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Visualizing the American Economy: from Social Science to Mass-Communication and Beyond, 1920s-1960s

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From the 1910s to the end of World War II, visual representations have been increasingly used in newspapers, magazines, pamphlets and official reports in the United States as a way to convey aspects of economic and social facts to a wider audience. A number of historians have shown that this movement toward visualization, which originated in various projects within social science departments and among social reformists, culminated during the years of the Great Depression when the Roosevelt administration used extensively photographs as a way to promote its economic policies.¹ The most studied of these projects within the Roosevelt

administration is the Historical Section of the Farm Security Administration, which hired photographers such as Walker Evans, Dorothea Lange and Arthur Rothstein and sent them to the field to document the living conditions in rural America. Indeed, previous works on visualization have mostly focused on photographic representations of economic and social facts, as opposed to other types of visualization such as pictorial statistics, maps and drawings, which were equally important in the period. In addition, while these accounts focused on the artistic and communicational values of the resulting images, they did not investigate in depth the origins of this movement toward visualization in the works of economists and social scientists. Historians of social sciences – especially economics – have not paid attention to the visualization of social facts either because their work most often deal with the scientific and academic aspects of the discipline they study, therefore neglecting issues of communication and popularization. Indeed, contemporary social scientists tend to undermine the role of visual representation in their discipline because they do not consider visualization as constitutive of scientific knowledge, hence limiting its use to pedagogical purposes.

By contrast, what my previous research (Giraud 2010, Charles and Giraud 2013) has shown is that the use of visual language in the social sciences cannot be studied properly if we do not forsake some well-established distinctions such as the ones that separate academic research and works of popularization, laboratories and museums, knowledge production and communication, arts and science.² This is especially the case when we study the early 20th century because at this time, the dissociation between the various social sciences and the practice of social work was still undecided. It is only after WWII, with the rise of rigorism in the social sciences, that this separation would be complete.³ More specifically, we showed that there was a community of American intellectuals – economists, social scientists, engineers, social workers, artists, journalists and philanthropists – who considered visual representation as powerful means of communication of social and economic facts to the public at large. Though this community was far from homogeneous, what these people had in common was a critical position towards mainstream economic thought, which they thought was too much concerned with material and monetary wealth as opposed to the more human side of economic activities. What they believed, also, was that social science should not be confined to the academia: influenced by Deweyan ideas on experience and education, they thought that social scientists should perform fieldwork and consider education as a central rather than subsidiary aspect of

scientific approach. For their purposes, visualization appeared as the main language through which economic and social facts should be apprehended. However, the idea that visualization should be crucial to the making of social science tended to lose its strength after WWII. Though there is no arguing that a number of projects involving visualization of social and economic facts gained exposure during the year of the Great Depression, most of them lost their relation with the academic world and were considered in retrospect as political communication – if not propaganda.

During the fall of 2013, I have undertaken research at the Rockefeller Archives Center through a number of collections in order to deepen my understanding of how philanthropic foundations have accompanied the development of this movement toward visualization from social science to mass communication. This is not to say, however, that foundations have had a driving role in this process. In fact, what this research had led me to conclude so far is that the various individuals involved with visualization who have interacted with philanthropic institutions were rather isolated in their projects. Though philanthropic foundations have certainly been helpful in funding punctually some projects that dealt with the visual representation of economic facts, it does seem that none has been particularly committed to the promotion of visualization as a tool of investigation in the social sciences as a whole. Though my research yielded a quite negative result regarding the role of philanthropy in the visual movement, it has been useful for two other purposes. First, I have been able to trace the activities of some of the main protagonists in our story, through their presence in various grant applications located in several collections at the Rockefeller Archive Center. Second, these archival materials are particularly helpful in documenting the larger context regarding the reorganization that occurred in the social sciences after WWII. Therefore, it appears that what drew the attention of social scientists toward visual representation in the interwar period somewhat lost its significance in the aftermath of the war. The following three sections further detail my main findings.

Visualization at the Russell Sage Foundation: early interest and subsequent decline

The Russell Sage Foundation – hereafter RSF – was well known for funding a number of projects involving visual representation of social and economic facts. The

most important of these projects was the Pittsburgh Survey, a multidimensional study of the city of Pittsburgh that brought social workers, journalists, social scientists and artists together from 1907 to 1908. Along with John R. Commons, William Leiserson and John Fitch, the photographer Lewis Hine and the artist Joseph Stella contributed to the study with vivid visual representations of the city and of its social and racial inequities and poor living conditions. In addition, Shelby M. Harrison, the Head of the Department of Exhibits and Surveys at the RSF, who would later become its general Director, provided statistical graphs.

A “social photographer”, as he used to call himself, Hine demonstrated great ability in showing workers along with their working tools in a way that represented them as particularly characteristic of their social condition. Hine’s pictures were included in the six volumes drawn from the Survey that the Russell Sage Foundation published from 1909 to 1914. Of particular interest was Fitch’s *Steel Workers* (1911), which used some of Hine’s finest photographs. Hine’s involvement with the Russell Sage Foundation did not stop there, though. One of the main contributors to the Pittsburgh Survey, Paul Kellogg became the new editor of *Charities and the Commons*, a magazine devoted to social work. Under his editorship, the magazine was renamed *The Survey* in 1912 and subsequently became a much more visual publication after a visual supplement was created in 1921. The magazine was published by the *Survey Associates*, a non-profit organization which itself received a significant portion of its funding from the Russell Sage Foundation. In Kellogg’s mind, the *Survey* was more than a social work magazine. It was a publication devoted to social interpretation. Visual representations such as photographs and drawings would serve as a way to convey the raw data brought by social scientists to the educated public. In the 1920s, Hine’s “work portraits” were a regular feature in the magazine. Compared to the photographs he took for the Pittsburgh Survey, these series were more stylized and went further in their ability to show workers as social types. From 1937 onward, when the Farm Security Administration hired the likes of Dorothea Lange and Arthur Rothstein and helped revive interest in social photography, Hine tried to find a way in which his pioneering work could gain greater recognition. One idea was to organize an exhibition of his work at the New York State Museum in Albany. In order to secure and deposit the collection, Hine and NY State Museum Director Charles C. Adams sought financial assistance from the Russell Sage Foundation. Both wrote to Shelby Harrison to stress how significant

Hine's photographic work had been in documenting the American society in ways related to the interests and missions of the Russell Sage Foundation, e.g. housing, labor, social welfare and the human side of industry. Survey Editor Paul Kellogg and New School of Social Work Professor Eduard C. Lindeman endorsed this project. To Harrison, Kellogg wrote: "I don't know of any profession that has had quite [Hine's] counterpart and this idea of creating and rounding out a collection of historical-photographs, is something that I am glad to warmly endorse".⁴ The objective of assembling such photographic collection was first and foremost educational. As Lindeman put it: "In the first place, a photograph is representative of both a fact and an idea... From this point of view I can say that I should myself take advantage of such a collection of documentary photographs in my class in American culture where I strive to get the students to appreciate the values which motivate our people. The little demonstration which [Hine] gave to my class last spring carried over beautifully into subsequent discussions."⁵ Kellogg subsequently insisted on this point: "I feel that there would be special utilizations of the collection other than the quick interest to the visitor of the RSF Library running through a graphic record of a third of a century in social awareness. I should think that students at the School would find in it source materials that would make problems and developments live again; that writers and researchers and historical workers would come to it; that (reproduced) editors would draw on it as a pictorial find; and that it would complement, in its service to the eye, your shelves of books which have distilled the social record of America over the same year."⁶

One serious obstacle, however, was financial. Harrison wrote to Hine: "As I have said to Dr. Adams our current commitments and expenditures are quite up to, indeed in excess of, our income for the present year. What is worse, we do not see any better situation for the year ahead and even when we do have some leeway, we have serious obligations here within the Foundation's own program which must be given prior consideration".⁷ In fact, what Harrison wanted to avoid was the possibility that buying a whole photographs collection creates a precedent and that the Foundation be subject to many subsequent demands. Nevertheless, he accepted to meet with Lewis Hine with another representative of the foundation Mary Swain Routzhan. In a memo to Harrison, she expressed her interest in the use of Hine's pictures for educational purposes, though she admitted that "[it] is a little hard to keep up with Lewis Hine's enthusiasm on this matter".⁸ Finally, it was decided to buy not a full collection but

rather a number of photographs devoted to specific subjects. While the first two units would deal with immigration, it was planned that the next two units would study respectively the American industry and child labor. Each unit had 75 to 100 photographs. While the pictures belonged permanently to the Russell Sage Foundation library, they were exhibited at the New York School of Social Work and at the New York Public Library. The Foundation subsequently received a few requests from other institutions – periodicals, museums and libraries – to use Hine’s photo studies. Hine’s death in November 1940 put an end to this collaboration. After the Foundation’s library was closed down in 1949, the collection was transferred to the New York Public Library. While a few other requests to use Hine’s materials in books or documentaries were made to the Foundation after WWII, it seems that Hine’s larger educational project did not survive him.

Beside photographs, one important medium to convey economic data and ideas during the interwar period was pictorial statistics. The Russell Sage Foundation played a role in the dissemination of this technique, which was developed most significantly by the Austrian economist – as well as philosopher and political scientist – Otto Neurath.⁹ However, while Neurath was undeniably the one who helped standardize the visual representation of statistical data and make it more scientific, his ‘Vienna method’ had a precedent in the United States and the Foundation was no stranger to it. In 1912, Leonard P. Ayres, who served as the director of the Division of Education at the RSF, was asked to supervise the statistical work done by the Foundation. As part of this duty, he participated in the Joint Committee on Standards for Graphic Presentation of Statistics, which gathered members of fifteen scientific societies and of governmental departments. The Chairman of the committee was Willard C. Brinton, a Mechanical Engineer who had developed a visual method of presentation of statistical data not unlike the one Neurath would propose a decade later. A report of their findings was published in December 1915 in the *Quarterly Publications of the American Statistical Association*. In a similar vein, the department of Statistics developed a series of standardized symbols used in maps to represent a wide array of data related to social welfare (resources, facilities, firms, institutions, etc.). While the Foundation had used these symbols for years with a strict copyright policy, it was decided in 1925 to publish a book of those, in order to make it available for all interested researchers at the lowest possible cost.¹⁰ As a result, when Neurath tried to export his method to the United States, the Russell Sage Foundation seemed

to be a promising place to seek support. Indeed, Mary van Kleeck, head of the Department of Industrial Studies at the RSF was highly supportive of Neurath's work, which she encountered while working in Europe for the Industrial Relations Institute. Van Kleeck helped create an American branch of Neurath's organization which was located in the Foundation's building. In addition, Rudolf Modley, one of Neurath's disciples, would occupy an office there in 1933. Since we have previously studied van Kleeck's efforts to promote Neurath's method quite extensively (in Charles and Giraud 2013), it must be noted here that what the RSF archives show is that the promotion of pictorial statistics remained confined to the Department of Industrial Studies and depended quite exclusively on van Kleeck's enthusiasm. While other departments of the Foundation could have been interested – for instance, the Department of Arts and Social Work, formerly titled Surveys and Exhibits – none of them seems to have been implied in the dissemination of Neurath's work. This being said, the Department of Industrial Studies was able to buy charts from Neurath's team on a regular basis between 1933 and 1935. In 1934, van Kleeck's efforts resulted in a collaboration between Neurath and the US Bureau of Labor Statistics, headed by Isador Lubin, for which the RSF provided funding. Yet Shelby Harrison seems to have been quite skeptical about the creation of an Institute for Visual Education in the United States as he thought that Neurath's method might be too narrow. At a very early stage, he wrote van Kleeck: "I am wondering whether Visual Education is a wise choice of words for what you have in mind... "Visual Education" to a great many people means a great variety of graphic materials used in the teaching processes employed in public schools... Would it not be unnecessarily confusing to use the term for an organization interested in only a part of the broader field?"¹¹ That could explain why the Institute was later renamed as the International Foundation for the Promotion of Visual Education (by the Neurath Method).¹² However, John Glenn, Harrison's predecessor at the RSF, showed his appreciation of Neurath's work by recommending him as one of the advisors for the 1939 World's Fair in New York. At this occasion he wrote: "We in the Russell Sage Foundation have been much interested in [Neurath's] work and think it of exceptional value not only as a matter of charting but as a matter of clear representation of statistics in such a way as to show what they mean by way of interpretation of social condition and social needs."¹² The letter, however, seems to have been inspired by a request from Mary van Kleeck.¹³ While the Russell Sage Foundation remained associated with Neurath's visits in New York,

we know that his project of a branch of the Foundation in the United States did not really succeed. In 1939, the beginning of WWII and Neurath's subsequent escape to London – where he was retained for some time as an “enemy alien” – made his communication with American intellectuals more difficult. In addition, the RSF's growing financial difficulties, in particular the exhaustion of Sage's initial grant, led to the demise of its various departments. When Van Kleeck retired in 1948, three years after Neurath's death in Oxford, pictorial statistics had not been of much interest to the RSF for many years. What emerged instead was the undertaking of Rudolf Modley, Neurath's assistant, Pictorial Statistics Inc., a non-profit organization which used the Vienna method outside of social science.

Pictorial Statistics as Visual Communication

It is now well-known among historians of graphic design that Neurath's pictorial statistics has been one of the pioneering methods in this field. What is still not completely documented, however, is how the method which had been developed as a tool for social scientists ended as a purely communicational device. While there is no doubt that Modley's version of the method was the most disseminated in the United States – through various governmental and institutional pamphlets –, retracing the history of the method is problematic: whereas Neurath is an uncontested figure whose archives are easily available, Modley is not acknowledged outside of a quite restricted circle of graphic designers who have worked with his *Handbook of Pictorial Symbols* (1976). Luckily, some of his early endeavors are documented through a few materials at the Rockefeller Archive Center.¹⁴ In 1935, Modley, who was by now working independently from Neurath's Institute for Visual Education, approached the General Education Board to seek funding for the establishment of a “graphic center for educational purposes.” The center would produce and distribute charts but in addition, it would also be a place where artists could be trained so that schools and other teaching institutions would be able to produce their own charts using the Vienna method. What Modley proposed was very much similar to the project Neurath had in mind with his Institute. Yet by contrast with Neurath's continuing struggle to gain support in the United States, Modley seemed to benefit from a much better network, including people who had been acquainted with his former employer in the first place. After he was interviewed by GEB's Lawrence K.

Frank, the latter wrote: “To the writer, these ingenious methods of graphic representations which Neurath developed and which have been improved by Modley offer an exceedingly interesting possibility for use in secondary education and adult education. These methods would make it possible to convey ideas and conceptions that would ordinarily be difficult, if not impossible, of acceptance by large sections of the population who can not comprehend either statistical tables or involved textual explanations. In this respect, graphic representation offers a procedure intermediary between evidential material and esthetic experiences and for that reason is particularly appropriate for many aspects of the social studies.”¹⁵ In his talk with Frank, Modley envisioned three projects related to visual education: first, the production of a book on the history of the United States using pictorial statistics to illustrate economic, social and demographic developments; second, the creation of a test to appraise the effects of visual representation for various ages and levels; third, the organization of a systematic program for the use of visual representation in education. In January 1937, Modley submitted a more formal proposal to the GEB. The idea was to finance the making of charts for classroom use but also traveling exhibits on History, Economics and Health issues and a larger program to test the comparative value of the visual method for different groups of people. Modley asked 34,000 dollars per year for the production of charts, 8,000 dollars per year for the exhibits and 3,000 to 10,000 a year for testing.¹⁶ He insisted in his proposal on the fact that his organization was non-profit and self-supportive so that these amounts would only fund additional work and not the work done regularly at Pictorial Statistics, Inc. This proposal was completed by another proposal to produce “fact-films”, using pictorial statistics in motion pictures. The additional cost for these films would be 17,000 dollars for a year and approximately ten movies.¹⁷ Though the General Education Board was quite interested in Modley’s proposal, it posed a few problems. A report mentioned that there was little possibility that the Board could fund the promotion of Modley’s pictorial statistics in the schools.¹⁸ Then, there were the possibilities that the GEB provides funding for the making of motion pictures and for testing alternative methods of visual representation. Concerning the first, the question was to know whether a movie should be realistic in principle so that motion pictures should not include symbols. As for the second, what was problematic was the fact that Modley should not be allowed to test different method of visual representation, while being the producer of one of them. John Marshall, the Assistant Director for the Humanities

at the Rockefeller Foundation as well as an officer at the GEB, wrote to Modley: “[w]e have come to feel that if a study of this kind is to be undertaken, it should be by some organization that is not to be concerned with the production of materials of this kind... This, as I see it, should necessarily involve you in an appraisal of the work of your competitors, and that, it seems, would lead inevitably to embarrassment and possibly even to misunderstanding.”¹⁹ Modley agreed. He wrote: “I personally would prefer very much to have independent testing agencies doing a thorough testing of present available visual techniques in general, so that we could get a clear picture as to the advantages and limitations of our material.”²⁰ As a result it does not seem that Modley’s proposal resulted in any direct collaboration with the General Education Board. Yet, the correspondence shows how his organization had evolved between 1935 and 1938. In the meantime, Pictorial Statistics Inc. had produced a catalogue of roughly two-hundred charts related to all kinds of subjects: geography, population, social security, land, national income, natural resources and power money and banking, government, science and history. This had been made possible thanks to a contract with the publisher Harcourt, Brace and Co. In addition, Pictorial Statistics also proposed to train people desirous to make such charts themselves. It published two instructions textbooks and offered series of standardized symbols for sale.²¹ By doing so, Modley was also able to ensure copyrights of his symbols. *Instruction for Chartmakers* showed that Modley’s use of the Vienna method was more pragmatic, less theoretical, than Neurath’s. His enterprise, therefore, looked more like a business and less like an attempt to contribute to the social sciences. Yet his ability to improve on the Vienna method seduced a number of patrons: publishers, the medias – e.g. Fortune, the Nation and the New York Times –, businesses – e.g. Swift & Co., Travelers Insurance Company –, philanthropic organizations – e.g. the National League of Women Voters, National Education Association and the Twentieth Century Fund, as well as Federal and State agencies.²² Like Neurath, Modley drew the interest of the architect Robert Kohn, one of the organizers of the New York World’s Fair of 1939. All in all, what the archives reveal is the contrast between Modley’s success as a businessman in visual communication and his failure to explore the more academic aspects of visual communication.

The larger picture: the postwar reorganization of social science

While a number of archival materials, described above, seems to document the individual aspects of the demise of visual representation as a legitimate tool in the social sciences and its subsequent adoption as a purely artistic or communicational device, a wider research through various Foundations' papers between 1930 and the first decades following WWII shows how the landscape of social sciences changed dramatically during the period. Whereas in the prewar period foundations seemed to support projects that were located at the crossroads between academic research and social activism, they would tend to focus more on the former and less on the latter after WWII. One of the main reasons for this change was the fact that social science became more rigorist in the postwar period, relying on 'serious' data collection and analysis and mathematical theorizing as opposed to public intervention and attempts to popularize knowledge about society and the economy.²³ Two of these prewar projects are well documented in the Rockefeller Foundation Archives: the Committee on Social Changes and the Encyclopedia of the Social Sciences. The former was a multidisciplinary study of American culture during Herbert Hoover's presidency. Though it was finally published in 1933, after Roosevelt was elected, it was decided in 1929 immediately after the beginning of the Great Depression. The study brought together social scientists such as Wesley Mitchell and William Ogburn and philanthropists such as RSF's Shelby Harrison. Several aspects of the American life were studied, for instance religion, rural and urban changes, the "seriously maladjusted" and leisure. Though it did not involve much visual representation, the project was given great publicity in the pages of *Survey Graphic* and implied a few people who were otherwise interested in visual communication and social photography. In many ways, the project represented a turning point in the role of philanthropy in these social and cultural aspects, which would be increasingly handled by the Federal government in the future.²⁴ As for the Encyclopedia of the Social Sciences, it is an accurate depiction of how social work lost its relation to academic social science in the early postwar period. The first edition of this Encyclopedia, which was published by Macmillan and funded by grants from the Laura Spellman Memorial Fund and the Rockefeller Foundation, was edited by Columbia Professors Edwin Seligman and Alvin Johnson between 1930 and 1936. Social work was represented among the various entries it contained. The leaflet advertising the publication of its first volume in 1930 had a paragraph stating: "The whole range of activities wherein scientific inquiry is combined with social action is

covered in the encyclopaedia. Every social worker will find it invaluable for reference”.²⁵ RSF’s Mary van Kleeck, along with Ogburn and Mitchell, served in the Board of Directors. By contrast, after WWII, when it was decided that a new version of the Encyclopedia should be published, this time under the patronage of the Ford Foundation, the report written on that occasion by a group of Professors at the University of Chicago omitted social work as a relevant sub-disciplinary field within social science. The reasons for this change clearly appeared in the introduction of the report, which stated: “The new cyclopedia should, in our opinion, be both narrower and broader in scope than ESS. On the one hand, we recommend reducing the amount of purely descriptive matter and eliminating articles upon certain topics competently and more appropriately treated in general encyclopedias. On the other hand, we urge inclusion of considerably more material upon methods, empirical regularities, and such subjects as human biology, linguistics, and the interrelations between the social sciences and various other disciplines.”²⁶ This more rigorous definition of the social sciences rejected a number of aspects that brought together academic research and social reform, therefore precluding much of the frameworks in which the attempts to visualize the American economy and society we have depicted above were located.

ENDNOTES:

¹ On the FSA photographs and the rise of photographic documentary in the United States, see for instance Maren Stange (1989), *Symbols of Ideal Life: Social Documentary Photography in America (1890-1950)*, Cambridge University Press and Cara A. Finnegan (2003), *Picturing Poverty. Print Culture and FSA Photographs*, Smithsonian Books.

² See Yann Giraud (2010), The Changing Place of Visual Representation in Economics: Paul Samuelson between Principle and Strategy, 1941-1955, *Journal of The History of Economic Thought*, 32 (2), pp. 175-97 and Loïc Charles and Yann Giraud (2013), Economics for the Masses: The Visual Display of Economic Knowledge in the United States, 1910-45, *History of Political Economy*, 45 (4), pp. 567-612.

³ On the changes in social science after WWII, see Thomas Bender and Carl Schorske (1997), *American Academic Culture in Transformation: Fifty Years, Four Disciplines*, Princeton University Press.

⁴ Paul Kellogg to Shelby Harrison, March 29, 1939, Russell Sage Foundation Papers, Rockefeller Archive Center (hereafter RSF), Series 3, Box 41, Folder 345a.

⁵ Eduard Lindeman to Lewis Hine, July 18, 1939, RSF, Series 3, Box 41, Folder 345a.

⁶ Paul Kellogg to Shelby Harrison, September 13, 1939, RSF, Series 3, Box 41, Folder 345a.

⁷ Harrison to Hine, April 10, 1939, RSF, Series 3, Box 41, Folder 345a.

⁸ Routzhan to Harrison, October 2, 1939, RSF, Series 3, Box 41, Folder 345a.

⁹ See for instance Robert Leonard (199), Seeing Is Believing” Otto Neurath, Graphic Art, and the Social Order, *History of Political Economy*, 31 (5) pp. 452-78.

¹⁰ See John M. Glenn, Lillian Brandt and F. Emerson Andrews (1947), *Russell Sage Foundation, 1907-1946*, vol. 1, Russell Sage Foundation, pp. 172-3 and RSF, Series 3, Box 14, Folder 120.

¹¹ Harrison to van Kleeck, July 11, 1933, RSF, Series 3, Box 15, Folder 129.

¹² John Glenn to George McAneny, July 21, 1936, RSF, Series 3, Box 15, Folder 129.

¹³ In addition, in Glenn, Brandt and Andrews (op. cit.), Neurath is only given a passing reference,

which may signal that at the Foundation his work was considered quite anecdotal.

¹⁴ In addition, it is worth noting that as part of my research travel in the New York area, I have been able to study a few papers at the Franklin D. Roosevelt Library dealing with Modley's work for the government during the same period.

¹⁵ Lawrence K. Frank, "Interviews: Mr. Rudolph Modley, Pictorial Statistics, Inc.," April 2, 1935, General Education Board Archives, Rockefeller Archive Center (hereafter GEB), Series 1, Subseries 2, Box 226, Folder 2167. It is notable that Frank was close to NBER's Wesley Mitchell, who was a member of the board of Pictorial Statistics Inc.

¹⁶ Modley, "Proposal of a Graphic Center for Educational Purposes", January 26, 1937, GEB, Series 1, Subseries 2, Box 226, Folder 2167. Compare these figures to the 500 dollars payments Neurath regularly received from the RSF.

¹⁷ Modley, "Fact films", January 19, 1937, GEB, Series 1, Subseries 2, Box 226, Folder 2167.

¹⁸ John Marshall, "Interviews: Mr. Rudolph Modley, Pictorial Statistics, Inc.," February 1, 1937, GEB, Series 1, Subseries 2, Box 226, Folder 2167.

¹⁹ Marshall to Modley, March 25, 1938, GEB, Series 1, Subseries 2, Box 226, Folder 2167.

²⁰ Modley to Marshall, March 28, 1938, GEB, Series 1, Subseries 2, Box 226, Folder 2167.

²¹ R. Modley (1937), *How to Use Pictorial Statistics ?*, Harper and Brothers and R. Modley (1938), *Instruction for Chartmakers*, Pictorial Statistics, Inc. These booklets are also located in GEB, Series 1, Subseries 2, Box 226, Folder 2167.

²² Of particular interest is a small booklet located in the GEB archives, *The New York Primer*, which deals with school problems in the State of New York, including some of Modley's most vivid visual works.

²³ See for instance Mark C. Smith (1994), *Social Science in the Crucible: The American Debate over Objectivity and Purpose, 1918-1941*, Duke University Press.

²⁴ See the concluding remarks in Judith Sealander (1997), *Private Wealth, Public Life : Foundation Philanthropy and the Reshaping of American Policy from the Progressive Era to the New Deal*, The Johns Hopkins University Press, pp. 216-245. The project is well documented in the Rockefeller Foundation Archives, Rockefeller Archive Center (hereafter RF), RG 1.1., Series 200S, Box 326, Folders 3873-3880.

²⁵ "The Encyclopaedia of the Social Sciences", Promotional leaflet, RF, Series 200, Box 329, Folder 3924.

²⁶ W. Allen Wallis et al., "A Study of the Need for a New Cyclopedic Treatment of The Social Sciences", 1955 Report to the Ford Foundation, RF, Series 200, Box 330, Folder 3935.

The Postwar Economy: 1945-1960. As the Cold War unfolded in the decade and a half after World War II, the United States experienced phenomenal economic growth. The war brought the return of prosperity, and in the postwar period the United States consolidated its position as the world's richest country. More and more Americans now considered themselves part of the middle class. The growth had different sources. The automobile industry was partially responsible, as the number of automobiles produced annually quadrupled between 1946 and 1955. There had been earlier waves of mergers in the 1890s and in the 1920s; in the 1950s another wave occurred. New conglomerates -- firms with holdings in a variety of industries -- led the way. Discover the American economy during the 1960s and 1970s. This article includes an exploration of historical highlights that affected the economic climate. B.A., Economics and Political Science, University of Western Ontario. our editorial process. Mike Moffatt. Updated January 27, 2020. The 1950s in America are often described as a time of complacency. By contrast, the 1960s and 1970s were a time of significant change. New nations emerged around the world, and insurgent movements sought to overthrow existing governments.