

# Jacob Toner Gosselin

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## Education

<b>Northwestern University</b>	Evanston, IL
PhD Candidate in Economics	2022-
Committee: Lawrence Christiano (Chair), Alireza Tahbaz-Salehi, Benjamin Jones, and Kunal Sangani	
<b>Northwestern University</b>	Evanston, IL
MA in Economics	2022-2024
<b>The University of Chicago</b>	Chicago, IL
BA with Honors in Economics, BS in Mathematics, minor in Creative Writing	2015-2019

## Research Experience

Research Assistant, Professor Vivek Bhattacharya, Northwestern University	2024
Research Assistant, Professor Seema Jayachandran, Northwestern University	2020-2022

## Teaching Experience

Industrial Organization (Graduate), Professor Gaston Illanes, Northwestern University	2024
Health Economics, Professor Frank Limbrock, Northwestern University	2024
International Finance, Professor Richard Walker, Northwestern University	2024
International Finance, Professor Lawrence Christiano, Northwestern University	2023

## Fellowships and Awards

Distinguished Teaching Assistant Award, Northwestern University	2024
Graduate Student Fellowship, Northwestern University	2022-2025

## Working Papers

### **Sector-Specific Substitution and the Effect of Sectoral Shocks**

How a shock to an individual sector propagates to the prices of other sectors and aggregates to GDP depends on how easily sectoral goods can be substituted in production, which is determined by the intermediate input substitution elasticity. Past estimates of this parameter in the US have been restrictive: they have assumed a common elasticity across industries, and have ignored the use of imports in production. This paper uses a novel empirical strategy to produce new estimates without these restrictions, by exploiting variation in import ratios and in input expenditure shares within industries rather than across industries. I find that sectors differ meaningfully in their ability to substitute inputs in production, and that the uniform estimate of the intermediate input substitution elasticity is biased downwards relative to the median sector-specific estimate. Relative to imposing the uniform elasticity, sector-specific substitution causes domestic prices to rise more in response to oil import shocks and less in response to semiconductor import shocks. It also implies the average GDP response to a sectoral business cycle is 0.35% higher, making sectoral business cycles 17.7% less costly.

## Technical Skills, Language Skills, and Interests

**Programming Languages:** Experienced in Python, Matlab, Julia, **R**, Stata, L<sup>A</sup>T<sub>E</sub>X, and Git for version control.  
**Languages:** English (Native), Spanish (Basic)  
**Volunteering:** Former AmeriCorps VISTA; volunteer tutor with Chicago Peace Corps throughout college.  
**Interests:** Running (doing it and watching it); Basketball(just watching it, mostly NBA but some college).