INADEQUATE BOOKKEEPING AS A FACTOR IN BUSINESS FAILURE

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THE purpose of this article is to compare the accounting records of a group of bankrupt businesses with the records of a group of going concerns, to find out as a matter of fact in what ways, and to what extent, inadequate bookkeeping is causally related to business failure. The Bankruptcy Act, and most of the literature clustering around it, assumes that inadequate bookkeeping is, or can be a factor in commercial failure. The interest of this article is to examine the factual justification for the premise of the law. The analysis is concerned with three aspects of the problem of business failure: two are issues of law, and of legal policy toward business failure; the third, on which the law depends, involves the theory of business enterprise.[1]

The first legal problem in the study of inadequate bookkeeping is focussed on section 14b of the National Bankruptcy Act concerning the discharge of an applicant: ". . . Judge shall investigate merits of application and discharge applicant, unless he has . . . (2) destroyed, mutilated, falsified, concealed or failed to keep books of account, or records, from which his financial condition and business transactions might be ascertained; unless the court deem such failure or acts to have been justified, under all the circumstances of the case."[2] If statistical inquiry into sample bankruptcies can be trusted, it is safe to say that the majority of business concerns do not keep such records. Of course, the judge does not act unless creditors complain, so that a study of the contested cases alone may not indicate the actual frequency of inadequate bookkeeping in bankruptcy; moreover, even in the cases where the adequacy of the bankrupt's books are put in issue, refusal of discharge is rare.

The cases suggest two preliminary question: What are inadequate records? And when are business men "justified" in keeping them? The more recent cases where a discharge in bankruptcy was refused on the ground that the applicant unjustifiedly failed to keep records "from which

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The author owes much to Professor W. O. Douglas of the Yale Law School for his guidance, to Mr. W. W. Werntz, formerly of the Sheffield Scientific School for expert help as an accountant, to Professor E. B. Wilson of Harvard University for advice on sampling problems, and to Professor Karl Llewellyn of the Columbia Law School for many helpful suggestions.

1. This comparison was undertaken as a part of the investigations of Professor W. O. Douglas under the Institute of Human Relations and in conjunction with the Department of Commerce.

2. NATIONAL BANKRUPTCY ACT, § 14 (b), 30 STAT. 550 (1898), 11 U. S. C. A. § 32 (1926).

his financial condition and business transactions could be ascertained" afford no evidence that section 14b of Bankruptcy Act[3] is interpreted to make clear distinctions against a background of defined accounting standards; the provision seems rather to be used flexibly by the courts as a device to protect creditors against fraud. In each of the more recent cases involving the point, with one exception,[4] there were facts which smelled of sequestration of assets, false credit statements, etc., but as a rule such conduct could not be proven because records or complete records were not forthcoming.[5] In the one case where bad bookkeeping did not

3. As enacted in 1898 § 14 (b) (2), 30 STAT. 550 (1898), 11 U. S. C. A. § 32 (1926), read: "with fraudulent intent to conceal his true financial condition and in contemplation of bankruptcy, destroyed, concealed, or failed to keep books of accounts or records from which his true condition might be ascertained." By the amendment of 1903, clause b (2), 32 STAT. 797 (1903), 11 U. S. C. A. § 32 (1926), was made to read: "with intent to conceal his financial condition." By the amendment of 1926, clause b (2), 44 STAT. 663, 11 U. S. C. A. § 32 (1926), now contains no mention of or reference to the applicants' intent.

4. In re Weiner, 28 F. (2d) 881 (D. Md. 1928).

5. In the following cases inadequate bookkeeping records were held to justify the refusal of a discharge. In In re Harrell, 263 Fed. 954 (N. D. Ga., 1920), concealment by the bankrupt, a hotel keeper and restauranteur, of the true condition from the cashiers by the manipulation of books was held to justify an inference of intent to conceal true financial condition from creditors. In In re Fineberg, 36 F. (2d) 392 (W. D. N. Y. 1929), creditors relied on a false statement taken from books of the wholesale jeweler, where certain indebtedness had not been entered. In Nix v. Sternberg, 38 F. (2d) 611 (C. C. A. 8th, 1930), there was evidence that a real estate and building speculator had mutilated the books before they were turned over to the trustee and certain transfers of assets could not be proven or disproven without the complete books. In In re Weisberger, 41 F. (2d) 275 (N. D. Pa. 1930), a huge and unexplained diminution of assets of a shoe store had occurred. The bankrupt kept no books. In In re Weinberg, 42 F. (2d) 218 (E. D. N. Y. 1930), the bankrupt, in the butter and egg business, was working "for nothing" at the place of his former business for an enterprise whose president was his attorney and whose manager was his wife. He opened and closed the store and did the buying. The judge noted that the accusation of transfer of property could not be proven without the account books which were mysteriously missing. In In re Rothman, 47 F. (2d) 789 (S. D. Cal. 1930), the bankrupt, a women's wear merchant, issued a false statement to creditors. The books showed no details of his business. In In re Libowitz, 53 F. (2d) 132 (S. D. N. Y. 1931), a small business man failed to explain a large deficiency in assets other than partially through large gambling and stock losses. In In re Northridge, 53 F. (2d) 858 (S. D. N. Y. 1931), a minister, receiving $1,500 a year and gifts, borrowed $4,000 from his church and elsewhere in two years and failed to explain how it was spent. In In re Krulevitch, 60 F. (2d) 1039 (D. N. J. 1932), bankrupt was unable to explain satisfactorily certain business transactions with his father-in-law, "nor did it [the testimony] indicate that he had in any way attempted to discover by any records which might be available what his business dealings were in this regard." In Karger v. Sandler, 62 F. (2d) 80 (C. C. A. 2d, 1930), a doctor gave no satisfactory explanation of certain transactions with his sister-in-law nor of the destruction of his cash receipts from his customers.

In Schieber v. Hamre, 10 F. (2d) 119 (C. C. A. 8th, 1926), the court, though stating that the inadequacy of the applicant's records was sufficient to justify the refusal of a seem to be an incident of fraud, the judge found no evidence to support the creditor's claim that the applicant had destroyed his books, the bankrupt being a small drygoods merchant whose books were totally devoid of any entries for disbursement. The court merely remarked:[6]

> "Burden of proving (under sec. 14 of the statute) that no act in bar of a discharge has been committed shifts to the bankrupt if objecting creditor has shown to the satisfaction of the court that there are reasonable grounds for believing the bankrupt has committed any of the forbidden acts."

Facing a legal literature so barren and so unconcerned, it is more or less futile to inquire what types of records judges regard as adequate for various kinds and sizes of business. Descriptions of books in the cases are scant and the results do not seem to be determined by tangible rules of bookkeeping. A minister with an income of $1500 a year and gifts is penalized for keeping no records[7] while a salesman with $200 a month is discharged.[8] A wholesale jeweller was refused a discharge,[9] though he had books and a bookkeeper, whereas a large silk business, whose books were an example of carelessness but which had lost heavily through price declines, was discharged.[10]

If one can say that there is a standard of accounting which guides the cases, it appears to be one which protects the bankrupt against a charge of fraud.[11] This judicial willingness to grant discharges despite inadequate bookkeeping, in the absence of a showing of fraud, irritates the theorists of bankruptcy reform who feel that the Bankruptcy Act should have a preventive as well as a purgative influence on business;[12] since

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discharge, nevertheless granted the discharge on the ground that the creditors were estopped. The bankrupt, a furniture dealer, paid his wife $2,300 which he claimed to owe her and also turned over to her furniture without recording either transaction upon the books.

6. In re Weiner, 28 F. (2d) 881 (D. Md. 1928). The court also says (at p. 882): "It is further true that there is no ironclad rule under the Bankruptcy Act requiring the keeping of any books; that is to say a business may be so small that the total absence of them may be justified. Similarly, if books are kept there is no particular form of account that need be followed. On the other hand, the election to keep them implies that they, if not by themselves, then in conjunction with other less formal records, shall prima facie give every evidence of an honest effort to reflect the entire business of the bankrupt."

7. In re Northridge, 53 F. (2d) 858, (S. D. N. Y. 1931) (large loans and disappearing assets).

8. In re Neiderheiser, 45 F. (2d) 489 (C. C. A. 8th, 1930).

9. In re Fineberg, 36 F. (2d) 392 (W. D. N. Y. 1929) (certain liabilities were not represented in his books and resulted in a false statement).

10. Taback v. Arai, 31 F. (2d) 161 (C. C. A. 3d, 1927).

11. See Message from the President of the United States, *Strengthening of Procedure in the Judicial System*, SEN. DOC. No. 65, 72d Cong., 1st Sess. (1932) 6. There is no reason to believe that the act itself intended any purpose other than to facilitate distribution of assets, to grant honest debtors a discharge, and to discourage fraud and dishonesty.

12. Op. cit. *supra* note 11, pp. 99-101, for one of the milder suggestions that the court

they believe that by penalizing low standards of business bookkeeping, the Bankruptcy Act can help reduce the number and cost of business failures, they argue that the enforcement of strict standards of accounting in refusing discharge in bankruptcy would, as a deterrent, achieve a desirable elevation of business accounting.

The second legal issue in the study of the connection between bookkeeping and business failure is the possibility of dealing with the problem more directly by way of statutes prescribing standards of bookkeeping for all businesses. A number of European countries have such statutes, and the advocates of similar legislation for this country claim that it is an effectual way of reducing the cost of business failures.

Both of these proposals presuppose that there is a causal relation between inadequate records and failure, and it is this presupposition which the material presented here proposes to test. The discussion of the problem both by judges and commentators, consistently, if somewhat vaguely, assumes that such a relationship exists. The idea is old and is sanctified by theory. *Laissez faire* is an economic philosophy grounded on the identity of the individual's Good and society's Good and, moreover, on the belief that the individual knows his Good and acts to maximize it. The entrepreneur, in the universe of *laissez faire* theory, applies successive doses of capital and labor to his business according to their proportionate effectiveness, as governed by the principle of diminishing returns, until he discovers that the cost of applying one more dose of capital would exceed the net increase in his revenues from the sale of one more unit of his product. The theory clearly assumes that the business man will be able to recognize the margin of effective investment when he comes upon it; and such a recognition requires both the refined divisibility of dollars (not sheep, nor pigs, as in primitive economies) and the facilities for comparison afforded by accounting methods or, at least, by records. It is a simple step from this analysis to the view that without adequate bookkeeping tools for measurement, the business man will be unable to decide at what output his profit will be maximized; he will overshoot his mark, or undershoot it, consistently make losses, and finally fail.

Thus every study of bankruptcy includes a table on the adequacy of records. Professor Douglas reports that 22% of the Boston business failures in his investigation kept records which fulfilled their function and were adequate.[13] The Department of Commerce finds 47% in

be given discretion to suspend, rather than grant or refuse, a discharge. Culpable neglect of business is suggested as grounds for suspension and further that the absence of books and records be taken into account by the court in the exercise of its discretion under such suspended discharge provisions.

13. Douglas, *Some Functional Aspects of Bankruptcy* (1932) 41 Yale L. J. 329, 336.

New Jersey.[14] Professor Cover names one-third in his examination of the Chicago area.[15] While all reports do not ascribe inadequate records as a sole cause of bankruptcy, even in a limited group, they all assume its special relationship to bankruptcy. Yet nothing is known of the enterprises which survive. What if their books are no better than those of the concerns which fail? If it is the case that inadequate records are as common among successful as among bankrupt businesses, there is no need for concern on the accounting side with the operation of the discharge section of the Bankruptcy Act; its only usefulness, if this conclusion is justified, is in the protection of creditors' rights against fraud. The unwillingness of the courts to undertake strict rules and high accounting standards in this connection may rest, not on narrowness of understanding or too great a sympathy with folly and ignorance, but on a greater sensitiveness to life than is displayed by the experts in business practice. There is no need either for judicial or for statutory control of all business bookkeeping to prevent failure, if bookkeeping bears no relation to failure; for adequacy of records may not be usual in any type of business, bankrupt or solvent, and there may be no inconsistency (if law is related to custom) in labelling as passable records obviously incapable of fulfilling their accounting function.

II

The objectives of this particular study were (1) to discover to what extent "customary" records of going businesses were "adequate" according to an accountant's standard of efficiency—and, as an important collateral discovery, to find out what types of records were usual within going firms; and (2) by a comparison with bankrupts' records, using the same standards and the same accountant, to discover whether there could really be said to be such a concomitant variation between adequacy of books and bankruptcy as might be called causal.

Between June, 1930, and June, 1931, Professor Douglas, in cooperation with the Department of Commerce, made detailed studies of all bankrupts who applied for discharge in Boston.[16] Questions on account-

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14. *Causes of Business Failures and Bankruptcies of Individuals in New Jersey in 1929-30*, Dept. of Commerce, Domestic Commerce Ser., No. 54 (1931) 5. See also *Causes of Commercial Failures*, Dept. of Commerce, Domestic Commerce Ser., No. 69 (1932).

15. Cover, *Business and Personal Failure and Readjustment in Chicago*, 3 UNIV. OF CHICAGO, STUDIES IN BUSINESS ADMINISTRATION (1933), No. 4, p. 35.

16. See Douglas, *supra* note 13, at 329; also Department of Commerce, Domestic Ser. No. 69, *supra* note 14.

It should be noted that the terms "Bankrupts" and "Failed Businesses" are used interchangeably throughout this article to refer to the same group. Neither term is precisely accurate. The groups referred to in this study as "bankrupts" or "failed businesses" are all applicants for a discharge in bankruptcy. Chain stores were excluded from both groups for all purposes.

ing records were among many that appeared in the questionnaire with which bankrupts were interviewed. On the basis of those questions it was found that 30.3% of the businesses kept accounting records regarded by the investigators as adequate for their particular business needs. To determine whether such a percentage was unusual in business, a study was made of the accounting records of businesses in another New England city. For this survey, the classified city directory was used, and each tenth business was selected after all had been listed in alphabetical order. The directory was published in August, 1931, and the sample comprised units which were in business at that time. These were visited between the end of December, 1931, and the end of March, 1932. A small number of the concerns on the list had already gone out of business, and a few had failed, but they were visited and included in the survey, on the ground that what was wanted was not an analysis of successful firms alone, but a sample of results for units which could be classed as "going concerns" at the time the sample was selected.[17] In order to gauge the size of the business, gross income was taken for the year 1930, whether the fiscal year extended between January, 1930, and December 31, 1930, or July, 1930, and July, 1931. Information on gross income of the bankrupts generally, though not always, included the same year.

Both the "going concerns" and those which had failed, were divided for convenience into manufacturer, wholesaler, contractor and retailer. The 509 Boston Bankrupts and the 452 "Going Concerns" were classified into these categories:

TABLE 1

	Bankrupts		Going Concerns	
	Number	Percent	Number	Percent
Mfg.	52	10.2	49	10.8
Whl.	53	10.4	41	9.1
Contr.	156	30.7	88	19.5
Retailers	248	48.7	274	60.6
	509	100.0	452	100.00

Thus, manufacturers and wholesalers were in about the same proportion for both groups, while there were more contractors and fewer retailers among the bankrupts than in the sample of going concerns.

The basis upon which the adequacy of accounting records was judged has been described in a previous and more detailed description of the going concerns. It seems necessary, however, to make a brief summary here. There exists no set standard of adequacy applicable to the records of any business since the requirements of each unit vary with the size of the business, the type of goods handled and the nature of the credit exten-

17. For complete description of sample see: Corstvet, *Adequacy of Accounting Records in a Money Economy* (1935) 10 ACCOUNTING REV. 273, 275.

sions on which each one depends. It was therefore necessary to have an accountant go over each case, bankrupt and non-bankrupt, and arrive at his decision with full allowance for the nature of each business. Roughly, he considered adequate records to be: "those from which, with reasonable effort, an owner is enabled to get his total of income and expenditure and determine, with reasonable accuracy, his business loss and gain." He considered that the records should give a fairly accurate knowledge of the amount and source of his cash receipts, the amount and source of his cash disbursements, an analysis of the income and major expenses of his business, an estimate of his financial condition at a given time, an evaluation of his inventory, unless his business was such as required no inventory, and of his assets and liabilities. In addition, permanency of records, a reasonable accuracy and ease in the compilation of data, and availability of material once recorded were considered.

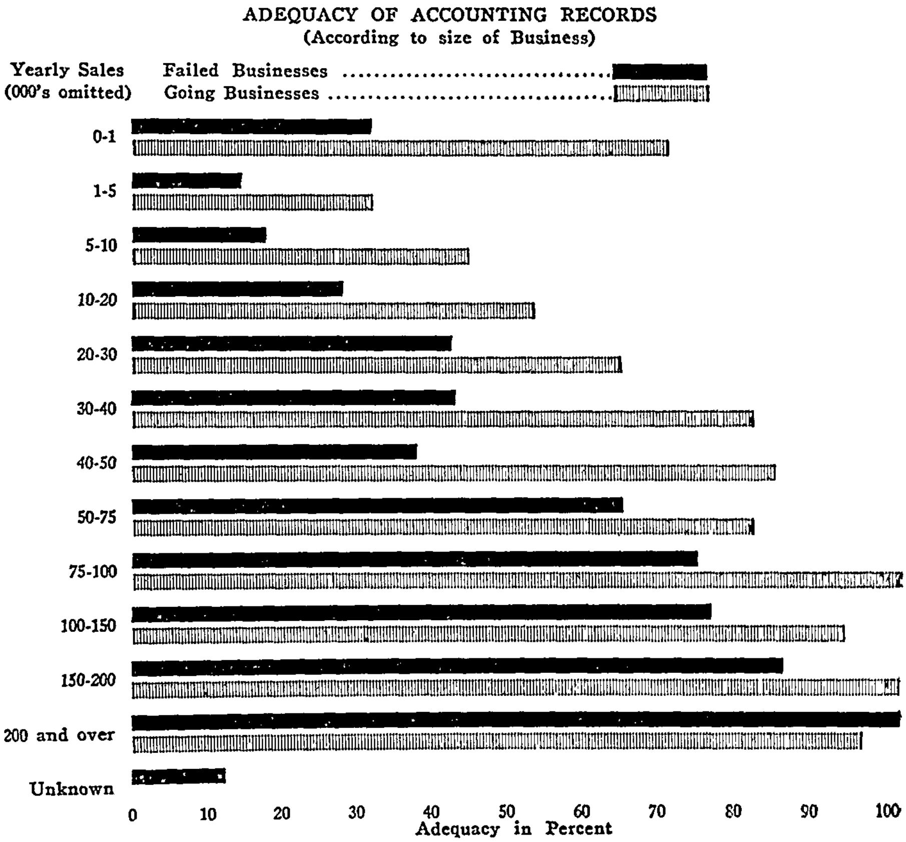
According to his analysis, the small storekeeper who did a cash business, paid his bills in cash and faced a more or less fixed overhead, might fulfill the requirements of an adequate system of records if he kept track of his receipts; the small contractor might likewise pass the test if he kept memoranda of his time and materials. With larger businesses and those complicated by labor bills and by credit transactions, requirements were naturally more strict. In the detailed description of records of going concerns, an attempt was made to specify the requirements by examples of adequate and inadequate records in average businesses of the different types.[18]

III

General Comparisons. Thirty percent of the bankrupt businesses and fifty-seven percent of the going concerns kept records adequate for the purpose of showing business loss or gain with reasonable accuracy. These gross figures may, of course, be subject to internal differences which affect the utility of the comparison. The information obtained from going businesses was more detailed than the corresponding data on bankrupts, and books of going concerns were more frequently examined. This might have led to a more complete knowledge of existing defects in the accounting systems of going concerns. On the other hand, the possible desire of a bankrupt petitioner to present his case most favorably may have led either to his exaggerating their completeness or, where he thought his accounts might reveal dangerous facts, to denying their existence. It is impossible to estimate the probable errors which resulted in this way or their effect on the comparison. One can correct the results, however, for certain other possible sources of error, such as the possi-

18. Corstvet, *supra* note 17 at 284 in Appendix; also Corstvet, *Adequate Records as an Element in Business Survival* (1936) 11 ACCOUNTING REV. 49.

bility of one group containing larger businesses or businesses of a type where good records are more usual, and throughout this comparison the attempt is made to do so.



Within the various types of business, a comparison of adequacy of records is as follows:

TABLE 2
PER CENT OF GROUP KEEPING ADEQUATE RECORDS

	Failed Businesses		Going Businesses	
	Percent	Number	Percent	Number
Manufacturers	53.8	28	84.4	38
Wholesalers	49.1	26	80.0	28
Contractors	23.1	36	69.6	55
Retailers	25.8	64	45.7	117
Total	30.3	154	57.3	238

The persistence of greater adequacy of records in going concerns, whatever the type of business, is significant. In all types but retail, the going concerns showed at least 30% greater adequacy, and in retail trade the difference was 20%.

A division of all firms according to the value of their business gives the same result until the $200,000 yearly sales group is reached. Further, it leads to one of the most important conclusions of the study, the suggestion that a concomitant variation of adequate books and business survival does appear to exist, but only up to a certain level of size; that inadequate books may be "causally" related to bankruptcy among the smaller firms which comprise the great majority of all businesses and bankruptcies; but that there is no evidence of such relationship among the large businesses.

The classification of the businesses according to the size of their incomes strengthens the conclusion that within both groups, the small firm is less apt than the large one to keep records adequate even for its lesser needs. This may be somewhat due to greater illiteracy or lesser managerial ability of those engaged in small enterprises or to the fact that the small entrepreneur must also be an active buyer and seller and, unable to afford a bookkeeper, must snatch haphazard moments for infrequent recording. There are in existence very simple systems of bookkeeping which claim to require no more than fifteen minutes a day, but these do not appear to be frequently used. Whatever the reason, the apparent tendency of adequacy of bookkeeping to vary inversely with size makes necessary a comparison of results according to size of business. Yearly gross income was taken as indicative of the size.

One-half of the bankrupts, 49% and 53% of the going concerns had a gross income of less than $10,000 a year. On the other hand, the average (median) gross income of the bankrupt businesses was between $10,000 and $20,000 a year while that of the going concerns was between $5,000 and $10,000. 5.6% of the bankrupts and 12.4% of the nonbankrupts took in $100,000 or more a year. It can be seen that the bankrupt group contained fewer small and fewer large businesses than the sample of going concerns. It is generally assumed that, since a

TABLE 3
ADEQUACY OF ACCOUNTING RECORDS
(According to size of Business)

	Failed Businesses						Going Businesses					
Gross Income Dollars	Adequate No.	Adequate %	Inadequate No.	Inadequate %	Unknown No.	Unknown %	Adequate No.	Adequate %	Inadequate No.	Inadequate %	Unknown No.	Unknown %
0- 1,000	11	33.2	20	60.6	2	6.1	19	70.4	8	29.6	0	0
1- 5,000	14	13.7	86	84.3	2	2.0	38	31.7	80	66.7	2	1.7
5- 10,000	17	18.3	73	78.5	3	3.2	32	46.4	35	50.7	2	2.9
10- 20,000	25	28.7	60	68.9	2	2.3	24	53.3	20	44.4	1	2.2
20- 30,000	20	41.7	27	56.3	1	2.1	20	64.5	11	35.5	0	0
30- 40,000	9	40.9	13	59.1	0	0	18	81.8	4	18.2	0	0
40- 50,000	8	38.1	11	52.4	2	9.5	12	85.7	2	14.3	0	0
50- 75,000	13	65.0	5	25.0	2	10.0	19	82.6	4	17.4	0	0
75-100,000	9	75.0	3	25.0	0	0	7	100.0	0	0	0	0
100-150,000	7	77.8	2	22.2	0	0	14	93.3	1	6.7	0	0
150-200,000	7	87.5	1	12.5	0	0	6	100.0	0	0	0	0
200 and over	9	100.0	0	0	0	0	29	96.7	1	3.3	0	0
Unknown	5	11.1	33	73.3	7	15.6	0	0	0	0	6	100.0
Totals	154	30.3	334	65.6	21	4.1	238	57.3	166	40.0	11	2.7

liability of $1,000 is a necessary condition precedent to a petition in bankruptcy, many small businesses simply close down and creditors realize the hopelessness of pursuing them for debts, while the very large often prefer mergers or trusteeships to the bankruptcy court as a way out of insolvency.

The low point of adequacy in both groups is reached among businesses having a gross income of from $1000 to $5000 and after that, in both groups there is a continuous rise. But where, as in the table above, the size of business is held constant, the going concern remains higher in adequacy of books until the $200,000 income is reached than does the bankrupt business.

What seems on its face to be a great difference as to adequacy of records between bankrupts and non-bankrupts in the group of smallest firms, with a gross income of less than $1000 a year is, however, modified by the difference in types of business contained within this category. There were thirty-three different types among the bankrupts and twenty-seven among the non-bankrupts. The bankrupts were predominantly contractors under difficulties in the building trade slump, while the going concerns were primarily retailers. The use of a cash register by a hole-in-the-wall cigarette shop, kept by the owner's wife, might classify the recording as adequate, while a contractor, temporarily reduced by the depression, might be regarded as inadequate in his bookkeeping if he kept no records at all, or at best scratch pad accounting. When an analysis was made of the extent to which the accountant had graded types of records and their adequacy, it was found that: of all firms using double entry records, 87% of the failed and 98% of the going businesses had been rated as adequate; of all using single entry records, 56% of the failed and 80% of the going businesses were called adequate; of all using unsystematized records, 3% of the failed and 10% of the going businesses were rated as adequate; and of all enterprises which had no books, 2% of the failed and 26% of the going businesses were declared adequate.

Types of Records Kept. The types of records kept were regarded as an important part of the inquiry, both in their bearing on adequacy and as an indication of customary practice.

One-third of the bankrupts and one-fifth of the going concerns kept no books at all, while 38% of the bankrupts and 56% of the non-bankrupts had systems either of single or double entry. The types of records kept are shown by the accompanying table.

The chart shows clearly that major differences lie (1) in the more extensive use of single entry records by the going concerns and (2) in the extent to which bankrupts, even of large size, kept no books. Even with a yearly income of $20,000-$30,000 we find 19 per cent of the bankrupts and only 3 per cent of the non-bankrupts, without books, while at the $40,000-$50,000 income level, 14 per cent of the bankrupts still keep no books, although none of the non-bankrupts are without them.

TABLE 4
TYPES OF RECORDS KEPT[19]

Gross Income Dollars	Failed Businesses								Going Businesses							
	No Records		Unsystematized Records		Single Entry		Double Entry		No Records		Unsystematized Records		Single Entry		Double Entry	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
0- 1,000	17	51.5	6	18.2	8	24.2	0	0	22	81.5	3	11.1	2	7.4	0	0
1- 5,000	52	51.0	24	23.5	18	17.6	4	3.9	54	45.0	32	26.7	27	22.5	4	3.3
5- 10,000	40	43.0	28	30.1	10	10.8	11	11.8	9	13.0	27	39.1	25	35.2	7	10.1
10- 20,000	26	29.9	26	29.9	14	16.1	16	18.4	5	11.1	12	26.7	21	46.7	7	15.6
20- 30,000	9	18.8	9	18.8	11	22.9	18	37.5	1	3.2	4	12.9	14	45.2	12	33.7
30- 40,000	2	9.1	1	4.5	8	36.4	9	40.9	1	4.5	1	4.5	13	59.1	7	31.8
40- 50,000	4	19.0	3	14.2	4	19.0	7	33.3	0	0	0	0	7	50.0	7	50.0
50- 75,000	2	10.0	1	5.0	2	10.0	13	65.0	0	0	1	4.3	8	34.8	14	60.9
75-100,000	0	0	0	0	1	8.3	11	91.7	0	0	0	0	1	14.3	6	85.7
100-150,000	0	0	0	0	1	11.1	8	88.9	0	0	0	0	2	13.3	13	86.7
150-200,000	0	0	0	0	1	12.5	7	87.5	0	0	0	0	0	0	6	100.0
200 & over	0	0	0	0	0	0	9	100.0	0	0	0	0	1	3.3	29	96.7
Unknown	17	37.8	2	4.4	1	2.2	1	2.2	0	0	0	0	0	0	1	16.7
Totals	169	33.2	100	19.6	79	15.5	114	22.4	92	22.0	80	19.3	121	29.2	113	27.2

The use of unsystematized records is most frequent, in both groups, at the $5,000-$10,000 income level, but beyond that point such usage occurs more often among bankrupts than among the going concerns. In this income group 11 per cent of the bankrupts and 36 per cent of the non-bankrupts used single entry systems. Among larger firms single entry systems were far less frequent with bankrupts than with going concerns.

Double entry systems, on the other hand, are used about equally in both groups until the $30,000-$40,000 income level is reached. At this point they are more frequent with bankrupts than with going concerns (single entry being less common with this group) and after this their use is about equal. Except for one going concern, all businesses used a double entry system after a yearly gross income of $200,000 had been reached.

Inventories. Inventories, at least yearly, were taken by about one-third of the failed and one-half of the going concerns. The following table shows differences according to the types of business:

TABLE 5
INVENTORY TAKEN AT LEAST YEARLY (PER CENT)

	Bankrupts			Going Concerns		
	Yes	No	Unknown	Yes	No	Unknown
Manufacturers	51.9	36.5	11.5	71.1	24.4	4.4
Wholesalers	52.8	32.1	15.1	77.1	22.9	0
Contractors	16.1	44.9	39.1	32.9	57.0	10.1
Retailers	33.9	54.4	11.7	44.5	53.5	2.0
Totals	32.2	47.3	20.4	48.0	43.4	3.6

It is seen that business usage as to taking inventory varies a good deal

19. Businesses, the type of whose records were unknown are not included in this table. The number of such unknowns in each category of business size was as follows for failed businesses: $0-1,000, 2; $1-5,000, 4; $5-10,000, 4; $10-20,000, 5; $20-30,000, 1; $30-50,000, 5; $50,000 and over, 2; size of business unknown, 24. Total 47. The number of going businesses was as follows: $0-1,000, 0; $1-5,000, 3; $5-10,000, 1; $10,000 and over, 0; size of business unknown, 5. Total 9. All percentages given in table 4 are based on

within the different groups; among wholesalers the bankrupts took inventory in 25 per cent fewer cases than did the going concerns; among bankrupt retailers inventory taking was 11 per cent less common than among non-bankrupt retailers. The large number of units in the failed group, however, whose inventory practice was unknown, makes this comparison of doubtful value. But despite this uncertainty the figures support the tentative conclusion that inventory taking occurs in at least half of the concerns later bankrupt, which had reached a gross income of $30,000-$40,000 a year; that above this income level the percentage declined again; and that inventory taking did not run consistently above 50 per cent in the bankrupt group below a gross income level of $75,000. Among the non-bankrupts, all concerns of $10,000 income or more took inventory at least half of the time.

To summarize: a total absence of books was considerably more frequent with failed businesses than with going concerns, and systematized records were less frequent, although, when kept, the double entry system was almost as frequent with bankrupt as with going concerns, and the single entry system actually less frequent. Inventory taking, also, was less frequent with bankrupts, whatever the type of business, than with non-bankrupts.

Thus far, the comparisons between failed and going enterprises have been based on general reference to the experience of all four categories of business enterprises. But the accounting needs of the several types of business vary greatly and there may be considerable danger of oversimplification or inaccuracy in the use of total figures, especially since the several classes of business are not distributed in the same proportions within the group of going concerns as within the bankrupt group. The second part of this article will be devoted to breaking down the statistical results by classes, to describe differences in bookkeeping usage between failed businesses and going concerns within the groups of manufacturers, wholesalers, contractors and retailers.

Manufacturers. The average (median) manufacturer who petitioned in bankruptcy was smaller than the average unit among the going concerns, having a $10,000-$20,000 gross income as compared with $20,000-$30,000 for the latter. The bookkeeping requirements of a manufacturer, even for a small one, are apt to be more stringent than for other types of business. He has problems of credit buying and long-time credit selling, he must account for machinery and labor and return

totals which include these unknowns. In all other tables given throughout the article the number of unknowns is given but their percentages are sometimes omitted for lack of space. All percentages, however, are based on totals which include these unknowns and the per cent of unknowns can easily be obtained by subtracting total per cent of the group from 100.

on capital; his was the only type of business where cost accounting was found to be common. It is noteworthy that double entry systems of bookkeeping appeared with greater proportionate frequency among bankrupt and non-bankrupt manufacturers than in any other type of business.

Fifty-four per cent of the failed manufacturers and eighty-four per cent of the solvent manufacturers kept records which satisfied minimal canons of adequacy. The bankrupts did indeed increase in the adequacy of their bookkeeping as the businesses grew larger, but irregularly. Thus, while half of all bankrupt manufacturers having a gross income of less than $1,000 or of $5,000 to $10,000 kept adequate records, only a quarter of those whose gross income was between $30,000 and $40,000, and only a third of those whose gross income was from $40,000 to $50,000 kept adequate records. All except one of the bankrupt manufacturers with a gross income of $50,000 or over were found to keep adequate records. In the non-bankrupt manufacturers' group, on the other hand, there was no class that was not at least 60 per cent adequate in bookkeeping and after a gross income of $20,000 was reached, all were adequate. The tables below present these figures in greater detail.

TABLE 6
ADEQUACY OF ACCOUNTING RECORDS—MANUFACTURERS

	Failed Businesses							Going Concerns						
Gross Income Dollars	Adequate No.	%	Inadequate No.	%	Unknown No.	%	Total	Adequate No.	%	Inadequate No.	%	Unknown No.	%	Total
0- 1,000	1	50.0	1	50.0	0	0	2	2	66.6	1	33.3	0	0	3
1- 5,000	1	12.5	6	75.0	1	12.5	8	6	75.0	2	25.0	0	0	8
5-10,000	2	50.0	2	50.0	0	0	4	3	60.0	2	40.0	0	0	5
10-20,000	9	64.3	4	28.6	1	7.1	14	4	80.0	1	20.0	0	0	5
20-30,000	3	75.0	1	25.0	0	0	4	1	100.0	0	0	0	0	1
30-50,000	2	28.6	5	71.4	0	0	7	3	100.0	0	0	0	0	3
50,000 and over	10	90.9	1	9.1	0	0	11	19	100.0	0	0	0	0	19
Unknown	0	0	1	50.0	1	50.0	2	0	0	0	0	1	100.0	1
Totals	28	53.8	21	40.4	3	5.8	52	38	84.4	6	13.3	1	2.2	45

TABLE 7
TYPES OF ACCOUNTING RECORDS—MANUFACTURERS

	Failed Businesses									Going Concerns								
	None		Unsystematized		Single Entry		Double Entry		Unknown	None		Unsystematized		Single Entry		Double Entry		Unknown
Gross Income Dollars	No.	%	No.	%	No.	%	No.	%	No.	No.	%	No.	%	No.	%	No.	%	No.
0- 1,000	2	100.0	0	0	0	0	0	0	0	2	66.6	1	33.3	0	0	0	0	0
1- 5,000	5	62.5	0	0	2	25.0	0	0	1	2	25.0	1	12.5	3	37.5	2	25.0	0
5-10,000	2	50.0	0	0	1	25.0	1	25.0	0	0	0	2	40.0	1	20.0	2	40.0	0
10-20,000	0	0	3	21.4	1	7.1	8	57.1	2	0	0	0	0	2	40.0	3	60.0	0
20-30,000	1	25.0	0	0	0	0	3	75.0	0	0	0	0	0	0	0	1	100.0	0
30-40,000	0	0	1	25.0	2	50.0	1	25.0	0	0	0	0	0	1	50.0	1	50.0	0
40-50,000	1	33.3	0	0	0	0	2	66.6	0	0	0	0	0	0	0	1	100.0	0
50,000 and over	0	0	0	0	1	9.1	10	90.9	0	0	0	0	0	0	0	19	100.0	0
Unknown	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1
Totals	11	21.2	4	7.1	7	13.5	25	48.1	5	4	8.9	4	8.9	7	15.5	29	64.4	1

A considerable difference in form existed between the records used by bankrupt and by non-bankrupt manufacturers. Some sort of bookkeeping system, either single or double entry, was found in 62 per cent of the bankrupt manufacturers and in 79 per cent of the going concerns. Twenty-one per cent of the bankrupts and 9 per cent of the non-bankrupts had no books. Among the going concerns, books existed for all of or exceeding a gross income of $5,000. In the bankrupt group, all the concerns which kept no books had incomes of less than $50,000.

Wholesalers. Possibly the widest divergence of bookkeeping needs exists among wholesalers. In one of the cases investigated, a man who bought cattle in the country and sold them to city butchers had a gross income of less than $1,000 a year, since he was not well and worked little. In another, a grocer's supply company sold tea, coffee, rice, etc., which it bought by the carload; in a third case the wholesaler did a business of $100,000 yearly selling paper and paper bags. The average unit in the wholesale business is large, and it was pointed out in a previous study[20] that the volume of business done by wholesalers in the sample of going concerns was greater even than that done by manufacturers, the average (median) business being $40,000-$50,000 a year. The average bankrupt wholesaler was smaller, with a sales volume of $20,000-$30,000 a year.

The bookkeeping records of 49 per cent of the failed wholesalers and 80.0 per cent of the going concerns qualified under the accounting tests used to determine adequacy. Until the $30,000 income level was reached books of failed wholesalers were more frequently inadequate than adequate, but beyond this point the proportion of adequacy remained high and, after the $100,000 sales level was reached, the adequacy was invariably 100 per cent. Non-bankrupt wholesalers, on the other hand, showed a far higher degree of adequacy for the lower sales groups and though no consistently proportional trend upward is apparent, there was never less than 50 per cent adequacy in any group, while after sales totalling $40,000 were reached, all but two wholesalers had records sufficient for their needs. The per cent of adequate records for failed and going businesses was exactly the same after the $75,000 income category was reached. The following table indicates these facts in detail.

TABLE 8

ADEQUACY OF ACCOUNTING RECORDS—WHOLESALERS[21]

	Failed Businesses							Going Concerns						
Gross Income Dollars	Adequate No.	Adequate %	Inadequate No.	Inadequate %	Unknown No.	Unknown %	Total	Adequate No.	Adequate %	Inadequate No.	Inadequate %	Unknown No.	Unknown %	Total
0- 1,000	2	100.0	0	0	0	0	2	1	100.0	0	0	0	0	1
1- 5,000	1	12.5	7	87.5	0	0	8	2	66.6	1	33.3	0	0	3
5-10,000	2	40.0	2	40.0	1	20.0	5	2	100.0	0	0	0	0	2
10-20,000	1	14.3	6	85.7	0	0	7	3	60.0	2	40.0	0	0	5
20-30,000	1	25.0	3	75.0	0	0	4	3	75.0	1	25.0	0	0	4
30-40,000	3	75.0	1	25.0	0	0	4	1	50.0	1	50.0	0	0	2
40-50,000	3	60.0	1	20.0	1	20.0	5	1	100.0	0	0	0	0	1
50-75,000	1	50.0	1	50.0	0	0	2	3	100.0	0	0	0	0	3
75,000 and over	12	85.7	2	14.3	0	0	14	12	85.7	2	14.3	0	0	14
Unknown	0	0	1	50.0	1	50.0	2	0	0	0	0	0	0	0
Totals	26	49.1	24	45.3	3	5.6	53	28	80.0	7	20.0	0	0	35

20. Corstvet *supra* note 17 at p. 279.

21. Frequencies here are very small and therefore percentages must be taken with a large grain of salt.

The types of accounting records kept by wholesalers, both bankrupt and non-bankrupt, present a more irregular picture than do the records in other fields of enterprise. Because there were so few firms in the group examined this is the least reliable of the sets of figures here presented, at least so far as the statistics on going businesses are concerned. Double entry systems were considerably more frequent with going businesses than with those who had failed. The latter tended to keep unsystematized records until a greater volume of business was reached and single entry systems were infrequent with both failed and going businesses. The figures appear below.

TABLE 9
TYPES OF ACCOUNTING RECORDS—WHOLESALERS

	Failed Businesses									Going Concerns									
	None		Unsystematized		Single Entry		Double Entry		Unknown	None		Unsystematized		Single Entry		Double Entry		Unknown
Gross Income Dollars	No.	%	No.	%	No.	%	No.	%	No.	No.	%	No.	%	No.	%	No.	%	No.
0- 1,000	0	0	0	0	2	100.0	0	0	0	1	100.0	0	0	0	0	0	0	0
1- 5,000	4	50.0	3	37.5	0	0	1	12.5	0	0	0	0	0	2	66.6	1	33.3	0
5- 10,000	0	0	1	20.0	1	20.0	2	40.0	1	0	0	0	0	1	50.0	1	50.0	0
10- 20,000	2	28.6	3	42.9	1	14.3	1	14.3	0	1	20.0	2	40.0	2	40.0	0	0	0
20- 30,000	0	0	1	25.0	1	25.0	2	50.0	0	1	25.0	0	0	0	0	3	75.0	0
30- 40,000	0	0	0	0	1	25.0	3	75.0	0	1	50.0	0	0	0	0	1	50.0	0
40- 50,000	0	0	0	0	2	40.0	2	40.0	1	0	0	0	0	0	0	1	100.0	0
50- 75,000	1	50.0	0	0	0	0	1	50.0	0	0	0	0	0	0	0	3	100.0	0
75,000 and over	0	0	0	0	2	14.3	12	85.7	0	0	0	0	0	1	7.1	13	92.9	0
Unknown	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
Totals	7	13.21	8	15.1	10	18.9	24	45.3	4	4	11.4	2	5.7	6	17.1	23	65.7	0

Inventory taking was about 25 per cent more frequent among non-bankrupt than among bankrupt wholesalers. Bankrupt wholesalers took inventory at least half of the time after a $20,000 income volume was reached and non-bankrupts after a $5,000 income volume was attained.

Contractors. There is the considerable difference between failed and going contractors of 46 per cent as to adequacy of accounting; only 23 per cent of the bankrupts had records sufficient for their needs, while the corresponding figure for going concerns was 69 per cent. The figures may not be altogether comparable because the sample taken for solvent contractors contained a greater proportion of large business units than did the bankrupt group, although the average size (median) business was the same for both bankrupt and non-bankrupt groups. But the difference in adequacy of records is not accounted for by the difference in size, by any means, as can be seen in the table below.

TABLE 10
ADEQUACY OF ACCOUNTING RECORDS—CONTRACTORS

	Failed Businesses							Going Concerns						
	Adequate		Inadequate		Unknown			Adequate		Inadequate		Unknown		
Gross Income Dollars	No.	%	No.	%	No.	%	Total	No.	%	No.	%	No.	%	Total
0- 1,000	8	36.4	12	54.5	2	9.1	22	8	88.9	1	11.1	0	0	9
1- 5,000	6	18.8	26	81.3	0	0	32	11	55.0	7	35.0	2	10.0	20
5-10,000	4	14.3	24	85.7	0	0	28	11	64.7	5	29.4	1	5.9	17
10-20,000	4	36.4	6	54.5	1	9.1	11	5	83.5	1	16.6	0	0	6
20-30,000	5	31.3	10	62.5	1	6.2	16	1	33.3	2	66.6	0	0	3
30-50,000	0	0	7	87.5	1	12.5	8	3	100.0	0	0	0	0	3
50-75,000	2	40.0	1	20.0	2	40.0	5	4	80.0	1	20.0	0	0	5
75,000 and over	4	66.7	2	33.3	0	0	6	12	100.0	0	0	0	0	12
Unknown	3	10.7	22	78.6	3	10.7	28	0	0	0	0	4	100.0	4
Totals	36	23.1	110	70.5	10	6.4	156	55	69.6	17	21.5	7	8.9	79

No group among the bankrupt contractors, classified according to gross income, was so much as 50 per cent adequate below the $200,000 yearly income class, while the non-bankrupt contractors came up to the test of adequacy at least 50 per cent of the time in all groups but one, the $20,000-$30,000 income class, where two of the three members of the class kept inadequate records.

The number of contractors who petitioned for a discharge in bankruptcy, 156, was 31 per cent of all businesses petitioning, while the number of non-bankrupt contractors in the sample of going concerns was 79, or 20 per cent of all businesses in the community. One member of this trade expressed the opinion that the ease of entry into the business tempts every plumber, carpenter or electrician who cannot hold a job to set up for himself, and consequently the inefficiency in this type of business is high, and failure therefore frequent. It is more probable, however, that since building trades were extremely hard hit by the depression and construction in some communities came almost to a standstill, the contractor who had no reserves, either because he had not been long enough in business to acquire them or because he had not managed to accumulate, simply went under. Many of the going concerns assured the investigator that they were making no profits or were losing money. The depression, however, appeared to have had little effect in changing the type of records used by contractors, though in some cases bookkeepers had been let go and, in a few others, the discouraged entrepreneur had simply ceased to bother about his books.

The table classifying the types of books used by bankrupt and by non-bankrupt contractors shows considerable contrast, indicating that for businesses of this type, at least, the distinction between success and failure is a tangible one evidenced by differences in accounting as in other business activities.

TABLE 11

TYPES OF ACCOUNTING RECORDS—CONTRACTORS

	Failed Businesses									Going Concerns								
	None		Unsystematized		Single Entry		Double Entry		Unknown	None		Unsystematized		Single Entry		Double Entry		Unknown
Gross Income Dollars	No.	%	No.	%	No.	%	No.	%	No.	No.	%	No.	%	No.	%	No.	%	No.
0- 1,000	12	54.5	3	13.6	5	22.7	0	0	2	9	100.0	0	0	0	0	0	0	0
1- 5,000	18	56.3	6	18.8	6	18.8	1	3.1	1	5	25.0	5	25.0	8	40.0	0	0	2
5- 10,000	16	57.1	8	28.6	2	7.1	2	7.1	0	2	11.8	3	17.6	9	52.9	2	11.8	1
10- 20,000	4	36.4	1	9.1	1	9.1	3	27.3	2	0	0	2	33.3	3	50.0	1	16.7	0
20- 30,000	4	25.0	3	18.8	5	31.3	3	18.8	1	0	0	2	66.6	0	0	1	33.3	0
30- 40,000	2	100.0	0	0	0	0	0	0	0	0	0	0	0	2	100.0	0	0	0
40- 50,000	2	33.3	2	33.3	0	0	0	0	2	0	0	0	0	0	0	1	100.0	0
50- 75,000	0	0	1	20.0	0	0	2	40.0	2	0	0	0	0	2	40.0	3	[illegible]	0
75-100,000	0	0	0	0	0	0	2	100.0	0	0	0	0	0	0	0	2	100.0	0
100-150,000	0	0	0	0	0	0	2	100.0	0	0	0	0	0	0	0	1	100.0	0
150-200,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	100.0	0
200,000 and over	0	0	0	0	0	0	2	100.0	0	0	0	0	0	0	0	8	100.0	0
Unknown	15	53.6	2	7.1	1	3.6	0	0	10	0	0	0	0	0	0	1	25.0	3
Totals	73	46.8	26	16.7	20	12.8	17	10.9	20	16	20.3	12	15.2	24	30.4	21	26.6	6

Many of the bankrupt contractors, at least those who did less than a comparatively large volume of business, carried on business without books; going concerns of this class used double entry bookkeeping much more often, and single entry much less often, than the contractors who failed. Unsystematized records appear with almost equal frequency, in both groups, but are more scattered among the failed than those which had not failed. But care should be taken to observe the total figures as well as the percentages since some classes, again, contain few members.

The material for comparison of inventory taking of bankrupt and non-bankrupt contractors is too incomplete to be useful, since in 39 per cent of the bankrupts and 11 per cent of the going concerns the factor is recorded as unknown. If unknown firms are excluded from both groups of contractors, it appears that 26 per cent of the bankrupts took inventory and 34 per cent of the non-bankrupts. The nature of the contracting business is often such that, unless the firm is one with considerable equipment, inventory taking is regarded as unnecessary, for it frequently pays the contractor to leave on the ground what surplus he has after building a house rather than to store the materials against his next job of the same kind. And it has become more and more a custom for plumbers and electricians to order only for a specific job, so that even though information were complete here, it would need to be subdivided according to whether businesses were such as to require an inventory.

Retailers. The total number of retailers in the bankrupt and non-bankrupt groups are very similar, 248 for the bankrupts and 256 for the non-bankrupts, after chain stores had been excluded. Somewhat more reliance, then, may be placed on the figures obtained in the survey of their commercial habits, despite correction required by the fact that different retailers have different bookkeeping needs.

Retailers, whether bankrupt or not, had a low record of bookkeeping adequacy, 26 per cent of the failed businesses and 46 per cent of the going firms keeping records sufficient for their needs. The distribution can be seen from the following table.

TABLE 12
ADEQUACY OF RECORDS—RETAILERS

	Failed Businesses							Going Concerns						
Gross Income Dollars	Adequate No.	Adequate %	Inadequate No.	Inadequate %	Unknown No.	Unknown %	Total	Adequate No.	Adequate %	Inadequate No.	Inadequate %	Unknown No.	Unknown %	Total
0- 1,000	0	100.0	7	100.0	0	0	7	8	57.0	6	43.0	0	0	14
1- 5000	6	11.1	47	87.0	1	1.9	54	19	21.3	70	78.7	0	0	89
5-10,000	9	16.1	45	80.4	2	3.6	56	16	35.6	23	62.2	1	2.2	45
10-20,000	11	20.0	44	80.0	0	0	55	12	41.4	16	55.2	1	3.4	29
20-30,000	11	45.8	13	54.2	0	0	24	15	65.0	8	35.0	0	0	23
30-50,000	9	47.4	10	52.6	0	0	19	22	81.5	5	18.5	0	0	27
50-75,000	6	66.7	3	33.3	0	0	9	9	75.0	3	25.0	0	0	12
75,000 and over	10	90.9	1	9.1	0	0	11	16	100.0	0	0	0	0	16
Unknown	2	15.4	9	69.2	2	15.4	13	0	0	0	0	1	100.0	1
Totals	64	25.8	179	72.2	5	2.0	248	117	45.7	136	53.1	3	1.2	256

The average (median) sized retailer was the same for bankrupts as for non-bankrupts, taking in $5,000 to $10,000 per year. About 9 per cent of the failed firms and 11 per cent of the non-bankrupts did a business of $50,000 or more per year; 26 per cent of the bankrupts and 40 per cent of the non-bankrupts did less than $5,000 a year. The likelihood, unchecked by any statistical evidence, however, that small businesses tend simply to fade out when their liabilities are less than those required by law for a petition in bankruptcy, has already been noticed and may account for the the greater number of small retailers in the non-bankrupt group.

For concerns having a yearly volume of less than $20,000, adequacy of records for bankrupts was about a sixth; that is, 26 of the 172 bankrupts were of this size; for going concerns, 30 per cent, or 55 out of 177 had sufficient records. After this point, the bankrupts showed a slower tendency to increase in adequacy as the business grew larger and the $40,000 income level was reached before adequacy was more frequent than inadequacy. With the non-bankrupts, adequacy was more frequent than inadequacy in all groups having an income of $20,000 or more, and all with an income of $75,000 had adequate records. In the case of bankrupts this occurred only after $150,000 was reached.

The records used by bankrupt and non-bankrupt retailers show a rather marked difference as is seen below.

TABLE 13
TYPES OF ACCOUNTING RECORDS—RETAILERS

	Failed Businesses									Going Concerns									
	None		Unsystematized		Single Entry		Double Entry		Unknown	None		Unsystematized		Single Entry		Double Entry		Unknown
Gross Income Dollars	No.	%	No.	%	No.	%	No.	%	No.	No.	%	No.	%	No.	%	No.	%	No.
0- 1,000	3	42.8	3	42.8	1	14.3	0	0	0	10	71.4	2	14.3	2	14.3	0	0	0
1- 5,000	25	46.3	15	27.8	10	18.5	2	3.7	2	47	52.8	26	29.3	14	15.7	1	1.1	1
5- 10,000	22	39.3	19	33.9	6	10.7	6	10.7	3	7	15.6	22	48.9	14	31.1	2	4.4	0
10- 20,000	20	36.4	19	34.5	11	20.0	4	7.3	1	4	13.8	8	27.6	14	48.3	3	10.3	0
20- 30,000	4	16.7	5	20.8	5	20.8	10	41.7	0	0	0	2	8.7	14	60.9	7	30.4	0
30- 40,000	0	0	0	0	5	41.7	5	41.7	2	0	0	1	6.3	10	62.5	5	31.3	0
40- 50,000	1	14.3	1	14.3	2	28.6	3	42.9	0	0	0	0	0	7	63.6	4	36.4	0
50- 75,000	1	11.1	0	0	2	22.2	6	66.7	0	0	0	1	8.3	6	50.0	5	41.7	0
75-100,000	0	0	0	0	0	0	2	100.0	0	0	0	0	0	1	33.3	2	66.7	0
100-150,000	0	0	0	0	0	0	3	100.0	0	0	0	0	0	1	16.7	5	83.3	0
150-200,000	0	0	0	0	0	0	4	100.0	0	0	0	0	0	0	0	3	100.0	0
200,000 and over	0	0	0	0	0	0	2	100.0	0	0	0	0	0	1	25.0	3	75.0	0
Unknown	2	15.4	0	0	0	0	1	7.7	10	0	0	0	0	0	0	0	0	1
Totals	78	31.5	62	25.0	42	16.9	48	19.4	18	68	26.6	62	24.2	84	32.8	40	15.6	2

Here double entry records are actually used slightly more frequently among failed than among going concerns; but a far less frequent use of single entry bookkeeping appears. The complete absence of books, though only 5 per cent more frequent among bankrupts than among non-bankrupts appears among failed businesses until $50,000-$75,000 sales have been reached, whereas no going concern of more than $20,000 is without books. On the other hand, single entry records appear less frequently among the higher sales groups of bankrupts than they do among the non-bankrupts.

Inventory taking is of particular importance among retailers for, without this knowledge, the owner cannot ascertain whether he has a profit or a loss, since a larger or smaller inventory represents increased or decreased assets. Thirty-four per cent of the bankrupt retailers, were known to take inventory and 45 per cent of the non-bankrupt were known to do likewise. Bankrupt retailers took inventory at least half of the time after the business had reached a sales volume of $20,000 and non-bankrupts after a $10,000 sales volume had been reached, while all but two bankrupts with sales of $75,000 or more and all but one bankrupt above this figure took inventory.

IV

It would be interesting to speculate as to the extent to which judicial decision takes cognizance of these facts, consciously or unconsciously. Would a retailer be granted a discharge after judicial examination of books which would be rejected if offered by a bankrupt manufacturer? Or a large business be refused while a small one would be discharged? Fortunately, the meagre fact information in the cases denies the statistician the comfort of indulging in generalizations as to the effect of bookkeeping habits upon the judge in any particular case. Moreover if the conclusion be correct that refusal of discharge in bankruptcy on the ground of inadequate records is really refusal on the ground of suspicion of fraud, such speculation would be largely irrelevant.

But the materials presented in this paper suggest certain conclusions. Adequate accounting is not common even among going concerns, although in the group of going concerns, records which measure up to the accountant's standard of minimum efficiency appeared more often, if only by a small margin, than they did in the failed group. Upon further analysis it appears clear that the degree to which adequate records are customary differs widely according to the type of business, ranging from 84 per cent for all manufacturers to 46 per cent among the retailers. And again, the degree varies with the size of the business. With enterprises of about $20,000 yearly income or more, adequate records are more usual than inadequate, while with those under $10,000 (except in the smallest businesses, where no record keeping or very little was regarded as satisfactory) they are less usual.

The comparison of the accounting records of failed and non-failed businesses shows an appreciable difference between the two groups in the adequacy of record keeping. If going concerns are low in adequacy, failed businesses are lower. Even tested by an analysis in which type of enterprise is held constant, the greater degree of adequacy of going concerns persists within each type of business. Tested further by an analysis in which size of business is held constant, this difference persists until, roughly, $150,000 to $200,000 gross income is reached where it disappears and both failed and going concerns are found, with one exception,[22] to have records equal to the accountant's minimum standards. Since, however, small businesses are more numerous than large ones, despite St. Simon's gloomy predictions (53 per cent of the samples of going business units were in the gross income group of $10,000 or less) this difference applies to the majority of business enterprises.

The material presented here furnishes no direct test of an hypothesis that *degree* of success varies with *degree* of adequacy of accounting records. The divisions used—those businesses which have entered the bankruptcy court and those which were apparently solvent—are gross and void of gradations. Among the going concerns, no distinction was made between the marginal and the highly prosperous businesses; or between the records which were barely adequate and those which were highly efficient. Nor are bankrupts distinguishd by degrees of failure or degrees of adequacy. The figures do seem to indicate that a relationship which might be termed "causal" exists between inadequate records and bankruptcy unless the business is very large. It does not appear whether such a relationship exists alone or as part of a more inclusive factor such as managerial ability which might account both for inadequacy of records and for failure. As the results of this survey indicate for its narrow field, the entire theory of business enterprise is badly in need of more extended research both as a preliminary to its more realistic formulation and as an antidote to the undifferentiated (and therefore sterile) generalities which have thus far been its substance.

One small study cannot bear too heavy a burden of deduction. It is agreed that one swallow does not make the summer, nor does one test of a theory prove its validity. Nevertheless, insofar as our present knowledge goes, there seems to be point in an attempt at legal control of this aspect of business activity. Even if the bankruptcy discharge section were really used to deny a discharge to an applicant who has failed to keep records sufficient for the needs of his business it is doubtful whether such strictness would raise the general standard of records kept. A harsh rule might have some small effect; but that deterrent can promise little which is effective. Of course the law might be amended so that judicial examination would be usual without complaint of creditors, as

22. This exception occurred within the sample of non-bankrupt businesses. In view of the persistent trend, however, in the opposite direction, this one case is regarded as statistically non-significant.

the case is in England.[23] But people do not generally go into business with the bankruptcy court before their eyes, even though Professor Douglas has found that 10 per cent of his bankrupts were repeaters.[24] Yet this is not the whole picture. So far as bankrupts are fraudulent they depend for success on anticipation both of successful concealment of assets and of eventual discharge. In a word, they require foresight. To take their behavior into account a higher standard for business bookkeeping is necessary. But it is unlikely that judges, in considering the accounts of an applicant who does not appear guilty of fraud, would or could demand more than the customary level of accounting competence, a level which, we have seen, is far from identical with an adequate level. Perhaps a solution would be to insist on higher standards, as a condition of discharge, wherever a substantial quantity of assets are both traced into the firm and left unaccounted for. Such a rule might thus have some value in reducing the waste of bankruptcy at the precise point most open to control, that of deliberate dishonesty. To some extent, the courts actually use § 14 (B) to this end; but unless the rule were to apply also to the honest but ignorant bankrupt its scope would be limited and, if it is so applied, it calls for conscious effort to reduce the collateral injustice which application may entail.

But from the point of view of prevention of the waste of bankruptcy it seems somewhat like locking the door of the horseless barn to penalize the business man in bankruptcy court. We have seen that the celebrated Economic Man, who is supposed to see all, know all and act accordingly, is in fact competent to take advantage of adequate records as a guide in forecasting in a scant majority of cases. Official bookkeeping requirements for all businesses, whether or not submarginal, might be more effective than a harsh application of the bankruptcy discharge act as a deterrent to weak management, and a step in the prevention of bankruptcy.

But if there are to be official requirements there must be specifications. Whether the wary enterpriser opens his doors with one eye on the bankruptcy referee or whether every business man is to be faced with legal bookkeeping requirements, how is he to know that such records as he has will be termed adequate? The courts, as we have seen, give little help. Efficient records are not sufficiently usual in the community, at least in the largest group of enterprises, to furnish a standard. Such government regulations as we have had are generally limited in their application or their requirements; those under the Interstate Commerce Act are confined mainly to large enterprises; code authorities required payrolls and hours; state tax authorities generally ask only

23. See 4 & 5, Geo. V, c. 59, § 14 (1914); Bankruptcy Rules (1915) No. 189, in RINGWOOD, BANKRUPTCY LAW (16th ed. 1930) p. 472.

24. Douglas, *supra* note 13, at p. 353.

gross income and require no more detailed knowledge than amount of sales. This laxity and inconclusiveness compares unfavorably with the corresponding statutes in Sweden,[25] for example, which publishes not only the legal requirements but facsimiles of recommended records. In this country buying associations, credit and trade associations have done much to substitute recommendations to their members for official specifications. In an effort to obtain reliable indices, the Harvard Business School, the New York Printers, the National Hardwaremen's Association, the National Retail Trade Association, have all supplied, for certain groups, models of record keeping. But associations of this kind, voluntary as they are, are apt to gather in only the larger enterprises and the more forward-looking, those least in need of guidance. Moreover recommended records are set up by these groups in terms of their own experience and are apt to be too complex for the majority—the small business man.

The great need is for official specifications. A statute setting them out could force business a long way towards adequate bookkeeping, and the economic rewards implicit in that reform, without imposing on business men accounting rules inconsistent with their requirements as to records. By distinguishing between the records necessary to enterprises of various types, a statute might give the small business man in particular a method for accurately gauging his business condition. But official specifications do not of themselves produce custom. Statutory law can influence custom, but it can have only a slow and limited impact on a usage contrary to its terms. The problem here is dual—to create a law declaring proper standards, and to influence business practice through trade associations and other potential propaganda groups. Precept and usage together will probably influence a judge, but alone neither one is effective. And when there is neither statute nor clearly defined custom, as in the business communities surveyed in this study, the judge must, of necessity, grope in the dark.

25. See NYA BOKFÖRINGSLAGEN (Stockholm 1930), for Swedish requirements.