Impact of OPT policy on international students’ decisions to major in STEM Economics

Khaliun Battogtokh

Motivation

• In 2016, Department of Homeland Security announced international STEM students can extend their Optional Training Program (OPT) by 2 years; this is in addition to the regular OPT time of 12 months.
• In response to this policy, universities are reclassifying their economics degrees to STEM degrees to allow their international graduates to benefit from the additional 2 years of work experience.

Data

• Student completion data by major- Integrated Postsecondary Education Data System (IPEDS)
• Sample of 127 universities were collected from 2002 to 2020.
• Variables of interest: degree completion for both domestic and international students

Event Study - difference in difference

Regression Results

<table>
<thead>
<tr>
<th>DV: Proportion of STEM Economics students</th>
<th>TotalEconCompletionProp</th>
</tr>
</thead>
<tbody>
<tr>
<td>international</td>
<td>0.006***</td>
</tr>
<tr>
<td>treatment</td>
<td>0.004</td>
</tr>
<tr>
<td>time-trend</td>
<td>0.001***</td>
</tr>
<tr>
<td>international*treatment</td>
<td>0.015***</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.199***</td>
</tr>
</tbody>
</table>

Conclusion

• 1 unit increase in the proportion of STEM economics students increases international STEM economics graduates by 0.9%.
• After the extension of OPT, percentage of international students completing STEM economics degree increased by 1.5% for each unit increase in Y.

Discussion and Future Research

• Adding more control variables, such as university characteristics and the year a university adopted STEM economics degree, would increase the adjusted $R^2$ in the model.
• It would be interesting to compare the labor outcomes of international students staying in the U.S. for 3 years vs 1 year.

Method

• A simple linear regression comparing pre vs post completion of STEM economics degree for domestic and international students is used.
• Dependent variable ($Y$): proportion of STEM economics students
• Independent variables:
  - International=1, international student STEM Economics degree completion
  - 0, domestic student STEM Economics degree completion
  - Treatment=1, if survey year > 2016
  - 0, otherwise

Contact Information

Email: kbatnogtokh2@huskers.unl.edu