Styles of Empirical Research

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	Descriptive Studies ("Just the facts")	"Causal" Analysis (Experiments or Natural Experiments) "Treatment Effects"	"Structural" Analysis	Calibration
Link to precisely formulated models	Indirect (focus on "facts")	Estimate "the effect"; question being addressed is often not formulated within a precise economic model	Tight link	Tight link
Use of primary data	Central	Central	Central	More casual ("go to the shelf for the estimates") or else pick a few "relevant" moments of the data
Computational complexity	Simple analysis; basic statistics (sometimes complex statistical analysis)	Linear models often favored, IV Central (TSLS popular); but nonlinearity in matching and other models	Depends on problem (some simple; modern game theory, dynamics, and contract theory can produce complex models)	Economic models complex; mixed estimation (sample moments: selected means and variances) and simulation

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Replication	Lots of testing and robustness checks; use of multiple data sets (see Fogel on Kuznets)	Sometimes emphasized in the better papers; use of multiple data set confirmation is encouraged. Styles vary widely, however, and many papers report a finding based on one IV and one data set.	Often hard given computational costs; estimation on one data set alone is common. Computational costs are falling.	Sensitivity analyses in computation of the model; sensitivity to alternative parameters sometimes explored.
Auxiliary assumptions	Use of linear models and simple statistics.	Linearity; "simple" methods encouraged (TSLS) casual in model specification	Distributional assumptions and functional forms. Recent work develops nonparametric versions.	Explicit functional forms for the models based on familiar models.
Sources of identification	Not an issue	IV intuition (search for instrument or exclusion) (Randomization is an instrument)	Sometimes unclear; like all approaches, requires external variation; cross equation restrictions	Not considered (possible mismatch between estimates used and model consistency)

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Goodness of fit	Simple summaries (no model; no notion of fit)	Focus on various means (but quantiles also receive scrutiny)	Sometimes compares fitted to actual distributions as tests of model; however, more often only means are tested	Fit a few selected models if any at all and check agreement with selected moments.
Audience	General	General and specialists	Specialists	Specialists
Rules	(i) Carefully document sources (ii) Fit in general context (iii) Emphasis on novel data sets	(i) Clever instruments (ii) Novel data sets (iii) Tests of overidentification assumptions (iv) Little attention to economic interpretation of what is being estimated	(i) Explicit models (interpretable economic parameters) (ii) Formal tests (iii) Sometimes sources of identification not so clear	(i) Rigorous economics (ii) Casual about empirical input ("Stylized Facts") and tests of fit

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Policy Analysis	Broad outcomes (however, description often phases into causality)	General "policy effects"; evaluation of policies in place; no measures of welfare or cost benefit; no attempt to evaluate policies never previously tried	(i) Welfare costs (costs of business cycles) (ii) Voting outcomes (iii) A framework for evaluating new policies never tried	Explicit welfare and policy analysis (i) Welfare costs (costs of business cycles) (ii) Voting outcomes
Examples in Profession	Kuznets; Fogel; Friedman and Schwartz; Summers and Heston; Goldin and Katz	Angrist, Krueger, Pischke, etc.	Pakes; Berry; Keane and Wolpin; and Hansen and Sargent	Prescott and Kydland; Kapland and Violante, Ríos Rull; many papers in macroeconomics