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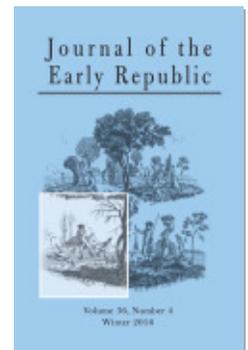
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Seeking a Quantitative Middle Ground: Reflections on Methods and Opportunities  
in Economic History

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# Seeking a Quantitative Middle Ground

## Reflections on Methods and Opportunities in Economic History

CAITLIN ROSENTHAL

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Historical research into economic topics is booming: The history of capitalism is on the march, Atlantic and Pacific histories have invigorated research on trade and merchants, environmental history is increasingly economic, and the Library Company of Philadelphia's Program in Early American Economy and Society (PEAES)—the inspiration for this special issue—just celebrated its eighteenth anniversary. But the new popularity of economic history has generally not been accompanied by increased collaboration or even interaction with colleagues working in departments.<sup>1</sup>

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1. For an excellent review of the recent return to economic topics, see Kenneth Lipartito, "Reassembling the Economic: New Departures in Historical Materialism," *American Historical Review* 121 (Feb. 2016), 101–39; and on the "history of capitalism" more narrowly, see Sven Beckert, "History of American Capitalism," in *American History Now*, ed. Eric Foner and Lisa McGirr (Philadelphia, 2011). For a recent call for collaboration issued in the other direction—suggesting that economists take narrative history more seriously—see Naomi Lamoreaux,

This disconnect is not new. As Cathy Matson writes, “since its recognizable origins near the end of the nineteenth century, economic history has negotiated an uneasy coexistence between the two professional disciplines from which it came.” In 1983, Jan DeVries described the “confrontation between the economist and the historian” as “something like warfare between a conventional army and a band of guerillas: there are no agreed rules of the game nor are there shared criteria for success.” He continued that the “structure of the two disciplines seems to differ in ways that encourage mutual misunderstanding.” Though DeVries is a historian of early modern Europe rather than North America, his assessment has applied very fittingly to this continent, where debates over slavery as well as moral and market economies broiled intensely during the 1970s and 1980s. Since then, however, the nature of scholars’ disputes has changed. The ground combat DeVries described has turned into a cold war with skirmishes only at the margins. The result is the almost total segregation of work by historians and economists.<sup>2</sup>

I am not suggesting that historians take up the questions posed by economists. To a great extent, the “new history of capitalism” reflects our ability to return to economic topics without resurrecting older debates. For example, Sven Beckert’s *Empire of Cotton* explores the global dimensions of capitalist slavery in a way that is quite distinct from the debates over profitability and productivity that surrounded Robert Fogel and Stanley Engerman’s *Time on the Cross*. But we ignore the data-driven work of economic historians at our peril. Even if we do not need their questions, their data and methods can help us to discipline our inquiries—to rule out interpretations that are incorrect and to suggest new ways forward. If we want the new history of capitalism to have a lasting influence, it must be built on sound empirical analysis. As groundbreaking as the new field is, interactions with economists and their data could make the history of capitalism stronger.<sup>3</sup>

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“The Future of Economic History Must Be Interdisciplinary,” *Journal of Economic History* 75, no. 4 (2015), 1251–57.

2. Cathy D. Matson, “A House of Many Mansions: Some Thoughts on the Field of Economic History,” in *The Economy of Early America: Historical Perspectives & New Directions*, ed. Cathy D. Matson (Philadelphia, 2006), 1–70. Jan DeVries, “The Rise and Decline of Nations in Historical Perspective,” *International Studies Quarterly* 27 (Mar. 1983), 11–16.

3. The missed opportunities in the new literature are most evident in the debate over Edward E. Baptist, *The Half Has Never Been Told: Slavery and the*

Historian John Majewski has called our current moment “a golden age of quantification,” but laments that as public discourse has become ever “more statistical, historians of the United States are becoming less so.” Reviewing the last five years of the *Journal of American History*, he found that only 10 percent of articles contained any kind of quantitative graph or map, and among these, only three essays “used quantitative data as a major piece of evidence.” Historians are not about to return to statistics *en masse*, nor should we. But Majewski is correct to note that as “scholars seek to understand capitalism . . . it is not clear that they can ignore the material reality that quantification can usefully uncover.” Fully answering questions about economic inequality, risk-taking, debt, corruption, and power depends on reference to numbers. Quantitative analysis, which has been called “distant reading” because it relies on large aggregations of particular information, is essential to understanding the structures of power that drive economic change.<sup>4</sup>

What should we count? And what should we do with the multitude of numbers and tables that punctuate early North American documents?

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*Making of American Capitalism* (New York, 2014). Economists’ critiques are summarized in a roundtable review in the *Journal of Economic History*. John E. Murray et al., “The Half Has Never Been Told: Slavery and the Making of American Capitalism. By Edward E. Baptist . . .,” *Journal of Economic History* 75 (Sept. 2015), 919–31. Sociologist John Clegg offers similar critiques in For some similar critiques of Walter Johnson, *River of Dark Dreams: Slavery and Empire in the Cotton Kingdom* (Cambridge, MA, 2013); see Gavin Wright, “River of Dark Dreams: Slavery and Empire in the Cotton Kingdom,” *Journal of Economic Literature* 52, no. 3 (2014), 877–79. Unfortunately these debates have missed what is, in my view, a fertile middle ground where we might develop a synthetic portrait of the antebellum south that incorporates economists’ findings into the new history of capitalism. Such an interpretation would see slavery, violence, and biological innovation as deeply intertwined, all part of a system that was highly productive *and* coercive, and simultaneously flexible *and* inflexible in distinctive ways. The key work that is inadequately understood by historians is Alan L. Olmstead and Paul W. Rhode, *Creating Abundance: Biological Innovation and American Agricultural Development* (Cambridge, UK, 2008). My comments on the missed opportunities with respect to Johnson’s book can be found in Caitlin Rosenthal, “Review: Rosenthal on Johnson, ‘River of Dark Dreams: Slavery and Empire in the Cotton Kingdom’ (x-H-Business),” accessed Apr. 7, 2016, <http://www.h-net.org/reviews/showpdf.php?id=42153>.

4. John Majewski, “U.S. History in a Statistical Age,” *The American Historian* 2 (Nov. 2014), 24–27. Franco Moretti, *Distant Reading* (London, 2013).

Historians of early America are rarely trained as econometricists, and most lack the tools for highly technical statistical inquiry. Luckily, statistical ability is not the only (or even the most important) tool for evaluating numerical documents. Historians can return to quantification and visualization not as novice cliometricians, but as the beneficiaries of cultural and social history, with decades of “close reading” and narrative analysis as our guide. As Cameron Blevins, advocating for digital history, reflects, “Distant reading cannot and will not replace the close reading of historical texts and the interpretation of their meaning and context. The two must be used in concert.”<sup>5</sup>

Historians are poised to stake out a quantitative middle ground: a set of hybrid approaches that incorporate more numerical sources and quantitative analysis without straying far from the documents. We can build a rigorous critical posture toward numbers that focuses less on measures of statistical significance than on archives and narrative form. Combined with basic quantitative training, more qualitative analysis of numbers will also help to promote a level of data fluency that can help us to engage with and critique the work of economists. This engagement has the potential to yield large dividends, offering both new data and a deeper understanding of historical economic systems. Engaging with new work in economic history will help us to ask better questions, to argue more persuasively, and to reach a broader public—even (or perhaps especially) when we disagree.<sup>6</sup>

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5. Others across historical subfields have called for such an approach. See, for example, Emma Rothschild, “Isolation and Economic Life in Eighteenth-Century France,” *American Historical Review* 119 (Oct. 2014), 1055–82. Rothschild writes, “The microhistory of exchanges of information . . . is complementary . . . to an economic history that starts with flows of commodities and the comparison of national economic indicators. . . . It also suggests different ways of using sources—in juxtaposing . . . the sorts of individual histories that have been outlined here, in which the name is the ‘red thread,’ with the quantitative history . . . of private credit in France.” See also Adam Tooze, “Trouble with Numbers: Statistics, Politics, and History in the Construction of Weimar’s Trade Balance, 1918–1924,” *American Historical Review* 113 (June 2008), 678–700. Cameron Blevins, “Space, Nation, and the Triumph of Region: A View of the World from Houston,” *Journal of American History* 101 (June 2014), 122–47.

6. I do not mean to suggest that measures of statistical significance are insignificant. Historians would be better served if we were better trained in the interpretation and critique of statistical tables. However, as we attempt to draw on and critique the work of economists, we should also use tools and questions that have

What could such an approach look like? To illustrate the benefits of a middle reading method, I pause to follow a genre of partially quantitative, partially qualitative documents as it circulated around the early North American and Atlantic economies. The pre-printed monthly plantation report moved from Jamaica to Guiana, Grenada, Florida, and Virginia, shaping record-keeping practices along the way. Following this paper trail as it moved from printers who produced printed forms, to managers and overseers who recorded information, to proprietors who evaluated reports from a distance creates an opportunity to bridge the interests of historians and economists. It also offers an opportunity to cycle productively between the distant reading of aggregation and the close reading of individual stories and texts.

Planter and slaveholder Farquhar Macrae departed Jamaica in 1833 in reaction to what he called “the mad abolition act of the infatuated English government.” Earlier that year, the British Parliament had passed a measure to end slavery throughout its colonies, including Jamaica. Macrae lamented his “sacrifice of property and prospects,” but he did not leave the West Indies empty-handed. The abolition act included a provision for compensating slave owners for the loss of their human capital. In effect, Parliament bought them out, paying more than £20 million in total compensation to former slave holders. In Jamaica’s Clarendon Parish, where Macrae filed for compensation, the largest individual claims reached nearly £10,000 for more than 500 enslaved Africans. Macrae received just £237 10S 6D for relinquishing his property rights to eleven men and women. Though Macrae later styled himself a “sugar planter” accustomed to planting on a “very large scale,” the modest size of his claim suggests a middling stature, either as a small proprietor or perhaps as a manager or attorney on a larger estate.<sup>7</sup>

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very little to do with econometrics. For example: Are the original archival sources adequate for the author’s claims? Are the author’s assumptions about the period appropriate? Accessible statistical introductions tailored to the interests of historians are scarce. See C. H. Feinstein and Mark Thomas, *Making History Count: A Primer in Quantitative Methods for Historians* (Cambridge, UK, 2002). Or, for an excellent, brief introduction, hopefully soon to be translated into English, Claire Zalc and Claire Lemerrier, *Méthodes quantitatives pour l'historien* (Paris, 2008).

7. Farquhar Macrae, “On the Soils and Agricultural Advantages of Florida,” *Farmers’ Register*, Vol. III (Petersburg, VA, 1835), 179–81; Macrae, “Forms for an Overseer’s Journal and Monthly Reports, Suited to a Southern Plantation,”

Macrae chose East Florida as his new home, settling on the Wacissa River near Tallahassee where he planned to plant sugar. By March of 1834 he had a plot of land and purchased a gang of slaves to till it, perhaps with the help of his share of the British payout. But, as with other emigrating farmers, clerks, and overseers, Macrae brought more than capital to the American South. He arrived with knowledge of sugar planting, opinions about management, and expertise in accounting. He traded on his West Indian origins to become “something of a local celebrity,” serving as corresponding secretary for the local agricultural society and writing a series of articles for wealthy Virginia planter Edmund Ruffin’s popular magazine, *The Farmers’ Register*. In its first year of publication, the *Register* boasted 1,300 subscribers across sixteen states and the District of Columbia, though most of them were from Virginia.<sup>8</sup>

Macrae took up the subject of accounting in his first article for the *Farmer’s Register*. In it, he provided one of only a handful of two-page illustrations in the journal’s ten-year run. This diagram, reproduced in Figure 1, showed planters how to format their books. The forms he laid out covered one month of plantation business, and Macrae recommended binding twelve sets together to form “an authentic record” of all operations on an estate each year. He explained to readers that detailed records would both improve management day to day and enable long-distance monitoring. And because of the brevity and simplicity of the forms, Macrae believed that any overseer could keep them correctly, given “nothing to do save to fill up the heads and the columns.”<sup>9</sup>

Macrae’s plan was not original. His recommendations replicated the structure of other pre-printed forms that had been circulating in the British Atlantic world for decades. One such form recorded daily activities

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*Farmers’ Register*, Vol. III (Petersburg, VA, 1836), 163–65. “Jamaica Clarendon 1 (Parnassus Estate),” *Legacies of British Slave-ownership*, <http://www.ucl.ac.uk/lbs/claim/view/22211>. “Jamaica Clarendon 236,” *Legacies of British Slave-ownership*, <http://www.ucl.ac.uk/lbs/claim/view/16934>; Macrae was spelled “McRae” in the parliamentary reports cited in *Legacies*, but there are no other plausible matches. Macrae, “On the Soils . . .”

8. Edward E. Baptist, *Creating an Old South: Middle Florida’s Plantation Frontier before the Civil War* (Chapel Hill, NC, 2002), 20–21. Albert Lowther Demaree, *The American Agricultural Press, 1819–1860* (New York, 1941), 362. Geographic detail on subscribers from “Supplement to Vol. I. of *Farmers’ Register*,” *Farmers Register*, Vol. I (Shellbanks, VA, 1834), 769–76.

9. Macrae, “Forms for an Overseer’s Journal . . .,” 163–65.

164 FARMERS' REGISTER. [No. 2]

JOURNAL OF PLANTATION

Days of the week.	IN THE FIELD.				NEGROES.											
	Men.	Women.	Boys.	Girls.	Working.	Tradesmen.	Houses etc.	Sick.	Invalids.	Nurses.	Stock.	Ministers.	Ablest.	Infants.	Children.	Decrease.

JOURNAL OF PLANTATION.

NEGRO ACCOUNT.										CATTLE ACCOUNT.									
On hand.	On hand.	Total.	Total.	On hand.	On hand.	Total.	Total.	On hand.	On hand.	Total.	Total.								
Increase.	Increase.	Decrease.	Decrease.	Increase.	Increase.	Decrease.	Decrease.	Increase.	Increase.	Decrease.	Decrease.								
Total.	Total.	Remain.	Remain.	Total.	Total.	Remain.	Remain.	Total.	Total.	Remain.	Remain.								

LAND AND CULTIVATION.

Acres land cleared.	Acres in cotton.	Acres in rice.	Acres in sugar.	Acres in guano.	Acres in mulberry.	Acres in tobacco.	Acres in garden.	Acres in pasture.	Acres in woods.	Acres in other.	Acres in total.
PLANTED THIS MONTH.											
Acres of rice.	Acres of cotton.	Acres of sugar.	Acres of guano.	Acres of mulberry.	Acres of tobacco.	Acres of garden.	Acres of pasture.	Acres of woods.	Acres of other.	Acres of total.	Acres of total.
Acres of rice.	Acres of cotton.	Acres of sugar.	Acres of guano.	Acres of mulberry.	Acres of tobacco.	Acres of garden.	Acres of pasture.	Acres of woods.	Acres of other.	Acres of total.	Acres of total.
Acres of rice.	Acres of cotton.	Acres of sugar.	Acres of guano.	Acres of mulberry.	Acres of tobacco.	Acres of garden.	Acres of pasture.	Acres of woods.	Acres of other.	Acres of total.	Acres of total.

CROP HARVESTED.

Bushels of corn.	Bushels of rice.	Bushels of peas.	Bushels of wheat.	Bushels of other.	Bushels of total.
Pounds of cotton.	Pounds of sugar.	Pounds of guano.	Pounds of mulberry.	Pounds of tobacco.	Pounds of garden.
Pounds of pasture.	Pounds of woods.	Pounds of other.	Pounds of total.	Pounds of total.	Pounds of total.

165 FARMERS' REGISTER.

FOR THE MONTH OF \_\_\_\_\_ 1833.

Pounds of cotton picked per diem.	EMPLOYMENT AND REMAINS.
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CONSUMPTION AND EXPENDITURE.

CONSUMED THIS MONTH.		RECEIVED THIS MONTH.	
From	To	From	To
Corn, (No. bushels)	Do.	Corn, (No. bushels)	Do.
Rice, (No. bushels)	Do.	Rice, (No. bushels)	Do.
Salt, (No. pounds)	Do.	Salt, (No. pounds)	Do.
Pork, (No. pounds)	Do.	Pork, (No. pounds)	Do.
Butter, (No. pounds)	Do.	Butter, (No. pounds)	Do.
Salt fish, (No. pounds)	Do.	Salt fish, (No. pounds)	Do.
Tobacco, (No. pounds)	Do.	Tobacco, (No. pounds)	Do.
Honors, (No. gallons)	Do.	Honors, (No. gallons)	Do.

FEEDING MULES, &c. &c.

Corn, (No. bushels)	Do.	Do.	Do.
Oats, (No. bushels)	Do.	Do.	Do.
Wheat, (No. bushels)	Do.	Do.	Do.
Timothy, (No. bushels)	Do.	Do.	Do.
Hay, (No. bushels)	Do.	Do.	Do.
Food, (No. bushels)	Do.	Do.	Do.
Salt, (No. pounds)	Do.	Do.	Do.

GENERAL REMAINS, &c.

Figure 1: West Indian Methods Suited for a Southern Plantation. Farquhar Macrae, "Forms for an Overseer's Journal and Monthly Reports, Suited to a Southern Plantation," *Farmers' Register*, Vol. III (Petersburg, VA, 1836), 163-65. Courtesy Library Company of Philadelphia.

on Plantation Hope and Experiment in Berbice, British Guiana, during June 1812. Though Macrae surely never saw this particular form, the close similarities to his own methods very likely reflect a shared lineage. Macrae's instructions included six subsections, almost all of which were also included in the report from Hope and Experiment. In addition, Macrae recommended that "when proprietors travel for the summer, or reside off their plantations" loose sheets of the report could be "neatly folded" and mailed to them as letters. The Hope and Experiment record appears to have been folded for mailing or filing in precisely this manner.<sup>10</sup>

The first and most prominent item on both forms was a record of labor performed on the estate—a work log. Here, Macrae included a line for each day, with columns for the overseer to record the day of the week, the day of the month, the state of the weather, and the activities of every enslaved man, woman, and child working on the estate. The left-most columns offered space to enumerate the activities of field hands, the middle columns provided space to record more specialized tasks, and the right-most columns room note those unable to labor due to sickness, age, or absence. Each day, all of columns were to be tallied up and recorded in a final total at the end of the row. If the form had been completed correctly, this sum would equal the total number of slaves laboring on the plantation. So long as it did, a planter or attorney reviewing the forms could know that he had accounted for every enslaved man, woman, and child toiling on his land. To the right of the grid of numbers, the bookkeeper could include narrative remarks explaining changes from day to day.<sup>11</sup>

The Hope and Experiment record matched Macrae's model and illustrates how it worked in practice. The left-most columns listed the day of the week, the day of the month, and the weather. To the right of these were spaces to record the activities of the enslaved: The overseer noted

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10. "Journal of Plantation Hope and Experiment, June 1812," *Plantation Journals, 1812–1843, Box 9/1, Slavery, Abolition, and Social Justice Collection*, Adam Matthew, <http://www.amdigital.co.uk/m-collections/collection/slavery-abolition-and-social-justice/>. Details on the plantation not coming from the journal itself are from "British Guiana 197 (Plantation Hope and Experiment)," *Legacies of British Slave-ownership*, <https://www.ucl.ac.uk/lbs/claim/view/8561>; Macrae, "Forms for an Overseer's Journal . . ."

11. "Journal of Plantation Hope and Experiment, June 1812."

in separate columns the number of laborers in the field, the count of slaves performing specialized tasks, and number who were unable or unwilling to work. On June 1, for example, 171 slaves labored at various tasks, and those who could not work included 91 children, 6 invalids, and 2 runaways. Adding these up, the bookkeeper or manager arrived at the total population living and working on the plantation: 270. On Hope and Experiment, the distribution of laborers varied from day to day but this total remained constant until June 15, when a slave woman named Diana “died in child bed” reducing the total by one.<sup>12</sup>

Both Macrae’s instructions and the Hope and Experiment plantation records included an analysis of “increase” and “decrease,” the troubling mathematical shorthand for the birth, death, purchase, and sale of slaves. Here planters drew up a kind of balance sheet of lives. After first entering an inventory of lives “on hand,” the recorder noted births and purchases under “increase” to reach a total (the equivalent of the left-hand side of a balance sheet). On the right side of the account (in Macrae’s case, inscribed below “increase”), the recorder noted any deaths or sales as “decrease” and subtracted them from the total. The result was the number that remained, a quantity that could be checked against the next inventory of lives. On the form for Hope and Experiment, Diana’s death reduced the “Negro Account” from 270 to 269. Her child apparently did not survive long enough to be recorded on either side of the form.<sup>13</sup>

Next to the chronicles of life and death, both forms included nearly identical spaces to record the increase and decrease of livestock, including horses, mules, oxen, cows, calves, sheep, pigs, and goats. During June 1812 Hope and Experiment lost eight sheep and gained twelve calves. Throughout the journals of this plantation (and many other West Indian account books) records for people and livestock comingled. On Macrae’s form, the “negro account” is nearly identical to the adjacent “cattle account.” He also recommended parallel records for what slaves and livestock each consumed. One set of columns lists potatoes, rice, fish, meat, tobacco, and molasses while the other includes oats, rye, turnips, and fodder, but in all other aspects “feeding negroes” replicated “feeding mules.”<sup>14</sup>

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12. Ibid.

13. Ibid.

14. For another example, see “Journal of Plantation Good Success, 1830–1831,” *Plantation Journals, 1812–1843, Wilberforce, Box 9/8, 9/8, 9/29, Slavery,*

The publication and circulation of monthly reports can be interpreted in multiple registers, some of which are familiar. First, completed forms from various plantations can be analyzed together as repositories of data and used to answer questions in the aggregate: How did plantations compare with one another from a demographic perspective? How did life, death, production, and reproduction vary across plantations? Second, the data can help to uncover individual stories about planters and overseers, or to reveal aspects of enslaved lives. In recent decades some historians have painstakingly dissected plantation records to do just this. Although monthly reports mention few individuals, very close analysis might unearth details of great importance, such as how recently Diana had been picking cotton before she died in childbirth.<sup>15</sup>

A third mode of reading considers the documents as information technologies that both reflected and structured plantation life. Seen as technologies, the forms offer a window into planters' patterns of thought about the men and livestock who labored on their plantations. For example, both the forms Macrae recommended and those used on Hope and Experiment emphasized accountability for time: The activities of every slave had to be recorded every day. As Justin Roberts writes about a slightly earlier set of planters, they "conceptualized time as currency."<sup>16</sup>

Considering blank forms as early information technologies offers an

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*Abolition, and Social Justice Collection*, Adam Matthew, <http://www.amdigital.co.uk/m-collections/collection/slavery-abolition-and-social-justice/>.

15. This kind of painstaking work has been undertaken by historians like Richard S. Dunn to understand plantation demography and by Justin Roberts to explore work patterns. Dunn, *A Tale of Two Plantations: Slave Life and Labor in Jamaica and Virginia* (Cambridge, MA, 2014). Roberts, *Slavery and the Enlightenment in the British Atlantic, 1750–1807* (New York, 2013). In economics, Alan Olmstead and Paul Rhode have used data from account books to examine output and productivity. Olmstead and Rhode, *Creating Abundance*.

16. For a brief introduction to thinking about technologies, see Barbara Hahn, "The Social in the Machine: How Historians of Technology Look Beyond the Object," accessed Apr. 11, 2016, <https://www.historians.org/publications-and-directories/perspectives-on-history/march-2014/the-social-in-the-machine>. On economic and business technologies more specifically, see Donald A. MacKenzie, Fabian Muniesa, and Lucia Siu, eds., *Do Economists Make Markets? On the Performativity of Economics* (Princeton, NJ, 2007); JoAnne Yates, *Structuring the Information Age: Life Insurance and Technology in the Twentieth Century* (Baltimore, 2005). Roberts, *Slavery and the Enlightenment in the British Atlantic*, 27.

important opportunity for historians to connect with economists. As practices spread, accounting became the kind of “general purpose technology” that economists often describe as a handmaiden for other advances. Blank forms were, in a sense, paper machines that both reproduced longstanding management strategies and enabled new ones to emerge. And ships and men carried them across the Atlantic, disseminating methods to new geographies. Historians considering these documents as technologies might ask a whole range of questions that bear on both social relations and economic productivity. For example: How did slaveholders imagine converting food, housing, and human capital into an orderly labor force toiling in the complex production process of sugar? How did they measure their success in the output of commodities such as sugar and cotton? And, confronted with both the neat form’s standard categories and the messy realities of plantation life, which portions did they complete and which did they neglect or repurpose?<sup>17</sup>

A related genre of plantation report focused on monitoring the long-term makeup of the workforce rather than the daily labor regime. A fascinating example comes from Friendship plantation, also in British Guiana. This blank form cross-tabulated plantation occupations with demographic information (Figure 2). Across the top, five columns classify the enslaved as Men, Women, Boys, Girls, and Children. Down the left side are sixteen categories reflecting labor and skill. Some categories specified how labor was allocated: “in the field,” “about the works,” “on different jobs.” Others enumerated the skilled tasks, and finally there were also classifications for slaves whose labor was limited due to old age or poor health. While this format reduced detail on daily occupations, it offered a view of the workforce’s evolution over longer periods of time. How many young children would be available to join the workforce? Were boys and girls being instructed in skilled tasks? And what was the

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17. The technologies most often described as “general purpose” include the steam engine and the computer. On general-purpose technologies, see Paul A. David, “The Dynamo and the Computer: An Historical Perspective on the Modern Productivity Paradox,” *American Economic Review* 80 (May 1990), 355–61; Nicholas Crafts, “Steam as a General Purpose Technology: A Growth Accounting Perspective,” *Economic Journal* 114 (Apr. 2004), 338–51; Nathan Rosenberg and Manuel Trajtenberg, “A General-Purpose Technology at Work: The Corliss Steam Engine in the Late-Nineteenth-Century United States,” *Journal of Economic History* 64 (Mar. 2004), 61–99.

*Friendship* **Plantation Journal, August 1828**

NEGROES.	Men.	Women.	Boys.	Girls.	Children.	Total.	INCREASE THIS MONTH.	
							Males.	Females.
In the Field, . . . .	28	50	1	8		82	<i>the women Suffer of a</i>	
About the Works, . . .	12	6		4		22	<i>death Child Suffered</i>	
On different Jobs, . . .	4	4				8	<i>Suffered ✓</i>	
House Servants, . . .	1	1	2			4		1
Coopers, <i>Shoemakers</i>	4					4		
Carpenters, . . . .	12					12		
Masons, <i>Smiths</i>	5					5		
Boatmen, <i>Spent</i>	11					11		1
Watchmen, . . . .	6					6	DECREASE THIS MONTH.	
Nurses, <i>Abolish</i>	1	5				7	<i>the small child than Francis,</i>	
Pregnant Women, . . .		2				2	<i>of Suffering ✓</i>	
In the Hospital, . . .	11	26	4	2		43	<i>the child Colin Duff</i>	
In the Yaw-House, . . .					4	4	<i>of water on the Brain!</i>	
Invalids and Aged, . . .	15	14				29		
Children under 12 yrs.					108	108		
Absent, . . . .	2					2		
TOTAL, . . . .	112	109	7	9	112	329		2

Figure 2: Managing Lives and Labor. Page from “Friendship Plantation Journal,” Aug. 1828 (ink on paper), English School (nineteenth century) / © Wilberforce House, Hull City Museums and Art Galleries, UK/Bridgeman Images.

overall profile of the enslaved community at this location? Next to this was the accounting for “increase” and “decrease.” For August 1828, as was so often the case in the British Caribbean, “the decrease” exceeded the “increase.”<sup>18</sup>

The manager or bookkeeper at a plantation named Ballie’s Bacolet in Grenada also juxtaposed occupation with age and sex on a pre-printed form similar to the one used on Friendship plantation. The recorder crossed out pre-printed racial categories and added new rows and columns in their place. The result was a grid identical to the one used on Friendship plantation. The Bacolet reports are particularly interesting because they continue through the period of emancipation and apprenticeship; the manager’s reports to London shifted headers from “slaves”

18. “Journal of Friendship Plantation, August 1828,” Plantation Journals, 1812–1843, Wilberforce, Box 9/4, 9/7, 9/27, 9/28, *Slavery, Abolition, and Social Justice Collection*, Adam Matthew, <http://www.amdigital.co.uk/m-collections/collection/slavery-abolition-and-social-justice/>.

to “laborers” and eventually to “negroes.” The paper materials changed over time: Starting in late 1834, perhaps after recorders ran out of printed forms, the reports are fully hand-lined, and after 1837 the plantation began using bespoke forms, titled “BACOLET PLANTATION JOURNAL, Grenada.” Despite variation in printing style, however, the underlying categories remained constant. Planters continued to allocate labor of the freedpeople in much the same manner as they had allocated labor before emancipation.<sup>19</sup>

Monthly reports provide a lens into the larger information systems that structured life on plantations in the West Indies. All of the forms appear to have been abstracted from other plantation accounts. Records kept on West Indian plantations often included detailed work logs, day-books, journals, and formal ledgers. From these, a bookkeeper or overseer copied out details for an attorney or proprietor to review. As one bookkeeper employed on a Jamaican estate explained after returning to England, he was occasionally responsible for “copying off a monthly sheet of the transactions of the estate from the Plantation Journal, to be sent to the attorney, and by him transmitted to the proprietor in England.”<sup>20</sup>

Treating forms as technologies also raises questions about networks of expertise. How did these technologies spread, and who learned to use them? Were the forms themselves conduits for management strategies, a vehicle for learning efficiently? Some forms were pre-printed with spaces to fill in the name of the plantation; they were portable information templates that could be used on any estate. Others were bespoke, with a specific plantation already imprinted at the top. For example, on plantations Endraght and Mon Repos, both under the supervisions of attorney William Atwick Hamer, managers completed forms specifically designed for the “Estates of Hamer.”<sup>21</sup>

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19. “Bacolet Plantation Journals, 1832–1843,” *Plantation Journals, 1812–1843*, Wilberforce, Box 9/30, 9/32, 9/39, 9/41, 9/43, 9/44, 9/46, 948, 9/49, *Slavery, Abolition, and Social Justice Collection*, Adam Matthew, <http://www.amdigital.co.uk/m-collections/collection/slavery-abolition-and-social-justice/>.

20. “Scenes and Incidents in the Life of a Bookkeeper,” *Hampshire Advertiser*, Saturday, Apr. 23, 1836, *The British Newspaper Archive*, [www.britishnewspaperarchive.co.uk/viewer/bl/0000494/18360423/028/0004](http://www.britishnewspaperarchive.co.uk/viewer/bl/0000494/18360423/028/0004).

21. “Hamer Estate Plantation Journals, 1821–1825,” *Plantation Journals, 1812–1843*, Wilberforce, Box 9 Box 9/10–9/26, *Slavery, Abolition, and Social*

Both the transport of forms across the Atlantic and the fact that attorneys oversaw multiple plantations likely facilitated the dissemination of these methods. At the time of the British compensation, London merchant William King owned both Friendship plantation and Good Success, and attorney George Warren managed them both. The reports for Ballie's Bacolet were also addressed to King, who might have reviewed them alongside those from his many other holdings, which included Sarah and Good Interest in Guiana, as well as properties in Trinidad and Dominica. Did proprietors like William King compare productivity across their properties? And when did they implement practices from one location at others? Did the dislocations of abolition bring expertise like Macrae's to the American South more widely, ironically strengthening the institution of slavery? And how did information practices shape the management and communications revolutions happening beyond the plantation?<sup>22</sup>

In some ways, seeking a quantitative middle ground is about returning to crucial questions about efficiency, organization, and the exploitation of resources. However, it also facilitates attention to power and violence. Plantation account books treated the enslaved as fungible commodities, and scholars of slavery have used these texts to explore the violence of commoditization. Walter Johnson's celebrated *Soul by Soul* used account books and a wide array of other sources to describe back-and-forth negotiations between masters and enslaved, looking for the daily realities that

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*Justice Collection*, Adam Matthew, <http://www.amdigital.co.uk/m-collections/col-lection/slavery-abolition-and-social-justice/>.

22. On the large number of estates overseen by prominent attorneys, see B. W. Higman, *Plantation Jamaica, 1750–1850: Capital and Control in a Colonial Economy* (Kingston, Jamaica, 2008). “William King, Profile & Legacies Summary,” *Legacies of British Slave-ownership*, <https://www.ucl.ac.uk/lbs/person/view/28107>. On Caribbean dislocations and technology dissemination, see Maria M. Portuondo, “Plantation Factories Science and Technology in Late-Eighteenth Century Cuba,” *Technology and Culture* 44 (Apr. 2003), 231–57; Daniel B. Rood, “Plantation Technocrats: A Social History of Science of Knowledge in the Slaveholding Atlantic World, 1830–1860,” PhD diss, University of California, Irvine, 2010. José Guadalupe Ortega, “The Cuban Sugar Complex in the Age of Revolution, 1789–1844,” PhD diss., University of California, Los Angeles, 2007. The phrase “communication revolution” has generally not been used in the plantation context, but outside of it see Daniel Howe, *What Hath God Wrought: The Transformation of America, 1815–1848* (New York, 2007); and Richard John, *Network Nation: Inventing American Telecommunications* (Cambridge, MA, 2010).

were “hidden by the neat rows of figures listed down either side of a trader’s account book.” Likewise, Stephanie Smallwood has insisted that these records, through their “graphic simplicity and economy . . . effaced the personal histories that fueled the slaving economy.”<sup>23</sup>

A middle reading approach builds on Johnson and Smallwood’s exploration of what the process of enumeration obscures. To start by summing up the data would be to let the account books dictate what stories can be told. As Sadiya Hartman has lamented, the commercial archive often determines what can “be said about the past and the kinds of stories that can be told about the persons cataloged, embalmed, and sealed away in box files and folios.” Certainly, this applies to many kinds of sources, quantitative or qualitative: Making a record always both erases and makes visible. Focusing on the structure of forms offers an opportunity to directly examine the dialectic of erasing and accounting. And, from here, we can use account books both to access elements of the stories of the enslaved and understand the material impact of these paper technologies of capitalism.<sup>24</sup>

A focus on forms also offers an opportunity to build a new kind of data fluency. Analyzing the structure of historical data sources requires many of the same tools as critiquing new research in digital history and the digital humanities more broadly. Despite the appearance of neutrality, numerical sources (and the things we do with them) are always narrative. They reflect choices, and those choices—conscious or not—have politics. As digital humanist Frederick Gibbs writes, this “is not merely cliometrics 2.0.” As he argues, “data, its visualizations, and tools . . . should be subject to the same kinds of interrogations typically applied to narrative analyses and explanation.” As data gets bigger, it is more

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23. Walter Johnson, *Soul by Soul: Life inside the Antebellum Slave Market* (Cambridge, MA, 1999), 47. Stephanie E. Smallwood, *Saltwater Slavery: A Middle Passage from Africa to American Diaspora* (Cambridge, MA, 2007), 98.

24. Sadiya V. Hartman, *Lose Your Mother: A Journey along the Atlantic Slave Route*, 1st ed. (New York, 2007), 17. In some ways, Walter Johnson’s *River of Dark Dreams* does just this, though it remains more firmly in the terrain of the cultural. Johnson writes, for example, of a “trinomial” accounting for men, land, and cotton. However, he focuses on the linguistic power of this evocative triad, rather than exploring the impact of specific metrics that were actually used by planters. Johnson, *River of Dark Dreams: Slavery and Empire in the Cotton Kingdom* (Cambridge, MA, 2013).

important than ever to interrogate narrative choices, to return to the documents, and to question the structure of both archives and the databases that represent them.<sup>25</sup>

During the standoff over quantitative history during the 1970s and 1980s, one of historians' chief criticisms of economic history was that it focused on questions available data addressed rather than on the questions that were the most important or interesting. They mocked this as the problem of "the drunk and the streetlight"—the drunk looks for his keys under the streetlight because that is where he can see. The middle reader asks why the streetlight is where it is, how it was designed and placed, and what the installation process might tell us about both the areas illuminated and those left in the dark. Of course, studying the streetlight will not itself light the shadows. There are still important questions in the darkness—questions that will never be answered if we restrict ourselves to quantitative sources. But if we use data in combination with a critique of its construction, then it can add a great deal to our overall understanding of early America.<sup>26</sup>

A subset of historians working on technology and mathematics has long attempted to parse quantitative archives in ways that go beyond simply adding them up. For early America, Patricia Cline Cohen's *A Calculating People* gestured toward a wide range of possibilities for contextualizing quantitative practices. The lively debates about the arrival of capitalism in early New England often used account books as windows into behavior, ideology, and morals. Such work has blossomed in recent years, and the pace of research that incorporates numbers seems to be accelerating. A prime example is Tamara Thornton's work on Nathaniel Bowditch, a mathematician, business executive, author, and astronomer. Bowditch's passion for numbers shaped his work in all of these settings, and Thornton describes how his confidence in quantification influenced a wide range of growing bureaucracies. Recent work on the history of insurance, including Sharon Murphy's *Investing in Life* and Dan Bouk's

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25. Frederick Gibbs, "New Forms of History: Critiquing Data and Its Representations," *American Historian* (Feb. 2016), 31–36.

26. For a discussion of this and other critiques, see J. Morgan Kousser, "The Revivalism of Narrative: A Response to Recent Criticisms of Quantitative History," *Social Science History* 8 (Apr. 1984), 133–50.

*How Our Days Became Numbered*, also combine awareness of the quantitative practices (and biases) of insurers with analysis of the data they left behind.<sup>27</sup>

The history of slavery, the terrain of some of the most vigorous debates between historians and economists, has seen a particular resurgence of interest in numerical practices. Justin Roberts's *Slavery and the Enlightenment in the British Atlantic* examines the way planters' efforts at improvement, many of them quantitative, reflected and shaped Enlightenment ideals, using plantation records and manuals to analyze both patterns of labor among the enslaved and the ways planters thought about labor. Roberts's work builds on a longer history of time, record-keeping, and modernization in the American south, most notably developed in Mark Smith's *Mastered by the Clock*. And a growing body of work explores the aesthetics of quantification and finance. In the field of slavery studies broadly defined, Ian Baucom's *Specters of the Atlantic* analyzes the atrocity of the slaving ship *Zong*, in which masters and crewmen threw overboard African men from a ship in distress, and the ship owners later filed an insurance claim to recover the value of the murdered men. Baucom reflects on a set of partially numerical records from the insurance case surrounding the massacre. Outside of the study of slavery,

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27. Patricia Cline Cohen, *A Calculating People: The Spread of Numeracy in Early America* (Chicago, 1982). See also Margo J. Anderson, *The American Census: A Social History* (New Haven, CT, 1990). For a review of the moral-market economy debate and a discussion of the many ways of reading account books, see Naomi Lamoreaux, "Rethinking the Transition to Capitalism in the Early American Northeast," *Journal of American History* 90, no. 2 (2003), 437–61. Tamara Plakins Thornton, *Nathaniel Bowditch and the Power of Numbers: How a Nineteenth-Century Man of Business, Science, and the Sea Changed American Life* (Chapel Hill, NC, 2016). Sharon A. Murphy, *Investing in Life: Insurance in Antebellum America* (Baltimore, 2010); Dan Bouk, *How Our Days Became Numbered: Risk and the Rise of the Statistical Individual* (Chicago, 2015). See also Theresa A. Goddu, "The Antislavery Almanac and the Discourse of Numeracy," *Book History* 12 (Sept. 2009), 129–55; Linda English, *By All Accounts: General Stores and Community Life in Texas and Indian Territory*, Race and Culture in the American West Series, Vol. 6 (Norman, OK, 2013); Mary Beth Sievens, "Female Consumerism and Household Authority in Early National New England," *Early American Studies: An Interdisciplinary Journal* 4, no. 2 (2006), 353–71; Caitlin Rosenthal, "Storybook-Keeper," *Common-Place* 12, no. 3 (Apr. 2012), <http://www.common-place-archives.org/vol-12/no-03/rosenthal/>.

Michael Zakim has written of bookkeeping as ideology, exploring the ways seemingly neutral quantitative practices that promised to be disinterested in fact also carried a set of epistemological values that supported the spread of capitalism.<sup>28</sup>

The resurgence in historical scholarship using quantitative sources hints at opportunities for collaboration with economists, but in most cases these have not materialized. In some ways this is unsurprising: Literary analyses like Baucom's and explorations of ideology like Zakim's may be as opaque to economists as formal models tend to be to historians. And different assumptions tend to accompany differences in method: Economics remains a highly positivist discipline, while history emphasizes lived experience and representation.

Historians have long charged economists with a near-obsessive focus on models of causation, often at the expense of narrative and description. John McCusker and Russell Menard's 1982 *The Economy of British America* identified the "engine of change" as the "new economic history," the "distinguishing characteristics of which are the explicit application of theory to the past and the testing of hypotheses through statistical analysis." But they lamented the fact that "cliometrics has not penetrated very deeply into the history of early British America. Almost all the work in the field now completed and most of that currently under way is descriptive, aimed at measurement and narration, at getting the facts right, rather than at econometric analysis." After the publication of *The Economy of British America*, however, history departments turned

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28. Roberts, *Slavery and the Enlightenment*. Mark M. Smith, *Mastered by the Clock: Time, Slavery, and Freedom in the American South* (Chapel Hill, NC, 1997); John Majewski, *Modernizing a Slave Economy: The Economic Vision of the Confederate Nation* (Chapel Hill, NC, 2009); Lorena Seebach Walsh, *Motives of Honor, Pleasure, and Profit: Plantation Management in the Colonial Chesapeake, 1607–1763* (Chapel Hill, NC, 2010); Higman, *Plantation Jamaica, 1750–1850*. Ian Baucom, *Specters of the Atlantic: Finance Capital, Slavery, and the Philosophy of History* (Durham, NC, 2005); Smallwood, *Saltwater Slavery*; Hartman, *Lose Your Mother*; Michael Zakim, "The Business Clerk as Social Revolutionary or, a Labor History of the Nonproducing Classes," *Journal of the Early Republic* 26 (Sept. 2006), 563–603; Michael Zakim, "Bookkeeping as Ideology: Capitalist Knowledge in Nineteenth-Century America," *Common-Place* 6, no. 3 (Apr. 2006), <http://www.common-place-archives.org/vol-06/no-03/zakim/>; Mary Poovey, *Genres of the Credit Economy: Mediating Value in Eighteenth- and Nineteenth-Century Britain* (Chicago, 2008).

toward the cultural and economists embraced ever more complex econometrics. In addition to widening the methodological gap between the two disciplines, this split resulted in a general lack of attention to many basic descriptive questions about how the economy worked. Top journals in economics have rewarded elaborate modeling rather than “careful grubbing in reluctant documents” that characterizes broad, descriptive economic histories like *The Economy of British America*.<sup>29</sup>

Fortunately, scholars from both history and economics are still “grubbing in reluctant documents.” With better tools, this work has become less grubby and the documents are less reluctant than ever before. Take Jeremiah Dittmar’s exciting research on the printing press in early modern Europe. Dittmar uses the *incunabulum*, the record of the approximately 30,000 printed pamphlets and books published with moveable type before 1500. His work reflects the both divergence of disciplinary priorities and the potential for collaboration. Dittmar’s most important publication on the printing press relies on an instrumental variable—distance from Mainz—to model the press’s impact on long-term growth. Though the model may be of limited interest to some historians, Dittmar’s descriptive analysis could be invaluable: The data offers a fascinating portrait of when and where printing first expanded, and of what was published, including an unexpectedly large cache of bookkeeping and commercial texts. Though Dittmar’s published articles describe these only in broad strokes, the material would be fertile ground for collaboration. Dittmar’s joint research with Suresh Naidu on runaway slaves in the American South reflects these same disciplinary obstacles and opportunities. Together, Naidu and Dittmar have collected the characteristics of individual runaway slaves from over 20,000 newspaper advertisements. Their research currently focuses on property rights enforcement, but the data set could also illuminate a far broader set of questions. For example: Who was running away, from where, and for what reasons? These questions have been addressed before by historians, but never with such comprehensive data.<sup>30</sup>

29. John J. McCusker and Russell R. Menard, *The Economy of British America, 1607–1789* (Chapel Hill, NC, 1991), 5.

30. Ibid. Jeremiah E. Dittmar, “Information Technology and Economic Change: The Impact of the Printing Press,” *Quarterly Journal of Economics* 126, no. 3 (Aug. 2011), 1133–72. Jeremiah E. Dittmar and Suresh Naidu, “Contested Property,” Working Paper, 2015. For an interesting example based on a much smaller sample, see Gad J. Heuman, “Runaway Slaves in Nineteenth-Century

Though some economists may ask different questions from historians, others are working adjacent to some of the most important questions animating research on early America. Consider Eric Hilt's research on the corporate form in the period of the early republic, which sheds light on questions about power, politics, and governance. Through careful archival work, Hilt and his collaborator Jacqueline Valentine compare the corporate stockholders in New York City between 1791 and 1825–26. Among other findings, they show that in 1791, the richest group of shareholders was made up of politicians, the very people who controlled access to incorporation. By contrast, in 1825–26 New York, not only were politicians much less important, overall shareholders were more diverse, including many middling Americans. These findings not only reveal the deep interconnections between politics and economics, they also raise questions about histories of financialization that emphasize the twentieth century.<sup>31</sup>

Historians of early American could also benefit from a growing interest in mapping and visualization of spaces over time. David Donaldson and Richard Hornbeck's research on the railroads is an important example. Hornbeck and Donaldson have painstakingly reconstructed networks of transportation in early America, creating a Google maps perspective on the nineteenth century. Their data shows how distant communities were (and were not) connected by railroads, canals, natural waterways, and roads. In part, the goal of the work research is to revise Robert Fogel's numbers for the impact of the railroads on North American economic growth (their answer is "moderately larger"), but the data also sheds light on a range of other questions about market access and the persistent effects of infrastructure investment. Historians interested in questions about communication, transportation, access, and interconnectedness all

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Barbados," in *Out of the House of Bondage: Runaways, Resistance and Marronage in Africa and the New World*, ed. Gad Heuman (London, 1986).

31. Eric Hilt and Jacqueline Valentine, "Democratic Dividends: Stockholding, Wealth, and Politics in New York, 1791–1826," *Journal of Economic History* 72 (June 2012), 332–63. For a broader history of the corporation, see Hilt, "History of American Corporate Governance: Law, Institutions, and Politics," *Annual Review of Financial Economics*, no. 6 (2014), 1–21. Of related interest on changing access to incorporation, see John Joseph Wallis, "Constitutions, Corporations, and Corruption: American States and Constitutional Change, 1842 to 1852," *Journal of Economic History* 65 (Mar. 2005), 211–56.

could benefit from their data and analysis. Donaldson and Hornbeck's work seems to be indicative of a move toward figures and maps. Top journals in economics are embracing visualization, using charts, graphs, and maps that are more legible outside of the discipline than traditional statistical tables.<sup>32</sup>

A final potential area for collaboration concerns the rise of numeracy itself. Brian A'Hearn, Jörg Baten, and Dorothee Crayen have used over-reporting of age on official forms as a proxy for quantitative ability and human capital more generally. Early censuses and other documents that record the ages of particular populations dramatically over-report ages ending in 5 and 0s, but this pattern diminishes over time. Comparing age heaping ratios offers an opportunity to assess how segments of the population gained broader levels of quantitative sophistication as numbering became more exact. Some historians may be skeptical of whether heaping accurately represents human capital. But the research does offer a useful way to make comparisons across regions and populations, particularly when used in combination with other sources. Further, it is distinctive because it represents a critical posture to the numbers themselves. Scholars are beginning to ask what data errors can tell us about numerical preferences and practices, an endeavor of interest to both historians and economists.<sup>33</sup>

In many ways, the gap between positivist, predictive economics and

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32. Dave Donaldson and Richard Hornbeck, *Railroads and American Economic Growth a "Market Access" Approach*, ed. National Bureau of Economic Research, NBER Working Paper Series, no. 19213 (Cambridge, MA, 2013), <http://uclibs.org/PID/20782/w19213>; Robert William Fogel, *Railroads and American Economic Growth: Essays in Econometric History* (Baltimore, 1964). The *Journal of Economic Perspectives* recently published a guide to visualization, and interesting new research has shown that even expert econometricists make better predictions when looking at scatterplots than tables of regression results. See Jonathan A. Schwabish, "An Economist's Guide to Visualizing Data," *Journal of Economic Perspectives* 28, no. 1 (2014), 209–34; Emre Soyer and Robin M. Hogarth, "The Illusion of Predictability: How Regression Statistics Mislead Experts," *International Journal of Forecasting* 28 (July 2012), 695–711.

33. Brian A'Hearn, Jörg Baten, and Dorothee Crayen, "Quantifying Quantitative Literacy: Age Heaping and the History of Human Capital," *Journal of Economic History* 69, no. 3 (2009), 783–808. See also Joel Mokyr and Cormac Ó Gráda, "Emigration and Poverty in Prefamine Ireland," *Explorations in Economic History* 19 (Oct. 1982), 360–84.

descriptive, interpretive history is wider than ever before. And barriers more institutional than methodological also stand in the way. Very few historians attend the most important conferences for economic historians—the Economic History Association annual meeting and the National Bureau of Economic Research’s Summer Institute on the Development of the American Economy. And economists only occasionally participate in venues historians prefer: the Business History Conference and the Society for Historians of the Early American Republic. Journals are similarly segregated: The *Journal of Economic History* is now almost produced almost entirely for and by economists. But we have much to gain from collaboration—starting with knowledge of and access to data sets of unprecedented scale.<sup>34</sup>

In the archives of early America, numerical sources abound—in merchants’ manuals, public reports, bills, price lists, currency, account books, and embedded in all sorts of other documents. Economists have already aggregated some of these, and historians can point the way toward more data of vital interest to practitioners of both disciplines. What’s more, historians can connect big data to context and politics. We can make sure that the stories economists tell about data take account of its origins, and we can cycle productively between aggregation and close analysis of individual sources. The study of numbers in all their dimensions will also increase our own numeracy, revealing new connections and raising new questions. In time, data collaboration may even produce a beneficial dialogue across disciplinary barriers—or at least a bit more guerilla warfare.<sup>35</sup>

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34. In the 2015 *Journal of Economic History*, approximately 3 percent of articles were written by faculty or students primarily affiliated with a history department. Including secondary joint appointments in history increases this total to 7 percent, and including those appointed or studying in economic history departments in Europe increases the total to 15 percent. Essays and review essays are disproportionately authored by historians. Including these raises the totals to 7 percent, 12 percent, and 20 percent, respectively. The existence of economic history departments in Europe shows the potential for more interdisciplinary collaboration given different institutional structures. Data from tables of contents for Vol. 75, issues 1–4 at <http://journals.cambridge.org/JEH>. Faculty affiliations from department websites.

35. See footnote 7 for signs that the guerilla warfare has already begun.