

Exploring the Effect of Waivers to the Non-Manufacturing Rule on Contract Awards to Small Businesses

William A. Muir¹ Michael J. Gravier² Timothy G. Hawkins³

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¹Naval Postgraduate School

²Bryant University

³Western Kentucky University

Background: Non-manufacturer rule (13 C.F.R. § 121.406)

“The Rule”

A small prime on a setaside contract for manufactured end items must be the manufacturer (or processor) of those items.

The Non-Manufacturer Rule (NMR)

An exception to the rule. On a setaside contract, a small regular dealer must supply product of a domestic small business manufacturer (or processor).

Class Waivers to the Non-Manufacturer Rule

May be granted by the SBA when there are no small business manufacturers or processors available to participate in the Federal market for a class of products. (§ 121.1202)

Background: About NMR Class Waivers

May be requested by any interested person, business, association, or Federal agency

Are not mandatory for use by contracting officers

Some Examples of Waived Classes

Cryogenic Tanks • Ammunition and “Other Ordinance” • Tractors, Backhoes, Cranes, Graders, Street Sweepers • Turbines • Cars, Trucks, Trailers, All Terrain Vehicles • IT Support Equipment, I/O & Storage Devices, Mainframes • MRIs, Ultrasound Machines, X-Ray Machines, Pacemakers, Hearing Aids, Hospital Furniture • Airborne Radio and Navigational Equipment, Turboprop Aircraft, Aircraft Propellers, Aircraft Components

Research Question

Under what conditions are class NMR waivers effective?

- “Waiver to an exception to a rule”... contingent effects
- *Industry-level conditions*: industry concentration, small bus. proportion, industry-level price growth

Why this is important to understand

- Public policy objectives: value, equity
- Industry-level impacts (e.g., channel design, antitrust)
- Implications for category management!
- **Yet no available evidence on class waiver efficacy**

Longitudinal (annual) observations on waivers, industries and federal obligations: FY2007–FY2015

- Waivers: U.S. SBA, NMR Class Waiver List
- Spend: Federal Procurement Data System–Next Generation (FPDS-NG)
- Econometric: U.S. Bureau of Labor Statistics (BLS) and Census Bureau

Model of within-industry change

Fractional Response: small business utilization

“Treatment”: issuance of a class waiver in industry

Moderating conditions:

1. Industry concentration (Herfindahl-Hirschman Idx)
2. Small business proportion (Business Census)
3. Price growth (PPI)

Controls:

1. Federal market competitiveness
- 2.,3. Federal participation in market (actions, obligations)

Model

$$\begin{aligned} UTILIZATION_{it} = & \beta_0 \\ & + \beta_1 \times TREATMENT_{it} \\ & + \beta_2 \times CONCENTRATION_i \\ & + \beta_3 \times CONCENTRATION_i \times TREATMENT_{it} \\ & + \beta_4 \times SMALLPROP_{it} \\ & + \beta_5 \times SMALLPROP_{it} \times TREATMENT_{it} \\ & + \beta_6 \times PRICEINDEX_{it} \\ & + \beta_7 \times PRICEINDEX_{it} \times TREATMENT_{it} \\ & + \beta_8 \times COMPETITIVENESS_{it} \\ & + \beta_9 \times PARTICIPATION_{it} \\ & + \beta_{10} \times OBLIGATIONS_{it} \\ & + e \end{aligned}$$

Propensity-score matching

- Treated to untreated industries, based on initial (FY2007) conditions
- 40 total industries \times 9 years ($N = 360$)

Bernoulli quasi-maximum likelihood estimator (QMLE; Papke & Wooldridge 2008)

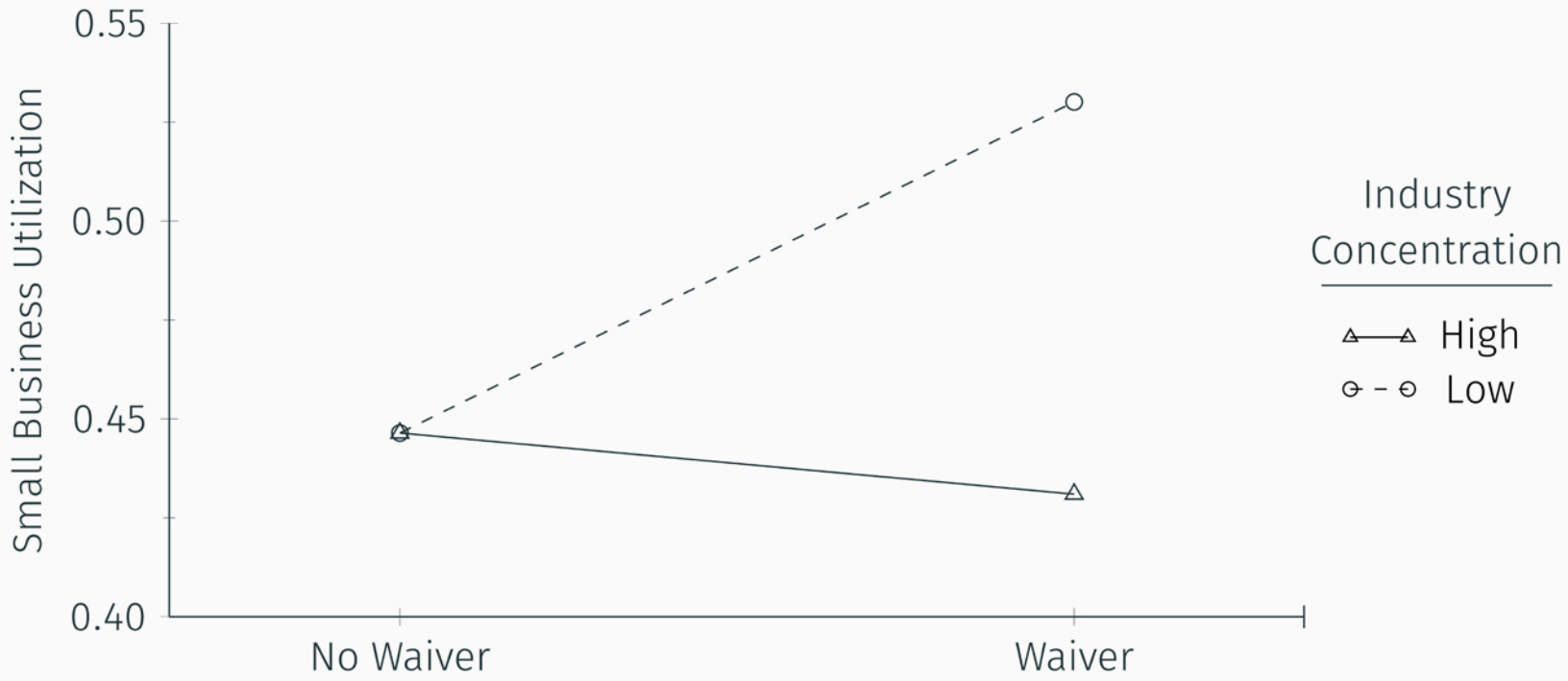
- Fractional response model for panel data
- Design matrix given by $(\mathbf{1}, \mathbf{X}_{it}, \bar{\mathbf{X}}_i)$
- Coefficients rescaled following Papke & Wooldridge (2008), Eq 3.11

Results (within-variance component)

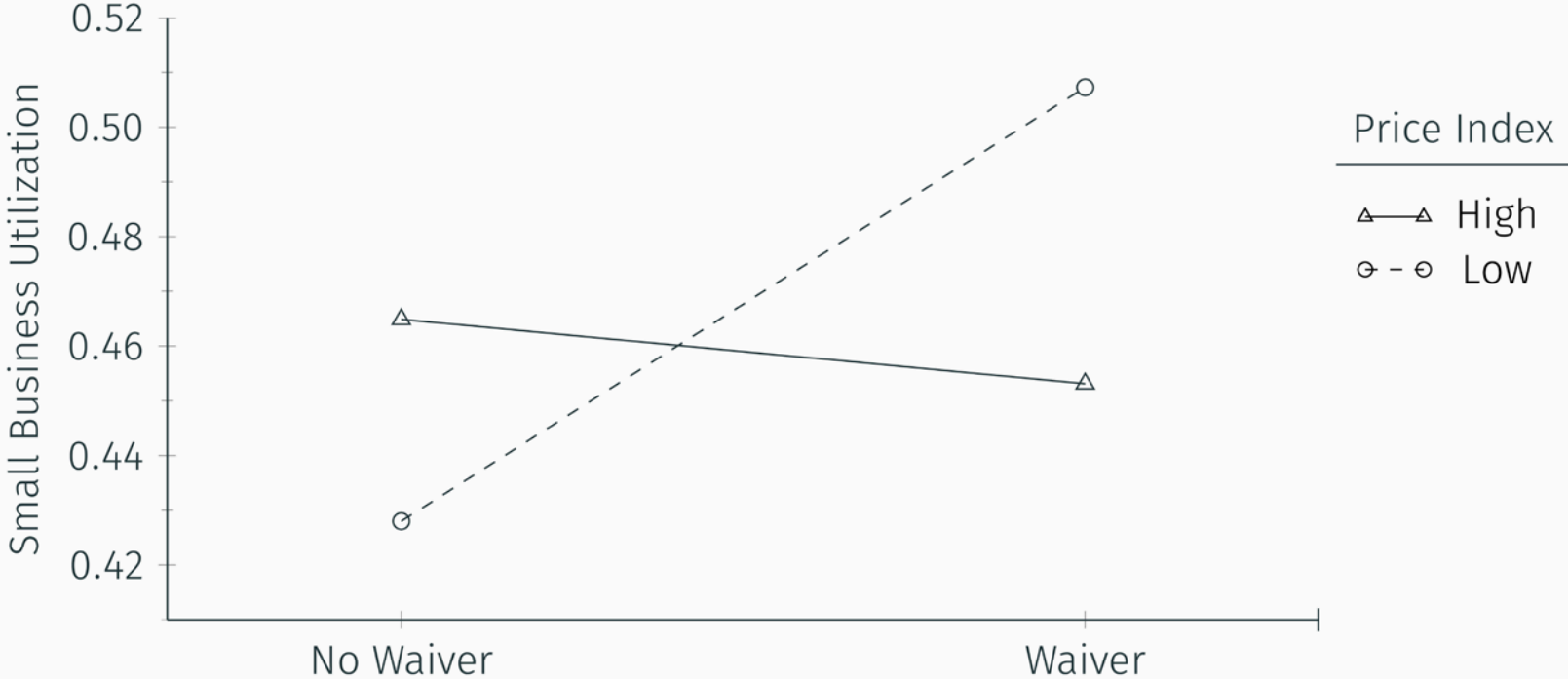
Explanatory Variable	Estimate	Std. Err.	t-value	Pr(> t)
TREATMENT	0.036	0.058	1.704	0.088*
CONCENTRATION × TREATMENT	-0.040	0.047	-2.684	0.007**
SMALLPROP	0.305	1.458	0.600	0.549
SMALLPROP × TREATMENT	0.046	0.268	0.860	0.390
PRICEINDEX	0.050	0.289	0.449	0.653
PRICEINDEX × TREATMENT	-0.106	0.153	-2.095	0.036**
COMPETITIVENESS (control)	-0.023	0.033	-2.017	0.044**
PARTICIPATION (control)	0.036	0.045	2.057	0.040**
OBLIGATIONS (control)	-0.056	0.083	-1.844	0.065*

Notes. * $p < .10$, ** $p < .05$. CONCENTRATION, SMALLPROP, PRICEINDEX grand-mean centered.

Moderating Effect of Concentration on NMR Waiver Efficacy



Moderating Effect of Price Growth on NMR Waiver Efficacy



Discussion of Results

Results/Implications

- It works! (under the right conditions)
- Industry characteristics represents a major contingency
- Moderating effect of pricing—shifting buyer behavior or channel design? Mechanisms are unobserved.

Unresolved or Unexplored

- Small business proportion in industry... polynomial/inverted-U?
- Role of individual NMR waivers

Questions?