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Tax Increment Financing (TIF) Best Practices Study

Gary L. Sullivan
University of Texas at El Paso, gsull@utep.edu

Steve A. Johnson
University of Texas at El Paso, sjohnson@utep.edu

Dennis L. Soden
University of Texas at El Paso, desoden@utep.edu

**TAX INCREMENT FINANCING (TIF)
BEST PRACTICES STUDY**

**For
Greater El Paso Chamber of Commerce**

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By

Gary L. Sullivan, Ph.D.

Steve A. Johnson, Ph.D.

Dennis L. Soden, Ph.D.

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**Institute for Policy and Economic Development
University of Texas at El Paso
500 W. University, COBA 314
El Paso, Texas 79968-0703
915.747-7974
Fax 915.747-7948
Email:iped@utep.edu
Website:iped.utep.edu**

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OVERVIEW

This study identifies a set of best practices for a widely used municipal finance program known as Tax Increment Financing or TIF. Published research in economics and public administration is reviewed to identify key TIF issues and gather a history of TIF experiences. Federal tax law is consulted to obtain a technical understanding of TIF requirements and Texas tax law is consulted to identify state level issues. Findings can be grouped into two categories. First, important financial performance requirements for TIFs are identified and a financial simulation developed to evaluate prospective TIF projects. Second, contextual factors linked to success or failure of particular TIF projects, are identified. These favorable and unfavorable contextual factors are explained. Third, a detailed review of steps required to implement Texas TIFs is presented. Finally, a comprehensive framework is developed to guide policy makers in evaluating prospective TIF projects. TIFs have been and will continue to be important public stimuli for redevelopment of blighted urban areas. Determining whether individual TIF proposals are financially viable and efficiency enhancing to a community is an important concern of policy makers. Tools are presented to inform this decision. Additionally, identifying the strongest contexts for TIF applications is a priority of policy makers. A template identifying favorable and unfavorable contexts is developed to guide this decision.

I. Introduction and Purpose of this Report

Tax Increment Financing (TIF) is an economic development tool used to stimulate redevelopment in areas where redevelopment would be unlikely without some form of government stimulus. Typically, TIF districts provide public infrastructure improvements to a targeted area. These public improvements, combined with expected private development, work in concert to revitalize a troubled area. When new private development takes place, taxes earned on upward trending property values are used to recover the publicly funded infrastructure investment within the TIF. If the TIF zone performs as planned, this new public infrastructure makes subsequent private investment more attractive creating a kind of development momentum. Private investors are assured that their property taxes will be used for needed in-zone infrastructure providing them direct benefits and reducing their development costs. Incremental private investment in the TIF zone can provide net financial gain to the community, above and beyond full recovery of the public investment.

TIF has been a popular funding source for urban economic development since the 1950s. TIF programs permit targeted use of certain real estate tax receipts for community betterment. California, Minnesota and Wisconsin, in particular, have made extensive use of TIF programs. Several TIF programs have been tried in Texas, and El Paso has used TIF financing to encourage downtown redevelopment efforts. The steps required to install TIF programs in Texas are explained fully in this report.

TIF programs are geographically targeted within an urban area. A city government designates a specific parcel of land as a TIF district and pledges all increases in real estate tax revenue owing to increased property assessed value to a TIF district account for a pre-determined number of years. Funds obtained are diverted from the general financing of local government services and used for purposes outlined in the project plan for that particular TIF district. Monies may be paid out directly to support activities authorized in the project plan or used to repay bonds issued by the TIF district to fund the project plan.

In the contemporary urban environment, "successful downtown revitalization in the era of scant federal urban funding is inescapably contingent upon the forging of joint ventures between the public and private sectors" (Duffy, 1988, p.31). However, "the public sector does not fully understand the private investor's need for timely action and long-term commitment to a project" (Nixon, et al., 1978, p.10) and the public sector usually objects to private firms' desires to keep their financial information private (Duffy, 1988). This creates inevitable conflict situations that complicate the TIF revitalization effort.

This report reviews the TIF literature, reviews pertinent laws governing TIF programs, and develops a set of best practices for planners and policy makers considering TIF financing. It is our hope that this work will inform community leadership so that, when TIF programs are created, success will be achieved.

II. Overview of Tax Increment Financing (TIF)

TIF financing was first tried in California in 1951. According to Economics Research Associates (ERA) (1999, p.5), "initial tax increment debt was based on pre-existing tax flows generated by new developments in federally funded urban renewal projects." Initial applications were careful to ensure that there would be demand for the quantity and variety of property being created. By exercising care in the planning process, there was reasonable assurance of sufficient cash flow to repay bonds sold to fund infrastructure development. This was important because TIF bonds are backed solely by the incremental real estate tax recovered from the TIF district and do not represent general obligations of a municipality. Although strictly accurate, ERA and others suggest that a default on a TIF obligation might sufficiently impair a municipal credit rating to require higher interest rates on future general obligation bonds. Consequently, there would be pressure on city government to bail out a TIF district rather than accept the credit rating consequences of a TIF bond default.

Other taxing entities, such as local school and community college districts, have a major stake in the TIF planning process. Because the incremental tax base in a TIF district is frozen at the start of a new TIF, any increases in TIF district tax appraisal base (and corresponding tax revenues) flow to TIF district accounts. Until very recently, TIF districts captured all incremental tax revenues for all years the TIF district was in force -- effectively eliminating participation of other taxing entities. This is one of the more controversial features of TIF financing, especially as the number of municipalities with TIFs has accelerated. In Texas TIF districts, however, local school districts were

held harmless by offsetting reimbursements by the state. But, now that a recent Texas policy change has eliminated these reimbursements, organized challenges to TIF district formation are being waged by local Texas school districts.

A summary of arguments made by supporters of TIF programs follows (excerpts of House Study Group, Special Legislative Report, Tax Increment Financing, no. 82, June 11, 1982, pp.6-7):

Supporters say:

1) It can provide financing for projects that otherwise would not be economically feasible.
2) The city loses no tax revenue.
3) Property owners in a redevelopment zone pay their full share of property taxes and property owners outside the zone are not required to pay more than a normal tax burden.
4) TIF bonds are not included in a city's general debt obligations.
5) Development is financed from the increases in tax revenues that it generates, not by subsidy from other areas of the city.
6) Once TIF bonds are retired, the city and all other affected taxing units get the advantage of the full tax base and increased tax revenues.
7) Projects must be well-planned and economically feasible in order to attract bond investors; ill-conceived projects won't get off the ground.
8) No voter approval is required, nor is approval of other taxing units; a city council may act unilaterally.

Additionally, supporters of TIF programs say, "even though they will pay no more in taxes as a result of TIF bonds, other areas of a city will benefit. Blighted areas generally need more city services than other areas; the total level of services required will decline as blight is reduced. And once the TIF bonds are repaid, the increase in taxes generated by the TIF zone will go into general revenues and benefit the entire city" (House Study Group, Special Legislative Report, 1981 Constitutional Amendments, no. 76, September 9, 1981, p.4).

III. Tax Increment Financing (TIF) Concerns

A summary of arguments made by opponents of TIF programs follows (excerpts of House Study Group, Special Legislative Report, Tax Increment Financing, no. 82, June 11, 1982, pp.6-7):

Opponents say:

1) While the projects appear to be self-financing, in reality taxpayers outside the redevelopment zone subsidize the projects by paying for increased service needs (fire, police, schools) that emerge as a result of redevelopment.
2) There is no voter accountability.
3) Cities often abuse the program, capturing taxes on development that would have occurred without the TIF project or using captured tax revenue to provide basic city services.
4) If the increment does not materialize as planned, the city must find some other source of funds to prevent bond default.
5) TIF debt is more expensive to service because it is not backed by the full faith and credit of a city.
6) It is difficult to alter development plans once bonds have been issued, since bond buyers require assurances that limit flexibility.
7) Cities often stretch the definition of blight to ridiculous extremes, allowing use of TIF in areas that don't need publicly subsidized assistance.
8) Most incentive programs, including TIF, are welfare for big developers who use the incentives as a windfall to help them carry out projects they would have undertaken anyway.
9) Other taxing districts are forced to give up a part of their tax revenues to a city without being given any authority over how the money is spent.

Additionally, opponents of TIF financing say, "the argument that TIF bonds cost taxpayers outside the reinvestment zone nothing is specious. Once a reinvestment zone is created, the taxes it contributes to the general fund of the city and other taxing units are frozen for up to 20 years. As costs escalate, even if only through inflation, taxpayers

outside the zone must pay a larger share to take up the slack. Furthermore, creation of the zone could, in itself, increase service costs" (House Study Group, Special Legislative Report, 1981 Constitutional Amendments, no.76, September 9, 1981, p.8). According to Duffy (1988, p. 14), "the taxing entities affected by the (TIF valuation) freeze predictably adjust the tax levies throughout their jurisdiction to compensate for the revenue shortfall," effectively distributing costs to areas outside the TIF zone.

For a TIF program to be successful, "it must generate an increment large enough to cover debt service. For this coverage to exist, TIF may be utilized to stimulate redevelopment in areas that are already growing" (Chapman, 1998, pp.185). Of course, this conflicts with the principle that TIF target blighted areas showing declining property assessments.

Chapman questions whether TIF programs are truly self-funding. He proposes that, "in the short run, with a fixed supply of land in the project area, if redevelopment acts as an exogenous influence to increase demand for that site, then land value will increase (ibid)." He states that often, TIF projects are seen as a kind of "perpetual motion machine" (ibid). So, if TIF is used repeatedly in a cycle of redevelopment, "in the long run, it is likely that there will be diminishing marginal returns to redevelopment. Diminishing returns lead to a decline in the projected increment, which will force a lower amount of debt to be issued (ibid)." He even suggests that later TIF zones (remaining after earlier, higher yield proposals have been worked) may lack sufficient increment to service their bond obligations.

Chapman (1998, p. 188-189) discusses the economic outcome of TIF programs. He defines the value of TIF as the difference between the economic value achieved with TIF and the economic value that would have been achieved in a zone without a TIF. He states, "if economic redevelopment would have occurred regardless of the (TIF), then the increment would have also occurred and would be automatically included in the tax base of the overlying jurisdictions. In this case, earmarking the increment to the implementing jurisdiction provides that agency with unjustified revenue. In addition, the private developers in the project area are unnecessarily subsidized since many of the costs they would have been willing to absorb are assumed by the public through the TIF (ibid, p.188)."

TIF is justified when "a project contains a large amount of blight, small and independently owned parcels, and poor capital infrastructure, (because) it is not likely to attract many private investors. The worse the blight is, the greater the need for some public intervention. In this case, the majority of any increment generated presumably reflects the results of the TIF-financed project" (Chapman, 1998, p.188).

Other critics of TIF argue that "the incentives provided (by TIF) are too inconsequential relative to the cost of production to change (business) location decisions; that local economic development efforts are a zero-sum game for the country as a whole; and that tax incentives can be easily neutralized by matching offers from competing municipalities resulting in government subsidies being provided to firms that really don't need them" (Joyce, 1998, p.2). Further, if subsidies are sufficient to sway decision-making, "a possibility exists that local incentives misdirect some firms to inappropriate locations (ibid)." Finally, they argue that TIF is more of a budget tool than an economic development tool because tax revenues are shifted away from overlying tax district (school district, community college) needs and toward private development. Meanwhile, the public obligations of these overlying districts to maintain or grow services continue and are financially starved. These concerns lie at the heart of public debate over TIF programs.

A report on TIF practices prepared by Economics Research Associates (ERA, 1999, pp. 1-25) raises several issues. ERA notes that the Tax Reform Act of 1986 clarifies the meaning of "public purpose" to include public infrastructure, public facilities, and public property improvements. The 1986 Act supports the use of tax-exempt bonding to lower borrowing costs to the municipality, public agency or redevelopment agency for these types of projects. Other types of redevelopment can fall into the category of "private betterment" and, while redevelopment agencies may utilize bond financing, bonds issued for private betterment would not qualify as tax-exempt. A careful distinction between public purpose and private betterment should guide the selection of redevelopment investment vehicles, including TIF financing. A clear advantage of TIF financing is tax-exemption, so qualifying public purpose projects should be emphasized.

One feature of TIF that attracts criticisms is that "there is no provision to preclude inclusion of projects in the TIF plan which has (previously) been voted down in local bond elections. This freedom from voter approval increases

TIF's allure to municipal officials and encourages them to restrict public information of this point" (Duffy, 1988, p.17).

Some states are constraining the amount of vacant land permissible in TIF reinvestment zones, reflecting perceived abuses of TIF. TIF, as originally conceived, is intended for "redevelopment" rather than primary "development" purposes. California, however, used TIF financing widely in developing new towns in vacant land areas. Critics contend that this is an unwarranted use of TIF because many of these lands would have developed through private investment, without TIF incentives. In response to critics, California has revised its state rules for TIF to restrict the amount of vacant land in a TIF reinvestment zone to 20% of the total land area.

Other states are taking a hard look at uses of TIF funds. Many redevelopment projects are now required to have five-year implementation plans that specifically identify how TIF funds will be used. A review process follows to ensure compliance with the plan and subsequent five-year plans are developed and reviews conducted until the TIF zone terminates.

ERA (1999, p.11) has identified several types of financing partnerships commonly associated with TIF financing:

1) Assessment District Bond Support.
2) Payback of City/County Public Infrastructure Investment.
3) Payback of Developer Loan to Start a Project.
4) Use of TIF Funds as Local Share for Federal or State Grants.
5) Partnership to Cure Contaminated Properties.
6) Transit Oriented District Project Funding Mixes.
7) TIF Set-Asides for Low and Moderate Income Housing.

IV. Effects on Overlying Tax Districts

By the early 1970's, individual school districts, flood control districts and community college districts recognized they could lose significant incremental property tax revenue owing to widespread TIF usage (ERA, p.16). Because these tax entities have an obligation to provide services to the proposed TIF district, they must look at their obligations in relation to the revenue flows available to serve these needs.

In El Paso, school officials argued that the downtown TIF district took in an area that was increasing in value and in so doing adversely affected the city tax base. At the time the TIF was initiated, current or planned development in the zone included: "a $28-million county jail, a $25-million federal building, a $9-million depot restoration project, a $20-million El Paso Natural Gas office tower, and three private office complexes with a total value of about $36-million. Thus, school officials argued, values in the TIF could be expected to rise without further intervention by the city, and the city's proposed TIF-financed projects would not actually cause the anticipated increase" in assessed values within the redevelopment zone (excerpts of House Study Group, Special Legislative Report, Tax Increment Financing, No. 82, June 11, 1982, pp.15).

In this regard, "A primary presumption of TIF is that public expenditures in a reinvestment zone will cause an increase in private property values. The cause-and-effect relationship between the public investment in a blighted zone and an increase in property values is fundamental to the TIF concept. When this relationship is clear, school districts and other overlying tax units will have less reason to complain about a TIF (reinvestment zone) and their contribution to it" (ibid, pp.16-17). However, if a TIF reinvestment zone takes in land that is increasing in assessed value, overlying tax entities could charge that they are foregoing tax monies that rightfully belong to them. When TIFs are established in areas without a recorded decline in property values, monies taken from overlying tax districts are defined as "unearned increment" (ibid, p.17).

The Wisconsin Legislative Audit Bureau, in a review of Wisconsin TIFs, identified four major TIF abuse situations (ibid, p. 17):

1) Inclusion of large portions of vacant and farm land, which is the most likely property to be developed without public incentives.

2) Inclusion of lands already owned by industry, which normally would develop as business expands without public incentives.
3) Annexation of vacant property on the fringes of a community to create a redevelopment zone.
4) Combining properties in unrelated areas. Specifically, uniting a blighted area and a prosperous area with minimal contiguity to allow the prosperous area to subsidize development in the blighted counterpart.

Several states have looked at legislation to improve the standing of overlying tax districts in the formative stages of new TIF districts. In response to these concerns, many states have required redevelopment agencies to prepare reports documenting the economic and fiscal impact of proposed TIFs. Litigation has been a powerful, albeit negative, tool used by overlying tax districts to secure a voice in the TIF development process. Lawsuits from overlying tax entities have delayed the funding of TIFs in many states -- sometimes for years. Today, overlying tax districts expect to be included in the negotiation process for TIF financed redevelopment. Best practice suggests early inclusion of overlying tax districts in the planning process. With good communications, workable compromises may be achieved and the threat of subsequent litigation and funding delays diminished.

V. Fiscal Performance of Tax Increment Financing (TIF) Programs

In return for the privilege of TIF financing, redevelopment agencies should expect "higher levels of performance than is the common norm given the building codes, zoning codes, and common denominators of development performance" (ERA, 1999, p.21). Cities and developers should set high performance expectations in exchange for this community commitment. Minimum, or threshold, fiscal performance should be timely refunding of bonds issued; however, expected performance should far exceed this standard for a project to be considered a worthwhile use of TIF.

Because the early years of a redevelopment effort can involve the purchase or condemnation and assemblage of real property followed by demolition before new public infrastructure such as roadways, sewers, etc., can be completed, there is typically a time lag between TIF enactment and any expected increase in underlying property values. It is reasonable to assume that as property is assembled (and removed from the private tax rolls) during the early stages of a TIF, there may actually be a period of decline in assessed values. This time lag is important and needs to be considered in assessing the revenue capture potential of any TIF program.

In analyzing TIF best practices, ERA suggests that redevelopment authorities require significant leverage on public (TIF) dollars invested in redevelopment. ERA states, "local redevelopment authorities look for near-term private investment ratios to public dollar participation in the range of 8:1 to 12:1" (ERA, 1999, p. 24). They acknowledge that this may be difficult to achieve, especially during the initial five years of a TIF district, due to unavoidable development lags. Reinvestment zone conditions fostering strong fiscal performance include:

1) No residential relocation requirement.
2) No business relocation requirement.
3) No requirement to construct low or moderate income housing.
4) Property ownership concentrated in few hands.

ERA claims that over the full life of a TIF reinvestment zone, it is common to see private to public investment multipliers of 20:1. This is certainly an impressive return on TIF incentives.

VI. Unproductive, Underdeveloped and Blighted Property

Many states, including Texas, require a finding of blight in a proposed redevelopment area as a necessary precondition to the creation of a TIF reinvestment zone. According to the Handbook on Economic Development Laws for Texas Cities (2002-2003, excerpts pp. 97-98), TIF financing can be applied to a particular municipal area only if the area satisfies at least one of the following three conditions:

1) The area's present condition must substantially impair the city's growth, retard the provision of housing, or constitute an economic or social liability to the public. This condition must exist due to one or more of the following conditions: a large number of substandard or deteriorating structures,

inadequate sidewalks or street layout, faulty lot layout, unsanitary or unsafe conditions, tax delinquency in excess of the fair market value of the land, defective title, or conditions that endanger life or property by fire or other cause.

2) The area is predominantly open, and because of obsolete platting or deteriorating structures, it impairs the growth of the city.

3) The area is adjacent to a "federally-assisted new community" as defined under Tax Code Section 311.005(b).

Most often in Texas, Criterion 1 is applied to justify formation of a TIF reinvestment district. Additional rules for Texas TIF districts follow:

1) No more than 10 percent of the property within a proposed zone (excluding public property) may be used for residential purposes. This rule is waived if the TIF results from a petition of the property owners.

2) A reinvestment zone cannot contain property exceeding 15 percent of the total appraised property value within a city and its industrial districts.

3) A city may not create a reinvestment zone or change a zone's boundaries if the zone would contain more than 15 percent of the total appraised value of real property taxable by a county or school district.

El Paso, along with 19 large cities and nearly 600 cities and towns, meets the HUD criteria qualifying criteria for inclusion in the Urban Development Action Grant Program (UDAG), based on "standards involving unemployment, age of buildings, per capita income, rate of growth, and poverty are used to determine community eligibility" (House Study Group, Special Legislative Report, Tax Increment Financing, no. 82, June 11, 1982, p.21).   Once qualified for the UDAG program, "virtually any land (in a community) can be included in a tax increment financing district"(ibid). As a result, El Paso has wide discretion in the formation of TIF redevelopment districts.

VII. Texas Rules for Tax Increment Financing (TIF) Zones

Once an urban area qualifies for Tax Increment Financing, the process to create a TIF District consists of ten steps (Handbook on Economic Development Laws for Texas Cities, 2002-3, excerpts pp. 99-106):

1) **The governing body of the city prepares a preliminary reinvestment zone financing plan.** A copy of the plan must be sent to each local government that levies taxes on real property within the zone.

2) **The city provides 60 days written notice of its intent to designate a reinvestment zone and of the hearing on the proposed zone to all tax units levying property taxes within the area.** The notice must contain a description of the proposed boundaries of the zone, tentative plans for the zone's development, and an estimate of the general impact of the zone on property values and tax revenues. A taxing unit may ask the city for additional information and the city must respond to the extent possible.

3) **Once the city has provided its 60-day notice of the proposed zone, other affected tax units have 15 days to designate a representative to meet with the city to discuss the project plans.** The city must call a meeting of these representatives, subject to Open Meetings Act requirements, at least 15 days after the city's 60-day notice of the proposed zone to discuss: the boundaries of the development, the tax increment that each taxing unit will contribute to the tax increment fund, any proposed retention of a portion of its tax increment by a taxing unit, the exclusion of particular property parcels from the zone, the board of directors of the zone, and tax collection within the zone.

4) **In addition to meeting with the tax unit representatives, the city makes a formal presentation to the governing body of each county and school district levying real property taxes within the proposed zone.** Presentations, subject to the rules of the Open Meetings Act, must be given to all tax units. They may be conducted as joint presentations with the consent of all participants. The city's proposed plan may include expenditures for any of a number of costs outlined as "project costs" in Tax Code Section 311.002(1). Expenditures could include costs of acquisition, construction, or improvement and costs to enhance or develop new and existing public buildings and other public improvements. Project costs may include the cost of professional services and administrative expenses in connection with the implementation

of the project plan. Cities are permitted to acquire property through purchase condemnation. Tax Code Section 311.008(b) provides that these powers prevail over any law or municipal charter to the contrary. The Texas Legislature in 1999 amended Section 311.008 to prohibit the use of tax increment financing for improvements to certain educational facilities unless these facilities are located in a reinvestment zone created prior to September 1, 1999.

5) **After the city has made a formal presentation to the other tax units, the city holds a public hearing on the creation of the reinvestment zone**. At least seven days published notice in a general circulation newspaper in the city must be provided. At the hearing, the governing body of the city must evaluate the proposed benefits of the zone. Any interested person is permitted to speak at the hearing and voice objection to the inclusion of property within a proposed zone. Property within a zone that is owned or leased by a member of the governing body of the city or by a member of a zoning or planning board or commission of the city is not eligible for TIF financing or tax abatement.

6) **Following the public hearing, the governing body of the city, by ordinance, designates a contiguous area within the city as a reinvestment zone for tax increment financing purposes.** The adopted ordinance must include the finding that development of the area would not occur in the foreseeable future solely through private investment (sometimes referred to as the "but for" criteria). Tax Code Section 311.004 contains other mandatory provisions for the reinvestment zone ordinance, including:

   a) A description of the boundaries of the zone with sufficient detail to identify the territory within the zone. The ordinance need not identify specific parcels of real property.
   b) A designation of the board of directors for the zone and an indication of the number of directors of the board.
   c) A provision that the zone takes effect immediately on passage of the ordinance.
   d) An indication of a date for termination of the zone.
   e) A name for the zone as provided under Tax Code Section 311.004(5).
   f) A provision establishing a tax increment fund for the zone.
   g) A stated finding that improvements within the zone will significantly enhance the value of the taxable property within the zone and be of general benefit to the city, and that the area meets the criteria for designation of a reinvestment zone under Tax Code Section 311.005.
   h) When designating a reinvestment zone pursuant to a petition of property owners, the city specifies in its ordinance that the reinvestment zone is designated pursuant to Tax Code Section 311.005(a)(5).

   The size, composition and qualifications of the board of directors of a TIF depend on whether a reinvestment zone is initiated by city council or by a petition of the property owners.

   a) **Zones initiated by city council.** The board shall consist of at least five and not more than fifteen members, unless more than fifteen members are required under Tax Code Section 311.009. The board is composed of one appointee from each tax unit that levies taxes on real property in the zone. The governing board of the municipality appoints the remaining board members.

   b) **Zones initiated by petition of property owners.** The board shall consist of nine members. The board is composed of one appointee from each school district or county levying property taxes in the zone that has approved payment of all or part of the tax increment. The remaining members are appointed by the governing body of the municipality. Appointees must either own property in the zone or be an employee or agent of a person who owns real property in the zone. Further, the local state senator and representative in whose districts the zone is located (or their designated substitutes) are each members of the board.

7) **After the city has adopted the ordinance creating a zone, the board of directors of the zone must prepare both a "project plan" and a reinvestment zone "financing plan".** These plans should be consistent with preliminary plans developed by the city before the board was created. Project plans must include:

a) A map showing existing uses of real property within the zone and any proposed improvements.
b) Any proposed changes to zoning ordinances, the master plan of the city, building codes, or other municipal ordinances.
c) A list of estimated non-project costs.
d) A statement of the method for relocating persons displaced as a result of implementation of the plan.

Financing plans must include:

a) A detailed list of project costs of the zone, including administrative expense.
b) A list of the kind, number, and location of all proposed public works or public improvements within the zone.
c) An economic feasibility study.
d) The estimated amount of bond indebtedness to be incurred.
e) A timetable for incurring costs or monetary obligations.
f) The methods for financing estimated project costs and expected sources of revenues, including the percentage of tax increment to be derived from the property taxes of each taxing unit that levies taxes on real property within the zone.
g) The current total appraised value of taxable real property in the zone.
h) The estimated captured appraised value of taxable real property within the zone.
i) The estimated captured appraised value of the zone during each year of its existence.
j) The duration of the zone. Under Tax Code Section 311.017, a tax increment financing reinvestment zone terminates on the earlier of: the termination date designated in the original or amended ordinance creating the zone, or the date on which all project costs, tax increment bonds, and interest on those bonds have been paid in full.

The financing plan may provide that the city issue tax increment bonds or notes, the proceeds of which pay project costs for the reinvestment zone. These are payable from the tax increment fund and must mature within 20 years of the date of issue. Tax increment bonds are issued by city ordinance. A legal review of bond covenants must be obtained from the Public Finance Section of the Attorney General's Office prior to marketing.

Once the board of directors of the zone has approved the project plan and reinvestment zone financing plan, they must be approved by ordinance of the governing body of the city. Passage requires a simple majority of the governing body. Voting is conducted at an open meeting. Importantly, the city's ordinance must find that the plans are feasible and conform to the master plan, if any, for the city.

At any time following adoption of the zone, the board of directors may adopt an amendment to the project plan as provided under Section 311.011 of the Tax Code. An amendment to the project plan will not bind a school district, unless it agrees to participate, if:

a) The amendment has the effect of directly or indirectly increasing the percentage or amount of tax increment to be contributed by the school district.
b) The amendment requires or authorizes the city creating the zone to issue additional tax increment bonds or notes.

8) **After the project plan and reinvestment zone have been approved by the board of directors and by the city's governing body, the other tax units with property within the zone contract with the city regarding the percentage of their increased tax revenues which will flow to the tax increment fund.** At this time, the decision as to what percentage of the increased tax revenues to contribute is entirely discretionary with the governing bodies of the tax units. And, any agreement to contribute must indicate the portion of the tax increment to be paid into the fund and the years for which the tax increment will be paid.

In lieu of permitting a portion of its tax increment to be paid into the tax increment fund, a taxing unit (other than a city) may elect to offer the owners of taxable real property in the zone an exemption from ad

valorem taxation for any increase in the property value as provided under Tax Code Chapter 312. In any contract entered into by the tax increment zone's board of directors with regard to bonds or other obligations, the board may promise not to approve any such tax abatement agreement. If a taxing unit enters into a tax abatement agreement within a tax increment reinvestment zone, the taxes that are abated will not be considered in calculating the tax increment of the abating taxing unit or that unit's deposit into the tax increment fund. For zones created on or after June 1, 1999, there is no requirement that the tax unit notify the board of directors of the zone that the unit does not wish to contribute. A positive decision (codified by an agreement) is necessary to secure a tax unit's contribution to a tax increment fund.

9) **Once the reinvestment zone has been established, the board of directors of the reinvestment zone makes recommendations to the governing body of the city on the implementation of tax increment financing.** By ordinance or resolution, the city may authorize the board of directors of the reinvestment zone to exercise any of the city's power with respect to the administration, management, or operation of the zone or the implementation of the project plan for the zone. However, the city may not authorize the board of directors to issue bonds, impose taxes or fees, exercise the power of eminent domain, or give final approval to the project plan. Importantly, the city council must approve any acquisition of real property.

   The board must ensure that bonds have been issued for the zone, that the city has acquired property in the zone pursuant to the project plan, and/or that construction of improvements has begun in the zone. If at least one of the above three items has not been accomplished within the first three years of the zone's existence, the other tax units are not required to continue payments into the tax increment fund.

10) **The city must submit an annual report to the chief executive officer of each taxing unit that levies taxes on property within the zone.** This report must include the following items:

   a) The amount and source of revenue in the tax increment fund for the zone.
   b) The amount and purpose of expenditures from the fund.
   c) The amount of principal and interest due on outstanding bond debt.
   d) The tax increment base and current captured appraised value retained by the zone.
   e) The captured appraised value shared by the city and other taxing units.
   f) The total amount of tax increments received.
   g) Any additional information required demonstrating compliance with the tax increment financing plan adopted by the city.

VIII.   A Model for Prospective Tax Increment Financing (TIF) Ventures

Any new TIF district should show projected benefits that exceed its creation cost. To assess the economic value of a potential TIF district, Dye and Sundberg (1998) propose two performance criteria: *financial viability* and *efficiency enhancement*. A TIF reinvestment district is *financially viable* if the additional tax revenue it generates is at least a large as its cost (that is, if the TIF district has a positive cash flow). A TIF district is *efficiency enhancing* if incremental benefits generated exceed the tax revenue that would otherwise have occurred. Efficiency enhancing TIFs generate positive cash flows that also cover the opportunity costs of expected tax receipts. Dye and Sundberg argue that prospective TIFs need to be more than just financially viable, they should also be economically efficient. This section presents an objective, mathematical framework to assess the economic worth of a proposed TIF district.

For a given city x, total tax revenue is equal to the total property value (V_x) (less exemptions) times the total applicable municipal tax rate (tax_x), or:

Total Tax Revenue $= V_x tax_x$ (1)

If we assume that some portion of a municipality is designated as a TIF district, and if we further assume that TIF property values in excess of the initial, or base, valuation generate tax revenue for the TIF district, then the tax increment can be defined as:

Tax Increment $= tax_x (V_{TIF} - V_{BASE})$ (2)

where the base valuation of the properties contained within the TIF is V_{BASE} and V_{TIF} is the property values during subsequent periods. This difference ($V_{TIF} - V_{BASE}$) is defined as the *excess valuation* of the TIF district. If the annual rate of change in property values in the TIF district is defined as g_b, then equation 2 can be rewritten as:

Tax Increment$_t = tax_x (V_{BASE}(1 + g_b)^t - V_{BASE})$ (3)

and algebraically rearranged as:

Tax Increment$_t = (V_{BASE})(tax_x)((1+g_b)^t - 1)$ (4)

Thus, the incremental TIF revenue in a given post-TIF year is the product of the base property valuation of the TIF district (V_{BASE}), the combined municipal tax rate (tax_x) and the annual growth in TIF property values (g_b). A positive relationship exists between these factors and the size of the tax increment with larger factors leading to larger tax increments available for redevelopment. Although all three factors are important to the total increment generated, the expected growth rate of TIF property values is most crucial to the economic justification of a TIF district. The post-TIF growth rate also determines whether a proposed TIF meets the conditions of financial viability and economic efficiency. Dye and Sundberg point out that if pre-TIF growth rates for the designated zone are non-zero, "some efficiency-improving projects will not be financially viable and (some) financially viable projects will not be economically efficient"(1998, p. 96).

The financial viability of a TIF district of life N years, as measured by net present value (NPV), is the summed present value of the tax increment less any TIF organizational or infrastructure costs. The extension of equation 4 is

shown as: $NPV(TIF) = \sum\limits_{t=1}^{N} \dfrac{(VBASE)(tax_{x,t})((1+gb)^t - 1)}{(1+k)^t} - \text{costs}$ (5)

where k represents the cost of funds for the municipality. If NPV is positive, then the proposed TIF district is financially viable. Positive cash flow is a "necessary condition" for the creation of a TIF district but is not a "sufficient condition." To illustrate, assume the following:

> A city is considering the creation of a TIF district in which current total property values (less exemptions) are \$530 million. The combined municipal tax rate is \$1.9657 per \$1000 of valuation. If the TIF district is created, all taxing authorities will participate. The city will spend \$1 million initially in infrastructure improvements on the district that will generate a post-TIF growth rate in property values of 5 percent. Assume a 10-year life for the TIF district and a municipal bond rate for the city of 7 percent. Table 1 details the expansion of equation 5 for this example.
>
> Column 2 (of Table 1) shows the growth in TIF property values over the 10-year project life. The figures in column 3 reflect the excess valuation of property, or the combined property values above the base value. The tax increment for each year (equation 2) is provided in column 4. The tax increment, recomputed using equation 4 in column 5, is equivalent to the values generated in column 5. The present value (at 7 percent) of each tax increment is shown in column 6 with the summed present value of \$2,087,735 indicated at the bottom of the column. This value (\$2,087,735) represents the present value of the tax revenue that the TIF district would generate over the ten-year life of the project. The net present value of the TIF district would be the benefits less the initial cost, or:
>
> *NPV(TIF)* = \$2,087,735
>   -\$1,000,000
>   = \$1,087,735.

This example satisfies the financial viability criterion for TIF district feasibility because the present value of the benefits exceeds the initial costs.

Table 1

Year	TIF Property Values	Excess Valuation	Tax Increment	$(V_B)(Tax)((1+g)^t-1)$	PV of Tax Increment
1	$556,500,000	$26,500,000	$52,091	$52,091	$48,683
2	$584,325,000	$54,325,000	$106,787	$106,787	$93,272
3	$613,541,250	$83,541,250	$164,217	$164,217	$134,050
4	$644,218,313	$114,218,313	$224,519	$224,519	$171,284
5	$676,429,228	$146,429,228	$287,836	$287,836	$205,223
6	$710,250,690	$180,250,690	$354,319	$354,319	$236,098
7	$745,763,224	$215,763,224	$424,126	$424,126	$264,124
8	$783,051,385	$253,051,385	$497,423	$497,423	$289,505
9	$822,203,954	$292,203,954	$574,385	$574,385	$312,428
10	$863,314,152	$333,314,152	$655,196	$655,196	$333,068
					$2,087,735

Using the financial viability criterion only, this TIF district should be created.

Figure 1 illustrates the net present value of the proposed TIF district at various projected rates of growth in TIF property values. As the figure shows, the TIF district generates positive cash flow, even at relatively low property value growth rates. Because pre-TIF growth rates are ignored, the TIF district may yield lower growth rates over its life than the historical rates and still be financially viable.

Figure 1
NPV of TIF District
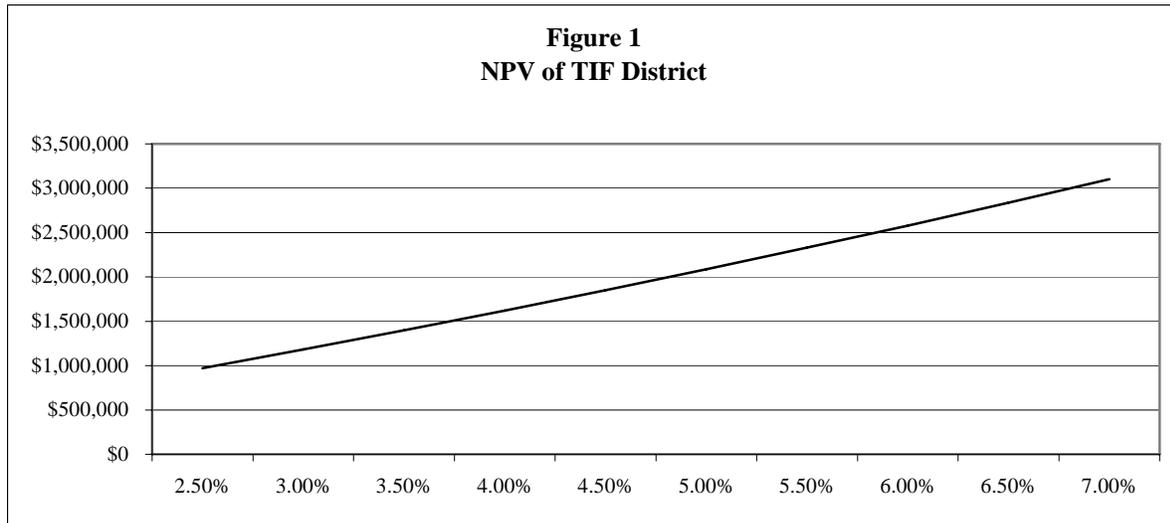
Dye and Sundberg extend this relationship and provide a model to determine whether the TIF project meets the efficiency-enhancing standard and, thus, is in the best interest of the community. To meet the efficiency standard, a TIF district must generate benefits in excess of those required for financial viability. That is, incremental benefits must also exceed "the opportunity costs of would-be tax collections" (1998, p. 95). These opportunity costs include the tax revenue growth that would have occurred in the reinvestment zone without the TIF. For city x with a TIF district (using the previous variable definitions), the net present value of total future tax collections is:

$$NPV(TAX) = \frac{tax_x(V_x \text{-} VTIF)}{(r - g'_x)} + \frac{tax_x(VTIF + AcVTIF)}{(1 + g'_b)(r - g'_b)} \quad (6)$$

where g'_x is the expected growth rate of property values in the non-blighted areas unaffected by the TIF; g'_b is the higher expected growth rate in the blighted area after the TIF district creation; cV_{TIF} is the amount spent on the TIF district to improve property values; and A is the proportion of each dollar spent on the TIF that accrues to property values.

The first term in equation 6 represents the present value of tax revenues from the non-TIF portion of city x[1]. The second term reflects the present value of the expected tax revenue from the TIF district where AcV_{TIF} is the initial increase in TIF property values one year after TIF district creation. When opportunity costs are considered (expected tax revenues without the TIF with tax burden shifted to the other parts of the city), the NPV of the TIF decision expands to:

$$NPV(TIF) = \frac{(V\text{x-}V\text{TIF})(g'\text{x}-g\text{x})}{(r-g'\text{x})(r-g\text{x})}(tax\text{x}) + \frac{V\text{TIF}+AcV\text{TIF}}{(1+g'\text{b})(r-g'\text{b})}(tax\text{x}) - \frac{tx}{r-g\text{b}}V\text{TIF}$$
$$- \frac{tax\text{x}}{tax\text{x}+tax\text{s}}cV\text{TIF}$$

(7)

where g_x is the expected growth rate of property values in the non-blighted areas; g_b is the expected growth rate in the blighted area without the TIF district; and tax_s is the school district tax rate.[2]

If creation of the TIF district does not affect property value growth rates outside the redevelopment zone, then the first term of equation 7 can be dropped and NPV formula becomes:

$$NPV(TIF) = \frac{V\text{TIF}+AcV\text{TIF}}{(1+g'\text{b})(r-g'\text{b})}(tax\text{x}) - \frac{tax\text{x}}{r-g\text{b}}V\text{TIF} - \frac{tax\text{x}}{tax\text{x}+tax\text{s}}cV\text{T}_{IF}$$ (8)

Dye and Sundberg point out that three of the model's variables (the initial TIF property value increase (A), the post-TIF growth rate of TIF district property values (g'_b) and initial capital spending on the district (cV_{TIF})) are creations of the TIF. Other factors influencing a municipality's decision are the discount rate (r), the municipal tax rate (tax_x), the property tax rate imposed by the local school district (tax_s) and the projected growth rate of property values in the reinvestment zone without the TIF (g_b). The authors underscore the importance of the second term in equation 8 which represents the value of tax revenue increases that would have occurred without the creation of the TIF. The ratio $tax_s/(tax_x+tax_s)$ in equation 8 is equivalent to the Huddleston (1984) "subsidy rate" which reflects the share of the TIF project borne by overlying tax entities. This opportunity cost reduces the TIF's cash flow to reflect the incremental nature of the project's revenue stream and improve the economic efficiency of the proposed tax district.

Dye and Sundberg simulate equation 8 to determine the impact of pre-TIF growth rates, post-TIF growth rates and tax rates on the net present value and net cash flow of the TIF project. Their results echo the conclusions drawn from equation 5. First, higher post-TIF property value growth rates increase the TIF's NPV and net cash flow. Second, TIF NPV and net cash flow increase with higher municipal tax rates. Third, financial viability can be achieved for most proposed TIF districts with relatively low (even negative) post-TIF growth rates. However, TIF projects will be economically inefficient for "wide range of ex-post growth rates"(1998, p. 96). Dye and Sundberg conclude that that this is one of the "gravest flaws in TIF"(1998, p. 96). They state:

> "If property values would grow at a high rate in the absence of TIF, even a project that results in a permanent reduction in the growth rate would be easy to finance. Policy makers unused to the concept of opportunity costs might be susceptible to making a poor decision if financial viability is confused with efficiency." (Dye and Sundberg, 1998, p. 96)

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[1] The authors use constant and perpetual growth assumptions for TIF property values rather the discrete timeframe assumption from the previous example.

[2] Dye and Sunberg (1998) also include a non-tax benefit component in the model (NB) that represents the present value of the net benefit the district creates for city x other than changes in property values. Their application ignores these potential benefits given their non-quantifiable nature.

One limitation of these simulations is the assumption that a TIF has no effect on assessment growth rates for non-TIF property. These authors include in their model (equation 7) provisions for increased rates of citywide property growth but simplify the model to conduct the simulations. Ignoring possible "spillover effects" on property values reduces the effectiveness of the evaluation tool and may understate a TIF's value to a community. Relatively small increases in property value growth rates can generate substantially higher tax revenues for the municipality. The following example evaluates a proposed TIF using the complete model (equation 7).

Assume the following information:

> Total property value of the city is $17.2 billion.
> Total property value of the proposed TIF is $530 million.
> Average annual growth rate in city property values is 3.3 percent.
> Average annual growth rate in TIF district property values is 3.3 percent.
> Total property tax rate (including municipal taxes) is $1.9657 per $1000 of valuation.
> Municipal tax rate is $0.720 per $1000 of valuation.
> Initial capital spending on the TIF is $10 million.
> 100 percent of initial capital spending accrues to TIF property values.
> Property values in the TIF district (post creation) grow at 5 percent indefinitely.
> Property values in the city (post-creation) grow at 3.4 percent indefinitely.
> Opportunity cost for the city is 7 percent.

> PV of Expected Value of TIF Cash Flow: $30,504,651
> PV of Expected Tax Revenue without TIF: $42,482,078,378
> Subsidy Rate:
> $5,690,600
> PV of Non-TIF Tax Revenue Growth: $37,116,155,480
>
> NPV of TIF Decision: -$5,341,108,846

The results suggest that the TIF district will generate incremental tax revenue having a present value of $30,504,651. The present value of anticipated tax revenue of would-be TIF property without the TIF is $42,482,078,378. The cost of the initial investment borne by other taxing entities (the subsidy rate) is $5,690,600. The additional one-tenth of one percent growth in non-TIF property values generates additional tax revenue for all taxing authorities having a present value of $37,116,155,480. The total NPV of the TIF decision is -$5.3 billion. As the numbers suggest, the opportunity costs of the TIF overwhelm the benefits the TIF produces.

Figure 2 provides the results of simulating equation 7 for the NPV of the TIF decision using various post-TIF growth rates for the city. As the figure suggests, the NPV of the TIF decision is sensitive to small changes in the post-TIF growth rate. If the adoption of a TIF district yields citywide property tax growth of less than 3.44 percent, then the NPV of the proposal is negative. If the citywide growth accelerates to 3.45 percent, then the NPV of the TIF is $14 billion. So, a TIF district can generate huge benefits for a community if the growth rate in citywide property values can be increased.

Specifically, if the growth in property values exceeds the city's municipal bond rate, it can be financially viable. However, for a TIF to be efficiency enhancing, growth must exceed the municipal bond rate plus the growth rate that the TIF district property values would have achieved had the reinvestment zone not been created, the true opportunity cost. Accounting for opportunity costs can create a divergence between economic efficiency and financial viability. That is, not all financially viable TIF districts are going to be economically efficient.

Figure 2
NPV of TIF Decision
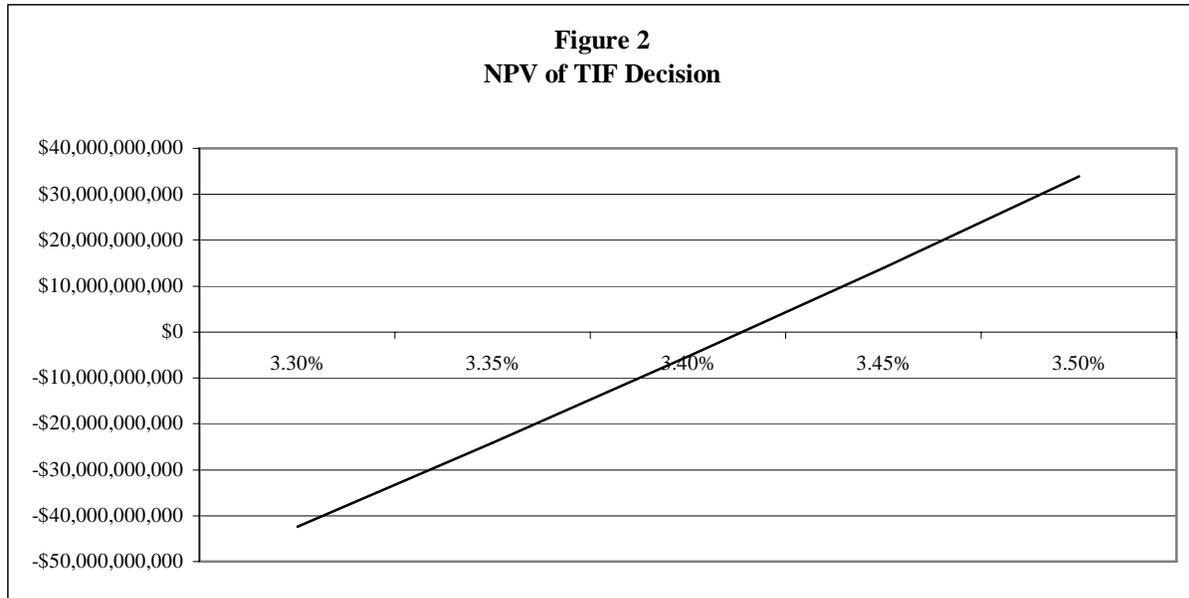
IX. A Summary of Tax Increment Financing (TIF) Best Practices

As the earlier sections have indicated, TIF programs are controversial. However, as long as it is generally accepted that there are going to be redevelopment situations warranting public incentives, TIF will continue to be a widely used tool.

Section VIII of this report presents the results of an economic simulation analysis where the effects of specific quantitative relationships can be studied. The models presented quantify several important concepts to consider in evaluating potential TIFs. These financial issues are:

1) Property assessment growth rates are key to identifying worthy TIF reinvestment zones. Areas with above average growth rates (in the local context) are developing without TIF and probably do not warrant public stimulus.
2) Net Present Value (NPV) is the appropriate tool to assess program paybacks. NPV is strongly affected by assumed interest rates. High bond rates decrease NPV, while low rates elevate NPV. The goal is to select rates that reflect market conditions so that observed paybacks match original estimates.
3) Financial viability is the minimum criterion for TIF programs. A TIF needs to repay fully borrowing and administrative costs related to its creation. It is deemed financially viable if it can.
4) Financial efficiency is highly desirable. Many under performing areas will experience assessment growth without a TIF. Incremental tax receipts generated (above the underlying assessment growth pattern) determine a TIF's efficiency -- the greater this value, the more valuable the TIF is to a community.
5) Spillover effects are highly desirable. When a TIF positively influences assessment growth rates in adjacent non-TIF areas, this contributes to the TIF's efficiency and contributes to the public good.

In addition to the financial criteria presented above, the literature review identified several characteristics of successful TIFs. These are:

1) A seriously blighted zone holding little attraction for private development. Public investment is needed to encourage private interest in the target area. Typically, there is poor infrastructure and coordinated redevelopment must be undertaken. A TIF program can provide the administrative structure and project plan to make large projects happen.
2) Well-planned projects conforming to the city's master plan for development. The resulting investment will enhance the community and contribute to the public good.
3) Projects with extensive public support. Public support will lessen opposition and encourage overlying tax districts (school districts, community colleges) to participate.

4) Projects with clear causal linkages to private development within the target area. Clear attribution of assessment gains to a TIF will lessen opposition and encourage the participation of overlying tax districts (school districts, community colleges).
5) Projects presenting few barriers to implementation. Factors strongly conducive to success include:
   b) No/minimal residential relocation needs.
   c) No/minimal business relocation needs.
   d) No requirement to provide low/moderate income housing.
   e) Current property ownership concentrated in few hands.

The literature review also identified situations where TIF programs are less likely to succeed. Such problematic applications of TIF include:

1) Using TIF funds to provide basic city services. General tax revenues should fund these services.
2) Using TIF funds to support development in areas where the "but for" criterion cannot be satisfied; that is, in areas which would likely develop without public incentives. These projects represent unwarranted public subsidy of private enterprise.
3) Using TIF funds for redevelopment without strong evidence that appraisal value appreciation will support bond refunding. Such projects generate few funds for the reinvestment account and may place the credit rating of the community in jeopardy through TIF bond default.
4) Using political criteria to determine representation on TIF boards. Boards well represented by property owners within a reinvestment zone are more focused, work more efficiently and achieve better results. It is essential that people with a stake in the outcome of the reinvestment zone play key roles.
5) Using TIF funds to support "private purpose" projects rather than "public betterment" projects. Bonds issued for private purpose projects lack tax-exempt status, a key disadvantage. Other vehicles, such as industrial revenue bonds, more appropriately fund private purpose projects.
6) Using TIF funds to support projects previously voted down in a local bond election. Using TIF to circumvent the will of the public destroys confidence in the TIF and politicizes the process.
7) Creating TIF reinvestment zones that hold a large portion of a city's assessed property valuation. Overly large reinvestment zones distort the revenue support base of overlying tax districts inviting active opposition from these tax units.
8) Including lands in a reinvestment zone that are already owned by industry. These areas should not need public subsidy to encourage development. Unless the master plan urges cultivation of a different industry, this is an unwarranted subsidy of private enterprise.
9) Combining property in unrelated areas to form a TIF reinvestment zone. A TIF zone should have a focused project plan. When stronger areas are added to needy areas solely to inflate appraisal growth and enlarge the TIF fund account, this is a misuse of TIF.
10) Using TIF programs in areas where large numbers of residential units will be displaced. Displaced residents will need to be relocated in suitable housing, at least temporarily. This greatly increases the cost of redevelopment and the difficulty and time required to implement the project plan. It also invites political backlash.
11) Using TIF programs in areas with highly dispersed property ownership. Negotiations with large numbers of property owners are difficult to coordinate and take time. This slows the assemblage of property, can raise total acquisition costs and increases business risk.
12) Using TIF programs for purposes that conflict with the city's master plan for development. Unless the master plan is first reconfigured to include the proposed reinvestment purpose, political criticism should be expected.

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X1. Biographies

Gary L. Sullivan, Ph.D.

Dr. Sullivan joined the University of Texas at El Paso faculty in 1985. Previously, he taught in the doctoral, masters and undergraduate business programs at the University of Cincinnati and the University of Kentucky. He is presently a tenured, full professor of marketing at UTEP. In 1989, in recognition of his contributions to the business college's teaching, research and service missions, he was named as the first holder of the Betty M. MacGuire Endowed Professorship in Business Administration.

Gary L. Sullivan earned a BS degree in Industrial Management at the University of Massachusetts, Lowell, and an MBA at Florida Atlantic University. He completed a PhD in Business Administration (major: marketing; minor: research methods) at the University of Florida in 1978. From 1992-2002, Sullivan served as Chair of the Department of Marketing and Management at UTEP.

Dr. Sullivan has published widely. His research record includes two books, one book chapter, seventeen refereed journal articles, twelve refereed proceedings papers and numerous technical reports. To support his research interests, he has applied for and received eight research grants. Sullivan's research themes include consumer behavior, advertising and survey methodology. From 1988-1994, he served as Editor of the *Southwest Journal of Business & Economics*. Whenever possible, he has also provided service to the El Paso community and to academic organizations in marketing and advertising.

Steve A. Johnson, Ph.D.

Dr. Johnson is Associate Director for Business and Economics and an associate professor of finance in the Department of Economics and Finance at the University of Texas at El Paso. His degrees include a BA in business administration and an MBA from Troy State University as well as an MA and Ph.D. in finance from the University of Alabama. His primary instructional responsibilities and research interests are corporate finance, international finance and financial markets. His academic research has been published in *Managerial Finance, Advances in Quantitative Analysis of Finance and Accounting, Journal of Economics and Finance, Quarterly Journal of Business and Economics, Journal of Borderland Studies, and Southwest Journal of Business and Economics*. Dr. Johnson has also conducted regional housing analyses, business retention and expansion research and an assessment of El Paso's business climate for the Institute for Policy and Economic Development.

Dennis L. Soden, Ph.D.

Dr. Soden has held the position of Executive Director since creation of the Institute in 2001, and previously was Director of the Public Policy Research Center, begun in 1996. He has held his appointment as a Western Hemispheric Trade Professor of Policy Studies since 1997. He has previously directed several university research centers: Director, Southwest Social Science Research Center, University of Nevada, Las Vegas (1993-96); Interim Director, Whitman Center for State and Local Government (1989-90) and Director of Coastal Management Studies (1987-90), University of West Florida. Dr. Soden has published extensively in the fields of policy and decision making and regularly consults on organizational development and community participation, especially in areas involving technical complexity. He holds a BS in Economics from the University of California, Riverside, a Masters in International Relations from the University of Southern California and a Ph.D. in Political Science from Washington State University.