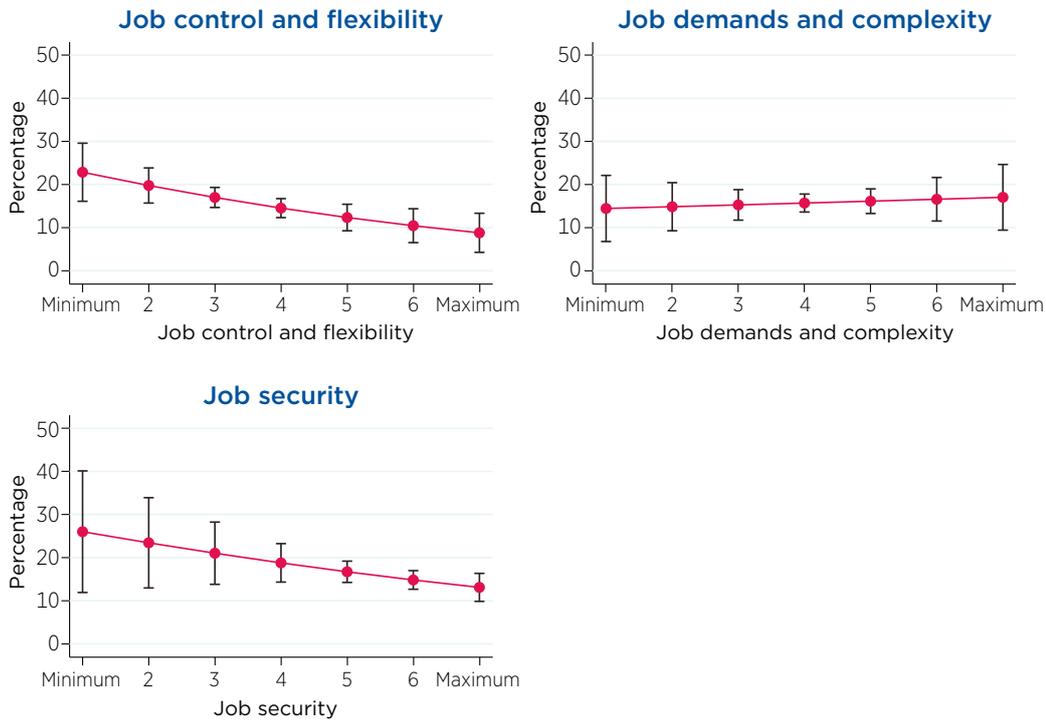
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Variables	Job interferes with study	Job interferes with social activities	Job interferes with health	Job interferes with organised activities
Highest parent education (ref. = Year 12 or less)				
Certificate or diploma	0.73	0.91	1.75	0.69
University degree	0.81	0.94	1.48	0.76
Parent employment (ref. = two parents - both employed)				
Single parent - employed	1.46*	1.18	2.68***	1.12
Single parent - not employed	1.40	0.75	1.58	0.61
Two parents - one parent employed	0.61	0.79	2.43**	0.90
Two parents - neither employed	1.50	1.40	5.23*	0.53
SEIFA Index of Relative Socio-Economic Advantage and Disadvantage (ref. = highest 25% - most advantaged)				
Lowest 25%	1.17	0.92	0.44*	1.10
Middle 50%	1.02	1.00	0.58	1.25
Remoteness area (ABS) (ref. = major city)				
Inner regional	0.95	0.83	1.54	1.25
Outer regional or remote	0.75	0.75	1.57	0.95
Educational aspirations (ref. = completed Year 12 or less)				
Trade or vocational training	1.10	0.99	1.03	0.81
University degree	1.56*	1.20	0.86	1.37
School type (ref. = government)				
Catholic	0.99	1.11	0.75	1.25
Independent	0.86	0.93	1.03	1.45*
Sex (ref. = female)				
Indigenous	0.35	1.07	2.36	3.00**
<b>Observations</b>	<b>1,152</b>	<b>1,154</b>	<b>1,154</b>	<b>1,154</b>

Note: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Source: LSAC K cohort, Wave 7, unweighted

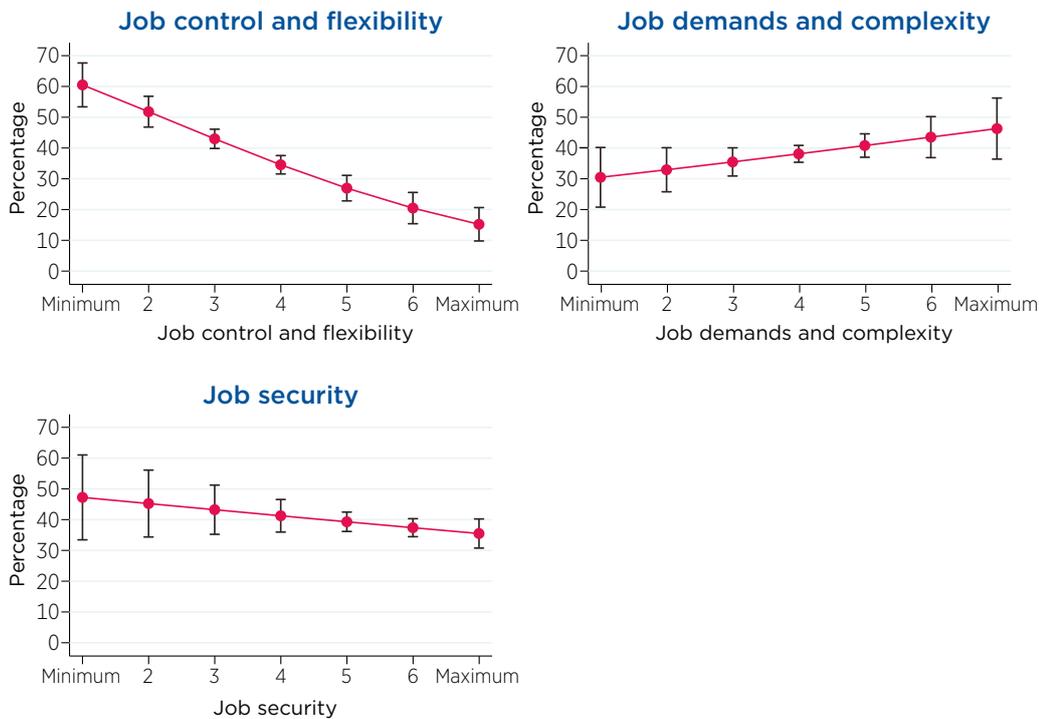
**Figure S2:** Adjusted percentage of adolescents with work-life interference in the study domain, according to level of job quality sub-domains



**Notes:** Percentages are predicted from multivariate logistic regression models including working hours, job quality, educational aspirations, school type, sex, Indigenous status, LOTE, SEIFA index, financial hardship, remoteness area of residence, parent employment and parent education.

**Source:** LSAC K cohort, Wave 7, unweighted.  $n = 1,152$

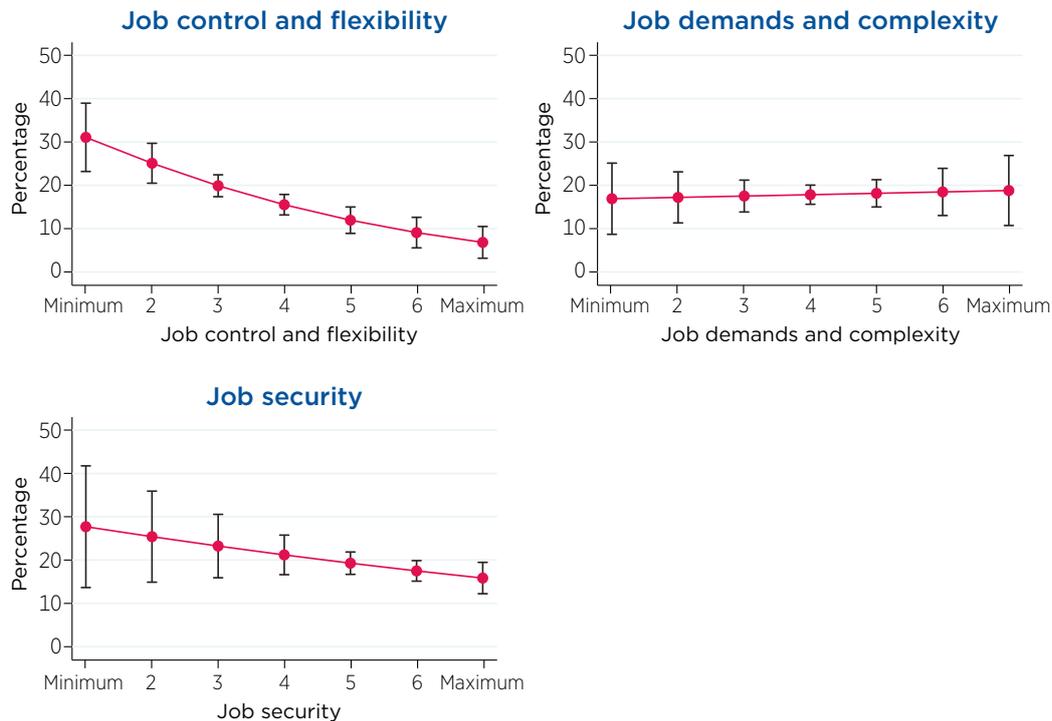
**Figure S3:** Adjusted percentage of adolescents with work-life interference in the social activities domain, according to level of job quality sub-domains



**Notes:** Percentages are predicted from multivariate logistic regression models including working hours, job quality, educational aspirations, school type, sex, Indigenous status, LOTE, SEIFA index, financial hardship, remoteness area of residence, parent employment and parent education.

**Source:** LSAC K cohort, Wave 7, unweighted.  $n = 1,154$

**Figure S4:** Adjusted percentage of adolescents with work-life interference in the organised activities domain, according to level of job quality sub-domains



**Notes:** Percentages are predicted from multivariate logistic regression models including working hours, job quality, educational aspirations, school type, sex, Indigenous status, LOTE, SEIFA index, financial hardship, remoteness area of residence, parent employment and parent education.

**Source:** LSAC K cohort, Wave 7, unweighted.  $n = 1,154$

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