

Office of Fiscal and Management Analysis

The Office of Fiscal and Management Analysis (OFMA) is a division of the Legislative Services Agency that performs fiscal, budgetary, and management analysis for the Indiana General Assembly.

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Preface

IC 2-5-3.2-1 establishes an annual review, analysis, and evaluation process for state and local tax incentives. The original statute required the evaluation of each tax incentive at least once during two consecutive five-year cycles. The first five-year review cycle began during the 2014 legislative interim and was completed during the 2018 interim. During the 2019 legislative session, the legislature extended the second tax incentive review schedule from a five-year cycle to a seven-year cycle. The annual tax incentive review is conducted by the Office of Fiscal and Management Analysis, Legislative Services Agency. The prior year reports can be found on the Indiana General Assembly's website at https://iga.in.gov/legislative/2018/publications/tax incentive review/. Pursuant to IC 2-5-3.2-1, this report:

- Specifies the review schedule for 2019-2025
- Reviews, analyzes, and evaluates the following tax incentives and incentive programs:
 - Residential historic rehabilitation credit
 - Individual development account credit
 - Neighborhood assistance credit
 - Tax increment financing
- Provides descriptive information and data relating to the tax incentives and incentive programs subject to review in 2019
- Analyzes and evaluates the effectiveness and economic impacts of the tax incentives and incentive programs subject to review in 2019

We would like to acknowledge the following agencies for their assistance in providing data that is presented and analyzed in this report:

- Department of State Revenue
- Indiana Housing and Community Development Authority
- Department of Local Government Finance
- Indiana Department of Natural Resources

Executive Summary

The Legislative Services Agency (LSA) analyzed a variety of tax incentives this year covering activities such as charitable giving, renovation of historic homes, and tax increment financing (TIF). All of the incentives reviewed this year were among the incentives included in LSA's annual tax incentive evaluation in 2015. The first five-year tax incentive review cycle was completed in 2018. This report is the first in the second cycle, which was extended to seven years.

The neighborhood assistance tax credit and the individual development account (IDA) tax credit are used to leverage additional charitable contributions. Both the tax credits are designed to encourage donations to programs benefitting low-income individuals. LSA revisited the previous review of published research on the impact of tax incentives on charitable giving. While most studies have found that tax incentives in general increase charitable contributions by at least the amount of tax revenue foregone, the effect varies widely depending on the type of charity. Specifically, the following observations were made:

- The wide variety of organizations participating in the neighborhood assistance tax credit program likely reflects the aggregate characteristics of charitable giving. These credits are highly sought after and successfully used by neighborhood organizations to encourage contributions.
- IDA tax credits are applicable to a more narrowly defined charitable purpose, which may not be as responsive to tax incentives. Although this credit does not attract a large amount of donations relative to other tax incentives, the contributions attributable to the tax credit are a significant source of revenue for the IDA program.

The residential historic rehabilitation credit was created to encourage the rehabilitation of historic homes by reducing the cost of qualified projects through an income tax credit. Although credit claims have continued to increase, it is still unclear whether this incentive is encouraging people to renovate their historic homes. LSA updated the 2015 study by conducting a statistical analysis of property tax data. Properties increased in value after completion of qualified projects. However, these property values did not increase more than other neighboring properties.

TIF was established to help local governments encourage redevelopment or economic development in specific geographic areas. LSA examined the reported purpose of issuance of bonds by TIF districts and divided them into five investment categories: infrastructure, noninfrastructure, government, bond repayment, and miscellaneous. The study found differences in the number of bonds issued for these categories and differences in growth in gross assessed values based on the type of investment. Furthermore, LSA conducted a data analysis at the township level to observe the impact of TIF on gross assessed value. The results demonstrate that properties in TIF districts experience faster gross assessed value growth than non-TIF parcels, but that growth may typically be concentrated in a small subset of properties within the TIF district that change in property use.

Introduction

A tax incentive is a provision of the tax code aimed at reducing a taxpayer's liability in order to encourage certain behavior or to participate in targeted activities. Tax incentives are a significant part of local tax laws, state tax codes, and the federal Internal Revenue Code. Tax incentives contrast with direct spending programs. Tax incentive programs direct public funding to certain purposes by foregoing tax revenue. Tax incentive programs also are not subject to the periodic scrutiny that direct-spending programs are subject to through the normal budgetary process. The LSA produces an expenditure report on November 1 of the first year of the Indiana biennium (https://iga.in.gov/legislative/2019/publications/tax expenditure reports/#document-524f35ff).

In 2017, The PEW Charitable Trusts identified Indiana as one of 10 "leading states" in an evaluation of state tax incentive review procedures. That assessment was based on three criteria: making a plan, measuring impact, and informing policy choices. Research by PEW indicates that tax incentive evaluations are more effective when the analysis of incentives is regularly and strategically scheduled. The analyses of tax incentives should include clear policy relevant conclusions from an impartial, nonpartisan perspective (PEW Charitable Trusts, 2017).

Tax Incentive Review Process

IC 2-5-3.2-1 establishes an annual review, analysis, and evaluation process for state and local tax incentives. Appendix B contains the text of IC 2-5-3.2-1. The review of Indiana tax incentives is conducted by the Office of Fiscal and Management Analysis, LSA. The original staute required the evaluation of each tax incentive at least one time during two consecutive five-year cycles. The first five-year review cycle began during the 2014 legislative interim and was completed during the 2018 interim. During the 2019 legislative session, the legislature extended the second tax incentive review schedule from a five-year cycle to a seven-year cycle.

The statute requires the LSA to submit a report containing the results of the annual tax incentive review to the Legislative Council and the Interim Study Committee on Fiscal Policy. The report must be submitted before October 1 each year. The statute requires the Committee to hold at least one public hearing between September 30 and November 1 at which the LSA presents the report to the Committee. The Committee is required to submit recommendations from information reported in the tax incentive review. The statute requires the General Assembly to use the LSA's report and the Committee's recommendations to determine whether or not a tax incentive (1) is successful, (2) is provided at a cost that can be accommodated by the state's biennial budget, and (3) should be continued, amended, or repealed.

Definition of Tax Incentive

IC 2-5-3.2-1 defines a tax incentive as a benefit provided through a state or local tax that is intended to alter, reward, or subsidize a particular action or behavior by the tax incentive recipient, including a tax incentive providing a benefit intended to encourage economic development.

A tax incentive includes an exemption, deduction, credit, preferential rate, or other tax benefit that reduces a taxpayer's state or local tax liability or results in a tax refund. A tax incentive also includes a program where revenue is dedicated by a political subdivision to pay for improvements in an economic or sports development area, community revitalization area, an enterprise zone, a tax increment financing district, or a similar district.

Tax Incentive Review Purposes and Approaches

IC 2-5-3.2-1 specifies that the purpose of the annual tax incentive review is to (1) ensure tax incentives accomplish the purpose for which they were enacted, (2) provide information to allow the inclusion of the cost of tax incentives in the biennial budgeting process, and (3) provide information needed by the General Assembly to make policy choices about the efficacy of tax incentives. IC 2-5-3.2-1 lists a variety of descriptive and analytical information that could accomplish tax incentive review goals. The information is as follows:

- The attributes and policy goals of the tax incentive.
- The tax incentive's equity, simplicity, competitiveness, public purpose, adequacy, and conformance with the purposes of the legislation enacting the incentive.
- The activities the tax incentive is intended to promote and the effectiveness of the tax incentive in promoting those activities.
- The number of taxpayers applying for, qualifying for, or claiming the tax incentive, and the tax incentive amounts (in dollars) claimed by taxpayers.
- The tax incentive amounts (in dollars) claimed over time.

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- The tax incentive amounts (in dollars) claimed by industry sector.
- The amount of income tax credits that could be carried forward for the ensuing five-year period.
- An estimate of the economic impact of the tax incentive, including a return on investment calculation, cost benefit analysis, and direct employment impact estimate.
- The estimated state cost of administering the tax incentive.
- The methodology and assumptions of the tax incentive review, analysis, and evaluation.
- The estimated leakage of tax incentive benefits out of Indiana.
- Whether the tax incentive could be made more effective through legislation changes.
- Whether measuring the economic impact of the tax incentive is limited due to data constraints and whether legislative changes could facilitate data collection and improve the review, analysis, or evaluation.
- An estimate of the indirect economic activity stimulated by the tax incentive.

Tax Incentive Review Report

IC 2-5-3.2-1 requires the LSA to submit a report containing the results of the annual tax incentive review to the Legislative Council and the Interim Study Committee on Fiscal Policy. The report must be submitted before October 1 each year. The report must include at least the following:

- A detailed description of the review, analysis, and evaluation for each tax incentive reviewed.
- Information to be used by the General Assembly to determine whether a reviewed tax incentive should be continued, modified, or terminated, the basis of the recommendation, and the expected impact of the recommendation on the state's economy.
- Information to be used by the General Assembly to better align a reviewed tax incentive with the original intent of the legislation that enacted the tax incentive.

Tax Incentive Review Schedule

A total of 62 tax incentives were evaluated during the first five-year cycle (i.e., 2014-2018). A total 53 incentives are scheduled for a second review over the next seven years (i.e., 2019-2025). The tax incentives reviewed in 2019 include: neighborhood assistance credit, individual development account credit, residential historic rehabilitation credit, and tax increment financing (TIF) districts. Table A.1 specifies the tax review schedule, and Appendix C contains the list of tax incentives and incentive programs on the review schedule, including descriptions.

Table A.1: Tax Incentives and Incentive Programs Scheduled for Review 2019-2025

Table A.T. Tax incentives and incentive Programs Scheduled for Review 2019-2025				
Tax	Tax Provision			
	2019			
Corporate Income Tax (C)/ Individual Income Tax (I)	 Individual Development Account Credit (C)(I) Neighborhood Assistance Credit (C)(I) Residential Historic Rehabilitation Credit (I) 			
Property Tax	Tax Increment Financing			
	2020			
Corporate Income Tax (C)/ Individual Income Tax (I)	Enterprise Zone Employee Deduction (I) Enterprise Zone Employment Expense Credit (C)(I)			
Property Tax	 Enterprise Zone and Entrepreneur and Enterprise District Investment Deduction Enterprise Zone Obsolescence Deduction Entrepreneur and Enterprise District Personal Property Minimum Value Exemption Entrepreneur and Enterprise District Vacant Building Abatement Personal Property Abatements in an Economic Revitalization Area Real Property Abatements in an Economic Revitalization Area 			
Other	Enterprise Zones Entrepreneur and Enterprise District Pilot Program			

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Tax	Tax Provision
	2021
Corporate Income Tax (C)/ Individual Income Tax (I)	Community Revitalization Enhancement District Credit (C)(I)
Property Tax	 Brownfield Revitalization Zone Deduction Certified Technology Park Deduction Infrastructure Development Zone Deduction Low-Income Housing Deduction
Other	 Certified Technology Parks Community Revitalization Enhancement District
	2022
Corporate Income Tax (C)/ Individual Income Tax (I)	 Coal Gasification Technology Investment Credit (C)(I) Economic Development for a Growing Economy (EDGE) Credit (C)(I) Headquarters Relocation Credit (C)(I) Hoosier Business Investment Credit (C)(I)
	2023
Corporate Income Tax (C)/ Individual Income Tax (I)	 Regional Development Authority Infrastructure Fund Contribution Deduction (C)(I) Patent-Derived Income Deduction (C)(I) Research Expense Credit (C)(I) Venture Capital Investment Credit (C)(I)
Sales Tax	 Aircraft Parts Exemption Aviation Fuel Exemption Cargo Trailers/RVs Sold to Certain Nonresidents Exemption Certain Aircraft Exemption Research and Development Property
	2024
Corporate Income Tax (C)/ Individual Income Tax (I)	Redevelopment Tax Credit (C)(I)
Property Tax	 Data Center Property Tax Exemption Resource Recovery System Deduction
Sales Tax	Certain Racing Equipment Exemption Data Center Equipment Exemption
Other	 Professional Sports and Convention Development Areas Promotional Free-Play Deduction Motorsports Investment District
	2025
Corporate Income Tax (C)/ Individual Income Tax (I)	 Adoption Tax Credit (I) Earned Income Tax Credit (I) Indiana 529 College Savings Account Contribution (I) Indiana Colleges and Universities Contribution Credit (C)(I) Indiana Partnership Long-Term Care Insurance Premiums Deduction (I) School Scholarship Contribution Credit (C)(I)
Property Tax	 Geothermal Energy Device Deduction Hydroelectric Power Device Deduction Solar-Energy Heating or Cooling System Deduction Solar Power Device Deduction Wind-Powered Device Deduction

Charitable Giving Tax Credits

The following section updates our prior study of two state tax credits associated with donations to specific charitable programs. The individual development account (IDA) tax credit and the neighborhood assistance tax credit are provided to encourage contributions to two different social programs administered by the Indiana Housing and Community Development Authority (IHCDA). Under both tax credit programs, a fixed amount of credits are annually allocated to qualified nonprofit organizations that use the allocation to offer income tax credits to attract donors.

These credits provide qualified nonprofit organizations with a mechanism to attract more contributions. The organizations use their allocation of tax credits to encourage contributions. The programs promote to the donor the tax benefit of both a state income tax credit and the federal income tax deduction. The assumption is that people are influenced by the cost of giving.

We analyzed the programs, the level of tax credit claims, and the available literature to determine if these tax credits are subsidizing contributions that would have occurred without the credit, are treasury efficient in increasing the contributions at least by the level of tax credit claims, or are they efficient in increasing the annual contributions to these programs by an amount greater than the tax credit claimed annually.

Cost of Charitable Contributions after State and Federal Tax Benefits

In addition to these state tax credits, taxpayers are also eligible for a federal income tax deduction for their qualifying contributions. The federal charitable deduction is a dollar-for-dollar reduction in taxable income for qualifying contributions. To claim the charitable deduction, taxpayers must itemize deductions when filing their federal tax return. The amount of the tax benefit is positively related to the marginal tax rate of the taxpayer, thereby reducing the cost of the charitable contribution for the taxpayer. For example, a taxpayer who contributes \$1,000 to a nonprofit with a neighborhood assistance credit allocation could receive a \$500 state tax credit against their Indiana income tax liability, and assuming the taxpayer has a 37% federal marginal income tax rate, a reduction in their federal income tax of \$370. The overall cost of the \$1,000 charitable contribution would be \$130. As a result, prospective donors are able to donate to their chosen program while paying as little as 13% of the credit-eligible donation. A marginal tax rate of 32% would reduce the federal income tax by \$320; the overall cost of the \$1,000 charitable contribution would be \$180. Unlike state tax credits, the federal deduction is more valuable to people with higher marginal tax rates or more taxable income.

Taxpayers can claim the federal tax deduction for charitable contributions only if they itemize their deductions. The *Tax Cut and Jobs Act of 2017* (TCJA) increased the allowable levels of the charitable contributions deduction for federal tax purposes from 50% to 60% of the taxpayer's adjusted gross income. However, it also substantially increased the standard deduction for tax year 2018 to tax year 2025. The Joint Committee on Taxation estimates that the number of taxpayers who itemize deductions dropped from 47.2 million in 2017 to 17.6 million in 2018. This is largely due to provisions of TCJA that increased the standard deduction. This means that a significant number of taxpayers who would have itemized and claimed a deduction for charitable contributions will now claim the standard deduction. If donors are incentivized by the discount provided by the federal tax deduction, the projected decline in the number of taxpayers who itemize their deductions may reduce contributions to charitable organizations. The state tax credits could now be more influential for the reduction they provide to the cost of charitable giving for a substantial portion of taxpayers. Researchers have examined how reducing the cost of giving impacts the level of donations. To describe the impact, they use a concept called the price elasticity of giving.

Price Elasticity of Charitable Contributions

In the 2015 Indiana Tax Incentive Evaluation, the literature on price elasticity of giving was discussed (LSA, 2015). The literature review is revisited to provide a conceptual framework of the price elasticity of giving and conclusions about its measure and implications by various studies.

The price elasticity of giving is defined as the percentage change in donations that results from a 1% change in the cost of giving, all else being equal. The elasticity measures the proportional impact that the reduced cost of donations has on the amount of donations. For a donor, the tax benefit reduces the cost of donations. If the discount results in a disproportionately higher level of donations, then the discount stimulates charitable contributions. In mathematical terms, this would mean that the elasticity exceeds 1 (absolute value) and the price effect is considered elastic.

Charitable Giving Tax Credits

Steinberg (1990) states that for a tax incentive program to be treasury efficient, it has to be price elastic. In other words, for the tax incentive to be treasury efficient it would be essential that the increase in donations be equal or greater than the loss of revenue from the tax credit.

On the other hand, an elasticity of less than 1 (in absolute value), denotes that the induced giving is less than the cost of the tax incentive. An elasticity of less than 1 would suggest that donors would receive the credit for contributions they were already planning to make. A tax credit would be inefficient if the incremental contributions simulated by the incentive are smaller relative to their cost.

Researchers have investigated the price elasticity of charitable giving with the objective to determine whether a tax benefit increases donations. Since most studies use the data from the federal tax deduction for charitable contributions which is broadly applicable to all donations to nonprofits, these results reflect an elasticity measure for aggregate charitable contributions. Recent studies have found aggregate charitable giving to be price elastic. However, there is no consensus on the size of the measure. A meta-analysis conducted by Peloza and Steel suggests that the decrease in cost of giving by \$1 results in more than \$1 being donated to charity through private philanthropy (2005). Although the neighborhood assistance program consists of a wide variety of charities that potentially reflects the characteristics of the aggregate charitable giving, the same may not be said about the individual development account tax credit which is applicable to specific needs in housing, transportation and education.

Yetman and Yetman (2013) found the response of donations to taxes across different types of nonprofits, ranging from insignificantly different from 0 for 18 types of public charities, to 2 or larger for 7 types of nonprofits: private foundations, arts and culture, private educations, environmental protection, animal welfare, primary health care, and philanthropy charities. The neighborhood assistance tax credit and individual development account tax credit are attempting to focus donors on special initiatives, while the federal tax deduction is a broad-based incentive for almost all charitable contributions. The purposes in the neighborhood assistance program are broad and potentially price elastic; however, it is unclear if the specific charitable purposes of the individual development account program will meet the treasury efficient threshold. If efficient, these tax credits could shift contributions from other charities or increase total charitable contributions by the residents of the state. Appendix A illustrates the impact of tax benefits at a given level of elasticity.

Neighborhood Assistance Tax Credit (IC 6-3.1-9)

The Indiana neighborhood assistance tax credit was examined by the LSA in 2015. In that analysis, the LSA concluded that the credit effectively encouraged contributions to qualified neighborhood organizations. That conclusion was based on analyses of the number of organizations receiving allocated credits, the allocation process, the total contributions to neighborhood assistance programs, and the trends in the credits claimed. This review of the neighborhood assistance tax credit updates the 2015 analysis.

Tax Credit Description

The neighborhood assistance tax credit was established in 1984 to encourage taxpayers to contribute to neighborhood organizations for certain Indiana neighborhood-based programs and projects. The credit is equal to 50% of a qualified contribution approved by the Department of State Revenue (DOR). The credit may be claimed against an individual's AGI, a corporation's AGI, or a financial institution's tax liability. The credit received by a taxpayer may not exceed \$25,000 and the aggregate amount of credits allowed is capped at \$2.5 million per fiscal year. Priority is given to contributions that directly benefit enterprise zones. The credit is nonrefundable. Unused credits may not be carried forward or carried back.

The next section describes how the IHCDA distributes the tax credit. Then the trends related to the tax credit claims are reported. Finally, the effectiveness of the tax credit and program is discussed.

Program Description

The neighborhood assistance program annually distributes the \$2.5 million in neighborhood assistance tax credits to qualifying neighborhood organizations. Tax exempt 501 (c)(3) organizations engaged in community enrichment are eligible to participate in the program. Eligible organizations may use approved contributions to support new or existing qualified programs that serve an economically disadvantaged area, economically disadvantaged households, or ex-offenders who have completed their criminal sentence or are serving a term of probation or parole. Eligible programs include the following categories:

- Community services Any type of counseling, emergency assistance, medical care, recreational facilities, housing facilities, or economic development assistance.
- Crime prevention Any activity which aids in the reduction of crime.
- Education Any type of scholastic instruction or scholarship assistance that enables an individual to prepare for better life opportunities.
- Job training Any type of instruction that enables an individual to acquire vocational skills so the individual can become
 employable or seek a higher grade of employment.
- Neighborhood assistance Any activity that furnishes financial assistance, labor, materials, and technical advice to aid in the physical or economic improvement of an economically disadvantaged area; or furnishes technical advice to promote higher employment.

Neighborhood organizations must apply for an allocation of credit in April every year and be accepted by the IHCDA to receive credits. The credits are awarded in June, and the organization could start offering them in July. The awarded credits may be used to attract donations to qualified programs. Organizations may be awarded up to \$40,000 in credits or up to \$15,000 for their first year in the program. The allocation of credits to qualified organizations is based on a formula derived by the IHCDA. Donors who contribute to qualified programs or projects may receive credits. The contributions may be in the form of cash, check, credit card, and liquidated stock, contributions designated through the United Way, building materials, and property donations.

The donor's contribution is reported by the qualified organizations to the IHCDA. The IHCDA approves and provides that information to the DOR. Participating organizations also are required to periodically report the use of funds related to the distributed credits.

The IHCDA withdraws credits from organizations that fail to distribute at least 60% of their allocation by January 1. Withdrawn credits are reallocated to those organizations that have exhausted their allocations. Organizations that do not use all of their allocated credits before the filing deadline for the annual closeout report are not eligible to apply for credits the following year.

The number of organizations receiving neighborhood assistance credit allocations has grown substantially since its inception in 1989 when 39 organizations were awarded credits. By 2015, this number had increased to 262, and it reached 327 in 2019. Between 1989 and 2015, the average annual increase in the number of organizations receiving credits was about 7.6%. The trend has slowed over the past four years. The number of organizations has increased by, on average, 6% per year from 2015 to 2019. Coupled with the statutory cap of \$2.5 million per fiscal year, the increase in requests has resulted in a decreasing amount of awards, with awarded credits totaling almost 25% of the requested amount in FY 2019 versus 31% in FY 2015.

Table 1.1. Neighborhood Assistance Tax Credit Allocations by Project Type, 2019						
Activity	Applicants	Amount Requested	Amount Awarded	Share of Total Allocation		
Community Service - Counseling and Advice	64	\$2,061,500	\$513,202	20.6%		
Community Service - Eco. Dev. Assistance	5	129,000	32,750	1.3%		
Community Service - Emergency Assistance	41	1,700,472	407,590	16.4%		
Community Service - Housing Facilities	53	1,681,500	407,845	16.4%		
Community Service - Medical Care	27	901,500	228,866	9.2%		
Community Service - Recreational Facilities	14	331,156	78,993	3.2%		
Crime Prevention	12	363,000	71,845	2.9%		
Education	58	1,582,000	395,277	15.9%		
Job Training	13	455,000	119,321	4.8%		
Neighborhood Assistance	40	983,600	234,016	9.4%		
Total	327	\$10,188,728	\$2,489,705			
Source: Indiana Housing and Community Development Authority						

The steady increase in the number of organizations participating in the program may indicate that the program has extensive support among charitable organizations. Program participants are active in half of the 92 counties in the state, with at least one program in 72 different cities. It also appears that organizations have committed to sustaining their presence in these counties over time. Of the 46 counties with a program participant in 2019, 41 had at least one program participant in 2015.

Taxpayer Claims and Contribution Trends

Table 1.2 provides the number of filers claiming credits and the amount of credits claimed from 2007 to 2016. Over that 10-year period, the number of taxpayers claiming neighborhood assistance credits declined substantially after 2010. In 2016, the number of filers claiming credits was 36% lower than the number in 2010. The amount of credits claimed varied between a low of \$1.4 million and a high of \$2.3 million with an average of about \$2.1 million. The year with the maximum credit claims was at least \$0.2 million below the aggregate \$2.5 million fiscal year credit amount limit. This is likely because some taxpayers who receive the tax credit do not have a sufficient tax liability to claim the full amount. Individual taxpayers claimed most of the credits. Corporate taxpayers accounted for less than 1% of neighborhood assistance credit claims; between 2013 and 2016, corporate taxpayers claimed less than \$5,000 in neighborhood assistance credits each year.

Table 1.2. Filers Claiming Credit and Credits Claimed						
Filers Claiming Credit						
Individual	Corporate	Total	Individual	Corporate	Total	
3,488	6	3,494	\$2,225,413	\$9,650	\$2,235,063	
3,641	8	3,649	2,287,740	2,703	2,290,443	
3,649	19	3,668	1,415,197	14,976	1,430,173	
3,499	12	3,511	2,230,461	12,158	2,242,619	
2,956	9	2,965	2,082,432	11,586	2,094,018	
2,634	6	2,640	1,891,303	10,790	1,902,093	
2,417	N/R	2,417	2,088,379	N/R	2,088,379	
2,625	6	2,631	2,265,764	4,851	2,270,615	
2,359	N/R	2,359	1,999,028	N/R	1,999,028	
2,251	N/R	2,246	2,117,069	N/R	2,117,069	
	3,488 3,641 3,649 3,499 2,956 2,634 2,417 2,625 2,359	Filers Claiming Cree Individual Corporate 3,488 6 3,641 8 3,649 19 3,499 12 2,956 9 2,634 6 2,417 N/R 2,625 6 2,359 N/R	Individual Corporate Total 3,488 6 3,494 3,641 8 3,649 3,649 19 3,668 3,499 12 3,511 2,956 9 2,965 2,634 6 2,640 2,417 N/R 2,417 2,625 6 2,631 2,359 N/R 2,359	Individual Corporate Total Individual 3,488 6 3,494 \$2,225,413 3,641 8 3,649 2,287,740 3,649 19 3,668 1,415,197 3,499 12 3,511 2,230,461 2,956 9 2,965 2,082,432 2,634 6 2,640 1,891,303 2,417 N/R 2,417 2,088,379 2,625 6 2,631 2,265,764 2,359 N/R 2,359 1,999,028	Individual Corporate Total Individual Corporate 3,488 6 3,494 \$2,225,413 \$9,650 3,641 8 3,649 2,287,740 2,703 3,649 19 3,668 1,415,197 14,976 3,499 12 3,511 2,230,461 12,158 2,956 9 2,965 2,082,432 11,586 2,634 6 2,640 1,891,303 10,790 2,417 N/R 2,417 2,088,379 N/R 2,625 6 2,631 2,265,764 4,851 2,359 N/R 2,359 1,999,028 N/R	

N/R = Five or fewer filers. Filer count is not reportable

Source: Raw data provided by the Department of State Revenue, data analysis by the Office of Fiscal and Management Analysis

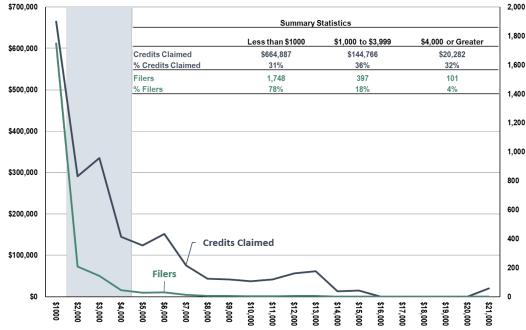
While the number of individuals claiming the tax credit has declined by an average of 7% annually between 2010 and 2016, the amount of the tax credits claimed has remained at the same level. This means that the average credit per taxpayer has increased during this period.

Figure 1.1 shows the distribution of the number of individual taxpayers claiming the neighborhood assistance credit and the credit amount for tax year 2016.

About 78% of all claimants claimed less than \$1,000. Less than 1% of the taxpayers claiming the credit claimed amounts more than \$10,000. No taxpayers claimed the maximum allowable credit amount of \$25,000.

The aggregate amount of credits claimed was distributed fairly evenly among individual taxpayers who claimed less than \$1,000, \$1,000 to \$4,000, and greater than \$4,000.

Figure 1.1. Credits Claimed and Number for Individual Filers for Tax Year 2016



Source: Raw data provided by the Department of State Revenue data analysis by the Office of Fiscal and Management Analysis

LSA investigated whether taxpayers claimed the credit in more than one year (LSA, 2015). The same analysis was performed and there were not any significant changes. During the 10 year period, 90% of the tax credits where claimed by taxpayers who claimed the credit in more than one year. Of the total credits claimed in 10 years, 16% of the total credits were claimed by taxpayers claiming the credit in all 10 years. The average claim for a repeat claimant was higher than a single year claimant. This could signify that the neighborhood organizations seek out the same donors and subsequently offer credits to them. In turn, these donors understand the allocation and claim process and contribute at a higher level.

Although there have been 11,215 different taxpayers who claimed the credit during this 10 year period, the top 100 taxpayers have claimed 25% of the total tax credits. These taxpayers claimed the tax credit 786 times. The maximum credit of \$25,000 was only claimed 13 times.

Table 1.3. Neighborhood Assistance Tax Credit Claimants – Tax Year 2007 through 2016						
All Claimants Repeat Claimants 10 Year Claimar						
Number of Claims	11,215	5,841	217			
Percent of All Claims	100.0%	52.1%	1.9%			
Total Credits Claimed	\$20,836,322	\$18,784,736	\$3,313,658			
Percent of All Credits	100.0%	90.2%	15.9%			
Average Single Year Credit \$711 \$785 \$1,527						
Source: Raw data provided by the Department of S	Source: Raw data provided by the Department of State Revenue, data analysis by the Office of Fiscal and Management Analysis					

Consistent with findings in the analysis of the neighborhood assistance tax credit in the 2015 Tax Incentive Review, the credit continues to attract primarily higher-income taxpayers who donate to eligible neighborhood assistance programs (LSA, 2015). Table 1.4 compares the proportion of all returns and the proportion of returns claiming the neighborhood assistance tax credit by income categories. Nearly 77% of all Indiana individual taxpayers had a federal adjusted gross income (FAGI) of less than \$75,000 in 2016. However, only 17% of taxpayers who claimed the neighborhood assistance tax credit had a FAGI of less than \$75,000. The aggregate amount of credits claimed by these taxpayers was \$128,000 out of the total \$2.1 million for an average credit per taxpayer of \$336. Conversely, 83% of taxpayers who claimed the credit had a FAGI of \$75,000 or greater for an aggregate \$1.98 million in credits claimed and an average credit per taxpayer of \$1,068.

Table 1.4. Neighborhood Assistance Tax Credit Claims by FAGI for Tax Year 2016*						
Federal Adjusted Gross Income	Total Number of Returns	Number of Credit Claims	Credit Amount	% of Total Number of Returns	% of Number of Credit Claims	% of Credit Amount
Under \$25,000	1,124,073	55	\$11,661	38.1%	2.4%	0.6%
\$25,000 Under \$50,000	721,430	143	\$40,691	24.5%	6.4%	1.9%
\$50,000 Under \$75,000	413,637	184	\$75,740	14.0%	8.2%	3.6%
\$75,000 Under \$100,000	272,872	269	\$127,479	9.3%	12.0%	6.0%
\$100,000 Under \$150,000	252,233	459	\$288,303	8.6%	20.4%	13.6%
\$150,000 Under \$200,000	79,620	305	\$244,050	2.7%	13.6%	11.5%
\$200,000 Under \$500,000	69,694	545	\$705,815	2.4%	24.3%	33.3%
\$500,000 or More	15,740	286	\$623,330	0.5%	12.7%	29.4%

Source: Raw data provided by the Department of State Revenue, data analysis by the Office of Fiscal and Management Analysis
*Includes forms IT-40 and IT-40EZ

Effectiveness of the Tax Incentive

Although the economic analysis of the neighborhood assistance tax credit does not provide any uncontestable evidence of its efficiency, the tax credit appears to be engaging Indiana taxpayers toward contributing to the qualifying neighborhood organizations. The available information shows that the program is successfully used by the neighborhood organizations who receive a tax credit allocation and fully distribute the tax credit to encourage and reward contributors. Contributors receving the credit claim about 82% of the allocations as tax credits.

The majority of taxpayers claiming the credit fall in higher-income brackets, which reflects the overall distribution for all other charitable contributions. Also, the broad range of charitable purposes that qualify for the neighborhood assistance program could lend itself to the conclusion that neigborhood assistance program charities would receive the current level of contributions from donors regardless of any incentive. However, this conclusion has been disproved by a majority of research studying the impact of the federal deduction on aggregate charitable contributions. These studies have accounted for the loss of tax revenue and reported an overall net positive impact on charitable contributions, demonstrating the federal tax deduction to be treasury efficient (Peloza and Steel, 2005).

Neighborhood assistance credit allocations are highly sought after by charitable organizations because they can use the credits to encourage contributions. The IHCDA ensures that all credit allocations are utilized by reallocating unused credits from organizations that fail to obtain contributions to organizations that manage to obtain contributions. While it appears that the IHCDA's administrative policy maximizes the amount of credits available to eligible neighborhood assistance programs, the increasing number of applicants for credit allocations and the credit allocation process itself is reducing the amount of credits provided to each organization. For example, even though the maximum allocation per organization can be up tp \$40,000 (\$15,000 for first-time applicants), the maximum allocation will be \$11,999 in FY 2020 under the current policy. This could lead to a reduction in the effectiveness of the credit if the available share of the credit allocation to each organization is not sufficient to generate donor interest due to the lower amount of credit available.

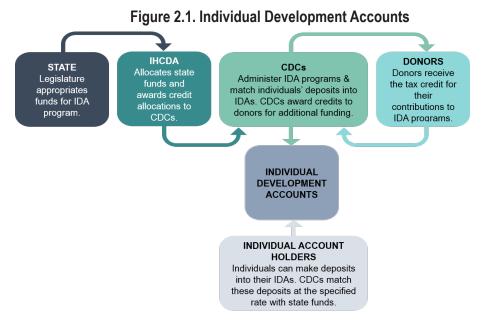
The tax credit allocations are provided universally to all qualified organizations, and the tax credit reduces the cost of charitable giving for every donor who claims the credit. However, it is possible that the wide variety of programs could attract donors with different responses to the cost of giving. Donations related to various purposes in the neighborhood assistance program have different price elasticities for charitable contributions. Researchers have found the price elasticity of giving varies depending on the type of nonprofit and purpose. As a result, for some donors, the credit may be the primary incentive for donating to a neighborhood organization; for others the credit has a minimal impact on the amount of their donation. Although the overall price elasticity of giving for the participating programs cannot be confirmed, it is estimated to be in line with the studies conducted on the impact of the federal tax deduction which generally suggests that the amount of additional contributions more than offsets the revenue loss associated with the credit.

Reports in the past have contemplated whether the federal charitable deduction removes the need for state incentives for charitable donations (Cohen, 2013). The argument is based on the premise that federal tax benefits could already be sufficient to support those contributors who are incentivized by the lower cost of giving. It has been concluded that state programs not only increase the magnitude of the tax benefit but also customize the programs with income and demographic criteria. Also, it could be argued that with the increase in the federal standard deduction leading to a substantial decrease in the number of taxpayers benefitting from the federal tax deduction for charitable contributions, state tax credits become a more important tool in lowering the cost of giving.

Incentive Description

The individual development account (IDA) tax credit was created to encourage contributions to community development corporations (CDCs) that participate in IDA programs. The credit is equal to 50% of a contribution to a participating CDC if the contribution is at least \$100. A taxpayer may not receive a credit exceeding \$25,000. The credit was effective beginning in 1997 and has no expiration date.

The credit may be taken against a taxpayer's individual AGI, corporate AGI, or financial institutions tax liability. The total amount of IDA credits allowed is limited to \$200,000 per fiscal year. When the total approved credits reach the maximum, no additional applications may be approved in that fiscal year. If an approved taxpayer fails to file the required proof of payment, the amount previously set aside for that taxpayer may be made available to another applicant that year. Unused credits may not be carried forward or carried back. The credit is nonrefundable.



The credits are allocated to requesting CDCs by the IHCDA (see Figure 2.1). The CDCs are private, nonprofit corporations whose principal purpose includes the provision of housing, community-based economic development projects, or social services that primarily benefit low-income individuals and communities. The CDCs use the credits allocated by the IHCDA to attract private donations. Taxpayers who donate money to CDCs to support the IDA program are awarded the credits by the CDCs. The CDCs report the qualifying taxpayers to the IHCDA, which reports the information to the DOR. Qualified taxpayers claim the credit on their tax returns.

Program Description

The IDA program was established in 1997 with the purpose of assisting low-income people in building assets and becoming financially self-sufficient. An IDA is a special matched savings account used by qualifying individuals to save money toward an approved purpose. An individual's deposits into IDAs are matched by appropriations from the state and contributions from donors. IDAs may be used for the following purposes:

- Enrolling in an accredited postsecondary educational institution or a vocational school for the individual or a dependent.
- Attending an accredited or licensed training program that may lead to employment for the individual or a dependent.
- Purchasing a primary residence for the individual or a dependent, or reducing the principal amount owed on a primary residence that the individual or dependent purchased with money from an IDA.
- Rehabilitating the individual's primary residence.
- Purchasing, starting up, or expanding a small business.
- Purchasing a vehicle for employment, education, or job training purposes.

The most common types of purchases using IDA funds are home purchases (66%). Senate Enrolled Act 325- 2016 allowed participants to use their combined IDA savings to purchase a vehicle. These purchases currently account for 6.5% of the number of purchases. The number of each type of purchase for the FY 2013 cohort is summarized in Table 2.1.

Table 2.1. Purchases by Asset Type - FY 2013 Cohort*					
Asset Type	Number of Purchases	Share of Number of Purchases			
Home Purchases	366	66.4%			
Education or Job Training	92	16.7%			
Vehicle Purchase	36	6.5%			
Business Start-Ups	30	5.4%			
Owner-Occupied Rehabilitation	27	4.9%			
Total	551	100.0%			
*Represents purchases made between FY 2014 and FY 2018					

Source: Indiana Housing and Community Development Authority

An individual may establish an IDA if income is earned and either (1) the earned income is less than 200% of the federal poverty level or (2) the individual receives financial assistance through Temporary Assistance for Needy Families. Currently, the IDA program is administered through 43 sponsoring CDCs and partnerships with financial institutions. Once the IHCDA receives state funding, program administrators are allowed to apply for funds. The agency reviews and scores the applications. The available funds are allocated based on recommendations by the agency and approval by the IHCDA Board.

Currently, 23 of the 43 CDCs have active accounts supporting IDA participants. The IHCDA is authorized to establish 1,000 IDAs each fiscal year. The IHCDA must allocate state matching funds to an IDA on the first \$400 annually deposited by the account holder for up to three years. Each IDA participant can save a maximum of \$1,500 over the three year savings period while in the IDA program. The match rate is \$3 of state funds for each \$1 deposited by the individual account holder. Participants in the IDA program are eligible to receive up to \$4,500 in state matching funds toward one of the eligible purchases in Table 2.1. Historically, over 90% of participants have met or exceeded the \$400 match cap, and their average savings are over \$400 each year. Historically, the program has also received federal funding. In 2017, funding for the IDA program was eliminated from the federal budget. Table 2.2 shows the account savings and matches received by participants in FY 2014 to FY 2017.

Table 2.2. IDA Participant Savings							
Program Round	FY 2014	FY 2015	FY 2016	FY 2017			
Time in Program	10/2013 - 09/2018	10/2014 - 09/2019	10/2015 - 09/2020	10/2016 - 09/2021			
Total Matching State and Federal Funds	\$1,026,281	\$968,298	\$527,089	\$624,214			
Total Participant Savings	\$360,220	\$296,566	\$198,423	\$170,690			
Accounts Opened	353	397	254	198			
Purchases Made	249	160	55	N/R			
Source: Indiana Housing and Community							

Money withdrawn from an IDA for an approved purpose is exempt from state and local taxation. The IHCDA may authorize withdrawals for other purposes, but the IHCDA has chosen to only approve withdrawals for purchases explicitly enumerated in statute. For IDAs opened after July 1, 2011, all funds must be used within 24 months of the IDA's last match opportunity. After 24 months, the IDA is closed, and the funds revert to the program.

The CDCs are responsible for approving qualified individuals to establish an IDA and approving or denying individuals' requests to make withdrawals from their IDAs. The CDCs also provide or arrange for training in money management, budgeting, and related topics for each individual who establishes an IDA. Each year, every CDC is required to evaluate the IDAs it administers and submit a report to the IHCDA.

Tax Incentive Claims

Table 2.3 reports the claims history for the IDA credit since 2008. Total claims have not reached the \$200,000 annual cap and have exceeded \$100,000 in only two tax years. The claims are between 40% and 60% of the total allocations to the CDCs. Corporate taxpayers have not claimed the credit since 2013. An average of 109 taxpayers have claimed the credit since 2008, and the average aggregate amount claimed by these taxpayers is \$89,830. In tax years 2008 through 2016, a total of \$808,467 in credits were claimed.

Table 2.3. IDA Tax Credit Claims History*					
Tax Year	Filers Claim	ning Credits	Credits Claimed		
Tax Teal	Claims	% Change	Total	% Change	
2008	99		\$120,715		
2009	96	-3.0%	\$65,581	-45.7%	
2010	114	18.8%	\$83,165	26.8%	
2011	122	7.0%	\$83,790	0.8%	
2012	84	-31.1%	\$87,186	4.1%	
2013	114	35.7%	\$95,073	9.0%	
2014	109	-4.4%	\$70,853	-25.5%	
2015	142	30.3%	\$112,857	59.3%	
2016	100	-29.6%	\$89,247	-20.9%	

Source: Raw data provided by the Department of State Revenue, data analysis by the Office of Fiscal and Management Analysis
*The table above includes tax credit claimed on against corporate AGI tax and individual income tax.

Table 2.4 reports the income distribution of individual IDA credit claimants for tax year 2016. The majority of the tax returns claiming the credit (61.0%) and credit amounts claimed (83.1%) were from taxpayers with federal AGI of \$100,000 or more.

Table 2.4. Income Distribution of IDA Tax Credit Claims for Tax Year 2016*						
Federal Adjusted Gross Income	Total Number of Returns	Number of Credit Claims	Credit Amount	% of Total Number of Returns	% of Number of Credit Claims	% of Credit Amount
Under \$50,000	2,058,124	13	\$3,200	64.3%	13.0%	3.6%
\$50,000 Under \$75,000	429,267	15	\$6,311	13.4%	15.0%	7.1%
\$75,000 Under \$100,000	280,701	11	\$5,575	8.8%	11.0%	6.2%
\$100,000 Under \$150,000	258,731	17	\$10,718	8.1%	17.0%	12.0%
\$150,000 Under \$200,000	82,163	14	\$6,712	2.6%	14.0%	7.5%
\$200,000 Under \$500,000	73,160	14	\$26,142	2.3%	14.0%	29.3%
\$500,000 or More	17,074	16	\$30,589	0.5%	16.0%	34.3%

Source: Raw data provided by the Department of State Revenue, data analysis by the Office of Fiscal and Management Analysis *Includes forms IT-40 and IT-40EZ

Tax Credit Awards

The IHCDA awarded \$159,875 in IDA credit allocations to six CDCs in FY 2020. The CDCs use these allocations to raise additional contributions. The money raised by the credits is retained by the CDCs. The CDCs may use the funds to assist with IDA savings matches and to offset a portion of their administrative costs. Each CDC may use up to 20% of the first \$100,000 in contributions generated by the IDA credit to pay for administrative expenses. The remaining contributions must be used toward matching IDA savings deposits. Table 2.5 lists these organizations and the credit allocations for each.

Table 2.5. Individual Development Account Tax Credit Allocations in FY 2020					
Applicant	Credits Awarded to CDCs	Potential Funding to be Raised			
Lacasa, Inc.	\$50,500	\$101,000			
Interlocal Community Action Program, Inc.	28,125	56,250			
Habitat for Humanity of Lafayette, Inc.	28,125	56,250			
Indianapolis Neighborhood Housing Partnership (INHP)	25,000	50,000			
Pathfinder Services	22,500	45,000			
Habitat for Humanity of Morgan County	5,625	11,250			
Total	\$159,875	\$319,750			
Source: Indiana Housing and Community Development Authority					

In addition to the tax credit, the CDCs receive state appropriations to be used as matching funds. This appropriation has declined from a high of \$1.8 million in FY 2009 to \$0.9 million in FY 2021. The estimated contributions attributable to the tax credit represent on average 15.7% of the annual appropriation.

Although the IDA program is managed by nonprofit entities, the state appropriation strengthens the overall program by increasing the money available for matching funds. The program's link to state appropriations associates IDA with existing government funding. This link could diminish interest for some contributors to the program. However, studies have suggested that the association of government grants with a charitable program has an overall positive impact on the amount of donations.

Studies have also concluded that private donors are less sensitive to any tax benefits associated with charitable programs serving basic needs (Yetman and Yetman, 2013). If the level of additional contributions incentivized by the credit are higher than the amount of credit, the tax credit could be considered a better substitute than additional appropriations.

Fiscal Year	Total Tax Credits Claimed	Minimum Contribution Based on Credit	Annual Appropriations	Contribution as a Share of State Appropriations
2008	\$120,715	\$241,430	\$1,600,000	15.1%
2009	\$65,581	\$131,162	\$1,800,000	7.3%
2010	\$83,165	\$166,330	\$1,000,000	16.6%
2011	\$83,790	\$167,580	\$1,000,000	16.8%
2012	\$87,186	\$174,372	\$1,000,000	17.4%
2013	\$95,073	\$190,146	\$1,000,000	19.0%
2014	\$70,853	\$141,706	\$1,000,000	14.2%
2015	\$112,857	\$225,714	\$970,000	23.3%
2016	\$89,247	\$178,494	\$970,000	18.4%

Source: Raw data provided by the Department of State Revenue, data analysis by the Office of Fiscal and Management Analysis

Effectiveness of the Credit

This tax credit does not appear to attract a large amount of donations to the IDA program. Although used by less than 150 taxpayers, the attributable contributions are a significant source of revenue for the IDA program, and the tax credit could be instrumental in generating a portion of those revenues. The available information is insufficient to determine whether or not the tax credit stimulates additional charitable contributions to offset the cost of forgone tax revenues.

The structure of the credit may be limiting its effectiveness. The \$200,000 annual cap limits the allocations to organizations. This means that each organization could only receive a small amount. A small allocation may restrict the capacity of the CDCs to use the credit to attract additional contributions.

The limited purpose for which the donations can be used makes these credits harder to leverage than, for example, neighborhood assistance tax credits. Attaching the tax credits to one specific program, unlike the neighborhood assistance tax credit, could be affecting the amount of credits claimed. Research suggests that tax incentives targeted toward charitable giving generally encourage additional contributions. However, studies also have concluded that public charities that provide basic needs to people in need are price inelastic (Yetman and Yetman 2013). This means that for public charities serving basic needs, on average, the charitable contributions generated by any tax benefit could be lower than the amount of tax benefit claimed by the donor.

Historically, there has been relatively little incentive for CDCs to find donors to support the IDA program because there has been a significant level of state and federal funding. Although federal support for the program has ended, funds are available through 2016, including federal funds, and are still being used to provide matching funds to account holders in effect until September 2021. The state appropriation has decreased from \$1 million annually in the years leading up to 2015 to \$0.9 million annually for FY 2020 and FY 2021. If appropriated funding continues to decrease, CDCs may have to rely more on donations supported by the tax credit to maintain the current capacity.

The residential historic rehabilitation tax credit was established to encourage the rehabilitation or preservation of historic homes that complies with standards for rehabilitation of historic structures established by the federal government. The tax credit was effective beginning January 1, 2002, and has no expiration date.

When the credit was enacted, it was administered by the Division of Historic Preservation and Archaeology within the Department of Natural Resources (DNR). In 2015, the program was moved under the Office of Community and Rural Affairs (OCRA). OCRA entered into an agreement with the DNR to continue managing the program. The DNR reviews credit applications, determines whether plans and work that are the subject of the credit comply with the Secretary of the Interior's Standards for Rehabilitation, and awards credits based on the amount of qualified rehabilitation costs.

The credit equals 20% of the qualified project cost, as approved by the DNR. A taxpayer may claim the credit against the individual's AGI tax liability in the year in which the taxpayer completes the preservation or rehabilitation project. The aggregate amount of credits that may be approved is limited to \$250,000 per fiscal year.

The following conditions must be met for a taxpayer to qualify for the credit:

- The property is located in Indiana, is at least 50 years old, and is owned by the taxpayer.
- The property is listed on the Indiana Register of Historic Sites and Structures.
- The DNR approves the preservation or rehabilitation plan, and the work that is the subject of the credit substantially complies with the plan.
- The work must be completed within two years from the time construction begins. However, if the project is planned for completion in phases, it may be completed within five years.
- The historic property is the taxpayer's primary residence.
- Qualified preservation or rehabilitation expenditures exceed \$10,000.

Qualified expenditures include expenditures for preservation or rehabilitation of a structure that enables the structure to be principally used and occupied by the taxpayer as the taxpayer's residence. However, qualified expenditures do not include costs incurred for the following purposes: acquiring a property or an interest in a property, property taxes, enlarging an existing structure, realtors' fees, paving and landscaping, or sales and marketing.

The credit may be recaptured if the property is transferred within five years of completion of the certified preservation or rehabilitation work or if additional modifications that do not meet the DNR's standards are made to the property within five years.

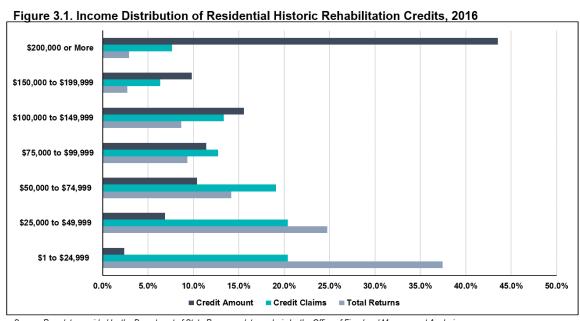
Unused amounts of the credit may be carried forward for up to 15 years. The credit is nonrefundable and may not be carried back. To claim this credit, the taxpayer is required to submit a copy of the certificate from the DNR verifying the amount of eligible credit for the taxable year.

Tax Incentive Claims

Table 3.1 reports the claims history for the residential historic rehabilitation credit from tax year 2007 through 2016. Both the number of filers claiming the credit and the total amount of credits claimed have fluctuated over the years. However, the number of claims and total amount have increased by an average of around 11% per year. On average, around 135 taxpayers claimed the credit each year, and the average total credit amount was \$227,360. During this period, the aggregate amount of credits claimed was over \$2.27 million.

Table 3.1. R	Table 3.1. Residential Historic Rehabilitation Credit Claim History					
Tax Year	Filers Claiming Credit	Percent Change	Credits Claimed	Percent Change		
2007	58	20.8%	\$125,503	82.4%		
2008	133	129.3%	\$232,793	85.5%		
2009	97	-27.1%	\$159,410	-31.5%		
2010	97	0.0%	\$166,992	4.8%		
2011	162	67.0%	\$204,395	22.4%		
2012	203	25.3%	\$250,000	22.3%		
2013	159	-21.7%	\$248,837	-0.5%		
2014	176	10.7%	\$316,400	27.2%		
2015	111	-36.9%	\$248,818	-21.4%		
2016	157	41.4%	\$320,453	28.8%		
Source: Raw data provided by the Department of State Revenue, data analysis by the Office of Fiscal and Management Analysis						

Figure 3.1 shows the income distribution of taxpayers claiming the credit compared to the income distribution of all Indiana taxpayers in tax year 2016. The majority (59.9%) of credits were claimed by taxpayers with federal adjusted gross income (FAGI) of less than \$75,000. Taxpayers claiming the largest share (53.3%) of the total credit amount, however, had FAGI of \$150,000 or more. Higher income taxpayers likely receive a greater share of the credit because they have a higher tax liability against which they may claim credits. It is also possible that high income taxpayers take on more costly projects.

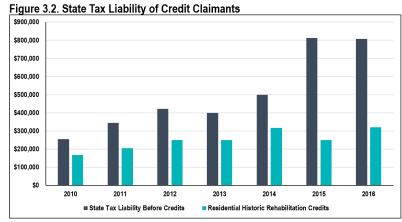


Source: Raw data provided by the Department of State Revenue, data analysis by the Office of Fiscal and Management Analysis

In 2010 through 2016, the average award amount approved by the DNR was \$11,301. During this period, 2.4% of claimants had a single-year state tax liability (before credits) greater than the average project award. In 2010 through 2016, the credit completely eliminated state tax liability on 37.1% of the returns where the credit was claimed. On average, the credit reduced taxpayers' state tax liability by 68.9%. Of the 732 taxpayers claiming the credit from 2010 to 2016, 9% claimed the credit in multiple years.

Tax Credit Awards

Table 3.2 reports the number of projects that the DNR approved for a tax credit by fiscal year, as well as the qualified rehabilitation costs and tax



Source: Raw data provided by the Department of State Revenue. data analysis by the Office of Fiscal and Management Analysis

credit amount. Data are shown for credits approved since the inception of the program in January 2002 through June 2019. Over the life of the program, 253 projects were approved for a tax credit, and over \$12.9 million in historic rehabilitation work was completed.

Table 3.2. Residen	tial Rehabilitation	Credit Awards, Projects	, and Costs
Fiscal Year	Number of Projects	Qualified Rehabilitation Costs	Tax Credit Award
2002	N/R	N/R	N/R
2003	9	\$362,580	\$72,514
2004	18	726,909	145,377
2005	11	439,357	87,869
2006	15	1,309,957	250,000
2007	9	390,865	90,148
2008	16	805,079	161,015
2009	22	789,236	157,840
2010	11	347,930	69,584
2011	N/R	N/R	N/R
2012	17	1,471,646	250,000
2013	20	941,388	250,000
2014	30	1,462,537	250,000
2015	18	483,462	148,905
2016	15	875,616	175,118
2017	15	770,024	154,000
2018	15	781,362	156,272
2019	12	967,223	193,440
Total	253	\$12,925,171	\$2,612,082

N/R = Five or fewer filers. Data not reportable.

Source: Raw data provided by the Department of State Revenue, data analysis by the Office of Fiscal and Management Analysis

In the years where the DNR approved the statutory limit of \$250,000, taxpayers who were not approved for the entire 20% of qualified costs were placed at the beginning of the queue for the assignment of credits in the next fiscal year. In each of these years, only one credit recipient was affected by the cap.

Since the establishment of the program, tax credits have been awarded for projects in 43 counties. Marion County and Allen County have both the largest number of rehabilitation projects and the greatest amount of qualified costs. In Marion County, a total of 98 projects were completed with qualified expenditures of \$5.38 million. Allen County residents completed 21 projects with qualified costs totaling \$0.76 million.

Impact of Historic Rehabilitation on Property Values

Residential historic rehabilitation projects do not provide a direct financial benefit to the resident, but analyzing a project's impact on its property value may be one way of estimating the benefits of historic rehabilitation that qualifies for the Indiana credit. LSA analyzed the residential historic rehabilitation tax credit in the 2015 Indiana Tax Incentive Evaluation. The report cited academic research that linked historic preservation activities with an increase in property value. Cyrenne, Fenton, and Warbanski (2006) examined characteristics that impact property values of historic and nonhistoric buildings. Controlling for other factors that impact property values, this study found that historic designation was associated with higher assessed values (AV) for some buildings. This study estimated that every \$1 of expenditures on renovation of historic buildings leads to an increase in AV of approximately \$0.33. Leichenko, Coulson, and Listokin (2001) found that in a sample of historic districts and comparable neighborhoods in Texas, historic preservation was associated with increases in property values of 5% to 20%. LSA also examined a small sample of properties that qualified for the Indiana credit to determine whether qualified rehabilitation of historic properties led to increased property values. However, due to the small sample size, the results could not conclusively confirm that there was an impact.

We built on the 2015 evaluation by expanding the sample size to include 175 properties that were certified for the credit in 2005 through 2016. The average tax credit award was \$11,471, and the average qualified rehabilitation cost per project was \$57,763. LSA first compared the AV of these properties in the year before the rehabilitation was completed to the AV three years later. Since the actual completion dates are unknown, it was assumed that each project was completed 30 days prior to the date the project was certified for the credit.

Of the 175 properties, 114 (65.1%) experienced an increase in AV, 58 (33.1%) experienced a decrease in AV, and 3 (1.7%) had no change in AV during the three-year period. The average AV three years after the rehabilitation project was \$16,739 more than the average AV before the project.

LSA performed a t-test comparing the average AV prior to the completion of the rehabilitation work to the average AV of these properties three years later. A t-test is used to determine the likelihood that the means from two different samples are from the same population. The test produced a p-value of less than 0.05, which indicates there is a statistically significant difference between the AV before a project and the AV three years after the project.

Table 3.3. Results of T-Test Comparin	g AV Before
and After Project Completion	

	AV Before Rehabilitation	AV After Rehabilitation
Mean	\$184,249.71	\$200,989.14
Number of Observations	175	175
t Stat	-3.7164	
$P(T \le t)$	<0.001	

Source: Raw data provided by the LSA property tax database, data analysis by the Office of Fiscal and Management Analysis

Table 3.4. Results of T-Test Comparing Rehabilitated Parcels with Neighboring Parcels

	Change in Neighborhood AV	Change in Rehabilitated Parcel AV
Mean	\$14,768.98	\$16,739.43
Number of Observations	175	175
t Stat	-0.3770	
$P(T \le t)$	0.7064	

Source: Raw data provided by he LSA property tax database, data analysis by the Office of Fiscal and Management Analysis

These properties were then compared to other properties in the neighborhoods in which they were located. LSA looked at the average change in AV in these neighborhoods over the same period of time as the properties that were certified for the credit. The average change in AV was \$14,769. Although this average is lower than that of properties receiving the credit, the majority of these properties (54.3%) experienced either (1) an increase in AV that was lower than the neighborhood average increase, (2) a decrease in AV that was greater than the average decrease in the neighborhood, or (3) a decrease in AV when the other properties in the neighborhood appreciated in value on average. LSA conducted a second t-test to determine whether the average change in AV of properties receiving the credit was similar to the average change in neighboring properties. The p-value of the t-test was greater than 0.05, which indicates that the average change in AV in properties receiving the credit was not significantly different from the change in AV of neighboring properties.

Like the previous study, this analysis did not control for factors other than historic rehabilitation that influence changes in AV. In addition, the available data have some limitations that could affect our results. First, project completion dates are not known, and the exact date a property was assessed in a given year is not always known. LSA chose a three-year period for each property to increase the likelihood that the post-rehabilitation property values were captured. Also, the properties that are included in each neighborhood in the property tax data sometimes change. These changes may result in a partially different group of properties being compared. To mitigate the potential impact of these changes, we calculated a neighborhood average by dividing the sum of the AV of all properties in a neighborhood by the number of properties.

Effectiveness of the Tax Incentive

There is not sufficient evidence to state whether the credit is effective in encouraging the preservation of historic homes that complies with the federal standards for historic rehabilitation. The following summarize the findings of this evaluation.

- Credit claims continue to increase.
- The credit significantly reduces the state tax liability of claimants.
- Property values do not grow faster than neighboring properties after completion of historic rehabilitation work.

Although credit usage has not increased every year, the overall use of the credit has increased somewhat since the credit was evaluated in 2015. Both the number of filers and amount of credits claimed have increased by an annual average of 11% since tax year 2005. Since 2013 (the last year of available data in 2015), the average annual increase in credit claims has been 8.8%. In 2015, data for tax year 2005 through 2013 indicated the average number of filers claiming the credit each year was 112, and the average amount claimed was \$172,906. In the years following tax year 2013, the average has increased to 148 filers and \$295,224 claimed. In addition, credits awarded by the DNR since the beginning of the program have increased each year by an average of 6.3%. However, tax credit awards have not reached the \$250,000 limit since FY 2014.

The credit significantly reduces the state tax liability of claimants. In 2010 through 2016, the credit reduced the state tax liability of taxpayers claiming the credit by 68.9% on average. The credit completely eliminated the state tax liability on 37.1% of these returns. Some of these taxpayers were not able to claim the full 20% credit in the first year because the credit amount exceeded their tax liability, but many taxpayers have been able to take full advantage of the credit by carrying it forward, usually for two to four years.

Our analysis of property tax data indicates that average property values increase following completion of historic rehabilitation work. However, when compared with other homes in the same neighborhoods, these properties do not show a significant difference in AV growth. Based on these results, it is unclear whether a potential increase in property value is an additional incentive for taxpayers to complete historic rehabilitation projects.

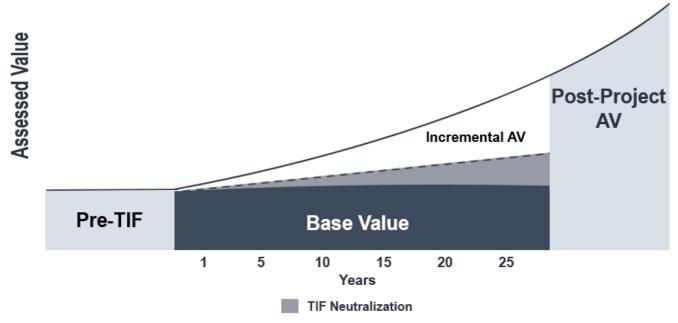
There is not enough information to determine whether taxpayers choose to do historic rehabilitation because they know they will receive the credit. The credit claims and award data indicate that taxpayers are still taking advantage of the credit and that it reduces the cost of historic rehabilitation. However, the property tax data do not show that taxpayers who complete qualified historic rehabilitation work receive greater benefits in the form of greater property values than their neighbors. It is likely that homeowners complete these projects for reasons other than increasing property value, but it is possible that the credit encourages more people to retain the historic nature of their homes when doing renovations.

Introduction: What is Tax Increment Financing and How Does it Work?

Tax increment financing (TIF) is a financing tool used by local governments to incentivize economic development in a specific area. TIF captures incremental property tax revenue in the specified area to fund redevelopment projects. Indiana law states that TIF projects have the following characteristics:

- 1) They are public and governmental functions that cannot be accomplished through the ordinary operations of private enterprise because of the cost of the project and the necessity for requiring the proper use of the land so as to best serve the interests of the county and its citizens.
- 2) They will benefit the public health, safety, morals, and welfare; increase the economic well-being of the unit and the state; and protect and increase property values in the unit and the state.
- 3) They are public uses and purposes for which public money may be spent and private property may be acquired.

Figure 4.1. Illustration of Assessed Value in a TIF District



The geographic areas where the incremental property taxes are captured are known as allocation areas or TIF districts. The process to compute the revenue captured by TIF districts requires identifying the base and incremental assessed value (AV). The AV of properties in the TIF district at the time it is established is the base AV. Property tax revenue from the base AV is distributed to all taxing units that overlap the TIF district. Any increase in AV after the TIF district is established is considered incremental AV. The revenue captured by the TIF district is based on the increment and the rates of the taxing districts that overlap the TIF district. Property tax revenue generated from incremental AV is paid to the redevelopment commission to be used for eligible projects. When the TIF district expires, the entire AV is distributed to all taxing units.

Throughout the life of a TIF district, an annual adjustment is made to the base. This adjustment, known as TIF neutralization, accounts for changes in AV due to normal annual adjustments or reassessments. The TIF neutralization factor is calculated using the net AV of the allocation area for the current year, excluding new construction and other changes in AV due to the redevelopment project, and total net AV in the TIF district for the previous year.

TIF District Establishment

TIF districts are established by county and municipal governments through redevelopment commissions. A county, city, or town may establish a department of redevelopment and a five-member redevelopment commission. However, a county redevelopment commission may have seven members. The department and commission are subject to oversight by the unit's

legislative body, including a review of the department's and commission's annual budgets. They are also subject to audit by the State Board of Accounts and are covered by the public meetings law and the public records law.

After a redevelopment commission has been established, it may make findings that an area is an "area needing redevelopment," meaning that the conditions of the area cannot be corrected by regulatory processes or the ordinary operations of private enterprise, and that the public welfare will be benefitted by the acquisition and redevelopment of the area. The redevelopment commission then prepares a plan, which includes maps of the boundaries and the parcels included in the area, a list of the property owners that would be affected, and an estimate of the costs of acquiring and redeveloping the property. A declaratory resolution designating a redevelopment project area and establishing the base assessment date is adopted by the redevelopment commission, and the plan is approved by the municipal fiscal body or county executive at a public hearing. The resolution must include a statement, supported by evidence, that the TIF district will result in new property taxes, and those taxes will not be collected unless the TIF district is created. Following approval, the redevelopment commission adopts a confirmatory resolution to establish the project area, and the project area is approved as a TIF district by the legislative body.

Figure 4.2 shows an example of a TIF district in Allen County. The area shaded in gray represents the parcel included in the district. AV data, including base AV and incremental AV, are shown for the parcel outlined in red.

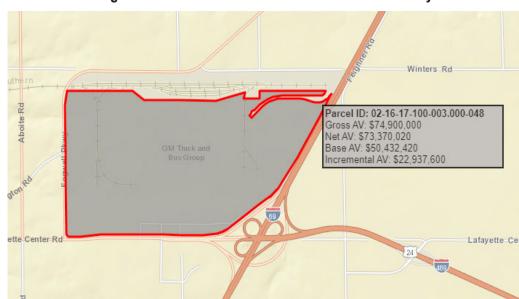


Figure 4.2. Illustration of a TIF District in Allen County

Source: Department of Local Government Finance, TIF Management

TIF Purposes and Projects

A TIF district may be established to promote redevelopment in an "area needing redevelopment." This means that normal development and occupancy are undesirable or impossible because of any of the following: lack of development, cessation of growth, deteriorating improvements, environmental contamination, character of occupancy, age, obsolescence, substandard buildings, and other factors that impair values or prevent a normal use or development of property. In addition, a TIF district may be established to promote economic development. A redevelopment commission must show that its proposed redevelopment plan will promote employment opportunities, attract new businesses, or retain or expand an existing business.

TIF proceeds may be used to pay expenses of the redevelopment commission for local public infrastructure improvements, pay the principal and interest on bonds or leases, or reimburse the county or municipality for expenditures on public infrastructure improvements. TIF proceeds may not be used for the operating expenses of a redevelopment commission. Projects funded by TIF often include the construction of roads and sidewalks, construction of water and sewer lines, acquisition of real estate, construction of parking facilities, and other infrastructure improvements. However, projects are not limited to these items.

One example of a TIF project is the General Motors TIF district in Allen County as presented in Figure 4.2. It was created to repair water and sewer infrastructure between the airport and the General Motors plant.

TIF Land Use

Table 4.1 shows TIF and non-TIF parcels and the gross assessed value (GAV) by property use. The majority of TIF parcels are either single- or multi-family residential properties. Commercial and industrial parcels make up a larger share of TIF parcels than non-TIF parcels, while agricultural parcels are less likely to be included in TIF districts.

Commercial properties make up the greatest share of GAV in TIF districts, followed by industrial and residential properties. However, non-commercial residential AV is not captured in TIFs created after July 1, 1997. In contrast, residential properties have the highest share of GAV in non-TIF areas, while commercial and industrial properties represent only 10.3% of GAV.

The average GAV of all property uses except agricultural is higher in TIF areas than in non-TIF areas. In particular, average GAV of commercial properties is 2.1 times higher, and the average GAV of industrial properties is nearly 3.5 times higher than those in non-TIF areas.

Table 4.1. TIF and Non-TIF Parcels by Property Use, 2018						
	TIF Parcels			Non-TIF Parcels		
Property Use	% Parcels	% GAV	Average GAV	% Parcels	% GAV	Average GAV
Residential (single- and multi- family)	52.0%	22.5%	\$126,959	75.1%	73.9%	\$116,832
Commercial	23.7%	46.5%	574,731	3.4%	7.7%	269,900
Other	13.8%	6.5%	137,532	5.4%	4.1%	90,187
Industrial	6.3%	23.5%	1,089,778	1.0%	2.6%	314,050
Agricultural	4.2%	1.0%	73,386	15.1%	11.7%	91,701
Total			\$293,368			\$118,751
Source: LSA property tax database						

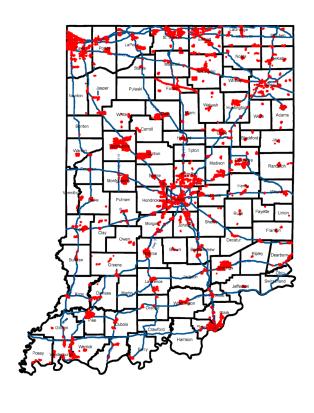
Location of TIF Districts

In 2017, there were 880 TIF districts in Indiana containing 153,534 parcels. The majority (75.0%) were created by municipalities, and the remaining TIF districts were established by counties. The total GAV of TIF parcels was \$56.5 billion, \$28.1 billion of which was incremental AV. Total revenues received by TIF districts were \$822.0 million. Of the total TIF revenue, municipalities received \$710.5 million (86.4%), and counties received \$111.5 million (13.6%). Net taxes generated from the incremental AVs were \$646.0 million. The remainder of the revenue is collected as rental income, interest income, and other miscellaneous sources.

Table 4.2. Statewide TIF District Summary, 2017					
	County	City	Total		
Number of TIF Districts	220	660	880		
Number of Parcels	20,235	133,299	153,534		
Gross Assessed Value	\$10,347,669,263	\$46,127,760,599	\$56,475,429,862		
Net Assessed Value	\$8,325,904,993	\$37,666,269,058	\$45,992,174,051		
Base Assessed Value	\$3,089,300,995	\$14,868,302,237	\$17,957,603,232		
Incremental Assessed Value	\$5,256,679,516	\$22,837,179,083	\$28,093,858,599		
Revenues	\$111,475,762	\$710,498,123	\$821,973,885		
Expenses	\$87,526,870	\$681,627,064	\$769,153,934		
Source: Department of Local Government Finance, TIF Management. Figures may differ slightly from County Auditors' Abstracts					

The following map illustrates the location of TIF districts in Indiana. Noticeably, TIF districts are concentrated around the highways. Most TIF districts are located in counties in central Indiana and northwest Indiana.

TIF District Locations
Indiana Counties and Highways- 2018





TIF Background

Municipalities in California began using TIF in the early 1950s (Byrne, 2005). TIF use began to increase in the late 1970s and 1980s. Today, 49 states and the District of Columbia use TIF or a version of this funding mechanism. The 2014 survey by the International City/County Management Association (ICMA) reports that about 42% of the 1,148 responding local governments use TIF as a source of funding. Researchers have reported about 15,750 TIF districts across the nation. About 3,925 (25%) of those TIF districts are in Indiana and bordering states. Indiana has about 880 (5%) of the total TIF districts in the country. States differ in how they allow TIF revenues to be used. Generally, the revenues are used to provide a development subsidy to private developers, or they are used toward public expenditures to benefit the TIF district. Between 2000 and 2014, TIF districts in the United States borrowed \$37.5 billion (Merriman, 2015).

TIF districts created by redevelopment commissions are authorized under IC 36-7-14, IC 36-7-14.5 and IC 36-7-15.1. Indiana law also allows TIF districts to be established under the following statutes: economic development districts (IC 6-1.1-39); airport development zones (IC 8- 22-3.5); reuse of federal military bases (IC 36-7-30); development of multicounty federal military bases (IC 36-7-30.5); and certified technology parks (IC 36-7-32). The revenue mechanisms are the same, but the allowed expenses may differ.

With the exception of 2016 and 2019, the growth in incremental AV captured by TIF has slowed down in the last eight years. The use of TIF in Indiana has increased during the 16-year period as shown in Table 4.3.

Table 4.3. Statewide Total Property Growth and Share That is in TIF District					
Pay Year	Net AV (\$ in billions) Real and Personal Property		TIF AV (\$ ii Real & Perso	TIF AV* as a Share of Net AV	
2004	\$278.2	-1.7%	\$8.8	6.6%	3.2%
2005	\$280.8	0.9%	\$9.0	2.3%	3.2%
2006	\$284.2	1.2%	\$9.3	2.8%	3.3%
2007	\$323.1	13.7%	\$13.1	41.2%	4.1%
2008	\$350.8	8.6%	\$16.0	22.1%	4.6%
2009	\$307.4	-12.4%	\$17.3	8.2%	5.6%
2010	\$310.8	1.1%	\$18.9	9.2%	6.1%
2011	\$309.4	-0.4%	\$20.1	6.4%	6.5%
2012	\$310.1	0.2%	\$19.8	-1.5%	6.4%
2013	\$292.4	-5.7%	\$20.7	4.4%	7.1%
2014	\$298.9	2.2%	\$21.3	3.0%	7.1%
2015	\$307.5	2.9%	\$22.4	4.8%	7.3%
2016	\$315.0	2.5%	\$24.4	9.2%	7.7%
2017	\$322.1	2.2%	\$25.5	4.6%	7.9%
2018	\$329.8	2.4%	\$26.7	4.4%	8.1%
2019	\$342.5	3.8%	\$29.3	10.0%	8.6%

^{*}TIF AV represents the incremental AV caputed by the TIF district Source: County Auditors' Abstracts

To restrict the use of TIF for redevelopment and economic development, Indiana requires "a specific finding of fact, supported by evidence, that the adoption of the allocation provision will result in new property taxes in the area that would not have been generated but for the adoption of the allocation provision" (IC 36-7-14-39 and IC 36-7-15.1-26). In other words, the establishment of a TIF district must be contingent on findings that the project would not be economically feasible or viable "but for" the availability of TIF revenues.

Potential Strengths and Weaknesses of TIF

There are certain observations that could be made about TIF as a funding mechanism before analyzing the question of whether TIF leads to development that would not happen "but for" the establishment of the TIF district. The strengths and weaknesses of TIF as a funding mechanism may provide a perspective to its usefulness outside of the "but for" test.

TIF is distinct from other economic development incentive programs because of the structure. The revenue captured by a TIF district is based on the growth in AV from the property within the district. If a project does not result in growth in AV, then the funds may be not available. Tax abatements, tax credits, tax deductions, enterprise zones, and direct subsidy programs either forego tax revenue or increase expenditures from current revenue sources. These incentives may result in a tax rate increase which may increase taxes on the unit's residents. TIF districts may not directly affect a resident's tax rate. Several studies have found that a higher local tax rate is positively correlated with the use of TIF. They suggested that political cost is a significant factor in counties increasingly investing in TIF districts (Burnett et al. 2016). This makes TIF an effective funding mechanism for distressed units or jurisdictions with higher per capita tax.

Merriman (2018) suggests that TIF districts can promote credible commitment between government and private parties that may not be possible under the usual budgetary process. Unlike the other government expenditures that go through annual appropriation, a TIF district is a commitment that the property tax revenue paid by the developer's investment will be dedicated to enhance the area. This ensures a mutual benefit and commitment between the private developer and the local government.

Revenues from a TIF district are generally used for investment towards a small portion of a municipality or a county. TIF can be used to finance a project without directly affecting taxpayers. A debt service property tax levy would redirect taxes paid to a project from people living outside the area. The people living outside the project area may not believe the project will benefit them. This could lead to opposition to any tax rate increase or other budgeted appropriations.

TIF also has several potential weaknesses. Local governments may use TIF as a funding tool to compete with other jurisdictions. In Indiana, TIF has relatively high visibility compared to other economic development tools, such as tax abatements, training grants, and other incentives (Burnett et.al, 2015). TIF is designed to capture growth, so there is an incentive to designate TIF districts in areas that are already growing.

Indiana has adopted a clause or test to allow the designation of a TIF district only when it leads to development that would not occur in absence of TIF. However, the interpretation of this clause could be stretched to capture the structural growth of an area with high growth. Another criticism of TIF is based on the accounting of TIF revenues. The limited purpose use of TIF allows local units to separately account for TIF revenues. More importantly, the complex structure of property taxes does not allow the other units of government and the taxpayers to easily discern the impact of TIF on their budgets and tax bills respectively.

Like many other states, Indiana allows TIF districts to be designated without consent from overlapping government units, like school districts and counties. At least a portion of these TIF districts could be in areas where the investment would occur regardless of the TIF. In fact, TIF has also been perceived to cannibalize AV from overlapping governments. For these TIF districts, the adopting city or town may benefit at the cost to other governmental units. The TIF district does have the potential to affect the revenue of the overlapping units. However, the interaction is complex.

Effect of TIF on the Calculation of Property Tax Revenue

Direct Effect

The allocation of net AV to TIF districts has little or no direct effect on non-TIF property tax levies. This is true because most property tax funds are levy-controlled. These funds have a statutory maximum levy that is not affected by the amount of AV available to the governmental unit. In the case of these funds, the tax rate equals the levy divided by the AV.

Some funds, called cumulative funds, are rate-controlled. For these funds, the levy is equal to the AV times the tax rate. While it would appear that the addition of AV would generate additional levy, this is not always the case. Cumulative funds have maximum statutory tax rates. Once adopted, a cumulative fund's maximum tax rate is adjusted each year to essentially negate increases in AV that exceed the average AV growth from the previous three years. So if AV rises by more than the average growth amount, the tax rate falls and the levy increase is curtailed.

However, governmental units may periodically go through an administrative process to reestablish a cumulative fund at a rate up to the maximum statutory rate. In the case of a cumulative fund that has been reestablished, the TIF AV would result in a higher levy if the AV was instead included in the base.

Indirect Effect

TIF can indirectly affect non-TIF property tax revenue because of the interaction with property tax caps. In a case where the investment in a TIF district would have been made regardless of the existence of the TIF district, that AV would have been a part of the tax base. As AV grows, the tax rate is reduced.

Property tax payments are capped at 1%, 2%, or 3% of a property's gross AV depending on the type of property. Tax cap losses are taxes that would have been charged in excess of these caps and are instead lost revenue to the governmental units. Higher tax rates increase tax cap losses.

LSA built a simulation model using 2018 data to estimate the maximum possible impact of TIF on tax cap losses. For this model, the assumption was made that all investment in TIF districts would have been made even without the existence of the TIF district. While this model estimates the maximum impact, the actual impact is not known because the likelihood of investment without the TIF is unknown.

In the model, the total statewide non-TIF revenue loss from tax caps for CY 2020 was estimated at \$874 million. If all of the TIF AV was instead added to the governmental units' tax bases, tax rates would fall and the revenue loss would be reduced by an estimated \$271 million. That is, local non-TIF revenues would increase by \$271 million. Table 4.4 shows the estimated revenue gain by unit type.

Table 4.4. Estimated Revenue Increase From Lower Tax Cap Losses If All TIF AV Added to Base				
Unit Type Revenue Gain (\$ in millions)				
Counties	\$39.2			
Townships	7.1			
Cities and Towns	101.5			
School Corporations	86.2			
Libraries	12.2			
Special Units 25.3				
Total \$271.5				
Source: LSA property tax database				

TIF revenue would be totally eliminated under this scenario. Overall, property tax bills would be reduced by \$452 million, considering both the loss of \$723 million in TIF revenue loss if TIF is eliminated and the \$271 million in net revenue gains to local units. Since building the 2018 model, actual 2019 data has become known. Because actual 2019 TIF AV and taxes, and tax cap revenue losses are higher than the model estimates, the model's estimates are considered to be somewhat conservative.

Evaluation of TIF

When analyzing TIF, LSA started by studying two questions:

- (1) Would the development occur without the use of TIF?
- (2) Is TIF the most efficient funding mechanism for investments in projects in the area?

Although the second question could be considered a subset of the causality question raised in the "but for" clause, it is also interesting to consider it separately because TIF is considered as another option to most other forms of funding mechanisms.

Based on the information about practices in TIF adoption and a review of TIF literature, LSA determined that local units that adopt TIF fall in one of the four quadrants in Figure 4.3. TIF districts adopted in the two quadrants to the left of the vertical axis do not meet the "but for" test. The use of TIF in projects that fall in these two quadrants are likely to be ineffective and inefficient. TIF districts in the two quadrants to the right of the vertical axis would not see projects and development but for government support and investment. The local units in the bottom-right quadrant have an alternate source of revenue to fund the project. They have the flexibility to choose the optimal funding mechanism for the project in this situation. The top right quadrant represents the use of TIF when an economic development activity would not occur without TIF, and the local unit does not have access to an alternate source of revenue. In this situation, TIF is the only funding option available.

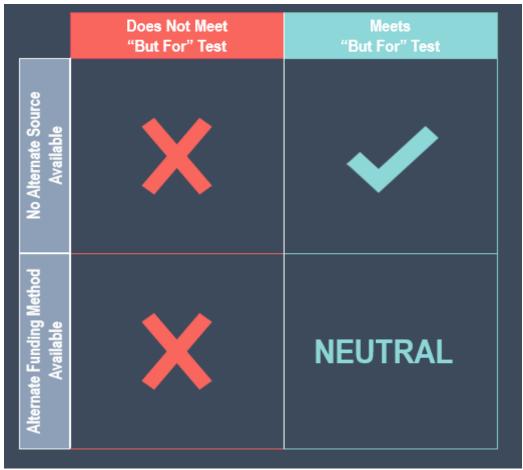


Figure 4.3. TIF Adoption and Effectiveness

Determining if TIF use in Indiana is optimal entails analyzing the counterfactual scenario of economic conditions in the absence of TIF. This scenario is difficult to model and prove. Researchers in Indiana and elsewhere have analyzed various scenarios to provide evidence of success or failure of TIF. Hicks et al. (2019) examined the "but for" question regarding TIF use in Indiana by measuring the impact of TIF creation on net AV within TIF districts and in non-TIF areas in the same county.

The study concluded that TIF captures growth that would have occurred even in the absence of TIF, and it raises questions about the effectiveness of TIF. This points to the use of TIF in the ineffective quadrants in Figure 4.3.

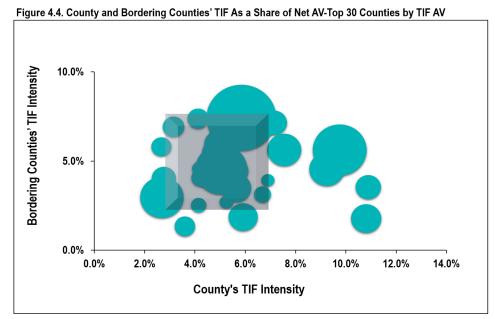
Since TIF has a number of strengths and weaknesses, it is essential to use it properly. DeBoer (2016) takes a different approach to evaluate TIF by focusing on TIF as a financing mechanism. He argues that TIF only increases development if it adds to a unit's total debt and is not a substitute for other financing mechanisms that could have otherwise been used. Other ways to finance infrastructure and other development projects include debt service property tax levies, local income taxes, and cumulative funds. TIF may allow units to issue additional debt since it does not require them to increase tax rates or pass a referendum. He compares TIF debt per person to total debt per person in Indiana counties and municipalities and finds that, for most units, TIF results in greater debt and potentially more development than would have occurred without the use of TIF. However, in counties and municipalities where TIF debt per person exceeds \$800 but is less than \$1,401, he concludes that TIF may be a substitute for other available financing tools. He concludes that TIF may not be the efficient funding mechanism for these local units.

In addition to the questions of causality and the appropriate use of TIF as a funding mechanism, LSA examined the claim that TIF is used strategically for competitive and complementary reasons. Observations were made related to TIF locations and data were studied related to the purpose of bonds issued by TIF districts. LSA examined the difference of the impact on GAV from various types of investment made using the TIF revenue. LSA's parcel-level property tax data was used to analyze the impact of TIF within and outside a township with aTIF district. Finally, a literature review was conducted related to use of TIF and the economic and fiscal impact of TIF.

Use of TIF for Competitive or Complementary Growth

Burnett et.al (2015) described competitive and complementary growth regarding TIF. Public policy related to economic development incentives is driven by interjurisdictional competition. Secondly, policy making also considers the use of an incentive where growth in an adjoining area creates an opportunity of spillover growth.

To observe this impact, LSA calculated the TIF intensity of all Indiana counties. Here, TIF intensity is defined as the incremental AV of all TIF districts in a county as a share of the total net AV of all properties in a county. Figure 4.4 shows the TIF intensity of a county on the horizontal axis and the TIF intensity of all bordering counties on the vertical axis. The figure shows the top 30 counties with TIF AV. Those counties account for about 91% of all Indiana TIF AV. It shows a cluster in the center of the figure where the county's TIF intensity and border counties TIF intensity is around 5%. These counties account for more than half of the units in the figure.



Source: County Auditors' Abstract

Figure 4.4 depicts that the use of TIF in these counties is highly correlated to the use of TIF by their bordering counties. This analysis shows that a bordering county's use of TIF could be a contributing factor in the decision to use TIF. This has been supported by studies by Man (1999) and Byrne (2005) who found evidence of strategic TIF-related behavior for some Indiana municipalities. These studies analyze the timing of the adoption of TIF districts by Indiana municipalities and their neighbors.

Mason and Thomas (2010) used the number of TIF districts in various jurisdictions in Missouri to conclude that being adjacent to another city that uses TIF increases the likelihood that a city will approve TIF.

Burnett et.al (2015) examined the impact of neighboring counties' TIF intensity on the home county's TIF intensity. They used two methods: a simple correlation approach and a regression statistical analysis. The results of the simple correlation method showed that the strategic response of an adjacent county to a county that has signaled itself as a high TIF-intensity user is to increase its own TIF-intensity; however, the relationship was determined to be weak. The statistical analysis did not show a relationship. This result is in contrast to previous literature regarding the strategic behavior of TIF adoption. The author suggests that this was the first study to analyze strategic behavior based on TIF intensity, so the study might provide a better measure for the size and longevity of the strategic reaction. Since this study researched the factors contributing to TIF intensity and not TIF adoption, the general conclusion from the statistical analysis was that while geographic areas may engage in strategic behavior in starting TIF areas, they do not continue to strategically escalate their TIF intensity.

Overall, it could be concluded that a unit is more likely to use TIF if bordering local units are using TIF. However, the intensity of a local unit's TIF use is not necessarily determined by its neighbors' behavior.

Purpose of Bond Issuance and Growth in TIF Districts

To analyze the impact of the purpose of investments within the TIF districts on real property GAV, LSA used its property tax database and economic variables published by state and federal agencies. Using these data sources, LSA created a database with the following variables.

- Gross Assessed Value (GAV) The AV of the parcel before any deductions are applied.
- Property Use- The use of the property, categorized into one of the following:
 - (1) Agriculture; (2) Commercial; (3) Industrial; (4) Residential; (5) Other
- TIF Parcel Township- Categorizes each parcel into one of the following categories:
 - (1) Inside a TIF district; (2) Outside a TIF district, but located in a township that has a TIF within its boundaries; and
 - (3) Outside a TIF district and located in a township that does not have a TIF within its boundaries.

In addition to the variables described above, LSA also worked with the DLGF to receive information contained in the Indiana Gateway's TIF Management System, which has self-reported TIF data submitted by local officials or their designees. TIF revenue is used to finance projects either directly or by issuing debt. Between 2000 and 2014, Indiana TIF districts borrowed \$720 million. When a unit reported any bonds associated with a given TIF, the DLGF's Debt Management System has data on the size of the project and purpose of issuance of the bonds. LSA collected the bond-related information from 2012 to 2019. LSA used three pieces of bond information in the analysis.

- 1) Purpose of the Bond- the use of the bond.
- 2) Amortization Schedule- a record for every scheduled bond payment.
- 3) Project Cost- the cost of the project for which the bond was issued.

LSA assigned each bond to one of the following five broad categories based on TIF data reported to the DLGF:

- 1) Bond Repayment: Includes bonds issued to refund previously existing bonds. The purposes of the original bonds being refunded are not known, but they could have been used for one of the other four purposes.
- 2) Infrastructure: Utility repair and construction, road repair and construction, parking facilities, and other local infrastructure projects.
- 3) Noninfrastructure: Includes bonds issued for economic development, but infrastructure was not included in the explanation provided by the local unit. These were often directly related to a specific business or economic development project.
- 4) Government: Construction or purchase of government property such as city or town halls, fire stations, police stations, public parks, or police vehicles.
- 5) Miscellaneous: All other projects funded by TIF bonds that did not clearly fall under any of the other categories or for which insufficient information was provided to determine a purpose.

Table 4.5 summarizes the purposes of TIF projects for each TIF district in which one or more bonds were issued. The table shows 691 bonds issued for TIF districts created through 2016. LSA assigned bonds into the five broad categories based on TIF data reported to the DLGF. The largest number of bonds were issued to fund infrastructure projects, while the greatest amount of debt issued is associated with the bond repayment category. A substantial amount of bonds and project costs were also dedicated to non-infrastructure economic development projects. A smaller share of bonds funded government facilities and miscellaneous projects.

Table 4.5. Purposes of TIF Bond Issuance						
Category	Number of Bonds	Total Project Cost (\$ in millions)				
Infrastructure	237	\$1,490.1				
Noninfrastructure	181	1,265.5				
Government	58	415.4				
Miscellaneous	47	203.1				
Bond Repayment*	168	1,810.8				
Total	691	\$5,184.9				

*This category likely contains the refunding of bonds originally issued for one of the other purposes. Source: Raw data provided by the Department of Local Government Finance, data analysis by the Office of Fiscal and Management Analysis The data from the TIF Management System, DLGF's Debt Management System, and the variables that were created from this data allowed LSA to do a unique analysis. LSA examined the purpose of TIF bonds and how they impact GAV. LSA's analysis also differs from other research in that it uses the first date on the bond amortization schedule rather than TIF initiation date as the starting year when analyzing the growth in GAV over time. Studies have reported that there is a lag between the adoption of a TIF and its actual implementation by local governments (Calia, 1997; Cox, Mundell, and Johnson 2001; LaPlante, 2001). By changing the beginning reference year, the goal was to better measure the growth both before and after the investments were made. Finally, LSA was able to include in its analysis the cost of the project. Level

of debt issued has been used in prior research, but it has not been used when analyzing TIF's impact on growth in GAV or income over time.

To analyze how a TIF bond's purpose impacted GAV growth in the TIF district, LSA calculated the GAV growth from two years before to three years after the bond's amortization schedule began for each bond. In order to capture the growth with these time constraints, the data were limited to TIF bonds with amortization schedules having start dates from 2013 through 2016. The GAV was summarized at the TIF district level and analyzed for all bonds that were issued during this period. Figure 4.5 shows the growth in GAV in TIF areas over this time period, organized by bond purpose. For comparison, a measure of statewide non-TIF total GAV growth, non-TIF Annualized Weighted, is weighted to account for both the different start dates of the TIF bonds and the property use in TIF districts.

Figure 4.5 shows that the level of non-TIF GAV grows at a slower rate than GAV in a TIF district. It is a separate question whether this growth occurs because of TIF. The attempt is to differentiate between various purposes for which TIF bonds are issued and how TIF revenues are captured and invested rather than showing the causal impact of TIF.

When looking at the intra-TIF differences, the bond repayment category increases more than all the other categories except for noninfrastructure.

Figure 4.5. Five Year Growth In GAV by Purpose of Bond Issuance 30% 25% 20% 15% 10% 5% 0% -5% 3 5 2 **Bond Repayment** Government Infrastructure Misc. Noninfrastructure - Non-TIF Annualized Weighted

Source: LSA property tax database and the Department of Local Government Finance, TIF Management

The result is surprising since the purpose of the bond is to refinance or repay a previous bond. It is the only category that is not paying for a new project to the area, and yet it is outperforming three other purposes. It is possible that the TIF districts that grow faster than anticipated refinance and refund their bond due to a better bond rating. It could also be showing the increase in GAV from a prior TIF project.

TIF districts investing in projects that directly support private enterprise (the infrastructure and noninfrastructure categories) grow at a higher rate than those investing in a government function or property, such as a fire station, a municipal building, or new patrol vehicles.

One variable that could be impacting the growth in GAV is the value of the bond itself. For instance, one might assume a larger impact on GAV growth from a \$20 million bond than a \$2 million bond. Table 4.6 shows the cost of all the bonds and total GAV growth in the TIF district aggregated by bond purpose that had an amortization schedule start date from 2013 to 2016. It also calculates a growth to cost ratio which is GAV growth divided by project cost. This ratio measures how much GAV increased in the TIF area for each dollar invested in a project.

Table 4.6. TIF Area GAV Growth to Cost Ratio: 1 Year Before Start of Amortization Schedule to 3 Years After			
Bond Purpose	Bond Cost	GAV Growth	Growth to Cost Ratio
Noninfrastructure	\$342,268,274	\$3,666,631,878	10.7
Infrastructure	584,708,343	5,761,662,866	9.9
Bond Repayment	1,036,689,273	5,675,685,479	5.5
Government	285,633,461	1,035,605,396	3.6
Miscellaneous	145,674,540	339,893,045	2.3
Grand Total	\$2,394,973,891	\$16,479,478,664	6.9
Source: LSA property tax database, TIF Management, and Debt Management			

More than 40% of the value of the TIF bonds in the sample were for bond repayment. This may explain why the GAV growth rate was particularly high for that purpose. Outside of the bond repayment category, the other categories performed similarly in this measure of GAV growth as in Figure 4.5.

The figure and table suggest that infrastructure and noninfrastructure related investment tied to direct or indirect support for private development influence GAV growth more than bond repayments for past development projects or investment in government properties. One explanation for the bond repayment category being correlated with higher GAV growth than government bonds is that a bond that directly or indirectly supported private development in the TIF area increased GAV in the past at a higher rate, and the bond repayment category is still capturing the tail end of that growth, although at a slower rate.

Effects of TIF Adoption

LSA conducted a parcel level econometric analysis in 2015. That study used parcel level data and found that the average property in a TIF area saw more AV growth over time than similar properties outside the TIF district, although the effect was modest. This multivariate multiple regression was not updated. For the purpose of this report, LSA summarized the property tax data at township level and analyzed it to study the impact of TIF.

Table 4.7. Annualized Growth in GAV by Location and Property Use 2012-2019			
Property Use	TIF Parcel	Non-TIF Parcel in Township with TIF	Parcels in Townships with No TIF
Agriculture	9.7%	1.3%	0.8%
Commercial	3.7%	-2.6%	-2.0%
Industrial	6.3%	-0.1%	-1.9%
Other	8.3%	-1.7%	-1.0%
Residential	9.7%	1.8%	2.1%
Total Growth	5.9%	1.4%	1.3%
Total Weighted Growth	5.7%	-1.2%	-1.2%
Source: LSA property tax database			

Table 4.7 shows the annualized GAV growth by property use in three different categories of parcels. The first category is TIF parcels. These parcels are expected to experience the largest growth in GAV for two reasons. Investment and improvements are likely being made in the TIF parcels. Second, the unit adopting TIF is dependent upon growth in GAV to pay for the project, so it would be expected to grow. The second category contains parcels that are not in a TIF district but are in a township with a TIF district. These parcels may be capturing what is referred to as a spillover, which is the area surrounding a TIF district that may benefit from the increased economic activity in the TIF district. The remaining category contains parcels in townships with no TIF district. They are a type of control. These parcels do not directly benefit from TIF districts and are unlikely to receive any positive spillover impact from TIF districts as well.

Table 4.7 shows two measures of GAV growth for each parcel category. The first is total growth. It is the annualized growth rate in the total GAV from 2012 to 2019. As expected, TIF parcels grew at a faster rate than the other two categories. Interestingly, the other two categories had similar growth rates, which does not support the claim that areas near a TIF district receive a positive spillover effect from TIF investments. The different parcel categories have different combinations of property use that may be influencing the results. To account for this, the total weighted growth measure was computed for each category to maintain the property use mix of TIF parcels in 2012. Under this measure, TIF parcels still grow at a higher rate than the other two categories, which actually have an annual decrease. This second measure also rejects the claim of a spillover effect.

Another method of analyzing growth is to analyze existing parcels' GAV growth. One benefit of analyzing growth at this level is that it removes the impact of TIF expansion. In table 4.7, as new TIF districts are designated, the GAV associated with those parcels shift away from a non-TIF area to a TIF area. This method controls for that effect and also accounts for the changing of a property's use from one category to another. This is particularly common in TIF areas, for example farmland may become several pieces of commercial property. Table 4.8 is organized in a similar manner as Table 4.7, but it only includes parcels that meet each of the following criteria:

- 1) The parcel existed in both 2012 and 2019.
- 2) The parcel stayed in the same *TIF Parcel Township*.
- The parcel has the same property use in both 2012 and 2019.

Table 4.8. Annualized Growth in GAV Per Parcel by Location and Property Use 2012-2019			
Property Use	TIF Parcel	Non-TIF Parcel in Township with TIF	Parcels in Townships with No TIF
Agriculture	0.7%	1.3%	1.1%
Commercial	-0.4%	-0.8%	-1.3%
Industrial	0.5%	-0.8%	-1.6%
Other	2.3%	-0.9%	-3.0%
Residential	1.8%	1.7%	1.4%
Total Growth	0.4%	1.3%	1.1%
Source: LSA property tax database			

Table 4.8 shows TIF parcels' GAV grew at a slower rate than the other parcel categories. This analysis omits the instances where property is changed from one use to another. It is possible that the vast majority of the growth in many TIF districts is concentrated in a select few properties, while the other parcels in the TIF districts do not experience a substantial increase in GAV. The other two categories again experience similar GAV growth rates. While the GAV change is higher for non-TIF parcels in townships with TIF districts, the evidence may not be sufficient to support the claim of a spillover effect. The evidence in the two tables seem to suggest that TIF parcels grow at a higher rate than non-TIF parcels, but that growth may be concentrated in a relatively small portion of the parcels in TIF areas. Furthermore, evidence of a spillover effect is weak in this analysis.

Literature Review

No other local government incentive program is used as much as TIF, but the disproportionately heavy use of this mechanism, especially in the Midwest, has triggered an examination of its use in many states. This has led to substantial research in the use and impact of TIF districts. The research has focused on examining whether positive association between TIF and subsequent growth in various economic variable exists.

Most scholars have addressed two different research questions in analyzing the impact of TIF: Is there an inherent selection bias in the adoption of TIF? Do TIF areas encourage economic development? Together these questions are considered to account for potential reverse causality between TIF use and economic outcomes. This is important because without reverse causality, one might attribute economic gains to TIF use while instead, the TIF area was created to capture economic growth.

The studies on TIF selection bias predict the probability of TIF adoption based on the area's characteristics. In an evaluation of the probability of TIF adoption by Indiana cities with a population over 2,500, Man (1999) concluded that fiscal stress, lower share of property taxes, and the neighboring jurisdiction's TIF decisions, increased the probability of adopting TIF. Byrne (2005) used data from the Chicago metropolitan area and also found a relationship between a neighboring jurisdiction's TIF decisions on a municipality's adoption of TIF. These findings indicate a strategic or competitive use of TIF.

Landers and Greenbaum (2014) used national data for 844 municipal and county governments and found that jurisdictions that have lower per capita income are more likely to adopt TIF. Alison and Hines (2013) agreed that a higher share of low income residents increased the chances of using TIF or other business incentives. Gibson (2003) used census tract data from Chicago to conclude that moderately economically distressed neighborhoods, which experience moderate growth, are most likely to be included in TIF districts. These findings may be applicable in states that only allow TIF areas to be established in blighted areas. In Indiana, however, a TIF area may be established within a blighted area to promote redevelopment or within a non-blighted area to promote economic development.

The descriptive analysis presented in Table 4.2 shows that municipalities in Indiana capture 85% of all TIF revenue. Landers and Greenbaum's (2014) research showed suburban locations and the size of local governments as a factor in TIF adoption. Among municipalities, Anderson (1990) found that growing cities are more likely to create a TIF. LSA (2015) also concluded that local units may adopt a TIF to capture pre-determined growth. The report also found that rising income was associated with the adoption of TIF, thus possibly suggesting the capture of existing growth. Although, Dye and Merriman (2000), examining municipalities in the Chicago metropolitan area, did not find a relationship between TIF adoption and pre-adoption growth in property values. Conflicting results in this area continues to mystify analysts as to whether TIF areas are created to capture existing growth or encourage new growth.

Other studies suggest the municipal tax rate, population, personal income, and the share of non-residential property are positively associated with TIF adoption. LSA's (2015) analysis confirmed the results from descriptive statistics in this report suggesting that areas with higher share of commercial and industrial properties have higher likelihood of TIF adoption. Hicks et al. (2017) used a two-stage selection model for Indiana counties that treats the choice to adopt TIF as a function of economic and fiscal variables and suggested that higher local property tax rates play a role in TIF adoption. They also found that higher incomes and higher employment growth are correlated with TIF adoption.

To account for potential self-selection, researchers have used Heckman selection correction or propensity scores to overcome this problem (Lester, 2014). Researchers have mostly measured the change in property values to evaluate the economic impact of TIF areas. Landers and Greenbaum (2014) noted that this is a common approach as the TIF funding mechanism is dependent on the growth in property values to generate revenue to fund development projects. The studies have questioned whether on average and overall, the TIF adoption decision is associated with increased growth in various types of property value.

Most studies use some kind of regression analysis at a parcel, city, or county level. TIF impact on property values has been mixed. Most studies have found a positive impact on property values (Byrne, 2006). Carroll (2008) finds a positive impact on real AV while noting that business parcels located in TIF areas grew faster. Byrne (2006) examined the impact on annualized property value growth in the Chicago metropolitan area and concluded that TIF had a positive impact.

The study also found that when controls for neighborhood conditions are included, the industrial TIF areas are the only types that experience property value growth in Chicago. Anderson (2001) and Smith (2009) chose commercial property value as a dependent variable and determined that commercial property appreciates faster in TIF areas. Merriman et al. (2000) measured the impact of TIF on properties in municipalities and reported that cities that adopt TIF have slower growth in property values. They expanded their study in 2003 to find a negative impact of TIF on non-TIF municipal property values. Yadavalli and Landers (2017) used parcel level data in Indiana and found that the average property in a TIF area experienced more AV growth over time than similar parcels outside the TIF district, but the effect was modest.

Studies of the impacts of TIF on other economic outcomes have reported mixed results. Overton et. al. (2014) studied TIF districts in Dallas to measure the impact of TIF related public expenditures on annual private investment. They reported a positive relationship. While controlling for industrial composition, Girardi (2013) examined the impact of TIF on employment growth and wage growth. Girardi found TIF had no impact on wages or employment. This conclusion is similar to research by Lester (2014) who found no impact of TIF on employment, number of establishments, and building permits. Swenson (2015) examined the economic impact of TIF districts in California from 1980 to 2000. This study was conducted after California eliminated its TIF program. The author found that TIF had a minimal positive impact on employment, poverty rates, family incomes, rental vacancy rates, residential rental rates, or business growth. Swenson concluded that the state's decision to eliminate TIF was justified.

Summarv

TIF is a distinct funding mechanism because the revenues to fund the project are based on the increased property values of the project it supports. It signifies mutual commitment between the local unit and the developer, and it provides an alternative source of revenue for certain projects. TIF could be overused due to competition between neighboring jurisdictions which leads to inefficiency, and it may affect overlapping governmental units. The efficient use of TIF is key to its effectiveness. An evaluation of the "but for" test and consideration of all funding sources should occur before using TIF.

Although it is difficult to answer whether TIF leads to development that would not happen "but for" the establishment of the TIF district, TIF is used for effective and ineffective reasons. Studies show mixed results on the impact of TIF on property value. LSA (2015) used a more sophisticated methodology to control for other conditions and reported that TIF resulted in very modest growth in AV. The study did not find any statistical impact on employment by TIF adoption. Other researchers have found a larger positive impact on property values, particularly commercial property values, but most research found no discernable impact on employment.

LSA reviewed data for the reported purpose for issuance of bond by TIF districts and divided them into five investment categories: infrastructure, noninfrastructure, government, bond repayment, and miscellaneous. LSA identified which bond purposes are most frequently used by local units by examining both the number of bonds and the amount associated with each of those bonds. Bond repayment was the most frequent in terms of amount of issuance of bonds, regardless of the time frame examined. This may indicate that local units are consolidating debt and refinancing bonds issued for prior projects to take advantage of better interest rates or some other beneficial reason. While bonds issued for government related projects was the least popular bond purpose, it still accounted for 8% to 12% of the total amount of bonds in all reporting TIF districts. Thereafter, LSA examined how each purpose of issuance of bonds impacted the growth in GAV in TIF areas. The analysis suggests that TIF revenue used to fund government related purposes results in lower growth in GAV compared to revenue that pays for local infrastructure or goes toward specific projects related to private investments.

LSA also used the township level data to test for TIF spillover and how GAV grows inside and outside of TIF districts. The descriptive statistics suggest that any spillover effect on GAV is weak on average. Furthermore, properties in TIF districts do experience faster GAV growth than non-TIF parcels, but that growth may typically be concentrated in a small subset of properties within the TIF that change in property use. Properties that are in a TIF district but do not change their use may not experience the same growth.

Based on LSA's analysis, TIF is a viable source of financing under certain conditions, and it suggests that some governmental units may be using TIF efficiently. This analysis found variations in GAV growth in TIF districts based on the type of project occurring within the district. Statistical analysis that does not account for this factor may be underestimating the impact of TIF on projects designed to have an economic impact. The refunding of old debt represents a large portion of the debt issued every year. When using this information, refund bonds would overstate the amount of money borrowed to fund projects which may obfuscate the impact of new investment.

Appendix A. Illustration: Price Elasticity of Giving

The price elasticity of giving is defined as the percentage change in charitable contributions that results from a 1% change in the price of giving, all else being equal. The following illustration shows the impact on charitable contributions for different assumptions of price elasticity. It assumes a taxpayer contributes \$100, has a federal marginal rate of 25%, and is able to claim a state tax credit of 50% of the contribution amount.

Assumed Elasticity	Donation	Tax Benefit	% Change in the Price	% Change in Charitable Giving	New level of Charitable Giving	Change in Charitable Contribution	Treasury Efficient
1.5*	\$100	\$75	-75%	112.5%	\$212.50	\$112.50	Positive
1*	\$100	\$75	-75%	75.0%	\$175.00	\$75.00	Neutral
0.5*	\$100	\$75	-75%	37.5%	\$137.50	\$37.50	Negative
0*	\$100	\$75	-75%	0.0%	\$100.00	\$0.00	Negative

Note: Auten, Siez, Clotfelter (2002) provided a persistent price elasticity of giving in the range of .79 to 1.26. Yetman and Yetman (2013) find a charitable giving elasticity of 1.03, which is not different from 1. Bakija and Heim (2011) find an elasticity of charitable giving in response to persistent change in price that is in excess of 1, and they point that the results remain significant for different income class. According to Peloza and Steel (2005), the average price elasticity of demand for charitable giving is 1.4. (*All elasticity measures are in absolute value.)

Appendix B. Tax Incentive Review Staute (IC 2-5-3.2-1)

Chapter 3.2. Review, Analysis and Tax Incentives 2-5-3.2-1

Year Enacted 2014; Year Amended 2019

- Sec. 1. (a) As used in this section, "tax incentive" means a benefit provided through a state or local tax that is intended to alter, reward, or subsidize a particular action or behavior by the tax incentive recipient, including a benefit intended to encourage economic development. The term includes the following:
 - (1) An exemption, deduction, credit, preferential rate, or other tax benefit that:
 - (A) reduces the amount of a tax that would otherwise be due to the state;
 - (B) results in a tax refund in excess of any tax due; or
 - (C) reduces the amount of property taxes that would otherwise be due to a political subdivision of the state.
 - (2) The dedication of revenue by a political subdivision to provide improvements or to retire bonds issued to pay for improvements in an economic or sports development area, a community revitalization area, an enterprise zone, a tax increment financing district, or any other similar area or district.
- (b) The general assembly intends that each tax incentive effectuate the purposes for which it was enacted and that the cost of tax incentives should be included more readily in the biennial budgeting process. To provide the general assembly with the information it needs to make informed policy choices about the efficacy of each tax incentive, the legislative services agency shall conduct a regular review, analysis, and evaluation of all tax incentives according to a schedule developed by the legislative services agency.
- (c) The legislative services agency shall conduct a systematic and comprehensive review, analysis, and evaluation of each tax incentive scheduled for review. The review, analysis, and evaluation must include information about each tax incentive that is necessary to achieve the goals described in subsection (b), which may include any of the following:
 - (1) The basic attributes and policy goals of the tax incentive, including the statutory and programmatic goals of the tax incentive, the economic parameters of the tax incentive, the original scope and purpose of the tax incentive, and how the scope or purpose has changed over time.
 - (2) The tax incentive's equity, simplicity, competitiveness, public purpose, adequacy, and extent of conformance with the original purposes of the legislation enacting the tax incentive.
 - (3) The types of activities on which the tax incentive is based and how effective the tax incentive has been in promoting these targeted activities and in assisting recipients of the tax incentive.
 - (4) The count of the following:
 - (A) Applicants for the tax incentive.
 - (B) Applicants that qualify for the tax incentive.
 - (C) Qualified applicants that, if applicable, are approved to receive the tax incentive.
 - (D) Taxpayers that actually claim the tax incentive.
 - (E) Taxpayers that actually receive the tax incentive.
 - (5) The dollar amount of the tax incentive benefits that has been actually claimed by all taxpayers over time, including the following:
 - (A) The dollar amount of the tax incentive, listed by the North American Industrial Classification System (NAICS) Code associated with the tax incentive recipients, if an NAICS Code is available.
 - (B) The dollar amount of income tax credits that can be carried forward for the next five (5) state fiscal years.
 - (6) An estimate of the economic impact of the tax incentive, including the following:
 - (A) A return on investment calculation for the tax incentive. For purposes of this clause, "return on investment calculation" means analyzing the cost to the state or political subdivision of providing the tax incentive, analyzing the benefits realized by the state or political subdivision from providing the tax incentive.
 - (B) A cost-benefit comparison of the state and local revenue foregone and property taxes shifted to other taxpayers as a result of allowing the tax incentive, compared to tax revenue generated by the taxpayer receiving the incentive, including direct taxes applied to the taxpayer and taxes applied to the taxpayer's employees.
 - (C) An estimate of the number of jobs that were the direct result of the tax incentive.
 - (D) For any tax incentive that is reviewed or approved by the Indiana economic development corporation, a statement by the chief executive officer of the Indiana economic development corporation as to whether the statutory and programmatic goals of the tax incentive are being met, with obstacles to these goals identified, if possible.

Appendix B. Tax Incentive Review Staute (IC 2-5-3.2-1)

- (7) The methodology and assumptions used in carrying out the reviews, analyses, and evaluations required under this subsection.
- (8) The estimated cost to the state to administer the tax incentive.
- (9) An estimate of the extent to which benefits of the tax incentive remained in Indiana or flowed outside Indiana.
- (10) Whether the effectiveness of the tax incentive could be determined more definitively if the general assembly were to clarify or modify the tax incentive's goals and intended purpose.
- (11) Whether measuring the economic impact is significantly limited due to data constraints and whether any changes in statute would facilitate data collection in a way that would allow for better review, analysis, or evaluation.
- (12) An estimate of the indirect economic benefit or activity stimulated by the tax incentive.
- (13) Any additional review, analysis, or evaluation that the legislative services agency considers advisable, including comparisons with tax incentives offered by other states if those comparisons would add value to the review, analysis, and evaluation.

The legislative services agency may request a state or local official or a state agency, a political subdivision, a body corporate and politic, or a county or municipal redevelopment commission to furnish information necessary to complete the tax incentive review, analysis, and evaluation required by this section. An official or entity presented with a request from the legislative services agency under this subsection shall cooperate with the legislative services agency in providing the requested information. An official or entity may require that the legislative services agency adhere to the provider's rules, if any, that concern the confidential nature of the information.

- (d) The legislative services agency shall, before October 1 of each year, submit a report to the legislative council, in an electronic format under IC 5-14-6, and to the interim study committee on fiscal policy established by IC 2-5-1.3-4 containing the results of the legislative services agency's review, analysis, and evaluation. The report must include at least the following:
- (1) A detailed description of the review, analysis, and evaluation for each tax incentive reviewed.
- (2) Information to be used by the general assembly to determine whether a reviewed tax incentive should be continued, modified, or terminated, the basis for the recommendation, and the expected impact of the recommendation on the state's economy.
- (3) Information to be used by the general assembly to better align a reviewed tax incentive with the original intent of the legislation that enacted the tax incentive.

The report required by this subsection must not disclose any proprietary or otherwise confidential taxpayer information.

- (e) The interim study committee on fiscal policy shall do the following:
- (1) Hold at least one (1) public hearing after September 30 and before November 1 of each year at which:
 - (A) the legislative services agency presents the review, analysis, and evaluation of tax incentives; and
 - (B) the interim study committee receives information concerning tax incentives.
- (2) Submit to the legislative council, in an electronic format under IC 5-14-6, any recommendations made by the interim study committee that are related to the legislative services agency's review, analysis, and evaluation of tax incentives prepared under this section.
- (f) The general assembly shall use the legislative services agency's report under this section and the interim study committee on fiscal policy's recommendations under this section to determine whether a particular tax incentive:
- is successful;
- (2) is provided at a cost that can be accommodated by the state's biennial budget; and
- (3) should be continued, amended, or repealed.
- (g) The legislative services agency shall establish and maintain a system for making available to the public information about the amount and effectiveness of tax incentives.
- (h) The legislative services agency shall develop and publish on the general assembly's Internet web site a multi-year schedule that lists all tax incentives and indicates the year when the report will be published for each tax incentive reviewed. The legislative services agency may revise the schedule as long as the legislative services agency provides for a systematic review, analysis, and evaluation of all tax incentives and that each tax incentive is reviewed at least once every seven (7) years.
- (i) This section expires December 31, 2025.

Corporate Income Tax/Individual Income Tax		
Tax Provision	Description	
Adoption Tax Credit (Reviewed in 2018)	10% of the federal adoption tax credit claimed for the year. The maximum credit equals \$1,000 per eligible child.	
Coal Gasification Technology Investment Credit (Reviewed in 2018)	10% of the first \$500 million in qualified investment in an integrated coal gasification power plant (7% if the investment is in a fluidized-bed combustion unit) and 5% of the qualified investment exceeding \$500 million (3% if the investment is in a fluidized-bed combustion unit). Credits are approved by the IEDC Board.	
Community Revitalization Enhancement District Credit (Reviewed in 2016)	Percent of qualified investments made in these areas as approved by the IEDC Board.	
Earned Income Tax Credit (Reviewed in 2015)	A refundable tax credit for certain families that have a modified adjusted gross income less than \$45,800. The credit amount depends on the number of qualifying children and family income. The maximum credit for 2017 was \$514.	
Economic Development for a Growing Economy (EDGE) Credit (Reviewed in 2017)	Incremental income tax withholdings of new or retained employees as approved by the IEDC Board.	
Enterprise Zone Employee Income Deduction (Reviewed in 2016)	The lesser of 50% of earnings or \$7,500 if the individual lives and works within an enterprise zone.	
Enterprise Zone Employment Expense Credit (Reviewed in 2016)	Allowed for increased employment expenditures, equal to the lesser of 10% multiplied by the increased wages or \$1,500 multiplied by the number of qualified employees.	
Headquarters Relocation Credit (Reviewed in 2017)	Up to 50% of the costs incurred by an eligible business to relocate its headquarters, division or subdivision principal office, or research center to Indiana. Businesses relocating that receive at least \$4 million in venture capital in the six months preceding the move may qualify.	
Hoosier Business Investment Credit (Reviewed in 2017)	Up to 10% of qualified nonlogistics business investments directly related to expanding the workforce in Indiana, not to exceed the taxpayer's state tax liability. For logistics investments, the credit equals 25% of the additional qualified investment made during the taxable year. The total nonlogistics credit for all taxpayers is capped at \$5 million per year, while the total logistics credit for all taxpayers is capped at \$50 million per year. Credits are approved by the IEDC Board.	
Indiana 529 College Savings Account Contribution Credit (Reviewed in 2015)	20% of annual contributions to an Indiana College Choice 529 investment plan savings account. The maximum credit per taxpayer is \$1,000.	
Indiana Colleges and Universities Contribution Credit (Reviewed in 2015)	50% of contributions to institutions of higher education, up to \$100 (\$200 if filing a joint return).	
Indiana Partnership Long- Term Care Insurance Premiums Deduction (Reviewed in 2014)	Amount of premiums paid during the year on a qualified long-term care policy.	
Individual Development Account Credit (Reviewed in 2015 and 2019)	50% of the amount contributed to a fund if the contribution is not less than \$100 and not more than \$50,000.	

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Neighborhood Assistance Credit (Reviewed in 2015 and 2019)	50% of contributions to approve projects that assist economically disadvantaged areas or to employ, train, or provide technical assistance to people who reside in these areas. The maximum credit is \$25,000. Total tax credits statewide may not exceed \$2.5 million in a fiscal year.
Patent-Derived Income Deduction (Reviewed in 2017)	Up to \$5 million in income from plant or utility patents issued beginning in 2008 to businesses or organizations domiciled in Indiana.
Redevelopment Tax Credit	Awarded to taxpayers who redevelop or rehabilitate real property located within qualified redevelopment areas that are approved by the IEDC. The IEDC and a taxpayer must enter into an agreement before qualified investments are made, which determines the terms of the credit. Total credits may not exceed \$50 million in a fiscal year. This credit is effective for qualified investments beginning January 1, 2020.
Regional Development Authority Infrastructure Fund Contribution Deduction	An amount equal to the federal income tax deduction allowable for contributions or gifts to a regional development authority infrastructure fund.
Research Expense Credit (Reviewed in 2017)	For certain qualified research expenses incurred.
Residential Historic Rehabilitation Credit (Reviewed in 2015 and 2019)	20% of qualified expenditures as approved by DNR for the preservation or rehabilitation of the taxpayer's principal residence. The maximum statewide credit may not exceed \$250,000 annually.
School Scholarship Contribution Credit (Reviewed in 2015)	50% of contributions to nonprofit K-12 school scholarship-granting organizations. Total tax credits may not exceed \$12.5 million in FY 2018, \$14 million in FY 2019, \$15 million in FY 2020, and \$16.5 million each fiscal year thereafter.
Venture Capital Investment Credit (Reviewed in 2017)	20% of annual qualified venture capital investment up to \$1 million. Total new credits awarded may not exceed \$12.5 million annually.

Property Tax		
Tax Provision	Description	
Brownfield Revitalization Zone Deduction (Reviewed in 2018)	The designating body may grant a 3-, 6-, or 10-year abatement for real and personal property located in a brownfield revitalization zone. The deduction equals the increase in the property's AV multiplied by a percentage based on year and duration.	
Certified Technology Park Deduction (Reviewed in 2017)	Personal property located in a certified technology park and used to conduct high-technology activity. The deduction equals 100% of the property's AV. The term of 2 to 10 years is determined by the county fiscal body.	
Data Center Property Tax Exemption	Local governments may provide a personal property tax exemption on qualified enterprise information technology equipment to owners of a data center who invest at least \$25 million in real and personal property in the facility.	
Enterprise Zone and Entrepreneur and Enterprise District Investment Deduction (Reviewed in 2016)	Qualified investments including buildings, manufacturing or production equipment, retooling, and infrastructure within an enterprise zone. The deduction equals the increase in AV of the enterprise zone property as compared to the AV in the base year. The deduction was expanded to include Entrepreneur and Enterprise Districts on July 1, 2017.	
Enterprise Zone Obsolescence Deduction (Marion County) (Reviewed in 2016)	Newly purchased real property in an enterprise zone in Marion County if an obsolescence depreciation adjustment was allowed for the property in the year preceding the year in which the owner purchased the property. The deduction equals the amount of the former owner's obsolescence adjustment multiplied by 100% in year 1, 75% in year 2, 50% in year 3, and 25% in year 4.	
Entrepreneur and Enterprise District Personal Property Minimum Value Exemption	An exclusion from the 30% valuation floor for depreciable personal property. The incentive went into effect July 1, 2017.	

Entrepreneur and Enterprise District Vacant Building Abatement	Commercial or industrial building that is vacant for a year or longer. The deduction equals 100% of real property taxes for the first year it is occupied and 50% in the second year. The incentive went into effect July 1, 2017.
Geothermal Energy Heating or Cooling Device Deduction (Reviewed in 2018)	Real property or mobile home equipped with geothermal heating, cooling, hot water, or electricity production. The deduction equals the device's AV.
Hydroelectric Power Device Deduction (Reviewed in 2018)	Real property or mobile home equipped with a hydroelectric power device. The deduction equals the device's AV.
Infrastructure Development Zone (Reviewed in 2017)	100% exemption in a geographic area designated as an Infrastructure Development Zone by the county executive, municipal legislative body, or the Marion County fiscal body.
Low-Income Housing Exemption (Reviewed in 2015)	All or part of real property is exempt from property taxation if (1) the improvements on the real property were constructed, rehabilitated, or acquired for the purpose of providing housing to income-eligible persons, (2) the property is subject to an extended use agreement, and (3) the property owner has entered into an agreement to make payments in lieu of taxes.
Personal Property Abatements in an Economic Revitalization Area (Reviewed in 2017)	New manufacturing, R&D, logistical distribution, and information technology equipment located in an economic revitalization area. The local designating body determines the length of the deduction from 1 to 10 years. The designating body must specify an abatement schedule.
Real Property Abatements in an Economic Revitalization Area (Reviewed in 2017)	Improvements made to real property located in an economic revitalization area. The local designating body determines the length of the deduction from 1 to 10 years. The designating body must specify an abatement schedule.
Resource Recovery Systems Deduction (Reviewed in 2018)	Tangible property directly used to dispose of solid waste or hazardous waste by converting it into energy or other useful products. The deduction equals 95% of the system's AV. This deduction currently applies to only one property, located in Marion County.
Solar-Energy Systems Deduction (Reviewed in 2018)	Real property or mobile home equipped with solar energy heating or cooling system. The deduction equals system's cost.
Solar Power Device Deduction (Reviewed in 2018)	Solar power device that is part of real property, personal property, or, in some cases, utility distributable property.
Tax Increment Financing (Reviewed in 2015 and 2019)	Special district established by local units that capture incremental property tax revenue for development purposes in the districts.
Wind-Powered Devices Deduction (Reviewed in 2018)	Real property or mobile home equipped with wind-powered equipment designed to provide mechanical energy or produce electricity. The deduction equals the device's AV.

Sales Tax		
Tax Provision	Description	
Aircraft Parts (Reviewed in 2018)	Materials, parts, equipment, and engines used in the repair, maintenance, refurbishment, remodeling, or remanufacturing of an aircraft or avionics system of an aircraft.	
Aviation Fuel (Reviewed in 2018)	Aviation gasoline, jet fuel, and fuel used as a substitute for aviation gasoline or jet fuel.	
Cargo Trailers/RVs Sold to Certain Nonresidents (Reviewed in 2018)	Sales of RVs and trailers to a resident of another state that has a reciprocal exemption.	
Certain Aircraft (Reviewed in 2018)	Aircraft purchased for rental or leasing if the annual amount of gross lease revenue is greater than or equal to 7.5% of the book value or net acquisition price. Any aircraft rented or leased for predominant use in public transportation. Aircraft sold to a person who is not an Indiana resident.	

Certain Racing Equipment (Reviewed in 2018)	Tangible personal property that comprises any part of a professional motor racing vehicle or a two-seater Indianapolis 500-style race car, excluding tires and accessories.
Data Center Equipment Tax Exemption	A sales and use tax exemption is provided on purchases of qualifying data center equipment and energy to operators of a qualified data center for a period no to exceed 25 years for data center investments of less than \$750 million. If the investment exceeds \$750 million, then the IEDC may award an exemption for up to 50 years.
Research and Development Property (Reviewed in 2017)	Tangible personal property that has not previously been used in Indiana for any purpose and is acquired for the purpose of experimental laboratory R&D for new products, new uses of existing products, or improving or testing existing products.

Other		
Tax Provision	Description	
Certified Technology Park (Reviewed in 2017)	Special zones established by local units that capture state and local tax revenue for high-technology business development in the zones.	
Community Revitalization Enhancement Districts (Reviewed in 2016)	Special district established by local units that may capture state and local tax revenue for development purposes in the districts.	
Enterprise Zones (Reviewed in 2016)	Special zone established by municipal units where tax incentives are provided for development in the zones.	
Entrepreneur and Enterprise District Pilot Program	Special district established by municipal units that may receive a grant for programs that support entrepreneurship, small business development, technology development, and innovation. The program went into effect on July 1, 2017.	
Motorsports Investment District (Reviewed in 2018)	Geographic area including the Indianapolis Motor Speedway. Revenue is captured from certain incremental sales tax, individual income tax, and admissions fee revenue.	
Professional Sports Development Areas (Reviewed in 2017)	Special areas established by local units that may capture state and local tax revenue for sports and convention development purposes in the areas.	
Promotional Free-Play Deduction (Reviewed in 2018)	Wagering tax deduction for wagers made by casino patrons using noncashable vouchers, coupons, electronic credits, or electronic promotions provided by the casino.	

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