

## Appendix A: Descriptive Statistics

Table A.1: Descriptive statistics for the province-month sample

|                              | Mean    | SD     | Min    | Median  | Max     |
|------------------------------|---------|--------|--------|---------|---------|
| Ln +1 Patent applications    | 3.187   | 1.400  | 0.000  | 3.178   | 5.714   |
| Ln Full-time employment      | 6.927   | 1.034  | 5.614  | 6.733   | 8.722   |
| Ln Median wage               | 2.945   | 0.193  | 2.487  | 2.956   | 3.411   |
| CPI                          | 118.994 | 12.717 | 93.400 | 119.000 | 148.900 |
| Ln +1 Business insolvencies  | 3.327   | 1.388  | 0.000  | 3.135   | 5.974   |
| Ln Intl. exports             | 14.709  | 1.141  | 12.585 | 14.754  | 16.767  |
| Ln Intl. imports             | 14.543  | 1.204  | 12.453 | 14.274  | 17.340  |
| Ln Retail sales              | 14.864  | 1.028  | 13.312 | 14.691  | 16.902  |
| Ln Wholesale sales           | 14.811  | 1.292  | 12.762 | 14.785  | 17.400  |
| Ln Manufacturing sales       | 14.928  | 1.179  | 13.241 | 14.689  | 17.127  |
| Ln International travellers  | 11.367  | 1.791  | 2.890  | 11.293  | 14.833  |
| Ln Arriving vehicles         |         |        |        | 11.436  | 14.855  |
| Ln Electric power generation | 15.112  | 0.999  | 13.197 | 15.088  | 16.981  |
| Ln Average actual hours      | 3.514   | 0.059  | 3.235  | 3.517   | 3.676   |
| New housing price index      | 87.826  | 17.020 | 42.500 | 94.100  | 129.500 |
| Ln Food services receipts    | 12.638  | 1.107  | 10.911 | 12.462  | 14.766  |
| Ln Average job tenure        | 4.634   | 0.089  | 4.373  | 4.651   | 4.847   |

*Notes:* All statistics based on a balanced panel of  $N = 1,968$  province-monthly observations from January 2001 to June 2021. The sample includes all Canadian provinces except Newfoundland and Labrador, Prince Edward Island, Yukon and Nunavut.

Table A.2: Differences in means between treated and control provinces in province-quarter panel

| Treatment |                                     | Pre     | Post    |
|-----------|-------------------------------------|---------|---------|
| Control   | Ln +1 Patent applications           | 4.122   | 4.059   |
|           | Ln +1 Interested parties            | 5.683   | 5.464   |
|           | Ln +1 Inventors                     | 301.511 | 292.143 |
|           | Ln +1 Applicants                    | 158.663 | 139.122 |
|           | Ln +1 Owners                        | 330.344 | 150.204 |
|           | Ln +1 Total population              | 8.632   | 8.731   |
|           | Ln +1 Foreign patent parties        | 3.405   | 3.189   |
|           | Ln +1 Section A applications        | 2.550   | 2.596   |
|           | Ln +1 Section B applications        | 2.238   | 2.037   |
|           | Ln +1 Section C applications        | 1.464   | 1.306   |
|           | Ln +1 Section D applications        | 0.349   | 0.185   |
|           | Ln +1 Section E applications        | 1.496   | 1.512   |
|           | Ln +1 Section F applications        | 1.618   | 1.417   |
|           | Ln +1 Section G applications        | 1.840   | 1.993   |
|           | Ln +1 Section H applications        | 1.620   | 1.380   |
|           | Ln +1 Multiple section applications | 2.879   | 2.972   |
| Treatment | Ln +1 Patent applications           | 5.379   | 5.254   |
|           | Ln +1 Interested parties            | 6.800   | 6.665   |
|           | Ln +1 Inventors                     | 314.787 | 383.571 |
|           | Ln +1 Applicants                    | 219.607 | 194.810 |
|           | Ln +1 Owners                        | 378.721 | 211.762 |
|           | Ln +1 Total population              | 9.043   | 9.236   |
|           | Ln +1 Foreign patent parties        | 5.650   | 4.750   |
|           | Ln +1 Section A applications        | 2.704   | 2.896   |
|           | Ln +1 Section B applications        | 2.927   | 3.020   |
|           | Ln +1 Section C applications        | 2.632   | 2.633   |
|           | Ln +1 Section D applications        | 0.190   | 0.258   |
|           | Ln +1 Section E applications        | 4.073   | 3.761   |
|           | Ln +1 Section F applications        | 2.510   | 2.406   |
|           | Ln +1 Section G applications        | 3.075   | 2.853   |
|           | Ln +1 Section H applications        | 1.950   | 1.789   |
|           | Ln +1 Multiple section applications | 4.100   | 4.111   |

*Notes:* Calculations based on a balanced panel of  $N = 656$  province-monthly observations from Q12001 to Q2021. The sample includes all Canadian provinces except Newfoundland and Labrador, Prince Edward Island, Yukon and Nunavut. Treatment group is Alberta, and control group is all remaining provinces. Post-intervention periods are those after April 2016 (Q22016).

Table A.3: Differences in means between treated and control provinces in province-month panel

| Treatment |                                     | Pre   | Post  |
|-----------|-------------------------------------|-------|-------|
| Control   | Ln +1 Patent applications           | 3.051 | 2.988 |
|           | Ln +1 Interested parties            | 4.535 | 4.316 |
|           | Ln +1 Inventors                     | 3.603 | 3.609 |
|           | Ln +1 Applicants                    | 3.078 | 3.013 |
|           | Ln +1 Owners                        | 3.633 | 3.084 |
|           | Ln +1 Total population              | 7.533 | 7.632 |
|           | Ln +1 Foreign patent parties        | 2.344 | 2.155 |
|           | Ln +1 Section A applications        | 1.640 | 1.661 |
|           | Ln +1 Section B applications        | 1.388 | 1.272 |
|           | Ln +1 Section C applications        | 0.832 | 0.730 |
|           | Ln +1 Section D applications        | 0.138 | 0.069 |
|           | Ln +1 Section E applications        | 0.842 | 0.836 |
|           | Ln +1 Section F applications        | 0.945 | 0.808 |
|           | Ln +1 Section G applications        | 1.139 | 1.261 |
|           | Ln +1 Section H applications        | 1.035 | 0.828 |
|           | Ln +1 Multiple section applications | 1.923 | 2.004 |
| Treatment | Ln +1 Patent applications           | 4.279 | 4.157 |
|           | Ln +1 Interested parties            | 5.692 | 5.560 |
|           | Ln +1 Inventors                     | 4.607 | 4.835 |
|           | Ln +1 Applicants                    | 4.277 | 4.172 |
|           | Ln +1 Owners                        | 4.799 | 4.253 |
|           | Ln +1 Total population              | 7.944 | 8.138 |
|           | Ln +1 Foreign patent parties        | 4.521 | 3.613 |
|           | Ln +1 Section A applications        | 1.673 | 1.833 |
|           | Ln +1 Section B applications        | 1.888 | 1.988 |
|           | Ln +1 Section C applications        | 1.600 | 1.599 |
|           | Ln +1 Section D applications        | 0.065 | 0.086 |
|           | Ln +1 Section E applications        | 2.982 | 2.669 |
|           | Ln +1 Section F applications        | 1.487 | 1.413 |
|           | Ln +1 Section G applications        | 2.020 | 1.829 |
|           | Ln +1 Section H applications        | 1.039 | 0.898 |
|           | Ln +1 Multiple section applications | 3.009 | 3.019 |

*Notes:* Calculations based on a balanced panel of  $N = 1,968$  province-monthly observations from January 2001 to June 2021. The sample includes all Canadian provinces except Newfoundland and Labrador, Prince Edward Island, Yukon and Nunavut. Treatment group is Alberta, and control group is all remaining provinces. Post-intervention periods are those after April 2016.