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## THE BUSINESS FAILURES PROJECT—A PROBLEM IN METHODOLOGY

WILLIAM CLARK, WILLIAM O. DOUGLAS AND DOROTHY S. THOMAS

The investigation into the antecedents of failure of insolvent businesses which the Institute of Human Relations of Yale University has been conducting in cooperation with two other agencies has presented a problem in procedure and methodology of considerable concern and interest to those engaged in social and economic research.

That hundreds of businesses from corner cigar stores to large factories fail each year is common knowledge. That competition, fraud, the general state of business conditions, lack of business ability, low intelligence and sheer misfortune play significant parts is generally admitted. Most are content to leave the problem there. But those who are interested in social reform and those who are interested in problems of social causation want to go further. Here are current economic and social phenomena that have never been studied scientifically by analysing the factors involved, by tracing the social, economic and legal antecedents, and by estimating the causal processes. Yet such an analysis would lead to results of tremendous practical and scientific significance. The legislator might thus obtain a factual basis for proposing improved legislation. The business man (and business organizations) in using the results of such an analysis to avoid dangerous practices could benefit by the experience of the more unfortunate. Its importance to the consumer would come through any action of the legislators or the business community to reduce credit losses. For the laboring man the prevention of failures might mean less labor displacement. Social agencies might be concerned in so far as prevention might decrease their annual load. The scientist's interest would lie in the fact that here are processes about which facts may be marshalled, interrelationships worked out, and predictions compared with later happenings. But were any one of these groups, except the last, to undertake such analysis there would be a tendency to color the findings or restrict the scope in light of the interest of the group concerned. To avoid this, and to make as unbiased a study as is humanly possible, the exclusion of any or all immediate objectives other than the collection of relatively accurate data should be the aim. Accordingly it was decided to

insulate the study from the influence of any such groups, except as they determine the types of material sought.

The real initial difficulty, however, was a more practical one. Assuming that the kind of data wanted could be determined, how could or should they be collected? It is obvious that the sources of reliable data are numerous—ranging from written records and interviews, with many types of persons and organizations, to observation. To devise an administrative device for getting access to these sources and for making these observations was quite essential. It is with the solution of that initial administrative problem in respect to the bankruptcy cases only<sup>1</sup> that the first part of this article deals.

During the last eighteen months the Department of Commerce has undertaken a few limited studies of the causes of failure in two retail lines—grocery stores and restaurants. The study of insolvent grocery stores was made in Louisville, Ky. and in Philadelphia, Pa.; the study of restaurants in Kansas City, Mo. The Yale Law School participated in the Philadelphia study. These studies were aimed primarily at determining the economic causes of failure. Merchandising methods, capitalization, methods of financing, credit losses, turnover, overhead were among the major factors analyzed. The information was obtained by trained investigators, for the most part through interviews with the debtors.<sup>2</sup> At about the same time, Judge William Clark, sitting in bankruptcy in the Federal Court for the District of New Jersey, instituted in his court examinations of bankrupts applying for a discharge. In these examinations the antecedents of the failure were probed in order to estimate the major contributing economic causes of failure. Such information was peculiarly relevant to the granting or refusing of a discharge, as the affairs of the dishonest as well as the honest were brought to light. It was decided that these separate agencies should collaborate in a joint study on a more comprehensive and intensive scale. Accordingly it was arranged that all the bankruptcies under Judge Clark's jurisdiction should be examined, and a bankruptcy "clinic" instituted. The Institute of Human Relations of Yale University became interested. Together with Judge Clark and the Department of Commerce it undertook this study for the period from October 1, 1929 to June 30, 1930. It is with the

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<sup>1</sup> The business failures project is wider than bankruptcy, as it includes all failures no matter how liquidated. The technique for obtaining data in the other types of cases has been evolved only in part.

<sup>2</sup> At this date only the report of the Louisville study has been made available. It is contained in Trade Information Bulletin No. 627 of the Department of Commerce. It is understood that the reports of the Philadelphia and Kansas City studies will be available in the near future. Each of these studies was conducted under the direct supervision of Dr. W. C. Plummer of the Wharton School of Commerce.

objectives and technique of this study that the remainder of this article deals.

The technique employed in gathering the data is as follows. "Clinics" are set at regular intervals, either weekly or bi-weekly. The bankrupts to be examined are not selected. All are taken whose petitions have been filed during the week or two weeks preceding the date set for the "clinic." The clerk of the court sends out notices, pursuant to court order, to the bankrupts and their attorneys, stating the date, hour and place for their examination. The procedure is pursuant to Section 21a of the Bankruptcy Act which provides that "A court of bankruptcy may, upon application of any officer, bankrupt, or creditor, by order require any designated person, including the bankrupt and his wife, to appear in court or before a referee or the judge of any State Court, to be examined concerning the acts, conduct, or property of a bankrupt whose estate is in process of administration under this Act." Parenthetically, it may be stated that the systematic questioning of the bankrupts as to the antecedents of the bankruptcy is of obvious importance to those whose task it is to administer the estates. Every administrator in bankruptcy is concerned with dishonesty, the location of the assets, the factors involved in the disappearance of assets, and the nature and origin of the claims against the estate. To ascertain these facts, some study must be made of the pre-bankruptcy period; and the court, or administrator, must go through some such process as this clinic involves before an estimate of causal factors may be made. There is no doubt that, from the legal angle, this procedure is permissible. It now obtains, in theory and to a slight extent in practice, in an unorganized way, in bankruptcy proceedings. Actually the administrator tends to rely entirely upon his "hunches," unless the creditors become active. The "clinic," then, is merely an attempt to organize, objectify, and standardize this procedure which the bankruptcy system provides. It may be added that a similar procedure obtains in England pursuant to statute.<sup>3</sup> But in England the examinations take place as a

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<sup>3</sup> 4 & 5 GEO. V c. 59, § 14 (1914) provides: "Where a receiving order is made against a debtor, he shall make out and submit to the official receiver a statement of and in relation to his affairs in the prescribed form, verified by affidavit, and showing the particulars of the debtor's assets, debts and liabilities, the names, residences and occupations of his creditors, the securities held by them respectively, the dates when the securities were respectively given, and such further or other information as may be prescribed or as the official receiver may require." See also Bankruptcy Rules, 1915, No. 189. The forms used for this statement are very long and detailed. For traders there are 47 main questions and for non-traders 33 main questions. In addition there are a large number of sub-questions. Provision is also made for public examination. See § 15 and Bankruptcy Rules No. 191-194.

matter of routine. The antecedents of failure are delved into with marked thoroughness, and the breadth of the examination is comparable to the one employed in the "clinic." Such a "clinic" would not be unique there.

To return to the procedure in the "clinics": the bankrupts (twenty to thirty at a time) and their lawyers appear pursuant to the notice. Court is convened. The staff of investigators—averaging eight—is present. Each investigator takes one bankrupt at a time and with the aid of his lawyer elicits from him all information relevant to his failure and records his statements. As will be explained later the types of data wanted are listed in question form on the work sheets. The questions included in the work sheet were evolved through conferences with judges, lawyers, economists, psychologists, sociologists and physicians. They attempt to cover points which each of these specialists regards—often on a fragmentary factual basis dependent merely on a general sizing up of the situation—as important in the causation of bankruptcy. Obviously the questions vary somewhat with the type of case. There are many separate questions for the builder, contractor, retailer, manufacturer, etc., for those not in business for themselves, such as wage earners, and for those who go into bankruptcy merely to escape payment of judgments.<sup>4</sup> There are, of course, common questions for all cases. Each bankrupt is asked each question on the work sheet, thus assuring comparable data. It is, however, obvious that only an omniscient person could devise a list of questions *a priori* which would cover all the factors involved in all the cases. Any such work sheet therefore lacks the necessary flexibility to produce information on the more subtle points peculiar to the individual case. To meet this the investigator departs from the formal work sheet and cross-examines the bankrupt. Obviously there can be no fixed procedure in this regard. An evasive answer, the tone of the voice, a facial expression and other almost innumerable clues start a new line of questions. Thus the questioning follows the pattern of facts as it has been built up in the experience of the bankrupt, and in this way not only are comparable data produced through the categorical questions but also the richness and complexity of the background is probed. In such an examination an inexperienced examiner is bound to be inefficient. But fortunately most of the examiners employed to date have had previous experience. It might be surmised that the tactics of the

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<sup>4</sup> The bankruptcy of wage earners and of those seeking to avoid payment of judgments has no place in the present study of business failures. To be sure the status of the wage earner may have been radically altered by the failure of his employer. The present study, however, deals only with antecedents of failure and not with its consequences. Nevertheless, data respecting these non-business groups are being collected merely because the data are at hand and the effort and expense are negligible.

attorneys would be obstructive, but on the contrary they have proved very helpful. In the vast majority of the cases their presence has removed suspicions from the minds of their clients who consequently have talked freely. They have also been extremely useful in giving questions a turn which will make them clearer to the bankrupts and in helping to refresh faint memories of past transactions. This examination may take two hours for one case, but the average is less. Usually one investigator can examine two or three in two hours, and with eight investigators present each clinic is over in three hours at the most.

After this examination there is the difficult and painstaking task (1) of securing other data from other sources, and (2) of testing the reliability of the data obtained from the bankrupt. This necessitates more interviews and further investigation. The first obvious source is the books and records, if there are any. These are gone over carefully by the accountant of the staff. So far this task has proved negligible in view of the small percentage of cases in which books and records are kept. The analysis, if made, proceeds along two lines: (1) an analysis of what the books and records show in respect to assets and liabilities, credit losses and other signs of impending disaster; (2) an analysis of the adequacy of the books kept for the purpose of the business at hand. The latter is not only of value in ascertaining whether the business has had an efficient indicator of business health or disease, but also in aiding the accounting staff to devise simple but efficient bookkeeping systems for various lines of trade.

The next source of information is the creditors. At least two of the largest creditors are interviewed, or in cases where they are located at a distance letters are written seeking the reasons for extending credit and the basis upon which credit was given. The creditors are further questioned for any data relevant to the particular failure. Not only are their opinions as to the causes of failure sought but an attempt is made to get at the basis for those opinions. The bankrupt's employees are also interviewed regarding their opinions, and the basis for these opinions investigated. If an opinion was based upon observation, the extent and nature of the observation are estimated. These questions are of necessity formulated by the examiner in the course of the examination. Better Business Bureaus are consulted for information bearing upon the business practices of the individual. *Per se* the information may be of little value but frequently it furnishes a clue to the character of the debtor or the quality of his management. Trade Associations are also consulted. If the debtor was a member, additional or corroborative data may be obtained. That he was a non-active member may seem to be a colorless fact but in the total appraisal of the busi-

ness man it has some qualitative value. If he was an active member he has established contacts and made impressions upon a group who may or may not be able to give reliable data on the causes of his failure. But the information he sought, in fact whatever he did as a member, is of great utility in evaluating his capacity or quality as a business manager.

The larger communities have a confidential exchange from which may be obtained the names of the various social agencies which have served the debtor or his family. Such agencies are then interviewed, and any relevant data bearing on the antecedents of failure are secured. Clues to economic, health or social factors are often obtained from these sources. The records again *per se* have little value; but as secondary information they may give some clues as to whether bankruptcy preceded or followed dependency. If there is a record of ill health, the doctor in charge of the case is interviewed merely to corroborate the diagnosis stated by the debtor. If there is an organization of credit men or credit raters who have come into contact with the business in question any data apparently relevant to the case are obtained. And, finally, the investigator makes a survey of the immediate area in which the business is located. This is done for several reasons. One is to ascertain what possible or probable competitors do business in the same trading area. This is a very tenuous check at best on the statement of the debtor that he was ruined by competition. Yet when valued as such it is useful. Another purpose is to corroborate statements made by the debtor respecting changes in the nature of the business environment such as the shifting of racial groups, the destruction of a theatre by fire, the inroad of warehouses, etc.

Perhaps one of the most important kinds of data has not been obtained in a scientific manner to date—that is, a measurement of the intelligence of the debtor or the quality of his mental health. The facilities for giving intelligence tests are not adequate, nor has a practical method of securing necessary observation by a mental hygienist yet been devised. With these phases of the inquiry functioning, however, most sources of information likely to give reliable data respecting causes of failure will have been tapped.

In a study of this sort it is important to give some attention to the implications of the methods of the study, to the objectives, and to the meaning of the data. The point has been made that the existing data relating to the social, legal and economic factors operative in bankruptcy are exceedingly scanty. The treatment of the whole subject, in the past, has been largely that of the theoretical economist. The factual approach is recent and has been generally limited to the economic practices of the bankrupts and the possible relationships between economic situa-

tions and bankruptcy. Because of the meagreness and unsatisfactory nature of existing data the objectives must first be formulated in terms of an immediate path-finding approach to an untouched field, in order to indicate possible causative factors, and later reformulated to produce answers to pertinent questions as to the association of each of these factors with bankruptcy. As regards also the techniques to be used the problem has its immediate and more remote aspects. The present aim is to use such methods as will produce data covering a wide range—recognizing that these data will differ greatly in accuracy and completeness. Certain safeguards must evolve with the development of the study, since the validity of the future work will depend to some extent upon the accuracy with which this study indicates trends; but the primary purpose of the present studies is to point out significant factors. Later problems will center around the development of more adequate techniques for controlling errors and the production of data from which inferences as to the causal connection of these various factors with bankruptcy will emerge.

With regard to the immediate objectives, as the clinic gives access to all cases of bankrupts coming before the court it is therefore possible to cover a wide range of cases with no other selection. It may be safely assumed that in some of these cases each of the different situations producing bankruptcy will emerge. Each factor will probably have appeared prominently in some cases, be apparently incidental in others, and be entirely absent in still others. By combining the results of the questionnaire, which is based on the combined "hunches" of persons from several fields, with those obtained by the skilful cross-examiner, who is not limited to the stereotyped questions, it is reasonably certain that few factors will be missed.

The procedure in dealing with the data of the present study will be to indicate roughly the proportions assumed by each of these factors in a large number of cases. In other words, the various factors antecedent to bankruptcy and the frequency with which each factor occurs in the bankrupt group will be brought to light. It is quite clear, however, that further steps will be necessary in a scientific study of the *causes* of bankruptcy. Causation cannot be inferred merely from a description (however statistically accurate) of a phenomenon.<sup>5</sup> The mere fact of, say 20%, feeble-mindedness among criminals tells nothing regarding the association of feeble-mindedness with crime unless proportions of feeble-mindedness among the non-criminal or the general population be known. Similarly, this study may indicate

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<sup>5</sup> For further discussion of these points, see Thomas, *Statistics in Social Research* (July 1919) AM. J. Soc. 1-17.



that 40% of the bankrupts have been involved with loan sharks. It cannot be inferred that this practice is a causal factor in bankruptcy, however, until an equally careful study of the practice, in this respect, of similar enterprises which have not become bankrupt is made. In other words, a controlled study of the general business community must be undertaken in order to produce data for a non-bankrupt group on all points suspected of being causative of bankruptcy. The objectives, then, can be formulated as follows:

(1) There are few facts now known regarding the antecedents of bankruptcy. An accurate description of what actually happens to enterprises or individuals antecedent to bankruptcy is of fundamental importance to an appreciation of this situation. The immediate objectives are (a) a study of the frequency with which factors thought to be important by judges, lawyers, economists, psychologists and sociologists, actually occur in an unselected group of bankrupts, and (b) an exploratory study to determine other possibly important factors.

(2) The causal influence of these factors, however important they may seem in the present study, cannot be traced until accurate information is at hand concerning the incidence of these same factors in the general community and in a group of non-bankrupt enterprises similar to the bankrupts in type of business, length of operation, etc. The more remote objectives are (a) the selection of factors found to be important in the present study and the collection of accurate data regarding them for a large number of bankrupts in a variety of communities; (b) an equally accurate study of the same factors for a large number of non-bankrupts in the same communities; (c) a comparison of bankrupts with similar non-bankrupts for each factor, or combination of factors, in each community; (d) the determination of possible causative factors in bankruptcy where the difference between the groups is significant.

(3) Though the practical implications of these studies have received but slight emphasis it is obvious that the social control of bankruptcy can be aided if laws are amended and administered in accordance with the findings, if the findings are utilized by non-governmental groups in the exercise of their control over business enterprises, or if they furnish, to those in business, methods of control which will improve the quality of management. This more practical objective is of fundamental importance for legal and social reform.

As stated, the techniques used in the present study are the questionnaire and the method of cross-examination. The questionnaire is used as a means of obtaining readily comparable data on a large number of cases. As has also been stated, the investigators obtain most of the information from the bankrupts

in court. The questions on the schedule represent a minimum. By the skilful use of the cross-examination points not covered in the schedule are brought out as pertinent to individual cases.

Some discussion of the uses and limitations of these methods is necessary. The questionnaire, in some form, represents the usual method of obtaining data about present situations where large numbers are essential and where the questions asked relate either to situations about which no record independent of the persons questioned exists, or where access to such records would be impracticable. It also often represents the only possible method of obtaining information in regard to past events. Obviously data collected by this method will vary in accuracy and usefulness, depending on the nature of the questions asked, the technique of procuring the information, and the uses to which the information will be put.

In the Government census, which depends entirely upon this method, the data are collected by instructed investigators who ask simple questions of fact regarding each member of every household. No attempt being made to verify the facts reported by the individuals, however, the error of observation (or report) is not known. This type of error must be known in data that are to be treated statistically if the inferences resulting from such treatment are to have any sound basis. But it is quite impossible, in most of these large-scale questionnaire studies, to get a quantitative expression of this error of observation. In such circumstances, a knowledge of the safeguards set up to prevent the intrusion of bias, the nature of the data collected, and the number of cases must all be considered in a qualitative estimate of the error. Thus in census material, and most governmental statistics, the error of observation is not known quantitatively; but a certain amount of control is exercised by the government in its selection of enumerators, and the data are usually of such a nature that there is no reason for a careful enumerator not to get accurate results. The numbers involved are very large, and hence most of the data may be used with some feeling of security. Certain of the data may be supposed *a priori* to be more accurate than others. Ages, particularly of females, will probably be underestimated; occupations, particularly those members of the family not present when the return is being made, will undoubtedly be inaccurately stated; and, as Bowley has pointed out,<sup>6</sup> unless the enumerator is very familiar with the details of occupations, further errors will creep in. Nationality and relationship to the head of the family are likely to be subject to less serious sources of error. Literacy and illiteracy will be subject to more error, since no attempt is made to check the answers, and since it is definitely to the interest of

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<sup>6</sup> BOWLEY & HOGG, HAS POVERTY DIMINISHED? (London 1925).

the person answering the question to appear literate in view of the social approval of literacy and the disapprobation of illiteracy.

In the bankruptcy work sheet the accuracy of the data obtained by questions is probably much more variable than that of the census material. The check-up by the field investigators, however, is a factor operating strongly to reduce the error. Reliable data regarding the kind of business may be easily obtained. The nature of the bankruptcy proceedings makes for an accurate account of creditors (loan and finance companies, business firms and individuals, friends and relatives, etc.) and of scheduled liabilities. But the occupational history of the bankrupt and data regarding the community background of his business and family are more variable as to accuracy and less subject to careful check by the field investigators.

An objection often raised against questionnaires is that so few of the questions can possibly be answered with accuracy. In Caradog Jones' study of the cost of living in England, for example, nearly half the expenditure to be estimated was paid out by the women of the family, and was for the most part petty cash expenditure.<sup>7</sup> In very few instances is any written record kept of such expenditures and one guess is as good as another. Data of this sort could probably be collected willingly enough; those answering the questionnaire might be thought to have every intention of answering accurately; but the nature of the data requested precludes accuracy. A great deal of the data sought, however, has another source of inaccuracy in that it relates to aspects of life about which certain strong attitudes of approval or disapproval exist. Here it is difficult to separate wish-fulfillment from fact. For instance, in a questionnaire sent out to nursery school parents, in which they were asked to check their leisure time activities, the proportion of time apparently given over to church attendance and museum visits was so great as to lead to grave suspicions as to the validity of the data.<sup>8</sup> With all the assurances in the world, it is difficult to get the persons answering questionnaires to give answers that are based upon happenings, uncolored by what he thinks ought to have happened, or what he thinks the investigator thinks ought to have happened. The whole psychology of testimony tends to show the impossibility, even with good intentions, of giving accurate accounts of happenings when there is any emotional coloring involved.

With regard to some of the questions asked in the bankruptcy

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<sup>7</sup> D. Caradog Jones, *The Cost of Living of a Sample of Middle Class Families*, (1928) J. ROYAL STATISTICAL SOC. 463-518.

<sup>8</sup> Unpublished study of Child Development Institute, Teachers College, Columbia University.

work sheet it is impossible to expect accurate answers and futile to hope for any check on these answers. They are quite frankly inserted for path-finding purposes. Their treatment statistically will merely be to indicate broad proportional differences. Others undoubtedly involve some emotional coloring which would increase the chance of bias, as for instance some of the questions designed to show the part played by the family in furthering bankruptcy or in aiding the bankrupt.

Two of the most serious faults of questionnaire studies are, however, entirely avoided in this set-up. The first of these is the practice of having schedules filled out by the subjects under investigation rather than by the investigator or with the aid of the investigator. Such a practice increases the observational error to great proportions. But in the bankruptcy study the investigators have interviewed the bankrupts and made the records themselves. A second difficulty, fundamental to many such studies, is the distortion of the sampling process that results and the failure to produce any adequate description of the phenomenon under investigation. When the questionnaire is sent to a group or a sample and only a portion of this sample replies, however carefully selective factors have been eliminated, it is futile to claim representativeness for the results. The extent to which this is true is not generally recognized. For instance, in Caradog Jones' cost of living study<sup>9</sup> 2,500 forms were distributed to a group homogeneous in that "all the heads belong to the same profession, and the nature of their daily work is such that the keeping of accounts to them is as child's play." Nevertheless less than 10% returned satisfactory replies. In two other British studies,<sup>10</sup> the returns were 6% and 8% respectively. In the present study, however, this factor does not enter. All cases that come to this particular court are included: there is no selection. Yet to assume that the cases coming to this court were completely representative of bankruptcy would be fallacious. In the later study, selection of bankrupts from many courts will have to be made.

This questionnaire, then, is producing a limited amount of accurate data which are suitable for statistical treatment and for use in indicating trends. An equally important use, however, is non-statistical. The questions, and more particularly the cross-examination, are digging into factors which cannot yet be expressed quantitatively. It is as important, at this stage of the investigation, to know the conflicting (or concurring) opinions: regarding the cause of failure as given by the bankrupt, his employees, his relatives, his creditors, and the official of the credit association, as it is to know by whom the credit was extended and

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<sup>9</sup> *Op. cit. supra* note 7.

<sup>10</sup> See D. Caradog Jones, *op. cit. supra* note 7.

how or when the failure occurred. The further hypotheses that come out of such histories and opinions should lead to a more acute approach in later scientific studies in the field.

This study, then, raises a number of methodological points:

(1) The techniques used are adequate to produce a limited amount of quantitative material. In later studies the careful formation of categories and clear definition will lead to a far greater amount.

(2) The techniques do not produce adequate data without additional checks. These are being used extensively.

(3) The objective (though qualitative) data produced by cross-examination are of tremendous importance, not only in illuminating the present inquiry, but also in producing hypotheses for future studies.