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<p>16. Abstract</p> <p>This research project examines the role of TxDOT projects in promoting economic diversification in Texas. The authors conclude that while good access is a necessary condition for diversification, it is not sufficient to assure diversification. The role of the transportation network is not dominant in the decision process for industrial site location, and thus a model describing how transportation investment causes economic diversification is not feasible. Therefore, it would be unwise to build highways or make major improvements for the sole purpose of promoting economic diversification.</p> <p>Since good access is essential for economic diversification, the authors examined how well TxDOT's current and planned networks provide access conducive to diversification and concluded that Texas' network is highly conducive and has very few shortcomings. For future programming of Texas Trunk System roads, it is recommended that TxDOT give high priority to those segments that will connect economic development centers to major markets. The authors also recommend that TxDOT give further consideration to creating an "opportunity fund" to allow for spot improvements in communities recruiting specific industries. Such a fund would facilitate local entities overcoming access obstacles that could hinder a successful recruitment.</p>			
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**ASSESSMENT OF THE ROLE OF TXDOT PROJECTS
IN PROMOTING ECONOMIC DIVERSIFICATION**

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INTRODUCTION

Throughout Texas there are many communities that are dependent on only one or two export industries, and these communities are extremely vulnerable to industrial economic fluctuations and non-economic influences. Rural areas that are dependent on agriculture or ranching can be devastated by bad weather. Similarly, border areas that are dependent on trade with Mexico can be devastated by devaluations of the peso, and small urban areas that are dependent on a single branch plant of a large corporation can be devastated by a decision to close the plant. The loss of jobs and income in these areas' export sectors inevitably spreads to local retail businesses and financial institutions via multiplier effects. In all these cases, the area has no control over the event that triggers its economic distress, nor does it have means at hand to mitigate the severity of the economic losses sustained by its residents. These periods of severe economic distress can recur often and, in many cases, can lead to the abandonment of the area by a significant portion of the population. First, communities must strive to support and retain the economic base that they have. A second equally important part of the preservation of these areas and their way of life is economic diversification to broaden the area's range of economic activities and reduce the area's vulnerability to exogenous influences that can occur in any one of the area's primary economic activities.

In practice, economic diversification usually means the attraction of a new type of economic activity to an area, typically a manufacturing plant of some kind or a distribution facility. Since adequate infrastructure, including good transportation linkages to markets and sources of inputs, is essential to attract new industry to an area, transportation projects may be able to assist rural, border, and small urban areas to achieve economic diversification. Any project that lowers the cost or improves the reliability of transportation to and from a given area will make that area more attractive as a site for industrial expansion or relocation. However, many other factors are involved in the site selection process.

Existing industries have presumably made the location choices at some previous time. However, increasing global and regional economic pressures require that business continually reevaluate their costs, including transportation, and adjust as needed.

This research seeks to determine whether, when, where, and under what pre-existing conditions transportation projects are likely to lead to economic diversification in non-metropolitan areas that are dependent on only one or on a very small number of export activities. If these principles can be determined, they need to be translated into a model or procedure that can be used by transportation planners to rank proposed projects in terms of their likelihood of promoting, or resulting in, successful economic diversification. Second, the research takes a brief look at the role of transportation, both availability and cost, in the retention of existing businesses and industry. Understanding and attending to the transportation needs of those industries can help solidify and stabilize the existing economic base.

LITERATURE REVIEW

“Transportation improvements lower transportation costs via shorter distances or higher speeds, which then lead to improvements in relative accessibility of particular zones or regions. Because each type of activity has its own distance-decay pattern and its own optimal scale of operation, changes in relative accessibility will lead to changes in the location of activities of firms and households....The combined effect of changing the relative competitiveness and accessibility of a certain zone or region prompts expansion and relocation of economic activity.” (1)

Attraction of Industry

Researchers have defined economic diversification as the attraction of a new type of economic activity to an area that is dominated by a single export industry, typically a manufacturing plant of some kind or a distribution facility. However, in the literature, impacts of transportation projects or expenditures have considered the broader measure of impact on economic growth as defined by the expansion of employment and or income. This approach has been adopted because of two main factors. First, data for empirical analyses is readily available for economic aggregates of employment and income and broad classes of transportation expenditures. Second, the statistical techniques to measure aggregate impacts are much easier to apply than models that measure economic diversification. As a result we will expand our review to include not only those studies that deal with economic diversification but also with economic growth and development.

From the earliest textbook treatments of location theory and the theory of the subsequent impact on economic activity, it is clear that distribution and procurement costs almost always depend upon the transportation of product. The cost of transportation, in turn, depends upon the transportation infrastructure (2). Thus, the improvement of the transportation infrastructure, can influence the cost of transporting product and the location of various industrial facilities. Even in this early literature, arguments for differential impacts by industry and the importance of other factors are made (2). Greenhut argues that transportation is a “vital” determinant of plant location (3). He goes on, however, to break location factors into demand factors, cost factors, and purely personal factors. Transportation is only one of the cost factors, and thus many other factors are argued to impact location and subsequent economic impacts.

In the 1960s scholars began to argue that transportation improvement could tip the scales of regional advantage to a particular region if the region is highly populated and has an abundance of natural resources. However, since “transport improvements affect all industry in general, the regional analyst should pursue comparative cost studies for a number of industries (4).” Thus, even though transportation systems were deemed important, they were not the sole or most important determinant of location and economic development. Following the early theoretical arguments, numerous studies have been conducted dealing with two major aspects of the economic impact of transportation projects:

- general studies to determine the relationship between transportation investments and economic growth (economic growth defined to include growth in existing economic activities, the addition of new activities related to existing activities, and economic diversification into new activities); and
- industrial site location or selection theory.

These studies have made use of two primary approaches:

- econometric studies that use transportation investments and other factors as independent variables and measures of economic growth (such as employment, personal income, and/or the number of business firms) as the dependent variables; and,
- studies to identify the factors and/or conditions that are essential in attracting new industry to a location.

The literature review reveals that efforts to link transportation investments directly to economic growth have rarely been successful. The economic development process is too complex and the role of transportation is not sufficiently dominant to allow causal relationships to be established. There is broad agreement that transportation linkages to sources of inputs and markets for output are a necessary prerequisite for economic development to occur in a particular place. But, transportation linkages in and of themselves are not sufficient to guarantee that economic development will occur in a particular place. Many other factors are necessary. As a result, econometric studies of the relationship between transportation investments and economic development show a very weak relationship. What little effect has been found primarily reflects the short-term increase in local employment attributable to the construction activity itself, not a long-term impact on economic development.

The literature review for this study consisted of reviewing more than 130 professional reports, articles, and books. This research spanned five decades, with the majority concentrated in the last 25 years. These empirical and analytical studies tend to support two general conclusions. First, investment in highway transportation tends to impact the cost of doing business and in so doing should have a positive impact on the margin for location and siting decisions. Second, transportation systems are necessary for economic development but by themselves cannot determine a location decision. The first point is summarized by Seskin as “Changes in transportation infrastructure affect the cost of doing business” (5); the second is succinctly stated as “Transportation is a necessary, but definitely not a sufficient, ingredient for economic development” (6).

In support of the notion that transportation infrastructure is a necessary, but not a sufficient condition for location, a study of non-interstate highway development on economic development concluded that “major highway investments should not be made in areas that lack the necessary infrastructure, raw materials, strategic planning and other resources required to support manufacturing, wholesale, or distribution facilities” (7). In short, without other necessary

conditions for locating an economic enterprise, enhancing the transportation system of an area will not be sufficient to sway a location decision.

It has been shown that transportation investment is one of the key policy variables that states and local governments can use to influence the comparative advantage of an area. However, recent industrial location surveys conclude that education, unionization, physical amenities, business climate, energy rates, and tax rates define a region's developmental prospects to a much greater extent than do highways (8). Economic development does in fact react to transportation investments, with the reaction varying by industry type, pre-existing conditions, site characteristics, etc. In a study of these reactions, transportation access was found to be a "non-primary" variable in overall siting decisions. "An affirmative location decision will not occur in the absence of good accessibility, but the presence of a good highway is not apt to be a decisive factor" (9). Quoting a somewhat earlier study, "To summarize, the empirical literature on transportation and economic development is contradictory. However, the majority of the studies indicates that, as long as today's well-developed transportation systems provide good accessibility, transportation improvements no longer contribute significantly to economic development" (10). The results of an extensive study published in 1993 tended to support the position that "highways are necessary but not sufficient for economic growth and development" (11). Last, in another paper published in the same year it is concluded that the literature reviewed provided little support for those who advocate new highway construction for declining rural regions, particularly regions that are not in the vicinity of more urbanized areas (12).

Retention of Business and Industry

Retaining the existing economic base is also of critical importance to a community. Meeting the transportation needs of those businesses should be considerably more straightforward than using transportation improvements to attempt to attract new industry. The critical shortcoming identified above is many factors other than transportation play critical roles in site location. For existing businesses the number of factors bearing on staying in a community is smaller and much better known. The following paragraphs provide some insight into the role of transportation in selected industries. By understanding the specific needs of existing businesses, transportation planners can reduce the possibility that inadequate access to transportation will result in business decline and departure.

To better understand the impact of transportation facilities on the attraction and retention of industry, it is important to appreciate the role that transportation plays in virtually all industries. Weber (13) identifies seven cost elements that impact the price of a product:

1. the cost of the grounds (real estate);
2. the cost of buildings, machines, and other fixed capital costs;
3. the cost of securing materials, power and fuel;
4. the cost of labor;
5. the cost of transportation;
6. interest rates and rate of depreciation of fixed capital; and
7. tax structure.

More recent writings combine these input costs into: transportation costs, wage rates, land prices, local tax structure, and capital costs (14). Regardless of the structure chosen, it is apparent that several factors bear on location and relocation decisions. Underlying all of the analysis is the premise that any industry seeks to minimize the price of producing and marketing a product in order to maximize profit on that product. Each of the cost elements may be impacted to some degree by location, but transportation costs are clearly most directly affected. In the simplest terms, transportation costs accrue during the accumulation of materials and in the distribution of finished product. Other transportation costs may accrue during other phases of production, depending on product and process.

The work of Liew and Liew (14) in their analysis of the impacts of a waterway improvement for the Corps of Engineers is instructive. They examined the theoretical impact of transportation cost changes assuming all other input costs are held constant. They examined the 10 industrial sectors into which all U.S. industries are aggregated to see what impact relatively small changes in transportation costs would have on both output and price in each industry. To illustrate the impact, Liew and Liew examined the empirical data from the project as it affected three regions: the immediate environs of the Arkansas River project (the nearby plains states), the adjacent trading region (Texas, Oklahoma and Louisiana), and the rest of the United States. Table 1 shows both the 10 industrial sectors (applicable to all analyses) and the impacts of the 5 percent reduction in transportation costs.

Table 1. Impact on Industrial Output and Product Price of a 5 Percent Decrease in the Cost of Transportation.

Industry	Region 1		Region 2		Region 3	
	Output Increase (%)	Price Decrease (%)	Output Increase (%)	Price Decrease (%)	Output Increase (%)	Price Decrease (%)
Agriculture ¹	9.78	2.56	5.50	1.41	0.78	0.36
Mining	6.89	0.98	3.40	0.37	0.55	0.16
Construction	2.58	2.07	2.11	1.66	0.26	0.23
Non-durable manufacturing	7.53	2.73	3.25	1.23	0.56	0.37
Durable manufacturing	8.98	2.20	4.85	1.54	0.44	0.23
Transportation ²	1.70	0.64	0.80	0.34	0.10	0.10
Wholesale/retail trade	0.93	0.44	0.36	0.24	0.02	0.04
FIRE ³	1.56	0.42	1.08	0.24	0.03	0.03
Service	1.90	0.80	0.92	0.48	0.09	0.07
Government ⁴	0.95	0.57	0.54	0.37	0.08	0.08

¹ Includes forestry and fisheries

² Includes communication and utilities

³ Finance, Insurance and Real Estate

⁴ Includes federal, state, and local government

Several observations are important. Some industries are significantly more impacted than others. Agriculture, mining, construction and manufacturing show sizable impacts in both output and

price from a 5 percent reduction in transportation costs. This change is intuitive because these “heavy” industries have significant ton-miles of transportation intrinsic to production and delivery. The remaining industrial sectors are substantially less impacted because the proportion of total product cost represented by transportation costs is much lower. Therefore, a reduction in transportation cost has a much smaller impact.

Another important observation is the impact that proximity has on output and price. According to the authors, the magnitude of the impact is influenced by the magnitude of the industrial outputs of the regions. Region 1 is the “home” region for the study area and the smallest, so the impact is measurably higher than for the other two regions. Region 2 is larger than Region 1, but still consists of only a few states. The impact of a reduction in transportation cost here is also significant. Eventually, the magnitude of the base industrial output of the region gets so large that changes in output and price attributable to one factor (reduced transportation cost) are relatively small. That characteristic is evident in the output and price decrease changes for Region 3 (most of the United States).

The role of transportation in site location is also dependent on the type of industry. Different modes of transportation are more suitable to some industries than others. Air transportation operating costs are higher per ton-mile than costs for most other modes, but if the infrastructure is already in place and the product lends itself to air transport, i.e., software, retail merchandise, etc, then the investment cost for transportation per route mile will usually be lower than that for other modes. However, in industries with large freight volumes and bulk items, surface transportation becomes essential. Highways that parallel existing rail routes are not likely to be a factor in economic development for industries that rely on movement of materials in large tonnage, i.e., steel or automobiles.

The potential impacts of mode are evident in the wide range of industry mix for Texas. [Table 2](#) shows the predominant industries by region of the State. Among the “heavy” industries, agriculture is the dominant industry in the Panhandle, while the role of manufacturing is greatest in the northeast and along the coast, and mining (principally oil and gas) is significant in west Texas. Lighter industries, like government, transportation, finance, and trade, are spread throughout the State.

Table 2. Percent of Counties with Predominant Industry by Region, 1992.

Industry Group	Texas Panhandle	Central Texas	Northeast Texas	Coastal Bend	South Texas	West Texas
Farming	57 %	12 %	7 %	8 %	11 %	16 %
Government	9 %	12 %	15 %	23 %	48 %	35 %
Manufacturing	5 %	10 %	33 %	31 %	0 %	3 %
Mining	11 %	0 %	0 %	0 %	4 %	23 %
Services	0 %	10 %	0 %	0 %	7 %	0 %
Transportation , Finance and Trade	18 %	56 %	45 %	38 %	30 %	23 %
Total	100 %	100 %	100 %	100 %	100 %	100 %

When considering the location for a new plant or the expansion of an existing plant, companies must examine the “transfer costs” of their product. Transfer costs are the transportation costs for raw materials used in the production of the goods plus additional transportation costs incurred in the production process. An additional element of transfer costs includes the basic transportation cost of transporting the finished goods from one location to another. Ordinarily transportation costs are the largest portion of transfer costs; however, these costs can be substituted for other elements in the production process. For example, a particular industry can substitute imported raw materials from a distance rather than use inferior materials close by, causing an increase in transfer cost. If transportation prices fall in comparison with other costs, the opportunities for substitutions grow (15).

Location is also affected by many other factors including labor costs, availability of capital, skills of the work force in a particular area, ties of one industry to another, site availability, and natural resource availability, along with other institutional issues such as taxes, zoning restrictions, and incentives that localities may offer to attract industry.

One example of this may be illustrated in the high tech industry. Transportation costs are typically a small portion of the product costs in the high tech industry; however, the literature has suggested these firms require specialized transportation services and infrastructure. These firms may also be able to substitute telecommunications systems for travel needs.

The results of a survey of industries in the US202/Pennsylvania Turnpike corridor revealed that although transportation costs are a factor in site location, they are not the primary factor. A total of 167 high tech firms in the corridor were surveyed as well as 100 non-high tech firms. In the replies received, 102 high tech firms responded while 55 non-high tech firms answered the survey. When the newly located or newly founded firms were asked if transportation facilities played an important role in their location decision, slightly more than 50 percent of the high tech firms answered yes. However, slightly more than 80 percent of the non-high tech firms indicated that transportation facilities were important in their decision to locate in the corridor.

Each of the firms was given a set of criteria to rate as either very important, important, somewhat important, or not important in choosing that firm's location. Listed below is the rank order of criteria listed by the high tech firms:

1. existing residence of professional/managerial staff,
2. ownership or rental costs,
3. physical environment,
4. highway facilities,
5. availability of trained labor force,
6. local taxes, and
7. local government attitude or incentives.

Both high tech and non-tech firms answered very similarly. The biggest disparity was the importance of existing residences (79 percent versus 53 percent). This confirms that high tech companies place a premium on accessibility to residential areas (16).

This illustration provides an example of where transportation ranks with regard to other factors in site location. Clearly, industries such as the high tech industry will demand fast and easy access to residential areas, shopping and entertainment, restaurants, and other regional amenities. In order to compete in a growing global economy these firms also need access to an international airport. Though highway investment and transportation facilities in general play a substantial role in site location of a particular industry, this example shows how other factors may be more important to a particular business.

At present there is a research project underway at the University of Iowa's Public Policy Center that may be useful to TxDOT upon its completion. The goal of the research is to develop a model that relates transportation improvements to impacts on land use and vice versa. While the model and its results do not directly apply to the issues of economic diversification that TxDOT is seeking to document, the findings may provide insight that is not currently available (17).

Practices in Other States

As part of the literature review, the practices of other states, as documented in the available literature, were reviewed. This review indicated that 36 states take economic development into account in their highway programming activities. Of these states 14 incorporate economic development objectives into their normal programming process but do not have special funds or programs for the specific purpose of fostering economic development. Twenty-two states were found to have categorical funding or bonding for economic development. Eleven states have programs designed to make industrial parks more accessible. And, eight states have the capability for "quick response" to development related highway projects which apply when a development is being negotiated and highway facilities are a significant issue (18).

The practices found in two states, Wisconsin (19) and Iowa (7), while different, provide some guidance in the area of economic benefit to expenditure of funds on local highway projects. The Wisconsin approach is relatively simple: they have established a dedicated "quick response

economic development fund” that is applicable only to situations in which a community has negotiated a plant relocation or expansion, but closing the “deal” is subject to a specific transportation project. Normally, a city or county applies for the funds and the process is relatively quick. The evaluation of an application normally takes only six to eight weeks. Seven other states have similar programs.

In 1989 the Iowa legislature directed the Iowa DOT to specifically consider the promotion of economic development in the state. The legislature increased the state motor fuel tax by \$0.02 a gallon, yielding about \$33 million, half of which is dedicated to funding transportation improvements needed to retain existing businesses and attract new business to the state. Only city and county governments are eligible to apply for the funds and must provide a match to the state contribution. The other half is dedicated to regional development projects to increase the capacity of state highways. The program developed by the Iowa DOT is based on the following observations of research in this area:

- Transportation investment alone will not cause economic development. Other factors such as availability of resources, local leadership, cooperation and initiative, adequate infrastructure, trained and a high-quality workforce, and supportive community environment are a few of the things necessary to attract business.
- Highway investment is permissive. That is, although it may not cause economic development, it may permit otherwise impossible or unlikely development to proceed. Also, highway deficiencies, such as narrow pavement, congestion, or inadequate bridges, may be significant barriers to economic development.
- The bottom line for attracting businesses is lower costs. Transportation improvements, including rehabilitation and reconstruction, contribute to lower operating costs.
- The relative quality of the transportation system is important. Location decisions are made on a comparative basis, so communities and regions with substantially poorer transportation systems are at a disadvantage. However, investing large amounts of money to improve a system to an above average standard may not yield a commensurate payoff since other factors are at play in the decision process.
- The road with the lowest operating cost is not always four-lane. Under conditions of low to moderate traffic, a good quality two-lane road may result in operating costs and travel times comparable to those of a four-lane highway. Four-lane limited access highway improvements generally promote economic development only if access to markets and resources located outside the state is improved.
- Perceptions of the transportation system quality may be as important as actual conditions. User costs and levels of service provided by two-lane highways may be comparable to those of a four-lane road, but regions without four-lane roads may be perceived as inferior. Needs for highway transportation may vary greatly among industries. Efficient truck and/or rail transportation is especially important for manufacturing, agriculture, and wholesale trade.

High-tech industries require quick access to air service and the ability to move employees to/from work each day.

- Economic growth will primarily occur in and near urbanized areas that have necessary physical and human resources. By focusing transportation improvements on regional economic centers with growth indicators, a state can use transportation improvements to support those areas with economic growth potential.
- The greatest economic impact will result from improved access to regional and national markets, raw materials, and to the regional labor force.

Iowa identified regional centers — cities with the potential for growth on the basis of economic size and change. Factors considered were population, community service level, number of manufacturing firms, and number of wholesale firms (7).

Iowa's program is based on the concepts of growth centers and diffusion; that is, the proposition that economic development tends to grow along the main transportation routes linking the most important industrial centers. The program focuses transportation investments on providing seamless four-lane linkages to interstate highways or major metropolitan markets for communities that qualify as regional growth centers. This is a practice that will indirectly help rural communities most in need of economic development. These are communities that are unlikely to generate economic growth and development on their own, but do stand to benefit from the spread of economic growth and development from regional growth centers (7).

Conclusions Regarding Development of a Model to Describe Impacts of Transportation Investment

The conclusions of this literature review and the analysis of this paper may be stated briefly as follows:

1. There is no convincing evidence of a cause and effect model that describes the impact of transportation investment on local economic growth, development, or diversification.
2. There is overwhelming evidence that transportation investment will facilitate economic growth, development, and diversification if other conditions are met.

There are two important implications of these generalizations. First, attempts to develop an empirical or analytical model to describe the potential impacts of proposed transportation projects will most likely result in unreliable or imprecise rankings of projects. This follows from the complexity of the process, the inadequacy of the tools, and the fact that the desired tool is prospective not retrospective. The second implication is that transportation systems, improvement in transportation systems, and project related transportation expenditures combined with other development prerequisites are important, on the margin, in influencing development and location decisions.

Conclusions Regarding the Impact of Transportation on the Retention of Industry

As seen in the literature review, transportation costs can have a significant impact on the output and price of a product, particularly in the “heavy” industries. If a company can significantly reduce its total costs by relocating, then such relocation may be prudent. Communities retain industries by influencing those cost elements under local control or influence. Some transportation costs may fall into that category.

From TxDOT’s perspective, one important role in industry retention is familiarity with the transportation needs of an area’s industries. Industries with heavy ton-miles of transportation may need rail service, particularly if their market is a long distance or interstate. As an alternative to rail service, truck service to an intermodal facility where shipments can interface with rail service may be suitable. If local industries are among the “light” industries, quality air service may be more important than rail or highway.

Virtually all industries have important transportation needs. It is not necessary for TxDOT staff to be able to analyze the impact of transportation costs on a particular industry, or even to know what mode is important for each. Local industries will know their needs and priorities. In most cases, it will be sufficient for TxDOT staff to simply be aware that transportation costs can be the determinant for relocation of an existing industry. It is also important to recognize that the highway mode may not always be the most important or most critical transportation link for a given industry. In many cases, TxDOT district staff can be helpful to local industries by providing them with contacts in the Divisions that can provide information regarding modes other than highways, such as rail and general aviation.

In some cases the difference between losing an industry and retaining it may be the transportation costs associated with existing highways. In those cases major highway improvements may be justified because of the net economic loss to a region if industries cannot be retained. This situation is decidedly different from the goal of attracting industry, where many assumptions are required and the likelihood of success is very small. Such improvements would be even more justified if they are needed primarily for safety or operations reasons and can be accelerated to prevent loss of industrial base.

ALTERNATIVE STRATEGIES TO ENHANCE ECONOMIC DIVERSIFICATION

The literature review and associated analysis showed that predicting the impact of transportation investment on economic diversification was at best imprecise and potentially misleading. Therefore, the original goal of the research, to develop a prediction model, could not be realized. Given TxDOT's strong commitment to improving the statewide economy, the project research focused on other ways of facilitating economic success through transportation.

Although the literature clearly indicates that major investments solely for economic diversification are probably imprudent, it can be inferred that assuring maximum practical access and providing localized improvements may be effective strategies for encouraging diversification. These improvements may also be crucial to the retention of existing industry.

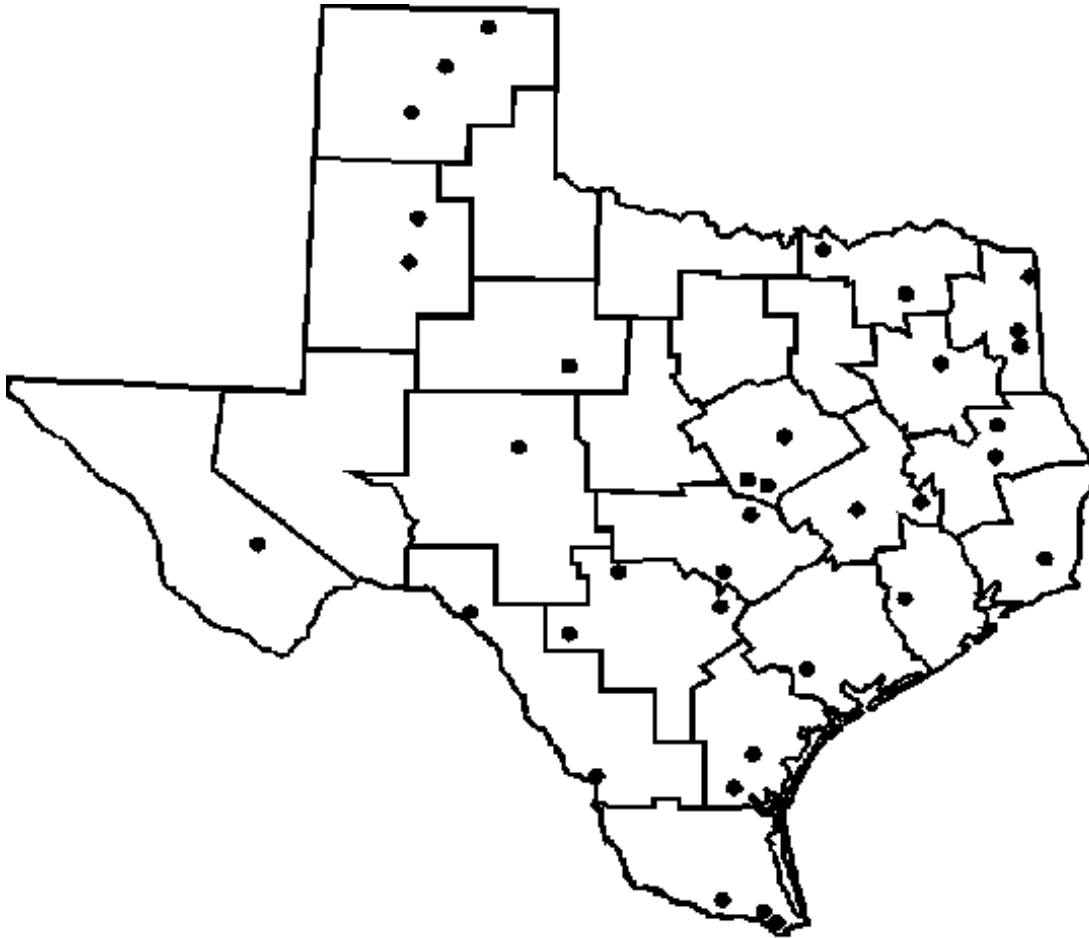
Assuring Maximum Practical Access

The literature suggests that economic diversification is most likely to occur in locales that have most of the influential factors already in place. In Iowa that concept was translated into the practical form of a "growth center." That concept can be applied to Texas by examining whether the growth centers in Texas have adequate access; any that do not would be excellent candidates to give a high priority in future programming of highway investments.

Growth Centers in Texas

This research was focused on providing transportation investment as a part of a "statewide economic development plan." At the time research was conducted, there was no statewide plan that would be applicable to transportation investment. However, there are regional plans that in aggregate could be used as a surrogate. To accomplish the original goal of identifying a means to facilitate economic diversification, the research team used these regional plans to evaluate the quality of access available to growth centers in Texas.

There are 18 regions of the state designated as Economic Development Districts (EDD) and recognized by the federal Economic Development Administration (EDA). EDDs are multi-county areas designated under the federal Public Works and Economic Development Act of 1965. The formation of a district allows an area to combine resources and coordinate activities to overcome common economic problems. The purpose of an EDD is to plan and develop programs that improve the area's economic condition, create added employment opportunities, increase the standard of living, and improve the physical and social environment. There are 18 economic development districts in Texas, 14 of which are also regional councils. Two other regional councils receive Economic Development Administration funds, but are not designated as EDDs. [Figure 1](#) shows these 18 districts within TxDOT district boundaries.



**Figure 1. Economic Development Districts
Shown in TxDOT District Boundaries.**

Within each district is one or more Economic Development Center (EDC), the equivalent of a “growth center” from the previous discussion. [Figure 2](#) shows the 36 Economic Development Centers in Texas. The economic development centers are designated by the governing body of the Economic Development District, and as such reflect a consensus of the region about where economic development resources should be focused. Since these Economic Development Centers represent a local consensus and are the focal point for federal economic development aid, they were selected for evaluation of the current state of access in Texas.

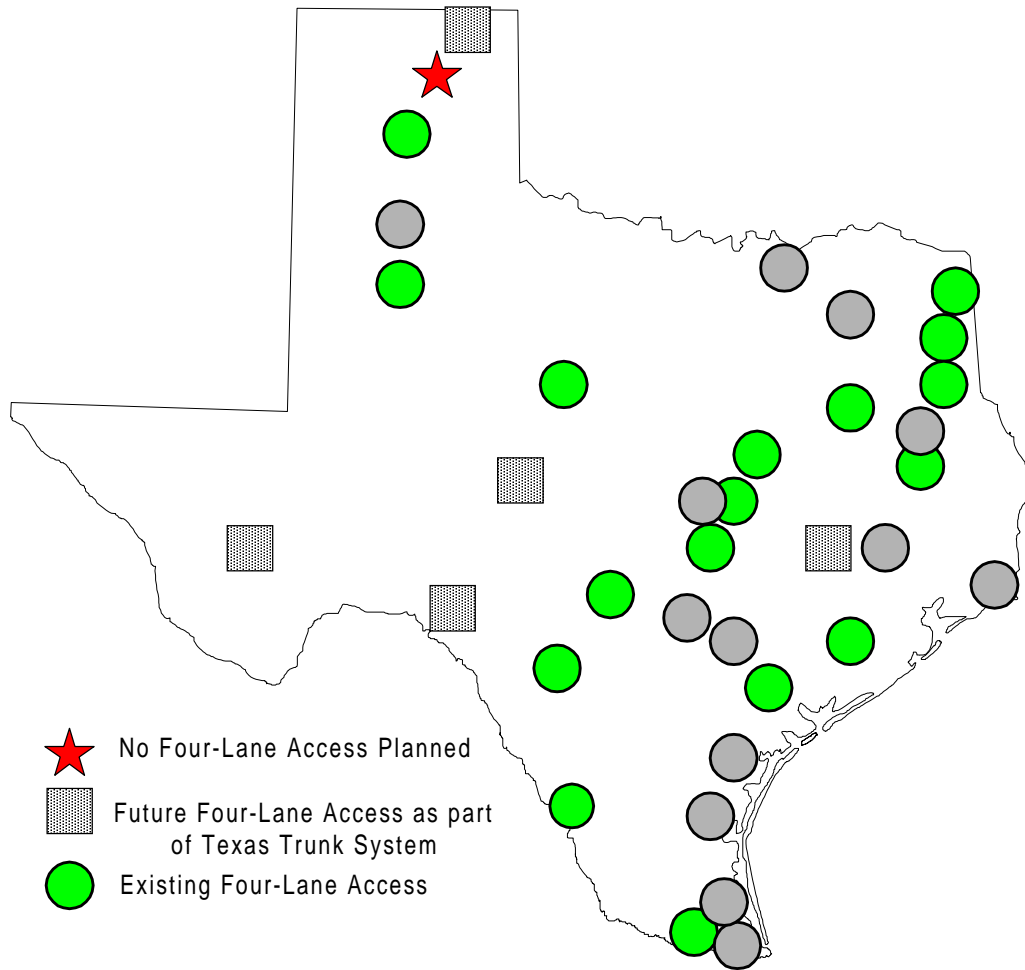


Figure 2. Economic Development Centers.

Evaluating Current and Future Access

The default standard for access (or perception of access), according to the literature, is a four-lane highway connecting an EDC with either an interstate highway or a major market (metropolitan area). Thus the presence or absence of four-lane connections can serve as a measure of the quality of access afforded a community.

The analysis of the adequacy of access considered both current and future access. For the most part, highways on the Texas Trunk System will provide future four-lane access in Texas. All of the EDCs in Texas were matched against the current and future four-lane network to estimate the adequacy of access.

Based on the results of the literature review, a hierarchy of access was established, shown in [Table 3](#). Of the 36 Economic Development Centers, 30 are already served by four-lane divided access. Eight of those 30 communities have more than one four-lane route connecting the community with an interstate highway or a major metropolitan market.

Table 3. Stratification of Routes for Upgrade Based on Access to Growth Centers.

Category	Growth Center	Highway
Growth Centers with no four-lane access (not on Trunk System)	Borger	
Growth Centers with no four-lane access	Perryton Alpine Del Rio Bryan-College Station San Angelo	US 83 US 67/90 US 90, US 277 US 79/190, SH 6, SH 21 US 67, US 87
Growth Centers with four-lane undivided access	Uvalde	US 90
Growth Centers with one four-lane divided highway	Plainview Laredo Brownsville Kingsville Kerrville San Marcos Richmond-Rosenburg Beaumont Huntsville Georgetown Killeen-Belton Waco Sulphur Springs Jefferson Victoria Temple Texarkana Marshall Sherman-Denison Abilene Tyler	I-27/US 87 I-35, US 59, US 83 US 77 US 77 I-10 I-35 US 59 I-10 I-45 I-35 US 190 I-35 I-30 US 59 US 77, US 59 I-35, US 190 I-30, US 82, US 59 US 59, I-20 US 82, US 75 I-20, US 83/277 US 69, SH 31, I-20
Growth Centers with more than one four-lane divided highway	Amarillo-Canyon Lubbock McAllen-Pharr-Edinburg Harlingen Corpus Christi-Aransas Nacogdoches Lufkin-Diboll Seguin	I-40, I-27/US 87/287, US 60 US 62/82, I-27/87, US 84 US 281, US 83 US 77, US 83 US 77, I-37, SH 44 US 59, US 259 US 59, US 69 I-10

Five of the designated Economic Development Centers are not presently served by a continuous four-lane connection, but will be upon the completion of the Texas Trunk System. Of the 36 designated EDCs, only Borger is not served by a four-lane connection, and none is currently planned as a part of the Trunk System.

The finding that 35 of 36 EDCs are (or will be) served by four-lane divided access indicates that TxDOT has already made significant contributions to economic diversification potential by establishing and implementing a statewide network of quality access. Opportunities to make significant improvement to intercity access would be primarily in the scheduling of the remaining segments of the Trunk System. Any future Trunk System segment that will help complete the connection of EDCs to markets should be given consideration, along with other priority and programming factors.

While the conclusions from the literature suggest that there is little justification to make significant investment for purposes of *attracting* industry, there is compelling logic to invest to *retain* existing industry. In the case of the economic development centers, that would entail an examination of the existing industry base in each, and an assessment of the sufficiency of existing transportation in supporting the existing industry. If that assessment shows that transportation sufficiency is no longer adequate, then there would be justification for raising the priority of pertinent improvements. A detailed examination of the 36 economic development centers was beyond the scope of this research, but the following key factors should be examined in each case.

An examination of local industry and potential impact of transportation improvements would necessitate a review of Weber's seven cost elements (13):

1. cost of real estate (some local private sector control),
2. cost of buildings, machines, and other fixed capital (little or no local control),
3. cost of securing raw materials, power, and fuel (little or no local control),
4. cost of labor (little or no control),
5. cost of transportation (some local and regional control),
6. interest rates (some local private sector control), and
7. tax structure (some local control).

Local industry would certainly need to know what role each of the cost elements plays, and be able to isolate the implications of transportation costs. Recalling that transportation costs are a part of the cost of securing raw material (item 3), and the primary expense in distribution of products (item 5), transportation planners would need to determine which of the transportation costs is most likely to be impacted by improvements. That examination would consider both the mode of transportation needed and the capacity necessary for adequate service.

As discussed previously, each industry's needs are individualized. In general, the "heavy" industries will need rail service, truck service, or both. The ability to retain rail service may be the primary determinant in retaining a heavy industry. In contrast, lighter industry may have no

need for rail or even truck service, but may be absolutely dependent on regular air cargo service. The only way to know what a specific company's mode requirements are is to ask.

When considering transportation needs, note that the heavy industries can avail themselves of alternate modes, especially if intermodal facilities are available to transfer products from one mode to another.

Rail/truck intermodal facilities are located in Amarillo, Dallas, Fort Worth, El Paso, Harlingen, Houston, Laredo, Marshall, and San Antonio. Rail/port intermodal facilities are located in Beaumont, Brownsville, Corpus Christi, Lavaca, Orange, and Port Arthur (20).

Just as mode is industry-dependent, so is capacity or frequency. The regularity of transportation service will play an important role in determining the feasibility of meeting an industry's needs. Regardless of mode, if a specific company has fairly constant demand for service, it will be considerably easier for the transportation provider to justify service. For example, significant daily truck traffic bringing raw materials and shipping out finished products will make it substantially easier to justify road improvements at either the local or state level than if a company gets only one or two shipments a month. Likewise, it will be difficult for a railroad or an air cargo operator to justify the fixed costs of maintaining a presence if the requirements for local service are limited and sporadic (20). Once again, the only realistic way to know the expectations of local industry and the requirements of the transportation service providers is to ask.

On the surface it would appear that the ability to retain industry (in addition to potentially attracting industry) would warrant high priorities for Trunk System improvements to improve access to San Angelo, Bryan-College Station, Del Rio, Alpine, and Perryton, in that order. A more detailed analysis could reveal a different order, or that industry retention will not be a factor in one or more of those communities.

Development of an “Opportunity Fund”

Although there is little evidence to support prospective investment in highway projects for the purpose of causing economic diversification, the results from other states suggest that Texas could benefit from a fund designed to deal with highway improvements on a case-by-case basis. Wisconsin, Iowa, Florida, Michigan, and South Dakota all allocate funds to allow for a quick response to an opportunity to support economic diversification. Some of the key characteristics of those states' programs are shown in Table 4. Most of the funds are a modest size relative to the state's transportation budget. In all cases the recipient and responsible party is local, usually a local government, though Wisconsin will provide funding to private businesses or consortiums. A more detailed description of other states' programs can be found in the Appendix.

In considering projects for participation, the states have each developed criteria for consideration. Table 5 lists the key factors considered by these states. The states are focused on job creation

and retention, which is evident in the selection criteria. However, there are typically limits on the amount of investment per job created.

Table 4. Summary of States' Economic Development Programs.

	Characteristics	Fund Size	Grant or Loan	Match Required	Limitations	Recipient	Eligibility	Special Requirements
Iowa (21)	Projects must relate to immediate, non-speculative opportunity for permanent job creation or retention. Relocation of jobs does not qualify.	\$ 28 million	Grant, loan, or any combination thereof	Yes, 20% local match required.	Must involve construction or improvement of a public roadway.	Iowa counties and cities.	Iowa counties and cities.	Within 3 years of funding commitment, project must have Certified Community Builder Program through Iowa DED. Plans and specs must be prepared by Iowa licensed PE. Iowa Code requirements for public expenditures apply.
Wisconsin (22)	50% state grants to encourage business and industry to remain, expand, or locate in Wisconsin.	\$ 39 million	Grant	Yes, 50% local match from local, federal, or private funds, or in-kind services.	Projects can't be speculative; local communities must assure that the number of jobs anticipated will be realized within 3 years of project agreement and remain for another 4 years.	Governing bodies, private businesses or consortiums.	Road, rail, harbor, and airport projects.	Maximum of \$1 million available for each project. Must be scheduled to begin within 3 years. Must have local government endorsement. Must benefit the public.
Michigan (23)	Funding for road projects related to economic development and redevelopment opportunities in specific targeted industries	\$ 49 million	Grant; funded by state gas tax	Yes, minimum 20% local match required.	Applications must be accompanied by a "resolution of support" from the appropriate unit(s) of government. Non-transportation infrastructure and support services must be underway, available, or committed.	Michigan DOT, county road commissions, city and village road agencies.	Michigan DOT, county road commissions, city and village road agencies.	Schedule for completion, description, funding plan, list of applicable permits required. Evidence of financial viability. Redevelopment also requires that negotiations be in progress and coordination with appropriate agencies regarding site development and/or match participation.

Table 4. Summary of States’ Economic Development Programs—(continued)

	Characteristics	Fund Size	Grant or Loan	Match Required	Limitations	Recipient	Eligibility	Special Requirements
Florida (24)	Commonly referred to as the “Road Fund.” Provides funding to units of local government for the elimination of transportation problems that adversely impact a specific company’s location or expansion decision.	\$ 20 million	Grant; funded by state gas tax	No, but if contribution is made it will be taken into account during funding allocation.	Must serve as an inducement for a specific company’s location, retention, or expansion project in Florida. Must create or retain job opportunities for Floridians. Must be for public roadway only. Can’t include sidewalks, parking lots, landscaping, etc. Company must be eligible.	Local government	Roadways and companies must be eligible. Company can’t be targeting end consumer. Company must be considering other states. Company can’t target just Florida.	Not available
South Dakota – Industrial Parks (25)	Industrial Parks grant for the development of new or expanded access for new industry located within industrial parks. Limited to six per year.	Determined by the Transportation Commission at May meeting each year.	Grant; funded by state gas tax	Priority One – 20% by applicant; Priority Two – 40% by applicant.	Funds can’t be used to match federal dollars, ROW must be dedicated to public use and obtained by local government. Local government is responsible for maintenance. DOT will not fund sanitary sewers and utilities. Design and Construction engineering, and administrative costs paid by the applicant are not included in the match.	Local government	Industrial Development Corporation or an equivalent organization, or a local unit of government.	Land must be zoned industrial. Land title must be vested to one of the following: subdivision of government, industry committed to the construction of industrial development, or Industrial Development Corporation or its equivalent.
South Dakota – Community Access (25)	Community Access program grants to communities with populations less than 5,000 to enhance existing access to downtown areas or for roads leading to significant traffic generating features of a small community. Limited to 12 per year.	Determined by the Transportation Commission at May meeting each year.	Grant; funded by state gas tax	Yes, 40% paid by applicant.	Not to exceed \$ 400,000 in state funds. Funds can’t be used to match federal dollars. ROW must be dedicated to public use and obtained by local government. Local government is responsible for maintenance. DOT will not fund sanitary sewers and utilities. Design and Construction engineering, and administrative costs paid by the applicant are not included in the match.	Local government with populations less than 5,000.	Local government with populations less than 5,000, township, county, or tribal government.	A minimum of 25% of funds will be granted to towns with populations less than 1,000.

Table 5. Project Selection Criteria.

State	Loan/Grant Selection Criteria
Iowa	<p><i>Immediate Opportunity</i> - projects must relate to an immediate, non-speculative opportunity for permanent job creation or retention. Jobs created must be value-adding in nature (i.e. manufacturing, industrial, non-retail). Relocation of jobs within the state does not qualify.</p> <p><i>Local Development</i> - project which support local economic development, but which do not require an immediate commitment of funds or do not meet the threshold set for <i>Immediate Opportunity</i> project (i.e. industrial parks, tourist attractions). Projects are evaluated under the following factors: development potential, economic impact, local commitment and initiative, transportation need, and area economic need.</p>
Wisconsin	<p>Applications are ranked based on cost per job (\$5,000 max), county unemployment rate, benefits to the regional transportation system, and proximity to previously approved Transportation Economic Assistance (TEA) programs.</p>
Michigan	<p>A particular transportation need must be in one or more of the following categories: capacity, condition, safety, or accessibility. The project must relate to one or more of the following target industries: agriculture or food processing, tourism, forestry, high technology research, manufacturing, mining, or office centers of not less than 50,000 sq.ft. Project must create or retain permanent jobs. Project must increase the tax base of the local area and have an immediate and positive impact on local employment and the economy. Negotiations between an appropriate agency and developer shall be in progress regarding the location. Non-transportation infrastructure and support services necessary to project development must be available, underway, or have been committed.</p>
Florida	<p>Recommendations are based on the following criteria: Number of new jobs created or retained, new capital investment committed by the company requesting funds, inducement, average hourly wage rate, location of the transportation project, absence of funds to carry out the project within a reasonable time frame, amount of funds requested relative to the total project cost, whether or not the company is a large generator of hazardous waste, whether or not transportation demand strategies have been considered, whether the comprehensive plan contains an economic element, or any other consideration that would have an economic development impact or an environmentally sensitive impact.</p>
South Dakota	<p><i>Community Access Grant</i> - Projects will be selected and grant amounts determined by the DOT based on need, population, and economic impact. <i>Industrial Parks Grant</i> - Projects selected by the DOT based on information from the Governor’s Office of Economic Development.</p>

CONCLUSIONS

This research set out to develop a model that would describe the combination of factors and conditions, including the adequacy of the transportation network, that would be both necessary and sufficient to successfully promote the economic diversification of an area. After an extensive review of available literature and assessment of programs conducted by other states, the researchers concluded that the number of variables and the subjective nature of industrial site selection render the development of such a model highly impractical and likely to produce unreliable results.

Further examination of the problem revealed that, while a prediction model is impractical, there are two other ways in which TxDOT can incorporate economic diversification potential into programming considerations. The first opportunity available to TxDOT is to use an alternative approach to considering economic diversification in programming decisions. The other opportunity is to consider the creation of a fund to provide spot improvements that facilitate economic diversification.

Assuring Adequate Access Statewide

The research team found that, as in Texas, similar efforts nationwide were motivated by an interest in promoting a sound economy, not only statewide, but for individual communities as well. Among the most notable of the practices documented in the literature was that of Iowa, which concluded that the most productive approach was to assure adequate access to “growth centers.” A process similar to that was applied to Texas to provide a gauge of the adequacy of access statewide.

Since Texas cities did not comport to the “growth center” definition from Iowa, the rough equivalent of “economic development centers” was used. Economic Development Centers (EDCs) are designations recognized by the federal Economic Development Administration, that represent a regional consensus on the most appropriate community to receive local and federal support. In order to leverage the funding and support already focused on these communities, the research team used them to measure the adequacy of current and future access provided by the Texas highway network.

Although two-lane highways may actually provide adequate access to a community, the literature review revealed that the absence of four-lane access might cause industries to eliminate a community from consideration without a more detailed examination. Therefore, access to the EDCs in Texas was gauged by the presence of four-lane access to interstate highways or major metropolitan markets.

The analysis of access showed that 30 of the 36 Texas EDCs already have continuous four-lane access to interstate highways or major markets. Of the six that do not, five will be upgraded as a part of the Texas Trunk System program, leaving only Borger without at least the nominal access identified in the literature. Therefore, it was the conclusion of this phase of the research that TxDOT has been very proactive in providing the kinds of access needed to promote economic

diversification and that no large-scale programmatic effort is justified. It is further concluded that about the only large scale programming impact that might affect economic diversification would be on the remaining segments of the Trunk System that will complete the four-lane network. While it is not practical to estimate the economic impact that those remaining sections would have, the results of this project suggest that the impacts would not be insignificant. Therefore, TxDOT should consider this factor in setting priorities in programming. We are not able to attach a weighting factor to this attribute, but recommend that it be given due consideration.

Another key aspect of economic health is the retention of basic industry. This analysis indicates that the five communities that are still awaiting four-lane access via Trunk System improvements should be carefully scrutinized to assess the adequacy of the existing transportation network to meet basic needs for existing industry. If not, then their programming priorities should be increased.

In addition to consideration in programming of future projects, there may also be smaller scale, project-level access improvements that could make a significant difference in future economic diversification opportunities.

Providing Opportunities for Local Access Improvements

Although there appears to be little justification for TxDOT to embark on a roadway building or widening program to foster economic diversification, there appears to be significant value in a program to provide spot improvements as a part of local recruitment of new industries. Other states have found that access issues are often more local than long haul, meaning that relatively small improvements could significantly improve a community's ability to attract a new industry.

This research briefly explored factors that TxDOT should weigh in considering such a program. For the most part, other states provide the opportunity for a local government to draw on an improvement fund to cure access obstacles identified in the recruitment of a specific company. The local government then uses the promised funding or improvement as part of a package in the recruitment. Typical projects would include intersection improvements, widening of existing roadways that are primary access routes to the subject site, or building new access routes. Most agreements for use of these "quick response" funds are not consummated until the final agreements on the recruitment are reached.

Some of the funds are loans, some grants, and most require local matching funds. Nearly all of the programs consider factors such as jobs created in making decisions on funding. A key in most funds is the ability of the state to provide quick review and approval of applications, an attribute that is essential in many corporate recruiting efforts. [Table 4](#) in Chapter 3 provides additional details on the various programs.

Texas might benefit substantially from a quick response or spot improvement program. The improvement opportunities are likely to be higher in some communities than others, depending on the proportion of the local network that are State routes. The research conducted in this project should serve as a starting point to TxDOT in considering an "opportunity" or "quick

response” fund. If such a program is of interest to TxDOT, additional research should explore key questions, such as local interest, appropriate size of fund, and criteria adapted to Texas’ needs.

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APPENDIX

INTRODUCTION

Using information gathered during the research process, below is a brief synopsis of the programs available in selected states. This information is believed to be the most up-to-date available. More specific information may be obtained by contacting the individual departments of transportation.

IOWA

In 1985, the Iowa Department of Transportation established a program that addresses the need to promote economic development in Iowa through construction or improvement of roads and streets. The program, known as Revitalize Iowa's Sound Economy (RISE), is administered through the Department of Transportation. Iowa counties and cities may request funding for construction or improvements. The funding may be in the form of a loan or grant or any combination thereof. The project must involve construction or improvement of a public roadway. The funding is approximately \$28 million per year and is available for use as follows:

- state primary roads — 64.5 percent,
- county secondary roads — 3.2 percent, and
- city municipal streets — 32.3 percent.

There are two types of projects as described below:

Immediate Opportunity - These projects relate to an immediate, non-speculative opportunity for permanent job creation or retention. The jobs that are created must be value-adding in nature (i.e., manufacturing, industrial, non-retail). A minimum of 20 percent local match is required and a relocation of jobs within the state does not qualify.

Local Development - These projects support local development but do not require an immediate commitment of funds or do not meet the threshold set for *Immediate Opportunity*. Examples of eligible projects are industrial parks or tourist attractions. Projects are evaluated under the five following factors: development potential, economic impact, local commitment and initiative, transportation need, and area economic need.

Plans and specifications must be prepared by Iowa-licensed professional engineers and are reviewed by the Iowa DOT. All Iowa Code requirements for public expenditures apply in this circumstance as well. Within three years after a funding commitment has been made, the applicant must have a certified Community Builder Program through the Iowa Department of Economic Development. The Iowa DOT reviews projects and makes a staff recommendation to the Iowa Transportation Commission. The Commission decides grant approval or denial.

For more information contact Iowa Department of Transportation, Planning and Programming Division at 515-239-1101.

WISCONSIN

The Wisconsin Department of Transportation has established a Transportation Economic Assistance (TEA) program. The program was enacted in 1987 and has, directly or indirectly, created 38,000 jobs through August 1998. The state average cost to date has been \$2,225 per direct job created. The program provides 50 percent state grants to governing bodies, private business, and consortiums for road, rail, harbor, and airport projects that are necessary to help attract employers to Wisconsin, or to encourage business and industry to remain and expand in Wisconsin.

A maximum of \$1 million per project is available for transportation improvements that are essential for an economic development project. The project must benefit the public, have the local government's endorsement and must be scheduled to begin within three years. Applications are accepted four times a year and are reviewed and ranked. The ranking is based on:

- cost per job (\$5,000 max.),
- county unemployment rate,
- benefits to the regional transportation system, and
- proximity to previously approved TEA projects.

The business cannot be speculative, and the local communities must assure that the number of jobs anticipated will be realized within three years from the date of the project agreement and remain for another four years after. The 50 percent local match may come from any combination of local, federal, or private funds or in-kind services.

For more information on this program contact:

Gati Grundmanis
Wisconsin Department of Transportation
Division of Transportation Investment Management
4802 Sheboygan Avenue, Room 901
PO Box 7913
Madison, Wisconsin 53707-7913
E-mail: ggrund@mail.state.wi.us.

MICHIGAN

The Michigan Department of Transportation has established a Transportation Economic Development Fund (TEDF), which is administered through MDOT's Office of Economic Development. The fund was enacted in 1987 and reauthorized with revisions in 1993. It provides a means for state government, local agencies, and business to work together to meet extensive and urgent demands placed upon the transportation system by economic development. During FY 1996-1997, \$49 million in state revenues were available for the program. Eligible agencies include the Michigan Department of Transportation, all county road commissions, and all city and village street agencies. The types of projects that are eligible are shown in [Table A-1](#).

These categories support projects that complement each other in achieving the overall program mission.

Table A-1. Types of Projects Eligible for TEDF Assistance.

Category A	Road projects related to target industry development and redevelopment opportunities
Category C	Reduction of traffic congestion in urban counties
Category D	Road improvements in rural counties to create an all-season road network
Category E	Construction or reconstruction of roads essential to the development of commercial forests in Michigan
Category F	Road and street improvements in cities in rural counties

Communities that receive the grants are required to contribute at least 20 percent of the total cost of each project. A transportation need must be shown to exist in either capacity, condition, safety, or accessibility. The development must relate to one or more of the following target industries:

- agriculture or food processing,
- tourism,
- forestry,
- high technology research,
- manufacturing,
- mining, and
- office centers of not less than 50,000 square feet.

The projects must increase the tax base of the local area if the project applicant is a local government. The project must also have an immediate and positive impact on the local employment and economy. Transportation projects that are related to an immediate, non-speculative development require the following:

- schedule for completion;
- description, schedule and funding plan;
- list of applicable permits required and the status of that permitting; and
- evidence of financial viability of the project.

Projects related to the redevelopment of an area require all of the above and the following:

- negotiations must be in progress with a potential firm and
- coordination with appropriate agencies regarding site development and/or match participation.

The grants funded \$47 million in road projects linked to the creation of nearly 12,000 jobs in Michigan in 1998.

For more information on this program contact:

Jacqueline G. Shinn
Michigan Department of Transportation
Office of Economic Development
425 West Ottawa
Lansing, Michigan 48933
517/ 335-1069

SOUTH DAKOTA

The South Dakota Department of Transportation has developed a grant program to foster economic development and enhance community access. There are two categories of grants. The Industrial Park grants will be made to any unit of local government for the development of new or expanded access for new industry located within industrial parks. Community Access grants are made to communities with populations of less than 5,000 to enhance existing access to downtown areas or for roads leading to schools, hospitals, grain terminals, or other significant traffic generating features of a small town. Both grants are evaluated on criteria developed by the Department of Transportation and are approved by the Transportation Commission upon recommendation from the Governor's Office of Economic Development. Annual funding is determined each May by the Transportation Commission for the next fiscal year.

Industrial Park Grant

A sponsor, which must be a local governmental body, files an application to the Secretary of Transportation. There are two types of projects eligible for funding. *Priority One Projects* involve the construction of roads located within a defined industrial park. A minimum of 60 percent of state allocated industrial park funds must be used. The applicant is required to pay 20 percent of the construction cost. *Priority Two Projects* involve the construction of roads that serve as primary access roads to an industrial park but are actually located parallel to an industrial park, or that connect a major route or street to an industrial park. A maximum of 40 percent of state allocated industrial park funds may be used for *priority two projects*. The applicant is responsible for 40 percent of the construction costs.

Community Access Grant

This program is specifically targeted to incorporated cities with a population of less than 5,000 residents. The local government must make a commitment of continued maintenance of the project, and a financial commitment to cover the costs of engineering, and to secure any needed right-of-way or easements for construction. Projects are selected and grant funding is determined based on need, economic impact, and population. There is a \$400,000 ceiling on a grant; however, this may be waived in cases where a project can demonstrate an extraordinary state-wide economic development potential. Forty percent of the construction costs are to be paid by the applicant. A minimum of the 25 percent of the funds appropriated by the Transportation Commission each year will be available to towns with populations less than 1,000.

For more information on these programs contact:

Laurie Schultz
South Dakota Department of Transportation
700 East Broadway
Pierre, South Dakota 57501
605/ 773-5243

FLORIDA

The Economic Development Transportation Fund, commonly referred to as the "Road Fund" is administered through Enterprise Florida. Enterprise Florida is a not-for-profit partnership of government and business established to guide the development of Florida's economy. The mission of this organization is to provide a business-friendly climate conducive to the creation and retention of jobs in the state of Florida. A maximum of \$2 million is made available in the program each year to local governments to provide funding for the elimination of transportation problems that adversely impact a specific company's location or expansion plans. A major factor in the awarding of funds is that the funding will serve as an inducement to a business that is considering locating or expanding in Florida. The funds are only available for transportation improvements when Florida is competing with another state to attract or retain a specific industry. The transportation improvement must be a condition of location, expansion, or retention. The business's location or expansion must create or retain jobs for Floridians. The business may not solely target a Florida market unless the business's primary function is reducing, recycling, reusing, or treating solid waste.

If a local government requests \$200,000 - \$1,000,000 in funds, employment generated by the company must be at least 100 new full-time positions. If the request is for more than \$1 million the company must guarantee to generate at least 200 new full-time positions. There are special circumstances in which these requirement may be waived provided other conditions are met. Funds may not be used for mitigation, water or sewer lines, or other non-infrastructure costs. Nor may the funds be used for right-of-way acquisitions, street lights, sidewalks, or landscaping.

Funding and award recommendations are made to the Division of Economic Development based on the following criteria:

- the number of new jobs created or retained relative to the funding level (\$5,000 per job maximum);
- commitment of new capital investment by the company relative to the funding level;
- inducement to the company;
- average hourly wage rate for jobs created or retained;
- location of the transportation project (companies locating within an enterprise zone or within a rural or urban distressed area will be given higher preference);
- amount of funds requested relative to the entire cost of the project;
- the absence of funds to carry out the project within a reasonable time frame;
- whether or not the transportation demand strategies have been considered; and
- whether or not the comprehensive plan contains an economic element.

For more information of this program contact:

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