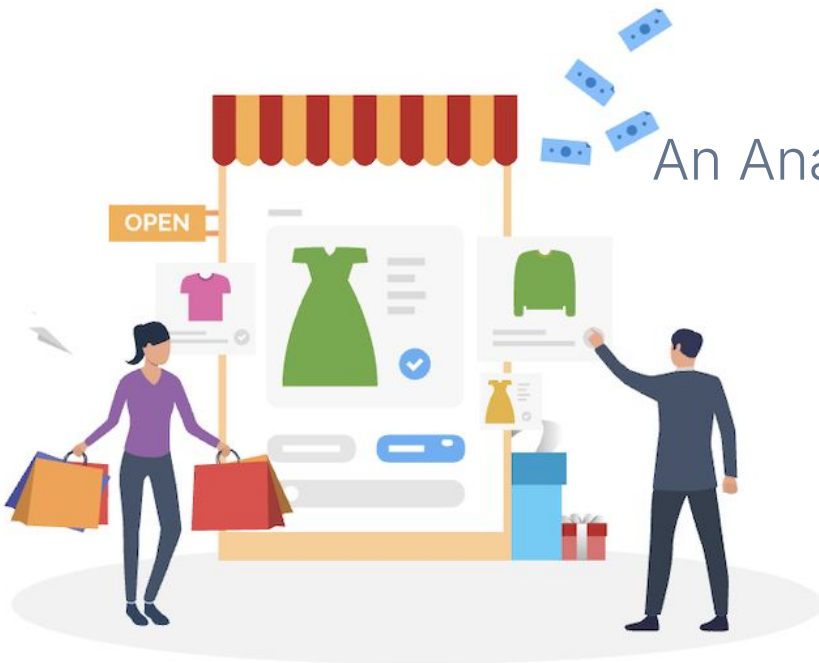# The Impact of Major Life Events on Online Consumer Spending

An Analysis of Amazon Purchase Behavior & Policy Implications

Background & Data Set Introduction

Contextual Factors Matter

Previous research demonstrates that external shocks, such as the COVID-19 pandemic, significantly shift consumer purchasing choices and channel preferences (Gigliotti & Rizzi, 2023).

Research Question

Building on this, we investigate whether specific individual life events—such as Job Loss, Divorce, and Moving—drive similar shifts towards online platforms like Amazon.

Data Set

Dataset: Berke et al. (2023) records of 13,677 Amazon users.

- Survey: demographics, indicator of important life events
- Purchase: purchase price per unit, quantity
- Joined two data sets by survey response ID
- created total spending variable

Data Manipulation

Experience of Life Events in 2021

- Job Loss

- Divorce

- Have babies

- Moved

- Pregnancy

5 Binary variables, 1 for those who have the experience in 2021, 0 for those who not

Recoding Rule (yearly level)

Events: Job Loss and Moved

- Recoding Rule:
  - 2020: Indicator 0 (Pre-event year)
  - 2021: Indicator 1 (Year the event occurred)
  - 2022: Indicator 0 (Reset to 0, assuming the direct effect/has passed)

Events: Babies, Pregnancy, Divorce

  - 2022: Indicator 1 (long-lasting effect）

Method

Two-Way Fixed-Effects Model

$$\log(\text{Total Spending})_{it} = \beta_0 + \beta_1 \text{LostJob}_{it} + \beta_2 \text{Divorce}_{it} + \beta_3 \text{Moved}_{it} + \beta_4 \text{Pregnant}_{it} + \beta_5 \text{HadChild}_{it} + \alpha_i + \gamma_t + \varepsilon_{it}$$

Individual Fixed Effects (Survey Response ID)

- Control for all time-invariant, unobserved characteristics specific to each individual

Year Fixed Effects (Order Year)

- Control for all time-specific shocks that are common to all individuals (e.g., general economic trends, pandemic effects)

Cluster standard error at State level (Model 2)

- Potential geographic correlations in consumer behavior and ensure more robust inference

Results

Table 3: Fixed Effect Model Result

	Model 1: Fixed Effects	Model 2: Clustered SEs (State)
Lost Job	0.116***	0.116***
	(0.039)	(0.039)
Divorce	0.204*	0.204*
	(0.110)	(0.108)
Moved	0.028	0.028
	(0.031)	(0.022)
Pregnant	-0.050	-0.050
	(0.079)	(0.091)
Had Child	0.100	0.100
	(0.076)	(0.068)
Num.Obs.	13677	13677
R2	0.812	0.812
R2 Adj.	0.719	0.719
R2 Within	0.002	0.002
R2 Within Adj.	0.001	0.001
Std.Errors	IID	by: State
FE: Survey.ResponseID	X	X
FE: Order.Year	X	X

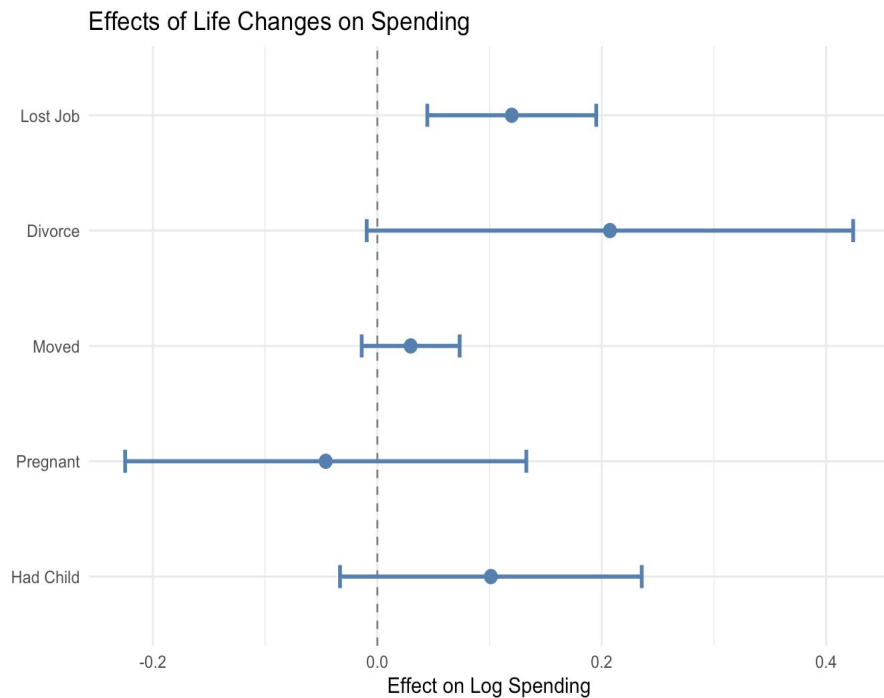$p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Standard errors in parentheses.

Coefficients reported as changes in log spending.

Model 1: Fixed effects with Survey.ResponseID and Order.Year

Model 2: Fixed effects with Survey.ResponseID and Order.Year, Standard errors clustered at the State level

Finding 1: Job Loss & Financial Pressure

Effects of Life Changes on Spending

Job Loss Drives Online Consumption

The analysis reveals a statistically significant increase of **12%** in Amazon spending ($p<0.05$) in the year an individual loses their job.
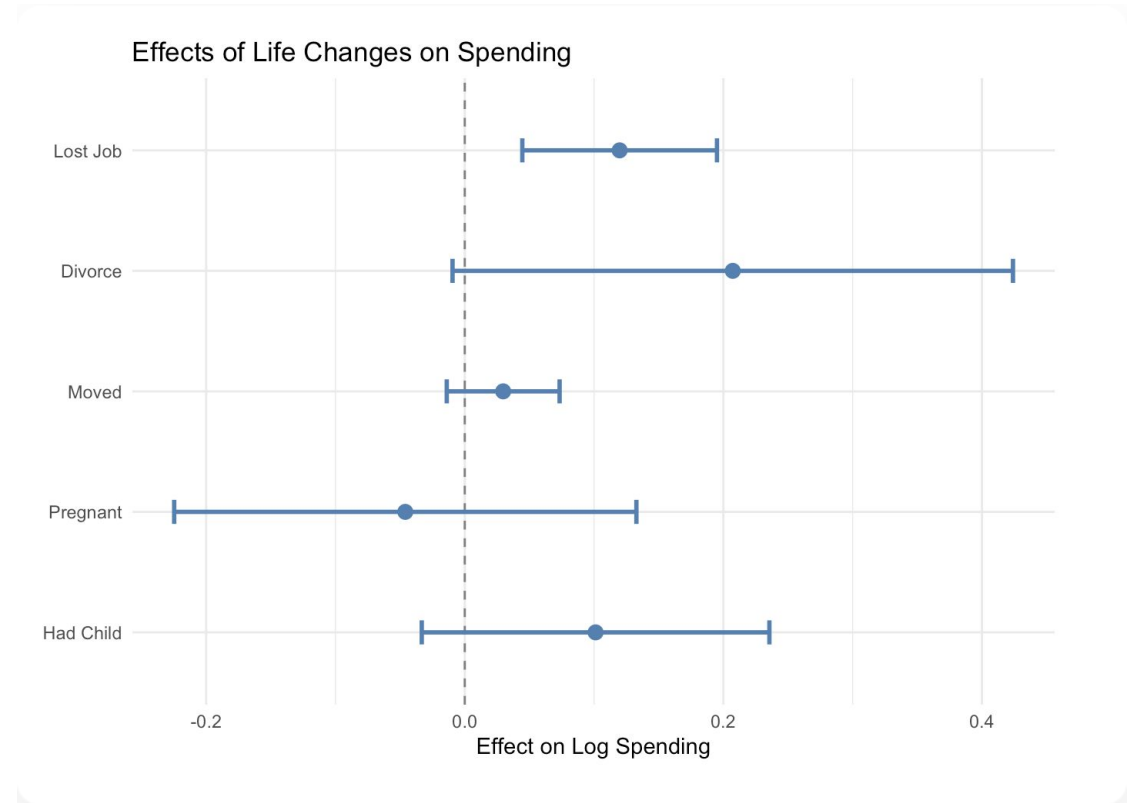
Interpretation: This likely reflects a **substitution effect**. Facing financial constraints, displaced employees shift towards online marketplaces to find **lower-cost substitutes** for essential goods

Finding 2: Divorce & Spending Habits

Divorce & Spending Habits

Divorce is associated with an estimated **23% increase** in total Amazon spending (p≈0.06). In contrast, events like Moving, Pregnancy and having a baby showed **no robust significance** (p>0.05).

- **Household Reconfiguration:** The need to purchase or replace furniture and household items.
- **Coping Mechanism:** Using online shopping to distract from or manage emotional stress.

Effects of Life Changes on Spending

Recommendations & Limitations

Targeted Subsidies

State governments should provide **targeted subsidies, vouchers, and discounts** for essential goods, such as groceries and cleaning supplies, to help displaced employees relieve financial pressure and avoid falling into debt due to unemployment.

Mental Health Support

Given the link between divorce and increased "coping" spending, governments should expand access to **low-cost counseling and mindfulness programs** to help individuals manage emotional stress.

Limitations

Because life events are only recorded for 2021, we must approximate their timing across years when building the panel. **Events that actually occurred in 2020 or 2022 may not be captured**, introducing measurement error that likely reduce our estimated effects.