This article analyzes the conceptual basis for industry targeting as a local economic development strategy. Economic development practitioners and state and local policy-makers have aggressively employed industry targeting techniques to provide a focus for their economic development programs. While these practices appear deceptively simple and attractive on the surface as local economic development policies, they introduce several complex questions about the appropriate role of government in industrial location, investment, and competitiveness decisions, which economic developers and policy-makers should be better prepared to answer. Four reasons underscore the current importance of this policy research: 1) industry targeting is used widely by state and local economic development groups; 2) local economic development practice sorely needs an improved knowledge and theory base; 3) state and local officials should understand the close connection between industry targeting and national industrial policy; and 4) current pressures placed on the states and local governments to respond to Federal policy and budget changes may lead these officials to adopt more industrial policy type responses to economic problems, especially in offering help to industries negatively impacted by these Federal policy changes. In general, the author is skeptical about the overall value of these practices, but urges future empirical research on the impact of industry targeting activities on industries and local economies.

Purpose/Introduction

This article discusses the role of industry targeting as a local economic development strategy. The expression 'picking winners and fixing losers' is sometimes used to describe industry targeting efforts by governmental agencies and other organizations acting in the public interest (Business Week, 1982). The notion of 'picking winners' refers to the identification and selection (favoring) of growth industries with attractive market and job growth potential for future development. 'Fixing losers' refers to actions by government to identify and assist industries experiencing competitiveness problems either caused by public policy or a market failure. Both policy actions reflect a predisposition by government at all levels to intervene in private market activities, and use its authority and resources to influence industrial location, investment, and competitiveness decisions.

This issue is timely for four major reasons. First, a very large number of state and local development groups engage in industry targeting; many do so without giving serious consideration of the impacts and consequences of these programs. Secondly, local economic development practice is searching for a stronger base in knowledge and theory. Industry targeting activities can benefit from better conceptual development. Thirdly, given the close historic link between industry targeting and national industrial policy, it is important to understand how industry targeting influences the role of various levels of government in private economic affairs. And finally, the budget and organizational changes proposed by the new Republican-led Congress have significant implications for
many national industries. These changes will create some new 'winners' and 'losers' among industries and local geographic places. This author is concerned that many state and local officials may be pressured to turn to industrial policy solutions in response to concerns about industries and firms hurt by these Federal changes. This new form of 'market meddling' may worsen rather than help the current problems. States and communities should understand these industry impacts as a basis for future budget and program planning, but they should use great caution to avoid preempting the marketplace.

National industrial policy as an overall political economy framework has failed consistently to garner formal support at the national level in the United States, yet the practice of industrial targeting has survived and gained wide acceptance at the state and local levels. Some researchers like Kaldor (1989); Johnson, Tyson and Zysman (1989); and Noponen, Graham and Markusen (1993) continue to argue that a full-blown national industrial policy is needed to strengthen American industry's global competitive position. This author would argue against such future involvement by the government. A concern raised in this article is that much of local economic development policy currently reflects industrial policy thinking in a 'disguised' form. In short, the programmatic dimensions of industrial policy have been adopted, but the surrounding policies have been left out. Many economic development incentives qualify as industrial policy instruments. Industrial modernization and technology development programs supported by states and other organizations reflect industrial policy tendencies.

State and local governments are currently searching for new strategies to respond to unfunded mandates and Federal budget cuts. These proposed Federal changes will have significant impacts on key industry sectors. Some state and local officials may be tempted to respond to these industry impacts through industrial policy measures, especially where officials perceive new economic opportunities or threats to their areas resulting from these Federal policy changes. The possible elimination of the US Energy Department has consequences for electric and gas utilities, the oil and petrochemical industry, and 'energy-dependent' industries. Budget cuts in the Department of Agriculture will affect farmers and various agribusiness industries. Many farm-dependent states and consumers could be affected by reduced crop subsidies.

Reductions in space programs by NASA could result in some facility closings and the loss of private contracts to firms. For example, Cleveland area officials are worried that the proposed restructuring of NASA will remove research and development projects currently undertaken at the Cleveland-based NASA Lewis Research Center (Cleveland Plain Dealer, February 17, 1995). Defense Department changes have ripple effects for several dozen defense-related industries nationally. States comprising the 'defense perimeter' in the South and West will work aggressively to delay or cancel earlier scheduled military base closings. Federal officials should be reminded of the industry and geographic impacts of their policy decisions, and they should attempt to address major impacts where possible. The new US Congress is calling for a cost benefit analysis of all proposed new Federal regulations. Similar studies should be undertaken to assess the potential impacts of the currently planned realignment of Federal programs and budgets. These studies should examine sectoral impacts of these policy changes on major industries vital to the American economy. State and local officials should also be apprised of these impacts to improve their future local adjustment planning efforts. States are encouraged to assess industry impacts from their own vantage point.
There is a 'public price' associated with fixing losers or picking winners, which should be considered carefully by those engaged in industry targeting. Government subsidies in the form of tax abatements and credits, below-market rate loans, grants, free information and technical assistance, and various other benefits are routinely provided to both industry 'winners' and 'losers'. These targeting activities should not be taken lightly or treated as automatic policy choices by state and local officials. A critical eye to the assumptions underlying these practices and their consequences is needed and hopefully will be welcomed by policy-makers and practitioners to strengthen local economic development policies.

State and local economic development organizations have been swift to adopt industry targeting as an acceptable strategy to focus and assist their economic development efforts. Policy-makers and practitioners should ask several questions before moving too quickly or too far in this direction. Are these practices beneficial to the geographic areas using them, and are they effective in helping the target industries selected? Little is known about the actual impacts of these programs. Future research on the costs and benefits of the programs and whether they achieve overall policy goals is encouraged. How do you measure their benefits and effectiveness? Appropriate evaluation measures should be formulated in future research. Do local industry targeting activities produce any unintended negative effects on local areas or industries? It is very important to understand, for example, whether these programs and policies are 'fair' in their treatment of targeted and non-targeted industries.

Under what circumstances should the public sector 'target' its resources to serve industry winners and losers? Public policies have both intentional and unintended impacts on industries. Should government compensate negatively impacted industries for harmful unintended impacts? What impact do these actions have on economic efficiency? Neoclassical economic theorists (Free Market/Free Trade Types) would argue that government industrial policy creates inefficiencies in economic resource allocation. Do these local actions serve the overall interests of industries which must compete globally? Global industries introduce complex choices for economic developers. While the attraction of foreign investment is commonplace in economic development, it is important to recognize the potential competitive effects of these investments on domestic firms (Iannone 1988, Ondrich and Wasylenko 1993).

What is the consequence of government not taking action to protect the public's economic interest, where economic injury is expected? Many contend that the Chrysler bail-out by the Federal Government in the early 1980s was 'good public policy' because the automaker was able to 'turn the corner' and improve competitiveness after receiving government loans. Many feared that the loss of the automaker would reduce competition in the domestic market and therefore give an unfair advantage to General Motors and Ford Motor Company. If government policy contributes to the problem, then should it remain involved to find solutions? A part of the rationale for the Chrysler loans was the major regulatory compliance costs imposed on automakers by Federal environmental, health, and safety standards. These are fair policy research questions to ask in light of the pervasive use of industrial targeting techniques nationally. This article explores some of these questions, while others are raised for future research.
Research Approach and Objectives

This article examines local industry targeting practices through a methodology combining a literature review in the economic development policy and industrial policy areas with an analysis of selected communities and states with industry targeting programs. These issues are examined against the current backdrop of Federal policy changes expected to take place this year, and which will have consequences for several major industry sectors vital to the American economy. Industry targeting practices are also considered in light of their industrial policy origins, especially in view of the increased attention given to this perspective by the Clinton Administration’s economic policy leaders. Several of President Clinton’s advisors and cabinet members are ‘self-proclaimed’ national industrial policy advocates, including Robert Reich (Secretary of Labor), Laura D’Andrea Tyson (Chair, Council of Economic Advisors), and Ira Magaziner (Senior Advisor for Policy Development).

The examined literature comes from various fields, including geography, city and regional planning, economic development policy, urban and regional economics, business marketing theory, industrial economics, political science, and public policy. The central research objective is to identify the advantages and drawbacks associated with industrial targeting activities, and offer advice to practitioners and public and private sector leaders on how to improve the use of these techniques in the future.

Local industry targeting activities have drawn recent intellectual support from research on regional development trends and national and subnational industrial policy issues. These practices find earlier roots in agglomeration economics, business location theory, and business marketing theory. The first new influence is from the ‘development-from-below’ school of thought in regional development—which argues that sub-state regions should take control of their own institutions to create an economic environment and quality of life desired by regional residents (Nelson 1993). This is consistent with Ledebrur and Barnes (1994), Thompson and Thompson (1987), Bendavid-Val (1983), and others arguing that local economies should receive greater attention in national and international economic circles. Many state and local economic development organizations have employed industry targeting strategies to help achieve locally determined goals. The alternative is the ‘development-from-above’ school of thinking, which views regional development as emanating from and trickling down from larger national and global economic systems. Most recently, Ledebrur and Barnes (1994) raise concerns about the obsession with national economics, and corresponding neglect of local economic concerns. It is important to consider the value of industry targeting in this regional development policy light, which allows practitioners and policy-makers to couple geographic factors with industry and economic competitiveness issues. The second new branch of knowledge shaping industry targeting is industrial policy research, which finds its earliest roots in third-world development economics and political economy, but has seen a resurgence in recent research (Dewar 1992; Noponen, Graham and Markusen 1993; others). Industry targeting is one of several hallmarks of industrial policy practiced in developing and advanced nations alike. These roots are discussed throughout this article.

This author believes economic development practice needs a stronger intellectual foundation (Iannone, forthcoming, 1995). This need becomes even more important in light of practitioners’ growing desire to see their field become a more fully-recognized profession in
the future (Iannone 1993a). Like other professional fields, economic development's maturation as a profession will be influenced by its ability to define a core body of knowledge and skills to guide future practice. This is the case in industry targeting, which is a widely-used technique by economic developers across the United States and in other countries (Boyle, 1994; Growth Strategies Organization 1993; Iannone 1993b; and Thompson & Thompson 1987). This article identifies several useful theories and concepts explaining regional economic change and industrial development and re-structuring, and explains how these ideas can be used to understand industry targeting activities. This author sees a need for better 'policy thinking' to underlie the design of targeting methodologies and in the interpretation of analytic results. A stronger reliance on theory and empirical research can help in both areas.

**Defining Industry Targeting**

'Industry targeting is a method of assessing industrial location patterns and community or area characteristics to identify promising industries for a region or locality to develop' (Urban Institute 1989). As the definition suggests, an over-riding concern in industry targeting has been the prediction of locational behavior by industries and firms in light of identified geographic and business conditions. Business location theory has had a decisive impact on industry targeting schemes over the years (Blair and Premus 1993; Boyle 1994). Industrial screening matrices used by researchers in target industry analysis often contain business location factors such as transportation, labor skills, market access, and supplier requirements. Sweet's Regional Potential Model (RPM), which linked business location factors with community or area resource attributes, was one of the first screening matrix-based models for target industry analysis (Sweet 1970).

The 'art' of target industry analysis has evolved since these early developments. Research by both academics and consultants have advanced new techniques. Chief developments fall into three general categories: 1) evaluation of more diversified industry targets beyond manufacturing (Donovan 1986; Boyle 1994; Thompson and Thompson; 1987); 2) more comprehensive evaluation of both area and industry attributes (Boyle 1986, 1994; The Urban Institute 1989; Thompson and Thompson 1993); and 3) increased use of computerized models and databases to facilitate analysis (Whittaker 1994: Sweet 1994; Treyz and Shao 1992; Stevens and Rose 1991).

Industry targeting techniques usually involve the analysis of how well a geographic area's human, physical, capital, transportation, and other resources can support the future growth of selected industries. States and sub-state regions (metropolitan areas and clusters of nonmetropolitan counties) are the most common geographic levels analyzed for target industry potential, however smaller communities have employed the technique to some degree. As Boyle (1994) points out, industry targeting strategies may not be right for all areas. Smaller rural areas, for example, may be unable to offer the 'critical mass' of supporting resources and related industry needed to successfully undertake target industry development programs. Boyle (1994) alludes to the inability of smaller areas to offer sufficient economies of scale provided through agglomeration of economic activities. The practice of local industry targeting has been employed in one form or another in the United States at least for the last thirty years, according to interviews conducted for this research.

Industrial targeting borrows ideas from several fields of knowledge. From business marketing, it borrows and applies the concept of 'market segmentation', which explains how markets can be divided and analyzed according to 1) market growth rate and
attractiveness; and 2) the firm’s competitive position to exploit these market opportunities (McKee 1989). Marketing theory has had a significant influence on economic development promotion strategies, as Haider (1992) concludes. Haider identifies three stages of economic development marketing within the 1930-2000 period. The Attraction Stage was dominant from 1930-1970, which focussed largely on industrial attraction. Local industry targeting activities found their greatest growth in Haider’s second stage, or ‘Targeted Retention and Attraction’, which dominated in the 1970s and 1980s. Haider’s third and current stage, Product Development and Competitive Niches, covers the 1990-2000 period, and focuses on strategic improvements to area resources and institutions to increase competitiveness for new economic opportunities. Haider projects that industrial targeting activities will continue to play a role in the current community investment-oriented marketing phase.

Industrial targeting embodies the concepts of agglomeration economies and geographic clustering, which are taken from both regional economics and economic geography. Agglomeration theory explains why certain economic activities develop in spatial proximity to one another to draw competitive advantage from shared resources, inter-industry linkages, and certain desired cumulative or synergistic economic effects created through increased interactive relationships (Thompson and Thompson 1987) An increasing amount of research has been done on strategies to develop ‘economic clusters’ as economic development targets. By definition, an economic cluster is a geographic agglomeration of inter-related firms and industries sharing common resources or performing mutually beneficial activities. Michael Porter’s work in this area has been very important in calling national and international attention to the economic cluster as a focus for both national and local economic development policy (Porter 1990).

Porter’s work has focussed primarily on the implications of economic clusters to global business strategy, but many economic researchers active in national and local economic development policy have built their ideas upon Porter’s earlier work. Sternberg (1991) discusses the role of advanced optics and imaging technology in stimulating the growth of the optoelectronics cluster in Rochester, New York. Sternberg calls for increased attention to ‘sectoral clusters’ as a focus for local economic assistance efforts.

SRI International has conducted industry cluster studies for numerous clients worldwide. SRI defines an industry cluster as ‘a group of companies that rely on an active set of relationships among themselves for individual efficiency and competitiveness.’ (Anderson 1994). Three types of cluster relationships are identified:

1. Buyer-supplier relationships - which can be based upon any type of resource supplied by one company to another which incorporates that input into their output;

2. Competitor-collaborator relationships - which characterize the level and form that both competition and collaboration occur within the cluster; and

3. Shared resource relationships - which represent relationships formed by entities sharing a common resource, such as a labor force or technology base.

These relationships, like the other two, provide an impetus for companies to ‘cluster’ and grow together geographically.
Preface on Local Economic Development

Confusion abounds in American society about economic development. Economic development has rapidly become a leading rationale for many types of public policy action, even actions which relate only tangentially to local economic health, industrial competitiveness, and general citizen prosperity. While all public policies have some type of ‘economic effect’ in creating costs and benefits to various parties, it should be realized that these effects are not one and the same as economic development. In large part, this problem has been created by the excessive ‘politicizing’ of private economic events across the country. Elected officials at all levels of government feel compelled to justify everything they do in ‘job impact terms’. Many elected officials and community leaders are uncertain how far they should go to ensure the economic well-being of their areas. The decision whether to target or not target industries and other economic development assistance is relevant in this context.

The role of local and state economic development programs is to increase the capacity of subnational areas to support future local economic growth and wealth creation. Economic development organizations devote much effort to increasing the flow of business investment into local areas, and accelerating local job creation and tax base growth. These organizations spend much time competing for business investment projects and undertaking programs to improve business competitiveness. Through strategic planning, marketing, and other influential processes, state and local officials seek to increase the economic fortune of local areas by working within the political process, often at the expense or detriment to other local areas. This is often not the intent of local economic development policy, but unfortunately this may be the result in many cases.

Competition for economic development opportunities among geographic locations has intensified, which in part explains the growth of industrial targeting as well as other local economic development strategies. From this perspective, local and state officials believe they must use these programs to identify and develop new economic activities and protect existing economic resources located in their areas. Very simply, state and local officials believe these programs are needed and justified. It is also possible that the use of these programs contributes to (maybe causes) geographic area competition for economic development opportunities. In this sense, these programs may be counterproductive to communities and states seeking to increase prosperity and enhance the quality of life found in local places, especially if these programs do little more than ‘shift’ growth from one geographic area to another.

Some refer to this growing local economic competition as the ‘new war between the states’, especially in light of the increased use of government economic incentives to influence business location decisions (Corporation for Enterprise Development 1994). This competition is illustrated by the significant increase in the number of state and local economic development programs nationally, which attempt to steer new economic growth opportunities to the Nation’s fifty states and nearly 23,000 cities and counties (American Economic Development Council 1991). A delicate balance must be struck in our complex and changing intergovernmental system between Federal policies which look after our national and international economic interests and local policies which concern themselves with increasing the economic fortunes of states, substate regions, and communities. One cannot succeed without the other. The two must be better connected in the future to avoid having them work at cross-purposes, which is a growing concern to Federal, state, and local officials alike.

The dangers to avoid at the national level are:
unnecessary Federal control and interference with truly local economic concerns; and

2) the diminution of local initiative and responsibility.

The dangers to avoid at the local level are:

1) self-absorption caused by 'local eco-centrism';

2) the loss of connectivity and synergy with other local economies; and

3) the progressive tendency toward fragmented and piecemeal responses to national and global economic issues.

If one considers the current debate over unfunded Federal mandates and balanced budgets as a larger backdrop for this local economic development policy debate, the prevailing current attitude appears to favor more local activism, greater community and state responsibility for economic growth, and less national policy interference. In other words, even more local economic activism is expected. This article attempts to help local and state officials choose more effective and beneficial policies and programs in the future. The form and content of this expected new local activism should be chosen carefully.

The rapid 'downloading' of Federal responsibilities to the states and local government will not give these officials much time to prepare effective transition plans. Several governors, including Ohio Governor George V. Voinovich, have raised important concerns about how unfunded Federal mandate issues are handled. Voinovich refers to unfunded Federal mandates as 'shifting and shafting' state and local government (Wall Street Journal 1995). This author believes the unfunded mandates issue and other problems with our inter-governmental system are having a major impact on state and local economic competitiveness. These factors may explain many of the current economic disparities which exist among states and localities. The proposed Federal policy changes must be made without decimating local and state finances, which could further reduce these governmental entities' ability to make productive investments in infrastructure and education adding to local economic competitiveness.

Along with the responsibility for finding better solutions to problems, Congress should also give the states the authority to 'privatize' appropriate functions formerly performed by government. At present, too many government officials see the problem simply as transferring a function from one government level to another. Without the sustained help of the private marketplace, better solutions to society's problems cannot be found. The Republicans are correct in urging more private action in solving public policy problems, hopefully they will be willing to go far enough in this process to make a real difference. Privatization strategies have distinct industry impacts. A recent study by the Office of Technology Assessment points to the growth of the private environmental goods and services industry, which is expected to grow in part due to the increased privatization of environmental management functions previously undertaken by government (US Congress, Office of Technology Assessment 1994).

While 'local activism' is widely accepted and encouraged in American politics, this author believes there may be reason for some concern about the unplanned proliferation of local development groups nationally. This proliferation is justified on the ground that creating more of these organizations in both the public and private sector translates into better local economic performance, which is a questionable conclusion in this author's view since little is known about the real impact of many economic development programs.
As a result, nearly every community and regional area has its own economic development program. The majority of large central city neighborhoods have their own development corporations worried about rivaling for local jobs. This behavior reflects what this author calls an unstated policy of 'extreme local eco-centrism'. Every jurisdiction believes it has a 'right' to assert its political economic interests and behave as a competitive locational marketplace for business investment, jobs, and other economic development resources. In this light, economic development organizations may have become the latest form of 'entitlement'.

Several researchers argue that metropolitan areas and local or regional economies are the real drivers of the national economy, and this is true in some respects (Peirce 1993; Ledebur and Barnes 1994; Thompson and Thompson 1987; Cisneros 1993). Local economies are dominant in at least two major areas. They are primary economic drivers as labor markets. Ledebur and Barnes (1994) claim that 'all economics is local'. This author would qualify their statement by saying that 'all jobs are local.' While communities and substate regions serve as critically important production and distribution centers for a variety of manufactured goods and services, this author would argue that national and global markets remain the key drivers for industry success, rather than localities. Secondly, local economies play the lead role in producing 'amenities', which determine citizens' quality of life. Key amenities include housing, health care, leisure and recreation, and education. A 1990 report by the Office of Technology Assessment calls attention to the important role of 'amenity-producing networks' in the national economy (US Congress, Office of Technology Assessment 1990).

Why have local economies been underestimated? Three possible reasons come to mind:

1) the contribution of local economies to national and global economic growth has not received greater attention because of the historic dominance of Federalist policies;

2) because the influence of national and global economics is greater than local factors on the competitiveness of major industries; and

3) state and local economic development policies and programs may be perceived in some cases as hindering local economic growth in regions and nationally by engaging in 'zero sum' and 'isolationist' policies, which encourage the shifting of growth from one place to another.

Historically, states and localities have been parochial in their interests. They have behaved in this manner because our larger governance system has encouraged this behavior. The question is whether they can cooperate in the future to support those things of common underlying importance to all states and localities.

'More may not be necessarily the merrier' when it comes to organizational strategies for economic development. In fact, some corporate site locators complain about difficulties in dealing with too many development organizations in evaluating areas as potential business locations. The cost of creating duplicate organizations is only part of the problem. A larger cost is created by these organizations' long-standing obsession with project-level activity, and their inability to contribute to larger public policy and marketplace actions shaping larger resources and conditions for economic development. This explains the heightened interest in regional approaches to economic development, where communities are assessing new collaborative strategies to increase their overall economic clout (Peirce...
1993; Hershberg 1992; Savitch, Collins, Sanders and Markham 1993; Nelson 1993). Organizations serving the same geographic area should communicate on a regular basis, coordinate programs and strategies to avoid wasteful duplication of effort, prevent any possible unintended negative consequences of local economic development programs and policies, and work on strategies that elevate the national and international importance of substate economic regions.

Greater attention should be given to the 'cumulative' and 'interactive' effects of local economic development activities over the long term, including industry targeting initiatives. One possible 'cumulative' concern is whether these programs create 'dependence' on government assistance, which may reduce market competitiveness of firms in the long run. 'Interactive effect' concerns relate to whether these programs are redundant, uncomplimentary, or are in some way injurious to state and local economic climates. Policy makers and practitioners should regularly assess the 'net' effect or contribution of various development strategies undertaken in areas to ensure that the benefits of these programs far outweigh their costs.

**Local Uses of Industry Targeting**

Industry targeting strategies have been used by a large number of communities, sub-state regions, and states across the United States and worldwide to help these areas compete more effectively for those industry investments for which they are best qualified. Industry targeting analysis is one means to systematically assess an area's 'qualifications' to compete for business investments in an identified industry. Targeting studies, properly conducted, can help area leaders identify strengths and weaknesses in competing for different types of industries and business operations. In this sense, these studies can provide useful insights about actions to strengthen the local or state economic climate.

The results of targeting studies are often used to plan business recruitment missions by development groups to other states and foreign countries. Cordrey (1994) describes how Miami's Beacon Council (Miami, Florida) uses targeting studies to identify international business investment prospects for recruitment to the south Florida area.

Targeting analyses are used to devise local and regional development plans to help particular industries grow and develop within a geographic area. Morfessis (1994) describes how the Greater Phoenix Economic Council (Phoenix, Arizona) used targeting analysis to identify industry clusters with favorable growth potential in Arizona. The Greater Phoenix Economic Council prepares industry cluster-based strategies to improve regional and statewide competitiveness for the selected target industry clusters. Cleveland Tomorrow, Inc. (Cleveland, Ohio) has prepared detailed regional strategies to encourage the growth and expansion of the regional convention and visitors industry, technology-based businesses, and other industry and business sectors (personal communication). This author is currently preparing a detailed industry strategy for the regional motor vehicle and equipment industry for The East Ohio Gas Company (Cleveland, Ohio). The study will be used to support East Ohio Gas Company's new Core Industry Development Program, which has targeted motor vehicles and polymer materials and products for intensive development assistance. Both industries are already well-established within the Northeast Ohio region. Targeting studies are used by many development groups to identify specific national and international firms which should receive a community or state's economic development marketing literature.

Industry targeting programs and activities are discussed widely at national conferences and training programs. For example, the Economic Development Institute at the University of Oklahoma teaches at least three courses...
during its week-long training program on the use of targeting methods for business attraction and retention. Local and state target industry development programs are written about in various economic development journals, reports on practice, trade publications, and other sources. For example, each monthly issue of Business Facilities Magazine (Group C Communications, Inc., Redbank, New Jersey) contains a 'Target Industry Profile Section'. Local and state economic development organizations buy advertising in magazines like Business Facilities, which are read regularly by corporate site-selectors.

A preliminary review of these activities by this author suggests these strategies are employed with various economic development goals in mind and under varying levels of public policy guidance. Some efforts appear fragmented, overlapping, and lacking in official policy guidance. Preliminary analysis suggests that individual economic development organizations at different levels of geography (city, county, region, state) select target industries and undertake business development programs aimed at developing firms in target industries. Different selection criteria, data sources, and other decision-making variables are employed by development organizations. Also, it appears that often different types of organizations (metropolitan chambers of commerce, electric and gas utilities, city and county development departments) serving the same (or part of the same) geographic area engage in industrial targeting. In some cases, separate efforts in the same geographic area identify and select different target industries. The notion of 'official' industry targeting activities, reflecting a consensus of various development organizations and stakeholders, is lacking in many cases. These differences are important to understand in assessing the benefits of industry targeting. A 1993 survey of over 400 US economic development groups, conducted by Growth Strategies Organization (GSO) of Vail, Colorado, indicates that 96% of all surveyed organizations, which are engaged in new business attraction or recruitment, used some form of targeting activity to support attraction programs (Growth Strategies Organization 1993). A smaller percentage according to GSO around 20% - used targeting to support existing business retention and expansion efforts.

New applications of industry targeting methods are growing. McKee (1994) and others indicate that targeting efforts are being used more frequently to support existing industry development programs. McKee discusses the value of targeting methods in identifying both growing and declining firms currently as part of the local economic base. Garver and Budd (1994) illustrate how targeting techniques can be used to support minority business development efforts in Florida. Industrial targeting studies have been conducted to facilitate defense conversion programs. For example, the Regional Science Research Institute (RSRI) used its input-output based model to study industrial linkages and industry development targets for the Defense Economic Adjustment Project of Rhode Island (Regional Science Research Institute 1992). Thompson and Iannone (1989) used industry and occupational targeting methods to help the Lorain County Chamber of Commerce and the Lorain County Community College in Ohio to identify future target industries based upon the county's occupational structure. Iannone (1994) studied the regional visitor industry (travel and tourism) in Northeast Ohio as a target industry for future development. Iannone argues that the visitor industry is best seen as a 'cluster' of integrated industries supporting various types of travel and tourism activities.

Industry targeting efforts have grown in popularity and analytic sophistication in the past decade as local areas have become more proactive about local job and business growth, and as area leaders exercise greater selectivity in the type growth they wish to
encourage (Boyle 1993; lannone 1993b). Areas have become more selective about growth prospects to maximize their development potential, attract growth which is more consistent with underlying area goals and values, and to serve a host of other development strategy needs. Selective growth strategies are on the rise in areas across the country, as Boyle (1993) and others have determined.

Many communities and states are giving greater priority to industries generating more high quality jobs (durable jobs with high-skill content and high wages), cleaner industries which pollute less, industries less susceptible to overall national economic cycles, 'high tech' industries, and industries with favorable growth potential over the long-haul (American Economic Development Council 1991). Many communities and states have launched target industry development programs to encourage the growth of environmental businesses. The Cleveland Advanced Manufacturing Program (CAMP) in Cleveland, Ohio operates a program to help existing manufacturers implement 'clean' production technology. CAMP also is working to increase the development of new firms employing innovative environmental technologies (personal communication).

Several states have targeted firms and industries with special environmental problems and needs. A recent report by the US Congress' Office of Technology Assessment (1993) cites several examples of innovative industry-specific initiatives dealing with environmental issues. The Massachusetts' Center for Applied Technology is working with several metal stamping companies to overcome common environmental problems hampering business competitiveness. The North Carolina State University Agricultural Extension Service is helping food processing industries in the state to overcome common environmental problems. Recent reports estimate the current world market for environmental industries is $200 billion, and this market is expected to grow to $300 billion by the year 2000 (US Industrial Outlook, 1994).

With defense industry restructuring, many areas have created special industry programs to help defense suppliers diversify into other business markets. 'Defense conversion' programs have emerged as a distinct type of target industry program across the country. In California, the Los Angeles County Economic Development Corporation and the San Diego Economic Development Corporation operate major programs providing intensive funding and technical assistance to 'defense-impacted' firms (personal communication). In Ohio, the Cleveland-based Ohio Aerospace Institute (OAI) was established in 1989 to help Ohio aerospace companies, universities, and government aerospace and defense facilities to adjust to technology and industry changes and increase Ohio firms' contribution to advancing the national and international aerospace industry.

Some practitioners and policy-makers argue that economically-impoverished communities and regions find it difficult to 'rule out' (disqualify) any growth opportunity promising future employment and income opportunities for residents, regardless of whether the industry falls on the area's list of target industries (personal communication). In this author's view, industry targeting strategies may be helpful to distressed communities and regions to select industries and firms consistent with these areas' revitalization goals. Distressed urban areas may wish to use these techniques to:

1) identify potentially 'troubled' existing firms and industries which may close or relocate;

2) identify new industries for recruitment to diversify the local economic base; and
3) identify entrepreneurial opportunities for neighborhood-based industries providing a host of local market services vital to neighborhood residential stability.

Market research firms, like Whittaker & Associates Inc. of Holland, Michigan have used detailed electronic industry and company databases to 'target' potential new users of vacant office, industrial, and real estate facilities in both urban and rural areas (personal communication).

Early industry targeting activities showed a distinct preference for selecting manufacturing industries for growth because these activities were the principal drivers of the national economy and local economic bases (Boyle, 1986). Now, metropolitan areas like Tucson, Arizona, Scranton, Pennsylvania, and Omaha, Nebraska have altered their business development programs to include non-manufacturing facility targets, such as 'back-office' operations. Awareness of the back-office opportunity grew in the late 1980s and throughout the 1990s as corporations began 'de-coupling' routine office functions (back-offices) from more knowledge intensive 'front-offices' to reduce operating costs. This trend continues as the financial services, insurance, entertainment, and travel services industries restructure business operations in line with new market and cost realities.

Most regions have adopted some type of 'high technology' industry targeting program. Montgomery County, Maryland's High Technology Council works to encourage the expansion of existing technology firms and to attract new innovative businesses. In the Cleveland area, the Edison Biotechnology Center at Case Western Reserve University and The Cleveland Clinic Foundation, have embarked on similar efforts to incubate and attract new biotech businesses to the Cleveland area. A recent article discusses the 'Telecom Corridor' in the Dallas-Ft. Worth, Texas Metroplex (Robinson, 1995). Building upon the seeds of firms like Texas Instruments and Rockwell/Collins, over 500 telecommunication and information technology businesses have developed in the region, creating over 66,000 jobs for local residents. Cities like Richardson, Texas, have benefitted greatly from the presence of this larger 'regional industry cluster'. Numerous other examples of high tech targeting efforts exist across the country.

Earlier targeting studies were primarily designed to indicate which industries were most likely to select the area for location and investment purposes, based upon the area's business climate qualities. From this perspective, the economic development group could gain insight into which industries needed the advantages offered by the area. More recent targeting efforts have added a second set of logics on how places can pick (select) industries based on the economic benefits produced by the industries. The addition of this second set of logics makes the economic development process much more of a 'two-way street'. Once again, high-quality jobs, clean industries, and other desirable attributes head the list of criteria used by places to pick businesses consistent with their development goals and values.

With increased globalization and economic diversification, local targeting activities today examine growth opportunities across the wide spectrum of manufacturing and service industries. It is common today for economic development organizations to target 'parts' of industries, such as corporate technology centers, front-office headquarter operations, governmental facilities, and corporate back-office establishments (Boyle 1994). These targets were given relatively little attention until the mid-1980s, when practitioners became more aware of these operations as new 'targets of opportunity'. This shift coincided with:

1) the long-term decline in manufacturing jobs nationally;
2) the increased growth of jobs in service-related industries; and

3) the spatial de-coupling of business operations within companies and industries across geography.

In theory, economic development practitioners employ targeting techniques to increase an area’s efficiency and effectiveness in focusing local resources on those industry sectors and firms which are seen as the most important future sources of economic development (McKee 1994). The ‘favored’ industries and firms in this case can be those with the highest quality job yields, those industries which diversify the local economic base, industries which create jobs for unskilled minority and disadvantaged workers, or industries which help the area achieve its leading economic and social priorities.

Industry targeting, like many other economic development practices, is predicated upon the assumption that markets often work imperfectly in responding to society’s economic needs, and when markets fail, it may be justified in some cases for government and/or economic development groups to ‘intervene’ on the community or public’s behalf to influence public and private sector resource decisions (Bartik 1990). The critical issue, as Bartik and others raise, is how one determines whether a market failure has occurred, and to what extent public assistance is necessary to correct the market problem and/or protect the public interest (Bartik 1991). The use of public economic development incentives as a response to market failure problems has produced much debate nationally, as Bartik and others have discussed (Bartik, 1991). This author believes the market failure issue is central to understanding the rationale and intended impact of industry targeting strategies.

Most areas justify economic development marketing efforts on the grounds that the ‘locational marketplace’ provides less than perfect information about area locations, and therefore special marketing programs are needed to overcome these perceived market shortcomings (Haider 1989, 1992). As McKee (1989) and Haider (1992) point out, industry targeting practices have deep roots in the business marketing field, where targeting efforts seek to present geographic areas as locational ‘products’ and industries as ‘market segments’ to be served (McKee 1989; Haider, 1992).

**Industry Targeting as Government Economic Policy**

Industry targeting is a reflection of the evolution of local economic development policy in the United States. These policies in many cases define roles for various levels of government to intervene in private economic affairs. Local economic development policy is derived from national economic strategy and policy in many cases, as Eisinger (1988), Blakely (1989), and Bendavid-Val (1983) suggest in earlier works. Industrial targeting started as a vehicle for national industrial policy and gradually has become a common local or state economic development strategy (Goldstein 1987). The use of these activities opens the larger debate about the appropriate role of government in private economic affairs. Should government target industries to receive special consideration and resources (incentives) to foster industry competitiveness? National economies across the world operate under varying degrees of government influence. The American political tradition is seen by many as one of minimal government interference in private economic affairs, by comparison to central government’s economic role in other nations (Eisinger 1988). As Porter (1990) and other researchers point out, government policy is a major influence in industry growth and development worldwide, bearing upon the competitive performance of industries and firms.
While liberal and conservative policy researchers disagree on the amount of control government should have over private economic affairs, they agree that in many cases government policy frequently has a de facto impact on both general economic performance and the competitiveness of particular industries (Johnson 1984; Reich 1983; Boaz and Crane 1993). This de facto impact is often used by industrial policy advocates as a reason for more ‘overt’ involvement by government in the economy. Reich (1983) and Magaziner and Reich (1982) are among the strongest advocates for formal industrial policies by government. Boaz and Crane (1993), Bovard (1991), and Krieger (1984) hold opposing views on the ability of government to aid either ailing or growing industries through regulatory action and other types of policy intervention. Conservative policy researchers argue that the Clinton Administration’s recent efforts at health care reform represents a form of national industrial policy (Feldstein, Wall Street Journal, 1993; Tanner 1993; Butler 1992). Those opposed to industrial policy argue that government should seek to understand the direct and indirect impacts of public policies on businesses and industries before enacting regulations and other programs (Swanson and Trout 1992; Johnson 1991). This view is consistent with the recent proposal by the new Republican led Congress that all Federal agencies should undertake cost-benefit studies on any new regulations proposed for adoption (House Republican Conference September, 1994).

Those advocating stronger national government intervention in ‘helping’ the economy claim such involvement is justified on three bases:

1) other national governments have industrial policies which reduce US business competitiveness;

2) without governmental intervention the public may suffer serious injury due to employment and income disruptions; and

3) if government regulations have helped to create the ‘problem’, then government has a responsibility to reduce the problem.

Interestingly, these same three arguments have been ‘localized’ in creating a rationale for local and state government intervention in economic development. First, local areas claim that government action (including targeting) is needed because other local areas engage in these actions. Secondly, local areas often argue that employment and other economic benefits will be lost if state or local government does not intervene. Thirdly, local and state officials point to ‘flaws’ in their business climates, like unfriendly Workers Compensation policies or high state business taxes, and claim that government action is required to compensate for any injury to business growth prospects.

Those opposed to government industrial policies base their arguments on three primary reasons:

1) the private marketplace knows better than government how to respond to industrial competitiveness and economic development issues;

2) government policy is the ‘culprit’ in reducing US industrial competitiveness because of excessive regulation, costly taxes, and other actions, and therefore it is unlikely that government can really help; and

3) industry-specific policies are unfair to nontargeted industries, and therefore create inequities and inefficiencies in the economy.

Targeting practices have been employed by many foreign national governments to
increase industrial competitiveness. These practices have been openly criticized by US Government officials (Joint Economic Committee, US Congress 1990). Industrial targeting is common in Japan for example, where industry and government work collaboratively to facilitate capital formation, technology development and transfer, and export growth by Japanese industries (US Department of Commerce, International Trade Administration 1983). The French government plays an active role in promoting and protecting 'target' industries (Adams and Stoffaes 1986). The French have created 'government enterprises' in telecommunications, computers, steel, autos, and other industries to help establish a global presence for French companies. Government planners have played a major role in helping South Korean industries become export-competitive in both developed and developing markets (World Bank 1987).

Local economies also function under varying levels of government influence across the United States, as Markusen (1987), Eisenger (1988), and Knox and Agnew (1994) have described. Eisinger (1988) distinguishes 'supply side' and 'demand side' local economic development policies, which helps to understand industry targeting. Local and state government play a role in supporting economic development in each case, but the nature of this involvement is different in each case. According to Eisinger (1990), supply-side policies give special attention to:

1) traditional business cost reduction,

2) private capital relocation or retention;

3) 'non-targeted' approaches to economic development activities; and

4) they favor a more indirect role of government in private economic development.

Demand-side policies, in contrast, are oriented to:

1) identifying and developing new industry markets;

2) facilitating new capital formation rather than capital relocation;

3) using 'targeted' approaches to economic development; and

4) fostering a more 'activist' role of government in business and industry development.

Targeting activities are closely associated with Eisinger's definition of demand-side policies. Markusen (1986) and (1987) suggests that government in the United States has unstated, or 'implicit', industrial policies which favor certain industries. The Federal Government, in Markusen's view, has unstated industrial policies for defense, aerospace, agriculture, and energy industries. More recently, Warf (1994) calls attention to the industrial policy implications of the US Defense Department geographical patterns of spending. Warf's research shows that defense contracts are very important to northern 'Rustbelt' firms, which has been overlooked in earlier studies of the regional impact of the US defense economy on Southern and Western states. Warf, like Markusen, advocates an industrial policy response to the defense restructuring issue.

Concluding Thoughts on Policy Implications of Local Industry Targeting

This article has analyzed the policy and theoretical basis for industry targeting as a local economic development strategy. It has examined the conceptual link between industry targeting and regional development policy, and industrial policy. A central concern throughout the article is the connection
between industrial policy and industry targeting, which American economic developers should consider. This final section provides advice to economic development practitioners and policy-makers on how to improve use of industry targeting techniques, and offers some cautions about jumping too quickly on the 'targeting bandwagon'.

This author believes that the jury is still out on whether industry targeting activities produce clear benefits to local economic development. Many states and localities will continue to employ these techniques as a way to 'focus' their economic development marketing and assistance efforts. This is understandable. These groups are encouraged to rethink their targeting activities in light of these policy research findings. More precise advice on the use of targeting techniques can be offered after future empirical research, which establishes an understanding of how these activities contribute to economic development goals and what overall effects they have on local economies.

Many practitioners and policy makers state that targeting efforts can improve an area's chances of economic success by focusing resources on those industries, firms, and economic clusters which most closely match the area's resource base, development goals, and community values (Economic Development Review, Spring 1994 Issue). While this author is somewhat persuaded to accept this view, two important policy questions emerge and seek future answers. What is the intended role of industry targeting in shaping an area's future economic fortune, and moreover is targeting desirable and feasible as a local development strategy? It is this author's view that local industry targeting is a 'back door approach' to industrial policy, which calls in most cases for a substantial role of government in determining industry priorities and regional development goals. State and local leaders should be clear on how far they want to move in this direction.

This perspective is not well understood at this point by those currently using targeting techniques. For those choosing to target industries, they should use great care in selecting industries to receive special development attention - whether they are picking winners or fixing losers. Even greater caution should be exercised in choosing a course of action by government to influence business and industry performance. Industry needs are quite complex, and solutions in most cases are best left to industry executives, with minimal governmental interference.

Local and state officials should avoid taking any action which destroys the competitive nature of markets and industries. The danger of industrial policy in general is that it can give unfair advantage to certain firms and industries over others. These practices discourage fair and open competition by firms and industries. By its nature, competition creates business winners and losers. This remains a hallmark of capitalism, as practiced in the United States. States and local areas providing a home to 'winners' are likely to share in the benefits of this corporate success in the form of added jobs, income, and tax revenues. 'Losers', on the other hand, will be less prepared to expand job, income, and tax benefits to those places in which they are located. Because a firm or industry loses competitiveness, profitability, or market share, it does not necessarily mean that a 'market failure' has occurred, and therefore government is justified in taking corrective action. State and local governments should be careful in their use of industry policy initiatives to serve their parochial economic interests.

Policy-makers and practitioners should strive to treat all business and industry fairly, and ensure that business conducts itself on a 'level playing field', and not one tilted by haphazard industrial policies. As stated earlier, state and local officials should know the key industries underlying their economic bases. These officials are wise to understand how market
and public policy changes affect the health of these industries. This knowledge will help them make better public policy decisions which encourage and support economic development. Governments would be wise to move more slowly in taking out their wallets to help every company asking for public incentives. A central problem with industrial policy approaches is the difficulty in defining 'limits' on how far government should intervene in national or local economic affairs. States and local governments show a propensity to expand their direct role in influencing economic development once they have taken the first step. At best, state and local governments should act as 'enablers' and 'mobilizers' of market processes. Both should intensify efforts to build private markets to respond to new economic and public policy challenges. The current 'crisis' over unfunded Federal mandates, Federal budget cuts, and other changes could represent a unique opportunity to change directions from a government-dependent model of industry and regional development to one that is truly market-based.

This research has been conducted in the spirit of intellectual development. The author's motive is to truly help economic developers to strengthen practice through better theory and empirical research. In this way, practitioners can move the economic development field further along the professional development curve, which is a goal shared by practitioners and academic researchers and teachers alike.

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