Learning while Buffering: Impact of Bandwidth Quality on Educational Outcomes

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ECON 490

Introduction

- Experience from the ongoing Covid-19 Pandemic

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Lots of evidence to show that student access to internet has a positive effect on education

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To what extent does having access to high quality bandwidth impact educational outcomes?

Data and Methods

Main data sources of interest:

- Fraser School Reports

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- 2016 Canadian Census

Preliminary OLS with specification:

$$\text{Average\_Exam\_Mark}_i = \beta_0 + \beta_1(\text{combined\_50\_10}_i) + \beta_2(\text{combined\_25\_5}_i) +$$
$$\beta_3(\text{combined\_10\_2}_i) + \beta_4(\text{combined\_5\_1}_i) + \beta_5(\text{public}_i) +$$
$$\beta_6(\text{percent\_ESL}_i) + \beta_7(\text{percent\_special\_needs}_i) + \epsilon_i$$

Results and Analysis

	OLS Regression Results		
combined_5_1	77.4835*	86.4056*	87.1048*
	(6.640)	(6.467)	(6.565)
combined_10_2	65.7089*	74.4091*	74.6567*
	(9.762)	(9.338)	(9.572)
combined_25_5	86.0053*	93.4669*	93.8178
	(4.063)	(4.065)	(4.360)
combined_50_10	70.7386*	74.9946*	75.7003*
	(0.428)	(0.876)	(1.023)
public		−5.2427*	−4.1612*
		(0.958)	(1.145)
school_controls	*No*	*No*	*Yes*