The Origins of Economic Regulation in the United States:
The Interstate Commerce and Bureau of Animal Industry Acts

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In April 1866, Senator John Sherman of Ohio reported on the spread of the “cattle plague” in Europe. Rinderpest, which is thought to have killed over 200 million cattle in Europe in the eighteenth century, was the most destructive of all livestock diseases, and it had recently entered Britain. Legislators were alarmed that it might jump to North America. To combat the disease, the British took extreme measures, quarantining property and districts, restricting movement, and destroying animals. Sherman noted that under the Constitution the federal government lacked police powers to follow the British example, and thus could not order the destruction of animals and property within states, so the states must pass laws for their own defense.¹

The powers of the federal government would change dramatically: by 1887, federal agents, contrary to Sherman’s sense of the constitutional limits on federal authority, were declaring quarantines within states, arresting violators, entering property without warrants, burning down contaminated buildings, and destroying cattle by the thousands. These actions represented an extraordinary peacetime use of federal police power. By 1889, the U.S. Department of Agriculture (USDA) had issued detailed railroad regulations. Among other mandates, they segregated the American cattle trade, requiring separate railroad cars, pens, and feeding stations for southern cattle travelling to northern markets. By the first years of the twentieth century, three-fourths of the United States was under federal lockdown to control the spread of three different parasitic diseases: cattle scab, sheep scab, and Texas tick fever. To move cattle and sheep, railroads needed documentation, often including certification that the animals had been dipped to kill the parasites; the railroads had to segregate cattle and sheep originating in infected states from other livestock traffic; and the animals could only be shipped for direct slaughter (as opposed for breeding or fattening). The federal government even specified the chemicals that the railroads had to use to sanitize their cars and facilities, and federal agents supervised and approved the cleansing processes. There were serious legal consequences for non-compliers. These regulations represented the entering wedges in a federal regulatory system that by the 1920s would begin to send agents onto nearly every farm in the nation to test cattle for bovine tuberculosis. In spite of violent protest, including one suppressed

¹ *Congressional Globe*, 25 April 1866, p. 2162.
by the imposition of martial law in Iowa, federal and state agents ordered the slaughter of over four million cattle that failed the tests or that were possibly contaminated by infected stock.

It has been widely argued that the Interstate Commerce Act (ICA) of 1887, which established the Interstate Commerce Commission (ICC), represented the first significant step in the growth of federal economic regulation.\(^2\) Theories of the rise of federal regulation typically focus on explaining the origins of the ICA. The ICC was established to regulate railroad tariffs. A popular view is that the ICC represented a first step in the rise of Big Government as a counter to the rise of Big Business. This represented an attempt to control exercise of market power and perhaps to redistribute wealth.\(^3\) The ICA also fits into a counter narrative, associated with the public choice school that argues that the ICC primarily represented an attempt to limit competition.

But the ICC was neither the first, the most important, nor the most intrusive federal regulatory agency of the late nineteenth and early twentieth centuries. That distinction goes to the Bureau of Animal Industry (BAI). The Bureau, established by BAI Act of 29 May 1884, was the agency that organized and carried out the policies alluded to above. The countervailing power and anti-competition paradigms common in framing the ICA are not very useful for understanding the BAI Act. The BAI was designed to create a global public good, an environment free of contagious livestock diseases. The agency regulated both small and large enterprises in every state and territory, including railroads, and there is little evidence pointing to its being captured. The ICC story is largely a tale of meddling bureaucrats creating a less efficient world and haggling over the allocation of a static pie; BAI story is a tale of overcoming serious collective action problems and generating and distributing knowledge to create a more efficient world.\(^4\)


\(^4\) Samuel P. Huntington repeats the mantra that the ICC “is the oldest transportation regulatory commission, and with the exception of the Corps of Engineers it is the oldest federal agency of any type with major transportation responsibilities.” He then listed 13 other federal agencies with transportation responsibilities, but fails to mention the BAI. The BAI was not a commission, but it in fact exercised major powers in regulating transportation. Samuel P. Huntington, “The Marasmus of the ICC: The Commission, the Railroads, and the Public Interest,” *Yale Law Journal* 61: 4 (April 1952), pp. 467-506, esp. 467.
In regulating railroads and livestock, Congress was interfering with large, technologically dynamic, and geographically diverse industries. During the late nineteenth century, the capital stock (valued at current dollars) invested in livestock and accoutrements exceeded that invested in railroads.\(^5\) Both industries existed in every state in the Union. Both were rapidly changing—the location of livestock production was moving west (in large part because of railroads), the dairy industry was growing rapidly, farmers were investing heavily breed improvement with significant impacts on cattle, swine, and sheep productivity.\(^6\) In the late 1870s, livestock and animal products accounted for about 20 percent of all U.S. merchandise exports. The growth of large packing firms not only signaled a change in industrial organization, it opened the way for rapid changes in the export trade as brand-named packed meats supplanted the live animal trade.\(^7\)

To support our claim as to the BAI’s priority and importance, this paper contrasts several features of the BAI with the ICC: the debate and changing coalitions leading up to the passage of the two acts; the impact of the courts in stimulating the drive for federal legislation; the regulations respective impacts on the economic and firm behavior; and their contributions of the general welfare of the nation. The contrast will show that the BAI legislation and the Bureau’s subsequent regulatory policies confronted a far more complex set of issues than the ICA and subsequent ICC policies. In addition, the BAI policies would establish novel templates for state-federal cooperation, for transferring research to promote economic development, and for what epidemiologists would later call the “area eradication model.

A spinoff of this analysis of a disease control bureaucracy is to offer new perspectives into the ICC’s origins and significance and more generally into the broader narrative on the political economy of regulation in the Progressive era. Much has been written on the ICC, and to simplify our comparison, we rely heavily on the framework offered by Thomas Gilligan, William Marshall, and Barry Weingast (GMW).\(^8\)

The Congressional Debates: Reagan and Cullom

The lead up to the ICA and the BAI Act both played out over several sessions of Congress. The major concerns were the claims that the railroads were exercising monopoly powers to discriminate against short haul customers and that the practice of granting rebates to powerful customers such as John D. Rockefeller created an uneven playing field that decimated against smaller producers. Bills calling for railroad regulations passed the House in 1874, 1878, and in the lame duck session following the 1884 elections. The first passage in Senate occurred in lame duck session of 1885, but the Senate and House delegates failed to reach a compromise. Bills passed both houses in 1886 but the two houses again failed to reach an agreement. The final bill was signed in to law by President Grover Cleveland on 4 February 1887. GMW characterize Senator Shelby Cullom, an Illinois Republican, as the sponsor what they term the “pro-railroad” Senate bill and Representative John Reagan, a Texas Democrat, and the sponsor of the anti-railroad House bill that was more in line with the interests of many shippers.

The Act that passed included (a) short haul pricing constraint (SHPC); (b) a prohibition on rebates, drawbacks, and pooling together with a requirement that all rates be post and “reasonable and fair”; and (c) provisions creating a federal commission (the Interstate Commerce Commission) to adjudicate conflicts. As G. W. Hilton noted, these provisions were “outrightly inconsistent,” in large part because of the awkward merging of Reagan’s and Cullom’s views.

The Commission’s administrative structure reflected Cullom’s position and ran counter to Reagan’s desire to draft a general law with “specific, enforceable limits” applied through the state and federal courts. Reagan and his fellow agrarians did not want to give an expert commission “broad, discretionary powers” because he feared railroad capture. The SHPC reflected the demand of Reagan to prevent long-haul short-haul discrimination. The anti-rebate provision reflected the position of Cullom, who also unsuccessfully sought to grant railroads the power to pool traffic and avoid ruinous competition.

The support for both the ICC and the BAI laws increased because of Supreme Court decisions. In the case of the ICC, the 1877 Munn v. Illinois decision evidently influenced

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Reagan that federal regulation was constitutional.\textsuperscript{12} In addition, GMW credit the 1886 \textit{Wabash v. Illinois} decision that “struck down state regulations of railroads attempting to control the rates of commodities hauled in interstate commerce” with helping to break the deadlock to a compromise on the ICA.\textsuperscript{13} \textit{Railroad Co. vs. Husen} (1878), in which the Supreme Court struck down an 1872 Missouri statute that prohibited any Texas, Indian, or Mexican cattle from entering the state to protect its farmers from Texas fever, was the key case increasing support for federal animal control legislation. This decision drastically limited the states’ ability to police their borders.\textsuperscript{14} However, there is an important contrast underlying the \textit{Wabash} and \textit{Husen} decisions that would arise frequently. The Court’s ruling in \textit{Husen} that the blanket interference with commerce went “beyond what is absolutely necessary for self protection” was based not just on constitutional principles, but also on the scientific understanding of the day. To bar the movement of animals into the state, Missouri somehow had to be more selective and target just those which were dangerous. This was a difficult if not impossible requirement to meet given the state of scientific knowledge.

The long association of animals with railroad legislation has not be fully appreciated. Even before the immediate run up to the BAI Act and subsequent BAI orders regulating railroads, the first federal regulation of railroads to be enacted into law (apart from Civil War measures) was HR 694, “a bill to prevent cruelty to animals in transit on railroads,” signed by President Ulysses S. Grant on 3 March 1873. The Department of the Treasury could draw on federal marshals to enforce the bill and prosecute violators. This bill, which required that livestock in transit be offloaded every twenty-eight hours to be watered, was contested on grounds that would foreshadow the subsequent debates regulating livestock diseases. Opponents saw it as an unconstitutional extension of federal powers to regulate trade. Railroads staunchly opposed the measure. The votes in the House also foretold subsequent divisions. As an example, on a roll call vote of 11 April 1872, Republicans divided 91-4 in favor, while Democrats voted


\textsuperscript{13} Gilligan, Marshall, and Weingast, “Legislative Choice,” p. 51, fn. 44. Poole and Rosenthal maintain that \textit{Wabash} case came too late to have much effect on the ICC passage.

\textsuperscript{14} \textit{Railroad Co. vs. Husen}, 95 U.S. 495 (1878)
68-6 against. Only one of the 28 southern Democrats voting, favored the legislation. Bill to strengthen the provisions of the 1873 act were debated in 1874, 1878, and 1879.\textsuperscript{15}

Senate bill No. 206, debated on 26 and 27 May 1879 combined animal welfare with disease control. It continued a 28-hours-unloading mandate and authorized the Commissioner of Agriculture to employ inspectors at ports to certify that animals destined for export were free of infectious and contagious diseases.\textsuperscript{16} This latter provision was aimed relieving recently imposed British and Canadian restrictions on the U.S. live cattle trade because of concerns about contagious bovine pleuropneumonia (CBPP) and would be a regular feature of subsequent animal disease control legislation. The debate occupies over 20 pages in the \textit{Congressional Record}, with the leading opponents, including Samuel Maxey, a southern Democrat from Texas, and Daniel Voorhees, a northern Democrat from Indiana. Voorhees decried the growth in the federal bureaucracy and the arbitrary powers granted to political appointees who would have the “power at any port to destroy the sale of any merchant’s cattle….” This power would open the doors to “constant bribery and corruption.” Voorhees and his Senate allies succeeded in killing the bill.\textsuperscript{17}

Several bills dealing with the control of infectious and contagious livestock diseases were introduced in the House and Senate in 1880. These early bills struggled to define an institutional structure for regulating diseases: should it be in the Department of Agriculture, the Department Treasury, the Department of the Interior, or perhaps in the new National Board of Health? There were several factors leading to the calls of federal legislation. The first was a deteriorating animal disease environment as new diseases such as CBPP were introduced and spread, and as established diseases, most importantly Texas fever became an increasing problem. The worsening environment was in large part due to the increase in trade in animals made possible by improved transportation. The increase in the concentration of animals in stockyards and dairies, along with an increase in selective breeding which involved more intermingling of stock, also added to the problem. A second factor motivating federal action was that in 1879 many European nations began enacting measures to restrict the imports of U.S. animals and animal


\textsuperscript{16} New York Times, 27 Jan. 1875, p. 10; 4 May 1878, p. 1; 5 June 1878, p. 1; 23 May 1879, p. 3; 27 May 1879, p. 6; 28 May 1879, p. 1; Chicago Tribune, 25 Jan. 1878, p. 1; 8 Feb. 1878, p. 2; 22 March 1878, p. 2; 21 May 1878, p. 1; 28 May 1879, p. 1; 4 April 1879, p. 12

\textsuperscript{17} \textit{Congressional Record} 27 May 1879, pp. 1610-20, 1625-34; also see 21 Feb. 1879, pp. 1704-07.
products because of the threat of livestock disease and concerns for human health. Legislative advocates hope that federal intervention might help reopen European markets by wiping out the diseases or perhaps by providing credible inspection certificates indicating that specific animal shipments originated in uninfected areas. An additional set of forces were recent scientific advances associated with the Germ Theory of Disease and the development of a fledgling cadre of experts gave hope that preventative measures might be effective. A few European trained veterinary scientists, would play an important role in providing information and lobbying for animal sanitation legislation. Dr. Daniel E. Salmon, who would become the BAI’s founding chief, was especially influential in these campaigns. At this point there was little concern with monopoly power or price discrimination as with the case of the ICA.

The first bills explicitly calling for the creation of a ‘bureau of animal industry” reached the floor of both houses in February 1881. After vigorous debates these bills were tabled. On 16 December 1881, Representative William Hatch, a Democrat from Missouri, introduce a new bill (HR 896) that in spite of rancorous opposition passed the Republican House in in June 1882. The road was rougher in the Senate and after a brief debate was tabled by a vote of 27 to 22 on 3 August 1882. This killed the legislation for the year. GMW emphasized that in the run up to the formation of the ICC, the Senate often blocked reformist legislation coming from the House. It was also the “legislative graveyard” at this stage of the BAI controversy.

As the 48th Congress convened, there appeared little chance for success because the Democrats had regained control of the House. Nevertheless, in January 1884, Hatch introduced a new bill (HR 3967). At several junctures during the prolonged debate the bill barely survived—in one case a motion to kill the bill ended in a tie and then lost on a recount by a vote of 114 to 118. After several key amendments, which significantly weaken the bill, it passed on 28 February 1884 by a vote of 155 to 124.

The Senate took up HR 3970 on 12 March 1884 and passed a heavily amended version on 29 April 1884. The Senate bill now met with disapproval from the stronger supporters in the House and the House voted to non-concur and sent it back to the conference committee in the hope of obtaining some concessions, but to no avail. The House accepted the Senate bill on 24 May 1884, and President Chester Arthur signed on 29 May 1884.

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18 Congressional Record, 19 June 1882, p. 5113-16; 16 Dec. 1881, p. 158.
The BAI Act was unique. Political scientists, Gary W. Cox and Mathew D. McCubbins, have spent decades studying the federal legislative process. In Setting the Agenda, they concluded that the Speaker of the House of Representatives did not allow a floor vote on significant bills that were likely to be approved by the Senate and signed by the President unless a majority of the Speaker’s caucus supported the bill. (This is now known as the Hastert rule.) Out of the thousands of bills that Cox and McCubbins studied in the period from 1877 to 1960, the BAI Act was the only significant bill to pass in which a majority of the party in power in the House (in this case the Democrats) opposed the legislation.\(^\text{19}\) The participants in this historic debate were aware that something unusual was going on, and the bills critics within the Democratic Party repeatedly reproached the bill’s Democratic sponsor, William H. Hatch of Missouri. Understanding this highly unusual congressional maneuvering over the BAI offers important insights into the broader narrative on the political economy of regulation. More than just seeking to “get the story straight, the history of the BAI offers a reference point for critiquing the literature in the origins of the ICA and other of economic regulations of the Progressive era.

In both houses the opposition to the various BAI bills was led by Texans who were joined by an evolving coalition of Bourbon Democrats, by strict constructionists from both major parties and all regions, and by legislators concerned about the concentration of power in Washington, DC. In the face of mounting evidence to the contrary, leading opponents steadfastly maintained that there were no serious disease problems; the whole disease issue was being blown out of context. Denialism was rampant. Senator Richard Coke, a Texas Democrat, asserted that Texas fever “is not a disease,” and that Texas cattle were perfectly “healthy.”\(^\text{20}\) He boldly stated that “there is no pleuro-pneumonia in this country,” in spite of the fact that the disease’s existence in several eastern states was widely documented. The other Texas Senator, Samuel Maxey, protested that the bill would give the Commissioner of Agriculture greater powers than the those possessed by the “Czar of Russia or the Shah of Persia.” Senator John McPherson, a New Jersey Democrat asserted CBPP “could not exist in New Jersey for an hour under our laws.”\(^\text{21}\) At this time, the disease was well established in the Garden State. The


\(^{20}\) Congressional Record, 12 March 1884, p. 1795; 23 April 1884, p. 3288.

\(^{21}\) Congressional Record, April 29, 1884, p. 3528, April 23, 1884, pp. 3290, 3289.
opponents further argued that even if there were problems, there was nothing that could be done to mitigate them. Others continued to deny that disease threats were serious. Senator William Sewell, a New Jersey Republican, equated CBPP to “chicken-pox in children,” an omnipresent nuisance, but of little concern. This is spite of testimony that CBPP had spread into the open ranges of Australia and South Africa killing millions of cattle, and that it had devastated British herds.  

The opponents derided expert testimony: the scientists supporting regulations were “horse doctors,” who peddled false rumors and frighten domestic and foreign consumers in order to manufacture more employment opportunities for their ilk. There were also disputes as to whether the legislation should apply to all infectious and contagious livestock diseases or to just one or two—most prominently CBPP and Texas fever; would it apply to livestock other than cattle? Debates focused on the evils of building a federal bureaucracy that could arbitrarily interfere with trade and destroy the wealth of honest businessmen. Given that there was little prior history with creating such a bureaucracy, legislators delved into minutia such as the exact number of employees and their proposed salaries. A key question concerned how much rule-making should be detailed by Congress and how much discretion should be delegated to the executive branch.

Proponents perceived the world differently. For the BAI supporters, the Constitution’s “General Welfare” Clause (in the Preamble) and its Commerce Clause (Article 1, Section 8, Clause 3) provided ample grounds for federal intervention. Based on the new germ theory of disease, they saw a dynamic world filled with both dangers and opportunities. Livestock diseases inevitably will “increase as our animal population increases, as new diseases are introduced, and fresh areas are infected.” The bureau’s advocates were typically sympathetic to the evolving science and scientists, and they understood that contagious diseases ignored state borders.

Of particular for our purposes in contrasting the BAI Act with the ICA were the debates on the constitutional authority of the federal government to suppress animal diseases because these debates struck at the very heart of States’ rights, the separation of powers, and the

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23 Olmstead and Rhode, Arresting Contagion, pp. 45-46.
24 Congressional Record, 5 Feb. 1884, pp. 901-902.
interpretation of the Commerce Clause of the Constitution. On this issue the views and voting records of the sponsors of the ICA, John Reagan in the House and Shelby Collum in the Senate were dramatically opposed to one another. Reagan’s stance (and those of his Texas colleagues in the House and the Senate) was consistently hostile to animal sanitation legislation. Reagan, who was respected for his legal expertise, focused on constitutional issues leaving his colleagues to contest the very existence of diseases and the need for any controls. On several occasions, Reagan specified parts of the bills and found each in violation of the federal Constitution.\footnote{Congressional Record, 6 Feb. 1884, p. 928; 26 Feb. 1884, p. 1404.}

Reagan’s position was clear: the federal government could regulate commerce among the states and between the United States and foreign countries (along with the internal commerce of the District of Columbia and the many territories). The states had sole jurisdiction within their borders and the states were perfectly capable of protecting their citizens from diseased animals. By this standard even a feature of several versions of the bill, which empowered the representatives of the Commissioner of Agriculture “to investigate and report upon the number, value, and condition of the domestic animals of the United States, their protection and use, and also inquire into and report the causes of contagious, infectious, and communicable diseases among them, and the means for the prevention and cure of the same, etc.” was unconstitutional. Reagan noted that “this provision authorizes the Commissioner by his agents to go into each State—not to take charge of interstate commerce, but to perform all that a local State tribunal could perform.” Section four of the bill allowed the President to quarantine a state or part of a state should the state fail to take sufficient steps to extirpate the disease and cooperate with federal officials. (The provision to quarantine part of a state would be dropped in the final bill that passed.) Reagan deemed this provision a penalty inflicted upon a State for not consenting to a violation of the Federal Constitution.” In Reagan’s opinion, the BAI bill was a serious threat to “liberty” and to “property and personal rights,” and usurped police powers reserved to the states.\footnote{Congressional Record, 6 February 1884, p. 929; 26 Feb. 1884, pp. 1401, 1405; 24 April 1884, p. 3343.} His solution was for each state to address disease problems within its territory. If a disease existed within a state and that state chose not to act or chose to deny its existence, the federal government could regulate trade across the state lines but there was nothing the federal government could do within the state.
Although many congressmen criticized Reagan as being inconsistent for pushing to regulate railroads while at the same time opposing disease regulations, his stances were not far out of line. Reagan was willing to use federal power to curb railroad but in a nuanced way. Although as part of the House-Senate compromise, he approved the creation of the ICC, he had long opposed creating a federal bureaucracy, preferring to settle disputes in the courts. Reagan moved from the House to the Senate in 1887. When Reagan he left the Senate in 1891 to assume the chair of the Texas Railroad Commission, he had no qualms of heading a powerful and intrusive state body, but so long at the Railroad Commission focused on intrastate commerce Reagan was consistent with his stated principles.27

Cullom consistently voted with the BAI bills’ supporters, but there is no evidence in the Congressional Record that he participated in the several debates. However, he did speak forcefully on a closely related bill.28 The Senate debate on the BAI bill was interrupted in 3 March 1884 after Kansas Governor G. W. Glick alerted Commissioner of Agriculture George Loring that foot and mouth disease (FMD) had erupted in his state; Glick asked Loring to send a veterinarian because “no one here can advise what to do.” Glick proved to be mistaken and mysterious disease would later turn out to be a far less serious ailment that mimicked FMD, but at the time this represented an emergency that threatened the entire nation’s livestock industry. Many might dally when faced with CBPP or Texas fever, but FMD, which today is regarded as one of the most contagious viruses know to science, presented an entirely different threat level. FMD had a way of altering otherwise rock-solid constitutional views.29

On 13 March 1884 a bill was introduced in the Senate to allow the Commissioner of Agriculture to assist Kansas to stamp out the disease. During this debate, Cullom called for strengthening the legislation “so as to extend to all portions of the United States, and to include not only the disease specified in the resolution, but any other of the contagious diseases among the stock of the country.”30 The principal opponents to the FMD measure, following their reasoning on the BAI bills, asserted that it meddled in the domestic affairs of a state government, and was thus unconstitutional. Cullom countered that “under the provision of the Constitution

28 Chicago Tribune, 18 March 1884, p. 1.
29 Olmstead and Rhode, Arresting Contagion, pp. 57-59.
30 Congressional Record, 17 March 1884, p. 1965
providing for the general welfare and other provisions giving Congress authority to regulate commerce among the several States, we are justified in going as far as the exigencies of the times demand in our efforts to extirpate, if possible, the contagious diseases that afflict the cattle and hogs of the country.” Federal intervention, not just federal money, was necessary because it was “utter folly” to suppose that the several state and territorial governments could act in an effective and coordinated fashion.\(^{31}\)

Cullom explicitly linked the need for federal intervention to control animal diseases to the growth in the international and interstate trade—the growing diseases problem was, in his mind, an unavoidable consequence of the growth in rapid rail transportation.\(^{32}\) He recalled that while governor of Illinois he had instituted “a sort of inspection, but it was the merest trifle,” given what he considered the Constitutional constraints on state interference with interstate commerce.\(^{33}\) Cullom also pointed to the devastating European embargoes recently imposed on American animal and animal product exports. Although he (incorrectly) considered American meat and animals exports safe, he argued that the mere existence of diseases in the United States gave foreign governments an excuse to suppress trade—federal intervention to control diseases was essential for reopening foreign markets. Cullom’s stance on federal authority under the Commerce Clause, on states’ rights, and on the need to promote the general welfare closely mirrored the position expressed by the BAI bill’s sponsors in the early 1880s and was the polar opposite of Reagan’s position.\(^{34}\)

For BAI supporters, Reagan’s position was unreasonable and unworkable. Many state governments had repeatedly denied the existence of diseases in their territories or downplayed their significance. In addition, states contested the rights of other states to restrict the trade in diseased livestock. As of the early 1880s, most states had yet to pass legislation that would permit strong quarantines and the destruction of property necessary for disease suppression.\(^{35}\) Those that had passed legislation often lacked the will to act decisively given the power and

\(^{31}\) Congressional Record, 17 March 1884, p 1965.
\(^{32}\) Congressional Record, 17 March 1884, p 1965.
\(^{33}\) In fact, Cullom had taken relatively forceful measures as governor of Illinois. Under his leadership, Illinois prohibited imports of cattle from areas in the East known to be infected with CBPP in 1881. Several other western states followed suit. Westward shipments from New York fell from 100,000 young cattle in 1880 to “practically none at all.” New York Times, 17 July 1881, p. 1; 2 Nov. 1881, p. 2; 6 Jan. 1883, p. 2; 10 Jan. 1884, p. 2; Breeder’s Gazette, 31 Jan. 1884, pp. 146-47.
\(^{34}\) Congressional Record, 17 March 1884, p 1966.
\(^{35}\) Olmstead and Rhode, Arresting Contagion, p. 79.
denial tactics of special interests. Everywhere, the passage of such legislation would prove contentious, and as history played out, effective state laws often followed or were influenced by federal legislation and guidelines. In addition to lacking an effective legal setting and bureaucratic structure, as the 1884 Kansas FMD scare illustrated, most states lacked competent scientific personnel to identify and fight most infectious livestock diseases. A group of trusted experts, who were financially and politically distant from a local outbreak, would prove essential to implementing effective control measures and certifying infected regions free of disease to reopen trade. During outbreaks, the claims of politicians, bureaucrats, and livestock owners and dealers in the infected area carried little currency with outside observers, both domestic and foreign. Disease control represented a case where local “experts” and politicians were not as knowledgeable, competent, or efficient as professional outsiders who were less swayed by powerful local interests. To rely on the states to act individually or in a coordinated fashion in the 1880s, guaranteed inaction.

There was another key distinction between regulating diseases and railroads: disease regulation had to grapple with a complex array of market imperfections that were far more bewildering than dealing with the monopoly power of railroads. Externalities were ubiquitous. Given a long incubation period, animals capable of transmitting contagious and infectious diseases could appear perfectly healthy. Asymmetric information abounded, and farmers and animal traders had an incentive to sell diseased or suspect animals and even cautious buyers would have a hard time determining the true facts of the case. Animals could be doctored to disguise the existence of some diseases or could be butchered in a way to hide the fact from consumers that the meat came from a diseased and potentially dangerous source. Contagions could spread rapidly among livestock, making delays in interventions extremely costly. A delay of one day could matter as railroads carried infections across the country. The organizations of the BAI and the ICC reflected these different demands for speedy and decisive action. Rather than a cumbersome commission, the BAI was headed by one man—a chief—who by statute was to be a scientist. Within a few years after the BAI’s creation BAI Chief Salmon would be granted extraordinary powers. A succession of (commissioners and) secretaries of agriculture and presidents of the United States, including strict constructionists such as President Grover Cleveland and his USDA leaders, Norman Coleman and J. Sterling Morton, seldom reigned in
their aggressive BAI chief. As we shall discuss below, by contrast that ICC was weaken after its establishment.

Reagan’s preferred plan to use the tort system to control railroad violations of federal laws represented an inefficient alternative for controlling animal diseases in spite of recent interest in this idea.\textsuperscript{36} Historically, the tort system provided little recompense to aggrieved parties. The information costs of proving who was responsible for infecting one’s animals or one’s family can be exorbitantly high. This is especially true for diseases that have long incubation periods. In addition, one source could infect many victims, creating free rider problems in establishing damage claims. The effects of a contagion can be catastrophic, wiping out animals in a large area and in the case of zoonotic diseases killing many, even thousands, of humans. Few if any perpetrators would have the deep pockets to compensate for such appalling damages even if it could be proven that they were the source of the contagion. Given the contagious nature of many diseases, handling them \textit{ex post} increased the likelihood that diseases would spread to third parties.\textsuperscript{37} In such cases, it is more efficient to prevent damages \textit{ex ante} via regulation than to try to correct them after the fact. As noted above, it is much cheaper to arrest contagions before they have an opportunity to spread widely. Finally, relying on the torts system could be counterproductive for other reasons. One way to detect diseases is to encourage farmers to report suspicious conditions in their stock. It is often a wise policy to compensate farmers for part of their losses to encourage early reporting. Imposing damages on them in the court system could discourage self-reporting.

Another major distinction between railroad regulation and disease control made Reagan’s constitutional arguments a prescription for federal inaction. As noted, Reagan conceded that the federal government could regulate interstate commerce, but how it could do this when it could not operate within states? Railroad investigators could be far less intrusive and leave a much smaller footprint within a given state than animal health investigators. All regulation was not the same. A railroad investigator could hear complaints, check published rates verses invoices, and interview shippers and in principle, if necessary, this could all be done in Washington, DC, or perhaps in a federal building within a state. Animals disease investigators had to visit farms,


\textsuperscript{37} Information problems associated with contagious diseases make a Coasian solution infeasible.
inspect railroad pens and cars, check river traffic, monitor trails, and later inspect meat packing plants. The monitoring of specific animals might take minutes or weeks. Decisions often had to be made on the spot. Animals had to be segregated and possibly destroyed—sometimes rapidly, with compensation, if any, to be determined later. To add to the perceived intrusion, the basis for diagnosis was often extremely controversial and at times contested by competing “experts.” With some diseases such as FMD, it was absolutely necessary to cull apparently healthy animals that had been in proximity with diseased animals. This was a prickly process that required strong police powers to be effective and necessarily intruded on state prerogatives.

Reagan’s opponents recognized that he was setting a constitutional standard that was in fact inconsistent with any effective federal disease regulation. For example, Representative John Anderson, (Rep: Kansas) asked how wide was a state line?

Here is a cow, let us suppose, standing over such a line, with her tail and body in Kansas, say, while her neck, head, and horns, are sticking over into Missouri.... Under the Democratic construction of the State-rights doctrine you might possibly find a point the hundred-thousandth part of an inch wide just above the State line into which you might constitutionally put a knife and kill that part of the cow. But you would have no right to kill either part of the cow which was sticking over. Under this doctrine, contagious diseases could threaten the entire livestock industry with annihilation and federal government was powerless to “save this industry except upon an imaginary line between two states.”

The definition of states’ boundaries and rights were clearly at issue in the BAI debates.

The Organic Legislation

Both the ICA and the BAI Act that passed represented compromises. As GMW note, the ICA failed to provide railroads a mechanism for stable cartel management, and contrary to Cullom’s position it prohibited pooling of traffic. It established nondiscrimination rules and prohibited rebates.

The BAI Act that passed was a mere shadow of what its sponsors had hoped for and what had been in many earlier bills or even the bill that came out of the House in late February of

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38 Congressional Record, 6 Feb. 1884, p. 930.
1884. Some of the bills’ contents is summarized below with major cuts in the Bureau’s authority or budget in bold. The final bill is attached as an appendix.

a. **Budget:** Several bills including the final bill introduced in the House in January 1884 called for an annual budget of $250,000. The *Senate bill that became law reduced the budget to $150,000.*

b. **Coverage:** In most bills, including the bill that became law, there was an emphasis on controlling CBPP, but there was a boilerplate clause applying to other contagious, infectious, or communicable diseases so that in fact the legislation had broad coverage. **In the final bill a new feature appeared. It contained an amendment, introduced to appease southerners and at the behest of Chicago interests, declaring that “Texas fever shall not be considered a contagious, infectious, or communicable disease … as to cattle being transported by rail to market for slaughter, when the same are unloaded only to be fed and watered in lots on the way thereto.”** (Southerners and Chicago livestock lobbyist managed to wrangle an exception for southern cattle. However, with scientific advances, this amendment lost much of its punch by the end of the decade.)

c. **Bureau staff:** There was much bickering here. Some proposals called for a representative in every state, others wanted to limit the staff to a handful of agents. The final bill called for four enumerated staff including the chief and a maximum of 20 other employees.

d. **Presidential quarantine powers:** The final bill introduced in the House authorized the President of the United States to quarantine any state (or part of a state) should a state not cooperate with federal authorities; this was amended in the House, so that the bill sent to the Senate required the President to gain the approval of a state’s governor before imposing a quarantine. When the bill came out of the Committee on Agriculture and Forestry in the Senate, the provision that the President obtain the assent of a governor was dropped. The *final Senate bill that became law significantly weakened the bill by gutting all reference to presidential quarantine powers.*

e. **Set rules:** It authorized the Commissioner of Agriculture to set rules for disease suppression and to certify the rules of the various states and territories. The Commissioner’s rule setting authority also applied to transportation companies and to livestock destined for export.
f. **Cooperate with the states:** The final act stipulated that in setting rules the Commissioner was to invite the states to cooperate; whenever a state agreed to cooperate and adopted the plans and methods approved by the Commissioner, the Commissioner was authorized to expend money in that state to assist in the suppression of diseases.

g. **Compensation to owners of diseased animals:** The bill introduced in the House in January 1884 provided for the compensation of the owners of diseased animals and stipulated that if the states cooperated with the federal program, the states and the federal governments would equally split all expenses of the eradication programs. The Senate removed the Commissioner’s authority to pay indemnities.

h. Promoting livestock exports was always a major goal of BAI advocates. The final bill stipulated that the Commissioner of Agriculture should make special investigations of diseases at the borders and “along the lines of transportation from all parts of the United States to ports from which live stock are exported, and make report of the results of such investigation to the Secretary of the Treasury, who shall…establish such regulations concerning the exportation and transportation of live stock as the results of said investigations may require.”

i. **Regulations of railroads and shipping companies:** The final bill stipulated that no railroad company or the owners or masters of boats and vessels shall receive infected animals for interstate transport, nor should any companies or individuals deliver infected animals to any transportation company or to individuals for transportation, “knowing them to be affected with any contagious, infectious, or communicable disease.” The law issued similar prohibitions for other forms of movement such as driving animals by foot. (This is where the Texas fever exemption was appended.) Persons and corporations and companies found guilty in federal court of knowingly the provisions regulating the movement of infected animals were guilty of a misdemeanor punishable by a fine not more than $5,000 and/or imprisonment for not more than one year [emphasis added].

j. **Collect information on livestock and contagious diseases and their causes and cures:** This was a feature of many bills, including that passed into law.

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40 This wording explicitly allowed the U.S. Commissioner of Agriculture to investigate along transportation lines not just at interstate borders. It also allowed the Secretary of the Treasury to issue regulations about such interstate transportation within states. The powers of the Treasury in these matters would soon be transferred to the Department of Agriculture.
The Political Economy of Interest Group Formation

GMW emphasize the push for the ICC was not a simple conflict between railroads and “an undifferentiated group of consumers.” Rather they argue the need to take a “multi-interest-group perspective” that takes into account “the diverse but concentrated groups with an important stake in railroad pricing practices,” to understand the complex mix of supporters and opponents to regulation. Moreover, GMW emphasize the tension in the bicameral system in blocking early bills and in generating the final bill. Railroad interests dominated in the Senate whereas an “anti-railroad coalition” comprised “of more diverse interests” held sway in the Reagan’s House.41 GMW argue that “when different interests dominate different houses, each interest, in effect, holds a veto over legislation…. If a compromise occurs, the interests represented at the compromise must expect to be made better off under the compromise than under the status quo.”42

Citing Lee Benson, they note that “the railroads ‘had to affect adversely other powerful vested interests. Since those interest were unable to protect themselves according to the old ruled of the economic game, they proposed to rewrite the rules.’”43 These diverse interests included merchants who depended on the railroads, interests in river towns, farmers in different locations, and an assortment of industrialists. The discussion clearly emphasizes distributional conflicts and in particular shipping customers with only one rail option and thus subject to monopoly pricing and those with many options and thus able to benefit from competitive pricing. This discussion often shorts out by distinguishing between long haul and short haul shippers. Others, including Samuel DeCanio and Gerald Nash have tied the initial push for federal railroad regulation to the conflict with independent Pennsylvanian oil producer and Standard Oil in the mid-1870s. DeCanio tells a story of Reagan being in alliance with Thomas Scott of the

42 Gilligan, Marshall, and Weingast, “Legislative Choice,” p. 41. The GMW findings are in line with Sam Peltzman’s earlier and more general conclusion that constituent interest plays the dominate role in explaining Senate votes in the 1979-80. Peltzman also shows that ideological measures are “more apparent than real” in that they likely are “proxies for something more fundamental,” such constituent income, educations, and the like. Sam Peltzman, “Constituency Interest and Congressional Voting,” Journal of Law and Economics 27:1 (April 1984), pp. 181-200.
Pennsylvania Railroad (which operated within Pennsylvania) to constrain the competing Erie Railroad (which crossed state lines) in turn for the construction of a railroad in Texas.\(^{44}\)

As with the ICA, differences between the House and Senate led to deadlocks as in August 1882, and the eventual BAI bill passed in May 1884 represented a compromise between sharply divided interests, with the House forced to accept the significantly weaker legislation favored by the Senate. In addition, multiple interests also supported and opposed the advance of national animal health legislation. However, the dividing lines were more fluid than with railroad legislation in part because new disease outbreaks and new scientific evidence on diseases could dramatically alter the perceived self-interest of many and thus the demand for regulation. As an example, the 1884 FMD scare in Kansas led many citizens and some legislators to change their opinions on the need for and the constitutionality of federal legislation. Senator John Ingalls (Rep: KS) had one of the opponents to the various BAI bills in the early 1880s. In 1881, Ingalls led the opposition to a proposed bill (S. No. 2097) condemning it as “the worst bill that I have ever read upon any subject.” He further asserted that every one of its provisions “is directly at variance with the Constitution….\(^{45}\) The bill was a clear violation of states’ rights. In March 1884 at the time of the FMD scare, Ingalls suddenly changed sides and strongly supported the BAI bill, noting that “the doctrine of State rights… is moribund and in the course of time will eventually be buried.” What had been a sacred principle for the Senator, had become a “defunct interpretation of the Constitution.”\(^{46}\)

Allowing for changes in the coalitions, several generalizations stand out. Railroads and river shipping interests firmly resisted the BAI bills. The Chicago meat packers and stockyard representatives led the organized opposition, organizing the Chicago Live Stock Exchange in February 1884 to coordinate efforts to “Kill the Bill.” The Chicago interests asserted that livestock contagions were a “myth” (especially in the West) and that the whole campaign for a federal agency was instigated by unscrupulous politicians bent on destroying Chicago’s lucrative export trade. They would carry on with their reckless denials even after CBPP jumped into the western states and in the face of overwhelming evidence of clear and present dangers to livestock

\(^{45}\) *Congressional Record*, 19 February 1881, p. 1831; pp. 1829-38.
\(^{46}\) *Congressional Record*, 14 March 1884, pp. 1898-1901.
and humans. The major livestock journals split: Harvey Goodall, publisher of the *Drovers Journal* lined up with the Chicago interests, while J. H. Saunders of the *Breeder’s Gazette* stood firmly with the 1884 bill’s supporters.

Livestock owners were also split with a tendency for divisions within the cattle industry between dairy interests and beef interests, and between improvers and non-improvers. Texas was America’s largest producer of cattle. But the Texas cattle interests were non-improving beef producers who feared that legislation or some future federal bureaucracy might restrict the flow of their low-quality longhorns to northern markets. Some longhorns were shipped live to Britain, but this was a minor market, so the Texans were not directly affected by the 1879 British restrictions on American cattle.

Many western producers were in a different situation. They depended on Texas cattle to stock their ranges. By 1884, with the extension of railroads, animals that previously would have been driven north were now shipped rapidly by rail. This change exposed cattle in the northern ranges to the ticks that carried Texas fever, because the ticks that would have drop off during a long drive, now arrived in good shape. CBPP was also on the minds of western cattle interests who were importing quality eastern breeding stock to improve their herds. In early 1884, a new coalition of Midwestern and mountain state cattle raisers formed to support the BAI bill and to condemn to “short-sighted” positions of the Chicago interests and railroads. Thomas Sturgis of the Wyoming Stock Growers Association threatened to black list Chicago dealers on record opposing the bill. This western support and the blacklist threats weakened the Chicago interests united front.

Dairy producers were also split, but many threatened by CBPP supported stamping it out. CBPP affected dairy interests by reducing cow productivity and longevity. Dairy cattle, concentrated in small areas, were more likely to contract the disease; their longer lifespans (relative to beef cattle) added to their likelihood of infection. However, other dairy producers objected to any government interference in their businesses, and after the BAI was established, well-organized Midwestern dairy interests would lead the fight against state and BAI disease control policies. Swine producers and their representatives were less vocal during the debates, but they had much to gain if the recently closed Continental markets could be reopened. Many swine producers also owned dairy cattle further complicating divisions. A lose coalition of
public health advocates and veterinary scientists also supported the legislation and would play an important role in lobbying for its passage.

**Congressional Votes and Regional Divisions**

GMW’s empirical results dovetail nicely with their priors that self-interest dominates ideological preferences. Farmers subject to short haul discrimination, people living in areas with relatively little railroad capital, Democrats, and were more likely to vote for the tougher Reagan ICA bill. Western farmers and citizens living in commercial centers with more transportation options, people in areas with relatively more railroad capital, and Republicans were more likely to vote for the Collum bill which was more favorable to the railroads.47

Keith T. Poole and Howard Rosenthal (PR) critique the GMW approach, arguing that political coalitions based on more deeply-seated ideologies, party loyalty and sectional location determined legislative voting.48 Based on regressions that include their ideological scales, PR find that “constituency interest measures add little to our dimensional representation of roll call voting.”49 PR further argue that in the case of the ICC “Confederacy and Border congressmen overwhelmingly favored regulation of the railroads.”50 The South was “the root of the proregulation coalition.”51 In a similar vein, political scientist Elizabeth Sanders asserts a political alliance of southern and western agriculturalists drove the movement for federal regulation in the late nineteenth century.52 Historian James Moore also concluded that “In the decisive economic clashes of the Gilded Age” southern Democrats “consistently joined forces”

51 Poole and Rosenthal, “Interstate Commerce Act Revisited,” p. 837. Poole and Rosenthal, “Congress and Railroad Regulation,” p. 89 assert that in the mid-1880s, “southerners represented the left wing in American politics....” On p. 101, PR add that up through 1882, votes on the Reagan bill “do not fit the spatial model well.” They attribute the poor fit to learning by legislators “about how the issues related to long-term preferences” and to the on-going process of coalition formation. These processes were complete by the 48th Congress, which they viewed as the best testing ground for the competing hypothesis.
with those in West.\textsuperscript{53} Note the ambitious escalation in claims, PR, Sanders, and Moore clearly generalize from discussing just the ICA to regulation more broadly.

Examining the evolving coalitions supporting and opposing the passage of the BAI Act sheds new light on the Congressional behavior in the era of the passage of the ICA. Certainly much that has been said about the ICA cannot be generalize to all regulation. Contrary to Poole and Rosenthal’s, Sander’s, and Moores’ generalizations, in the BAI debate southerners generally spearheaded the anti-regulatory forces in the name of defending states’ rights.\textsuperscript{54} There were few exceptions in the ex-Confederacy and none from Texas.

\textbf{Ideology versus Interests}

Many southern legislators were inconsistent on their position protecting states’ rights. Although Reagan was relatively consistent in his stance on regulation and states’ rights, even he had serious ideological lapses. The southern Democrats had both an ideological and a constituent interest in opposing the BAI. Thus negative votes on the various BAI bills could be consistent with both the Poole and Rosenthal position (an emphasis on ideology) and the GMW hypothesis emphasizing self-interest. We can distinguish between these two theories by looking at the behavior of southern Democrats on closely related issues. This analysis shows many important instances in which southern Democrats abandoned their states’ rights and strict constructionist principles to advocate and vote for their constituent’s interests. The ideological contradictions were clearly understood by the participants in the BAI debates.

The favorable response of leading southern congressmen to the Supreme Court’s 1878 \textit{Husen} decision represented an ongoing case of duplicity. \textit{Husen} effectively invalidated the laws of many states which guaranteed inaction in the effort to control contagious animal diseases. The position of many, including Reagan, that the federal government had no power to regulate diseases within states, and that the states had the regulatory powers to protect themselves proved a sham, when they simultaneously applauded \textit{Husen} decision which denied the states the needed


\textsuperscript{54} Poole and Rosenthal emphasize the importance of coalition building within Congress as over many years in explaining the eventual passage of the ICA. Exogenous shocks such as court cases might change perceptions, coalition strength, and voting behavior. As were argue above, exogenous (and endogenous) changes appear to have been more important in the BAI debates than in the ICC debates.
power. When supporters of the BAI bills challenged southerners on this issue, they were generally met with silence.

A Senate debate that took place in February 1881 bears on assessing ideological consistency. Senator John Johnson, a Virginia Democrat, championed a strong bill calling for the establishment of a BAI. Consistent with the intent of many bills to support U.S. exports, it stated that “The Secretary of the Treasury shall establish such regulations concerning the exportation and transportation of live stock as the results of such investigations may require.” This unleashed a storm of protest that this section bestowed unreasonable power on one official and represented an unconstitutional delegation of Congressional authority. But the unusual feature regarding this bill was a clause that read that “the provisions of this act shall not apply to cattle shipped from the Gulf States, or any of them, to the West India Islands.” Several senators protested that this violated the Constitutional stipulation that no regulation grant a preference to the ports of one state over those of another. Senator John Ingalls, a Kansas Republican who opposed the legislation, chided the bill’s sponsors for caving into the demands of legislators from regions where Texas fever prevailed. Texas Senators Richard Coke and Samuel Maxey, who over the next several years would raise a stream of constitutional objections to subsequent bills, found the constitutionally suspect exception for the Gulf ports perfectly acceptable.  

Similar contradictions were evident in the differential treatment of federal intervention to protect human health. For several decades, Congress had struggled with little success to pass legislation to deal with yellow fever, cholera, and other contagious human diseases. Although there were many exceptions, rock-ribbed southern Democrats, whose districts were ravaged by yellow fever epidemics, selectively abandoned their states’ rights mantra to campaign for federal intervention and funding. In 1879, Congress created the National Board of Health (NBH). Representative Vannoy Manning, a Democrat from Mississippi, was a leading supporter; and as a group, southern Democrats in the House voted 43 to 21 in favor of passage. On this issue, John Reagan remained true to his states’ rights rhetoric and opposed the bill. However, Reagan’s state had not been hard hit by the 1878 yellow fever epidemic that killed roughly 20,000 Americans and seriously disrupted commerce along the Mississippi River. In addition, soon after the Board was established, Reagan lobbied to obtain a federal quarantine station in the Galveston area. Iowa Republican William Hepburn—who would author the act bearing his name in 1906 that

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empowered the ICC to set maximum railroad rates—was one of many BAI supporters to point out the inconsistencies of southerners who had advocated the creation of the NBH in 1879 and then opposed parallel animal health initiatives. The debates regarding science and policy were similar, and the substance of the constitutional disputes was nearly identical. As Hepburn observed, if one was constitutional so was the other.\textsuperscript{56}

Hepburn noted similar contradictions relative to the ICA. On 6 February 1884, he expressed “wonderment” that Reagan could “find broad warrant in the Constitution… to lay his hand upon the entire transportation of this country… to secure his ideas of economy of transportation and cheapness of rates…” but, when the question of livestock disease control comes up, he sees “the bugaboo of State rights looming up before him and can find himself shriven of all power to help the people.”\textsuperscript{57}

Yet another major flip-flop on states’ rights involving Reagan occurred in the controversy over creating a National Cattle Trail. In November 1884, the National Cattle and Horse Growers Association (a collection of BAI opponents) petitioned Congress to devote federal land to trail extending from the Red River in Oklahoma Territory to the Canadian border. The permanent six-mile wide trail, crossing through Kansas, Colorado, and Nebraska would effectively circumvent those states’ quarantine laws aimed to control Texas fever. The Kansas legislature objected. When Texas congressman James Miller introduced his National Trail bill in early 1885, a coalition of northern cattle interests and Texas railroads lobbied to kill the measure in committee. In the next Congress, Texans led by Reagan again introduced legislation to establish a national trail that would have cut a two-mile-wide swath through eastern Colorado. The national livestock


highway never won federal recognition, but its history suggests that Texas congressmen showed few qualms about trampling on the sovereignty of other states.\(^{58}\)

There is yet further evidence on the important of self-interests: soon after the BAI bill passed a political dynamic took shape. Spokesmen from areas recently cleared of a disease, including many of the most hardline BAI opponents, typically switched sides and supported stronger and more invasive federal animal health legislation and enforcement. The politicians’ constituents did not want their animals re-infected. This was even true in Texas. Farmers in the Panhandle, where cattle ticks could not survive the cold winters broke with the Texans to their south. As Texas fever was later eradicated from some southern areas, the representatives from those areas often switched sides on the issue of federal intervention. By the mid-1920s a few Texans and others in still infected zones faced a nearly unanimous southern opposition on Congressional Texas fever votes. When at about the same time, FMD erupted in the Houston area in 1924, Texas Governor Pat Neff took a line from Kansas Senator John Ingalls’ script of 1884 and departed from the traditional Texas position of hostility to the BAI. Neff pleaded for federal intervention, and within days he transferred total control of the state taskforce (including his police agencies) to the USDA. Emergencies and self-interest had a way of trumping states’ rights even in the heart of Texas.

**Impacts**

Although there are many important differences between the ICA and BAI debates, coalitions, and intended purposes, perhaps the greatest differences were in the post creation evolution of the two agencies and in their respective impacts. GMW conclude that the ICA bill that passed did not provide railroads with a cartel manager, and the net effect on RR profits was small. The ICA transferred “wealth among customer classes, specifically, from longhaul to shorthaul shippers (p. 36).” In line with the GMW account, rates for short haul traffic fell by 15-30 percent, whereas those for long haul traffic rose after the ICA was enacted.\(^{59}\) James Ely offers further perspective. “Despite this important step, the early years reveal an Act that made little difference. Congress


itself waited nearly two decades to strengthen the powers granted to the Interstate Commerce Commission….” Ely further argues that “the early years of the ICC present a tale of frustration. The sheer size and complexity of the rail industry presented daunting challenges to the fledgling agency with its small staff.” States retained jurisdiction over intrastate trade and could undermine ICC. ICC lacked power to compel compliance. When railroads ignored ICC orders the Commissions had to go to the courts, which created long delays in part because the “…federal courts refused to defer to the agency findings of fact.” “By the early twentieth century the ICC was largely toothless….”60 This view is in conformity with Ari and Olive Hoogenboom’s assessment that "maintaining the status quo appears to be the ICC's most persistent pattern," and I. Leo Sharfman’s finding that "the powers ... conferred upon the Commission were by the original legislation were found to be restricted in scope and feeble in effect."61

Whereas, the powers of the ICC were neutered by the courts, the powers of the BAI expanded rapidly in response to a growing crisis, scientific discoveries, and proven successes. As knowledge of how Texas fever (and other diseases) was transmitted and of the disease’s danger increased, the courts would change their tune on what was necessary for self-protection and become much more accepting of both state and federal regulations. This impact of scientific discovery on public policies and legal interpretations was not entirely, or even mainly, exogenous to the regulatory process because the BAI often generated the research with an eye on changing legislative and legal opinions.62 Thus, in the legislative and legal history of the BAI, there was a scientifically-based dynamics that affected both Congress’s disposition to approve tougher regulations and the courts’ willingness to find more aggressive state and federal policies acceptable under the Constitution. We know of no dynamics based on scientific advances affecting the ICC’s stature in relation to Congress and the courts.

60 James W. Ely, Jr., “The troubled Beginning of the Interstate Commerce Act,” Marquette Law Review 95, Issue 4 Summer 2012, Article 4, pp. 1131-1134. One expansion of powers occurred in 1893 when Congress made the ICC responsible for railroad safety. Ely (p. 1131) repeats the fable that the ICC was “the first important federal administrative agency…”


62 See for example Justice Stephen J. Field’s opinion of 28 January 1889 in P. C. Kimmish v. John J. Ball (129 U. S. 217). Field cited BAI reports to conclude that it was reasonable to presume that cattle from Texas and surrounding “malarial” areas were likely to carry disease. This is one of many cases in which BAI research facilitated stronger regulations.
The growing concern with CBPP had been a driving force behind the creation of the BAI; combating this disease would dominate new Bureau’s early agenda. This emphasis was largely dictated by events, because in summer of 1884 CBPP was erupted in Ohio, Illinois, and Kentucky. By early 1885, it also appeared in Missouri and perhaps Tennessee. The nightmare that the disease would take hold in the open range likely. Once in the range, CBPP would become nearly impossible to stamp out given the technology of the era, and it appeared that the United States was on the verge of suffering the same fate as Argentine, Australia, large swaths of Africa, and much of Europe and become permanently infected. For the advocates of a strong BAI, the shortcomings of the 1884 act were becoming all too evident. In particular, the difficulties in gaining rapid state and local cooperation and the limit of 20 employees caused serious problems.63

The western problems were first discovered on 15 July 1884, when a BAI veterinarian diagnosed a CBPP outbreak in a herd of Jerseys near Sterling, Illinois. Immediately the BAI’s alarms sounded, and the agency interdicted shipments from infected herds in Illinois to Tennessee, Nebraska, North Carolina, along with a large number of animals scheduled to pass through the Chicago stockyards.64 If CBPP had contaminated the stockyards, it could have rapidly spread throughout the country without draconian actions which neither the state of Illinois nor the BAI had the power to implement at this juncture. Further investigations discovered CBPP in herds located across Illinois.

On 20 August 1884, the U.S. Commissioner of Agriculture, George B. Loring requested the owners of Jersey cattle who had received new stock since the beginning of the year, cease all future shipments. He also reminded cattle owners and railroads that under the 1884 BAI law, knowingly shipping diseased animals across state lines was a federal crime. Finally, he requested the “cordial co-operation of State authorities and of all persons interested in the welfare of our cattle industries....”65 Under the organic legislation of 1884, the federal

63 Ulysses Grant Houck, *The Bureau of Animal Industry of the United States Department of Agriculture: Its Establishment, Achievements and Current Activities* (Washington: the author, 1924), p. 125. In this early period, cumbersome legal checks and balances also made it difficult to contain the disease. On one Illinois farm it required a full day to dispose of just 10 animals because the BAI agent had to find a justice of the peace and three disinterested appraisers to accompany him onto the farm. The appraisal documents then had to be taken to the town magistrate for his signature and returned to the farm, before the agent could begin his work. *Chicago Tribune*, 28 Aug. 1884, p. 3.


government had to request state help and hope for the best. Even many state officials who wished to cooperate were hamstrung by state constitutional and legal constraints that prevented or delayed effective action. In several states, BAI officials faced outright antagonism. In the summer of 1884, the BAI tracked the disease in cattle shipped from Illinois to Kentucky near Cynthiana. Kentucky had no emergency powers to condemn or even quarantine the diseased animals and the state’s governor refused to act. Texas state authorities were also highly hostile when the BAI tried to stop a shipment of suspect cattle headed to the Longhorn state.

Many voices in the livestock industry called for stronger national legislation. In late 1884, the groups that originally favored the BAI met in Chicago to form "National Cattle Growers Association" to push for extended powers, but at the same time, the opponents formed a rival association in St. Louis to protect their interests. As William Hatch contended, "the present House will never pass a bill which authorizes a federal official to invade private properties and condemn private property" or which allowed the federal government to act without the cooperation of the states. The appropriations act of 30 June 1886 (for the FY 1886/87) granted the BAI the authority to purchase, condemn, and destroy infected animals. The new authority included the power to compensate the owners of condemned animals to encourage the farmers to reveal rather than conceal sick stock. These were major additions to the BAI’s arsenal, which had been proposed but stripped from early bills.

The Crisis in Chicago

The appearance of disease in Chicago in the fall of 1886 heightened the alarm, and the city soon became the focal point of a growing schism between states’ rights and federal intervention. Given the proximity to the stockyards and large packinghouses, the outbreak discovered just a few miles from the city’s center on 12 September 1886 instantly became national news. Within a week state and BAI veterinarians had traced the contagion to several of distillery sheds located in the heart of the city. These distilleries housed thousands of cattle, mostly dairy cows which supplied milk for the urban market. Further investigations showed that the distillery herds were disease ridden. To make matters worse, the dairymen had been hiding the disease for months; cows which fell seriously ill were butchered and the meat sold. In addition, animals were regularly moved to other feeding areas, spreading the contagion.

The city’s many special interests were soon at loggerheads. Consumers and local health officials wanted to ban the milk from the sick cows; milk-dealers fought this initiative. Dairymen wanted compensation if their cows were confiscated, but state funds could not cover the expense unless the meat could be salvaged from the carcasses. The giant packers correctly foresaw Chicago’s reputation in distant markets would be severely damaged if any of the meat from condemned animals was sold. At the same time, many in the beef trade continued to vehemently deny CBPP existed in Chicago, or indeed anywhere in the United States.67 City and state officials vacillated, making bold declarations one day, only to reverse themselves the next. City police refused to enforce lawful orders. The state legislature did little or nothing. Governor Richard Oglesby, who in the 1860s had advocated strong national action against animal diseases, showed little leadership and appeared more concerned with protecting his states’ traditional rights than with working effectively with the BAI. The Chicago Tribune chided the Union Stock Yards interests, the members of the General Assembly, the State Live-Stock Commissioners, and especially Oglesby for “pitiful incompetence.”68

As the fiasco grew more serious, the BAI’s leaders remained the one steady force, who did not bend and bow to the evolving demands of the powerful special interests. Amidst the cacophony of contradictory and uninformed claims, the public and other states increasingly came to rely on the BAI for reliable information about the state of affairs. The BAI wanted to use “heroic measures” to stamp out the disease, but BAI had limited authority to interfere in the state’s internal affairs without a formal agreement with Illinois officials. Oglesby and the state General Assembly refused to authorize federal intervention. But as a few stock yard leaders belatedly became to recognize the danger, and as pressure mounted in other states to quarantine Illinois, the political tide began to shift.

In December 1886, President Cleveland called for stronger authority to remedy the pleuro-pneumonia problem so far as “the limits of a constitutional delegation of power to the General Government will permit.” A new coalition emerged combining many of the BAI’s original advocates and a segment of its original opponents, including the leadership of the Chicago Live Stock Exchange. This coalition sought legislation to create a three-member

67 Chicago Inter Ocean, 5 Oct. 1886, p. 5.
Presidential cattle commission with a budget of $1 million and emergency powers to rid the country of CBPP. The proposal, introduced by New York Senator Warner Miller, was deemed necessary because the original BAI “has proven a failure” due to its “state cooperation clause.” Hopeing to allay the fears of Texans, they proposed replace the BAI with a temporary body headed by “practical” cattlemen. But the Texans did not bite. An amended version of the Miller bill passed the Senate on 28 February 1887. (These events occurred during the same lame duck session when the final ICA bill was debated and passed.) Over in the House, Hatch noted the bill “would evoke discussion which would last for days and weeks,” extending long after the close of the 49th Congress. As an alternative, the conference committee amended the 1887 Agricultural Appropriations bill to include $500,000 for the USDA Commissioner to use as deemed necessary, to purchase disease and exposed animals, hire any number of staff, and enforce quarantines. Hatch told the House proponents of the Miller bill: “It is this or nothing.”

Armed with new powers and funding now over three times the 1884 budget, USDA Commissioner Norman Colman threatened a federal quarantine of the entire state if Oglesby did not cooperate with the BAI. In this light, the state legislature passed a law on 20 April 1887 authorizing the cattle commissioners to cooperate with U.S. officials to suppress contagious livestock diseases. This was over seven months after the crisis began! Oglesby immediately signed the bill, but he steadfastly refused to sign a cooperative agreement crafted by Colman that would have given the Commissioner the power to quarantine a part of the state (as opposed to the entire state), granted BAI agents the power to operate in Illinois, and specified procedures for compensating farmers and destroying stock. On 22 April, Oglesby quarantined a small area in Cook County. However, BAI Chief Salmon, who had long been at odds with Oglesby, deemed this move insufficient. Further exchanges forced Oglesby to capitulate in early May. On 24 May, Colman shut the cattle trade in Cook County and quarantined six counties in New York and four in Maryland. This edict represented a milestone in the application of federal regulatory powers—at this point, the BAI was exercising police powers within states, not just at the borders. On 15 June 1887, the Illinois legislature passed a bill requiring their recalcitrant

70 *Breeder’s Gazette*, 3 Feb. 1887, p. 160; 10 Feb. 1887, pp. 204-05.
71 *Congressional Record*, 2 March 1887, pp. 2575, 2578; *Chicago Tribune*, 2 March 1887, p. 2.
72 Colman’s quarantine did not include cattle from outside Chicago moving through the Union Stock Yards. Many states and territories were not satisfied and thus passed their own laws blockading the importation of cattle from Illinois.
governor to accept the USDA’s rules and regulations and to authorize BAI agents to enter property to inspect, quarantine, and condemn animals. The bill granted BAI agents the “same powers and protection as peace officers,” and set stiff penalties with fines and prison terms for violators of the federal-state rules. As a final act of defiance, Oglesby refused to sign; instead he allowed the law to take effect automatically on 28 June. With an agreement in place, BAI agents descended on livestock operations in Cook County to quarantine large areas—preventing the movement of cattle, test herds, kill suspicious animals, disinfect and destroy property.

Strong advocates of livestock sanitary measures were not satisfied. In December 1887, Senator T. W. Palmer, a Michigan Republican, introduced S. 2083 in the 50th Congress to replace the BAI with an emergency commission empowered to eradicate CBPP without state cooperation. Testifying in January 1888, Dr. Azel Ames of Chicago urged the bill’s passage, arguing the BAI “has been in operation three years, and in the opinion of those most interested has proved inadequate for the emergency.” The outbreak had already cost between $20-30 million and interrupted foreign and domestic trade.73 As with the earlier Miller bill, the Texas Livestock Association strategically pressed to continue the BAI as it was.74 Some noted the irony that the opponents of the original BAI had become its strongest advocates; tired of driving against state-imposed quarantines, the Texans sought federal authority with a unified set of rules.75 The BAI had become the least of two evils. In the floor debates in May 1888, Palmer asserted opposition to his bill came principally from the USDA officials. Texas Senators Coke and Reagan rose to oppose the change to a more forceful regulatory framework, charging the emergency commission would fall under the control of stockyard and packers’ interests.76 Whereas, the Texas and Chicago interests had been allied against the BAI in lead up to the 1884 legislation, they were now at odds.

By December 1888, the BAI had extirpated CBPP from the Chicago area, and in April the USDA lifted its quarantine. With the territory west of the Allegheny Mountains again free of the disease, the BAI intensified its efforts in the East. In fiscal year 1889-90, the Bureau inspected more than 283,000 cattle, reexamined some 200,000, and conducted 50,000 post-

73 Chicago Tribune, 13 Jan. 1888, p. 2.
76 Washington Post, 8 May 1888, p. 4; Congressional Record, 7 May 1888, pp. 3780, 3783.
mortem examinations. In all, fewer than 1,000 diseased animals were discovered. Illinois was one of 34 states and territories whose governors signed cooperative agreements in 1887, accepting uniform rules and regulations that gave BAI agents almost unlimited power to deal with animal diseases within state borders. The Governors’ acceptances were increasingly dictated by the threat of costly quarantines imposed by other states and by the pressure imposed by the federal government. Failure to abide by the agreement once signed could trigger the intervention of federal marshals.77 Here was the beginning of a new form of “coercive federalism”—an arrangement whereby the federal government sets minimum standards that the states must meet. This regime is usually dated to the 1960s with legislation such as the Water Control Act of 1965, but not to the mid-1880s.

The last infected animal was discovered New Jersey in March 1892. On 26 September 1892, Secretary of Agriculture J. M. Rusk, officially declared the United States free of CBPP. In about five years and with a cost to the federal government of $1,509,100.72, the BAI working in partnership with the infected states had achieved a spectacular success. This represented the first time that a major entrenched infectious livestock disease had been eradicated on a continental scale by a systematic campaign. The BAI had created a global public good and a legacy that would pay unanticipated dividends. Indeed, modern researchers working to eradicate smallpox credited the BAI’s CBPP campaign with creating “the precedent and mechanisms” for “area-wide eradication programs....”78 If the CBPP had been ignored as the leading Chicago packers and dealers had long advocated, it likely would have caused enormous losses as it did in other countries. The American success was noted by British leaders, who had begun their own anti-CBPP campaign. Eliminating the disease contributed to an expansion of the live cattle trade to Europe but did not yield the big political payoff—a lifting of the British restrictions.

The BAI’s success ended the attempts by Palmer, Miller, and other advocates of stronger policies to push it aside and create new agency. More than ensuring the Bureau’s future, the CBPP campaign helped forge the organizational guidelines for state-federal cooperation, pressured the states to strengthen their legal and administrative structures, and gave leaders in the veterinary community the confidence to undertake even greater challenges. In addition, the

77 US BAI, Report for 1885, p. 39; US BAI, Reports for 1887 and 1888, pp. 10-16, Houck, Bureau, p. 44.
powers and size of the Bureau expanded rapidly as more members of Congress saw the need for heroic animal disease measures directed by a larger federal agency. The BAI’s influence continued to grow under both Republican and Democratic Presidents. The 1884 organic legislation limited the agency to 20 employees (plus four enumerated staff). The Annual Report for 1888 listed 279 employees; this force was augmented by a large number individuals employed by the various states and put under the BAI’s command. The growth continued: in 1900 the BAI would transfer many of its 1,000 special sheep inspectors to its western quarantine zone to combat sheep scab. Events fulfilled the 1882 prophesy of BAI opponent, Senator Charles Van Wyck (R: Nebraska), that the Bureau “would live…long after the pleuro-pneumonia had been stamped out.”

There is no doubting the BAI’s success, but at the same time many of the worst nightmares expressed during the debates by the BAI’s opponents had become a reality: the federal government was exerting police powers within states in a way that would have been unimaginable to strict constructionists a few years earlier. The power to work within states had been proposed many times during the debates to found the BAI but had been stricken from the final bill that passed. More than this, the President who signed the legislation granting the increased powers within just a few years after the BAI’s founding, and who unleashed his commissioner of agriculture to enter states was Grover Cleveland, who has become the poster child for upholding constitutional limitations largely because of his veto of the minor Texas Seed Act of 1887. Given the magnitude of the precedents established in the first Cleveland administration, we should look more closely at the initial state-federal cooperative agreements that gave the BAI state police powers. The question arises, why would a governor protective of his constitutional prerogatives agree to let federal agents operate in his state?

Recall in April 1887 the Agricultural Appropriations act increased the BAI’s funding, staffing, and interstate quarantine powers. Colman decided that to control the interstate

movement of infectious diseases his BAI agents had to fight disease within state. To do this, Colman immediately issued a new set of rules and regulations which went into effect on 15 April 1887. These applied to “all contagious, infectious, and communicable diseases of domestic animals,” which the BAI Chief believed might spread across state lines. These rules vastly magnified the BAI’s powers by granting the Chief (and BAI inspectors) the authority, as “deemed necessary,” to establish temporary quarantines and impose sanitary measures to prevent the spread of the disease. The Commissioner upon receiving confirmation of a disease’s existence could quarantine that locality—that is, under the new order the BAI could work within a state’s borders. The Chief could order the disinfection of buildings, farms, stockyards, etc. The Chief could order the slaughter of animals as he deemed necessary. He could also regulate (including quarantining equipment and yards) transportation companies, which operated in more than one state or which connected to interstate transportation companies. Violators of the Commissioner’s policies could be prosecuted in federal courts. Relevant to our comparison with the ICC, Colman issued these rules two days before the ICC even heard its first case on 17 April 1887.

Colman undoubtedly understood that BAI officials had no constitutional authority to exercise police powers within states. To obtain the needed state cooperation, Rule 12 of the new protocols stated that should the Chief find it impossible to enforce the rules and regulations in any state, the Commissioner could quarantine the entire state, shutting down the “exportation of animals of the kind diseased….”81 The message was clear: cooperate or else. If an infected state did not cooperate Colman let it be known that he would close their borders.

On 15 April 1887, Colman sent a letter to all governors asking them to accept his revised rules and regulations. He provided a form letter for the governors to sign and return. By signing a governor agreed to cooperate to the full extent of his authority with the BAI in the suppression of the named disease. The governor agreed to “direct the sheriffs and other peace officers of the State to render all necessary aid and assistance to the inspectors of the Bureau of Animal Industry in the performance of the duties imposed upon them by said rules and regulations.” Once a governor signed, he agreed that if the chief of the BAI determined that the state was not fully cooperating, federal marshals could enter the state to enforce BAI edicts. The governors of 34 states and territories signed and returned the form letter giving the Commissioner of

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Agriculture a free rein to declare and enforce quarantines within their jurisdictions. Many governors no doubt desired more effective state-federal cooperation. But even those desirous to maintain their constitutional prerogatives were likely swayed by the specter that other states and the federal government would quarantine his territory. To facilitate state-federal cooperation, the BAI supplied governors with templates for state legislation. Five states promptly adopted the suggested wording and many others negotiated compromised approved by the USDA. All the early adopting states were infected with CBPP and desired federal intervention.

Conclusion

The BAI would build on its success with CBPP. By the 1940s, in one spectacular campaign after another, the BAI pushed Texas fever from the southern states and California, controlled sheep and cattle scab which had contaminated roughly had the country, eradicated bovine tuberculosis from every state in the Union, eradicated fowl plague, glanders, and dourine fever, and on several occasions stamped out food and mouth disease. It took major steps in controlling many other diseases such as rabies, anthrax, and blackleg. In the post-World War Two period, the BAI’s successor agencies would eradicate hog cholera, which at the time was the major killer of swine.

In addition, the BAI would also design and supervise the nation’s federal meat inspection system beginning in 1891, preventing countless grave illnesses. It would operate quarantine stations that all livestock imported in to the United States passed through, and at times significantly restricted trade among the states. It would take the lead in helping standardize a morass of conflicting state regulations by giving the sates legislative templates and developing partnerships with state bureaucracies. These actions significantly facilitated interstate trade and sped disease detection and control. More than this, the Bureau created the country’s first significant biological laboratory, which was responsible to a stream of path-breaking findings that significantly affected animal and human health. This laboratory bore directly on regulation, because by clarifying the etiology of various diseases and by developing tests and in some cases vaccines, research advances played a major role in convincing a succession of congresses and Democratic and Republican administrations to authorize even more ambitious and more coercive regulations. The BAI did not just respond to congressional directives, it played a major role in influencing the course of regulatory policy and advance to process of state building.
All of the early BAI eradication campaigns required heavy-handed boots-on-the-ground regulation, unlike anything attempted by the ICC. The BAI carried on in the face of riots, threats to its agents, and in some cases beatings and the murder of its agents. In the Texas fever campaign, the BAI in partnership with the states built rural compounds defended by machine guns to protect cattle testers. Again, the ICC navigated in calmer waters. In almost every case the BAI’s campaigns were firsts, establishing procedures and protocols and in some cases the scientific foundations that would be copied around the world. At the start of most campaigns, skeptics including many knowledgeable BAI supporters thought that the Bureau was commencing on an impossible undertaking. The scheme was too ambitious, it had never been tried, the hostility was too great. One of the gifts the BAI gave to the world was to show what could be done, and more, how it could be done.

On 3 July 1891, Secretary of Agriculture Jeremiah Rusk proclaimed that Texas fever was “a contagious and infectious disease,” in spite of the 1884 law’s Texas fever exemption. Rusk issued the first of many quarantine orders that mandated that railroads bear much of the enforcement cost. By 5 February 1891, Rusk had established a nearly 2,000-mile federal quarantine line and had issues numerous specific orders detailing handling methods and procedures and specifying the quarantined counties. The BAI often sent railroad companies new special orders modifying quarantines several times a year as conditions changed. This was a major and intrusive regulatory undertaking. In 1893, BAI inspectors examined 64,184 carloads of southern cattle, containing 1,737,380 bovines. These animals were placed in special pens, and the railcars and waybills examined, approved, marked “Southern cattle.” The BAI supervised the disinfections of 56,406 cars in 1893.\(^\text{82}\)

In the case of bovine TB eradication, Canada followed closely on the U.S. example, but most of Western Europe did not take serious steps until after World War Two. The organizational challenges and distributional conflicts among special interests were just too daunting. The delays in Europe resulted in hundreds of thousands of preventable deaths. Most of these nations only bit the bullet because of American prodding and financial assistance

following the War. When they did undertake eradication, the methods down to the very
terminology used were patterned on the American experience.

We can assess the benefits relative to the costs of many of these campaigns—in every
instance, a cautious lower-bound accounting suggests that the benefits were at least ten times the
costs. In the case of bovine tuberculosis eradication, the BAI’s campaign along with a parallel
milk pasteurization drive, prevented hundreds of thousands of human tuberculosis deaths by
1940. It is important to note that federal and state institutional and legal changes to promote
human health significantly lagged behind the efforts to promote animal health, and early
advocates of federal public health programs pointed to the BAI as establishing a model to
emulate. Overall, the story of the BAI is dramatically different from, and we think far more
important than, that of the ICC. The BAI story represents an example of diverse and conflicted
parties taking advantage of a new and contested science to come together to overcome the free-
rider problem and create enormous private and social benefits. It is a story of combating the
denialism of strong vested commercial and geographical interests. It is a story of political
leadership. These stories relate to problems that continue to confront societies around the world.
The history of the BAI offers a lesson of how enlightened changes that required collective action
occurred within a relatively ridged and conservative political structure. This knowledge should
be helpful in dealing with today’s problems.