

Organizing Information about the Modern Oil Industry in the Formative Years of the American Petroleum Institute

Joseph A. Pratt
University of California, Berkeley

Amid the oil crises of the 1970s, information about the American petroleum industry has become a vital and often controversial public concern. At the center of much of this controversy has been the American Petroleum Institute (API), the major trade association of the oil industry. One central function of the API since its founding in 1919 has been the collection and dissemination of statistics about the production, refining, transporting, and marketing of petroleum and its products.¹ The harshest critics of the API have cited the use of its statistics by government agencies as evidence of the efforts of "Big Oil" to capture these agencies, thereby subverting the workings of the democratic process.² An examination of the API's historical emergence as an important source of information about the oil industry places its current activities in a less glaring light. In its formative years after World War I, the API used its considerable organizational resources to generate a wide array of statistics about the oil industry that had not previously been available in a comprehensive and timely fashion. During the same period, several understaffed and underfunded government agencies that had previously begun to collect such information came to rely on the API's expanding statistical services instead of further developing their own capacities in this area. In its formative years in the 1920s, the API thus established a tradition of cooperation with government agencies in compiling statistics on the petroleum industry, and this tradition caused little concern until uncertainties about the supply of oil in the 1970s focused political attention on the API's role as a primary source of information about oil.

THE MOBILIZATION OF INFORMATION ABOUT OIL DURING WORLD WAR I

Before World War I, neither the oil industry or the government had access to systematic, reliable information about the operations of the industry as a whole. For the most part, Standard Oil

gathered statistics about its own vast business, and its smaller competitors developed separate sources of information about those aspects of the industry that most directly affected their operations. Several "independent" oil trade journals -- most notably the *National Petroleum News* -- regularly published statistics on the production of particular oil fields, but no one in the industry except Standard Oil routinely gathered information about national trends in production and consumption of petroleum and its products. The United States Geological Survey (USGS) released annual estimates of crude oil production, but more detailed or more frequent statistics on oil production were not available from the USGS or from any other public agency.³ No other branch of the industry, including refining, was regularly surveyed by the government. In fact, the primary public sources of information about the oil industry before World War I were the transcripts of the numerous court cases involving Standard Oil after the turn of the century and the various government investigations of the industry spawned by these cases. The most far-reaching such investigation was a national survey of conditions in the oil industry conducted by the Bureau of Corporations in 1905-1907, but it did not result in the creation of an ongoing organization capable of regularly updating the initial survey.⁴ The Supreme Court's dissolution of Standard Oil into 37 separate companies in 1911 fragmented the one institution in the political economy capable of generating detailed statistics about most aspects of the overall operations of the oil industry.

The resulting void of reliable information about the production, refining, and transportation of petroleum products became a pressing concern with the onset of World War I. The mobilization effort in the oil industry began with a joint study by the Bureau of Mines and the USGS of the industry's ability to meet the growing demands generated by the Allies' reliance on American oil. In completing their survey, the two agencies relied primarily on their own underdeveloped statistical capacities to collect information about the operations of the petroleum industry. The USGS had long published an annual survey of crude oil production in its general series on the mineral resources of the United States, but its method for computing estimates of oil production and its lack of records on drilling operations limited the usefulness of the survey for war-planning purposes.⁵ At the time of the joint study, the Petroleum Division of the Bureau of Mines had only recently begun to compile monthly statistics on petroleum refining, and it faced the difficult task of developing this new function while fulfilling its special wartime duties. The joint study by the USGS and the Bureau of Mines revealed the inadequacies of the existing network for the collection of information about the industry. Statistics produced by these two government agencies in their normal operations did not cover

most aspects of the industries, they were not even thorough in their treatment of crude production, and they were not available quickly enough to be of much use in meeting the pressing demands of wartime coordination.⁶

The need for better information about the supply of petroleum products became more pronounced after the United States entered the war, and efforts to fill this need came to rely increasingly on the voluntary cooperation of the industry. The Petroleum Advisory Committee to the Council of National Defense initially helped government policymakers direct the industry's war efforts. After the creation of the Fuel Administration in 1918, the renamed National Petroleum War Service Committee (NPWSC) continued to supply information and guidance to the director of the Oil Division, Mark Requa. The NPWSC developed a complex system of advisory committees organized both by function and by region under the overall direction of a Central Committee headed by A. C. Bedford, the president of Standard Oil of New Jersey. Through this committee system, the Fuel Administration could quickly reach down into the oil industry for expertise and for the essential information needed to govern the flow of petroleum products to European battlefields. During the war, the oil industry largely governed itself through its advisory committees to the Fuel Administration.⁷

Yet fragmented as it had been before the war, the industry needed guidance in producing comprehensive statistics on the national flow of crude oil and refined petroleum products. Such guidance came from Frank Silsbee, who was appointed chief statistician for the Oil Division of the Fuel Administration in February of 1918. In asking Silsbee's employer, Union Oil of California, for the temporary use of his services, Mark Requa requested that Silsbee

consult on [the] subject of consolidated oil statistics with [a] view of establishing some basis of reconciliation of [the] various figures now published.... Since [the] dissolution of Standard, these figures have not been kept.⁸

Once he started his work with the Fuel Administration, Silsbee confronted what he later described as "the non-existence in Washington of competent and coordinated petroleum statistics." He quickly concluded that no government agency could fill this void, and he turned instead to the NPWSC. In his own words, Silsbee sought "to give the National Petroleum War Service Committee the benefit of our direction in organizing on a nationwide scale statistics on petroleum," and he estimated that approximately 500 employees of the private oil companies were engaged in preparing detailed reports for his use. When the head of the Mineral Resources Division of the USGS complained that his division should have been used to supply this information,

Silsbee responded that he examined the statistical services of the USGS and found them wanting before turning to the NPWSC. He argued further that nothing done by the Fuel Administration had undermined the position of the USGS, and he concluded with a strong assertion that he sought to keep the war effort separate from the ongoing functions of existing government agencies:

Recognizing the point of the ownership of the statistics we are now receiving as resting in the hands of the National Petroleum War Service Committee, you can readily appreciate how necessary it has been for me to take no action that would have the effect of attaching this work as a permanent feature to any government agency.⁹

Silsbee successfully avoided such an outcome, and, in the process, he helped establish a pattern for the cooperative industrywide collection of statistics that continued after the war.

THE API AND THE ORGANIZATION OF INFORMATION IN THE 1920S

After the war, the oil industry channeled the war-induced cooperation of the National Petroleum War Service Committee into the first national, industrywide trade association, the American Petroleum Institute. A. C. Bedford and other leaders in the NPWSC guided the creation of the API, which was patterned after the NPWSC structure, initially planned by one of its subcommittees, and staffed by a board of directors and by heads of working committees transferred almost intact from the wartime advisory committees. After the relatively simple task of organizing the API, however, its members faced hard choices about how best to use its resources to enhance the efficiency and protect the independence of the industry.¹⁰

From the earliest discussions about the possible roles of the API, the collection and dissemination of oil statistics was consistently cited as one of its primary functions. There was, however, disagreement within the institute on how best to organize this function. Van Manning, who had been the director of the Bureau of Mines during the war before resigning to become the director of research at the API, felt that the API should work through existing government agencies whenever possible. His close ties with the Petroleum Division of the Bureau of Mines, which was responsible for the publication of monthly refining statistics, led Manning to favor an expanded role in collecting oil-related statistics for his former agency in cooperation with his new employer. After discussions with Manning, Mark Requa, and the head of the Department of Publicity and Statistics at the API, the chief petroleum technologist at the Bureau of Mines proposed that the API provide funding and expert direction for an

expansion of the Petroleum Division that would make the Bureau of Mines the most important source of up-to-date information about the oil industry in the nation. Despite this sympathy for the plan to enlarge the Bureau of Mines's statistical capabilities, Manning proved unable to sell the idea to others in the API who favored a more direct role for their organization in performing this important function.¹¹

The leading advocate of the expansion of the API's efforts in collecting information about oil was Robert Welch, who became the first secretary-general of the organization after serving in a similar capacity before World War I with one of the largest "independent" trade associations in the industry, the Western Petroleum Refiners' Association. In this earlier job and in his work for the National Petroleum War Service Committee, Welch displayed a passion for statistics. His first major address to the API reaffirmed this passion with the assertion that "the collection, study, and dissemination of oil statistics ought to be one of the great objectives of the American Petroleum Institute."¹² From the time he took over the direction of the API in 1919 until his death in 1929, Welch spent most of his own energies and a great deal of the resources of the API in a personal quest to gain acceptance for the institute's statistical services. His efforts, more than those of any other individual, established the API as a primary source of up-to-date information about the American oil industry.

In the formative years of the API, Welch aggressively pushed it into the void created by the dismantling of the Fuel Administration's statistical services. Several prominent directors of the API pushed back. Even amid the enforced cooperation of war, Silsbee had encountered problems in collecting information about the refining and pipeline operations of some companies,¹³ and the end of hostilities further weakened the cooperative spirit of many companies. Some feared that the collection of detailed information about the industry would open the API to antitrust prosecution; others feared that such statistics might hamper stock sales. But the most common objection was that information supplied to the API might somehow find its way into the hands of competitors. Welch quieted the first concern by proclaiming the API would have absolutely nothing to do with data on prices. Experience quickly dissipated the second fear. The concern about the possible competitive uses of statistics continued, however, and it hampered Welch's efforts to increase the quality and the quantity of statistics published by the API. The dispute over the API's proper role in this area climaxed in a public confrontation between Welch and Robert Stewart, the President of Standard Oil of Indiana, with the two men almost coming to blows during a board meeting of the API.¹⁴

In converting such determined opponents, Welch's most persuasive argument proved to be his personal pledge that the information submitted to the API would be treated as strictly confidential. While publishing only aggregate figures, the API's staff scrupulously avoided disclosure of the statistics from individual companies. Welch even used a coding system so that his staff could compile data without knowing the name of the company whose figures they were adding into the total. No officer of the API, including the president, had access to the submittals of individual companies. Such extreme care in handling proprietary information paid quick dividends. As experience proved that the API's procedures and personnel were trustworthy, cooperation from the industry steadily increased, a change best symbolized by Robert Stewart's offer of an apology -- and of detailed information about the operations of Standard of Indiana.¹⁵

Given the difficulties in collecting data about the oil industry, Welch's staff needed all the help it could get. Due to a lag of several months between the collection and the publication of the production statistics of the USGS and of the refinery figures of the Bureau of Mines, the API could use such government statistics only to check the accuracy of information it had already published. Welch wanted timely information above all else, and he sought to use the API's close connections to the oil industry to avoid delays. In collecting figures on production, for example, he made use of a long-standing informal network of "scouts" who were traditionally employed by producers at a total cost to the industry of about \$1 million per year to collect confidential information on the activities of rivals. Gaining the cooperation of the scouts was not difficult, since they generally provided data about competing firms, not about their own employers. Their telegraphic reports each week gave the API a dependable and detailed body of data from which to compile weekly estimates of production in each major oil field, and such estimates were then published in a "bulletin" that was sent to members of the API within three or four days of the receipt of the scouts' reports. Checking the accuracy of these figures required only a simple comparison of the estimates of various scouts active in the same fields, and then publication of the "official" figures of the USGS several months later provided an additional check on the accuracy of the scouts. After a bit of experience using this network of information, the API quickly established a reputation for publishing the nation's most current and most accurate estimates of production.¹⁶

Refinery statistics proved much more difficult to collect. In February of 1922 the API's "bulletin" offered the following plea:

In the near future it is hoped that the refiners of the country will offer to cooperate in such a

manner as to enable us to give a reasonable full statistical table showing the condition of the industry from week to week. Do you want this service?¹⁷

Despite the repetition of such appeals in subsequent bulletins, in Welch's personal correspondence with oil executives, and in several presidential addresses at the API's annual conventions, weekly statistics on refining did not appear until 1929. Throughout the 1920s the API released the most complete information available to it on refining. Monthly statistics on changes in refinery stocks -- published only two weeks after the end of the month -- appeared regularly in the bulletin after 1922. These figures initially covered only approximately 55 percent of the national refining capacity. But during the next five years, the monthly refinery statistics edged up to include approximately 82 percent of the total capacity east of California. Because such figures revealed much about the production and movement of the basic refined products, they could be used by the individual refiner to understand his position in the market better. Indeed, so useful were up-to-date refining statistics, that the president of the API hailed the advent of the weekly series in 1929 as "the most valuable thing statistically the Institutte has ever done."¹⁸

Such a statement covered a lot of ground, for by 1929 the API had become involved in the publication of a wide array of information on many aspects of the industry other than production and refining. Drawing from its own sources as well as from statistics gathered by various government agencies, the API "bulletin" regularly included information on consumption of oil by railroads, vessels, and public utilities; imports and exports of petroleum products; the consumption of gasoline and kerosene by state; drilling activities; and receipts of California oil at Atlantic and Gulf ports. As a tabulator of some statistics and a clearing house for others, the API fostered a revolution in the availability of information about the petroleum industry. The regular publication of such statistics in tabular form by the API and by the oil trade journals fulfilled Welch's desire to "show the fundamental facts relative to the petroleum situation in such a manner as to make it easy to interpret the relationship of the supply and the demand."¹⁹

The primary government agencies active in collecting data about the petroleum industry -- the US Geological Survey, the Bureau of Mines, and the Bureau of Foreign and Domestic Commerce -- generally welcomed and even encouraged the expansion of the API's statistical services in the 1920s. These agencies lacked sufficient resources to compile thorough statistics on oil and to make them available quickly, a problem exacerbated by belt-tightening measures taken in response to the general reduction of most government expenditures in the post-World War I era. The API's

efforts relieved much of the pressure on these agencies to do a better job in collecting oil statistics. In effect, the expanding statistical services of the API allowed the agencies to neglect one of their secondary functions, thus freeing scarce resources for their more important activities.

One way around the lack of resources in the public sector was cooperative work between the API and the agencies. The Bureau of Mines in particular favored this approach, which was initially facilitated by Van Manning's close ties to his former colleagues. The API and the Bureau of Mines cooperated in 1923 on a major study of water pollution by oil of the coastal waters of the United States. Four years later, the two completed a joint "National Survey of Fuel Oil Distribution," which initiated a regular series of annual surveys that showed for the first time in detail the growing use of oil for fuel in the US. In such cooperative efforts, the API usually supplied direction, financing, some manpower, and access to the oil companies; the Bureau of Mines supplied manpower, a far-reaching distribution network for any published material, and the "official" seal of a government agency for the cover of the report. The cooperation between the two organizations climaxed in 1929 when the API, responding to a request for advice from the Bureau of Mines, created an Advisory Committee on Statistics through which statisticians within the industry could suggest improvements in the statistical activities of the bureau.²⁰

This form of cooperation reflected the relative strengths of the two partners. The API had direct access to much information about the individual companies. It could call on the collective financial, technical, and administrative resources of its member companies and of its permanent staff to collect and interpret this information. The government agencies involved in oil-related matters could not match such organizational strengths. They lacked the resources to expand significantly their own capabilities to collect and interpret statistics about the oil industry, and they also lacked the incentive to do this, since they had free access to the API's expanding information services. The API's stated policy was that it would discontinue the collection of any information that became available from another source in a timely and accurate form, but the underdeveloped statistical capacities of the government agencies made them unable and unwilling to test this policy. Instead, they generally continued to collect the same information that they had gathered before and during World War I, augmenting their earlier efforts by relying on the API for information on many other basic aspects of the operation of the petroleum industry, including the number of wells completed, annual estimates of proved crude reserves, and weekly changes in refinery operations.

THE USES OF INFORMATION

Robert Welch and his contemporaries at the API justified their considerable efforts to develop the statistical capabilities of their organization on several grounds. Their most immediate objective in the early 1920s was to dispel the legacy of mistrust inherited from the era of Standard Oil domination before World War I. They also hoped that comprehensive, current information about the fundamental conditions of supply and demand in the industry could be used to control the cycle of boom and bust that had traditionally plagued the petroleum industry. In 1921, for example, the president of the API urged its members to supply better information on the buildup of refinery inventories by arguing that such information could have enabled the industry to escape the worst effects of the depression of the previous year. In addition to such "internal" uses for statistics, they could also be used in the "external" relations of the industry with a variety of government agencies. Welch in particular was convinced that detailed statistics could be used to educate public officials on the futility of further government regulation of the industry. He felt strongly that the industry through the API should be in a position to check the accuracy of any information about oil put out by the government, and he felt that the API could prevent the spread of misinformation about oil by gaining "a reputation of being so deathly accurate in its work that it would command universal respect and confidence."²¹ The collection of statistics was thus viewed by the leadership of the API as a means of understanding and ultimately of controlling sources of instability in both the economic and political environments of the industry.

Congress and regulatory agencies soon learned to expect expert testimony from the API. When the Federal Trade Commission launched an investigation of oil prices and profits after World War I, Welch immediately offered the fledgling institute's services. Welch testified at great length in an effort to show that postwar price hikes were reasonable in light of changing conditions in the industry. Welch again gave detailed statistical testimony two years later before the Senate Committee on Manufactures, which Robert La Follette used to present his case for a renewed antitrust campaign in the oil industry. Several other FTC investigations in the 1920s and Congressional hearings on water pollution throughout the 1920s also heard well-documented presentations by API spokesmen.²² The institute also became a major source of information for the Federal Oil Conservation Board (FOCB), an interdepartmental advisory agency created in 1924 with a mandate to investigate conditions in the oil industry. In response to the creation of the FOCB, the API appointed a committee to report on the reserves of oil available to the nation. Although its conclusions -- that reserves were sufficient to supply America's

needs and that the lack of significant waste in the industry made conservation efforts by the government unnecessary -- raised a chorus of protests from within the industry and from outside critics, its efforts laid the groundwork for the subsequent compilation by the API of an annual estimate of proved oil reserves. Despite the protests encouraged by its initial report to the FOCB, the API continued its forceful and detailed presentations before the board.²³ As with its testimony before other agencies, the overall impact of the API's submittals to the FOCB is impossible to determine. But the quality of the information available to the API through its members, the institute's growing reputation for "deathly accuracy," and the array of authoritative expert witnesses available to the institute made the API a formidable witness.

The API undertook the same sort of sophisticated lobbying on a somewhat more direct level through its Washington representative, Fayette Dow. Much of Dow's original work was on petroleum freight rate and pipeline rate cases before the Interstate Commerce Commission and testimony on tax legislation before the House Ways and Means Committee and the Senate Finance Committee. The steady increase in regulatory activity affecting the oil industry in the 1920s and 1930s expanded the responsibilities of the Washington office, which became, in Dow's words, "sort of an industry clearing house" which government agencies could call for information. Dow saw his function as exposing government officials to the oil industry's perspective on specific issues. He worked hard to establish a reputation for honesty and accuracy so that government agencies would usually "accept his information without question" whether it was presented in the form of written testimony of off-the-record conferences with officials. In short, Dow fulfilled the role of the modern lobbyist, seeking to influence legislation and regulatory policy through well-organized, well-documented presentations of his industry's position to the key officials who would decide policy.²⁴

Statistics were also an important part of the API's efforts to shape the general climate of political opinion through public relations work. In the early 1920s, the Department of Publicity and Statistics handled both the collection of statistics and the use of this information in placing the industry's positions before the public. Even after these two functions were separated in 1924, the API's statistical work continued to complement its public relations efforts. This close cooperation produced a variety of persuasive press releases, and it culminated with the publication of *Petroleum Facts and Figures*, a massive collection of statistics that quickly became -- and remains -- the authoritative reference source for information about the petroleum industry.

The API's ability to present accurate, comprehensive information about the oil industry guaranteed its spokesmen ready access

to decisionmakers in the public sector. Such access peaked in the early 1930s, when much of the API's statistical division was transferred from New York to Washington to help administer the National Recovery Administration's code for the petroleum industry. The same years witnessed the emergence of a regulatory system designed to limit the production of crude oil in the name of conservation and of price stability. At the peak of this regulatory pyramid was the Texas Railroad Commission, which joined with other state commissions in the Southwest to control crude production. But at the base of the pyramid was the API, which guided the Bureau of Mines in the collection of statistics on market demand that were used by the state commissions to determine the amount of oil to be produced each month.

Robert Welch's judgment of the value of statistics thus proved accurate. As the API organized previously fragmentary information about oil into a systematic, comprehensive, and accurate portrait of conditions in the industry, it greatly enhanced its authority -- and ultimately its power over public policy. As the API built its statistical capabilities in the 1920s, the government agencies in the best position to generate "public" information about the oil industry allowed their capabilities to atrophy, choosing to rely on the API for much information essential for public policy. Indeed, so well did the API establish its authority over oil-related statistics in its formative years that not until the 1970s did the government begin to produce its own statistics on several of the activities originally covered by the API's statistical department in the 1920s.

NOTES

1. For a general history of the API, see Leonard Fanning, *The Story of the American Petroleum Institute* (New York: World Petroleum Policies, 1959).

2. The most recent such charges have been put forward in a series of articles by Jack Anderson, a nationally syndicated newspaper columnist.

3. The USGS's figures on production were published annually as a part of a general series, "Mineral Resources of the United States."

4. The Bureau of Corporations relied primarily on personal interviews with oil men and government officials in compiling its investigation.

5. An unpublished history of the Bureau of Mines is contained in Box 37, Record group 70, Records of the Bureau of Mines, National Archives, Suitland, Maryland.

6. These deficiencies are discussed in Frank Silsbee to Mark Requa, letter dated 8 July 1918, file #2664 -- "Silsbee, F.

J.," Records of the Oil Division of the Fuel Administration, Record Group 67, National Archives, Suitland, Maryland.

7. This summary of the history of the NPWSC is taken from the records of the Oil Division of the Fuel Administration and from the records of the American Petroleum Institute. For more specific information, see A. C. Bedford to Mark Requa, letter dated 13 March 1918, file #191 -- "A. C. Bedford," Records of the Oil Division of the Fuel Administration.

8. Requa to L. P. St. Clair, telegram dated 21 February 1918, file #2664 -- "Silsbee, F. J.," Records of the Oil Division of the Fuel Administration.

9. F. J. Silsbee to Mark Requa, letter dated 8 July 1918, file #2664 -- "Silsbee, F. J.," Records of the Oil Division of the Fuel Administration.

10. For the original charter, see API Board of Directors Minutes, Vol. 1, 1919-29, p. 1. These are located in the Office of the Secretary of the API, Washington, DC.

11. A. W. Ambrose to Van H. Manning, letter dated 13 December 1920, file #022.17, General Classified Files, 1920, Records of the Bureau of Mines, Record Group 70, National Archives, Suitland, Maryland.

12. Report of R. L. Welch to the Board of Directors of the API, 28 August 1919, API Board Minutes.

13. See, for example, F. J. Silsbee to George S. Davison, letter dated 13 May 1918, file #694 -- "George Davison," Records of the Oil Division of the Fuel Administration.

14. Leonard Fanning, *The Story of the API*, p. 49.

15. Welch described his methods for assuring the secrecy of information to representatives of the Federal Trade Commission in 1927. See "Minutes of API, FTC," 24 January 1927, "API, Federal Trade Commission" folder, Box 39, J. Edgar Pew, Vice-President files, Sun Oil Collection, Eleutherian Mills Historical Mills Historical Library, Wilmington, Delaware.

16. *Ibid*, p. 126.

17. API, "Bulletin," 16 February 1922, p. 2.

18. E. B. Reeser, "What Does the Institute Do?" speech dated 3 December 1929, "American Petroleum Institute -- 1930," Box 52, Administrative File, General Correspondence, Series 21-A, Sun Oil Collection.

19. API, "Bulletin," 28 March 1922, p. 1.

20. Minutes of the Executive Committee of the API, 23 May 1928, "Administrative General, 1928" folder, Box 35, Administrative File, General Correspondence, Series 21-A, Sun Oil Collection; W. R. Boyd, Jr., to Scott Turner, letter dated 28 February 1929, file #022.17, General Correspondence Files - 1929, Records of the Bureau of Mines, Record Group 70.

21. Report of R. L. Welch to the Board of Directors of the API, 28 August 1919, API Board Minutes.

22. The preparation of such testimony became a time-consuming part of Welch's job. Welch's love for statistics expressed itself in detailed and even tedious arguments that inundated public officials in numbers.

23. For an account of the activities of the Federal Oil Conservation Board, see Gerald Nash, *United States Oil Policy, 1890-1964* (Pittsburgh: University of Pittsburgh Press, 1968).

24. *API and Its Activities*, Vol. 5, Ch. 10, pp. 5 and 6. This study of the various functions of the API was made in connection with a study to prepare the way for a reorganization of the organization in the 1930s. For a portion of the study, see Box 2, J. Howard Pew, Presidential-Private Series, Sun Oil Collection.