

This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: A Critique of the United States Income and Product Accounts

Volume Author/Editor:

Volume Publisher: Princeton University Press

Volume ISBN: 0-870-14178-3

Volume URL: <http://www.nber.org/books/unkn58-1>

Publication Date: 1958

Chapter Title: Entrepreneurial Income

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Chapter URL: <http://www.nber.org/chapters/c0565>

Chapter pages in book: (p. 470 - 486)

# Entrepreneurial Income

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BUREAU OF THE BUDGET

THE estimation of entrepreneurial income in any country is reminiscent of Dr. Johnson's remark about a dancing dog: the wonder is not that it is done well but that it is done at all. Comments on the present Commerce Department estimates of entrepreneurial income must begin from the fact that for the very important nonfarm area the Department is responsible for making estimates but has been provided with a minimum of raw material with which to do so.

There are no directly relevant data for the current quarterly estimates of entrepreneurial incomes. There are some sound annual data for sole proprietors—which come available from one and one-half to two years after the Department has had to publish estimates, and then only biennially.<sup>1</sup> There are some excellent and useful surveys—dating back to 1947, 1950, and other years—from which relationships must be derived and applied to the current situation.

Under the circumstances, comments on the adequacy of the series will document the obvious: we would have better estimates if we had better raw material. Moreover, the existing situation is apparently likely to continue—with continued reliance upon the substantial ability and ingenuity of the Commerce Department staff, rather than an adequate foundation of raw data as well. Requests for diversion of this ability to changing concepts tend to be supererogatory, and therefore only limited attention will be given to the problem. That question is reviewed below, and the rest of the paper deals with the adequacy of the present estimates.

## *Definition of Entrepreneurial Income*

The estimate of entrepreneurial income has as its underpinning the traditional interest in measuring the services rendered by the agents of

NOTE: Acknowledgment is made of many thoughtful courtesies received from various members of the National Income Division of the Department of Commerce, particularly Selma Goldsmith, Lawrence Grose, and Edward Bassett.

<sup>1</sup> For full tabulations for all entrepreneurs even that frequency really begins with 1945. (Moreover, for the large area of partnership income, the most recent report covers 1947!)

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production—"Labor and capital, entrepreneurial ability and natural resources which are used in the production process."<sup>2</sup> It may be taken for granted that the estimate of entrepreneurial income is not intended as a measure of the return to entrepreneurial ability. And it is obvious that the more breakdowns we have of the broad total for national income the better. Yet it may be worth entering a caution about the meaningfulness of entrepreneurial income per se.

Within any industry the distinction between corporate and non-corporate business has little to do with important differences in the production of income. Methods of operation, patterns of resource use, pricing policy, impacts on the raw material or labor markets, and sources of financing for each do not differ significantly. And the end result in terms of income produced is similar. For example, the National Income Division's method of estimating profit trends for entrepreneurs in retail trade in recent years has assumed the same trends as those that appeared in small corporations—thus pointing to a great similarity in the net impact of economic change on these two groups.

The choice between legal forms tends to reflect differences in willingness to incur the costs of incorporation, judgments on the relative tax advantage and, to some extent, differences in the scale of operation. This option is a live one. Thus experience during 1946 and 1947 indicated how substantial a marginal change in the legal form of organization "between the corporate and partnership forms" can occur as the tax advantage changes. Our reliance on the usefulness of a distinction between corporate and noncorporate business tends to rest on a contrast between (1) large nationwide business, financed by nationwide stock sales and (2) the corner grocery store. This is, of course, not the way one can contrast the two.

As an indication of the lack of a major difference in the scope of operations one may note that the proportion of unincorporated trade firms in 1951 with net incomes under \$1,000 was 37 per cent while the proportion for trade corporations was actually higher, at 42 per cent. For nonagricultural business as a whole the proportion of unincorporated firms with net incomes under \$5,000 a year was 84 per cent and for corporations, 63 per cent.<sup>3</sup> These figures imply that a substantial

<sup>2</sup> *National Income Supplement, 1954, Survey of Current Business*, Dept. of Commerce, p. 39. One may speculate that if Willford King and succeeding estimators had not followed the obvious procedure of multiplying an estimated number of entrepreneurs by an estimated average income we might not have the estimates in these terms.

<sup>3</sup> Data from *Statistics of Income for 1951*, Internal Revenue Service, Part I, Tables 14 and 16, and Part II, Table 7.

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share of entrepreneurs fall in an economic classification not very properly to be distinguished from small closely held corporations.

Insofar as we are concerned not with carrying through on a factor-shares analysis but with studying short-run trends in the economy, we might consider the empirical usefulness of another contrast than wages versus entrepreneurial income versus corporate earnings. Instead we might contrast wages versus business income—but divide business earnings by size of business. We might, for example, measure earnings in business without paid employees (small business) as against those with paid employees—or use still other size distinctions relevant to basic differences in the mode of organization, the mixture between household and personal funds, and so forth.<sup>4</sup> Such an approach deserves investigation to see what empirical gain, if any, might accrue for the analysis of current economic trends.

### *Adequacy of Present Estimates*

Perhaps the best introduction to any discussion of the adequacy of our present estimates of entrepreneurial income is to compare the change in such income with the change in the wage and salary totals from the originally published estimate to the finally revised one. For 1949-1950, for example, the revised wage data showed a gain of \$12.2 billion, or \$0.7 billion more than the estimate first published in 1951. The entrepreneurial income figures, on the other hand, showed a larger revision—\$0.8 billion—on a change of only \$3.0 billion. In one instance we have 150,000 monthly reports on payrolls to the Bureau of Labor Statistics plus 21,000 reports on family employment status to the Census Bureau plus annual reports from every employer in the United States under the social security system. In the other instance, we have no reports at all for nonfarm business, and partial data for farms. Under the circumstances, it is a substantial testimony to the abilities of the Commerce Department staff that the entrepreneurial income data have the broad validity they do possess.

At the broadest level we can compare the change in the income of unincorporated enterprises as first published by the Commerce Department and as eventually adjusted to the Internal Revenue Service

<sup>4</sup> Such a proposal seems to be in line with the recommendation by Morris Cohen and Martin R. Gainsbrugh for contrasting business behavior by size of firm—a point which seems to me admirably taken. In fact, of course, the task is for the economist and not the NID. The economist has already to hand the Federal Trade Commission—Securities and Exchange Commission data and many years of IRS data, and—barring studies by W. L. Crum *et al.* of comparative earning ability or efficiency—has done little with them.

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and related data for the particular years.<sup>5</sup> For this purpose we have considered as the first estimates, those usually published in February of the following year, from which estimates of change in income can first be made.

	CHANGE IN INCOME OF UNINCORPORATED ENTERPRISES	
	As First Published	As Revised
	<i>(billions of dollars)</i>	
1943-1944	0.7	1.1
1944-1945	0.5	1.0
1945-1946	2.2	3.9
1946-1947	3.8	-1.6
1947-1948	2.0	0.6
1948-1949	-0.5	-1.1

The results are not particularly cheering—even after excluding 1946 to 1947 when a shift in legal form of organization occurred of a kind that was difficult to know at the time to be taking place.

### *Retail Trade: An Example*

Since it is impossible in brief compass to review the host of estimates involved, attention will be devoted primarily to the estimates for retail trade. Retail trade is by far the largest single component. Moreover, the raw data available for nonfarm estimates outside this area are, by and large, even more exiguous and the results presumably less satisfactory. The estimates of business income in retail trade fall into three segments—1929 to 1939, 1939 forward annual estimates, and current quarterly projections.

#### ANNUAL ESTIMATES, 1929 TO 1939

For 1929 to 1939 the basic NID procedure assumed that the trend of certain ratios in the unincorporated sector could be extrapolated from the trend of similar ratios for the corporate sector. The corporate ratio used was that between payrolls and profits on the one hand and sales on the other, while the noncorporate ratio was between payrolls plus noncorporate income and sales.<sup>6</sup> As one measure of the adequacy

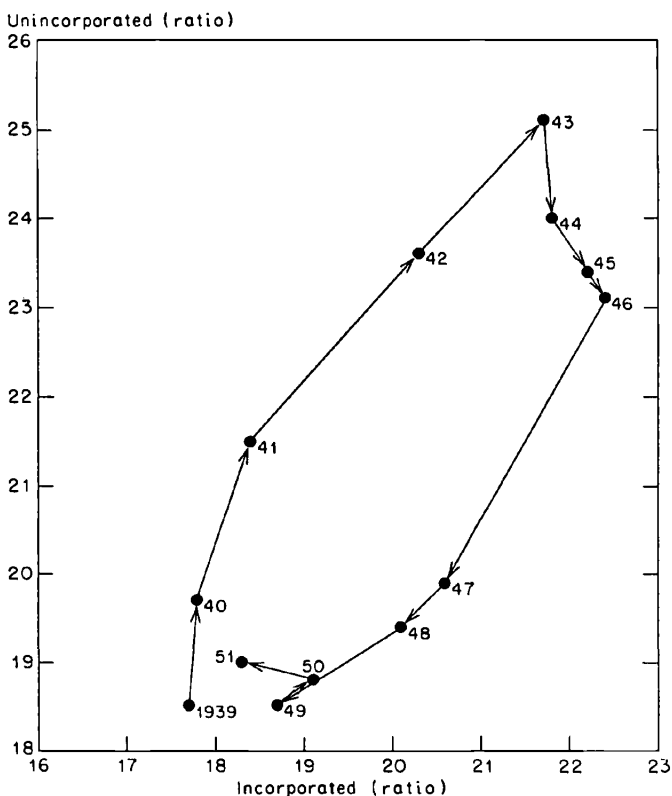
<sup>5</sup> The data are taken from the July 1945 *Survey of Current Business*, and the February issues of 1945 to 1952. Revised data are those appearing in the July 1955 *Survey of Current Business*. The years included begin with the first regular February publication and end with 1949, the last year for which an IRS benchmark has been utilized. This comparison excludes the inventory valuation adjustment because there is no firmer benchmark after adjustment to IRS than before, and excludes farms.

<sup>6</sup> *National Income Supplement, 1954*, pp. 81-82. Earlier NID procedures appear to have been set up slightly differently but the conceptual differences could hardly have made much difference.

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of this procedure, we can see what the same method would produce for the years since 1939. In this period we have, thanks to the IRS, independent and tolerably reliable benchmark estimates for unincorporated income for 1943, 1945, 1947, and 1949. (Even the intervening years are estimated from still another body of data.) Charting the scatter of one set of ratios against the other for 1939 to 1951 indicates a marked absence of the correlation required if we wish to use one series to extrapolate the other (Chart 1 and Table 1, columns 1 and 2).

**Chart 1**  
**Ratio of Payrolls Plus Profits to Sales for Incorporated and Unincorporated Retail Firms, 1939-1951**



Source: Table 1.

It may be of interest, even if irrelevant to the present concern, to note the nature of this low correlation. For it is apparent from the elliptical pattern of observations on the graph that the unincorporated-business income ratio tends to lead that for corporate business by

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TABLE 1  
Retail Trade

	Ratio of Payrolls plus Profits to Sales		Net Income of Unincorporated Enterprise (1940 = 100)	Corporate Profits (before taxes) (1940 = 100)	Consumers Goods Price Index (1947 = 100)		Retail Margin		
	Unincorporated	Corporate			Wholesale	Retail	Present Estimates (1947 = 100)	Adjusted NID Income Originating (1947 = 100)	
									(1)
1940									
1941	19.7	17.8	100.0	100.0	48.7	52.9	48.0	38.9	
1942	21.5	18.4	147.7	181.8	56.6	57.5	48.0	48.7	
1943	23.6	20.3	167.3	238.9	64.6	66.2	54.0	55.0	
1944	25.1	21.7	225.4	297.4	65.7	73.6	73.0	63.0	
1944	24.0	21.8	233.8	316.2	66.2	78.2	87.0	66.4	
1945	23.4	22.2	244.9	336.4	67.6	81.7	98.0	72.5	
1946	23.1	22.4	301.7	494.7	81.1	89.2	106.0	94.8	
1947	19.9	20.6	265.9	538.6	100.0	100.0	100.0	100.0	
1948	19.4	20.1	269.3	538.1	107.3	105.5	104.2	106.2	
1949	18.5	18.7	245.6	374.0	102.8	102.9	102.1	101.7	
1950	18.8	19.1	280.8	543.0	104.4	103.7	110.4	113.3	
1951	19.0	18.3	301.1	430.9	113.7	112.2	116.9	118.8	
1952	n.a.	n.a.	303.5	389.6	112.2	113.1	127.6	123.1	
1953	n.a.	n.a.	306.9	386.3	111.1	112.7	135.1	128.5	
1954	n.a.	n.a.	297.1	343.3	111.2	112.6	136.0	128.2	

n.a. = not available.

Source:

Cols. 1-4: Based on unpublished NID data.

Cols. 5, 7, 8: See text.

Col. 6: Implicit NID deflator based on July, 1955, Survey of Current Business, Dept. of Commerce, Tables 2 and 40.

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approximately a year. Hence, allowing for a one year lead would bring a substantial improvement in the accuracy of the estimates. Since this tendency is apparent when we restrict our attention to the biennial *Statistics of Income* years (where we have independent observations for each series), the relationship is no statistical artifact.

One aspect the relationship appears to reflect is a lead of the unincorporated profit rate over the corporate profit rate.<sup>7</sup> If we could be sure of this point after more analysis by kind of business and size of firm, we might look to the development of noncorporate income data not merely for their own interest but also as a useful business indicator. (A decline in profits of unincorporated firms, reflecting their more marginal position in the economy than incorporated firms, would anticipate an eventual rise in business failures—a well known leading series.)

### ANNUAL ESTIMATES SINCE 1939—LEVEL

For the period since 1939, a somewhat greater variety of basic data is available to the estimator. This, of course, makes his job harder: more data to be reckoned with mean fewer degrees of freedom.

For the retail trade series, the trend since 1939 was essentially fixed by the use of information for 1939 and 1948 as benchmarks. Census reports on receipts for those years were adjusted for undercoverage and, in turn—by the adjustment of profit-sales ratios—used to adjust IRS data and thereby derive entrepreneurial income estimates.<sup>8</sup> Let us consider the nature of the adjustment for 1948—on which somewhat more data are available than for 1939.

The NID apparently implies a substantial omission in the census sales total.<sup>9</sup> The size of the implied omission can be estimated as follows.

Wages in retail trade for 1948 as reported by the Census Bureau and estimated by NID were:<sup>10</sup>

<sup>7</sup> Judging from the aggregate data kindly supplied by the NID from its worksheets.

<sup>8</sup> "The universe 'control' adopted was an estimate of noncorporate receipts in 1948, developed mainly from the census of business" (see Jaszi's comment on this paper).

<sup>9</sup> As against this implied gap in coverage of businesses by the census is to be set the fact that the Office of Business Economics estimate for the retail business population and the census proprietor estimates in 1948 were virtually identical—1.764 and 1.742 million respectively—implying little undercoverage. The NID estimates of active proprietors is 2.162 million (*National Income Supplement, 1954*, Tables 25 and 28), considerably higher than the business population estimates since it uses the census of population reports as benchmarks.

<sup>10</sup> The census total is the sum of figures for retail trade, central offices, warehouses, and auto repair. The NID figure is reduced to exclude tips and meals.



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(billions of dollars)

NID	15.7
Census	14.5

But the census was more likely to miss sales than wages—since it was more likely to miss the small stores with below average wage bills. Hence, the implied shortage for sales is likely to be greater than this 8 per cent for wages.<sup>11</sup> Let us assume 10 per cent—which is somewhat more than \$13 billion.<sup>12</sup> Since the NID estimates of corporate sales are only \$2.1 billion above the census,<sup>13</sup> we are left with an implied \$1 billion underestimate—or 16 per cent—by the census for sales of non-corporate business. With entrepreneurial income running at something like 10 per cent of sales in retail trade this implied omission must reflect a questionable addition of roughly \$1 billion to the entrepreneurial income total in 1948, affecting the level of the estimates since 1929.<sup>14</sup> Essentially this result derives from the NID use of social security data on wages as a basic check. If the NID did not adjust the census wage data substantially upwards, its receipts and net income estimates would be significantly below what they now are.

Of the fundamental usefulness of these data for a consistent steady picture of the economy, there can be little question. But a mild question may be raised concerning such a use of them in amending the census figures, and thereby the IRS entrepreneurial income totals. It assumes many firms and much employment missed by the census—which is possible—but at the same time covered by employer tax reports—which is unlikely.

For one thing, the census enumeration began with a complete listing of all firms reporting to the Bureau of Old Age and Survivors Insurance and classified by that agency in retail trade. In most instances where the Census Bureau decided that some such firms really belonged in another industry (e.g. wholesale trade or manufacturing) BOASI adopted this classification. Moreover, the Census Bureau made a careful survey, after the census, of an adequate sample of areas throughout the nation to determine how many firms, how much sales were

<sup>11</sup> The *Census of Retail Trade, 1948* (Vol. 1, Part 1, p. 6) gives a census estimate of 0.9 per cent undercoverage for employment and 1.3 per cent for sales. Some 15 per cent of sales but only 3 per cent of payrolls were reported in the stores with zero to one employee—those most likely to be missed (pp. 4.02-4.03).

<sup>12</sup> Combining retail trade, automobile and warehouses. The census sales total is \$131 billion.

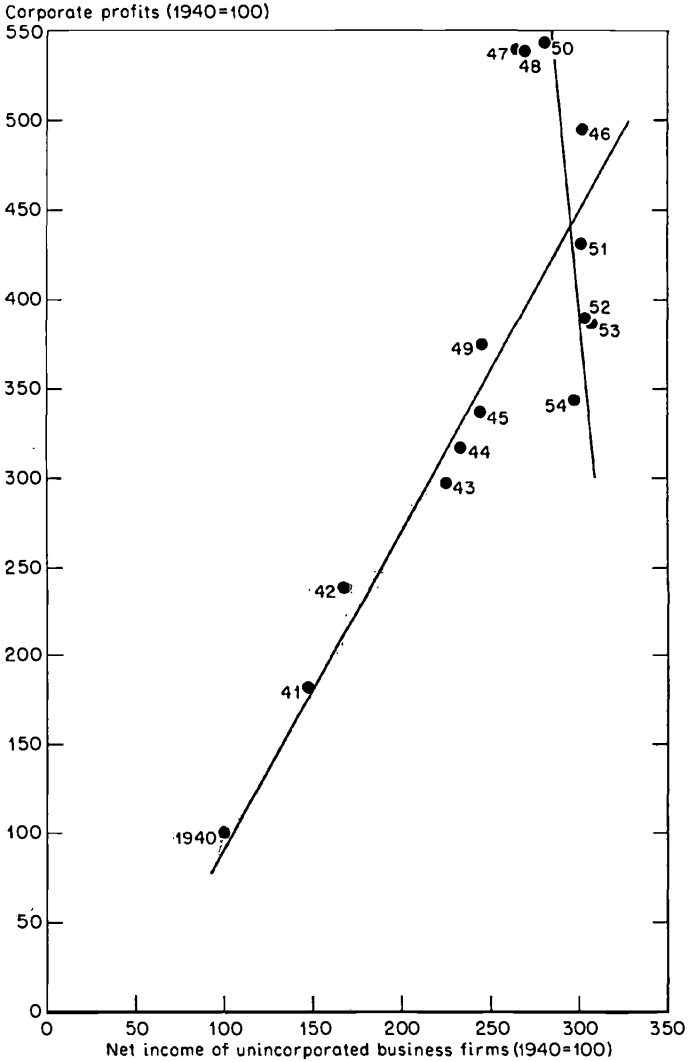
<sup>13</sup> NID corporate sales data of \$63.4 billion from Table 29 in the *National Income Supplement, 1954* compared to \$61.3 billion from the *Census of Retail Trade, 1948*, Vol. 1, Part 1, p. 6.03 and *Census of Services, 1948*, Vol. 1, p. 5.06.

<sup>14</sup> The 1939-1948 trend is probably not distorted because of a similar type of adjustment to the 1939 data.

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omitted from the census. Given these facts, it is hard to arrive at anything like the omissions implied by the NID estimates for retail trade. This is particularly true since the published Office of Business Economics sales estimates, as well as those utilized in the Bureau of Labor Statistics interindustry relations study for 1947, make only trivial ad-

**Chart 2**  
**Corporate Profits (before Taxes) and Net Income of Unincorporated Firms, Retail Trade, 1940-1954**



Source: Table 1.

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justments in the census data.<sup>15</sup> (Given the method of estimate, the NID would have made a compensating estimate, e.g. in wholesale trade, so that its total wage figure would not be in error.)

### ANNUAL ESTIMATES SINCE 1939—CHANGE

Passing on from the level of the present estimates of entrepreneurial income in retail trade, what can one say about their movement? In this area, even more than that of the benchmark figures, the extremes of ingenuity forced on the estimator by the nearly total lack of raw data are apparent. We have no relevant quarterly data, nor do we currently have any very trustworthy annual data.

Because of the efficiency with which the NID utilizes all available data in preparing its estimates, there is little reliable information outside the scope of the accounts with which to check the movement of these figures. However, internal relationships in the retail trade data may be of some indicative value for 1940-1954.

For the period 1940-1946 the charted totals for net proprietors income in retail trade move closely with those for corporate profits (Chart 2, and Table 1, columns 3 and 4). During 1950 to 1954, however, this relationship is reversed. The two move inversely, and somewhat improbably.<sup>16</sup> Basically this pattern stems from the fact that while IRS corporate profit rates fell sharply from 1950 to 1951, the NID estimates of the noncorporate earnings rose. More or less on an a priori basis, however, one may question whether the activity in retail trade is so partitioned by legal form of organization that while retail corporate earnings in food, general merchandise, apparel, furniture, automotive, building materials, and hardware all declined,<sup>17</sup> the aggregate earnings of unincorporated business could not merely maintain themselves but actually rise.<sup>18</sup> (The 1950-1954 rise in costs was primarily in purchases,

<sup>15</sup> The census sales and wage data are adopted in the BLS interindustry relations study for 1947, with an adjustment of less than 2 per cent for undercoverage, part year operations, etc. ("Bureau of Labor Statistics Reports on the 1947 Interindustry Relations Study," mimeographed, Report N176, retail trade, no date, pp. 8, 9, and 27; eating and drinking places, p. 3).

<sup>16</sup> If the possible lead of entrepreneurial earnings on corporate earnings suggested above really exists, it could remove any question here—but the magnitude of the difference makes this explanation unlikely.

<sup>17</sup> Corporate earnings data from *Statistics of Income*, 1951, Part 2, Table 15. As noted above, the NID utilized small corporation rather than all corporate data—and it is the all corporate data that are referred to here.

<sup>18</sup> A related, but lesser problem, appears in the 1943-1945 change. For this period, small corporations in food, apparel, and drugs showed profit rate increases whereas the unincorporated rates declined. Hence, use of the small corporation data to interpolate for the 1943-1944 trend in unincorporated rates rests on something of a contradiction. However, the empirical difference is probably small—particularly since

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and should have affected noncorporate margins almost as much as corporate.<sup>19)</sup>

Another way of looking at these data—though further from a direct test—is to compare the trend in income originating in retail trade with that originating in wholesale trade. A regression chart of one against the other for the years since 1939 indicates a close and regular relationship for the IRS reporting dates, 1941-1949 (Chart 3). However, following the last IRS benchmark a fairly marked deviation develops, the retail margin increasing far less than the past relationship would suggest.<sup>20</sup>

In this instance, we can refer to the lesson of the NID estimates at an earlier date. In those shown in the *National Income Supplement, 1951*, extrapolations past the then available IRS benchmark led to a similar veering away from the previous relationship of retail to wholesale "income originating," but that phenomenon disappeared when the data were later adjusted to IRS figures. Since the wage component of income originating is fairly solid, this implies that the major remaining portion of income originating—entrepreneurial income—may not have shown the trend since 1949 to 1950 that the NID figures now report.

## ANOTHER VIEW OF THE DATA

Still another method of gaining some insight into the empirical adequacy of the estimates of entrepreneurial income in retail trade is to compare the distribution margin derived from the income-originating data with one estimated by deflating the expenditure estimates at wholesale as well as at retail. Such a comparison assumes that where the year-to-year change in one series is sharply different from that shown by the other, the difference may reflect on the estimate of entrepreneurial income—the wage component of the income-originating margin being fairly solid, and the other income items being relatively small and more stable.

These cautions will be underscored by the reader when he considers the method of estimate used here. The deflated NID estimates

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the directions were identical for other types of business used in estimating the aggregate.

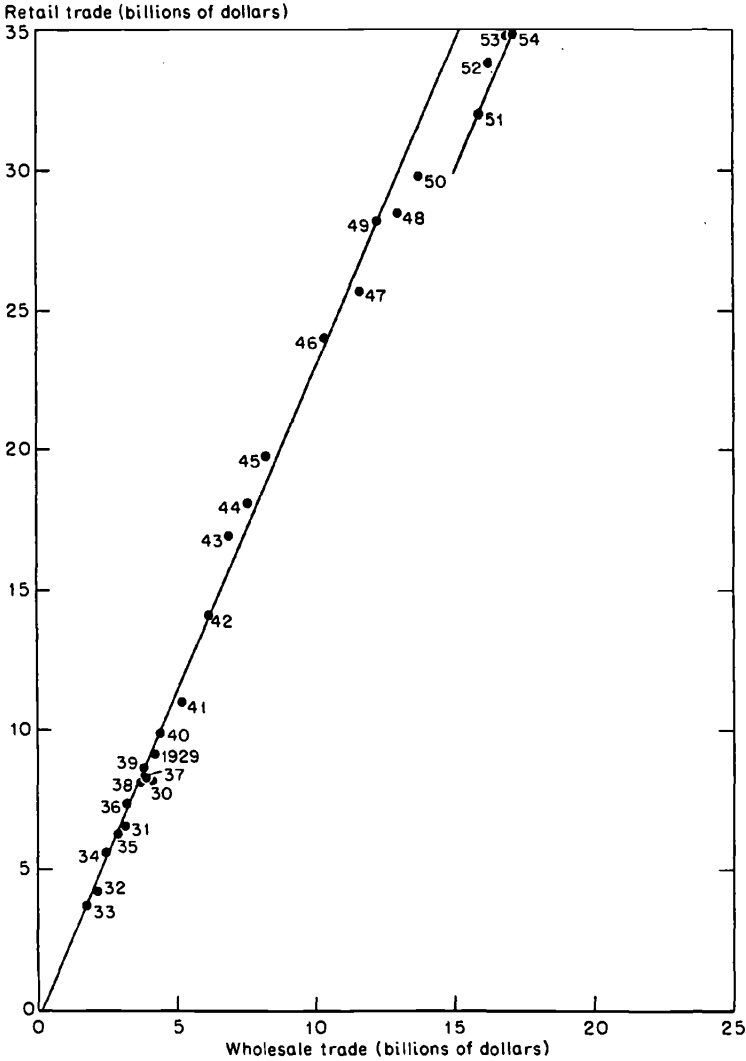
<sup>19</sup> Payrolls took 20 per cent of the corporate sales rise from 1950 to 1954, and 8 per cent of noncorporate—and payrolls are the major element in which a cost-price squeeze might have hit corporate much more sharply than noncorporate firms.

<sup>20</sup> This deviation apparently occurs despite the 1949-1951 (or 1950-1951) contrast noted above. This deviation would be even greater if entrepreneurial income estimates declined from 1950 to 1951.

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Chart 3

Income Originating in Wholesale and in Retail Trade, 1929-1954



Source: *National Income Supplement, 1954, Survey of Current Business*, Dept. of Commerce, and the July 1955 issue of the *Survey*.

of consumer expenditures were reduced to exclude the retail margin.<sup>21</sup> These figures—now at wholesale levels—were then converted to a cur-

<sup>21</sup> The margin ratio used was that estimated for 1939 by the NID for those items estimated by the commodity flow method (*National Income Supplement, 1954, Exhibit 3, p. 106*).

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rent price series by a deflator which combined appropriate wholesale price index series with weights from the consumer expenditure estimates of the NID.<sup>22</sup> Deducting the resultant series from the estimate of consumer expenditures in current dollars (less taxes) at retail gave an estimate of retail margin. The other estimate of margin was computed by adding to the NID estimates of national income originating in trade figures kindly supplied by the NID on rent paid by retailers, and deducting the inventory valuation adjustment.

While the chart indicates a close correlation between the two resultant margin series, as would be expected, the divergence for certain years appears to be more than would be accounted for by the crudities of the present estimate (Chart 4, Table 1, columns 5-8).

The general closeness of trend is clear and the correlation is high. There are three main specific exceptions.

1. Because retail costs were under tighter control than retail selling prices from 1942 to 1945 (wholesale prices rising only 5 per cent and retail, 22 per cent) the present figure for retail margin rises sharply. On the other hand, the NID reports a much milder gain in income originating—reflecting the mild rise in proprietors incomes reported on the 1941, 1943, and 1945 tax returns filed with the IRS.

2. The income figures, in particular the net income of proprietors, show a marked 1945 to 1947 gain. On the other hand, the margin shows a trivial gain—this gain essentially reflecting the present estimate that wholesale prices, particularly food prices, gained about as much as retail prices did over this biennium.

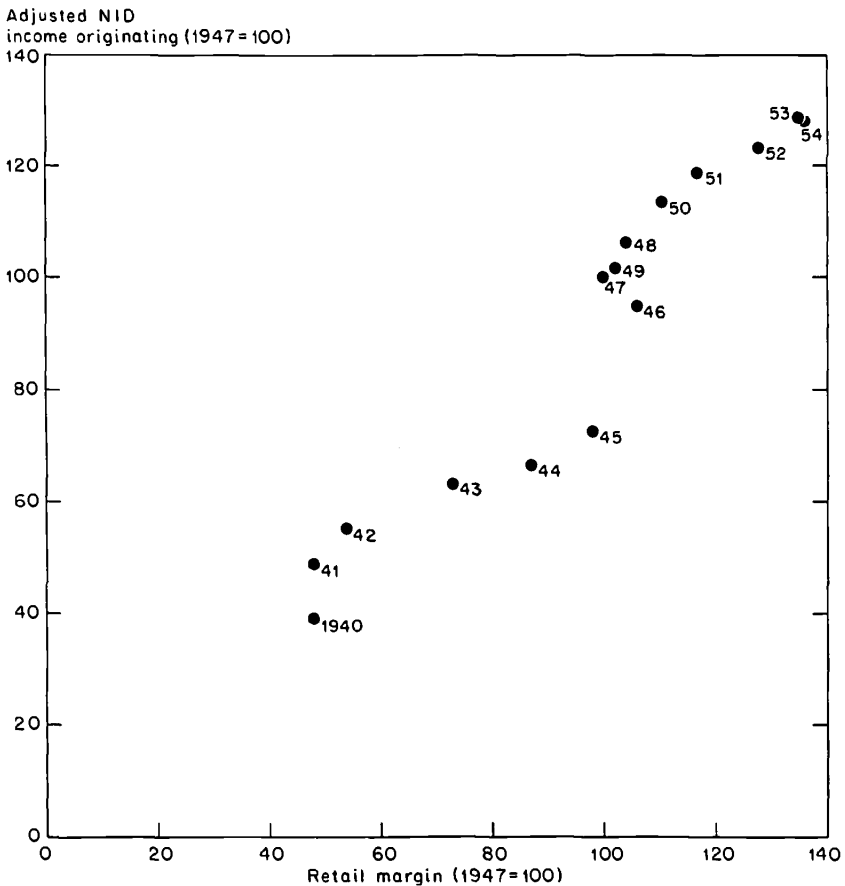
One may speculate here—and it can be no more than speculation—whether a change in the amount of entrepreneurial income not reported to the IRS may account for these discrepancies. If, for example, the 1945 income figure were too low and the 1947 figure more nearly correct, the contrast between two sets of data would be understandable. In 1945 nonreporting might well have been greater than usual: there would have been a double incentive to minimize reporting given any widespread assumption that full declaration of sharply rising net income on a tax return would bring about investigation by the Office of Price Administration as well as by the IRS. In 1947 this problem was no longer present.

<sup>22</sup> For 1947 to 1954 the new BLS economic sector indexes were used—with “consumer foods” weighted by the NID total for off premise food (minus liquor estimated as equal to retail liquor store sales); “consumer durables” weighted by the NID nondurables minus food. For 1945 to 1947 a simple combination of series for food, apparel, shoes, autos, gas and oil, and household furniture was used—with weights from the consumer expenditure series.

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The basic NID procedure for allowing for nonreported income in these and other years simply provides a flat percentage, of marked magnitude, for such income.<sup>23</sup> It is seriously to be questioned whether the NID has any alternative than such a level percentage. But the Audit Control Program Reports of the IRS note the sharp difference in 1948 between the proportions of income not reported by businesses of different size. The percentage of additional tax disclosable by audit

Chart 4  
Adjusted NID Income Originating and Estimated Retail Margin, Retail Trade, 1940-1954



Source: Table 1.

<sup>23</sup> This adjustment is separate from the one discussed above as flowing from the 1948 sales adjustment.

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in 1948 indicative of the proportion of income not reported was:<sup>24</sup>

- 26 per cent for smaller returns with business income
- 7 per cent for larger returns with business income
- 2 per cent for corporations

Given the larger share of the market corralled by small business during the war, the transition from the wartime sales and price control operation to a free peacetime economy may have had an impact on the proportion of earnings not reported. If retail prices reported in 1945 were relatively understated compared with those in 1947, this difference would affect the deflation and work in the same direction.

3. A third contrast between what the computed margin data and the adjusted income originating data show relates to 1950 to 1954, in which the margin rises \$26 billion but the income originating rises by only \$15 billion.

One element here may be the NID use, for the years since 1950, of statistical summaries prepared by the Accounting Corporation of America based on a substantial group of firms whose accounts they prepare. The basic data have a general air of reasonableness, but it is difficult to know how much precision they add to the estimates. The group covered appears to have had a different sales experience from retail firms as a whole. For example from 1949 to 1951 sales of unincorporated food stores, as reported to IRS, rose by 16 per cent. The ACA firms classified as combination grocery stores showed a sales gain of 37 per cent, and food stores as such, 29 per cent.<sup>25</sup> For service stations the contrast was less extreme, with a 19 per cent gain for IRS firms, and 28 per cent for the ACA firms. IRS unincorporated eating and drinking places reported a mere 8 per cent gain—contrasted to 18 per cent for ACA cocktail lounges and 29 per cent for restaurants.

It is not unreasonable to assume that retail firms large enough to hire competent accounting services regularly will tend to have above average sales, a less than average failure rate, and consequently above average profit rates.<sup>26</sup> Since the NID uses these data only for extrapo-

<sup>24</sup> Corporate data from Table 38 of the *National Income Supplement, 1954*. Data for agents returns with income from business or profession, under and over \$25,000 are as shown in Marius Farioletti, "Some Results from the First Year's Audit Control Program of the Bureau of Internal Revenue," reprinted from *National Tax Journal*, March 1952. Parallel indications appear in Marius Farioletti's paper on the 1949 program, in *An Appraisal of the 1950 Census Income Data*, Studies in Income and Wealth, Volume Twenty-Three, in press.

<sup>25</sup> *Mail-Me-Monday Reports*, Accounting Corporation of America, April 1951 and April 1953.

<sup>26</sup> Although difficult to compare, the ACA profit rates for some groups do seem to be above IRS, but not so for other groups.



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lating benchmark profit rates, however, the issue is whether the trend in profit rates is in error. All one can do is to point to our ignorance on the point and to query whether the downward trend in corporate profits noted above may reflect expense items and accounting changes that would also appear for firms in this reporting group. If so, the shift to this source for 1950 could perhaps give a different trend than that for all entrepreneurs.

### QUARTERLY ESTIMATES

These represent the last step in the remorseless progression away from relatively full and fair source data. Their underpinning is a sound monthly set of reports on retail sales plus the knowledge that retailers markup procedures change only slowly. For example, direct NID estimates for 1939 prepared by an extensive and laborious process indicate a markup of 30 per cent—and an equally extensive and independent estimate for 1947 gives a figure of 29 per cent.<sup>27</sup> Since the wage component of the margin is reported with fair accuracy, and the gross rent component may be assumed to move in some fashion with retail sales, one can make a case for the ability to make current estimates with a minimum of data. However, there is one indirect piece of evidence—evidence in a Pickwickian sense—that may apply to short-run data. Figures are available monthly from the IRS on collections of the estimated individual income tax for current years.<sup>28</sup> By computing changes from a given quarter of one year to the same quarter of the next, and allowing for a trend factor to reflect changes in tax rates, one secures a pattern of movement that is surprisingly similar to that estimated by the NID.<sup>29</sup>

### Conclusion

What are the prospects for an improvement in the adequacy of the NID estimates of entrepreneurial income? It would be hard to imagine

<sup>27</sup> *National Income Supplement, 1954*, data from Exhibits 3 and 4, pp. 106 and 111. Estimates by William H. Shaw (*Survey of Current Business*, April 1942) point to similar stability, as of course do the original Kuznets estimates in *Commodity Flow and Capital Formation*, (National Bureau of Economic Research, 1938) and for recent years, Harold Barger's figures in *Distribution's Place in the American Economy since 1869* (Princeton University Press for NBER, 1955).

<sup>28</sup> Unpublished data kindly provided by the IRS. The period covered in these data is January 1945 through May 1954, but current figures are also available. Since most taxpayers did not file estimates of tax during these years, the dominant group that did file may be assumed to have been the entrepreneurs, for whom there was no other withholding program.

<sup>29</sup> Jaszi rejects any consolation on this point, doubting that these data support the adequacy of NID quarterly estimates. One must agree with this professionally sound, if Spartan, position.

## SPECIFIC SECTORS

any improvement stemming from applying further ingenuity to the manipulation of data: the limit has about been reached.

The prospects for an improvement in the basic data are not great. While one may agree with Cohen and Gainsbrugh that "farmers' record keeping is certainly no better than that of the nonfarm sector" (page 201), it hardly follows that there is much of "a parallel for the nonfarm sector." Thus the Department of Agriculture can estimate farmers' expenditures for tractors with reasonable precision: we have adequate data on production and farmers are virtually the only purchasers. But nonfarm entrepreneurs account for only a small proportion of the purchases of delivery trucks, space rent, fuel, and so forth. The fact that the Congress for three years in a row has decided against the improvement of corporate trade statistics—which Cohen and Gainsbrugh note as being "widely agreed" as necessary—indicates no sanguine outlook for the improvement of unincorporated trade and service data. (Review by the NID has suggested that in fact a greater contribution to the accuracy of the income estimates in the years since World War II would have been made by improving the corporate trade estimates than by improving the entrepreneurial trade estimates—and at a considerably lower cost.)

The prospects for unincorporated income estimates in other areas—where we have still less frequent or no benchmarks, where we must rely on sample replies that can be supported by no known sampling theory—are still bleaker. Under the circumstances one can only commend the NID for continued courage and ingenuity and hope that we are in a lull before a further major advance in data collection. Perhaps the extension of social security coverage to the self employed may provide such a basis of advance.