The Dark Side of Technological Progress? 
Impact of E-Commerce on Employees at 
Brick-and-Mortar Retailers 
(Chava et al. 2018)

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Retailers are closing brick-and-mortar stores, despite better economy

Often attributed to the growth of online shopping

Toys R Us says a 'perfect storm' killed the toy chain – and it blames Amazon, Walmart, and Target
Background

(a) Toys R Us

(b) Amazon
Background

(c) Sam’s Club

(d) Amazon
Meanwhile in Singapore...

(e) :D

(f) D:
Overview

- Amazon expands FC (Fulfillment Centers) - better services
- What is the effect of faster delivery on the retail workers?
- What is the effect of faster delivery on the retail business?
Overview

- Amazon’s impact on retail workers
  - Credit bureau data
- Amazon’s impact on retail business
  - Establishment level data, county level employment
- Standard diff-in-diff regressions
  - Detailed analysis and robustness tests through 17 tables
Results

- Workers
  - Part-time, hourly, young & old workers most affected
  - Salaried, middle-aged worked less affected

- Businesses
  - Less sales, less employment, more exits, less entry

- Address concerns about confounding economic factors
  - Control for state-time trends - effect still exists
  - Look at full service restaurants - No effect
Comments

- Endogeneity of treatment
  - Amazon probably selects FC locations that have large markets with high sales growth - Cost reduction and customer satisfaction
  - Addressed in the paper by parallel trends on income, retail sales growth during 2000-2010
    - Why is there a parallel trend in income before treatment? If Amazon selects locations where it is growing, there could be some pre-trend, which can be accelerated by the FC
    - Maybe Amazon sales need to reach certain size before traditional retailers get in trouble - and this threshold could be correlated to when Amazon sets up FC
    - Use establishment level sales data to look at parallel trends within the sample period
  - A detailed analysis on why Amazon established a FC in each location at each time - timing of some locations may be more random than others
• Size of treatment effect
  • Salience of delivery time reduction to customers
  • What is the reduction in delivery time
• Change in wages for restaurant workers, both full-service and fastfood
• Hazard analysis for store exits
Looking at Customer Expenditures

- Using consumption-transaction data
  - Select three counties
    - Fulton GA, Hamilton TN, Hillsborough FL
  - Simple summation of expenditures at Walmart and Amazon for households living in the three counties
  - No adjustments
(g) Walmart

(h) Amazon
Really interesting and very important paper!