

THE CONTRIBUTION OF INDUSTRIAL AID BOND FINANCING
TO REGIONAL ECONOMIC DEVELOPMENT*

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Since 1960 economists have devoted increasing attention to investigating the social and economic problems associated with widely divergent standards of living not only among nations but also among areas and regions within nations. Concurrently, the regional differences in economic welfare in the U.S. became an acute political issue, thereby prompting policy recommendations to arrest the decline of depressed areas, to accelerate the economic growth of less developed areas, and to eliminate excessive unemployment or underemployment.

So far, two basic approaches to alleviating the adverse economic conditions in depressed areas and less developed regions have been proposed. Clearly the most popular policy among academic economists is to provide lagging areas and regions with what is fashionably termed "human resource capital" and "an adequate infrastructure of social and economic overhead capital," thus assisting them in overcoming what is generally believed to be a major barrier to their securing new industry. The second basic approach involves local subsidies to industrial prospects to induce their location in communities characterized by low incomes and/or excessive unemployment. This latter alternative however conceived is anathema to most economists and instead of objectively appraising it they have responded like bulls to a red flag by concerted attacks upon it.

My purpose here is to wave the red flag again and challenge the conventional wisdom as to the efficacy of these two approaches. The basis for the challenge is the experiences of six Southern states, particularly Alabama, in pursuing industrialization and growth through extensive use of the most powerful of all local inducements yet devised--municipal industrial aid bonds.¹ While the position taken in this paper probably will not be popular, perhaps it will make a modest contribution to a reappraisal of the value of local subsidies as a positive weapon for accelerating economic growth.

The Types of Industrial Aid Bonds

Mississippi in 1936 became the first state to initiate a radical departure from traditional municipal finance practices by authorizing its cities and counties to speed industrial development through the issuance of municipal bonds to finance the construction of plant facilities for lease to private concerns. This technique was the spearhead in Mississippi's program to "Balance Agriculture With Industry" and it marked the starting point in State attempts to aggressively encourage industrialization. In the early 1960s the competition among states for new industry became so intense that legislation granting municipalities the right to issue either general obligation bonds or revenue bonds to stimulate industrial development has now been adopted (as of 15 March 1968) in 38 states.²

In most states, there is a distinct preference for using revenue bonds instead of general obligation bonds to build plants for lease to industrial enterprises.³ This is because revenue bonds are secured only by the property acquired with the proceeds of the bond sale and by the income derived from the leasing agreement between the community and the business firm. When the income from a project is insufficient to meet the payments on the principal and interest, the bondholders have no recourse upon the local government and must stand any loss themselves. In contrast, general obligation bonds pledge as security the credit and taxing power of the issuing government in addition to rents from the project; tax revenues must be used to amortize the unpaid balance on general obligation bonds in the event that revenues from the project prove inadequate.

About the only real advantage of using general obligation bonds to finance a new industry (and this works more to the benefit of the firm than to the community) is their ready marketability at fractionally lower interest rates because the municipality pledges that it will assume the obligation for any unpaid balance should the lessee default. Thus many small, new, and venturesome enterprises can

be aided by general obligation issues; revenue bonds often cannot be sold for such endeavors because bond buyers are not willing to take the risk involved.

Why Industrial Aid Bonds Are Attractive to Business Firms

Primarily it has been the cost-reducing features of municipal industrial aid bonds (IAB's) that have attracted business firms to this type of financial arrangement. The economical features of IAB's may be catalogued briefly as follows:

1. The cost of risk capital to the firm is lowered by one to two percentage points, resulting in a significant saving in financing charges over the life of the bonds. This is because IAB's are issued by a municipality and the interest income earned by bondholders is, by federal decree, exempt from personal income taxation. Consequently potential investors, particularly those in high-income brackets, are willing to buy IAB's at interest rates below what they would accept were the firm to have been the issuer and the interest income subsequently subject to federal income taxation.
2. Because the legal title to the plant and its equipment is vested in the municipality, the firm will be exempted from real property taxes.
3. The leasing fees which the firm pays are deductible as an operating expense for corporate profits tax purposes, thereby effectively reducing the leasing costs by 30 to 50 per cent, given the present tax rates.
4. Conceivably the firm can realize additional corporate profits tax savings should it decide to amortize the IAB's at a rate faster than depreciation allowances would be if it owned the plant itself.
5. Since the municipality technically constructs the facilities, purchases of building materials and equipment for the plant are usually exempted from either state or local sales and use taxation.
6. The firm acquires the right to occupy and use a modern plant for 20 years or longer without making any capital outlay, while at the same time gaining all the benefits of the earning power and profits from the facilities. The debt burden of the plant does not appear on the balance sheet and the firm's cash flow position is enhanced.
7. On fairly frequent occasions IAB's can help overcome a credit gap by making lower-cost, long-term funds available to small firms unable to borrow from conventional private sources. The social benefits of this function are particularly apparent during periods when the competition for funds in the private capital markets is especially keen and when the interest rate structure is unusually high.

Why Communities Have Resorted to Industrial Aid Bonds

The major impetus for mobilizing the powers and privileges of state and local governments for the purposes of recruiting new industry arose with the need to solve the problems of labor surpluses characterizing portions of the Nation. In several regions of the United States, but most particularly in the small rural communities of the Southern states, there appeared in the 1950s a surplus of unskilled labor due to accelerated migration out of agricultural-oriented occupations. In most of these regions, the supply of industrial job openings was grossly insufficient to absorb the growing number of workers willing to transfer from agriculture to industry at prevailing wage levels. While many former agricultural workers migrated to urban population centers, both in the South and elsewhere, to seek remunerative employment, there remained behind a substantial pool of labor (both unemployed and underemployed) that clearly preferred ~~not~~ to move to other localities. Meanwhile, municipal and state governments found themselves in the unenviable position of facing an eroding tax base on the one hand and a rapidly growing demand for public services on the other hand. The alternative was plain--

recruit new industry to provide jobs for the local labor force, thereby boosting employment, payrolls, incomes, purchasing power, retail sales and trade, and the size of the tax base. Since industry had not previously exhibited anything but a weak and occasional inclination to locate manufacturing plants in small communities, state and local officials (1) launched promotional campaigns to focus attention on investment opportunities in their areas that might otherwise go unnoticed by business leaders and (2) designed a well-rounded package of inducements calculated to increase drastically the propensity to locate plant facilities in their states and communities.

It is evident that progressive community leaders in labor surplus areas (and elsewhere) have for some time adhered strongly to the belief that "buying payrolls" is a profitable community investment -- no other reason can explain the widespread use of local inducements and the intense efforts to obtain new industry.⁴ But while the economic benefits that new industry brings to a community are widely recognized, two other important benefits seem to have escaped the attention of most economists and policy makers.⁵

First, the presence of new industry and better jobs in a community fulfills the personal preferences of people who would rather remain in the community than be forced to move to another locality to find remunerative employment. As a consequence, the incidence of involuntary outmigration is diminished, along with its attendant disutilities of subjecting individuals who relocate to a pattern or style of life which they may view as eminently more disagreeable. The community's population growth becomes more closely tied to its innate attractiveness as perceived by current and prospective residents. Since the satisfaction which a person derives from the consumption of an item is usually influenced by the social and cultural environs within which it is consumed, the overall degree of total social satisfaction and total individual satisfaction can easily be increased by allowing individuals to exercise their personal preferences in choosing their place of residence.

Moreover, the influx of industry and jobs into a community also coincides with the personal preferences of retail merchants, bankers, lawyers, doctors, property owners, and so on who all stand to benefit from a prosperous community and who suffer when it declines. And, significantly, it is these groups who typically bear the brunt any local "subsidy" to acquire new industry. That the citizens of communities stand solidly behind offering inducements to industry is borne out by the overwhelming majorities at the polls in favor of industrial bond issues.⁶ In a society which prides itself on freedom of choice and individual initiative, the preferences of individuals and communities for new industry, and their preferences for the techniques by which they choose to attract it, must be respected unless they are clearly contrary to the vital interests of the nation as a whole. In the more formal terminology of welfare economics, Pareto-optimality requires the optimization of non-materialistic as well as materialistic preferences of individuals -- this point has been discounted or ignored entirely in most critiques of IAB's.

Largely ignored also has been the idea that IAB's can serve as a weapon for promoting a more rapid rate of industrialization and growth in underdeveloped parts of the nation. IAB's have been narrowly conceived as a device for combating unemployment and underemployment, but they are equally as well-suited for (1) eliminating wide differentials in incomes and living standards among sections of the nation and (2) producing a more even balance between the degrees of urban and rural development.

This latter efficacy of IAB's is fast becoming a significant social contribution. The "urban sprawl" and the "urban crisis" have their roots in the fact that metropolitan areas have long since passed the point of realizing economies of large-scale operation. The massive movement of people to the cities has, especially during the past ten years, run afoul of the basic economic principle of diminishing marginal returns. It should scarcely come as a surprise that the needs and living patterns of approximately 70 percent of the nation's populace

cannot be adequately or economically accommodated within the space of just over one per cent of the nation's land area. This should be obvious from the sky-rocketing costs of servicing the public needs in our major cities. At the same time, many rural areas find themselves with the opposite problems of too few jobs, inadequate payrolls, and a population and tax base too small to support high quality public services.

For the first time in the nation's history, responsible public officials are beginning to take note of the rather dubious benefits of further migration of people and industry to the cities. Former Secretary of Agriculture Orville Freeman noted that because there are only 100 jobs available in Countryside, U.S.A. for every 177 rural youth reaching working age, the march to the cities continues at the rate of about 500,000 to 600,000 a year and the problems of urban congestion are, therefore, compounded.⁷ He went on to urge that firms consider locating more of their plants in less urbanized areas so as to stem the assault on our cities. Even more recently the President's National Advisory Commission on Rural Poverty, the President's Commission on Civil Disorders, and the Advisory Commission on Intergovernmental Relations have dramatically documented the close ties between the exodus of persons from rural areas and the problems of urban congestion throughout the country.

All too often, rural migrants find little more economic opportunity in the cities than in the rural communities which they left, in spite of the widely-held hypothesis to the contrary. Welfare rolls in large cities contain a disproportionate number of rural migrants who seem to have simply transferred their burdens to the city governments from the rural governments. Large numbers of migrants find the urban style of life somewhat incomprehensible and quite unsatisfactory, as is witnessed by their frequent returns to native areas when budgets permit or when new job opportunities open up. It is hard to imagine that the congregating of rural migrants in urban ghettos represents material improvement over the standards of living of their rural counterparts. Actually, it is rather surprising that economists generally have not perceived this situation long ago and made appropriate recommendations; instead, many blindly persist (in the name of efficient resource allocation) in supporting policies that encourage the clustering of economic activity in a relatively few geographic locations.⁸

The Growing Popularity of Industrial Aid Bonds

During the 1960-1968 period, two factors combined to cause an enormous surge in the issuance of IAB's. The first was an increasing amount of competition among states and communities for new industry. The success of communities in Alabama, Arkansas, Georgia, Kentucky, Mississippi, and Tennessee in accelerating the process of economic development with IAB's propelled twenty-five states during the 1960's into passing legislation granting their local governments the privilege of issuing industrial revenue bonds. Communities in such states as Delaware, Iowa, Kansas, Missouri, Nebraska, New Mexico, Ohio, and Oklahoma began to be more aggressive in offering local inducements to industrial enterprises. Several communities found themselves forced to resort to industrial aid financing just to remain competitive with communities in the southern states.

Secondly, large corporations became concerned about the significant increases in the cost of borrowing in the capital market. The prime rate of interest reached modern all-time highs and interest rates on corporate bonds of six to eight per cent were not uncommon. In contrast, the low rates, relatively speaking, at which IAB's could be issued, combined with their growing marketability from an investor standpoint, were especially attractive to large, well-established firms desirous of undertaking an ambitious capital expansion program.⁹

As can be seen from Table 1, between 1959 and 1968 the number of reported issues rose from 88 to 212, an increase of 141 per cent, whereas the dollar volume of IAB's rose from an estimated \$32.4 million to an estimated \$1,806 million -- and increase of 5470 per cent.¹⁰ Six states -- Alabama, Arkansas, Georgia, Kentucky, Mississippi, and Tennessee -- accounted for almost 60 per cent of the

TABLE 1

THE VOLUME OF INDUSTRIAL AID BOND FINANCING IN
SELECTED STATES AND THE UNITED STATES
1956 - 1968

Year	United States		Alabama		Arkansas		Georgia		Kentucky		Mississippi		Tennessee		All other States	
	No. of	Dollar Amount (in \$1,000's)	No. of	Dollar Amount	No. of	Dollar Amount	No. of	Dollar Amount	No. of	Dollar Amount	No. of	Dollar Amount	No. of	Dollar Amount	No. of	Dollar Amount
	IAB Issues		IAB Issues		IAB Issues		IAB Issues		IAB Issues		IAB Issues		IAB Issues		IAB Issues	
1956	28	7,925	9	1,875	1	300	0	0	1	110	7	1,111	10	4,529	0	0
1957	31	7,490	4	968	0	0	0	0	1	180	13	3,211	10	2,281	3	850
1958	69	33,460	8	2,404	0	0	1 ^d	-	5	1,970	32	7,431	20	6,430	3 ^e	15,225 ^e
1959	88	32,378	14	3,553	11	2,876	1	-	5	10,400	27	6,715	29 ^a	8,634 ^a	1	200
1960	124	78,770	9	2,568	28	25,231	2	370	7	7,815	38	19,496	38 ^b	18,311 ^a	2	4,980
1961	111	106,879	18	30,578	24	15,608	2	1,340	2	4,000	28	6,763	34 ^b	31,590 ^b	3 ^e	17,000 ^e
1962	132	109,701	12	31,685	23	15,270	0	0	12	11,333	33	11,966	48 ^a	35,547 ^a	4	3,900
1963	143	189,693	24	24,748	31	51,280	8	10,565	8	53,595	29	15,750	36	25,305	7	8,450
1964	191	296,115	39	68,258	26	123,188	12	6,910	14	15,140	47	21,271	37 ^b	17,534 ^b	16	43,814
1965	180	295,390	38	158,640	28	36,335	12 ^d	3,580	24	21,840	33	30,545	31 ^a	23,054 ^a	14	21,396
1966	246	629,895	39	115,828	30	107,399	19 ^d	36,622	28	108,978	51	28,511	53 ^a	48,315 ^a	26	184,242
1967	228	1,387,651	42	239,640	22	84,677	15	123,270	32	161,405	38	162,155	12	87,910	67	528,594
1968	212	1,806,205	40	99,855	15	51,483	22	223,442	22	197,270	18 ^c	27,990 ^c	9	47,228	86	1,158,937
Totals	1,783	4,981,550	296	780,600	239	513,644	94	406,099	161	594,036	394	342,915	367	356,667	232	1,987,588

Sources: Alabama Business Research Council (Alabama issues)
Arkansas Industrial Development Commission (Arkansas issues)
Georgia Department of Industry and Trade (Georgia issues)
Kentucky Department of Commerce (Kentucky issues)
Mississippi Agricultural and Industrial Board (Mississippi issues)
Tennessee Executive Department, Staff Division for
Industrial Development (Tennessee issues)
Investment Bankers Association (All other states)

- (a) Figures do not include those projects that were cancelled.
(b) Figures do not include those projects that were cancelled or time extension certificates.
(c) Includes figures for Revenue Bonds only.
(d) Individual data for Brunswick Port Authority Issue is not disclosed.
(e) Figures include Puerto Rico's totals.

total dollar volume and 87 per cent of all the issues of IAB's during the 1956-1968 period. Among the states, Alabama has been the most prolific user of IAB's with 296 separate issues totaling \$780,600,000. Kentucky was next in line with 161 issues amounting to \$594,036,000 followed by Arkansas with 239 issues totaling \$513,644,000, Georgia with 94 issues of \$404,099,000, Tennessee with 367 issues totaling \$356,667,000 and Mississippi with 394 issues amounting to \$342,915,000.

Employment estimates of the manufacturing jobs directly associated with the IAB-financed firms were available only for Alabama, Arkansas, Georgia, Kentucky, and Tennessee. These indicate that during the 1956-1968 period, IAB's helped provide approximately 42,336 manufacturing jobs in Alabama, 42,637 jobs in Arkansas, 14,252 jobs in Georgia, 34,650 jobs in Kentucky, and 78,745 jobs in Tennessee. The five-state total for the 1956-1968 period was 212,620.

In Alabama during the 1956-1968 period, approximately 9.0 per cent of the reported 3,302 new plant and plant expansions were financed with IAB's. Such financing sponsored roughly 20.2 per cent of the capital investment in these facilities and about 20.3 per cent of the estimated manufacturing employment gains.¹¹ In Kentucky during the 1956-1968 period, IAB's financed 9.1 per cent of the new plants and plant expansions, were responsible for 33.2 per cent of the related gains in manufacturing employment, and accounted for 22.4 per cent of the capital investment in manufacturing facilities.¹² In both states the year-by-year proportions were considerably lower than the twelve-year averages in the early part of the period and considerably higher in the latter part of the period. Similar data for other states was not readily available.

Recent Developments in Industrial Aid Bond Financing

Prior to the onrush of major corporations in 1966 to finance new facilities with multi-million dollar issues of IAB's it was widely believed that firms attracted by IAB's were either "fly-by-night" outfits hopping from place to place in search of the "best deal" or else low-skill, low-wage firms, low-investment enterprises.¹³ "Respectable" firms, it was generally argued, were rarely influenced by the lure of IAB's and usually based their location decisions on traditional economic considerations.¹⁴ But when "blue-chip" corporations responded to the appeal of IAB's and began to construct expensive, modern facilities employing several hundred to a thousand or more persons in these southern states, the heretofore sporadic and disorganized resistance to IAB's coagulated almost overnight. Particularly were the negative aspects of IAB's relevant in the minds of those (1) who felt that their use by corporations clearly capable of using private financing channels was a major abuse of an already questionable privilege and practice of (2) who felt that without IAB's their states or communities would have been the site of these enviable facilities.

The Internal Revenue Service estimated the potential loss of tax revenues from this technique could reach \$1.5 billion by 1975 and the U.S. Treasury proposed that this "loophole" be closed. The Treasury was joined in its efforts to secure Congressional action by various special interest groups who for one reason or another felt that widespread use of IAB's was "unsound" public policy. It cannot be denied that some cause for alarm was legitimate, especially with respect to the "indiscriminate" use of IAB's by mature corporations quite able to expand with private sector capital.

The result was an amendment to the Revenue Control and Expenditure Act of 1968 limiting the federal income tax exemption on the interest income from IAB's to those issues of \$1,000,000 or less.¹⁵ Many states and local governments protested that this was an overly restrictive limit and with the aid of the Council of State and Local Governments, Congress was persuaded to modify its previous action. Under the present law there are two options: localities can provide firms with up to a \$1 million tax-exempt issue free of any restriction on total capital spending or they can provide firms with up to a \$5 million tax-exempt issue subject to the limitation that the recipient is limited to a capital spending

program of a total of \$5 million in any one location over a period of three years before and three years after the issue (if the firm is to sustain the tax-exemption on the interest income.).¹⁶

In addition to this new legislation, the Securities and Exchange Commission issued an administrative ruling requiring IAB issues over \$300,000 to be fully registered. This regulation adds significantly to the time and cost involved in floating industrial bonds.

In combination, these restrictions have severely curtailed the use of IAB's by either large or small corporations.¹⁷ No longer is the interest rate differential between corporate bonds and IAB's over \$5 million a cost-reducing factor and no IAB's exceeding the new Congressional limitations are known to have been issued. Similarly, large denomination IAB's are no longer attractive to tax-conscious investors or buyers of municipal bonds. Nor have small firms seen fit to rely upon IAB's to the degree they did before the limitations, mainly because the extra time and costs of SEC registration offset much of the savings from a lower interest rate.

The Need for an Assessment of the Social Value of IAB's

Given the flurry of restrictions placed upon IAB's, and the preferences of many communities for this technique, it is reasonable at this point to examine the validity of the criticisms that have been hurled at IAB's and the pros and cons of allowing IAB's to be used as a tool for regional economic development.¹⁸ Do they constitute a legitimate use of a so-called public privilege? Are they effective in influencing the location of new firms? Is a community actually better off because of the presence of new industry? Is it in the best interests of society to encourage by means of IAB's the movement of jobs to people as opposed to the more conventional policy of moving people to jobs? What kinds of firms are attracted by the prospect of gaining access to IAB-financing? Would the firms using these bonds have located in the community anyway?

Questions like these are not unique. Many statements of judgment have been made in attempts to respond to questions like those posed above, yet the record is all too lacking in objective statements of fact about the impact of IAB's. The paltry number of empirical studies on the whole gamut of industrial subsidies (including IAB's) unfortunately lead to conflicting conclusions and at the very time when accurate answers to the controversial issues raised by the usage of IAB's assume a very relevant posture.¹⁹ In the remainder of this paper, Alabama's experiences with IAB's will be examined (1) in an effort to bring further evidence to bear upon some of the controversial aspects of IAB's and (2) in the hope of helping reach a definitive conclusion regarding what, if any, limitations should be placed upon the use of such financing.

A Profile of Industrial Aid Bond Financing in Alabama

Communities in Alabama have displayed a strong propensity for relying upon IAB's to assist them in securing more jobs for their residents. This reliance increased notably during 1961 and especially throughout the 1964-1968 period. Table 2 presents the number, amount, average size, and median size of IAB issues in Alabama, along with the total, average, and median number of manufacturing jobs estimated to have been directly created for each year during the 1952-1968 period. The frequency of industrial aid financing increased during the last five years of the period, as did the dollar volume, the average and median size of IAB issues, and the number of jobs created directly. Part of these increases can be attributed to the decisions of the large, well-known corporations to turn to IAB's as a means of escaping rising interest rates and tight money conditions in the corporate bond market, whereas part of the increases stemmed from a broad-based desire of firms of all sizes to take advantage of the cost-reducing features of IAB's.

Table 3 provides a breakdown as to the size of the industrial bond issues

TABLE 2

NUMBER, AMOUNT, AVERAGE SIZE, AND MEDIAN SIZE OF INDUSTRIAL
AID BOND ISSUES IN ALABAMA, WITH EMPLOYMENT CREATED, BY
YEAR, 1952 - 1968

Year	Number of IAB issues	Dollar Volume of IAB's			Employment Created		
		Amount	Average Size of Issue	Median Size of Issue	Total Number	Average No. of Jobs per issue	Median jobs per issue
1952	2	\$ 1,410,000	\$ 705,000	\$ 705,000	375	187	187
1953	2	319,000	159,500	159,500	200	100	100
1954	2	223,000	111,500	111,500	125	62	62
1955	6	3,145,000	524,200	222,000	950	158	150
1956	9	1,875,000	208,300	200,000	1,575	175	100
1957	4	968,000	242,000	177,000	285	71	87
1958	8	2,404,000	300,500	205,000	1,155	144	120
1959	14	3,553,000	253,800	162,500	1,745	125	145
1960	9	2,568,000	285,300	225,000	890	99	100
1961	18	30,578,000	1,698,800	206,500	1,660	92	75
1962	12	31,685,000	2,640,400	345,000	1,760	147	62
1963	24	24,748,000	1,031,200	280,000	4,636	193	150
1964	39	68,258,000	1,750,200	245,000	3,828	98	50
1965	38	158,640,000	4,174,700	387,500	6,848	180	125
1966	39	115,828,000	2,969,900	510,000	4,329	111	75
1967	42	239,640,000	5,705,700	517,500	7,505	179	90
1968	40	99,855,000	2,459,900	550,000	4,470	111	100
	308	785,697,000	2,551,000	350,000	42,336	137	100

TABLE 3
 SIZE, NUMBER, AND AMOUNT OF INDUSTRIAL AID BONDS ISSUED IN ALABAMA, WITH EMPLOYMENT CREATED,
 1952-1968

Size of Industrial Aid Bonds	Number of Issues	Per Cent of Total	Amount Issued	Per cent of Total	Number of Jobs Created	Per cent of Total
less than \$50,000	17	5.5	\$ 564,000	0.1	491	1.2
\$50,000 to \$99,000	15	4.9	\$ 1,088,000	0.1	942	2.2
\$100,000 to \$249,999	78	25.3	\$ 12,245,000	1.6	7,476	17.6
\$250,000 to \$499,999	77	25.0	\$ 26,291,000	3.4	11,087	26.2
\$500,000 to \$999,999	57	18.5	\$ 36,989,000	4.7	8,130	19.2
\$1,000,000 to \$4,999,999	44	14.3	\$ 87,220,000	11.1	6,385	15.1
\$5,000,000 to \$9,999,999	5	1.6	\$ 27,800,000	3.5	550	1.3
\$10,000,000 to \$24,999,999	6	2.0	\$100,000,000	12.7	3,600	8.5
\$25,000,000 and over	<u>9</u>	<u>2.9</u>	<u>\$493,500,000</u>	<u>62.8</u>	<u>3,675</u>	<u>8.7</u>
TOTALS	308	100.0	\$785,697,000	100.0	42,336	100.0

in Alabama. Just over one-half (50.3 per cent) of all the IAB's issued were for amounts in the \$100,000 to \$499,999 range. Only 32 were for less than \$100,000. Forty-four issues ranged in size from \$1,000,000 to \$4,999,999. Given that Congress has revoked the tax-exempt status of all industrial aid bonds of more than \$5,000,000, it is significant that only 20 issues (6.5 per cent of the total) were for amounts of \$5,000,000 or more. However, these 20 issues combined accounted for \$621,300,000 or 79.0 per cent of the \$785,697,000 issued during the entire 1952-1968 period and for 7,825 manufacturing jobs (18.5 per cent) of the total 42,336 jobs created. Moreover, they represented roughly three-fifths of the new capital-intensive, higher-skill, higher-wage paying firms that have decided to locate new plant facilities in the State since 1960. Thus while the Congressional limitations placed upon IAB's are likely to have negligible impact numberwise, as a proportion of the State's major new industry, the limitations are highly significant.²⁰

Approximately 212 different firms have participated in 308 known cases of IAB-financing in Alabama during the 1952-1968 period. Of these 212 firms, 148 have been involved in only one IAB issue, 39 firms have participated in two issues, and 25 firms have used IAB's three or more times. As many as 46 of the 212 firms could be classed as "nationally known" since their common stock is traded on either the New York or the American Stock Exchanges, 30 of the firms are more or less "regional" operations with plants in at least one state other than Alabama, and 136 are primarily "state and local" firms with offices and plants based in Alabama (although nearly all sell their products in interstate commerce). The 46 "national" firms accounted for \$657,000,000 of the \$785,697,000 (83.5 per cent) IAB's issued and 18,418 of the 42,336 (43.5 per cent) jobs which were estimated to have been created. The 30 "regional" firms spent \$70,712,000 (9.0 per cent) for IAB-financed facilities and were responsible for 5,910 (14.0 per cent) of the estimated 42,336 jobs. The 136 "state and local" firms trailed in expenditures with \$57,985,000 or 7.4 per cent of the total, but still managed to account for 18,008 (42.5 per cent) of the 42,336 jobs.

From these figures it is abundantly clear that the "national" firms were, in general, constructing capital-intensive facilities whereas the "state and local" plants were more labor-intensive oriented. "National" firms, for example, invested an average of \$35,700 in capital facilities per job created whereas the investment of "state and local" firms came to only \$3,220 per job. It follows that the wage rates paid to the workers in the "national" firms is probably significantly higher than the wage rates in the "state and local" firms because of the higher labor productivity usually associated with capital-intensive production technology. Furthermore, the "national" firms are making a major contribution to the State's development because they are the primary source of expanding job opportunities for skilled workers. At this stage of Alabama's economic development, an overall upgrading of employment opportunities is a prerequisite for raising per capita real incomes rapidly enough to someday attain parity with the national average.

When the firms using IAB's were segregated according to their respective two-digit Standard Industrial Classifications, several noteworthy aspects of IAB-financing become apparent (see Table 4). Far and away the most frequent users of IAB's in Alabama were apparel producers -- together they accounted for 82 of the 308 issues (26.6 per cent). The next most frequent users were fabricated metal firms (31 issues), textile mills (29 issues), food products firms (26 issues), and firms producing transportation products (23 issues). All together, the top six industry users accounted for 214 of the 308 known issues.

On a dollar basis, the picture changes dramatically. Expenditures of firms in the lumber and paper products industries (SIC's 24 and 26) far outpaced all other categories with 23 issues totaling \$321,006,000 -- six ultra-modern pulp and paper plants ranging in cost from \$23 - \$85 million were responsible for the high dollar volume. Next in dollar volume comes primary metals with issues of \$166,320,000 -- \$157,000,000 of which is due to the construction of an aluminum reduction mill and an aluminum rolling mill by R vere Copper and Brass. Two new

TABLE 4

NUMBER, AMOUNT, AVERAGE SIZE, AND MEDIAN SIZE OF INDUSTRIAL AID BOND ISSUES IN ALABAMA,
WITH CORRESPONDING EMPLOYMENT, BY STANDARD INDUSTRIAL CLASSIFICATION, 1952 - 1968

Standard Industrial Classification	No. of IAB issues	Dollar Volume of IAB's			Employment Directly Created		
		Total Amount	Average Size of Issues	Median Size of Issues	Total No. of Jobs	Average No. of Jobs	Median No. of Jobs per issue
20 - Food and kindred products	26	\$ 16,074,000	618,200	522,000	3,140	121	67
21 - Tobacco manufacturers	1	175,000	175,000	-	100	100	-
22 - Textile mill products	29	43,208,000	1,489,900	500,000	3,200	110	100
23 - Apparel	82	22,573,000	275,300	200,000	15,150	185	150
25 - Furniture and fixtures	6	1,789,000	298,200	212,500	573	96	89
24 & 26 - Lumber, pulp, paper, and allied products	23	321,006,000	13,956,800	3,000,000	3,258	142	50
27 - Printing and publishing	4	3,100,000	775,000	275,000	270	68	50
28 - Chemicals and allied products	8	33,020,000	4,127,500	362,500	655	82	50
29 - Petroleum refining	1	400,000	400,000	-	15	15	-
30 - Rubber and misc. plastics	9	93,245,000	10,360,600	800,000	2,502	278	200
31 - Leather and leather products	3	1,400,000	466,700	350,000	650	217	75
32 - Stone, clay, and glass products	7	7,685,000	1,097,900	800,000	560	80	50
33 - Primary metals	8	166,320,000	20,790,000	3,500,000	990	124	72
34 - Fabricated metals	31	22,043,000	711,100	425,000	3,297	106	90
35 - Nonelectrical machinery	18	12,188,000	677,100	371,500	1,405	78	50
36 - Electrical machinery, equipment and supplies	5	19,265,000	3,853,000	300,000	2,193	439	80
37 - Transportation products	23	11,295,000	491,100	341,000	3,295	143	150
38 - Professional and scientific instruments	2	700,000	350,000	350,000	470	235	235
39 - Miscellaneous	22	10,211,000	464,100	260,000	613	28	15
	308	\$785,697,000	2,551,000	350,000	42,336	137	100

tire plants, one built for Uniroyal and one under construction for Dunlop Tire, caused the rubber and plastics category to be third in dollar volume with \$93, 245,000.²¹

With two exceptions the vast majority of issues in all the remaining two-digit SIC's have been of modest size. This is borne out by the average size and median size of the bond issues for each of the industry groupings (see Columns 4 and 5 in Table 4). Taking all 308 issues together, the average size has been \$2,551,000 whereas the median size is \$350,000. The wide discrepancy between these two statistical measures of central tendency is explained by the 20 issues of \$5,000,000 and over which pulled the arithmetic mean well above the median value.

From the standpoint of employment created, the apparel industry again leads by a wide margin, having produced 15,150 or 35.8 per cent of the estimated 42,336 jobs. Trailing far behind with almost equal contributions to employment were fabricated metals producers (3,297 jobs), makers of transportation equipment (3,295 jobs), lumber and pulp and paper plants (3,258 jobs), textiles (3,200 jobs), and food products firms (3,140 jobs). All industries combined, the average number of jobs created per bond issue was 137 and the median number of jobs created per issue was 100.

One of the criticisms sometimes voiced against the use of IAB's is that "footloose," marginal, firms and low-wage, low investment firms are usually attracted by such inducements and that communities stand in danger of finding themselves with empty facilities which cannot be re-rented.²² A far more accurate observation would be that extremely desirable firms are attracted by IAB's. A survey of the firms using IAB's in Alabama (and in other states) revealed no dichotomy between the relative desirability of IAB-financed enterprises and firms willing and able to "pay their own way."²³ Of the 212 firms using IAB's in Alabama, as many as sixteen are thought or known to be no longer in business. In six of these cases the facilities have been re-rented with at worst only minor pauses in loss of revenue. In two cases, both involving general obligation issues, the communities have experienced serious difficulty in meeting the bond repayment schedule; one community was forced to levy a one-cent sales tax to raise the necessary funds for amortization of the bonds.²⁴ In the remaining eight situations it is not known whether the facilities have been re-rented or not, but in six of the eight affected communities revenue bond issues were involved. Hence whatever default may have been involved fell upon the bondholders rather than upon the communities. The dollar amounts of the 16 issues where the initial lessee discontinued operations amounted to less than 0.5 per cent of the total \$785,697,000 issued. Hence, it is clear that the instances in which IAB-financed firms have failed or were in some way unsatisfactory are not more numerous than among conventionally-financed enterprises.

A Profile of the Alabama Communities Using IAB's to Recruit New Industry

A total of 95 Alabama municipalities issued at least one industrial aid bond in the 1952-1968 period. Eight communities acquired more than 1,000 new manufacturing jobs via IAB-financing; 22 communities realized gains of 500 to 1,000 jobs; 34 communities realized job gains in the 200 to 500 range; and 31 communities acquired less than 200 jobs.

Grouping the 95 communities according to their 1960 population sizes revealed that a large proportion of the activity in IAB-financing transpired in communities (geographically located outside SMSA counties) with less than 10,000 persons in 1960 (Table 5). Of the 308 separate issues of IAB's during the period 1952-1968, 172 were issued by non-SMSA communities of less than 10,000 persons; together these issues accounted for 67.2 per cent of the \$785,697,000 total and for 54.9 per cent of the 42,336 jobs estimated to have been directly created. The six metropolitan areas of Alabama participated to a far less degree in IAB-financing than might have been anticipated from their population and economic influence. Communities in the six Alabama SMSA's accounted for 17.9 per cent of the 308 IAB issues, 11.0 per cent of the \$785,697,000 issues for new and expanded

TABLE 5
NUMBER AND AMOUNT OF INDUSTRIAL AID BONDS ISSUED
IN ALABAMA WITH EMPLOYMENT CREATED,
BY SIZE OF COMMUNITY
1952-1968

Community Classification (1960 Census)	Issues		Dollar Volume		Estimated Jobs Created	
	Number	Per Cent of Total	Amount	Per Cent of Total	Number	Per Cent of Total
0-2,499 population but not in an SMSA (n=30)	56	18.2	\$237,337,000	30.2	7,411	17.5
2,500-4,999 population but not in an SMSA (n=22)	62	20.1	\$ 42,921,000	5.5	8,200	19.4
5,000-9,999 population but not in an SMSA (n=15)	54	17.5	\$247,958,000	31.5	7,620	18.0
10,000 + population but not in an SMSA (n=12)	81	26.3	\$170,938,000	21.8	10,717	25.3
All communities located in SMSA designated Counties* (n=19)	55	17.9	\$ 86,543,000	11.0	8,388	19.8
	308	100.0	\$785,697,000	100.0	42,336	100.0

*Alabama contains six Standard Metropolitan Statistical Areas as follows:

- (1) Madison and Limestone Counties (the Huntsville area),
- (2) Etowah County (the Gadsden area),
- (3) Jefferson, Walker, and Shelby Counties (the Birmingham area),
- (4) Tuscaloosa County (the Tuscaloosa area),
- (5) Montgomery and Elmore Counties (the Montgomery area),
- (6) Mobile and Baldwin Counties (the Mobile area).

plants, and 19.8 per cent of the 42,336 jobs estimated to have been created. If the Madison-Limestone SMSA (the Huntsville area) is removed from the SMSA totals, the activity in IAB's reduces to 45 issues (14.6 per cent), \$37,731,000 (4.8 per cent), and 4,550 jobs (10.7 per cent). Plainly, the more urbanized areas of Alabama (the Huntsville area excepted) have relied less upon IAB's as an industry-recruiting device than have other communities.²⁵ Normally, of course, the inherent locational advantages of urban areas are sufficiently strong to allow them to secure the industry they want without resorting to the use of local concessions. Interestingly enough, however, an analysis of new plant locations and plant expansions in Alabama during the 1960-1967 period clearly indicates that with the exception of Huntsville, the metropolitan areas of Alabama have all lagged well behind the less urbanized areas of Alabama in terms of manufacturing rates of growth and the securing of new industry.²⁶

Highlights of a Survey of Business Firms Using IAB's in Alabama

In an effort to bring more evidence to bear upon the wisdom of IAB-financing, a questionnaire was sent out in October, 1968 to the chief executive officers of 135 business firms using IAB's in Alabama. Fifty-four firms returned questionnaires completed to a degree that made their replies usable, although several of these firms did not answer every question. These 54 firms are leasing 61 different plants and are responsible for 80 of the 308 total bond issues, \$333,515,000 of the total \$785,697,000, and 10,588 of the estimated 42,336 jobs associated with IAB-financed firms in Alabama. Each two-digit manufacturing classification except tobacco products (SIC 21), leather products (SIC 31), and stone, clay and glass products (SIC 32) was represented in the 54 replies; the three categories not represented had a combined total of only 11 issues. On the basis of these proportions, it seems fair to conclude that the 54 replies constituted a representative sample of the firms using IAB's in Alabama.

The firms responded to two questions pertaining to the major factors influencing the selection of the actual plant site. In reply to the question as to which three factors were most important in determining whether they located within Alabama,

- 7 firms (13 per cent) were influenced by Alabama's tax structure
- 23 firms (43 per cent) were motivated by access to product markets
- 14 firms (26 per cent) were drawn to supplies of raw materials
- 27 firms (50 per cent) indicated appropriate plant sites were a major factor
- 12 firms (22 per cent) felt drawn by the attractive environment created for industry by State leaders
- 38 firms (70 per cent) were influenced by the availability of industrial aid bond financing
- 31 firms (57 per cent) found the available labor supply attractive
- 4 firms (7 per cent) took over existing plants.

These responses do not exactly validate the results of studies claiming that state and local inducements to industry are not primary considerations in site selection.²⁷ Given that the availability of IAB-financing was checked more frequently than any other factor (38 of the 54 respondents ranked IAB-financing no lower than third in order of importance) and given that in recent years about one-sixth of all new plants and plant expansions announced in Alabama have been financed with IAB's, it would appear that IAB's are viewed as quite relevant and perhaps a decisive marginal factor by as many as 10 per cent of the firms locating new plants in Alabama. True this is a relatively small proportion of firms number-wise, but from the standpoint of capital investment and employment their influence is scarcely so "inconsequential." Together these 38 firms have invested \$318,052,000 via IAB's and have provided 7,293 manufacturing jobs. Nevertheless, it is clear that for IAB's to be effective, collateral influences such as market access, available labor, and suitable plant sites must be present in sufficient degree. By itself IAB-financing would obviously be a weak attraction as its cost-reducing features would be dwarfed by the whole host of other locational determinants.

Secondly, the reasons for selecting a particular community in Alabama were probed. With each firm being asked to indicate the three most important factors

it was found that

- 10 firms (19 per cent) based their decision to locate on the availability of essential utilities (electricity, gas, water)
- 14 firms (26 per cent) were influenced by the appropriateness of specific plant sites
 - 1 firm (2 per cent) was motivated by the local tax structure
- 28 firms (52 per cent) looked for the best all-around supply of labor
- 17 firms (31 per cent) were drawn by easy access to markets for their products
- 12 firms (22 per cent) sought a supply of raw materials
- 8 firms (15 per cent) considered the availability of essential transportation facilities
- 33 firms (61 per cent) searched for willingness of local governments to use IAB-financing
 - 12 firms (22 per cent) were motivated by the community's environment
- 18 firms (33 per cent) were interested in willingness of local governments to furnish plant sites, build access roads, extend utility services, etc.

Again these responses leave little room for doubt that local inducements (both IAB-financing and other local considerations) influenced the selection of the actual plant site. Of the 33 firms seeking IAB-financing, eight firms indicated this was the single most important factor in selecting an Alabama community, 14 firms indicated IAB's were the second most important consideration, and 11 firms had IAB's as the third most important factor. It is significant that those firms placing a high rating upon the availability of IAB-financing included 15 of the 19 so-called "national firms" which responded to the questionnaire. Thus the frequent observation that only marginal, "fly-by-night" firms are most likely to be influenced by local inducements does not apply in Alabama's case.

An additional indicator that IAB's are truly an effective influence upon locational decisions was the response of the firms to the question of whether their facilities would have been located in Alabama had IAB-financing not been available:

- 5 firms (9 per cent) said "definitely not"
- 11 firms (20 per cent) replied "probably not"
- 15 firms (28 per cent) were "uncertain"
- 16 firms (30 per cent) indicated that they "probably" would have come to Alabama anyway
- 7 firms (13 per cent) indicated that they "definitely" would have built their plants in Alabama without IAB-financing

Numberwise, only 29 per cent of the responding firms indicated they either "definitely" or "probably" would have located their plants outside Alabama in the absence of IAB-financing, but these 16 firms accounted for 79.5 per cent of the \$333,515,000 in IAB's issued for the 54 respondents and 42.6 per cent of the 10,588 jobs they were estimated to have produced. The 15 firms which were "uncertain" as to whether they would have located their facilities in Alabama invested \$40,015,000 (12.0 per cent of the total) in plant facilities via IAB's and created 27.1 per cent of the estimated 10,588 jobs. The 23 firms which indicated that they "probably" or "definitely" would have located in Alabama anyway accounted for \$28,540,000 in IAB's (8.5 per cent) and 30.3 per cent of the 10,588 jobs. If the sample of 54 firms is indeed representative of the population of firms using IAB-financing in Alabama, then while perhaps as many as 65 to 75 per cent of the 212 firms would have located in Alabama without the inducement of IAB's, those "lost" would include a very high proportion of the "blue-chip," capital-intensive firms needed to boost Alabama's low per capita incomes and to provide the impetus for further economic expansion. Without these 60 or so firms and the roughly 17,000 jobs they created, Alabama residents would currently lose about \$100,000,000 in wage and salary income, ignoring completely any multiplier effects. Per capita incomes in Alabama would be 1 to 2 per cent lower at a time when they are already over \$1,000 below the national average in 57 of Alabama's 67 counties. Furthermore, by conservative estimate, state and local tax revenues are between \$4 and

\$5 million greater because of the \$100 million in income. Property tax exemptions on the \$785,697,000 in plant facilities, of course, offset much of this gain in State and local tax revenues, making the revenue impact upon state and local treasuries a virtual standoff (again ignoring multiplier effects). The maximum revenue loss to the U. S. Treasury on the entire \$785,697,000 approximates \$18 million, given the liberal assumptions that the average interest rate is 6 per cent, that the entire \$785,697,000 is outstanding, and that the marginal tax rate on the interest income is 40 per cent. These rather crude estimates suggest that on balance the annual rate of return to Alabama and to the U. S. from using IAB's is extremely favorable considering the related increases in employment, incomes, and living standards.

Alabama's experiences with IAB's is contrary to the view expressed by some observers who have challenged the rationality of local subsidies on grounds that new industry can have an unfavorable impact upon local government expenditures and revenues.²⁸ Cumberland and Van Beek, for example, strongly imply that less developed communities should be highly selective in recruiting new firms lest (1) the new industry place heavy demands upon the public sector and (2) the quality of the environment deteriorate because of water and air pollution, elimination of open space, and generation of noise and congestion.²⁹ On the surface these points might seem valid and appealing, but closer examination reveals important weaknesses. First, the same cautions apply equally to highly developed areas; in fact, highly developed areas are more likely to suffer from water and air pollution, noise, congestion and lack of open space than are less developed areas. Secondly, public facilities in less developed areas are often sub-par relative to national standards; they usually need to be improved both from the standpoints of quantity and quality. An injection of new industry, should it overload existing facilities, can act as the catalyst for making needed improvements in social overhead capital. Only in rare instances would a less developed community encounter more serious financial difficulty in trying to upgrade its public facilities with new industry than without new industry. Finally, the gains in employment, incomes, and living standards provided by new industry are a more important consideration than whatever adverse fiscal impact might be imposed upon the local government.

The Benefits of IAB-Financing to Industry

Since many critics of IAB-financing maintain that the savings which accrue to the users of IAB's are inconsequential or immaterial, several of the possible financial considerations underlying the decisions of firms to so finance their facilities were investigated.³⁰

Regarding whether IAB-financing was the only feasible or satisfactory means of constructing their company's facilities at the particular time they were built, 25 firms responded "yes" and 29 firms said "no." The twenty-five replying "yes" represented IAB's totaling \$106,244,000 (31.9 per cent) and an estimated 4,520 jobs (42.8 per cent). Of the 36 issues participated in by these 25 firms, 17 were for amounts less than \$500,000, eight were for amounts in the \$500,000 to \$999,999 range, and 11 were for amounts in excess of \$1,000,000. The fact that over half of these 36 bond issues (for the 25 firms replying that IAB's constituted the only satisfactory or feasible financing plan) amounted to over \$500,000 each casts some doubt upon the hypothesis that those firms really needing IAB's tend to be small, marginal firms unable to borrow from conventional sources. If the replies accurately portray their financial plight, then apparently larger, more well-established concerns on occasions find themselves in the position of needing additional sources of capital -- 10 of these 25 firms indicating need of IAB's were among the so-called "nationally-known" corporations.

Two queries were directed towards the nature and amount of cost reductions accruing to the industrial users of IAB's. The first concerned simply the type or source of any cost reduction, while the second question called for a quantitative estimate of the percentage amounts associated with each source. All 54 firms responded to the first question, but only 18 replied to the second question, presumably because of lack of information.

The two most frequently realized types of cost-saving from IAB's stems from lower interest costs on IAB's (81.5 per cent of the firms) and from state and local tax exemptions (74.1 per cent of the firms). Slightly less than half of the respondents indicated that their firms benefited from lower corporate profits taxes due either to considering the leasing charges as an operating expense or to amortizing the bonds at faster rates than currently permitted by various depreciation schedules. These findings are to be expected given the inherent mechanics of IAB-financing.

The results presented in Table 6 provide a rough estimate of how the total cost savings can be allocated among the various categories. However, Table 6 must be interpreted with extreme caution as (1) there was a wide diversity in the response of the 18 firms who answered this question and (2) it was apparent that several of the respondents gave "off-the-cuff guesses" rather than an accurate measure of the actual cost-savings allocation.

Not surprisingly, the cost reductions associated with lower interest charges and property tax exemptions loomed as the two biggest contributors to the overall lower costs of the IAB-financing plan. A more detailed analysis of the results in Table 6 revealed that the nine firms responding to this question who had participated in IAB issues of more than \$1,000,000 reported an average of 52 per cent (range -- 25 to 90 per cent) of their savings from IAB-financing was associated with the lower interest charges; the nine firms who participated in IAB issues of less than \$1,000,000 indicated an average savings of only 30 per cent from lower interest rates. The firms involved in issues over \$1,000,000 also indicated slightly greater percentage savings from property tax avoidance than did the firms with issues less than \$1,000,000 -- 26 per cent compared to 17 per cent. On the other hand, the firms associated with issues of less than \$1,000,000 generally indicated greater percentage savings from lower corporate profits taxes than did the firms associated with issues larger than \$1,000,000 as follows:

an average of 24 per cent to 8 per cent on the share of corporate tax savings from having the leasing charges appear as an operating expense

an average of 17 per cent to 0 per cent on the share of corporate savings from more rapid amortization schedules.

As might be anticipated, the percentage breakdowns of the cost savings of IAB-financing imply that large, well-established firms get the majority of their cost benefits from the lower interest rates on IAB's; a reduction of 1 to 2 percentage points produces substantial savings on a multi-million dollar bond issue.³¹ For example, the differential interest costs on a \$10,000,000 bond issue amounts to between \$100,000 and \$200,000 annually until the principal is substantially reduced. The larger the issue, the more significant the savings on financing become. Hence it is not difficult to understand why firms wanting to build multi-million dollar plants are attracted to IAB's. It also follows that since Congress has now limited the tax-exempt feature of IAB's over \$5,000,000, the motivation of business firms to employ IAB's in ventures costing more than this has been largely destroyed (given that the savings on interest costs actually amount to one-half or more of the total savings from using IAB's).

As a further check on the specific reasons why business firms were drawn to IAB-financing, each respondent was asked to indicate the three major factors which influenced its decision to use IAB's. Their answers were as follows:

39 firms (72 per cent) indicated that at the time that the facilities were built, industrial aid bonds offered the easiest and most convenient way to finance the new facilities insofar as their firm was concerned.

26 firms (48 per cent) were influenced by the fact that the lower interest rates on industrial aid bonds provided substantial savings to their firms in financing the facilities.

TABLE 6

AVERAGE, MEDIAN, AND RANGE OF PER CENT OF TOTAL SAVING FROM IAB
FINANCING, BY TYPE OF COST REDUCTION
(n=18)

Type of Cost Saving	Average Percentage (n=18)	Median Percentage (n=18)	Range
Lower corporate profits taxes stemming from the fact that leasing charges appear as an operating expense	17	5	0-60
Lower corporate profits taxes arising from amortizing the IAB's at a rate faster than depreciation allowances would have been had the firm owned the facilities	8	0	0-50
Lower interest costs associated with IAB's	41	40	0-90
Property tax exemptions	21	15	0-80
Exemptions from State and local sales and use taxes in building and equipping the plant.	13	13	0-30

- 16 firms (30 per cent) said ~~it was~~ not feasible for their firm to obtain financing by conventional channels (banks, sale of bonds or stock), thus they resorted to industrial aid bonds as the primary source of funds.
- 18 firms (33 per cent) were motivated by the fact that the leasing charges appeared as an operating expense and thereby provided substantial savings on corporate profits taxes.
- 17 firms (31 per cent) were influenced by the exemptions from local property taxes which provided them substantial savings.
- 13 firms (24 per cent) were prompted by exemptions from State and local sales and use taxes in building and equipping the plant because these provided substantial savings.
- 25 firms (46 per cent) were motivated by the advantage they gained from having someone else put up the money for the facilities while their firms gained in earning power, production, and efficiency.

Significantly, of the 28 firms which were not motivated to use IAB's because of the lower interest costs, only 4 were involved in issues of more than \$1,000,000. Of the 16 firms indicating that one of the three major reasons why they used IAB's was because it was not feasible for them to obtain conventional financing, only 4 were involved in single issues of as much as \$750,000, thereby indicating that IAB's do in fact serve to provide credit to firms unable to obtain it elsewhere. The proportional response to this question indicates that perhaps as many as 20 per cent of the users of IAB's may have been unable to finance their facilities in a conventional manner.³²

Twenty-five of the 54 responding firms indicated one of the three major reasons for using IAB's was that "someone else put up the money for the facilities while the firm gained in earning power from their production and efficiency." This suggests that a major consideration in electing to use IAB-financing was the desire to conserve the firm's capital resources for supporting other aspects of the firm's operations. Since 17 of the 25 participated in bond issues during the 1965-1968 period, it is not unreasonable to presume that the tight money conditions prevailing for much of this 3-year period greatly contributed to the need for a careful rationing of capital resources, thereby accounting for a large proportion of the increases in the use of IAB's during this period.

A standard complaint of conventionally financed firms is that the use of IAB's by rival firms places them (non-users) at a competitive disadvantage. Only 14 users of IAB's said definitely that they felt they had acquired a competitive advantage over non-users of IAB's; 10 firms replied "probably;" another 10 were "uncertain;" 24 said "probably not;" and 6 indicated "definitely not."

Actually it is not likely that any important competitive advantage derives from the use of IAB's. This is because the total savings from IAB's, when spread over the number of units of output, will in all probability reduce unit costs only by a minute fraction, thereby itself causing no deviation in price. Some critics, noting this, have then leaped to the erroneous conclusion that the cost savings accruing from IAB-financing are not going to influence locational decisions.³³ The error in their reasoning originates in the fact that while unit costs and price may indeed remain unaffected, profits may be enhanced by quite perceptible amounts. For example, suppose that a firm saves \$100,000 annually on IAB-financed facilities, produces 500,000 units of its product, has annual sales of \$15,000,000, sells its product at an average price of \$30 per unit, and earns pre-tax profits of \$750,000 (including the IAB savings). If the firm elects to apply the entire IAB savings of \$100,000 to reducing its price, then it could cut price by \$.20 to \$29.80 -- a decline of only .67 per cent and not likely to gain the firm any important competitive advantage. Sales would have to rise to almost 570,000 units before a price reduction of \$.20 would return profits to their previous level of \$750,000 (assuming constant marginal costs); this would require

that the coefficient of price elasticity assume the unlikely value of (-)20. Hence a rational profit-maximizing firm in all probability will not use the savings on IAB's to reduce its price, but rather will prefer to apply them to widening profit margins. The \$100,000 savings if applied to profits will raise them 15.4 per cent (\$650,000 to \$750,000) -- an increase of rather considerable proportions and an amount which both management and stockholders would no doubt view quite favorably. Although oversimplified, the numerical illustration should suffice to indicate why the cost savings from IAB's are likely to have little impact upon a firm's unit costs and price, yet how such savings, nevertheless, influence profitability to such a degree that IAB's can become a relevant factor in industrial location decisions.

Implications for Using IAB's As A Means of Achieving Balanced Regional Economic Development

Using IAB's to foster balanced regional economic development would undoubtedly distress a great many economists and policymakers -- at least initially. Without dispute, they entail several negative side effects. IAB's involve a modest loss of federal tax revenues (less than .1 per cent) through the exemption on the interest income and a loss of property tax revenues by local governments. They constitute a "subsidy" of sorts to private industry. Their extensive use conceivably can cause interest rates on municipal bonds to be several tenths of a percentage point higher, given tight money conditions. No decision procedure exists for communities to use in differentiating between when local inducements are necessary to attract a desired enterprise and when such offers have no decisive influence and are just "frosting on the cake." Other weaknesses, both real and imaginary, could be cited.³⁴ Yet it is by no means apparent from the experiences with IAB's in Alabama and elsewhere that the combined impact of all the legitimate criticisms justifies condemning IAB's.

In the first place, states and their local governments should be encouraged -- not discouraged -- to attack problems of economic stagnation and underemployment. Despite concerted efforts to upgrade education, to provide job training, to build more attractive communities, and to institute celebrated regional development projects, some areas and communities will always be relatively underdeveloped, lacking in job opportunities, and deficient in essential public services. Where this occurs, communities desirous of improving local conditions can employ IAB's to recruit industry and jobs and thereby get an inexpensive economic transfusion. In fact because IAB's are inexpensive, local communities can afford to use them. Distress signals for more money or new programs need not be sent either to the state capital or to Washington in such volume as is the case with the other "cures" which have been proposed.

Secondly, the experiences of the six southern states which have employed IAB's extensively clearly indicates, in ~~my~~ opinion, that IAB's make a major contribution to the process of economic development. IAB's are ideal as a lubricant for overcoming market frictions and for circumventing growth inhibiting institutional arrangements. They are suitable catalysts for spurring industrialization and accelerating community development, thereby materially reducing the length of time it takes less developed areas to achieve income parity and full employment. The types of industry induced by IAB's to locate in less developed areas and communities provide a solid base from which to launch a sustained program of economic improvement. Without these firms, alternative developmental efforts are almost surely to meet with less success.

Thirdly, regional economists have long heralded the value of education, job training, adequate public facilities, regional and area planning, and developmental projects such as TVA, the Appalachian Program, and so on which supposedly furnish depressed areas with the infrastructure of public facilities needed to induce the location of new industry. These are, of course, valuable where bottlenecks in the development process exist; but their contribution to development is overrated. There are indeed few instances in which industry has swarmed to an area just because so-called "bottlenecks" have been eliminated. Again the

Appalachian program is a case in point. A ranking of the relative importance of locational factors by industrial concerns will, more often than not, result in IAB's being rated higher than the adequacy of a community's public facilities (social overhead capital). In other words, IAB's offer localities a far higher expected rate of return per dollar expended for developmental efforts than does the familiar array of community improvement proposals. There is a strong presumption that the rate of return to both state and federal governments per revenue dollar "lost" from the use of IAB's is very high also -- almost certainly higher than from the dollars allocated to building an "adequate" infrastructure of social and economic overhead capital.

Fourth, to the extent that IAB's produce more effective resource utilization, benefits may accrue to the national economy as well as to local and regional economies. According to Ralph Gray, when "labor is immobile with respect to wages, employment and real income in the economy as a whole will be expanded in a manner consistent with the requirements for optimum resource allocation regardless of the financing techniques employed by the community," and where "labor is mobile with respect to wages, employment and income will rise but the spatial distribution of resources will be inconsistent with the requirements for optimum resource allocation."³⁵ Since the labor force in many of the communities using IAB's is often relatively immobile, then, contrary to popular opinion among academic economists, IAB-financing may actually facilitate the achievement of optimum resource allocation.

If this be true, then it is not altogether a compliment to the objectivity of economists to hear them on the one hand making pious exhortations about IAB's leading to a misallocation of resources and on the other hand proposing multi-billion dollar federal programs to accomplish essentially what IAB's can achieve with far fewer federal dollars. I dare say that one would be extremely hard pressed to name a single federal program that can legitimately lay claim to helping create 195,000 manufacturing jobs with expenditures of only \$58 million.³⁶

Finally, in my opinion, it is difficult to generate much sympathy for the rather narrow view that IAB's constitute a misuse of a public privilege because private interests are subsidized. Using municipal bonds to provide new jobs, upgrade employment, and induce economic prosperity is every bit as legitimate a public purpose as using municipal bonds to finance schools, parks, sewers, streets, and water systems.

This is not to say, however, that the use of IAB's by municipalities should not be restricted. IAB's can be abused -- and have in several cases, but the public interest would seem to adequately be protected by a federal provision limiting the use of IAB's to any state or area where per capita incomes are more than 10 to 15 per cent below the national average or where unemployment is excessive. This would serve not only to narrow the differences in living standards among states and regions, but it would also help alleviate the urban crisis by encouraging a more balanced dispersion of industry.

In conclusion, if the experiences of Alabama and other Southern states are any indication, the contribution of IAB's to regional economic development is far greater than generally acknowledged. Few, if any, state and federal programs for financing a modern public facilities infrastructure in less developed areas can begin to match the rate of return per dollar expended and the wide range of of benefits produced by IAB's. They constitute one of the simplest, most inexpensive, and most powerful weapons yet devised for (1) increasing per capita personal incomes, (2) improving the capability of state and local governments to meet the demand for public services, (3) maintaining and improving the quality of human resources in less developed areas and (4) maintaining regional full employment. Whatever disadvantages the use of IAB's may entail would seem to be a small price to pay for such significant social benefits -- at least until such time as more efficient alternatives are discovered.

FOOTNOTES

*This paper summarizes some of the highlights of a study of industrial aid bond financing in Alabama, the results of which are to be published as a monograph by the Alabama Business Research Council in the Fall of 1969. The author is indebted to the Council for permission to use a portion of their preliminary findings as a basis for this paper.

¹The term industrial aid bonds (IAB's) is used here to include both revenue bonds and general obligation bonds issued by municipalities for the purpose of constructing industrial facilities for lease to private enterprises.

²New York State Department of Commerce, The Use of Public Funds or Credit in Industrial Locations, Research Bulletin No. 6, June 1968, p. 3. The only states not having enabling legislation are: Alaska, Arizona, California, Connecticut, Delaware, Florida, Idaho, New Hampshire, New Jersey, New York, Texas, and Washington.

³Today, only Mississippi uses general obligation bonds extensively for this purpose, though Alabama, Arkansas, Louisiana, and Tennessee have made some use of this type bond. See Goodbody and Co., Industrial Aid Financing (New York, 1965), p. 3.

⁴The rates of return on municipal subsidies to industry can easily exceed 1000% per year. See, for example, John E. Moes, "The Subsidization of Industry by Local Communities in the South," Southern Economic Journal (October 1961): 188-189; and James R. Rinehart, "Rates of Return on Municipal Subsidies to Industry," Southern Economic Journal (April 1963): 297-306.

⁵For a more complete discussion of these and other benefits of IAB's, see Arthur A. Thompson, "The Social Benefits of Tax-Exempt Industrial Development Bonds," Financial Analysts Journal (November-December 1968), 99-103; W. E. Laird and J. R. Rinehart, "Local Subsidies and Economic Development," paper presented at the Fall 1968 meetings of the Southern Economic Association, Washington, D. C., November 7-9, 1968; and W. E. Laird and J. R. Rinehart, "Neglected Aspects of Industrial Subsidy," Land Economics (February 1967): 25-31.

⁶In Tennessee, for example, according to data furnished by the Tennessee Executive Department, Staff Division for Industrial Development, the smallest majority in 208 referendums (1951-1967) was 71.9 per cent and the majority fell below 90 per cent in only 36 instances.

⁷Orville Freeman, "Industry Urged to Stem Assault on Cities," excerpts from an address before the annual Area/Industry Conference of the Industrial Development Research Council, November, 1967, and reprinted in Industrial Development (January-February 1968): 19-21.

⁸The advantages of a balanced dispersion of industry and jobs between urban and rural areas have not gone unnoticed by some business leaders. The president of Campbell Soup Co., W. B. Murphy, has been an apostle of rural-urban balance for years and has followed a policy of locating company operations in less populated areas. His company's experiences suggests that the problems of hiring enough skilled workers and inducing company officials to live in small towns are more mythical than real. Training sufficient numbers of skilled employees and overcoming managerial discontent with small towns have not proved to be a hindrance in Campbell's operations.

Minnesota Mining and Manufacturing Co. has been locating its facilities in small towns for 20 years with "most satisfactory" results. IBM has not located any new manufacturing plants or laboratories in metropolitan areas since 1962. Several plant location consultants are enchanted with small town sites, with one

FOOTNOTES---Continued

firm even being accused of "unduly favoring small towns in its recommendations." See Orville Freeman, op. cit., p. 21.

⁹Usage of IAB's has been enhanced by the development of a broader market for their sale to bond buyers. Ten years ago, few investment houses would underwrite them and large financial institutions would not buy them. These circumstances arose from a bias against supporting this type of "subsidy" to private interests, from skepticism about the wisdom of such a financing technique, from concern about the "legitimacy" of so using the privileges of municipal bonds, and from the traditionally conservative attitudes (and occasional ignorance) of municipal bond buyers about the security of such purchases. Gradually, as the strength of IAB's became more apparent, partially through the collateralization of leases of well-known firms with relatively impeccable financial credentials, more investment bankers agreed to underwrite the securities, and large commercial banks and insurance companies decided to include them in their portfolios. This change of heart paved the way for the increased propensity of corporations to rely upon IAB's as a source of capital for expansion.

¹⁰The data in Table 1 was compiled from information furnished by six state agencies and the Investment Bankers Association; they probably underestimate the actual level of usage of industrial aid bonds since the IAB data is incomplete. The IBA figures were originally derived from published reports in the Bond Buyer, Investment Dealers Digest, and similar publications. A number of revenue bond issues are handled on a local or state basis or are even negotiated privately and, therefore, never come to the attention of such national publications. For example, an article by Charles F. Floyd in the November, 1967 issue of Georgia Business cited that during 1966 only \$52 million of the \$87 million in development bonds sold by local development authorities in Georgia was offered publicly. The IBA data for Georgia in 1966 show that \$51 million in industrial aid bonds were issued. Thus, the discrepancy between the total amounts issued in Georgia and the total amount reported by the IBA is almost wholly accounted for by the volume of private issues. The data for Alabama, Arkansas, Georgia, Kentucky, Mississippi, and Tennessee is far more complete than the figures cited for other states because, unlike the IBA data for "all other states," a high proportion of the "local" issues of IAB's have been included in the individual state reports.

¹¹According to new plant and plant expansion data furnished by the Alabama State Planning and Industrial Development Board and IAB-financing statistics compiled by the staff of the Alabama Business Research Council.

¹²According to statistics furnished by the Kentucky Department of Economic Development and the Kentucky Department of Commerce.

¹³Irving J. Goffman, "Local Subsidies for Industry: Comment," Southern Economic Journal (October 1962): 113; John H. Cumberland and Fritz Van Beck, "Regional Economic Development Objectives and Subsidization of Local Industry," Land Economics (August 1967): 263.

¹⁴James H. Thompson, "Local Subsidies for Industry: Comment," Southern Economic Journal (October 1962): 115.

¹⁵Section 107 of the Revenue and Expenditure Control Act of 1968 passed in June, 1968 by the 2nd Session of the 90th Congress.

¹⁶Public Law 90-634, Laws of the 90th Congress - 2nd Session.

¹⁷Edwin C. Gooding, "The New Status of Industrial Aid Bonds -- Its Implications for State and Local Financing Efforts," New England Business Review (November 1968): 2-9.

FOOTNOTES---Continued

¹⁸For a similar and excellent analysis of state loan programs, see Gerald W. Sazama, "A General Economic Analysis of State Loans for Industry," available upon request from the Federal Reserve Bank of Boston and also Sazama's "A Benefit-Cost Analysis of State Loans for Industry," available from the same source.

¹⁹See, for example, Benjamin Bridges, Jr., Industrial Incentive Programs, State of Wisconsin Department of Resource Development (Madison: 1965), p. 109; Thomas P. Bergin and William F. Eagen, "Economic Growth and Community Facilities," Municipal Finance (May 1961): 146-150; Ronald Gold, "Subsidies to Industry in Pennsylvania," National Tax Journal (September 1966); Eva Mueller and James N. Morgan, "Location Decisions of Manufacturers," American Economic Review (May 1962): 204-217; Glenn E. McLaughlin and Stefan Robock, Why Industry Moves South, NPA Committee for the South, Report No. 3 (June 1949); T. E. McMillan, Jr., "Why Manufacturers Chose Plant Locations vs. Determinants of Plant Locations," Land Economics (August 1965): 239-246; Thomas F. Stinson, The Effects of Taxes and Public Financing Programs on Local Industrial Development, U.S. Department of Agriculture, Economic Research Service, Agricultural Economic Report No. 133 (May 1968); and Goodbody and Co., op. cit., Chapters 6 and 8. An important shortcoming of these studies is that their orientation is solely toward the proportion of firms influenced by financial considerations, with almost complete disregard for the related employment and capital investment.

²⁰A similar statement can be made for the impact in Arkansas, Georgia, Kentucky, Mississippi, and Tennessee.

²¹The Wall Street Journal of 4 December 1967 reported that all new tire plants built in the U. S. during the past five years have been financed with industrial aid bonds.

²²See Irving J. Goffman, op. cit., p. 113; John H. Cumberland and Fritz Van Beck, op. cit., p. 263.

²³There can scarcely be any question that such firms as Allied Paper, Armour, Arvin Industries, Automatic Electric Co., Barber-Colman, Beatrice Foods, Bendix-Westinghouse, U.S. Plywood-Champion Paper, Cluett, Peabody & Co., Diamond Shamrock, Dunlop Tire and Rubber, Foremost Dairies, Fruehauf Trailer, General Electric, Genesco, Hammermill Paper, Hayes International, Kayser-Roth, Litton Industries, Minnesota Mining and Manufacturing, National Screw Manufacturing, Phillips-Van Heusen, Revere Copper and Brass, Stylon Corp., Swift Manufacturing Co., Uniroyal, Union-Camp, and Vulcan Materials -- to mention only a few of those coming to Alabama via IAB's -- represent both "desirable" and "respectable" enterprises.

²⁴Such situations are extremely rare, however. During the 1956-1966 period there were three such cases in Mississippi, three in Louisiana, and one each in Arkansas and Tennessee. All involved general obligation issues and serve to illustrate the point made earlier that revenue bonds are a much sounder means of financing such endeavors. For additional details, see Goodbody & Co., Industrial Aid Financing, pp. 57-58.

²⁵Metropolitan areas in other states have also used IAB's very sparingly. The Advisory Commission on Intergovernmental Relations reported in 1963 that IAB's had, up to that time, been primarily a rural area phenomenon. According to their information, prior to 1960 there was not even one IAB issued in the immediate vicinity of a large city. Since then, metropolitan areas have used IAB's on a number of occasions, but IAB's continue to be largely a device of less urbanized areas. For an informative, though not entirely objective, survey of the early experiences with IAB-financing, see, The Advisory Commission on Intergovernmental Relations, Industrial Development Bond Financing (June 1963).

FOOTNOTES---Continued

²⁶J. F. Vallery, Arthur A. Thompson, et. al., A Public Investment Strategy for the Economic Development of Appalachian Alabama: Analysis and Alternatives, a report prepared in the Bureau of Business Research, School of Commerce and Business Administration, University of Alabama (December 1968) under contractual agreement with the Office of Program Development, State of Alabama and the Appalachian Regional Commission, Washington, D. C. (forthcoming); and also J. F. Vallery and Arthur A. Thompson, An Economic Analysis of Growth Patterns and Development Prospects in Non-Appalachian Alabama, a report prepared under contractual agreement with the Alabama State Planning and Industrial Development Board and financed by a Federal grant from the Water Resources Council -- published as Report for Development of Water Resources in Non-Appalachia Alabama: Basic Economic Data, Appendix E, by the Bureau of Business Research, University of Alabama, September 1968.

²⁷See Footnote 19.

²⁸Several studies of the impact of new industry upon local government budgets create doubts as to whether new industry pays its own way. See, for instance, Werner Z. Hirsch, "Fiscal Impact of Industrialization on Local Schools," Review of Economics and Statistics (May 1964): 191-199; L. K. Lowenstein, "The Impact of New Industry on the Fiscal Revenues and Expenditures of Suburban Communities," National Tax Journal (June 1963): 113-136; and Julius Margolis, "Municipal Fiscal Structure in a Metropolitan Region," Journal of Political Economy (June 1957): 225-236.

²⁹John H. Cumberland and Fritz Van Beek, op. cit., pp. 260-262.

³⁰Bergen and Eagen, op. cit.; Gold, op. cit.; William D. Ross, Louisiana's Industrial Tax Exemption Program, Louisiana State University, Louisiana Business Bulletin, (December 1953): 20-21; T. E. McMillan, Jr., op. cit., p. 241; Benjamin Bridges, Jr., "State and Local Inducements for Industry - Part II," National Tax Journal (June 1965): 177.

³¹For example, the total interest charges on a \$10,000 bond issue amortized monthly over 20 years is approximately \$4,544,000 at an interest rate of 4 per cent, \$7,196,000 at 6 per cent, and \$10,075,000 at 8 per cent. Such a differential is scarcely inconsequential.

³²Evidence of a credit gap for small firms is also contained in a 1964 report by the Federal Reserve Bank of Boston. The Boston FRB estimated that one-half of the firms utilizing IAB's were so small that they were not evaluated by credit rating agencies. Where credit ratings existed, about 20 per cent of the issues and five per cent of the dollar volume might not have been consummated through ordinary channels of private credit. See, "New War Between the States," New England Business Review, Federal Reserve Bank of Boston, July 1964, p. 5. For a similar conclusion regarding the credit function of state loan programs for industry, see Gerald W. Sazama, "A General Economic Analysis of State Loans for Industry," loc. cit., pp. 7-8. Gold, op. cit., found that less than 20 per cent of the firms of less than \$500,000 net worth which received financial aid would have built on the same scale and in the same place without this assistance. Gobar argues that small firms may not encounter a significant long-term credit gap, but rapidly growing medium-sized firms may encounter such a gap -- A. J. Gobar, "Continuing Problems of Small Business Investment Companies in Closing the Equity Gap," Quarterly Review of Economics and Business (Autumn 1964): 33-40. Bridges in Industrial Incentive Programs, loc. cit., cites the record of private development corporations in making a case for the existence of a credit gap.

³³Benjamin Bridges, Jr., "State and Local Inducements for Industry - Part II," loc. cit., pp. 177-184; James H. Thompson, op. cit., pp. 115-116; John D. Garwood, "Taxes and Industrial Location," National Tax Journal (December 1952), p. 367.

FOOTNOTES---Continued

³⁴John H. Cumberland and Fritz Van Beek, op. cit., pp. 259-263; Vincent P. Apilado, "An Appraisal of Industrial Aid Financing," Municipal Finance (May 1968): 515-160; Frank L. Magee, "The Use and Abuse of Tax-Free Municipal Industrial Bonds," Commercial and Financial Chronicle, 24 December 1964, section 2, p. 15; Advisory Commission on Intergovernmental Relations, op. cit., pp. 3-17; Irving J. Goffman, op. cit., pp. 111-114; James H. Thompson, op. cit., pp. 115-119; John E. Moes, Local Subsidies for Industry (Chapel Hill: University of North Carolina Press, 1962) Appendix IV; and Ralph Gray, "An Economic View of Municipal Subsidies to Industry," Municipal Finance (May 1964): 153-160.

³⁵Ralph Gray, "Industrial Development Subsidies and Efficiency in Resource Allocation," National Tax Journal (June 1964): 170.

³⁶It will be recalled that in Alabama, Arkansas, Georgia, Kentucky, and Tennessee approximately 195,000 jobs were provided through the issuance of \$2,406,548,000 in IAB's over the 1956-1968 period. Assuming that the IAB's were issued at an average interest rate of 6%, that all of the IAB's are still outstanding, and that the marginal tax rate on the interest income is 40%, the federal tax loss would only amount to roughly \$58 million--the revenue loss would be considerably less if extra revenues collected from the incomes directly generated by the new jobs or any multiplier effect were considered.