

# DISCUSSION

## Productivity and Quality in Health Care: Evidence from the Dialysis Industry *(Grieco and McDevitt 2012)*

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## Overview of *Grieco and McDevitt (2012)*

- Important research question(s):
  - Productivity analysis doesn't adjust for (endogenous) quality
  - Danger of “cutting corners” in health care services:  
price inflexible; and quantity may not respond to quality
  - Dialysis a critical service: 400,000 patients; \$20B/yr
- State-of-the-art productivity analysis
- Work towards teasing out mechanism(s)

## Identification of a Quantity / Quality Tradeoff

- 1 endogenous choices based on unobserved productivity  
(proxy for productivity using hiring)
- 2 quality often difficult to observe  
(two imperfect proxies; IV for measurement error)

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$$Y_{it} = A_{it}(q_{it}, \omega_{it}) K_{it}^{\beta_k} L_{it}^{\beta_l}$$

- $A(q, \omega) = e^{\alpha_0 + \alpha_q q + \omega + \epsilon}$ , so substitutes if  $\alpha_q < 0$   
(direction not obvious if quality increases demand)
- there is an optimal quality choice  $q(K, L, \omega, X; \beta)$
- $X$  (non)profit status and number of competitors
- account for local demand density (Syverson 2004)?

## Mechanisms Driving Quality

How should we understand these (structural?) relationships?

	I	II	III	IV
Productivity	0.2544 (0.7824)	0.2885 (0.7761)	0.1879 (0.7885)	0.2278 (0.7823)
Capital	-0.5047 (0.2509)	-0.3013 (0.2469)	-0.3412 (0.2463)	-0.1584 (0.2425)
Labor	-0.1796 (0.4592)	-0.3313 (0.4551)	-0.1433 (0.4660)	-0.2987 (0.4627)
For Profit		-1.5754 (0.2068)		-1.5428 (0.2069)
Monopolist			0.6374 (0.2053)	0.5732 (0.2041)
Duopolist			-0.3147 (0.1960)	-0.3601 (0.1928)

# Mechanisms Driving Quality

How should we understand these (structural?) relationships?

- more theory on quality and output choices?
- more data?
- more research design?
  - quality should only affect demand if there is competition?
  - $Y/q$  tradeoff should only bind near capacity constraint?

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## Connecting Results Back to the Big Picture

- Once we adjust for quality, do answers to key questions change?
- Is the measured quantity / quality tradeoff “structural”?
- Connect magnitudes to reimbursement levels and input prices?