FROM SOCIAL MOVEMENT TO POLITICAL LOBBY
AGRICULTURAL REFORM AND THE ANTEBELLUM PARTY SYSTEM

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On September 10, 1849, tens of thousands of people began arriving in Syracuse, New York, in anticipation of the New York State Agricultural Society's ninth annual fair, set to begin the following morning. Though only exhibition officials and society members would be admitted on the opening day, the city's hotels were already nearly full.[1] The fairgrounds were thus packed from the outset. "But if the first day had witnessed a crowd," a local magazine asked rhetorically, "what shall we say of the second?"[2] Overnight thousands more visitors had arrived in all manner of vehicle "loaded to repletion."[3] Leaving his home in Ontario County on September 11, the young farmer Benjamin Gue walked eight miles with a friend to Canandaigua to "take the cars," which were "crowded as they could be." A packet boat on the Erie Canal was likewise "a complete jam."[4] As vacant hotel rooms disappeared, local denizens opened their homes to visitors, boats remained moored in town to provide makeshift sleeping quarters, and special trains conducted the spillover to Oswego, Auburn, and even Utica, over fifty miles away.[5] Every account of the three-day event stressed the incredible amount of people—a "dense mass," an "immense assemblage"—and if the published ticket-sale figures are near accurate the total attendance certainly exceeded a hundred thousand. By comparison, the city's residents numbered barely a fifth of that figure.[6]

Occupying over twenty enclosed acres on a small hill about a mile east of the city, the Syracuse exhibition offered "a prominent theatre for the display of American ingenuity" (Figures 1 & 2).[7] New York *Tribune* editor Horace Greeley was positively stupefied by the whole thing, though agreeably so. "After passing three or four hours in wandering among and gazing at this bewildering mass of Live Stock, Implements, Farm Produce, Inventions, &c.," he wrote, "I have brought away little more than a headache and a more vivid conception of the wonders of Nature

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[1] *Hudson River Chronicle*, 18 Sep 1849, 2 (America's Historical Newspapers); New York *Daily Tribune*, 13 Sep 1849, 1.
[2] *Literary Union*, 22 Sep 1849, p. 394 (American Periodical Series Online).
[3] American Agriculturist 8 (Oct 1849): 300.
[4] Benjamin Gue, *Diary of Benjamin F. Gue in Rural New York and Pioneer Iowa, 1847-1856*, ed. Earle D. Ross (Ames, IA: Iowa State University Press, 1962), 51–52.
[5] *Robert Merry's Museum* 18 (1849): 187 (American Periodical Series Online); *Working Farmer*, 1 (Oct 1849): 129-130.
[6] *Transactions of the New York State Agricultural Society* 9 (1850): 12-17, 157; *New York Daily Tribune*, 17 Sep 1849, p. 2; *Pittsfield Sun*, 20 Sep 1849, p. 2 (America's Historical Newspapers); *Farmer's Cabinet* (Amherst, NH), 20 Sep 1849, p. 2 (America's Historical Newspapers); *Cultivator*, 6 (Oct 1849): 304; 1850 Federal Population Census.
[7] Transactions of the New York State Agricultural Society 9 (1850): 464.

and Art."[8] The agricultural implements alone, exclaimed the editor of the *Ohio Cultivator*, "might be estimated by *acres*."[9] Among the fair's special highlights was the annual address delivered by Professor James F.W. Johnston of Edinburgh, one of the world's foremost agricultural chemists. Though he lectured on technical subjects for nearly two hours toward the end of an exhausting exposition, Johnston drew so many listeners that Greeley and many others could not get close enough to hear.[10]

Such large agricultural exhibitions recurred throughout the 1850s. Each year, moreover, hundreds of smaller county and town agricultural fairs recapitulated their main features in miniature.[11] These events, in the words of one contemporary chronicler, "focalized the industry of the country, by bringing it under view as one spectacle, thus enabling all to know, from time to time, the exact state of it."[12] Arraying the products of farm, workshop and factory within an enclosed space, fairs self-consciously dramatized the national economy as a single, interdependent system driven by American agriculture and the wonders of science and technology. Speaking at the 1852 Vermont state fair, William Henry Seward told a knowing audience, "you are well aware that a constant and uniform relation must always be maintained between the state of agriculture (and, indeed, of society itself) and the contemporaneous state of invention in the arts."[13] Seward thereby articulated two bits of contemporary conventional wisdom that are worth paying close attention to: first, that agriculture and "society itself" were, if

[8] New York Weekly Tribune, 22 Sep 1849, p. 3.
[9] *Ohio Cultivator* 5 (Oct 1849): 291 (emphasis in original). Benjamin Gue judged several of these to display "much ingenuity" (Gue, *Diary of Benjamin F. Gue*, 51).
[10] New York *Daily Tribune*, 13 Sep 1849, p. 1.
[11] Transactions of the New York State Agricultural Society, 10 (1851): 20; William M. Reser, "Indiana's Second State Fair," Indiana Magazine of History 32 (March 1936): 30–31; Annual Report of the Commissioner of Patents on Agriculture (1859): 91; Albert Lowther Demaree, The American Agricultural Press, 1819-1860 (New York: Columbia University Press, 1941), 201-202; Fred Kniffen, "The American Agricultural Fair: Time and Place," Annals of the Association of American Geographers 41, no. 1 (March 1, 1951): 44. The Patent Office's list of agricultural organizations in 1859 totaled 912. Demaree believes this understates the true number, but cites one farm journal's opinion that 500 fairs would occur in the fall of 1858, i.e., roughly half the number of organizations. Kniffen estimates 894 fairs that year after eliminating from the Patent Office figures a few organizations he believes unlikely to have held fairs. According to Demaree, Ohio alone probably held over 100 fairs in 1859 (203); a similar count is made by Robert Jones, History of Agriculture in Ohio to 1880 (Kent Ohio: Kent State University Press, 1983), 290, 298.
[12] Charles P. Daly, "Anniversary Address Before the American Institute, 'on the Origin and History of Institutions for the Promotion of the Useful Arts,' Delivered at the Hall of the New York Historical Society, on the 11th of November, 1863," in *Report of the American Institute of the City of New York for the Years 1863, '64* (Albany, NY: Comstock & Cassidy, 1864), 59.
[13] William Henry Seward, *The Works of William H. Seward*, ed. George E. Baker (Boston, New York,: Houghton, Mifflin and Company, 1884), 3:178.

not entirely identical, very closely related; second, that the progress of farming was largely contingent on the progress of technology.

These points prompt a fresh look at the political economy of the late antebellum United States. In particular, they suggest a reappraisal of farming in the Northeast, where agricultural fairs and the societies that sponsored them originated. Such a reappraisal reveals a massive yet largely unrecognized agricultural reform movement that altered the day-to-day practices of numberless farmers, shaped contemporary understandings of political economy, contributed to the hardening of sectional lines, and ultimately played a central part in restructuring the American state.

Ever since Charles and Mary Beard interpreted the Civil War as an inevitable clash between northern industry and southern agriculture, historians have written the economics of northern farming out of the period's political history.[14] Although generations of scholars have rejected the Beards' rigid economic determinism, the so-called "economic" interpretation of the Civil War continues to structure our discussions of the period to a surprising degree. Perhaps this is because the Beardian view still resonates with the public, calling for repeated refutations.[15] But something else is also at work. Rejecting Beardian methods and categories, the subsequent historiography has not always questioned Beardian empirical premises. As a result, it has reproduced them.

The vast majority of historians today believe the central conflict of the Civil War era to have been fundamentally about slavery, not the dawn of the industrial age or the defense of

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[14] Charles A. Beard and Mary R. Beard, *The Rise of American Civilization* (New York: The Macmillan Company, 1962).

[15] The California Board of Education, for instance, mandates that teachers "trace . . . the differences between agrarians and industrialists" in explaining "the multiple causes . . . of the Civil War." California State Board of Education, *History-Social Science Content Standards for California Public Schools: Kindergarten Through Grade Twelve* (California Department of Education, 2000), 37, http://www.cde.ca.gov/be/st/ss/documents/histsocscistnd.pdf. For an example of popular beliefs, see Stephen Colbert's interview with Eric Foner in "The Colbert Report," 16 Feb 2011, http://www. colbertnation.com/the-colbert-report-videos/374548/february-16-2011/eric-foner. Seth Rockman noted recently that "few explanations for the coming of the Civil War are more durable than those pitting a capitalist North against a slaveholding (and thus presumptively anticapitalist) South" ("The Future of Civil War Era Studies: Slavery and Capitalism," *Journal of the Civil War Era* online forum, accessed 18 Sep 2012, http://journalofthecivilwarera.com/forum-the-future-of-civil-war-era-studies/the-future-of-civil-war-era-studies-slavery-and-capitalism/).

agrarian traditionalism.[16] In recent years an outpouring of scholarship on the political economy of slavery has particularly clarified the South's economic rationale for secession.[17] The upshot of this literature is not easily summarized, but perhaps it is fair to say that in contrast to an older image of slaveholders as fundamentally backward-looking, contemporary scholars tend to see them as entrepreneurial strivers boldly projecting their own vision of modernity. The wonderful turn in this work has been to revitalize questions of political economy without resorting to reductionist categories that assume a single linear path from the traditional to the modern.

A similar reassessment of the North, however, has been slow to appear. Here the historiography continues to be guided by two venerable frameworks: Eric Foner's articulation of free labor ideology and the party system analyses of Michael Holt and William Gienapp.[18] Each of these approaches downplays economic factors. For Foner, the Republicans' diverse political pedigrees dictated "the virtual elimination from national party politics of the financial issues which had formed the core of Jacksonian political campaigns."[19] For Holt and Gienapp, the collapse of the Whigs is explained by the rise of "new men" and new issues that displaced the old arguments over economic policy. Both approaches, therefore, respond to the Beardian

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[16] Michael E. Woods, "What Twenty-First-Century Historians Have Said about the Causes of Disunion: A Civil War Sesquicentennial Review of the Recent Literature," *Journal of American History* 99 (Sep 2012): 415–439; Frank Towers, "Partisans, New History, and Modernization: The Historiography of the Civil War's Causes, 1861–2011," *The Journal of the Civil War Era* 1, no. 2 (2011): 237–264.

[17] See, for example, L. Diane Barnes, Brian Schoen, and Frank Towers, eds., *The Old South's Modern Worlds: Slavery, Region, and Nation in the Age of Progress* (New York: Oxford University Press, 2011); John Majewski, *Modernizing a Slave Economy: The Economic Vision of the Confederate Nation* (Chapel Hill: University of North Carolina Press, 2009); Brian Schoen, *The Fragile Fabric of Union: Cotton, Federal Politics, and the Global Origins of the Civil War* (Johns Hopkins University Press, 2009); James Oakes, *The Ruling Race: A History of American Slaveholders* (New York: Knopf, 1982); Don E. Fehrenbacher, *The Slaveholding Republic: An Account of the United States Government's Relations to Slavery* (Oxford University Press, 2002); James L. Huston, *Calculating the Value of the Union: Slavery, Property Rights, and the Economic Origins of the Civil War* (Chapel Hill: University of North Carolina Press, 2003); Gavin Wright, *The Political Economy of the Cotton South: Households, Markets, and Wealth in the Nineteenth Century* (New York: Norton, 1978); Chad Morgan, *Planter's Progress: Modernizing Confederate Georgia* (Gainesville: University Press of Florida, 2005); Matt Karp, "Slavery and American Sea Power: The Navalist Impulse in the Antebellum South," *Journal of Southern History* 77 (May 2011): 283–324.

[18] Eric Foner, Free Soil, Free Labor, Free Men: The Ideology of the Republican Party Before the Civil War (Oxford: Oxford University Press, 1995); Michael F. Holt, The Political Crisis of the 1850s (New York: Norton, 1983); William E. Gienapp, The Origins of the Republican Party, 1852-1856 (New York: Oxford University Press, 1987). More recent work has deepened our understanding of the Know Nothing interlude and explored the development of northern nationalism, but these studies still largely fit into the free labor and party system frameworks. See, for example, Tyler Anbinder, Nativism and Slavery: The Northen Know Nothings and the Politics of the 1850s (New York: Oxford University Press, 1992); Bruce Levine, "Conservatism, Nativism, and Slavery: Thomas R. Whitney and the Origins of the Know-Nothing Party," The Journal of American History 88 (Sep 2001): 455–488; Susan-Mary Grant, North Over South: Northern Nationalism and American Identity in the Antebellum Era (Lawrence: University Press of Kansas, 2000); Sven Beckert, The Monied Metropolis: New York City and the Consolidation of the American Bourgeoisie, 1850-1896 (Cambridge: Cambridge University Press, 2001).

[19] Foner, Free Soil, Free Labor, Free Men, 168-170.

identification of Republicans with industrialists by showing, in different ways, that "the Republican party was not simply the Whig party in new garb."[20] This is not to say that they ignore economic factors, but the economy is distinctly not at the center of analysis. Instead, the two schools focus, respectively, on systems of ideological beliefs and on electoral dynamics. Criticizing the Beards for differentiating between North and South on the basis of "specific legislative policies," they appear explicitly to rule out the economic policy arena as a site for understanding northern partisan realignment.[21]

If political historians have rejected the Beardian focus on policy, however, they have not sufficiently considered the Beardian canon of Republican policies, which comprises the tariff, federal aid for internal improvements, a national banking system, and the Homestead Act. This list curiously neglects two major Republican economic measures: the Morrill Land Grant Act and the Department of Agriculture (USDA), both passed in 1862 when a badly-going war might have been expected to derail less pressing matters. Even in relation to the Beards' formidable array, these omissions are extraordinary. The Morrill Act formed the foundation of a state college system unique in the world for its commitment to democratic access, scientific research and extension work in the community; the USDA pioneered the growth of the modern federal bureaucracy and became, in many respects, the fountainhead of American state science.[22] Combined, these two sets of institutions did nothing less than revolutionize American food and fiber production.

How could Beard have ignored not only slavery but the Morrill Act and the USDA? The answer, of course, is that these were not industrial but agricultural policies. Moreover, they did not, as homestead legislation did, support the thesis of a grand bargain between northeastern industrialists and Midwestern grain farmers, an influential formulation that was subsequently amplified by the sociologist of comparative development, Barrington Moore.[23] Like the Prussian "marriage of iron and rye" on which it was modeled, the grand bargain formed a pithy, plausible

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[20] Gienapp, Origins of the Republican Party, 446.
[21] Foner, Free Soil, Free Labor, Free Men, 5.
[22] Earle Dudley Ross, Democracy's College: The Land-Grant Movement in the Formative Stage (Ames, IA: The Iowa State College Press, 1942); Daniel P. Carpenter, The Forging of Bureaucratic Autonomy: Reputations, Networks, and Policy Innovation in Executive Agencies, 1862-1928 (Princeton, NJ: Princeton University Press, 2001), chap. 6–8; A. Hunter Dupree, Science in the Federal Government: A History of Policies and Activities to 1940 (Cambridge, MA: Belknap Press of Harvard University Press, 1957), chap. 8.
[23] Barrington Moore, Social Origins of Dictatorship and Democracy: Lord and Peasant in the Making of the Modern World (Boston: Beacon Press, 1967), 111–155.

digest of a complicated political realignment. One might speculate that its Faustian quality, in light of the later Granger and Populist movements, added to its narrative appeal. But while not entirely untrue, the thesis of a grand bargain between eastern capital and western agriculture obscures as much as it illuminates. That such a majestic interpretation has not come under more scrutiny can only be explained by the circumstance that the words "economic interpretation," when attached to the words "Civil War," have come to imply an apology for slavery. As a result, the Beards' industrial interpretation has been allowed to pass for *the* economic interpretation instead of *an* economic interpretation.

In rethinking the role of economic factors in Civil War-era politics, then, this essay begin with agriculture, and specifically with the agriculture of what might be called the greater Northeast: New England and the mid-Atlantic free states, shading into Ohio and Maryland. When we look at the Republican economic program from the perspective of northeastern farmers, the Morrill Act and the Department of Agriculture loom too large to be ignored.[24] These policies emerged from an organized agricultural reform movement that developed first among this critical segment of the electorate. In 1860, the northeastern countryside still accounted for roughly two thirds of the region's population. Hence rural voters comprised a sizeable majority of even the most urban part of the nation.[25] The rural Northeast, moreover, experienced major economic change during the antebellum period that altered its social structure and political economy.[26] These changes eventuated in new demands on government at both the state and

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[24] Sean Wilentz briefly discusses the Morrill Act in his recent political synthesis, but by attributing it to radical workingmen he misconstrues the origins and support base of a measure that was known as the "agricultural college bill" throughout its legislative career; *The Rise of American Democracy: Jefferson to Lincoln* (New York: Norton, 2005), 281–282. Marc Egnal's neo-Beardian account, because it resurrects the grand bargain thesis through its emphasis on the "lakes economy," hardly mentions the Morrill Act, the USDA not at all; *Clash of Extremes: The Economic Origins of the Civil War* (New York: Hill and Wang, 2009). Heather Cox Richardson provides the views of leading Republican politicians during the Civil War but gives little background; *The Greatest Nation of the Earth: Republican Economic Policies during the Civil War* (Cambridge: Harvard University Press, 1997), ch. 5. For a useful examination of these policies in relation to the emergence of the Republican Party, see Sarah T. Phillips, "Antebellum Agricultural Reform, Republican Ideology, and Sectional Tension," *Agricultural History* 74 (Fall 2000): 799–822.

[25] *Historical Statistics of the United States, Millennial Edition Online* Table Aa 36–92, http://hsus.cambridge.org/HSUSWeb/HSUSEntryServlet.

[26] Numerous social historians have made that abundantly clear: Christopher Clark, *The Roots of Rural Capitalism: Western Massachusetts, 1780-1860* (Ithaca: Cornell University Press, 1990); Allan Kulikoff, *The Agrarian Origins of American Capitalism* (Charlottesville: University Press of Virginia, 1992); Sally McMurry, *Families and Farmhouses in Nineteenth-Century America: Vernacular Design and Social Change*, (Oxford University Press, 1988); Sally McMurry, *Transforming Rural Life: Dairying Families and Agricultural Change, 1820-1885* (Baltimore: Johns Hopkins University Press, 1995); Hal S. Barron, *Those Who Stayed Behind: Rural Society in Nineteenth-Century New England* (Cambridge: Cambridge University Press, 1984); Joan M. Jensen, *Loosening the*

federal levels. Looking closely at how this occurred reveals the contours of a major social movement and its transformation into a powerful lobby that shaped federal bureaucratic growth and initiated a new kind of Washington insider politics. In the heated atmosphere of the 1850s, these changes exacerbated sectional tensions by fostering legislative gridlock that Republicans exploited to court northern rural voters.

Beginning in the Early Republic and accelerating in the decades following the War of 1812, a confluence of factors forced northeastern farmers to change their day-to-day practices in fundamental ways. Depleted soils from generations of over-cropping by Euro-American settlers called for new soil maintenance regimes that stressed intensive use of fertilizers and adoption of specific crop rotation schemes. The emergence of the Midwestern bread basket forced abandonment of grain culture in much of the region, resulting in a widespread shift toward the production of dairy, wool, hay, and fresh fruits and vegetables. Contributing to this shift was a dramatically worsening pest environment in which the Hessian fly, “the blast,” and the wheat midge were only the worst of a host of infestations and livestock diseases. Finally, outmigration to the West and to growing cities threatened depopulation.[27]

Agricultural reformers responded to these challenges by arguing for a modernized “scientific agriculture” that would reinvigorate the countryside. The new farming would be intensive, sustainable, and profitable, its practitioners both market and technology savvy. In order to offset western superiority in grains, reformers urged specialization in bulky and perishable products in which northeastern farmers enjoyed a competitive advantage due to their proximity to domestic urban markets. In order to raise productivity, reformers called for investing in improved animal breeds, new implements and machinery, efficiently designed farm buildings, and human capital in the form of natural science education and technical skills such as bookkeeping. Finally, reformers implored farmers everywhere to maintain and augment soil

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Bonds: Mid-Atlantic Farm Women, 1750-1850 (New Haven: Yale University Press, 1986); Nancy Grey Osterud, *Bonds of Community: The Lives of Farm Women in Nineteenth-Century New York* (Ithaca, NY: Cornell University Press, 1991); Richard Lyman Bushman, “Markets and Composite Farms in Early America,” *The William and Mary Quarterly* 55, no. 3 (July 1998): 351–374.

[27] Alan L. Olmstead and Paul Webb Rhode, *Creating Abundance: Biological Innovation and American Agricultural Development* (Cambridge: Cambridge University Press, 2008); David B. Danbom, *Born in the Country: A History of Rural America*, Revisiting Rural America (Baltimore: Johns Hopkins University Press, 1995); Clarence H. Danhof, *Change in Agriculture: The Northern United States, 1820-1870* (Cambridge, MA: Harvard University Press, 1969); Paul Wallace Gates, *The Farmer’s Age: Agriculture, 1815-1860* (New York: Holt, Rinehart and Winston, 1960).

fertility by careful conservation of barnyard manures and the introduction of novel artificial fertilizers. Such exhortations often took on a moral freight. Reformers spoke of doing “justice” to the soil or of “robbing” it, and they called on farmers to better themselves so that they might “vindicate the dignity of their profession.”[28] In this sense the reform project was as remedial, even redemptive, as it was improving (Figure 3).

To promote their vision, reformers began forming societies, holding fairs, and publishing specialized farm journals. Initially this was rather an elite enterprise dominated by the kinds of people John Larson calls the “monied gentry.”[29] The Philadelphia Society for Promoting Agriculture, founded in 1785, included four signers of the Declaration of Independence in addition to several senators, congressmen, and Army officers.[30] Its counterparts in New York, Virginia and Massachusetts were led by the likes of “Chancellor” Robert Livingston, James Madison, and John Adams.[31] These organizations set themselves the goal of bettering the country’s general level of farming, but in practice they acted more like exclusive clubs for the polite consideration of learned papers. Undoubtedly they helped spark interest in “scientific” agriculture, but their greatest achievement probably lay in their encouragement of improved livestock importations from Europe, particularly of Merino sheep which quickly led to a dramatic upgrade in the quality and quantity of American wool production.

The 1810s and early 1820s saw the appearance of new, county-level societies that innovated by holding agricultural fairs. Such exhibitions differed from the traditional market fairs that existed in colonial America. Rather than sites to facilitate trade, “modern” agricultural fairs revolved around public displays with an expressly didactic purpose.[32] The heart of the distinction was the Enlightenment concept of “emulation,” the noble pursuit of merit through imitation of great achievements. The principle was thought of as a mechanism for aligning

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[28] *Cincinnatus* 1 (Jan 1856): 11; George E. Waring Jr., “Agricultural Features of the Census of the United States for 1850,” *Organization & Environment* 12, no. 3 (1999): 306; *Pennsylvania Farm Journal* 5 (Mar 1855): 87.
[29] John Lauritz Larson, Internal Improvement: National Public Works and the Promise of Popular Government in the Early United States (Chapel Hill: University of North Carolina Press, 2001).
[30] Simon Baatz, “Venerate the Plough”: A History of the Philadelphia Society for Promoting Agriculture, 1785-1985 (Philadelphia: The Philadelphia Society for Promoting Agriculture, 1985), 5–6.
[31] Alfred Charles True, A History of Agricultural Education in the United States, 1785-1925 (New York: Arno Press, 1969 [1929]), 9, 15; Massachusetts Society for Promoting Agriculture, Centennial Year, 1792-1892, of the Massachusetts Society for Promoting Agriculture (Salem, MA: Salem Observer Office, 1892?), 8–15.
[32] Neely, *The Agricultural Fair* (New York: Columbia University Press, 1935), 3–23, 155–184.

individual behavior with broader goals of social and national advancement.[33] It was thus a powerful concept in early republican America. For instance, many of the rural academies that sprang up in the years following the American Revolution applied the emulatory principle by employing public exhibitions and class rankings to motivate students. Educators explicitly harnessed these pedagogical innovations to the grand project of nation-building.[34] Agricultural societies similarly offered "premiums" intended to awaken spectators' innate impulse for social recognition. By making farming "an object of public attention," they hoped to reach the "retired and unknown farmer."[35] In turn, they expected that "exciting emulation . . . will lead to important improvements in our husbandry."[36] Arguing that such public purposes warranted public subsidies, agricultural reformers managed to secure modest state funding for their premium lists.

The period's fairs enjoyed rising popularity until many began to notice that wealthy country gentlemen seemed to win all the premiums. At one exhibition, for instance, every single one of the prize-earning neat cattle either belonged to or originally came from the herd of the organizing society's president.[37] The new democratic mass politics taking shape in the 1820s would not support the public funding of what looked like a network of gentlemen's clubs. Agricultural organizations in most of the Northeast thus became easy targets for the small-government political forces that would soon coalesce into the Democratic Party. As Donald Marti has convincingly argued, these early organizations relied heavily on state subsidies to finance their primary purpose of holding fairs. When public aid was withdrawn, most simply ceased to exist.[38] Even in Massachusetts, where state funding continued, popular enthusiasm lagged. The Middlesex Agricultural Society added hundreds of members from 1821 to 1824, but

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[33] John Iverson, "Introduction to Forum on Emulation in France, 1750-1800," 218, and John Shovelin, "Emulation in Eighteenth-Century French Economic Thought," 226, in *Eighteenth-Century Studies* 36 (Winter 2003). For an American uses of the term, see *National Intelligencer*, 17 Oct 1804.

[34] J. M. Opal, "Exciting Emulation: Academies and the Transformation of the Rural North, 1780s-1820s," *The Journal of American History* 91, no. 2 (2004): 445-470; J. M Opal, *Beyond the Farm: National Ambitions in Rural New England* (Philadelphia: University of Pennsylvania Press, 2008), especially 111–117; see also Nira Kaplan, "Virtuous Competition among Citizens: Emulation in Politics and Pedagogy during the French Revolution," *Eighteenth-Century Studies* 36, no. 2 (December 1, 2003): 241-248.

[35] Quoted in Marti, "Agrarian Thought and Agricultural Progress: The Endeavor for Agricultural Improvement in New England and New York, 1815-1840" (Ph.D. diss., University of Wisconsin, 1966), 98.

[36] MSPA, Centennial Year, 82.

[37] Baatz, *Venerate the Plow*, 42–46.

[38] Marti, *To Improve the Soil and the Mind: Agricultural Societies, Journals, and Schools in the Northeastern States, 1791-1865* (Ann Arbor, MI: Published for the Agricultural History Society and the Dept. of Communication Arts, New York State College of Agriculture and Life Sciences, Cornell University by University Microfilms International, 1979), 14; see also Neely, *The Agricultural Fair*, 69–71, Jones, *Agriculture in Ohio*, 274–280.

thereafter new membership slowed to a trickle until the 1840s and 1850s brought a widespread revival.[39]

If the 1830s proved the low tide for farm organizations, this was not necessarily the case for agricultural reform in general. The same period witnessed an explosion of new periodicals specializing in agriculture. As Table 1 demonstrates, the number of new agricultural journal titles more than quadrupled from the 1820s to the 1830s, while the ratio of such journals to free rural inhabitants more than tripled.[40] In the next decade both figures continued to rise but more slowly, and in the 1850s the absolute number of new titles rose yet again while the per capita rate flattened out, reflecting consolidation in the maturing farm journal business. By 1852, according to one informed observer, about thirty active journals enjoyed a total circulation as high as 500,000.[41] At this point American farmers constituted “the largest farm readership in the world” and “one of the largest communities of popular science on the continent.”[42]

The demand for agricultural literature encompassed more than specialized periodicals. Newspapers large and small greatly expanded the reach of the farm journals by regularly reprinting their articles. Major dailies such as the New York *Tribune* and New York *Times* employed well-known agricultural journalists to provide original content as well. Meanwhile, the catalog of agricultural monographs grew rapidly, evidenced by the appearance in 1847 of C.M. Saxton’s publishing firm devoted exclusively to agricultural topics. By comparison, the first publisher specializing in technical industrial subjects appeared only several years later and did not achieve success until after the Civil War.[43]

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[39] Bound manuscript membership book, 1819-1861, Series III, Box 2, Item 1, Records of the Middlesex Agricultural Society, 1820-1892, Concord Free Public Library, Concord, MA. The gap mirrors almost precisely the period from 1823 to 1839 in which no new county agricultural societies were established in Massachusetts (Mary Summers, “Conflicting Visions” [unfinished doctoral dissertation, Yale University], chap. 2).

[40] Demaree, *The American Agricultural Press*, 18, estimates that “well over 400” agricultural journals appeared during the antebellum period, but the numbers I compiled from Stuntz in Table 1 suggest a somewhat lower number.

[41] Cong. Globe, 32nd Cong., 1st Sess., Appendix, 494; Marti, *To Improve the Soil and the Mind*, 162; For examples of journal mergers, see *Cultivator* 7 (Jan 1840): 5; *Farm Journal and Progressive Farmer* 6 (Jan 1856): 29; Danhof cites an estimated total circulation of 350,000 in 1860 (*Change in Agriculture*, 56).

[42] Danhof, *Change in Agriculture*, 57; Pawley, “‘The Balance-Sheet of Nature’: Calculating the New York Farm, 1820-1860” (Ph.D., University of Pennsylvania, 2009), 11. As Pawley points out, effective circulation was undoubtedly much larger than the actual number of copies sold because of the prevalence of borrowing in contemporary reading practices (62-63).

[43] Solon Robinson, *Solon Robinson, Pioneer and Agriculturist: Selected Writings*, ed. Herbert Anthony Kellar, vol. 1 (Indianapolis: Indiana Historical Bureau, 1936), 31; Danhof, *Change in Agriculture*, 55, 58; *Pennsylvania Farm Journal* 6 (May 1856): 154; Pawley, “‘The Balance-Sheet of Nature,’” 14, 59–60; James Green, “Henry Carey Baird and Company, America’s First Technical Publishers,” *PASCAL News* 1 (September 1991): 7–9.

The agricultural press proved instrumental to the revival of publicly supported agricultural organizations that began the third phase of antebellum reform. Journals not only publicized the benefits of the reform movement, they established a participatory public forum. Frequent solicitation of reader correspondence fostered a more impersonal, interactive and inclusive public space than had existed in the 1810s and 1820s. At the same time, the editorial staffs of agricultural journals became the focal points of a great deal of private correspondence on farming matters.[44] Through print and post, therefore, agricultural editors built a network of reform-minded individuals, a broad-based rural constituency for agricultural reform.[45] Beginning in the 1830s, Samuel Fleet of the *New York Farmer*, Luther Tucker of the *Genesee Farmer*, and Jesse Buel of the *Cultivator* advocated tirelessly for government sponsorship of agricultural organizations. In 1832 these editors helped call a convention in Albany that formed a new state agricultural society and lobbied for government aid. Meeting again each year for nearly a decade, the convention finally won its point with an 1841 law that provided $8,000 annually to the state society and its county subsidiaries. The support rapidly led to the proliferation of new county societies.[46]

Government aid in other states, if generally more modest in amount, also stimulated farmer organizing. The founding of the Fairfield County Agricultural Society in Connecticut illustrates the way that public funding and a more democratic approach from leaders brought about a popularization of agricultural reform. Responding to an 1840 law allowing up to $200 annually to county agricultural societies, citizens of Fairfield met in August and formed their own.[47] Among the organizers was Eli T. Hoyt, a recently retired Danbury hat manufacturer. Though a member of the county elite, Hoyt understood that the society's continuation depended on farmer participation. The first fair, he believed, would make or break the organization. To ensure its success, Hoyt fretted over location, called for many small premiums rather than a few large ones, and constantly reminded fellow organizers to promote the event through personal

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[44] Danhof, *Change in Agriculture*, 59; Donald Hugh Parkerson and Jo Ann Parkerson, *The Emergence of the Common School in the U.S. Countryside* (Lewiston, N.Y: E. Mellen Press, 1998), 41–43.
[45] For the antebellum postal system as an open network that altered Americans' sense of their connections to each other across vast distances, see David M. Henkin, *The Postal Age: The Emergence of Modern Communications in Nineteenth-Century America* (Chicago: University Of Chicago Press, 2006).
[46] *Transactions of the New York State Agricultural Society* 1 (1842): 5–15; Marti, "Early Agricultural Societies in New York: The Foundations of Improvement," *New York History* 48 (October 1967): 324–327; Marti, *To Improve the Soil and the Mind*, 49–58.
[47] The Public Statue Laws of the State of Connecticut, Passed May Session, 1840 (Hartford: Case, Tiffany & Co., 1840), 3-4

channels as well as through the press. "Procure by direct invitation the attendance of as many farmers as possible," he advised. "Be particular," he again urged, by contacting "known individuals" who could be counted on to get neighbors involved. The strategy appears to have paid off. A well-attended first fair led county towns to compete to host subsequent exhibitions. By 1843 there were effectively two Fairfield societies, each directed by a large, farmer-dominated executive committee.[48] As Table 2 indicates, such levels of farmer participation appear to have been the norm in this phase of agricultural reform. Representing a variety of reform purposes in both coastal and interior rural communities, it suggests that the movement enjoyed broad popularity among ordinary farmers, who took an active part in directing it.

Initial public funding was critical to kick starting the process. Importantly, restoration of state aid from the early 1840s owed as much to the rise of the Whig Party as to reformers' organizational effectiveness. This may not appear immediately obvious. Agricultural reformers maintained a strong taboo against open partisanship even if their leaders were frequently Whigs.[49] Moreover, as early as 1832 leading Democratic politicians such as New York Governors Enos Throop and William Marcy called for renewing subsidies. But although conservative Democrats might support limited public sponsorship of agricultural societies, their colleagues in the party's "Radical" wing subscribed to an anti-statist ideology that viewed such subsidies and their concomitant extensions of state authority as precisely what the Democratic Party was formed to oppose. In New York, Radicals such as Samuel Young and Jehiel H. Halsey successfully fought off the renewal of state support for agricultural organizations throughout the 1830s. Not until the "resounding Whig triumph" of 1840 did the New York Assembly respond to reformers' demands.[50] The Connecticut law also emerged from a Whig assembly.[51]

A Whig legislature was again responsible when reformers scored their next major victory with the creation of the Ohio Board of Agriculture in 1846. Emboldened by restored public funding in New York and elsewhere, Ohio reformers mounted a major lobbying campaign. In

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[48] See letters and other documents in the Fairfield County Agricultural Society Records, 1840-1851 (MS B90), Series A, Folders 5 to 8, Fairfield Museum and History Center, Fairfield, CT. Quotations appear in Eli T. Hoyt to Rufus Hoyt, 24 May 1841 and 7 Oct 1841, Series A, Folder 5. For a theoretical explanation of the effectiveness of Hoyt's organizational strategy, see Mark S. Granovetter, "The Strength of Weak Ties," *American Journal of Sociology* 78, no. 6 (May 1, 1973): 1360–1380.

[49] Pawley, "'The Balance-Sheet of Nature,'" 42; Summers, "Conflicting Visions," chap. 3. Jesse Buel, the most prominent reformer of the 1830s, was even the Whig nominee for New York governor in 1836.

[50] Marti, *To Improve the Soil and the Mind*, 49–58, 142–143; Marti, "Early Agricultural Societies in New York," 324–328.

[51] Connecticut Gazette [New London Gazette], 1 May 1839, 2; 8 Apr 1840, 2.

June 1845 they convened a two-day meeting in Columbus, leading to the introduction of a bill to create and fund state and county-level organizations. During the subsequent winter, legislators were treated to almost daily petitions in support of the bill, amounting to eighty-six in total from forty-nine counties.[52] When the bill finally came up for a vote, Whigs backed the measure almost unanimously while Democrats mostly opposed. As in New York, public money quickly brought about the organization of county associations, so that from 1846 to 1850 fifty-two local societies appeared or re-appeared after a period of dormancy.[53] These cases indicate that when it came to public policy, the reform movement's objectives tended to align it with the Whigs' state-sponsored developmentalism even if many individual reformers were Democrats and the movement's discourse was carefully nonpartisan. The pattern continued to hold when at the end of the 1840s reformers moved up to the federal level. There, too, Whig administrations and members of Congress were far more likely to support reform initiatives than were their Democratic colleagues.[54]

Many states soon solidified the legal and financial standings of agricultural societies by providing them with acts of incorporation and modest levels of funding.[55] These policies, however, represented only a fraction of total government support. State printing subventions budgeted separately from direct appropriations formed a critical source of funding. Although a few historians have duly noted this fact, they have failed to register the remarkable quantity of agricultural reports that state printers turned out year after year. Ohio ordered fifty thousand total copies of the Board of Agriculture's annual reports for 1855, 1856 and 1857, adding to that over seven thousand copies of the Board president's separate report. These documents were far and away Ohio's most heavily printed state papers and were specifically exempted from the general

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[52] Jones, *Agriculture in Ohio*, 280–288; *Journal of the House of Representatives of the State of Ohio* 64 (1846): 40, 46, 57, 64–65, 82, 90, 103–104, 112, 117, 123, 129–130, 141, 148–149, 159, 167, 176, 183–184, 192, 208, 218–219, 227, 240, 245, 267, 280, 292, 302, 326, 341, 351, 359, 383, 514.

[53] Annual Report of the Ohio State Board of Agriculture 21 (1867): 476–477; Ohio, Acts of a General Nature and Local Laws and Joint Resolutions Passed by the General Assembly of the State of Ohio 53 (1856): 208; Jones, Agriculture in Ohio, 288–290.

[54] Ariel Ron, "Developing the Country: 'Scientific Agriculture' and the Roots of the Republican Party" (Ph.D., University of California, Berkeley, 2012), 169-176.

[55] For the revival of agricultural societies in New England and New York from the 1830s, see Marti, *To Improve the Soil and the Mind*, 45-123. For Pennsylvania, *Transactions of the Pennsylvania State Agricultural Society* 2 (1855): 9; *Laws of the General Assembly of the Commonwealth of Pennsylvania* (1849): 327; (1851): 557–558; (1853): 712–713; (1857): 196–197; (1861): 265–267. For New Jersey, New Jersey State Agricultural Society, *History of the New Jersey Agricultural Society*, 13; Marti, *To Improve the Soil and the Mind*, 98–101.

law on printing; their cost greatly exceeded the state Board of Agriculture's annual budget.[56] The legislature of New York supported the publishing costs of not one but two major agricultural institutions, the state society and the American Institute of the City of New York. By my calculation it ordered a combined total of about thirteen thousand copies in 1858 and similar amounts in other years.[57] Such documents were no lightweight affairs. The New York state society's annual report exceeded eight hundred pages throughout the 1850s, costing around $8,000 each year.[58]

The revival of government support for agricultural reform thus flooded the countryside with hefty official reports on farm matters. Yet the tens of thousands of these documents that emerged from state printers each year paled in comparison to the output of the federal government. Between 1851 and 1860 Congress ordered the printing of roughly 2.2 million copies of the Patent Office's annual "Agricultural Report." In 1859 alone, the Government Printing Office turned out more than 326,000 copies of the six-hundred-page tome, a figure comparable to the record-breaking first-year sales of *Uncle Tom's Cabin*.[59] Easily the federal government's leading printing expense, the Agricultural Report was an annual best-seller. "Probably most of the members of this House, who represent rural districts," asserted one Congressman, "are almost daily reminded of the estimate placed upon these reports by their constituents."[60] It may seem incredible that a volume containing several hundred pages of technical farm jargon could arouse so much interest, but such seems to have been the case. Newspaper editors consistently praised the reports' "real value" and agricultural reformers avidly exchanged them with one another.[61]

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[56] Journal of the House of Representatives of the State of Ohio 53 (1857): 511–512; Acts of a General Nature and Local Laws and Joint Resolutions Passed by General Assembly of the State of Ohio 53 (1856):171–178, 248–249; Ohio Cultivator 14 (1 Apr 1858): 104.

[57] Journal of the Assembly of the State of New York (1858): 768–769. For similar legislative largesse elsewhere, see Transactions of the Illinois State Agricultural Society 2 (1858): xi; Acts and Resolves Passed by the General Court of Massachusetts (1856): 268.

[58] Cong. Globe, 31st Cong., 1st Sess., 1642.

[59] Figures compiled from the periodic reports of the Superintendent of Public Printing, 33rd through 37th Congresses. I thank James Green of the Library Company of Philadelphia for putting me on to these sources; for *Uncle Tom's Cabin*, see Ronald D. Patkus and Mary C. Schlosser, "Aspects of the Publishing History of *Uncle Tom's Cabin*, 1851-1900," *Vassar College Libraries, Archives and Special Collections*, http://specialcollections.vassar.edu/exhibits/stowe/essay2.html.

[60] Cong. Globe, 32nd Cong., 1st Sess., Appendix, 746.

[61] Leaflets and newspaper clippings in the folder marked "Printed material: 1844," Henry O'Reilly Papers, Series VI, Box 40, New-York Historical Society (hereafter, NYHS); James Worthington to John Alsop King, 4 Apr 1855, John Alsop King Papers, Box 1, NYHS.

As Oz Frankel has argued, the printing and distribution of official documents was a major means of state-making in the nineteenth century.[62] If so, then annual state and federal agricultural reports played an especially significant role in this process—a circumstance that might, after all, be expected in a predominantly agrarian country. Yet the relationship between state governments and their agricultural organizations was, by our standards, ill-defined at best. The advantage of this loose arrangement was that agricultural organizations avoided becoming patronage institutions beholden to whatever party happened to be in power. On the other hand, they had to fight for influence and to define their policy aims as proper objects of government action. The New York State Agricultural Society, for example, worked hard to secure its official status, establishing its central office in Albany's "Old State House" and drawing attention to the fact that its annual transactions were published "under legislative authority." It also sought to cultivate influential connections by inviting legislators and other prominent figures to monthly and later weekly meetings of its executive committee. Simultaneously, the state society made use of its ties to county agricultural societies to strengthen its position with its own constituency. It solicited not only the formal county reports required by law, but also "the names of *many* active practical farmers" (emphasis in original) and "any newspapers containing articles calculated to promote the interests of the Farming Community"; it thus built a record of public endorsements and a central list of statewide contacts.[63]

Most important, the state agricultural society's efforts resulted in spectacularly crowded annual fairs. Ultimately the power of such organizations derived from their ability to mobilize, on the one hand, a very large if dispersed constituency of farmers and, on the other hand, a small but powerful set of men in state capitals. If agricultural organizations could effectively mediate between these groups, they might potentially exert a great deal of influence in a nation of farmers. Yet it is important to understand the limits of organized agricultural reform. State boards and societies had no authority and little informal power to compel any kind of behavior from anyone, even the county and town societies that were in some sense subsidiary to them. Hence they "respectfully requested" information from their local-level counterparts and appealed to the "welfare of the Cause" to motivate action.[64] While most groups willingly complied, state

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[62] Oz Frankel, States of Inquiry Social Investigations and Print Culture in Nineteenth-Century Britain and the United States (Baltimore: Johns Hopkins University Press, 2006).
[63] See the folder marked "Printed material: 1844" in the Henry O'Reilly Papers, Series VI, Box 40, NYHS.
[64] Folder marked "Printed material: 1844," Henry O'Reilly Papers, Series VI, Box 40, NYHS.

societies frequently complained that some were delinquent or failed to respond at all. Moreover, there was rarely more than a single salaried society officer in any one state. Consequently, the whole enterprise resembled a social movement much more than a political machine or a bureaucratic agency.

These structural features of the reform movement may help to explain the pronounced disparity in the sectional occurrence of agricultural organizations. Table 3, based on a national survey of agricultural societies conducted by the Agricultural Division of the Patent Office in 1858, indicates that such organizations were heavily concentrated in the northern states in both absolute and relative terms. For reasons I discuss in depth elsewhere, the figures should be taken as indicative rather than as strictly correct; in particular, there is good reason to conclude that Midwestern figures were highly inflated while those of other regions somewhat underestimated.[65] Nevertheless, as the only available source of quantitative data on the national distribution of agricultural societies, the Patent Office survey is worth considering.

Both measures of relative organizing propensity in Table 3 strongly favor the North. That is not to suggest that southerners took no interest in agricultural reform. Yet although they read agricultural journals, adopted new planting methods, and formed some societies, they proved far less active organizers than did northerners. Certainly no southern state agricultural society ever achieved the national stature of the New York, Massachusetts, or Ohio state organizations. Nor did any southern state other than Maryland go as far in establishing an agricultural college before the Civil War as did New York, Pennsylvania, Michigan, and Ohio. To the extent that southerners did organize vibrant agricultural societies, they tended to be concentrated in the Upper South.[66]

To understand this sectional disparity we must consider the structure of the agricultural reform movement in light of the recent literature on comparative sectional development. What

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[65] Ron, "Developing the Country," 46-49.

[66] David R. Francis, "Southern Agricultural Fairs and Expositions," in *The South in the Building of the Nation*, vol. 5 (Richmond: The Southern Historical Publication Society, 1909), 589; Kniffen, "The American Agricultural Fair," 46; Gates, *Farmer's Age*, 314–315. In 1853 the highly respected agricultural expert Daniel Lee reviewed the state of American agricultural literature. As editor of both a northern and a southern farm journal (the *Genesee Farmer* and *Southern Cultivator*), and also as head of the Patent Office's Agricultural Division, no one could have been better informed on the subject. Lee commended the many voluminous reports produced by the New York, Massachusetts, Ohio, Michigan and Wisconsin agricultural societies, but referred only to a single southern report, the one volume issued by Georgia's South Central Agricultural Society; *Report of the Commissioner of Patents, Agriculture* (1853): 21-22. Given Lee's pro-slavery views and residence in Georgia, northern prejudice could not have been the reason for the disparity. On Lee, see E. Merton Coulter, *Daniel Lee, Agriculturist: His Life North and South* (Athens, GA: University of Georgia Press, 1972).

allowed the North to develop more rapidly than the South in the antebellum period, several scholars have found, was the much higher density of its free rural population and consequently the greater size of its consumer markets for manufactured goods. It seems likely that a similar dynamic was at work in the case of the agricultural reform movement, which depended on well-attended fairs and a wide market for agricultural publications. As John Majewski and Viken Tchakerian argue, "low population densities . . . made it more difficult for Southerners to create institutions to cultivate and disseminate knowledge."[67] Indeed, that insight can be generalized. The North's greater rural population density sustained not only deeper consumer markets but thicker associational networks.[68] Consequently northern voices dominated the discourse of agricultural reform and ultimately came to dictate its national agenda.

The movement's federated structure and broad popular base gave it the power to translate that agenda into innovative government policies.[69] But before looking at the nitty-gritty details of building up national lobbying capacity, I want to briefly survey the ideological implications of reform discourse. In the North, the agricultural reform movement represented a rural middle-class ethos that stressed three interrelated themes: development of the domestic economy as opposed to extension of transatlantic trade; application of new scientific findings and technologies, including "biological innovation" in stock breeds and crop varieties;[70] and information diffusion via formal educational institutions, civic associations, and the public interchange of opinions. Leading northern reformers and political economists weaved these threads into a broad social framework I call the Republican developmental synthesis.

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[67] John Majewski and Viken Tchakerian, "The Environmental Origins of Shifting Cultivation: Climate, Soils, and Disease in the Nineteenth-Century US South," *Agricultural History* 81, no. 4 (October 1, 2007): 541. For the argument that differences in rural population densities led to differential development, see John D. Majewski, *A House Dividing: Economic Development in Pennsylvania and Virginia Before the Civil War* (Cambridge: Cambridge University Press, 2000), 171–172; Brian Page and Richard Walker, "From Settlement to Fordism: The Agro-Industrial Revolution in the American Midwest," *Economic Geography* 67 (October 1991): 281-315; David R. Meyer, *The Roots of American Industrialization* (Baltimore: The Johns Hopkins University Press, 2003), 224.

[68] This is emphatically not an argument that southerners absolutely eschewed civic organizing; see Jonthan D. Wells, *The Origins of the Southern Middle Class, 1800-1861* (Chapel Hill: University of North Carolina Press, 2004). Sean Patrick Adams brilliantly shows the importance of the interaction between civic institutions and consumer markets in "Warming the Poor and Growing Consumers: Fuel Philanthropy in the Early Republic's Urban North," *Journal of American History* 95, (June 2008). In an earlier cross-sectional study, Adams showed that the civic organizations that helped push coal development in Pennsylvania were absent in Virginia; *Old Dominion, Industrial Commonwealth: Coal, Politics, and Economy in Antebellum America* (Baltimore: Johns Hopkins University Press, 2004), 77, 80–81.

[69] On federated advocacy organizations, see Elisabeth Clemense, "Organizational Repertoires and Institutional Change: Women's Groups and the Transformation of American Politics, 1890-1920," in *American Journal of Sociology* 98 (4): 755-98, 1993.

[70] The term comes from Olmstead and Rhode, *Creating Abundance*.

Early northern agricultural reform organizations were led by landed elites whose diverse financial interests brought them to advocate domestic development policies. Highly protectionist, they argued that enlarging the manufacturing sector would benefit farmers by providing them a lucrative "home market."[71] Significantly, by midcentury this idea appeared to accord with what northeastern farmers were actually experiencing: a shift toward production for growing American cities.[72] While cotton planters and merchant princes continued to look to export markets, northeastern farmers literally lived the home market as the countryside transformed around them. One scholar finds that throughout the period virtually "every northeastern agricultural editor . . . insisted that agriculture profited from the growth of manufactures" and therefore called for protective tariffs.[73] Historians have repeatedly found evidence that northeastern farmers responded positively to this message.[74]

But farmers not only sold to urbanites and workers, they bought from them. Their purchases went beyond consumer articles to include basic production inputs, the "the raw material of crops" and the tools to work them.[75] Superphosphates, augmented guanos, and other artificial fertilizers manufactured by chemical treatment of industrial byproducts and urban sewage gained rapid popularity in the period. By 1859 one agricultural editor could state matter-of-factly, "we are all buying what one of our neighbors comprehensively calls 'bag manure.'"[76] Meanwhile a plethora of specialized and increasingly complex farm tools made their way into barns across the region. Farmers showed a marked attention to the makes and models of these implements, and agricultural societies regularly tested their merits in public competitions such as

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[71] Mathew Carey, Address Delivered Before the Philadelphia Society for Promoting Agriculture, at Its Meeting, on the Twentieth of July, 1824, 4th ed. (Philadelphia: Joseph R.A. Skerrett, 1824), 16; Alexander Hamilton, "Report on Manufactures," in Papers on Public Credit, Commerce, and Finance, ed. Samuel McKee, Jr., The American Heritage Series (The Liberal Arts Press, 1957), 175–276; Tench Coxe, A View of the United States of America, in a Series of Papers, Written at Various Times, Between the Years 1787 and 1794 (Philadelphia: William Hall, 1794), 380.
[72] Diane Lindstrom, *Economic Development in the Philadelphia Region, 1810-1850* (New York: Columbia University Press, 1978), 3. See also Percy Wells Bidwell and John I. Falconer, *History of Agriculture in the Northern United States, 1620-1860* (Washington: The Carnegie Institution of Washington, 1925), 196–199; Danhof, *Change in Agriculture*, 9–11. Lindstrom's and Danhof's figures, derived from different sources, differ somewhat, but the overall direction of change is unmistakable.
[73] Marti, *To Improve the Soil and the Mind*, 49–58, 147. For contemporary examples, see *American Agriculturist* 5 (Dec 1846): 362; John A. King, *An Address, Delivered October 6th, 1848, at the Seventh Annual Exhibition of the Queens County Agricultural Society, at Jamaica, Long Island* (Jamaica, NY: Charles S. Watrous, 1849), 8–12.
[74] Gates, *Farmer's Age*, 381; Huston, *Land and Freedom: Rural Society, Popular Protest, and Party Politics in Antebellum New York* (New York: Oxford University Press, 2000), 55; Jensen, *Loosening the Bonds*, 83; Malcolm Rogers Eiselen, *The Rise of Pennsylvania Protectionism* (Philadelphia, 1932), 46.
[75] *Working Farmer* 7 (Apr 1855): 43.
[76] *New England Farmer* 9 (Sep 1859): 411.

the celebrated "Great National Trial of Mowers and Reapers" of 1857.[77] If all this seemed to undermine the ideal of yeoman independence, so much the worse for the ideal, reformers believed. As Horace Greeley put it bluntly, "Let us deal decisively at the outset with the mistaken consciousness of self-sufficiency, which is the chief obstacle of Agricultural Progress."[78]

Northern economic thinkers allied with what Sean Wilentz calls the "New School" Whigs took note of these developments and by the 1840s were refashioning the old "home market" doctrine into an elaborate statement of rural-urban interdependence.[79] The most important of these figures, each a major shaper of early Republican economic ideology, were the political economist, Henry C. Carey; the "father of conservationism," George P. Marsh; the William Seward confidante, E. Peshine Smith; and the ever-present Greeley. The ideas they developed are too rich for full explication here, but two of their central arguments can be summarized to illustrate how the Republican developmental synthesis reconciled growth of urban industry with continued rural prosperity.[80] First, they addressed the Malthusian-Ricardian growth trap by arguing that agricultural productivity could be ramped up ad infinitum thanks to scientific research and technological development. "Better machinery applied to better soils [i.e., heavily fertilized ones,]" would bring near "complete mastery over inanimate nature."[81] Second, they contended that a decentralized multitude of closely integrated industrial-agricultural zones would foster a sustainable rural-urban recycling system. Geographic proximity of the two sectors was essential so that soil nutrients present in urban sewage and industrial byproducts "go back again

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[77] Auction booklet, Thomas J. Aldred Papers, Miscellaneous Professional and Personal Business Papers, 1732-1945, Historical Society of Pennsylvania; Gue, *Diary of Benjamin F. Gue*, 29, 31, 33, 41, 48; *Transactions of the New York State Agricultural Society* 12 (1853): 9; *Pennsylvania Farm Journal* 5 (1855): 235; *New England Farmer* 9 (1857): 420. See also Peter D. McClelland, *Sowing Modernity: America's First Agricultural Revolution* (Ithaca, NY: Cornell University Press, 1997), 106–128. For the variety of contemporary models, see *1851 Annual Catalogue, Containing Engravings, Descriptions, and Prices, of Agricultural Machinery, Farming Implements, &c., Manufactured at the Albany Agricultural Works, and for Sale by Emery & Co., at the Albany Agricultural Warehouse and Seed Store, 369 & 371 Broadway, Albany, N.Y.* (Albany: C. Van Benthuysen, 1851). Although reapers have taken the lion's share of scholarly attention for their use in Midwestern grain farming, the importance of mechanical mowers to the Northeast's hay and fodder production should not be underestimated, nor should the proliferation of specialized plow designs.

[78] *Cincinnatus* 3 (Oct 1858): 465; for similar sentiments, see *Working Farmer* 1(1849): 126 and the letter of Ariel Hunton in *The Plough, the Loom, and the Anvil*, 6 (1853): 90.

[79] Wilentz, *The Rise of American Democracy*, 483. Wilentz uses the term to define the faction of the Whig Party that emerged from the Anti-Masonic movement of the late 1820s and which tended to hold progressive views on slavery and other reform issues as well as on economic development.

[80] For elaboration, Ron, "Developing the Country," ch. 2.

[81] Carey, The Harmony of Interests, 86; Marsh, Address Delivered Before the Agricultural Society of Rutland County, Sept. 30, 1847, 24.

to the great giver of these supplies."[82] The foresight of this conservationist impulse was ironically vitiated by the limited perspective of the agrarian society that gave it birth. Regarding agriculture as the basic source of raw materials, northern economic thinkers failed to grasp the significance of explosive growth in the extractive industries.[83] Nevertheless, their theoretical construct provided the intellectual underpinnings for a Republican economic program that pursued simultaneous development of large-scale industry and "scientific" agriculture.

The diffusion of "intelligence" among farmers was crucial to this developmental program. Agricultural reformers relentlessly insisted that scientific and technological literacy were fundamental to negotiating the restructuring process consequent to economic development. "The farmer is no longer a mere laborer," one explained. "To succeed . . . he must be educated to a fair extent."[84] This injunction fit easily into a broader rural education movement that included an expanded focus on the natural sciences.[85] Enthusiasm for such subjects appears to have been most pronounced in those agricultural areas experiencing the most development.[86] As Figure 2 shows, the concentration of New York's Regents academies offering courses in agricultural chemistry between 1843 and 1858 corresponds to commercial farming districts adjacent to major transportation links. Although academies served only a minority of rural youth, it appears that in some areas parents expected even a common school education to touch on the natural sciences.[87]

It was in this ideological context that agricultural reformers called for two novel government policies: bureaucratic agricultural agencies to act as information clearinghouses, and institutions of agricultural education and research to generate knowledge. The first step, of course, was convincing state governments to fund agricultural societies and boards. As we have

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[82] Carey, *The Past, the Present, & the Future*, 284–314 (quotation on p. 306). Ironically, the contemporaneous advent of artificial fertilizers sourced from nonrenewable deposits would soon render this proto-conservationist point all but moot.
[83] Even the anthracite developer Carey did not understand the implications. In an early treatise, he suggested that a "crop" of coal might take up to a thousand years to regenerate, but that in principle it was little different from the raw materials derived from fields and forests. H. C. Carey, *Principles of Political Economy* (Philladelphia: Carey, Lea & Blanchard, 1837), vols. 1, 189
[84] *Working Farmer* 1 (Nov 1849): 4.
[85] *Annual Report of the Regents of the University of the State of New York* 70 (1857): 20, 23; *Annual Report of the Board of Education* (Massachusetts) 5 (1842): 102–103; Pawley, "'The Balance-Sheet of Nature,'" 40–41, 54–55, 69–70;
[86] Sun Go and Peter Lindert, "The Uneven Rise of American Public Schools to 1850," *The Journal of Economic History* 70 (2010): 2; Nancy Beadie, "Tuition Funding for Common Schools: Education Markets and Market Regulation in Rural New York, 1815–1850," *Social Science History* 32, no. 1 (2008): 128; Atack and Bateman, *To Their Own Soil*, 47; Parkerson and Parkerson, *Emergence of the Common School in the U.S. Countryside*, 2.
[87] Annual Report of the Regents of the University of the State of New York 56 (1843): 174, 181; ibid. 70 (1857): 20, 23.

seen, this could require mass petition drives and persistent annual conventions. Once established, the largest state agricultural organizations pushed for more influence. In 1854 the New York legislature acceded to the state society's requests for an annual appropriation to fund entomological research; several years later it charged the society with supervising the collection of agricultural statistics in each of the state's roughly 12,000 school districts.[88] When an 1859 outbreak of cattle pleuropneumonia in Massachusetts threatened the entire nation's cattle stock, a special legislative session turned to a commission under the supervision of the state Board of Agriculture to fight the epidemic.[89] The Pennsylvania and Michigan state agricultural societies did best, perhaps, by obtaining substantial support in the mid-1850s for the founding of the country's first two state agricultural colleges.[90]

At the federal level, however, reformers ran into a solid wall of southern Democratic opposition. This became evident in 1850 when a concerted campaign for a federal agricultural bureau within the newly created Interior Department began to stall. Reformers had anticipated success, believing themselves able to "rouse the farming class to a sense of its rights in the state" and thus "of some account in the *commonwealth*."[91] In fact, the initial effort amounted to little more than conferring official status on the de facto agricultural bureau that already existed in the Patent Office. Known informally as the "Agricultural Division," the agency had arisen over the preceding decade to prepare the annual agricultural report. Southern Democrats found this development disturbing. According to North Carolina's Abraham Veneble, the Division formed "an entering-wedge to an agricultural department," something Jefferson Davis held "to be no part of the functions of this Government."[92] Although southerners were unable to prevent the printing of more and more agricultural reports, they successfully thwarted the campaign for a federal agricultural bureau, even in the face of strong bipartisan support from northern members of Congress, the backing of the Taylor and Fillmore administrations, and an impressive petition

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[88] Laws of the State of New York (1854), ch. 283, 616; (1862), ch. 293, 489-491; Asa Fitch, First Report on the Noxious, Beneficial and Other Insects, of the State of New York (Albany: C. Van Benthuysen, 1855).
[89] Annual Report of the Secretary of the State Board of Agriculture of Massachusetts, (1861), 5–91; Annual Report of the Commissioner of Patents on Agriculture, (1861), 241–267.
[90] Michael Bezilla, *Penn State: An Illustrated History* (University Park, PA: The Pennsylvania State University Press, n.d.), http://www.libraries.psu.edu/psul/speccolls/psua/pshistory/bezilla.html; Keith R. Widder, *Michigan Agricultural College: The Evolution of a Land-Grant Philosophy* (Michigan State University Press, 2005).
[91] *Horticulturist* 4 (Apr 1850): 441 (emphasis in original).
[92] Cong. Globe, 31st Cong., 1st Sess., 503–504, 916.

drive that recruited the signatures of ordinary farmers from across the Northeast.[93] In the tiny central Pennsylvania township of Turbot, for instance, twenty-seven of the thirty-five petitioners whose occupations could be identified were farmers (Table 3). These figures accord with general rates of active farmer participation in reform organizations, which could thus plausibly claim to represent the "farming interest."

Agricultural reformers responded to initial defeat by forming the United State Agricultural Society (USAS) with the express purpose of lobbying Congress.[94] Despite its name, the USAS was never truly a national organization. Instead it was dominated by leading Whig reformers from the seaboard states north of the Potomac. The influence of Marylanders such as Charles Calvert ensured that the organization took an accommodationist stance toward slavery. Still, the USAS found itself entirely cutoff from even Virginia's reformers, not to mention those of the Deep South, who simultaneously organized their own "Agricultural Congress of the slave-holding states."[95] On the other hand, it easily forged ties with antislavery Whigs and Republicans such as Justin Morrill, James Harlan, Horace Greeley, Benjamin Wade, and many others, all of whom strongly supported agricultural reform initiatives. New York's first Republican governor, the Sewardite, John Alsop King, served on the USAS executive committee from its inception.

In 1856 prospects for a federal agricultural agency looked bright when House Agriculture Committee chairman David Holloway, an Opposition Party member from Indiana who had attended the USAS meeting in February, introduced a bill with the apparent backing of congressional Republicans.[96] The accompanying majority report registered reformers' influence by reminding legislators that, "for the last four years, petition after petition has been received from the people; agricultural societies in the counties, State boards of agriculture, the United States agricultural society, and State legislatures, have passed resolutions recommending the establishment of an agricultural department."[97] Still, the bill was never even taken up for debate, much less voted on. Clearly frustrated, USAS president Marshal Wilder wondered plaintively,

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[93] Ron, "Developing the Country," 169-176; Petitions referred to the House Committee on Agriculture, National Archives I, Center for Legislative Archives, Record Group 233, Petitions, 31st Cong. (HR 31A-G1.1) and 32nd Cong. (HR 32A-G2.1);

[94] M. P. Wilder to John A. King, 10 Jan 1853, Box 1, John Alsop King Papers, New-York Historical Society; *Journal of the United States Agricultural Society* 1:1 (Aug 1852): 7–20; *The Plough, the Loom, and the Anvil* 4 (Aug 1851): 97; *American Farmer* 7 (Aug 1851): 70–71.

[95] *Journal of the United States Agricultural Society* 1 (1852): 6-7, 13; 4 (1857), 10-11; 7 (1860), 86-88, 192, 388; *Southern Literary Messenger* 18 (Oct. 1852), 613-614; *Southern Cultivator* 12 (Jan. 1854), 28-29.

[96] New York *Daily Tribune*, 5 Mar 1856, p. 4; *Journal of the United States Agricultural Society* 4 (1856): 8.

[97] Cong. Globe, 34th Cong., 1st Sess., 1923–1924; *American Farmer* 12 (Oct 1856): 97–101.

"Why has it hitherto been so difficult, nay, *impossible*, to get a bill through Congress for the establishment of such a department?"[98]

In the face of apparent gridlock, the USAS worked continuously to increase its influence. To build support from its constituency, it partnered with local and state agricultural societies to sponsor highly publicized annual fairs and implement trials. At the same time, it made its presence felt on Capitol Hill. Besides inviting members of Congress to its annual meetings, it obtained the services of two Washington insiders. Benjamin Brown French, a charter USAS member who became its treasurer in 1855, served as clerk of the House of Representatives and in other official capacities through several succeeding administrations. The brother of an assistant editor at the *New England Farmer*, he had a strong commitment to the reform agenda, noting in his diary his hope for "*a Department* of Agriculture, not a Bureau."[99] No less important was the appointment as the society's secretary of Benjamin Perley Poore, the Washington correspondent for the Boston *Journal* and a longtime observer of the city's political life. In 1858 the USAS established a permanent Washington office for Poore, taking a step toward maintaining a year-round presence in the capital. Poore turned the society's annual publication into a quarterly journal and later into a monthly bulletin. In these ways the USAS increasingly resembled a modern special interest organization, complete with central office staff and regular contact with constituent members.[100]

These connections paid dividends when, in January 1859, the Senate prepared to take up the Morrill Land Grant bill. Convening an "Advisory Board of Agriculture" in aid of its mandate to gather farming statistics, the Patent Office's Agricultural Division brought leading reformers to Washington at government expense. Only three of the twenty-two invited reformers represented slave states, none the Deep South, while ten had close ties to the USAS, including numerous veterans of the agricultural bureau campaign.[101] Meeting January 3 to 11, the better part of the group immediately reassembled as the annual USAS convention for an additional three days. As in previous years, several members of Congress attended the meeting, which featured a

[98] Journal of the United States Agricultural Society 5 (1857): 24 (emphasis in original).
[99] Benjamin French, *Witness to the Young Republic: A Yankee's Journal, 1828-1870*, ed. Donald B. Cole and John J. McDonough (Hanover, NH: University Press of New England, 1989), 246 (emphasis in original).
[100] *Journal of the United States Agricultural Society* 3 (1855): 23; 5 (1857): 3; 7 (1859): 7, 10; Joseph P. McKerns, "Benjamin Perley Poore," *American National Biography Online*.
[101] Gates, *Farmer's Age*, 378–379.

powerful address in support of the Morrill bill.[102] Thus just two weeks before the Senate took up the matter the capital was practically swarming with leading advocates of agricultural education.

The Senate debates revealed the depth of southern Democratic opposition. Clement Clay of Alabama regarded the bill as "monstrous"; Jefferson Davis termed the entire push for national agricultural institutions, "fraudulent."[103] Expansion of federal involvement in the domestic economy, particularly in an area as sensitive as agriculture, frightened slaveholders. Even those southern Democrats who favored state-level government support for agricultural reform would not do likewise at the national level.[104] Virginia's James Murray Mason spelled out the implications:

> If these agricultural colleges should be built as functionaries of the General Government . . . it requires no prophet . . . to see that in a very short time the whole agricultural interest of the country will be taken out of the hands of the States and subjected to the action of Congress, by direction or indirection, either for the promotion of it in one section or the depression of it in another.[105]

Southern agriculture, of course, was inextricably linked to slavery, which the bill's Republican supporters openly regarded as a national malady.

As they had done earlier in the House, Republicans successfully engineered a narrow victory in the Senate, but the margin was too slim to overcome President James Buchanan's veto. Republican editors seized on the outcome as prima facie evidence of Slave Power tyranny. "Southern fire-eaters had made up their minds that [the bill] should be vetoed, and it was done." Nothing but "the remorseless negative of slavery" could explain hostility to a measure supported by "the matured judgment of the entire Northern Press, of both Houses of Congress, of numerous Agricultural Societies, and of every unprejudiced mind in the United States not absorbed in the breeding of negroes." The Slave Power was "radically hostile to educated labor," for "an Industrial College in a Slave State would be as great a solecism as a blacksmith's shop in a powder house."[106] Such sentiments were echoed by Republicans more broadly. Speaking at the

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[102] Journal of the United States Agricultural Society 7 (1859): 18-19, 89-97.
[103] Cong. Globe, 35th Cong., 2nd Sess., 722, 786.
[104] *DeBow's Review* 13 (Dec 1857): 639; *Journal of the United States Agricultural Society* 4 (1856): 78-80.
[105] Ibid., 35th Cong., 2nd Sess., 716.
[106] Philadelphia *Press*, 28 Feb 1859, 2; Chicago *Tribune*, 1 Mar 1859, 2; New York *Tribune*, 28 Feb 1859, 4. For similar views, *North American and US Gazette*, 28 Feb 1859, 2; *Pittsburgh Daily Gazette*, 25 Feb 1859.

Wisconsin state agricultural fair only a few months later, Abraham Lincoln argued that "free labor insists on universal education," whereas slaveholders "assumed that labor and education are incompatible."[107]

If Republican editors found the defeat of the Morrill bill a good opportunity to rally northern farmers to the free labor cause, agricultural reformers were bitterly disappointed. But in truth, reformers could count Congress's passage of the bill a tremendous step forward. As congressional Republicans repeatedly reminded their colleagues, the agricultural reform movement exerted influence at every level of government, building support in Washington by direct lobbying while it simultaneously orchestrated multiple state legislative resolutions to instruct Senators and hold representatives accountable. Beyond dispute, these efforts had made the difference, rendering passage of the Land Grant and USDA bills inevitable once secession left Congress firmly in northern hands. Both measures became law in 1862.[108]

Why has the agricultural reform movement gone largely unnoticed? State structure has a lot to do with it. One way to think about the problem is to imagine a bureaucratic politics in the absence of bureaucracy. Unlike the other major social movements of the antebellum era—antislavery, temperance, and nativism—agricultural reform did not aim at one-time legal fixes. Legislative success for agricultural reformers meant not the end of their mission, but the establishment of new government agencies for its continual pursuit. Moreover, agricultural reformers spent most of their time dealing with the nuts and bolts of agriculture rather than with politics. They did not, in fact, want much to do with politics, and they typically claimed that what they proposed was common-sense policy that did not properly enter the political realm at all. Thus they insisted that appointees to government agricultural posts be "above political contamination" and that "no changes should be made with a change in the presidency."[109] In the heyday of a patronage-based party system, however, there was no institutional space in which such demands could be met. Eventually, agricultural policy achieved significant independence from the parties and came to be determined largely by a matrix of technocratic government agencies, legislative committees, and organized interest groups. But in the 1850s this kind of

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[107] Abraham Lincoln, *The Works of Abraham Lincoln: Speeches and Debates, 1856-1859*, ed. John H. Clifford and Marion M. Miller, vol. 2 (New York: Newton & Cartwright, 1908), 289–290.
[108] For reformer influence on ultimate passage, see Cong. Globe, 37th Cong., 2nd Sess., 2014, 2276.
[109] "Report [of the Committee on Agriculture]," *Minutes of the Votes and Proceedings of the Seventy-Fourth General Assembly of the State of New Jersey* (1850), 496; Working Farmer 1 (1849): 73.

bureaucratically-oriented politics was simply unavailable. Instead, agricultural organizations needed first to build up the federal bureaucracy.

To do so they had no choice but to go through highly partisan legislatures. The 1850s presented a uniquely volatile period in which to pursue this path. Southern Democrats (and their northern allies) were extremely wary of federal agricultural agencies. Sectional divisiveness seems to have led even much of the Whig leadership to quietly drop agricultural reform initiatives after 1851 or so. But the reform movement possessed its own organized constituency, independent media outlets, and federated lobbying operation, which allowed it to keep its goals on the public agenda regardless of what party leaders decided. When the Republicans emerged to confront slaveholder interests, agricultural reform practically fell into their laps, a readymade issue backed by an extensive popular movement with none of the Jacksonian baggage carried by banks and tariffs. Yet because agricultural reformers articulated their demands in nonpartisan language that appeared in their own network of publications, rather than in the party press with its impassioned rhetorical style, it has been easy to overlook the massive effort involved in simply bringing the Morrill bill to the House and Senate floors. This effort did not occur by accident. Although many reformers in Unionist states may not have been Republicans and some were even slaveholders, the position taken by southern Democrats ensured that the political fallout from the failure of federal agricultural legislation redounded almost entirely to the benefit of Republicans.

I would like to suggest that we rethink antebellum political economy in light of this story. First, the economy: we should recognize that, on the eve of the Civil War, agriculture continued to dominate the lives of most Americans, even in the semi-industrialized Northeast. But agriculture itself was changing and requires going beyond a generalized “transition-to-capitalism” framework to a consideration of the concrete market patterns, technologies, and forms of knowledge that governed its regional practices. Second, politics: we should pay more attention to mass mobilization outside of the political parties and in relation to state structure. The overtly political campaigns of antislavery activists and, to a lesser extent, of nativists, have received much well deserved attention. But the agricultural reform movement suggests an even more sweeping shift in the social processes shaping political and state development. The reformist impulses stemming from religious, demographic, economic and perhaps other trends each found expression in a new culture of organized advocacy that began with social movements

and eventuated in sophisticated political lobbies.[110] When "scientific agriculture" and the "communications revolution" intersected, the "farming interest" was born.

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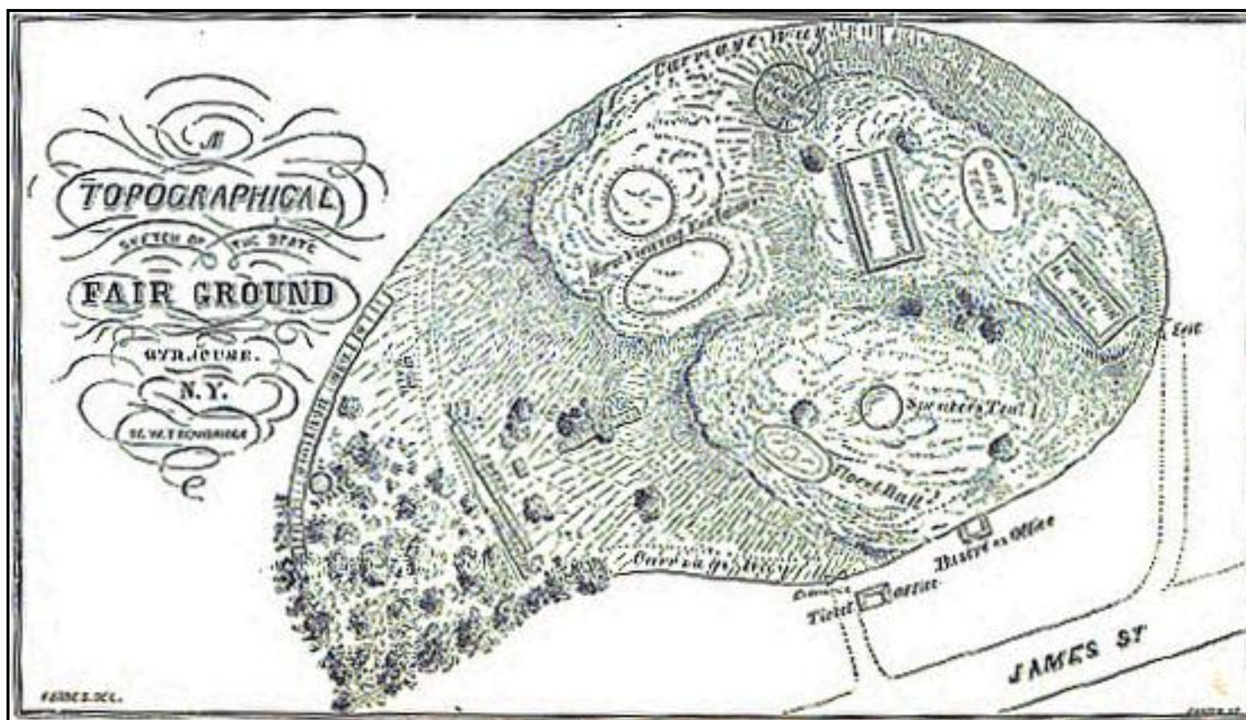
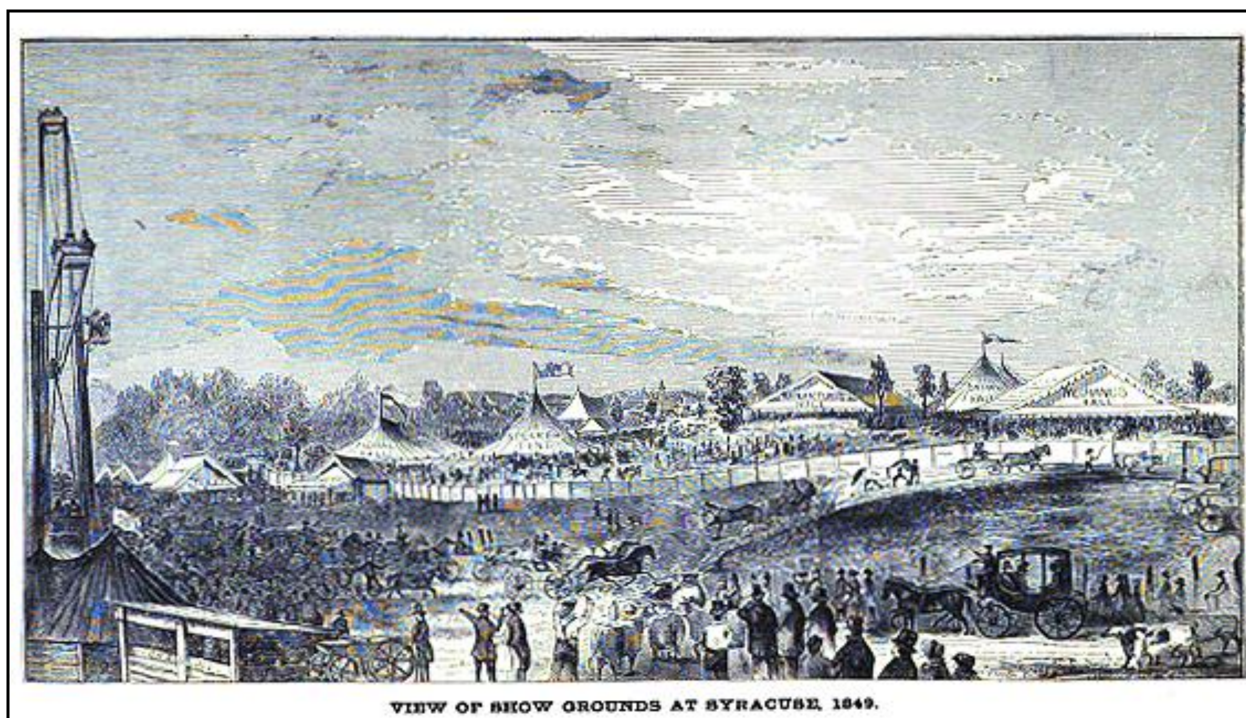
[110] For the sophisticated lobbying of political antislavery activists, see Corey Brooks, "Building an Antislavery House: Political Abolitionists and the U.S. Congress" (Ph.D, University of California, Berkeley, 2010).

APPENDIX A: FIGURES

Figures 1 & 2: The 1849 Syracuse Fair

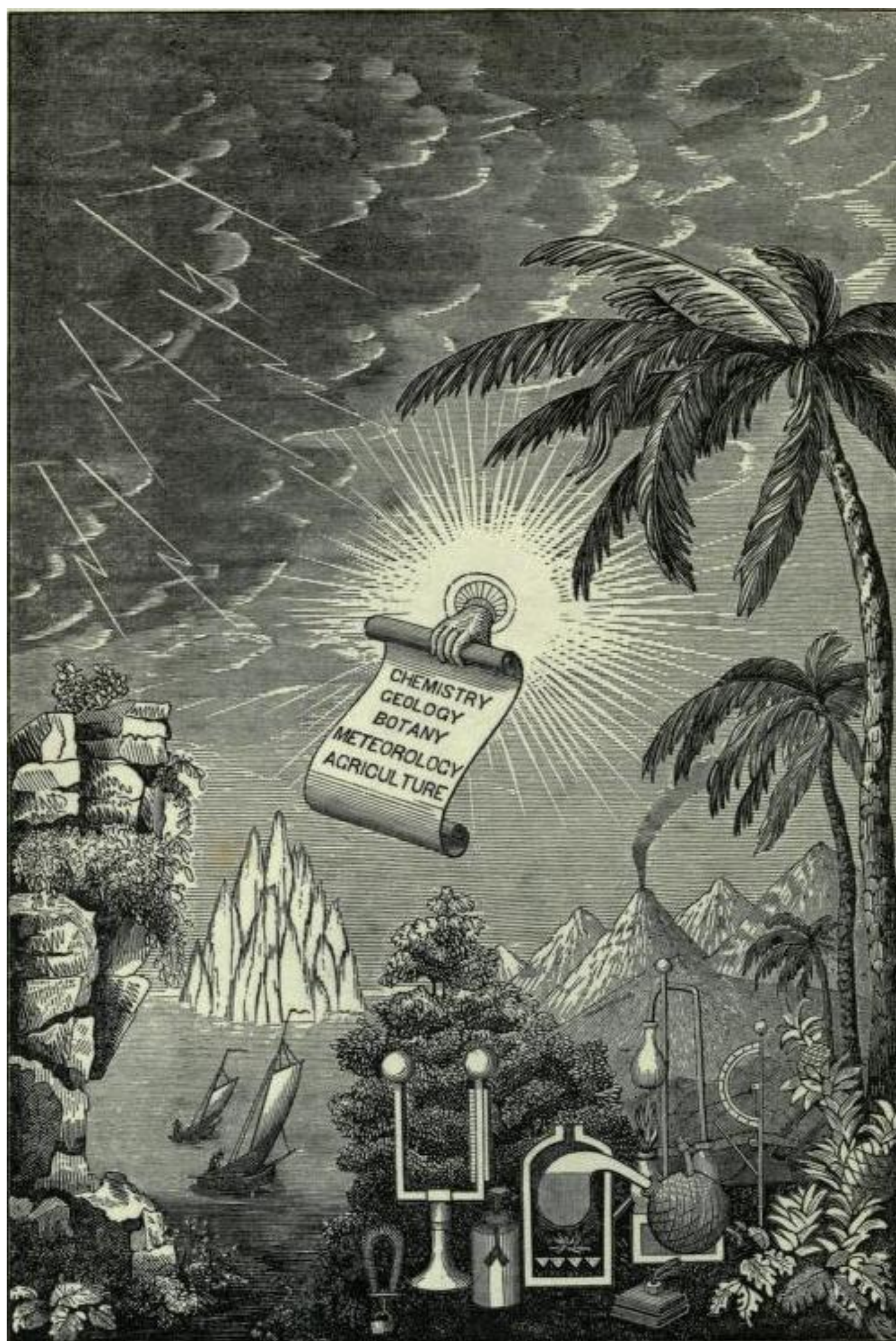




VIEW OF SHOW GROUNDS AT SYRACUSE, 1849.

SOURCE: *Transactions of the New-York State Agricultural Society* 9 (1850): 92-93, frontispiece (public domain).

Figure 3: The Missionary Work of Agricultural Reform



SOURCE: M. M. Rodgers, *Scientific Agriculture, or the Elements of Chemistry, Geology, Botany and Meteorology, Applied to Practical Agriculture* (Rochester: Erastus Darrow, 1848). Courtesy of the Library Company of Philadelphia.

APPENDIX B: TABLES

Table 1: Distinct Agricultural Journal Titles per 100,000 Free Rural Inhabitants by Decade

Decade	*Distinct Titles*	*Per 100,000 Free Rural Inhabitants*
1820-1829	19	0.195
1830-1839	90	0.707
1840-1849	141	0.857
1850-1859	181	0.851

SOURCES: S. C. Stuntz, *List of the Agricultural Periodicals of the United States and Canada Published During the Century July 1810 to July 1910*, ed. Emma B Hawks (Washington, D.C: U.S. Dept. of Agriculture, 1941); Historical Statistics of the United States, 1789-1945 (Washington, DC: G.P.O., 1949).

NOTES: The second column counts number of journal titles to publish at least one issue in a decade; titles that persisted from one decade to the next were counted once in each decade. The right-most column divides title count by free rural population as calculated from the federal population Census at decade's end. Free rural population was estimated by subtracting the entire slave population from the entire rural population. This procedure slightly underestimates the free rural population and therefore slightly overestimates the ratio of agricultural journals to free rural inhabitants.

Table 2: Farmer Presence in the Agricultural Reform Movement

Group	*State*	*Year*	*No.*	*No. w/known occupations (% of total)*	*No. of farmers (% of known occupations)*
Fairfield County Agricultural Society, members of the 10th and 11th district executive committees	CT	1843	77	48 (62.3)	39 (81.3)
Turbot, Northumberland County, petitioners for federal agricultural bureau	PA	1850	45	34 (75.6)	27 (79.4)
Middlesex County Agricultural Society, contributors, from town of Concord, to purchase of permanent fairgrounds	MA	1853	29	24 (82.8)	18 (75.0)
Bucks County Agricultural Society, shareholders	PA	1858	148	86 (58.1)	69 (80.2)
Subscribers to the *Cultivator*, list of agent Henry Balcom of Oxford, Chenango County	NY	1839-1865	132	119 (90.2)	87 (73.1)
		Total	429	312 (72.7)	240 (76.9)

SOURCES: Occupations were determined mostly from manuscript Census records for 1850 and 1860 obtained through Ancestry.com. Some additional determinations were made with the help of local histories and genealogies. Archival sources, in order of table rows: Meeting minutes, dated 18 Oct 1843, Fairfield County Agricultural Society Records, 1840-1851 (MS B90), Series A, Folder 2, Fairfield Museum and History Center, Fairfield, CT; Printed petition from Northumberland County, PA, referred to House Committee on Agriculture, 28 May 1858, National Archives I, Center for Legislative Archives, Record Group 233, Petitions, 31st Cong. (HR 31A-G1.1); "Report of the Committee to Purchase Land, &c.," dated 4 Oct 1853, Middlesex Agricultural Society Records, 1803-1892, Series V, Box 5, Folder 3, Concord Free Public Library, Concord, MA; Stock certificate book of the Bucks County Agricultural Society, 1858-1867 (BM-F-8), Mercer Museum and Spruance Library (Bucks County Historical Society), Doylestown, PA; Sally McMurry, "Who Read the Agricultural Journals? Evidence from Chenango County, New York, 1839-1865," *Agricultural History* 63 (Autumn 1989): 5-6.

Table 3: Agricultural Organizations by Region in 1858

Region	*Agricultural Organizations*	*Organizations per 100,000 Total Inhabitants*	*Organizations per 100,000 Free Rural Inhabitants*
Midwest	411	5.29	6.11
Northeast	279	2.63	4.10
Southern Interior	112	1.71	2.85
Southern Seaboard	85	1.45	2.68

SOURCES: *Report of the Commissioner of Patents, Agriculture* (1859): 91; 1860 Federal Population Census.
NOTES: Free rural population was estimated as above, thus somewhat overestimating the South's rate of agricultural organizing. Midwest: Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, Wisconsin. Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont. Southern Interior: Alabama, Arkansas, Kentucky, Louisiana, Mississippi, Missouri, Tennessee, Texas. Southern Seaboard: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Vriginia. The territories and Pacific states were excluded.