1958

Carroll Davidson Wright's contributions to economics

BOSTON UNIVERSITY

GRADUATE SCHOOL

Thesis

CARROLL DAVIDSON WRIGHT'S CONTRIBUTIONS TO ECONOMICS

by

IDA FRANCES SMALL

(B. S., Simmons College, 1940)

Submitted in partial fulfillment of the

requirements for the degree of

Master of Arts

1958

Approved by

First Reader .....
~~Associate~~ Professor of Economics

Second Reader .....
Instructor in Economics

PREFACE

I am indebted first to Dr. Everett J. Burtt for his guidance and criticism during the preparation of this thesis. To Mr. Wendell D. Macdonald I am indebted for advice based on his study of Carroll D. Wright and his own experience as Regional Director for the Bureau of Labor Statistics in the United States Department of Labor.

With reference to library research, I would like to acknowledge the courtesy of Mr. Foster M. Palmer, of Harvard College Library, in extending library privileges to me. At the Harvard Library I fortunately had the help of Miss Mary L. Hanley, Serial Cataloguer, whose diligence saved me much time in locating the considerable number of volumes examined. I would also like to acknowledge the cooperation of Mr. Tilton Barron, Librarian, Clark University Library, Worcester, who made the Wright Papers available to me.

OUTLINE

Carroll D. Wright's Contributions to Economics

Chapter		Page
I.	INTRODUCTION, PURPOSE, AND OUTLINE	1
II.	CARROLL WRIGHT'S PERSONAL PHILOSOPHY AND THE INFLUENCE OF FRANCIS A. WALKER	5
	Biography	5
	Philosophy	6
	Enlightened Reason	
	Cosmos, or Progress through Impersonal Evolution	
	Objectivity	
	Influence of Francis A. Walker	13
III.	CARROLL WRIGHT'S ORGANIZATION AND ADMINISTRATION OF THE FIRST LABOR BUREAUS	18
	Massachusetts Bureau of Statistics of Labor 1869-1888	18
	Comparison of Policy of First Two Massachusetts Bureau Chiefs	
	Organization and Development of Massachusetts Bureau under First Chief, Henry Kemble Oliver, 1869-1873	
	-Initial Bureau Organization	
	-Characteristics of General Oliver's Work; First Annual Report, 1870	
	-General Oliver's Last Report, 1873, and Reasons for his Failure	
	Massachusetts Bureau under Second Chief, Carroll Wright, 1873-1888	
	-Separation of Bureau from Politics and Introduction of Professional Code	
	-Evaluation of Carroll Wright's Work in the Massachusetts Bureau	

Chapter Page

Carroll Wright as United States Commissioner of Labor, 1885-1905 34
Federal Bureau Administration
Carroll Wright and the "Labor Question"
Labor Dispute Arbitration
International Data Incorporated in American Bureau Reports
Comparison United States with Foreign Labor Bureau Development

IV. EMPIRICAL INVESTIGATION 43

General Oliver's Massachusetts Work Which Was Followed as far as Methods by Colonel Wright 43
First Bureau Report: Questions and Answers
Second and Third Bureau Reports: Extension of Empirical Investigation into Strikes and Purchasing Power of Wages

Carroll Wright's Work in Massachusetts and Federal Bureaus 54
Massachusetts Work - Modeled on General Oliver's Work as to Method, Source, and Subjects
Massachusetts Work: Treatment of Granite Mills Fire, French-Canadians, and Wages
Federal Work: Sources, Methods, and Treatment

Carroll Wright as Statistitian 64

Relation of Statistics to Economics . . . 68

V. OUTSTANDING ORIGINAL INQUIRY AND REPORT CONCERNING ECONOMIC PROBLEMS 70

Business Cycles: Report on Industrial Depressions 71

Cost of Living: Reports 73

Chapter Page

Productivity: Report on Hand and Machine Labor 75

Cost of Production: Reports 76

Wage Statistics: Reports 78

VI. CARROLL DAVIDSON WRIGHT, ECONOMICS; SUMMARY AND EVALUATION 80

APPENDICES 85

BIBLIOGRAPHY 99

ABSTRACT 113

CHAPTER I

INTRODUCTION, PURPOSE, AND OUTLINE

The purpose of this thesis is to identify Carroll Davidson Wright's contributions to economics in three areas: Labor bureau organization and administration; Empirical investigation of labor problems; Original inquiry and report covering major economic problems.

A significant development in economics in the last half of the nineteenth century was the scientific approach to labor problems. An important factor in the scientific approach was the use of empirical investigation. Basic in any scientific method is definition and classification. The most logical way to achieve uniformity in definition and classification of labor data was through a government bureau, because a government bureau would have more authority and scope than a private individual or agency. Thus state bureaus of labor statistics were established. On the state level investigations tended to be only regional; and among states, data was not uniformly classified--thus creating the federal labor bureau was a logical step in the development of the scientific approach to labor problems.

However, success was not automatically assured by legislative resolves. The first state bureau was established

in 1869 in Massachusetts, and it narrowly missed being abolished at the end of its first four years. Its success began in the fifth year. By 1885, there were thirty-four other state bureaus, but they failed to receive the acceptance and respect accorded Massachusetts. The reason for the difference was Carroll Wright.

That he was connected with the Massachusetts Bureau in its early years and later became first Federal Commissioner of Labor is only superficially the reason he was important. Carroll Wright's importance rests on three specific achievements; each one of which was a contribution to economics, complete and significant in itself. As mentioned above, the areas of achievement were: Labor bureau organization and administration; Empirical investigation of labor problems; Original inquiry and report covering certain major economic problems.

Preparation for the thesis included checking the Wright papers and manuscripts at Clark College, Worcester, Massachusetts; studying his official Annual Reports, both state and federal; reading economic articles in the literature of the period, including articles by Carroll Wright himself.

The method used is to illustrate by summary and direct quotation, his philosophy, his bureau work, his empirical investigation and report, and his relative importance.

Since a careful study of his speeches and articles shows they contain no fundamental theory or principle at variance with or in addition to the ideas in his official reports, the speeches and articles are not considered separately. Instead they are quoted throughout the text to support or elaborate Colonel Wright's official writings.

The effort has been to keep the text coherent and concise. For this reason detailed information that could be abstracted has been relegated to the appendices. The biographies of Colonel Wright and General Walker, who influenced Wright's professional career, are treated in this way, also the organizational data for the Bureaus. With regard to the United States Department of Labor, there is no discussion in the text of its shifting legal status from Bureau to Department and back to Bureau, because it did not materially affect Colonel Wright's status or work.

A discussion of Carroll Wright's personal philosophy and the influence of Francis Walker is first given. Aspects of his philosophy were: faith in enlightened reason, belief in progress through impersonal evolution, and objectivity. Francis Walker had developed concepts of statistics as a government function, due to his academic training and census experience. Carroll Wright drew on both his own philosophy and the background and experience of Francis Walker in formulating the professional creed he instituted in the state and federal bureaus.

Next, the administration of the Massachusetts Bureau under Carroll Wright is contrasted with that of his predecessor, Henry Oliver, to show the significance of Carroll Wright's objective approach to bureau purpose and his formulation of a bureau code. The federal bureau is presented as administered in the same way as the Massachusetts.

After this, a detailed description is given of early techniques of empirical investigation of labor problems to illustrate Colonel Wright's role in advancing scientific approach to labor problems.

Then, five areas of inquiry are discussed to show the technical excellence of his work and his ability to contribute to diverse fields of economic inquiry: Business Cycles, Family Budgets, Hand and Machine Labor, Cost of Production, and Wage Statistics.

The final conclusion is that in Bureau work he demonstrated a non-political agency with a professional code; in empirical investigation he was successful because of his objectivity and skill in organizing and presenting data--and in certain fields such as Family Budgets, because of his ability to develop adequate analysis outlines, he contributed reports of permanent value.

CHAPTER II

CARROLL WRIGHT'S PERSONAL PHILOSOPHY AND THE INFLUENCE OF FRANCIS A. WALKER

Carroll Wright's philosophy and the professional ideas which he adopted from General Walker were directly related to his work as a labor economist.

BIOGRAPHY[1]

Although biographical facts do not show a man's philosophy, they are helpful for a working outline. They are easily summarized for Carroll Wright: He was born in New Hampshire in 1840 and died in Massachusetts in 1909. He was a colonel at the end of the Civil War. Before going into politics he established his ability as a popular lecturer and orator, tried business unsuccessfully and practiced law. He was elected to the Massachusetts Senate twice. His professional career as labor bureau head began in 1873 with his appointment to the Massachusetts Bureau of Statistics of Labor and ended with his resignation in 1905 from the Federal Bureau of Labor. At the time of his death he was serving as the first president of Clark College, Worcester, Massachusetts.

---

[1]See Appendix A.

PHILOSOPHY

In discussing the economic novels of the last part of the nineteenth century, Walter Taylor outlined the philosophy of the period; a period in which Carroll Wright grew up and worked.[2] It was characterized by a "deistic vision of a rational mankind dwelling within an orderly, benevolent cosmos."[3] Natural and human values were considered identical. Evolution and cosmos were popular terms. There was optomistic belief in inevitable evolution or progress, and the dynamic force was a "Cosmic Engineer who exercises no special providence in behalf of human happiness or unhappiness."[4] The method of critical thinking was the eighteenth century concept of "that heightened common sense called Reason."[5] Taylor also cited the failure to conceive of any scientific approach to social problems.[6]

It is not difficult to find Carroll Wright's professed philosophy. He was almost inordinately articulate about it in his speeches, articles, and letters. He expressed himself

---

[2]Walter Fuller Taylor, The Economic Novel in America (Chapel Hill: The University of North Carolina, 1942).

[3]Ibid., p. 15.

[4]Ibid., p. 120.

[5]Ibid., pp. 120-121.

[6]Ibid., p. 333.

in the vocabulary of the period and seemed to have assimilated the concepts typical of the time. However, in the investigation of labor problems he was a pioneer in applying empirical investigation.

There is a possible contradiction in believing that man lived in a benevolent cosmos, but the dynamic cosmic force was oblivious to man's happiness or unhappiness. Apparently, it was a fine distinction that did not cause Carroll Wright concern. He oriented his thinking to man as mankind, not man as individual. Thus his prevailing optomism is based on faith in ultimate total improvement, and individual suffering where it necessarily occurred was an unfortunate but unimportant fact.

Enlightened Reason

Among Colonel Wright's personal papers there is a revealing letter his father, a Universalist minister, wrote to him in 1860:

> the reason I have not written before is I have been meditating. My meditation closed today 4 o'clock p.m. We have concluded to run the risk of money and so let you go to school this spring. . . . Ambition and pride must always be under the direction of enlightened reason.[7]

---

[7]Carroll Davidson Wright, Papers in Clark University Library, Worcester, Massachusetts, letter from Rev. Nathan R. Wright to his son, Carroll, February 16, 1860. The Clark University Library Collection of Carroll Davidson Wright Papers is unclassified and is hereinafter throughout this thesis referred to simply as Wright Papers.

The atmosphere of New England in the 19th century is here. Carroll Wright was brought up in a Protestant parsonage where decision was based on sober reflection and enlightened reason was the guiding principle. Home training may well explain his faith in education as opposed to legislative reform. Despite his official involvement in "the labor question", he was never a zealot. At the end of his government career "a life-long fellow worker and friend"[8] wrote

> He has never been identified with any social or industrial reform. . . believing that the chief elements of all reform are to be found in the practical application of the principles of religion.[9]

His faith in enlightened reason also reflected belief that natural and human values were identical; thus, he believed that it was education, and not the discipline of reform legislation, which would correct social and economic evils.

When he began work as first Federal Commissioner of Labor he translated his faith in enlightened reason into a creed for the Department. The Department was to concentrate on pure fact and rely for effect on the force of education:

---

[8]Wright Papers, "Carroll Davidson Wright, Retiring Commissioner of Labor" by a life-long fellow worker and friend, clipping from American Industries [no date].

[9]Ibid., p. 6.

> Declaring this, then, to be the positive policy of the Bureau of Labor, this office makes its initial work that of pure fact, ... It should be remembered that a Bureau of Labor cannot solve social or industrial problems, . . . but its work must be classed among educational efforts, ...[10]

Cosmos, or Progress through Impersonal Evolution

A rather startling chapter in Carroll Wright's life is his career as a lecturer on the Civil War. His first lecture seemed ordinary enough, given as a Sunday School benefit at his father's church in Lynn. The title was "Sheridan's Campaign in the Shenandoah and its Romance,"[11] but as time went on people lost interest in war reminiscences; clippings in his scrapbook read: ". . . audience was not as large as was anticipated"[12] and another similarly "Colonel Wright's lecture, at Phenix [sic] Hall, last evening, did not draw so large an audience as it ought to have done."[13] Colonel Wright then developed his war experience into "The Field: Does it elevate or degrade character"[14] and ultimately into the

---

[10] Ibid.

[11] Wright Papers, Scrapbook.

[12] Wright Papers, clipping from Dedham Gazette, May 5th [year missing].

[13] Wright Papers, clipping from Concord Daily Monitor, December 12, 1868.

[14] Wright Papers, clipping from Lowell Weekly Journal, September 16, 1870.

unattractive topic "War as God's missionary."[15] His sentiments are distasteful, but the philosophy is related to his later work. Excerpts from the speech show his faith in a basic, impersonal, driving force shaping events:

> planting on the ruins of some inferior race the glowing ardor of the superior . . . the right of prosperity is established by force . . . . It is the method of history . . . results are of far greater importance than temporary evils.[16]

In Colonel Wright's philosophy details whether facts or people never obscured the central idea; they were definitely subordinated. Later he was even more explicit about his concept of people, time, and history:

> Every step in advance is by apparent destruction . . . . In the adjustment individuals go down. The Divine economy . . . takes no notice of individuals . . . but goes on with the work, crushing if need be, killing if it must, but always polishing, always purifying, always perfecting. And to my mind the one word which best represents all the tendencies of the times is 'Cosmos'.[17]

To Colonel Wright individuals were of secondary importance; individualism was not part of his personal creed. Thus in 1899 Reverend Samuel A. Eliot asked him to put a "hearty word for unity of purpose"[18] into his speech for the

---

[15]Wright Papers, clipping from Reading Chronicle, January 14, 1871.

[16]Ibid., February 11, 1871.

[17]Wright Papers, Pencil notes 8" x 9-1/2".

[18]Wright Papers, letter from Rev. Samuel A. Eliot to Carroll D. Wright, May 8, 1899.

American Unitarian Association because they had been hindered enough by "strained and sterile individualism".[19]

His philosophy of the nature of evolution and progress is reflected in his professional career. Because he attributed progress to Divine Economy, and so easily subordinated human effort to an impersonal scheme--he found it easy in a labor statistics bureau to deal in aggregates. When his contemporary, Henry Farnham, paid tribute to him, he outlined the qualifications of a statistitian. The philosophy of evolution Colonel Wright called "cosmos" made it natural and logical for him to exemplify such a professional creed:

> The statistician's world is the world of numbers. He deals with aggregates, not individuals. His units are all equal. A birth is a birth, whether it be that of a prince or a pauper. A death is a death, whether it be that of a producer or a parasite. He is as impersonal as nature and in his domain as relentless. . ."[20]

Objectivity

Colonel Wright was a man of simple and practical purpose. There was a certain cold detachment in the way he observed people, including himself. He early realized that success in an organization meant getting along with people. The candid letter he wrote to his mother while he was at Poolesville, Maryland, during the Civil War, illustrates

---

[19] Ibid.

[20] Wright Papers, typewritten sheets from Henry Farnham among letters of condolence to Mrs. Wright [no date].

his shrewdness and ambition with regard to promotion:

> Lt. Berry is a man of intelligence . . . . He and I get along well together. The Captain is not a man whom I like . . . . We get on, also, well together. In fact it does not do to be out with any men above you . . . . The Adjutant is a splendid fellow . . . . I hope to fill his place some day.[21]

He appraised himself as well as others without emotion. His ambition and determination to get along with men above him won him his colonelcy and also adverse criticism. He pasted a number of favorable clippings in his scrapbook; such as:

> Those who have visited the central guardhouse, have, no doubt, been fascinated by the Lieutenant's pleasing address and gentlemanly deportment. We predict for Lieutenant Wright a brilliant career.[22]

and also with strict objectivity included in his scrapbook an unfavorable clipping published in the newspaper protesting his promotion on the grounds that he had no special aptitude for the command and had failed to distinguish himself

> . . . but on the contrary, in the battle of Winchester, Va., one who was employed in carrying the wounded to the rear, came across Lieutenant C. D. Wright under a fence with a party of wounded men, and on being asked if he was wounded he replied that he was not wounded but his mental pain was as severe as though

---

[21]Wright Papers, letter from Carroll D. Wright to his mother, January 27, 1863.

[22]Wright Papers, clipping from National Republican [Washington, D. C.], June 29, 1863.

> he had been. This being the only battle he ever pretended to be engaged in . . .[23]

Record of his promotion was completed with a clipping in the scrapbook of his friend Robert Wilson's defense: "Colonel C. D. Wright was in no way to blame for having been appointed Colonel . . .[24]

The scrapbook evidence of his army career illustrates his objective appraisal of the means to obtain promotion. In his professional career he took for his primary goal, statistics--not solving the labor question, or developing new theory; so he concentrated on statistical research and presentation. His professional attitude showed the same objectivity as his army ambition. He wrote in 1899, in his "Outline of Practical Sociology":

> 'If the statistical investigator is really scientific in his methods of study, he cares not so much to be pleased by what the results may bring out as to feel assured that the showing is accurate . . .'[25]

INFLUENCE OF FRANCIS AMASA WALKER

Francis A. Walker was the person who had the most influence on Carroll Wright's bureau work.

---

[23]Wright Papers, clipping from Cheshire Republican, January, 1865.

[24]Wright Papers, clipping from Cheshire Republican, [no date].

[25]Carroll D. Wright, "Outline of Practical Sociology" quoted in S. N. D. North, "The Life and Work of Carroll Davidson Wright," Publications of the American Statistical Association, Vol. XI #81-88 (1908-1909), p. 460.

Influence is an intangible thing to trace and hard to document. Colonel Wright had a wide circle of acquaintances. Among his papers are letters from eminent men: Andrew Carnegie, Rev. Samuel Eliot, Charles W. Eliot (president of Harvard), Rev. Edward Everett Hale, Theodore Roosevelt, Booker T. Washington, Grover Cleveland.[26] But influence is a more subtle thing than contacts. These men influenced his professional work very little. The letters are in consequence of his reputation as first federal labor chief and by then he had developed his professional ideas.

Something in addition to his personal philosophy was needed to develop a professional policy. He needed a concept of the function of a labor statistics bureau. Until his first appointment in Massachusetts he had done no work on the labor question or statistics. His scrapbooks show him objective. His army promotions show him shrewd and ambitious. His speeches show him able to reach people and fond of public life. But specifically in government labor statistic work he had done nothing. For labor statistic technique he built on the work of his predecessor, General Oliver, whom he later cited as world pioneer,[27] but for a concept of the bureau as a separate government function, Carroll Wright turned to Francis Walker.

---

[26]Wright Papers, letters from each man mentioned, to Carroll Wright.

[27]C. D. Wright, "The Evolution of Wage Statistics," Quarterly Journal of Economics, Vol. VI #2 (January, 1892), p. 164

The two men had remarkably similar careers. Both were born in 1840, gained high rank in the Civil War and headed government bureaus. General Walker taught at Yale; Colonel Wright lectured at Harvard. Both men were president of the American Statistical Association; both died college presidents. General Walker had those things which Colonel Wright lacked at the start of his professional career. He had a college education and the influence of his father, Amasa Walker, which gave him a background in economics; he had statistical experience from his census work; he had a developed concept of the function of a government bureau.[28]

Government Bureau Concept

When Colonel Wright took charge of the Massachusetts Bureau he contacted many people for advice.[29] The one letter he selected to quote was General Walker's. Carroll Wright wrote at the time in his first Massachusetts Report:

> We adopted for our guide the sentiments contained in a letter from a distinguished statistician of the United States. His advice strengthens our own interpretation of the organic law under which we were to conduct our investigations.[30]

---

[28]See Appendix A for biography of C. D. Wright; see Appendix B for biography of Francis A. Walker.

[29]Wright Papers, American Industries, op. cit., p. 5.

[30]Massachusetts Bureau of Statistics of Labor, Fifth Annual Report: 1874 (Boston: Wright & Potter, 1874), p. vii. Annual Reports of the Massachusetts Bureau of Statistics of Labor are hereinafter, throughout this thesis, referred to by Mass., number of report, and year.

General Walker advised him that

> '. . . your office has only to prove itself superior alike to partisan dictation and to the seductions of theory, in order to command the cordial support of the press and of the body of citizens . . . and I have strong hopes that you will so distinctly and decisively disconnect the Massachusetts Bureau of Labor Statistics from politics . . . as to command the moral support of the whole body of citizens. . .'[31]

Time did not change his original evaluation of the advice. Later, looking back, he wrote that General Walker's advice "so clearly and so fully marked the true policy for such Bureau that I adopted it at once."[32] Colonel Wright never pretended that he originated the policy. General Walker was the author. That was in 1873. Years later in 1885 when Colonel Wright had thirteen years of his own experience to draw on, he wrote to the Secretary of the Interior

> '. . . in taking charge of the Bureau of Labor . . . I feel that I can do no better than to adopt the policy marked out for the state in 1873 for that of the nation, and I give General Walker's letter . . .'[33]

Economic Theory

In Colonel Wright's articles and speeches references to General Walker are numerous; among them reference to him as an economist. Economic theory was not a specialty with

---

[31] Ibid., pp. vii, viii; for text of letter see below Appendix C.

[32] Wright Papers, American Industries, loc. cit.

[33] Ibid.

Colonel Wright. He quoted and summarized economists in popular lectures, but he was apt to veer into ethical discussion relying on his philosophy of relentless destiny as in his lecture "Relation of Invention to Labor";

> The wheel of progress rolls on, destroying the old as it rolls, crushing out ignorance . . . educated labor, as the pioneer, must step over human graves, over buried ambitions and lost opportunities; the law is infallible . . .[34]

A contemporary wrote of Colonel Wright

> He took little interest in the theories of capital, of exchange, of money and its value, of the production and distribution of wealth, of the dynamics of the science . . . . An entirely different point of view everywhere pervades . . . . We may call it the ethical point of view.[35]

What interested Carroll Wright most in economics was "pure fact" as he called it, and it was fortunate that he took Francis Walker for an authority in theory. For it was evident from Wright's unfortunate experience in amplifying Engel's law[36] that neither education nor inclination fitted him for independent theorizing.

---

[34]Wright Papers, "Relation of Invention to Labor" notes.

[35]S. N. D. North, op. cit., p. 463.

[36]For discussion of Wright's development of Engel's Law see below Chapter V.

CHAPTER III

CARROLL WRIGHT'S ORGANIZATION AND ADMINISTRATION OF THE FIRST LABOR BUREAUS

Carroll Wright was the first successful chief of the first bureau of labor statistics. The Bureau was in Massachusetts and was the first in the world.[1] When Carroll Wright took charge he introduced Francis Walker's concept of the unique function of a government labor bureau. He separated the Bureau from politics and devised a specific professional code. Proof of his pioneer achievement was acceptance of the Bureau under his administration by all segments of the public.

The end of Colonel Wright's fifteen-year term in Massachusetts overlapped the beginning of what proved to be a twenty-year term in Washington. In the Federal Government he continued and developed the principles adopted from General Walker. The cardinal points in Carroll Wright's state and federal bureau policy were: complete separation of bureau work from politics, and an objective approach to economic inquiry and report.

For a total of thirty-five Bureau years, starting where no one had been successful before, Carroll Wright

---

[1]Mass., Seventeenth Annual Report: 1886, p. xvii.

demonstrated the proper function and policy of labor bureaus. The successful establishment and orientation of these bureaus under his administration was a considerable contribution to economics. It provided acceptable research agencies, new valid data, and a non-political federal agency as a possible resource in labor dispute arbitration.

MASSACHUSETTS BUREAU OF STATISTICS OF LABOR, 1869-1888

Comparison of First Two Massachusetts Bureau Chiefs

The Massachusetts Bureau of Statistics of Labor was established four years before Carroll Wright became its second chief. He was reappointed biennially by successive governors for fifteen years. In that time, 1873 to 1888, he issued fourteen annual reports and handled considerable state and federal census work. He left the Massachusetts Bureau only to devote full time to his appointment as first chief of the Federal Bureau of Statistics. His long tenure in the state and the honor of the federal appointment are in marked contrast to the brief career of the first chief, General Oliver, whose appointments ended abruptly after four years.

The difference in the work of the first and second chiefs is apparent but not readily labeled. If for some reason the reports were out of order on the shelf and one volume were taken at random, a short reading in the text would tell if it were General Oliver's or Colonel Wright's

work. They wrote from different points of view. The topics, techniques and sources are practically identical. Basically the two men worked from the same material under the same conditions, but there is a difference in presentation that is more than a difference in literary style. It is the key to the success of one man and the failure of the other in the same office. Each man had a different conception of the proper duties of the Bureau and his reports showed it. General Oliver conceived the function of the Bureau as a platform for economic reform. He organized his material around his personal moral and political theses. In his reports he combined in himself the role of cleric, judge and political advocate. The statistics found by the Bureau were merely a supplement to his arguments. Colonel Wright conceived the work of the Bureau within precise purposeful limits. The argumentative tone is lacking. He did state his opinions briefly, and recommended specific changes based on the tabled facts, but fundamentally he established the Bureau as a fact-finding agency, a reference source for the legislature, and a contribution to general education. There is a radical difference between a fact-finding and reporting economist and an aggressive politician-reformer. Colonel Wright's success as chief was due to his demonstration of the unique and precise role of an economic bureau in the government. Though General Oliver established the Bureau historically, Colonel Wright established its limited and specific scope.

Organization and Development of Massachusetts Bureau Under Henry Kemble Oliver, 1869-1873

In looking at the facts it would seem that the homage for pioneering should go to General Oliver. The legislature authorized the Massachusetts Bureau in 1869:

> . . .to collect, assort, systematize and present in annual reports to the legislature, on or before the first day of March in each year, statistical details relating to all departments of labor in the Commonwealth, especially in its relations to the commercial, industrial, social, educational and sanitary condition of the laboring classes, and to the permanent prosperity of the productive industry of the Commonwealth.[2]

General Henry Oliver was appointed first chief July 31, 1869, by Governor William Claflin.[3] Henry Oliver had studied at Phillips Academy, Andover, Harvard, and Dartmouth and had held a variety of positions including: teacher in a Salem girls' school, adjutant-general of the State, superintendent of the Atlantic Cotton Mills, Mayor of Lawrence, Mayor of Salem, and treasurer of the Commonwealth. It appears from the record that he received the rank of General in connection with raising and officering a Massachusetts regiment in 1846, which took part in the Mexican War.[4]

---

[2]Mass., Fourth Annual Report: 1873, p. 5.

[3]Ibid.

[4]Mass., Seventeenth Annual Report: 1886, pp. xvii, 1-418.

Initial Bureau Organization. General Oliver had the very difficult job of starting a Bureau without precedent, and, since there had been no discussion in the legislature "when the creating resolve was presented, the whole matter was left for the Bureau to interpret to the best of its ability."[5] The authorizing resolve had only briefly indicated powers and procedure:

> . . . such bureau shall have power to send for persons and papers, to examine witnesses under oath, and such witnesses shall be summoned in the same manner, and paid the same fees, as witnesses before the superior courts of the Commonwealth.[6]

In August, 1869, General Oliver appointed George E. McNeill as his deputy, and in their first report they commented: "We have had to tentaculate our way, step by step, often in doubt."[7] Their powers were not clearly established and they had to contact the attorney-general to see if they could administer oaths. The verdict being no, the Governor commissioned the chief, justice-of-the-peace.[8]

Obtaining information was not an easy procedure and when they applied to the attorney-general for permission to pay assessors, for example, for time spent

---

[5]Mass., First Annual Report: 1870, p. 7.

[6]Ibid., p. 5.

[7]Ibid., p. 6.

[8]Ibid., pp. 7-8.

getting information in response to requests, the answer was again, no. To quote the attorney-general's letter, August 19, 1869:

> It was apparently contemplated that in this, as in other instances, persons having information of the kind desired, would, to a reasonable extent, be willing to furnish it to the Bureau, without charge.[9]

The attorney-general's office was specific about the Bureau's lack of power in the case of witnesses who refused to obey summonses.

> No provision is made for such a contingency; so that, if a witness refuses to obey, you are to take no note of him, but let him go.[10]

Through such preliminary correspondence with the attorney-general, General Oliver established the legal limits and powers which the new Bureau had, and this was a substantial accomplishment.

Characteristics of General Oliver's Work; First Annual Report: 1870. By the first of March, 1870, after only seven months in office, General Oliver was ready with his first report. Since this was the first report of its kind ever to appear in the world a detailed outline of its set-up is interesting. This was

---

[9] Ibid., p. 10.

[10] Ibid., p. 11.

original pioneering work. It was a rambling narrative covering twenty topics in one continuous article, topics such as, the origin of the labor movement, intemperance, medical opinions on English ten-hour bill. The appendix, 222 pages long, was a compilation of statistical tables, replies to question blanks, an article on working women by an anonymous author identified as "a lady familiar with the subject," and a summary of laws affecting labor from 1833 to 1869. The first report, like the three that followed, was not compiled with any faith that the facts alone as furnished by the Bureau would aid the cause of labor.

> . . . it is not our belief that the cause of labor and the laborer can be put into such a light as that its real status can be comprehended, its disease be determined, its health be secured, and its true interests be promoted, by any tabular array of figurate statistics along.[11]

Undoubtedly it was this view of the limited value of statistics relative to his purpose of social reform that accounts for General Oliver's long editorial digressions on each subject he treats. The following sentence ends a paragraph which starts out with the fact that, of 1248 circulars

---

[11] Ibid., p. 15.

sent, only 20 per cent were returned with reply. It can readily be seen that the concluding sentence wanders far from the paragraph opening:

> The causes which have brought about the manifest and acknowledged low condition, the positive poverty of the actual creators of wealth--a wealth mainly possessed and enjoyed by those who did not and who do not normally generate it--these causes must be searched out, must be explored, must be remedied, or there will succeed as an inevitable result, as surely as that darkness comes after the setting sun on a moonless night, a gradual deterioration of the producing capacity of the laboring classes, and therefore, a gradual diminution of wealth.[12]

General Oliver repeatedly and deliberately combined facts with emotional description. Further on the same page there is another concise example: "Returning again from digression, we proceed to speak of Circular #3, addressed to employees, the actual toilers in the domains of industrial labor."

Unmistakably, in his reports General Oliver was expressing a personal thesis, part of which was that the laborers created wealth and the rich did not; but the rich manipulated earnings and immorally kept what did not belong to them. Without even examining the thesis, the primary question is: Is it the proper basis for a government fact-finding report?

---

[12] Ibid., p. 24.

General Oliver gave no sign that he recognized the complexity of the economic questions he was raising. He failed to grasp the far-reaching implications of the industrial change in the Commonwealth and the country. He thought his good moral intention was enough and confidently outlined vague projects for the Bureau. In his first report he mentioned that "subjects of the deepest interest yet remain, such as the consideration of poverty, its causes, and the proper steps towards its abolition."[13]

General Oliver's Last Report and Reasons for His Failure. The Fourth Bureau Report, 1873, was General Oliver's last, and it is a tribute to his objective reporting that reading it, it is quite obvious why he was soon through as chief. He was attacked by radicals and conservatives. The critics ranged from "Wendell Phillips, and 11 others",[14] advocates of the 10-hour law, to Massachusetts' own Congressman Hoar. The fault was not in the honesty of the data, but in the flat, positive conclusions and accusations. His emphasis on the poor working and living conditions of laborers had given a derogatory picture of Massachusetts.

---

[13]Mass., First Annual Report: 1870, p. 36.

[14]Mass., Fourth Annual Report: 1873, p. 13.

[15]Ibid., p. 7-18.

By his own proud boast he had furnished statistical data to the state and the nation, and to England, France, Italy, Germany, and Prussia.[16] The Legislature was placed in an embarrassing position. Massachusetts was first in the world to establish a fact-finding Bureau for labor statistics. General Oliver's zeal for social reform had made the Legislature the inadvertent sponsor of the worst publicity a proud state could have. At home and abroad it had sent out a picture of workers' homes with a foot of water on the first floor at high tide, children under ten and illiterate adults working in factories, and murder for five cents in a Boston alley. Little imagination is needed to picture the furor over the Washington incident mentioned in Representative Hoar's letter

> 'I was passing through the Representatives' Chamber to the Law Library, to look up an election case, when I heard Mr. Finkelnbury's speech.'[17]

Hon. G. A. Finkelnbury, from Missouri, was making the point that the remedy for the poor condition of laborers was not high tariff because the fault lay in the unequal distribution of wealth. In order

> 'to call the attention of the House to certain statistics of American labor, as illustrative of the workings of our tariff in its relation to labor, not the labor of some particular branch of industry . . . but the general condition of factory labor in Massachusetts'[18]

---

[16] Ibid., p. 42.

[17] Ibid., p. 36.

[18] Ibid., p. 30.

he quoted at length from the First Bureau Report and followed the quotations by saying

> 'I ask you to turn from this picture of want and penury, this hopeless condition of a life doomed to a perpetual struggle to make both ends meet, to another page in this book. I mean that part of the book which is devoted to the profits of employers. Of course these matters were hard to get at. The greater profits people make, the less willingness to disclose them.'[19]

This was on March 23, 1872. On May 2, 1872, in the House, Hon. M. C. Kerr, of Indiana, read extracts from the same Massachusetts Bureau Report. He prefaced the reading with a short speech beginning, "Has protection blessed the poor of New England? The operatives there labor more hours per day than do the operatives in like pursuits in Great Britain."[20]

Massachusetts' own Bureau had, under the first chief, been converted into an attack on Massachusetts.

Although General Oliver had started the Bureau, been objective in reporting, and pioneered in investigation and statistical summary--his work was completely unacceptable because he did not limit his role to that of fact-finding statistitian. He had considered this of secondary importance and had made social reform according to his personal tenets

---

[19] Ibid., p. 31.

[20] Ibid., pp. 30, 34.

his professional goal. He misinterpreted and exceeded the powers of the limited authorizing resolve. The reason he was not reappointed in 1873 is reflected in the words of the Governor:

> . . . Those who were most instrumental in the creation of this Bureau generally admit that it has not fulfilled its expectations. Nearly every branch of the labor movement has openly and decidedly expressed dissatisfaction with its methods and its results, and I am not aware that capitalists and employers have expressed any particular gratification therewith.[21]

Massachusetts Bureau Under Second Chief, Carroll Wright, 1873-1888

Separation of Bureau from Politics and Introduction of Professional Code. Colonel Wright assumed the duties of chief, June 12, 1873, and had only until February, 1874, in which to prepare his first report.[22] In that brief time he made a radical change in the function of the Bureau. He eliminated the previous three-part division of the Annual Report, that is:

Introductory and Statistical

Testimony and Narrative

Argument and Recommendations

---

[21] Ibid., p. 286.

[22] Mass., Fifth Annual Report: 1874, p. vii.

In its place he established the form he used in his fourteen annual reports: numbered articles each dealing with a specific subject ". . . and each subject is prefaced with explanatory and introductory remarks, which precludes the necessity of incorporating them in the general introduction."[23] Gone was the over-all theme of social justice that General Oliver had used to tie all subjects together.

Underlying this change in style and form was a change in interpretation of function. In his first opening paragraph Colonel Wright quoted the letter of advice he had solicited from Francis Walker.[24] The Bureau was "to prove itself superior alike to partisan dictation and to the deductions of theory."[25] Colonel Wright was advised to distinctly and decisively disconnect the Massachusetts Bureau of Statistics of Labor from politics, "from dependence on organizations, whether of working men or employers, and from the support of economical theories, individual views or class interests."[26] He adopted Francis Walker's views as a guide.

---

[23] Ibid., p. viii.

[24] Wright Papers, "Carroll Davidson Wright, retiring Commissioner of Labor" by a life-long fellow worker and friend, clipping from American Industries [no date].

[25] Mass., Fifth Annual Report: 1874, p. vii. For text of letter see below Appendix C.

[26] Ibid., p. viii.

In the opening statements of his first Introduction Carroll Wright contributed something new to the Bureau. He gave it a professional code. He applied the American principle of separate functions for separate branches of government to the organization of a government bureau. He narrowed the scope of Bureau work to a precise area for action: investigation and report.

Previously there had been no such conception of the Bureau abstaining from partizanship and personal views. In concluding an interview with a factory worker General Oliver "praised him for his industry and frugality, gave him a brief temperance lecture and moved on."[27] By his reports General Oliver hoped to raise "a cry of mingled surprise, shame and indignation that would bring about an entire change"[24] in the distribution of earnings. General Oliver's attitude was partisan and personal, and aimed at a drastic revision of the economic system.

The change Colonel Wright made in Report Outline reflected the basic change he made in the Bureau. It was no longer a propaganda agency preaching the cause of social reform. State Bureaus of Labor were just emerging in the country. Besides Massachusetts there were two others:

---

[27]Mass., Third Annual Report: 1872, p. 401.

[28]Mass., First Annual Report: 1870, p. 38.

Pennsylvania established 1872, and Connecticut established 1873,[29] but the Massachusetts was the pioneer. By establishing the work on a professional basis Colonel Wright made a major contribution to Bureau development. General Oliver's work demonstrated that a Labor Statistics Bureau set up as a platform for reform was unsuccessful. Colonel Wright established what proved to be a successful basis--a Bureau with a professional creed. In the Introduction to his Fourth Report (the Eighth of the Bureau) he explicitly stated the broad philosophy on which he based his Bureau work.

> The Bureau can not solve the labor question, for it is not solvable; it has contributed and can contribute much in the way of general progress. The labor question, like the social problem, must be content to grow towards a higher condition along with the universal progress of education and broadened civilization. There is no panacea . . . . One great consolation comes in to modify statements made upon platforms, and that is, that the struggle is an old one, that its history shows the social structure to be constantly on the brink of destruction, and that it has, on the contrary, as constantly risen to a higher and better position . . . . To popularize statistics, to put them in a way which shall attract, and yet not deceive, is a work every government which cares for its future stability should encourage and enlarge.[30]

With a professional creed derived from this philosophy, Colonel Wright directed a government Bureau working from a

---

[29]United States Department of Labor, Analysis and Index of All Reports Issued by Bureaus of Labor Statistics in the United States Prior to November 1, 1882, Bulletin #3, p. 6.

[30]Mass., Eighth Annual Report: 1877, pp. vi-vii.

specific legislative Resolve, guided by a specific code, with a definite area for action, and a definite and limited purpose.

Evaluation of Carroll Wright's Work in the Massachusetts Bureau. Historically, Colonel Wright was not important in founding the Bureau. His predecessor set it up. His predecessor initiated the techniques: questionnaires, interviews, hearings, and examination of old records. His predecessor also established that the range of subjects relevant to labor was broad, including housing, wages, purchasing power of wages, child labor laws. General Oliver did original, pioneer work, but he was lost in his material. As a contemporary reviewer of General Oliver's 1872 Report, caustically stated:

> The head of that Board has evidently pursued the usual course with all officials having a public printer at command; he has printed everything, and has compressed nothing. The result is a mass of raw material, indicating great industry, little judgment, and no discrimination on the part of those who prepared it.[31]

General Oliver lacked a precise and controlling policy for the Bureau. His primary purpose of agitation for social reform was out of harmony with the legislative resolve and inadequate as a controlling policy. The Bureau foundered

---

C. F. Adams, Jr., Critical Notes: "Report of Statistics of Labor of Massachusetts, 1872," North American Review, Vol. CXV (October, 1872), p. 211.

because of this lack of proper professional policy. Statistics are unacceptable where there is suspicion of ulterior motive, such as, social reform in their origin.

Colonel Wright, in contrast, inculcated the professional point of view into Bureau policy. By eliminating partisanship, theory-proving, and personal bias, he set the Bureau in its proper professional place. This was of major importance in the development of labor bureaus, and was Colonel Wright's chief contribution to the work of the Massachusetts Bureau.

CARROLL WRIGHT AS UNITED STATES COMMISSIONER OF LABOR, 1885-1905

Commissioner Wright's Bureau work on the Federal level was a continuation and outgrowth of his bureau work in Massachusetts. As Commissioner of Labor, Carroll Wright demonstrated the value of a non-political government labor bureau; extended the scope of statistical inquiry; developed a national bureau modelled on the Massachusetts Bureau of Statistics of Labor but of increased size; and served on the railroad and coal strike commissions.

Federal Bureau Administrator

The Federal Bureau policy was literally identical to the Massachusetts Bureau policy. As noted above in Chapter II Colonel Wright adopted for the Federal Bureau the identical statement of principles he put in his first state introduction. He conceived the Federal Bureau in

the same non-partisan terms with the same strict professional purpose of collecting, classifying, and reporting facts pertinent to labor. The Federal Bureau as he administered it differed from the State Bureau only in size and increased opportunity for establishing uniform classification.

As to size, comparing Colonel Wright's Federal work to his previous state work a tremendous increase in volume is at once apparent from a simple comparison of the library shelves. Where the annual state reports are about one inch thick, the Federal reports are usually two inches thick and on the federal shelf there is in addition the row of fifty-six bulletins and twelve special reports issued under Commissioner Wright. The physical volume suggests his responsibility as bureau head for an increasing volume of literature. Commissioner Wright understood how to handle staff projects. "The organization of a statistical office requires that the efforts of each individual attache be merged into the complete work of all . . ."[32], but as chief

---

[32]United States Commissioner of Labor, Sixth Annual Report: 1890 (Washington: Government Printing Office, 1891), p. ix. Annual Reports of the United States Commissioner of Labor are hereinafter throughout this thesis, referred to by U. S., number of report, and year.

he bore the responsibility, and the work would conform to the principles he established. There is nothing in the reports to suggest that he ever lost control and someone else perhaps should be credited. On the contrary, Mr. Mayo-Smith noted in his review of "Industrial Depressions" that one acquainted with Colonel Wright would identify the first report as largely his personal work.[33] Commissioner Wright often noted individual authorship and gave credit to his staff, but the responsibility was his, and Bureau work is properly attributed to him as chief.

Extending the scope of labor investigation was no problem to Commissioner Wright. The fact that he could systematize, classify, and deal in aggregates made it possible for him to handle new subjects. For example, a contemporary review of his first report called it a "mass of information of very considerable value,"[34] and referred to Commissioner Wright as "the experienced and skilled Chief of the Massachusetts Bureau of Statistics of Labor."[35]

---

[33]Richmond Mayo-Smith, "The National Bureau of Labor, and Industrial Depressions," Political Science Quarterly Vol. I (1886), p. 442.

[34]Richmond Mayo-Smith, op. cit., p. 441.

[35]Ibid., p. 437.

Later Mr. North noted Commissioner Wright's success in enlarging the scope of statistical investigation in new and difficult fields.[36]

Carroll Wright and the "Labor Question"

In keeping with his professional policy of abstaining from politics, Colonel Wright was explicit in defining and avoiding political involvement in the labor question.

There are various references in the literature of the period which reflect the interest in what was vaguely called the labor question. In 1870, Simon Newcomb wrote in The North American Review on "The Labor Question".[37] In 1872, Lyman Atwater wrote on "The Labor Question in its Economic and Christian Aspects".[38] It was Henry Farnham, however, in 1886, who indicated contemporary thought in harmony with Colonel Wright's treatment of the subject.

---

[36]S. N. D. North, op. cit., p. 463.

[37]Simon Newcomb, "The Labor Question," The North American Review Vol. CXI (1870), pp. 122-154.

[38]Lyman H. Atwater, "The Labor Question in its Economic and Christian Aspects," The Presbyterian Quarterly and Princeton Review New Series Vol. I (1872), pp. 468-469.

In "The Clergy and the Labor Question" he wrote:

> What we need is not sympathy but knowledge . . . . The true philanthropists will, therefore, endeavor to inculcate investigation rather than sympathy . . . . Our progress will be most rapid, if each one endeavors to inform himself, as thoroughly as he can, of the conditions which surround him, instead of aiming more ambitiously to settle the whole matter by an appeal to general principles.[39]

In one of his lectures Colonel Wright said frankly "There is no such question, technically, as the labor question . . . ."[40] In some of his pencil notes he wrote:

> The labor question is only a phase of our whole civilization . . . . and the only solution of it is the solution of all questions and phases of questions which make up the sum of civilization . . . . When a man comes to us with a special cure a panacea, for all the ills that beset the working man, we are quite sure of finding a Demagogue.[41]

Colonel Wright thus removed himself from political discussion, which made him all the more valuable in the new field of labor arbitration. He viewed labor problems as one temporary aspect of maladjustment due to historical evolution and change.

---

[39]Henry W. Farnham, "The Clergy and the Labor Question," The New Princeton Review Vol. II (1886), p. 61.

[40]Wright Papers, clipping from Boston Journal, December 12, 1879.

[41]Wright Papers, pencil notes 8" x 9 1/2", pp. 5-6.

Labor Dispute Arbitration

Two presidents appointed Colonel Wright to serve on strike commissions. The two areas of industrial unrest were railroads in 1894 and anthracite coal in 1902. Probably Colonel Wright's careful avoidance of politics added to his official experience and position made him acceptable on the commission as an impartial authority.

While not politically biased, he had sound basic ideas on the subject of wage adjustment. In his report on depressions he had written

> It is absurd to say that the interests of capital and labor are identical. They are no more identical than the interests of the buyer and seller. They are, however, reciprocal . . . .[42]

With regard to method of adjustment or arbitration he was realistic and forward looking

> The trade agreement growing out of the method of collective bargaining . . . holds out more hope in this direction than any other present proposition.[43]

The Railroad Commission presented facts, recommended a permanent national strike commission, and recognition by employers of labor organizations. In view of the fact that he was chairman of the commission and that his own independently expressed ideas were nonpartisan and advanced for the time--

---

[42]U. S., First Annual Report: 1886, p. 289.

[43]Wright Papers, "Carroll Davidson Wright Says," clipping of article by Carroll Wright contributed to Boyce's Weekly Industrial Progress, May 27, 1903.

it is fair to assume that he personally deserved the official and popular praise he received at the time.[44]

He was recorder of the Anthracite Commission and in October 17, 1902, President Roosevelt wrote to Massachusetts Senator Hoar reviewing Commissioner Wright's value during the difficult days of the coal strike.[45]

The fact that Commissioner Wright was chosen to serve on two such important commissions shows the practical value of non-political government labor bureau officials. In time of national unrest he was accepted as fair and his judgment respected. His success in arbitration confirms the wisdom of his principle of a non-political labor bureau.

International Data Incorporated in American Bureau Reports

There was no provincialism in Commissioner Wright's handling of labor bureau work. He did not see labor statistics as a strictly state or federal subject. As early as his first

---

[44]Horace G. Wadlin, "Carroll Davidson Wright, A Memorial," Mass., Fortieth Annual Report: 1909, pp. 383, 384.

[45]Wright Papers, letter from T. Roosevelt to Senator Hoar, October 17, 1902.

state report (1874) he made a wage and hour comparison of Massachusetts and foreign countries. Later (1884) he compared wages and cost of living in Massachusetts and Great Britain. On another subject, Arbitration and Conciliation, in the Eighth State Report (1887) he contrasted Massachusetts and England.

So also in the Federal work, although, of course, United States statistics were of primary importance, he did not hesitate to give a subject its proper international outline. For example, in the report on Industrial Depressions, although only a meager five Bureau agents were assigned to foreign countries for data accumulation in the field--it is a significant five in that it evidences a broad vision and ability to comprehend and outline for study an economic phenomenon of international dimension. Outside the United States, investigations were carried on in Great Britain, Germany, Switzerland, Italy, France, and Belgium.[46] These were selected as the major producing countries. The broad base of inquiry on which the report was based supported the separation of modern industrial depressions from commercial crises and panic. The modern depression was identified as belonging to the age of invention and organized industry:

---

[46]U. S., First Annual Report: 1886, p. 6.

> It is worthy of remark that in those countries where machinery has not been largely adopted the depression in its peculiar features . . . has not been felt to any material extent.[47]

Comparison United States with Foreign Labor Bureau Development

As late as 1891 there were no foreign bureaus comparable to the state bureaus.[48] By 1902 government bureaus were established in Great Britain, France, Belgium, Austria, New Zealand, New South Wales, Dominion of Canada, and the Province of Ontario--all modeled on the United States state bureaus.[49] In the field of labor statistics, the United States starting with the Massachusetts Bureau in 1869 was pioneer and leader. In 1887, in a speech to state chiefs and commissioners, Carroll Wright commented

> 'The European statistician trained in the schools for his work . . . has not yet devoted much attention to the line of investigations which are specifically the province of our bureaus. He has devoted himself to the movements of population, to the statistics of life; but he has not yet gone into the vital questions which grow out of the progress of industrial organizations; he has not had the facility of governmental protection and stimulation, nor has he had the benefit of the great intelligence of the masses which comes from free educational custom. These give the American bureaus of labor an advantage over the governmental bureaus of statistics of European states.'[50]

---

[47] Ibid., p. 291.

[48] Wadlin, Horace G., op. cit., p. 391.

[49] Ibid.

[50] Ibid., p. 390.

CHAPTER IV

EMPIRICAL INVESTIGATION

Empirical investigation is useful to shape, verify, or indicate economic trends, concepts, and laws.

Some of the very earliest empirical investigation of the laboring classes and related subjects began historically with Henry Oliver in the Massachusetts Bureau of Statistics of Labor in 1869, and effectively in 1873 when Carroll Wright took charge of the Bureau. Empirical investigation of the laboring classes and related subjects transferred labor economics from subjective and ethical discussion to objective and critical appraisal. Carroll Wright was the first to demonstrate the applicability of empirical investigation in the development of labor economics.

HENRY OLIVER'S MASSACHUSETTS WORK WHICH WAS FOLLOWED AS FAR AS METHOD BY CARROLL WRIGHT

It is rather curious that General Oliver who originated ingenious methods of inquiry had so little faith in empirical data. The value of his work in devising questionnaires and recording on-the-spot interviews is almost obscured by his digressions and rhetoric. Nevertheless, although he did not himself properly value the data he collected, a detailed analysis of his methods is warranted. Carroll Wright

modeled subsequent inquiry on General Oliver's methods. There is human interest and unintended humor in General Oliver's account of Chinese workmen in North Adams, and the uproar in Washington over his reports. Such episodes are detailed here first, because they illustrate historical first attempts to apply scientific inquiry to economic problems; and second, because they are the methods used by Carroll Wright.

First Bureau Report: Questions and Answers

In the first report, aside from the description of the organization of the Bureau and the correspondence with the attorney-general, there is a detailed account of early information gathering and compiling. On framing questions, General Oliver aptly quotes an Indian proverb: "The wise man knows and inquires, but the ignorant man does not even know how to inquire."[1] Even common terms had to be defined, such as: adult, over 15 years of age; children, under 15 years of age; native children, born of American parents; foreign children, born of non-American parents.[2]

There were three blanks sent out[3]

---

[1]Mass., First Annual Report: 1870, p. 16.

[2]Ibid., p. 17.

[3]See Appendix K below.

In Blank I employers were asked such questions as: how many children under ten they employed; if adults or children employed could read and write; hours of labor per week; salaries of the treasurer and superintendent; highest and lowest day wages; rate of speed in full time. The questions are relevant and well-framed and are given in full in the first report[4] with replies tabled in the appendix beginning with page 368.

Blank II to employers covered such questions as: do women work in the department; do any workers retire at 55 years of age; average profit added to cost of article; was night work lit by gas, oil, or kerosene; proportion of employees who bring their own lunch; effect of changes in fashion in the last ten years; reducing hours of labor.[5]

The circulars were sent with a prepaid return envelope enclosed.[6] In the appendix replies were summarized and selected verbatim quotations were given. The influence of fashion had been injurious in manufacturing straw bonnets and hats, but favorable to the carriage, boot, and shoe business.[7] On the subject of diminishing

---

[4]Mass., First Annual Report: 1870, pp. 16-18.

[5]Ibid., pp. 19-23.

[6]Ibid., p. 16.

[7]Ibid., p. 236.

hours of labor a cigar maker, coded office no. 158, left no doubt as to his sentiments on government interference:

> We have too many laws, and too many interpretations of them; and if half of the laws were swept off the statute books, and half of the lawyers were sent to Minnesota to raise wheat, and all of the fanatical preachers of extreme measures were sent out West to build houses to live in, and the prohibition fanatics were sent out there to dig wells and help make the Northern Pacific Railroad, it would be far better for the State of Massachusetts, and the public generally, than the enactment of any sumptuary laws, or eight-hour laws.[8]

The cigar maker's replies to other questions were equally emphatic and eloquent.

Blank III asked employees such things as: price of board per week if single; actual earnings per day; total earnings past five years; rising time; time start for work; what old trades had died out in town; "Does your work exercise, to any extent, the higher faculties of your mind?"[9] The replies are summarized, quoted verbatim in selected cases, and tabled in the Report Appendix.[10]

Framing the questions, getting them printed and out, returns tabulated and printed, was a remarkable accomplishment in seven months' time, especially in view of the fact that this was unprecedented work.

---

[8]Mass., First Annual Report: 1870, p. 242.

[9]Ibid., p. 369.

[10]Ibid., pp. 263-410.

In addition to a newspaper notice and the questionnaire blanks mailed out, the chief and his staff personally investigated Boston tenements and lodgings. "We spent but three days in visiting certain localities."[11] December 16, 21, and 23, 1869, the chief of police detailed Officer John C. Cluer to accompany General Oliver's group. In the homes of low-paid laborers he reported conditions "one window covered up with old bagging to keep cold from the bed which stood right under it."[12] Further in "Fortune's Alley" he noted, "This alley contains a raw of dilapidated wooden shells . . . ."[13] In the same alley "A room below . . . was abandoned on account of being flooded to the depth of a foot at every high tide."[14] The description of Stone's Alley was a repetition of the same dreary conditions.[15] In all the report on the poorest tenements covers pages 164-185. Henry Oliver does not scruple to point the finger of blame--on page 169 he mentions by name the owner of the house, the lessor, its assessed value, with a comparison of rents

---

[11] Ibid., p. 164.

[12] Ibid., p. 165.

[13] Ibid., p. 166.

[14] Ibid., p. 168.

[15] Ibid., p. 172.

reported by the lessor and those the tenants claimed they paid, and he concludes the particular paragraph on page 170 in italics: "The Tenement Building Law, Chap. 281, Acts of 1868, is, in every respect, ignored and violated." In the section on middle class homes he notes the comparison with the tenements: "There could not be selected much more glaring samples of the unequal distribution of wealth and unnecessary poverty, than those afforded in the house of the late Mrs. Riley, murdered in Stone's Alley for five cents, and in that of the successful accumulator whom we instance."[16] General Oliver included his personal reactions to the housing survey in the text of the report:

> . . . with these visits returning freshly to our memories, and renewing the recollection of the dreadful pictures which some of them (the tenement houses) exhibited, of want and degradation, we shudder, as we did then, and tremble at the indications they gave of the rapid approach of our laborers to the condition of their fellow-laborers in London.[17]

The housing survey had been a personal investigation by the Bureau. Another source of labor information is indicated as "personal inquiry among aged men," in an article by E. H. Rogers included in the First Report.

---

[16]Mass., First Annual Report: 1870, p. 187.

[17]Ibid., p. 35.

Second and Third Bureau Reports: Extension of Investigation Into Strikes and Purchasing Power of Wages

The second annual report (1871) is interesting reading in the matter of strikes and the importing of Chinese workmen into North Adams. The testimony of strikers, a strike-breaker, and employers is all phonographically reported by James H. Slade. It later appears that "phonographically" means some method of shorthand, for Mr. Slade sits at a table, writes in a notebook, and later writes up the testimony from his notes, the only changes being the correction of grammatical errors. The reports have the ring of truth, despite the grammatical corrections acknowledged.

In the second report testimony is given on eight specific Massachusetts strikes during 1870 covering 111 pages. The objects for the eight strikes were tabulated:

5 against wage reduction

1 increase of wages

1 change of method

1 not definable[18]

A strike was defined as an interruption of relationships, and the party that took the initiative was the one that strikes.[19]

---

[18]Mass., Second Annual Report: 1871, p. 47.

[19]Ibid., p. 39.

The testimony is similar to newspaper eye-witness reporting, and gives conflicting accounts of incidents. The interviewed included: the employer who called the firemen to break up the crowd in the streets around the mill; the fireman who was called; the strike-breaker who needed the work; the state detective who found women on the opposite balcony hiding rocks under their aprons. There was no interview with the Chinamen who had been left on the West Coast after finishing railroad work: From San Francisco they had gone to Oakland, and, occupying two railroad cars, spent thirteen days traveling to North Adams, where they were met at the station by three state policemen and seven special officers who escorted them safely through town.[20]

When General Oliver with deputy McNeill and recorder Slade went back to North Adams the next year for further information on the employment of Chinamen, the interview was lively. The employer's first words were: "Before I say anything I want some witnesses. Last year you had the advantage of me, and I don't want to say anything without witnesses."

---

[20] Ibid., pp. 47-149.

Two witnesses were summoned and the employer continued his attack on the Bureau men, claiming if he had known his testimony the previous year was for a published report he would ". . . have taken pains to make it a little more aristocratic." His statements, faithfully recorded, ended with: "I decline to give you any information whatever."[21]

Evidently the first factory operatives were local farm girls or unoccupied girls of well-to-do native families. Then European immigrants had replaced them to a great extent. In his testimony and argument on the Fall River strike, General Oliver made an attempt at summarizing the change in scientific terms, but was unable to suppress his rhetorical tendency:

> Everybody now knows that the educated American operative of the primary period of manufacturing . . . has become palaeozoic and extinct, and that a secondary period long ago succeeded it, furnishing a low grade of European operatives, congeners of a class which at home had been for centuries pauperized and kept in a state of most deplorable and stultifying ignorance . . . and he [the employer] does not see what "we are to do for labor unless the Chinaman comes along"; and so we get into the tertiary formation, by mongolizing our factory towns.[22]

---

[21]Mass., Third Annual Report: 1872, pp. 402-404.

[22]Mass., Second Annual Report: 1871, p. 459.

Farmers were also concerned with importing Oriental help. On the price of labor one farmer wrote:

> What is needed to improve the farming interest is more and cheaper help. Let the Asiatic come. Ireland has almost run out, and those now here are getting too much Americanized to be very efficient help . . . .[23]

The farmer's reply was in answer to a circular the Bureau sent out. Five groups were covered with different methods and varying results.[24]

The second report undertook analysis of earnings, average earnings were computed from average daily wages, taking working days as 300, after having deducted from the 365, 52 Sundays and 13 legal and other holidays. On this basis after surveying 94 occupations, the average yearly earnings, computed from average daily wages, were:

Men	635.80
Women	259.69
Young persons	269.04
Children	167.41

(The note is made that actually for continuous employ there should also be 30 lost days per year and the base days should be 270 work days.)[25]

---

[23]Mass., Second Annual Report: 1871, p. 157.

[24]See Appendix J.

[25]Mass., Second Annual Report: 1871, pp. 417-422.

A basis for cost of living figures was set up based on personal Bureau inquiries in forty-two places.[26]

In the third report, 1872, the Purchasing Power of Wages was set up. Figures were given for England, 1379, 1450, and Massachusetts 1630 to 1870. A table was given of prices of labor and articles of subsistence in Massachusetts, 1780-1864, taken from three sources: 1. Records of Hathorne and Ward families of Salem in the archives of the Essex Institute; 2. County bills in books of County Commissioners; 3. Memories of workmen. Income was work days multiplied by daily rate; basis was family of four. Work days varied from 250 to 310, but 1800, 1830, 1860, each of the eight or nine trades were considered to have the same number of working days in each of the three periods studied. To get actual earnings figures:

1. Total wages paid in any employment were divided by average number employed
2. Ratio established of men, women, young persons, and children employed
3. Ratio wages to each class of employees determined
4. Day wages for each class were multiplied by working days in year.[27]

---

[26]Mass., Second Annual Report: 1871, p. 423.

[27]Mass., Third Annual Report: 1872, pp. 468-529.

CARROLL WRIGHT'S WORK IN MASSACHUSETTS AND FEDERAL BUREAUS

Massachusetts Work--Modeled on General Oliver's Work as to Method, Source, and Subjects

The change in philosophy which Colonel Wright brought to the Massachusetts Bureau might be viewed as a change in editorial policy, but the technical problems of the Bureau were the same. Like General Oliver, Colonel Wright had two main problems:

- determining sources of information and methods of getting it;
- choosing proper subjects for inquiry.

In solving these two problems Colonel Wright continued or enlarged on the work of his predecessor.

With regard to information he proposed to rely on personal examination rather than questionnaires, since questionnaire replies were voluntary, and to make use of correspondence. Realizing the insufficiency of figures from these sources, he endorsed General Oliver's recommendation that when the Bureau took the 1875 State Census "a thorough and exhaustive system of statistics"[28] be employed.

In fairness to General Oliver, it should be noted that he was aware there were disadvantages as well as advantages in voluntary replies. Although he was criticized

---

[28]Mass., Fifth Annual Report: 1874, p. ix.

for making sweeping conclusions from insufficient data, he had stated precisely how many blanks were sent and returns received and had complained, "This result convinces us . . . that compulsory legislation alone, with penalty for refusal, will secure replies to such questions."[29] It might well be, however, that the legal problem of precise definition of what was compulsory added to probable resentment, would have made compelled information less adequate than voluntary. As to Henry Oliver's sweeping conclusions, he had arrived at them before investigating; they were based on his personal convictions.

There were sixty-four articles in Colonel Wright's fourteen Bureau reports. Classified by method and source they fall easily into seven self-explanatory groups:

1. Questionnaires
2. Interviews and/or inspection
3. Previous Bureau Reports
4. State or Federal Census
5. Compilation of Records and/or Analysis
6. Historical Summary and Comment
7. Non-Bureau Reports and Articles.

The first six groups covered original Bureau investigation, analysis, and compilation.

---

[29]Mass., First Annual Report: 1870, p. 23.

Identifying the source of each article is quite easily accomplished from allusions in the text. For example, Article 4 in the 1874 report states: "To obtain the desired figures in Massachusetts . . . direct personal investigation was made by agents of this Bureau."[30] For this thesis editorial judgment is used where more than one source is mentioned. The policy has been, where figures from other sources were used for comparison in reporting Bureau work, to assign the article to its Bureau source. Thus, the above-mentioned Article 4 is listed under Bureau Interviews and/or Inspections even though it also states: "The principal data from which we have drawn the rates paid for foreign labor were obtained by the personal investigation and application of the Hon. Edward Young, Chief of the National Bureau of Statistics at Washington, and responsible parties resident in the respective countries working under his instructions."[31]

One-third of Colonel Wright's state work was based on first-hand Bureau agent interviews or investigation. Over one-half of the articles were based on other Bureau work and only nine per cent of all the reports written or edited by him were based on non-Bureau work.[32]

---

[30]Mass., Fifth Annual Report: 1874, p. 52.

[31]Ibid., p. 51.

[32]See Appendix L below.

Here an important comparison with Oliver's work should be made. No such clean-cut analysis of sources used by General Oliver can be outlined. Though his reports were replete with tabular statistics from returns, General Oliver had topics of discussion rather than articles, and although he used the seven methods referred to, he wrote in such a wandering style that it is not possible to classify satisfactorily the extent to which he used each source.

This reflects a basic difference. Colonel Wright was working with the discovered facts as the basis for his reports. General Oliver was agitating for social reform and the facts were subordinate to his theme.

As to choice of subjects for inquiry, Colonel Wright's first report included work on: wages, hours, prices, savings banks, and education and employment of children. This was similar to the line of inquiry pursued by General Oliver.

Grouping the articles in Colonel Wright's reports under five major headings shows that two-thirds of his work was description and analysis of the labor force, and of that three-fifths was a description of its economic condition, covering wages, hours, prices, cost of living. The distribution of articles is found below in Appendix M.

Massachusetts Work: Treatment of Granite Mills Fire, French-Canadians, and Wages

Typical examples of Colonel Wright's treatment of subjects are: 1875--concerning the Granite Mills Fire; 1882--concerning the French-Canadians in the working population; and 1874, 1885--concerning wages.

First 1875--the Granite Mills Fire: This subject is included in a 73-page article entitled "Factory Legislation."[33] The opening chapter of the article is a "Chronological History of English Factory Legislation."[34] The second chapter is a description of the Granite Mills Fire. The third chapter is statistics regarding upper stories of mills in Massachusetts with tables showing "means of escape, in case of fire or panic, from Upper Stories of Mills."[35] The subject is more sensational than any of General Oliver's tenement surveys, but the effective reporting is a masterpiece of restrained writing. The heart of the article is the shortest chapter, Chapter II, with 10 pages. In it Colonel Wright simply reports on nineteen of the children employed in the mill at the time of the fire. ". . . as the general facts respecting the disaster are known to all, we conceived

---

[33]Mass., Sixth Annual Report: 1875, pp. 115-187.

[34]Ibid., p. 115.

[35]Ibid., p. 153.

it to be more important to obtain the special facts relating to the children employed . . ."[36] The individual reports were brief:

> Noah Poitras, brother of the last mentioned, was twelve years old the 6th of May, 1874. He assisted his sister at 'spooling' a few hours every day, and had done so for a year past. Before going into the mill he attended school, but had not done so since he commenced work. He escaped from the attic window and survived the fall but two hours.[37]

The chapter ends with a simple table: 19 children are listed. Example: "James Smith. Age 9. Sex male. Time employed, 2 days. Result killed."[38] Of the nineteen children, summary of the result column shows 7 killed, 6 injured, 6 uninjured.[39] The concluding chapter of the article is recommendations for legislation. The article illustrates Colonel Wright's ability to assemble facts and handle them with such detachment that the main points and arguments are apparent with little editorial comment needed.

The second article selected for example is 1882 on the French-Canadians. The previous year in an article advocating extension of the 10-hour day to other states,

---

[36] Ibid., p. 145.

[37] Ibid., p. 149.

[38] Ibid., p. 151.

[39] Ibid.

the Canadian French were referred to as "the Chinese of the Eastern states,"[40] but Colonel Wright handled the resulting protest with the same impersonal detachment he had shown in reporting the sensational Granite Mills Fire. Ninety pages are devoted to a hearing where French Canadians presented testimonials as to their character and value in the laboring population, which testimonials they were assured at the time would be printed in the next Bureau report. Colonel Wright presided at a hearing in the Green Room of the State House. The meeting was reported in the form of questions and answers. The Bureau's defined purpose of faithfully reporting facts was a strong point in Colonel Wright's defence. The Bureau the previous year had been mainly quoting objections of those interviewed when they called the French Canadians "Chinese of the Eastern states," so in opening the hearing Colonel Wright could say without compromising his position, "Please bear in mind that personally I have no pride of opinion in this matter, and shall not feel hurt if you succeed in proving every statement made to the Bureau relative to the French to be absolutely false."[41]

The third subject taken for example was the heart of the labor problem as far as the Bureau was concerned:

---

[40]Mass., Thirteenth Annual Report: 1882, p. 3.

[41]Ibid., p. 11.

the economic condition of the workers. As far back as 1872 General Oliver had reported on the Purchasing Power of Wages.

A good illustration of Colonel Wright's work on wages is in his First (1874) and his Sixteenth (1885) Reports.

The 1873 article was carefully planned. Data on foreign labor came from Hon. Edward Young, Chief of the National Bureau of Statistics, Washington. The Massachusetts Bureau collated and systematized the foreign figures and converted them to American 1872 paper dollar values, and also standard gold values. State figures were obtained from Bureau investigation.[42]

The tables show highest, lowest, and medium wages and hours of labor per week. They are historically interesting as random samples, but of no more value than that since the data were incomplete and unverified. He outlined the shortcomings of wages and bonus articles, ten years later when he continued the same study in the 1884 report (condensed for reprint in the 1885 report).

The deficiencies are obvious. It is a comparison between Massachusetts and Great Britain and wage figures are taken from payrolls without further verification.[43]

---

[42]Mass., Fifth Annual Report: 1874, pp. 51-52.

[43]Mass., Sixteenth Annual Report: 1885, p. 107.

The figures for Massachusetts covered only about 10 per cent of industrial payrolls using the 1880 census as 100 per cent.[43] However, in Great Britain there is not even a comparable Census.[44] Although in Massachusetts the wages were for only 10 per cent of those working in industries selected for study, the industries selected involved 74.9 per cent of the total product of the manufacturing industries of Massachusetts.[45] These limitations are not a reflection on Colonel Wright's ability. They underline the conditions under which he worked. Comprehensive investigation had never been undertaken. He was using to the best advantage the data developed and available

> . . . we have sought simply to determine with mathematical accuracy the percentage of difference in the rates of wages paid in Massachusetts and Great Britain, in industries common to each.[46]

That he realized the limitations of inadequate data is evident from an earlier remark:

> The grand desideratum, however, in statistical work is uniformity of classification and presentation after, of course, accurate original entries. Without these, comparison becomes guesswork . . .[47]

---

[43] Ibid., p. 108.

[44] Ibid., p. 109.

[45] Ibid., p. 108.

[46] Ibid.

[47] Mass., Eighth Annual Report: 1877, p. vi.

The importance of Colonel Wright's work on the economic condition of workers is that he indicated surveys and investigations, not theory, were the proper source for information.

Federal Work: Sources, Methods, and Treatment

The detailed analysis of Colonel Wright's state work above is not necessary for his Federal work since the Federal work was an outgrowth and continuation. There is no fundamental change and no new development simply an expansion on principles already worked out. For example, time and wage statistics for the Fifth Federal Report, 1889,[48] were taken from payrolls, the same source used in the state work for wage statistics, and in the Nineteenth Federal Report, 1904, the source was still the same.[49] Lack of adequate and reliable data still prohibited extensive analysis and positive conclusions as laconically noted in the Thirteenth Federal Report, 1898, on Hand and Machine Labor: "Great difficulty was experienced in securing reliable data."[50]

---

[48]U. S., Fifth Annual Report: 1889, p. 13.

[49]U. S., Nineteenth Annual Report: 1904, p. 10.

[50]U. S., Thirteenth Federal Report: 1898, p. 11.

CARROLL WRIGHT AS STATISTICIAN

To assess properly Colonel Wright's work as a statistician, it is necessary to look at labor statistic development in the last part of the nineteenth century.

The U. S. Census Bureau instituted the census in 1790, but the first scientific census was 1850,[51] and it was not until the tenth federal census in 1880, that General Walker's reforms made the federal census an outstanding statistical work.[52] As late as 1892, there was no industrial census in England.[53]

Organized industrial inquiry began in the United States. The first was in 1872 in Massachusetts; General Oliver was the pioneer.[54] "When that office was instituted there were no models in industrial statistics in any direction."[55]

---

[51]Carroll D. Wright, Address at Annual Meeting of the American Statistical Association, January 17, 1908, Publications of the American Statistical Association Vol. XI Nos. 81-88 (1908-1909), p. 5.

[52]Ibid.

[53]Carroll D. Wright, "The Evolution of Wage Statistics," Quarterly Journal of Economics, Vol. VI #2 (January, 1892), pp. 152-153.

[54]Ibid., p. 164.

[55]Ibid., p. 157.

Index numbers were in a preliminary stage in the nineteenth century. Wesley C. Mitchell places serious interest in measuring and explaining increase in cost of living after 1900.[56] The oldest American wholesale price series, Bradstreet's, began in 1897, and the majority from 1909.[57]

At the time Carroll Wright worked, gathering information was still in an early stage and data was just beginning to accumulate. His failure to advance significantly techniques for statistical analysis is more properly attributed to inadequate data than to lack of ability or interest on his part. Even with the advances in census work made by General Walker in the tenth and carried on by Colonel Wright in the eleventh, the point was made that there was little value for scientific purposes of average earnings derived from census figures.[58]

---

[56]Wesley C. Mitchell, "The Making and Using of Index Numbers," United States Department of Labor Bulletin #656 (March, 1938), p. 8.

[57]Ibid.

[58]Charles J. Bullock, "Wage Statistics and the Federal Census," reprinted from the American Economic Association Monograph on The Federal Census (1899), p. 355.

One difficulty lay in determining average number employed. An analysis of the 1880 census showed that the average number reported was the same as the greatest number at any one time in half of the cases.[59] Specifically, the divisor used for finding average wages was a critical factor in determining average wages. Thus when the total employees was used for divisor the average wage was smaller; when an average number of employees was used for divisor the result showed what a laborer would receive if continuously at work, but it still did not give actual average income.[60] Colonel Wright was aware of the problem. He stated "There is a great deal of condemnation of the average, and I cordially join in the condemnation."[61] In two of his state reports he introduced modifications which would tend to remedy the difficulty; in 1875 he introduced gradations of income instead of a single figure to show that there was a range, such as, 300-400; and in 1884 he introduced the classified wage principle.[62] Both reporting and tabulation were in their infancy as he noted in 1892.[63]

---

[59] Ibid., p. 348.

[60] Ibid., pp. 362, 363.

[61] Carroll D. Wright, op. cit., p. 177.

[62] Ibid., p. 165.

[63] Ibid., p. 151.

The contemporary evaluation was that he ranked below General Walker as a statistician because he did not carry statistics to close analytical results.[64] This was probably due to his tendency to veer off into ethical rather than economic analysis, or his belief, as he put it in his own words, that

> The spirit of the modern statistician lies in the precepts laid down by General Walker and in the fact that there is something deeper . . . for the statistician must have the spirit of . . . ethical philosophy, the recognition of . . . the principle of evolution.[65]

Yet, though he was indebted to General Oliver for the foundations of inquiry technique and to General Walker for precepts of modern statistics, by combining the two he himself became a successful statistician. Successful in the sense that his work was recognized and approved. By the time he began his Federal career his eminence was established. Under his direction the once discredited Massachusetts Bureau had won professional recognition:

---

[64]S. N. D. North, "The Life and Work of Carroll Davidson Wright," Publications of the American Statistical Association, Vol. XI #81-88 (1908-1909), p. 448.

[65]Carroll D. Wright, Address at Annual Meeting of the American Statistical Association, January 17, 1908, Publications of the American Statistical Association Vol. XI Nos. 81-88 (1908-1909), p. 13.

> The Massachusetts Bureau of Statistics of Labor is accustomed to give us more valuable reports than any other state bureau, owing to its better organization, its long experience, the confidence and support of the people of the State and the skill of its officers. In fact, it is about the only state bureau where statistical work is of a high order.[66]

Colonel Wright merited his fame as a statistician because under his state and federal bureau administration the model was set for producing the first classified labor statistics data of any professional significance.

RELATION OF STATISTICS TO ECONOMICS

In Colonel Wright's mind labor statistics were important to economics. Statistics were a tool. The connection was simple and logical. In his own words:

> The statistics of labor have undergone a very decided evolution through the application of scientific methods suggested by economics.[67]

> . . . classification, which is the essence of all science, is essentially the distinguishing feature of statistics.[68]

This aspect of the nature and development of statistics was cited by his contemporary, Richmond Mayo-Smith, as bearing directly on economics:

---

[66]Richmond Mayo-Smith, "Reports of Statistics of Labor Published in 1887," Publications of the American Statistical Association Vol. I #1-8 (1888-1889), p. 161.

[67]Wright Papers, lecture notes "Science and Economics" address by C. D. Wright given December 28, 1904.

[68]Wright Papers, "Advantages of a Uniform Classification of Commercial Statistics by Different Countries," by C. D. Wright.

> . . . in all modern attempts to formulate a social science by the inductive method statistics play an important part . . . . The old method of collecting statistics has proved utterly inadequate . . . . In many cases statistics enough were collected, but they were so lacking in uniformity that they could not be utilized . . . .[69]

Colonel Wright was emphatic about the professional line separating statistics from economics. The functions of the statistician and the economist were distinct and mutually exclusive:

> The official statistician . . . also recognizes the need of the further application of economic analysis in the use of the data he collects . . . . His duty is to collect, classify, and publish facts relating to the conditions of the people. Their economic interpretation must be, and largely too, the work of another class.[70]

Wage statistics were a tool that was just being made available to economists. It made possible the use of the inductive method in the field of labor, but the value of the economic analysis varied directly with the scientific value of the statistics.

---

[69]Richmond Mayo-Smith, "The National Bureau of Labor and Industrial Depressions," Political Science Quarterly Vol. I (1886), p. 439.

[70]Wright Papers, lecture notes "Science and Economics" address by C. D. Wright given December 28, 1904.

CHAPTER V

OUTSTANDING ORIGINAL INQUIRY AND REPORT CONCERNING ECONOMIC PROBLEMS

For this chapter five fields of economic inquiry are selected to show the quality and extent of Carroll Wright's empirical investigation and summary. The reports were landmarks; some even now, as in the case of Family Budgets, unsurpassed by subsequent work, because they were conceived and developed with such uncommon skill.

To pioneer investigation is a notable achievement. To have an initial and original study tower for years over subsequent work is an indication of Carroll Wright's workmanship, his insight into the fundamental elements of a concept, and his ability to sense relationship and pattern in raw unorganized data. His work exhibits his ability to define a field of inquiry, outline a pattern for pertinent data, carry out investigation, and present at the end, regardless of the amount or elaboration of detail--a precise, coherent summary.

At the time he worked European statisticians had not gone beyond limited inquiry into such fields as movements of population, but in his reports Carroll Wright extended the field of labor investigation to include some of the vital

questions which had grown out of the progress of industrial organization. Considered here are five of the areas in which he made report: Industrial Depression, Family Budgets, Hand and Machine Labor, Cost of Production, Wage Statistics.

The reports were valuable in their time in advancing the scope and methods of economic inquiry, and in providing information. Surprisingly, they are not outmoded in the present. They are a combination of workmanship in detail and true insight in initial concept; the combination gives them their permanent value.

BUSINESS CYCLES: REPORT ON INDUSTRIAL DEPRESSIONS

The intent of the first Federal Report was to bring depressions into the scope of Bureau investigation as pertinent to the condition of labor. The report represented original inquiry into a complex subject and an organization and grouping of facts. The work was neither definitive nor comprehensive, but was notable for originality in developing a model for analysis of a hitherto hazily outlined economic phenomenon--industrial depression.

The original inquiry was based on reports of only five Bureau Agents in foreign countries and only fifteen in the United States.[1] The significance of the work did not

---

[1]U. S., First Annual Report: 1886, p. 6.

lie so much in facts or conclusions as in the novelty of the investigation and the outline established for dealing with a complex subject. The outline was logical and simple, but it should be emphasized that it was original; no such model had previously existed for a discussion and analysis of industrial depressions:

- classify crises and depressions for previous fifty years in major producing countries
- relate them among countries
- relate causes to results
- analyze current depression giving causes and possible remedies.

Commissioner Wright took pains to make clear that

> The Bureau has addressed itself to this work without the conceit of expecting to evolve any economic law relative to the cause or causes of depressions, or to lay down in any dogmatic way any positive remedial solution of such depressions.[2]

Yet, as Alvin Hansen pointed out in his discussion of business cycles,[3] Carroll Wright made a significant contribution to cycle analysis when he noted that the exhaustion

---

[2]U. S., First Annual Report: 1886, p. 13.

[3]Alvin H. Hansen, Business Cycles and National Income (1st ed.) (New York: Norton, [1951]), p. 64.

of investment opportunities due to a decline in railroad building was related to the subsequent industrial depression.[4] The changes in the level of real investment had not previously been related to depressions. Although theoretical discussion in the report on Industrial Depressions was avoided deliberately,[5] the objectivity and thoroughness of the inquiry in exploring all factors, brought to light this significant contribution to cycle theory.

COST OF LIVING: REPORTS

The longest article in Colonel Wright's Second Massachusetts Report (1875) was on Cost of Living for workingmen's families. Three hundred ninety-seven families were investigated. When Colonel Wright became Federal Commissioner he had an opportunity to do a national study of family income and expenditure patterns. For the Eighteenth Annual Federal Report (1903) 25,440 families were studied and the data was gathered in the principal industrial centers of thirty-three states.[6] The report was significant not only for extending the scope of Bureau inquiry into expenditure patterns, but also for retail price

---

[4]U. S., First Annual Report: 1886, p. 291.

[5]Ibid., p. 7.

[6]U. S., Eighteenth Annual Report: 1903, p. 15.

lists of staple foods 1890-1903 which was the first retail series, previous series having been wholesale.[7] In the Eighteenth Federal Report the study was extensive. A "normal" family was defined:[8]

- husband at work
- wife
- not over five children (all under fourteen)
- no dependent, boarder, or servant
- expenditure for rent, fuel, lighting, food, clothing, sundries

This last requirement eliminated such people as home owners and farmers. In addition to defining the normal family, assumptions were made as to food consumption. The report derived percentage of expenditures for various purposes.[9] His Massachusetts budget studies illustrated both the strength and limits of Wright's work in economics. In attempting to construct general principles for measurement of living by the distribution of expenditures for present consumption--Wright misinterpreted Engel's law. Engel's law actually had a limited application. The basic hypothesis was that the distribution of the budget, as shown by actual expenditure, is a measure of the well-being of the people with or without regard to the total income of families. The specific limited assertion Engel

---

[7] Ibid., p. 11.

[8] U. S., Eighteenth Annual Report: 1903, p. 18.

[9] Ibid., p. 101.

intended was that the poorer must spend a greater percentage of income for maintenance and a greater proportion of this for food, and thus, the proportion of outgo for food was the best measure of the material standard of living. Wright erred in trying to apply the principle to other budget items.

Despite this Engel-law error which he cited, Carle Zimmerman still wrote in 1936 that Carroll Wright's 1875 budget research, analysis, and summary was significant in its period and unsurpassed in the twentieth century:

> This type of analysis with its background of a complete budget of incomes and expenditures, its consideration of the social organization, its discussion of savings and home-ownership, and its general orientation places budget studies in the United States on a scientific plane which has been equalled by only a few investigators since that time."[10]

PRODUCTIVITY: REPORT ON HAND AND MACHINE LABOR

Field work for the 1898 Federal Report began in November 1894.[11] The attempt to study productivity in a period of radical change called for patience and ingenuity. The report pointed out that ". . . scarcely an article now in use is the exact counterpart of the one serving the same purpose forty or fifty years ago."[12] The classification of

---

[10]Carle C. Zimmerman, Consumption and Standards of Living (New York: D. Van Nostrand Company, Inc., 1936), p. 469.

[11]U. S., Thirteenth Annual Report: 1898, p. 5.

[12]Ibid., p. 15.

industries was practically that of the 11th census.[13] The fact that no simple conclusion could be drawn from the study was noted in the opening. The bureau could not conclude if changes in creative cost of product were due to lack or surplus of labor, or introduction of new machinery.[14] Nevertheless, the report was an important pioneering attempt in exploring productivity. Machine labor was replacing hand labor in some instances and supplementing it in other. Colonel Wright was forward looking and blunt with regard to the use of machinery:

> There is no more ignorance in the world on account of machinery; but by its perfections an ignorant class can do perfectly what an intelligent class used to bungle over.[15]

But as far as his official report went it aimed at impartiality not argument:

> . . . the statistical method can be only suggestive of the arguments which might be used for or against the use of machinery because of its effect upon wages.[16]

COST OF PRODUCTION: REPORTS

The three volumes which are the Sixth (1890) and Seventh (1891) Annual Reports on Cost of Production were an

---

[13]U. S., Thirteenth Annual Report: 1898, p. 5.

[14]Ibid., p. 5.

[15]Wright Papers, "Ethics of Machinery" by Carroll Wright, clipping from Boston Journal, December 10, 1879.

[16]U. S., Thirteenth Annual Report: 1898, p. 5.

attempt to present economic factors related to tariff legislation. Political considerations took precedent over economic considerations in the McKinley tariff that was passed--so the reports failed to achieve their initial purpose. But to an economist there was value in this inquiry into costs of production and methods developed for reporting Wages (Time and Earnings) and Cost of Living. In handling the unwieldy subject, Commissioner Wright exhibited his marked ability to focus on a main purpose and produce a coherent report, even though the data had never previously been classified and definition of the principle components of the subject was still in dispute. He cited four definitions of Cost of Production quoting contemporary authorities.[17] He isolated disputed elements, such as: interest, depreciation, insurance, royalty to owners of soil--excluding them from the main tables. He did, however, tabulate them separately so that they were available to those whose definition required them.

In the Sixth and Seventh Federal Reports, Commissioner Wright did significant basic outlining for a study of cost of production. Although the articles were

---

[17]U. S., Sixth Annual Report: 1890, p. 8.

chosen because they were dutiable in the United States[18] the study has value for more than tariff argument. At that time, 1890, the United States led the world in iron output.[19] The relation of freight to market price, the elements that went into cost, labeling theoretical elements such as interest and depreciation--were all valuable in analyzing and evaluating the cost of production in the iron industry as well as in the other industries studied.

WAGE STATISTICS: REPORTS

There is never any doubt when handling one of Commissioner Wright's reports as to the contents. He was open and explicit as to what he was presenting. At the beginning of the Fifteenth Federal Report (1900) he wrote "It is only what it pretends to be a compilation. It is, therefore, a work of reference, and not a study of the wage question."[20] It was a tremendous compilation. Fifteen hundred different official reports were reviewed and forty-five hundred occupations and subdivisions of occupations were considered.[21]

Four years after the compilation, the Bureau submitted its own Wages and Hours study in the Nineteenth Report (1904).

---

[18] U. S., Sixth Annual Report: 1890, p. 3.

[19] Ibid., p. 16.

[20] U. S., Fifteenth Annual Report: 1900, p. 6.

[21] Ibid.

The data were taken direct from payroll records by Bureau agents,[22] and four years of investigation was summarized as wages and hours by occupations; industries; and occupations and geographical divisions.

From the beginning to the end of his two bureau careers, Colonel Wright concerned himself with wage statistics. In his first Massachusetts report (1874) he concerned himself with wages and hours of labor and his last federal report (1904) had the same title. The simple title covers a complex subject. Even in the Fifteenth Federal Report (1900) where there was no original investigation simply a compilation of hundreds of reports, the work took seven years and the information was first transferred to working cards since it could not be compiled literally.[23] His last report was presented in 1904 based on original Bureau investigation of company payrolls. Again it should be noted that his presentation added to the value of his reports. He indulged in no generalized conclusions, and he labeled clearly his tables.

As far as wage theory went, he depended on General Walker and quoted his refutation of the wages-fund theory.[24] Further than that he did not concern himself with wage theory.

---

[22]U. S., Nineteenth Annual Report: 1904, p. 10.

[23]U. S., Fifteenth Annual Report: 1900, pp. 5-6.

[24]Wright Papers, "Industrial Progress - Modern Theory of Wages" by Carroll D. Wright, clipping from Boyce's Weekly, March 4, 1903.

CHAPTER VI

CARROLL DAVIDSON WRIGHT, ECONOMIST
SUMMARY AND EVALUATION

The discussion of Carroll Wright in this thesis shows a man publicly honored in his time; a man of remarkable ability, whose work was a substantial contribution to the development of economics. He is important not simply because of his connection with the Massachusetts Bureau and the distinction of federal appointment, but because his ability matched the opportunities. He had a propensity for objectivity. He was temperamentally suited to apply empirical investigation. He also had marked administrative ability and the happy faculty of reconciling bureau requirements with public demands.

He contributed to economics in three ways: bureau organization and administration, empirical investigation, and statistical report bearing on economic problems.

He brought to the Massachusetts Bureau in 1873 an objective point of view that converted it from a propaganda agency to a statistical research bureau. He did not bring a profound statistical background. What he did bring was of more immediate value--the ability to successfully organize and administer a government labor bureau. He at once

separated the Bureau from politics and defined its limited function. In all the uncertainty and vaguary of a new government endeavor, he kept the bureau in focus, concentrating on its primary purpose: inquiry and presentation. This was no inconsiderable feat, and he was the first to do it successfully.

During his twenty years as Federal Commissioner of Labor he further demonstrated his administrative ability. He was able to organize a national bureau of labor, the first of its kind. The validity of his professional code as a working creed was proved. He did not alter or amend it. It was adequate as a controlling purpose for the varied activities of the national bureau.

To credit General Walker as the author of Colonel Wright's professional creed does not detract from Colonel Wright's achievement. It is one matter to enunciate and another to implement a policy. Translating the principles into action was a long endeavor. From 1873 to 1905, Colonel Wright demonstrated the code in practice. Those thirty-two years covered financial crises, industrial strikes, and changes in political leadership. By administering labor bureaus as professional not political units Colonel Wright made possible the long-run purpose of scientific data accumulation, unaffected by political and industrial change.

An appreciation of Carroll Wright's ability and work is slowly developed. Current references in economics arouse a casual interest in the man and his work. The fact that he was first Commissioner of Labor gives him a certain fame. A little study shows his work to be more than historically curious. Only a year separates Henry Oliver's typical nineteenth century rhetoric from Carroll Wright's cool prose. The more time one spends studying Carroll Wright's work the more one is impressed. The cool prose was not mere literary skill. It was the result of something more basic. In his fullest reports he exhibited what a slow, long study finally labels as a species of genius in fusing economic concept, empirical investigation, and data pattern.

In handling such topics as Industrial Depression, Family Budgets, or Productivity, all ponderous and unwieldy subjects, there is no sign that his material weighs heavy on him, and he is struggling to get through. Careful workmanship is evident in such details as his Cost of Production table headings. Here the last degree of effort was spent in expressing detail in pattern--instead of distorting detail to conform to superimposed inadequately-conceived form. The pattern or form which Carroll Wright

used in outlining specific problems was organically suited to the detail. This is important because the value of a summary outline is in direct proportion to its adequacy in expressing data. The clarity of his summary outline was the result of his uncommon ability to synthesize basic concept and elaborate detail.

The point at which he faltered was in theorizing, as in the oft-bruited misinterpretation of Engel's Law. In general, however, he stopped short of theorizing and further analysis once a summary was completed. Perhaps, it was happily a sin of omission. Actually his time was better spent on administration, research, and exposition since that was where his ability lay. He was direct and decisive. His work was original, definite, and organized. The reports might never have reached their finished state if Carroll Wright had been preoccupied or primarily interested in economic theory or speculation. Instead, he would have been endlessly diverted by the possible theoretical implications of all the raw data flowing across his desk.

It is hardly fair to criticize him too severely for failure to pioneer in territory he made only a feeble attempt to enter. Economic theory, except for his Engel's Law essay, he left to such economists as Francis Walker.

Where he seriously attempted to explore new fields he went fast and far. This thesis discussed three areas where he successfully pioneered: He marked the path government labor bureau administration should take; He demonstrated how empirical investigation was applicable to labor problems; And finally, concerning a diversity of economic problems of his day, he produced original reports of permanent value. By effecting these three advances in: bureau organization, empirical method, and specific knowledge, he contributed to the development of economics.

Appendix A Biography of Carroll D. Wright, Chronological Outline

1840	born July 25, Dumbarton, N. H.; father, Rev. Nathan R. Wright, Universalist; mother, Eliza (Clark) Wright
1860-62	studied law; taught school, principal of high school
1862	September, enlisted in Union Army, Keene, N. H.
1865	March 18, honorably discharged from Union Army
1866	unsuccessful business attempt, furniture store, Lynn
1867	January 1, married Caroline E. Harnden
1867	admitted to bar in Massachusetts
1867-75	practiced as Counsellor in patent cases
1871	elected to Massachusetts state Senate
1872	reelected to State Senate; served as chairman of Committee on Insurance and of Committee on Military Affairs
1873	June 12, became Second Chief of Massachusetts Bureau of Statistics of Labor
1885	January, Carroll D. Wright appointed by President Arthur First U. S. Commissioner of Labor, Bureau of Labor under Department of the Interior
1888	August, resigned from Massachusetts Bureau of Statistics of Labor
1902	appointed first President of Clark College, Worcester, Massachusetts
1905	resigned as U. S. Commissioner of Labor
1909	February 20, died at Worcester, Massachusetts

Sources: Horace G. Wadlin, "Carroll Davidson Wright. A Memorial," Mass., Fortieth Annual Report: 1909, pp. 357-404.

Wright Papers, especially "Carroll Davidson Wright, retiring Commissioner of Labor" by a life-long fellow worker and friend, clipping from American Industries.

Appendix B Biography of Francis Amasa Walker
Chronological Outline

1840	born July 2, Boston, Massachusetts; father, Amasa Walker, author of "The Science of Wealth"; mother Hannah (Ambrose) Walker
1860	graduated from Amherst College
1860-65	studied law in office of Judge Charles Devins and Senator George F. Hoar; enlisted and served in Union Army (wounded at Chancellorsville; imprisoned in Libby Prison)
1865	January, resigned from Union Army
1865	married Exene Stoughton
1865-69	taught Latin and Greek, Williston Seminary; worked on Springfield Republican
1869	appointed by President Grant, Chief of Bureau of Statistics in the Treasury Department
1870	superintendent of the Ninth Census
1872	Commissioner of Indian Affairs
1873-81	Professor of Political Economy and History, Sheffield Scientific School, Yale
1877-79	Lecturer, Johns Hopkins University
1880	Superintendent of Tenth Census
1881	President, Massachusetts Institute of Technology
1897	January 5, died in Boston, Massachusetts

Sources: Henry W. Haynes, "Memoir of Francis Amasa Walker," reprinted from the Proceedings of the American Antiquarian Society (Worcester, 1897), pp. 3-9.

"Francis Amasa Walker", unsigned outline in the Publications of the American Statistical Association Vol. V #33-40, 1896-1897, p. 221.

Carroll D. Wright, "Francis Amasa Walker," Publications of the American Statistical Association Vol. V #33-40, 1896-1897, pp. 245-275.

Appendix C Letter of advice from Francis A. Walker to Carroll Davidson Wright

Dear Sirs:-

I have given much thought to the letter in which you do me the honor to ask me my views as to the work of the Massachusetts Bureau of Labor Statistics; but as the result, I find little to say beyond expressing my hearty sympathy with the purposes of your office and my wishes for its success. I feel the strongest confidence that the Commonwealth is prepared for your work, and that the work can be done to the satisfaction of all citizens; and that your office has only to prove itself superior alike to partisan dictation and to the seductions of theory, in order to command the cordial support of the press and of the body of citizens. If any mistake is more likely than others to be committed in such a critical position, it is to undertake to recognize both parties as parties, and to award so much in due time to each. This course almost inevitably leads to jealousy and dissatisfaction. If an office is strong enough simply to consider the body of citizens, and to refuse to recognize or entertain consideration of parties, success is already in the main assured. Public confidence once given, the choice of agencies, the selection of inquiries to be propounded are easy and plain. The country is hungry for information: everything of a statistical character, or even of a statistical appearance, is taken up with an eagerness that is almost pathetic; the community have not yet learned to be half skeptical and critical enough in respect to such statements. All is favorable to such laudable efforts as you are engaged in, for the difficulty of collecting statistics in a new country requires much indulgence; and I have strong hopes that you will so distinctly and decisively disconnect the Massachusetts Bureau of Statistics of Labor from politics--from dependence on organizations, whether of working men or employers, and from the support of economical theories, individual views or class interests--as to command the moral support of the whole body of citizens, and receive the cooperation of all men of all occupations and of all degrees, without reference, however, either to their degrees or their occupations.

Source: Mass., Fifth Annual Report: 1874, pp. vii-viii.

Appendix D

Massachusetts Bureau of Statistics of Labor
Fifth through Eighteenth Annual Reports
1874 through 1887

Summary of Major Sources and Methods by Articles

Year of Report	Question-naires	Interviews a/o Inspections	Previous Bureau Reports	State or Federal Census	Compilation records a/o analysis	Historical Summary and Comment	Non-Bureau Reports and Articles	Total
1874	1,2,7	3,4,5,6		8				8
1875		1,3,4,5			2			5
1876	1,2							2
1877				4,5,6	1,2	3		6
1878		1		3,4,5(6)			2	6
1879	1,4	2,3,5			6			6
1880	2,5				1,3,4			5
1881		3	4		2		1	4
1882		1,3,4		2				4
1883				2,3			1,4	4
1884		1,2,3,4						4
1885		2	3		4		5(1)	5
1886	4				1,3	2		4
1887				1				1
Total	10	21	2	12	11	2	6	64

Note: There are only two articles which might be considered borderline cases: Article 6, 1878, on nationality, age, and illiteracy of workers merely indicates it is based on official records--and it is listed here under Census as the most likely source. Article 1 in 1885 is an investigation of the Pullman experiment of a company town. Although Carroll Wright is listed with thirteen others at the end of the article, it is listed under Non-Bureau Reports since the investigation was under the auspices of the convention of the chiefs and commissioners of various Bureaus of Statistics of Labor.

Appendix E

Massachusetts Bureau of Statistics of Labor
Fifth through Eighteenth Annual Reports
1874 through 1887

Summary of Major Sources and Methods by Number of Pages in Each Article

Date of Report	Question-naires	Interviews a/o Inspections	Previous Bureau Reports	State or Federal Census	Compilation records a/o analysis	Historical Summary and Comment	Non-Bureau Reports and Articles	Total
1874	20,7,47	20,51,51,40		17				253
1875		63,73,260,38			46			480
1876	201,56							257
1877				27,46,63	49,187	16		388
1878		9		50,14,60 104			24	261
1879	13,43	43,37,24			16			176
1880	49,58				71,73,39			290
1881		155	55		343		75	628
1882		92,223,43		100				458
1883				64,134			178,125	501
1884		134,182,118 35						469
1885		74	56		312		62,28	532
1886	66				105,92	82		345
1887				294				294
Total	560	1765	111	973	1333	98	492	5332

Appendix F

Massachusetts Bureau of Statistics of Labor
Fifth through Eighteenth Annual Reports
1874 through 1887

Summary of Subjects of Articles

Date of Report	Description Labor Force*	Economic Condition Labor Force: Wages, Hours, Cost of Living, Prices	Industrial Unrest: Strikes, Arbitration, Unemployment	Economic Experiments: Profit-sharing, Cooperatives, Factory town	Other (including Crime, Art in Industry, etc.)	Total
1874	1,3,5	2,4,6,7,8				8
1875	1,2,3	4		5		5
1876		1,2				2
1877	6		1	2,3	4,5	6
1878	2,5,6	1		3,4		6
1879	4	2,3,5	1		6	6
1880	4,5	2	1		3	5
1881		3	1		2,4	4
1882	1,2	4	3			4
1883	1,4	2,3				4
1884	1	2,3,4				4
1885		2,3,4		1	5	5
1886		3		1,2	4	4
1887			1			1
	18	24	6	8	8	64

*Including Children's Education

Appendix G

Massachusetts Bureau of Statistics of Labor
Fifth through Eighteenth Annual Reports
1874 through 1887

Summary of Subjects by Page Length

Date of Report	Description of Labor Force*	Economic Condition of Worker	Industrial Unrest	Economic Experiments	Other	Total
1874	20,20,51	7,51,40,47,17				253
1875	63,46,73	260		38		480
1876		201,56				257
1877	63		49	187,16	27,46	388
1878	24,60,104	9		50,14		261
1879	43	43,37,24	13		16	176
1880	39,58	49	71		73	290
1881		155	75		343,55	628
1882	92,100	43	223			458
1883	178,125	64,134				501
1884	134	182,118,35				469
1885		74,56,312		28	62	532
1886		92		105,82	66	345
1887			294			294
Total	1293	2106	725	520	688	5332

*Including Children's Education

Appendix H Massachusetts Bureau of Statistics of Labor
Origin and Early Development, Chronological Outline

1869 June 23, Governor approved resolve of Massachusetts legislature establishing Bureau of Statistics of Labor

"Resolved, that the Governor, with the advice and consent of the Council, is hereby authorized to appoint, as soon after the passage of the resolve as may be, and thereafter biennially in the month of May, some suitable person to act as chief, who shall have power to appoint a deputy, and said chief with his deputy shall constitute a bureau of statistics, with headquarters in the State House.

"The duties of such bureau shall be collect, assort, systematize and present in annual reports to the legislature, on or before the first day of March in each year, statistical details relating to all departments of labor in the Commonwealth, especially in its relations to the commercial, industrial, social, educational and sanitary conditions of the laboring classes, and to the permanent prosperity of the productive industry of the Commonwealth.

"That such bureau shall have power to send for persons and papers, to examine witnesses under oath, and such witnesses shall be summoned in the same manner, and paid the same fees as witnesses before the Superior Courts of the Commonwealth. The compensation of said Bureau shall be twenty-five hundred dollars annual salary for the chief and two thousand dollars annual salary for the deputy. And the Governor is hereby authorized to draw his warrant for the payment of said sums, together with such office and traveling expenses of said bureau, as he with council shall approve."*

1869 July 31, Henry Kemble Oliver appointed Chief
August 4, George McNeill appointed Deputy

1873 June 12, Carroll Wright, Chief
June 23, office moved from State House to Pemberton Square

1876 position of Deputy abolished leaving chief sole executive

1888 August, Carroll Wright resigned as Chief

Sources: *Mass., Seventh Annual Report: 1876, p. 278.

See Appendix A for information on Carroll Wright.

Appendix I United States Bureau of Labor; Origin and Early Development, Chronological Outline

1884 June 27, a Bureau of Labor under the Department of the Interior was established by Congress. Excerpt from organic law:

"shall collect information upon the subject of labor, its relation to capital, the hours of labor, and the earnings of laboring men and women, and the means of promoting their material, social, intellectual, and moral prosperity . . . annually make a report in writing . . . of the information collected and collated by him, and containing such recommendations as he may deem calculated to promote the efficiency of the Bureau."*

1885 January, Carroll Wright appointed first Commissioner of Labor by President Arthur.

1888 June 13, Bureau of Labor abolished, Department of Labor created. No change in official designation of head of office.

1903 Congress created Department of Commerce and Labor and put Bureau of Labor under it

1905 Carroll Wright resigned as Commissioner of Labor

Sources: *U. S., First Annual Report: 1886, p. 7.

Horace G. Wadlin, "Carroll Davidson Wright, A Memorial," Mass., Fortieth Annual Report: 1909, pp. 379-381.

Appendix J Replies to Massachusetts Bureau of Statistics of Labor Questionnaire Showing Degree of Response to Bureau Circular

	Number Contacted	Number Replying	Method of Contact
Agriculture	56	42	Most by letter, a few solicited
Commercial	47	25	Fisheries by letter; other personal
Domestic Labor, Women	1440	1440	Personally interviewed by assistant
Industrial	1482	480	Considerable personal
Mechanical	933	460	Considerable personal
Totals	3958	2447	

Source: Mass., Second Annual Report: 1871, p. 459.

Appendix K Notes on First Blanks sent out by Massachusetts Bureau of Statistics of Labor under General Oliver

There were three blanks sent out: I with 41 questions and II with 81 questions went to employers;[1] III with 137 queries went to employees.[2]

The first two blanks were sent to 1248 employers; 217 were returned with replies, 51 were returned with no replies. There were 268 occupations covered in the mailing to employers, and the replies represented 114 of them.[3] Blank III was sent to 237 employees representing 37 occupations; 89 returns were received representing 34 occupations.[4] For example, the shovelmaker and the lawyer contacted did not reply; 8 out of 15 carpenters replied; 29 out of 87 boot and shoe makers replied; 16 out of 53 operatives replied.[5] The returns were referred to by an "office no." assigned by the Bureau.[6]

For a mailing list of employers the Bureau sent a circular to 334 Boards of Assessors ("Boston omitted for future work"). There were 324 replies received from assessors and 3,043 manufacturing and mechanical establishments reported. It was from this 3,043 that the Bureau made up its mailing list of 1248 employers.[7]

The mailing list for Blank III to employees was not as easy to compile. On October 1, 1869, a circular asking for information had been put in the Boston newspapers.[8] The Legislative Resolve was quoted and, though no employers answered, a few employees did. From the employees who answered the newspaper circular, from lists from workmen, and from non-laborers interested in labor, a mailing list was made for Blank III.[9]

[1]Mass., First Annual Report: 1870, pp. 16-23.
[2]Ibid., pp. 25-32.
[3]Ibid., p. 369.
[4]Ibid., p. 368.
[5]Ibid., pp. 404-405.
[6]Ibid., p. 201.
[7]Ibid., p. 369.
[8]Ibid., p. 13.
[9]Ibid., p. 32.

Appendix L Carroll Wright's Work: Summary of Method and Source

Classification of Articles by Source and Method in Carroll Davidson Wright's Annual Reports 1874 through 1887

Source and Method	Articles		Pages	
	No.	Per Cent	No.	Per Cent
Interviews and/or Inspection	21	33	1765	33
Compilation	11	17	1333	25
Census	12	18	973	18
Questionnaires	10	17	560	11
Non-Bureau Reports	6	9	492	9
Previous Bureau Reports	2	3	111	2
Historical Comment	2	3	98	2
Totals	64	100	5332	100

Source: Mass., Fifth through Eighteenth Annual Reports: 1874 through 1887.

See also Appendices D and E.

Appendix M Carroll Wright's Work: Summary of Articles by Subject

Classification of Articles by Subject in Carroll Davidson Wright's Annual Reports 1874 through 1887

Subject	Articles		Pages	
	No.	Per Cent	No.	Per Cent
Description of Labor Force, including Health and Safety	18	28	1293	24
Economic condition of Labor Force: Wages, Hours, Cost of Living, Prices	24	38	2106	39
Industrial unrest: Strikes, Arbitration, Unemployment	6	10	725	14
Economic Experiments: Profit sharing, Cooperative factory town	8	12	520	10
Other, including Crime, Art in Industry	8	12	688	13
Totals	64	100	5332	100

Source: Mass., Fifth through Eighteenth Annual Reports: 1874 through 1887. See above Appendices F and G.

Appendix N Early Massachusetts Bureau of Statistics of Labor Budget

In 1872, outside of salary for the chief and deputy, the total expense of the Bureau and its investigations was $5,852.43:

assistants	$3,218.15
witnesses	119.30
chief, travel	356.69
deputy, travel	293.41
printing	691.34
reporting	220.37
postage, etc.	953.17*

and General Oliver requested more funds. The reports were being widely circularized. Of the 6800 copies of the second report printed, 1500 had been allotted to the Bureau and the Bureau had exhausted the supply in three months.**

*Mass., Third Annual Report: 1872, pp. 10-11.

**Ibid., p. 36.

BIBLIOGRAPHY

Primary Sources

I Papers

Wright, Carroll Davidson. Papers: unclassified collection of manuscripts, newspaper clippings, periodical clippings, personal and official letters in various envelopes, bunches, and scrapbooks in Clark University Library, Worcester, Massachusetts.

II Periodicals

Wright, C. D. Address at Annual Meeting of the American Statistical Association, January 17, 1908, Publications of the American Statistical Association, Vol. XI Nos. 81-88 (1908-1909), pp. 1-16.

Wright, C. D. "The Evolution of Wage Statistics," Quarterly Journal of Economics, Vol. II #2 (January, 1892), pp. 151-189.

Wright, C. D. "Francis Amasa Walker," Publications of the American Statistical Association, Vol. V #33-40, 1896-1897 (1897), pp. 245-275.

Wright, Carroll D. "Wages, Prices, and Profits," The Princeton Review (July, 1882), pp. 1-15.

III Annual Reports of the Massachusetts Bureau of Statistics of Labor written, directed, or edited by Carroll Davidson Wright as Chief: Fifth through Eighteenth Annual Reports, 1874-1887.

Fifth Annual Report: 1874. Boston: Wright & Potter, 1874.

Introduction (vii-x)

1. Education and employment of young persons and children (pp. 1-20)

2. Relative to professional men (pp. 21-27)

3. Sanitary condition of working people in their homes and employment (pp. 29-48)

4. Comparative rates of wages and hours of labor in Massachusetts and foreign countries (pp. 49-108)

5. Condition of textile fabric manufactories in Massachusetts and digest of laws relative to machinery and sanitary matters (pp. 109-159)

6. Prices of provisions, clothing, rent, etc., in Massachusetts and Europe; Purchase-power of money (pp. 161-200)

7. Savings banks (pp. 201-247)

8. Miscellaneous (pp. 249-265)

Sixth Annual Report: 1875. Boston: Wright & Potter, 1875.

Introduction (pp. vii-x)

1. Education of working children (pp. 1-63)

2. Special effects of certain forms of employment upon female health (pp. 67-112)

3. Factory legislation (pp. 115-187)

4. Condition of workingmen's families (pp. 191-450)

5. Cooperation (pp. 453-490)

Index (pp. 491-503)

Seventh Annual Report: 1876. Boston: Wright & Potter, 1876.

Introduction (pp. v-xvi)

1. Wage Receivers (pp. 2-202)

2. Salary Receivers (pp. 203-358)

Appendix--History of the Bureau of Statistics of Labor and of Labor Legislation in Massachusetts (pp. 259-357)

Index (pp. 359-363)

Eighth Annual Report: 1877. Boston: Albert J. Wright, 1877.

Introduction (pp. v-viii)

1. Industrial arbitration and conciliation in England and Massachusetts (pp. 1-49)

2. Cooperation in Massachusetts (pp. 51-137)

3. Motive power in Massachusetts; or, the labor of the sun (pp. 135-154)

4. The afflicted classes (Blind, deaf, dumb) (pp. 155-181)

5. Pauperism and crime (pp. 183-228)

6. Massachusetts manufactories; persons employed in each story and their means of escape in case of fire (pp. 229-291)

Index (pp. 293-295)

Ninth Annual Report: 1878. Boston: Rand, Avery & Co., 1878.

Letter of transmittal

1. Comparative condition of manufactures and labor 1875 and 1877 (pp. 1-9)

2. Education and labor of the young (pp. 11-34)

3. The growth of Massachusetts manufactures (pp. 35-84)

4. Relative importance of private establishments and corporations in manufacturing industries (pp. 85-98)

5. Conjugal condition, nativities and ages of married women and mothers (in labor force) (pp. 99-158)

6. Nativities, ages, and illiteracy of farmers, farm-laborers, skilled workmen in manufactures and mechanical industries, and unskilled laborers (pp. 159-262)

Index (pp. 263-266)

Tenth Annual Report: 1879. Boston: Rand, Avery & Co., 1879.

Letter of transmittal and introduction (p. vii)

1. The unemployed in Massachusetts, June and November 1878 (pp. 1-13)

2. Convict labor (pp. 15-57)

3. Wages and prices 1860, 1872, and 1878 (pp. 59-95)

4. Testimony of workingmen (pp. 97-139)

5. Hours of labor (pp. 141-164)

6. Statistics of drunkenness and liquor selling under prohibitory and license legislation 1874 and 1877 (pp. 165-180)

Eleventh Annual Report: 1880. Boston: Rand, Avery & Co., 1880.

Index to subjects (pp. v-vii)

Letter of transmittal and introduction (pp. ix-xi)

1. Strikes in Massachusetts (pp. 1-71)

2. Convict labor (pp. 73-121)

3. Statistics of crime 1860-1879 (pp. 123-195)

4. Divorces in Massachusetts 1860-1878 (pp. 197-235)

5. Social life of workingmen (pp. 237-294)

Twelfth Annual Report: 1881. Boston: Rand, Avery & Co., 1881.

Index to subjects (pp. v-xi)

Letter of transmittal and introduction (pp. xiii-xiv)

1. Industrial arbitration and conciliation (pp. 1-75)

2. Statistics of drunkenness and liquor selling 1870-1879 (pp. 77-319)

3. Uniform hours of labor (pp. 321-475)

4. Influence of intemperance on crime (pp. 477-531)

Thirteenth Annual Report: 1882. Boston: Rand, Avery & Co., 1882.

Letter of transmittal and introduction (pp. xiii-xiv)

1. The Canadian French in New England (pp. 1-92)

2. Citizenship 1875 Statistics (pp. 93-192)

3. Fall River, Lowell, Lawrence (pp. 193-415)

4. Wages, Prices, Profits (pp. 417-459)

Fourteenth Annual Report: 1883. Boston: Wright & Potter Printing Co., 1883.

Index to subjects (pp. v-viii)

Letter of transmittal and introduction (pp. ix-xi)

1. Employers' liability for personal injuries to their employees (pp. 1-178)

2. Time and wages (pp. 179-242)

3. Profits and earnings (pp. 243-376)

4. Early factory labor in New England (pp. 377-401)

Fifteenth Annual Report: 1884. Boston: Wright & Potter Printing Co., 1884.

Index to subjects (pp. v-xi)

Letter of transmittal and introduction (pp. xiii-xv)

1. The working girls of Boston (pp. 1-134)

2. Comparative wages 1883 Massachusetts and Great Britain (pp. 135-316)

3. Comparative wages 1860-1883 Massachusetts and Great Britain (pp. 317-434)

4. Comparative prices and cost of living 1860-1883 Massachusetts and Great Britain (pp. 435-469)

Sixteenth Annual Report: 1885. Boston: Wright & Potter Printing Co., 1885.

Index to subjects (pp. v-xvi)

Letter of transmittal and introduction (pp. xvii-xx)

1. Pullman (pp. 1-28)

2. Sunday labor (pp. 29-102)

3. Comparative wages and prices 1860-1883 Massachusetts and Great Britain (pp. 103-158)

4. Historical review of wages and prices 1752-1860 (pp. 159-470)

5. Health statistics of female college graduates (pp. 471-532)

Seventeenth Annual Report: 1886. Boston: Wright & Potter Printing Co., 1886.

Index to subjects (pp. v-xvi)

Letter of transmittal and introduction (pp. xvii-xviii)

Henry Kemble Oliver (pp. 1-48)

1. Cooperative distribution in Great Britain (pp. 49-154)

2. Profit sharing (pp. 155-236)

3. Food consumption, quantities, costs, and nutrients of food materials (pp. 237-328)

4. Art in industry (pp. 329-394)

Eighteenth Annual Report: 1887. Boston: Wright & Potter Printing Co., 1887.

Index to subjects (pp. vii-x)

Letter of transmittal and introduction (p. xvi)

1. The unemployed (pp. 1-294)

IV Reports of Carroll Davidson Wright as United States Commissioner of Labor, 1886-1904.

A. Under the United States Department of the Interior, Bureau of Labor, 1886-1887:

First Annual Report: 1886. Industrial Depressions. Washington: Government Printing Office, 1886. 496 pp.

Second Annual Report: 1886. Convict Labor. Washington: Government Printing Office, 1887. 612 pp.

Third Annual Report: 1887. Strikes and Lockouts. Washington: Government Printing Office, 1888. 1172 pp.

B. Under the United States Department of Labor, 1888-1902:

Fourth Annual Report: 1888. Working Women in Large Cities. Washington: Government Printing Office, 1889. 631 pp.

Fifth Annual Report: 1889. Railroad Labor. Washington: Government Printing Office, 1890. 888 pp.

Sixth Annual Report: 1890. Cost of Production: Iron, Steel, etc. Washington: Government Printing Office, 1891. 1404 pp.

Seventh Annual Report: 1891. Cost of Production: The Textiles and Glass. Vol. I & II Washington: Government Printing Office, 1892. 2048 pp.

Eighth Annual Report: 1892. Industrial Education. Washington: Government Printing Office, 1893. 707 pp.

Ninth Annual Report: 1893. Building and Loan Association. Washington: Government Printing Office, 1894. 719 pp.

Tenth Annual Report: 1894. Strikes and Lockouts. Vol. I & II. Washington: Government Printing Office, 1896. 1909 pp.

Eleventh Annual Report: 1895-96. Work and Wages of Men, Women and Children. Washington: Government Printing Office, 1897. 671 pp.

Twelfth Annual Report: 1897. Economic Aspects of the Liquor Problem. Washington: Government Printing Office, 1898. 275 pp.

Thirteenth Annual Report: 1898. Hand and Machine Labor. Vol. I & II. Washington: Government Printing Office, 1899. 1604 pp.

Fourteenth Annual Report: 1899. Water, Gas, and Electric Light Plants Under Private and Municipal Ownership. Washington: Government Printing Office, 1900. 983 pp.

Fifteenth Annual Report: 1900. A Compilation of Wages in Commercial Countries from Official Sources. Vol. I & II. Washington: Government Printing Office, 1900. 1642 pp.

Sixteenth Annual Report: 1901. Strikes and Lockouts. Washington: Government Printing Office, 1901. 1053 pp.

Seventeenth Annual Report: 1902. Trade and Technical Education. Washington: Government Printing Office, 1902. 1333 pp.

Special Report #3. Analysis and Index of All Reports Issued by Bureaus of Labor Statistics in the United States Prior to November 1, 1892. Washington: Government Printing Office, 1893. 376 pp.

C. Under the United States Department of Commerce and Labor, 1903-1904:

Eighteenth Annual Report: 1903. Cost of Living and Retail Prices of Food. Washington: Government Printing Office, 1904. 865 pp.

Nineteenth Annual Report: 1904. Wages and Hours of Labor. Washington: Government Printing Office, 1905. 976 pp.

Special Report #10. Labor Laws of the United States with Decisions of Courts Relating Thereto. Washington: Government Printing Office, 1904. 1413 pp.

V Book

Wright, Carroll D. Industrial Evolution of the United States. New York: Flood and Vincent, 1895. 362 pp.

Secondary Sources

Anderson, Sven Axel. "Carroll Davidson Wright." Unpublished Master's Thesis, Clark University, Worcester, Massachusetts, 1928. 115 pp.

Bullock, Charles J. "Wage Statistics and the Federal Census," Reprinted from the American Economic Association Monograph on The Federal Census (1899), pp. 343-368.

Hansen, Alvin H. Business Cycles and National Income. (1st ed.) New York: Norton, [1951]. 639 pp.

Leiby, James Rogers Wetmore. "Statistics and the Labor Problem: A Biography of Carroll D. Wright." Unpublished Doctor's Thesis, Harvard University, Cambridge, Massachusetts, 1954.

Macdonald, W. D. "Carroll D. Wright and His Influence on the Bureau of Labor Statistics," Monthly Labor Review #78 (January, 1955), pp. 3-10.

Mayo-Smith, Richmond. "The National Bureau of Labor and Industrial Depressions," Political Science Quarterly Vol. I (1886), pp. 437-448.

Mayo-Smith, Richmond. "Reports of Bureaus of Statistics of Labor Published in 1887," Publications of the American Statistical Association, Vol. I #1-8 (1888-1889), pp. 157-164.

North, C. N. D. "Bibliography of the Writings of Hon. Carroll D. Wright 1874-1908," Publications of the American Statistical Association Vol. XI Nos. 81-88, 1908-1909 (Boston: American Statistical Association, 1910), pp. 550-561.

North, C. N. D. "The Life and Work of Carroll Davidson Wright," Publications of the American Statistical Association, Vol. XI Nos. 81-88, 1908-1909 (Boston: American Statistical Association, 1910), pp. 447-466.

Wadlin, Horace G. "Carroll Davidson Wright, A Memorial," Massachusetts Bureau of Statistics of Labor, Fortieth Annual Report: 1909. Boston: Wright & Potter Printing Co., 1909, pp. 357-404.

Other Sources

[Adams, C. F., Jr.]. "Report of Statistics of Labor in Massachusetts, 1872," in Critical Notes, North American Review, Vol. CXV (October, 1872), pp. 210-219.

Adams, Walter, ed. Structure of American Industry. New York: Macmillan, 1950. 588 pp.

Atwater, Lyman H. "The Labor Question in its Economic and Christian Aspects," The Presbyterian Quarterly and Princeton Review, New Series Vol. I (1872), pp. 468-49.

Bogart, Ernest Ludlow. An Economic History of the United States. New York: Longmans, Green and Co., [1907]. pp. 297-423.

Dorfman, Joseph. The Economic Mind in American Civilization 1606-1865. Vol. II. New York: The Viking Press, 1946. pp. 503-990.

Dunbar, C. F. "Walker's Wages Question," North American Review Vol. CXXIV (1877), pp. 305-309.

Farnham, Henry W. "The Clergy and the Labor Question," The New Princeton Review, Vol. II (1886), pp. 48-61.

Faulkner, Harold Underwood. American Economic History. New York: Harper & Brothers, [1924]. 721 pp.

Francis Amasa Walker. Publications of the American Statistical Association, Vol. V #33-40 (1896-1897), p. 221.

Haynes, Henry W. "Memoir of Francis A. Walker," reprinted from the Proceedings of the American Antiquarian Society, (April, 1897), pp. 3-9.

Jones, Jesse H. "Henry Kemble Oliver, a Memorial," Massachusetts Bureau of Statistics of Labor, Seventeenth Annual Report: 1886. Boston: Wright & Potter Printing Co., 1886. pp. 1-48.

King, Willford Isbell. Index Numbers Elucidated. New York: Longmans, Green and Co., 1930. 226 pp.

Mitchell, Wesley C. The Making and Using of Index Numbers. United States Department of Labor, Bulletin #656. Washington: Government Printing Office, March, 1938. 114 pp.

Newcomb, Simon. "The Labor Question," The North American Review, Vol. CXL (1870), pp. 122-154.

Oliver, Henry Kemble. Annual Reports issued by him as Chief of the Massachusetts Bureau of Statistics of Labor, 1870-1873:

First Annual Report: 1870. Boston: Wright & Potter, 1870.

Introduction (pp. 2-3)

History of Bureau; Labor and Legislation; Cotton Manufactures; Agricultural Labor; Labor and Legislation in Massachusetts; Origin of Labor Movement; Origin and Development of Industrial Questions; Factory System, Testimony at Hearings before Bureau; Medical Opinions on English Ten-Hour Bill; Testimony of Messrs. Redgrave and Abram; Remarks thereon; Children in Factories, their Employment and

Schooling; Case of James Preston; Wage System and its Results; Homes of low-paid Laborers in Boston; Homes of the Middle Class; A Home in Contrast; Homes of French Operatives, Intemperance. (pp. 5-196)

Second Annual Report: 1871. Boston: Wright & Potter, 1871.

Part I Narrative (pp. 3-149)

Preliminary statements concerning work of Bureau; Assistants; Investigation of Strikes; Combination; Combination by Gilds; Combinations by Trades' Unions; Strikes; Strikes in Massachusetts in 1870; Strike at Fall River, at Lynn, at North Adams, and Introduction of Chinese Workmen, at Marlborough, at Worcester, at Weymouth, at Randolph, at Needham.

Part II Statistical (pp. 149-459)

Remarks and Tables concerning the use of Blank Circulars; Agriculture; Commercial; Fisheries, Land Travel and Transportation, Water Travel and Transportation; Domestic Labor and Women's Work in Boston: Housework, Hotel and Saloon Work, Home Work, Store Work, Shop and Manufacturing Work, Special Cases and General Remarks; Industrial: Apparel, Chemicals, etc., Food, Drink, etc., Mineral Substances, Paper, Printing, etc., Miscellaneous; Mechanical: Cars and Carriages, Construction and Finish of Buildings, Burniture, etc., Metal Work, Ship and Boat Building, Miscellaneous, Miscellaneous Employments by Counties; General Recapitulation with Tables of Earnings; Cost of Living; Workmen's Statistics; Cooperation; Savings Banks.

Part III Testimony and Argument (pp. 459-568)

Working and Home Life of Factory Operatives, their earnings, etc.; Children in Factories; Hours of Factory Labor; Facts Bearing on the Ten-Hour Argument; Hours of Labor in Europe; Tenement Houses, or Homes of low-paid Laborers in Boston; Poverty; Intemperance and the Remedy; Hours of Labor; Recommendations.

Appendix (pp. 570-655)

Third Annual Report: 1872. Boston: Wright & Potter, 1872.

Part I Introduction and Statistical (pp. 6-344)

Introduction; Account and Method of Proceeding: Description of Blanks and Classification of Employments; Returns to: Blank No. 1 Agriculture, No. 2 Commercial, Nos. 3 and 4 Domestic Labor and Woman's Work, No. 5 Industrial, Mechanical, No. 6 Hours of Labor, No. 8 Cost of Living, No. 9 Workingmen's Statistics, Extracts from Workingmen's Blank, No. 10 Savings Banks; Recapitulation.

Part II Testimony and Narrative (pp. 344-446)

Visits of Bureau; Condition of Operatives in Factory and Manufacturing Towns; Chinese Labor; Truck System; Accidents; Strikes; Homes of the Working-Classes; Schools for Factory Children.

Part III Argument and Recommendations (pp. 446-541)

Education; Half-Time Schools; Unschooled Children in Massachusetts; Purchasing Power of Wages; Purchasing Power of Wages: in England, in Massachusetts; Review; Conclusions and Recommendations.

Appendix (pp. 544-580)

Fourth Annual Report: 1873. Boston: Wright & Potter, 1873.

Part I Introductory and Statistical (pp. 5-246)

Introduction: History of the Bureau; Opposition to the Bureau; Extracts from Letters; Notices of the Press; Discussions in Congress; Objections to Reports Answered; Work of Bureau; Discription of Blanks; Classification of Employments; Wages and Earnings in Manufacturing and Mechanical Employments; Wages and Earnings of Unskilled Laborers; Special Wage Blank; Cost of Living; Savings Banks; Ownership of Real and Personal Estate; Hours of Labor.

Part II Testimony and Narrative (pp. 247-380)

Labor Movement; Labor Movement in England; Special Occupations; Labor in the early part of the Century; Communications; Cooperation; Testimony of Robert Harper; Cooperative Societies; Remarks on Cooperation; Industrial Copartnerships; Criticism of Cooperative Experiments; Half-Time Schools; Tenement Houses in Salem.

Part III Argument and Recommendations (pp. 381-503)

Education; Condition of Labor; Poverty; Wages Cooperation; Reduction of the Hours of Labor; Limitation of Time; Ten Hours; Recommendations.

Index (pp. 505-522)

Schlesinger, A. M. The Rise of Modern America. [4th ed.] New York: The Macmillan Company, [1951]. 240 pp.

Taussig, F. W. Inventors and Money-Makers. New York: The Macmillan Company, 1915. 135 pp.

Taylor, Walter Fuller. The Economic Novel in America. Chapel Hill: The University of North Carolina, 1942. 378 pp.

Walker, Francis A. "American Manufactures," The Princeton Review (59th yr., 1883), pp. 213-223.

Walker, Francis A. "The Knights of Labor," The New Princeton Review Vol. VI. [1888]. pp. 196-209.

Whittaker, Edmund. A History of Economic Ideas. New York: Longmans, Green and Co., 1940. 766 pp.

Williamson, Harold F., ed. The Growth of the American Economy. 2d ed. New York: Prentice Hall, 1951. 946 pp.

Zimmerman, Carle C. Consumption and Standards of Living. New York: D. Van Nostrand Company, Inc., 1936. 580 pp.

ABSTRACT

The purpose of this thesis is to identify Carroll Davidson Wright's contributions to economics in three areas: Labor bureau organization and administration; Empirical investigation of labor problems; Original inquiry and report covering major economic problems.

Preparation for the thesis included checking the Wright papers at Clark College, Worcester, Massachusetts; studying his Annual Reports, both state and federal; reading economic articles in the literature of the period, including articles by Carroll Wright himself. The method used is to illustrate by summary and direct quotation, his philosophy, his bureau work, his empirical investigation, and his relative importance.

Carroll Wright lived from 1840 to 1909. He began labor bureau work with no notable economic or statistical background--but somewhere in a parsonage home life, a New Hampshire boyhood, and a Civil War career of rapid promotion, he had evolved a faith in enlightened reason as the best guide for conduct, and an impersonal outlook--both of which were in harmony with the attitude of a statistitian. When considering the nature of the larger force which produced changes through generations of time Colonel Wright spoke in

terms such as, Cosmos, by which he identified an impersonal Divine economy. His ideas on progress and value were typical of the period. Progress was inevitable. Natural and human values were identical. He oriented his thinking to man as mankind, not man as individual. Thus his prevailing optimism is based on faith in ultimate total improvement, and individual suffering where it necessarily occurred was unfortunate but unimportant. Since he believed in enlightened reason as a basis for decision, he allied himself with no reform movements, but preferred instead to rely on education. He viewed labor problems as temporary maladjustments due to the forces of progress.

Colonel Wright was Chief of the Massachusetts Bureau of Statistics of Labor from 1873 to 1888. When organizing the Bureau he drew on Francis Walker's ideas of the function of a government bureau, as a non-political, fact-finding agency. General Oliver who preceeded Wright as first chief failed to achieve any semblance of professional orientation in handling labor statistics. His reports were long arguments deploring Boston tenements and illiterate factory workers, and aroused resentment on all sides. The value of General Oliver's work in organizing the bureau legally and technically was nullified by his emphasis on social justice and reform. Colonel Wright, on the other hand, concentrated on investigation not to prove a theory but to discover the facts.

In his reports he omitted propaganda and presented instead articles designed to educate not to incite. He applied scientific analysis to labor problems and succeeded in organizing the bureau into a respected, research agency.

Colonel Wright's methods of investigation were not revolutionary. The questionnaires, interviews, and old records he used for sources were established by General Oliver. It was his outline and report that were new. General Oliver pioneered empirical investigation of labor problems, but reverted to moralizing and argument in presentation. Colonel Wright used empirical investigation and presented it in scientific report and summary.

Carroll Wright served for twenty years, 1885 to 1905, as first United States Commissioner of Labor. The cardinal points in both his state and federal policies were the same: complete separation of bureau work from politics, and empirical investigation of labor problems.

While Federal Commissioner he served on two strike commissions, railroads in 1894, anthracite coal in 1902. His value on the commissions was due to his reputation as a government labor bureau official without political bias. Though not politically biased he was realistic enough as early as 1886 to identify the interests of capital and labor as reciprocal not identical and to point out in 1903 that collective bargaining was the most promising method for reaching labor management agreements.

In his Federal work Carroll Wright exhibited ability to define a field of inquiry, outline a pattern for pertinent data, and present at the end, regardless of the amount or elaboration of detail--a precise, coherent summary. At a time when European statistians had not gone beyond limited inquiry into such fields as movement of population, he extended labor investigation into some of the vital questions which had grown out of industrial organization, such as: Industrial Depression, Family Budgets, Hand and Machine Labor, Cost of Production, Wage Statistics.

The report on Industrial Depressions showed originality in developing a model for analysis of a hitherto hazily outlined economic phenomenon.

One significance of the Cost of Living Report, 1903, was its inquiry into expenditure patterns. Here Wright erred in misinterpreting the limited implications of Engel's law. Despite the error, the report is still cited as a superior budget study equalled by only a few since that time.

The reports on Productivity and Cost of Production indicate the scope and size of the projects undertaken by the federal bureau. Most items had undergone radical change due to the introduction of machinery. There was a major problem of classification without which any summation would be valueless. In the three volumes on Cost of Production, Commissioner Wright produced a coherent report even though the data had

never previously been classified and definition of the principal compenents of the subject was still in dispute.

From the beginning to the end of his two bureau appointments, Carroll Wright concerned himself with wage statistics. His first state and his last federal report were on the same subject. The investigations were extensive covering other agency work and foreign countries.

In Carroll Wright's labor bureau career there is the fortunate coincidence of ability and opportunity. He was labor chief at a time when legislature and public were hungry for facts on labor.

Evident in all his reports is the objective statistian at work applying empirical investigation to labor problems. In both his outline of subject and his report he was a pioneer opening new fields to scientific inquiry and organizing the facts found into tables for analysis. He had a propensity for objectivity and superior ability in administration, research, and report. Because of it, he contributed to the development of economics: by marking the policy government labor bureau administration should follow; by demonstrating how empirical investigation was applicable to labor problems, and finally, by producing original reports of permanent value concerning a diversity of economic problems of his day.