*the Cross* has survived all this firepower. Its conclusions are not all intact, but neither have they been completely dismantled. Despite all the criticisms of the calculation of the relative efficiency of southern agriculture, for example, the leading cliometrics textbook says "The bottom line of the debate is that Fogel and Engerman's measure of relative efficiency seems to be robust, although many scholars remain troubled by quite how to interpret the estimates. [And] The sources of productivity differences remain a mystery" (Atack and Passell, 1994, p. 316). And although slaves are not seen as having been imbued with the Protestant work ethic, there is little question that they were motivated in part by positive incentives and not just by force and cruelty.

The material conditions of slaves were not as good as Fogel and Engerman made them out to be, but they were better than many had imagined. Fogel and Engerman in effect forced others to confront the issue and look more carefully at the variation in treatment across space, time and size of slave holding. Much research was produced as a result of this, and much of it was produced by students of, and under the direction of, Fogel and Engerman. Thomas Haskell thought that *Time on the Cross* would probably survive in part because "there were dozens of graduate research assistants who are now fiercely loyal to their company and its product" (1975, p. 39). He envisioned that these assistants would work to shore up the various parts of the structure laid out in the book, and it is unlikely he imagined the sort of work on the stature and nutrition of slaves that was carried out by Richard Steckel, Robert Margo and others. That evidence, the quantitative sort that Fogel and Engerman desired and paid attention to, ran heavily against *Time on the Cross*, and has clearly influenced Fogel and Engerman's views. According to Time on the Cross, "Slave health care was at its best for pregnant women. 'Pregnant women,' wrote one planter, ' must be treated with great tenderness, worked near home and lightly" (p.122). In the "Afterword" of the re-issued Norton edition of the book they put it this way: "It now appears that children rather than adults were the principal victims of malnutrition. [and] Much of the new story turns on the overwork of pregnant women" (1989, p. 285). In Without Consent or Contract, Fogel puts it this way "Masters were not generally guilty of working field hands to death, but they were guilty of so overworking pregnant women that infant death rates were pushed to extraordinary levels" (p. 153).

And despite the pronouncements by some historians that the book was a "flash in the pan, a bold but now discredited work" (Kolchin, 1992, p. 492), it remains in publication and on the reading lists in economics as well as history courses. Of course one cannot tell from the reading list what use is made of the book in each course, and it may be that historians use it as an example of methodology that should not be tried. Nevertheless, it is still in use and still being paid attention to. Moreover, many economic historians, in both economics and history departments, agree with the major conclusions put forth by Fogel and Engerman. Robert Whaples (1995) surveyed members of the Economic History Association in order to find out where there is consensus on a broad range of issues, and included four hypotheses taken straight out of *Time on the Cross*. As one might expect, two of the propositions that were not very controversial in 1974 -- those having to do with the profitability and viability of slavery -- were still uncontroversial and agreed to by nearly 100 percent of both economists and historians. More surprising is that most economists and historians accept Fogel and Engerman's proposition that slave agriculture was efficient compared with free labor. Some of those who agreed did so with unspecified provisos, but only 28 percent of economists and 35 percent of historians disagreed. Their proposition about the material standard of living has not fared as well, 58 percent of historians and 42 percent of economists disagreed with the proposition that the material condition of slaves compared favorably with those of free industrial workers. This, I would think should not be too surprising in

light of the work cited above on the treatment of slave children and pregnant women. Many of Fogel and Engerman's students might have disagreed with this claim, and even Fogel and Engerman have backed off somewhat on this claim (1989, p. 285).

Clearly the book had an impact. At the time it seemed that the attention of the field was devoted entirely to this subject; Fogel and Engerman must have been consumed by it. Its impact, however, even if not all of its conclusions, was longer lasting. It led to a large volume of subsequent research, the compilation of data sets, and helped as well to foster new areas of work, such as that on stature and the standard of living. Whether its conclusions are right or wrong, it is a book that has not been ignored.

References Cited:

Jeremy Atack and Peter Passel. A New Economic View of American History, second edition. New York and London: W.W. Norton, 1994.

Alfred Conrad and John Meyer. "The Economics of Slavery in the Antebellum South." *Journal of Political Economy* 66 (1958): 95-130.

Paul David, et al, editors. *Reckoning With Slavery: Critical Essays in the Quantitative History of American Negro Slavery*. New York: Oxford University Press, 1976.

Paul David and Peter Temin. "Slavery: The Progressive Institution?" *Journal of Economic History* 34, no. 3 (1974): 739-83.

Paul David and Peter Temin. "Explaining the Relative Efficiency of Slave Agriculture in the Antebellum South: A Comment." *American Economic Review* 69 (1979): 213-18.

Robert Fogel. *Without Consent or Contract: The Rise and Fall of American Slavery*. New York: W.W. Norton, 1989.

Robert Fogel, et al. *Without Consent or Contract: Evidence and Methods*. New York: W.W. Norton, 1992.

Robert Fogel, et al. Without Consent or Contract: Technical Papers. New York: W.W. Norton, 1992.

Robert Fogel and Stanley Engerman. *Time on the Cross: The Economics of American Negro Slavery*. Boston: Little, Brown and Company, 1974.

Robert Fogel and Stanley Engerman. *Time on the Cross: Evidence and Methods*. Boston: Little, Brown and Company, 1974.

Robert Fogel and Stanley Engerman. "Explaining the Relative Efficiency of Slave Agriculture in the Antebellum South." *American Economic Review* 67 (1977): 672-90.

Robert Fogel and Stanley Engerman. *Time on the Cross: The Economics of American Negro Slavery*. New York: W.W. Norton, 1989.

Robert Fogel and Stanley Engerman. "Explaining the Relative Efficiency of Slave Agriculture in the Antebellum South: A Reply." *American Economic Review* 70 (1980): 672-90.

Claudia Goldin. "The Economics of Urban Slavery: 1820 to 1860," Ph.D. dissertation, University of Chicago, 1972, subsequently published as *Urban Slavery in the American South, 1820-1860: A Quantitative History*. Chicago: University of Chicago Press, 1976.

Herbert Gutman. *Slavery and the Numbers Game: A Critique of Time on the Cross*. Urbana: University of Illinois Press, 1975.

Thomas Haskell. "The True and Tragical History of 'Time on the Cross.' *The New York Review of Books* (October, 1975): 33-39.

Peter Kolchin. "More Time on the Cross? An Evaluation of Robert William Fogel's *Without Consent* or *Contract.*" *Journal of Southern History* LVIII, no. 3 (1992): 491-502.

Robert Margo and Richard Steckel. "Height, Health, and Nutrition: Analysis of Evidence for U.S. Slaves" *Social Science History* 6 (1982): 516-58

Peter Passel. "An Economic Analysis of that Peculiarly Economic Institution." *New York Times Book Review* (April 28, 1974): 4.

Kenneth Stampp. *The Peculiar Institution: Slavery in the Antebellum South*. New York: Alfred Knopf, 1956.

Richard. Steckel. "A Peculiar Population: The Nutrition, Health, and Mortality of American Slaves from Childhood to Maturity." *Journal of Economic History* 46 (1986a): 721-41.

Richard. Steckel. "Birth Weights and Infant Mortality among American Slaves." *Explorations in Economic History* 23 (1986b): 173-98.

Richard Sutch. "The Treatment Received by American Slaves." *Explorations in Economic History* 12 (1975): 335-438.

Richard Vedder. "The Slave Exploitation (Expropriation) Rate." *Explorations in Economic History* 12 (1975): 453-58.

Gary Walton. "A Symposium on *Time on the Cross.*" *Explorations in Economic History* 12 (1975): 333-34.

Robert Whaples. "Where Is There Consensus Among American Economic Historians?" *Journal of Economic History*, 55 (1995): 139-147.

Gavin Wright. "Slavery and the Cotton Boom." Explorations in Economic History 12 (1975): 439-52.

Tom Weiss teaches economics at the University of Kansas and is a research associate of the National Bureau of Economic Research. He is a former editor of the *Journal of Economic History*, and is currently the Executive Director of the Economic History Association. His current research is a collaborative project on economic development in colonial North America being carried out with Joshua Rosenbloom and Peter Mancall.

- Geographic area: North America (7)
- Time period: 19th Century (7)
- Subject: Servitude and Slavery (N)

Copyright © 2001 by EH.NET. All rights reserved. This work may be copied for non-profit educational uses if proper credit is given to the author and EH.Net. For other permission, please contact the EH.NET Administrator (admin@eh.net; telephone 513-529-2229; fax: 513-529-6992). Published by EH.NET Nov 16 2001 All EH.Net reviews are archived at http://eh.net/bookreviews/.