

## **Postal History Data is an Unexploited Gold Mine**

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Winton M. Blount Symposium on Postal History, November 4, 2006

Smithsonian National Postal Museum, Washington, D.C.

The money paid to postmasters during the early years of the American Republic is reported at the level of individual villages, on an annual basis. It is a data gold mine, useful for economists, political scientists, sociologists and historians. Postmaster pay is driven by a formula whose components are closely linked with general economic activity. Professor Hines has already shown that postal revenues are highly correlated with national income. When Professor Hines looks at postmaster compensation, especially during his discussion of the "discrepancy" between calculated and actual compensation, he finds evidence that suggests some post offices are "senior" to the average, having an extra degree of economic activity, because of special payments for box rents, newspaper delivery, special late delivery of mail and other services. When postal revenue data are combined with population figures, and a per capita use of the post office is obtained, the resulting numbers can be said to reflect not merely economic growth, but the degree of economic development as well; individual frontiersmen and folks living in little houses on the prairie used the mails less extensively than their cousins in Boston.

What makes these data so extraordinarily valuable is their micro economic nature, their close link with the flow of economic activity, their temporal frequency and their apparent precision. Economic historians, up to now, have used comparatively crude, happenstance, non-random and irregular "precursor" materials in their quest to estimate economic activity. Probate wills, farm books (Mr. Jefferson's is a classic example), village tax records, newspaper reports of prices are examples. But as the "Cambridge economic history of the United States (Vol. III, Engerman and Gallman, pg. 6) points out: "Such measures are neither comprehensive nor unbiased." Economists Moses Abramovitz and Paul A. David, writing in the Cambridge History, ("Growth in the era of knowledge based Progress, pg. 66) remind their readers that; "The (income) estimates for this period (prior to 1870) are surrounded by particularly wide margins of uncertainty..." In their essay, they refer to national, highly aggregated data; they do not even dream of micro data of the kind buried in the OR.

The methodology of Standard Economic History, as described in the well-regarded sixth edition of Jonathan Hughes and Louis R. Cain's "American Economic History" text, (hereafter HC), begins with per capita wealth estimates. These often come from probate records. HC describe the process, quoting the work of Alice Hanson Jones (Wealth of a Nation to Be, NY, Columbia U. Press, 1980, p. 96): "the average free person in colonial America owned perhaps 76 Pounds in real wealth. ...dividing this figure by various capital output ratios produces a result that is a measure of output (income) per head...Historic capital

output rations fall somewhere between the boundaries 3/1 and 5/1. Using the former figure, income per capita in 1774 was 25 pounds; using the latter, 15 pounds." Most income estimates made by historians who study the 18th and 19th century are built up in this manner. The underlying generative data is happenstance, from court documents, probates, merchant inventories, export and import data related to excise tax collections, letters and tax records (early American governments often taxed personal as well as fixed wealth, and tax documents can be found that detail taxes paid by particular households subjected to such rules.). In the earliest years, the capitalization of the great trading companies, from the West India Company to the Hudson's Bay Company is used to make an indirect, wealth based estimate of income. (See, for example, *The Atlantic Economy during the 17th and 18th Centuries*, edited by Peter A. Coclanis, Univ. of South Carolina Press, 2005. Data sources in this fine example of high quality economic history include capital invested in the West India Company, wine imports into New York, expenditures on Indians in South Carolina, and average wealth at death of certain persons in New York, Massachusetts, South Carolina and Jamaica. This last data source focused on estates in which there were significant holdings of wine, especially Madeira. Wines, especially the expensive ones, such as fine Madeira, attracted the attention of the tax authorities, and thus careful records were kept (or fudged, who knows?) by those persons charged with reporting to probate courts.)

It appears that virtually all of the standard information used by economic historians to estimate income is either highly aggregated, or, when micro economic, irregular in time and incomplete in geographic extent. In contrast, the OR data is directly linked to a detailed, reasonably consistent, carefully recorded, geographically widespread record of the flow of economic activity, that is, to income, rather than to scattered, inconsistent, geographically and temporally non-random compilation of the stock of certain kinds of wealth. After HC remind their readers that: "The data for income distribution are very poor in most of the years before the Civil War..." (p. 119) they report how other economic historians use information on average height (stature), along with longevity statistics, to estimate the time path of income; "A variety of studies suggest that measures of stature -- a person's height -- are highly (positively) correlated with measures of income and wealth." (p. 121). HC go on in their discussion to discuss how data on stature differences might be linked to income inequality or to a particular period of diminished average income. However interesting such a speculation might be, the OR data seems to this author to be a more reliable source for income estimation than is average height or weight among West Point Cadets (John Komlos, "The Height and Weight of West Point Cadets: Dietary change in Antebellum America" *Journal of Economic History*, vol. 56, no. 2, June 1996). The Komlos study is focused on income distribution as well as level, an interest shared by many economic historians. This author believes that the OR data provides such information, at least in the way of differences in per capita postal usage between villages. Individual villages are not individual persons, but if

height and weight are acceptable precursors for an estimate of income, then villages may stand for their typical inhabitants as far as I am concerned.

Economic historians agree that: "The measurement and analysis of economic growth ...call for a very large volume of data. Before 1840 no regular and reasonably complete census of economic activities was carried out in the United States, however. The available estimates of the level and composition of national product and of the supplies of factor inputs before 1840 are few and incomplete, and they rest on insecure empirical bases." (American Economic Growth: an Economist's History of the United States, Lance E. Davis, Harper and Row, 1972, "The Record of American Economic Growth" p16).

How might economic historians use the more complete, micro-economic postal revenue and postmaster compensation data found in the OR? Here are a few ideas. The National Bureau of Economic Research (NBER), along with other standard sources, supplies a list of generally accepted dates for the economic ups and downs of the national business cycle. OR data might be used to determine if the cycle occurred at the same time in different parts of the country, whether or not the cycle was experienced with equal intensity in cities as compared with the countryside, whether or not the cycle induced outward migration from the settled parts of the nation, out to the frontier, even (since family names are given for the postmasters of individual post offices) whether or not political changes brought about by the cycle had altered the intra-elite distribution of patronage income among the set of politically well-connected persons inhabiting postmasterships

Here are some other studies that might be advanced by the use of the OR data: How does the use of postal communication change with the advent of the railroad, the telegraph, road construction, the integration of the frontier, and the re-integration of the South after the Civil War? How rapidly does the post office become more efficient, in the sense that evidence is found that per capita use of communication "equipment" expands (because of cost reductions in the service) over time? Might we explain some of the interesting results shown in Hines' table III by noting that population might shrink in a town, but if per capita income grows enough, and if per capita usage of capital grows too, and if the use of the post office is a use of capital and a measure of economic evolution, then postal revenues may well, in the aggregate, expand, demonstrating not only economic growth, but economic development as well. Can we say that postal efficiency closely parallels a general trend of increasing efficiency of capital? Can we find an interesting difference between "public" capital efficiency in the post office, compared to private capital's efficiency in allied communication and transportation systems like the railroad and telegraph? (There might be quibbles here, since all these transport and communications systems had an element of government support.)

Papers written by Postal historians, using OR and other postal data are also inspiring to an economist reader. "The Geography of a Postal History" by Robert Dalton Harris, (Postal History Journal, no. 102, Oct. 1995, pgs. 6 – 15) might be expanded to consider changes in the scale of economic activity, as the stagecoach was replaced by other means of postal transport. Government is a laggard in the march of economic progress might be the economist's conclusion when he reads that private mail carriers operated 50 years in advance of public ones (p. 7). One might wonder if the postal routes established ahead of revenues induced a later pattern and direction of general economic growth that might not have occurred or might have been otherwise laid out in the absence of postal planning. Which was chicken and which egg? Was the increase in postal mileage per capita a way to measure the general increase in public capital per citizen, and if so, how much of per capita income growth might be assigned to this measure of real growth?

Another highly interesting text is "The Pre-Victorian Internet: Economic, Physical Measures and Principles of the United States Postal System in the 19th Century" by Diane DeBois and Robert Dalton Harris, IEHC 2006 conference, Helsinki, Session 107." (Hereafter DH) This economist reader believes there is data here helpful in describing the speed of the Frontier's shift westward. In my reading, I find numbers that allow me to divide income into, first, a high value sector linked to the high cost, high speed, narrowly focused pony express; and second into the lower cost, slower media, like newspapers and ordinary mail, with more general distribution patterns. Another economist might ask himself, how long did it take for the subsidy provided by "larger post offices generated by their excess revenues" and given to "unproductive routes on the frontiers" to end – that is, how long did it take for the "frontier" to become part of the settled country? (pg. 1) "Between 1823 and 1900 the gross annual revenue of the United States Post office exploded from about one million dollars to more than 100 million." (DH pg. 1) These numbers suggest approximately a 7% annual growth rate for the nation as a whole, or a doubling of income every ten years. It agrees with many economic historians' estimate of America's extraordinary growth 19th century growth rate, and so provides support for the idea that, during this time, America became the world's leading economy. This contention is one of the most important findings of modern economic historians, and it is most useful to find independent evidence for it. A long standing concern of economic historians is to find good data on the shift from barter to a monetized economy, as it occurs during the process of economic evolution and growth on the frontier. It is most interesting to discover that postal carriers might well have been a prime source of cash money along the line separating East from West (DH p. 1). The splash in postal revenues made by events such as the California Gold Rush, the Civil War, technical innovations like railway postal service and telegraphy, wartime inflation and the business cycle are likely to be found in data like DH's graphs 1 – 6, especially once they are deflated and massaged by econometric analysis.

Economists are not the only social scientists to find valuable data in the records of postal history. Sociologists will find OR data useful, since the names of postal officials might well suggest which families in a particular district are the most politically well-connected. It will be interesting to know if such status remains within the same set of families across generations, and between political epochs. Political Scientists will want to know just how strong were the forces of patronage, and for how long they remained in effect. The names register might be suggestive.

Interdisciplinary communication, linking scholars who up until now have not known one another's' data sets or interests remain in isolation at significant cost. Let's hope that this conference helps to get the news out: postal history information is valuable to a wide range of scholars.