Nonbinary and Transgender Identities and Earnings: Evidence from a National Census

Online Appendix

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Coding of Nonbinary by Statistics Canada

The separate sex and gender questions implemented by Statistics Canada were spurred by the Treasury Board of Canada's Secretariat's policy direction to modernize the federal government's broader administrative practices around sex and gender in 2018 and were conducted in alignment with the standards for such questions to identify transgender and other gender minorities in population surveys and those implemented by New Zealand (Statistics Canada, 2024). The Census defines a transgender person as a person whose reported gender corresponds to a binary gender that differs from their sex assigned at birth. People are identified as nonbinary if their gender is written in a text box and is considered a 'valid' response (Statistics Canada, 2021). To code valid write-in responses for the third gender category, Statistics Canada underwent a multi-step process (Statistics Canada, 2022b). First, a pre-processing step prepared the write-in responses for automatic coding. The text strings were compared against a reference file of actual responses created by subject matter experts based on other write-in survey responses to similar questions. Write-in with an exact match to one of these terms was auto-coded. The remaining uncoded responses were then processed using a machine-learning model built by subject matter experts. This assigned a code and confidence score associated with the code. Codes with a confidence score above a certain threshold were assigned to the code identified. The remaining uncoded responses were sent to specially trained coding operators and subject matter experts, and codes were assigned and again reviewed by subject matter experts before receiving their final code. About two-thirds of people we identify as nonbinary explicitly wrote 'nonbinary' into the text box. The remainder wrote terms such as agender, pangender, genderqueer, genderfluid, gender nonconforming, and Two-Spirit. Appendix Figure A3 shows a word cloud provided by Statistics Canada that indicates the most common write-in responses to the question about gender that were classified as nonbinary. The process outlined by Statistics Canada accounts for misspellings and protest responses.

Note that in 2021, the Census form was submitted online by 84.1% of private dwellings and in this form, individuals could only select one gender option (the write-in or male or female) (Statistics Canada, 2022a). When a paper copy of the form was submitted, if an individual selected either one male or female in the gender option *and* wrote a valid response in the gender write-in option, the write-in response was prioritized. Thus, our transgender and nonbinary groups in the 2021 Canadian Census sample are mutually exclusive, even though in reality some people claim both identities simultaneously.

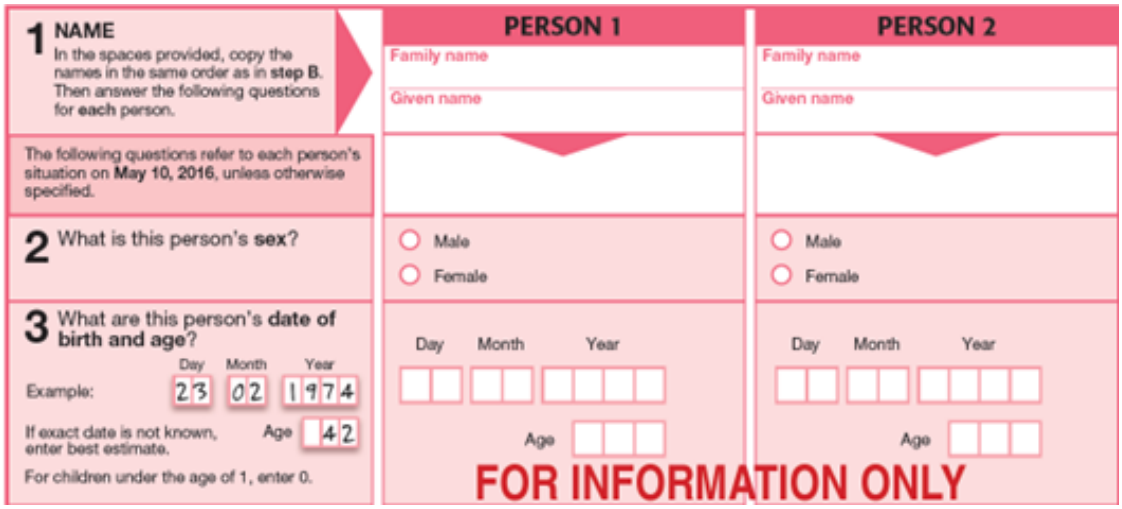
Description of Control Variables

The set of control variables used in the regression models are as follows: single year of age dummies; a dummy variable for having Indigenous background; a dummy variable for being a visible minority; dummy variables for being a high school graduate, having some college but not a bachelor's degree, and having a bachelor's degree or more (with less than high school being the excluded category); three indicator variables for whether the household maintainer reports a Christian, Muslim, or Jewish religion[1]; a dummy variable for being a first generation immigrant, a dummy variable for being a second generation immigrant, and interactions of each of those dummy variables with the visible minority status indicator; a vector of census subdivision fixed effects that capture spatial variation (that is, roughly 4,700 location fixed effects for local political units such as cities and towns); five marital status dummies, including whether the individual is married, in a common-law marriage, separated/divorced/widowed, in a same-gender marriage, or in a same-gender common law marriage (with never married being the excluded category); six household size/type dummies, including an indicator for not being in a Census family, an indicator for having any children in the household age 0-5, the number of children in the household age 0 to 5, an indicator for having any children in the household age 6 to 17, and the number of children in the household age 6 to 17; health status variables including separate indicators for whether a respondent reports 'often' or 'always' having difficulties or long-term conditions that have lasted or are expected to last for six months or more in each of the following areas: mental health, learning, seeing, walking/mobility, hearing, or any other health problem; and 3-digit occupation and industry dummies. For the detailed reporting of coefficients for various control variables in Table 2, see Appendix Table A1.

[1] In Table 1 we report whether the household maintainer reports an Abrahamic religion instead of reporting each of these three religions separately. This is because of disclosure constraints due to small sample sizes of Jewish individuals in some cells.

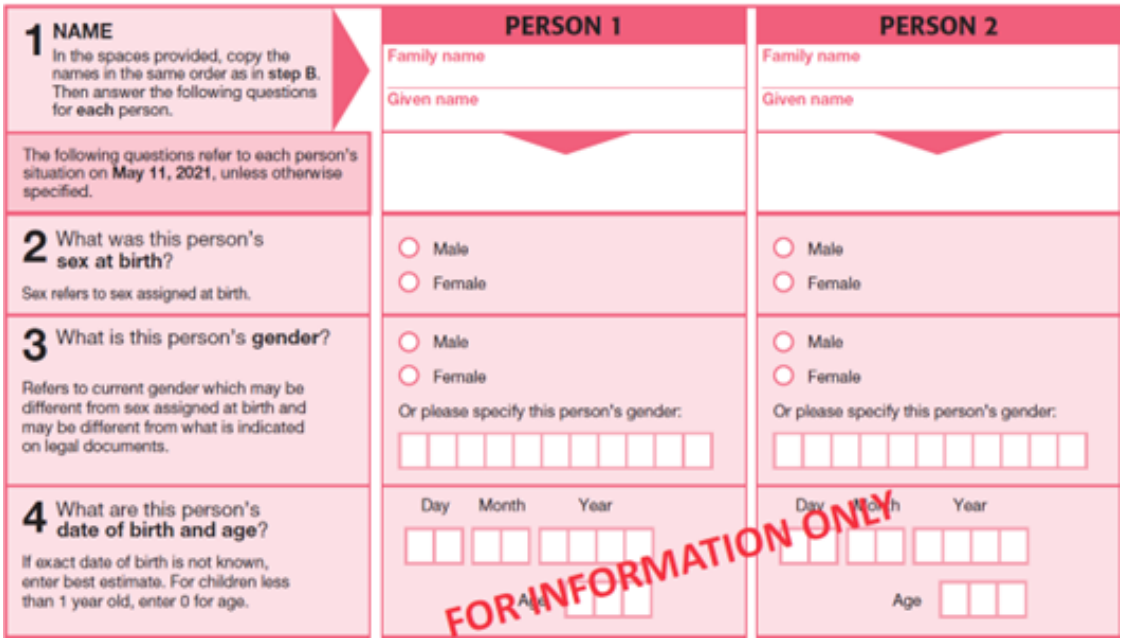
Figures

Figure A1: 2016 Canadian Census Form Sex and Gender Questions



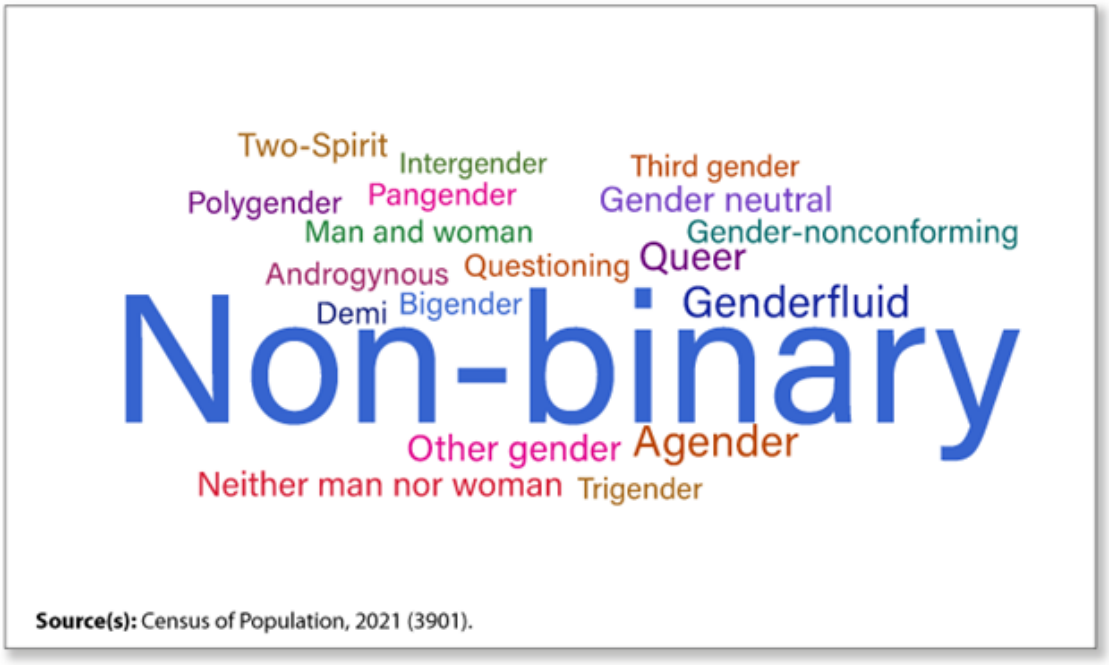
Source: Statistics Canada. https://www23.statcan.gc.ca/imdb/p3Instr.pl?Function=getInstrumentList&Item_Id=1285254&UL=1V. Last accessed September 24, 2024.

Figure A2: 2021 Canadian Census Form Sex and Gender Questions



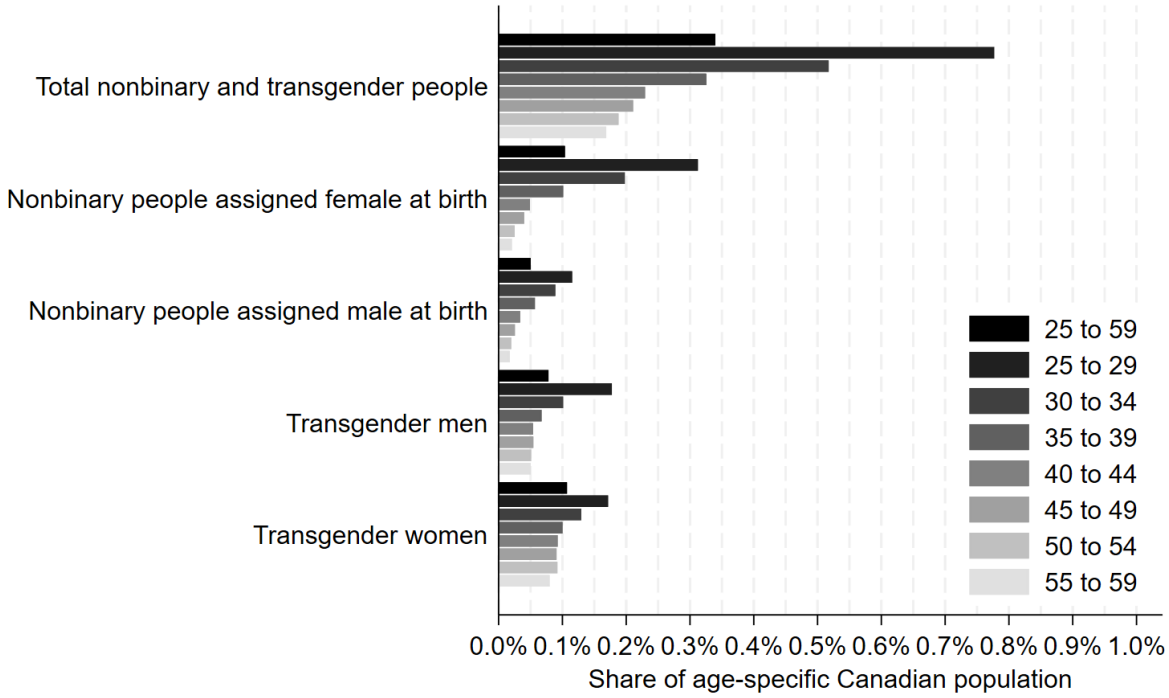
Source: Statistics Canada. https://www23.statcan.gc.ca/imdb/p3Instr.pl?Function=getInstrumentList&Item_Id=295122&UL=1V&. Last accessed September 24, 2024.

Figure A3: Sample Terms Classified as Nonbinary by Statistics Canada



Source: Statistics Canada. https://www150.statcan.gc.ca/n1/daily-quotidien/220427/g-b002-eng.htm. Last accessed September 24, 2024.

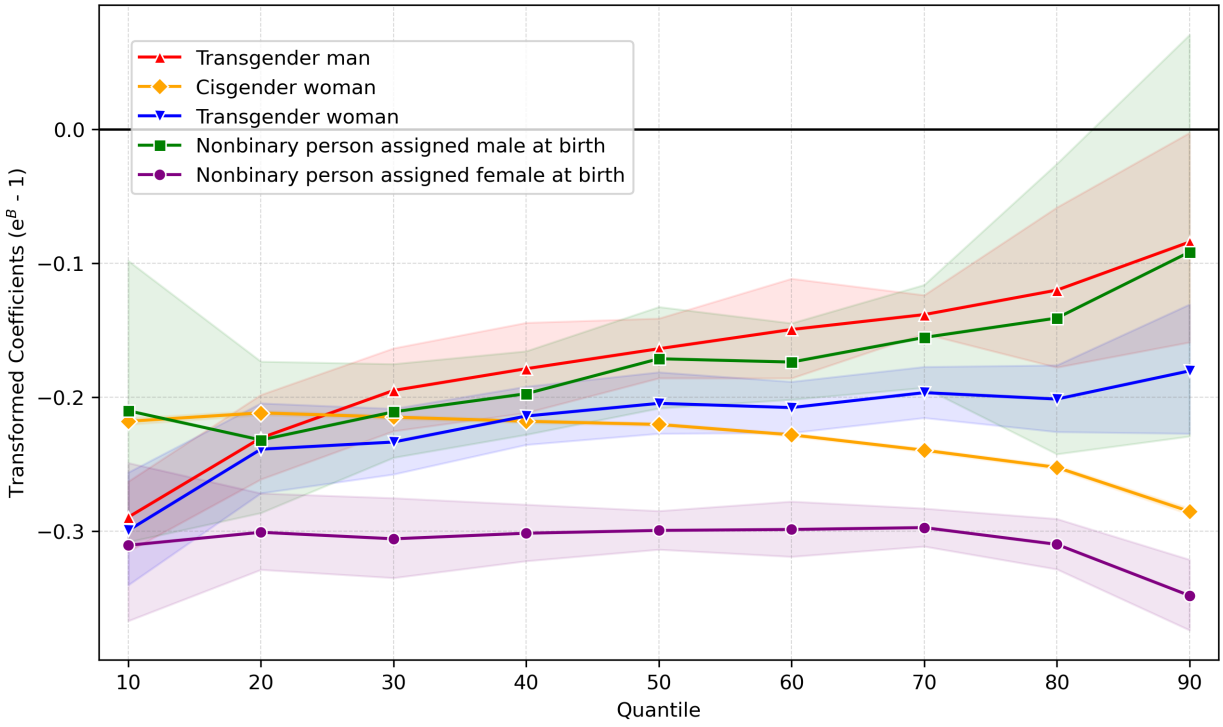
Figure A4: Share of Canadian Population that is Nonbinary or Transgender by Five-Year Age Group



	25 to 59	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59
Nonbinary people assigned female at birth	0.10%	0.31%	0.20%	0.10%	0.05%	0.04%	0.03%	0.02%
Nonbinary people assigned male at birth	0.05%	0.12%	0.09%	0.06%	0.03%	0.03%	0.02%	0.02%
Transgender men	0.08%	0.18%	0.10%	0.07%	0.05%	0.05%	0.05%	0.05%
Transgender women	0.11%	0.17%	0.13%	0.10%	0.09%	0.09%	0.09%	0.08%
Percent of total of population	0.34%	0.78%	0.52%	0.33%	0.23%	0.21%	0.19%	0.17%

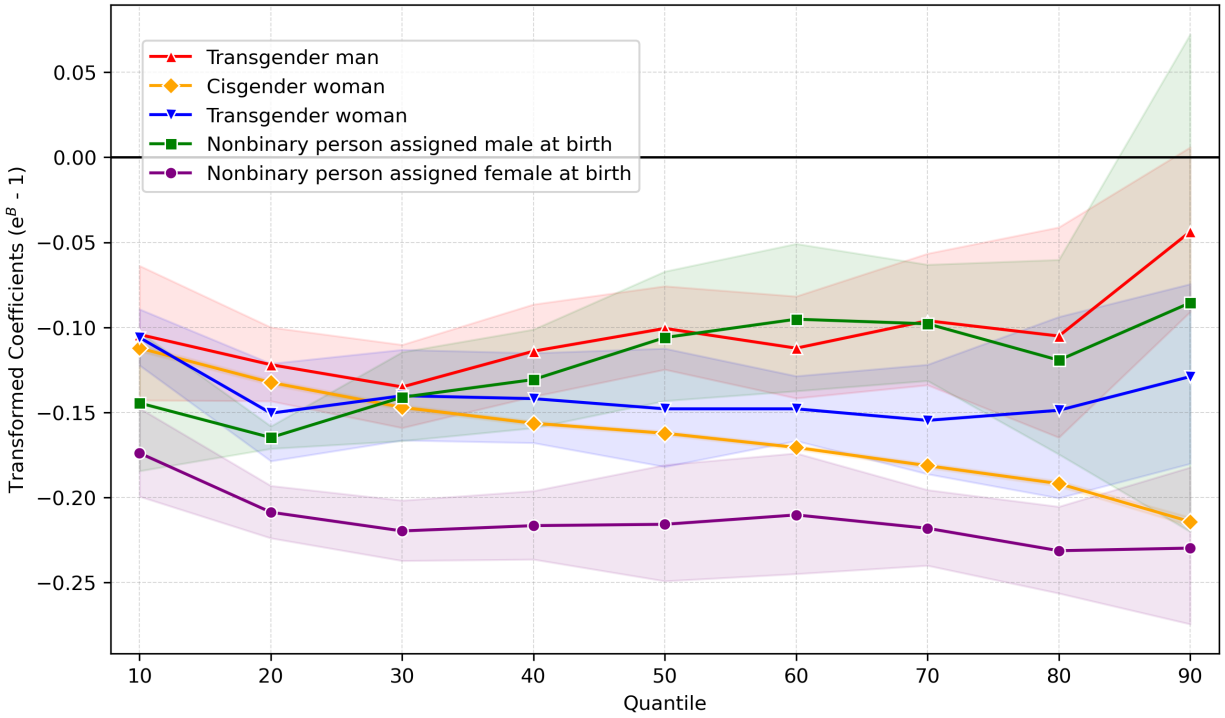
Notes: All numbers are the percent of the Canadian population in each age group that is nonbinary or transgender. For example, 0.78% of the Canadian population age 25 to 29 is nonbinary or transgender. Authors' estimates from the 2021 Canadian Census.

Figure A5: Conditional Quantile Percent Differences for Log of Weekly 2020 Wages among Full-time Workers



Notes: All specifications adjust for the independent variables in the specification included in column 2 of Table 2, with the exception that the single-year age dummies are replaced with five-year age group dummies. In Appendix Table A6, there are equivalent mean regressions with five-year age dummies showing the main findings are unchanged using this alternative control for age. Shading represents 95 percent confidence intervals around each point estimate. The sample is restricted to people who worked mainly full-time weeks in 2020 (30+ hours per week). The sample is also restricted to those who work for pay either in the reference week (May 2021) or throughout 2020 if not employed in the reference week.

Figure A6: Conditional Quantile Percent Differences for Log of Hourly 2020 Wages among Full-time Workers



Notes: All specifications adjust for the independent variables in the specification included in column 2 of Table 2, with the exception that the single-year age dummies are replaced with five-year age group dummies. In Appendix Table A6, there are equivalent mean regressions with five-year age dummies showing the main findings are unchanged using this alternative control for age. Shading represents 95 percent confidence intervals around each point estimate. The sample is restricted to people who worked mainly full-time weeks in 2020 (30+ hours per week). The sample is also restricted to those who work for pay either in the reference week (May 2021) or throughout 2020 if not employed in the reference week. Results should be interpreted with caution given that our measure of hours worked is "usual hours worked" in 2021 while earnings are in 2020.

Tables

Table A1: Nonbinary and Transgender Log 2019 Earnings Relative to Cisgender Men: Expanded Set of Coefficient Estimates

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Nonbinary person	-0.586	-0.673	-0.670	-0.682	-0.596	-0.534	-0.319
assigned female at birth	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.020)
Nonbinary person	-0.359	-0.401	-0.402	-0.409	-0.354	-0.313	-0.207
assigned male at birth	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)	(0.027)
Transgender man	-0.309	-0.288	-0.291	-0.288	-0.260	-0.239	-0.135
	(0.023)	(0.023)	(0.022)	(0.022)	(0.022)	(0.022)	(0.021)
Transgender woman	-0.396	-0.404	-0.410	-0.409	-0.392	-0.376	-0.248
	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.019)
Cisgender woman	-0.342	-0.394	-0.394	-0.394	-0.390	-0.385	-0.255
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Visible minority	-0.190	-0.250	-0.132	-0.116	-0.113	-0.116	-0.077
	(0.001)	(0.001)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Indigenous	-0.238	-0.146	-0.129	-0.118	-0.108	-0.105	-0.086
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
High school grad		0.250	0.210	0.206	0.199	0.199	-0.086
		(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Less than BA		0.415	0.381	0.370	0.364	0.363	0.105
		(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
BA or higher		0.714	0.671	0.651	0.640	0.638	0.159
		(0.002)	(0.003)	(0.003)	(0.002)	(0.002)	(0.003)
Christian HM			0.053	0.047	0.045	0.044	0.039
			(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Jewish HM			0.055	0.047	0.049	0.050	0.048
			(0.008)	(0.008)	(0.008)	(0.008)	(0.007)
Muslim HM			-0.211	-0.217	-0.213	-0.214	-0.199
			(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
First generation immigrant			-0.141	-0.152	-0.158	-0.161	-0.117
			(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
$\geq$ 1 parent non-CDN born			-0.024	-0.020	-0.021	-0.022	-0.015
			(0.002)	(0.002)	(0.002)	(0.002)	(0.002)

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Table A1 – continued from previous page

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
First generation x visible minority			-0.075	-0.091	-0.097	-0.099	-0.058
			(0.009)	(0.009)	(0.009)	(0.009)	(0.008)
$\geq$ 1 parent non-CDN born x vis. min.			0.058	0.070	0.063	0.060	0.017
			(0.009)	(0.009)	(0.009)	(0.009)	(0.008)
Married				0.266	0.262	0.261	0.178
				(0.002)	(0.002)	(0.002)	(0.002)
Common law				0.252	0.250	0.250	0.182
				(0.002)	(0.002)	(0.002)	(0.002)
Separated/divorced/widowed				0.122	0.124	0.126	0.083
				(0.002)	(0.002)	(0.002)	(0.002)
Married x same gender				-0.006	0.003	0.010	0.026
				(0.010)	(0.010)	(0.010)	(0.009)
Common law x same gender				-0.035	-0.029	-0.023	-0.004
				(0.007)	(0.007)	(0.007)	(0.007)
Not in a census family				0.103	0.106	0.110	0.087
				(0.002)	(0.002)	(0.002)	(0.002)
Number of kids 0 to 5				-0.092	-0.093	-0.094	-0.096
				(0.003)	(0.003)	(0.003)	(0.003)
Any kids 0 to 5				0.007	0.006	0.006	0.002
				(0.004)	(0.004)	(0.004)	(0.004)
Number of kids 6 to 17				-0.033	-0.034	-0.034	-0.032
				(0.001)	(0.001)	(0.001)	(0.001)
Any kids 6 to 17				0.052	0.053	0.054	0.046
				(0.003)	(0.003)	(0.003)	(0.002)
Hearing difficulty					-0.025	-0.013	-0.015
					(0.005)	(0.005)	(0.005)
Seeing difficulty					-0.039	-0.027	-0.016
					(0.003)	(0.003)	(0.003)
Walking/mobility difficulty					-0.221	-0.209	-0.172
					(0.006)	(0.006)	(0.005)
Learning difficulty					-0.242	-0.174	-0.125
					(0.005)	(0.005)	(0.005)
Other difficulty					-0.112	-0.084	-0.078
					(0.002)	(0.002)	(0.002)
Mental health difficulty						-0.178	-0.135
						(0.003)	(0.003)
Missing, hearing					0.033	0.040	0.044
					(0.036)	(0.036)	(0.034)

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Table A1 – continued from previous page

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Missing, seeing					-0.057	-0.048	-0.051
					(0.035)	(0.035)	(0.034)
Missing, mobility					-0.035	-0.022	-0.018
					(0.034)	(0.034)	(0.032)
Missing, learning					-0.033	-0.018	-0.004
					(0.030)	(0.030)	(0.029)
Missing, other					-0.167	-0.139	-0.102
					(0.025)	(0.027)	(0.026)
Missing, mental health						-0.081	-0.062
						(0.030)	(0.028)
Constant	10.394	9.973	9.999	9.913	9.938	9.951	10.537
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.010)
Age FE	X	X	X	X	X	X	X
Census Subdivision FE			X	X	X	X	X
Occ and Ind FE							X
Weighted N	3,119,070	3,119,070	3,119,070	3,119,070	3,119,070	3,119,070	3,119,070
R-Squared	0.077	0.119	0.142	0.149	0.152	0.154	0.262
	P-value testing two coefficients being equal						
$\beta_{cm} = \beta_{cw}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{cm} = \beta_{tm}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{cm} = \beta_{tw}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{cm} = \beta_{nbafab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{cm} = \beta_{nbamab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{cw} = \beta_{tm}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{cw} = \beta_{nbafab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.002
$\beta_{cw} = \beta_{tw}$	0.008	0.607	0.415	0.464	0.931	0.677	0.710
$\beta_{cw} = \beta_{nbamab}$	0.573	0.796	0.764	0.609	0.210	0.013	0.074
$\beta_{tm} = \beta_{tw}$	0.004	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{tm} = \beta_{nbafab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{tm} = \beta_{nbamab}$	0.172	0.002	0.002	0.001	0.010	0.040	0.034
$\beta_{tw} = \beta_{nbafab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.010
$\beta_{tw} = \beta_{nbamab}$	0.287	0.937	0.829	0.996	0.279	0.070	0.210
$\beta_{nbafab} = \beta_{nbamab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.001

Notes: In the bottom panel of the table, cw denotes cisgender woman; tm transgender man; tw transgender woman; nbafab nonbinary person assigned female at birth; nbamab nonbinary person assigned male at birth. HM denotes household maintainer. "non-CDN" is born outside Canada. Health difficulty indicators equal one when the health difficulty is experienced "often" or "always" and zero otherwise. Robust standard errors in parentheses.

Table A2: Nonbinary and Transgender Log 2019 Earnings Relative to Cisgender Men: Coefficients Transformed to Percentages

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Nonbinary person	-0.443	-0.49	-0.488	-0.494	-0.449	-0.414	-0.273
assigned female at birth	(0.012)	(0.011)	(0.011)	(0.011)	(0.012)	(0.012)	(0.020)
Nonbinary person	-0.302	-0.33	-0.331	-0.336	-0.298	-0.269	-0.187
assigned male at birth	(0.02)	(0.019)	(0.019)	(0.019)	(0.02)	(0.021)	(0.027)
Transgender man	-0.266	-0.25	-0.252	-0.25	-0.229	-0.213	-0.126
	(0.017)	(0.017)	(0.016)	(0.016)	(0.017)	(0.017)	(0.021)
Transgender woman	-0.327	-0.332	-0.336	-0.336	-0.324	-0.313	-0.220
	(0.013)	(0.013)	(0.013)	(0.013)	(0.014)	(0.014)	(0.019)
Cisgender woman	-0.29	-0.326	-0.326	-0.326	-0.323	-0.32	-0.225
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Visible minority	X	X	X	X	X	X	X
Indigenous	X	X	X	X	X	X	X
Age FE	X	X	X	X	X	X	X
Education FE		X	X	X	X	X	X
Religion			X	X	X	X	X
Immigration			X	X	X	X	X
Census subdivision FE			X	X	X	X	X
Household composition				X	X	X	X
Physical/learning difficulty					X	X	X
Mental health difficulty						X	X
Occ and Ind FE							X
Weighted N	3,119,070	3,119,070	3,119,070	3,119,070	3,119,070	3,119,070	3,119,070
R-Squared	0.077	0.119	0.142	0.149	0.152	0.154	0.262

Notes: In the bottom panel of the table, cw denotes cisgender woman; tm transgender man; tw transgender woman; nbafab nonbinary person assigned female at birth; nbamab nonbinary person assigned male at birth. See Online Appendix Table A1 for the full variable list. Robust standard errors in parentheses.

Table A3: Nonbinary and Transgender Log 2019 Earnings Relative to Cisgender Men, No Sample Restriction on Valid Occupation and Industry Code

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Nonbinary person	-0.593	-0.678	-0.675	-0.690	-0.561	-0.487	-0.319
assigned female at birth	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)	(0.020)
Nonbinary person	-0.360	-0.396	-0.399	-0.409	-0.330	-0.282	-0.207
assigned male at birth	(0.029)	(0.030)	(0.030)	(0.029)	(0.030)	(0.030)	(0.027)
Transgender man	-0.301	-0.275	-0.278	-0.275	-0.231	-0.205	-0.135
	(0.023)	(0.023)	(0.023)	(0.022)	(0.022)	(0.022)	(0.021)
Transgender woman	-0.435	-0.431	-0.436	-0.433	-0.403	-0.382	-0.248
	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.019)
Cisgender woman	-0.364	-0.418	-0.417	-0.418	-0.411	-0.404	-0.255
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Visible minority	X	X	X	X	X	X	X
Indigenous	X	X	X	X	X	X	X
Age FE	X	X	X	X	X	X	X
Education FE		X	X	X	X	X	X
Religion			X	X	X	X	X
Immigration			X	X	X	X	X
Census subdivision FE			X	X	X	X	X
Household composition				X	X	X	X
Physical/learning difficulty					X	X	X
Mental health difficulty						X	X
Occ and Ind FE							X
Weighted N	3,312,030	3,312,030	3,312,030	3,312,030	3,312,030	3,312,030	3,119,070
R-squared	0.069	0.112	0.133	0.141	0.149	0.151	0.262
	P-value testing two coefficients being equal						
$\beta_{cw} = \beta_{tm}$	0.006	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{cw} = \beta_{nbafab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.002
$\beta_{cw} = \beta_{tw}$	0.001	0.527	0.379	0.480	0.711	0.276	0.710
$\beta_{cw} = \beta_{nbamab}$	0.899	0.477	0.526	0.752	0.006	0.000	0.074
$\beta_{tm} = \beta_{tw}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{tm} = \beta_{nbafab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{tm} = \beta_{nbamab}$	0.115	0.001	0.001	0.000	0.007	0.039	0.034
$\beta_{tw} = \beta_{nbafab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.010
$\beta_{tw} = \beta_{nbamab}$	0.040	0.344	0.305	0.505	0.043	0.005	0.210
$\beta_{nbafab} = \beta_{nbamab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.001

Notes: In the bottom panel of the table, cw denotes cisgender woman; tm transgender man; tw transgender woman; nbafab nonbinary person assigned female at birth; nbamab nonbinary person assigned male at birth. See Online Appendix Table A1 for the full variable list. Robust standard errors in parentheses.

Table A4: Nonbinary and Transgender Log 2019 Earnings Relative to Cisgender Men: Sample Restricted to the First Person Listed on the Census Form

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Nonbinary person	-0.671	-0.751	-0.756	-0.746	-0.657	-0.589	-0.372
assigned female at birth	(0.027)	(0.027)	(0.026)	(0.027)	(0.027)	(0.027)	(0.025)
Nonbinary person	-0.330	-0.358	-0.372	-0.362	-0.307	-0.262	-0.169
assigned male at birth	(0.033)	(0.034)	(0.033)	(0.033)	(0.033)	(0.033)	(0.030)
Transgender man	-0.421	-0.400	-0.404	-0.392	-0.348	-0.315	-0.196
	(0.039)	(0.040)	(0.040)	(0.039)	(0.039)	(0.039)	(0.037)
Transgender woman	-0.471	-0.447	-0.432	-0.403	-0.362	-0.331	-0.209
	(0.041)	(0.041)	(0.040)	(0.040)	(0.040)	(0.040)	(0.039)
Cisgender woman	-0.359	-0.398	-0.399	-0.386	-0.379	-0.370	-0.247
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Visible minority	X	X	X	X	X	X	X
Indigenous	X	X	X	X	X	X	X
Age FE	X	X	X	X	X	X	X
Education FE		X	X	X	X	X	X
Religion			X	X	X	X	X
Immigration			X	X	X	X	X
Census subdivision FE			X	X	X	X	X
Household composition				X	X	X	X
Physical/learning difficulty					X	X	X
Mental health difficulty						X	X
Occ and Ind FE							X
Weighted N	1,675,285	1,675,285	1,675,285	1,675,285	1,675,285	1,675,285	1,675,285
R-squared	0.064	0.109	0.140	0.145	0.149	0.151	0.262
	P-value testing two coefficients being equal						
$\beta_{cw} = \beta_{tm}$	0.114	0.962	0.888	0.874	0.428	0.158	0.162
$\beta_{cw} = \beta_{nbafab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{cw} = \beta_{tw}$	0.006	0.235	0.409	0.656	0.683	0.327	0.327
$\beta_{cw} = \beta_{nbamab}$	0.381	0.227	0.425	0.482	0.029	0.001	0.009
$\beta_{tm} = \beta_{tw}$	0.377	0.415	0.623	0.835	0.795	0.778	0.798
$\beta_{tm} = \beta_{nbafab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{tm} = \beta_{nbamab}$	0.076	0.417	0.536	0.566	0.426	0.298	0.574
$\beta_{tw} = \beta_{nbafab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{tw} = \beta_{nbamab}$	0.007	0.092	0.252	0.429	0.287	0.184	0.410
$\beta_{nbafab} = \beta_{nbamab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: In the bottom panel of the table, cw denotes cisgender woman; tm transgender man; tw transgender woman; nbafab nonbinary person assigned female at birth; nbamab nonbinary person assigned male at birth. See Online Appendix Table A1 for the full variable list. Robust standard errors in parentheses.

Table A5: Nonbinary and Transgender Log 2019 Earnings Relative to Cisgender Men: Sample Restricted Ages 30 to 59

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Nonbinary person	-0.565	-0.675	-0.679	-0.676	-0.597	-0.544	-0.335
assigned female at birth	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)	(0.027)
Nonbinary person	-0.326	-0.371	-0.380	-0.373	-0.315	-0.280	-0.187
assigned male at birth	(0.036)	(0.036)	(0.036)	(0.036)	(0.036)	(0.036)	(0.032)
Transgender man	-0.303	-0.283	-0.286	-0.282	-0.258	-0.244	-0.148
	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.026)	(0.025)
Transgender woman	-0.404	-0.421	-0.431	-0.429	-0.416	-0.403	-0.278
	(0.023)	(0.023)	(0.022)	(0.022)	(0.022)	(0.022)	(0.021)
Cisgender woman	-0.362	-0.412	-0.412	-0.412	-0.409	-0.404	-0.277
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Visible minority	X	X	X	X	X	X	X
Indigenous	X	X	X	X	X	X	X
Age FE	X	X	X	X	X	X	X
Education FE		X	X	X	X	X	X
Religion			X	X	X	X	X
Immigration			X	X	X	X	X
Census subdivision FE			X	X	X	X	X
Household composition				X	X	X	X
Physical/learning difficulty					X	X	X
Mental health difficulty						X	X
Occ and Ind FE							X
Weighted N	2,687,055	2,687,055	2,687,055	2,687,055	2,687,055	2,687,055	2,687,055
R-squared	0.053	0.103	0.129	0.135	0.138	0.140	0.257
	P-value testing two coefficients being equal						
$\beta_{cw} = \beta_{tm}$	0.030	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{cw} = \beta_{nbafab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.035
$\beta_{cw} = \beta_{tw}$	0.064	0.690	0.386	0.458	0.777	0.948	0.979
$\beta_{cw} = \beta_{nbamab}$	0.313	0.263	0.388	0.271	0.009	0.000	0.005
$\beta_{tm} = \beta_{tw}$	0.004	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{tm} = \beta_{nbafab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{tm} = \beta_{nbamab}$	0.609	0.051	0.035	0.043	0.201	0.415	0.337
$\beta_{tw} = \beta_{nbafab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.098
$\beta_{tw} = \beta_{nbamab}$	0.064	0.246	0.233	0.184	0.017	0.003	0.019
$\beta_{nbafab} = \beta_{nbamab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: In the bottom panel of the table, cw denotes cisgender woman; tm transgender man; tw transgender woman; nbafab nonbinary person assigned female at birth; nbamab nonbinary person assigned male at birth. See Online Appendix Table A1 for the full variable list. Robust standard errors in parentheses.

Table A6: Nonbinary and Transgender Log 2019 Earnings Relative to Cisgender Men, with Five-Year Age Group Dummies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Nonbinary person	-0.598	-0.685	-0.682	-0.693	-0.607	-0.544	-0.327
assigned female at birth	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)
Nonbinary person	-0.358	-0.401	-0.402	-0.408	-0.353	-0.312	-0.205
assigned male at birth	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)	(0.027)
Transgender man	-0.315	-0.294	-0.297	-0.293	-0.265	-0.243	-0.138
	(0.023)	(0.023)	(0.022)	(0.022)	(0.022)	(0.022)	(0.021)
Transgender woman	-0.398	-0.406	-0.411	-0.409	-0.393	-0.377	-0.248
	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.019)
Cisgender woman	-0.342	-0.394	-0.394	-0.394	-0.390	-0.385	-0.254
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Visible minority	X	X	X	X	X	X	X
Indigenous	X	X	X	X	X	X	X
Five-Year Age Group FE	X	X	X	X	X	X	X
Education FE		X	X	X	X	X	X
Religion			X	X	X	X	X
Immigration			X	X	X	X	X
Census subdivision FE			X	X	X	X	X
Household composition				X	X	X	X
Physical/learning difficulty					X	X	X
Mental health difficulty						X	X
Occ and Ind FE							X
Weighted N	3,119,070	3,119,070	3,119,070	3,119,070	3,119,070	3,119,070	3,119,070
R-squared	0.073	0.115	0.139	0.146	0.150	0.151	0.260
	P-value testing two coefficients being equal						
$\beta_{cw} = \beta_{tm}$	0.231	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{cw} = \beta_{nbafab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{cw} = \beta_{tw}$	0.006	0.560	0.381	0.445	0.909	0.694	0.722
$\beta_{cw} = \beta_{nbamab}$	0.587	0.806	0.788	0.634	0.198	0.012	0.068
$\beta_{tm} = \beta_{tw}$	0.007	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{tm} = \beta_{nbafab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{tm} = \beta_{nbamab}$	0.243	0.004	0.004	0.002	0.015	0.059	0.048
$\beta_{tw} = \beta_{nbafab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.004
$\beta_{tw} = \beta_{nbamab}$	0.260	0.899	0.783	0.968	0.259	0.063	0.196
$\beta_{nbafab} = \beta_{nbamab}$	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: In the bottom panel of the table, cw denotes cisgender woman; tm transgender man; tw transgender woman; nbafab nonbinary person assigned female at birth; nbamab nonbinary person assigned male at birth. See Online Appendix Table A1 for the full variable list. Robust standard errors in parentheses.

Table A7: Nonbinary and Transgender Employment in the Census Reference Week Relative to Cisgender Men

	(1)	(2)	(3)	(4)	(5)	(6)
Nonbinary person	-0.120	-0.145	-0.129	-0.135	-0.051	-0.016
assigned female at birth	(0.008)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Nonbinary person	-0.130	-0.141	-0.125	-0.128	-0.081	-0.057
assigned male at birth	(0.011)	(0.011)	(0.011)	(0.010)	(0.010)	(0.010)
Transgender man	-0.114	-0.102	-0.095	-0.093	-0.064	-0.050
	(0.009)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Transgender woman	-0.166	-0.157	-0.150	-0.148	-0.130	-0.119
	(0.008)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Cisgender woman	-0.070	-0.087	-0.088	-0.089	-0.084	-0.080
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Visible minority	X	X	X	X	X	X
Indigenous	X	X	X	X	X	X
Age FE	X	X	X	X	X	X
Education FE		X	X	X	X	X
Religion			X	X	X	X
Immigration			X	X	X	X
Census subdivision FE			X	X	X	X
Household composition				X	X	X
Physical/learning difficulty					X	X
Mental health difficulty						X
Occ and Ind FE						
Weighted N	4,095,475	4,095,475	4,095,475	4,095,475	4,095,475	4,095,475
R-squared	0.027	0.075	0.093	0.106	0.136	0.139
	P-value testing two coefficients being equal					
$\beta_{cw} = \beta_{tm}$	0.000	0.081	0.378	0.685	0.013	0.000
$\beta_{cw} = \beta_{nbafab}$	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{cw} = \beta_{tw}$	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{cw} = \beta_{nbamab}$	0.000	0.000	0.000	0.000	0.790	0.029
$\beta_{tm} = \beta_{tw}$	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{tm} = \beta_{nbafab}$	0.627	0.000	0.003	0.000	0.240	0.001
$\beta_{tm} = \beta_{nbamab}$	0.234	0.003	0.026	0.008	0.192	0.590
$\beta_{tw} = \beta_{nbafab}$	0.000	0.242	0.037	0.229	0.000	0.000
$\beta_{tw} = \beta_{nbamab}$	0.007	0.220	0.053	0.120	0.000	0.000
$\beta_{nbafab} = \beta_{nbamab}$	0.410	0.773	0.791	0.555	0.018	0.001

Notes: The dependent variable equals one if an individual is employed in the Census reference week and zero otherwise. See Online Appendix Table A1 for the full variable list. Robust standard errors in parentheses. In the bottom panel of the table, cw denotes cisgender woman; tm transgender man; tw transgender woman; nbafab nonbinary person assigned female at birth; nbamab nonbinary person assigned male at birth.

Table A8: Nonbinary and Transgender Log Hourly Earnings in 2020 Relative to Cisgender Men Among Full-Time Workers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Nonbinary person assigned female at birth	-0.147	-0.225	-0.242	-0.228	-0.211	-0.196	-0.115
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.013)
Nonbinary person assigned male at birth	-0.086	-0.117	-0.134	-0.116	-0.107	-0.098	-0.063
	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.019)
Transgender man	-0.101	-0.086	-0.091	-0.080	-0.075	-0.071	-0.023
	(0.018)	(0.018)	(0.017)	(0.017)	(0.017)	(0.017)	(0.016)
Transgender woman	-0.121	-0.134	-0.141	-0.131	-0.128	-0.125	-0.083
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.014)
Cisgender woman	-0.129	-0.172	-0.169	-0.163	-0.162	-0.161	-0.112
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Visible minority	X	X	X	X	X	X	X
Indigenous	X	X	X	X	X	X	X
Age FE	X	X	X	X	X	X	X
Education FE		X	X	X	X	X	X
Religion			X	X	X	X	X
Immigration			X	X	X	X	X
Census subdivision FE			X	X	X	X	X
Household composition				X	X	X	X
Physical/learning difficulty					X	X	X
Mental health difficulty						X	X
Occ and Ind FE							X
Weighted N	2,061,750	2,061,750	2,061,750	2,061,750	2,061,750	2,061,750	2,061,750
R-squared	0.041	0.119	0.156	0.162	0.163	0.163	0.263
	P-value testing two coefficients being equal						
$\beta_{cw} = \beta_{tm}$	0.108	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{cw} = \beta_{nbafab}$	0.193	0.000	0.000	0.000	0.000	0.011	0.826
$\beta_{cw} = \beta_{tw}$	0.591	0.011	0.059	0.031	0.022	0.015	0.040
$\beta_{cw} = \beta_{nbamab}$	0.034	0.006	0.079	0.019	0.006	0.001	0.009
$\beta_{tm} = \beta_{tw}$	0.385	0.036	0.029	0.023	0.018	0.016	0.005
$\beta_{tm} = \beta_{nbafab}$	0.038	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_{tm} = \beta_{nbamab}$	0.597	0.243	0.108	0.162	0.224	0.307	0.105
$\beta_{tw} = \beta_{nbafab}$	0.202	0.000	0.000	0.000	0.000	0.000	0.099
$\beta_{tw} = \beta_{nbamab}$	0.172	0.499	0.775	0.552	0.389	0.261	0.400
$\beta_{nbafab} = \beta_{nbamab}$	0.013	0.000	0.000	0.000	0.000	0.000	0.024

Notes: See Online Appendix Table A1 for the full variable list. Robust standard errors in parentheses. In the bottom panel of the table, cw denotes cisgender woman; tm transgender man; tw transgender woman; nbafab nonbinary person assigned female at birth; nbamab nonbinary person assigned male at birth. The sample is restricted to people who worked mainly full-time weeks in 2020 (30+ hours per week). The sample is also restricted to those who work for pay either in the reference week (May 2021) or throughout 2020 if not employed in the reference week. Results should be interpreted with caution given that our measure of hours worked is "usual hours worked" in 2021 while earnings are in 2020.

References

Statistics Canada (2021, November). Classification of cisgender, transgender and non-binary. Retrieved from https://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=1326715&CVD=1326716&CLV=0&MLV=2&D=1. Last accessed September 2, 2024.

Statistics Canada (2022a, November). Guide to the Census of Population, 2021 chapter 6 – online questionnaire. Catalogue no. 98-304-X. Retrieved from https://www12.statcan.gc.ca/census-recensement/2021/ref/98-304/2021001/chap6-eng.cfm. Last accessed September 27, 2024.

Statistics Canada (2022b, November). Guide to the Census of Population, 2021 chapter 8 – processing. Catalogue no. 98-304-X. Retrieved from https://www12.statcan.gc.ca/census-recensement/2021/ref/98-304/2021001/chap8-eng.cfm. Last accessed September 2, 2024.

Statistics Canada (2024, June). Gender of person. Retrieved from https://www23.statcan.gc.ca/imdb/p3Var.pl?Function=DEC&Id=410445. Last accessed September 2, 2024.