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MICHIGAN STRATEGIC FUND

Annual Report
Year 6 -- 1991

The Annual Report of the Michigan Strategic Fund has been prepared pursuant to Section 9(1) of Act No. 270 of the Public Acts of 1984, as amended. The cost for 250 copies of this report is as follows:

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TO THE MICHIGAN LEGISLATURE . . .

1991 was a year of transition for the Michigan Strategic Fund. With the change in Administration came five new members to the Board and a shift of emphasis in programs.

The predominantly new Board spent the first half of the year learning about and reviewing existing programs.

The philosophy of the Board is to continue to fund those programs which can demonstrate an ability to provide the MSF -- and the people of Michigan -- a return on investment sufficient to warrant the investment. Whether a grant, loan, or direct investment, this concept of the MSF being provided a favorable return on our funds is consistent throughout the Board's decisions. The return can come in many forms, from increased economic activity, leveraging of federal or private funds, additional tax base and jobs created ... but it must be present.

While some programs have been suspended, chiefly those which provided direct loans to companies, the MSF remains a force in economic development financing. Our Capital Access Program has assisted over 1,300 businesses in obtaining bank financing and is now a national model of a private public partnership that works. The Board will continue to support programs like the Capital Access Program and others which can demonstrate their contributions to the State.

Thank you.

James Nicholson

James Nicholson
Chairman
Michigan Strategic Fund Board

MSF BOARD OF DIRECTORS

MSF BOARD OF DIRECTORS
MEMBERS AS OF
DECEMBER 31, 1991

James B. Nicholson
Chairman of the MSF Board
Chief Executive Officer, Pressure Vessel Service, Inc.

Douglas Roberts
State Treasurer
Michigan Department of Treasury

Randolph J. Agley
Chairman of the Board, Talon, Inc.

Arthur E. Ellis
Director, Michigan Department of Commerce

Craig Smith
Executive Vice President, Lewiston & Smith Realty Corporation

S. Martin Taylor
Vice President, Community & Governmental Affairs
Detroit Edison

Richard W. Young
President, Behler-Young, Inc.

PAST MEMBERS

William Vititoe
Robert Pew
Doug Ross
Elaine Moncur-Bailey
William Rosenberg

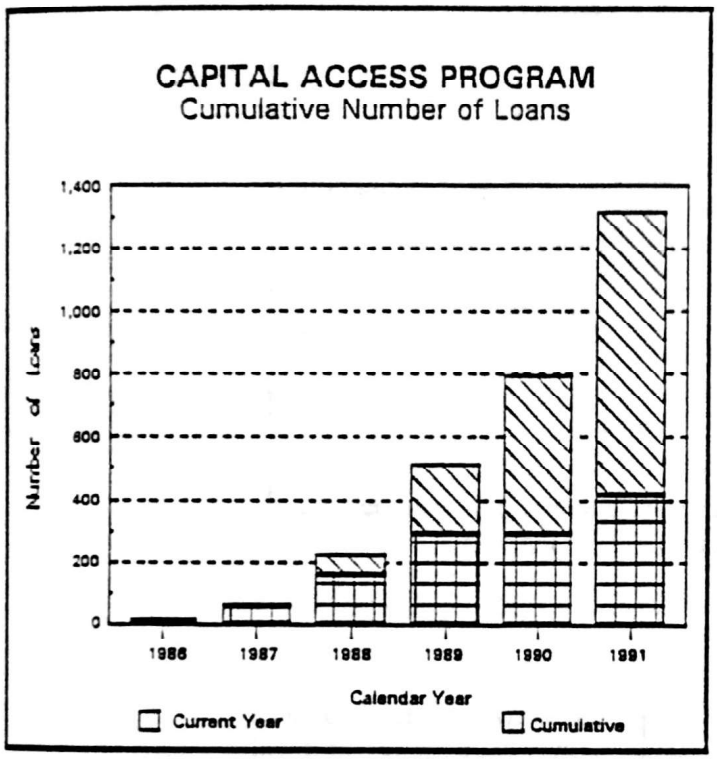
Wade McCree, Jr.
Michael Staebler
John Psarouthakis
Andrea Fischer
Rodica Seward

Joseph Spruit
Robert Bowman
Larry Meyer
Peter Plastrik
Robert Kittredge, Sr.

1991 PROGRAM RESULTS

CAPITAL ACCESS PROGRAM

The Capital Access Program saw the number of small businesses that have obtained access to bank financing through use of the program increase by more than 416. In addition, a number of companies that had previously received financing under the program received additional loans during 1991. Altogether, since the beginning of the program in mid 1986, more than 1,314 companies have received over $64 million under the program. A total of 87 banks have signed up to participate in the program, representing approximately 85% of statewide commercial banking assets. The MSF continues to achieve increasing leverage of its resources, with the ratio of bank lending to MSF deposits into the reserve funds exceeding 20 to 1. When additional private financing attracted to these deals is taken into consideration, the leverage ratio is increased further. In 1990, after a thorough evaluation of the program which concluded that the program was successfully meeting its objectives, the MSF Board increased, by $9 million, its commitment to the program. The total MSF commitment is $14 million, enough to support about $300 million in bank lending under the program.



BIDCO PROGRAM

The BIDCO Program saw two new BIDCOs become operational during 1991, with $8.5 million in initial capital. This brings to 9 the number of BIDCOs operational in Michigan. These 9 BIDCOs have $51.1 million in initial capital, $17.9 million of which was invested by the MSF. To date, the BIDCOs have invested in 38 companies, generating $53.5 million in financings. This includes $17 million in BIDCO capital and $36.5 million attracted from

other sources. Greater Detroit BIDCO, the first minority owned BIDCO in the nation, has invested over a million dollars in five minority owned companies. In addition to the 9 BIDCOs that are operational, the first BIDCO to receive a commitment under the Rural BIDCO Program is currently raising its private capital.

Arcadia BIDCO Corporation
Kalamazoo
Contacts: Bill Becker, Bob Brown or Ron Bieke

Onset BIDCO, Inc.
Livonia
Contacts: Hugo Braun or Scott Eisenberg

Great Lakes BIDCO, Inc.
Birmingham
Contacts: John Berkaw or Debra Ball

Discovery BIDCO, Inc.
Grand Rapids
Contact: Mike Presant

Greater Detroit BIDCO, Inc.
Detroit
Contact: Catherine Lockhart

Jackson BIDCO, Ltd.
Jackson
Contacts: Pat Willis or Ray Waters

Capital BIDCO, Inc.
Lansing
Contact: Barry Wilson

Liberty BIDCO Investment Corp.
Southfield
Contact: Pearl Holforty

Access BIDCO, Inc.
Ann Arbor
Contacts: Mike Walled or Gary Baker

MICHIGAN'S BIDCO INDUSTRY AS OF 12/91

SEED CAPITAL PROGRAM

The Seed Capital Program found the three private seed capital funds initiating investments in six new startup companies with high growth potential. Some $1.3 million has been committed to these six companies, with $.5 million already having been disbursed. In addition, during 1991, an additional $1.9 million was disbursed to companies previously started by these seed funds. Altogether, since the launching of the seed funds in mid 1987, a total of 34 startup companies have received $8.2 million from the seed funds. While these investments are by their nature quite risky, and it will take a period of years to determine their ultimate impact, an independent review conducted during 1990 identified a number of companies in the portfolio of the seed funds that appear to have substantial prospects of becoming significant companies in Michigan.

- Enterprise Development Fund, Ann Arbor
- Diamond Venture Associates, Ann Arbor
- Demery Seed Capital Fund, Franklin

PRIVATE SEED FUNDS AS OF 12/91

1991 PROGRAM RESULTS

IDRB PROGRAM

The Industrial Development Revenue Bond Program (IDRB) issued bonds on behalf of 17 manufacturers for $62 million. These bonds reduce the cost of financing the fixed asset purchases of Michigan's small and medium sized employers through the issuance of tax-exempt debt, typically backed by a letter of credit from a Michigan bank. The cost of borrowing through IDRBs is around 80% of prime. The MSF also issued bonds for 4 not-for-profit firms for a total of $16 million. Finally, 16 companies had old bonds refunded totaling $315 million providing additional interest savings to our customers.

INDUCEMENT LOAN PROGRAM

The Inducement Loan Program provided financial assistance to a Pennsylvania based corporation to locate a new manufacturing plant in the state. The loan totaling $400,000 leveraged over $3.8 million in private capital which will result in the creation of approximately 30 jobs when the project is operational. Through this program, the MSF has participated in nine loans with over $200 million in private investments which resulted in the creation of 1,600 jobs in the state in the last five years.

RESEARCH AND TECHNOLOGY PROGRAM

During 1991, the MSF continued its commitment to support Michigan firms' access to high technology. This was a particularly successful year for Michigan in securing new federal support for research and technology initiatives.

The National Institute of Standards and Technology awarded $13million, matched by the MSF, to the Industrial Technology Institute (ITI) to create the Midwest Manufacturing Technology Center (MMTC). The six-year award will enable MMTC/ITI to provide technology assistance and promote technology transfer to small and medium sized businesses in Michigan. The MMTC will serve over 1,800 firms in the machine tool, tooling, metal-forming and plastics processing sectors over the next six years. These firms, major suppliers to the auto and furniture industries, are the foundation of the Michigan economy and must modernize in order to maintain both their own and our state's economic well-being. ITI has partnered with the state universities and with

the Research and Technology Institute (RTI) of Western Michigan to provide these much-needed services.

· A second major federal award received by the state this year was for the State/Industry/University Cooperative Research Center in Low-Cost/High-Speed Polymer Composites Processing Center at Michigan State University. This National Science Foundation award of $1 million over four years was matched by the MSF and by more than $1.3 million in industry funding to support research on processing methods that will enable Michigan's durable goods industry to make more effective use of advanced polymer composites. The Center will include an active technology transfer program, supported by the MSF grant.

· A third area in which MSF helped secure federal funding for Michigan's research and development (R&D) base was through its grant to Michigan Energy and Resource Research Association (MERRA). During 1991, MERRA worked with more than 500 small technology-based businesses, about 150 of which were successful in securing Small Business Innovative Research (SBIR) and other federal R&D awards totalling about $75 million.

· In addition to these new awards, the MSF continued to support the Michigan Biotechnology Institute (MBI). During 1991, the first joint venture to commercialize MBI-developed technology was launched. Using MBI's fermentation technology, Lactech will produce lactic acid from corn starch feedstock. During 1991 alone, Lactech provided $1 million to MBI in development funding.

These successes, combined with those of prior years and our on-going projects (see appendix), have served to create a strong technology infrastructure that will help Michigan companies remain competitive and foster the growth of new industry in the state.

CAPITAL ACCESS PROGRAM

The Capital Access Program is designed to give banks a flexible and extremely non-bureaucratic tool to make business loans that are somewhat riskier than a conventional bank loan in a manner consistent with "safety and soundness" bank regulation. The program helps make possible private market transactions in which the bank exercises its own judgment, but with greater flexibility for risk-taking, and the borrower obtains access to bank financing which it otherwise might not be able to obtain. The Capital Access Program is based on a unique portfolio insurance concept instead of loan-by-loan guarantees. For each bank participating in the program, a special reserve fund is established to cover future losses from a portfolio of loans which the bank makes under the program. The reserve is owned and controlled by the MSF, but earmarked in that bank's name. Thus, each bank participating in the program has its own separate earmarked loss reserve. Payments are made into a bank's earmarked reserve each time the bank makes a loan under the program. The borrower makes a premium payment, of from 1.5% to 3.5% of the loan amount, the bank matches that payment, and then the MSF matches the combined total of the borrower's and the bank's payment. The bank is allowed to recover the cost of its payment from the borrower through the pricing of the loan, such as by increasing the interest rate or charging a fee. Any up-front premiums or fees can be financed as part of the loan. If a bank makes a portfolio of loans under the program, it might have a reserve equal to, for example, 10% of the total amount of the portfolio. In such a situation, the bank could sustain a loss rate of up to 10% on that portfolio and still be completely covered against loss. This gives the bank the ability to absorb a higher loss rate than it could tolerate on its conventional loans. However, the bank must still be prudent, since it is completely at risk for any losses that exceed the coverage provided by the reserve. Because of this incentive for prudence, there is no need for the MSF to play any role in reviewing or second guessing the bank's lending analysis. The bank decides whether or not and under what terms and conditions to make a loan, and files a one-page Loan Filing Form with the MSF within ten days after a loan is made under the program.

STANDARD BIDCO PROGRAM

The MSF's Standard BIDCO Program was designed to catalyze the formation of a new industry of private financial institutions to help meet the financing needs of small and medium-sized businesses in Michigan. Many businesses with economically sound growth financing needs are unable to obtain needed capital. Their financing needs are viewed as too risky for conventional bank lending, yet cannot provide the super high rates of return sought by venture capitalists. BIDCOs (Business and Industrial Development Corporations) are designed to address this moderate risk financing gap. BIDCOs provide flexible financing, often in the form of subordinated debt combined with some form of equity kicker. By taking warrants to acquire stock or a royalty on increased sales, BIDCOs are compensated for taking greater risk by sharing, to a modest degree, in the success of the companies

they finance. BIDCOs also provide hands-on support and management assistance, in order to reduce risk and facilitate the growth of their portfolio companies. BIDCOs are licensed and regulated by the Michigan Financial Institutions Bureau as a new class of private financial institution. The MSF makes equity investments in BIDCO's which meet its high quality standards. Obtaining an MSF commitment enhances the credibility of BIDCOs as they seek private investment. As an expression of its confidence in the quality of the BIDCOs in which it invests, the MSF subordinates 80% of its stock to the private equity, in the unlikely event of failure of the BIDCO. However, the MSF shares fully in the upside returns from its investment. The MSF's stock in BIDCOs is non-voting stock, to emphasize that the MSF's purpose is to catalyze the formation of this new type of private financial institution, and not to be involved in operation of BIDCOs. Ultimately, the MSF intends to sell its stock in BIDCOs, leaving behind an industry of private financial institutions operating without any MSF investment. A key objective of the BIDCO program is leverage. The initial leverage of the MSF's investment comes from private equity invested in the BIDCOs. However, the ultimate leverage comes from using a relatively small amount of public investment to catalyze the formation of a new industry of self-sustaining private financial institutions. By investing its capital, by borrowing additional funds over time from institutional debt sources, and by recycling some of the proceeds from their investments, BIDCOs can help meet the expansion financing needs of Michigan businesses for generations to come. The MSF Board is not currently accepting applications for investments under the BIDCO program. As the BIDCO industry matures, the Board will evaluate whether additional BIDCO investments are desirable.

MINORITY BIDCO PROGRAM

The Minority BIDCO Program is intended to catalyze the formation of minority-owned and operated BIDCOs as part of the broader, emerging BIDCO industry in Michigan. The Minority BIDCO Program enables minorities to play a central role in the financial institutions system that provides capital to businesses. In order to maximize prospects for long-term viability and success of private, minority-owned BIDCOs, they are given the flexibility to finance any Michigan business. At the same time, The MSFs investment is structured to provide strong incentives to encourage minority-owned BIDCOs to finance minority-owned companies and companies located in distressed areas. The initial capitalization for a minority BIDCO consists of three components: 1) at least $500,000 from equity investors, more than 50% of which must be from minorities; 2) a subordinate loan of up to $3 million from the MSF; and 3) a senior loan or loans from a private debt source or sources, at least matching the amount of the MSF loan. A typical minority BIDCO which obtains $3 million from the MSF would open its doors with at least $6.5 million in initially committed capital. The MSF's loan is structured as a 9%, 10-year loan, with no principal payments until the end of the 10th year. Interest is accrued but is not paid until the end of the 10th year. The key to the program design is that the MSF's loan can be gradually converted into a grant over a period of

years. Conversion of the loan is based on the performance of the BIDCO in creating jobs and stimulating increased sales in minority-owned businesses and businesses located in distressed areas. The conversion formula provides the BIDCO with credits against the principal and accrued interest on the MSF loan. In connection with each minority-owned business or distressed-area business it finances, the BIDCO can earn $1,000 of credit for each job created, and a credit of 1% of the increase in the portfolio company's annual sales. Jobs and sales credits can be earned each year for five years, giving the BIDCO credit not only for immediate job creation and sales stimulation in the companies it finances, but also providing extra credit for long-term impact. This gives the BIDCO additional incentive to continue working with and assisting a company after a financing is made. The program's subsidy is completely performance-based, and is earned only if the BIDCO is having real social and economic impact. The conversion formula was designed to enable the BIDCO, with reasonable performance, to fully convert the MSF's loan into a grant. In addition to providing strong incentives for financing minority-owned businesses and businesses in distressed areas, the conversion of the loan into a grant will promote the long term viability and success of the minority BIDCO, by helping it to substantially enhance its equity base. The MSF Board is not currently accepting applications for investments under the Minority BIDCO program.

RURAL BIDCO PROGRAM

The Rural BIDCO Program is intended to spur the formation, of one or more BIDCOs which will have, as its primary focus, serving businesses located in rural counties, including rural counties that are economically distressed. The Rural BIDCO Program is intended to help address obstacles to the formation and successful operation of such BIDCOs. Obstacles may include the greater dispersion of the population requiring a larger geographic market; the prevalence of smaller companies resulting in smaller deal sizes; a smaller population base from which to raise funds and recruit a management team; and most importantly, the fact that many rural counties in Michigan have suffered from chronic economic distress. To catalyze the formation of rural BIDCOs, the MSF has structured a loan program similar to that used in the Minority BIDCO Program. The initial capitalization for a rural BIDCO consists of three components: 1) at least $500,000 of equity investment in the BIDCO; 2) a subordinate loan of up to $3 million from the MSF, and 3) a senior loan or loans from a private debt source or sources, at least matching the amount of the MSF loan. A typical BIDCO which obtains $3 million from the MSF would open its doors with at least $6.5 million in initially committed capital from the three components. The MSF's loan is structured as a 9%, 10-year loan, with no principal payments until the end of the 10th year. Interest accrues without being paid until the end of the 10th year. The key to the program design is that the MSF's loan can be gradually converted into a grant over a period of years based on the performance of the BIDCO in creating jobs and stimulating increased sales in businesses located in rural counties, especially distressed rural counties. While the BIDCO can finance any Michigan business, credits towards

converting the loan into a grant are earned only for jobs created and sales increased in rural businesses, with extra credits given depending on the level of distress in the rural county. The conversion formula gives the BIDCO credit not only for immediate job creation and sales stimulation in the companies it finances, but also provides extra credit for long-term impact. This gives the BIDCO additional incentive to continue working with and assisting a company after a financing is made. The program's subsidy is completely performance-based, and is earned only if the BIDCO is having real social and economic impact. The formula has been designed so that, with reasonable performance by the BIDCO, the BIDCO should be able to fully convert the MSF's loan into a grant before the due date of the loan. In addition to providing strong incentives for financing rural businesses, particularly in distressed rural counties, the conversion of the loan into a grant will promote the long-term viability and success of the rural BIDCO, by helping it to substantially enhance its equity base. The MSF Board is not currently accepting applications for investments under the Rural BIDCO program, but is processing applications already received.

SEED CAPITAL PROGRAM

The MSF's Seed Capital Program has launched three private sector venture capital funds known as seed capital funds, created to fill the "seed capital gap." Seed capital is capital needed in the earliest stage of the development of a prospective business. It encompasses activities such as developing a working prototype, preparing a business plan, performing initial market analysis, or assembling a management team. Historically, venture capital funds in Michigan typically have not invested in companies until these activities have been accomplished. In order to compensate for the high risk involved in making equity investments in companies at the earliest stage of development, seed capital funds high rates of return on their individual investments. They thus target their investments in companies with the potential for rapid growth, often in high technology. The seed funds review individual deals from a private market perspective, without interference or second guessing by the MSF. The ultimate objective of the MSF's initiative is to help create some businesses with a significant presence and impact on Michigan's economy, and to institutionalize a long-term private sector capacity in Michigan for seed capital investing. The MSF Board has suspended new investments in seed capital companies until maturation of the industry and program performance has been evaluated.

INDUSTRIAL DEVELOPMENT REVENUE BOND PROGRAM

The objective of the Industrial Development Revenue Bond (IDRB) Program is to stimulate economic development and job creation in Michigan by providing manufacturers and other eligible projects access to significantly

below market-rate, long-term private financing. IDRB financing can be used for capital improvements including new building construction and rehabilitation, and the acquisition of land, machinery and equipment. The MSF uses its bonding authority to issue tax-exempt Industrial Revenue Bonds. These MSF bonds are generally secured by the company and/or a bank letter of credit. The bonds are either publicly sold or privately placed; the proceeds of which are then loaned to the company to finance its development project. The company makes application to the MSF prior to starting its project. Once approved, this very non-bureaucratic process can result in below market-rate financing available in as little as 60 days.

RESEARCH AND TECHNOLOGY PROGRAMS

The goal of the Research and Technology Program is to build the technology infrastructure of the state. Michigan business needs access to first-class science and scientists and to new productivity enhancing process technologies in order to remain competitive. The Research and Technology Program has embarked on three major types of initiatives. First, the MSF has enhanced the initial investments of the Michigan Economic Development Authority in the Centers of Excellence. These non-profit Centers were designed to support the state's existing manufacturing base (Industrial Technology Instititute), foster the development of a new biotechnology based industry (Michigan Biotechnology Institute), and support the start-up of new technology based businesses (Metropolitan Center for High Technology). The second type of investment has been to secure major federal and industry funding for Michigan's universities and to use state funding to leverage Michigan businesses' access to that research base. The MSF has provided cost-sharing for several National Science Foundation Centers and for industrial consortia under this initiative. The third type of investment has been to support the development of an infrastructure to assist small technology-based businesses in securing R&D resources. Altogether, the Research and Technology Program provides support to thirteen centers and programs. No major new investments are being considered at this time.

the Research and Technology Institute (RTI) of Western Michigan to provide these much-needed services.

· A second major federal award received by the state this year was for the State/Industry/University Cooperative Research Center in Low-Cost/High-Speed Polymer Composites Processing Center at Michigan State University. This National Science Foundation award of $1 million over four years was matched by the MSF and by more than $1.3 million in industry funding to support research on processing methods that will enable Michigan's durable goods industry to make more effective use of advanced polymer composites. The Center will include an active technology transfer program, supported by the MSF grant.

· A third area in which MSF helped secure federal funding for Michigan's research and development (R&D) base was through its grant to Michigan Energy and Resource Research Association (MERRA). During 1991, MERRA worked with more than 500 small technology-based businesses, about 150 of which were successful in securing Small Business Innovative Research (SBIR) and other federal R&D awards totalling about $75 million.

· In addition to these new awards, the MSF continued to support the Michigan Biotechnology Institute (MBI). During 1991, the first joint venture to commercialize MBI-developed technology was launched. Using MBI's fermentation technology, Lactech will produce lactic acid from corn starch feedstock. During 1991 alone, Lactech provided $1 million to MBI in development funding.

These successes, combined with those of prior years and our on-going projects (see appendix), have served to create a strong technology infrastructure that will help Michigan companies remain competitive and foster the growth of new industry in the state.

The Michigan Strategic Fund revenue funded Department of Commerce programs in the areas of research and technology, training, entreprenuerial support, consulting services to minority and women-owned businesses, industrial alliances, rural renaissance and the Center for Local Economic Competitiveness.

MICHIGAN DEPARTMENT OF COMMERCE

UNIVERSITY/BUSINESS

These grants support the state's efforts to promote university/industry collaboration in business development. Guidelines include, having a potential for significant economic impact, falling within a technical area identified as critical for the state's economic well-being and building capacity to leverage industrial participation or building upon such demonstrated capacity.

Western Michigan University: The purpose of the project is to provide the equipment necessary to assist in developing long-term strategies to promote economic development by creating the capacity to forecast water supplies on a regional basis. The quality and quantity of water supplies are critical issues to the commercial and residential components of economic development strategies. Existing sites of commerce, industry and urban developments were often selected on the basis of markets, labor-force, power and water availability. Continued economic development must be based on comprehensive planning which includes the bases noted above as well as a component of long-term water resource management. Existing economic centers dependent on either surface or ground-water supplies are challenged by both over-use and contamination. Long-term planning strategies demand the ability to forecast water supplies of sufficient quality and quantity for use in the commercial, industrial and public sectors. The equipment purchased includes, Ground-Penetration Radar (GPR), Isotope Ratio Mass Spectrometry (IRMS) and a Mobile Laboratory Van.

University of Michigan--Flint: The University of Michigan--Flint operation of the Water Street Pavilion will return center city space to viable economic activity and permit local entrepreneurs to locate in traffic patterns which include university staff and students. This two-story facility will maintain retail business and public food courts on the first floor and utilize the second floor for university student services and administrative activities. In addition to actual job creation of the 1-2 floor space, the City of Flint deems the revitalization to be a critical factor in maintaining the financial stability of surrounding retail areas. The University constructed office spaces and provide an electrical and ventilation system in the Pavilion.

Wayne State University: This grant to Wayne State University uses state resources to leverage increased investments by universities, industry and the federal government in Michigan's research and development capacity. In keeping with this goal, and in conjunction with Chrysler Corporation, General Motors and Ford Motor Company, this grant to Wayne State University uses state resources to help the university provide a manufacturing engineering program and equip their Manufacturing Engineering Laboratories. Funds will be used for architectural evaluation and design planning for the new Manufacturing Engineering Building, minority student recruitment and retention programs and for the Manufacturing Building furnishings.

Michigan State University: The Michigan Institute on Education and the Economy (MIEE) is a research and consulting organization affiliated with the Michigan Partnership for New Education and designed to strengthen the connection between the emerging economy of the state, and the education and training institutions that provide the knowledge and skills required to improve the business and social climate of the state. The Institute's main emphasis will be on producing useful information on education and training for business and public policy leaders, documenting and assessing new ventures that improve the role of education and training in the development of the economy, connecting educational institutions with emerging

skills demands in the economy, and consulting and policy development.

University of Michigan–Dearborn: Support activities related to developing the capacity for next-generation machine vision and materials characterization projects in cooperation with industry. The machines purchased with this grant will continue the process of equipping the laboratory donated by Ford Motor Company. Michigan's manufacturing companies continue to need state-of-the-art technological support in order to remain competitive in today's global marketplace. The Manufacturing Systems Engineering Laboratory will provide experimental research in areas that will be useful to Michigan's manufacturing companies such as increasing the accuracy of precision machining, expanding the manufacturing applications of optical technology, correlating mechanical properties and processing history with the predictability of service performance of mechanical properties, designing, and building information handling systems of manufacturing facilities, and developing innovative kinds of material handling equipment.

REMI–Regional Economic Models, Inc.: Store, operate and integrate with other existing models, the integrated input/output model and related data bases purchased from Regional Economic Models, Inc. Provide the economic expertise to communicate substantive economic development questions to the model and analyze the results.

Michigan Molecular Institute: The Michigan Molecular Institute (MMI) pursues research grants and contracts in the fields of polymer science and the materials science of polymer containing composites. The research efforts of MMI range from basic to applied with emphasis on the solution to those problems that impact the cost-effective utilization of these materials. As a part of these activities, MMI will continue and expand its graduate education program in polymer science and materials science through the Michigan Polymer Consortium as a means of ensuring a continued supply of highly trained professionals to industry, government and academe., The grant proceeds will be used to purchase equipment for use in processing and performing testing of polymers and polymer containing composite systems, and personnel costs associated with the research being done at MMI for defining and improving the performance characteristics of polymer products and composite materials, and personnel costs associated with MMI's faculty in the teaching of graduate level polymer and composite courses.

STATE RESEARCH FUND

The State Research Fund (SRF) stimulates the growth of entrepreneurial, technology-based small business in Michigan through the development of an innovative technology product or process which has significant potential for commercial application as well as job creation and growth for the Michigan economy. The SRF makes grants annually to provide financial support for pre-prototype applied research and development projects with a high commercial potential. The twenty-two grants awarded in 1991 ranged between $12,000 and $53,000, with an average of $33,700 each.

ADVOCACY OFFICE/EASTERN MICHIGAN UNIVERSITY-- ENTREPRENEURIAL INSTITUTE

The Center for Entrepreneurship promotes more successful and widespread entrepreneurship among Michigan's citizens. The Center's focus will be on the post start-up enterprise, especially those challenged with managing growth. The Center's objectives are to provide entrepreneurs and growth managers in the business community with success tools, and to establish an ongoing program of applied research that will directly contribute to the development of more effective curricula for entrepreneurs.

TECHNOLOGY WORKFORCE/MICHIGAN TRAINING INCENTIVE FUND (MTI)

This program provides an interest subsidy to Michigan businesses that borrow money (maximum $100,000) to invest in employee training. The MTI fund works by creating a unique public-private relationship between Michigan's business, government and financial communities. The purpose of the MTI program is to provide businesses with the ability to train, retrain and update the skills of its workers to remain competitive in today's global marketplace. During 1991 the 28 Michigan businesses received MTI loans totalling $569,021.

MICHIGAN BUSINESS STRATEGIES 2000

Michigan Business Strategies 2000 (MBS 2000) program is offered to minority and women-owned businesses. The program is designed to deliver high-quality business consulting services which helps businesses position themselves for long-term growth and prosperity through the 1990's and beyond. Services will be performed by a variety of well known private sector consulting firms. Since the inception of the MBS 2000 program 116 companies have received consulting services.

ECONOMIC DEVELOPMENT PROGRAMS COMMERCE DEPARTMENT

MSF revenue funded programs such as Michigan Modernization Services' (MMS) Industrial Alliance and Child Care programs, Local Development Services' (LDS) Technology Transfer Network, Center for Local Economic Competitiveness (CLEC) and the Rural Renaissance programs. MSF revenue funds a small portion of the Department of Commerce bureaus including Executive Direction, Management Services (Personnel, Financial Management and Budget), Rent, Outreach Offices (D.C., U.P. and Detroit Office), Communication Support, Manufacturing Development Group (financial packaging), FIB Urban Investment program, Office of Systems and Computer Services (OSCS) and Civil Service 1% Assessment.

The MSF provided staff support for Urban Land Assembly, Employee Stock Ownership, Resource Recovery and the Michigan Certified Development Corporation (CDC/SBA 504).

STATUS REPORTS

- Capital Access Program
- BIDCO Program
- Seed Capital Program
- IDRB Program
- Inducement Loan Program
- Minority Direct Loan Program
- Research and Technology Program
- State Research Fund
- Michigan Training Incentive Fund
- Michigan Certified Development Corporation (SBA 504)

1991

CAPITAL ACCESS LOANS BY COUNTY

County	Total # Loans	Total Dollars Enrolled
Alcona	0	$0.00
Alger	3	$87,800.00
Allegan	3	$245,000.00
Alpena	0	$0.00
Antrim	4	$67,600.00
Arenac	7	$160,800.00
Baraga	0	$0.00
Barry	0	$0.00
Bay	4	$98,464.00
Benzie	1	$3,500.00
Berrien	6	$162,266.00
Branch	11	$488,817.00
Calhoun	1	$25,000.00
Cass	2	$16,550.00
Charlevoix	0	$0.00
Cheboygan	1	$15,000.00
Chippewa	3	$392,500.00
Clare	0	$0.00
Clinton	0	$0.00
Crawford	2	$66,000.00
Delta	0	$0.00
Dickinson	0	$0.00
Eaton	0	$0.00
Emmet	1	$32,650.00
Genesee	23	$771,291.70
Gladwin	0	$0.00
Gogebic	0	$0.00
Grand Traverse	14	$202,527.25
Gratiot	0	$0.00
Hillsdale	0	$0.00
Houghton	0	$0.00
Huron	0	$0.00
Ingham	4	$173,900.00
Ionia	0	$0.00
Iosco	1	$48,000.00
Iron	0	$0.00
Isabella	6	$292,801.08
Jackson	12	$630,800.00
Kalamazoo	28	$1,017,223.00
Kalkaska	1	$10,000.00
Kent	11	$506,265.40
Keweenaw	0	$0.00
Lake	0	$0.00
Lapeer	6	$332,474.65
Subtotal–Col 1	155	$5,847,230.08

County	Total # Loans	Total Dollars Enrolled
Leelanau	0	$0.00
Lenawee	14	$341,905.00
Livingston	5	$128,000.00
Luce	5	$26,000.00
Mackinac	0	$0.00
Macomb	14	$838,150.00
Manistee	1	$27,000.00
Marquette	25	$732,709.00
Mason	0	$0.00
Mecosta	0	$0.00
Menominee	0	$0.00
Midland	1	$4,807.86
Missaukee	0	$0.00
Monroe	2	$60,000.00
Montclam	0	$0.00
Montmorency	0	$0.00
Muskegon	5	$237,695.00
Newaygo	0	$0.00
Oakland	58	$2,405,443.00
Oceana	4	$135,000.00
Ogemaw	0	$0.00
Ontonagon	0	$0.00
Osceola	0	$0.00
Otsego	0	$0.00
Ottawa	5	$125,000.00
Presque Isle	2	$76,500.00
Roscommon	0	$0.00
Saginaw	22	$862,655.99
St. Clair	1	$65,000.00
St. Joseph	0	$0.00
Sanilac	3	$96,000.00
Schoolcraft	1	$15,000.00
Shiawassee	4	$75,000.00
Tuscola	1	$15,000.00
Van Buren	0	$0.00
Washtenaw	18	$733,932.66
Wayne	71	$3,024,004.05
Wexford	0	$0.00
Subtotal–Col 2	262	10,024,802.56
Total–1&2	417	15,872,032.64

1991
BIDCO LOANS
BY COUNTY

COUNTY	TOTAL NO. LOANS
Alcona	0
Alger	0
Allegan	0
Alpena	0
Antrim	0
Arenac	0
Baraga	0
Barry	0
Bay	0
Benzie	0
Berrien	1
Branch	0
Calhoun	1
Cass	0
Charlevoix	0
Cheboygan	0
Chippewa	0
Clare	0
Clinton	0
Crawford	0
Delta	0
Dickinson	0
Eaton	0
Emmet	0
Genesee	1
Gladwin	0
Gogebic	0
Grand Traverse	1
Gratiot	0
Hillsdale	0
Houghton	0
Huron	0
Ingham	1
Ionia	0
Iosco	0
Iron	0
Isabella	1
Jackson	0
Kalamazoo	1
Kalkaska	0
Kent	2
Keweenaw	0
Lake	0
Lapeer	0

Subtotal–Col 1	9

COUNTY	TOTAL NO. LOANS
Leelanau	0
Lenawee	0
Livingston	0
Luce	0
Mackinac	0
Macomb	1
Manistee	0
Marquette	0
Mason	0
Mecosta	0
Menominee	0
Midland	0
Missaukee	0
Monroe	0
Montclam	0
Montmorency	0
Muskegon	1
Newaygo	0
Oakland	3
Oceana	0
Ogemaw	0
Ontonagon	0
Osceola	0
Otsego	0
Ottawa	1
Presque Isle	0
Roscommon	0
Saginaw	0
St. Clair	0
St. Joseph	0
Sanilac	0
Schoolcraft	0
Shiawassee	0
Tuscola	0
Van Buren	0
Washtenaw	1
Wayne	4
Wexford	0

Subtotal–Col 2	11

TOTAL LOANS	20
DOLLAR AMOUNT–$7,527,500	

SEED CAPITAL FUNDS

COUNTY	CITY	INVESTEE COMPANY	AMOUNT DISBURSED TO DATE	DATE OF INITIAL DISUBURSEMENT
Ingham	Dansville	First Nutritional Foods Corp.	$100,285	May 8, 1991
Macomb	Fraser	College Park Industries, Inc.	$147,000	February 1, 1991
Washtenaw	Ann Arbor	Digicopy Corp.	$17,400	March 7, 1991
Washtenaw	Ann Arbor	Professional Communications, Inc.	$15,000	September 27, 1991
Washtenaw	Ann Arbor	Associates in Restaurant Mgt, Inc.	$169,650	May 7, 1991
Washtenaw	Ann Arbor	Theragen, Inc.	$63,363	June 14, 1991
		TOTAL	$512,698	

1991 INDUSTRIAL DEVELOPMENT REVENUE BONDS

COUNTY	CITY	COMPANY	AMOUNT OF BONDS	DATE CLOSED
Tuscola	Caro	Michigan Sugar Company-Saginaw	3,500,000	February 2, 1991
Wayne, Monroe, Washtenaw, Lenawee, Oakland	Dearborn, Wayne, Plymouth, Romulus, Morenci, Monroe, Ypsilanti, Saline, Wixom	Ford Motor Company-Dearborn	80,700,000	February 13, 1991
Kent, Wayne, Wexford	Grand Rapids, Detroit, Cadillac	Lutheran Social Services of Mich	9,855,000	March 5, 1991
Van Buren,	Lawton	Welch Foods, Inc. Westfield, New York	3,500,000	April 3, 1991
Oakland, Van Buren	South Lyon, Delhi Twp., Saginaw Twp., South Haven	Martin Luther Memorial Homes, Inc. South Lyon	3,000,000	April 11, 1991
Wayne, Huron, St. Clair, Monroe	River Rouge, Harbor Beach, Trenton Marysville, Monroe, Detroit, St. Clair & Monroe Counties, East China, China, Frenchtown and Greenwood Twp.	The Detroit Edison Company-Detroit	58,710,000	May 20, 1991
Oakland	Pontiac	Oakland Family Services-Pontiac	1,000,000	May 30, 1991
Wayne	Inkster, Romulus, Southgate	Family & Neighborhood Services -Inkster	1,400,000	May 30, 1991
Washtenaw	Ann Arbor	Environmental Research Institute of Michigan-Ann Arbor	10,750,000	June 6, 1991
Luce	Newberry	Louisiana-Pacific Corporation Portland, Oregon	7,600,000	June 25, 1991
Kent	Grand Rapids	Riverfront Development Company Grand Rapids	6,070,000	July 2, 1991
St. Clair	St. Clair	Collins & Aikman, Charlotte, N.C.	8,000,000	August 21, 1991
Genesee	Grand Blanc Twp., Genessee Co.	I & H Conveying & Machine Co. Clio	1,800,000	August 23, 1991
St. Clair & Monroe	St. Clair & Monroe Cos.	The Detroit Edison Company Detroit	41,480,000	September 12, 1991
Kalamazoo	Portage	North American Color, Inc. Portage	1,800,000	September 16,1991
Lapeer, Oakland	Clifford, Lapeer Co, & Oakland Twp, Oakland Co.	Rochester Gear, Inc.-Clifford	3,000,000	October 29, 1991
Oakland, Wayne	Wixom, Oakland Co., & Plymouth Twp., Wayne Co.	MANS-Livonia & Canton	7,000,000	October 29, 1991
Livinston	Brighton Twp, Livingston Co.	Isbell Brothers-Brighton	2,100,000	October 31, 1991
Eaton	Charlotte	Spartan Motors, Inc.-Charlotte	2,400,000	November 5, 1991
Macomb	Shelby Twp., Macomb Co.	Great Lakes Association Limited Partnership-Fraser	2,100,000	November 5, 1991
Oakland	Rochester Hills	Hi-Tech Mold & Engineering, Inc. and Amtech Properties, Inc. Rochester Hills	4,000,000	November 13, 1991
Wayne	Wayne	Advanced Material Process Corporation-Wayne	3,200,000	November 14, 1991

COUNTY	CITY	COMPANY	AMOUNT OF BONDS	DATE CLOSED
Wayne, Huron, St. Clair, Monroe	River Rouge, Harbor Beach, Trenton Marysville, Monroe, Detroit, St. Clair & Monroe Counties, East China, China, Frenchtown and Greenwood Twp.	The Detroit Edison Company-Detroit	98,375,000	December 3, 1991
Washtenaw	Northfield Twp.	Rhe-Tech, Inc.-Troy	4,000,000	December 11, 1991
Kent	Cascade Twp.	Shawn Eshragh & Winifred A. Eshragh, MD-Grand Rapids	1,700,000	December 13, 1991
Oakland	Lake Orion	Kay Screen Printing-Lake Orion	7,475,000	December 30, 1991
Kent	Grand Rapids	Jedco, Inc.-Grand Rapids	1,500,000	December 23, 1991
Wayne	Westland, Wayne County	Clover Properties-Walled Lake	6,000,000	December 30, 1991
Oakland	Auburn Hills	Electro-Mechanical Products, Inc. Rochester	4,000,000	December 31, 1991
Wayne	Canton Twp., Wayne Co.	AGA Gas, Inc.-Independence, Ohio	6,835,000	December 20, 1991
Gogebic	Ironwood	Ironwood 81 Associates Pittsburgh, PA	1,685,000	December 27, 1991
		TOTAL	394,535,000	

RESEARCH & TECHNOLOGY PROGRAMS

CENTERS OF EXCELLENCE			
NAME (ACRONYM)	FORM	BUDGET	TECH. FOCUS
Industrial Technology Institute (ITI) (Ann Arbor)	Independent non-profit. Own $18 M facilities, including advanced manufacturing cell.	.Annual operating budget - $12 M. .MSF grant - $13.0 M over five years for MMTC (91-97).	Applied research on technologies related to manufacturing flexibility; deployment of technology to small and medium firms.
Michigan Biotechnology Institute (MBI) (East Lansing)	Independent non-profit. Own $18 M facilities, including bioprocessing plant.	.Annual operating budget - $9.3 M. .MSF grant - $7.0 M over five years (87-91)	Scale-up of industrial bioprocessing.
Metropitan Center for High Technology (MCHT) (Detroit)	Independent non-profit. Leased facilities.	.Annual operating budget - $1.5 M. .MSF grant - $4.8 M over five years (89-93).	Local economic development. Runs incubator for small high tech firms.
RESEARCH & TECHNOLOGY TRANSFER CENTERS			
Research and Technology Institute (RTI) (Grand Rapids)	Consortium of industry, universities and community colleges. Independent non-profit. Own facilities and research staff.	.Annual operating budget - $3.3 M. .MSF grant - $6.8 M over five years (88-93).	Local economic development. Coordination of educational programs, technology implementation and technical assistance services to plastics and metals suppliers in Western Michigan.
Space Automation and Robotics Center (SpARC) (Ann Arbor)	ERIM-based NASA-funded Center for the Commercial Development of Space.	.Annual operating budget - $1.3 M. .MSF grant - $325 K over five years (87-92).	Research on sensings and robotic technologies to enable commercial use of space.
National Center for Manufacturing Science (NCMS) (Ann Arbor)	Membership organization; funds research which is carried out at member sites. Leased facilities, own administrative staff.	.Annual operating budget - $200 M. .MSF grant - $10 M over five years (89-93).	Develops and funds a national research agenda and standards development for durable goods manufacturing.
Center for Microbial Ecology (CME) (East Lansing)	MSU-based; NSF Science and Technology Center.	.Annual operating budget - $2.6 M. .MSF grant - $950 K over five years (89-93) pays for industrial liaison.	Basic and applied research on ecology of microbes (applications in bioremediation, pharmaceuticals, etc.).
Center for Ultrafast Optical Science (CUOS) (Ann Arbor)	U of M-based; NSF Science and Technology Center.	.Annual operating budget - $2.5 M. .MSF grant - $1.1 M over five years (90-94) pays for industrial liaison.	Basic and applied research on short-pulse lasers (applications in manufacturing, medical imaging, etc.).
Center for High-Speed Low-Cost Polymer Composite Processing (SIUCRC) (East Lansing)	MSU-based NSF State/Industry/University Cooperative Research Center	.Annual operating budget - $930 K. .MSF grant - $1 M over four years (92-96).	Basic and applied research and technology transfer on manufacturing processes for polymer composites.

MICHIGAN STRATEGIC FUND CURRENTLY FUNDED CENTERS (AS OF DECEMBER 1991)

TECHNOLOGY INFRASTRUCTURE

NAME (ACRONYM)	FORM	BUDGET	TECH. FOCUS
Michigan Materials and Processing Institute (MMPI) (Statewide)	Membership organization; funds research which is carried out at member sites. No dedicated facilities or staff.	.Annual operating budget - $1.3 M. .MSF grant - $7 M over seven years (89-95) in matching funds.	Applied research in the processing of polymer composite materials.
Michigan Energy & Resource Association (MERRA) (Detroit, Ann Arbor)	MSF contracts for work with technology-intensive small businesses.	.MSF grant - $1.5 M over three years (90-92)	Assists small companies in identifying and applying for SBIR and other research funds.
Michigan Educational Research Information Triad (MERIT) (Statewide; Ann Arbor HQ)	Consortium of Michigan universities.	.Annual operating budget - $9.8 M. .MSF grant - $5 M over five years (87-92)	Operates NSFNet, the NSF's backbone computer network.
Michigan Information Technology Network (MITN) (Statewide; East Lansing HQ)	Consortium of universities, businesses and community colleges.	.Annual operating budget - $1.3 M. .MSF grant - $8.1 M over six years (90-96)	Broadcasts, via satellite, engineering and business courses.

1991 STATE RESEARCH FUND GRANT SUMMARY

COUNTY	CITY	COMPANY	GRANT AMT
CLINTON	ST. JOHNS	BETTER TREES, INC.	$42,500
GENESEE	FLINT	DINSMORE INSTRUMENT CO.	$26,000
GRAND TRAVERSE	TRAVERSE CITY	TE TECHNOLOGY, INC.	$13,643
GRAND TRAVERSE	TRAVERSE CITY	TE TECHNOLOGY, INC.	$34,546
INGHAM	LANSING	NEOGEN CORPORATION	$49,500
KENT	GRAND RAPIDS	QUEST ENGINEERING	$28,227
OAKLAND	OXFORD	OXFORD BIOMEDICAL RES. INC.	$41,132
OAKLAND	SOUTHFIELD	HEM DATA CORPORATION	$46,875
OAKLAND	WALLED LAKE	SENTEC CORPORATION	$20,620
OAKLAND	ROCHESTER HILLS	PROTEINS INTERNATIONAL, INC.	$49,872
OAKLAND	NOVI	OPTIMAL COMPUTER-AIDED ENG	$34,587
OAKLAND	TROY	ENERGY CONVERSION DEVICES, INC.	$20,000
OTTAWA	WEST OLIVE	BAY PORT AQUACULTURE SYS, INC.	$12,000
WASHTENAW	DEXTER	MXR, INC.	$28,000
WASHTENAW	ANN ARBOR	AEROSPORT, INC.	$27,950
WASHTENAW	ANN ARBOR	MI CRITICAL CARE CONSULTANTS	$44,544
WASHTENAW	ANN ARBOR	PER. BIBLIOGRPHC SFTWRE, INC	$44,511
WASHTENAW	ANN ARBOR	AARDVARK COMPUTERS	$43,000
WASHTENAW	ANN ARBOR	CYBERNET SYSTEMS CORP.	$22,985
WASHTENAW	ANN ARBOR	THE TRAVERSE GROUP, INC.	$44,050
WASHTENAW	ANN ARBOR	COLDING INTERNATIONAL	$31,297
WAYNE	GROSSE PT. PARK	MEDIVENTURES, INC.	$35,497
	TOTAL		$741,336

Michigan Training Incentive Fund
Fiscal Year 1991

COUNTY	CITY	COMPANY	PRINCIPAL	SUBSIDY
Calhoun	Battle Creek	Christina Slayton DBA Norr	$25,000.00	$4,246.14
Dickinson	Iron Mountain	Khoury, Inc.	$100,000.00	$23,099.19
Dickinson	Iron Mountain	Coleman Engineering Company	$100,000.00	$27,538.00
Emmet	Petoskey	Memory Lane Systems Inc.	$100,000.00	$28,294.20
Genesee	Burton	Webcor Packaging Corp.	$100,000.00	$28,294.26
Genesee	Burton	Compak, Inc.	$100,000.00	$28,294.26
Genesee	Flint	Young's Environmental Clea	$28,680.00	$5,789.78
Genesee	Flint	General Fasteners	$100,000.00	$24,910.60
Genesee	Flint	Genesee Packaging, Inc.	$100,000.00	$28,294.26
Genesee	Flint	Fromholz, Paatuwe, & Baker	$100,000.00	$28,294.26
Genesee	Flint	Kingsford Broach & Tool, Inc.	$100,000.00	$28,294.20
Iron	Kingsford	Jackson Y-Center	$100,000.00	$26,250.00
Jackson	Jackson	General Products Delaware	$100,000.00	$26,250.00
Jackson	Jackson	HI-Tech Machine & Tool, Inc.	$50,000.00	$11,279.00
Kent	Byron Center	Cascade Engineering	$100,000.00	$24,910.60
Kent	Grand Rapids	T.G. Howerzyl & Co., CPA's	$39,000.00	$11,034.80
Kent	Grandville	Magna Machinery Co., Inc.	$100,000.00	$24,910.60
Macomb	Sterling Heights	Milco Manufacturing	$100,000.00	$24,910.60
Macomb	Warren	Waltom Services, Inc.	$38,670.00	$4,028.00
Oakland	Pontiac	Dynasty Mold & Engineering	$100,000.00	$27,538.02
Oakland	Rochester Hills	Saturn Electronics & Engin.	$100,000.00	$27,538.02
Oakland	Rochester Hills	Johnston Boiler Company	$83,550.00	$14,190.59
Ottawa	Ferrysburg	Meyaard & Company, P.C.	$51,711.00	$14,631.20
Ottawa	Zeeland	Frankenmuth Bavarian Inn	$100,000.00	$22,312.50
Saginaw	Frankenmuth	Frankenmuth Bavarian Inn	$100,000.00	$25,593.80
Saginaw	Frankenmuth	Christopher Enter. DBA Gal	$100,000.00	$28,294.26
Saginaw	Saginaw			
		TOTAL	$2,216,611.00	$569,021.14

INDUCEMENT LOAN PROGRAM

COUNTY	CITY	COMPANY	AMOUNT COMMITTED	DATE CLOSED
Kent	Alpine Township	Behr Industries Corporation	1,000,000	October 30, 1991
		TOTAL	1,000,000	

MINORITY DIRECT LOAN PROGRAM

COUNTY	CITY	COMPANY	LOAN AMOUNT	DATE CLOSED
Kent	Grand Rapids	MiCO Industries, Inc.	200,000	January 31, 1991
Wayne	Detroit	Wilson/Carlo Development Corp.	500,000	February 14, 1991
Wayne	Detroit	Art Brockman, Inc.	200,000	February 6, 1991
		TOTAL	900,000	

OTHER 1991

COUNTY	CITY	COMPANY	AMOUNT COMMITTED	DATE CLOSED
Wayne	Detroit	Focus Hope	1,700,000	September 27, 1991
		TOTAL	1,700,000	

CERTIFIED DEVELOPMENT CORPORATION LOANS 1991

COUNTY	CITY	COMPANY	AMOUNT COMMITTED	DATE CLOSED
Ingham	Williamston	Midway Engravers	184,000	May 15, 1991
Ottawa	Spring Lake	Ludvemsen, Inc.	344,000	March 13, 1991
		TOTAL	528,000	