

LABORING IN DEVELOPMENT ECONOMICS: REFLECTIONS FROM 50 YEARS AS AN EMPIRICAL MICRO-ECONOMIST

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Questions and Introduction

- Has the nature of empirical work in microeconomics changed? If so, why? What about in development economics?
- Has the importance of theory/theorists in empirical microeconomics changed? If so, why?
- My background—*bona fides* about 235 submissions since Sept. 1965 (and only 98 acceptances). Trend is depressing too!



Nature of Empirical Work

- Increased emphasis on creation of own data sets (although mostly from secondary (internet) sources)
- Evidence from “Top 3” journals—*JEL* 2013
- One year from each of 6 decades



- Categories—theory; theory with simulation (lots of macro calibration); empirical—canned data; empirical—own data; experiment (usually unnatural). NOT *JEL* categories, which are increasingly useless
- **Table**—clear drop in theory (lesser drop in canned empirical work). Rise is in use of own data



TABLE 4
PERCENT DISTRIBUTIONS OF METHODOLOGY OF PUBLISHED ARTICLES, 1963–2011*

Year	Type of study				
	Theory	Theory with simulation	Empirical: borrowed data	Empirical: own data	Experiment
1963	50.7	1.5	39.1	8.7	0
1973	54.6	4.2	37.0	4.2	0
1983	57.6	4.0	35.2	2.4	0.8
1993	32.4	7.3	47.8	8.8	3.7
2003	28.9	11.1	38.5	17.8	3.7
2011	19.1	8.8	29.9	34.0	8.2

* A type could not be assigned to seventeen of the articles published in 1963.

Methods—Have We Come Full Circle?

- Koopmans “measurement w/o theory” description of NBER work in 1940s
- Was this correct (and Koopmans presumably meant almost all of empirical economics)
- YES—a fair description through the early 1960s
- Not a matter of blame—this is what most economists were trained to do



- The First Revolution—flowering of theory-based empirical work, 1960s-1990s
- Did empirical papers really have a theory basis more often then? Is this my nostalgia for a non-existent past?
- Examples of archetypal papers:



- Specific papers:
 1. Borjas, *AER* 1986, Roy model of sectoral choice, predicts effects of sectoral differences in earnings inequality on migration flows
 2. Hamermesh-Soss, *JPE* 1974, lifetime utility-maximizing model, predicts suicide patterns
- General literature: Becker-Mincer investment in human capital (schooling and training) to explain wage and income differences—developed theory AND tested it



- The Second Revolution—exogeneity *über alles*—the near-abandonment of theory
- Search for shocks

Natural experiments

Unnatural experiments (legislation)

Demographic variation

RCTs

- Examples of archetypal papers:



- Angrist, *AER* 1990—the first shot in the Revolution—on returns to education using an education “lottery” (which arguably had some basis in theory)
- Almond, *JPE* 2006 on long-term impact of influenza epidemic on adult outcomes (no basis in economic theory)
- Jaeger-Paserman, *AER* 2008, looking for causality in Palestinian-Israeli violence (no basis)



- Lots of articles like these; but listing them is not serious evidence for the “2nd Revolution.”

“The plural of anecdote is data” Z. Griliches

So collect data on all empirical articles in applied micro, 1950s through 2000s

But need a mechanism to classify articles.



Classification of Applied Micro Article Styles

- 0 Pure policy evaluation—no link to theory.
- 1 No theory but based on theory. This would include ROR on education and gender wage examples.
- 2 Cites one or more theoretical models created by other researchers.
- 3 A logical elaboration of a theoretical model, but no math.
- 4 Presents a mathematical model (≥ 1 equation) in which an estimable relationship plays a role.

- Results—Table

1. Rise in use of theory, then fall to current period—valid still in a recent year, 2015
2. Methodology hasn't gone full circle—but much less use of theory today to motivate, or even to interpret results



Table. Means of Classification, “Top 5” Journals, Applied Micro Articles, General, and Development (Standard Errors)

Category (Percent Distributions)	Time Period:		
	1951-55	1973-77	2007-08
0	40	11	29
1	20	8	9
2	12	15	13
3 or 4	28	66	49
≥ 2 :	0.40 (0.04)	0.81 (0.03)	0.62 (0.02)
N=	105	195	212

“TOP 5” Journals, All Applied Micro Articles, 2015, N=132

≥ 2 **0.63**
(0.04)

What about Development?

- Do same for empirical micro devlpt. articles, “Top 5” journals most recent 2 years on JSTOR (2010-15)
- Sample fairly small—47 articles. Most Google Scholar-cited (in order):

Baird	“Cash or Condition” <i>QJE</i> 2011	V2<2
Nunn	“Potato's Contribution” <i>QJE</i> 2011	V2<2
Voth	“Persecution Perpetuated” <i>QJE</i> 2012	V2<2
Jensen	“Labor Market Opportunities” <i>QJE</i> 2012	V2<2
Dupas	“Short-run Subsidies” <i>ETRCA</i> 2014	V2≥2



Do same for 1970s (actually 1978-80) for “Top 5.” Even fewer—22 articles. Most Web of Science-cited (in order):

Rosenzweig	“Testing the Quantity-”	<i>ETRCA80</i>	$V2 \geq 2$
Rolfo	“Optimal Hedging”	<i>JPE80</i>	$V2 \geq 2$
Fei	“Growth and the Family”	<i>QJE78</i>	$V2 \geq 2$
Dixon	“Hybrid Corn Revisited”	<i>ETRCA80</i>	$V2 < 2$
Lau	“Linear Logarithmic”	<i>ETRCA78</i>	$V2 \geq 2$



- Results **Table**

1. Pattern over the last 35 years is the same as overall—
switch to less theory

2. Significantly less theoretical basis now compared to
1970s in applied micro generally. Much more seeking
something exogenous, examine its impacts on some
outcome(s)



“TOP 5” Journals, Applied Micro Development Articles

1978-80 Mid-2010s

≥ 2	0.77	0.47*
	(0.09)	(0.07)
N =	22	47

*Significantly different from all applied sample for 2015.

What are the scholarly impacts of the two types of applied development articles today? What attracts other researchers' interest?

Obviously importance is more than just scholarly

Measure impact by GS Citations (as of March 2018)



- Results **Table**

1. Surprisingly no skewness in citations

(Mean=median=142). (Perhaps too early to observe skewness)

2. 2/3 of “top-journal” applied micro development articles are in *AER* and *QJE*

3. Atheoretical articles significantly more cited

4. If include journal fixed effects, still find more citations for atheoretical articles (and LAD estimates are nearly identical)



Table. Determinants of Google Scholar Citations to Applied Micro Development Articles, “Top 5” Journals, Mid-2010s (N = 47)

Ind. Var.:	Mean (s.e.)	OLS	ESTIMATES**
Economic content	0.47 (0.07)	-60.12 (26.26)	-31.83 (24.18)
Years since publication	4.32 (0.21)	-----	1.60 (20.55)
<i>AER</i>	0.40	-----	40.87 (26.71)
<i>QJE</i>	0.23	-----	130.37 (65.93)
Adj. R ²		0.08	0.33

*Citations calculated as of March 27, 2018

**LAD estimated parameters are almost identical in size and significance.

Interpretation/question: Why more attention to $V2 < 2$ papers now?

1. “Absence of economics” has become the mainstream—and people want to be in mainstream
2. Who needs economics—it is “old hat,” gets us nothing new?
3. Avoiding economic thinking is easier—run your experiment, find your instrument



A Rant on the Second Revolution

The Partial Abandonment of Theory

- Identification “strategy”—who are the authors strategizing against? Who are the other players—other economists, the data??
- “Evidence from”: E.g., this conference—37% of papers—and 25% at upcoming IZA World Labor Conference). This is a mindless mantra.

See my AEA *P&P* piece: “Replication in Economics: Evidence from Data”

“Robustness checks”—need they all be published?
Length of articles

- “Placebo tests”—is it really sugar water?



- Could a sociologist well-trained in STATA have written the paper?

1. If yes, why do we force students to study econ theory?
2. If no, OK.

Is **RCT** an acronym for **R**eally **C**ute **T**rial? Do we worry more about cuteness than about applicability?

Are RCTs really only 1970s-style “demonstration projects”, with no testing of predictions from general principles of behavior, or even of new specific economic ideas?



Conclusion

- Is this just a fad? Perhaps.
- Economics has something unique to offer the accretion of knowledge: Theoretical predictions from first principles, of results of optimizing behavior and interpersonal interactions in markets and outside, that are testable and refutable.
- Let's use it. It's time to put the “econ” back into “economics”!!

