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1982

## Economic thought and numerical observations : studies in 'political arithmetic'

Anthony M. Endres  
*University of Wollongong*

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ECONOMIC THOUGHT AND NUMERICAL OBSERVATIONS:  
STUDIES IN 'POLITICAL ARITHMETIC'

A thesis submitted in fulfilment of the  
requirements for the degree of

DOCTOR OF PHILOSOPHY

from

THE UNIVERSITY OF WOLLONGONG

by

Anthony M. Endres, MSocSc

Economics Department

1982

This is to certify that this thesis has  
not been submitted  
for a degree to this or any other university,  
or any other institution.

Anthony Endres

ABSTRACT

This thesis investigates the epistemological status of 'raw' numerical observations, and to a lesser extent, more formal statistical constructs in economic thought. The definition of 'economic thought' used throughout this work follows Joseph Schumpeter's broad conception in that it includes two interrelated aspects: formal economic analysis and more everyday, commonsense thought. A central question is the issue of justifying numerical observations as valid knowledge. After a brief study of the knowledge and evidential status of numerical observations in the history of political economy mostly prior to the advent of Keynesian macroeconomics there follows a literary survey of the role and status of numerical observations in the writings of Menger, Hayek, Mises and some other 'new' Austrian economists. Some common tendencies in their methodological doctrines, as they relate to numerical observations, are apparent among the older Austrians and these appear to have descended to 'new' Austrians. A selected set of summary points are generated from the survey of Austrian perspectives and these are used to give direction to ensuing literary studies. These studies include: (i) A methodological analysis of the knowledge status and limits of numerical observations in economic analysis. The approach throughout this investigation is philosophical. Morgenstern's concept of the 'accuracy of economic observations' proves useful in this respect, but this study goes beyond the boundaries within which Morgenstern discussed the notion. This study delves into Machlup's critique of 'operationalism' in economics with special

reference to the role of numerical observations in 'testing' economic theories. A central conclusion is that the increasing availability of numerical observations for use by economists in economic analysis - to design formal statistical constructs and 'test' economic theories - cannot remove uncertainty involved in interpreting or conferring meaning on the data. Uncertainty in this context arises from philosophical problems with numerical observations highlighted by Austrian themes elaborated in this thesis. These themes include mistrust, on a philosophical level, of aggregation in economic analysis; emphasis on the subjective appreciation of unique micro-level particulars; emphasis on the historical nature of numerical observations and acceptance of a fundamental difference between objects of thought and their 'counterparts' in the realm of sense perception. (ii) A study of the design, use and interpretation of numerical observations in the writings of three early political arithmeticians - Graunt, Petty and Davenant. An 'Austrian' theory of knowledge, gleaned for the most part from earlier chapters is used to develop the concept of a numerical indicator. An indicator is not a mute statistic. It is defined as a value-loaded, proximate numerical counterpart of something (a 'thought') other than the numerical observations it arranges. This indicator concept is then used to study the role of numerical 'facts' in the work of the political arithmeticians. (iii) A third study takes one of the many other suggestions arising from the survey of Austrian perspectives and analyses the historical process of operationalising unemployment in Australasia over specific time periods with reference to

official statistical sources and methods. It moves away from the context of the formal analytic aspects of Schumpeterian economic thought and the role of numerical observations therein. It elaborates on the more everyday aspects of economic thought which provided the rationale for validating different ways of operationalising unemployment through history. Connections between counting rules and formal economic theories of unemployment are made in the Australian study but these connections seem rather strained. The New Zealand study details various influences moulding operational concepts and sheds light on the iterative, interactive official design and interpretation process involved in creating and altering these concepts over time.



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JOURNAL ABBREVIATIONS

<u>AAPSS</u>	<u>Annals of the American Academy of Political and Social Science</u>
<u>AEHR</u>	<u>Australian Economic History Review</u>
<u>AEJ</u>	<u>Atlantic Economic Journal</u>
<u>AEP</u>	<u>Australian Economic Papers</u>
<u>AER</u>	<u>American Economic Review</u>
<u>AJES</u>	<u>American Journal of Economics and Sociology</u>
<u>AJS</u>	<u>Australian Journal of Statistics</u>
<u>BNLQR</u>	<u>Banca Nazionale Del Lavoro Quarterly Review</u>
<u>CJE</u>	<u>Canadian Journal of Economics</u>
<u>Ecom.</u>	<u>Econometrica</u>
<u>Econ.</u>	<u>Economica</u>
<u>EHR</u>	<u>Economic History Review</u>
<u>EI</u>	<u>Economic Inquiry</u>
<u>EJ</u>	<u>Economic Journal</u>
<u>ER</u>	<u>Economic Record</u>
<u>HOPE</u>	<u>History of Political Economy</u>
<u>IJSE</u>	<u>International Journal of Social Economics</u>
<u>ILR</u>	<u>International Labour Review</u>
<u>JEI</u>	<u>Journal of Economic Issues</u>
<u>JEL</u>	<u>Journal of Economic Literature</u>
<u>JHI</u>	<u>Journal of the History of Ideas</u>
<u>JLE</u>	<u>Journal of Law and Economics</u>
<u>JPE</u>	<u>Journal of Political Economy</u>
<u>JPKE</u>	<u>Journal of Post-Keynesian Economics</u>
<u>JRSS</u>	<u>Journal of the Royal Statistical Society</u>

<u>NZEP</u>	<u>New Zealand Economic Papers</u>
<u>NWBQR</u>	<u>National Westminster Bank Quarterly Review</u>
<u>OEP</u>	<u>Oxford Economic Papers</u>
<u>QJE</u>	<u>Quarterly Journal of Economics</u>
<u>RES</u>	<u>Review of Economics and Statistics</u>
<u>RIW</u>	<u>Review of Income and Wealth</u>
<u>RSE</u>	<u>Review of Social Economy</u>
<u>SEJ</u>	<u>Southern Economic Journal</u>
<u>SJPE</u>	<u>Scottish Journal of Political Economy</u>
<u>ZN</u>	<u>Zeitschrift für Nationalökonomie</u>