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The Jungle and the Debate over Federal Meat Inspection in 1906

In early June 1906, the House Committee on Agriculture grilled the president's investigators over which end of a dead hog had fallen into a Chicago slaughterhouse bathroom. President Theodore Roosevelt had sent the two investigators to verify allegations of unsanitary working conditions and diseased meat that had appeared in Upton Sinclair's recent novel, *The Jungle*. The investigators confirmed many of Sinclair's assertions, and noted that they had seen "a hog that had just been killed, cleaned, washed, and started on its way to the cooling room fall from the sliding rail to a dirty wooden floor and slide part way into a filthy men's privy" before being hung, uncleaned, with the other meat.¹ The Agriculture Committee, which included many representatives friendly to the meatpacking industry, demanded details about the dropped hog and its subsequent processing.

The hearing was part of a two-month congressional debate over possible meat inspection legislation, brought about by an unusual alliance between Roosevelt and Sinclair. The president, who sought to rein in industrial monopolies, had taken advantage of *The Jungle's* popularity to campaign for a law to contain the "beef trust," a small group of meatpackers that dominated the industry. Not long before, however, Roosevelt had decried writers like Sinclair for "raking the muck" and engaging in dangerous sensationalism.² Attempting to explain his willingness to embrace Sinclair's work in this case, the president would later say:

[I]n the beef packing business I found that Sinclair was of real use. I have an utter contempt for him. He is hysterical, unbalanced, and untruthful. Three-fourths of the things he said were absolute falsehoods. For some of the remainder there was only a basis of truth. Nevertheless, in this particular crisis he was of service to us, and yet I had to explain again and again to well-meaning people that I could not afford to disregard ugly things that had been found out simply because I did not like the man who had helped in finding them out.³

Although Sinclair, a committed socialist, had hoped *The Jungle* would awaken Americans to the plight of the working class and the abuses of big business, readers turned out to be more interested in his descriptions of repulsive slaughterhouse conditions and the implications for the meat they themselves consumed. "I aimed at the public's heart," he later wrote, "and by accident I hit it in the stomach."⁴ As foreign and domestic demand for American meat declined, meatpacking firms vigorously denied Sinclair's charges, accusing him of outright fabrication.

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On June 18, 1906, a new meat inspection bill, not yet passed by either the House or the Senate, arrived on the president's desk for his review. It was a compromise of sorts—a mixture of ideas from all sides that had grown out of a series of proposals and counterproposals through May and June. The bill, crafted by members of the House Agriculture Committee, satisfied the president in some respects. In particular, it mandated inspection of meat products transported across state lines. Yet it also lacked provisions that Roosevelt favored, including dating of canned meats and fees on meatpackers to fund the inspections.

Although the bill was hardly ideal from Roosevelt's perspective, he very much wanted to secure a statute before Congress adjourned only twelve days later. If he insisted on further negotiations, the momentum for a law spurred by *The Jungle* might dissipate, derailing the entire effort. On the other hand, if he endorsed the compromise bill, he would have to sell it to reformers in the Senate who were insisting on stricter legislation. With the Congressional session rapidly winding down, Roosevelt had to decide whether to send the bill back to Capitol Hill with his blessing, or reject it and hope for something better.

The Rise of American Meatpacking

The explosive growth of the nation's railroad network in the mid-nineteenth century had stimulated domestic and foreign markets for western cattle and meats. By the 1850s, Chicago had become the principal gateway for eastbound shipments of these products, and further rail expansion ensured continual increases in the city's output. Cattle shipments from the Midwest to the East rose from 11,200 heads in 1852 to more than 42,600 in 1858.⁵ To accommodate further growth, Chicago railroad and meatpacking interests constructed the Union Stockyards in 1865, with scale houses (for weighing cattle), an exchange building, and over 130 acres of stockyards all in convenient proximity.⁶

Unlike livestock, "dressed beef" was slaughtered and processed before transport. It was sold mainly on a seasonal basis until improved refrigerated railroad cars transformed it into a profitable year-round industry.⁷ Far cheaper to transport than livestock, dressed beef rapidly gained popularity in the 1880s and comprised 45% of Chicago's outbound beef by 1885 (see **Exhibit 1**).⁸ Beef prices fell substantially as a consequence, and American per capita beef consumption rose 12% from the 1870s to the 1880s.⁹

The "Big Four" firms of Swift, Armour, Hammond, and Morris came to dominate the dressed beef industry. Chicago newcomer Gustavus Swift had developed the refrigeration methods that enabled year-round shipment and used a vertical integration strategy—involving the ownership of nearly all stages of his beef's production and distribution, from slaughter to shipment to sale—in building his company. The other three, already in the meat business, successfully embraced Swift's novel strategy.¹⁰ The Big Four quickly surpassed competitors that failed to pursue vertical integration, and by 1887 provided about 85% of the nation's dressed beef.¹¹

The expansion of dressed beef also required significant changes in the industry's workforce and operations. When dressed beef was a seasonal product, small farmers seeking winter income often helped to prepare it in slaughterhouses and packing plants. As the industry shifted to year-round mass production, unskilled workers replaced farmers as the primary source of labor. Meatpacking firms streamlined their slaughterhouses with assembly-line-style division of labor and new machinery, boosting productivity but pushing their employees—some of whom were children—to work "inhumanely hard," in the words of one observer. Visitors to the slaughterhouses often reported appalling working conditions, including floors submerged in filthy water and dimly lit rooms, as well as widespread disease.¹²

Dressed Beef and the Railroads

Because the livestock industry was a key source of business for the railroads, many railroad firms initially sought to protect it from the mounting competition of dressed beef. The railroads had invested in special cars and stockyards to assist livestock firms, but often refused to provide refrigerated cars or storage facilities to help the meatpackers.¹³ Although the railroads did carry dressed beef, they frequently worked together to set prices in such a way that dressed beef would cost about the same in eastern markets as beef prepared locally from shipped livestock.¹⁴ One 1884 pricing policy, for example, charged 70 cents per 100 pounds to send dressed beef from Chicago to New York, as compared to only 40 cents for livestock, even though dressed beef was easier to transport than live cattle.¹⁵

These collusive pricing arrangements had a short lifespan, however. The temptation to attract the business of the Big Four meat producers was simply too large. Uncooperative railroad firms undercut the prearranged rates and sometimes gave secret rebates to the Big Four, provoking railroad price wars. In fact, once they realized how desperate the railroads were for their business, the Big Four colluded amongst themselves to exact ever lower rates for transporting their products.¹⁶

Regulating the Railroads

The railroads' scramble for dressed beef traffic was symptomatic of the broader economics of the industry. The sector consisted mainly of large firms with both high fixed costs (especially the large investments that went into laying the tracks and purchasing capital equipment) and relatively low variable costs (the expenses for fuel and personnel necessary to run the railroad on a day-to-day basis). In order to gain new customers, railroads frequently lowered their prices below what was necessary to recoup their fixed costs, and this forced competing railroads to do the same. In some cases, prices spiraled downward, putting nearly all of the railroads in financial jeopardy.¹⁷ In fact, as a result of "destructive competition," as it was sometimes called, many railroads of the period fell into financial distress and entered receivership at some stage in their development.¹⁸

Major railroads attempted to address these challenges by organizing "pools" to set prices and allocate market shares among participating firms. These collusive arrangements proved difficult to maintain, however.¹⁹ "The great defect in the present plan," pool organizer Albert Fink explained, "is that the co-operation of these railroad companies is entirely voluntary, and that they can withdraw from their agreements at pleasure."²⁰ By the 1880s, Fink and other industry leaders favored government enforcement of these agreements, which they hoped would stabilize prices.²¹

Many other economic interests joined the call for rate regulation, but often for entirely different reasons. To attract business, the railroads had regularly offered lower rates and rebates to favored clients, such as those in the livestock industry and later the Big Four. These preferred customers were thus able to sell their goods at lower prices, which in the eyes of their competitors was akin to "letting one man steal another man's business."²² The railroads also frequently charged higher prices per mile for short trips than for long ones, which handicapped certain clients in ways that felt "unjust."²³ Others, meanwhile, such as water-based shipping companies and small merchants who sought to staunch the flow of cheap goods transported by rail, hoped that higher railroad rates would make their businesses more competitive.²⁴ For all of these reasons, a wide range of interests favored railroad rate regulation – at least of some kind.

There was much less support, however, for pooling arrangements that allocated market share. Many railroad executives believed that pooling agreements could effectively stabilize prices if backed by law. Yet most of their customers opposed government-sanctioned pooling. In testimony before a

Senate committee, dressed-beef and livestock firms both asserted that such pools, if effective, would threaten their profitability.²⁵ As vulnerable as railroad owners and managers may have felt as a result of “destructive competition,” their customers and numerous other interests claimed, on the contrary, that the railroads had far too much influence over the markets. One representative of New York merchants declared that stronger pooling arrangements would render Albert Fink “a greater power than the President of the United States by far.”²⁶

The debate over railroad regulation was thus largely over what form it should take, rather than whether any regulation should be enacted at all. Scholars disagree about which interests led the drive for railroad regulation in the 1880s,²⁷ but the only notable interests that opposed any sort of legislation were the relatively few firms—Swift & Company, for example—that profited from rebates and the impotence of the existing pools.²⁸ With a widespread consensus for some sort of regulation, diverse interests drafted and debated a large range of legislative proposals throughout the 1870s and 1880s.²⁹

By late 1886, the House and Senate had each passed a bill on the subject. With broad agreement that railroad rates should be stable and uniform, both bills included means for combating rebates and unfair pricing. The bills differed, however, in other important respects. The House bill favored railroad clients: it banned pooling, limited higher rates for shorter distances, and enforced its rules via the courts. The more railroad-friendly Senate bill, by contrast, allowed pooling (but did not include government enforcement, as the roads wanted), was less strict about distance discrimination, and created a new commission to oversee the rules.³⁰

Whether the courts or a commission would enforce the new law was an important point of contention as House and Senate conferees attempted to reconcile the two bills. Some railroad interests supported a commission on the belief that railroad-friendly commissioners would be appointed and interpret the law in their favor. “[T]he older such a commission gets to be,” one observer later mused, “the more inclined it will be found to take the business and railroad view of things. It thus becomes a sort of barrier between the railroad corporations and the people and a sort of protection against hasty and crude legislation hostile to railroad interests.”³¹ Opponents of a commission hoped that the courts would be more neutral arbiters of the law. Debate over enforcement dragged on until House leaders finally gave in and agreed to a commission.³²

The long crusade for railroad regulation culminated in January 1887, when large majorities of both houses of Congress passed the Interstate Commerce Act.³³ The act was a mixture of the House and Senate proposals. It banned pooling, rate discrimination, and rebates, required “reasonable” and “just” rates, and prohibited higher rates for shorter distance shipments. It also created a new Interstate Commerce Commission (ICC) to administer these rules.³⁴

The Early ICC

Within the railroad industry, there existed a wide range of views on the Interstate Commerce Act.³⁵ Some regarded it as a major defeat. Industry journal *Railway Review* declared that “the most merciless malice and the most careful deliberation could hardly have hit upon a measure more deadly and far-reaching in its effects.”³⁶ Others, however, were prepared to withhold judgment until more was known about the approach and tilt of the commission.³⁷ “No matter what sort of bill you have,” one railroad president had noted before the act passed, “everything depends upon the men who, so to speak, are inside of it, and who are to make it work.”³⁸

The early ICC proved friendly to the railroads. Its first chairman, Thomas Cooley, was a lawyer and ally of the industry.³⁹ Under Cooley, the ICC adopted a lenient interpretation of rate-setting rules, frequently gave legal advice to the railroad firms, and sometimes took years to settle complaints against

the railways.⁴⁰ This apparently cozy relationship continued to frustrate critics of the ICC even after Cooley's departure in 1891.⁴¹ Merchant organizations that had hoped the Interstate Commerce Act would rein in the railroads were so disappointed with the ICC's performance that many petitioned for partial or total repeal of the legislation.⁴²

Regulatory changes did not eliminate the industry's competitive pressures, however. Railroad income rose for a few months after passage of the Interstate Commerce Act, but before long the industry had returned to price-slashing competition.⁴³ The leading firms—with ICC support—pleaded for Congress to legalize pooling, but to no avail.⁴⁴ Railroad profits would not begin rising until the early years of the next century, after major roads entered into a series of mergers and a new law granted the ICC greater rate-setting powers (see **Exhibit 2**).⁴⁵

Collaboration by the Big Four

The dressed beef industry managed to take advantage of the railroads' continued troubles, pressing for ever lower rates. Dressed beef shipment rates from Chicago to the east coast fell to under a dime per 100 pounds by July 1888, from as high as 65 cents the previous December.⁴⁶ One key to the Big Four's influence in this period was that they were able to collaborate in ways that were now illegal for the railroads. The Interstate Commerce Act prohibited only the railroads from pooling, leaving their customers free to collude at their expense. The result, lamented one railroaders' magazine in 1890, was that the Big Four could collude to "precipitate such a [price] war as often as they [chose]."⁴⁷

The Big Four collaborated not only to ensure lower railroad rates but also to protect themselves against the same economic pressures that had long plagued the railroads. The high fixed costs of the Big Four's vertically integrated operations, coupled with their saturation of the American market, heightened the competition between them. Dressed beef profits and prices fell in the mid-1880s. Armour's profits, for example, declined from \$1,618,000 in 1884 to about \$1 million in 1887 (see **Exhibit 3**). Starting in 1886, the Big Four attempted a series of pooling schemes to divvy up available business, set prices, and counteract competitive pressures.⁴⁸

Butchers and cattle raisers nationwide blamed the large meatpackers for their own losses during this period and accused them of forming a "beef trust"^a that controlled the nation's meat industry. Cheap dressed beef had substantially reduced demand for traditional butchers, and those that remained lamented that the trust could "compel butchers in every town of every population, East or West, to purchase of them," or they would be priced out of the market.⁴⁹ Similarly, cattle firms blamed meatpacker collaboration for a 24% decline in livestock prices through the late 1880s.⁵⁰ By the end of the decade, these interests were demanding national regulation to contain the packers, whom they believed constituted "an unjust monopoly, and an unjust interference with legitimate trade..."⁵¹

Their campaign against the big meatpackers broke into public view in 1888 when a Senate committee began investigating the Big Four's potential involvement in the collapse of livestock prices. Livestock and butcher interests were heavily represented at the resulting hearings. Although some of them agreed with the meatpackers that overproduction had caused the price collapse, many placed the blame squarely on the beef pools.⁵² Testimony from the Armour company acknowledged that the large beef firms had pooled clients and collaborated in arranging price lists, but argued that such stabilizing measures were necessary and that the lists had been set "according to the state of the market as to

^a At this point in time, the so-called "beef trust" was not actually a formal trust, which was a specific form of business combination. Opponents used the term to insinuate that the meatpackers were colluding so extensively as to effectively be one body.

supply and demand,” with no intention of manipulating livestock prices.⁵³ The committee, however, rejected the meatpackers’ arguments, concluding that their collaboration was “the principle cause of the depression in the prices paid to the cattle raiser.”⁵⁴

The Larger Antitrust Movement

The crusade against the beef trust was just one facet of a larger movement against industrial monopolies and combinations. Prominent firms in the oil, sugar, and tobacco industries, among others, had colluded by various methods over the same period, and had begun merging into formal consolidated trusts in the early 1880s. Small businesses—particularly agricultural interests—had since midcentury criticized big business collaborations as “detrimental to the public prosperity, corrupting in their management, and dangerous to republican institutions,” and the rise of trusts had provoked further sharpening of such rhetoric.⁵⁵ By the late 1880s the antitrust movement had caught the attention of Congress. While the Senate investigated the beef trust, the House examined similar oligopolies in the sugar, oil, whiskey, and cotton-bagging industries.⁵⁶

Certain that they were being targeted unjustly, representatives of big business complained that any sort of coordination between their companies, no matter how reasonable or appropriate, was now “denounced as a conspiracy.”⁵⁷ In their eyes, cooperation between firms was still necessary to ease the dangerous competition that threatened the profitability of large-scale industries.⁵⁸ One railroad leader claimed he could not name any trust that had ever damaged the public at large.⁵⁹

In Congress, many lawmakers agreed that industrial coordination was a necessary response to the problem of excessive competition.⁶⁰ Many also believed, however, that certain trusts had abused their positions, at the expense of consumers. According to Vermont Representative John Wolcott Stewart, the “two great forces” of “competition and combination ... are correctives of each other, and both ought to exist. Both ought to be under restraint. Either of them, if allowed to be unrestrained, is destructive of the material interests of this country.”⁶¹

It was in this spirit that Congress passed the Sherman Antitrust Act in a nearly unanimous vote in 1890.⁶² The Act, according to sponsoring Senator John Sherman, was meant to target only “the unlawful combination, tested by the rules of common law and human experience ... and not the lawful and useful combination.”⁶³ It banned “every contract, combination in the form of a trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States or with foreign nations,”⁶⁴ and it prohibited monopolies as well as any efforts to create them.

In spite of this language, the Act had such a muted impact in its early years that some wondered if Congress had purposefully enacted a toothless law.⁶⁵ The statute granted the Justice Department no new funds for enforcement, and the department soon found itself ill equipped to handle its growing caseload.⁶⁶ Much of the law’s language, meanwhile, was open to diverse interpretations, leaving the U.S. Attorney General with considerable discretion. For example, Richard Olney, a former railroad attorney who became Attorney General in 1892, openly insisted that trusts were a natural “economic evolution” unfairly victimized by “popular prejudice.”⁶⁷ Olney invoked the Act only twice in his three-year tenure, writing in an official report that he believed many of the government’s previous antitrust cases had reached outside of the law’s authority.⁶⁸

At least one scholar has suggested that the early weakness of the Sherman Act was evidenced by the continuation of the dressed-beef pools into the twentieth century.⁶⁹ The Senate committee that investigated the beef trust in 1888 had endorsed antitrust legislation in its final report in the hopes of combatting collusion among the Big Four.⁷⁰ Yet the meatpacker pools survived through the 1890s and beyond.⁷¹ Even after an 1899 Supreme Court decision decisively ruled against their particular pooling

methods, they apparently continued in secret with no government action against them until the early 1900s.⁷²

American Food and Drug Regulation

The Quality of American Meats

In addition to favoring antitrust action, the Senate committee of 1888 had also recommended a national meat inspection law. This was based in part on butchers' and small packers' accusations that the beef trust's indiscriminate processing of "diseased, tainted, or otherwise unwholesome meat" enabled unduly low prices.⁷³ These interests had supported earlier state-level inspection requirements to stymie the beef trust's interstate business, though few of these proposals became law.⁷⁴ One prominent scholar has suggested that the small businessmen's accusations may have been primarily political in nature, since the most commonly cited cattle diseases, pleuropneumonia and Texas fever, were both rare and not threatening to humans.⁷⁵

Although the federal government passed meat inspection laws soon after the hearings, it did so with the large packers' support and mainly for economic rather than health reasons. As early as 1879, several European nations had embargoed American meat over fears of trichinosis, a pork-borne illness.⁷⁶ Foreign demand quickly plummeted (see **Exhibit 4**).⁷⁷ Although many congressmen insisted that American pork was free of the disease, they favored inspection to remove any possible justification for the European embargoes. With the support of large meatpackers and livestock firms, Congress passed laws in 1890 and 1891 to guarantee the quality of American meats. The expansive 1891 law mandated that the Agriculture Department inspect all cattle, hogs, and sheep (dead or alive) and meat products intended for export, as well as all livestock that would be slaughtered for interstate or international trade. The law also authorized inspection of meat products traded across state lines, though this was left voluntary and interstate trade in uninspected meat thus remained legal.⁷⁸ Although the interstate regulations were relatively weak and mostly optional, the 1891 law marked the first time the federal government had intervened in the quality of food intended for American consumers.⁷⁹ The European nations, meanwhile, were apparently satisfied with the tougher regulations on meat for export: they lifted their embargoes in response to the new laws, and by 1895 U.S. meat sales had largely recovered.⁸⁰

American meat again came under scrutiny during the 1898 Spanish-American War, when many soldiers complained about the beef that the Army provided. One officer attested that it "had an odor similar to that of a dead human after being injected with preservatives, and it tasted when cooked like decomposed boric acid ... so bitter, nauseous, and unpalatable as to be quite impossible to use."⁸¹ Soldiers nicknamed the meat "embalmed beef," and many blamed the meat for widespread sickness among the men. Newspapers picked up on the scandal, conveying the soldiers' stomach-turning complaints to an astonished public.⁸²

An official investigation contradicted the soldier's allegations, however. A military court found the beef to be sound, blamed the shipping and storage process as well as Cuba's heat for the poor taste, and attributed soldiers' sickness to environmental factors and lack of dietary variety. In fact, government investigators claimed that scientific analysis showed the beef was identical to that sold to American consumers. Still, the controversy persisted.⁸³

The Pure Food and Drug Movement

The focus on meat safety complemented a larger effort during this period devoted to improving the quality of the nation's food and drugs. Since the mid-1800s, activists had demanded state and federal laws against "adulteration." Reports claimed, for example, that producers diluted chocolate with peas, beans, and even soap, and that medicinal opium often contained significant quantities of crushed grapes.⁸⁴ Reformers insisted that such adulteration "poison[ed] and cheat[ed] the consumer,"⁸⁵ and one Harvard anatomy professor suggested "that if the whole materia medica, *as now used*, could be sunk to the bottom of the sea, it would be all the better for mankind, — and all the worse for the fishes."⁸⁶

Some food producers accused their critics of being "sensational and unreliable" and of fomenting mistrust of the entire industry.⁸⁷ Others admitted that they adulterated in moderation, but not so much "as to be dangerous to health."⁸⁸ Still others acknowledged that adulteration was a grave problem. According to a biographer, H. J. Heinz believed that adulteration "creat[ed] suspicion of the quality and purity of all other products on the market," and he emerged as a leading supporter of pure food legislation.⁸⁹

Some businesses invoked the rhetoric of the pure food movement to target rival firms. Dairy interests, for example, employed pure-food arguments in agitating for a tax on oleomargarine, a butter substitute. The major meatpackers had begun producing oleomargarine from beef fat in the 1880s, and butter interests saw it as a major threat.⁹⁰ In testimony before Congress, dairymen decried the product as an unhealthy "midnight assassin" that teemed with "spores, mold, hair, bristles, and portions of worms."⁹¹ Oleomargarine defenders countered that the product was superior to butter in many ways and that the dairymen's health claims were unsubstantiated.⁹² A federal oleomargarine tax eventually passed in 1886, though opponents criticized what they viewed as the "wrongful and fraudulent use of the taxing power" to serve an interest group.⁹³

In the drug industry, tension arose between the pharmaceutical establishment and the so-called "medicine men" who sold cheap "patent" or "proprietary" medicines to consumers and undiscerning doctors.⁹⁴ These medicines typically had little or no scientific merit and often contained dangerous ingredients such as alcohol, morphine, or cocaine.⁹⁵ Medical professionals had decried these "quack" medicines as early as the 1840s, but by the 1900s they were still widely popular.⁹⁶ Interests hostile to patent medicines demanded ingredient regulations and labeling requirements to protect both consumers against potentially dangerous substances and professional doctors from what appeared to be illegitimate competition.⁹⁷

Speaking in support of his 1892 pure food bill, Nebraska Senator Algernon Paddock declared, "Take heed when the people demand bread that you continue not to give them a stone, lest the angry waves of popular discontent ... engulf forever all that we most greatly value."⁹⁸ Yet despite such passionate exhortations and repeated efforts (at least one pure food bill appeared in every Congress from 1879 until 1905), no comprehensive pure-food law was enacted during these years.⁹⁹ (See **Appendix I**.)

The Muckrakers

In the early years of the twentieth century, a new cadre of investigative journalists called "muckrakers" would help to revitalize both the pure food and drug cause and the campaign for higher quality meats. In 1905, Edward Lowry's "The Senate Plot Against Pure Food" asserted that industrialists controlling the Senate had foiled every attempt to regulate food and drugs. Later that year, Samuel Hopkins Adams's "The Great American Fraud" warned of fraudulent and adulterated drugs.¹⁰⁰ The meatpacking industry in particular faced the journalistic wrath of Charles Edward

Russell, whose series “The Greatest Trust in the World” called the beef cartel “a great criminal organization” and “an active and pestilent public enemy.”¹⁰¹ These muckraking pieces, and others like them, reached readers across the nation, spreading alarm about what dangerous substances Americans might be consuming.

Muckraking itself had its roots in progressivism, a broad turn-of-the-century political movement that comprised reformers dedicated to everything from trust busting and fighting corruption to improving labor conditions and enfranchising women.¹⁰² Progressivism’s first print champions were newspapers. The widely read *New York World* and *New York Morning Journal* investigated and editorialized against government corruption and questionable business practices, building support for political reforms.¹⁰³ Faster printing machinery, cheaper newsprint, and novel picture-printing technologies developed in the late nineteenth century brought these crusades to wider audiences than ever before (see **Exhibit 5**).¹⁰⁴

Ultimately, magazines, not newspapers, became most identified with progressive-era muckraking. In 1902, *McClure’s* (a monthly magazine) published three sets of articles in an entirely new expository style: Ida Tarbell’s exposé on Standard Oil, Lincoln Steffens’s investigation of corruption in municipal and state governments, and Ray Baker’s examination of American labor. This trio boosted *McClure’s* circulation, and soon other magazines—including *Cosmopolitan*, *Everybody’s*, and *Colliers*—were running investigative pieces of their own.¹⁰⁵ By the decade’s end, the circulation of these “muckraking” magazines exceeded 3 million, with over 2,000 muckraking articles having appeared between 1903 and 1912.¹⁰⁶

One popular 1906 series, David Graham Phillips’s fiery “The Treason of the Senate,” targeted the federal government itself. Since the ratification of the Constitution, states had enjoyed the authority to appoint U.S. senators with no direct input from the electorate. Phillips argued that this arrangement empowered elite political and business “interests” he considered “as hostile to the American people as any invading army ... whose growth and power can only mean the degradation of the people...”¹⁰⁷ Phillips singled out specific senators’ connections to these “interests” and, in his view, the corrupt legislation such relationships had produced. For example, he accused Illinois Senator Shelby Cullom, a principal author of the Interstate Commerce Act, of being a railroad shill who had committed “treason to the people” by intentionally making the “so-called law” ineffective.¹⁰⁸ Reasoning that “[a] servant obeys him who can punish and dismiss,” Phillips maintained that such corruption would continue until the people could elect senators themselves.¹⁰⁹

The initial reaction to “The Treason of the Senate” in both media and political circles was largely negative. One writer questioned whether Phillips was “sowing the seeds of anarchy,” and even *Collier’s*, a muckraking magazine that had carried Phillips’s articles in the past, called the series “one shriek of accusations based on the distortion of such facts as were printed, and on the suppression of facts which were essential.”¹¹⁰ The most famous assault on this new brand of journalism came from President Theodore Roosevelt on April 14, 1906. Delivering a speech that popularized the term “muckraker” to describe Phillips and his colleagues, Roosevelt compared them to the “Man with the Muck-rake” character in John Bunyan’s literary classic *The Pilgrim’s Progress*. In Roosevelt’s words, this character “typifies the man who in this life consistently refuses to see aught that is lofty, and fixes his eyes with solemn intentness only on that which is vile and debasing.” Roosevelt continued:

Now, it is very necessary that we should not flinch from seeing what is vile and debasing. There is filth on the floor, and it must be scraped up with the muck-rake; and there are times and places where this service is the most needed of all the services that can be performed. But the man who never does anything else, who never thinks or speaks or

writes save of his feats with the muck-rake, speedily becomes, not a help to society, not an incitement to good, but one of the most potent forces of evil.¹¹¹

Despite these attacks, much of the public proved receptive to Phillips and his fellow muckrakers. Their articles are said to have mobilized large armies of reformers, and “The Treason of the Senate,” in particular, triggered a political movement for the direct election of senators. As one historian has written, “[p]erhaps no other single force was more responsible for the success of the progressive movement than the group of popular writers that emerged to write for the fast-flourishing muckrake magazines.”¹¹² Even President Roosevelt could appreciate the muckrakers when their interests coincided with his. In fact, shortly before his April 1906 speech, he had already begun consulting with muckraker Upton Sinclair about the possibility of legislation to clean up the beef trust.¹¹³

Upton Sinclair and *The Jungle*

Sinclair was born in Baltimore in 1878. A lover of literature, he was a prolific writer from an early age.¹¹⁴ Sinclair’s novels from the start of the twentieth century communicated a deep dissatisfaction with American materialism and corruption—a melancholy presumably made worse by his unhappy marriage, precarious financial situation, and belief that society had as yet failed to recognize his genius.¹¹⁵ Sinclair encountered socialists for the first time in 1902 and found himself drawn to their political beliefs in a personal epiphany he later called “the falling down of prison walls about my mind.”¹¹⁶ He incorporated socialist ideas into his next novel, *A Captain of Industry*. The book was not subtle. It told the story of a rich industrialist who quells labor strikes and exploits the stock market while living a vice-filled personal life. The industrialist ultimately dies on his yacht in a storm.¹¹⁷

A real-world conflict between organized labor and the beef trust inspired Sinclair’s most famous work, *The Jungle*. In 1903, the Amalgamated Meat Cutters and Butcher Workmen of North America, the national meatpacking labor union, secured wage hikes and labor reforms from the big meatpackers. However, the firms cut pay the very next year, and Amalgamated responded with strikes in several cities. These turned violent as strikers attacked the workers brought in to replace them. In the end, the packers rehired the strikers at an even lower wage, and tens of thousands of disappointed members departed Amalgamated over subsequent years.¹¹⁸

Sinclair wrote several articles about the failed strike for the populist-socialist journal *Appeal to Reason*, and he ultimately decided to make the meatpacking industry the focus of a new socialist novel that he hoped would “blow the roof off the industrial tea-kettle.”¹¹⁹ Beginning in November 1904, Sinclair interviewed laborers and other members of the Chicago meatpacking industry, visiting workers’ homes and investigating meatpacking plants both as an official visitor and, in disguise, as a worker.¹²⁰ He began writing *The Jungle* that Christmas.¹²¹

The Novel

The Jungle’s protagonist, Jurgis Rudkus, is a poor Lithuanian who immigrates to Chicago’s Packingtown district with his family. Jurgis is proud when he quickly procures a meatpacking job. Despite his initial awe at the packing house’s efficiency, he soon witnesses horrific conditions, with workers tossing poisoned rats in with the meat and mixing sickly cows rejected by inspection with healthy ones. One notorious passage describes the packinghouse’s dangers to its workers:

There were those who worked in the chilling-rooms, and whose special disease was rheumatism; the time-limit that a man could work in the chilling-rooms was said to be five years. There were the wool-pluckers, whose hands went to pieces even sooner than

the hands of the pickle-men; for the pelts of sheep had to be painted with acid to loosen the wool, and then the pluckers had to pull out this wool with their bare hands, till the acid had eaten their fingers off. There were those who made the tins for the canned-meat; and their hands, too, were a maze of cuts, and each cut represented a chance for blood-poisoning.... [A]nd as for the other men, who worked in tank-rooms full of steam, and in some of which there were open vats near the level of the floor, their peculiar trouble was that they fell into the vats; and when they were fished out, there was never enough of them left to be worth exhibiting, —sometimes they would be overlooked for days, till all but the bones of them had gone out to the world as Durham's Pure Leaf Lard!¹²²

A worsening situation at Jurgis's home parallels the packinghouse horrors. His wife Ona's health suffers when she returns to work too quickly after giving birth, and her boss rapes her. When Jurgis discovers this, he attacks the boss and is arrested. Once out of jail, Jurgis discovers that his family has been evicted from their home. Ona soon dies, and in his grief Jurgis squanders the family's money on alcohol. He gets by on odd jobs until his son drowns, after which Jurgis flees to the countryside where he lives as a tramp.

Upon returning to Chicago, Jurgis falls further into vice and criminality, and is enlisted by political bosses to help in their elections. One day, Jurgis passes a Socialist orator and is intrigued by his ideas. Thrilled that there are others who disdain capitalism and the suffering of poor immigrants, Jurgis becomes a committed Socialist and reader of *Appeal to Reason*. The novel ends with the declaration that "Chicago will be ours!"¹²³

Publication and Reactions

The Jungle failed to catch the public eye when it first appeared serialized in *Appeal to Reason*, but it quickly became a sensation after Doubleday, Page & Co. published the full novel in February, 1906. Doubleday had verified Sinclair's claims, with one editor reporting that he "was able to see with [his] own eyes much that Sinclair had never even heard about."¹²⁴ The publisher promoted the book heavily, providing early copies to newspapers nationwide and to influential individuals, including President Roosevelt. Although some early reviews dismissed it as sensationalist fiction and socialist propaganda, analysts estimated that over a million people had read *The Jungle* by year's end.¹²⁵ Sinclair's descriptions of Chicago packinghouses astonished (and revolted) readers, and meat industry profits declined as many Americans altered their diets and several nations banned American meat.¹²⁶

J. Ogden Armour of the Armour Packing Company responded to *The Jungle* and other anti-meatpacking literature through articles in the *Saturday Evening Post* that March.¹²⁷ Armour decried "ignorantly or maliciously false statements" and asserted that "not one atom of any condemned article or carcass finds its way, directly or indirectly, from any source, into any food-product or food-ingredient" at his company.¹²⁸ He assured readers that the firm voluntarily had all of its meat inspected, because the government's stamp was good for business, and he argued that the packinghouses' transparency proved accusations of unsanitary conditions to be totally false. "Unfortunately," he wrote, "a good many people will always believe anything that is persistently told [to] them, particularly if it be about a corporation."¹²⁹

Sinclair had hoped the book would help spark a socialist awakening. Descriptions of meatpacking filled only a fraction of the novel's pages, and the topic was largely incidental to his cause. Despite Sinclair's focus on the plight of industrial workers and his relative disinterest in the issue of food safety, *The Jungle* would ultimately play a prominent role in the development of American meat regulation.

Meatpacking in the Early 1900s

Threats to the Major Meatpackers

New threats to the dressed beef industry had emerged in the early 1900s. Many railroads had since merged into larger firms, with greater control over wider areas and better ability to bargain with packers. Internally, the original founders of the major meatpacking firms were aging and passing away, causing anxieties over succession and inter-firm relations.¹³⁰ Beyond these pressures, there were questions about the structural and legal viability of their pooling arrangements. Twice over the course of the 1890s the emergence of a major new dressed beef firm had broken the pooling agreements as members scrambled to compete with the newcomers. Although a new pool in 1898 incorporated the new companies, participants remained wary of future shocks.¹³¹

In 1902, meanwhile, the Justice Department finally began investigating the beef pools' legality under the Sherman Act. Despite meatpacker claims that their pooling and price setting served the "public good" by preventing market breakdowns, in 1903 an Illinois circuit court ruled against them and prohibited them from employing "any other method or device, the purpose and effect of which is to restrain commerce." However, the court still allowed the packers to limit their output "to prevent the over-accumulation of meats" on the market.¹³²

Facing mounting legal and economic threats, and following a precedent set in the railroad and oil industries, Armour, Swift, and Morris (the "Big Three," after Armour bought out Hammond) merged with several other major meat firms into the National Packing Company in 1903, shortly after the Justice Department had launched its investigation. By combining through the formation of an immense holding company, the meatpackers could now coordinate their activities, communicate directly, and enact pooling-like policies all without violating the letter of the Sherman Act.¹³³

Roosevelt versus the Beef Trust

Even before the National Packing Company took its place within the emerging pantheon of trusts, President Roosevelt was expressing deep concern about the degree of concentration in American business. "The great corporations which we have grown to speak of rather loosely as trusts are the creatures of the State," he declared in a 1902 address, "and the State not only has the right to control them, but it is duty bound to control them wherever the need of such control is shown."¹³⁴ Indeed, Roosevelt made it a goal of his young presidency to "strengthen the hand of the executive" in containing any trusts that proved detrimental to the country.¹³⁵ The merger of the meatpackers in 1903 quickly became a perfect illustration of what he hoped to combat. Roosevelt had experience with the meatpackers' products: as an officer in the Spanish-American War, he had sampled "embalmed beef" and found it inedible.¹³⁶ Perhaps in part as a result, he considered the beef trust "evil" and made it one of his very first targets.¹³⁷

In 1904, the U.S. Bureau of Corporations began investigating the wide gap between low cattle prices and high beef prices. Roosevelt supported the investigation, hoping to find evidence of meatpacker misconduct, but the resulting 1905 report disappointed him and his antitrust allies.¹³⁸ Instead of revealing meatpacker wrongdoing, it concluded that their profits were entirely reasonable and that industry leaders had not restricted competition. The report found, for example, that while Swift's 1904 sales were about \$200 million, its profits were only \$3.85 million, or 1.93% of sales, far lower than popularly believed.¹³⁹ While the report acknowledged that beef prices were high, it concluded that this was because cattle prices were high as well, contrary to popular perceptions, and expressed skepticism that the packers were manipulating prices in any way.¹⁴⁰

Antitrust activists and journalists assailed the report. The *New York Press* characterized the findings as “quite disgraceful” and “preposterous” and recommended that the Bureau’s commissioner resign. The muckraker Charles Edward Russell derided “this airy skimming of dangerous facts, this agile turning of bad corners” and asked, “How does it happen that this defense is issued just at the time when it is most needed for the packing interests?”¹⁴¹

Roosevelt’s efforts against the beef trust encountered further obstacles in 1905 and early 1906. In January 1905, the Supreme Court upheld the earlier Illinois decision against the packers, but found that the restrictions imposed had been too vague and onerous (even with the over-accumulation loophole), and loosened them accordingly. The next year, a district judge declared that immunity protections forbade any legal case against the meatpackers from using information they had willfully supplied to the Bureau of Corporations during its investigation, dealing a large blow to the Justice Department’s ongoing inquiry.¹⁴²

Sinclair Shakes Up Washington

Despite these setbacks, the explosion of anti-meatpacker sentiment following release of *The Jungle* gave Roosevelt just the ammunition he needed to strike the packers. Almost immediately after the book was published, Secretary of Agriculture James Wilson tightened meatpacking sanitation rules and launched an investigation of the Chicago slaughterhouses and meat inspection system. However, both Wilson and Roosevelt feared that the Agriculture Department inquiry would not “get to the bottom of this matter,” since a negative report would reflect badly on the department’s existing inspections.¹⁴³ After consulting with Upton Sinclair, Roosevelt sent labor commissioner Charles Neill and social worker James Reynolds to conduct an investigation of their own.¹⁴⁴

The two inquiries arrived at very different conclusions. While the Department of Agriculture team saw some room for improvement in the industry, it determined that *The Jungle* “greatly exaggerated” packinghouse sanitation issues and contained “willful and deliberate misrepresentations” of government inspectors as crooked and negligent.¹⁴⁵ The Neill-Reynolds findings, by contrast, were more in line with Sinclair’s descriptions, telling of cold, unventilated rooms with wet floors where “drippings from the refrigerator rooms above trickled through the ceiling.” Neill and Reynolds declared that these conditions were “a constant menace not only to [the laborers’] health, but to the health of those who use the food products prepared by them.”¹⁴⁶

The Neill-Reynolds findings alarmed major meatpackers, who already faced significant economic challenges. The growth of domestic meat consumption was slowing even as foreign competition was rising.¹⁴⁷ Worried that demand would decline further, the packers (along with livestock interests) urged the president not to release the report, promising that they would enact “reasonable, rational and just” reforms without government intervention.¹⁴⁸ Roosevelt kept the report quiet for the time being but rejected their offer to regulate themselves, asserting that “[i]t is absolutely necessary that we shall have legislation which will prevent the recurrence of these wrongs.”¹⁴⁹

Two Proposals Face Off

The first lawmaker to answer Roosevelt’s call for new legislation was Republican Senator Albert Beveridge of Indiana, a fan of *The Jungle* (and an old friend of muckraker David Graham Phillips¹⁵⁰) who had already been preparing a meat inspection amendment to the pending agricultural appropriations bill. After collaborating with Neill, Reynolds, and officials at the Agriculture Department, Beveridge introduced his amendment in May, 1906. It called for stricter rules for the disposal of unfit meat, limitations on the use of dyes and chemicals, and date stamps on meat products.

Firms, moreover, would only be allowed to sell meat products under “true name[s] which shall actually describe” their contents. Perhaps most significantly, Beveridge’s amendment would require federal inspection of meat carcasses, products, and canned goods intended for interstate trade, as well as of meatpacking plants producing for interstate markets. All such inspections had been entirely optional under the 1890s laws.¹⁵¹ Beveridge’s proposal also mandated that packers would pay fees to fund the new inspections and that the Department of Agriculture would oversee packinghouse sanitation. Proud of his proposal, Beveridge touted it as “the most perfect meat inspection bill in the world” and “the most pronounced extension of federal power in every direction ever enacted.”¹⁵²

While some meatpackers could see the commercial benefits of government inspections, as they had in the 1890s, they found the prospect of paying fees to fund them completely unacceptable.¹⁵³ As one meatpacking lobbyist later explained, the packers did not mind inspectors “provided [they] did not have to pay for them.”¹⁵⁴ Under the existing system, inspection funding came from the government, which meant that meatpacking allies in the House could cut the budget when inspections became too onerous.¹⁵⁵ Beveridge’s plan would remove this option.

Beyond the funding provision, the meatpackers roundly opposed many of the Beveridge bill’s other provisions as well. They feared that the new restrictions on naming products would destroy popular brands and that dating would lead consumers to reject sound, though aged, canned goods. One manager of the Morris company lamented that by empowering the Department of Agriculture with wide authority over sanitation, the amendment would place control of the industry “in the hands of theorists, chemists, [and] sociologists” without the oversight of the court system.¹⁵⁶

Although the Beveridge amendment was approved in the Senate without opposition, it competed in the House with an alternate version prepared by Republicans James Wadsworth of New York and William Lorimer of Illinois. Both men were meatpacking allies: Wadsworth was a cattle breeder who considered *The Jungle* a “horrid, untruthful book,” and Lorimer represented the Chicago meatpacking district.¹⁵⁷ Their far less onerous proposal had no dating requirements, protected brand names (even if they did not accurately characterize the contents of the products), limited inspections to only carcasses and packinghouses, allowed greater use of preservatives, replaced the packers’ inspection fee with a budget appropriation, and allowed the meatpackers to appeal Agriculture Department rulings in court. Inspection, moreover, would not be mandatory for meat shipped between states, an arrangement no different from the status quo.¹⁵⁸ Although they had largely opposed any new regulation through early 1906, the meatpackers eventually expressed support for legislation similar to the Wadsworth-Lorimer bill.¹⁵⁹

The Wadsworth-Lorimer proposal infuriated Roosevelt. Dismissing it as a “sham bill,” he retaliated by releasing the official Neill-Reynolds report to Congress on June 4.¹⁶⁰ Although he had hoped its publication would rally support for the Beveridge bill, the report had minimal impact. An impatient Sinclair had leaked the Neill-Reynolds findings to the *New York Times* days earlier, and its contents, while unpleasant, were hardly shocking to an American public already familiar with the even darker picture presented in *The Jungle*.¹⁶¹

The House Agriculture Committee soon began hearings on the Beveridge and Wadsworth-Lorimer proposals, though it was far from impartial.¹⁶² Not only were many members friendly to the meat industry, but Lorimer was a senior member of the committee and Wadsworth its chair. The duo used the hearings to attack the Beveridge amendment and initially invited only witnesses friendly to the industry to speak.¹⁶³ These witnesses assailed the Neill-Reynolds report as a “compendium of inaccuracies” and argued that meatpacking was a dirty-looking business even when done properly.¹⁶⁴

"I do not believe anybody ever expected to find a rose garden in a slaughterhouse," one Illinois politician declared.¹⁶⁵

When Neill and Reynolds testified, Wadsworth and his allies interrogated them so aggressively that even some industry supporters thought they had gone too far.¹⁶⁶ Wadsworth particularly harangued Neill over his claim that workers had hung a pig that had fallen into a bathroom with clean carcasses, demanding precise details and explicitly challenging "the credibility of the report."¹⁶⁷ Neill objected to this treatment, and one sympathetic congressman noted that Wadsworth was questioning Neill "as if he were a culprit or as if he were being prosecuted."¹⁶⁸

The committee passed a modified version of the Wadsworth-Lorimer amendment on June 9.¹⁶⁹ Wadsworth and Lorimer had conceded some points to Roosevelt after he had indicated a willingness to compromise. They restored Beveridge's mandate on interstate inspections and expanded inspections to meat products and canned goods, but beyond these changes held firm to their original proposals. The amendment still had no dating requirements, protected brand names, would fund inspections through a budget appropriation rather than a fee assessed on the industry, and provided an easy path for meatpackers to appeal any of the Agriculture Secretary's rulings. Additionally, it instituted a year's delay between passage of the bill and formal appointment of new inspectors, a policy that would allow members of the Agriculture Committee to fill inspection posts themselves in the interim.¹⁷⁰ Discouraged, President Roosevelt described the revised Wadsworth and Lorimer provisions as "so bad that ... if they had been deliberately designed to prevent remedying of the evils complained of, they could not have been worse."¹⁷¹

Reaching a Compromise

Unfortunately for the president, he was now rapidly running out of time. The congressional session would end on June 30, only three weeks after the Agriculture Committee hearings ended. If Congress was unable reach a better compromise by then, the cause might lose the energy that Sinclair's *Jungle* had provoked, scuttling hopes for a new law.

Although Roosevelt's Republican Party controlled both houses of Congress, the House and Senate were split over the issue. Reformers in the Senate wanted strong, Beveridge-style rules, while the House opposed such strict regulations. Fretting over the political implications of continued deadlock, Speaker of the House Joseph Cannon of Illinois approached Roosevelt about the possibility of a compromise that might placate both houses.¹⁷²

At Cannon's suggestion, he and the president asked Wisconsin's Henry Adams, a moderate on the House Agriculture Committee and a supporter of pure food legislation, to draft a new amendment that would incorporate elements of both the Beveridge and Wadsworth-Lorimer proposals. After consulting with James Reynolds and lawyers at the Agriculture Department, Adams produced an amendment that dropped Wadsworth and Lorimer's year-long delay in inspector appointments, restored the mandatory dating of canned meats, and eliminated the broad right of appeal on inspection decisions. Inspections would still be funded by appropriation, as Wadsworth and Lorimer had demanded, but the Agriculture Secretary could enact fees if this funding proved inadequate. In Roosevelt's eyes, Adams's revision was "as good as the Beveridge amendment."¹⁷³

Although Wadsworth and Lorimer both denounced the new proposal, Speaker Cannon encouraged them to continue working on the issue, and the Agriculture Committee sent yet another proposal to the president on June 18. The committee eliminated dating of canned meats once again, but the proposal met the reformers at least partway on most other issues. Brand names would still be acceptable, but only so long as they were "not false and deceptive." Although there would be no fees

for inspection, the inspection appropriation would be raised high enough to accommodate future expansion of the meatpacking sector. The committee agreed to drop the right to appeal, so long as the bill no longer explicitly granted the Agriculture Secretary “final and conclusive” authority over inspection decisions, and the committee consented to removing the one-year delay on inspector appointments.¹⁷⁴

President Roosevelt was dissatisfied with the loss of dating requirements, but feared that further negotiation would push the debate beyond Congress’s adjournment twelve days later. At the same time, he worried about how the Senate would receive the new proposal. Beveridge had recently written to Roosevelt reasserting his commitment to imposing fees to fund inspections, and the senator strongly favored dating requirements.¹⁷⁵ If Roosevelt endorsed the latest House version, which contained neither provision, he would undoubtedly have a hard time selling it to Beveridge and his Senate allies. Yet he also wanted to avoid “an obstinate and wholly pointless fight about utterly trivial matters, or about matters as to which we may ultimately find ourselves forced to yield.”¹⁷⁶ The question now was how to get the best possible law on the books. Should he endorse the newest House proposal, forgoing further negotiations but potentially alienating his Senate allies? Or should he stand his ground and demand a stricter law, risking a drawn-out fight that could sink the effort altogether? This was the choice the president faced as he contemplated the options before him.

Exhibit 1 Cattle and Dressed Beef Shipments from Chicago, 1880-1885 (tons)

| Year | Cattle | Dressed Beef | Total | % Dressed Beef |
|------|---------|--------------|---------|----------------|
| 1880 | 416,204 | 30,705 | 446,909 | 6.87% |
| 1881 | 433,600 | 43,774 | 477,374 | 9.17% |
| 1882 | 383,600 | 65,775 | 449,375 | 14.64% |
| 1883 | 372,214 | 149,640 | 521,854 | 28.67% |
| 1884 | 210,410 | 184,993 | 395,403 | 46.79% |
| 1885 | 281,022 | 231,634 | 512,656 | 45.18% |

Source: Adapted from Mary Yeager, *Competition and Regulation* (Greenwich, CT: JAI Press Inc., 1981), p. 69. Originally from US Dept. of Agriculture, *Report of the Bureau of Animal Industry, 1886*, p. 278.

Exhibit 2 Railroad Freight Revenue per Ton-Mile, 1882-1905

| Year | Revenue per Ton-Mile (in cents) |
|------|------------------------------------|
| 1882 | 1.236 |
| 1883 | 1.224 |
| 1884 | 1.124 |
| 1885 | 1.057 |
| 1886 | 1.042 |
| 1887 | 1.034 |
| 1888 | 0.977 |
| 1889 | 0.970 |
| 1890 | 0.927 |
| 1890 | 0.941 |
| 1891 | 0.895 |
| 1892 | 0.898 |
| 1893 | 0.878 |
| 1894 | 0.860 |
| 1895 | 0.839 |
| 1896 | 0.806 |
| 1897 | 0.798 |
| 1898 | 0.753 |
| 1899 | 0.724 |
| 1900 | 0.729 |
| 1901 | 0.750 |
| 1902 | 0.757 |
| 1903 | 0.763 |
| 1904 | 0.780 |
| 1905 | 0.766 |

Source: Adapted from *Historical Statistics of the United States*, Millennial Edition Online, eds. Susan B. Carter, Scott Sigmund Gartner, Michael R. Haines, Alan L. Olmstead, Richard Sutch, and Gavin Wright (Cambridge University Press, 2006), Series Df 908 and 979. hsus.cambridge.org.

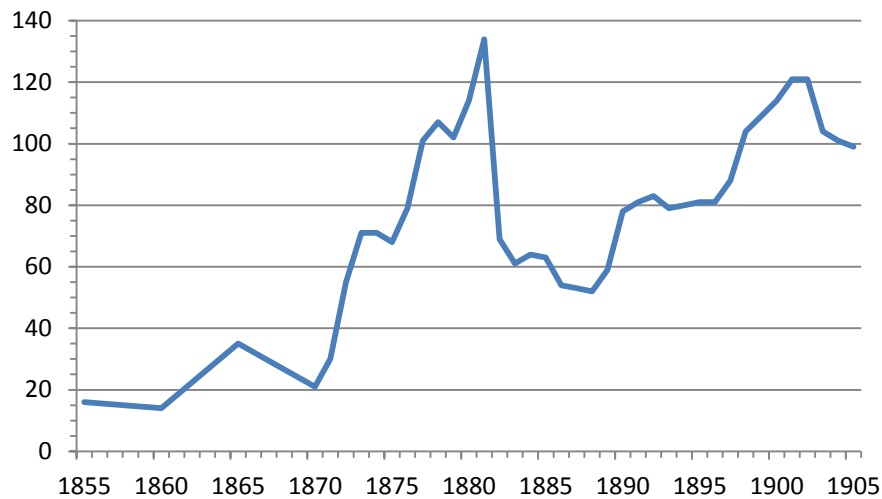
Note: The 1882-1890 data are originally from U.S. Interstate Commerce Commission, *Railway Statistics before 1890* (1932). The 1890-1905 data are from later ICC reports. The two data series report different figures for 1890.

Exhibit 3 Armour & Company Reported Net Profit, 1869-1905

| Year | Profits (thousands of dollars) |
|-------------|---|
| 1869 | 120 |
| 1870 | 49 |
| 1871 | 18 |
| 1872 | 69 |
| 1873 | 199 |
| 1874 | 126 |
| 1875 | 300 |
| 1876 | 500 |
| 1877 | 450 |
| 1878 | 521 |
| 1879 | 705 |
| 1880 | 2,000 |
| 1881 | 1,850 |
| 1882 | 1,705 |
| 1883 | 510 |
| 1884 | 1,618 |
| 1885 | 1,100 |
| 1886 | 1,050 |
| 1887 | 1,000 |
| 1888 | 1,700 |
| 1889 | 1,550 |
| 1890 | 1,550 |
| 1891 | 1,100 |
| 1892 | 1,886 |
| 1893 | 2,000 |
| 1894 | 729 |
| 1895 | 1400 |
| 1896 | 2070 |
| 1897 | * |
| 1898 | * |
| 1899 | * |
| 1900 | * |
| 1901 | 5,736 |
| 1902 | 2,500 |
| 1903 | 2,250 |
| 1904 | 1,850 |
| 1905 | 2,800 |

Source: Adapted from Federal Trade Commission, *Report of the Federal Trade Commission on the Meat-Packing Industry*, Vol. 5 (Washington, 1920), p. 21. Available online via Galenet.

* Profits not available for individual years. Profits were \$8,105,000 in the 3.5 years up to April 21, 1900. Profits were \$725,000 in the six months up to October 27, 1900.

Exhibit 4 U.S. Meat Product Exports (millions of dollars)

Source: Adapted from *Historical Statistics of the United States*, Series Ee 580. Data for 1855-1870 are only for the years 1855, 1860, 1865, and 1870 and not the years in between.

Exhibit 5 Daily Newspapers in the United States, 1850-1904

| Year | Number | Circulation (thousands) |
|------|--------|----------------------------|
| 1850 | 254 | 758 |
| 1860 | 387 | 1,478 |
| 1870 | 574 | 2,602 |
| 1880 | 971 | 3,566 |
| 1890 | 1,610 | 8,387 |
| 1900 | 2,226 | 15,102 |
| 1904 | 2,452 | 19,633 |

Source: Adapted from *Historical Statistics of the United States*, Series Dg 255-256.

Note: 1850-1900 numbers include "a small number of periodicals."

Exhibit 6 Anti-Beef Trust Cartoon (1902)



Source: James West Davidson and Mark Hamilton Lytle, *After the Fact: The Art of Historical Detection*, 3rd Edition (New York: McGraw-Hill, 1992), p. 211. By Frederick Oppen, published in 1902 in *N.Y. Journal*. Original scan from Library of Congress.

Appendix I: Pure Food and Drug Legislation

As Congress debated the meat inspection proposals, the much longer struggle for a pure food and drug law was also coming to a head. Various congressmen had penned comprehensive food and drug bills for every Congress between 1879 and 1905, but with no success. These repeated attempts failed despite a growing acknowledgement on the part of major food and drug producers that such a law might benefit their industries. By 1906, while significant challenges remained, the prospects of passing a bill never looked better.

Industry Attitudes

In the late nineteenth and early twentieth centuries, many executives at leading food companies came to believe that national regulation could be good for the industry. Official standards would help ease suspicions about product quality, and a national law would be simpler to follow and perhaps less strict than the existing patchwork of state regulations.¹⁷⁷ Some also hoped that uniform federal requirements would ensure more regular trade and fairer competition across state borders.¹⁷⁸

Disagreements among these same food and drug interests, however, were a significant obstacle to reform. For example, opposing interests vigorously debated whether drug regulation should apply only to drugs recognized by the medical establishment or to patent medicines as well.¹⁷⁹ Likewise, a conflict over labeling requirements between pure whiskey interests and producers of cheaper “rectified” whiskey held up progress in the opening years of the twentieth century.¹⁸⁰ Rhetoric often tended toward the extreme. In the case of whiskey, rectifiers insisted that one ingredient in pure whiskey was “the worst poison on earth,” while the purists declared that their rivals’ products were worse than moonshine.¹⁸¹

Repeated Failures

Several promising food and drug bills emerged in the 1890s and early 1900s, but none ever passed both houses of Congress. The first to pass either house was Nebraska Senator Algernon Paddock’s 1892 bill, which made it illegal to knowingly traffic adulterated foods, mandated accurate labeling, and banned “injurious” ingredients.¹⁸² It passed the Senate, but food and drug interests in the House, fearing the constraints on adulteration, blocked discussion.¹⁸³ A slightly stronger version, which removed the “knowingly” caveat and called for specific food standards, made some headway in 1897 but was never voted on in either house.¹⁸⁴ No new bill would make it as far as Paddock’s did until the early 1900s, when the House twice passed similar bills by Iowa’s William Hepburn, only to see related proposals in the Senate die without votes.¹⁸⁵

New Urgency

The pure food movement eventually found a leader in Agriculture Department chief chemist Harvey Wiley. Wiley first attracted media attention at an 1899 Senate inquiry into food adulteration, where he reported that his investigations had shown the continued use of unlabeled adulterants, dyes, and preservatives in American foods. While he estimated that “scarcely 5 percent” of staple foods were adulterated, he asserted the need for accurate labeling and limitations on hazardous ingredients.¹⁸⁶ Wiley made news once again in 1904 with a new study concluding that preservatives in common food products were poisoning consumers. As his report gained national attention, Wiley assembled a coalition of food interests, scientists, and activists in support of a law.¹⁸⁷

As this initiative grew, pharmaceutical interests and progressive reformers attacked patent medicines with new gusto. The medical establishment criticized the patent medicines' lack of scientific merit and potential for fraud, while temperance reformers decried the use of addictive ingredients in medicines marketed as safe.¹⁸⁸ The progressive press translated these concerns into sensational narratives. The most significant anti-patent medicine piece came from muckraker Samuel Hopkins Adams, whose 1905 "The Great American Fraud" series warned that American drugs contained "huge quantities of alcohol, an appalling amount of opiates and narcotics, a wide assortment of varied drugs ranging from powerful and dangerous heart depressants to insidious liver stimulants; and, far in excess of all other ingredients, undiluted fraud."¹⁸⁹

In early 1906, the combination of *The Jungle*, "The Great American Fraud," and Harvey Wiley's official findings had pushed public demand for a food and drug law to new heights. Asked Idaho Senator Weldon Heyburn, "Has there ever been in the history of this country a more universal demand for action upon the part of Congress[?]"¹⁹⁰

Negotiations in 1906

Heyburn, who had proposed a food and drug bill in the Senate the previous year, submitted a new version in December 1905. Like all of the major food and drug bills before it, it had roots in Paddock's 1892 proposal, including adulteration and ingredient restrictions as well as labeling requirements, but in some ways it was weaker than its predecessors. Under Heyburn's new bill, the Agriculture Department would share enforcement and inspection duties with the Treasury and other departments, there was no specified way to set quality standards, and some violations would only be punishable if committed "knowingly," as in the Paddock bill.¹⁹¹ While it initially seemed that the bill would again die without debate, the Senate finally considered it in mid-February, just as *The Jungle* and the final installment in Adams's series appeared.¹⁹² In three busy days of debate, the Senate loaded the bill with concessions to food and drug interests, such as loosened labeling requirements for patent medicines and rectified whiskeys, before passing it.¹⁹³

The House began discussing a new version of William Hepburn's bill at about the same time, but took much longer to approve a final bill. Although it initially did not extend its reach to patent medicines, Hepburn's bill was stricter than the Senate's in several ways: enforcement and standard-setting would be concentrated in the Agriculture Department, there was (initially) no "knowingly" exception, and it included tighter liquor labeling requirements than its counterpart.¹⁹⁴ The House began discussing the bill in February, but whiskey rectifiers and preservatives interests put up so many impediments that by June, Harvey Wiley believed the bill had been "completely suffocated."¹⁹⁵ That same month, however, the public's clamor over the meat inspection bill breathed new life into the cause. As the debate progressed, supporters in the House made concessions to food and drug interests, though fewer than in the Senate, and the bill as amended became considerably tougher on patent medicines. The revised bill finally passed the House on June 23, 1906.¹⁹⁶

By June 27, House and Senate leaders had reconciled the two bills into a compromise measure. Because Senate negotiators refused to allow the Secretary of Agriculture to set standards, such power was placed in the courts, and the compromise bill used a narrower definition of medicine than the House bill. The stricter House version prevailed in other ways, however, with the compromise providing fewer concessions to whiskey rectifiers and stronger regulation of drugs than the Senate bill. Curiously, although the final versions from both the House and Senate had only made it a crime if someone "knowingly" sold adulterated products, this crucial modifier was dropped from the reconciliation bill. Both houses passed the new bill on June 29, and it arrived on President Roosevelt's desk the next day.¹⁹⁷

Appendix II: Excerpts from “The Theory of Economic Regulation,” by George J. Stigler (1971)^b

The central tasks of the theory of economic regulation are to explain who will receive the benefits or burdens of regulation, what form regulation will take, and the effects of regulation upon the allocation of resources.

Regulation may be actively sought by an industry, or it may be thrust upon it. A central thesis of this paper is that, as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefit...

The state has one basic resource which in pure principle is not shared with even the mightiest of its citizens: the power to coerce. The state can seize money by the only method which is permitted by the laws of a civilized society, by taxation. The state can ordain the physical movements of resources and the economic decisions of households and firms without their consent. These powers provide the possibilities for the utilization of the state by an industry to increase its profitability...

The most obvious contribution that a group may seek of the government is a direct subsidy of money... We have already sketched the main explanation for the fact that an industry with power to obtain governmental favors usually does not use this power to get money: unless the list of beneficiaries can be limited by an acceptable device, whatever amount of subsidies the industry can obtain will be dissipated among a growing number of rivals...

The second major public resource commonly sought by an industry is control over entry by new rivals...

The diligence with which the power of control over entry will be exercised by a regulatory body is already well known. The Civil Aeronautics Board has not allowed a single new trunk line to be launched since it was created in 1938. The power to insure new banks has been used by the Federal Deposit Insurance Corporation to reduce the rate of entry into commercial banking by 60 percent. The interstate motor carrier history is in some respects even more striking, because no even ostensibly respectable case for restriction on entry can be developed on grounds of scale economies (which are in turn adduced to limit entry for safety or economy of operation). ...

We propose the general hypothesis: every industry or occupation that has enough political power to utilize the state will seek to control entry. In addition, the regulatory policy will often be so fashioned as to retard the rate of growth of new firms. For example, no new savings and loan company may pay a dividend rate higher than that prevailing in the community in its endeavors to attract deposit. The power to limit selling expenses of mutual funds, which is soon to be conferred upon the Securities and Exchange Commission, will serve to limit the growth of small mutual funds and hence reduce the sales costs of large funds. ...

A third general set of powers of the state which will be sought by the industry are those which affect substitutes and complements. Crudely put, the butter producers wish to suppress margarine and encourage the production of bread...

^b George J. Stigler, “The Theory of Economic Regulation,” *The Bell Journal of Economics and Management Science*, Spring 1971, Vol. 2, No. 1, pp. 3-21.

The fourth class of public policies sought by an industry is directed to price-fixing. Even the industry that has achieved entry control will often want price controls administered by a body with coercive powers...

When an industry receives a grant of power from the state, the benefit to the industry will fall short of the damage to the rest of the community. [H]owever, one might expect a democratic society to reject such industry requests unless the industry controlled a majority of the votes. A direct and informed vote on oil import quotas would reject the scheme. ... To explain why many industries are able to employ the political machinery to their own ends, we must examine the nature of the political process in a democracy.

A consumer chooses between rail and air travel, for example, by voting with his pocketbook: he patronizes on a given day that mode of transportation he prefers. A similar form of economic voting occurs with decisions on where to work or where to invest one's capital. The market accumulates these economic votes, predicts their future course, and invests accordingly.

Because the political decision is coercive, the decision process is fundamentally different from that of the market... The costs of comprehensive information are higher in the political arena because information must be sought on many issues of little or no direct concern to the individual, and accordingly he will know little about most matters before the legislature. The expressions of preferences in voting will be less precise than the expressions of preferences in the marketplace because many uninformed people will be voting and affecting the decision.

The channels of political decision-making can thus be described as gross or filtered or noisy. If everyone has a negligible preference for policy A over B, the preference will not be discovered or acted upon. If voter group X wants a policy that injures non-X by a small amount, it will not pay non-X to discover this and act against the policy. The system is calculated to implement all strongly felt preferences of majorities and many strongly felt preferences of minorities but to disregard the lesser preferences of majorities and minorities. The filtering or grossness will be reduced by any reduction in the cost to the citizen of acquiring information and expressing desires and by any increase in the probability that his vote will influence policy.

The industry which seeks political power must go to the appropriate seller, the political party... The industry which seeks regulation must be prepared to pay with the two things a party needs: votes and resources. The resources may be provided by campaign contributions, contributed services (the businessman heads a fund-raising committee), and more indirect methods such as the employment of party workers. ...

The idealistic view of public regulation is deeply imbedded in professional economic thought. So many economists, for example, have denounced the ICC for its pro-railroad policies that this has become a cliché of the literature. This criticism seems to me exactly as appropriate as a criticism of the Great Atlantic and Pacific Tea Company for selling groceries...

Until the basic logic of political life is developed, reformers will be ill-equipped to use the state for their reforms, and victims of the pervasive use of the state's support will be helpless to protect themselves. Economists should quickly establish the license to practice on a rational theory of political behavior.

Endnotes

¹ Quoted in James Harvey Young, *Pure Food* (Princeton: Princeton University Press, 1989), p. 242.

² Address of President Roosevelt at the Laying of the Corner Stone of the Office Building of the House of Representatives, Saturday, April 14, 1906 ("The Man with the Muck-Rake"), available at <http://voicesofdemocracy.umd.edu/theodore-roosevelt-the-man-with-the-muck-rake-speech-text/>.

³ Quoted in Young, *Pure Food*, p. 251.

⁴ Upton Sinclair, "What Life Means to Me," in *The Jungle*, ed. Clare Virginia Eby (New York: W. W. Norton & Company, 2003), p. 351. He also wrote: "I do not eat much meat myself, and my general attitude toward the matter was one of indifference; I was of the opinion (and still am of the opinion) that any man who takes into his stomach food which has been prepared under the direction of unscrupulous commercial pirates such as the Chicago packers, deserves all the poisoning he gets."

⁵ Mary Yeager, *Competition and Regulation: The Development of Oligopoly in the Meat Packing Industry* (Greenwich, CT: JAI Press, 1981), pp. 12-13.

⁶ Yeager, *Competition and Regulation*, p. 14.

⁷ Yeager, *Competition and Regulation*, pp. 49-50.

⁸ Yeager, *Competition and Regulation*, p. 69. In 1880, trains out of Chicago carried 416,204 tons of livestock and only 30,705 tons of dressed beef. By 1885, demand had shifted so much that the trains that year carried 281,022 tons of livestock (a 34% decrease over 5 years) and 231,634 tons dressed beef (a 654% expansion). These numbers come from an 1886 Dept. of Agriculture report. Note that on p. 98, Yeager lists dressed beef's 1885 proportion at 51.5%, according to *Railroad Gazette*.

⁹ Gary D. Libecap, "The Rise of the Chicago Packers and the Origins of Meat Inspection and Antitrust," *Economic Inquiry*, April 1992, Vol. XXX, p. 247. The average price for a pound of beef tenderloin dropped from 27.5 cents to 16.75 cents between 1883 and 1889 (Yeager 70). Available at http://www.colorado.edu/ibs/eb/alston/econ8534/SectionIX/Libecap_The_Rise_of_the_Chicago_Packers_and_the_Origins_of_Meat_Inspection_and_Antitrust.pdf.

¹⁰ Yeager, *Competition and Regulation*, pp. 58-64.

¹¹ Yeager, *Competition and Regulation*, pp. 50, 112.

¹² Jimmy M. Skaggs, *Prime Cut* (College Station: Texas A&M University Press, 1986), pp. 108-110. Quote from A. M. Simmons's *Packingtown* on p. 110.

¹³ Yeager, *Competition and Regulation*, pp. 60, 88. In fact, the railroads' unwillingness to build refrigerator cars had been the spark that had inspired Swift to incorporate car construction into his firm and later pursue further vertical integration (p. 50).

¹⁴ Yeager, *Competition and Regulation*, p. 88.

¹⁵ Yeager, *Competition and Regulation*, p. 95.

¹⁶ Yeager, *Competition and Regulation*, pp. 88-90, 96-98.

¹⁷ Yeager, *Competition and Regulation*, pp. 27-28. Fixed costs typically added up to over 60% of a railroad's budget.

¹⁸ Gabriel Kolko, *Railroads and Regulation 1877-1916* (New York: W. W. Norton & Company, 1965), pp. 7-8.

¹⁹ Yeager, *Competition and Regulation*, pp. 31, 98-99 and Kolko, *Railroads and Regulation*, pp. 17-20.

²⁰ Quoted in Kolko, *Railroads and Regulation*, p. 27.

²¹ Yeager, *Competition and Regulation*, p. 101 and Kolko, *Railroads and Regulation*, pp. 26-27.

²² Chicago businessman quoted in Edward A. Purcell, Jr., "Ideas and Interests: Businessmen and the Interstate Commerce Act," *The Journal of American History*, December 1967, Vol. 54, No. 3, p. 567. Available via JSTOR at <http://www.jstor.org/stable/2937407>.

²³ Herbert Hovencamp, "Regulatory Conflict in the Gilded Age: Federalism and the Railroad Problem," in *The Yale Law Journal*, May 1988, Vol. 97, No. 6, pp. 1046-1050. Quote on 1050. Hovencamp offers some potential economic justifications for this practice. Available via JSTOR at <http://www.jstor.org/stable/796340>.

²⁴ Purcell, "Ideas and Interests," p. 562.

²⁵ Yeager, *Competition and Regulation*, pp. 100-101.

²⁶ Simon Sterne, of the Board of Trade and Transportation of New York, in *Report of the Senate Select Committee on Interstate Commerce* (Washington: Government Printing Office, 1886), p. 76.

²⁷ Gabriel Kolko, in *Railroads and Regulation*, asserts that the railroads were the primary force behind the ICA. Lee Benson, in *Merchants, Farmers, and Railroads* (Cambridge: Harvard University Press, 1955), posits that it was the New York merchant class. Edward Purcell in *Ideas and Interests* focuses on "businessmen" in general. Mary Yeager's brief account in *Competition and Regulation* focuses on the role of livestock and dressed beef shippers (pp. 100-102).

²⁸ Kolko, *Railroads and Regulation*, p. 34.

²⁹ See Kolko, *Railroads and Regulation*, pp. 20-36.

³⁰ Thomas W. Gilligan, William J. Marshall, and Barry R. Weingast, "Regulation and the Theory of Legislative Choice: The Interstate Commerce Act of 1887," *Journal of Law and Economics*, April 1989, Vol. 32, No. 1, pp. 44-49. Available via JSTOR at <http://www.jstor.org/stable/725379>.

³¹ Richard Olney, quoted in John P. Roche, "Entrepreneurial Liberty and the Commerce Power: Expansion, Contraction, and Casuistry in the Age of Enterprise," *The University of Chicago Law Review*, Summer 1963, Vol. 30, No. 4, p. 686. Available via JSTOR at <http://www.jstor.org/stable/1598758>.

³² Kolko, *Railroads and Regulation*, pp. 43-44.

³³ Kolko, *Railroads and Regulation*, p. 44.

³⁴ Yeager, *Competition and Regulation*, p. 101.

³⁵ Historians disagree about the position of the railroads on the Interstate Commerce Act. For example, Gabriel Kolko asserts that most railroads approved of the legislation (*Railroads and Regulation*, p. 45), while Edward A. Purcell calls this conclusion "quite doubtful" ("Ideas and Interests," p. 576).

³⁶ 22 January 1887 issue quoted in Purcell, "Ideas and Interests," p. 577.

³⁷ Kolko, *Railroads and Regulation*, pp. 46-47.

³⁸ Union Pacific railroad president Charles Francis Adams, Jr., quoted in Kolko, *Railroads and Regulation*, p. 37.

³⁹ See Tim Innes, "Speech on the life of Thomas McIntyre Cooley," Thomas M. Cooley Law School, 2008 Biennial Reunion of The Cooley Family Association of America, Ann Arbor, Michigan, August 2, 2008 (www.cooleyfamilyassociation.com/CooleyThomasMcIntyre.pdf).

⁴⁰ Kolko, *Railroads and Regulation*, pp. 51-56. From 1890 to 1900, the ICC decided only 180 cases out of several thousand presented.

⁴¹ Kolko, *Railroads and Regulation*, p. 68.

⁴² Kolko, *Railroads and Regulation*, p. 53.

⁴³ Kolko, *Railroads and Regulation*, p. 57.

⁴⁴ Kolko, *Railroads and Regulation*, pp. 62-64, 88. Congress would not legalize railroad pooling until the Transportation Act of 1920 (p. 229).

⁴⁵ Kolko, *Railroads and Regulation*, pp. 87-88, 117.

⁴⁶ Yeager, *Competition and Regulation*, p. 102-104.

⁴⁷ Yeager, *Competition and Regulation*, p. 103-104. Quote from Railroad Gazette.

⁴⁸ Yeager, *Competition and Regulation*, pp. 111-113.

⁴⁹ Skaggs, *Prime Cut*, p. 108. Missouri representative Richard Bland quoted in Libecap, "The Rise of the Chicago Packers," p. 258.

- ⁵⁰ Libecap, "The Rise of the Chicago Packers," p. 248. (\$28.71 per head in 1885 to \$20.67% in 1890, real prices)
- ⁵¹ Libecap, "The Rise of the Chicago Packers," p. 253. Quote from George Beck in U. S. Congress, *Testimony taken by the Select Committee of the United States Senate on the Transportation and Sale of Meat Products*, (Washington, Government Printing Office, 1889), p. 133.
- ⁵² Yeager, *Competition and Regulation*, pp. 173-175.
- ⁵³ U. S. Congress, *Testimony on Meat Products*, p. 426, and Yeager, *Competition and Regulation*, p. 175.
- ⁵⁴ Quoted in Yeager, *Competition and Regulation*, p. 173.
- ⁵⁵ Quote from 1873 Illinois Farmers' Convention, quoted in William Letwin, *Law and Economic Policy in America* (Edinburgh: Edinburgh University Press, 1966), p. 67. See also Letwin, p. 69-70; Libecap, "The Rise of the Chicago Packers," p. 256.
- ⁵⁶ Libecap, "The Rise of the Chicago Packers," p. 256.
- ⁵⁷ Railroader Charles Francis Adams, quoted in Letwin, *Law and Economic Policy in America*, p. 55.
- ⁵⁸ Yeager, *Competition and Regulation*, pp. 135-136.
- ⁵⁹ Letwin, *Law and Economic Policy in America*, p. 55.
- ⁶⁰ Letwin, *Law and Economic Policy in America*, p. 96.
- ⁶¹ Quoted in Letwin, *Law and Economic Policy in America*, p. 97.
- ⁶² Letwin, *Law and Economic Policy in America*, p. 54.
- ⁶³ Quoted in Letwin, *Law and Economic Policy in America*, pp. 96-97.
- ⁶⁴ Quoted in Letwin, *Law and Economic Policy in America*, p. 96.
- ⁶⁵ Letwin, *Law and Economic Policy in America*, p. 100.
- ⁶⁶ Letwin, *Law and Economic Policy in America*, p. 103.
- ⁶⁷ Quoted in Letwin, *Law and Economic Policy in America*, p. 119.
- ⁶⁸ Letwin, *Law and Economic Policy in America*, pp. 120-123.
- ⁶⁹ Yeager, *Competition and Regulation*, p. 180.
- ⁷⁰ Yeager, *Competition and Regulation*, p. 177.
- ⁷¹ See Yeager, *Competition and Regulation*, Chapter V.
- ⁷² Yeager, *Competition and Regulation*, p. 135. The case, *U.S. vs. Addyston Pipe & Steel Co.*, targeted an iron manufacturing pool, not the packers, but decisively banned their particular pooling methods (See Yeager 160, endnote 1).
- ⁷³ U. S. Congress, *Testimony on Meat Products*, p. 150.
- ⁷⁴ Libecap, "The Rise of the Chicago Packers," pp. 252-253.
- ⁷⁵ Libecap, "The Rise of the Chicago Packers," p. 250.
- ⁷⁶ Young, *Pure Food*, p. 130-132. Trichinosis may not have been the Europeans' only concern: scholars maintain that German pork interests worried about American competition may have contributed to that nation's embargo policy (Libecap, "The Rise of the Chicago Packers," p. 251).
- ⁷⁷ Libecap, "The Rise of the Chicago Packers," p. 251. Exports in 1881 were \$14,304,000; 1883 exports were \$8,342,000.
- ⁷⁸ Young, *Pure Food*, p. 133 and John Braeman, "The Square Deal in Action," in John Braeman, Robert H. Bremner, and Everett Walters (eds.), *Change and Continuity in Twentieth-Century America* (Ohio State University Press, 1964), p. 50. The 1890 and 1891 acts are reprinted in U.S. Bureau of Animal Husbandry, *Twenty-Third Annual Report of the Bureau of Animal Husbandry for the Year 1906* (Washington: Government Printing Office, 1906), pp. 438-439. Available via Google Books at <http://books.google.com/books?id=elcdAQAAIAAJ>.

⁷⁹ Libecap, "The Rise of the Chicago Packers," p. 255.

⁸⁰ Young, *Pure Food*, pp. 132-133.

⁸¹ Quoted in Young, *Pure Food*, p. 136.

⁸² Young, *Pure Food*, pp. 136-139.

⁸³ Young, *Pure Food*, pp. 137-139.

⁸⁴ Young, *Pure Food*, pp. 9, 31-32.

⁸⁵ Pure food activist George Angell, quoted in Young, *Pure Food*, p. 47.

⁸⁶ Oliver Wendell Holmes, *Medical Essays, 1842-1882* quoted in Young, *Pure Food*, p. 19.

⁸⁷ *American Grocer* trade journal, quoted in Young, *Pure Food*, p. 49.

⁸⁸ National Board of Trade, quoted in Young, *Pure Food*, p. 55.

⁸⁹ Robert C. Alberts, *The Good Provider: H. J. Heinz and His 57 Varieties* quoted in Donna J. Wood, "The Strategic Use of Public Policy," *The Business History Review*, Autumn 1985, Vol. 59, No. 3, p. 420. Available via JSTOR at <http://www.jstor.org/stable/3114005>.

⁹⁰ Young, *Pure Food*, p. 73.

⁹¹ Young, *Pure Food*, pp. 83-85. Quotes from from Albert Hopkins and MN congressman Milo White on pp. 83 and 85.

⁹² Young, *Pure Food*, p. 86.

⁹³ Young, *Pure Food*, pp. 89-91. Quote by Texas Senator Richard Coke on p. 89. In 1904, the Supreme Court decided in *McCray v. U.S.* that this tax and a 1902 expansion were legal. "[E]ven in a case where, to the judicial mind, it seems that Congress had, in putting such power in motion, abused its lawful authority by levying a tax which was unwise or oppressive ... Congress may select the objects upon which the tax shall be levied, and, in exerting the power, no want of due process of law can possibly result, and the judiciary cannot usurp the functions of the legislature in order to control that branch of the Government in exercising its lawful functions." See <http://supreme.justia.com/cases/federal/us/195/27/case.html>.

⁹⁴ Wood, "The Strategic Use of Public Policy," p. 409, and Young, *Pure Food*, p. 119.

⁹⁵ Wood, "The Strategic Use of Public Policy," p. 410.

⁹⁶ Young, *Pure Food*, p. 26.

⁹⁷ Mark T. Law and Gary D. Libecap, "The Determinants of Progressive Era Reform: The Pure Food and Drugs Act of 1906," in *Corruption and Reform: Lessons from America's Economic History*, National Bureau of Economic Research, March 2006, p. 330. Available at <http://www.nber.org/chapters/c9989.pdf>.

⁹⁸ Quoted in Young, *Pure Food*, p. 99.

⁹⁹ Young, *Pure Food*, p. 50.

¹⁰⁰ Young, *Pure Food*, pp. 195, 201.

¹⁰¹ Charles Edward Russell, *The Greatest Trust in the World* (New York: The Ridgeway-Thayer Company, 1905), pp. 251-252. Available at babel.hathitrust.org/cgi/pt?id=mdp.39015030434685.

¹⁰² Arthur S. Link and Richard L. McCormick, *Progressivism* (Arlington Heights, IL: Harlan Davidson, 1983), pp. 11-15, 29, 54-55.

¹⁰³ Edwin Emery and Henry Ladd Smith, *The Press and America* (New York: Prentice-Hall, 1954), pp. 457, 459.

¹⁰⁴ Emery and Smith, *The Press and America*, pp. 402-405.

¹⁰⁵ Emery and Smith, *The Press and America*, pp. 475-477.

¹⁰⁶ David M. Chalmers, "The Muckrakers and the Growth of Corporate Power: A Study in Productive Journalism," *American Journal of Economics and Sociology*, April 1959, Vol. 18, No. 3, p. 297. Available via JSTOR at <http://www.jstor.org/stable/3484760>.

- ¹⁰⁷ David Graham Phillips, *The Treason of the Senate*, ed. George E. Mowry (Chicago: Quadrangle Books, 1964), p. 59.
- ¹⁰⁸ Phillips, *The Treason of the Senate*, p. 191.
- ¹⁰⁹ Phillips, *The Treason of the Senate*, p. 59.
- ¹¹⁰ First quote from F. Hopkinson Smith in Phillips, *The Treason of the Senate*, p. 38 (editor's introduction), and Fred J. Cook, *The Muckrakers* (Garden City, NY: Doubleday & Company, 1972), p. 171.
- ¹¹¹ Quoted in Cook, *The Muckrakers*, p. 10.
- ¹¹² George Mowry, quoted in Chalmers, "The Muckrakers and the Growth of Corporate Power," p. 297.
- ¹¹³ See e.g. Anthony Arthur, *Radical Innocent: Upton Sinclair* (New York: Random House, 2006), pp. 72-75.
- ¹¹⁴ Sinclair claimed that beginning in 1896 he experienced visions in which he saw fictional characters and famous authors (such as Hamlet, Don Quixote, and Percy Shelley) celebrating at a campfire. He interpreted this as a sign of his potential to be a great writer (William A. Bloodworth, Jr., *Upton Sinclair* (Boston: Twayne Publishers, 1977), p. 24).
- ¹¹⁵ Bloodworth, *Upton Sinclair*, pp. 15-31.
- ¹¹⁶ Sinclair's *Autobiography* quoted in Bloodworth, *Upton Sinclair*, p. 38.
- ¹¹⁷ Bloodworth, *Upton Sinclair*, pp. 32-39.
- ¹¹⁸ Skaggs, *Prime Cut*, pp. 115-116. Between 1904 and 1914, Amalgamated's membership declined from 56,000 to under 6,000.
- ¹¹⁹ Article in 11 February 1905 *Appeal to Reason* quoted in Bloodworth, *Upton Sinclair*, p. 48.
- ¹²⁰ Bloodworth, *Upton Sinclair*, pp. 44-48.
- ¹²¹ Young, *Pure Food*, p. 224.
- ¹²² Sinclair, *The Jungle*, p. 97.
- ¹²³ Sinclair, *The Jungle*, p. 328.
- ¹²⁴ Isaac Marcossan, *Adventures in Interviewing* quoted in Skaggs, *Prime Cut*, p. 119.
- ¹²⁵ Young, *Pure Food*, pp. 224, 229-320.
- ¹²⁶ James West Davidson and Mark Hamilton Lytle, *After the Fact: The Art of Historical Detection* (New York: McGraw-Hill, 1992), p. 213.
- ¹²⁷ Yeager, *Competition and Regulation*, p. 199.
- ¹²⁸ J. Ogden Armour, *The Packers, the Private Car Lines, and the People* (Philadelphia: Henry Altamus Company, 1906), pp. 61 and 62. Emphasis in original. Available via Google Books at <http://books.google.com/books?id=s56Qft1bvOwC>.
- ¹²⁹ Armour, *The Packers, the Private Car Lines, and the People*, p. 364.
- ¹³⁰ Yeager, *Competition and Regulation*, pp. 136-138.
- ¹³¹ Yeager, *Competition and Regulation*, pp. 111-128.
- ¹³² Yeager, *Competition and Regulation*, p. 181-184.
- ¹³³ Yeager, *Competition and Regulation*, pp. 140-155.
- ¹³⁴ Theodore Roosevelt, *Presidential Addresses and State Papers* (New York: The Review of Reviews Company, 1910), Vol. 13, p. 103. Available via Google Books at http://books.google.com/books?id=_zwOAAAAIAAJ.
- ¹³⁵ Quoted in Yeager, *Competition and Regulation*, p. 185.
- ¹³⁶ Young, *Pure Food*, p. 138.
- ¹³⁷ Quoted in Yeager, *Competition and Regulation*, p. 186.

¹³⁸ Yeager, *Competition and Regulation*, pp. 186-188. Congress had, at Roosevelt's request, created the Bureau of Corporations within the Department of Labor and Commerce in 1903 to be an "agency of publicity" for his antitrust efforts (Yeager, 186).

¹³⁹ The report is cited in Francis Walker, "The 'Beef Trust' and the United States Government," *The Economic Journal*, December 1906, Vol. 16, No. 64, p. 501. Available via JSTOR at <http://www.jstor.org/stable/2221472>.

¹⁴⁰ Yeager, *Competition and Regulation*, pp. 187-188.

¹⁴¹ Quotes from Yeager, *Competition and Regulation*, p. 188.

¹⁴² Yeager, *Competition and Regulation*, pp. 184, 189.

¹⁴³ Davidson and Lytle, *After the Fact*, p. 214

¹⁴⁴ Young, *Pure Food*, pp. 232-233. They had intended for the Neill-Reynolds investigation to be "undercover," but Young notes that the Chicago press reported on their arrival and that they were escorted throughout by packing representatives (p. 234).

¹⁴⁵ Quoted in Yeager, *Competition and Regulation*, p. 199 and Young, *Pure Food*, p. 232.

¹⁴⁶ Quoted in Yeager, *Competition and Regulation*, p. 200.

¹⁴⁷ Yeager, *Competition and Regulation*, p. 202.

¹⁴⁸ Louis Swift, quoted in Yeager, *Competition and Regulation*, p. 201. Livestock interests mentioned on p. 203.

¹⁴⁹ Davidson and Lytle, *After the Fact*, p. 214.

¹⁵⁰ Cook, *The Muckrakers*, p. 155.

¹⁵¹ Young, *Pure Food*, pp. 236-237. Beveridge's proposal had to be an amendment, not a bill, because inspection fees qualified as a form of revenue, and only the House can introduce revenue-related bills (Davidson and Lytle 215). The amendment is reprinted in House of Representatives Committee on Agriculture, *Hearings Before the Committee on Agriculture on the So-called "Beveridge Amendment" to the Agricultural Appropriation Bill (H.R. 18537) as Passed by the Senate May 25, 1906 – to which are Added Various Documents Bearing upon the "Beveridge Amendment"* (Washington: Government Printing Office, 1906), pp. 351-356. Available via Google Books at <http://books.google.com/books?id=xGU-AAAAYAAJ>.

¹⁵² Quoted in Yeager, *Competition and Regulation*, p. 201 and Young, *Pure Food*, p. 237.

¹⁵³ Yeager, *Competition and Regulation*, p. 202.

¹⁵⁴ Thomas Wilson quoted in Young, *Pure Food*, pp. 242-243.

¹⁵⁵ Davidson and Lytle, *After the Fact*, p. 217.

¹⁵⁶ Young, *Pure Food*, p. 238 and Braeman, "The Square Deal in Action," p. 59. Quote from Thomas Wilson on Young p. 238.

¹⁵⁷ Quoted in Davidson and Lytle, *After the Fact*, p. 216.

¹⁵⁸ Young, *Pure Food*, pp. 240-241.

¹⁵⁹ Young, *Pure Food*, pp. 242-243.

¹⁶⁰ Davidson and Lytle, *After the Fact*, p. 218. Quote in Young, *Pure Food*, p. 241.

¹⁶¹ Young, *Pure Food*, pp. 240-241.

¹⁶² The hearing transcripts are contained in Hearings Before the Committee on Agriculture on the So-called "Beveridge Amendment."

¹⁶³ Davidson and Lytle, *After the Fact*, p. 219.

¹⁶⁴ Thomas Wilson, quoted in Davidson and Lytle, *After the Fact*, p. 219.

¹⁶⁵ Charles S. Charton, quoted in Yeager, *Competition and Regulation*, p. 207.

¹⁶⁶ Davidson and Lytle, *After the Fact*, p. 219.

¹⁶⁷ Quoted in Young, *Pure Food*, p. 245.

¹⁶⁸ Sydney Johnston Bowie (AL), quoted in Young, *Pure Food*, p. 245.

¹⁶⁹ Davidson and Lytle, *After the Fact*, p. 219. This version is reprinted in Hearings Before the Committee on Agriculture on the So-called "Beveridge Amendment," pp. 357-361.

¹⁷⁰ Braeman, "The Square Deal in Action," pp. 67-68.

¹⁷¹ Quoted in Davidson and Lytle, *After the Fact*, p. 219.

¹⁷² Davidson and Lytle, *After the Fact*, p. 221-222 and Braeman, "The Square Deal in Action," pp. 69-70.

¹⁷³ Davidson and Lytle, *After the Fact*, p. 221 and Braeman, "The Square Deal in Action," p. 70.

¹⁷⁴ Braeman, "The Square Deal in Action," pp. 70-72. Provisions of this version are reprinted in William L. Snyder, *The Interstate Commerce Act and Anti-Trust Laws* (New York: Baker, Voorhis & Company, 1906), pp. 144-152. Available via Google Books at <http://books.google.com/books?vid=HARVARD:HL4NYK>.

¹⁷⁵ John Braeman, *Albert J. Beveridge* (Chicago: The University of Chicago Press, 1971), pp. 107-108.

¹⁷⁶ Letter to Beveridge of 30 June 1906, quoted in Young, *Pure Food*, p. 247. The letter was written after the June 18 decision point of this case.

¹⁷⁷ Wood, "The Strategic Use of Public Policy," p. 414 and Law and Libecap, "The Determinants of Progressive Era Reform," p. 322.

¹⁷⁸ See, for example, Wood, "The Strategic Use of Public Policy," pp. 417-418.

¹⁷⁹ Young, *Pure Food*, pp. 168-169. The "medical establishment" standard would have covered all drugs included in the *Pharmacopoeia of the United States*, a reference written and regularly updated by a board of medical professionals.

¹⁸⁰ Law and Libecap, "The Determinants of Progressive Era Reform," p. 329.

¹⁸¹ Quoted in Young, *Pure Food*, p. 167.

¹⁸² Quoted in Oscar E. Anderson, *The Health of a Nation* (Chicago: University of Chicago Press, 1958), p. 78.

¹⁸³ Anderson, *Health of a Nation*, pp. 79-80.

¹⁸⁴ Anderson, *Health of a Nation*, pp. 122-127.

¹⁸⁵ Young, *Pure Food*, p. 99 and Anderson, *Health of a Nation*, pp. 137, 144-145, 160, 167.

¹⁸⁶ Quoted in Young, *Pure Food*, p. 141.

¹⁸⁷ Young, *Pure Food*, pp. 174-184.

¹⁸⁸ Young, *Pure Food*, p. 155 and Wood, "The Strategic Use of Public Policy," pp. 410-411.

¹⁸⁹ Quoted in Marc T. Law and Gary D. Libecap, "Corruption and Reform? The Emergence of the 1906 Pure Food and Drug Act and the 1906 Meat Inspection Act," *ICER Working Paper Series*, 2003, No. 20, p. 24.

¹⁹⁰ Quoted in Young, *Pure Food*, p. 205.

¹⁹¹ Anderson, *Health of a Nation*, pp. 173-174, 261 and Young, *Pure Food*, p. 256. Harvey Wiley worried that the "knowingly" exception would be exploited to make the new law "practically inoperative." (Anderson p. 174)

¹⁹² Young, *Pure Food*, p. 204.

¹⁹³ Young, *Pure Food*, pp. 208-209.

¹⁹⁴ Anderson, *Health of a Nation*, p. 182.

¹⁹⁵ Quoted in Young, *Pure Food*, p. 220.

¹⁹⁶ Young, *Pure Food*, pp. 253-260.

¹⁹⁷ Anderson, *Health of a Nation*, p. 194 and Young, *Pure Food*, pp. 261-262.