PENNSYLVANIA

KEYSTONE SPECIAL DEVELOPMENT ZONES TAX CREDIT

An Evaluation of Program Performance

July 2021

COMMONWEALTH OF PENNSYLVANIA
INDEPENDENT FISCAL OFFICE

Independent Fiscal Office

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INDEPENDENT FISCAL OFFICE

July 29, 2021

The Honorable Members of the Performance-Based Budget Board and Chairs of the House and Senate Finance Committees:

Act 48 of 2017 requires the Independent Fiscal Office (IFO) to review various state tax credits over a five-year period. For the third year, the IFO reviewed five tax credits: the Neighborhood Assistance Program, Resource Enhancement and Protection Program, Entertainment Economic Enhancement Program, Video Game Production and Keystone Special Development Zones Tax Credits. The act requires the IFO to submit tax credit reviews to the Performance-Based Budget Board and the Chairs of the House and Senate Finance Committees and to make reports available to the public on the IFO website.

This report contains the tax credit review for the Keystone Special Development Zone (KSDZ) Tax Credit. The IFO reviewed relevant research related to economic incentives for brownfield remediation and redevelopment, held discussions with various stakeholders and met with agency staff who administer the tax credit. Based on that research, the IFO submits this report to fulfill the requirements contained in Act 48.

The IFO initially released this analysis as a research brief in April 2021. Since that release, the IFO was notified of a new recipient (two total) of the KSDZ Tax Credit. As a result, this analysis has been updated to include historical data, an economic impact analysis and revised recommendations.

Pennsylvania is one of 11 states that offer a tax credit to incentivize brownfield remediation and redevelopment. Some states offer credits as a portion of remediation costs. Other states provide the credit as a share of qualifying investment in the property. This analysis examines available data and other issues that determine the effectiveness of the KSDZ Tax Credit.

The IFO welcomes all questions and comments on the contents of this report. Questions and comments can be sent to contact@ifo.state.pa.us.

Sincerely,

Matthew J. Knittel

Dr. Matthew J. Knittel
Director

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General Findings and Recommendations

Enacted in 2011, the Keystone Special Development Zone (KSDZ) Tax Credit incentivizes for-profit firms to redevelop former industrial and commercial sites. An eligible KSDZ must be designated by the Department of Community and Economic Development (DCED) and meet the following criteria as of July 1, 2011: (1) have permanent vertical structures that have deteriorated or been abandoned for at least 20 years or have no permanent vertical structures and (2) have been designated a Special Industrial Area (SIA) under Act 2 of 1995. An eligible applicant must employ one or more qualified employees at the KSDZ site. A qualified KSDZ employee must (1) be employed after June 30, 2011, (2) work at least 35 hours per week and (3) spend at least 90 percent of their time working at the KSDZ location.

The annual KSDZ Tax Credit awarded to an applicant is equal to $2,100 for each full-time equivalent employee (FTE) in excess of the number of FTEs employed by the KSDZ employer prior to January 1, 2012. Tax credits can be earned in any tax year for up to ten years between July 1, 2012 and June 30, 2035. There is no annual program cap and the credit is non-refundable.

The **general findings** of this report are as follows:

- States have implemented a wide variety of programs to incentivize brownfield remediation and redevelopment. Eleven states (including Pennsylvania) offer a tax credit to encourage remediation and redevelopment of brownfield sites. Some states (e.g., Colorado and Mississippi) offer the credit as a portion of remediation costs. Other states (e.g., Iowa and Kentucky) provide the credit as a share of qualifying investment in the property.
- Two SIA sites have been designated as KSDZs. One is located in Bethlehem (441 acres) and the other in Aliquippa (73 acres). Although six firms are located in a KSDZ, only two firms currently receive KSDZ Tax Credits. It is unclear why the remaining four have not applied.
- The analysis finds that the KSDZ Tax Credit is one of many relevant factors that affect the location decision of participating firms. For the KSDZ Tax Credit to be fully self-financed, roughly 39 percent of the tax credit must incentivize new activity. That is, 39 percent of the tax credit must go to firms where the credit is the decisive factor that tips the decision to locate within Pennsylvania, and more specifically, within the zone. The IFO is currently unable to reliably determine if this threshold is met based on input from two credit claimants.
- Under current law, a firm that closes a non-KSDZ facility (laying off all current employees) and opens a new KSDZ site hiring new employees is technically eligible for the KSDZ Tax Credit based on the newly-hired staff. Awarding credits for jobs that are moved from one Pennsylvania location to another does not incentivize new activity.

The final section of this report contains various **recommendations**. A summary is as follows:

- Few firms participate in the KSDZ Tax Credit program. Modifications (discussed later) could be considered to increase program participation.
- KSDZ Tax Credits should be subject to annual program and project caps to limit the potential impact on tax revenues.

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Section 1: Introduction

Act 48 of 2017 requires the Independent Fiscal Office (IFO) to review various state tax credits over a five-year period.[1] For the third year, the IFO reviewed five tax credits: the Neighborhood Assistance Program, Resource Enhancement and Protection Program, Entertainment Economic Enhancement Program, Video Game Production and Keystone Special Development Zones Tax Credits. The act requires the IFO to submit tax credit reviews to the Performance-Based Budget Board and the Chairs of the House and Senate Finance Committees and to make reports available to the public on the IFO website.

The act specifies that tax credit reviews shall contain the following content:

- The purpose for which the tax credit was created.
- Whether the tax credit is accomplishing its legislative intent.
- Whether the tax credit could be more efficiently implemented through other methods.
- Any alternative methods which would make the tax credit more efficient.
- The costs to provide the tax credit, including the administrative costs to the Commonwealth and local government entities within this Commonwealth.

The act also specifies that the IFO shall develop a tax credit plan for all tax credits subject to review. The plans should include performance measures, and where applicable, the measures should reflect outcome-based measures (including efficiency measures), measures of status improvements of recipient populations and economic outcomes or performance benchmarks against similar state programs or similar programs of other states or jurisdictions. The IFO submits this report to fulfill these requirements.

The remainder of this review contains four sections. **Section 2** discusses the administration of the tax credit and presents limited historical data. **Section 3** provides relevant research on brownfield remediation and redevelopment incentives. **Section 4** contains an economic impact analysis. **Section 5** concludes with the tax credit plan, as required by Act 48. A complete list of reports and data sources used for this review can be found in the **Appendix**. If submitted, written comments provided by stakeholders and affected agencies are also included in the Appendix.

[1] Act 48 of 2017 is also known as the Performance-Based Budgeting and Tax Credit Efficiency Act. See the Appendix for the Tax Credit Review Schedule.

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Section 2: KSDZ Tax Credit Overview

Article XIX-C of the Tax Reform Code of 1971 (Act 26 of 2011) created the Keystone Special Development Zone (KSDZ) Tax Credit program. The KSDZ Tax Credit incentivizes for-profit firms to redevelop former industrial and commercial sites. An applicant may request that a site be certified as a KSDZ by DCED. To be eligible, the site must meet the following criteria as of July 1, 2011: (1) have permanent vertical structures that have deteriorated or been abandoned for at least 20 years or have no permanent vertical structures and (2) have been designated a Special Industrial Area (SIA) under Act 2 of 1995. SIAs are (1) brownfields formerly utilized for industrial activity where there is no financially viable responsible party to remediate the contamination or (2) land located within an enterprise zone.[2] SIAs are designated by the Pennsylvania Department of Environmental Protection (DEP) in accordance with the Land Recycling and Environmental Remediation Standards Act (Act 2 of 1995).

An eligible applicant must have one or more employees working at a KSDZ site. A qualified KSDZ employee must (1) be employed after June 30, 2011, (2) work at least 35 hours per week and (3) spend at least 90 percent of their time working at the KSDZ site location. Jobs used to claim the KSDZ Tax Credit may not be used to claim KOZ, KOEZ or KOIZ benefits.

The annual amount of credit awarded to an applicant is equal to $2,100 for each full-time equivalent employee (FTE) in excess of the number of FTEs employed by the KSDZ employer prior to January 1, 2012.[3] Tax credits can be earned in any tax year for up to ten years between July 1, 2012 and June 30, 2035.[4] There is no annual program cap. The employer must maintain operations in the KSDZ for a period of five years from the date that the KSDZ tax certificate is submitted to the Department of Revenue (DOR).[5]

Tax credits are available to offset qualified tax liability attributable to business activity within the KSDZ and may be utilized against Pennsylvania personal income, corporate net income, bank and trust company shares, title insurance companies shares and mutual thrift institutions taxes for the tax year in which the credit is issued.[6] Credits not used in the first year may be carried forward for an additional 10 tax years. The credit is non-refundable and may not be carried back. Unused credits may be sold or assigned to reduce a buyer's liability by up to 75 percent but must be used within the year of sale or assignment.[7]

This section begins with a description of the goals and purpose of the tax credit. It then discusses the application process and the administration of the tax credit.

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[2] Enterprise zones include Federal Opportunity Zones, Keystone Opportunity Zones (KOZs), Keystone Opportunity Expansion Zones (KOEZs) and Keystone Opportunity Investment Zones (KOIZs).
[3] This does not include employees transferred from a non-KSDZ location to a KSDZ site.
[4] Act 84 of 2016 extended the end date from the previous June 30, 2026 to the current June 30, 2035.
[5] KSDZ employers who fail to maintain operations for the full five years are required to refund the total amount of tax credits received with interest and a 20 percent penalty.
[6] For KSDZ employers with a portion of their business not within the KSDZ, a tax liability apportionment formula is applied based on property within the KSDZ, payroll and compensation of contractors. For further detail see the KSDZ guidelines: https://dced.pa.gov/download/keystone-special-development-zone-guidelines/?wpdmdl=87741.
[7] Credit must first be applied against the KSDZ employer's qualified tax liability before sale or assignment. All sales and assignments must be approved by DCED.

Goals and Purpose

Act 48 of 2017 requires that all tax credit reviews published by the IFO shall discuss (1) the purpose for which the tax credit was created and (2) whether the tax credit is accomplishing its legislative intent. For this review, the IFO has established the goals and purpose of the KSDZ Tax Credit as follows:

Goals

- Reduce the number of brownfield sites in Pennsylvania through increased remediation and redevelopment efforts.
- Preserve greenspace by repurposing brownfield sites that are underutilized or abandoned.
- Enhance economic development through the creation of new jobs.

Purpose

- Encourage private investment in the remediation and redevelopment of former industrial and commercial sites.

Administration

DCED administers the KSDZ Tax Credit program and reviews applications. Applicants begin the process by submitting a letter to DCED requesting the designation of a site as a KSDZ. The letter must include:

- Legal name and taxpayer identification (ID) numbers for all property owners.
- Property location and size.
- Copy of executed SIA Consent Order and agreement with DEP.
- List of all tax parcel ID numbers located within the SIA.
- Description of the historical use and ownership of site along with a map of the site.
- Photos of the real estate parcels.
- Completed Parcel Affidavit certifying that the site had no permanent vertical structures as of July 1, 2011.

Once a site is approved, DCED issues the owner a letter that designates the parcel as a KSDZ, and employers operating within the zone may apply for the KSDZ Tax Credit. Applicants for tax credit must provide a complete application package that includes the following:

- Single Application for Assistance.
- Supplemental Information for the Single Application for Assistance.
    - Description of KSDZ business activity and investment (including amount) that the business has undertaken in the credit application year.
    - Confirmation that the employer is located in the KSDZ.

- Verification that each employee for which the credit is being claimed is a qualified KSDZ employee.
- Completed, signed and notarized Employment Affidavit confirming employment numbers.
- Spreadsheet for all employees (exempt and non-exempt) for which the KSDZ Tax Credit is claimed with names, addresses, Social Security numbers and hours worked.
- Copy of the W-2 Transmittal REV-1667 Form.[8]

Completed application packages must be received by February 1 to be eligible for credits earned in the previous year. Once the application is approved and jobs have been documented, DCED sends an award letter to the applicant specifying the amount of tax credit the applicant is eligible to receive and the period of time over which credits can be claimed. Award letters are submitted to DOR for application against the recipient's Pennsylvania state tax liability. DOR ensures that the tax credit is applied appropriately.

The administration of the KSDZ program requires 160 DOR staff hours and 120 DCED staff hours annually. The costs are nominal to both agencies.

Historical Data

To date, DEP has designated approximately 180 SIAs in 41 counties across Pennsylvania.[9] Although every KSDZ must be an SIA, not all SIAs meet the criteria for designation as a KSDZ. Currently, only two SIA sites have been designated as KSDZs. One site is located in Bethlehem and consists of 441 acres.[10] The other site is in Aliquippa and consists of 73 acres.

Although six firms have signed lease agreements for properties located within a KSDZ (all in the Bethlehem zone), only two firms have applied for credits under the KSDZ program. For calendar year 2020, those two firms were awarded $4.3 million in KSDZ Tax Credits on the basis of 2,049 jobs. It is unclear whether the remaining firms have simply elected not to apply for the tax credit, will apply at a future point or are ineligible for some reason. DCED indicates that other firms have expressed interest in moving to a KSDZ site but have yet to make a commitment. As a result, the amount of KSDZ Tax Credits awarded could increase in future years.

[8] Annual withholding reconciliation statement tax form.

[9] Note that additional Pennsylvania properties may be eligible for SIA status but were not yet designated. In order to qualify for KSDZ status, the site must have been designated an SIA prior to July 1, 2011.

[10] According to public property tax records, the KSDZ in Bethlehem had an assessed value of $3.1 million in the year that it was purchased by the current developer (2007), $3.1 million when it was designated a KSDZ (2013) and $36.4 million (after improvements) in 2020. The occupants at this location additionally benefit from the Local Economic Revitalization Tax Assistance (LERTA) program. The implications of the higher assessed value are not included in this analysis because it is confined to the impact of state programs on state tax revenues.

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Section 3: State Comparison

Due to the increased risk inherent to brownfield redevelopment projects, investors often require a higher rate of return to participate. This "brownfield premium" has been estimated as high as an additional 10 to 15 percent.[11] In response, states have implemented a wide variety of programs to incentivize brownfield remediation and redevelopment. Some programs are specifically targeted to contaminated former industrial/commercial sites and others are more general programs (e.g., Historic Preservation Tax Credits) that can also be used for brownfield revitalization. Most state programs focus on one or more of the following areas: (1) reducing lender risk by offering loan guarantees or environmental insurance subsidies, (2) reducing the borrower's cost of financing via subsidized interest, (3) releasing the developer/owner from liability for approved remediation and (4) offering tax abatements and credits to reduce the overall cost of redevelopment.

State Brownfield Programs

In Pennsylvania, the Land Recycling Program provides grants and low interest loans to cover up to 75 percent of the cost of completing an environmental study and cleanup under the Industrial Sites Reuse Program. PENNVEST also offers low-interest loans for the remediation of water quality to facilitate the reuse or sale of industrial and commercial properties. Due to the broad array of programs available in Pennsylvania and other states, the table below provides detail on redevelopment tax credits only.

Table 3.1
Brownfield Redevelopment Tax Credits

State	Rate	Base	Project Cap
Colorado	30-40%	Remediation costs	None
Connecticut	100%	Business tax liability from on-site operations	None
Delaware	$650-$900	Per qualified employee hired and $100,000 invested	None
Iowa	24-30%	Qualified investment in a brownfield site	$100,000
Kentucky	25%	Expenditures made at a qualifying property	$150,000
Massachusetts	25-50%	Net response and removal costs	None
Mississippi	25%	Remediation costs	$150,000
Missouri	100%	Cost to remediate the project	None
New York	12-22%	Cost of site prep, tangible property and water remediation	None
	25-100%	Employment factor multiplied by eligible property taxes	None
	50%	Environmental remediation insurance premiums	$30,000
Pennsylvania	$2,100	Per qualified employee	None
Tennessee	50-75%	Purchase price of property for qualified project	None

Source: CCH IntelliConnect and various state websites.

[11] "Analysis of Pennsylvania's Brownfields Program," Bartsch, Charles, Northeast Midwest Institute (December 2003).

Eleven states offer a tax credit to incentivize the remediation and redevelopment of former industrial (brownfield) sites. Some states (e.g., Colorado and Mississippi) provide a credit as a share of remediation costs. Other states (e.g., Iowa and Kentucky) provide credit as a portion of qualified investment or expenditures at the site. Delaware provides a credit of $650 to $900 for each employee hired and another $650 to $900 for each $100,000 invested at the site. Since the program's inception in 1995, the Delaware credit has gone largely unused.[12] New York provides multiple credits that are available to offset redevelopment costs, property taxes and environmental insurance premiums.

Literature Review

As part of its analysis, the IFO reviewed relevant research on brownfield remediation and redevelopment incentives. The IFO found a lack of recent literature and many older reports that were available were based on limited case studies. The text that follows provides a summary of three studies to highlight findings and trends that may still be applicable to current brownfield remediation efforts.

The Environmental and Economic Impacts of Brownfields Redevelopment (Working Draft) (2008)

A paper by the Northeast Midwest Institute and funded through a grant from the United States Environmental Protection Agency analyzed existing research to quantify the environmental, economic, community and fiscal effects of brownfield redevelopment. The paper notes that between 55 and 80 percent of brownfield redevelopment projects involve some level of public subsidy and concludes that every $1 in public funding leverages $8 in total investment. On average, remediation costs consume 7 percent of total funds invested, but the cleanup and redevelopment of properties can lead to a 5 to 15 percent increase in property values within 0.75 miles of the former brownfield site. The study also notes that there are some savings associated with brownfield redevelopment versus new development, as the former industrial property typically has some level of infrastructure already in place (water, sewer, building foundation, etc.) The savings relative to a new property is potentially 10 to 35 percent. In addition, one acre of redeveloped brownfield has been estimated to conserve 4.5 acres of greenfield. The paper also looked at the use of the remediated properties and how it is shifting from industrial to other uses (e.g., residential, retail, office and mixed use) over time.[13]

New York State Brownfield Cleanup Program (2014)

A report prepared by Redevelopment Economics for the New York Developers Brownfield Alliance quantified the economic, fiscal and environmental impact of New York's Brownfield Cleanup Program (tax credit). This study found that more than 50 percent of redeveloped sites were utilized for non-industrial purposes and that every $1 of tax credit leveraged $9.64 in total investment. The analysis utilizes IMPLAN to estimate that $188 million in tax credits generates $152 million annually in state tax revenues (direct and indirect impacts). However, the analysis assumes that none of the projects would have occurred in the absence of the credit (i.e., 100 percent are incentivized) and does not consider an alternate use of the state funds.[14]

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12 "2019 Delaware Tax Preferences Report," see https://financefiles.delaware.gov/Reports/TaxPref/4-CIT-2019.pdf.
13 "The Environmental and Economic Impacts of Brownfields Redevelopment (Working Draft)," Northeast Midwest Institute (July 2008).
14 "New York State Brownfield Cleanup Program," Redevelopment Economics (February 2014).

The Federal Brownfields Tax Incentive, Case Studies and Analysis of Impacts (2015)

Another report by Redevelopment Economics and prepared for the New York City Office of Environmental Remediation performed a case study analysis of 17 projects in 11 states that were certified under a now expired federal Brownfields Tax Incentive. This limited case study found that the mean and median percentage of cleanup costs was 12 and 8 percent of total development costs respectively, and that every $1 of Brownfields Tax Incentive leveraged $47 of spending from other sources. The report projects that an estimated $31 million in federal spending on the 17 projects generated $162 million in annual federal tax revenue. The analysis assumes that none of the projects would have occurred in the absence of the tax incentive.[15]

[15] "The Federal Brownfields Tax Incentive, Case Studies and Analysis of Impacts," Redevelopment Economics (September 2015).

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Section 4: Economic Analysis

The economic analysis contained in this section is based on KSDZ Tax Credit awards for tax year 2020 and uses the IMPLAN state economic model.[16]

A key parameter that drives the economic impact of any tax credit program is the share of spending actually incentivized by the credit. To the extent that the spending would have occurred regardless of the program, the tax credit is a windfall and has negative economic implications because the state could have used the funds for another purpose. Job creation/spending is only incentivized by the KSDZ Tax Credit if it meets all of the following criteria:

- Jobs were not transferred from another in-state location.
- Without the tax credit, the employer would have located outside the state. If the employer would have selected another in-state location in the absence of the tax credit, then the credit did not generate new economic activity on a statewide basis.
- The decision to locate within the zone was tipped by the tax credit and the firm would not have opened a new facility in the state otherwise (i.e., the tax credit was the decisive factor, not one of many pertinent factors).[17]

In the case of the KSDZ Tax Credit, the IFO spoke to the two credit recipients for information on their site selection process. Although the tax credit was cited as a material factor in their decisions, other factors were considered, including: geographic proximity to customers, the availability of real estate, labor costs, lease costs, real estate taxes, personal property taxes and sales taxes. Occupants of the Bethlehem KSDZ also benefit from the Local Economic Revitalization Tax Assistance (LERTA) abatement program.[18] As a result, the IFO is currently unable to determine the actual share of new economic activity that is incentivized solely by the KSDZ Tax Credit program, and additional data are needed to reliably quantify that parameter.

For the KSDZ Tax Credit to be fully self-financed (i.e., breakeven), 39 percent of the credits must incentivize new activity. That is, 39 percent of the tax credit must go to firms where the credit is the decisive factor that tips the decision to locate in Pennsylvania and more specifically, within the zone. This must occur because other positive attributes (e.g., location, workforce, local tax benefits) do not depend on the tax credit and firms can benefit from those factors regardless of the credit. **Table 4.1** contains the economic impact analysis for this "breakeven" point. Based on the above referenced criteria, conversations with stakeholders, limited claimants, lack of applicable research and the fact that the credit offsets roughly 3 to

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[16] IMPLAN is an economic input-output model that captures the interrelationships between individual sectors of state and local economies. It incorporates the most recent data published by the U.S. Bureau of Economic Analysis on supply chains and economic multipliers. The model produces static impact estimates because various technical parameters (e.g., relative price levels and migration patterns) are assumed constant.

[17] For this criterion, other benefits supplied by or inherent to the KSDZ cannot be included (e.g., location, largely ready-to-use infrastructure, other tax benefits) because those could still be offered without the KSDZ Tax Credit. The $2,100 wage subsidy must be viewed in isolation.

[18] All KSDZ activity to date has occurred at the Bethlehem site. This implies that other factors (e.g., labor costs, proximity to customers, LERTA, etc.) also drive location decisions. All things being equal, if KSDZ designation solely incentivizes location decisions, one would expect to see activity at both sites.

4 percent of annual labor costs, the IFO could not reliably determine a single value or range of values for the share of activity that is incentivized solely by the tax credit.[19]

The text that follows provides a brief description of Table 4.1 based on line number. For ease of analysis, the computation assumes that all tax credits are awarded and claimed in the same year. Adjusting for actual delays between award and utilization would not change the overall results of this analysis.

Line 1 For tax year 2020, the KSDZ Tax Credit was awarded for 2,049 jobs.

Line 2 Annual wages associated with KSDZ Tax Credit jobs ($102 million).

Line 3 The analysis computes the incentivized share (39 percent) necessary for the credit to be self-financed (i.e., the credit pays for itself).[20,21] This is referred to as the breakeven scenario.

Line 4 Line 1 multiplied by line 3.

Line 5 Line 2 multiplied by line 3.

Line 6 The jobs multiplier from the IMPLAN model. For each job incentivized by the tax credit, another 0.86 jobs are generated as the new spending reverberates through the state economy. These impacts are known as indirect and induced effects.[22]

Line 7 Total full- and part-time jobs created under the breakeven scenario.

Lines 8 through 12 display the economic impact attributable to the portion of the tax credit that incentivizes new activity (i.e., the breakeven point of 39 percent), less the impact from the alternative use of state funds or the **net economic impact** of the tax credit.[23] All metrics are computed under the breakeven scenario. The net economic impact assumes that state discretionary spending is reduced and the monies used to finance the tax credit would have otherwise been spent on education and health care.[24]

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[19] Although the tax credit offsets roughly 3 to 4 percent of labor compensation costs, it can be claimed for up to 10 years if the firm continues to reside in the zone.

[20] The 39 percent factor represents the year 1 breakeven scenario based on wage data supplied by the recipients. However, if jobs are maintained for 10 years, then the nominal economic return would increase each year due to higher wages, while the annual cost to the state would not change. For example, if wages grew by 2.5 percent per annum, then the economic return would also grow by roughly (1.025 ^ 9) - 1 = 25 percent by the final year, while the state subsidy did not change. If the firm remained in the KSDZ the entire 10 years, then the average breakeven percentage would be closer to 35 percent. The analysis uses the year 1 percentage because it is not yet clear that firms will remain in the zone for the entire 10 years to receive the wage subsidy. From the firm's perspective, the real value of the constant subsidy also erodes over time.

[21] The impact of the tax credits on the location decision is "all or nothing." That is, they either were or were not the decisive factor that tipped the decision to locate within the zone and the firm would have otherwise located out of state. Recipients noted that the tax credit was one material factor among many and did not opine on its decisiveness.

[22] The indirect effect represents the impact from other businesses that supply inputs to the KSDZ firms (i.e., the supply chain). The induced effect represents the impact from employees that spend their wages and business owners that spend higher profits.

[23] Under the balanced budget requirement, states must reduce spending or raise taxes to fund the tax credit. If the alternative use of the state spending is not incorporated into the analysis, then the net economic impact of the credit will be overstated.

[24] The state spending is reduced by 20 percent to reflect the fact that the portion used to pay state or public-school employee compensation includes pension contributions and employer and employee payroll taxes, which do not have immediate implications for the state economy. The alternative spending has a modest impact on tax revenues because that spending is not intended to generate short-term economic activity.

Line 8 Net incremental output or spending. These amounts represent the net output or spending by KSDZ firms, supplier firms, employees and others who receive spending as income and then respend those monies.[25]

Line 9 Net incremental Gross Domestic Product (GDP, also referred to as value added). The GDP impact is smaller than net output or spending because it does not double count sales that occur in the supply chain; it only reflects the value of goods and services purchased by final consumers.

Line 10 Net incremental labor income.[26]

Line 11 Net incremental full-time equivalent employment. When combined with the labor income impact, the results suggest an average annual wage of roughly $50,000.

Line 12 Net incremental tax collections (state portion only, excludes local taxes).

Line 13 Tax credits awarded.[27]

Line 14 The gross return on investment (ROI) for the tax credit. The gross return does not reflect other uses of the tax credit monies. Under a breakeven scenario, the gross ROI is $1.00 for every state dollar spent. A gross ROI of less than $1.00 indicates that the tax credit is not fully self-financed.

Line 15 The net return on investment (ROI) for the tax credit. The net ROI is $0.96 for every state dollar spent (line 12 divided by line 13). This figure represents a net positive return, because it deducts the tax revenues that would have been generated if the state funds had been used for other purposes.

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[25] The net incremental spending excludes the impact of spending associated with the development of the land (i.e., assumes that the land would have been developed regardless of the tax credit).
[26] Labor income includes employee compensation such as wages and salaries, employer taxes such as Social Security and unemployment compensation, and healthcare and pension benefits. It also includes income received by sole proprietorships, independent contractors and partnerships.
[27] The tax credit is effectively taxable because it reduces the firm's federal income deduction for state taxes paid. The displayed amount is not reduced for the higher federal income taxes that would result from claiming the tax credit.

Table 4.1
Breakeven Net Economic Impact of KSDZ Tax Credit

	Description	Value
1	Direct Jobs	2,049
2	Direct Wages	$102.0
3	Incentivized Share to Breakeven	39%
4	Direct Jobs	803
5	Direct Wages	$40.0
6	Jobs Multiplier	1.86
7	Total Gross Jobs Created	1,491
	Net Economic and Revenue Impact[1]	
8	Output or Spending	$216.2
9	Gross Domestic Product	$119.2
10	Labor Income	$88.8
11	Full-Time Equivalent Employment	1,355
12	Tax Revenues[2]	$4.1
13	Tax Credits Awarded	$4.3
	Return on Investment	
14	Gross ROI[3]	$1.00
15	Net ROI[3]	$0.96

Note: Millions of dollars.

1 Net Economic and Revenue Impacts include direct, indirect and induced impacts for the portion of the tax credit that incentivizes activity.

2 Tax revenues reflect state tax revenues only.

3 Gross and Net ROI are actual dollars per tax credit dollar spent. Gross ROI excludes alternative use of tax credit monies. Net ROI reflects alternative use of tax credit monies (see text).

Source: IFO computations based on data provided by tax credit recipients.

Section 5: Tax Credit Plan

Act 48 of 2017 directs the IFO to review tax credits and develop a tax credit plan for all tax credits subject to review. The act states that tax credit plans should include performance metrics for each credit. The act does not specify any other elements of the tax credit plan. For this review, the IFO has defined the tax credit plan more broadly to include the following elements: (1) the general findings of the review, (2) specific recommendations and (3) key decision points for policymakers to consider.

General Findings

For the purpose of this review, the IFO met with agency staff who administer the tax credit and reviewed relevant research related to economic incentives for brownfield remediation and redevelopment. The following bullet points summarize the main findings of this research:

- States have implemented a wide variety of programs to incentivize brownfield remediation and redevelopment. Eleven states (including Pennsylvania) offer a tax credit to encourage remediation and redevelopment of brownfield sites. Some states (e.g., Colorado and Mississippi) offer the credit as a portion of remediation costs. Other states (e.g., Iowa and Kentucky) provide the credit as a share of qualifying investment in the property.
- Two Special Industrial Area (SIA) sites have been designated as KSDZs. One site is located in Bethlehem and consists of 441 acres and the other is in Aliquippa and consists of 73 acres. Only two firms receive KSDZ Tax Credits, although six are currently located in a KSDZ. It is unclear why the remaining four have not applied for tax credits.
- The analysis finds that the KSDZ Tax Credit is one of many factors considered in the location decisions of participating firms. For the KSDZ Tax Credit to be fully self-financed, 39 percent of the tax credits must incentivize new activity. That is, 39 percent of the tax credits must go to firms where the credit is the decisive factor that tips the decision to locate within Pennsylvania, and more specifically, withing the zone. The IFO is currently unable to reliably determine if this threshold is met based on two data points (credit claimants).
- Under current law, a firm that closes a non-KSDZ facility (laying off all current employees) and opens a new KSDZ site hiring new employees is technically eligible for the KSDZ credit based on the newly hired staff. Awarding credits for jobs that are moved from one Pennsylvania location to another does not incentivize new activity.

Specific Recommendations

Based on the general findings, the IFO submits the following recommendations to enhance the efficiency of the tax credit and improve its ability to achieve its goals and purpose.

KSDZ Tax Credits should be subject to annual program and project caps.

Currently there is no annual cap on the amount of tax credits that may be awarded. It is recommended that caps, either for the program or individual applicants or both, be implemented to limit the potential impact on state tax revenues.

Few firms participate in the KSDZ Tax Credit program. Modifications could be made to increase program participation.

The current program offers credits of $2,100 per employee for 10 years or $21,000 in total credits per job created. A credit of $3,000 per employee for seven years ($21,000) or $4,000 per employee for five years ($20,000) would result in roughly the same nominal cost to the state, but may increase incentivized activity by providing more funds up front. Once employers are established in the state (e.g., have a trained workforce, have invested in infrastructure), they are less likely to leave. Under current law, KSDZ employers must maintain operations for five full years or refund any tax credit monies received and remit a 20 percent penalty. That clawback provision could be maintained if a higher tax credit amount is offered over fewer years.

Consideration should be given to a revised due date for the KSDZ Tax Credit application.

Under current law, employers must apply to DCED for KSDZ Tax Credits by February 1 and DCED must notify the applicant by March 1 regarding any award. Providing the required payroll documentation just 30 days after the calendar year end is a challenge for some firms. A delay of the due dates to February 15 and March 15 (respectively) would help alleviate this difficulty.

Applicants should be required to demonstrate that jobs located in the KSDZ were not transferred from other in-state locations.

Awarding credits for jobs that are effectively moved from one Pennsylvania location to another does not incentivize new activity. To ensure that tax credits are only awarded for new employment, applicants should be required to demonstrate that jobs located in the KSDZ were not transferred from other in-state locations.

Key Decision Points

In addition to the specific recommendations above, policymakers should also consider general issues that merit discussion if the KSDZ Tax Credit is amended. These issues are strategic and will be related to the overall goals and purpose of the tax credit as envisioned by policymakers.

Private investment in the remediation of former industrial sites provides social, environmental and aesthetic benefits for the surrounding community. For example, remediation of a site for residential housing might not produce new jobs, but it could provide affordable housing, reduce blight and provide other long-term benefits to the community that will be retained even after the state subsidy expires. These investments might also motivate surrounding property owners to invest in and work to revitalize the community. These types of positive externalities should be considered in any future assessment of tax credit modification. A previous review of the Historical Preservation Tax Credit found that many of the benefits from the tax credit were externalities that flowed to other firms, residents and land holdings in the surrounding community.

Unlike brownfield remediation and redevelopment incentives in other states, the KSDZ Tax Credit program is limited to job creation at KSDZ locations and there is no explicit link between the tax credit and the cost of remediation. Under current law, property developers receive the same potential benefit whether the site requires minimum or extensive remediation. Policymakers should evaluate the purpose of the KSDZ program (i.e., is the goal job creation, brownfield redevelopment or both?) and ensure that the KSDZ Tax Credit incentive aligns with those goals (e.g., should site developers also receive a credit for a portion of site remediation and redevelopment costs?).

Policymakers might consider geographic location when establishing KSDZs. In order to truly incentivize new statewide activity, firms must locate within a zone, and potential alternatives cannot be other locations within the state. Mere shifting of activity within the state does not incentivize incremental jobs. That criterion is more likely to be fulfilled in regions close to state borders.

Some occupants of the KSDZ have yet to apply for credits and it is unclear why that occurs. If firms are unaware of the program, increased promotion could attract more firms to the zone. If firms are waiting to participate until employment within the zone is maximized, notification of the firm's intent to claim the credit could be required within 12 months of moving into the zone.

Conclusion

Act 48 requires that the IFO make a determination regarding whether the tax credit has achieved its goals and purpose. For this review, the analysis establishes the program goals as:

Goals

- Reduce the number of brownfield sites in Pennsylvania through increased remediation and redevelopment efforts.
- Preserve greenspace by repurposing brownfield sites that are underutilized or abandoned.
- Enhance economic development through the creation of new jobs.

Purpose

- Encourage private investment in the remediation and redevelopment of former industrial and commercial sites.

In its current form, the goals of the KSDZ Tax Credit program include both site remediation and job creation. With two KSDZ designated sites (only one of which is developed) and two taxpayers that receive KSDZ Tax Credits, additional data points are required to determine if the program is accomplishing the specific goals or general purpose.

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Appendix

Performance-Based Budgeting and Tax Credit Review Schedule

Year	**Performance-Based Budgets**					
1	Corrections	Board of Probation and Parole	PA Commission on Crime & Delinquency	Juvenile Court Judges' Commission	Banking and Securities	General Services
2	Economic & Community Development	Human Services – Part 1	Health	Environmental Protection	PA Emergency Management Agency	State
3	PennDOT	Human Services – Part 2	State Police	Military & Veterans Affairs		
4	Education	Human Services – Part 3	Aging	PA Historical & Museum Commission	Agriculture	Labor and Industry
5	Drug and Alcohol Programs	Insurance	Revenue	Executive Offices	Environmental Hearing Board	Conservation and Natural Resources
Year	**Tax Credits**					
1	Film Production	New Jobs	Historic Preservation Incentive			
2	Research and Development	Keystone Innovation Zones	Mobile Telecom and Broadband	Organ and Bone Marrow		
3	Neighborhood Assistance	Resource Enhancement and Protection (REAP)	Entertainment Economic Enhancement Program	Video Game Production	Keystone Special Development Zones	
4	Educational Tax Credits	Coal Refuse and Reclamation	Mixed Use	Community-Based Services		
5	Resource Manufacturing	Brewers'	Computer Data Center	Manufacturing and Investment	Waterfront Development	Rural Jobs and Investment

IFO Independent Fiscal Office

Tax Credit Review Mandate

Act 48 of 2017 is the Performance-Based Budgeting and Tax Credit Efficiency Act. The act requires the Independent Fiscal Office (IFO) to review tax credits based on a five-year schedule determined jointly by the Secretary of the Budget and the Director of the IFO. The act specifies that the schedule must ensure that tax credits are subject to a review by the IFO at least once every five years. The IFO will submit reviews to the Performance-Based Budgeting (PBB) Board and the Chairs of the House and Senate Finance Committees and make the report available to the public through its website.

The act specifies that reviews shall contain the following content:

- The purpose for which the tax credit was created.
- Whether that tax credit is accomplishing the tax credit's legislative intent.
- Whether the tax credit could be more efficiently implemented through alternative methods.
- Any alternative methods which will make the tax credit more efficient if necessary.
- The costs of providing the tax credit, including the administrative costs to the Commonwealth and local government entities within this Commonwealth.

The act also specifies that the IFO shall develop a tax credit plan for all tax credits subject to a review. The plans should include performance measures, and where applicable, the measures should reflect outcome-based measures (including efficiency measures), measures of status improvements of recipient populations, and economic outcomes or performance benchmarks against similar state programs or similar programs of other states or jurisdictions.

Note on Return on Investment

An important metric used by many studies to assess the effectiveness of tax credits is the gross or net return on investment (ROI). The **gross ROI** is the ratio of all new tax revenues generated by the tax credit to the dollar amount of the tax credit. That metric does not consider alternative uses of state funds and is best used to determine the portion of the tax credit that is self-financed (i.e., "pays for itself"). The **net ROI** is a similar ratio, but the numerator deducts the tax revenues that would have been generated if the state funds had been used for a different purpose such as local education, road repairs or tax cuts. The gross and net ROI are useful metrics, but they are limited because the ultimate objective of most tax credits is to generate economic activity and jobs that would not otherwise exist, as opposed to generating a net profit for the state.

If a tax credit was fully self-financed or paid for itself, two strong conditions must generally hold. First, nearly all of the activity undertaken by firms that receive the credit must have been motivated by the credit and not other factors. That is, the tax credit must be the factor that tips the decision of a firm to locate or expand in the state. Second, the economic activity induced by the tax credit must generate sufficient new tax liability (through direct, indirect and induced effects) to offset the entire tax credit.

For example, assume that a new firm locates in a state and would not have done so without the tax credit. The firm qualifies for a $1 million tax credit, and all new activity attributable to the tax credit generates $500,000 of tax revenue, either from the firm and its employees or from others (firms in the supply chain, other secondary effects). The firm sells the residual tax credit that it cannot use to another firm that can use it. The net cost to the state of the new economic activity is then $500,000. Hence, even if it were true that all firms receiving a tax credit were fully incentivized by the credit and the new activity would not have otherwise occurred, they must still also generate or cause sufficient new tax liability (both directly and indirectly through supplier firms and induced spending by households) to offset the tax credit. If they do not, then there is a net cost to the state.

An illustrative computation demonstrates the amount of new activity that would need to be generated for a tax credit to be self-financed. In general, personal income tax and sales taxes are by far the main state taxes that will increase to offset the cost of a tax credit. Assume a $1 million tax credit that had an equal impact on both taxes in terms of new revenue. In order for the tax credit to be self-financed:

- Labor earnings would need to increase by $500,000 / 3.07% = $16.3 million if all earnings were subject to Pennsylvania personal income tax. An average wage of $55,000 implies 296 new full-time employees.
- Total purchases (sales or output) would need to increase by ($500,000 / 30%) / 6.0% = $27.8 million if 30 percent of any new spending was subject to state sales tax.[28] The computation may or may not include any "first round" spending by the firm that qualifies for the tax credit. Typically, most expenses that qualify for a credit are for labor or are not subject to state sales tax (i.e., various services, contractors).

[28] The 30 percent assumption is an average spend on goods and services subject to state sales tax based on data from the U.S. Bureau of Labor Statistics Consumer Expenditure Survey. The computation is based on consumer spending patterns, and the actual percentage could be different than 30 percent.

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