**APPENDIX**

Table A1: Industrial taxonomy used in the analysis.

|  |  |
| --- | --- |
| Industry | 2012 NAICS Code |
| Agriculture, Forestry, Fishing, Hunting | 11 |
| Mining, Quarrying, Oil and Gas Extraction | 21 |
| Utilities | 22 |
| Construction | 23 |
| High-Tech Manufacturing | 3241 - Petroleum and coal products manufacturing |
| 3251 - Basic chemical manufacturing |
| 3252 - Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing |
| 3253 - Pesticide, fertilizer, and other agricultural chemical manufacturing |
| 3254 - Pharmaceutical and medicine manufacturing |
| 3259 - Other chemical product and preparation manufacturing |
| 3271 - Clay product and refractory manufacturing |
| 3279 - Other non-metallic mineral product manufacturing |
| 3311 - Iron and steel mills and ferroalloy manufacturing |
| 3313 - Alumina and aluminum production and processing |
| 3315 - Foundries |
| 3331 - Agriculture, construction, and mining machinery manufacturing |
| 3332 - Industrial machinery manufacturing |
| 3333 - Commercial and service industry machinery manufacturing |
| 3336 - Engine, turbine, and power transmission equipment manufacturing |
| 3339 - Other general purpose machinery manufacturing |
| 3341 - Computer and peripheral equipment manufacturing |
| 3342 - Communications equipment manufacturing |
| 3343 - Audio and video equipment manufacturing |
| 3344 - Semiconductor and other electronic component manufacturing |
| 3345 - Navigational, measuring, electro-medical, and control instruments manufacturing |
| 3346 - Manufacturing and reproducing magnetic and optical media |
| 3351 - Electric lighting equipment manufacturing |
| 3352 - Household appliance manufacturing |
| 3353 - Electrical equipment manufacturing |
| 3359 - Other electrical equipment and component manufacturing |
| 3361 - Motor vehicle manufacturing |
| 3362 - Motor vehicle body and trailer manufacturing |
| 3363 - Motor vehicle parts manufacturing |
| 3364 - Aerospace product and parts manufacturing |
| 3365 - Railroad rolling stock manufacturing |
| 3366 - Ship and boat building |
| 3369 - Other transportation equipment manufacturing |
| 3391 - Medical equipment and supplies manufacturing |
| 3399 - Other miscellaneous manufacturing |
| Low-Tech Manufacturing | Four-digit manufacturing sectors not identified as high-tech within the two-digit codes 31 to 33 |
| High-Tech Services | 5112 - Software publishers |
| 5152 - Cable and other subscription programming |
| 5172 - Wireless telecommunications carriers (except satellite) |
| 5174 - Satellite telecommunications |
| 5179 - Other telecommunications |
| 5182 - Data processing, hosting, and related services |
| 5191 - Other information services |
| 5413 - Architectural, engineering, and related services |
| 5415 - Computer systems design and related services |
| 5416 - Management, scientific, and technical consulting services |
| 5417 - Scientific research and development services |
| Low-Tech Services | Four-digit services sectors not identified as high-tech within the two-digit codes 42 to 72 |
| Notes: High-tech manufacturing and services four-digit NAICS sectors are defined following Muro et al. (2018), who use Moody’s Analytics data for the period 1996-2015 on R&D spending and intensity of STEM workers to identify high-tech sectors with respect to American Metropolitan Statistical Areas and States, and Canadian Census Metropolitan Areas and Provinces. | |

Table A2: Data by aggregation level, time period, and source.

|  |  |  |  |
| --- | --- | --- | --- |
| Data | Aggregation Level | Time Period | Source |
| Employment | EA, Sector, Year | 2003-2015 | US Bureau of Labor Statistics |
| Greenfield FDI | EA, Sector, Year | 2003-2014 | *Financial Times* |
| Wages | EA, Sector, Year | 2003-2015 | US Bureau of Labor Statistics |
| Personal Income | EA, Year | 2005-2015 | US Bureau of Economic Analysis |
| Population | EA, Year | 2005-2015 | US Census Bureau |
| Unemployment Rate | EA, Year | 2005-2015 | US Bureau of Labor Statistics |
| Patents | EA, Year | 2003-2013 | Organization for Economic Co-operation and Development |

Table A3: Descriptive statistics of dependent and explanatory variables.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Dependent Variable |  | Mean | Std. Dev. | Min. | Max. |
|  | overall | 8.045 | 2.961 | 0.000 | 15.699 |
|  | between |  | 2.901 | 0.000 | 15.633 |
|  | within |  | 0.598 | 1.767 | 13.393 |
| Key Explanatory Variables |  |  |  |  |  |
|  | overall | 1.145 | 2.452 | 0.000 | 11.029 |
|  | between |  | 2.175 | 0.000 | 10.349 |
|  | within |  | 1.134 | -6.595 | 8.975 |
|  | overall | 0.973 | 2.273 | 0.000 | 10.534 |
|  | between |  | 2.015 | 0.000 | 9.891 |
|  | within |  | 1.053 | -6.997 | 9.347 |
| Control Variables |  |  |  |  |  |
|  | overall | 4.371 | 1.980 | 0.000 | 10.096 |
|  | between |  | 1.860 | 0.592 | 9.339 |
|  | within |  | 0.680 | -0.505 | 8.567 |
|  | overall | 4.615 | 1.329 | 0.000 | 9.415 |
|  | between |  | 1.132 | 1.540 | 8.137 |
|  | within |  | 0.698 | -1.945 | 10.039 |
|  | overall | 1.030 | 2.135 | 0.000 | 9.225 |
|  | between |  | 1.720 | 0.000 | 8.736 |
|  | within |  | 1.265 | -5.330 | 8.314 |
|  | overall | 10.244 | 2.201 | 0.000 | 12.446 |
|  | between |  | 1.819 | 0.000 | 11.922 |
|  | within |  | 1.241 | 0.068 | 20.508 |
|  | overall | 3.586 | 0.168 | 2.892 | 4.287 |
|  | between |  | 0.141 | 3.064 | 4.011 |
|  | within |  | 0.092 | 3.136 | 4.020 |
|  | overall | 4.183 | 1.226 | 0.006 | 7.182 |
|  | between |  | 1.226 | 0.060 | 7.159 |
|  | within |  | 0.028 | 4.036 | 4.338 |
|  | overall | -2.704 | 0.380 | -3.674 | -1.605 |
|  | between |  | 0.249 | -3.425 | -1.982 |
|  | within |  | 0.288 | -3.542 | -2.085 |
|  | overall | 3.944 | 1.067 | 0.000 | 7.121 |
|  | between |  | 1.008 | 1.679 | 6.781 |
|  | within |  | 0.352 | 1.770 | 5.642 |
| Notes: Statistics refer to 179 EAs and 8 industries observed over the period 2005-2015. All variables are log-transformed, except for the fractional explanatory variable capturing unemployment rate, which is defined according to a logistic transformation of the form . | | | | | |

Table A4: Correlation matrix of explanatory variables.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Explanatory Variables |  | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] |
|  | [1] | 1 |  |  |  |  |  |  |  |  |  |
|  | [2] | 0.875 | 1 |  |  |  |  |  |  |  |  |
|  | [3] | 0.328 | 0.243 | 1 |  |  |  |  |  |  |  |
|  | [4] | 0.175 | 0.174 | 0.610 | 1 |  |  |  |  |  |  |
|  | [5] | 0.568 | 0.521 | 0.358 | 0.148 | 1 |  |  |  |  |  |
|  | [6] | 0.140 | 0.138 | 0.190 | 0.099 | 0.127 | 1 |  |  |  |  |
|  | [7] | 0.315 | 0.351 | 0.019 | 0.045 | 0.230 | 0.106 | 1 |  |  |  |
|  | [8] | 0.386 | 0.415 | 0.043 | 0.103 | 0.317 | 0.099 | 0.168 | 1 |  |  |
|  | [9] | 0.059 | 0.066 | 0.027 | 0.085 | 0.108 | 0.056 | -0.105 | 0.228 | 1 |  |
|  | [10] | 0.379 | 0.398 | 0.060 | 0.140 | 0.251 | 0.102 | 0.397 | 0.439 | -0.021 | 1 |
| Notes: Statistics refer to 179 EAs and 8 industries observed over the period 2005-2015. All variables are log-transformed, except for the fractional explanatory variable capturing unemployment rate, which is defined according to a logistic transformation of the form . | | | | | | | | | | | |

Figure A1: Regional distribution of outward ‘greenfield’ FDI.



Notes: Authors’ elaboration on *Financial Times* data. The number of outward FDI is cumulated over the period 2005-2014 by EA.

Figure A2: Regional distribution of jobs created abroad through outward ‘greenfield’ FDI.



Notes: Authors’ elaboration on *Financial Times* data. The number of jobs created abroad through outward FDI is cumulated over the period 2005-2014 by EA.

Figure A3: Temporal dynamics of outward ‘greenfield’ FDI by EA.



Notes: Authors’ elaboration on *Financial Times* data.

Figure A4: Temporal dynamics of jobs created abroad through outward ‘greenfield’ FDI.



Notes: Authors’ elaboration on *Financial Times* data.

Table A5: The short-run link between outward ‘greenfield’ FDI and employment – IV-FE estimates.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Dependent Variable |  | | | | | | |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|  | 0.861\*\*\*\* | 0.204\*\*\*\* | 0.265\*\* | 0.198\*\*\*\* | 0.234\*\* | 0.238\*\* | 0.217\*\* |
|  | (0.064) | (0.056) | (0.117) | (0.056) | (0.104) | (0.116) | (0.104) |
|  | … | … | -0.127 | … | -0.080 | -0.115 | -0.074 |
|  |  |  | (0.141) |  | (0.124) | (0.138) | (0.123) |
|  | … | … | … | … | … | 0.194\*\*\*\* | 0.146\*\*\*\* |
|  |  |  |  |  |  | (0.030) | (0.024) |
|  | … | … | … | … | … | -0.031 | -0.039\* |
|  |  |  |  |  |  | (0.026) | (0.022) |
|  | … | … | … | 0.056\*\*\* | 0.063\*\*\*\* | … | 0.063\*\*\*\* |
|  |  |  |  | (0.018) | (0.014) |  | (0.014) |
|  | … | … | … | 0.382\*\*\*\* | 0.381\*\*\*\* | … | 0.379\*\*\*\* |
|  |  |  |  | (0.012) | (0.012) |  | (0.012) |
|  | … | … | … | 0.508\*\* | 0.543\*\* | … | 0.515\*\* |
|  |  |  |  | (0.215) | (0.211) |  | (0.214) |
|  | … | … | … | 0.794\*\* | 0.753\*\* | … | 0.739\*\* |
|  |  |  |  | (0.328) | (0.317) |  | (0.322) |
|  | … | … | … | -0.112\* | -0.105\* | … | -0.106\* |
|  |  |  |  | (0.063) | (0.063) |  | (0.063) |
|  | … | … | … | 0.003 | 0.003 | … | 0.004 |
|  |  |  |  | (0.020) | (0.020) |  | (0.020) |
| EA Dummies | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry Dummies | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Year Dummies | No | Yes | Yes | Yes | Yes | Yes | Yes |
| No. of Observations | 14,320 | 14,320 | 14,320 | 14,320 | 14,320 | 14,320 | 14,320 |
| No. of EAs | 179 | 179 | 179 | 179 | 179 | 179 | 179 |
| No. of Industries | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| No. of Years | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| R2 | 0.13 | 0.80 | 0.80 | 0.86 | 0.86 | 0.80 | 0.86 |
| Adjusted R2 | 0.13 | 0.79 | 0.79 | 0.86 | 0.86 | 0.80 | 0.86 |
| Model F Statistic [p-value] | 179.74 [0.000] | 13.13 [0.000] | 8.65 [0.000] | 161.86 [0.000] | 142.11 [0.000] | 17.81 [0.000] | 117.98 [0.000] |
| First-Stage F Statistic on excluded IV [p-value]: |  |  |  |  |  |  |  |
|  | 44.56 [0.000] | 45.36 [0.000] | 34.93 [0.000] | 44.83 [0.000] | 33.75 [0.000] | 35.20 [0.000] | 34.04 [0.000] |
|  | … | … | 36.47 [0.000] | … | 35.15 [0.000] | 36.69 [0.000] | 35.38 [0.000] |
| Under-identification Test ( [p-value]) | 88.18 [0.000] | 74.15 [0.000] | 8.50 [0.004] | 65.84 [0.000] | 8.43 [0.004] | 8.59 [0.003] | 8.52 [0.004] |
| H0: Exogenous Variable ( [p-value]) | 32.54 [0.000] | 2.52 [0.112] | 2.83 [0.243] | 2.99 [0.084] | 3.67 [0.160] | 1.87 [0.392] | 2.73 [0.256] |
| Notes: \* p<0.1; \*\* p<0.05; \*\*\* p<0.01; \*\*\*\* p<0.001. Standard errors are reported in parentheses, and are clustered at the EA-industry level. All variables are log-transformed, except for the fractional explanatory variable capturing unemployment rate, which is defined according to a logistic transformation of the form . | | | | | | | |

Table A6: Testing for heterogeneity across industries – FE estimates.

|  |  |  |
| --- | --- | --- |
| Dependent Variable |  | |
|  | (1) | |
|  | -0.114\*\* | (0.057) |
| : |  |  |
| Agriculture, Forestry, Fishing, Hunting | Ref. | |
| Mining, Quarrying, Oil and Gas Extraction | 0.417\*\*\*\* | (0.097) |
| Utilities | 0.070 | (0.088) |
| Construction | 0.114\* | (0.063) |
| Low-Tech Manufacturing | 0.174\*\*\* | (0.061) |
| High-Tech Manufacturing | 0.242\*\*\*\* | (0.061) |
| Low-Tech Services | 0.156\*\*\* | (0.059) |
| High-Tech Services | 0.202\*\*\*\* | (0.060) |
|  | 0.126\*\*\* | (0.045) |
| : |  |  |
| Agriculture, Forestry, Fishing, Hunting | Ref. | | |
| Mining, Quarrying, Oil and Gas Extraction | -0.345\*\*\*\* | (0.076) |
| Utilities | -0.046 | (0.067) |
| Construction | -0.095\* | (0.052) |
| Low-Tech Manufacturing | -0.086\* | (0.052) |
| High-Tech Manufacturing | -0.051 | (0.053) |
| Low-Tech Services | -0.133\*\*\* | (0.051) |
| High-Tech Services | -0.059 | (0.047) |
|  | -0.079\*\*\* | (0.026) |
| : |  |  |
| Agriculture, Forestry, Fishing, Hunting | Ref. | |
| Mining, Quarrying, Oil and Gas Extraction | 0.589\*\*\*\* | (0.084) |
| Utilities | 0.334\*\*\*\* | (0.063) |
| Construction | 0.037 | (0.031) |
| Low-Tech Manufacturing | 0.328\*\*\*\* | (0.083) |
| High-Tech Manufacturing | 0.312\*\* | (0.131) |
| Low-Tech Services | 0.155\*\* | (0.063) |
| High-Tech Services | 0.093 | (0.071) |
|  | 0.001 | (0.025) |
| : |  |  |
| Agriculture, Forestry, Fishing, Hunting | Ref. | |
| Mining, Quarrying, Oil and Gas Extraction | -0.263\*\*\*\* | (0.078) |
| Utilities | -0.055 | (0.077) |
| Construction | 0.066 | (0.050) |
| Low-Tech Manufacturing | 0.222\*\* | (0.089) |
| High-Tech Manufacturing | 0.027 | (0.144) |
| Low-Tech Services | 0.066 | (0.077) |
| High-Tech Services | 0.128 | (0.086) |
|  | 0.066\*\*\*\* | (0.007) |
|  | 0.374\*\*\*\* | (0.012) |
|  | 0.622\*\*\* | (0.215) |
|  | 0.639\*\* | (0.319) |
|  | -0.097 | (0.060) |
|  | 0.004 | (0.020) |
| EA Dummies | Yes | |
| Industry Dummies | Yes | |
| Year Dummies | Yes | |
| No. of Observations | 14,320 | |
| No. of EAs | 179 | |
| No. of Industries | 8 | |
| No. of Years | 10 | |
| R2 | 0.87 | |
| Adjusted R2 | 0.87 | |
| Model F Statistic [p-value] | 579.77 [0.000] | |
| Notes: \* p<0.1; \*\* p<0.05; \*\*\* p<0.01; \*\*\*\* p<0.001. Standard errors are reported in parentheses, and are clustered at the EA-industry level. All variables are log-transformed, except for the fractional explanatory variable capturing unemployment rate, which is defined according to a logistic transformation of the form . | | |

Table A7: Testing for heterogeneity across industries – Marginal effects of FE estimates.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Dependent Variable |  | | | |
| Marginal Effect of: |  |  |  |  |
| Industry |  |  |  |  |
| Agriculture, Forestry, Fishing, Hunting | -0.114\*\* | 0.126\*\*\* | -0.079\*\*\* | 0.001 |
|  | (0.057) | (0.045) | (0.026) | (0.025) |
| Mining, Quarrying, Oil and Gas Extraction | 0.302\*\*\*\* | -0.219\*\*\*\* | 0.510\*\*\*\* | -0.262\*\*\*\* |
|  | (0.079) | (0.058) | (0.081) | (0.071) |
| Utilities | -0.045 | 0.081\* | 0.255\*\*\*\* | -0.053 |
|  | (0.066) | (0.047) | (0.058) | (0.070) |
| Construction | -0.000 | 0.031 | -0.041\* | 0.067\* |
|  | (0.022) | (0.022) | (0.022) | (0.039) |
| Low-Tech Manufacturing | 0.060\*\*\* | 0.040\* | 0.249\*\*\*\* | 0.224\*\*\* |
|  | (0.020) | (0.024) | (0.075) | (0.082) |
| High-Tech Manufacturing | 0.128\*\*\*\* | 0.075\*\*\* | 0.234\* | 0.029 |
|  | (0.022) | (0.029) | (0.126) | (0.142) |
| Low-Tech Services | 0.042\*\*\* | -0.006 | 0.076 | 0.067 |
|  | (0.014) | (0.020) | (0.057) | (0.072) |
| High-Tech Services | 0.088\*\*\*\* | 0.067\*\*\*\* | 0.015 | 0.129\* |
|  | (0.020) | (0.020) | (0.072) | (0.078) |
| Notes: \* p<0.1; \*\* p<0.05; \*\*\* p<0.01; \*\*\*\* p<0.001. Standard errors are reported in parentheses, and are clustered at the EA-industry level. Marginal effects refer to the estimated specification reported in Appendix Table A6. | | | | |

Table A8: Test on mean differences for lagging vs. leading EAs.

|  |  |  |  |
| --- | --- | --- | --- |
| Dimension | Lagging EAs | Leading EAs | P-Value |
| Wages Per Employee | 34.29 | 45.00 | 0.000 |
| Personal Income Per Capita | 34.36 | 41.42 | 0.000 |
| Population Per Square Kilometer | 75.68 | 224.07 | 0.000 |
| Unemployment Rate | 0.07 | 0.07 | 0.824 |
| Patents Per Million Inhabitants | 51.93 | 159.59 | 0.000 |
| Long-Run Population Growth (1969-2014) | 0.61 | 0.92 | 0.021 |
| Number of EAs | 122 | 57 |  |
| Notes: The table reports the mean value of the individual dimensions used to cluster EAs as ‘lagging’ and ‘leading’. The p-values refer to the t-tests on the difference of the means. | | | |

Figure A5: Lagging and leading EAs.



Notes: Authors’ elaboration on data from *Financial Times*, US Bureau of Labor Statistics, US Bureau of Economic Analysis, US Census Bureau, and Organisation for Economic Co-operation and Development. The 179 EAs have been split into two groups of regions with respect to attractiveness for foreign multinational companies, conditions of the local labor market, level of income, degree of urbanization, innovation capacity, and long-run population dynamics. The 122 EAs identified as ‘lagging’ regions are shown in light grey, while the 57 EAs identified as ‘leading’ regions are shown in dark grey.

Table A9: List of EAs by component metropolitan areas and lagging-leading status/rank.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Economic Area | Cluster | Rank | Relative Rank | Performance Index |
| New York-Newark-Bridgeport, NY-NJ-CT-PA | Leading | 1 | 1 | 1.000 |
| San Jose-San Francisco-Oakland, CA | Leading | 2 | 2 | 0.980 |
| Houston-Baytown-Huntsville, TX | Leading | 3 | 3 | 0.740 |
| Washington-Baltimore-Northern Virginia, DC-MD-VA-WV | Leading | 4 | 4 | 0.735 |
| Boston-Worcester-Manchester, MA-NH | Leading | 5 | 5 | 0.732 |
| Seattle-Tacoma-Olympia, WA | Leading | 6 | 6 | 0.650 |
| Chicago-Naperville-Michigan City, IL-IN-WI | Leading | 7 | 7 | 0.639 |
| Philadelphia-Camden-Vineland, PA-NJ-DE-MD | Leading | 8 | 8 | 0.621 |
| San Diego-Carlsbad-San Marcos, CA | Leading | 9 | 9 | 0.613 |
| Hartford-West Hartford-Willimantic, CT | Leading | 10 | 10 | 0.602 |
| Dallas-Fort Worth, TX | Leading | 11 | 11 | 0.585 |
| Austin-Round Rock, TX | Leading | 12 | 12 | 0.584 |
| Denver-Aurora-Boulder, CO | Leading | 13 | 13 | 0.566 |
| Los Angeles-Long Beach-Riverside, CA | Leading | 14 | 14 | 0.542 |
| Detroit-Warren-Flint, MI | Leading | 15 | 15 | 0.519 |
| Atlanta-Sandy Springs-Gainesville, GA-AL | Leading | 16 | 16 | 0.511 |
| Minneapolis-St. Paul-St. Cloud, MN-WI | Leading | 17 | 17 | 0.508 |
| Midland-Odessa, TX | Leading | 18 | 18 | 0.502 |
| Anchorage, AK | Leading | 19 | 19 | 0.484 |
| Minot, ND | Leading | 20 | 20 | 0.478 |
| Cincinnati-Middletown-Wilmington, OH-KY-IN | Leading | 21 | 21 | 0.470 |
| Charlotte-Gastonia-Salisbury, NC-SC | Leading | 22 | 22 | 0.448 |
| Phoenix-Mesa-Scottsdale, AZ | Leading | 23 | 23 | 0.448 |
| Pittsburgh-New Castle, PA | Leading | 24 | 24 | 0.444 |
| Casper, WY | Leading | 25 | 25 | 0.443 |
| Beaumont-Port Arthur, TX | Leading | 26 | 26 | 0.442 |
| New Orleans-Metairie-Bogalusa, LA | Leading | 27 | 27 | 0.442 |
| Portland-Vancouver-Beaverton, OR-WA | Leading | 28 | 28 | 0.441 |
| Richmond, VA | Leading | 29 | 29 | 0.435 |
| St. Louis-St. Charles-Farmington, MO-IL | Leading | 30 | 30 | 0.432 |
| Miami-Fort Lauderdale-Miami Beach, FL | Leading | 31 | 31 | 0.423 |
| Milwaukee-Racine-Waukesha, WI | Leading | 32 | 32 | 0.415 |
| Sacramento-Arden-Arcade-Truckee, CA-NV | Leading | 33 | 33 | 0.412 |
| Kansas City-Overland Park-Kansas City, MO-KS | Leading | 34 | 34 | 0.406 |
| Baton Rouge-Pierre Part, LA | Leading | 35 | 35 | 0.405 |
| Raleigh-Durham-Cary, NC | Leading | 36 | 36 | 0.399 |
| Tampa-St. Petersburg-Clearwater, FL | Leading | 37 | 37 | 0.386 |
| Peoria-Canton, IL | Leading | 38 | 38 | 0.384 |
| Birmingham-Hoover-Cullman, AL | Leading | 39 | 39 | 0.384 |
| Nashville-Davidson-Murfreesboro-Columbia, TN | Leading | 40 | 40 | 0.381 |
| Columbus-Marion-Chillicothe, OH | Leading | 41 | 41 | 0.381 |
| Rochester-Batavia-Seneca Falls, NY | Leading | 42 | 42 | 0.378 |
| Memphis, TN-MS-AR | Leading | 43 | 43 | 0.376 |
| Santa Fe-Espanola, NM | Leading | 44 | 44 | 0.368 |
| Albany-Schenectady-Amsterdam, NY | Leading | 45 | 45 | 0.363 |
| Indianapolis-Anderson-Columbus, IN | Leading | 46 | 46 | 0.362 |
| Reno-Sparks, NV | Leading | 47 | 47 | 0.362 |
| Lafayette-Acadiana, LA | Leading | 48 | 48 | 0.356 |
| Burlington-South Burlington, VT | Leading | 49 | 49 | 0.354 |
| Cleveland-Akron-Elyria, OH | Leading | 50 | 50 | 0.351 |
| Colorado Springs, CO | Leading | 51 | 51 | 0.351 |
| Tulsa-Bartlesville, OK | Leading | 52 | 52 | 0.350 |
| Jacksonville, FL | Leading | 53 | 53 | 0.348 |
| Des Moines-Newton-Pella, IA | Leading | 54 | 54 | 0.342 |
| Louisville-Elizabethtown-Scottsburg, KY-IN | Leading | 55 | 55 | 0.340 |
| Cedar Rapids, IA | Leading | 56 | 56 | 0.339 |
| Las Vegas-Paradise-Pahrump, NV | Leading | 57 | 57 | 0.338 |
| Bismarck, ND | Lagging | 58 | 1 | 0.330 |
| Salt Lake City-Ogden-Clearfield, UT | Lagging | 59 | 2 | 0.325 |
| Honolulu, HI | Lagging | 60 | 3 | 0.324 |
| Omaha-Council Bluffs-Fremont, NE-IA | Lagging | 61 | 4 | 0.322 |
| Grand Rapids-Muskegon-Holland, MI | Lagging | 62 | 5 | 0.322 |
| Davenport-Moline-Rock Island, IA-IL | Lagging | 63 | 6 | 0.318 |
| Farmington, NM | Lagging | 64 | 7 | 0.313 |
| Appleton-Oshkosh-Neenah, WI | Lagging | 65 | 8 | 0.313 |
| Lake Charles-Jennings, LA | Lagging | 66 | 9 | 0.313 |
| Harrisburg-Carlisle-Lebanon, PA | Lagging | 67 | 10 | 0.311 |
| Huntsville-Decatur, AL | Lagging | 68 | 11 | 0.304 |
| Madison-Baraboo, WI | Lagging | 69 | 12 | 0.304 |
| San Antonio, TX | Lagging | 70 | 13 | 0.303 |
| Albuquerque, NM | Lagging | 71 | 14 | 0.301 |
| Wichita-Winfield, KS | Lagging | 72 | 15 | 0.298 |
| Tucson, AZ | Lagging | 73 | 16 | 0.297 |
| South Bend-Mishawaka, IN-MI | Lagging | 74 | 17 | 0.292 |
| Dayton-Springfield-Greenville, OH | Lagging | 75 | 18 | 0.292 |
| Knoxville-Sevierville-La Follette, TN | Lagging | 76 | 19 | 0.289 |
| Orlando-The Villages, FL | Lagging | 77 | 20 | 0.288 |
| Toledo-Fremont, OH | Lagging | 78 | 21 | 0.287 |
| Oklahoma City-Shawnee, OK | Lagging | 79 | 22 | 0.284 |
| Buffalo-Niagara-Cattaraugus, NY | Lagging | 80 | 23 | 0.284 |
| Augusta-Richmond County, GA-SC | Lagging | 81 | 24 | 0.280 |
| Evansville, IN-KY | Lagging | 82 | 25 | 0.278 |
| Charleston-North Charleston, SC | Lagging | 83 | 26 | 0.277 |
| Boise City-Nampa, ID | Lagging | 84 | 27 | 0.276 |
| Greenville-Spartanburg-Anderson, SC | Lagging | 85 | 28 | 0.275 |
| Fayetteville-Springdale-Rogers, AR-MO | Lagging | 86 | 29 | 0.272 |
| Syracuse-Auburn, NY | Lagging | 87 | 30 | 0.269 |
| Virginia Beach-Norfolk-Newport News, VA-NC | Lagging | 88 | 31 | 0.269 |
| Sarasota-Bradenton-Venice, FL | Lagging | 89 | 32 | 0.268 |
| Greensboro-Winston-Salem-High Point, NC | Lagging | 90 | 33 | 0.267 |
| Waterloo-Cedar Falls, IA | Lagging | 91 | 34 | 0.265 |
| Portland-Lewiston-South Portland, ME | Lagging | 92 | 35 | 0.264 |
| Mobile-Daphne-Fairhope, AL | Lagging | 93 | 36 | 0.261 |
| Springfield, IL | Lagging | 94 | 37 | 0.257 |
| Fargo-Wahpeton, ND-MN | Lagging | 95 | 38 | 0.257 |
| Amarillo, TX | Lagging | 96 | 39 | 0.255 |
| Kennewick-Richland-Pasco, WA | Lagging | 97 | 40 | 0.253 |
| Gulfport-Biloxi-Pascagoula, MS | Lagging | 98 | 41 | 0.251 |
| Charleston, WV | Lagging | 99 | 42 | 0.249 |
| Fort Wayne-Huntington-Auburn, IN | Lagging | 100 | 43 | 0.244 |
| Corpus Christi-Kingsville, TX | Lagging | 101 | 44 | 0.236 |
| Columbia-Newberry, SC | Lagging | 102 | 45 | 0.234 |
| Johnson City-Kingsport-Bristol (Tri-Cities), TN-VA | Lagging | 103 | 46 | 0.234 |
| Lexington-Fayette-Frankfort-Richmond, KY | Lagging | 104 | 47 | 0.234 |
| Killeen-Temple-Fort Hood, TX | Lagging | 105 | 48 | 0.233 |
| Roanoke, VA | Lagging | 106 | 49 | 0.230 |
| Little Rock-North Little Rock-Pine Bluff, AR | Lagging | 107 | 50 | 0.227 |
| Shreveport-Bossier City-Minden, LA | Lagging | 108 | 51 | 0.225 |
| Clarksburg, WV and Morgantown, WV | Lagging | 109 | 52 | 0.222 |
| Duluth, MN-WI | Lagging | 110 | 53 | 0.217 |
| Billings, MT | Lagging | 111 | 54 | 0.217 |
| Paducah, KY-IL | Lagging | 112 | 55 | 0.217 |
| Wausau-Merrill, WI | Lagging | 113 | 56 | 0.215 |
| Sioux Falls, SD | Lagging | 114 | 57 | 0.214 |
| Montgomery-Alexander City, AL | Lagging | 115 | 58 | 0.211 |
| Spokane, WA | Lagging | 116 | 59 | 0.208 |
| Abilene, TX | Lagging | 117 | 60 | 0.208 |
| San Angelo, TX | Lagging | 118 | 61 | 0.206 |
| Scranton-Wilkes-Barre, PA | Lagging | 119 | 62 | 0.204 |
| Pensacola-Ferry Pass-Brent, FL | Lagging | 120 | 63 | 0.201 |
| Tallahassee, FL | Lagging | 121 | 64 | 0.200 |
| Savannah-Hinesville-Fort Stewart, GA | Lagging | 122 | 65 | 0.200 |
| Lincoln, NE | Lagging | 123 | 66 | 0.199 |
| Erie, PA | Lagging | 124 | 67 | 0.196 |
| Bend-Prineville, OR | Lagging | 125 | 68 | 0.192 |
| Traverse City, MI | Lagging | 126 | 69 | 0.190 |
| Columbus-Auburn-Opelika, GA-AL | Lagging | 127 | 70 | 0.188 |
| Lubbock-Levelland, TX | Lagging | 128 | 71 | 0.186 |
| Mason City, IA | Lagging | 129 | 72 | 0.181 |
| La Crosse, WI-MN | Lagging | 130 | 73 | 0.179 |
| Macon-Warner Robins-Fort Valley, GA | Lagging | 131 | 74 | 0.177 |
| Jackson-Yazoo City, MS | Lagging | 132 | 75 | 0.175 |
| Champaign-Urbana, IL | Lagging | 133 | 76 | 0.173 |
| Eugene-Springfield, OR | Lagging | 134 | 77 | 0.171 |
| Fort Smith, AR-OK | Lagging | 135 | 78 | 0.168 |
| Topeka, KS | Lagging | 136 | 79 | 0.168 |
| Harrisonburg, VA | Lagging | 137 | 80 | 0.167 |
| Wichita Falls, TX | Lagging | 138 | 81 | 0.166 |
| Dothan-Enterprise-Ozark, AL | Lagging | 139 | 82 | 0.163 |
| Grand Forks, ND-MN | Lagging | 140 | 83 | 0.162 |
| Fresno-Madera, CA | Lagging | 141 | 84 | 0.162 |
| Monroe-Bastrop, LA | Lagging | 142 | 85 | 0.154 |
| State College, PA | Lagging | 143 | 86 | 0.153 |
| Redding, CA | Lagging | 144 | 87 | 0.153 |
| Gainesville, FL | Lagging | 145 | 88 | 0.151 |
| Idaho Falls-Blackfoot, ID | Lagging | 146 | 89 | 0.151 |
| Dover, DE | Lagging | 147 | 90 | 0.148 |
| Bangor, ME | Lagging | 148 | 91 | 0.145 |
| Texarkana, TX-Texarkana, AR | Lagging | 149 | 92 | 0.145 |
| Flagstaff, AZ | Lagging | 150 | 93 | 0.144 |
| Sioux City-Vermillion, IA-NE-SD | Lagging | 151 | 94 | 0.140 |
| Panama City-Lynn Haven, FL | Lagging | 152 | 95 | 0.140 |
| Asheville-Brevard, NC | Lagging | 153 | 96 | 0.137 |
| Pueblo, CO | Lagging | 154 | 97 | 0.137 |
| Tupelo, MS | Lagging | 155 | 98 | 0.136 |
| Marinette, WI-MI | Lagging | 156 | 99 | 0.134 |
| Lewiston, ID-WA | Lagging | 157 | 100 | 0.134 |
| Jonesboro, AR | Lagging | 158 | 101 | 0.133 |
| Helena, MT | Lagging | 159 | 102 | 0.133 |
| Aberdeen, SD | Lagging | 160 | 103 | 0.131 |
| Myrtle Beach-Conway-Georgetown, SC | Lagging | 161 | 104 | 0.130 |
| Joplin, MO | Lagging | 162 | 105 | 0.124 |
| Missoula, MT | Lagging | 163 | 106 | 0.116 |
| Columbia, MO | Lagging | 164 | 107 | 0.116 |
| Scotts Bluff, NE | Lagging | 165 | 108 | 0.110 |
| Cape Girardeau-Jackson, MO-IL | Lagging | 166 | 109 | 0.107 |
| Pendleton-Hermiston, OR | Lagging | 167 | 110 | 0.102 |
| Salina, KS | Lagging | 168 | 111 | 0.101 |
| Twin Falls, ID | Lagging | 169 | 112 | 0.100 |
| Great Falls, MT | Lagging | 170 | 113 | 0.100 |
| Springfield, MO | Lagging | 171 | 114 | 0.098 |
| Alpena, MI | Lagging | 172 | 115 | 0.098 |
| Rapid City, SD | Lagging | 173 | 116 | 0.086 |
| Greenville, NC | Lagging | 174 | 117 | 0.086 |
| Albany, GA | Lagging | 175 | 118 | 0.085 |
| Kearney, NE | Lagging | 176 | 119 | 0.083 |
| El Paso, TX | Lagging | 177 | 120 | 0.076 |
| Wenatchee, WA | Lagging | 178 | 121 | 0.067 |
| McAllen-Edinburg-Pharr, TX | Lagging | 179 | 122 | 0.000 |
| Notes: Authors’ elaboration on data from *Financial Times*, US Bureau of Labor Statistics, US Bureau of Economic Analysis, US Census Bureau, and Organisation for Economic Co-operation and Development. The 179 EAs have been split into two groups of regions with respect to attractiveness for foreign multinational companies, conditions of the local labor market, level of income, degree of urbanization, innovation capacity, and long-run population dynamics. The table lists the 179 EAs from the best to the worst performing region, and reports the grouping cluster, the absolute rank of regions, the relative rank within each grouping cluster, and the synthetic index of performance standardized in the interval . | | | | |

Table A10: Testing for heterogeneity across industries and EAs – FE estimates.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Dependent Variable |  | | | | | | | |
| Cluster of EAs | Lagging Regions | | | | Leading Regions | | | |
|  | (1) | | (2) | | (3) | | (4) | |
|  | 0.093\*\*\*\* | (0.016) | -0.158\*\* | (0.072) | 0.084\*\*\*\* | (0.015) | -0.068 | (0.090) |
| : |  |  |  |  |  |  |  |  |
| Agriculture, Forestry, Fishing, Hunting | … | | Ref. | | … | | Ref. | |
| Mining, Quarrying, Oil and Gas Extraction | … | | 0.320\*\* | (0.138) | … | | 0.448\*\*\*\* | (0.126) |
| Utilities | … | | 0.160 | (0.112) | … | | 0.066 | (0.105) |
| Construction | … | | 0.130\* | (0.076) | … | | 0.065 | (0.097) |
| Low-Tech Manufacturing | … | | 0.204\*\*\* | (0.076) | … | | 0.135 | (0.097) |
| High-Tech Manufacturing | … | | 0.293\*\*\*\* | (0.078) | … | | 0.156 | (0.095) |
| Low-Tech Services | … | | 0.196\*\* | (0.077) | … | | 0.125 | (0.094) |
| High-Tech Services | … | | 0.253\*\*\*\* | (0.076) | … | | 0.150 | (0.093) |
|  | 0.048\*\* | (0.023) | 0.113 | (0.083) | -0.009 | (0.016) | 0.142\*\* | (0.061) |
| : |  |  |  |  |  |  |  |  |
| Agriculture, Forestry, Fishing, Hunting | … | | Ref. | | … | | Ref. | |
| Mining, Quarrying, Oil and Gas Extraction | … | | -0.151 | (0.137) | … | | -0.441\*\*\*\* | (0.087) |
| Utilities | … | | -0.258\*\* | (0.108) | … | | -0.103 | (0.076) |
| Construction | … | | -0.046 | (0.070) | … | | -0.139\*\* | (0.069) |
| Low-Tech Manufacturing | … | | -0.009 | (0.098) | … | | -0.110 | (0.070) |
| High-Tech Manufacturing | … | | -0.030 | (0.093) | … | | -0.070 | (0.068) |
| Low-Tech Services | … | | -0.107 | (0.094) | … | | -0.164\*\* | (0.067) |
| High-Tech Services | … | | -0.038 | (0.079) | … | | -0.129\*\* | (0.063) |
|  | 0.145\*\*\*\* | (0.030) | -0.101\*\*\* | (0.034) | 0.166\*\*\*\* | (0.035) | -0.033 | (0.038) |
| : | … | | Ref. | | … | | Ref. | |
| Agriculture, Forestry, Fishing, Hunting |  |  |  |  |  |  |  |  |
| Mining, Quarrying, Oil and Gas Extraction | … | | 0.571\*\*\*\* | (0.113) | … | | 0.642\*\*\*\* | (0.121) |
| Utilities | … | | 0.351\*\*\*\* | (0.080) | … | | 0.299\*\*\* | (0.107) |
| Construction | … | | 0.036 | (0.039) | … | | 0.033 | (0.047) |
| Low-Tech Manufacturing | … | | 0.357\*\*\*\* | (0.107) | … | | 0.243\*\* | (0.107) |
| High-Tech Manufacturing | … | | 0.482\*\*\* | (0.169) | … | | -0.092 | (0.150) |
| Low-Tech Services | … | | 0.169\*\* | (0.073) | … | | 0.096 | (0.114) |
| High-Tech Services | … | | 0.119 | (0.091) | … | | -0.044 | (0.099) |
|  | -0.016 | (0.029) | 0.017 | (0.033) | -0.095\*\*\* | (0.033) | -0.042 | (0.033) |
| : |  |  |  |  |  |  |  |  |
| Agriculture, Forestry, Fishing, Hunting | … | | Ref. | | … | | Ref. | |
| Mining, Quarrying, Oil and Gas Extraction | … | | -0.204\* | (0.106) | … | | -0.376\*\*\* | (0.115) |
| Utilities | … | | -0.014 | (0.094) | … | | -0.138 | (0.130) |
| Construction | … | | 0.061 | (0.063) | … | | 0.044 | (0.080) |
| Low-Tech Manufacturing | … | | 0.330\*\*\* | (0.116) | … | | 0.072 | (0.127) |
| High-Tech Manufacturing | … | | -0.008 | (0.201) | … | | 0.181 | (0.166) |
| Low-Tech Services | … | | 0.047 | (0.095) | … | | 0.089 | (0.137) |
| High-Tech Services | … | | 0.066 | (0.109) | … | | 0.260\*\* | (0.127) |
|  | 0.071\*\*\*\* | (0.010) | 0.066\*\*\*\* | (0.010) | 0.078\*\*\*\* | (0.013) | 0.061\*\*\*\* | (0.010) |
|  | 0.372\*\*\*\* | (0.013) | 0.367\*\*\*\* | (0.013) | 0.416\*\*\*\* | (0.033) | 0.411\*\*\*\* | (0.034) |
|  | 0.170 | (0.341) | 0.338 | (0.356) | 0.915\*\*\*\* | (0.239) | 0.960\*\*\*\* | (0.253) |
|  | 0.519 | (0.461) | 0.501 | (0.480) | 0.423 | (0.391) | 0.391 | (0.418) |
|  | -0.132\* | (0.078) | -0.137\* | (0.079) | -0.048 | (0.090) | -0.042 | (0.094) |
|  | 0.008 | (0.022) | 0.010 | (0.022) | 0.003 | (0.042) | -0.001 | (0.042) |
| EA Dummies | Yes | | Yes | | Yes | | Yes | |
| Industry Dummies | Yes | | Yes | | Yes | | Yes | |
| Year Dummies | Yes | | Yes | | Yes | | Yes | |
| No. of Observations | 9,760 | | 9,760 | | 4,560 | | 4,560 | |
| No. of EAs | 122 | | 122 | | 57 | | 57 | |
| No. of Industries | 8 | | 8 | | 8 | | 8 | |
| No. of Years | 10 | | 10 | | 10 | | 10 | |
| R2 | 0.85 | | 0.85 | | 0.87 | | 0.88 | |
| Adjusted R2 | 0.85 | | 0.85 | | 0.87 | | 0.88 | |
| Model F Statistic [p-value] | 92.93 [0.000] | | 438.82 [0.000] | | 23.48 [0.000] | | 227.35 [0.000] | |
| Notes: \* p<0.1; \*\* p<0.05; \*\*\* p<0.01; \*\*\*\* p<0.001. Standard errors are reported in parentheses, and are clustered at the EA-industry level. All variables are log-transformed, except for the fractional explanatory variable capturing unemployment rate, which is defined according to a logistic transformation of the form . | | | | | | | | |

Table A11: Testing for heterogeneity across industries and regions – Marginal effects of FE estimates.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Dependent Variable |  | | | |
| Cluster of EAs | Lagging Regions | | | |
| Marginal Effect of: |  |  |  |  |
| Industry |  |  |  |  |
| Agriculture, Forestry, Fishing, Hunting | -0.158\*\* | 0.113 | -0.101\*\*\* | 0.017 |
|  | (0.072) | (0.083) | (0.034) | (0.033) |
| Mining, Quarrying, Oil and Gas Extraction | 0.162 | -0.039 | 0.470\*\*\*\* | -0.187\* |
|  | (0.115) | (0.108) | (0.108) | (0.097) |
| Utilities | 0.001 | -0.146\*\* | 0.250\*\*\*\* | 0.003 |
|  | (0.088) | (0.070) | (0.073) | (0.083) |
| Construction | -0.028 | 0.067 | -0.064\*\* | 0.078 |
|  | (0.033) | (0.042) | (0.027) | (0.049) |
| Low-Tech Manufacturing | 0.046\* | 0.104\*\* | 0.256\*\*\* | 0.347\*\*\* |
|  | (0.024) | (0.044) | (0.097) | (0.107) |
| High-Tech Manufacturing | 0.135\*\*\*\* | 0.083\*\* | 0.381\*\* | 0.009 |
|  | (0.030) | (0.040) | (0.163) | (0.200) |
| Low-Tech Services | 0.038\*\* | 0.006 | 0.068 | 0.064 |
|  | (0.018) | (0.035) | (0.067) | (0.089) |
| High-Tech Services | 0.094\*\*\*\* | 0.075\*\* | 0.018 | 0.083 |
|  | (0.027) | (0.031) | (0.094) | (0.099) |
| Cluster of EAs | Leading Regions | | | |
| Marginal Effect of: |  |  |  |  |
| Industry |  |  |  |  |
| Agriculture, Forestry, Fishing, Hunting | -0.068 | 0.142\*\* | -0.033 | -0.042 |
|  | (0.090) | (0.061) | (0.038) | (0.033) |
| Mining, Quarrying, Oil and Gas Extraction | 0.381\*\*\*\* | -0.299\*\*\*\* | 0.609\*\*\*\* | -0.417\*\*\*\* |
|  | (0.089) | (0.059) | (0.117) | (0.105) |
| Utilities | -0.002 | 0.039 | 0.266\*\*\* | -0.180 |
|  | (0.054) | (0.044) | (0.102) | (0.121) |
| Construction | -0.002 | 0.003 | -0.000 | 0.002 |
|  | (0.025) | (0.025) | (0.036) | (0.064) |
| Low-Tech Manufacturing | 0.067\*\* | 0.032 | 0.210\*\* | 0.030 |
|  | (0.033) | (0.035) | (0.094) | (0.116) |
| High-Tech Manufacturing | 0.088\*\*\* | 0.072\*\* | -0.125 | 0.139 |
|  | (0.034) | (0.035) | (0.143) | (0.161) |
| Low-Tech Services | 0.057\*\*\* | -0.022 | 0.063 | 0.048 |
|  | (0.022) | (0.029) | (0.104) | (0.129) |
| High-Tech Services | 0.082\*\*\* | 0.013 | -0.077 | 0.218\* |
|  | (0.030) | (0.027) | (0.098) | (0.116) |
| Notes: \* p<0.1; \*\* p<0.05; \*\*\* p<0.01; \*\*\*\* p<0.001. Standard errors are reported in parentheses, and are clustered at the EA-industry level. Marginal effects for lagging regions refer to specification (2) in Appendix Table A10, while marginal effects for leading regions refer to specification (4) in Appendix Table A10. | | | | |

Table A12: Number of jobs created abroad through outward FDI by clustering region, industry, and type of economic activity.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Cluster of EAs | Lagging Regions | | | | | | | | | | | |
| Industry | Economic Activity | | | | | | | | | | | |
| Headquarter | | Innovation | | Production | | Logistics | | Sales | | Total | |
| No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| Agriculture, Forestry, Fishing, Hunting | 0 | 0.00 | 84 | 1.23 | 6,732 | 98.44 | 0 | 0.00 | 23 | 0.34 | 6,839 | 100.00 |
| Mining, Quarrying, Oil and Gas Extraction | 0 | 0.00 | 0 | 0.00 | 7,023 | 95.56 | 29 | 0.39 | 297 | 4.04 | 7,349 | 100.00 |
| Utilities | 94 | 1.91 | 0 | 0.00 | 4,778 | 97.00 | 0 | 0.00 | 54 | 1.10 | 4,926 | 100.00 |
| Construction | 232 | 1.39 | 30 | 0.18 | 16,292 | 97.93 | 0 | 0.00 | 82 | 0.49 | 16,636 | 100.00 |
| Low-Tech Manufacturing | 2,771 | 3.79 | 1,482 | 2.03 | 56,103 | 76.76 | 3,372 | 4.61 | 9,363 | 12.81 | 73,091 | 100.00 |
| High-Tech Manufacturing | 5,149 | 4.12 | 9,026 | 7.22 | 96,969 | 77.58 | 3,586 | 2.87 | 10,262 | 8.21 | 124,992 | 100.00 |
| Low-Tech Services | 7,445 | 3.08 | 1,056 | 0.44 | 29,726 | 12.31 | 19,786 | 8.19 | 183,547 | 75.98 | 241,560 | 100.00 |
| High-Tech Services | 8,064 | 29.72 | 7,290 | 26.87 | 4,989 | 18.39 | 0 | 0.00 | 6,788 | 25.02 | 27,131 | 100.00 |
| Total | 23,755 | 4.73 | 18,968 | 3.77 | 222,612 | 44.30 | 26,773 | 5.33 | 210,416 | 41.87 | 502,524 | 100.00 |
| Cluster of EAs | Leading Regions | | | | | | | | | | | |
| Industry | Economic Activity | | | | | | | | | | | |
| Headquarter | | Innovation | | Production | | Logistics | | Sales | | Total | |
| No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| Agriculture, Forestry, Fishing, Hunting | 0 | 0.00 | 463 | 4.31 | 10,034 | 93.38 | 121 | 1.13 | 127 | 1.18 | 10,745 | 100.00 |
| Mining, Quarrying, Oil and Gas Extraction | 4,842 | 4.65 | 1,196 | 1.15 | 93,604 | 89.90 | 402 | 0.39 | 4,076 | 3.91 | 104,120 | 100.00 |
| Utilities | 784 | 1.70 | 4,188 | 9.09 | 37,602 | 81.58 | 420 | 0.91 | 3,100 | 6.73 | 46,094 | 100.00 |
| Construction | 2,421 | 0.87 | 74 | 0.03 | 271,078 | 97.14 | 4,955 | 1.78 | 530 | 0.19 | 279,058 | 100.00 |
| Low-Tech Manufacturing | 19,407 | 3.27 | 22,230 | 3.75 | 444,513 | 74.96 | 25,493 | 4.30 | 81,337 | 13.72 | 592,980 | 100.00 |
| High-Tech Manufacturing | 75,754 | 4.27 | 222,886 | 12.56 | 1,258,278 | 70.90 | 35,706 | 2.01 | 182,097 | 10.26 | 1,774,721 | 100.00 |
| Low-Tech Services | 283,756 | 20.00 | 26,828 | 1.89 | 327,199 | 23.06 | 174,289 | 12.28 | 606,754 | 42.76 | 1,418,826 | 100.00 |
| High-Tech Services | 188,379 | 22.59 | 347,510 | 41.68 | 74,361 | 8.92 | 2,247 | 0.27 | 221,273 | 26.54 | 833,770 | 100.00 |
| Total | 575,343 | 11.37 | 625,375 | 12.36 | 2,516,669 | 49.73 | 243,633 | 4.81 | 1,099,294 | 21.72 | 5,060,314 | 100.00 |
| Notes: Percentage values are defined on row totals. The 179 EAs have been split into two groups of regions with respect to attractiveness for foreign multinational companies, conditions of the local labor market, level of income, degree of urbanization, innovation capacity, and long-run population dynamics. Economic activities are defined following the taxonomy on Global Value Chain (GVC) stages adopted by Crescenzi et al. (2014). The five types of economic activities have been defined by aggregating narrower business activities available in the *fDi Markets* database: “Headquarter” includes “headquarters”, “business services”, and “shared services centers”; “Innovation” includes “research and development”, “design, development and testing”, and “education and training”; “Production” includes “manufacturing”, “construction”, “extraction”, “electricity”, and “ICT and Internet infrastructure”; “Logistics” refers to “logistics, distribution and transportation”; “Sales” includes “sales, marketing and support”, “retail”, “technical support centers”, “maintenance and servicing”, “customer contact centers”, and “recycling”. | | | | | | | | | | | | |

Table A13: Average firm-level Herfindahl-Hirschman Index by industry and cluster of EAs.

|  |  |  |  |
| --- | --- | --- | --- |
| Industry | Cluster of EAs | |  |
| Lagging Regions | Leading Regions | Mean Value |
| Agriculture, Forestry, Fishing, Hunting | 0.91 | 0.91 | 0.91 |
| Mining, Quarrying, Oil and Gas Extraction | 0.79 | 0.59 | 0.69 |
| Utilities | 0.96 | 0.54 | 0.75 |
| Construction | 0.85 | 0.63 | 0.74 |
| Low-Tech Manufacturing | 0.62 | 0.32 | 0.47 |
| High-Tech Manufacturing | 0.60 | 0.22 | 0.41 |
| Low-Tech Services | 0.75 | 0.30 | 0.53 |
| High-Tech Services | 0.65 | 0.23 | 0.44 |
| Mean Value | 0.77 | 0.47 | 0.62 |
| Notes: The table reports mean values. The 179 EAs have been split into two groups of regions with respect to attractiveness for foreign multinational companies, conditions of the local labor market, level of income, degree of urbanization, innovation capacity, and long-run population dynamics. The firm-level Herfindahl-Hirschman Index (HHI) is calculated by industry and EA considering the cumulated number of outward ‘greenfield’ FDI realized during the period 2005-2014, and then averaged by industry over clusters of EAs. | | | |

Table A14: Top five outward-investing companies from lagging and leading EAs.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Parent Company | EA of Origin | | Outward FDI | | | |
| Name | Cluster | No. | Yearly Average No. | Average Monetary Value | Average No. of Jobs |
| Wal-Mart | Fayetteville-Springdale-Rogers, AR-MO | Lagging | 310 | 31.00 | 435.72 | 3,132.04 |
| VF Corporation | Greensboro-Winston-Salem-High Point, NC | Lagging | 116 | 11.60 | 70.70 | 404.68 |
| Berkshire Hathaway | Omaha-Council Bluffs-Fremont, NE-IA | Lagging | 53 | 5.30 | 33.79 | 177.00 |
| Archer Daniels Midland | Springfield, IL | Lagging | 47 | 4.70 | 130.22 | 170.29 |
| Deere & Company | Davenport-Moline-Rock Island, IA-IL | Lagging | 47 | 5.88 | 124.21 | 489.11 |
| IBM | New York-Newark-Bridgeport, NY-NJ-CT-PA | Leading | 467 | 46.70 | 198.87 | 1,194.90 |
| General Electric (GE) | New York-Newark-Bridgeport, NY-NJ-CT-PA | Leading | 353 | 35.30 | 281.48 | 764.00 |
| Microsoft | Seattle-Tacoma-Olympia, WA | Leading | 247 | 24.70 | 246.99 | 801.70 |
| Hewlett-Packard (HP) | San Jose-San Francisco-Oakland, CA | Leading | 235 | 23.50 | 140.67 | 901.73 |
| Citigroup | New York-Newark-Bridgeport, NY-NJ-CT-PA | Leading | 221 | 22.10 | 373.54 | 780.24 |
| Notes: The top five parent companies in lagging and leading EAs have been selected according to the total number of outward ‘greenfield’ FDI realized. Monetary values of outward FDI are expressed in millions of US Dollar. Percentage values for industry and function rankings are defined on the total number of outward FDI realized by each individual parent company. LTM stands for “Low-Tech Manufacturing”; HTM stands for “High-Tech Manufacturing”; LTS stands for “Low-Tech Services”; HTS stands for “High-Tech Services”. It is worth noting that Archer Daniels Midland has moved its headquarter from Decatur to Chicago in 2014, while General Electric (GE) has moved its headquarter from Fairfield County to Boston in 2016. | | | | | | |

Table A14 – Continued.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Parent Company | Industry | | Function | | |
| First (%) | Second (%) | First (%) | Second (%) | Third (%) |
| Wal-Mart | LTS (92.58) | LTM (2.26) | Sales (78.39) | Logistics (14.52) | Production (2.90) |
| VF Corporation | LTS (81.03) | LTM (18.97) | Sales (97.41) | Headquarter (1.72) | Logistics (0.86) |
| Berkshire Hathaway | HTM (41.51) | LTM (30.19) | Sales (54.72) | Production (22.64) | Logistics (9.43) |
| Archer Daniels Midland | LTM (76.60) | Utilities (19.15) | Production (53.19) | Sales (17.02) | Logistics (14.89) |
| Deere & Company | HTM (95.74) | LTS (4.26) | Production (63.83) | Logistics (14.89) | Innovation (8.51) |
| IBM | HTS (89.08) | HTM (8.78) | Innovation (42.18) | Sales (30.19) | Production (16.49) |
| General Electric (GE) | HTM (61.47) | LTS (20.11) | Production (35.41) | Innovation (22.10) | Sales (20.40) |
| Microsoft | HTS (91.09) | HTM (5.67) | Innovation (61.54) | Sales (21.46) | Production (9.31) |
| Hewlett-Packard (HP) | HTM (51.91) | HTS (45.53) | Sales (42.13) | Innovation (29.36) | Production (17.02) |
| Citigroup | LTS (93.21) | HTS (6.33) | Headquarter (90.95) | Innovation (6.79) | Sales (1.81) |
| Notes: The top five parent companies in lagging and leading EAs have been selected according to the total number of outward ‘greenfield’ FDI realized. Monetary values of outward FDI are expressed in millions of US Dollar. Percentage values for industry and function rankings are defined on the total number of outward FDI realized by each individual parent company. LTM stands for “Low-Tech Manufacturing”; HTM stands for “High-Tech Manufacturing”; LTS stands for “Low-Tech Services”; HTS stands for “High-Tech Services”. It is worth noting that Archer Daniels Midland has moved its headquarter from Decatur to Chicago in 2014, while General Electric (GE) has moved its headquarter from Fairfield County to Boston in 2016. | | | | | |

**References, Appendix**

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