

Le e ag g e a d e g ab f ce da a
de a d he ac f COVID-19
e Ca ada

Xavier St-Denis



Context

Basic labour force statistics and the impact of COVID-19 on workers

- In order to track the impact of COVID-19 on workers, traditional labour market indicators such as the unemployment rate are still useful (unemployment rate rose to 13.0% in April 2020).
- Timely dissemination of labour force data by national statistical agencies.
- A wide range of dimensions have taken a new importance, perhaps in surprising ways.

Structure of the talk:

- What are some of those dimensions?
- How can they be measured? Data requirements and access issues?
- What research questions?
- Exploratory results.

The Labour Force Survey “tradition” The renewed importance of sometimes neglected indicators

- Employment rate as a supplement to unemployment rate.
 -
- Other indicators not usually at the forefront of analyses of employment trends:
 -
 -
 -
- Availability of relatively detailed public use monthly Labour Force Survey microdata in Canada.
- Higher-frequency data collection (“real-time” surveys, job posting data).

New dimensions The need for data innovation

- Health-related job and worker characteristics traditionally do not receive a lot of attention

Measuring occupational risks of exposure to COVID-19

Measuring occupational risks of exposure to COVID-19

Overall risk of occupational exposure (2)

! "#\$%&' \$" () *+,#\$\$"#\$"-#., (--' /*\$" () *+,%"#0#, (1,23/(#' %2,#-(%2#				
	! "\$! "%&#\$	' () *+, -).	/() *+, -).
0*12&-#.0345&6&1				
74)#.	89:9	(; :<	=; :<	/' :>
! "\$	(?:9	(8:(=; :<	8?:(<
@46 "\$	8>:>	8=:<	=; :<	/8:<
A5, 42B3"+)4+%&2"#2"2+43+&\$C" -)&4\$2				
74)#.	' <:	9>:>	=:<	' ?:<
! "\$	9=?:	/:>	=:<	9/:<
@46 "\$	' /:9	9/:<	(:>	=<:<
D4B3- "E+F" \$2B2+4C+04, B.#)&4\$+6' <98HI+#\$%+JKL"):				



Ability of workers to protect self from occupational risks of exposure Job conditions and quality

- Workers in high-risk occupations may not all be able to protect themselves from occupational risks of exposure.
- May be consequential at the individual level (infection); also risk cluster emergence in workplaces.
- Two main dimensions:
 - The possibility of absence from work without income or job loss.
 - The feasibility of remote work.

Ability of workers to protect self from occupational risks of exposure

Occupational risk of exposure in low-income occupations

! ""#\$%&' ()*+, -\$. #/, +'. 0.+ " (/, +1#%/&* , +2'. &/'3#&' ()+34+ (56')" (7, +(""#\$%&' ()+. &%&#.

! ""#\$%&' (")#"*+"%\$, ! ""#\$%&' (")#"*+"%\$, ! ""#\$%&' (")#"*+"%\$, ! ""#\$%&' (")#"*+"%\$,

-. &/'*+' #&01"	2345	6789:7-29	24;	: 978; :	284<	67; ; 278<:	: 48	; 37<3:
2%=/*+' #&01"	234<	678<379; 9	943	-57959	264<	679; 97; -:	264-	6-87; <9
5#=/*+' #&01"	2943	576<27-<9	6<4-	8; 873-9	2543	57; : 872<9	: 54:	; 2: 76; :
6&>/'*+' #&01"	2245	578-6753:	: 942	3<; 7299	264-	6799373-:	-<48	2337<; :
?@&' 1	-9949	-<7<6; 78: :	-9949	-7859735:	-9949	-<7<6; 78: :	-9949	-7859735:

A@+#\$ "B/A@+#\$ "B/C"% .+./@D/! @E+1' &0@%/F29-<G7/' %= /HI J"&4

Measuring remote work

A diversity of approaches

How can we estimate the feasibility of remote work?

- O*Net approach (Dingel & Neiman 2020; Mongey et al. 2020)
 - Static, does not account for possible technological innovations and evolution of norms and behaviours
 - Does not account for differences in resources across firms
 - Nevertheless, allows to identify the potential for transformations
-

Measuring remote work

The O*Net approach

O*Net variables used in Dingel and Neiman (2020)

If any of the following conditions in the “Work Context” survey responses are true, the occupation is coded as one that cannot be performed at home:

- Average respondent says they use email less than once per month
- Majority of respondents say they work outdoors every day
- Average respondent says they deal with violent people at least once a week
- Average respondent says they spent majority of time wearing common or specialized protective or safety equipment
- Average respondent says they spent majority of time walking or running
- Average respondent says they are exposed to minor burns, cuts, bites, or stings at least once a week
- Average respondent says they are exposed to diseases or infection at least once a week

If any of the following conditions in the “Generalized Work Activities” survey responses are true, the occupation is coded as one that cannot be performed at home:

- Performing General Physical Activities is very important
- Handling and Moving Objects is very important
- Controlling Machines and Processes [not computers nor vehicles] is very important
- Operating Vehicles, Mechanized Devices, or Equipment is very important
- Performing for or Working Directly with the Public is very important
- Repairing and Maintaining Mechanical Equipment is very important
- Repairing and Maintaining Electronic Equipment is very important
- Inspecting Equipment, Structures, or Materials is very important

Measuring remote work

Change in observed practices

! "#\$%&'()' *% (+)'' , %' -" . #

! "#\$%&'/#''O' -''O%

! "#\$%&'/#''O' ! "#\$%&'.')+1&%)-%' -''O%

23+%,)4'/. *** 5%%\$

! "#\$%&'()' 6+. (''7*(8%''/' -''O%' 5''#\$

9'''/1: %&' 5''#\$7*(8%

; '')(*

C(, (D%O%,)'''88. 7()1'' , +

H. +1, %++4'/1, (, 8%4'(, &'(&O1, 1+)#()1'' , '''88. 7()1'' , +

EF=A

>F=<

F?=?

@<=E

@>=A

<G=A

B=G

BA=<

EI=@

FF=<

@>=I

G=F

?B=G

F=G

<=>

?@=A

@@=B

	EF=A	>F=<	F?=?	@<=E	@>=A	<G=A	B=G
	BA=<	EI=@	FF=<	@>=I	G=F	?B=G	F=G





Indirect risk factors and epidemiological risk factors

Combining health and labour statistics

with Emmanuelle Arpin, Institute for Health Policy Management and Evaluation, University of Toronto.

-
- -

Indirect risk factors and epidemiological risk factors Insights from US occupations

! " #

Concluding remarks

Towards lifting emergency measures and economic recovery

-

Thank you!

Questions?

Contact

xavier.stdenis@utoronto.ca

Paper in progress:

St-Denis, X. 2020.

(under review)