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Income Originating in Trade, 1799-1869

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THE data available for the construction of a series of trade for the pre-Civil War era are scanty and of questionable validity. Therefore I can take only a first step toward deriving estimates of income generated in trade. Census data provided a logical starting point for the inquiry.

Data from the Census of 1839-1840

For 1839 the population census tally of occupations can be used together with the census count of trade establishments. The latter is the only such count made before the business census in 1930.¹

The number of persons shown as "employed" in commerce was 117,575,² or roughly 118,000, a figure not precisely comparable to later estimates of members of labor force attached to trade, but I did not adjust for the difference.³ More important in dealing with this industry classification is adjustment for the omission of classes we include in trade in the national income concept—persons attached to eating places, taverns, and coffee houses. I assumed that such establishments were one-tenth as numerous as retail stores (see below) and that three persons were attached to each establishment. Therefore I adjusted the figure of 118,000 upward by 17,000, to yield 135,000.⁴

¹ President Van Buren's annual message to Congress, December 8, 1838, which recommended authorization of the census, suggests the motive for this count of trade establishments. He asked "whether the scope of the measure might not be usefully extended by causing it to embrace authentic statistical returns of the great interests . . . affected by the legislation of Congress." (Carroll D. Wright, *The History and Growth of the United States Census*, 56th Cong., 1st sess., S. Doc. 194, 1900, p. 36.)

² *1840 Census of the United States*, Blair and Rives, 1841.

³ The adjustments made by Whelpton may be helpful here, but I did not use them for re-check at time of final writing. (P. K. Whelpton, "Occupational Groups in the United States, 1820-1920," *Journal of the American Statistical Association*, September 1926.)

⁴ This figure of 17,000 was checked against data from Cincinnati and Philadelphia directories. All persons listed in the directories as attached to eating and drinking places, including all those engaged by taverns, coffee houses, oyster houses, and inns, were tallied, except for those employed in hotels or boarding houses. All other persons engaged in activities included under trade were also tallied. The number of persons attached to eating places was just over 16 per cent of those in trade (without eating places) in Cincinnati; the ratio was 20 per cent in Philadelphia. (Drawn from listings in *Cincinnati Directory Advertiser*, 1836-37, J. H. Woodruff, 1836, and *Desilver's Philadelphia Directory for 1835-36*, Robert Desilver, 1835.)

INCOME ORIGINATING, BY SECTOR

The number of establishments enumerated in the trade census were as follows:⁵

Commercial houses in foreign trade	1,408
Commission houses:	
Capital invested (\$119 million)	2,881
Retail dry goods, grocery, and other stores:	
Capital invested (\$250 million)	57,565

To this list I added eating establishments, not already classified as retail stores, at a figure equal to 10 per cent of the retail store count, or 5,756. The total number of establishments then became 67,610 or, say, 68,000. I made no allowance for self-employed traders, such as peddlers.⁶

The only census category covering firms in domestic trade, other than retail establishments, is "commission houses." There was some distinction in the twenties and early thirties between commission houses and jobbing firms, but in the marketing of manufactures this was so blurred by 1839 that I cannot imagine census enumerators intended to draw a distinction. I assumed that "commission houses" included also wholesalers and jobbers. I assumed that the many firms doing both wholesaling and retailing were included only once in either one or the other category.⁷

The census also reported capital investment. Domestic commission houses were reported as having an average capital investment of \$41,000; retail stores, of \$4,300. I assumed that firms in foreign trade had the same average investment as commission houses (which may be low) and that saloons and restaurants had the same investment as retail stores. If the investment implied by these assumptions is added to that

⁵ *1840 Census of the United States*, p. 409. The data are also presented in *Compendium . . . of the Sixth Census*, Thomas Allen, 1841, p. 360.

⁶ Independent peddlers are one of several categories of self-employed not explicitly tallied in the establishment count of 1840, and there may have been more than 5,000 of them. The 1850 census counted 10,669 peddlers. Some were attached to retailing firms, some to manufacturing establishments such as the tin shops of Berlin. (R. Malcolm Keir, "The Tin Peddler," *Journal of Political Economy*, March 1913, pp. 255-258; also, Lewis E. Atherton, "Itinerant Merchandising in the Antebellum South," *Bulletin of the Business Historical Society*, April 1945, p. 49.)

⁷ The marketing channels and structure of the period are described in my "Commission Agents in the Button and Brass Trade a Century Ago" (*Bulletin of the Business Historical Society*, February 1942, pp. 8-18). There is an excellent general survey in Fred M. Jones, "Middlemen in the Domestic Trade of the United States, 1800-1860" (*Illinois Studies in the Social Sciences*, May 25, 1937). Jones believes the 1840 census included auction firms but doubts whether merchants were included who did not do any commission business. My contention of a blurred distinction between merchants and commission merchants is based on the fact that merchants whose business role remained unchanged in the thirties were variously listed in city directories as merchants and as commission merchants.

reported for commission houses and retailers, we obtain a total of \$452 million⁸ or, let us say, \$450 million.

In view of the data on average capital investment, it is difficult to accept a figure for employment of substantially less than three persons per establishment. The average investment in retail stores in 1840 was \$4,300. With three "employees," investment per worker would be over \$1,400. This greatly exceeds the figure for manufacturing. According to census data average investment per worker in manufacturing in 1850 was \$397, or \$500 to \$600 if construction workers are deleted from the labor force figure. Assuming that there were three workers per establishment and 68,000 establishments operating, total employment would be 204,000 compared with the adjusted population census figure of 135,000. For the calculation below I used the compromise figure of 170,000,⁹ a figure consistent with an average of only two and one-fourth employees per retail establishment if at least three thousand peddlers were operating and the wholesale and foreign trade houses employed, on the average, six persons.¹⁰

The chief weakness in this procedure lies in taking the census as a starting point. Fabricant gave fair warning when he wrote, "The early census reports are traps for the unwary."¹¹ Even the exercise of caution does not compensate for the weakness of the basic data.

Trade Margins

Comments on trade margins in the first half of the nineteenth century, whether in commercial journals, business men's memoirs, such works as

⁸ The total investment in retail stores was reported as \$250 million; I added \$25 million for eating places ($\$4,300 \times 5,756$). The total investment in commission houses was \$119 million; I added \$58 million as investment by houses in foreign trade ($\$41,000 \times 1,408$). The combined total is \$452 million.

⁹ The estimated 170,000 persons attached to trade constitute 10 per cent of the total nonagricultural labor force (1,700,000). Directory listings indicate that in Cincinnati in 1836 the ratio was 17 per cent; in Philadelphia in 1835, 22 per cent. The discrepancy may suggest that my estimate is too low, or it may reflect limitations in my use of the directory listings. However, the ratio of trade workers to total nonagricultural employment probably was higher in cities than in the nation as a whole because urban dwellers purchased a larger part of their consumer goods than did village and rural people, and because cities served the nation as wholesale centers. Conversely manufacturing probably constituted a smaller percentage of the nonagricultural labor force in large urban centers than in emerging industrial communities such as Waterbury, Connecticut, or Lowell or Holyoke, Massachusetts.

¹⁰ Wholesale firms may have averaged two or more partners and several employees. Retail establishments varied significantly. Larger stores usually had at least one junior partner or assistant while small rural stores and urban specialty shops often were staffed solely by the proprietor. Some retail stores outfitted peddlers to sell beyond the store's trade area, a practice described by Atherton (p. 49).

¹¹ Solomon Fabricant, "The Changing Industrial Distribution of Gainful Workers: Comments on the Decennial Statistics, 1820-1940," in Volume Eleven (1949) of *Studies in Income and Wealth*, p. 31 (see the list of publications of the Conference at the back of this volume); see also Wright, pp. 37-38.

the definitive Johnson, Heubner, and Hanchett volumes, or in the more recent studies by Jones and by Atherton, are stated in terms of trade policy on markup from the viewpoint of participating firms.¹² To translate the traders' margin into a function of the consumers' dollar outlay, or of producers' revenue, one must estimate the flow of goods through the distributive system. One measurable item is the number of middlemen handling the various categories of goods. Between 1840 and 1860 the items sold in consumers' retail stores were heterogeneous, moved through different trade channels, and were subject to different wholesale markups.¹³ The Commissioner of Internal Revenue, who submitted estimates in 1864 on the number of times goods changed hands before being consumed, observed that the marketing of manufactures involved more middlemen than the marketing of agricultural products, with the extreme case being that of textile fabrics which were "sold five, six, or seven times before being consumed." His report concluded, "It has been assumed by competent calculators that, on a general average, productions of the country are sold four times."¹⁴

The Commissioner used the phrase "sold four times," and since Treasury thinking at the time was conditioned by the turnover tax, he probably did not include additional handling by agent middlemen. Before 1864 the number of turnovers may have been somewhat less, and I suspect agent middlemen played a significant part.

For 1839-40, I set up a hypothesis that with a manufacturer's nominal net sales price of \$1.00 there would be a charge of 7¢ for agent services, and an additional 30¢ for jobber services. If transportation to final jobber was 25 per cent of the producer's sales price, the retailer would pay \$1.55 (\$1.00 + 30¢ + 25¢) for a product which brought the producer 93¢ (\$1.00 - 7¢).¹⁵ If we assume the retailer added 50 per cent plus his transportation, again say 25 per cent, the final sales price would be \$2.71.¹⁶ This is before adjustment for shrinkage, spoilage,

¹² Emory Johnson et al., *History of Domestic and Foreign Commerce of the United States*, 2 vols., Carnegie Institution of Washington, 1915; Jones, cited above; and Lewis E. Atherton, "The Pioneer Merchant in Mid-America," *University of Missouri Studies*, April 1, 1939, and *The Southern Country Store, 1800-1860*, Louisiana State University Press, 1949.

¹³ Comments of a commercial traveler on the types of retail stores, which I drew from letters, are presented in my "Manufacturer's Drummer 1832," and "Manufacturer's Drummer 1852," *Bulletin of the Business Historical Society*, April and June 1948, pp. 40-56 and 106-114. A good survey is in the Fred Jones volume cited in note 7 above.

¹⁴ *Report of the Secretary of the Treasury on the State of the Finances for the Year 1864*, Treasury Department, p. 60.

¹⁵ If the commission was not all taken by the first agent, the computation would be more complex, and actually two commissions were common.

¹⁶ The computations were based on mark-up policy rather than margins revealed by operating statistics. They were drawn in terms of markup as a percentage of cost rather than as a percentage of retail price because this procedure conforms more closely to the terminology found in contemporary comments. Also references to markups of 100 per cent and more on goods moving from urban centers to the frontier are found in

markdowns, thefts, and so forth. Also, there is no adjustment for that part of the flow from jobbers which by-passed retail channels.

The assumed figures imply that for each \$1.00 of consumer outlay at retail there would be a gross margin of 42¢ absorbed in the trade industry. After proper adjustments, between 20¢ and 35¢ would constitute income generated chiefly in the form of wages and salaries, and return on investment. I assumed income generated in trade to be 30¢ for each \$1.00 of sales at retail.

Retail sales can be inferred by use of this model and the magnitudes derived above if we can obtain figures for wage and salary rates and for rates of return on capital. Probably the average annual wage or salary was between \$400 and \$600. I assumed that \$450 was paid the 170,000 persons employed in trade.¹⁷ This implies a payment, for personal

autobiographies and various historical studies. This was, however, only a small part of the total trade handled by retailers.

¹⁷ Persons in wholesaling or importing appear to have received more than those in retailing. Proprietors, partners, and managers received more than employees. The number of subordinate employees was relatively small, partly because the one-price system was not yet in general use. The young clerk often was an apprentice. Atherton reports occasions where this apprenticeship was served without pay (*Southern Country Store*, p. 207).

Remuneration of persons engaged in trade appears to have been higher in larger and more successful establishments. A case in point is the industrial store operated by predecessors of the Scovill Manufacturing Company during the thirties. The store manager was paid as much as \$800 and was once offered a partnership in the factory. He was assisted by a company bookkeeper, who was paid \$500, and at least one subordinate clerk. Sales ranged from \$15,000 to \$25,000, with an inventory of from \$5,000 to \$10,000. (See my *Management Problems and Procedures of a Manufacturing Enterprise, 1802-1852; A Case Study of the Origin of the Scovill Manufacturing Company*, University Microfilms, 1945.)

John Jacob Astor's venture also provides data on pay rates. In the twenties and thirties, his agents had annual salaries of \$2,000 to \$2,500, plus a share of profits, while clerks received \$180 to \$500, and "engagés," \$100 or less. (Kenneth W. Porter, *John Jacob Astor*, Harvard University Press, 1931, pp. 815, 825, 838.) In 1852, Marshall Field, who was a young man of twenty-one, was hired as a clerk in a Chicago retail store at a salary of \$400 a year. (Robert W. Twyman, *History of Marshall Field & Co. 1852-1906*, University of Pennsylvania Press, 1954, p. 11.)

In smaller communities, there were general stores that did not gross more than \$6,000 to \$10,000 and whose proprietors could not afford purchasing trips to the seaboard cities. Proprietors and employees of such stores probably were paid less than that suggested by the examples cited above. (Atherton, *The Southern Country Store*, p. 138.)

The Aldrich Report is of little value in arriving at a representative rate for persons in trade. The series on pay rates for school staff may have some relevance since there was some transfer from teaching into trade. The lower range of male teacher rates of pay are comparable to the rates I assumed for junior partners, with clerks or apprentices bringing the average down to \$450. (*Wholesale Prices, Wages, and Transportation*, 52d Cong., 2d sess., 1893, S.Rept. 1394, Part IV.)

Stanley Lebergott, in a paper in this volume, gives pay rates for factory and skilled labor in the thirties and forties, none of which exceed \$400 a year. Trade employees were generally more knowledgeable than factory workers, and it seems likely that they were better paid. Lebergott also shows the rate of change in wage rates from 1840 to 1870. The change in the forties was minor; the rise in the fifties was about 20 per cent; and the increase for the sixties varied by classes, but ranged upward of 50 per cent. If the \$450 were raised according to this schedule the derived amount would be over \$800. Harold Barger has given an average 1869 trade wage rate of over \$700 (*Distribution's Place in the American Economy*

services, of \$76.5 million, or roughly \$75 million. The average return on capital may have been between 10 per cent and 30 per cent. Conservatively assuming an average return of 15 per cent against the investment computed to be \$450 million, the return on investment comes to \$67.5 million, or let us say, \$70 million.¹⁸ In the model I set up, this would imply retail sales of \$483 million, or about a half billion dollars [$(\$75 \text{ million} + \$70 \text{ million}) \div 0.30$].

Two estimates that help place this magnitude in perspective are (1) that of Jones for 1816, with retail sales of \$81 million,¹⁹ and (2) that of Barger for 1869, with retail sales of \$4.1 billion.²⁰ The per capita figure implied for 1816 is \$10; for 1839, \$30; and for 1869, just over \$100.

To work from estimates of output values to a derived figure for income originating in trade involves, among other difficulties, an estimate of the progress of the transfer from family-made to factory-made goods. Rolla Tryon, who studied the transfer, reported that 1860, "found family-made goods the exception rather than the general rule

Since 1869, Princeton University Press for NBER, 1955). Thus the \$450 figure may be high assuming that the rate of increase in trade wages in the sixties was as great as in manufacturing or construction. Such was probably the case since middlemen were profiting and entry was easy.

¹⁸ The rate of profit assumed is lower than some accounts of successful merchants suggest. For most years in the thirties, the industrial store of the Scovill enterprise showed a profit of approximately 30 per cent. A writer in 1849 recounted a dramatic success story of his brother who retailed in Missouri. His employer started a small store for him under an agreement that the latter should receive half the profits as payment for his labor. After six months this came to \$1,200. Six months later he was able to buy out his employer, and through the employer's recommendation, to purchase \$7,000 worth of goods on credit (John Beauchamp Jones, "Luke Shortfield," *The Western Merchant*, 1849, as quoted in Atherton, "The Pioneer Merchant in Mid-America," p. 33). Stories of trading success abound in the annals of New England manufacturers who got their start through trading trips to the South.

The true figures for trade must also include those merchants whose profits were modest or nonexistent. *Hunt's Merchants' Magazine* published a speech delivered in 1840 by General H. A. S. Dearborn, who had been collector of the Port of Boston for nearly twenty years. In this speech, General Dearborn held that, "among one hundred merchants and traders, not more than three in this city ever acquire independence." *Hunt's* appended a comment by a gentleman from Boston who reported that, of the merchant houses on Long Wharf in 1800, only 5 per cent survived forty years later. The other merchants had either failed, or died destitute of property ("The Chances of Success in Mercantile Life," *Hunt's Merchants' Magazine*, November 1846, pp. 475-477). A recent study concludes: "It is no exaggeration to say that the average storekeeper remained in business only a limited number of years, during which he acquired sufficient wealth to transfer to other activities or went bankrupt. Some, of course, remained storekeepers a lifetime, each village having one or two men who followed this pattern. These generally seem to have maintained a comfortable way of life and occasionally one left considerable property." (Atherton, *The Southern Country Store*, p. 206.)

¹⁹ Jones, p. 56. Jones computes this magnitude from an estimate by the Commissioner of Revenue that the 1816 duty on retailers amounted to about one per cent of sales, citing the *American State Papers, Finance*, Vol. III, Gales and Seaton, 1934, p. 182.

²⁰ Barger, Table 20, p. 70.

as formerly."²¹ The trend is suggested by comparison of my estimate of a half billion dollars for 1839 and Barger's estimate of just over \$4 billion for 1869, with Robert Gallman's estimate, contained in this volume, that the value of commodity output was \$1,037 million in 1839 and \$4,827 million in 1869. The ratio of retail sales to commodity output rises from about 50 per cent to about 85 per cent, which suggests the progress of industrialization and commercialization in the interval 1839 to 1869.²²

Trends Pertinent to Extrapolation of Series

Three major changes in marketing structure and practice were gradually taking place in the interval before 1869. They are relevant to the question of the continuity of series on income generated in trade.

The first and most pertinent of the changes was the increased channeling of output through the distribution system. From this we can infer the validity of extrapolating back into the earlier period Barger's series on the percentage of producers' output sold through retail stores. I assumed the rough validity of such extrapolation in the conclusion of the previous section.

This trend should also be reflected in an increase in relative employment in trade. The increasing use of power equipment in manufacturing, agriculture, and transportation, and the absence of such laborsaving devices in trade, provide additional grounds for expecting the distribution employment as a percentage of the total to grow between 1839 and 1929, perhaps at an increasing rate.

Such a trend in the relation between trade and total employment seems clear for the period after 1869, and I have extrapolated back to 1840. I computed the percentage that Barger's distribution employment²³ comprised of Fabricant's gainful workers²⁴ and plotted this on an arithmetic scale. A parabolic curve provided a good fit to the post-1869 percentages, which start at 6.8 for 1869 and reach 16 for 1929. I

²¹ Rolla M. Tryon, *Household Manufactures in the United States 1840-1860*, University of Chicago Press, 1917, p. 303.

²² The trend is evident even if the measures used are very crude. In my summary for the Williamson textbook I suggested that the dollar volume of "sales by retail establishments in 1816 was probably less than one-tenth of realized private production income. In 1929 the magnitude of such sales was more than 80 per cent of realized private production income." ("Domestic Trade and Marketing," in *Growth of the American Economy*, Harold F. Williamson, ed., 2nd edn., Prentice-Hall, 1951, p. 522.)

Data on retail sales in 1816 was drawn from Jones, pp. 55-56. For 1929, retail sales were taken from *Statistical Abstract of the United States* (1948, Table 1050, p. 964). Realized private production income for 1819 and 1929 is published in *Historical Statistics of the United States, 1789-1945* (Bureau of the Census, 1945, Series A-154, p. 14).

²³ Barger, Table 20, p. 70.

²⁴ Fabricant, Table 2, p. 42.

extended the curve back to 1850 and 1840, and read off extrapolated values as 5.3 and 5.0. From these I derived an employment magnitude for 1850 of 408,000 (5.3 per cent of 7.7 million), and for 1840, a magnitude of 270,000 (5 per cent of 5.4 million). The extrapolation suggests that my estimate of 170,000 for 1840 may be low.

I also explored the ratio of trade employment to Fabricant's category "transportation and other public utilities, trade, finance, and real estate," working with Barger's distribution employment series and the Fabricant series for gainfully employed in that category. General developments in the economy between 1839 and 1929 do not suggest any sharp change in the relationship here. The ratio of Barger's trade employment series to the Fabricant series declines between 1869 and 1919 from 65.6 per cent to 57.0 per cent. For 1929 it rises to 63.6 per cent. When the percentages were plotted on an arithmetic scale, a straight line provided a good fit, partly because of the rise in percentage for 1929. Extrapolation of the line gave me a value for 1850 of 67 per cent, from which I derived a magnitude for trade employment for 1850 of 281,000. This 1850 figure is of the same order of magnitude as my 1840 estimate of 170,000. My 1840 estimate is 10 per cent of the 1840 nonagricultural labor force; the 1850 extrapolation of 281,000 is fractionally over 10 per cent of 1850 nonagricultural labor force.

The second major development in marketing structure and practice was the relatively rapid growth in the consumption of domestic goods as opposed to imports, the expansion in domestic commerce relative to foreign commerce, and the related rise of subsidiary interior wholesale centers.²⁵ The trend reflected the industrial expansion and the westward movement that characterized the nineteenth century. The increasing reliance of wholesalers and retailers on domestic wares probably implies a slower growth in trade income than in income from commodity production. Consequently, I would hesitate to extrapolate backward from the seventies or sixties to ascertain the portion of total national income generated in trade.

The third major trend was a narrowing of the functions performed by firms in trade.²⁶ The development of regular transportation facilities, and of express companies and freight forwarders, permitted merchants to concentrate on merchandising rather than shipping. Developments in banking and the monetary system contributed to a shortening of

²⁵ This marked trend is effectively described in a source valuable for much data on the period to 1860: Walter B. Smith and Arthur H. Cole, *Business Fluctuations in the United States, 1790-1860*, Harvard University Press, 1937.

²⁶ The general trend of institutional change in this respect was effectively described some years ago by N. S. B. Gras, *Business and Capitalism*, Crofts, 1939.

Henry Gomez, in an unpublished manuscript, "Marketing Trends," covers this development and refers to the "evolution of the wholesaler as an institution." Clearly, the wholesale merchant of the early nineteenth century did more than wholesale, attending to numerous functions the ancillary agencies perform today.

credit terms. The fact that functions previously performed by persons classified as traders were increasingly being performed by others would contribute toward reducing the growth in trade employment and income, relative to transportation, service, and finance. Since the narrowing of trade function was concentrated between the twenties and the seventies, there was probably some degree of continuity in change during that interval.

Another consequence would be a reduction in the ratio of income originating in trade to value added by distribution. Thus, the trend of increase in this ratio, which Barger shows for 1869 to 1929, could not properly be used to extrapolate backward.

The narrowing of merchant functions in the nineteenth century as ancillary services became available to manufacturers would also, presumably, lead to a narrowing of the distributive spread. This historical development probably precludes our extrapolating back to the earlier years from Barger's data. His data reflect a continuous rise from 32.7 per cent of retail value in 1869 to 37.4 per cent in 1947.²⁷ If such extrapolation were attempted, it would yield a percentage distributive spread significantly below what I premised. My value for distributive spread may be too high, or the institutional factors I mentioned may account for the discrepancy.

My study is only a prelude to the task which still needs to be done. Of prime importance is the construction of margin data for individual firms from sample business records and adjustment of this data in terms of the national income framework. It might be possible to work this up from collections at Baker Library and other repositories of business records.

Another approach might involve reconstruction of data on licensed trade activities. Apothecaries were licensed in some states, as were retailers. In the War of 1812, retailers and auctioneers were licensed. Therefore some data are available to us in official statements. There may be more in the United States Archives, if revenue records survived the Treasury Building fire of 1833. For the period of the Civil War turnover tax, there may be more material than I have used.

City directories constitute another possible source of information. However, their value is limited since the designation by which a given merchant is listed often changes from one year to the next.

The commercial journals such as *Hunt's Merchants' Magazine* and *DeBow's Review* contain little that is directly pertinent. The same is true of *Niles' Register*. There is occasional description of types of trade establishment, trade channels, and much on commodity movement. Data bearing on commodity movement, such as port receipts, are available on a more or less continuous basis. Perhaps such data could

²⁷ Barger, Table 26.

be combined with price series, as worked up by such scholars as Cole, Berry, Bezanson, Hussey, and Gray. Another source which might provide a measure of product available for distribution is the series on production in Gallman's dissertation²⁸ and in his paper included in this volume.

²⁸ Robert E. Gallman, "Value Added by Agriculture, Mining, and Manufacturing in the United States 1840-1880," University Microfilms, 1956.