

## **Field, Undercover, and Participant Observers in US Labor Economics:**

**1900-1930**

Malcolm Rutherford

University of Victoria

### **Introduction**

Over the period considered in this paper American work in labor economics focused overwhelmingly on various aspects of the “labor problem.” The labor problem, of course, was the problem of industrial relations, of union and anti-union activity, of strikes and violence, and of “yellow dog” contracts and court injunctions. This led the first few generations of American labor economists to direct their studies to the labor movement and its motivations and goals, the working and living conditions experienced by working people, the managerial and work place practices that might impact on productivity and morale, and to possible ways to improve relations and mediate conflict. As the theory of the competitive labor market was not seen as a useful guide to the realities involved (even J. B. Clark regarded the competitive model as providing more of a normative benchmark than a description of actualities), the approach taken by these labor economists was strongly empirical in nature. There was little or no official data<sup>1</sup> on things such as union membership, working conditions, industrial accidents, unemployment, wages, housing and sanitary conditions, or standards of living, and very little reliable information of any sort on union attitudes and goals, or on managerial and workplace practice. The main

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<sup>1</sup> Some data were available from the census and from State and Federal bureaus of labor.

subjects of the investigation conducted by the U.S. Commission on Industrial Relations (1914-1915) are instructive here. These are: (1) legal and legislative, including trade union law, labor law, anti-trust, injunctions, blacklisting, boycotting, police power, armed guards, strike breaking, and free speech; (2) labor organizations and collective bargaining in various industries, including studies of unions and employers' associations, trade agreements, scientific management, strikes, other labor troubles, violence, unorganized labor, and potential remedies; (3) employment, including studies of labor exchanges and employment offices, casual and migrant labor, employment irregularity, economic fluctuations and employment, unemployment in specific labor markets, and unemployment insurance schemes; (4) labor in agriculture, including both tenant farmers and farm labor; (5) education, including apprenticeship, vocational training, and child labor; (6) welfare and insurance, including welfare work, housing and living conditions, sickness insurance, and sickness prevention; (7) accidents, safety, sanitation, including factory inspection and workmen's compensation; (8) underlying causes of industrial unrest, including distribution of income, wages, wage and price movements, cost of living, hours of work, introduction of machinery, immigration, and labor migration; and (9) women in industry, including the number and economic status of women in industry, regulation of women's work, hours of labor, and studies of particular women's trades such as the garment industry.<sup>2</sup>

Labor economists, of necessity, became observers and data collectors of various types. In these endeavours the economists did not always have the cooperation of management or of any of the trade unions involved, although neither did they always face opposition. Both sides could be suspicious of the academic investigator, and in some instances the observation was not overt.

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<sup>2</sup> This information comes from a document titled "Divisions Of The Broad Subjects Of Research And Investigation Together With A Classification Of The Reports Completed to Date Along These Various Lines Which Have Been Sent In To The Director," February 15, 1915, Charles McCarthy Papers, box 8, folder 6. McCarthy directed the research team for the U. S. Commission on Industrial Relations. John R. Commons was one of the Commissioners.

Moreover, investigators sometimes feared that their presence, if known, might change the behaviour of their research subjects, again leading to some form of undercover investigation. In other instances the observer made no effort to conceal his or her identity and purpose but sought in various ways to gain trust. The investigator might also use a variety of observational methods (direct observation, interviews, data and document collection) as checks on each other.

This paper seeks to cast some light on these observational methods and the ways they were used in U.S. labor economics in the first third of the twentieth century. The approach is to take a detailed look at a small number of paradigm cases. The first is the study of the steel workers, done as part of the Pittsburgh Survey by John Fitch, a student of John R. Commons, published in 1910. The second is the work done on migrant labor and the Industrial Workers of the World (I.W.W.) in California by F. C. Mills and Paul Brissenden under the supervision of Carleton Parker for the California Commission on Immigration and the US Commission on Industrial Relations, completed between 1914 and 1916. The third, and last, is a study of workplace practice among non-union workers done by Stanley Mathewson, a student of William Leiserson,<sup>3</sup> completed in 1930 and published a year later. The first of these used open observation, the second undercover observation with aspects of participant observation, and the third participant observation, primarily of a covert type.

### **The Steel Workers**

John A. Fitch's study of the steel workers was a part of the Pittsburgh Survey conducted in 1907 and 1908 under the direction of Paul U. Kellogg and funded by the Russell Sage Foundation. In total, the Pittsburgh Survey produced six volumes, Fitch on the steel workers,

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<sup>3</sup> Leiserson was a student of John R. Commons, and had also been McCarthy's assistant on the U. S. Commission on Industrial Relations.

Crystal Eastman on work accidents and the law, Elizabeth Butler on women and the trades, Margaret Byington on the households of Homestead (a mill town just outside Pittsburgh itself), and two volumes of essays on a variety of topics edited by Kellogg. The methods employed had their origins in the surveys conducted by Charles Booth in London and by the researchers at Hull House in Chicago.

At the time of the survey, Pittsburgh was a heavily industrial city dominated by iron and steel companies, the largest of which was the U. S. Steel Corporation, formed in 1901. There had been violent strikes, notably the Homestead strike of 1892, in which the union (the Amalgamated Association of Iron and Steel Workers) had been defeated. Another failed strike occurred in 1901, and the union effectively driven out of the industry, so that “since that time the employers have again been free to work out their own policies” (Fitch 1910, p. 5). What Fitch was observing, then, was what he called the “labor policy of unrestricted capital” (Fitch, 1910, p. 192).

Fitch’s book does not give a great deal of detailed information concerning his observational methods. There is, for example, no list of plants visited or of the number of visits, no reporting of the number of men interviewed at work or at home, no list of company officials interviewed, and often little information on the exact sources of data. Even in cases where sources are given they may be informal (from a letter written by a worker to a union newspaper, for example). It is clear that Fitch did a great deal of work in attempting to check his information, but the book is full of what are inevitably highly subjective estimates of reliability.

Fitch spent ten months in the Pittsburgh district, visited every large mill in the district, and most he visited “repeatedly.” He visited mills in the company of regular mill guides, officials of the steel companies, with men “well acquainted with steel manufacture but now in no

way connected with the industry,” and with skilled workers who volunteered their services and “explained the part played by labor in the process of iron and steel manufacture” (Fitch, 1910, p. 9). These visits and discussions form the basis of the bulk of the early chapters in the book describing the work of the blast furnace crews, the puddlers and iron rollers, the steel makers, and the men of the rolling mills. Fitch watched the work under all sorts of conditions and talked to the men as they rested between spells:

To understand these men you must first of all see them thus at their work; you must stand beside the open-hearth helper as he taps fifty tons of molten steel from his furnace; you must feel the heat of the Bessemer converters as you watch the vesselmen and the steel pourer; and above the crash and roar of the blooming mills you must talk with rollers and hookers, while five- and ten-ton steel ingots plunge madly back and forth between the rolls. You must see the men working in hoop mills and guide mills, where the heat is intense and the work laborious; you must see them amid ladles of molten steel, among piles of red hot bars, or bending over straightening presses at the rail mills (Fitch 1910, p. 10).

Fitch also visited and interviewed working men in their homes. In these cases he was initially given introductions to “leading steel workers” by friends, and these people in turn furnished him with the names of others. In this manner Fitch claims he was able to get close to the lives of “typical” skilled and unskilled men. Fitch admits that he was faced with a significant amount of caution, he was often suspected of being a company spy

attempting to find out about attitudes towards the union or the company.<sup>4</sup> The steel companies did employ numerous spies, and men found to be union organizers were routinely discharged. Despite this atmosphere of intimidation, Fitch claims he was able to get some degree of cooperation, provided he could show his letters of introduction, explain his purpose, and promise not to reveal names (Fitch 1910, pp. 215-216). Fitch indicates he talked at length with over one hundred men, but this is a tiny sample of the some 70,000 men employed in the industry in Pittsburgh and the surrounding towns. In chapter two of his book Fitch gives excerpts from his interviews with nine men, and indicates that he has “tried to introduce the leading types—the twelve hour man, the eight hour man, the church member, the man who is at outs with the church, the union man and the socialist” (Fitch 1910, p. 21), but throughout the book Fitch draws on his interviews with workers, foremen, and superintendants.

Direct observation of the workplace and interviews were far from the only sources of information for Fitch. Chapter seven discusses health and accidents in steel making, with data drawn primarily from the companion volume by Eastman. Chapters eight to ten discuss the history of unionism in the industry, the policies of the Amalgamated Association, and the “great strikes.” In these chapters Fitch draws on trade union newspapers, union circulars, union constitutions and by-laws, and other union provided documents and data. Chapters eleven to sixteen detail employer practices and policies, including issues of wage scales, cost of living, the working day and week, speeding up and the bonus system, and other policies towards labor. These chapters made use of Bureau of Labor Bulletins, data provided by the steel companies, company policy documents

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<sup>4</sup> This was a fully justified suspicion, for the Interchurch World Movement report into the later 1919 steel strike the steel companies willingly turned over many hundreds of reports from their spies. See

concerning seven day labor, profit sharing plans, accident relief plans, and Carnegie pension plans, information taken from previous investigations of strikes, congressional testimony, labor newspapers, data from other Pittsburgh Survey volumes, and data classifying employees according to skill level, citizenship, and language, that appears to have come from company sources. The last two chapters on citizenship in the mill towns and the spirit of the workers are based largely on Fitch's own observations and interviews and are necessarily anecdotal in character.

In addition to all of this material the Pittsburgh Survey employed an artist and a photographer. This was not an unconsidered matter. Kellogg himself was editor of the *Survey* and the *Survey Graphic*, and the latter publication especially made a feature of the use of photographs and other graphic material (see Charles and Giraud 2010). The artist was Joseph Stella and the photographer Lewis Hine. Two of Stella's drawings and two of Hines' photographs are reproduced at the end of this paper. Stella was an accomplished artist later associated with the futurist and precisionist movements. Lewis Hine was later to become deeply involved in the campaign against child labor, a campaign in which his photographs played a key role (Freedman 1994).

Fitch's commentary, and the thrust of the book, relates to certain key conditions of work, the steady increase in mechanization, the speeding up of work, the exploitation of ethnic divisions, and most of all to the twelve hour day and seven day week schedule followed in most of the mills. This schedule gave a man one 24 hour period off work every two weeks when shifts changed. On the other side, this required one 24 hour shift every two weeks. This work pattern was found by Fitch to be at the heart of most of the labor problems of the steel industry. Fitch also detailed the dangers of the steel worker's

jobs, the lack of a state factory inspection system or workmen's compensation laws, the low and declining real wages paid to most of the workers, and the attempts by the steel companies to influence the political activities and votes of their employees. For Fitch all of this indicated the desirability of union representation and collective bargaining. Fitch argued that in the past the union had gone too far in demanding a share in administrative control, resulting in the concerted effort by the employers to rid themselves of unionism, but this had generated the opposite problem of the employers utilizing their freedom from restraint to introduce "negative and destructive policies" (Fitch 1910, p. 206). For Fitch the primary purpose of a union is to bargain with employers and protect employees from unjust demands: to that extent a union has a "clear moral right to a voice in determining labor conditions" (Fitch 1910, p. 205).

It has been argued that the Pittsburgh Survey and other similar surveys had little influence on the later development of American social science, either because the social survey movement was more social work than social science, or because the later development of social science moved toward more objective quantitative work as exemplified by Wesley Mitchell in economics and William Ogburn in sociology (Greenwald and Anderson 1996). On the other hand, Mary Furner has argued that the successors of the survey movement can be found in "the Labor, Children's and Women Bureau's work," in the investigations of the United States Commission on Industrial Relations, in "the New Deal-era studies of immigrant communities," and in the work on labor economics and industrial relations being conducted at Wisconsin by Commons and his students (Furner 2000). These points are worth emphasizing. Fitch himself was a commentator on the work of the U.S. Commission on Industrial Relations, and some of the

work done for the Commission is discussed in the next section. There is a strong similarity between the social surveys, the U. S. Commission on Industrial Relations, and the later work of labor economist Paul Taylor (and, in terms of photographs, Dorothea Lange) done during the dust bowl years of migration to California.<sup>5</sup> The approach taken by Fitch in the steel workers book is strikingly similar to that taken in a great deal of the work on unions and industrial relations undertaken by John R. Commons and his students. Most of this work is concerned with particular unions or episodes in labor history, and relied heavily on document collection and interviews. Commons described “the constructive method of interviewing” as the “prime method of investigation” (Commons 1934, p. 106),<sup>6</sup> and the department of economics at Wisconsin regularly was offering a course on the techniques of field investigation at least through the later 1920s (Rutherford 2006). Despite the limitations of the methods involved, this work did provided a basis not only for the advocacy of collective bargaining, and other reforms to labor law, as a substitute for industrial unrest, but also for more general and theoretical discussions of unionism, in the form the development of a social-institutional approach to union history that, in the American case, presented unions as primarily concerned with the protection of job opportunities” (Perlman 1928; Kapuria-Foreman and McCann 2010).

### **The California Casual and the I.W.W.**

In November of 1913 Carleton Parker, a labor economist at Berkeley was appointed Executive Secretary of the California Immigration and Housing Commission. Part of Parkers’

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<sup>5</sup> Paul Taylor was another Commons student who became a labor economist at Berkeley. He married Dorothea Lange whose photographs of migrants became iconic. Many of these photographs were done for the Resettlement Administration photographic team headed by Roy Stryker, who had been hired into that job by Rex Tugwell.

<sup>6</sup> Commons (1934, p. 106) gives a number of references to works on interview methods.

job was to conduct a careful investigation into the causes of the Wheatland Hopfield Riot. This riot, which involved migratory hop pickers in the summer of 1913, resulted from the appalling conditions in a labor camp on the Durst hop ranch. The Durst ranch had advertised for many more workers than were required, part of the wages were withheld to be paid as a bonus to those who remained for the whole picking season. The camp was a barren field, with severely inadequate sanitation and water supply. Temperatures were over 100 F. Water and supplies could not be brought in as Durst was profiting from the only store on the ranch and his cousin had a lemonade concession. The protest reached a head at a rally called by the Industrial Workers of the World. The local sheriff arrived with a posse to arrest the ringleaders, and in the ensuing riot four people died (including the district attorney and a deputy sheriff) and many were wounded. The National Guard was called in, I.W.W. members were arrested all over the state, and the two IWW leaders at the camp (Ford and Suhr) were eventually sentenced to life in prison. Concerns over migrant labor were heightened even more by the episode of "Kelly's Army," a march of unemployed seasonal workers in the fall of 1913 that was eventually broken up by force (Woirol 1992, pp. 5-11). In the spring of 1914 Parker was also deputized to investigate the Wheatland Hopfield Riot for the U. S. Commission on Industrial Relations.

Parker's report on the Wheatland Riot provides a considerable amount of information concerning his methods of investigation. In Parker's words:

This report is founded on a careful personal investigation of the physical facts by all the investigators employed by the commission; upon a close study of the trial of Ford, Suhr, Beck and Bagan at Marysville; upon interviews with witnesses at the trial and with pickers who were present on the ranch during the days before August 3<sup>rd</sup>

and who were not present at the trial, but scattered throughout the state; and upon interviews with residents of Yuba County (Parker 1920, p. 174).<sup>7</sup>

Parker and his investigators took 67 written statements and affidavits, an additional 30 oral interviews. Of these witnesses who made written statements 57 are classified as “perfectly reliable” and 10 as of “doubtful reliability.” How these assessments were reached is not explained. The investigators also examined the job advertisements placed by Durst and inspected Durst’s books. The oral interviews included Durst and his regular employees. The investigation was able to document the numbers of people in the camp, the wages paid, the misleading nature of the job advertisements, the extremely poor conditions in the camp, the questionable arrangements relating to the lemonade and store concessions, and the numbers and actions of the I.W.W. members present on the ranch. Parker’s primary recommendation was to properly enforce the state regulations concerning the conditions in labor camps, condemning both the attitudes of the employers who would allow substandard conditions and the violent strike methods of the I.W.W.

Parker’s job was made difficult both by the interest of the employers of seasonal labor in concealing the true working and living conditions, and by the suspicion of I.W.W. members of any “official” investigation of their activities. In the spring of 1914 Parker hired two of his former Berkeley students, F. C. Mills and Paul Brissenden, to conduct undercover investigations of the conditions in a variety of labor camps, gather information on migrant labor life, and assess the presence of, and attitudes towards, the I.W.W. Thanks to Woirol (1992) substantial information is available on Mills’ work.

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<sup>7</sup> Parker’s report was written in March 1914.

Mills embarked on his life as a hobo in May of 1914. He dressed the part, took an assumed name, joined the IWW, worked in a variety of camps, travelled on foot or rode the rails, slept rough in hobo “jungles” or in haystacks or box cars if necessary, and washed at roadside hydrants or in irrigation ditches. He worked packing oranges in the San Joaquin valley, as a laborer in a Sierra lumber camp, and on a road construction project at Sand Creek. He wrote a number of reports, two detailing conditions in the orange picking industry, one each on his lumber camp and Sand Creek experiences, and a number of items detailing life “on the road.” He also made observations concerning the opinions held by various groups of workers concerning the I.W.W., on the general level of I.W.W. activity, and he kept a detailed diary. His colleague, Paul Brissenden wrote a report on the I.W.W. in California. Mills’ travels lasted two months, after which he spent another year working for Parker and the California Commission on Immigration, but did not go on the road again.<sup>8</sup>

In his first job, packing oranges, Mills reported that the advertisements for workers had far overstated the requirements and that he had found “idle men on every street corner” (Woirol 1992, p. 23). The work place conditions he found satisfactory, but the work itself very hard physical labor. For the hardest jobs the rate of turnover of labor was extremely high. Many of the workers boarded at local lodging houses, but Mills had difficulty finding places to sleep. On one occasion he was given meal tickets in place of wages. In the lumber camps he found workers living in tents and cabins, four together, in one case with no toilets initially, the men using the nearby hillside instead. Otherwise he found conditions satisfactory. On the Sand Creek project Mills visited two camps, one of which had very poor conditions and employed mostly immigrant labor. Mills suspected the employer in the latter camp to be colluding with an employment agency in Fresno. The men were charged a free by the agency and a fee for

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<sup>8</sup> There is a suggestion that both Mills and Brissenden contracted malaria.

transportation to the camp. The employer received part of these fees. As many as a dozen men arrived each day for a work crew of about twenty or thirty. Workers frequently quit due to the conditions, were forced out, or fired on some pretence to make room for new arrivals (Woirol 1992, pp. 25-75). Later in his travels Mills was to do further investigations of employment agencies in Sacramento (Woirol 1992, p. 104).

His reports dealing with life on the road were less focused on objective working and living conditions and much more on subjective impressions. These reports contained many descriptions of specific episodes and individuals he met with. Mills, here, was attempting to provide a picture of “the general character of the men studied and their attitude toward certain things, in a way that mere statistical data cannot do” (quoted in Woirol 1992, p. 88). In this aspect of Mills’ work, his procedure moves to a covert participant-observer mode, in which his own participation in the life of the itinerant worker is key to the research effort and to his ability to gain an understanding of the men and their attitudes.<sup>9</sup> Mills’ work added to the collection of life histories of itinerant workers being collected by Parker. What became clear to Mills was that the itinerant life was easy to fall into but very difficult to escape. Most of the jobs he encountered, with the exception of some of the lumbering jobs, did not allow the worker to save a large enough amount to escape the casual life. Once a worker had a history of temporary jobs, they were not considered for permanent positions. Life as a casual was inconsistent with any settled family life, and often led to a pattern of periods of work punctuated by bouts of “dissipation” featuring whiskey and prostitutes (Woirol 1992, pp. 60-64).

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<sup>9</sup> There were in the period from 1890 through the early part of the Twentieth Century many attempts to report on working class life by various undercover reporters. Most of these efforts were unofficial and directed to publication in popular rather than academic outlets. Carleton Parker’s widow, Cornelia Parker, for example wrote a series on working women based on her own experiences in working in a variety of jobs while adopting the persona and living as a working woman. These were originally published in *Harpers*. See Cornelia S. Parker (1922). Mark Pittenger discusses a large number of these works and their role in constructing the progressive concept of the “underclass” (Pittenger 1997).

Mills also observed attitudes towards the I.W.W., finding little sympathy among the more skilled workers in the packing plants or among the better paid lumberjacks, but much more, if not universal, sympathy with the I.W.W. in the case of the less skilled and more itinerant part of the labor force. Although Mills was not himself sympathetic to the I.W.W.'s methods, he found it easy to understand the appeal of the organization to the itinerant class of labor. He reported that "the evidences of a social unrest, of a growing dissatisfaction with their lot in life, are not lacking among this class" and "the appeal of I.W.W. principles is the most alluring of all the voices that offer a way out, and there is a wide-spread knowledge of a sympathy with the activities of that organization" (Woirol 1992, p. 120). Paul Brissenden, in his report on the I.W.W., reached a similar conclusion: that the appeal of the I.W.W. was a reaction to the "socially antiquated" system of treating itinerant labor (Woirol 1992, p. 122).

The impact of Mills' and Brissenden's undercover work was both practical and theoretical. On the practical side, the California Commission on Immigration, in its December 1914 *Report on Unemployment*, recommended the creation of state labor exchanges and more regulation of private agencies. On the more academic side Mills was to go on to write his Columbia University PhD thesis on "Contemporary Theories of Unemployment" (1917) while Brissenden wrote his on the I.W.W. Brissenden opposed the extreme and wholly negative view of the I.W.W. that was commonly held. His book is largely a discussion of the evolution of the IWW and its organization, membership, policy positions, and internal disputes, but he clearly does see some positive aspects to the I.W.W. views on industrial democracy. Brissenden's book became the standard reference on the I.W.W. (Brissenden 1919). Carlton Parker made considerable use of the reports provided by his various investigators. In a 1915 paper on the California Casual he talks of "schedules" describing 222 "typical migratory workers" which he

used to provide a statistical profile. He reports on the inspection of 867 camps, and provides data on the living and working conditions found, a data set that is supplemented by information taken from the books of the Southern Pacific and Northwestern Pacific concerning the labor turnover in their railway construction camps. To this he adds information from the reports of two investigators who spent “weeks among the casuals,” as to the custom of quitting a job once a sufficient “stake” has been earned. More significantly, Parker was to combine the information he had gained concerning the life of the casual into a theory of labor unrest based on the idea of a maladjustment between human nature and “a carelessly ordered world” (Parker 1920, p. 59). Human activity is “actuated by the demand for realization of the instinct wants,” but the economic environment faced by many, and particularly the casual, is such as to thwart these instincts and to result in a “psychic revolt” that can express itself either as a loss of interest or as antagonism or violence: persistent unrest, dissatisfaction, and decay of morale (Parker 1920, pp. 161-164).<sup>10</sup> Parker included the I.W.W. in the scope of this thesis. The usual condemnations of the I.W.W. as unlawful in its actions, unpatriotic, and un-American Parker saw as completely ignoring the conditions that gave rise to the movement: “The casual migratory labourers are the finished product of an economic environment which seems cruelly efficient in turning out human beings modeled after all the standards which society abhors. . . . The I.W.W. has importance only as an illustration of a stable American economic process” (Parker 1920, p. 123).<sup>11</sup> As indicated by Asso and Fiorito (2004), Parker’s approach had an influence on early industrial sociologists such as Ordway Tead (1918) and Helen Marot (1918), and even found a highly sympathetic audience in Irving Fisher (1919).

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<sup>10</sup> Parker did not limit his thesis to the casual labourer but applied it generally. See Parker 1920, pp. 125-165.

<sup>11</sup> Particularly because of its anti-war attitudes the I.W.W. increasingly became the subject of governmental efforts at active suppression. Mills always denied that he had in any sense been a “labor spy” (Woirol 1992, p. 133). Parker resigned from the Commission in October 1914, possibly due to frustration with political appointments and interference in his research (Cornelia S. Parker, 1919, p. 88).

## **Workplace Norms and Non-Union Workers**

The final study to be considered here was conducted by Stanley Mathewson, a student at Antioch College, under the supervision of William Leiserson, who had himself been a student of John R. Commons. Mathewson's study concerned the phenomenon of the restriction of output among non-union workers, something that had originally come to his attention as a freshman on five week co-op work placement. Although the practice of restriction of output had been frequently observed, it had usually been associated with the presence of unions, on the grounds that it was the union organization that provided the means for such collective action. As Leiserson pointed out: "Until the present investigation was undertaken no one . . . had attempted to inquire thoroughly and at first hand into the practice of restriction of output among non-union workers." In addition, no one had "described the methods by which individual employees limit their output, and no systematic study of the circumstances that lead to such limitation had been made" (Mathewson 1931, p. 160).

The approach taken by Mathewson was to conduct what would now be called a participant observation study. Such techniques developed from field observation methods in anthropology, but Mathewson's was a path breaking application to industrial sociology. In order to conduct his study Mathewson "worked as a labourer, machine operator, bench assembler, conveyor assembler, and skilled mechanic. He held eleven different jobs in two industrial centers, worked, day, afternoon, and night shifts, and he lived "with working people in their home environment" (Mathewson 1931, p. 7). To aid him in his work he recruited six workers who worked in a variety of jobs in other industrial centers. Records were produced in the form of letters written after each working day and mailed to an associate. In total reports of restriction of output were obtained from 105 establishments in 47 localities. In addition, interviews were

conducted with approximately 350 workers and 65 executives. Some of these interviews were “systematic” with those interviewed “informed of the purpose,” while others were “informal conversations with fellow workers.” As a final step, “after many workers’ experiences were recorded, a random sampling was made in order to verify through executives the accuracy of the workers’ reports” (Mathewson 1931, p. 8). As with Fitch’s book, there is little detail given of the precise conduct of the research or the criteria of selection used. It is stated that the cases “finally selected for study” were of two types: “those in which output was reduced and those in which the intent to reduce output was clearly evident, whether or not actual restriction resulted” (Mathewson 1931, p. 10).

The first part of the book is devoted to reporting various aspects of “the practice of restriction.” Mathewson found that the pressure for restriction came from the workers themselves, from their bosses, from wage payment plans and time studies, or from fear of being laid off. All of these aspects are dealt with by the reporting of a large number of specific instances from a variety of different industries and locations. Among the workers themselves the group norms for the pace of work were rapidly communicated and enforced by social pressure to conform. The usual motivation was to maintain a certain piece or bonus rate for the job, which would be cut if it became known that higher production levels could be readily achieved. One of his more surprising results concerned the instances where pressure for restriction came from above, usually from foremen attempting to protect the jobs and earnings of the workers under them, or protect their own earnings. If the foreman became known as a rate cutter his men would become uncooperative and his own job would be at risk. Foremen also participated in the efforts to mislead the time-study men. Outside of factory production, and in cases where pay was by the

hour, in construction for example, restriction would take the form of delaying the completion of projects in order to lengthen the time in employment.

Among the executives interviewed about twenty percent considered restriction a negligible problem while about sixty percent stated that restriction had been eliminated by the introduction of payment systems such as group bonus plans. Of course, much of the case material on restriction had been gathered from plants using exactly such systems of pay. In one case where an executive claimed that restriction had been practically eliminated, Mathewson went to check by scraping “up an acquaintance with the first workman he saw near this plant” and obtaining from him a detailed account of “his own restrictive practice and that of the workers about him” (Mathewson 1931, p. 135). Moreover, the man testified that both his foreman and general foreman “had not only approved, but had helped the workers figure out exactly how much each man should do on each shift ‘so that our efficiency would won’t run high enough to get our rate cut’” (Mathewson 1931, p. 136). Two other men confirmed this story. Thus, for Mathewson “the belief held by executives, namely that various incentive-wage-payment plans tend to lessen restriction, was one of the most puzzling things in the whole investigation” (Mathewson 1931, p. 137). The executive also held that it was not their practice to cut rates, a view directly contrary to that held by their workers.

Mathewson’s own conclusions were that restriction is widespread, that scientific management had failed to resolve the problem or foster a spirit of confidence, that management attempts to speed up work have been offset by the ingenuity of workers in developing restrictive practices, that management had given only superficial attention to the problem, and that the practices of management had “not yet brought the worker to feel that he can freely give his best efforts without incurring penalties” (Mathewson 1931, pp.146-147). In commentaries at the end

of the book, Leiserson suggests some form joint worker/management committees to decide on reasonable standards, while Mathewson and Henry Dennison express faith in the extension of scientific methods in the form of experimental and laboratory methods. Interestingly, Mathewson's study was conducted at the same time as Elton Mayo was carrying out his Hawthorne Experiments. Mathewson's book preceded the first of Elton Mayo's major publication concerning the Hawthorne Experiments by two years (Mayo 1933), but Mayo's findings were that the experiments themselves changed the behaviour of the workers.

The participant observation methods used by Mathewson did not become a significant part of labor economics in the post-1930s period, but such methods did become well established in industrial sociology. In a reissue of Mathewson's book, published in 1969, the famous industrial sociologist Donald Roy speaks of Mathewson's work being "essential reading" during the 1940s for those involved in the area of human relations in industry, and a direct inspiration of his own work on output restriction (Roy 1952).

## **Conclusions**

The various methods of field observation discussed above were commonplace in the American labor economics in the period from 1900 to the 1930s. As one example, and as mentioned above, the work of Paul Taylor and his photographer wife, Dorothea Lange dealing with the dust bowl migration of labor to California (Lange and Taylor 1939; Goggans 2010) is in direct line of decent. In her commentary on Taylor and Lange, Anne Sprin talks about "seeing as a way of knowing," of unearthing what had been neglected or not known, of and of "daring to look" (Sprin 2008). These methods of observation were also used widely in sociology, and through publications such as the *Survey Graphic*, linked the academic literature in labor

economics to more popular reform minded outlets. There is an immediacy and closeness to the subject matter that gives these methods of inquiry an undeniable impact, but there are a number of issues that arise.

First, there is the issue of reliability of the information gained, both through direct observation and through interviews. Fitch had to deal with the atmosphere of intimidation that made his subjects cautious about speaking out, and Mills and Parker had to judge the reliability of their witnesses. As the Mathewson study indicates, human subjects are more than capable of misleading supposedly “expert” observers such as the time study men. Company officials, also, seemed unaware of the behaviours of their employees. Covert participant observation, of course, is supposed to overcome some of these problems. Second, the collections of field observations and reports have to be aggregated and analysed in various ways, and this was often done in terms of generating a picture of what was “typical,” or of the various leading “types” to be found. Given the nature of the samples involved, the dangers of these procedures are obvious. In this, the social attitudes of the investigators themselves come through clearly and color their perceptions. It is also the case that the kind of literature discussed in this paper was intimately connected with the progressive agenda of improving the condition of labor, which could and did lead to accusations of bias.<sup>12</sup>

With the advent of the New Deal and World War II, the available sources of official data relating to labor increased significantly. The subjective and anecdotal nature of this earlier work became a standard line of criticism, as did its connection to an advocacy of labor reform. Labor economics, like many other areas of economics and sociology, moved increasingly to more “objective” survey and statistical methods and moved away from direct social observation. It is a long time since students in economics were provided training in methods of field research or in

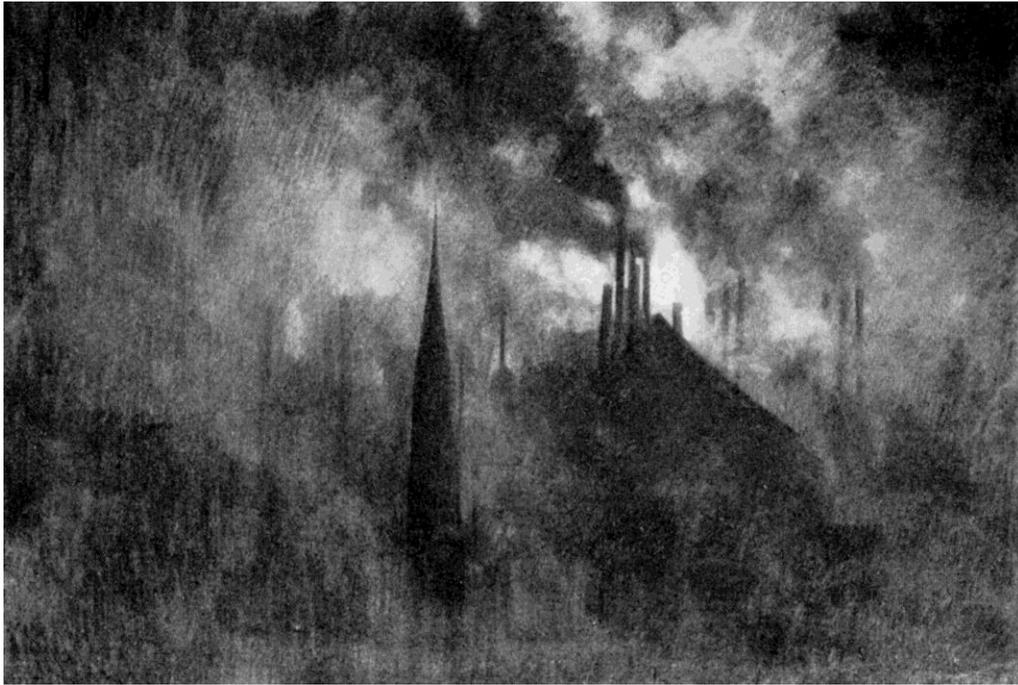
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<sup>12</sup> A study of the steel strike of 1919

methods of interviewing. Nevertheless, problems of reliability and bias are not eliminated by the use of surveys. It is worth considering how the subjects of any of the studies discussed here might have responded to survey questions concerning their attitudes or work practices.

Investigative studies using direct observation still exist, for example the extensive literature on working conditions in Chinese factories and factory regulations in China and elsewhere in Asia, but this material absent from the central journals in economics. It has sometimes been claimed that field research and “participant observation” are methods that have continued to characterize institutional economics (Wilber and Harrison 1978), but apart from the examples given here and others that relate to field investigations (often of particular episodes of labor unrest) undertaken prior to 1940, I have found no evidence to support such a claim. Perhaps the more obvious successors are to be found in the work of investigative journalists, documentary photographers and filmmakers.

### Pittsburgh Survey Portraits



Joseph Stella: PITTSBURGH



*Drawn by Joseph Stella.*

AT THE BASE OF THE BLAST FURNACE.

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Lewis W. Hine: View of Steel Mill Housing



Lewis W. Hine: Pouring Steel Old Fashioned Way

Courtesy of George Eastman House, International Museum of Photography and Film.

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