GENDER AND TELEWORKABLE CAREERS

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Issues

01	What is teleworkability?
02	Does it matter if teleworkable jobs appeal equally to males and females?
03	Longitudinal Survey of Australian Youth 2009 (Y09)
04	Teenage expectations of teleworkable jobs by gender
05	Working youth and teleworkability
06	Implications

01 Teleworkability

The potential for work to be undertaken from home using ICT devices – usually by employees

Remote work – work performed in a different location than the usual place of work – employees and self-employed

Work from home – can entail telework or remote work -employees and self-employed

Sostero, M., Milasi, S., Hurley, J., Fernandez-Macias, E., & Bisello, M. (2021). Teleworkability and the COVID-19 crisis: A new digital divide?

Occupations classified using the information from the US O*NET database with multiple descriptors of 1000 occupations. Two surveys used to determine in which jobs:

- email used less than once per month
- workers deal with violent people
- work is done outdoors
- exposure to disease or infection
- exposure to cuts, burns, bites, stings
- mostly walking or running at work
- work wearing protective or safety equipment (for more criteria see the source)

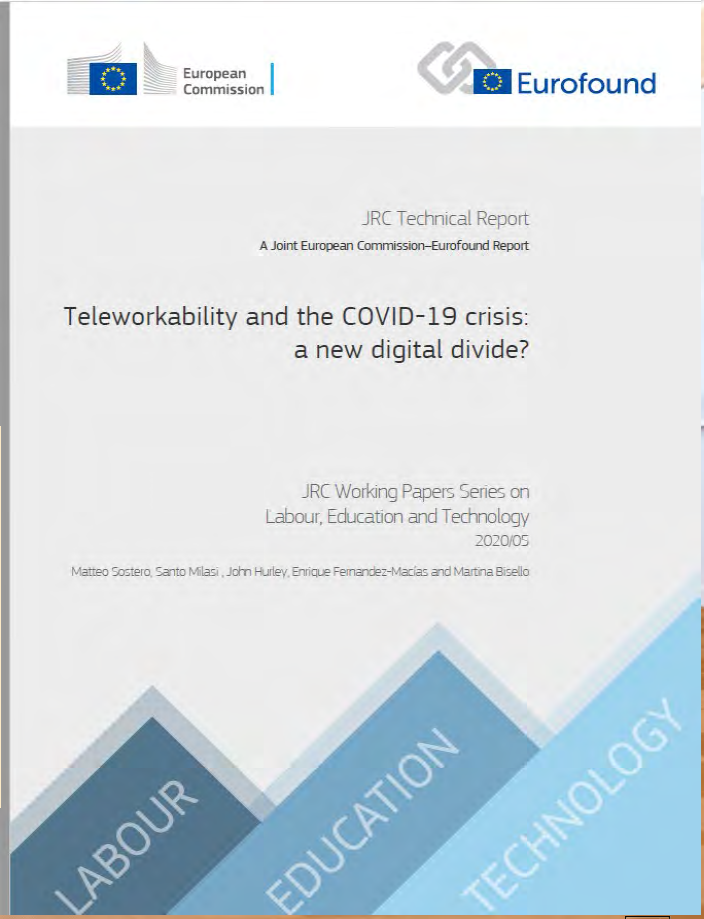
Dingel, J. I., & Neiman, B. (2020). How many jobs can be done at home?. *Journal of Public Economics*, *189*, 104235.

02 TELEWORKING

Does it matter if male and female teenagers differ in their preferences for teleworkable jobs?

In EU telework more likely among:

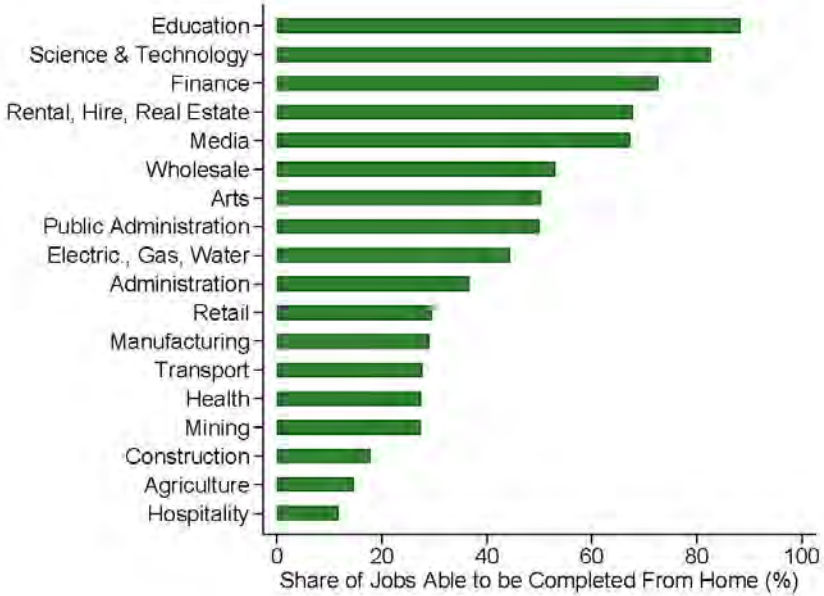
1. Metropolitan residents
2. Tertiary educated
3. Parents
4. Females
5. The young



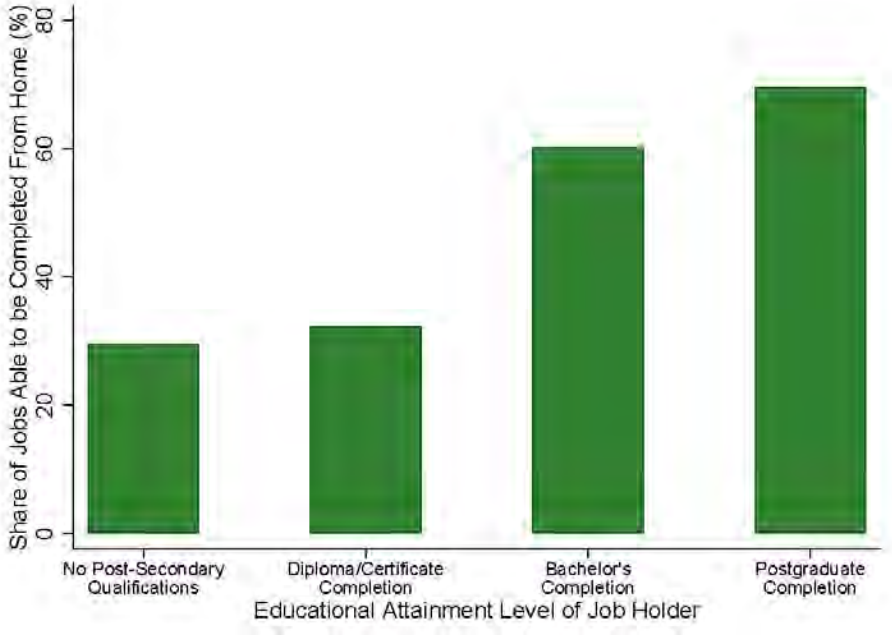
NEW DIGITAL DIVIDE?

Australia

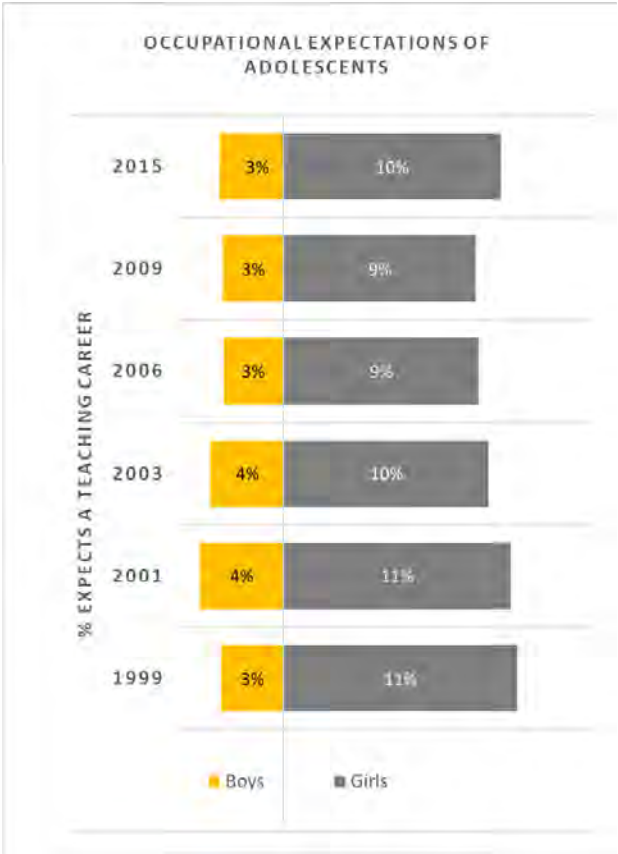
Industry



Educational attainment



Source: Stratton James "How Many Australians Can Work From Home? An Application of Dingel and Neiman (2020) to Australian Occupation Data"
https://github.com/JamesStratton/Aus-workathome Data from the 2016 Census of Population and Housing



Sikora, J. (2021). Does teenage interest in a teaching career lead to becoming a teacher? Evidence from Australia. *Teaching and Teacher Education*, *101*, 103315.

Sikora, J. (2019). Is it all about early occupational expectations? How the gender gap in two science domains reproduces itself at subsequent stages of education: evidence from longitudinal PISA in Australia. *International Journal of Science Education*, *41*(16), 2347-2368.

Jobs that can be done from home

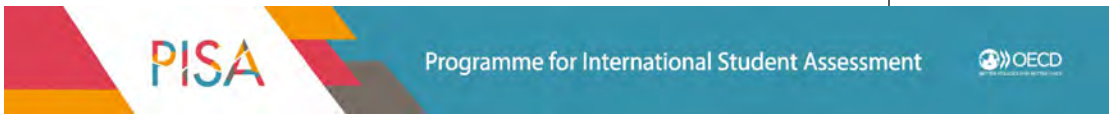
	ANZSCO 2-digit	2020 Dingel & Neiman share
ICT Professionals	26	1
Engineering, ICT and Science Technicians	31	1
Education Professionals	24	0.98
Legal, Social and Welfare Professionals	27	0.97
Professionals	20	0.88
Business, Human Resource and Marketing Professionals	22	0.88
Managers	10	0.87
Farmers and Farm Managers	12	0.87
Specialist Managers	13	0.87
Arts and Media Professionals	21	0.76
Clerical And Administrative Workers	50	0.65
Office Managers and Program Administrators	51	0.65
Personal Assistants and Secretaries	52	0.65
General Clerical Workers	53	0.65
Inquiry Clerks and Receptionists	54	0.65
Numerical Clerks	55	0.65
Clerical and Office Support Workers	56	0.65
Other Clerical and Administrative Workers	59	0.65
Design, Engineering, Science and Transport Professionals	23	0.61
Automotive and Engineering Trades Workers	32	0.61
Electrotechnology and Telecommunications Trades Workers	34	0.61
Technicians And Trades Workers	30	0.37
Community And Personal Service Workers	40	0.37
Hospitality, Retail and Service Managers	14	0.28
Sales Workers	60	0.28
Sales Representatives and Agents	61	0.28
Sales Assistants and Salespersons	62	0.28
Sales Support Workers	63	0.28
Storepersons	74	0.28
Other Technicians and Trades Workers	39	0.26
Sports and Personal Service Workers	45	0.26
Protective Service Workers	44	0.06
Health Professionals	25	0.05
Machinery Operators And Drivers	70	0.03
Machine and Stationary Plant Operators	71	0.03
Mobile Plant Operators	72	0.03
Road and Rail Drivers	73	0.03
Health and Welfare Support Workers	41	0.02
Carers and Aides	42	0.02
Hospitality Workers	43	0.02
Chief Executives, General Managers and Legislators	11	0.01
Skilled Animal and Horticultural Workers	36	0.01
Labourers	80	0.01
Cleaners and Laundry Workers	81	0.01
Construction Trades Workers	33	0
Food Trades Workers	35	0
Construction and Mining Labourers	82	0
Factory Process Workers	83	0
Farm, Forestry and Garden Workers	84	0
Food Preparation Assistants	85	0
Other Labourers	89	0

I used a more detailed crosswalk from ANZSCO at 4-digit level & over 420 occupational titles

Longitudinal Surveys of Australian Youth

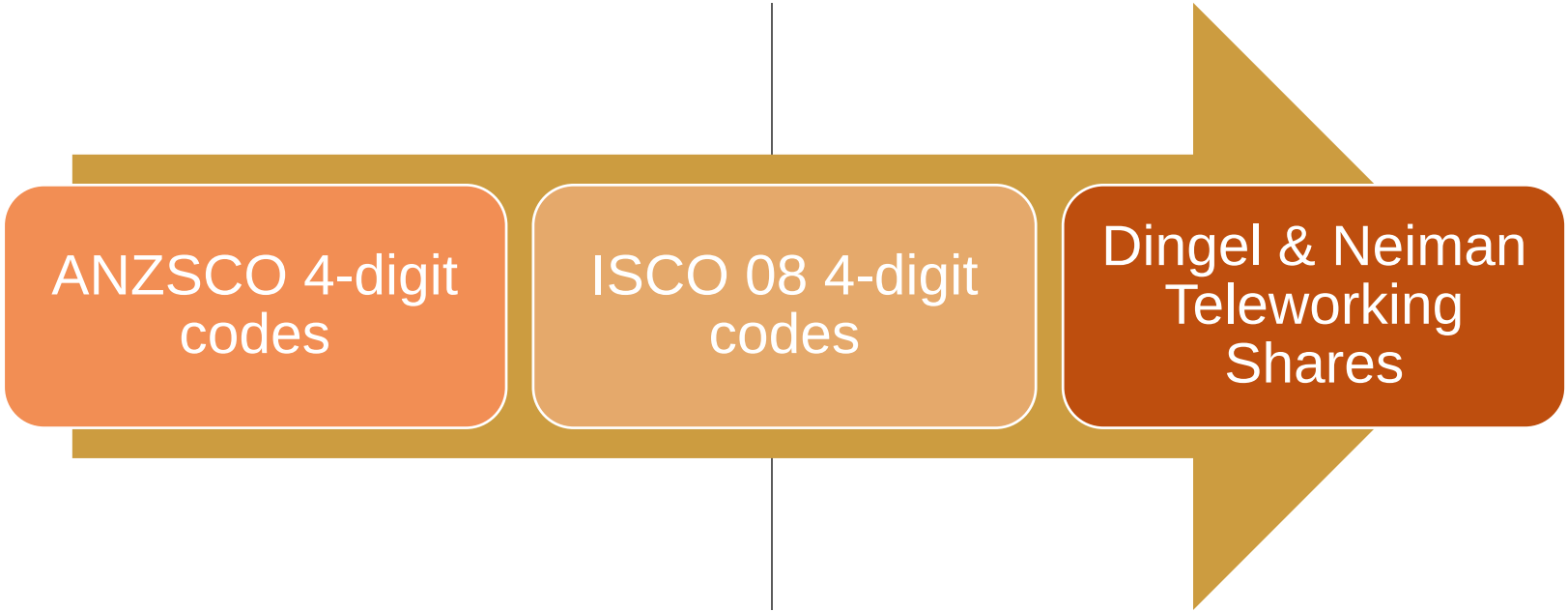
03

Data from the 2009 cohort of the Longitudinal Study of Australian Youth (LSAY), known as Y09. The survey started with the 2009 Program for International Student Assessment (PISA) sample of students who, by definition of the PISA target population, are between 15 years and three months and 16 years and two months of age at the time. These students were re-surveyed every year until 2019. The youth were asked about career expectations in 2009, 2013, 2016 and 2019 or at 15-16, 19-20, 22-23 or 25-26 years of age.



What kind of job to expect to have when you're about 30 years old?

Write the job title: _____



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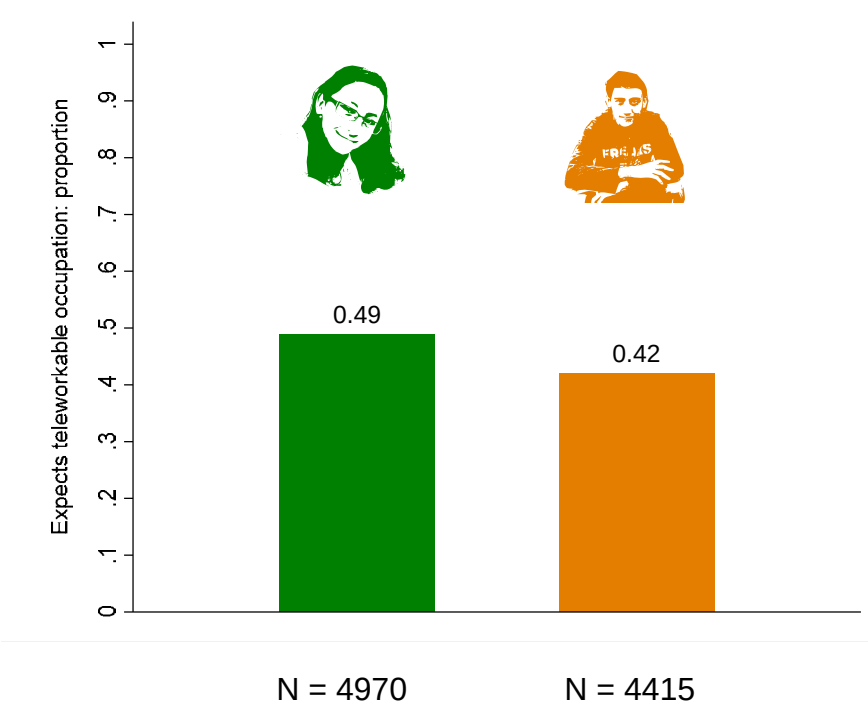
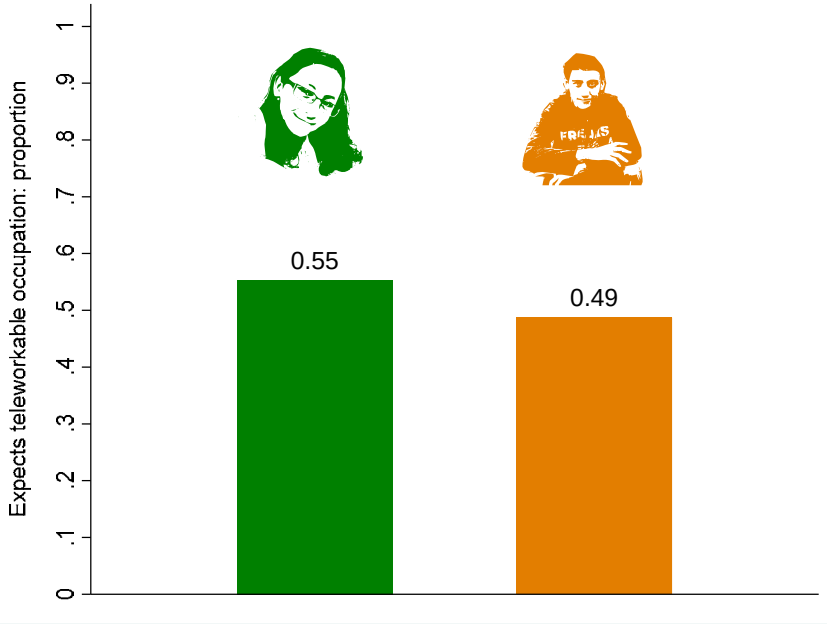
04 Expectations

At age 15 - 16



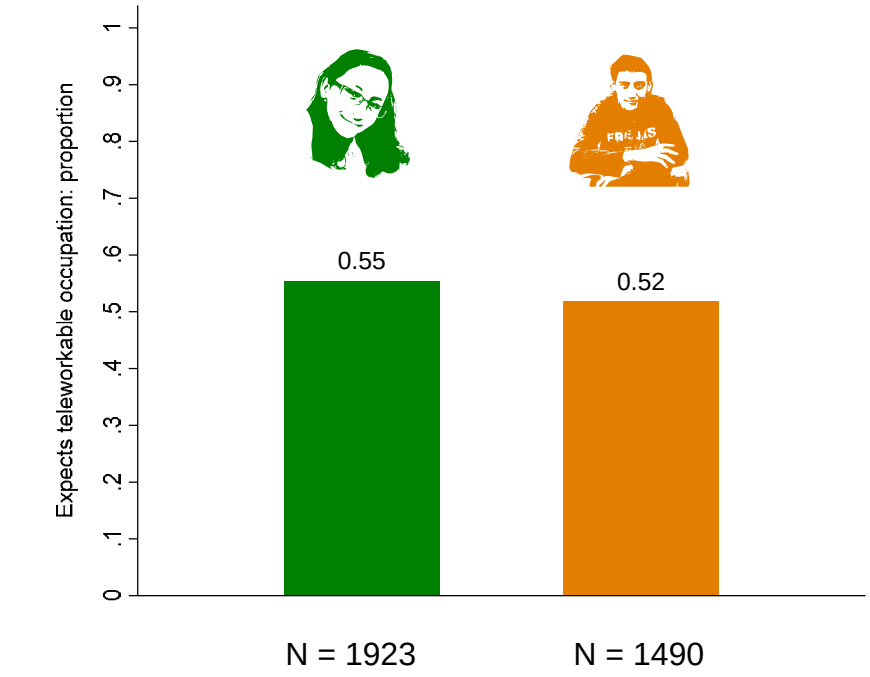
N = 4970 N = 4415

At age 19 - 20

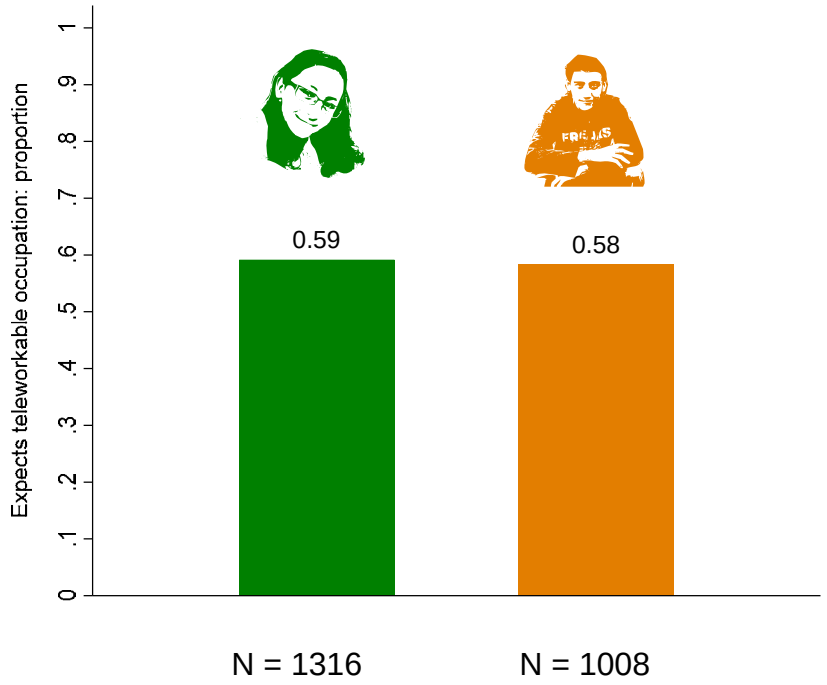


N = 2706 N = 2144

At age 22 - 23



At age 25 - 26



Age 15-16

48%

44%

Age 25-26

59%

59%

Table 2 Expectation of teleworkable career at various ages

		Age 15-16		Age 19-20		Age 22-23		Age 25-26	
		Odds ratio	Std	Odds ratio	Std	Odds ratio	Std	Odds ratio	Std
Female		1.19**	0.06	1.19*	0.09	1.05	0.11	1.03	0.15
Metropolitan school	Geography								
Provincial school	Geography	0.77**	0.05	0.69**	0.06	0.84	0.11	0.86	0.14
Remote school	Geography	0.61**	0.12	1.07	0.33	0.88	0.38	1.63	0.93
Aboriginal or Torres Strait Islander	Ethnicity	1.00	0.12	0.82	0.17	0.83	0.27	0.37*	0.16
Australian born student & both parents	Ethnicity								
Student Australian born & parent foreign	Ethnicity	1.06	0.06	0.90	0.08	0.96	0.12	1.00	0.16
Foreign born student & parents	Ethnicity	1.35**	0.11	0.94	0.13	1.36	0.28	1.03	0.28
Reading score at 16	Social Class	1.41**	0.04	1.34**	0.07	1.41**	0.11	1.22*	0.12
Economic social & cultural status	Social Class	1.15**	0.04	1.08	0.06	1.06	0.08	1.21	0.13
Observations		9223		4801		3383		2302	
Pseudo R^2		0.034		0.024		0.025		0.039	

Exponentiated coefficients; Standard errors in second column

Source: LSAY09

$^{*}\ p < .05,\ ^{**}\ p < .01$

Table 3 Expected job teleworkable: 0 No - 1 Yes

	Odds ratio	SE
Year	1.08**	0.01
Female	1.29**	0.08
Metropolitan school		
Provincial school	0.72**	0.05
Remote school	0.54**	0.10
Aboriginal or Torres Strait Islander	0.96	0.12
Australian born student & both parents		
Student Australian born & parent foreign	1.03	0.07
Foreign born student & parents	1.40**	0.14
Reading score at 16	1.71**	0.06
Economic social & cultural status	1.20**	0.05
Constant	0.02**	0.00
Panel-level variance component		
	3.97**	0.21
Number of observations (person-years)	19709	
Number of persons	10515	
Between-person variance component	55%	

Geography

Ethnicity

Social Class

4% >

Exponentiated coefficients; Standard errors in second column
Source: LSAY09
* $p < .05$, ** $p < .01$

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WORKING YOUTH AND TELEWORKABILITY

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Table 5 Current job teleworkable: 0 No - 1 Yes

	Model 1		Model 2	
	Odds ratios	SE	Odds ratios	SE
Year	1.39**	0.01	1.35**	0.01
Female	1.50**	0.10	1.54**	0.16
Metropolitan school				
Provincial school	0.88	0.07	0.94	0.07
Remote school	0.91	0.19	0.96	0.19
Aboriginal or Torres Strait Islander	1.53**	0.25	1.61**	0.26
Australian born student & both parents				
Student Australian born & parent foreign	1.02	0.07	1.09	0.08
Foreign born student & parents	1.07	0.13	1.03	0.12
Reading score at 16	1.44**	0.06	1.28**	0.05
Economic social & cultural status	1.44**	0.07	1.36**	0.07
Expected job teleworkable			4.65**	0.46
Female * Expected job teleworkable 0 no - 1			0.91	0.12
Constant	0.00**	0.00*	0.00**	0.00*
Panel-level variance component				
	2.45**	0.18	1.44**	0.16
Number of observations (person-years)	14804		12348	
Number of persons	7795		7017	
Between-person variance component	43%		30%	

Exponentiated coefficients; Standard errors in second column
Source: LSAY09
* $p < .05$, ** $p < .01$

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IMPLICATIONS

Conclusions and reflections

- Young women opt more often for teleworkable jobs than men - the difference is small but non-negligible
- Where young women fare worse in the totally-teleworked labour market than men during the pandemic it is not because they ***preferred*** non-teleworkable jobs
- Teleworkability ought to be explored at the level of particular occupations taking into account the context and nature of telework (e.g. extent of dependence on social interactions, part-time versus full-time telework et, authority, seniority etc.)
- Students and career counsellors will benefit from more research on teleworkable jobs and their specific contexts
- Teleworkability might make workers happier but this will depend on appropriate changes in the organization of work, employers' good will and access to affordable housing among young people
- Teleworkability ought to be better understood – it has a potential to be a blessing but also a curse

THANK YOU

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