

# Presenting difference-in-difference-in-differences?

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from the paper

“Creativity at the knowledge frontier:  
The impact of specialization in fast-and slow-paced domains”

# Main predictions

***H1: As the pace of change in a domain accelerates, the creative performance of specialists relative to generalists increases.***

***H2: As the pace of change in a domain accelerates, generalists are likely to experience a decline in their creative performance. The reverse occurs for specialists.***

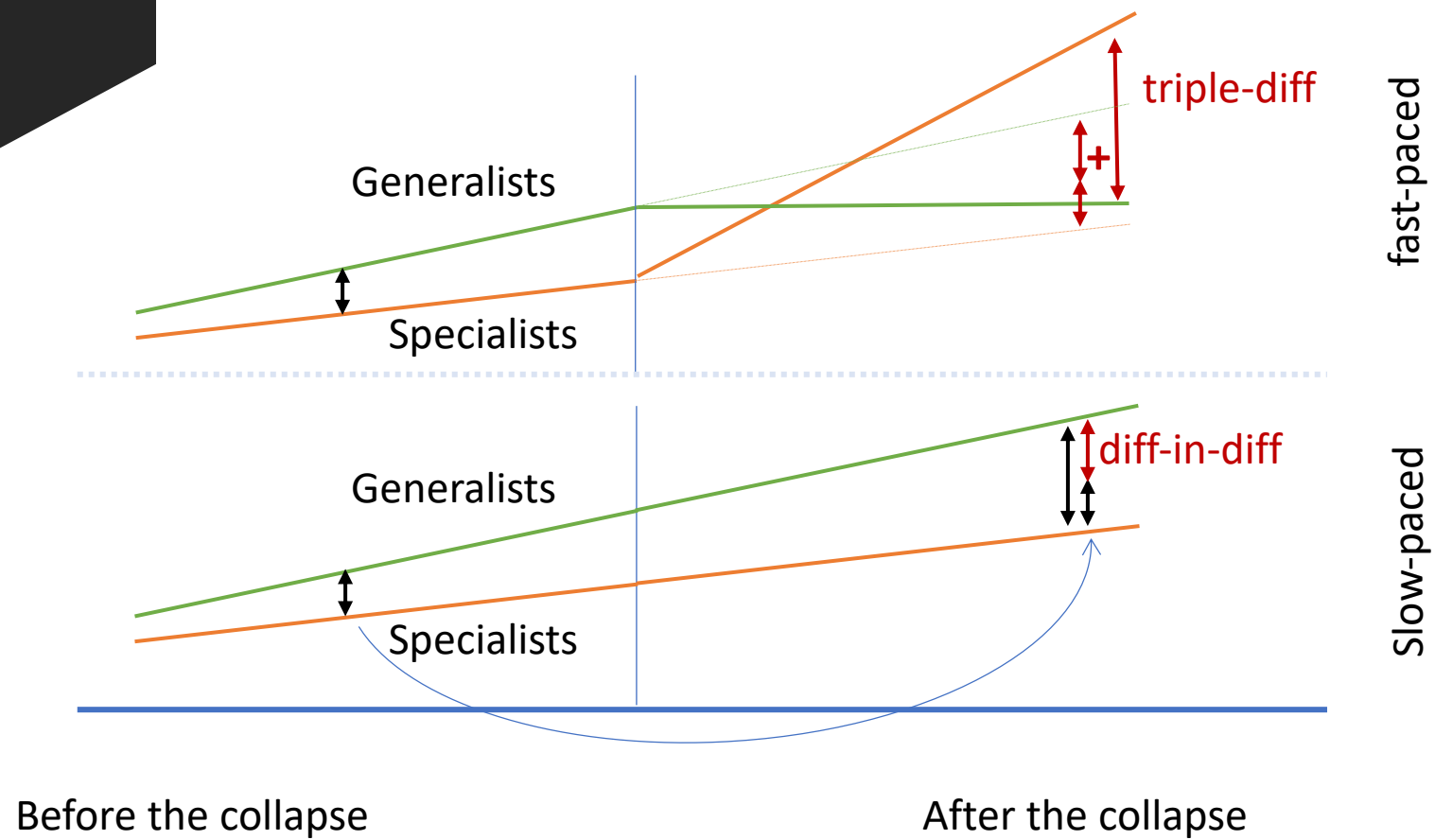
# Empirical design

- Collapse of the Soviet Union as an exogenous shock to theoretical mathematics
  - Some areas experienced big shifts in knowledge frontier
  - Some areas experienced small shifts
- Comparing specialists and generalists, before and after the shock in fast-paced vs. slow-paced areas

**Three diff-in-diffs (DID) and one diff-in-diff-in-diffs**

# The full picture

## Problem: Too confusing



# Breaking it down

## Problems:

Still confusing; but better  
Not elegant

Figure 1a

Specialists vs. generalists in slow-paced areas

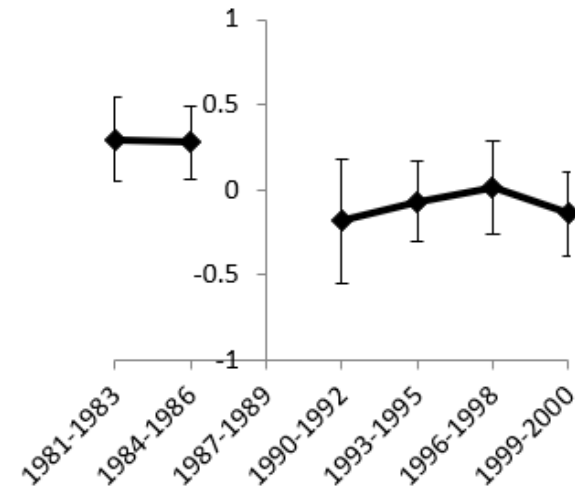


Figure 1b

Specialists vs. generalists in fast-paced areas vs baseline

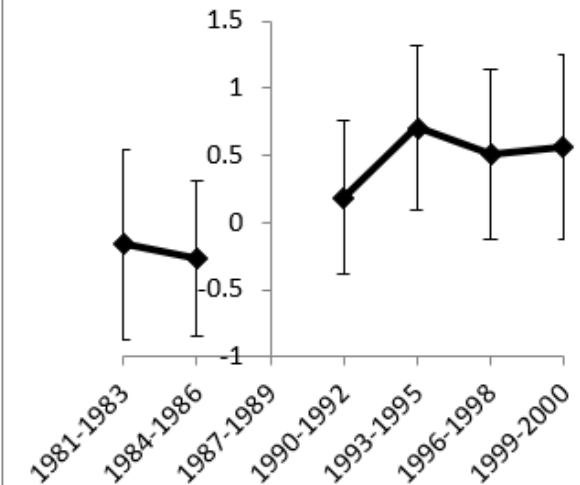


Figure 1c

Generalists in fast-paced vs. Generalists in slow-paced areas

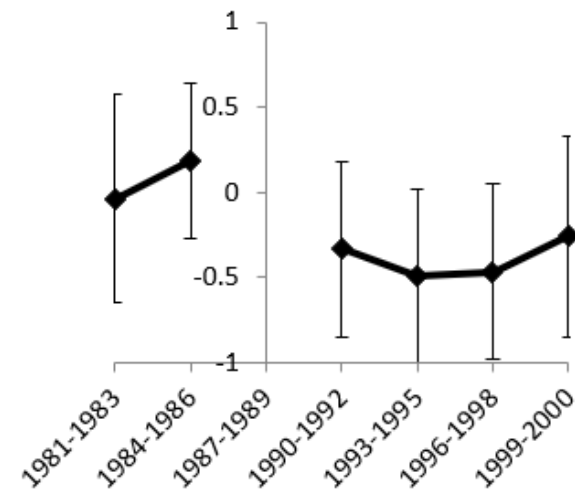
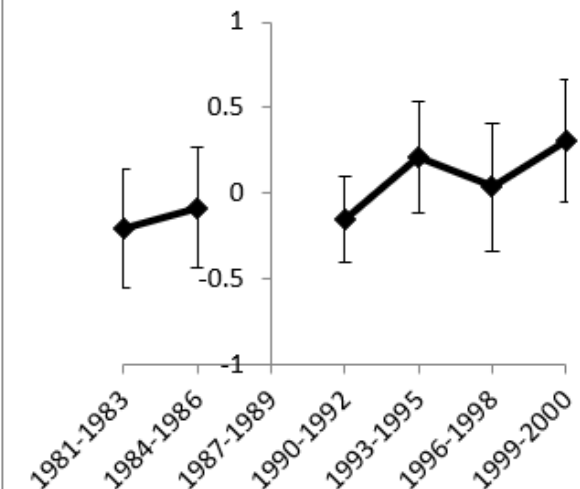


Figure 1d

Specialists in fast-paced vs. Generalists in slow-paced areas



# Solution

Normalizing the pre-shock period

Only showing the differences between specialists and generalists post-shock in fast-paced vs. slow-paced domains

No more post vs. pre -> back to DID

