United States Department of Agriculture
Economic Research Service
https://www.ers.usda.gov

United States
Department of
Agriculture

**Economic
Research
Service**

**Economic
Development
Division**

Interstate Competition for Business: Changing Roles of Federal and State Initiatives

James P. Miller

INTERSTATE COMPETITION FOR BUSINESS: CHANGING ROLES OF FEDERAL AND STATE INITIATIVES. James P. Miller, Economic Development Division, Economic Research Service, U.S. Department of Agriculture. Washington, D.C. December 1983. ERS Staff Report No. AGES 831012

ABSTRACT

A survey of the literature and selective data on Federal and State initiatives to promote enterprise growth and development in the private sector reveals that State programs have expanded dramatically and become increasingly dominant since the mid-sixties. State industrial revenue bonds have surpassed Federal business and industrial loans as the major public source for financing industrial activities. While States have become more active in offering incentives to attract new industry, recent studies generally reveal that the costs of these programs to the State and community usually exceed the benefits, that is, tax incentives, by themselves, do not encourage much industrial investment. Federal and State initiatives to manufacturing, the enterprise most sought after by State and local developers, merely serve to reshuffle a relatively fixed number of plants and jobs from one State or region to another without appreciably expanding the number of plants and jobs nationwide.

Keywords: Federal, State, private enterprise, jobs, investment, tax incentives, industrial revenue bonds, interstate competition.

CONTENTS

SUMMARY

This report investigates recent changes in Federal and State programs that provide direct assistance to promote enterprise growth and development. Has the level of Federal funding changed relative to State effort in recent years? What programs have become important? What do previous studies reveal about the cooperative role of Federal and State programs? How effective have both programs been in stimulating investment and creating new jobs nationwide? Heretofore, there has been very little research and even less documentation on recent changes in Federal and State programs that provide tax incentives and capital financing to encourage investment by private enterprise.

Previous studies and recent trends reveal the following:

(1) State programs have expanded dramatically and become increasingly dominant. Over the past 20 years, programs that provide tax incentives, financial inducements, and other special services to business and industry have increased in number and spread rapidly among all States. Federal outlays for direct-assistance programs have either leveled off or not grown as rapidly, particularly since 1975.

(2) A comparison of the trend in State industrial revenue bond (IRB) issues with the trend in Federal Business and Industrial (B&I) loan activity reveals that IRB financing grew dramatically from 1975 to 1980 and surpassed Federal B&I loans as the major public source for financing industrial activities.

(3) While States have become more active in offering incentives to attract new industry, recent studies reveal that the costs of these programs to the State and community usually exceed the benefits. Federal and State tax credits and IRB interest subsidy programs are, typically, not much of a cost-saving incentive to the firm choosing a new location, except when the decision is to relocate to an adjoining jurisdiction either within the State or in a neighboring State. Most firms would select roughly the same location without these incentives. The loss of tax revenue to the Federal and State governments to support these tax incentive and IRB programs is an economic reality.

(4) Federal and State incentives to manufacturing, the enterprise most sought after by State and local developers, merely serve to reshuffle a relatively fixed number of plants and jobs from one State or region to another without appreciably expanding the number of plants and jobs nationwide. Recent studies of the deindustrialization trend in the United States during the seventies reveal that substantial job losses due to plant closures and contractions were counterbalanced by large employment gains due to plant startups and expansions, while very little net growth occurred in the total number of manufacturing jobs nationally.

(5) The rapid expansion of industrial revenue bond (IRB) financing at the State and local level, in recent years,

indicates that States will replace Federal loan programs with their own programs if there is sufficient incentive. During the period 1975-80, when monetary policy became increasingly more restrictive, corporate managers found that tax-exempt IRB's could be used to finance projects at lower interest costs than available through conventional sources. IRB's thus became more popular than Federal loan guarantees processed through commercial banks.

(6) Finally, there have been recent administrative attempts to encourage Federal and State cooperation in providing direct-assistance to business and industry. Urban Development Action Grants (UDAG), for example, can be used by State and local authorities to leverage larger IRB issues in designated distressed urban areas. But, across a wide spectrum of Federal and State direct-assistance programs that have evolved over the years, there is very little documentation from either previous research or current data that provides insight into the recent trend away from Federal programs toward State programs.

Interstate Competition for Business: Changing Roles of Federal and State Initiatives

James P. Miller

INTRODUCTION

The competition to attract new business and industry has recently led to the rapid expansion of Federal and State direct-assistance programs. Direct loans, loan guarantees, industrial revenue bond financing, and tax incentives to encourage industrial investment are now offered by virtually every State. There has also been an upward trend in Federal direct-assistance, primarily loan guarantees mandated for certain types of businesses (for example, small businesses, rural area enterprises, and distressed urban core area businesses). Since 1980, the prospects for further expansion of direct-assistance programs have been less optimistic. Larger Federal deficits in 1982 and 1983, the "new federalism", and tighter State government budgets caused government officials to review the past effectiveness and reassess the future role of Federal and State direct-assistance programs.

An important issue is the changing roles of Federal and State direct-assistance programs in promoting industrial development. We know that States use both Federal and State direct-assistance programs to compete with other States for new industry. But, has the level of Federal effort changed relative to State effort in recent years? What programs have become more important? What do previous studies reveal about the cooperative role of Federal and State programs? How effective have both programs been in stimulating private investment and creating new jobs nationwide?

This report surveys existing literature and selective data on the impact of Federal industrial development programs. The first section describes recent trends in State-financed activities. The second section briefly reviews the recent trend in Federal outlays for community development, including money used for business and industrial loans. The third section compares the rate of growth over the period 1975-80 of the two most important types of financial inducement: industrial revenue bond financing at the State level and guaranteed loans at the Federal level. A fourth section integrates a highly varied body of literature that does not directly address the issue of how

and to what extent Federal and State direct-assistance programs jointly promote industrial development, but is useful in evaluating the overall effectiveness of these programs. Conclusions are presented in the final section.

TRENDS IN STATE AND FEDERALLY FINANCED ACTIVITIES

State Activities

Since 1960, there has been increasing competition among States to attract and retain business and industry. One indication of the intensity of rivalry is the increasing diversification of State direct-assistance programs (table 1). From 1966 to 1980 all but three States introduced at least one new financial incentive, tax exemption, or special service in their industrial development programs (table 2). By 1980, 34 States had added at least 10 new direct-assistance activities to their respective programs. In 28 States, the list of separate activities had increased twofold or more.

The upward trend in State activities is evident at the regional level. The trend in the average number of separate financial and tax incentive programs per State from 1966 to 1980 can be seen in figure 1. In each of the four census regions, the number of separate programs per State has increased since 1970, particularly during the period, 1975-80.

Some programs appear to be more popular than others. Industrial Revenue Bond (IRB) programs, for example, have become very popular because their tax-exempt status allows States and municipalities to finance business investment in new buildings, machinery, and equipment at lower interest costs than available through conventional sources. In 1966, local IRB financing was permitted in only 28 States (table 3). By 1980, 46 States had such programs. The number of States with general obligation bond programs, though fewer than the number with IRB programs, also increased during the period, 1966-80.

The competitive spread of IRB financing among regions can be seen in figure 2. In 1966, 19 Southern and Mid-Atlantic States were responsible for 53.2 percent of the dollar volume of bonds issued in the United States. By 1978, these States accounted for only 34.6 percent of the total dollar amount issued.

Direct loan and loan guarantee programs, though less popular than bond financing, have also spread (table 3). The number of States offering loan guarantees for building construction increased from 11 to 19 over the 1966-80 period, while the number of States with direct loan programs more than doubled. Loans to encourage equipment and machinery purchases have similarly increased in popularity as a State program.

The number of tax incentive programs has also grown among States (table 3). Half of the States offered some form of corporate income tax exemption in 1980, an increase of 14 States over the number in 1966. There was a similar pattern of

Table 1--State economic development activities in 1980

Financial assistance for industries

1. Industrial Development Authority
2. Development Credit Corporation
3. State and/or Local Bond Financing (Revenue or General Obligation)
4. State and/or Local (Low Interest) Loans
5. State and/or Local Loan Guarantees for Building Construction, Machinery, Equipment
6. Aid to Existing Plant Expansions
7. State Matching Funds for Local Industrial Financing
8. State and/or Local Incentives for Establishing Industrial Plants in Areas of High Unemployment

Tax incentives

9. Corporate Income Tax Exemption
10. Personal Income Tax Exemption
11. Excise Tax Exemption
12. Sales/Use Tax Exemption
13. Tax Exemption or Moritorium on Land, Capital Improvements, Equipment, Machinery
14. Inventory Tax Exemption on Goods in Transit
15. Tax Exemption on Manufacturers' Inventories
16. Tax Exemption on Manufacturers' Raw Materials
17. Other Special Tax Exemptions and Credit for Industrial Investments and Job Creation
18. Accelerated Depreciation of Industrial Equipment

Special services

19. State and/or Locally Financed Speculative Building
20. State and/or Local Free Land for Industry
21. State and/or Locally Owned Industrial Park Sites
22. Funds for State and/or Local Public Works Projects, Recreational Projects
23. Funds for Local Master Plans
24. Availability of State R&D Facilities to Industy
25. State Programs to Recruit, Train, and Retrain Industrial Employees
26. State Supported Training of Hard-Core Unemployed.

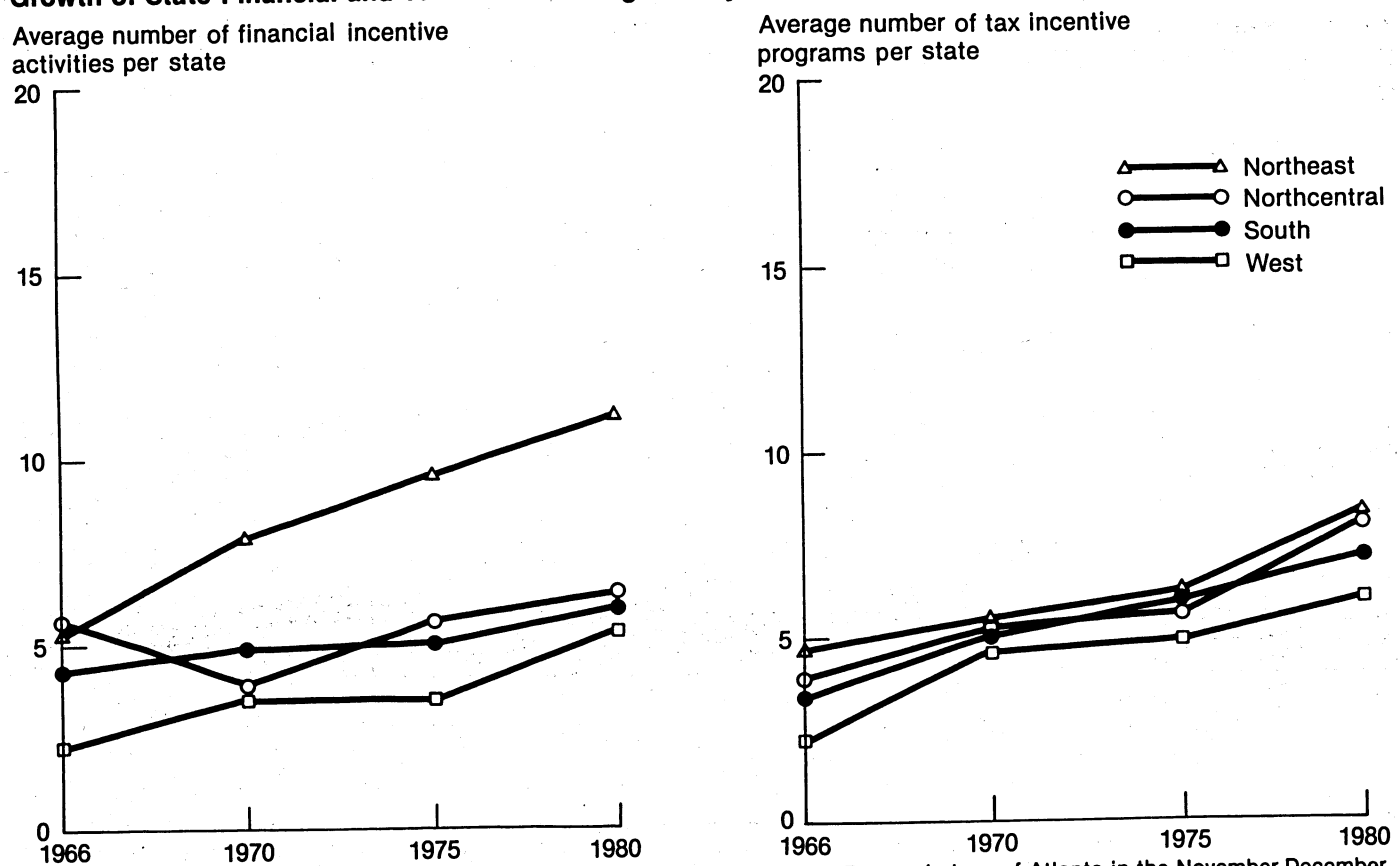
Source: "The Fifty Legislative Climates," an annual survey published by Conway Research Inc., of Atlanta in the January-February issue, 1980 of Industrial Development.

Table 2--Number of economic development activities, by State

State	1966	1980	Change
Oregon	0	17	17
Michigan	3	16	13
New Jersey	4	17	13
Alaska	0	11	11
Connecticut	9	20	11
Delaware	7	18	11
Massachusetts	4	15	11
Minnesota	5	16	11
Illinois	3	13	10
Vermont	6	15	9
California	1	9	8
New York	10	18	8
Texas	2	10	8
Alabama	5	12	7
Kansas	4	11	7
Montana	3	10	7
Tennessee	8	15	7
Arkansas	4	10	6
Louisiana	7	13	6
Washington	4	10	6
Florida	2	7	5
Iowa	4	9	5
Indiana	9	14	5
Maryland	8	13	5
North Carolina	1	6	5
Arizona	3	7	4
Colorado	4	8	4
Georgia	4	8	4
Missouri	6	10	4
New Hampshire	8	12	4
Pennsylvania	9	13	4
Rhode Island	8	12	4
Virginia	4	8	4
West Virginia	4	8	4
Wyoming	2	6	4
Maine	9	12	3
Nevada	3	6	3
Utah	2	5	3
Idaho	4	6	2
Mississippi	10	12	2
South Dakota	6	8	2
Hawaii	9	10	1
Kentucky	13	14	1
New Mexico	7	8	1
Oklahoma	16	17	1
South Carolina	9	10	1
Wisconsin	9	10	1
Nebraska	6	6	0
Ohio	13	13	0
North Dakota	17	13	-4

Source: "The Fifty Legislative Climates"...

Figure 1
Growth of State Financial and Tax Incentive Programs by Census Region



Source: "The Fifty Legislative Climates," an annual survey published by Conway Research, Inc., of Atlanta in the November-December issues of Industrial Development, 1966, 1970, 1975, and the January-February issue, 1980.

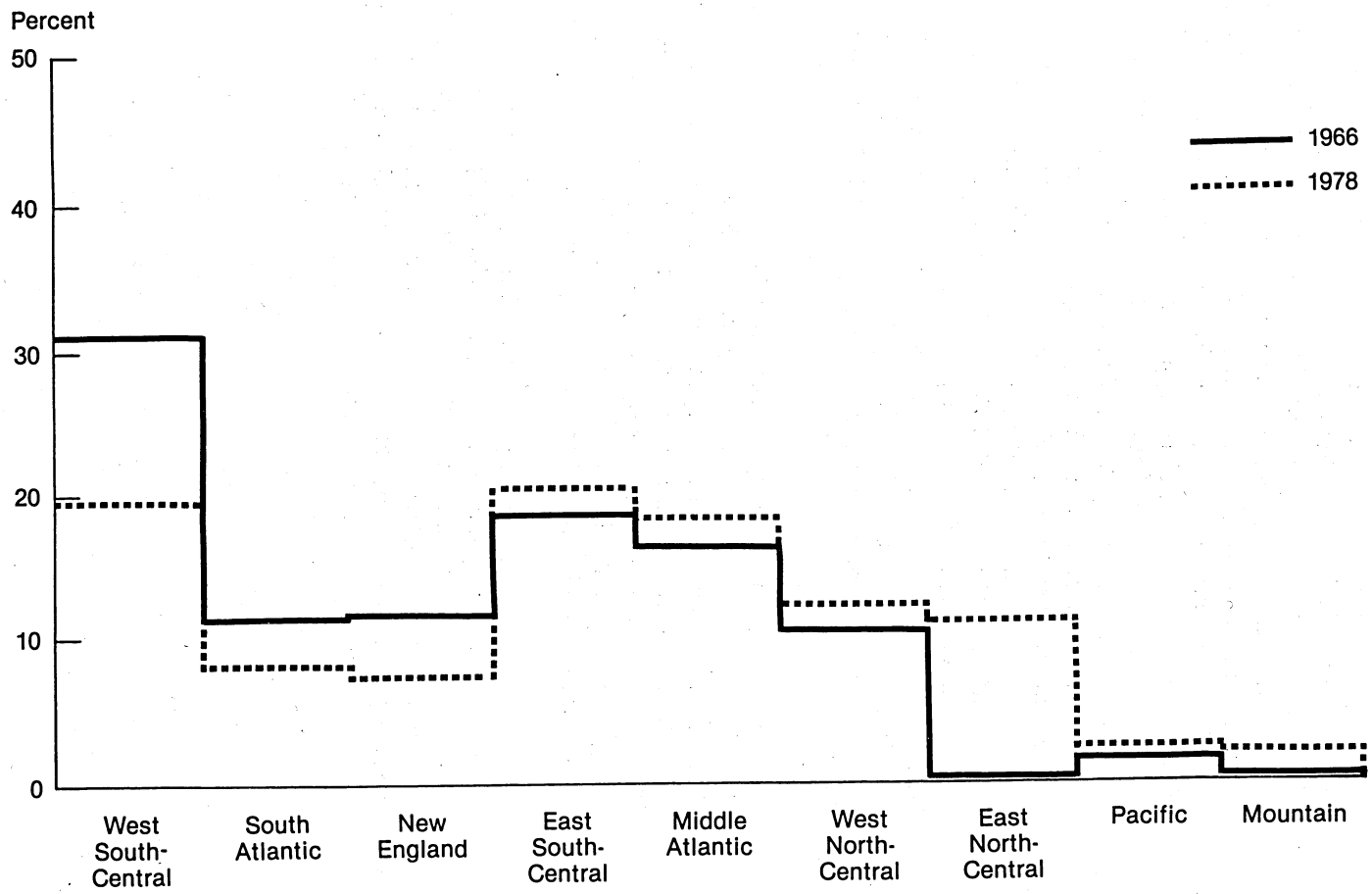
Table 3--Number of States employing State and local (county or city) economic development activities to encourage business and industry

Activity	1966	1970	1975	1980
Bond financing: 1/				
General obligation--				
State	4	4	8	9
Local	14	14	21	23
Industrial revenue--				
State	8	16	18	24
Local	28	42	43	46
Direct loans for:				
Building construction--				
State	11	13	15	23
Local	8	5	8	11
Equipment, machinery--				
State	8	9	13	17
Local	6	5	7	8
Guaranteed loans for:				
Building construction--				
State	11	11	14	19
Local	1	0	0	1
Equipment, machinery--				
State	9	10	11	17
Local	1	0	0	1
State financial aid for plant expansion	14	26	27	31
Industrial park sites:				
State-owned	4	7	7	8
Locally owned	28	42	47	49
Tax exemptions on:				
Corporate income	11	21	19	25
Land, capital investments	11	17	21	29
Equipment, machinery	15	21	27	31
Goods in transit	32	39	38	45
Manufacturers' inventories	19	30	34	42
New equip. (sales/use)	16	26	33	36
Manufacturers' raw mat.	32	39	43	46
Accelerated depreciation of industrial equipment	9	14	21	28

1/ Bond financing refers to municipal bonds issued to finance industrial projects. A revenue bond is a municipal bond whose repayment depends on the revenues expected from the project. A general obligation bond is a municipal bond whose repayment is the obligation of the issuing municipality which pledges its support of the bond through its taxing power.

Source: "The Fifty Legislative Climates," an annual survey published by Conway Research Inc., of Atlanta in the November-December issues of Industrial Development for 1966, 1970, 1975, and the January-February issue, 1980; and Appendix table 1.

Figure 2
Regional Distribution of Industrial Revenue Bond Financing, 1966 and 1978



Note: Solid line indicates the percentage distribution of the total dollar volume of bonds issued in 1966 ($1.1 billion); dashed line shows the percentage distribution of the total in 1978 ($7.4 billion).

Source: "The Fifty Legislative Climates," Industrial Development, November/December issues, 1966, 1978 published by Conway Research, Inc., Atlanta, Ga.

increase in the number of States offering tax breaks for virtually every category of business cost from land investment to raw material purchases. In addition, the number of States offering accelerated depreciation allowances on new equipment purchases increased from 9 in 1966 to 28 in 1980.

Federal Activities

Federal funding for State and community industrial development provides for a wide range of programs similar to many programs currently offered by States. Federal programs provide both direct expenditures (loans and community facility grants) and off-budget support (loan guarantees) to encourage enterprise growth and development. Table 4 shows changes in Federal funding by program areas, 1966-79. There was an increase of funding for some Federal loan programs that provide essentially the same type of assistance as do many State and local financial assistance programs, for example, industrial revenue bond financing, direct loans, and loan guarantees. Farmers Home Administration (FmHA) outlays for business and industrial development, for example, increased approximately $1.2 billion between FY 1966 and FY 1979. Economic Development Administration (EDA) funds for business development loans and supplemental assistance increased by approximately $108 million. Small Business Administration (SBA) loans for small business development corporations increased over $4.2 billion during the period. 1/

Interaction of Federal and State Programs

A review of the recent literature on Federal and State industrial development programs reveals that very little attention has been given to the supportive role of Federal programs. The joint effectiveness of and degree of cooperation between Federal and State direct-assistance programs to promote enterprise growth and development was rarely mentioned, much less addressed in the studies that were reviewed.

The issue, specifically, is whether (and to what extent) Federal programs influence State programs in promoting enterprise development nationwide. Only one study was found that dealt generally with this issue. Osman used multivariate statistical analysis to determine the extent to which Federal outlays for certain functions stimulate State outlays for the same

1/ After 1979, Federal outlays for business and industrial (B&I) development declined. From FY 1979 to FY 1980, total outlays by FmHA, EDA, and SBA declined approximately $134.9 million.

Table 4--Trend in Federal programs in the general areas of community and economic development, 1966 to 1979

Federal programs 1/	Fiscal year			Change		
	1966	1975	1979	1966-75	1975-79	1966-79
	Million dollars					
Farmers Home Administration:						
Community development programs	132.8	826.8	1,387.3	694.0	560.5	1,254.5
Business and Industrial Development	n/a	363.6	1,208.4	363.6	844.8	1,208.4
Economic Development Administration:						
Public works programs	46.0	152.1	226.6	106.1	74.5	180.6
Business development assistance	51.0	21.4	159.1	-29.6	137.7	108.1
State and local planning support	n/a	12.1	37.9	n/a	25.8	n/a
Economic development and adjustment assistance	n/a	38.7	84.6	n/a	45.9	n/a
Department of Housing and Urban Development:						
Community development block grants	n/a	3,500.0	3,410.1	n/a	910.1	n/a
Comprehensive planning assistance	18.2	99.0	56.9	80.8	-42.1	38.7
Employment and Training Administration:						
Comprehensive employment and training program	n/a	3,921.4	7,544.6	n/a	3,623.2	n/a
Community Services Administration:						
Community economic development	n/a	37.9	45.6	n/a	7.7	n/a
Environmental Protection Agency:						
Construction grants for wastewater treatment works	n/a	3548.8	4,118.5	n/a	569.7	n/a
Small Business Administration:						
All programs	380.6	1,793.6	4,607.3	1,413.0	2,813.7	4,226.7

Source: J. Norman Reid, Econ. Res. Serv., U.S. Dept. Agr. The outlays for each program were derived primarily from data prepared by the Community Services Admin., Federal Outlays in Summary, FY 1966, 1975, 1979.

functions. 2/ He found that Federal aid in 1960 was correlated with the level of State outlays for three functions: education, highways, and health and welfare. On the basis of this finding, the author concluded that Federal outlays appear to re-enforce and stimulate State expenditures for certain categories of public expenditures.

Evidence of Program Replacement by the States

Is there any empirical evidence that Federal direct-assistance programs interact with State programs? In recent years has there been evidence of program replacement, or do these programs appear to duplicate or complement each other? The recent trend in State small issue IRB and Federal loan programs may provide some initial insight on this issue. 3/

Both programs, while perceived as not perfectly substitutable by State development authorities, do have one important thing in common. They both provide financing for enterprise development. The trend in the late 1970's can be seen in figure 3. In 1975, the dollar amount of Federal loans and loan guarantees to business and industry (B&I loans) in the United States was approximately $1.6 billion. In the same year, the dollar amount of State IRB issues totaled only $1.3 billion. By 1980, however, the dollar amount rose dramatically to roughly $8.4 billion. Federal loans, on the other hand, increased to a much lower level, approximately $4.3 billion. A reversal in relative importance thus appears to have occurred in 1978 away from Federal loan guarantees and in favor of State IRB financing. On an annual percentage basis, the dollar volume of State IRB

2/ Jack W. Osman, "The Dual Impact of Federal Aid on State and Local Government Expenditures," National Tax Journal, Vol. XIX, No. 4, December 1966, pp. 362-72. A model was developed with per capita State and local expenditures, the dependent variable, written as a function of Federal aid in specific categories (for example, education, health and welfare, etc.) and other independent variables (for example, population density, per capita income, etc.). The beta coefficients of Federal aid were estimated to be greater than one and statistically significant, that is, an increase in Federal outlays was associated with a more rapid increase in State outlays for each function.

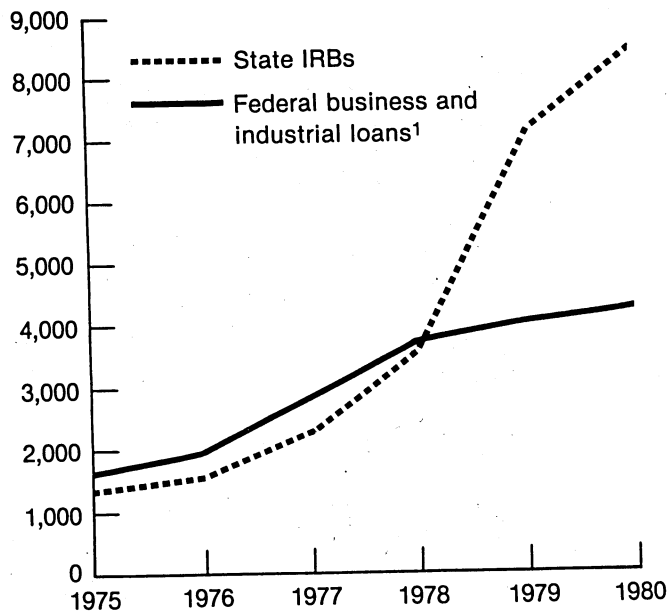
3/ Federal loan programs are compared with State small issue IRB programs (that is, projects of $10 million or less) instead of State loan programs per se because guaranteed loans, a major program at the Federal level, are not very popular as a State incentive. In 1980, only 19 States offered such loans for building construction and 17 States offered similar loans for machinery and equipment (table 3). Industrial revenue bond financing, on the other hand, was offered at either the State or local level in 46 States. The low popularity of State loan guarantees suggests that these programs have been perceived by State development authorities as a poor substitute for other types of programs or have been replaced by Federal loan guarantees.

issues nationwide accelerated from 35.0 percent in 1977, to 69.6 percent during the 1978-80 period, whereas the annual growth rate of Federal B&I loans and loan guarantees declined from 31.8 percent before 1978 to only 6.6 percent after 1978 (App. table 2).

The pattern of reversal can be seen also in the Northeast, North Central region, and the South where the dollar volume of IRB issues accelerated to a level above the dollar amount of Federal loans and loan guarantees over the 5-year period (figure 4). IRB programs were less popular in the West but continued to accelerate in dollar volume.

The general pattern among States was for growth in the dollar amount of Federal B&I loans and loan guarantees to decelerate after 1977, while the dollar volume of IRB issues continued to accelerate. In 31 of the 50 States, the annual growth of IRB issues accelerated between 1975-77 and 1978-80 (App. table 2). In 18 States, the dollar volume grew more rapidly than Federal loans and loan guarantees in both periods. In 22 States, there was actually a reversal of growth rates in favor of IRB programs. The annual growth in IRB issues was higher than the annual growth in Federal loans and loan guarantees during the 1978-80 period, after being lower in the 1975-77 period.

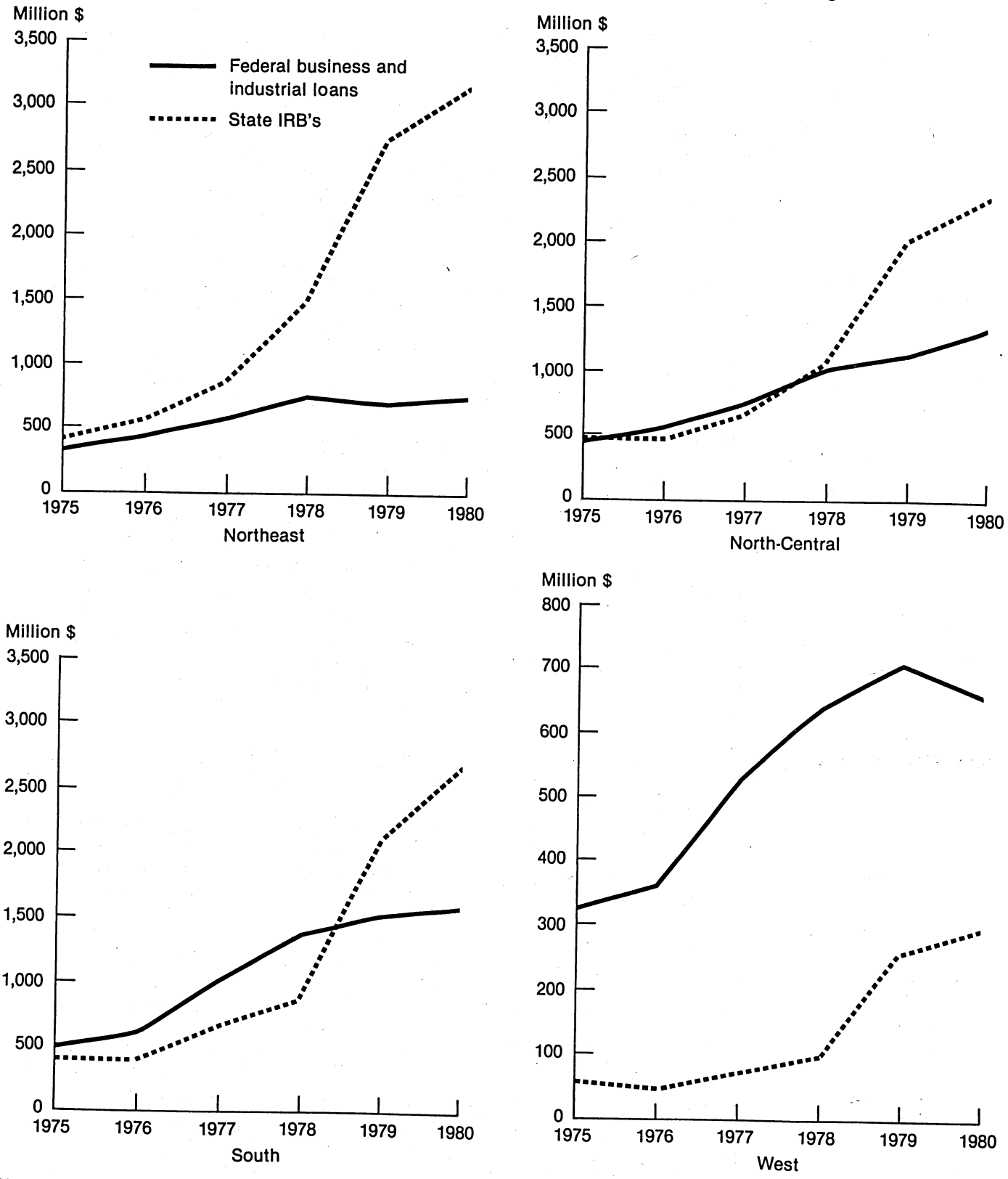
Figure 3
Federal Business and Industrial Loans and State Industrial Revenue Bond Issues.



[1] Includes business and industrial direct loans and loan guarantees from three Federal Agencies: (1) FmHA—business and industrial loans, (2) EDA—economic development-business development assistance, and (3) Small Business Administration—small business loans, State and local development company loans, small business investment companies, and small business financial assistance programs (1975 only).

Source: Community Services Administration, Geographic Distribution of Federal Funds in Summary FY 1975-FY 1980; U.S. Congress, Congressional Budget Office, Small Issue Industrial Revenue Bonds, April 1981.

Figure 4
Federal Business and Industrial Loans and State Industrial Revenue Bond Issues by Region



Note: Federal business and industrial loans (B&I's) include business and industrial direct loans and loan guarantees from three Federal agencies: (1) FmHA—business and industrial loans, (2) EDA—economic development—business development assistance, and (3) Small Business Administration—small business loans, State and local development company loans, small business investment companies, and small business financial assistance programs (1975 only).

Thus, it would appear that some program replacement occurred over the 1975-80 period. But the dollar volume measures of IRB's and Federal loans and loan guarantees indicate little about whether or not State and local authorities had purposefully and consciously replaced one program with the other. A realistic assessment is that it was a set of interrelated circumstances and not a conscious policy that led to the burgeoning popularity of IRB's vis-a-vis Federal loan guarantees between 1975 and 1980. First, the savings in interest costs resulting from tax-exempt IRB financing was greater during this period than at any other time in the seventies. Tax-exempt interest rates are typically 30 percent below taxable rates, but this difference widened to roughly 40 percent between 1978 and 1979. 4/ Second, because of rapid inflation and a restrictive monetary policy by the Federal Reserve, soaring interest rates on conventional loans including Federal B&I loans, made the lower interest on tax-exempt IRB financing even more attractive to State and local development authorities. The difference in interest rates of IRB financing and conventional sources widened from 2 percent in 1975 to over 4 percent in 1980. Third, in 1978, Congress raised the issue and expenditure limit on IRB projects from $10 million to $20 million if the project was located in a distressed area that received Urban Development Action Grant (UDAG) funding. This action made larger projects possible, thus allowing more firms to take advantage of IRB financing. Fourth, IRB's were used more extensively to finance projects other than manufacturing, for example, office buildings, retail stores, and fast food franchises. Finally, because of growing deficits and the prospect of new federalism, there has been little motivation to continue Federal direct loan and loan guarantee programs for business and industry. In recent years, Congress has attempted to curb both the growth of Federal outlays for direct loans and the administrative authority to make loan guarantees.

PREVIOUS RESEARCH

In view of the rapid growth of State direct-assistance programs, it is surprising that so few studies directly addressed the dual role issue. Most previous studies focussed on the effectiveness of industrial revenue bond financing and business tax concessions within the State, without considering either the influence of Federal programs or the effect of direct-assistance activities on interstate competition. 5/ While

4/ Congressional Budget Office, op. cit.

5/ The authors of several recent articles comment on the ineffectiveness of direct-assistance programs and the interstate competition for industry, but provide little analysis and documentation. See, for example, Robert Klein, "State-Local Tax and Industrial Location," Revenue Administration, NATA Proceedings, 45th annual meeting, 1977, pp. 178-89; Stuart Holland, Capital Versus the Regions, (New York: St. Martins Press), 1976; Jerry Jacobs, Bidding for Business: Corporate Auctions and the Fifty Disunited States, (Washington, D.C.: Public Interest Research Group) August 1979; and David Mulkey, and Buddy L. Dillman, "Location Effects of State and Local Industrial Development Subsidies," Growth and Change, Vol. 7, No. 2, April 1976, pp. 37-43.

the influence of Federal direct-assistance programs on the competitive growth of State-financed activities has not been a major concern of researchers, recent studies reveal several things about industrial mobility and the cost-effectiveness of direct-assistance programs.

Interstate Competition for Industry

A basic objective of direct-assistance programs is to increase the level or rate of growth of manufacturing activity. In recent years, as the manufacturing sector entered a postindustrial period of decline, the stock of potential candidates opening new manufacturing operations has been sharply reduced, forcing State and local development authorities to compete more actively to attract or retain plants currently in operation. 6/ Critics of State and local competitive activities claim that interstate competition for new industry has become a "zero sum game" where the benefits, in terms of jobs, extra tax revenues, and secondary economic stimulation, in some States are always balanced or even exceeded by the losses that accrue to other States. 7/

Are State programs actually being used in a "zero sum game" to compete for industrial jobs? While there is no clear evidence of the direct influence of direct-assistance programs, recent studies of industrial job mobility show that a substantial number of jobs were displaced in the United States during the seventies. In some areas (for example, the Northeast and Midwest) and some industries (for example, primary metals and automotive), there were substantial job losses due to closings and contractions, while in other areas (for example, the South and West) and other industries (for example, services and retail trade) plant startups and expansions increased employment.

The turnover of manufacturing plants and the level of job displacement was exceptionally high from 1969 to 1975. In a recent study, Miller found that of approximately 390,000 plants in operation in 1969, 130,000 closed by 1975, while 127,000 plants opened during this period. 8/ The loss of employment due to plant closings was substantial, 27.2 percent of base year manufacturing employment in 1969 (5.2 million jobs). Startups, on the other hand, added only 3.7 million jobs (19.5 percent of base year manufacturing employment). This reshuffling of manufacturing employment by start-ups and closings reduced total manufacturing employment by 7.7 percent (over 1.4 million jobs).

6/ James P. Miller, "Manufacturing Relocations in the United States, 1969-75," in Plant Closings: Public or Private Choices? Edited by Richard B. McKenzie (Washington, D.C.: CATO Institute), 1982, pp. 19-35.

7/ Jerry Jacobs, op. cit.

8/ James P. Miller, Nonmetro Job Growth and Locational Change in Manufacturing Firms, RDRR No. 24 (Washington, D.C.: Econ. Res. Serv., U.S. Dept. Agr.), August 1980.

In another study, Schmenner provides additional evidence of high branch plant turnover among large corporate manufacturing firms. 9/ He found that during 1972-78, as a proportion of the number of branch plants that remained in operation (stay-put plants), 10.7 percent closed, 4.7 percent relocated, 35.4 percent were acquired by other companies, 11.6 percent were involved in divestitures, and 7.4 percent were opened and then closed. A residual number, 17 percent, started and survived over the period. Plant openings increased the total number of plants, after subtracting the number of plant closings, by only 6.3 percent.

In a well-publicized study that covered 82 percent of all private sector employment, David Birch provided further evidence that job displacement was high in the United States. 10/ Over the period 1969 to 1976, private investment in new establishments created about 25 million jobs while shutdowns wiped out about 22 million jobs. Expansions added about 19 million jobs while workforce contractions by existing establishments reduced employment by about 13 million jobs. Thus, about 100 jobs were lost due to closings and contractions for every 125 jobs added by expansions and new establishment openings.

While there is no reliable way to estimate the actual number of jobs that shifted from one part of the country to another, recent evidence suggests that substantial geographic reallocation occurred among States and regions. Bluestone and Harrison estimate that during the seventies "between 450,000 and 650,000 jobs in the private sector, in both manufacturing and nonmanufacturing, were wiped out somewhere in the United States by the movement of both large and small runaway shops." 11/

State Tax Incentives

Another major finding of previous studies is that business tax incentives, which are widely used by States to attract industry, are ineffective and appear to have very little influence on industrial development. The consensus view on tax incentives is that they generally do not result in savings large enough to outweigh other operating costs (for example, labor, energy, and transportation). Management decisions to invest at a certain location are, at best, only minimally influenced by State and local tax concessions. State business taxes and tax incentives, such as accelerated depreciation allowances and investment tax credits, were rarely mentioned as critical factors in recent surveys of companies. 12/

9/ Roger W. Schmenner, The Locational Decisions of Large Multi-Plant Companies, (Cambridge, Mass.: The Joint Center for Urban Studies of MIT and Harvard Univ.), September 1980.

10/ David L. Birch, The Job Generation Process, (Cambridge, Mass.: MIT Program of Neighborhood and Regional Change), 1979.

11/ Barry, Bluestone, and Bennett, Harrison, The Deindustrialization of America..., (New York: Basic Books Inc.), 1982, p. 25.

12/ Robert K. Kleine, op. cit.

The typical response in most surveys of business officials was that tax incentives were "not a prime interregional determinant" of location compared to other business costs, and they were only a minor consideration when selecting a site within the region or State. According to one survey, business taxes generally ranked lowest among all location factors. 13/ Among independent firms starting new operations, only 14 percent considered business taxes to be a deciding positive influence. And in decisions to expand, business taxes were never mentioned as a positive influence. Only in decisions to open new branch plants (35 percent) were State taxes considered moderately important.

Econometric studies generally support the major survey findings that business taxes and tax incentives are not an important influence on location and investment decisions. Carlton found that after controlling for possible intervening factors, such as wages, energy prices, and the availability of labor, which could influence new manufacturing plant locations, taxes were statistically insignificant. 14/ He showed that omitting tax variables from the estimation procedure did not reduce the positive influence of the other variables (location factors) on the probability that a footloose plant would locate in a given area. In a later study to determine the factors that influence the level of manufacturing investment among States, Kieschnick demonstrated that relatively large interstate differences in tax burdens were necessary to statistically affect investment decisions. 15/ The average level of tax burden was significant and appropriately negative for only 1 of 13 industries included in the study: rubber and plastic products. For each of the remaining 12 industries, the correlation between the tax burden and the level of manufacturing investment was either insignificant or positive. Kieschnick concluded that interstate differences in business taxes play a minor role in the investment decisions of most firms.

Case studies have also been used to demonstrate the relative unimportance of State and local taxes in location decisions. In a recent review of site-selection projects by an industrial location consulting firm, hourly labor costs ranked first as a cost consideration, accounting for 60 percent of the operating cost differences among alternative sites. 16/ Locational

---

13/ Michael Keischnick, Taxes and Growth: Business Incentives and Economic Development, Volume 11, Studies in Development Policy, (Washington, D.C.: Council of State Planning Agencies), 1981.

14/ Dennis Carlton, "Why New Firms Locate Where They Do: An Econometric Model," Working Paper No. 57. Cambridge Mass.: Joint Center For Urban Studies of MIT and Harvard Univ., Jan. 1979.

15/ Michael Keischnick, op. cit.

16/ Dennis J. Donovan, "Twelve Key Questions for Site Selection Decision-makers," Industrial Development, Vol. 15, No. 4, July/August 1982, pp. 12-15.

differences in financing costs ranked second, accounting for 13 percent of locationally variable costs. Energy (11 percent) and transportation (10 percent) followed in importance. State and local taxes accounted for only 4 percent of site cost differences among the projects reviewed and were ranked last.

Cornea, Testa, and Stocker also demonstrated that labor costs are more important than taxes as a locational cost consideration. 17/ Their study, which was based on 1972 State data, shows that businesses would typically spend about $1.00 in State and local taxes for every $20 in employee compensation. The authors point out that, at this low ratio of taxes to other costs, a mere 2 percent difference in wages ($0.40) between two States could offset as much as a 40 percent difference in State and local taxes. Another study in Minnesota demonstrated that lower State and local taxes did not give most businesses an operating cost advantage over other States. 18/ Even when Minnesota taxes were assumed to decrease to zero, the relative operating costs of most Minnesota firms remained unchanged compared to operating costs in other States. Finally, a Florida study demonstrated that a hypothetical firm making $220,000 per year would ultimately realize only $7,694 (3.5 percent) in savings due to State tax incentives. 19/ The ultimate savings are small because the Federal tax burden increases. Businesses pay more Federal tax because lower State taxes increase the level of income subject to Federal tax.

The obvious policy implication arising from these recent case studies is that tax incentives must produce much larger State and local tax differentials than currently exist if the incentives are to influence the operating costs of a firm at alternative State locations. There are, however, some location decisions influenced by tax incentives. For example, State and local tax differentials are often an important consideration when selecting a site either within a State or in a neighboring State because cost differentials (for example, labor, raw materials, capital financing, building, etc.) are typically small between neighboring locations and can be offset by lower tax bills. 20/ Preliminary results in a recent study showed that

---

17/ Gary C. Cornea, William A. Testa and F.O. Stocker, State-Local Fiscal Incentives and Economic Development, Urban and Regional Development Series, No. 4, (Columbus: Academy for Contemporary Problems) 1975.

18/ William V. Williams, "A Measure of the Impact of State and Local Taxes on Industry Location," Journal of Regional Science, Vol. 7, No., 1 Summer 1967, pp. 49-59.

19/ Tax Incentives for Community Revitalization in Florida, Coopers and Lybrand, Prepared for the Department of Veteran and Community Affairs, Washington, D.C., 1981.

20/ Advisory Commission on Intergovernmental Relations, Regional Growth: Interstate Tax Competition, (A-76) (Washington, D.C.: ACIR), March 1981; Michael J. Wasylenko, "Evidence of Fiscal Differentials and Intrametropolitan Firm Relocation," Land Economics, Vol. 56, No. 3, August 1980, pp. 339-49.

major flows of manufacturing relocations in the United States from 1969 to 1975, occurred primarily to neighboring States, where previous growth in the business tax burden was lowest. 21/ States that had the lowest increases in tax burden attracted 477 plants from neighboring States, while States with higher increases in tax burden gained only 77 plants. But the fact remains that very few firms actually relocate their operations, and a smaller number relocate to neighboring States where taxes could possibly be a factor in the relocation decision. In the manufacturing sector, for example, of 320,000 establishments in operation in 1969 only 6,639 (2 percent) changed county locations between 1969 and 1975, and only 852 establishments were moved to neighboring States. 22/ The conclusion is that State and local taxes appear to influence relocation and first site location decisions only under a very restrictive set of circumstances, such as when (1) consumer demand for output and, therefore, the firm's revenue does not vary much among the alternative sites being considered, (2) the major costs of operating the firm, such as capital financing, labor, energy, etc., do not vary much among alternative sites, and (3) the increase in expected profits due to lower taxes exceeds moving costs. 23/

Industrial Revenue Bonds

Industrial revenue bond financing is another popular form of direct assistance that has been used by State and local authorities to promote business and encourage industrial development. Industrial revenue bonds (IRB's) are issued by State and local authorities to finance new buildings, machinery, and equipment for selected businesses. Installments are paid by the business to cover the interest and principal on the IRB until it is retired. The attractive feature of IRB financing and, indeed, the primary reason for its burgeoning popularity in recent years is that the interest income from IRB's is exempt from Federal taxes and in many cases from State taxes as well. Because of the tax exemption, authorities can provide financing to a business at an interest rate below the market rate and the burden, measured by the loss of tax revenue, is borne almost entirely by the Federal Government.

IRB programs are thus very cost-effective for the State or locality which offers them, particularly in States where investors are offered only the Federal income tax exemption. A recent study of State direct-assistance programs by the Urban Institute reveals that IRB programs rank second only to direct subsidy programs in cost-effectiveness. 24/ Programs to

21/ James P. Miller, "Manufacturing Relocations...", op. cit.

22/ James P. Miller, ibid., p. 25.

23/ Michael J. Wasylenko, op. cit.

24/ David W. Rasmussen, Marc Bendick Jr., and Larry C. Ledebur, The Cost-Effectiveness of Economic Development Incentives, (Washington, D.C.: The Urban Institute), Project Report, January 1982.

provide loan guarantees, worker training, and State tax incentives were less cost-effective than IRB programs.

Numerous articles have been written about the effects of IRB financing on location and investment decisions. These studies generally conclude that the influence of IRB's is marginal. In responding to surveys, managers and owners of firms rarely mention them as a consideration in their decision to invest. 25/ IRB's, like tax incentives, become an important factor only when the choice is between two sites with nearly identical characteristics, that is, within the same State or between bordering States.

While studies show that IRB's are generally cost-effective to the State or locality that issues them, there is little evidence that the nation as a whole benefits from these programs. Critics claim that IRB programs, like tax incentives, merely reallocate capital resources (that is, plant, equipment, investment funds) among States and localities without expanding net investment or creating additional jobs in the private sector nationwide. 26/

Another criticism of IRB programs concerns the type of enterprise that is typically eligible for IRB financing. Because there is more risk involved, smaller independent businesses rarely qualify. 27/ Large corporate firms are the primary recipients of IRB funds. Corporate firms typically do not need local financing, while small independent firms almost always depend upon it. Corporate branches, subsidiaries, and franchise operations usually have access to nonlocal sources in the national credit market. Consequently, IRB's are not expected to have much influence on a corporation's choice of location for its auxiliary operations.

25/ Congressional Budget Office, Small Issue Industrial Revenue Bonds, (Washington, D.C.: U.S. Congress), April 1981.

26/ Elden D. Smith, Brady J. Deaton, and David R. Kelch, "Location Determinants of Manufacturing Industry in Rural Areas," Southern Agricultural Economics, July 1978, pp. 23-32; and Jerry Jacobs, op. cit.

27/ Jerry Jacobs, op. cit.

CONCLUSIONS

There is very little previous research that addressed the influence of Federal direct-assistance programs for business and industry on similar State programs. State programs, particularly industrial revenue bond financing and tax-incentive programs, have expanded enormously in recent years, while Federal programs (for example, loan guarantees) have been cut back. It is possible that State programs are replacing some Federal programs. Thus far, however, no study has brought to light (1) the extent to which State programs may be substituted for Federal programs, (2) the effect of past Federal, State, and community development direct-assistance outlays upon the State's competitive position in attracting new industry, or (3) the level of societal benefits relative to total program costs that accrue when States substitute their own programs for Federal programs.

Information on the recent trend in Federal and State programs, particularly in State IRB financing and Federal loans and loan guarantees, may provide initial insight on the issue of substitution. Prior to 1975, loan guarantees to business and industry, a major program at the Federal level, were not very popular as a State incentive. In 1975, only 14 States offered guaranteed loans for building construction. Industrial revenue bond financing programs at either the State or local level, on the other hand, were being offered in 43 States. The low popularity of State loan guarantees before 1975 suggests that such programs were perceived by State development authorities as a poor substitute for other types of programs, or were already replaced by Federal loan guarantees. The dollar volume of Federal loan guarantees continued to expand after 1975 but not nearly as rapidly as State IRB's. Over the period 1975-80, a dramatic increase in IRB financing and a leveling off of Federal loan guarantees indicate that some program replacement occurred. It is possible that officials have been using both Federal and State programs to the maximum extent possible in order to attract and keep industry. There is nothing to document, however, that a replacement of programs was consciously undertaken by State and local officials. More research is required, particularly surveys, in order to establish whether or not there has been conscious effort by State and local authorities to replace Federal programs.

One final observation is that the level of societal benefits relative to total program costs of current Federal and State direct-assistance activities, regardless of whether one replaces the other, may be much lower than expected. Benefits are expected to accrue to the Nation as a whole if Federal programs help to fill a credit gap or reduce unemployment in labor surplus areas, that is, areas with high unemployment. But critics of direct-assistance programs argue that financial and tax incentives to business do little more than enhance the natural competitive process by which jobs are reallocated among States and industries without actually encouraging additional employment opportunities nationally. Recent studies show that new plants and jobs created in one group of States and industries

are often offset by plant closings and jobs lost in other States and industries. Case studies and surveys also show that locational investment decisions are not significantly influenced by financial and tax incentives. The societal benefits, therefore, are not expected to be very high if States are using ineffective direct-assistance programs merely to attract businesses that are being phased out in other States.

Appendix table 1--Number of States employing State-financed economic development activities

Activity	1966	1980	Change
Financial assistance:			
City/county revenue bond financing	28	46	18
State financing aid for existing plant expansions	14	31	17
State authority or agency revenue bond financing	8	24	16
State loans for building construction	11	23	12
State loans for equipment-machinery	8	17	9
City/county general obligation bond financing	14	23	9
State loan guarantees for building construction	11	19	8
State loan guarantees for equipment/machinery	9	17	8
State-sponsored industrial development authority	25	32	7
State authority or agency general obligation bond financing	4	9	5
State matching funds for city/county industrial financing programs	5	10	5
City/county loans for building construction	8	11	3
Private sponsored development credit corporation	31	34	3
City/county loans for equipment/machinery	6	8	2

--continued

Appendix table 1 (continued)--Number of States employing State-financed economic development activities

Activity	1966	1980	Change
Special services:			
City/county-owned industrial park sites	28	49	21
State funds for city/county development-related projects	17	38	21
City/county speculative building	5 (1967)	24	19
State funds for city/county master plans	22	34	12
State funds for city/county recreational projects	27	39	12
State incentives to industry to train hard-core unemployed	39	50	11
State retraining of employees	38	49	11
State program to promote exports	36	47	11
Cities/counties provide free land for industry	7 (1967)	15	8
State recruiting, screening of industrial employees	42	50	8
State-financed speculative building	2 (1967)	9	7
State-owned industrial parks	4	8	4

--continued

Appendix table 1 (continued)--Number of States employing State-financed ecomomic development activities

Activity	1966	1980	Change
Tax incentives:			
Exemption on manufacturers' inventories	19	42	23
Sales/use tax exemption on new equipment	16	36	20
Accelerated depreciation on industrial equipment	9	28	19
Exemption or moratorium on land, capital improvements	11	29	18
Exemption or moratorium on equipment-machinery	15	31	16
Exemption on raw materials in manufacturing	32	46	14
Exemption on goods in transit	32	45	13
Corporate income tax exemption	11	25	13
Excise tax exemption	5	15	10
Exemption to encourage research and development	3	12	9

Source: "The Fifty Legislative Climates," an annual survey published by Conway Research Inc., of Atlanta, Georgia, in the November-December issue of Industrial Development for 1966 and the January-February issue for 1980.

Appendix table 2--A comparison of the dollar volume trends in Federal B&I loans and loan guarantees and State IRB's at the State level between the periods 1975-77 and 1978-80

Item 1/	Loans 2/		IRB's	
	1975-77	1978-80	1975-77	1978-80
	Average annual rate			
United States	31.8	6.6	35.0	69.6
Reversal to more rapid IRB growth (22 States):				
Alabama	50.8	5.4	7.3	75.6
Arkansas	59.7	0.4	10.5	24.3
Colorado	30.2	-8.1	13.1	113.8
Connecticut	52.6	9.0	16.4	168.2
Delaware	67.0	-56.6	-32.0	82.1
Florida	41.3	19.6	-6.1	10.1
Kansas	26.0	17.2	13.6	22.7
Kentucky	40.4	41.3	13.0	49.3
Louisiana	36.4	6.0	-0.8	30.7
Maine	22.5	-23.0	-22.5	212.9
Michigan	51.6	15.9	36.5	78.2
Montana	54.2	15.5	34.3	60.0
Nebraska	27.6	11.9	16.3	20.7
New Hampshire	48.2	-23.4	41.4	114.9
Oklahoma	49.0	-13.6	7.8	63.8
Rhode Island	40.1	-5.0	-11.6	242.2
Tennessee	51.3	23.0	7.9	147.8
Utah	24.5	-17.1	23.3	180.0
Vermont	38.9	21.9	36.1	152.6
West Virginia	64.2	-7.2	-21.3	26.4
Wisconsin	70.3	15.1	-24.6	95.7
Wyoming	46.5	-16.6	3.6	128.9
More rapid IRB growth, 1978-80 (18 States):				
Arizona	24.5	17.7	96.1	132.4
Georgia	55.3	5.9	196.1	63.4
Indiana	17.2	2.8	85.9	55.3
Iowa	30.7	22.9	31.7	41.5
Maryland	40.7	1.2	42.1	203.6
Massachusetts	18.0	14.9	62.2	312.0
Minnesota	15.8	9.7	31.5	82.8
Missouri	49.0	-2.2	125.9	1.0
New Jersey	33.2	-8.0	125.4	59.4
New York	27.8	9.8	38.1	80.2
New Mexico	68.9	20.6	13.0	23.2
North Carolina	32.2	17.1	100.0	147.3

--continued

Appendix table 2 (continued)--A comparison of the dollar volume trends in Federal B&I loans and loan guarantees and State IRB's at the State level between the periods 1975-77 and 1978-80

Item 1/	Loans 2/		IRB's	
	1975-77	1978-80	1975-77	1978-80
	Average annual rate			
More rapid IRB growth, 1978-80 (18 states):				
Ohio	27.7	43.9	22.8	82.8
Oregon	21.7	32.8	0.0	113.2
Pennsylvania	38.8	0.0	44.4	30.5
South Carolina	39.6	43.1	80.1	128.5
South Dakota	29.0	-10.8	120.9	14.4
Virginia	24.1	14.4	49.5	115.3
More rapid growth in B&I loans, (2 States):				
Illinois	24.0	44.6	13.7	16.4
North Dakota	135.2	47.7	-17.1	36.2

1/ Eight States are omitted because no data were available on IRB issues.
2/ Includes business and industrial direct loans and loan guarantees from three Federal Agencies: (1) FmHA--business and industrial loans, (2) EDA--economic development and business development assistance, and (3) Small Business Administration--small business loans, State and local development company loans, small business investment companies, and small business financial assistance programs (1975 only).

Sources: Community Services Administration, Geographic Distribution of Federal Funds in Summary. FY 1975, FY 1980; and U.S. Congress, Congressional Budget Office, Small Issue Industrial Revenue Bonds, April 1981.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1983-420-930:ERS-56