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Ohio Historic Preservation Tax Credit Economic Impact Study

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OHIO HISTORIC PRESERVATION TAX CREDIT ECONOMIC IMPACT STUDY

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Table of Contents

List of Figures

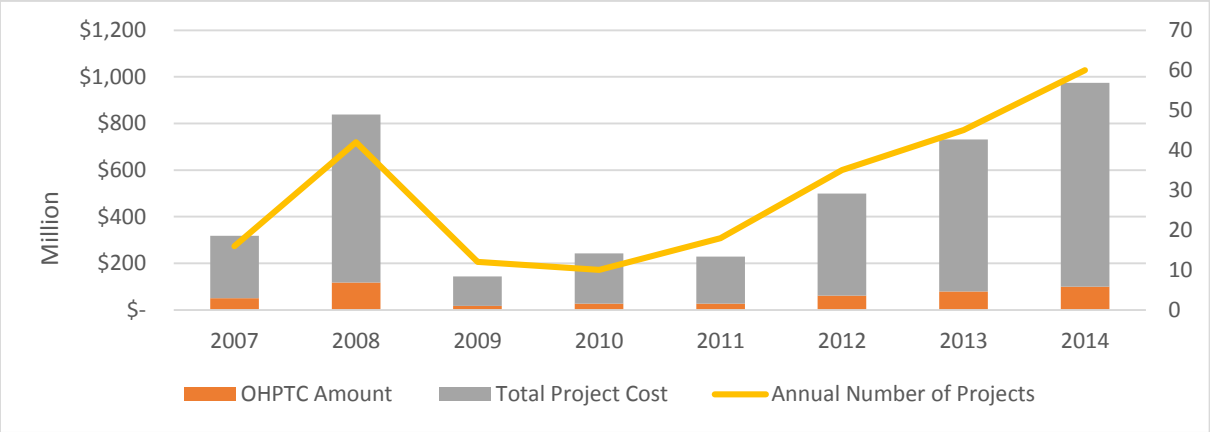
List of Tables

Executive Summary

In the sunset of the 1990s and beginning of the Millennium, historic designation of properties has become an important tool increasingly used to preserve cultural heritage, revive central-city neighborhoods, and stimulate community economic development. Many academic studies illustrated that historic preservation has a positive impact on property values (Zahirovic-Herbert and Chatterjee, 2010; Leicheanko et al., 1999; Clark and Herrin, 1997; Schaeffer and Millerick, 1991).[1] Since 2005, historic preservation became part of the sustainable growth concept emphasizing property values, the reuse of historic buildings, integration of culture and multi-functional landscapes, and environmental stewardship. There is a scarcity of literature measuring direct economic benefits of historic designation outside of impact studies based on multiplier effect or research assessing community values of historic properties rehabilitation. Bowtz and Ibenholt (2009), Doyle (2010), Gleaser (2011), Mason (2008) and Snowball (2008) outlined the relationships between historic preservation and economic development; these studies inspired the research design for this study.

The Ohio Historic Preservation Tax Credit (OHPTC) Program is administered by Ohio's Development Services Agency to leverage the private redevelopment of historic buildings. The program provides a tax credit for the rehabilitation expenses incurred by owners of historically significant buildings located across the state. The tax credits subsidize up to 25% of qualified rehabilitation expenditures for historic rehabilitation projects, capped at $5 million per project (Figure I). Tax credits are awarded bi-annually in June and December. The credits are leveraged to supplement pre-existing financing, which can include private sources as well as the 20% Federal Historic Preservation Tax Credit. The state has a $60 million limit on its tax credit awards per fiscal year. In 2014, the state of Ohio extended the tax credit program by approving the catalytic project award, which provides up to $25 million in total tax credits (over 5 years) for especially large and impactful projects. One catalytic award may be approved each two-year state fiscal biennium, which is subject to the $60 million program cap.

Figure I. Ohio Historic Preservation Tax Credit Approved Projects



[1] See detailed references for the literature in Appendix A.

The objective of this study was to develop a set of metrics to evaluate the economic impact and the effectiveness of the OHPTC program. We exercised a conservative approach to assess a direct economic impact of state-supported historic preservation projects and used a number of different analyses to illustrate the results: descriptive analysis, financial cost-benefit analysis, economic impact analysis, and qualitative analysis (via six case studies).

Since the program was established in 2007, 238 projects have been approved, with the OHPTC program covering on average 14% of project costs, decreasing from its highest share of 19% in 2007. From 2007 to 2014, the total cost of projects approved under OHPTC program was $3.5 billion. Since the program's inception, the OHPTC program supported projects in 37 counties, with most located in Cuyahoga (29.0%) and Hamilton (28.6%) counties. By the end of 2014, 101 projects (42%) out of 238 approved projects were already completed and certified. From 2007 to 2014, the program stimulated additional external funding of $3.16 billion, attracting $6.20 of additional private and federal investments per each dollar spent in the form of tax credits under the OHPTC program.

According to the survey of property owners and managers,[2] the projects approved by the end of 2014 generated almost 9,000 construction jobs during the 2008-2015 time period, and projected another 300 construction jobs for future work in 2016 to 2017. While the construction jobs are temporary, the approved OHPTC projects cumulatively created 14,350 long-term operational jobs by the end of 2015.

These results were supported by the analysis of data recorded in Ohio Quarterly Census of Employment and Wages (QCEW) – a government program that publishes a quarterly count of employment and wages reported by employers.[3] Overall, OHPTC projects generated additional employment, increased the number of business establishments, and illustrated that people working for businesses registered in renovated buildings earn higher wages after project completions.[4] The QCEW data analysis includes only businesses registered at addresses of OHPTC-renovated properties, which might not count people working in these buildings for companies registered elsewhere.

From 2008 to 2014, total employment of businesses registered at project buildings increased by 3,612 jobs (a 58.3% growth) (Table I) and generated 70 more business establishments (a 50% increase), while adding $201.4 million in total wages (57.5%, accounting for inflation). The biggest increases of all three indicators were experienced in Cleveland and Cincinnati – cities with the largest number of earliest completed projects that had additional time to attract business activity.

The data are less conclusive for the impact of OHPTC-supported projects on business employment and wages in surrounding areas, which captured about 10 times more businesses than those registered in the renovated buildings. Surrounding businesses lost jobs and establishments during a period that coincided with nation-wide economic recession of 2007-2009.[5]

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[2] Source: Survey Questionnaire for owners, managers, and developers in Appendix B.
[3] Source: The Bureau of Labor Statistics: http://www.bls.gov/cew. ODJFS.
[4] These data based on employment, number of establishments and wages recorded in the Quarterly Census of Employment and Wages and does not include self-employed, student employment, and a few other categories of employment.
[5] For the description of this recession visit the National Bureau of Economic Research, http://www.nber.org/cycles/sept2010.html. See more explanations in section 4.

Table I. Dynamics of Employment in Businesses Registered at the OHPTC Project Buildings, 2008-2014

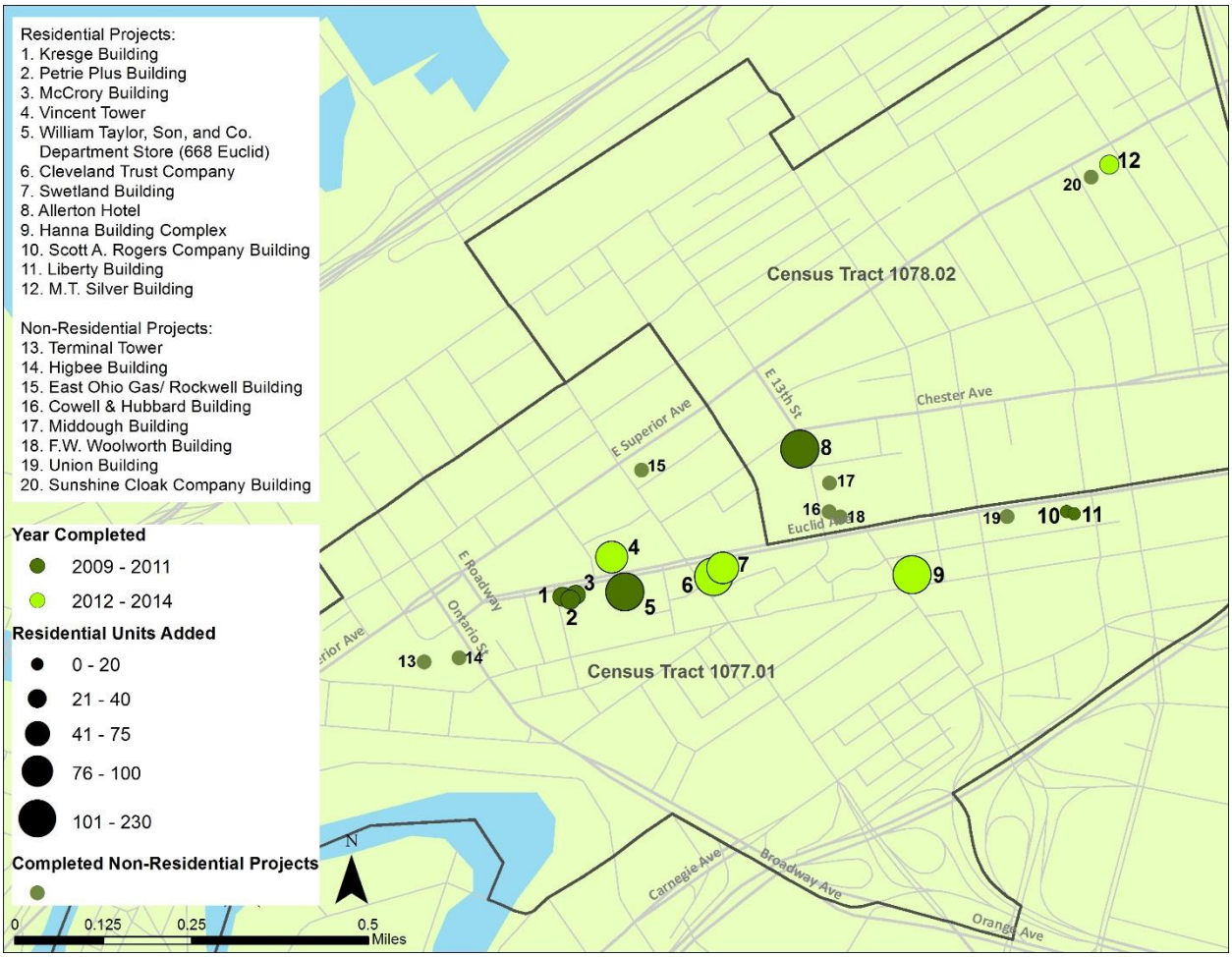
Category of Employment	Geography	Employment		Change	Percent Change
		2008	2014	2008-2014	2008-2014
Retained	Cincinnati	74	151	78	51.3%
Retained	Cleveland	2,061	3,293	1,231	37.4%
Retained	Columbus/Akron/Youngstown	275	291	16	5.6%
Retained	Other areas	173	179	6	3.2%
Retained	All areas	2,583	3,914	1,331	34.0%
"New"	All areas		2,281		
Total	**All areas**	**2,583**	**6,194**	**3,612**	**58.3%**

Source: Quarterly Census of Employment and Wages (QCEW).

Two census tracts in downtown Cleveland show the most reliable statistics on population gains in proximity to OHPTC projects. These tracts are in downtown Cleveland where a few new-build residential construction projects and a number of non-residential projects occurred between 2007 and 2013 (Figure II). A total of 7 residential OHPTC projects were completed in these two tracts, adding a total of 531 residential units. These two tracts added a combined population of 1,888 residents between 2000 and 2010. The American Community Survey estimates showed an addition of 1,400 residents between 2006-2010 and 2009-2013.

Cleveland has the earliest certified projects completed with OHPTC, and therefore allows the longest interval between the time when projects were completed and when the population dynamics were measured. Moreover, a number of downtown Cleveland projects were located within close proximity of each other and perhaps created a scale effect where consumer confidence was gained due to updates in multiple properties (both residential and non-residential). In Cleveland, tract 1077.01 added 709 residents between 2000 and 2010, and 381 (25%) between ACS periods, compared to the 332 units added through six projects in the tract between 2009 and 2011. Tract 1078.02 added 1,179 residents between 2000 and 2010, and 1,019 between ACS periods. The one tax credit project in the tract added 199 residential units between 2009 and 2011.

Figure II. Location of Residential and Non-Residential Projects within Census Tracts 1077.01 and 1078.02 in Cleveland



Consistently with other research conducted at the national and state level, our results illustrated the increase in the OHPTC-renovated property value and the values of surrounding properties. Our analysis was based on the data collected from County Auditor and Treasurer Records on 71 projects certified for completion before 2014.[6] Research results on OHPTC properties illustrated that the taxable value of project parcels increased by about $208 million overall, or 258%, while adjacent and radial parcels[7] increased their values by 12% and 26%, accordingly (Table II).

[6] The projects selected for this analysis were certified and completed by the end of 2014 to allow one full year (2014) for the assessment to be completed and recorded in the Auditor's data.

[7] Radial parcels are those not adjacent to the project parcel(s) but located within 150 feet based on the center of a parcel.

Table II. Taxable Property Valuation Before and After OHPTC Projects

Parcel Location	Before Project	Most Recent	Change	Percent Change
Project Parcels	$80,620,775	$288,642,708	$208,021,933	258.0%
Adjacent Parcels	$253,270,850	$283,980,350	$30,709,500	12.1%
Radial Parcels	$58,986,640	$74,072,790	$15,086,150	25.6%

Source: County Auditor and Treasurer Records.
Note: based on 71 certified projects with certified approval dates before 2014. Values are summed across individual projects.

Changes in property values for renovated OHPTC projects also triggered an increase in taxes collected from OHPTC projects' parcels. Moreover, not only were the collected taxes higher from renovated properties, both adjacent and radial parcel properties yielded sufficiently higher tax revenues. Taxes collected from properties on project parcels increased by about $7.2 million overall, or about 355% (Table III). Taxes rose by about 55% on adjacent parcels and by 30% on radial parcels.

Table III. Property Taxes Before and After OHPTC Projects

Parcel Location	Before Project	Most Recent	Change	Percent Change
Project Parcels	$2,020,071	$9,193,941	$7,173,871	355.1%
Adjacent Parcels	$6,796,339	$10,538,402	$3,742,063	55.1%
Radial Parcels	$1,510,623	$1,961,230	$450,607	29.8%

Source: County Auditor and Treasurer Records.
Note: based on 66 certified projects with certified approval dates before 2014. Data for Lorain, and Mahoning counties were not available for this analysis. Taxes are summed across individual projects.

The growth in employment, business establishments, and population – when paired with significant increases in values and collected taxes from both project parcels and property from surrounding parcels – illustrates a clear positive impact of the OHPTC program on surrounding communities. Helping to preserve historic properties and reanimate economic activities in previously deteriorating buildings, the program supports renovation projects that have potential to catalyze economic and demographic regrowth.

Higher collected property taxes is only one part of benefits accounted for in a cost-benefit – another analysis completed in this study. This analysis uses a governmental approach methodology[8] and indicates

[8] The types of costs evaluated for the analysis included the amount of tax expenditures (i.e. the amount of tax revenues the state loses by providing the historic preservation tax credits), and administrative and compliance costs (i.e. how much money it costs the state to provide the credit and the amount of money beneficiaries spend to apply for and receive the credit – cost delegated by government to tax payers). The types of benefits evaluated

that starting in 2024, the OHPTC program should generate positive net benefits. The assessment shows that the costs of providing the credit have so far outweighed the monetary benefits for the state and local government. In general, the OHPTC program has generated approximately $90.3 million in benefits over the eight years since its inception in 2007, while the combined costs of providing the credit over the same time totaled approximately $201.1 million (including almost $28 million in compliance cost delegated by government to taxpayers to collect necessary information for providing tax credits).

The project estimates yield a positive net-results sooner with a lower discount rate (2.05%) and later with a higher discount rate (3.22%).[9] The OHPTC program is, however, very young. While costs of providing the credits were incurred even before the program officially commenced (in 2006-2007), the benefits began to accumulate during construction phase and mainly after the first projects were completed (not earlier than 2009). As more projects are completed, the benefits from the program have been shown to grow at an increasing rate, while most costs have remained stable during the last three to five years. Under the preferred analysis (2.80% discount rate), the benefits from the OHPTC projects are estimated to be around $956.4 million (mostly from property tax collections) over the next 15 years, while the costs will total approximately $486.3 million between 2016 and 2030. These changes will total an estimated $470 million in net benefits over the next 15 years.

Since the governmental approach of the cost-benefit analysis does not account for benefits to the communities and individuals, a multiplier-based economic impact modeling was used to project benefits to a broader business community and individuals. The OHPTC projects completed by the end of 2014 created approximately 12,200 direct and indirect jobs as an employment in operations of businesses in renovated properties and their suppliers (Table IV). Besides jobs in the real estate industry, the employment created in the supply chain adds workers to such industries as hospitality and restaurant services, maintenance and repair construction, services to buildings, investigation and security services, landscape and horticultural services and many others.

Table IV. Additional Direct & Indirect Operations Impact, 2015 (In 2015 USD$)

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	9,606	$977,859,720	$1,897,759,387	$1,522,258,124
Indirect Effect	2,608	$115,858,173	$199,752,881	$350,923,044
Direct + Indirect Effect	12,214	$1,093,717,893	$2,097,512,268	$1,873,181,168

Temporary construction jobs while estimated as an equivalent to annual employment created 3,244 of average annual jobs during the 2008-2015 time period (Table V). Over the last three years, 2013-2015, the annual estimated construction jobs were growing from 3,495 in 2013 to 3,693 in 2014 and 4,958 in

for the analysis include additional generated state and local tax revenues (including property, sales, and income tax revenues).

[9] Discount rate is the rate used to discount future costs and benefits to their present value.

2015. As a number of OHPTC projects would be growing, the annual employment in construction and operations of renovated building will also increase.

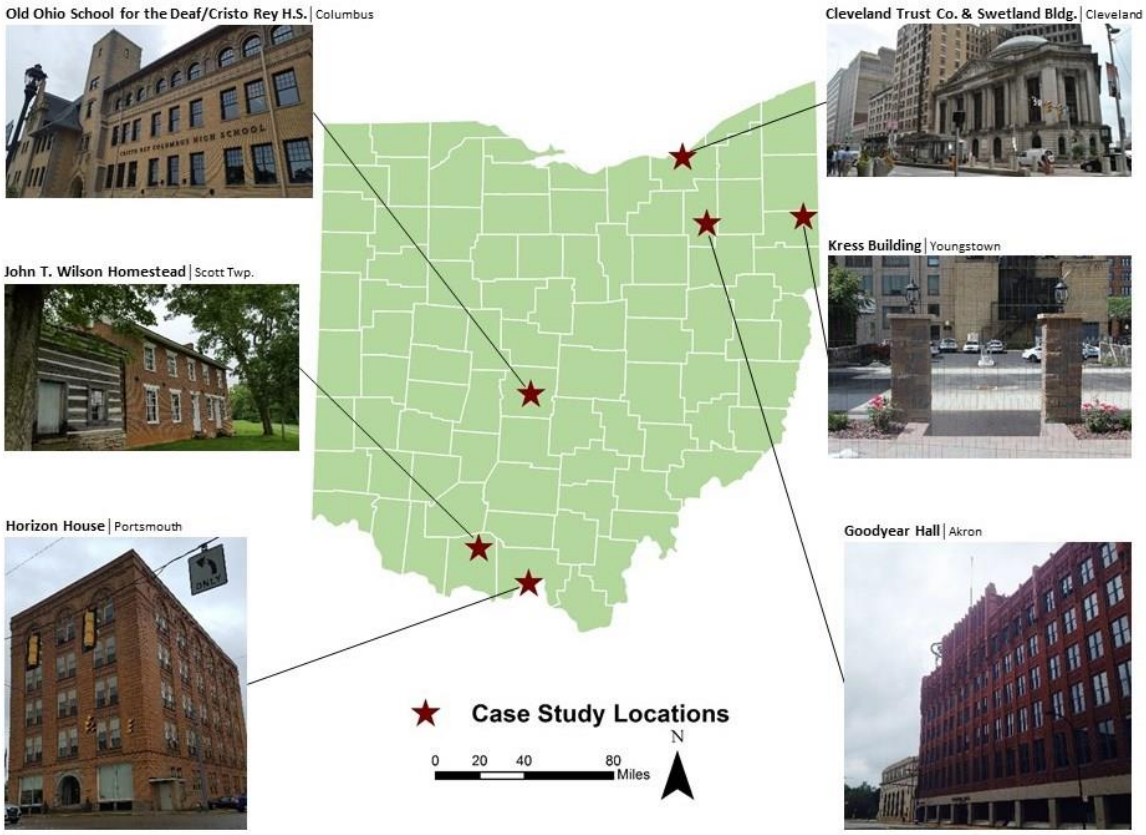
Table V. Direct and Indirect Economic Impact of Construction, 2008-2015

	Employment*	Payroll	Value Added	Output
Direct Effect	1,911	$974,940,997	$993,265,361	$2,710,717,438
Indirect Effect	1,333	$462,006,346	$796,099,050	$1,495,086,005
Direct + Indirect Effect	3,244	$1,436,947,343	$1,789,364,411	$4,205,803,443

*Average annual employment

Cost benefit analysis and economic impact of historic preservation is only one side of the story when examining the rehabilitation of historic buildings in communities. Therefore, through a qualitative assessment, we examined a variety of OHPTC properties and geographies across the state. An analysis of six case studies provides an in-depth understanding of OHPTC projects across the state, including four completed projects (Cleveland Trust Complex [Cleveland], Old Ohio School for the Deaf/Cristo Rey Columbus High School [Columbus], John T. Wilson Home [Adams County], and Horizon House [Portsmouth]), one in-progress project (Goodyear Hall [Akron]), and one un-funded project (Kress Building [Youngstown], now demolished) (Figure III).

Figure III. Map of Ohio Showing Case Study Locations



These selected case studies and many other historic building rehabilitations are helping to advance Ohio's 21st century economy by bringing much-needed mixed-use, hospitality, residential – including affordable and senior housing – and institutional facilities to communities across the state (Table VI).

Table VI. Case Study Summary

Case Study	City Size	General Location within Ohio	Total Project Cost	OHPTC	OHPTC Funding Round	Building Size (sq. ft.)
Cleveland Trust Complex	Large	Northeast	$230M	$31M	1	555,714
Horizon House	Small	South	$8.1M	$1.5M	3	29,975
Old Ohio School for the Deaf	Large	Central	$22.5M	$3.89M	10	81,145
John T. Wilson Home	Rural	South	$576,715	$61,756	1	2,800
Goodyear Hall	Medium	Northeast	$36M	$5M	10	292,000
Kress Building	Medium	Northeast	n/a	n/a	6 & 7 (denied)	n/a (demolished)

Universally, the case studies show that the OHPTC is a critical component of project financing, with direct economic and community benefits. For the Cleveland Trust Complex, a critical decision by the state to award what amounted to a catalytic credit (before such a credit existed), pulled the project from the brink of demolition. The resulting complex, including the upscale Metropolitan at the 9 hotel, the Heinen's Grocery Store in the Ameritrust Rotunda, and the residences at 1010 Euclid, has become a cornerstone of ongoing revitalization along the city's E. 9th Street corridor. The rehabilitation of the Old Ohio School for the Deaf as Cristo Rey Columbus High School has multiple community benefits, from bringing high-school students to downtown Columbus to reinvigorating a long-dormant property and catalyzing activity in an area of town with other important community uses - including the Columbus Public Library. The adaptive reuse of Goodyear Hall is anchoring the larger transformation of Akron's East End, while smaller projects such as the John T. Wilson Home in Adams County support tourism – a major economic driver in much of Ohio. Portsmouth's Horizon House has not only resulted in a high-quality, well-maintained property along the city's main street, but has also provided local senior residents with quality affordable housing in a walkable location.

The case studies also illustrate that the OHPTC has intangible benefits that are difficult to quantify. Interviewees from across the state articulated that it was important for the psyche of their community to preserve these structures. In the words of Peter Goffstein (*IRG, developer of Goodyear Hall)*: "Goodyear is Akron's history." Brandon Kline (*Geis Properties*), developer of the Cleveland Trust Complex, expressed a similar sentiment, arguing that one of the project's greatest benefits was shifting perceptions about downtown Cleveland's real estate market through Geis' success in "charging rents […] that everyone thought were unreal," with a 200-person waiting list. Across the board, it is clear that these buildings, while useful economic engines, are also intricately intertwined with the identity, meaning and heritage of the state's neighborhoods, towns and cities.

Perhaps more than any other, the Kress Building narrative illustrates the challenge of financing historic preservation under difficult economic conditions and the potential results of not funding projects with the OHPTC. In this case – after two unsuccessful applications for the competitive OHPTC – the building was demolished, and the property is now a parking lot along downtown Youngstown's main thoroughfare. The general sentiment about the loss of the Kress building was one of resigned sadness, stemming from the realities of overcoming weak market conditions and a bias against older urban centers in private sector financing. Furthermore, Youngstown has lost a key piece of its downtown core, as demolition is irreversible and permanent.

While developers and others have proposed possible improvements to the program, they also nearly universally agree that the OHPTC is a well-run, transparent, and relatively easy-to-use program. It is efficiently administered alongside the beneficial Federal Historic Preservation Tax Credit, streamlining the process of using both credits in tandem.

The case studies show the importance of the OHPTC to project success, with the demolition of Youngstown's Kress building offering a poignant example of the alternative. While each of the cases has tangible economic and community benefits, they also provide insight into the intangible benefits of preserving community heritage, transforming deteriorating properties into productive community amenities, and other psychological benefits not readily captured in economic models

The Ohio Historic Preservation Tax Credit program places the state of Ohio among front-runners in public policy by investing in historic heritage. This investment also aids in achieving community and economic development by stimulating additional private and federal investment to revitalize the states' cities and towns. The study confirmed that the OHPTC contributes to increased property values through building renovation, and illustrated increased employment and higher wages of workers in companies located within cites that received tax credits. Being very young (initiated in 2007) and accruing economic benefits starting only from 2009, the OHPTC program should generate positive net benefits by 2024. A very conservative analysis of costs and benefits indicates that over the next 15 years the program will generate $470 million in net benefits (exceeding the costs of approximately $486.3 million with the benefits around $956.4 million). Beyond the numbers, it is impossible to quantify all community and individual benefits attributed to resuscitating historic properties. Nonetheless, many stakeholders emphasized that through the OHPTC program, abandoned and deteriorating buildings were transformed into economic and community anchors renewing the culture, history and economy of Ohio.

1. Introduction

This report summarizes results of the study assessing economic impact of the Ohio Historic Preservation Tax Credit program. The study was conducted by researchers of the Center for Economic Development and faculty of the College of Urban Affairs, Cleveland State University. The research was funded by the Ohio Development Services Agency.

The study includes a number of analyses assessing different aspects of the OHPTC program. The descriptive analyses illustrate characteristics of the projects funded by the OHPTC program and address employment and population changes occurred in areas surrounding the properties completed before 2015 (most recent data available at the time of the study). This section also investigates property valuations and taxes collected from the properties before and after renovation. The case study section looks in depth at five completed projects that used OHPTC funding and one project which did not receive the tax credit. This section provides a qualitative analysis of the impacts of OHPTC-funded projects on their communities. The financial cost-benefit analysis evaluates the return on investment from the projects at the local and state level and addresses prospective analysis until 2030. The final section analyses the realized and expected economic impacts of these projects in terms of employment, payroll, output, and value added.

2. Methodology

The objective of the study was to evaluate the economic impact and the effectiveness of the OHPTC program. To achieve this objective, the study included descriptive analyses, qualitative analysis (via six case studies), financial cost-benefit analysis, and economic impact analysis. The research team examined data on the first 12 rounds of the OHPTC program (2007 to 2014) and used multiple secondary data sources. Some of the secondary data sources include Quarterly Census for Employment and Wages (QCEW), U.S. Census Bureau's Decennial Surveys and American Community Surveys, county auditors' property value and property tax data, and input-output modeling data from the IMPLAN system. The research team also collected data solicited from OHPTC-property owners and developers via an online survey. This section briefly outlines methodologies used in different components of the study; additional methodological details are provided in the corresponding sections of this report.

Descriptive Analysis

The descriptive analysis conducted in this study was twofold. Firstly, the research team illustrated OHPTC projects highlighting their different properties. Secondly, the research team analyzed the economic contribution of the OHPTC program in terms of employment, population, taxes, and property value growth by assessing these indicators in OHPTC-rehabilitated properties and their surrounding areas.

The description of OHPTC projects' properties was based on the data provided by OHPTC on program participants' applications and highlighted the number of projects and the projects' costs, distribution of the projects across Ohio, and the status of the projects (through the end of 2014). Using data derived from the survey of OHPTC property owners and developers (see below for methodology), the research team estimated construction and operational employment projections for each OHPTC project from 2008

to 2020. Based on provided responses, an algorithm was developed to impute construction and operational data for properties where survey responses were missing or incomplete.

The economic contribution of the OHPTC program to employment, population, property taxes, and property value growth was assessed by using pre- and post-intervention data of OHPTC properties.[10] All available data was utilized in this assessment for projects that completed OHPTC renovation, including values of properties, property taxes, population, and employment in at least a year before renovation started and a year after each project was completed. All data was assessed separately for OHPTC sites and for areas surrounding the project sites. The property assessments and property tax data were assembled based upon county assessors' reports.

Quantitative Data

Quantitative data for this project was collected from five major sources: (1) OHPTC programmatic data, (2) the QCEW database, (3) county auditors' offices, (4) U.S. Census Bureau, and (5) the survey of OHPTC properties owners and developers.

Initial data on the OHPTC projects and their characteristics was provided by the staff of the OHPTC program, which included information received from the applicants for the historic tax credits and property managers. For each project, detailed data was provided on the total cost of each project, the amount of tax credits offered by the state to each approved project, project status, project address, building size, type of a property, anticipated jobs created during construction, anticipated jobs created after rehabilitation, and other characteristics of the project and the property.

Additional information was collected from the QCEW database. This includes data on employment and wages of individuals at the establishment level who work at the OHPTC sites and those that are employed in neighboring businesses. The third large grouping of data was assembled from individual county auditors' offices. Data on assessed value of properties, taxable and exempt value, and property taxes was collected from these offices of each county where OHPTC properties were located. Demographic data on population and income was collected from the U.S. Census Bureau's Decennial Census and American Community Surveys (ACS).

Lastly, the research team deployed a survey of OHPTC properties owners and developers to supplement this data. The OHPTC survey questionnaire was designed to provide additional information beyond what OHPTC program staff collected from the applications by their review of each tax credit property. The survey of OHPTC properties owners and developers queried information on each OHPTC project, including building use before and after construction, the length of construction, operating and construction budgets before and after construction, and the usage of the tax credit. The OHPTC survey questionnaire was created and developed by the Center with advisement from OHPTC program's staff. For a copy of the questionnaire, see Appendix B. The survey was Internet-based, deployed through the survey software Qualtrics. The survey was conducted over a four-week period starting July 7, 2015, using a list of contacts and email addresses obtained from OHPTC staff. Contacts were emailed on consecutive Tuesdays in order

[10] Quasi-experimental design methodology.

to encourage participation. To facilitate greater response rates, the Center also contacted potential respondents via phone to encourage participation.

In all, there were 394 projects in the population surveyed for the study. For most OHPTC tax credit projects, there were two contacts listed: one consisting of the developer, architect, or contractor and the other consisting of the current operator of the property or property owner. The Center contacted both individuals for all projects in the hopes of gathering the most comprehensive information and having the highest response rates to the survey. If multiple respondents replied to the survey for one particular property, the research staff selected one respondent who submitted the most complete survey response to use for that property. Therefore, each OHPTC property only had one respondent counted, eliminating duplicate responses.

In addition, not all of the 394 OHPTC projects had unique contacts since many developers, architects, or contractors have made a business model out of conducting historic renovations. In all, there were 246 unique individuals contacted to take the OHPTC survey. There is not a one-to-one ratio of OHPTC projects to individuals participating in the survey; some properties were renovated by the same developers who provided multiple answers to the survey. In the end, 89 individuals responded to the survey and 108 surveys were usable for the final analysis.

It is important to note that all quantitative data has some limitations. For example, U.S. Census Bureau ACS data are estimates based upon survey responses and had margin of errors with all counts. Readers should be properly informed about the margin of errors in relation to measured values when examining this data. Another example of data limitations is that QCEW presents early assessments of employment on OHPTC sites for businesses. Since the process of renting renovated properties to business tenants might take some time, not all employment may be presented in QCEW data, especially for recently completed OHPTC projects. In addition, the researchers attempted to locate businesses based on their name via web information and addresses to include in the analysis. The QCEW database does not include self-employed individuals, and therefore presents a conservative count of employment.

Case Studies and Qualitative Data

The qualitative data was obtained from three sources: focus groups, interviews, and information available online or in printed documents about OHPTC projects and related properties.

Six focus groups were conducted to gather information for the case studies. Each group focused on one of the case study themes, including completed projects (mix of affordable and market-rate residential, commercial, mixed-use, and institutional projects from around the state), a project that is currently being rehabilitated using the program, and one project that was denied funding for the program. The research team also interviewed key people throughout the state on specific items related to the research project, speaking with state employees about the program, checking details with awardees, confirming data, and gathering further insights into how the OHPTC works in the state.

The case study section includes six cases to provide in-depth information of various project types in various contexts representing the diverse geography of Ohio. The case studies complement the larger, state-wide economic impact analysis and quantitative data. The six case studies included four completed projects, one in-progress project, and one project that applied for, but was not granted, OHPTC support.

Financial Cost-Benefit Analysis

To evaluate the overall effectiveness of the OHPTC program, the research team used a financial cost-benefit analysis. This analysis provides a more complete picture of whether the OHPTC program pays for itself based on generated state and local tax-revenues. Moreover, this section looks to answer the question of whether issuing the tax credits for rehabilitating historic buildings is an effective use of state resources. In this analysis, the research team estimated the net present value and internal rate of return on government investment in the OHPTC program.

The cost-benefit analysis was conducted from the governmental perspective, and therefore is different from traditional investor-centric cost-benefit analyses. The non-tax component of such analysis was evaluated in the economic impact analysis. The analysis was concerned with estimating the tax expenditures and additional tax revenues generated by completed projects.

The types of costs evaluated for the analysis included the amount of tax expenditures (i.e. the amount of tax revenues the state loses by providing the historic preservation tax credits), and administrative and compliance costs (i.e. how much money it costs the state to provide the credit and the amount of money beneficiaries spend to apply for and receive the credit). Despite the fact that compliance costs are paid by the developers, and current analysis considers only the benefits and costs incurred by government, compliance costs should be included in such analysis; they, together with administrative costs, represent total collection costs delegated by government to taxpayers to collect necessary information.

The types of benefits evaluated for the analysis include additional generated state and local tax revenues (including property, sales, and income tax revenues). These were estimated as the difference between the revenues received before and after the issuance of the tax credit. The benefits included tax revenues from the projects themselves, as well as the additional tax revenues from nearby properties. All costs and benefits associated with the credits were compared with the status quo (i.e. benefits and costs in the absence of the projects). The potential costs and benefits of the projects under construction were discounted to their present value. The costs and benefits of the completed construction projects were adjusted for inflation for the period after the construction is complete and before present time. They were discounted for the remaining years that add to the proposed 15-year total lifecycle of use. For example, the benefits and costs of a project completed in January 2010 would be adjusted for inflation until January 2015, and discounted to their present value until January 2025. The analysis was conducted with alternative discount rates. The analysis also simulated potential variations in the benefit component of the program (with potentially lower or higher tax revenues).

Economic Impact Analysis

The research team used two approaches to conduct the economic impact analysis. The first approach was to collect data that signified the direct economic impact of the program and the projects it has leveraged since the program's awards. In doing so, researchers identified and recorded real programmatic impacts using the survey data specific to each project (i.e., number of new employees in the building or surrounding businesses since the project completion, the number of increased occupancies in the renovated building, etc.).

The second approach included an assessment of the economic impact using a multiplier-based model, primarily to emphasize the indirect and induced effect of the projects. Based on data from the survey of OHPTC properties owners and developers, the available OHPTC applications, and final reports submitted to the state, an economic impact analysis was conducted on the OHPTC program. This analysis used IMPLAN software and data reflection input-output relationships between industries in Ohio. Impact was measured in terms of employment (number of jobs), labor income (household earnings), value added (value of goods and services produced in the economy less intermediary goods and services), output (value of goods and services produced in the economy), and taxes.

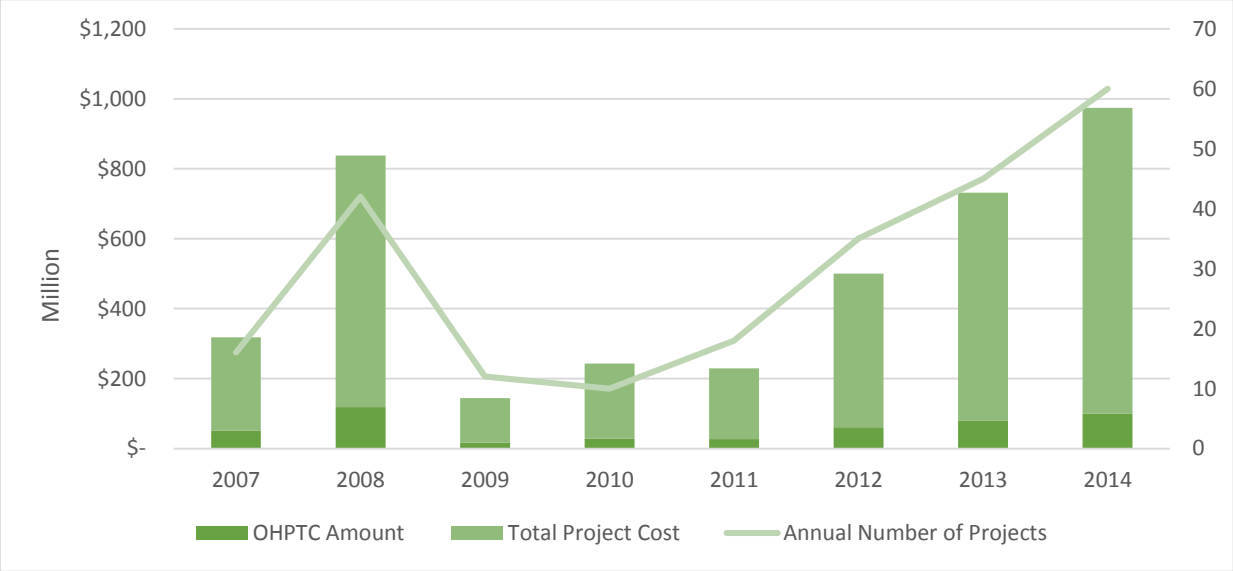
Three measures of economic impact (direct, indirect, and induced) are shown for each indicator. *Direct impact* refers to the initial value of goods and services, including labor, associated with the program within the state. These purchases are sometimes referred to as the first-round effect. *Indirect impact* measures the value of labor, capital, and other inputs of production needed to produce the goods and services required by the first round (second-round and additional-round effects). *Induced impact* measures the change in spending by local households due to increased earnings by employees in local industries who produce goods and services for all rounds of spending. Each measure of impact was categorized according to these three components, and the direct and indirect effect were addressed together, while the induced effect was discussed and reported separately.

3. Descriptive Analysis of the Ohio Historic Preservation Tax Credit Program

The Ohio Historic Preservation Tax Credit (OHPTC) Program is administered by Ohio's Development Services Agency to leverage the private redevelopment of historic buildings. The program provides a tax credit for the rehabilitation expenses incurred by owners of historically significant buildings located across the state. Eligible applicants for the credits are required to be owners or qualified lessees of historic buildings, as proven by registration under national, state, and/or local designating authorities. Upon completion, the rehabilitation must be of acceptable and appropriate quality, must be certified by the State Historic Preservation Office, and must meet certain standards set by the office of the Secretary of the Interior in order to receive the credits.

The tax credits subsidize up to 25% of qualified rehabilitation expenditures for historic rehabilitation projects, up to no more than $5 million (Figure 1). They are awarded bi-annually in June and December. The credits are leveraged to supplement pre-existing financing, which can include private sources as well as the 20% Federal Historic Preservation Tax Credit. The state has a $60 million limit on its tax credit awards per year. In 2014, the State of Ohio extended the tax credit program by approving the catalytic project award, which provides up to $25 million in total tax credits for especially large and impactful projects.

Figure 1. Ohio Historic Preservation Tax Credit Approved Projects



Since the program was established in 2007, 238 projects have been approved (Table 1), with the OHPTC program covering on average 14% of project costs, decreasing from its highest share of 19% in 2007. The total cost of projects approved under OHPTC program is $3.5 billion.

Table 1. OHPTC Projects Cost over Time (nominal $)

Year	Annual Number of Projects	OHPTC Amount	Total Cost of All Projects
2007	16	$50,721,390	$267,040,746
2008	42	$118,329,136	$719,430,862
2009	12	$17,097,327	$127,226,264
2010	10	$27,863,097	$215,380,235
2011	18	$27,230,143	$201,807,051
2012	35	$61,370,468	$438,577,741
2013	45	$79,551,985	$652,322,821
2014	60	$100,115,438	$873,562,564
Total	**238**	**$482,278,984**	**$3,495,348,284**

Since the program's inception, OHPTC projects have been approved in 37 counties (Figure 2), with most of the projects located in Cuyahoga (29.0%) and Hamilton (28.6%) counties; 101 projects (42%) out of 238 approved projects had already been completed and certified by the end of 2014 (Table 2). From 2007 to 2014, the program has stimulated additional external funding in the amount of $3.16 billion, creating an attraction of $6.20 per each dollar invested in the form of tax credits under the OHPTC program. [11]

[11] This number is consistent for inflated costs of the tax credit and total cost of projects.

Figure 2. OHPTC Projects by County

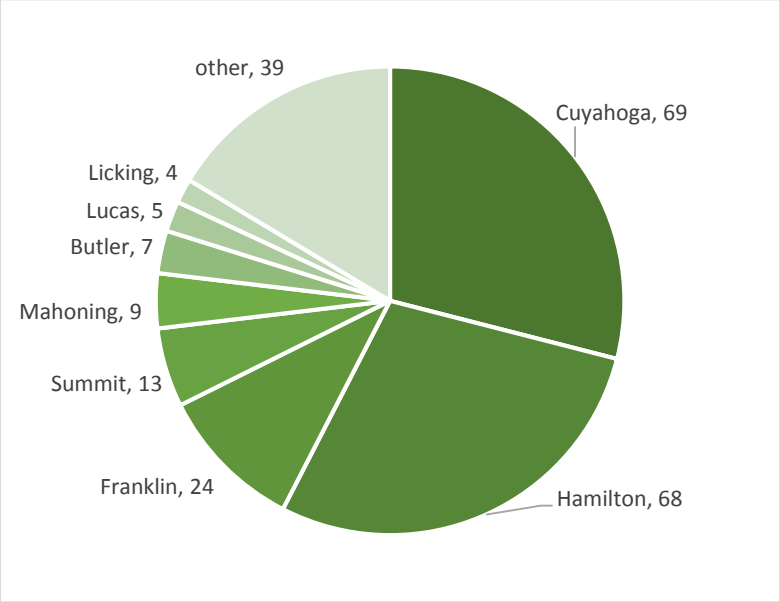


Table 2. Status of OHPTC Approved Projects, 2014

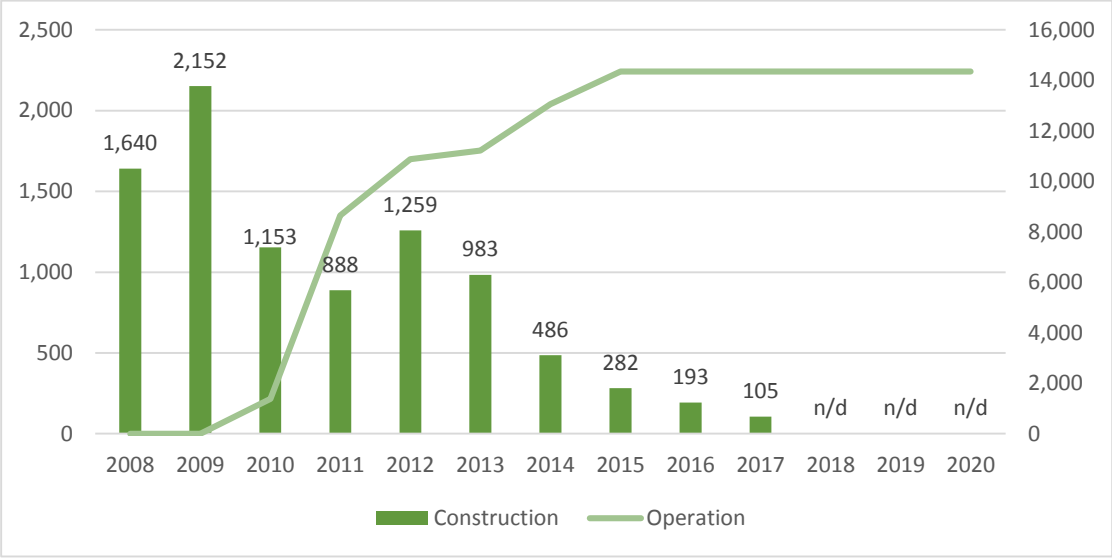
Project Status	Number of Projects	Pct. of Total
Certified	101	42.4%
Stage(s) Certified	2	0.8%
Certification Pending	6	2.5%
Near Completion	13	5.5%
Construction Underway	46	19.3%
Construction Pending	57	23.9%
Seeking Financing	13	5.5%
Total Number of Projects	**238**	**100%**

The approved projects proposed to create approximately 43,000 jobs; about 21,000 temporary construction jobs and 22,000 permanent operational jobs, as estimated by applicants at time of submission of proposals to the OHPTC program. Since not all projects are completed or even fully funded at the time of this report, all discussed numbers are partially projected. Most of the job estimates further discussed in this section are based on the survey administered for this study.[12] According to responses

[12] The OHPTC survey questionnaire was designed to provide supplementary information beyond what is collected by ODSA in their review of each tax credit property. Survey questions queried information for each OHPTC project, including building use before and after construction, length of construction, operating and construction budgets before and after construction, and the usage of the tax credit. Of those contacted, 89 individuals responded to the

recorded from developers, architects, and managers of the projects, about 9,000 construction jobs have been created in projects approved by the end of 2014, and approximately 14,350 annual operational jobs will be created by the end of 2015.

Figure 3. Construction and Operational Jobs Created by OHPTC Projects



Source: Survey Questionnaire for owners, managers, and developers (Appendix B). Construction and operational jobs are estimated based only on projects approved by the end of 2014. Both figures are likely to increase as more projects are approved in coming years. N/D – no data.

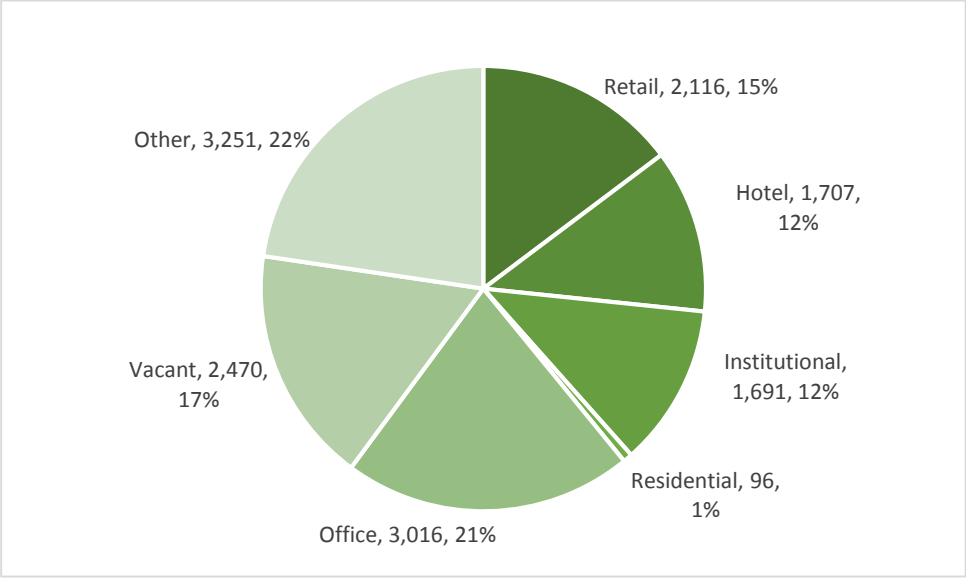
While construction-related employment lasts only for the duration of each project and is considered temporary, operational employment accounts for people who will work at the businesses located at renovated buildings. The expectations are that this employment will stay at the level (not increase or decrease) identified by survey respondents as employment at businesses re-opened or moved into renovated buildings after project completion (Figure 4 and Figure 5).

survey, and 108 surveys were usable for the final analysis. Several respondents submitted surveys for multiple separate projects for which they were responsible.

Figure 4. Estimated Operational Employment by Building Use (2010-2014 actual, 2015-2020 projected)

Source: Survey Questionnaire for owners, managers, and developers (Appendix B).

Figure 5. Projected 2015 Operational Employment by Type of Building Usage



Source: Survey Questionnaire for owners, managers, and developers (Appendix B).

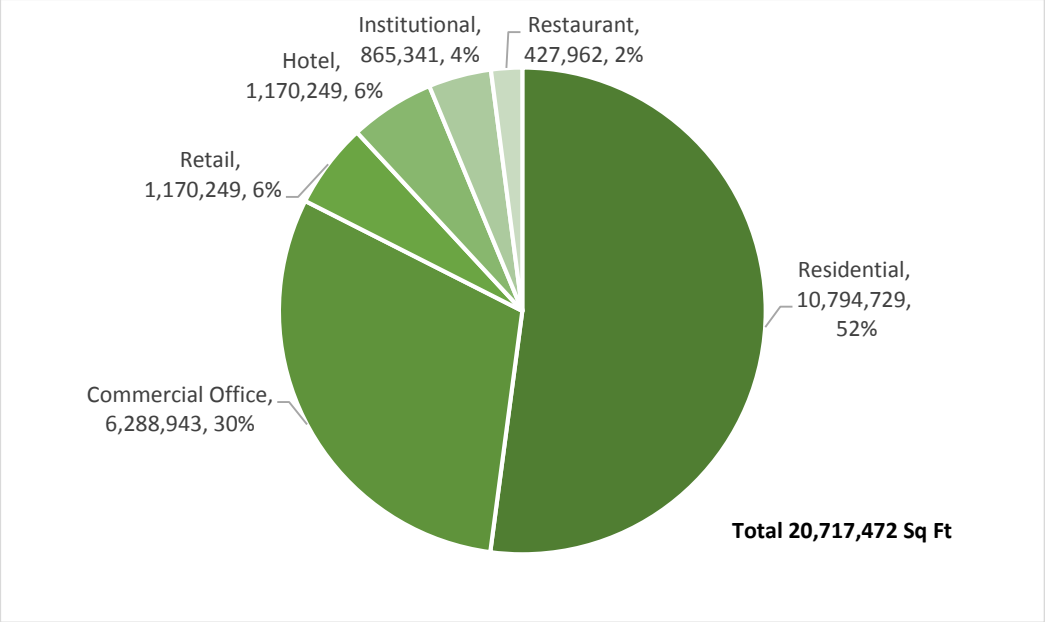
With the growing number of completed projects, total operational employment is increasing over time. The flattening of projected operational employment after 2014 is due to projections based only on

projects approved by 2014. As the number of projects completed after 2014 increases, operational employment will grow.

The percentage of projected 2015 total operational employment by use of renovated spaces is nearly evenly divided; 21% of positions (or 3,016 people) are located in offices, 15% (2,116) in retail stores, 12% (1,691) in different types of institutions and nonprofit organizations, 11% (1,707) in hotels, and 23% (3,251) in other types of businesses. While residential properties generate the largest growth in population relocating into newly renovated buildings, they generate the smallest share of employment: only 1% (or 96 workers). Approximately 18% of spaces available in renovated buildings are still vacant, in large part due to the recent nature of completion of a number of projects.

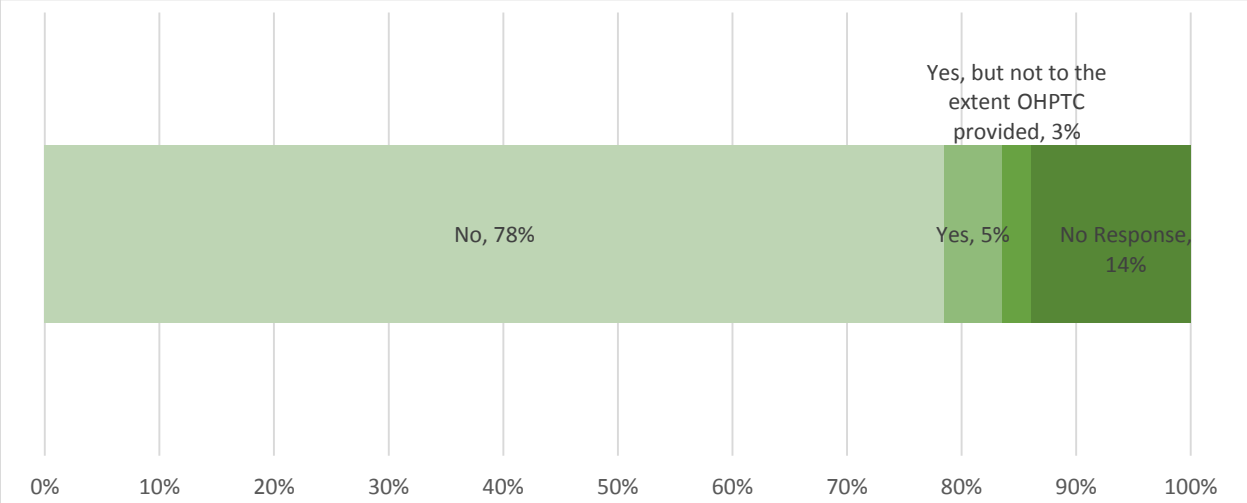
While the residential use of buildings generates the smallest operational employment, it holds the largest share of physical space (52% of total 20.1 million sq. ft.) (Figure 6). The second largest share of space is held by commercial use (30%). 13.3% (31) of all OHPTC project buildings include the development of units with affordable housing.

Figure 6. Space Created in Renovated Buildings, Square Feet



Moreover, only 20% of all buildings in OHPTC projects were in use the year prior to redevelopment; 78% of the buildings were vacant (2% of building use is unknown due to a fact that respondents did not answer this question). According to the survey responses, many of these buildings (78%) would have remained vacant had the OHPTC program not supported redevelopment (Figure 7).

Figure 7. Survey Answers to a Question If the Project Would Have Moved Forward without the OHPTC



Note: total number of responses – 79.

Similar information was received from the data collected on 73 rejected projects. This data was provided by Heritage Ohio board members who collected the data primarily via telephone survey. The applicants of 73 projects that applied for OHPTC but were rejected indicated that the large number of the renovations did not happen because of lack of OHPTC support. Out of 73 rejected projects, 24 were first-time applicants in Round 14, the latest round of OHPTC by the time when this data was collected. Out of the remaining 49 projects, 10 projects applied at least three times in previous rounds and were rejected due to various reasons, and 22 projects had submitted a previous application at least once. Repeated submissions for the tax credit indicate that projects could not be completed without the state support. The reasons for application rejections vary and are not investigated here.

However, there are two important takeaways from returning applicants. First of all, the cost associated with developing an application is substantial. This cost includes the processing fee, payments to third parties (lawyers or consultants), and time spent by a developer or a property owner devoted to learning the process and participating in the completion of application documents. Many projects which are rejected reapply for OHPTC support; the majority of projects require OHPTC funding as gap financing to begin renovation. Of 33 projects that applied more than once, 19 could not complete their projects without OHPTC funds, and only 7 proceeded with completion of the rehabilitation without the credits. Another 7 projects are considering changes in strategy or are scaling back from their initial scope in order to move forward without state support. Out of 55 rejected projects that provided information to this question, more than half (31 projects) are planning to re-apply in a future round.

According to interviews with developers, property owners, and nonprofit organizations helping property development and historic preservation, the difficulty of completing renovation of historic properties without OHPTC contributions makes the application process for these credits highly competitive;

however, the cost to apply and the uncertainty of approval may discourage participation.[13] Despite this effect, overall the program helps to protect Ohio's heritage, contributing to the economic revitalization of cities and their downtowns – which suffer most from neglected properties – and of rural townships where such historic properties can serve as community anchors and hubs for development. The economic contribution of the OHPTC is demonstrable – businesses are relocating to renovated buildings, their employment is growing, wages are increasing, and — most importantly — the significant increase in the value of these properties proves that the program is both a cultural and economic gain to the state and the local communities it serves.

4. Economic Contribution of the OHPTC Program to Employment, Population, and Property Values of Preserved Buildings and Surrounding Areas

This section analyzes the question of the OHPTC program's direct contribution to increases in residential and business activity in the project buildings and in areas immediately surrounding these buildings. It is expected by policy makers and the general public that besides the goal of preserving historical properties across the state, the OHPTC program will help to generate business and residential revitalization in and around renovated properties.

Overall, OHPTC projects generate additional employment, increase the number of business establishments, and illustrate that people working for businesses located in renovated buildings earn higher wages after project completions. From 2008 to 2014, employment in project buildings increased by 3,612 jobs (a 140% increase) and generated 70 more business establishments (50% growth), while adding $244.8 million in total wages (159%). The data is less conclusive on the impact of OHPTC program on employment and wages of establishments in surrounding areas, which lost jobs and businesses during a period that coincides with significant nation-wide economic recession known as the "Great Recession" of 2007-2009.[14]

While renovation of historic properties in residential areas makes neighborhoods more attractive for living, homeowners don't change their residence frequently and renters may be bound by rental contracts. The changes in population movement should be measured within a much larger timeframe and most likely on a scale of communities where multiple OHPTC projects are completed. Data necessary to objectively and fully measure population changes in areas surrounding completed OHPTC projects is unavailable within the brief period of time after project completion; however, census tracts[15] in residential

[13] Evidence of such discouragement was obtained in the form of anecdotes from multiple sources in this research, such as applicant surveys, interviews and focus groups conducted for case studies, and meetings with developers and nonprofit organizations related to the field of historic preservation and real estate development.
[14] For more information about this recession, visit the National Bureau of Economic Research, http://www.nber.org/cycles/sept2010.html.
[15] A census tract is a small unit of geographic measurement defined by the U.S. Census Bureau.

areas of Cleveland and Columbus show positive shifts in population using both U.S. Census decennial data and ACS estimates. OHPTC projects in Cambridge, Cincinnati, and Youngstown tracts show mixed results.

Data on property values and collected taxes from OHPTC project parcels and parcels surrounding them illustrates indisputably successful results of renovation. The taxable value of project parcels increased by almost $217 million overall, or about 264%. Values rose by about 8% for adjacent parcels and by 28% for radial parcels.[16] Taxes collected from properties on project parcels increased by approximately $6.1 million overall, or almost 347%. Taxes rose by about 47% on adjacent parcels and by 64% on radial parcels.

Methodology

To conduct research on dynamics of employment and business establishments, the study team selected a sample of OHPTC projects. The analysis was based on real estate parcels (building sites) where OHPTC projects were located, as well as sites within a radius of 500 feet[17] from the OHPTC project site. A sample of 50 sites[18] was selected based on the OHPTC-funded projects completed prior to January 31, 2014. All sites had businesses registered in the Quarterly Census of Employment and Wages (QCEW) – the data source for this analysis. At each site, whether it was an OHPTC project site or a site in the surrounding area within the 500 feet radius, two types of establishments were counted: those that were previously registered in Ohio (in the same or a different location), and those that were never before registered in Ohio.[19] The latter establishments that did not appear in the database as previously located in Ohio were identified in the analysis as "new" businesses. The count of retained businesses at project sites includes establishments that existed both before and after project completion. The analysis also considers the movement of business establishments and employment located at the sites of OHPTC projects before and after renovation while also existing prior to the project at other locations within Ohio, whether nearby or in another city. Employment and wages[20] are measured as totals for workers employed at business establishments. In addition, the dynamics of wages per employee are reported.[21]

The process of counting employment, business establishments, and wages in a 500 foot radius around the sites involved using a street map to identify businesses near the project buildings. Among OHPTC projects certified before January 2014, some project sites were located in residential areas and did not have any

[16] Radial parcels are those not adjacent to the project parcel(s) but located within 150 feet based on parcel centroids.

[17] Academic literature suggests a radius of 150 feet as an affected area in residential neighborhoods around real estate renovation projects. However, this analysis is based on larger surrounding geography accounting for both residential and business activity. For some OHPTC-renovated properties, there were no businesses located within a 150 foot radius. The research team made a decision to explore employment change within a 500 foot radius.

[18] Sites were located by both address and by the names of firms found through business directories and internet searches conducted for each site.

[19] This analysis cannot conclusively state whether a business is new or was previously registered in another state and expanded its business activity or relocated to Ohio.

[20] Wage data has been adjusted to the 2014 dollar and annualized ending with quarter one data including wages for January, February and March. In some cases the wage data included bonuses.

[21] The QCEW data does not include self-employed, student employment, and a few other categories of employment. For a full description of this data source, visit the website of the U.S. Bureau of Labor Analysis: http://www.bls.gov/cew/cewover.htm.

businesses in the surrounding 500 foot radius. A final count of 78 sites, including businesses located around the sites based on the data available in QCEW, was selected for this analysis.

In order to assess changes in the count of business establishments, employment, and wages, two time periods were selected; 2008 was selected as a benchmark level of economic activity before the OHPTC program started, and 2014 was selected as the year that allows for the most data on completed projects fitting other criteria for this analysis. Unfortunately, this time period includes the economic recession of December 2007 – June 2009, the longest of any period of recession in U.S. history since World War II. Called "The Great Recession" by some economists, this economic downturn lasted 18 months, and was triggered by the U.S. financial crises of 2007-2008 and subprime mortgage crisis of 2007-2009 which led to the eventual restructuring of the U.S. economy.[22] The recession alone significantly altered the economic activity of businesses and the demand for business and residential real estate. Moreover, Cleveland was noted at the time as one of the U.S. cities affected most by the crisis of subprime mortgages – to a significantly higher degree compared to other geographies.[23] The co-incidence of the Great Recession with this study period, together with a fact that only simple changes were observed in selected economic indicators, prevents this study from claiming any strong causality between the dynamics of properties renovated under the OHPTC program and the economic activity of these properties and surrounding areas. As such, this analysis only establishes correlation between business, residential, and property value activities regarding OHPTC projects and surrounding areas and funding for the OHPTC program.

In the following analysis, the data on projects in Cincinnati and Cleveland is reported individually. Sample projects within the cities of Columbus, Akron, and Youngstown are reported as one group due to QCEW confidentiality restrictions. The remaining projects not in these five cities are categorized under "other areas."

Impact of OHPTC Projects on Business Activity in Renovated Buildings and Surrounding Areas

The count of business establishments is an accepted indicator for measuring business activity. Each business establishment can represent either an independent company or a branch of a business with multiple locations (e.g., a branch of a bank or a hospital). An increased number of business establishments usually indicates improved economic activity; however, a higher number of business establishments does not automatically lead to increased employment and wages. Since most historical properties are located in the central business districts of cities and townships, the typical businesses in this count include offices

[22] Austan D. Goolsbee and Alan B. Krueger, "A Retrospective Look at Rescuing and Restructuring General Motors and Chrysler." Journal of Economic Perspectives, Vol. 29, Num. 2. Spring 2015. "The Financial Crisis and the Great Recession." Chapter 15. PP. 337-356. In Goodwin, N., Harris, J., Nelson, J., Roach, B., & Torras, M. *Macroeconomics in Context*, Second Edition. Routledge. 2015. http://www.ase.tufts.edu/gdae/Pubs/te/MAC/2e/MAC_2e_Chapter_15.pdf. Tufts University.

[23] Jeffrey D. Dillman, "Subprime Lending in the City of Cleveland and Cuyahoga County." Kirwan Institute for the Study of Race and Ethnicity. The Ohio State University. 2010. http://www.kirwaninstitute.osu.edu/reports/2010/02_2010_SubprimeandCleveland_Dillman.pdf. Also Wall Street Journal: http://online.wsj.com/public/resources/documents/cleveland.pdf.

of companies and not-for-profit organizations, retail establishments, hospitality businesses, restaurants and other food service venues.

Among real estate properties that were renovated under the OHPTC program and selected for this analysis, the number of business establishments grew from 141 in 2008 to 211 in 2014, a total growth of 50% (Table 3). Of the additional 70 establishments, 56 relocated to Ohio, opened new branches in Ohio, or recently formed a new business. In all areas except Cleveland, the count of business establishments did not change significantly. However, in Cleveland – the city with the largest number of earliest completed projects that had additional time to attract business activity – the total number of retained business establishments increased by 8%. Moreover, most data, with the exception of some projects in Cincinnati, show one of two occurrences: businesses that were in project buildings before renovation tend to remain and continue operations after renovation, and other businesses moving into the renovated buildings after project completion take the places of those that left during a construction phase.[24]

Overall, the companies at project sites and in surrounding areas most likely followed their business strategies. Moreover, movement across real estate properties cannot be attributed solely to OHPTC projects' renovations, especially during the recession. In times of economic downturn, businesses tend to increasingly go through merger and acquisition processes to preserve core employment and operations. These activities significantly impact business location and the demand for commercial space. Residential decisions are also impacted by a recession economy.[25]

Table 3. Dynamics of Business Establishments in the OHPTC Project Buildings, 2008-2014

Category	Geography	Number of Establishments		Change	Percent Change
		2008	2014	2008-2014	2008-2014
Retained	Cincinnati	13	12	-1	-8%
Retained	Cleveland	114	124	10	8%
Retained	Columbus/Akron/Youngstown[26]	8	11	3	27%
Retained	Other areas	6	8	2	25%
Retained	All areas	141	155	14	9%
"New"	All areas		56		
Total	**All areas**	**141**	**211**	**70**	**50%**

Source: Quarterly Census of Employment and Wages.

[24] The small number of projects that fit requirements for this analysis, in conjunction with QCEW's confidentiality rules, does not allow this study to show more detailed data by geography and type of business to detail these analysis results.

[25] During periods of lower employment and stagnating wages, potential residents and potential business owners often become more risk-averse and tend not to engage in relocation, expansion, and other high-risk behaviors. While these are very general observations, each city and township has its own dynamic of business and residential real estate activity affected by regional and local economy, structure of population, unemployment, and additional factors that were not observed in this study.

[26] These geographies are presented together due to QCEW confidentiality restrictions.

Similar to the dynamics of business establishments, employment in OHPTC renovated properties overall increased by 3,612 (58.3%) from 2008 to 2014 (Table 4). The data indicates a strong influence of these projects on the employment figures for both jobs retained by companies that occupied the buildings at some point during the 2008 to 2014 period, and for new companies in all geographies. Again, having the largest number of early completed projects, Cleveland shows the strongest overall growth of 1,231 employees (37.4%) while Cincinnati has expanded more significantly from the smaller employment base of 78 employees (51.3%).

Table 4. Dynamics of Employment in the OHPTC Project Buildings, 2008-2014

Category	Geography	Employment		Change	Percent Change
		2008	2014	2008-2014	2008-2014
Retained	Cincinnati	74	151	78	51.3%
Retained	Cleveland	2,061	3,293	1,231	37.4%
Retained	Columbus/Akron/Youngstown	275	291	16	5.6%
Retained	Other areas	173	179	6	3.2%
Retained	All areas	2,583	3,914	1,331	34.0%
"New"	All areas		2,281		
Total	**All areas**	**2,583**	**6,195**	**3,612**	**58.3%**

Source: Quarterly Census of Employment and Wages.

Across the state, 2,281 employees moved to OHPTC renovated buildings with new businesses. Businesses that stayed within renovated properties increased their employment base by 34% (from 2,583 in 2008 to 3,914 in 2014). Similarly to the dynamic of the business establishment, this increase is the net result of business activity including some businesses moving out of project sites and others moving in, both within Ohio and also from out of state. Some businesses were new to Ohio, but it cannot be concluded whether these businesses were newly formed or had relocated from out of state. However, the net result of economic activity measured by employment in OHPTC project buildings after their renovation is definitive: the employment base at these sites increased from 2008 to 2014 by 58%.

Between 2008 and 2014, the total wages of employees in these new and retained jobs in the OHPTC-renovated buildings increased overall by 57.5% (accounting for inflation) (Table 5). The highest growth in wages was identified in businesses retained at Cleveland OHPTC projects – a total of $122 million (47.7%). Cleveland properties saw increases in both jobs and total wages, while the average annual wage in 2014 was $76,162[27] compared to the prior average of $64,598. While wage growth cannot be directly attributed to the renovation of buildings, observations show that high-paying industries find it attractive

[27] Some companies that expanded in the project buildings after renovation are among highly-paid industries, those that illustrate average wages higher than the average wage of $57,766 across all industries in Cleveland in 2014.

to stay in the community and move to renovated properties. The significant increase in average annual wages in Cincinnati (from $38,899 to $43,643) was also most likely the result of successful businesses expanding or moving into OHPTC-renovated buildings. These businesses, especially those retained in the buildings, were able to afford higher rents and, according to the data, were most likely paying their employees higher wages.

Table 5. Dynamics of Wages in the OHPTC Project Buildings, 2008-2014

Category	Geography	Total Wage		Change	Percent Change	Average Annual Wage		Change	Percent Change
		2008	2014	2008-2014	2008-2014	2008	2014	2008-2014	2008-2014
Retained	Cincinnati	$3,027,516	$7,110,368	$4,082,852	57.4%	38,899	43,643	$4,744	10.9%
Retained	Cleveland	$133,565,375	$255,426,658	$121,861,283	47.7%	64,598	76,162	$11,564	15.2%
Retained	Columbus/Akron/ Youngstown	$9,760,642	$9,674,203	-$86,439	-0.9%	36,694	33,895	-$2,800	-8.3%
Retained	Other areas	$2,818,526	$3,589,865	$771,339	21.5%	15,557	19,283	$3,725	19.3%
Retained	All areas	$149,172,058	$275,801,094	$126,629,036	45.9%	$57,537	$69,154	$11,617	16.8%
"New"	All areas		$74,791,586				$32,089		
Total	**All areas**	**$149,172,058**	**$350,592,680**	**$201,420,622**	**57.5%**	**$57,537**	**$55,482**	**-$2,055**	**-3.6%**

Source: Quarterly Census of Employment and Wages.

Both total wages and employment increased in the Columbus/Akron/Youngstown area;[28] however, employment grew more quickly than total wages. As a result, the average wages – calculated as the product of dividing the total wages over employment – declined by 8.3% from 2008 to 2014. Companies that were new to Ohio or new in business overall paid their employees $32,089 in 2014, also contributing to the overall slight decline of average annual wages at -3.6% (from $57,537 in 2008 to $55,482 in 2014). Although the average wages declined across all area properties, all three economic indicators – employment, business establishments, and total wages of business tenants located in OHPTC buildings – grew between 2008 and 2014, despite the recession in the middle of this time period. This is in part due to the fact that, while commercial tenants of properties renovated with contributions from the OHPTC program showed definite signs of economic success through all three indicators, the businesses in the surrounding 500-feet areas around the renovated properties did not illustrate similar positive changes.

Analysis of companies which were located in buildings within 500 feet of project buildings (exclusive of companies which at one point were located in project buildings), indicates losses for all three indicators across the 2008 to 2014 period (Table 6). In Cincinnati, there was a decline of 38 establishments within 500 feet of the site (12%), 5,859 jobs were lost (43%), and there was a 27% decline in wages ($264M). In Cleveland, there was a 133-establishment loss (14%), with a 3,884 job decline (16%) and a $376M decline

[28] These geographies are presented together due to confidentiality restrictions.

in payroll (18%). In the Columbus, Akron and Youngstown projects, there was a 12 establishment loss (3%), with a gain of 998 jobs (7%) and $61M in lost payroll (-6%). Across all other projects, there were declines of 42 establishments (7%), 1,222 jobs (13%) and $75.7M in wages (20%). Across all project buildings and their radii, there was a loss of 225 establishments (10%). There was a nearly 10,000-job decline between 2008 and 2014. Wages declined by $778M across this period.

Table 6. Employment in Buildings Located within 500 feet of Project Buildings

	Establishments		Employment		Wages	
	Change 2008-2014	Percent Change	Change 2008-2014	Percent Change	Change 2008-2014	Percent Change
Cincinnati	-38	-12%	-5,859	-43%	-$264,540,294	-27%
Cleveland	-133	-14%	-3,884	-16%	-$376,447,783	-18%
Columbus, Akron & Youngstown	-12	-3%	998	7%	-$61,313,155	-6%
Others Areas	-42	-7%	-1,222	-13%	-$75,721,911	-21%
Total for All Projects	-225	-10%	-9,966	-16%	-$778,023,143	-18%

Source: Quarterly Census of Employment and Wages.

These losses may be due to factors related to the recession – as well as accompanying acquisitions and mergers – and are likely to be unrelated to the project buildings themselves. Another hypothesis explaining negative results is the lack of sufficient time during which the positive effect of renovation might happen. It would be an unreasonable to expect the renovation of a single site to cause large employers from high-paid industries to immediately relocate into that area or building.[29]

Hypotheses for future research suggest that the impact would differ over time, and further studies would be needed to determine the optimal time for economic results to begin to manifest in the secondary data – along with further study of how the impact is influenced by the business cycle (e.g., recessions or other factors impacting the real estate market). There are various types of impacts and different distances that need to be assessed for predominantly residential or industrial/business districts. Finally, the research team believes that economic impact would differ if an OHPTC project were completed in a neighborhood where the project is the first or only one historic property in a block of buildings. It is believed that the current analysis shows insufficiency of impact that individual projects might produce on surrounding areas

[29] Additional research is necessary to better understand the dynamics of employment in OHPTC-renovated buildings and surrounding areas, as well as the effect of redeveloped residential properties bringing more people to live in these buildings (creating induced effect through the purchasing of goods and services at the neighborhoods where they live).

and speaks to better likelihood of positive economic results from development of so called "historic districts," or at least several adjacent properties. The cumulative effect of renovating large blocks of properties might create a scale effect that triggers a psychological confidence, leading to a positive trend of area development and the attraction of new/additional businesses to locate there. The current project was limited in time and resources to research these questions or locate examples in other states that have similar state programs.

Impact of OHPTC Projects on Population Change in Residential Areas

The renovation of historic properties in residential areas makes neighborhoods more attractive for living. Homeowners don't change their residence frequently, but renters have fewer restrictions, although they may still be bound by 1-2 year rental contracts. Changes of populations in surrounding OHPTC project residential properties were assessed hypothesizing that these changes would happen within a census tract[30] of the OHPTC project and the earliest changes could be assessed through secondary data within 2-4 years after the project is certified. To conduct this research the study considered increases in population and in the number of households.

Two samples of census tracts containing OHPTC projects were selected based on the 98 projects which were completed by the end of 2014. One sample was used to measure the change in population in the census tracts, while the second sample was used to measure changes in the number of households in the census tracts. The samples were selected under the same following parameters. First, only projects which were completed between 2009 (earliest certified projects) and not later than 2011 were selected to assess population data before and after the project completion. The periods of 2006 to 2010 and 2009 to 2013 were used because they are the earliest and latest available for current census boundaries.[31] The data was collected from the U.S. Census for 2000 and 2010 and the American Community Survey (ACS). The latter is the only data source that measures population on a census tract level between decennial censuses. Second, only tracts containing projects with residential components were selected for this analysis. Third, the data was filtered to show only census tracts in Ohio which contain statistically significant changes that were greater than the margins of errors for measurement.[32]

[30] A census tract is a small unit of geographic measurement defined by the U.S. Census Bureau. It is often used to track changes in population over time. A tract holds the most reliable data for measurement in an analysis for the surrounding areas of single-parcel projects. The borders of tracts follow current or past political boundaries. Tracts range in size from a dozen city blocks in urban areas to whole counties. Some are large and mostly residential, with large populations. Others contain mostly industrial land, or open space, and therefore have small populations. The scale of comparison between different regions for this analysis is complicated because of these census tract size differences.

[31] The averages of this data are calculated with overlapping time periods (2009 and 2010); however, the OHPTC program is still too nascent to have sufficient certified projects to allow for perfect statistical testing using American Community Survey (ACS) data.

[32] To understand the application of margin of error to this study, consider the following example: if population for a tract is estimated at 100 with a margin of error of 25, this means that the population is actually somewhere between 75 and 125, with 100 being the data's average estimate. If during this time and the previous time period the change of population is calculated as growth of 22 residents, this census tract was dismissed from the analysis

The study used a secondary source of data, the Department of Housing and Urban Development (HUD) United States Postal Service (USPS) survey, to confirm the estimates on new housing units shown by the ACS data. This data was accessed from NEO CANDO (Northeast Ohio Community and Neighborhood Data for Organizing),[33] which provides indicators for 17 counties in Northeast Ohio. Therefore, the secondary data was used to confirm only projects in Northeast Ohio counties. After this selection process, six census tracts remained eligible for the analysis of population changes, along with 11 census tracts for analysis of changes in the number of households.

Analysis of population changes shows an overall increase in population which correlates with the additions in housing units (Table 7 and Table 8). Projects completed in residential areas of Cleveland and Columbus census tracts show positive dynamics of population using both U.S. Census decennial data and ACS estimates. OHPTC projects in Cambridge, Cincinnati, and Youngstown tracts show mixed results.

Two census tracts in Cleveland show the most reliable statistics on population gains. These tracts are in Downtown Cleveland where a few new-build residential construction projects and a number of non-residential projects occurred between 2007 and 2013. A total of 7 residential OHPTC projects were completed in these two tracts, adding 531 units to the residential market between them (Figure 8). These two tracts added a combined population of 1,888 residents between 2000 and 2010. The ACS estimates showed an addition of 1,400 residents between 2006-2010 and 2009-2013. Cleveland has the earliest certified projects completed with OHPTC, and therefore allows the longest interval between the time when projects were completed and when the population dynamics were measured. Moreover, a number of downtown Cleveland projects were located within close proximity of each other and perhaps created a scale effect where consumer confidence was gained due to updates in multiple properties (both residential and non-residential).

In Cleveland, tract 1077.01 added 709 residents between 2000 and 2010, and 381 (25%) between ACS periods, which compares to the 332 units of various residential capacity added through six projects in the tract between 2009 and 2011. Tract 1078.02 added 1,179 residents between 2000 and 2010, and 1,019 between ACS periods. The one tax credit project in the tract added 199 residential units between 2009 and 2011.

Population also significantly increased in Tract 74 in Cincinnati after the completion of an OHPTC project in 2011, which added 110 units. The tract had lost 612 residents between 2000 and 2010, but showed a significant gain of 291 residents, or 21%, between ACS periods.

because the calculated changes are smaller than the margin of error. Included in the analysis are only those census tracts where a total change is larger than the margins for error of the two ACS periods.

[33]NEO CANDO system, Center on Urban Poverty and Community Development, MSASS, Case Western Reserve University, http://neocando.case.edu.

Table 7. Changes in Population by Census Tract

Census Tract Number	City	Residential Projects Completed Between 2007 and 2011	Total Residential Units Added	2000 to 2010		2006-2010 to 2009-2013	
				Change	Percent Change	Change	Percent Change
9773	Cambridge	1	48	-115	-3%	485	16%
74	Cincinnati	1	110	-612	-28%	291	21%
1077.01	Cleveland	6	332	709	57%	381	25%
1078.02	Cleveland	1	199	1,179	54%	1,019	44%
40	Columbus	1	76	746	34%	291	12%
8137	Youngstown	3	67	-846	-22%	-22	-25%
Total		13	832	1,061		2,445	

Figure 8. Location of Residential and Non-Residential Projects within Census Tracts 1077.01 and 1078.02 in Cleveland

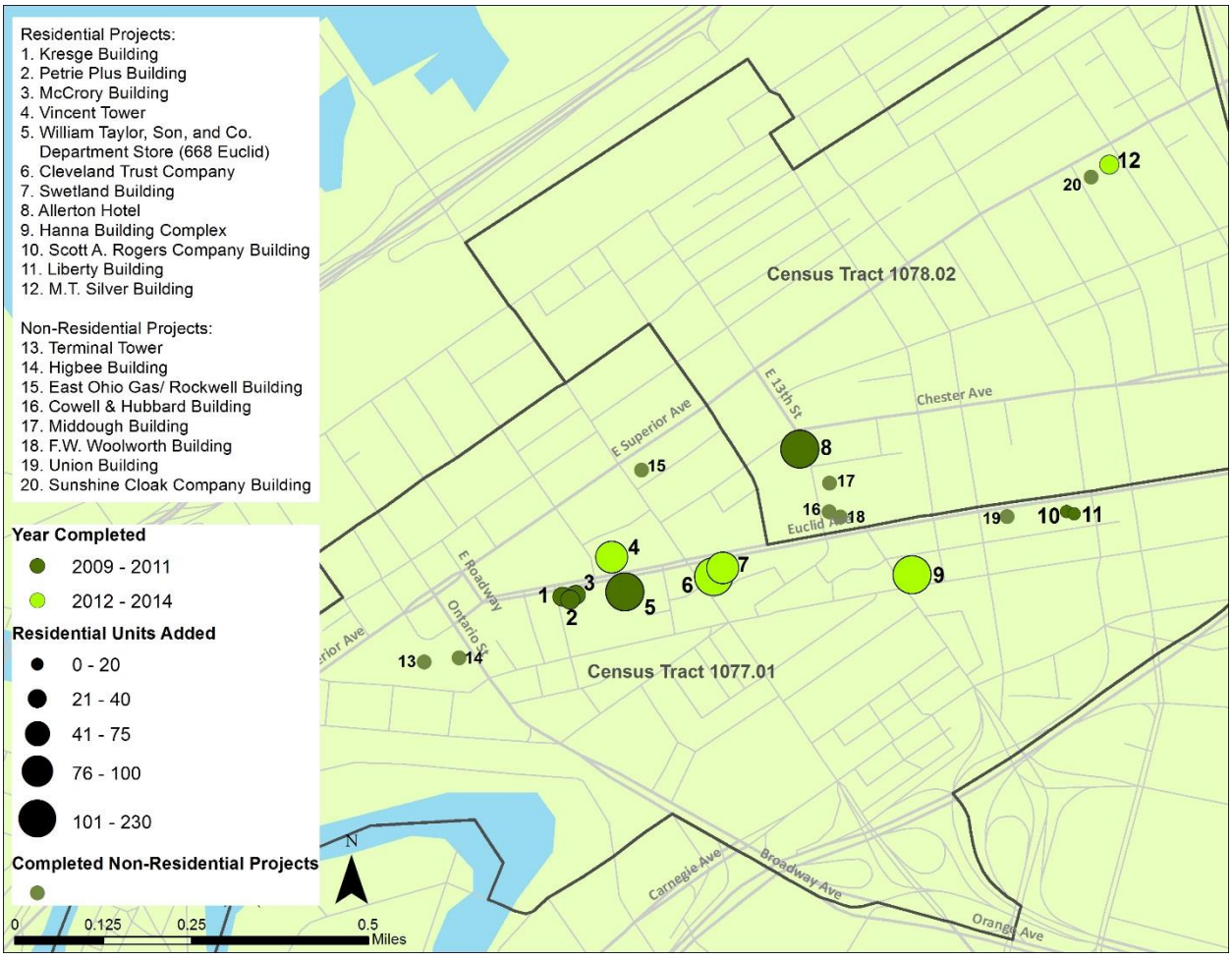


Figure 9. Location of Residential and Non-Residential Projects in Cincinnati

When combining the population changes from the seven tracts, one can see a similarity between the population increases and the addition of units through the projects completed with help of the program. The 13 qualifying projects in the six tracts brought 832 units to the market, compared to a 1,061 resident increase between 2000 and 2010 and an estimated increase of 2,445 between the ACS periods.

Analysis of the changes in housing units in each Census tract (Table 8) shows similarities between the residential units added by tax credit projects and changes in housing units overall. For example, a 2009 project added 77 residential units to tract 1043 of Cuyahoga County. The tract added 166 units between 2000 and 2010 (a 17% increase) and 86 units between ACS periods 2006-2010 and 2009-2013. The 86 added units are similar to the amount which the OHPTC site added to the tract.

Table 8. Changes in Housing Units by Tract, ACS Data

Census Tract	City	Residential Projects Completed Between 2007 and 2011	Total Residential Units Added	2000 to 2010		2006-2010 to 2009-2013	
				Change	Percent Change	Change	Percent Change
34	Springfield	1	85	-472	-22%	-226	-12%
1043	Cleveland	1	77	166	17%	86	8%
1077.01	Cleveland	6	332	610	93%	301	30%
1078.02	Cleveland	1	199	504	27%	231	11%
40	Columbus	1	76	657	35%	203	9%
9	Cincinnati	8	45	-261	-18%	-160	-12%
11	Cincinnati	1	4	-21	-3%	-41	-5%
23	Cincinnati	1	12	-101	-11%	-85	-9%
74	Cincinnati	1	110	-68	-7%	-33	-3%
37	Toledo	1	75	191	27%	-39	-5%
36	Portsmouth	1	50	-394	-26%	-163	-12%
Total		23	1,065	811		74	

Tract 1077.01 in Cleveland contains six projects that brought 332 residential units to the market between 2007 and 2011. The tract gained 610 units between 2000 and 2010 (a 93% increase) and an estimated 301 units between the two ACS periods (an increase of 30%). This estimated increase roughly reflects the addition of new units brought to market with help from the OHPTC program. In all, this analysis shows that 23 projects added 1,065 new units to the market. The ACS estimates show only a 74-unit increase across the geographies between 2006-2010 and 2009-2013.

United States Postal Service (USPS) data was used to confirm the household increases in Northeast Ohio Tracts. Quarterly USPS data shows the number of households and is more reliable than the ACS estimates. These results for Northeast Ohio tracts show increases in housing units in six of seven tracts which had completed residential tax credit projects between 2009 and 2011 (Table 9). The results show that overall the projects contributed to an increase of 567 units in their census tracts.

Table 9. Housing Unit Census Tract, USPS

Census Tract 2000 Boundary	County	Tax Credit Projects Completed Between 2009 and 2011	Total Residential Units Added	Year	USPS: Change in Units 2008 - 2012	Percent Change
1019	Cuyahoga	1	41	2009	19	2.9%
1032	Cuyahoga	1	18	2010	18	4.7%
1043	Cuyahoga	1	77	2009	119	30.4%
1077	Cuyahoga	4	294	2010	301	42.4%
1078	Cuyahoga	1	199	2010	-41	-2.3%
1079	Cuyahoga	2	38	2009/2010	122	15.1%
8037	Mahoning	3	70	2009/2011	29	5.8%
Total		13	737		567	

Analysis of Property Values in OHPTC Projects and Surrounding Areas

In Ohio, a full general reappraisal is required every six years and is termed a "Sexennial Reappraisal." For a sexennial reappraisal, the auditor and/or approved appraisers are required to actually view and appraise every property. Halfway between each sexennial reappraisal, the auditor is required to conduct a "Triennial Update." In this case, statistical methods based on recent sales are used to adjust values by neighborhood. Counties across Ohio are on different schedules for their sexennial reappraisals and triennial updates.[34]

The study focused on certified projects so that the research would have the best chance of detecting value changes on appraisal files. There was a total of 101 certified projects at the time of study completion.

For each project, the appropriate county auditor site was searched for the availability of historic tax and valuation data. (An exception to this was Cuyahoga County, for which much of the data was located from data files available at the College.) The availability of historic data immediately available on county web sites varies substantially across the state. In many cases, historic valuation data is available but historic tax data is not (often including only the current year). In these cases, the appropriate auditor offices were contacted and requests made for the historic data needed for the project (at least one year of data prior to the beginning of the project, in addition to data for the intervening years up to the current year). In some cases, data was also obtained from treasurer offices.

[34] The schedule for these reappraisals can be found on the Ohio Department of Taxation site, at http://www.tax.ohio.gov/Portals/0/real_estate/Current_Reappraisal_TriEnnial_Update_Schedule.pdf

Based on the project parcel listing provided in the OHPTC applications, researchers identified project parcels as well as those parcels which were adjacent, plus radial parcels which were within 150 feet of the project parcels (based on the centers of each parcel). This process involved using Geographic Information System (GIS)[35] software and other online maps to visually determine the adjacent parcels, as well as to measure the distances between parcels.

Terms used to describe, for example, the components of a tax bill (e.g., gross tax, tax reduction, owner-occupancy credit, etc.), varied somewhat across the various county systems. The data was standardized under consistent field headings. Data from all of the various county systems was standardized and put into a single analysis file. Data was collected on 86 certified projects, including 618 parcels.[36]

During initial analysis of the data, it was determined that, for projects that have certified approval dates in 2014, the value data for 2014 (most recent) did not generally appear to capture the effects of the projects. Therefore, 15 projects were removed from the analysis for this reason.

The analysis of valuation changes included the following counties and numbers of projects within each:

Table 10. Counties and Number of Projects Included in Analysis

County	Number of Projects
Adams	1
Butler	1
Clark	1
Cuyahoga	32
Delaware	1
Fairfield	1
Franklin	4
Geauga	1
Guernsey	1
Hamilton	17
Lorain	1
Lucas	2
Mahoning	4
Miami	1
Summit	2
Warren	1
Total	**71**

[35] GIS is designed to capture, store, manipulate, analyze, manage, and present all types of spatial or geographical data.

[36] There is valuation data for all projects, but for Hamilton, Lorain, and Mahoning county projects tax data was not yet available.

Changes in valuation recorded here are based on 71 certified projects for which the certified approval dates were before 2014. This restriction allows the study to express more confidence that at least some (if not all) of the change in value has been incorporated by the time of the most recent tax year (2014 in almost all cases).

Table 11. Taxable Property Valuation Before and After OHPTC Projects

Parcel Locations	Before Project	Most Recent	Change	Percent Change	Median Pct. Change
Project Parcels	$80,620,775	$288,642,708	$208,021,933	258.0%	71.6%
Adjacent Parcels	$253,270,850	$283,980,350	$30,709,500	12.1%	-1.5%
Radial Parcels	$58,986,640	$74,072,790	$15,086,150	25.6%	7.3%

Source: County auditor and treasurer records.
Note: based on 71 certified projects with certified approval dates before 2014.

Table 11 displays taxable values before and after the projects. Parcels which are exempt from taxes are not included in this table. In addition, if researchers were able to record separate listings for taxable and exempt portions of the value of properties, the exempt portions are not included in the table. Values of project parcels increased by about $208 million overall, or approximately 258%. Values for adjacent parcels rose by about 12%, and grew by 26% for radial parcels, or those that are not adjacent to the project parcel(s) but located within 150 feet (based on parcel centroids). Since the sample of analyzed projects includes several relatively high value properties, the total percentage is skewed upward (Appendix Table C-1). The median percent changes illustrate more objective and conservative change that better represents typical OHPTC projects' change of property value as a result of renovation. Even this conservative measure shows that the property value of representative OHPTC projects increased by 72% compared to the losses of surrounding properties' value by -1.5% in adjacent parcels and the growth of property value in radial parcels only by 7.3%.

Taking into consideration value of all properties, including those that are tax exempt, total values of project parcels increased by almost $253 million overall, or about 231% (Table 12). Values rose by about 17% for adjacent parcels and rose by 22% for radial parcels. As was the case for taxable values, the median percent changes are lower but illustrate an impressive increase of property values at 145.1% for project properties compared to 2.5% growth in adjacent parcels and 7.3% in radial parcels.

While the market values of adjacent properties did not grow as much as values of renovated properties, changes in their values were significantly better than, on average, changes of market values for different type of properties across Cleveland, Cincinnati, Columbus, and Ohio overall (Appendix Table C-2). The property value changes for cities where the most OHPTC projects were conducted could be considered as a benchmark, illustrating that while the taxable property value in adjacent to project parcels declined by -1.5% and in radial parcels grew by 7.3%, in residential markets across Ohio between 2007 and 2014 this value declined by -7.3%, in commercial properties by -2.9% and in all types of taxable property value by -6.2%.

Table 12. All Property Valuations (including Exempt) Before and After OHPTC Projects

Parcel Locations	Before Project	Most Recent	Change	Percent Change	Median Pct. Change
Project Parcels	$109,488,104	$362,090,539	$252,602,434	230.7%	145.1%
Adjacent Parcels	$294,924,480	$345,218,750	$50,294,270	17.1%	2.5%
Radial Parcels	$69,675,560	$84,651,090	$14,975,530	21.5%	7.3%

Source: County auditor and treasurer records.
Note: based on 71 certified projects with certified approval dates before 2014.

Moreover, the changes of property value for this period declined in Cincinnati by -10.5%, in Cleveland by -15.6%, and in Columbus by -9.0%. Based on this comparison, it is appropriate to suggest that property value not only grew significantly for parcels with renovated projects, but also that surrounding property values showed meaningfully better dynamic of change than the average taxable property values in Ohio.

Changes in property values for renovated OHPTC projects also triggered an increase in taxes collected from project parcels. Moreover, not only were the collected taxes higher from renovated properties, both adjacent and radial parcel properties yielded sufficiently higher tax revenues. Changes in taxes recorded before and after OHPTC projects are based on 66 certified projects with certified approval dates before 2014. The projects selected for this analysis were certified and completed by the end of 2014 to allow one full year (2014) for the assessment to be completed and recorded in the auditor's data. Changes in valuation recorded for taxes before and after OHPTC projects are based on 66 certified projects with certified approval dates before 2014 (Table 13). This data restriction allows researchers to be more confident that at least some (if not all) of the change in tax amounts has been incorporated by the time of the most recent tax year, 2014 in almost all cases.

Table 13. Property Taxes Before and After Completion of OHPTC Projects

Parcel Locations	Before Project	Most Recent	Change	Percent Change	Median Pct. Change
Project Parcels	$2,020,071	$9,193,941	$7,173,871	355.1%	48.2%
Adjacent Parcels	$6,796,339	$10,538,402	$3,742,063	55.1%	24.7%
Radial Parcels	$1,510,623	$1,961,230	$450,607	29.8%	33.9%

Source: County auditor and treasurer records.
Note: based on 66 certified projects with certified approval dates before 2014. Data for Lorain, and Mahoning counties was not available for this analysis.

Taxes collected from properties on project parcels increased by about $7.2 million overall, or about 355%. Taxes rose by about 55% on adjacent parcels and by 30% on radial parcels. The more conservative measure of median project value yields 48% more in taxes, triggering an increase of collected taxes in adjacent parcels by 25% and taxes from radial parcels by 34%.

This growth in employment, business establishments, and population – when paired with significant increases in values and collected taxes from both project parcels and property from surrounding parcels – illustrates a clear positive impact of the OHPTC program. Helping to preserve historic properties and reanimate economic activities in previously deteriorating buildings, the program supports development projects that have potential to catalyze regrowth in anemic downtowns of large and small cities and to add economic vitality in to small townships.

5. The Ohio Historic Preservation Tax Credit in Action: Case Studies from around the State

An analysis of six case studies provides an in-depth understanding of OHPTC projects across the state, including four completed projects (Cleveland Trust Complex [Cleveland], Old Ohio School for the Deaf/Cristo Rey Columbus High School [Columbus], John T. Wilson Home [Adams County], and Horizon House [Portsmouth]), one in-progress project (Goodyear Hall [Akron]), and one un-funded project (Kress Building [Youngstown], now demolished).

The case study research shed light on the process of applying for and using the OHPTC, the history of OHPTC buildings and projects, and the qualitative and quantitative impact of these projects on the surrounding neighborhood, city and/or region. The case studies were strategically selected, in consultation with ODSA, to ensure geographic dispersion across the state (Figure 10), variation in the scope of the project and the amount of the OHPTC (Table 14), and differing final land uses (Table 15). The case study research included site visits and interviews with more than 40 key stakeholders, including each project's developer, along with preservation consultants, investment partners, and local leaders (Table 16). Other sources of information included documentary materials such as media reports and OHPTC application materials.

Overall, the case studies demonstrate the diversity of OHPTC projects and that the credits produce a range of tangible and intangible benefits for a variety of communities. The narratives that follow illustrate that OHPTC projects are catalyzing investment in large urban downtowns, in neighborhoods, along small town main streets, and in rural settings. These historic building rehabilitations are helping to advance Ohio's 21st century economy by bringing much-needed mixed-use, hospitality, residential – including affordable and senior housing – and institutional facilities to communities across the state.

Universally, the case studies show that the OHPTC is a critical component of project financing, with direct economic and community benefits. For the Cleveland Trust Complex, a critical decision by the state to award what amounted to a catalytic credit (before such a credit existed), pulled the project from the brink of demolition. The resulting complex, including the upscale Metropolitan at the 9 hotel, the Heinen's Grocery Store in the Ameritrust Rotunda, and the residences at 1010 Euclid, has become a cornerstone of ongoing revitalization along the city's E. 9th Street corridor. The rehabilitation of the Old Ohio School for the Deaf as Cristo Rey Columbus High School has multiple community benefits, from bringing high-school students to downtown Columbus to reinvigorating a long-dormant property and catalyzing activity in an

area of town with other important community uses - including the Columbus Public Library. The adaptive reuse of Goodyear Hall is anchoring the larger transformation of Akron's East End, while smaller projects such as the John T. Wilson Home in Adams County support tourism – a major economic driver in much of Ohio. Portsmouth's Horizon House has not only resulted in a high-quality, well-maintained property along the city's main street, but has also provided local senior residents with quality affordable housing in a walkable location.

The case studies also illustrate that the OHPTC has intangible benefits that are difficult to quantify. Interviewees from across the state articulated that it was important for the psyche of their community to preserve these structures. In the words of Peter Goffstein (*IRG, developer of Goodyear Hall)*: "Goodyear is Akron's history." Brandon Kline (*Geis Properties*), developer of the Cleveland Trust Complex, expressed a similar sentiment, arguing that one of the project's greatest benefits was shifting perceptions about downtown Cleveland's real estate market through Geis' success in "charging rents […] that everyone thought were unreal," with a 200-person waiting list. Across the board, it is clear that these buildings, while useful economic engines, are also intricately intertwined with the identity, meaning and heritage of the state's neighborhoods, towns and cities.

Perhaps more than any other, the Kress Building narrative illustrates the challenge of financing historic preservation under difficult economic conditions and the potential results of not funding projects with the OHPTC. In this case – after two unsuccessful applications for the competitive OHPTC – the building was demolished, and the property is now a parking lot along downtown Youngstown's main thoroughfare. The general sentiment about the loss of the Kress building was one of resigned sadness, stemming from the realities of overcoming weak market conditions and a bias against older urban centers in private sector financing. Furthermore, Youngstown has lost a key piece of its downtown core, as demolition is irreversible and permanent.

While developers and others have proposed possible improvements to the program, they also nearly universally agree that the OHPTC is a well-run, transparent, and relatively easy-to-use program. It is efficiently administered alongside the beneficial Federal Historic Preservation Tax Credit, streamlining the process of using both credits in tandem. The federal credit is a 20% income tax credit for qualified rehabilitation expenditures on income-producing properties listed in, or eligible for listing in, the National Register of Historic Places. In contrast to the OHPTC, the federal preservation credit is not competitive and is not capped. The National Park Service, in conjunction with the state historic preservation offices, administers the federal preservation credit.

Overall, the five funded projects included in this case study demonstrate the ability of the OHPTC to incrementally restore the state's neighborhoods, towns and cities, building-by-building. The narratives on the following pages offer only a glimpse into the great diversity of projects included in the OHPTC portfolio, but reflect the range of tangible and intangible benefits of the credit.

Figure 10. Map of Ohio Showing Case Study Locations

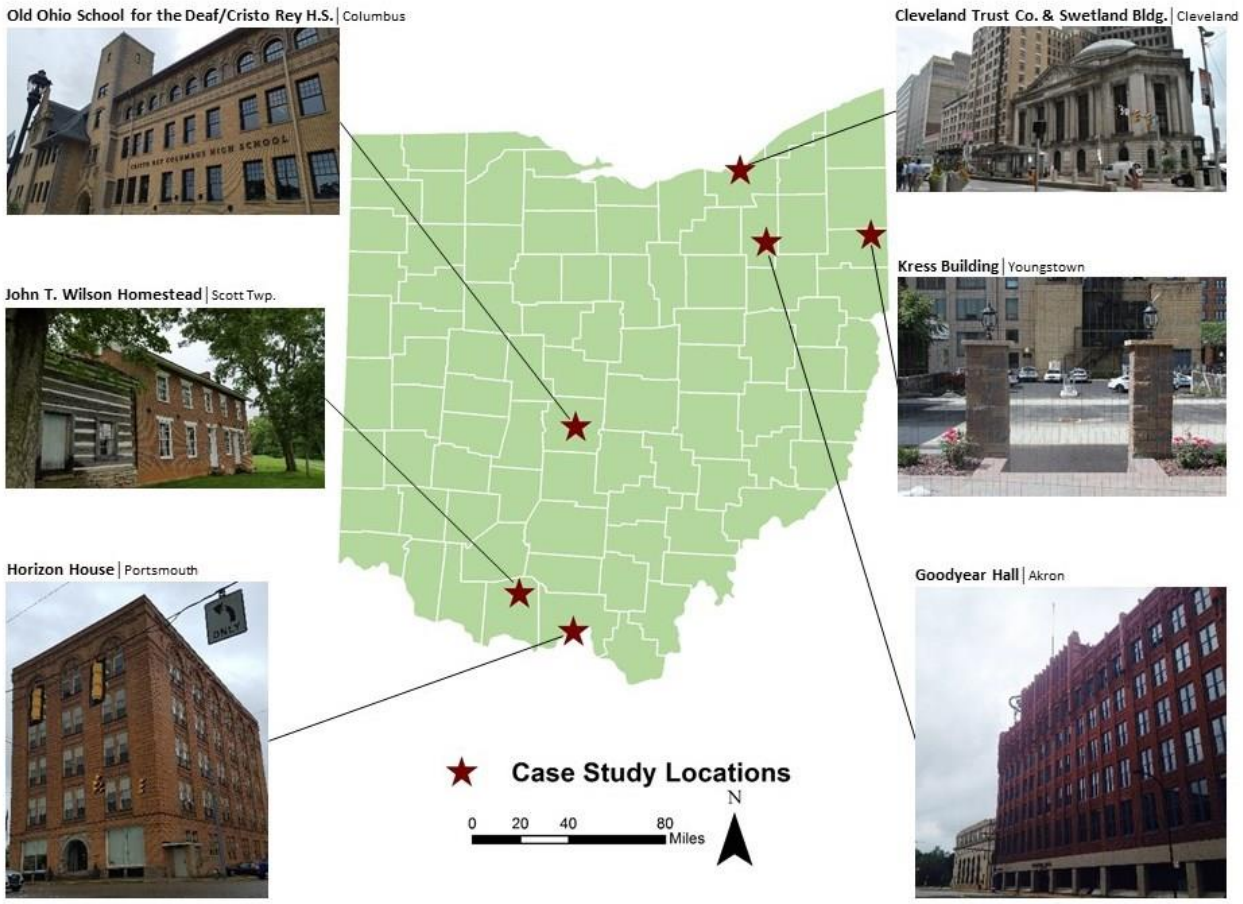


Table 14. Case Study Summary

Case Study	City Size	General Location within Ohio	Total Project Cost	OHPTC	OHPTC Funding Round	Building Size (sq. ft.)
Cleveland Trust Complex	Large	Northeast	$230M	$31M	1	555,714
Horizon House	Small	South	$8.1M	$1.5M	3	29,975
Old Ohio School for the Deaf	Large	Central	$22.5M	$3.89M	10	81,145
John T. Wilson Home	Rural	South	$576,715	$61,756	1	2,800
Goodyear Hall	Medium	Northeast	$36M	$5M	10	292,000
Kress Building	Medium	Northeast	n/a	n/a	6 & 7 (denied)	n/a (demolished)

Table 15. Case Study Selection by End Land Use (excluding the unfunded Kress Building)

	Market-Rate Residential	Affordable Residential	Mixed-Use	Commercial	Hospitality	Institutional
Cleveland Trust Complex	✓	✓	✓	✓	✓	
Horizon House		✓				
Old Ohio School for the Deaf						✓
John T. Wilson Home					✓	
Goodyear Hall	✓		✓	✓		

Table 16. Summary of Interviews

	Interviewee	Affiliation	Role of Interviewee	Interview Date[1]
Cleveland Trust Complex	Brandon Kline	Geis Companies	Project developer	7/21/15
	Peter Ketter	Sandvick Architects	Preservation consultant	7/7/15
	Joe Marinucci	Downtown Cleveland Alliance	Local stakeholder	7/23/15
	Tom Yablonsky	Historic Gateway District	Local stakeholder	7/23/15
	Kathleen Crowther	Cleveland Restoration Society	Local stakeholder	7/24/15 (email)
	Jennifer Coleman	Cleveland Landmarks Commission	Local stakeholder	7/23/15
	Tracey Nichols	City of Cleveland, Department of Economic Development	Local stakeholder	7/17/15
Old Ohio School for the Deaf	James Foley	Cristo Rey Columbus High School	Project developer	7/7/15
	Robert Loversidge	Schooley Caldwell	Project architect	7/7/15
	Nancy Recchie	Benjamin D. Rickey & Company	Preservation consultant	7/14/15 (phone)
	Randy Black	Columbus Historic Resources Commission	Local stakeholder	7/9/15
	Mark Lundine	City of Columbus, Department of Economic Development	Local stakeholder	7/9/15

	Interviewee	Affiliation	Role of Interviewee	Interview Date[1]
	Pat Losinski	Columbus Metropolitan Library	Project partner	7/13/15 (phone)
Horizon House	Andrew Bailey	Ohio Housing Finance Agency	Project financier	7/7/15
	Hal Keller	Ohio Capital Corporation for Housing	Project developer	7/7/15
	Beth Long	Ohio Capital Corporation for Housing	Project developer	7/7/15
	Joe Pimmel	Ohio Capital Corporation for Housing	Project developer	7/7/15
	Brian Langmeyer	Ohio Capital Corporation for Housing	Project developer	7/7/15
	John Kukura III	Ohio Capital Corporation for Housing	Project developer	7/7/15
	Sarah Surina	Main Street Portsmouth	Local stakeholder	7/8/15
	Kevin Johnson	Portsmouth City Council	Local stakeholder	7/8/15
	Adam Phillips	Southern Ohio Port Authority	Local stakeholder	7/8/15
John T. Wilson Home	Ralph Alexander	Owner	Project developer	7/8/15
	Patricia Alexander	Owner	Project developer	7/8/15
	Holly Johnson	Adams County Economic Development	Local stakeholder	7/8/15
	Tom Cross	Adams County Travel & Tourism Bureau	Local stakeholder	7/8/15
	Paul Worley	Adams County Commissioner	Local stakeholder	7/8/15
Goodyear Hall	Peter Goffstein	IRG	Project developer	7/14/15 (phone)
	Carol Smith	IRG	Project developer	7/14/15 (phone)
	Diana Wellman	Preservation Principles Consulting	Preservation consultant	7/8/15
	Adele Dorfner Roth	Deputy Planning Director, Economic Development, City of Akron	Local stakeholder	7/8/15

	Interviewee	Affiliation	Role of Interviewee	Interview Date[1]
	Brad Beckert	Development Engineering Manager, City of Akron	Local stakeholder	7/8/15
	Christopher Burnham	Development Finance Authority of Summit County	Project partner	7/8/15
Kress Building	Thomas Humphries	Youngstown Area Community Improvement Corporation	Project developer	8/4/15 (phone)
	Dave Kosec	Youngstown Area Community Improvement Corporation	Project developer	8/4/15 (phone)
	David Bozanich	Director of Finance, City of Youngstown	Local stakeholder	8/4/15 (phone)
	H. William Lawson	Mahoning Valley Historical Society	Local stakeholder	7/22/15
	Sharon Letson	Cityscape	Local stakeholder	7/22/15
	Sara Wenger	Eastgate Regional Council of Governments	Local stakeholder	7/22/15
	Dominic Marchionda	NYO Property Group	Local stakeholder	7/22/15
	Rodney Lamberson	Strollo Architects	Local stakeholder	7/22/15

[1] All interviews were in person unless otherwise noted.

CLEVELAND TRUST COMPLEX

(The Cleveland Trust Company & Swetland Building/1010 Euclid)

900 & 1010 Euclid Avenue

Cleveland, Ohio 44115

Developer	Geis Properties, LLC
Funding Round	1 (March 13, 2008)
OHPTC Amount	$23,000,000 (Cleveland Trust) $8,000,000 (Swetland Building)
Total Cost	$187,310,000 (Cleveland Trust) $43,355,960 (Swetland)
Building Use	Market-rate housing (104 units) Affordable housing (90 units) Hotel (217,857 sf) Commercial/office (37,386sf) Retail (9,600 sf)
Estimated Job Creation	1,085 permanent jobs 800 construction jobs
Status	Completed

The adaptive reuse of the Cleveland Trust Complex (Figure 11) – including the Swetland Building, Ameritrust Rotunda, and Marcel Breuer-designed Ameritrust Tower – at East 9th and Euclid Avenue in downtown Cleveland illustrates the potential of OHPTC funding to transform buildings on the brink of demolition into catalytic projects with benefits extending beyond direct economic gains. The Cleveland Trust project has reinvigorated Cleveland's former "Main-and-Main" intersection, described by Brandon Kline (Geis Properties) as the former "epicenter of the banking and financial world in Cleveland." This complex project includes (1) the conversion of the Breuer-designed, 1970s-era Brutalist Ameritrust Tower into The 9, an upscale hotel and residences, with restaurant and commercial amenities, (2) the adaptive reuse of the Ameritrust Rotunda into a downtown Heinen's Grocery Store (Figure 12), and (3) the adaptive reuse of the adjacent Swetland Building at 1010 Euclid as a mixed-use building including residential, office, and retail spaces. The project received $31 million in OHPTCs and pulled the unique Breuer tower from the brink, as Kline recalls that it was "literally two weeks away from being torn down." The Cleveland Trust Complex received the largest OHPTC ever issued, which filled a large gap in an extremely complex financing structure totaling more than $230 million for all three buildings. The investment has been an economic and psychological catalyst for downtown Cleveland.

The history of these three structures closely follows that of the City of Cleveland. The Cleveland Trust Rotunda (eventually known as the Ameritrust Rotunda) – completed in 1908 by the Cleveland Trust Company and designed by George Browne Post, the architect of the New York Stock Exchange – featured 13 historic, interior murals by Francis Millet narrating settlement in the Midwest. By 1924 Cleveland had grown into one of America's largest cities, and the Cleveland Trust Company was the nation's sixth-largest bank, anchoring a hub of large financial institutions in the city centered at E. 9th and Euclid.[37] The adjacent, thirteen-story Swetland Building facing Euclid Avenue, Cleveland's main thoroughfare, was built in 1922.

Approximately 50 years later, the Cleveland Trust Company recruited Marcel Breuer, one of the most prominent Brutalist architects, to design an imposing skyscraper just south of the rotunda on E. 9th Street. Completed in 1971, the Ameritrust Tower expressed the company's optimism at the time. In 1979, the company changed its name to AmeriTrust, reflecting its reach beyond Northeast Ohio. Ameritrust merged

[37] Steve Litt. (2013). "Geis brothers' plan for the Ameritrust complex is rescuing two Cleveland architectural landmarks," *Plain Dealer*, October 11.

with Society Corporation in the early 1990s and vacated its complex at E. 9th and Euclid.[38] The Ameritrust Tower, which according to Kline is known as a "city of granite," had been vacant longer than it had been occupied.

The Cleveland Trust complex, particularly the Breuer-designed tower, had been the center of controversy since 2005. At that time, Cuyahoga County acquired the complex for $21.7 million, with plans to demolish the long-vacant Cleveland Trust Tower and replace it with a newly constructed County Administration Building. After spending millions on asbestos abatement and removing other hazardous materials from the tower, the county reconsidered its plan for a new consolidated headquarters – leaving the fate of the Cleveland Trust complex buildings in limbo.

According to Peter Ketter (*Director of Historic Preservation, Sandvick Architects*), a team including Sandvick Architects, a local architect and preservation consulting firm, Cuyahoga County, and the Ferchill Group applied for the OHPTC in the program's first funding round in July 2007. The state awarded the OHPTC in March 2008 for the two buildings listed on the National Register of Historic Places at that time: the Ameritrust Rotunda and the Swetland Building at 1010 Euclid Avenue. Over the next five years, Sandvick Architects, Historic Gateway Neighborhood Corporation and Cuyahoga County, worked with potential developers to identify a suitable plan for the buildings, without success. For example, in 2009 a deal involving the K&D Group to purchase the complex for about $35 million ($10 million less than the county's sunk costs in the complex) fell through.[39] In the meantime, the tax credits remained unused as Cuyahoga County, the official recipient as the building's owner, focused on government reforms and building a new convention center. At this point, the County Commissioners had approved demolishing the Breuer-designed tower in 2007; with no identified use and no OHPTC for the tower, demolition seemed inevitable.

In 2013, the Ohio Development Services Agency encouraged the project's partners to move forward on rehabilitation plans or risk losing the OHPTC, while the county redoubled its efforts to sell the site. Around this time, Geis Properties, LLC put forth a proposal to pay approximately $27 million for the Swetland building, Ameritrust Rotunda and Tower, and adjacent parcels. The Cuyahoga County Council and the County Executive both approved Geis' development plan, which included building a new county administration building just south of the Ameritrust Tower. The county leases the new administration building for $6.7 million per year, with an option to buy the building for $1 at the end of the 26-year lease.[40] The project also resulted in converting the Breuer-designed tower into an upscale hotel and luxury

[38] "History of Ameritrust Corporation," Retrieved from: http://ead.ohiolink.edu/xtf-ead/view?docId=ead/OCLWHi0299.xml;chunk.id=bioghist_1;brand=default. Also see, "Ameritrust," in Encyclopedia of Cleveland History. Retrieved from: http://ech.case.edu/ech-cgi/article.pl?id=A8.

[39] Laura Johnston. (2011). Ameritrust appraises at $17 million, $28 million less than Cuyahoga County taxpayers have invested, *Plain Dealer*, May 19. Retrieved from: http://www.cleveland.com/cuyahoga-county/index.ssf/2011/05/ameritrust_appraised_at_17_million_27_million_less_than_taxpayers_have_invested.html.

[40] Laura Johnston. (2012). Cuyahoga County to sell Ameritrust complex, lease new office back. *Plain Dealer*, December 11. Retrieved from: http://www.cleveland.com/cuyahoga-county/index.ssf/2012/12/cuyahoga_county_to_sell_ameritrust_complex.html.

apartments, adding commercial/retail uses to the street level, providing housing and office space in the Swetland building, and bringing a local grocery chain, Heinen's, to the Rotunda and Swetland buildings.

Geis' development was an extremely complicated, risky investment and was Geis' largest public-private partnership to date. The project's success hinged on the ability to leverage public financing to generate private equity. In total, the approximately $250 million investment, included $75.5 million on the new county building, more than $150 million on renovations to the Ameritrust Tower and Rotunda and Swetland Building, which Geis renamed 1010 Euclid, and other site improvements including a parking garage.[41]

According to Ketter, when Geis purchased the property, the OHPTC allocation was less than $5 million. A team including Geis, local stakeholders and Sandvick Architects, among others, appealed to the state to amend the qualifying expenses for the credit and to add the Breuer-designed tower in the original award for the Rotunda. Since, in the first funding round, the state did not have a project cap or limit project completion to five years, the state was able to approve an increase in the OHPTC award in August 2014. In total, OHPTC funding amounted to $8 million for the Swetland Building and $23 million for the Rotunda and Tower buildings, combined. The team also used federal preservation tax credits on all three buildings, successfully arguing that Breuer's tower, although less than 50 years old, had exceptional architectural and historical significance. According to Ketter, ODSA's decision to drastically increase the OHPTC for the Cleveland Trust Complex was a significant moment because that decision "absolutely determined the fate of the complex. There's no way that this could have been done without that funding. It was a real challenge even with that funding. Without the support of the state and federal tax credits, there's no way it could have been done." Other interviewees reiterated this sentiment, emphasizing that the ODSA decision literally pulled the Ameritrust Tower from the brink of demolition and these public financing sources were essential, as private lending institutions were unwilling to serve as primary financiers on such a large, risky, and unprecedented project.

Geis relied on layers of complex financing, in addition to the OHPTC and federal preservation tax credits. According to Tracey Nichols (*Director of Economic Development, City of Cleveland*), the City of Cleveland created a project-based, non-school, 30-year TIF (tax increment financing) and facilitated a $6 million HUD Section 108 loan. A Community Benefits Agreement, arranged by the City of Cleveland, helped place local students in internships and job training positions with Geis. It also required MBE, FBE and CSB subcontractors, at least 20% of construction hours to City residents, and 4% of those hours to low-income City residents.

One of the development team's central arguments in their request that ODSA increase the OHPTC award was that the completed project would be a transformative project for Cleveland and particularly for the struggling E. 9th and Euclid district. Prior to the project, the area around E. 9th and Euclid had approximately two million square feet of vacant office space across fourteen buildings. The Cleveland Trust Complex was a large part of this void, functioning for years as a symbol of disinvestment and blight.

[41] O'Meara, M. (2014). "Revived Historic Structures Anchor Downtown Cleveland". *Novogradac Jounal of Tax Credits, Volume V*(Issue XI), pp. 1-7.

As Ketter summarized, "psychologically, this was such a white elephant for so long and an albatross hanging around the county's neck. There was so much negativity around it. It was seen for so long as a drain, a waste, and a useless piece of property."

To date, the completed project has surpassed even the most optimistic expectations. The construction was labor-intensive, employing more than 800 people. The project is mixed-use and mixed-income including luxury apartments, affordable housing, middle-market housing, a hotel, offices, a grocery store, and restaurants. The Swetland Building (1010 Euclid), which Kline described as "beyond dilapidated and neglected" prior to renovation, is at 100% residential occupancy. The building now provides quality mixed-income housing in the tight downtown Cleveland housing market. Twenty percent of the building's units are affordable to households making 80% of area median income. Office tenants at 1010 Euclid include a satellite office for Geis Properties, the Downtown Cleveland Alliance, and Historic Gateway and Historic Warehouse District Neighborhood Corporations, with 23 full-time, part-time and contract employees.[42]

The Marriott Autograph hotel, the first boutique hotel of its type in Cleveland, operates on the first 13 floors of the Ameritrust Tower, now named as "The 9," and occupancy since its opening has been about 4% higher than the city's average. Residential occupancy at The 9 is 100%. According to Kline, there are more than 200 people on a waitlist for the building's 104 apartments. Kline also explained that the project set a new standard for residential rent levels in downtown Cleveland by demonstrating that the market can support high price points:

> *"The 9 created validity in what was going on. It got national recognition by countless publications. It put Cleveland on the map because it was looked at on a national level in a different way than Cleveland has ever been looked at. It reassured people that the housing market is there, the rental rates are there, the demand is there. It creates validity that we are charging rents in the tower that everyone thought were unreal."*

The Heinen's Grocery Store in the Rotunda, which opened in early 2015, is perhaps the most recognized component of the project, described by Joe Marinucci (*President & CEO, Downtown Cleveland Alliance*) as "the most beautiful grocery store in the world." According to Ketter, Heinen's is "a game changer for the city" that "is an amenity that will attract more people to live and work downtown." It is the first full-service grocery store in downtown Cleveland and, because there is no precedent, was a risk for the company. Heinen's $10 million investment resulted in the smallest of any of their regional grocery stores and the company has had to adapt to an urban model.[43] According to Kline, the average purchase at the downtown location is significantly less than in the more suburban locations, while Nichols noted that foot traffic is significantly heavier. Heinen's has quickly become a tourist destination in downtown Cleveland, in addition to providing a needed community amenity for downtown residents and workers.

[42] Michelle Jarboe McFee. (2014). "Downtown Cleveland Alliance plans office move to 1010 Euclid building at former Ameritrust complex." *Plain Dealer* (January 8).
[43] Steven Litt. (2015). "Heinen's opens downtown supermarket in renovated Cleveland Trust Building", *Plain Dealer* (February 25)

By all accounts, the project is a resounding success. Ketter, for instance, notes that the scale, impact, concentration, and mix of uses helps differentiate the project from others in downtown Cleveland. He further discusses the effect of its quick transformation: "people didn't have expectations for it. To see it transformed so dramatically and quickly increases the drama of its impact. In fact the whole thing was done at once. Normally it would take several years to do this much work." Jennifer Coleman (*Chair, Cleveland Landmarks Commission*) simply states the project's impact as "huge" with spin-off benefits including projects to transform at least a half-dozen vacant office buildings in the surrounding area, including very early-stage ideas for the 925 Euclid (formerly Huntington Bank) building, which has the most square feet of any building in downtown Cleveland. Tom Yablonsky (*Executive Director, Historic Gateway Neighborhood Corporation*) describes the project's impact as "catalytic," arguing that it has allowed Cleveland's Main-and-Main intersection to "return to its grandeur."

In addition to the project's impact on downtown Cleveland's residential rental market, the project positively impacted downtown commercial real estate. It has had a net effect of taking units out of an over-supplied office market, thus increasing demand and raising rental rates on remaining office spaces. As Marinucci summarized, the OHPTC funding has allowed downtown Cleveland to adaptively reuse antiquated Class B and C office space, thus reducing the vacancy that resulted when companies left downtown and/or downsized over the past several decades.

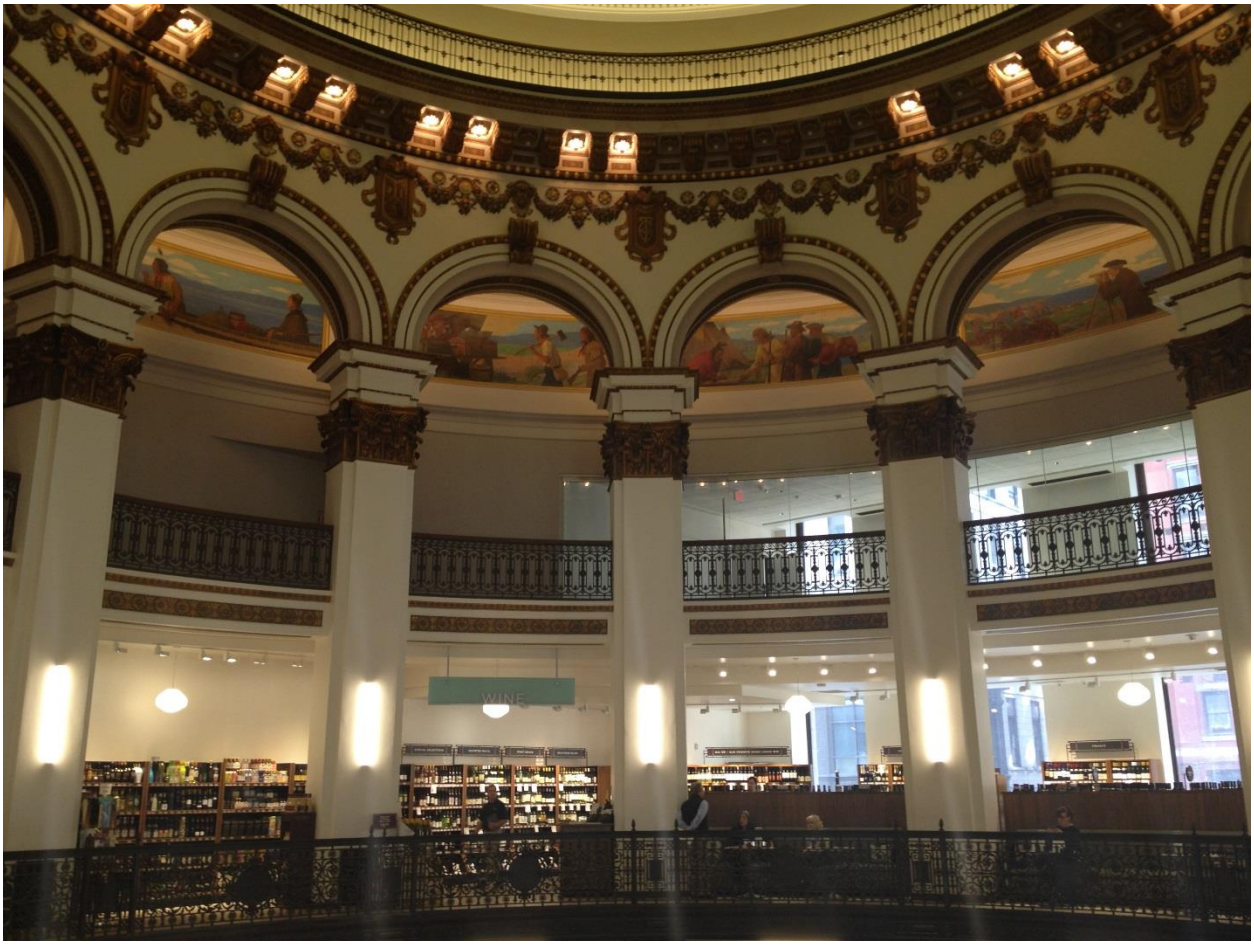
Although residential occupancy in downtown Cleveland is around 98%, securing traditional, private-sector project financing remains challenging. If Geis had not received the dramatically increased amended OHPTC, the project would likely have not come to fruition in its current form. The alternative outcome would have likely involved demolition of both the tower and the Swetland building, which was in the most deteriorated condition of all three buildings. As Ketter reflected, "you would have ended up with no project or a project that would have been far less impactful."

The OHPTC was an essential piece of financing the resurgence of the Cleveland Trust Complex as a key feature in Cleveland's Main-and-Main intersection. Geis was able to craft an overall project pro format that included restoring unique historic features and retaining public spaces, including the Rotunda, due to the OHPTC funding. As Kline summarized, "the thing that I think is most exciting to see, and this is where the tax credits come into play the most, is it allowed us to make a lot of unique aspects of this building open to the public. The last thing that Geis wanted to do was close off some of these gems from the public eye." Through the Cleveland Trust Complex project, the OHPTC promoted additional investment and reversing decades-long skepticism about the health of downtown Cleveland.

Figure 11. The Cleveland Trust Complex, with the Rotunda in the foreground[44]

[44] All pictures in this section are provided by authors of the case studies unless other source is listed.

Figure 12. Interior of Heinen's grocery store in the Rotunda



OLD OHIO SCHOOL FOR THE DEAF/CRISTO REY COLUMBUS HIGH SCHOOL

400 East Town Street

Columbus, Ohio 43215

Developer	Cristo Rey Columbus High School
Funding Round	10 (June 26, 2013)
OHPTC Amount	$3,885,891
Total Cost	$22,499,763
Building Use	School (81,145 sf)
Estimated Job Creation	45 permanent jobs 43 construction jobs
Status	Complete Certified on December 29, 2014

Sometimes the best answer is so obvious as to elude discovery. Such is the case with Columbus' historic Old Ohio School for the Deaf building. For decades, the hulking building seemed to lack a concrete future, with plans for adaptive reuse never coming to fruition. In the end, the success of this project was not in converting it to an alternate use, but rather rehabilitating the property for its original purpose: as a school. After sitting vacant and dormant for more than 30 years, the building is now teeming with life; resurrected as a Catholic, college-preparatory high school for students from economically challenged families (Figure 13, Figure 14, and Figure 15).[45]

The Old Ohio School for the Deaf opened in 1829 and, at the time, was one of only five such institutions in the country.[46] Over the next hundred years, the school served as many as 400 students at a time. The school occupied ten acres including the striking main building, dormitory residences, and a park.[47] In 1953, the Ohio School for the Deaf vacated its 85,000 square foot main building when it moved to the north side of Columbus.[48] By the 1980s, the school buildings were vacant and fell into disrepair. Plans to convert them into senior housing were cut short by a serious fire that burned down the entire complex, except the single remaining building.[49] Nancy Recchie, a neighboring resident and the historic preservation consultant for the recent OHPTC-funded restoration, describes residing next to the building as "living next to a carcass." Over the years, there were efforts to bring new uses to the derelict property. For instance, in the early 2000s, ideas to adaptively reuse the building as apartments stalled with the onset of a major economic recession.[50]

[45] Cristo Rey Columbus. (2014). *About*. Retrieved August 15, 2015, from http://www.cristoreycolumbus.org/about
[46] The Topiary Park. (n.d.). Ohio School for the Deaf. Retrieved August 12, 2015, from http://www.topiarypark.org/old-deaf-school.html
[47] Ibid.
[48] Ibid; Ball, B. R. (2013, April 26). Rehab 35 Years in the Making for Cristo Rey Columbus High School. *Columbus Business First.* Retrieved August 12, 2015, from http://www.bizjournals.com/columbus/print-edition/2013/04/26/opportunity-knocking-school-rehab-35.html
[49] The Topiary Park. (n.d.). Ohio School for the Deaf. Retrieved September 23, 2015, from http://www.topiarypark.org/old-deaf-school.html
[50] Ball, B. R. (2008, March 10). Developers, renovators must clear hurdles to get federal tax credit. Retrieved August 12, 2015, from *Columbus Business First*: http://www.bizjournals.com/columbus/stories/2008/03/10/focus2.html

In 2012, Jim Foley, a former attorney who had left his 35-year career to found a high school for underprivileged youth, was searching for a location for the new Cristo Rey Columbus High School.[51] Foley sought a downtown location and the Old Ohio School for the Deaf building proved ideal. For students, downtown provided a central transportation hub, making the school accessible to students from across Columbus. Additionally, the Cristo Rey schools follow a work-study model wherein students take classes four days a week and work one day in a professional stetting (e.g. law firms, banks, hospitals and other professional services).[52] Locating downtown ensured that students were in close proximity to their work-study placements.

As Foley was searching for a property, the Columbus Metropolitan Library's Main Branch hoped to expand by annexing the adjacent Old Ohio School for the Deaf.[53] Ultimately, Foley and the Metropolitan Library entered into a mutually beneficial partnership. The library purchased the entire parcel, including the former school and its grounds, for $2.16 million.[54] Cristo Rey then purchased the Old Ohio School for the Deaf building from the library for $1 million.[55] The library retained ownership of the parking lot, with plans to convert it into an outdoor plaza.[56] The library was also able to use the remainder of the parcel, which offsets its $30.4 million renovation of the downtown branch.[57]

After sitting vacant and dormant for more than 30 years, the Old Ohio School for the Deaf is once again a bustling academic center. After receiving the OHPTC in 2013, Foley and Cristo Rey restored the building as a Catholic, college-preparatory high school for economically disadvantaged students.[58] Cristo Rey Columbus High School is a private high school of the Diocese of Columbus and is open to all students.[59] As of this writing, approximately 80% of Cristo Rey students receive free or reduced lunches, and many also rely on public transit. A recent report in the *Columbus Dispatch* highlighted two Cristo Rey students who considered the work-study program important and found that it contributed to their personal growth.[60]

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[51] Viviano, J. (2012, July 22). Man Leaves Law to Help Kids Dream Once More. *The Columbus Dispatch*. Retrieved August 12, 2015, from http://www.dispatch.com/content/stories/local/2012/07/22/manleaves-law-to-help-kidsdream-once-more.html

[52] Cristo Rey Network. (n.d.). *Corporate Work Study Program*. Retrieved August 12, 2015, from http://www.cristoreynetwork.org/page.cfm?p=372

[53] Narciso, D. (2013, January 24). *New purpose for old Deaf School*. Retrieved August 12, 2015, from *The Columbus Dispatch*: http://www.dispatch.com/content/stories/local/2013/01/24/new-purposefor-old-school.html

[54] Ibid.

[55] Ball, B. R. (2013, April 26). *Rehab 35 years in the making for Cristo Rey Columbus High School*. Retrieved August 12, 2015, from *Columbus Business First*: http://www.bizjournals.com/columbus/print-edition/2013/04/26/opportunity-knocking-school-rehab-35.html

[56] Ibid.

[57] Ball, B. R. (2015, March 15). Main Library Closing for 16 months to Ease Construction. Columbus Business First. Retrieved August 12, 2015, from http://www.bizjournals.com/columbus/news/2015/03/10/main-library-closing-for-16-months-to-ease.html

[58] Cristo Rey Columbus. (2014). *About*. Retrieved August 15, 2015, from http://www.cristoreycolumbus.org/about

[59] Ibid.

[60] Vivano, J. (2014, August 11). Cristo Rey Brings Students Back to Old Deaf School. *The Columbus Dispatch*. Retrieved August 12, 2015, from http://www.dispatch.com/content/stories/local/2014/08/11/fresh-start.html

Overall, attending Cristo Rey stirs excitement in students, as the Cristo Rey network of schools have an average 88% graduation rate,[61] in comparison to Columbus City Schools' 77% graduation rate.[62]

Cristo Rey required complex financing from public, private, and non-profit entities. In addition to the $3.9 million OHPTC, the financing included $3.7 million from Federal Historic Preservation Tax Credits, a $10 million loan from the Catholic Diocese of Columbus, and federal New Markets Tax Credit financing, a federal incentive for real estate and/or business development in low-income areas.[63] Foley estimates that the state and federal historic tax credits accounted for 40% of the project's total cost. The OHPTC, with federal preservation credits, played a vital role in bringing this project to fruition, as Foley summarizes:

> *"I cannot say this in strong enough terms: But for the tax credits there is absolutely no way that this building would have been renovated by us. It was inconceivable for us to be able to afford to do it without the tax credits. Had the building not been renovated it would have sat here as a dilapidated, falling apart building, and the school would have been forced to go to a comparatively substandard location – certainly something that would have been far less than where we are now."*

Foley, the Metropolitan Library, and other key stakeholders are all pleased with the deal. The school's proximity to downtown is ideal and the Columbus Public Library's investment has tremendous community benefits. Speaking to the benefits for Cristo Rey, Foley stated that "the location works on so many different levels. It is hard to imagine another location that would measure up to this." Recchie succinctly summarized the ideal nature of the Columbus Metropolitan Library and Cristo Rey's partnership: "The win-win was that [the deal between the library and Cristo Rey] came at the right time. Cristo Rey was looking for a high school. They had looked in the downtown area, they had looked outside the downtown area. The timing was absolutely perfect. I absolutely marvel that the library and Cristo Rey found each other." Patrick Losinski (*Chief Executive Officer, Columbus Metropolitan Library*) indicated that having a school on the adjacent property is ideal, as it brings in students: "having 450 to 480 high school age students next to our main library has provided great energy for our building and kind of a nice mix of all ages in our building."

Many stakeholders noted that transforming the Old Ohio School for the Deaf into the Cristo Rey Columbus High School is a unique case as it involved rehabilitating an historic school as a school, rather than adaptively reusing it as housing, which has become common practice. The project's architect, Robert Loversidge, noted that "its uniqueness lies in the fact that it was updating an old school building, badly treated over the years, into a new school – not really an adaptive reuse." Since projects receiving federal and State of Ohio historic tax credits must be income-producing, schools are often not a viable end-product. Randy Black (*Historic Preservation Officer, City of Columbus*), noted that, "This school is one of

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[61] Cristo Rey Network. (2013). *Impact*. Retrieved August 12, 2015, from http://www.cristoreynetwork.org/page.cfm?p=354

[62] Good, J. D. (2014). *Columbus City Schools 2013-2014 Review*. Retrieved August 12, 2015, from http://www.ccsoh.us/Downloads/CCS%202013-2014%20State%20of%20the%20District%20Digital%20Resource%20Guide.pdf

[63] Garcia, T. (August 2014). High School Finds New Home in Renovated Historic Building. *Novogradac Journal of Tax Credits*, 2-5; Davis, W. (2013, March).Catholic Diocese of Columbus (Approval of financing Letter). Office of Finance Parish Aid Fund/Self Insurance Fund.

a kind. It is great from a historic stand point, the adaptive reuse is not an adaptive reuse. It is just a continuation, which is just a great thing."

The building's rehabilitation not only provides a tremendous educational opportunity for underprivileged children, but it has also helped catalyze revitalization in a neighborhood suffering from decades of disinvestment. City and state leaders herald the project as the rehabilitation of two key anchors (the school and library) in the east side of downtown Columbus. As with many neighborhood revitalization efforts, it is impossible to attribute direct causality to a single project, although the rehabilitation of the Old Ohio School for the Deaf has undoubtedly had a positive impact on the community. Losinski notes, "there are significant proposals being floated right now for redevelopment of the entire area around [the adjacent] Topiary Park; so, whether or not the school is a catalyst, it certainly hasn't hindered the interest." In addition, Cristo Rey gives local economic development leaders the ability to market downtown as having high-quality educational amenities, which did not exist prior to the OHPTC-funded transformation of the Old Ohio School. As a new urban amenity, Cristo Rey can further economic and community development strategies, such as recruiting senior leadership or new firms.

Cristo Rey has also supported an intangible, positive change in the neighborhood. As urban scholar Jane Jacobs noted, city streets should have eyes upon them and regular pedestrians, which creates a sense of safety and purpose.[64] Recchie reflected this sentiment noting that Cristo Rey students "make the park safer because there are people in it and looking out over it all the time now, and I know this, there are more people in the park than there used to be." This benefit furthers existing efforts on the part of the area's Special Improvement District, which employs safety ambassadors and other specialists to make the neighborhood a distinctive destination.[65]

In the end, energy and strength emanate from a well-designed space. The Old Ohio School's historical features even help Foley recruit students, as he stated, "they are walking around in a really cool structure and they like it. Some of them are coming from some pretty bad physical environments and the building is a significant aid in recruiting our incoming students." While Foley set out to help youth, he ended up also catalyzing an entire neighborhood. The community and the City of Columbus as a whole have both benefitted from the OHPTC-funded rehabilitation of the Old Ohio School for the Deaf into the Cristo Rey Columbus High School. As Losinski summarizes, "You say, oh, this is about the library and the school, you know that's about five percent of it. It's about the school being a part of that park, a part of the neighborhood, playing a part in bringing new people to the library, and the library's ability to serve everyone."

[64] Jacobs, J. (1961). *The Death and Life of Great American Cities*. New York: Random House.
[65] Downtown Columbus. (n.d.). *Discovery Special Improvement District*. Retrieved August 13, 2015, from http://downtowncolumbus.com/home/about-us/discovery-sid/

Figure 13. Old Ohio School for the Deaf/Cristo Rey Columbus High School

Figure 14. Entrance to Cristo Rey

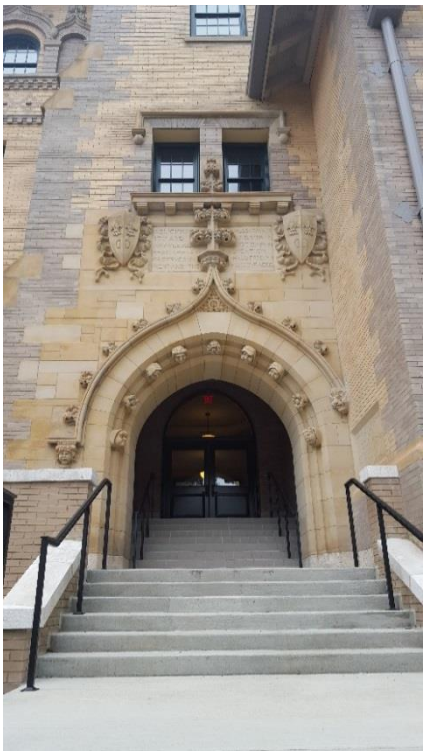
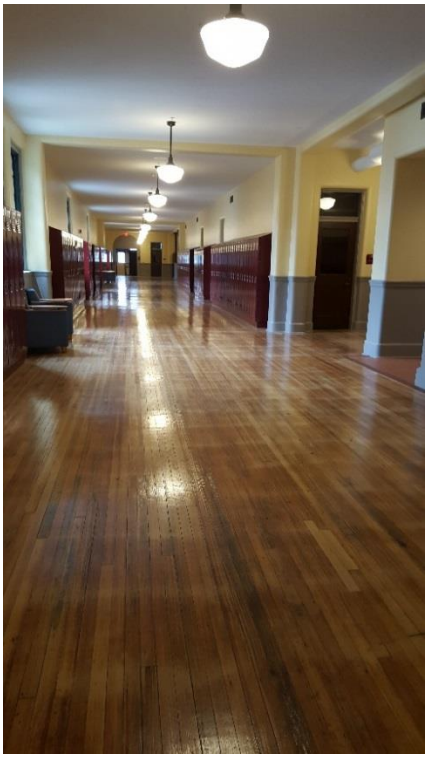


Figure 15. Interior hallway at Cristo Rey



HORIZON HOUSE

700 2nd Street

Portsmouth, Ohio 45662

Developer	Horizon House Apartments, LLC
Funding Round	3 (December 10, 2009)
OHPTC Amount	$1,543,630
Total Cost	$8,128,986
Building Use	Affordable senior housing (50 units)
Estimated Job Creation	3 permanent jobs 63 construction jobs
Status	Complete Certified on December 19, 2011

Located along the Ohio River, Portsmouth, a city with approximately 20,000 people, has a long history as a key river town situated at the border of Ohio and Kentucky.[66] Portsmouth sits at the confluence of the Ohio and Scioto Rivers and experienced rapid growth during the 19th century. The city fell upon hard times due to the Great Depression and a catastrophic flood in 1937.[67] Throughout the 20th and into the 21st century, Portsmouth's residents have continued the city's legacy as an economic driver in this largely rural region of Ohio. The city is now home to Shawnee State University, which has 4,400 full- and part-time students.[68] In addition, the city is known for the vibrant floodwall murals depicting the history of the city, the state, and our nation.[69]

Situated along Portsmouth's downtown riverfront is Horizon House, a five-story building that offers 50 units of high-quality, affordable senior housing in a prime downtown, walkable location (Figure 16 and Figure 17). Built in 1906 as the Joseph G. Reed Co. building, it originally housed a wholesale and dry good business that contributed to trade along the rivers. In 1981, Horizon House was adaptively reused as low-income residential housing. Six years later, the building was listed in the National Register of Historic Places as a part of the historic Bonneyfiddle Commercial Historic District.[70]

Over the next nearly three decades, Horizon House functioned as senior housing, but a lack of care, disinvestment, and deferred maintenance left the building in a deteriorated state in need of significant upgrading. During the recent economic downturn, the Ohio Capital Corporation for Housing (OCCH) acquired the property as part of a portfolio of over 250 buildings. Although most of those properties were located in Columbus, Horizon House was included due to its status as an absentee landlord building falling into slum conditions. Upon acquiring the property, OCCH quickly realized that Horizon House was in need of renovation and began seeking potential financing.

[66] U.S. Census Bureau. (2015, May 29). *State & County QuickFacts: Portsmouth (city), Ohio*. Retrieved August 14, 2015, from http://quickfacts.census.gov/qfd/states/39/3964304.html
[67] Ohio History Connection. (n.d.). *Portsmouth, Ohio*. Retrieved August 14, 2015, from http://www.ohiohistorycentral.org/w/Portsmouth,_Ohio?rec=793
[68] Shawnee State University. (n.d.). *Shawnee State at a Glance*. Retrieved August 15, 2015, from http://www.shawnee.edu/information/index.aspx
[69] Portsmouth Ohio Murals. (n.d.). *The Murals*. Retrieved August 14, 2015, from http://www.portsmouthohiomurals.com/murals.php
[70] United States Department of the Interior. (1987). *National Register of Historic Places - Nomination Form*. Retrieved August 14, 2015, from pdfhost.focus.nps.gov/docs/NRHP/Text/64000611.pdf

Like many OHPTC-funded projects, the financing for Horizon House involved a complex and layered package. Additionally, this restoration project occurred in the middle of one of the nation's worst financial crises in recent history, within an associated credit market that was extremely tight. As such, securing traditional, private financing for Horizon House was incredibly difficult, and the private equity generated via the OHPTC and other tax credits proved essential in making the restoration a success. In total, about 90% of the project's financing came from tax credits.[71] The project received about $1.1 million in federal historic preservation tax credits, over $1.5 million in OHPTC, and $4.4 million in low income housing tax credits. OCCH also obtained a loan from the Ohio Housing Finance Agency to cover the remaining costs. Hal Keller (*President, Ohio Capital Corporation for Housing*) noted that, "in order to do this building right, which it took about $185,000 per unit to do, we needed every little piece of financing to make it work."

Overall, the restoration of Horizon House helped create an enhanced environment for the seniors that live within the building. According to Beth Long (*Development Analyst, Ohio Capital Corporation for Housing*), the renovations to this building improved the quality of life for the residents and increased the building's functionality, stating that "it's more welcoming. We completely revamped the entry and lobby area so there is some gathering space on the first floor that had not been there before; that the residents wanted." Moreover, OCCH made a concerted effort to gather resident input when rehabilitating the building, having the on-site manager and service coordinator survey the tenants. As Long described, "we took resident input into the design elements where we could, especially in the exterior with the gazebo area and also in the sitting room." To make the building increasingly functional for its target population – seniors – the completed project included adding a second elevator that can accommodate a gurney. As Andrew Bailey (*Former Director of Planning, Preservation and Development, Ohio Housing Finance Agency*) succinctly stated, "adding a second elevator is a huge benefit for the residents."

The restoration of Horizon House as quality, affordable senior housing perfectly aligns with Portsmouth's community development objectives of creating a walkable, vibrant downtown, improving streetscapes, and conserving and expanding the affordable housing stock.[72] Affirming this contribution is that Horizon House's address is considered "very walkable" by the website *Walk Score*.[73] OCCH also ensured that all pre-existing tenants were not displaced, ensuring that they all had the opportunity to return to the building upon its completion and relocating them to a nearby hotel during the construction period. Since the project's completion, Horizon House residents are able to enjoy the amenities of a walkable, downtown location, while having an affordable place to live. Long summarized that Horizon House "has really nice views of the Ohio River Valley because it's right on the flood wall with the murals [of the Ohio River] kind of along downtown Portsmouth and there are just some nice views."

Not all buildings in Portsmouth, however, can benefit from the OHPTC or Federal Historic Preservation Tax Credits, because too many alterations over time disqualify the structures from the National Register

[71] Ohio Capital Corporation for Housing. (2009, March 19). Horizon House Deferred Fee and General Partner Capital Contribution. Columbus, Ohio.
[72] City of Portsmouth Ohio. (n.d.). *Community Development*. Retrieved August 14, 2015, from https://portsmouthoh.org/departments/community-development; Main Street Portsmouth. (2015). *Welcome to Downtown Portsmouth*. Retrieved August 14, 2015, from http://www.mspohio.org/
[73] Walk Score. (2015). *700 2nd Street Portsmouth, Ohio, 45662*. Retrieved August 14, 2015, from https://www.walkscore.com/score/700-2nd-st-portsmouth-oh-45662

of Historic Places, a precondition to OHPTC or Federal Historic Preservation Tax Credit eligibility. Kevin W. Johnson (*City Council, City of Portsmouth*), explained that "unfortunately, many of what we consider historic buildings here do not meet the requirements on the national or state level to be designated as a historic site and that makes them ineligible for the funds." From this perspective, the Horizon House is something of a historical treasure for the community. However, other buildings that cannot be placed on National Register of Historic Places must be more creative in their financing in order to be rehabilitated.

In the end, the OHPTC-funded renovation of Horizon House preserves an important piece of downtown Portsmouth's history, restores quality to a landmark building in the city, and provides a much-needed 21st century use through affordable senior housing. While the Joseph G. Reed Co. building, built as a warehouse and storage facility, does not have a lavish exterior often expected of historic buildings, it retains great historic significance and contemporary importance for Portsmouth. As Keller summarized, the building "probably did not have all the bells and whistles that are in some others [historic buildings], but it is an important part of downtown. It is right next to city hall, so location is very important." The OHPTC-funded restoration of Horizon House as quality senior housing ensures that the Joseph G. Reed Co. building lives on as a key element in making downtown Portsmouth a walkable, livable, and vibrant community.

Figure 16. Horizon House

Figure 17. Entrance to Horizon House

JOHN T. WILSON HOMESTEAD

92 Old State Route 32

Scott Township (Peebles), OH 45660

Developer	Ralph J. Alexander
Funding Round	1 (May 9, 2008)
OHPTC Amount	$61,756
Total Cost	$576,715
Building Use	Hotel
Estimated Job Creation	2 permanent jobs 3 construction jobs
Status	Complete Certified on December 2, 2012

The John T. Wilson Homestead is one of the most historically significant properties within Adams County and, through the OHPTC-funded rehabilitation, now functions as a key historical destination, contributing in multiple ways to tourism-based economic development in the county. John T. Wilson (1811-1891) was an Ohio businessman, abolitionist, Civil War Union Captain, Ohio State Senate representative, U.S. Congressional Representative, and philanthropist.[74] Throughout his life, he called Adams County, Ohio home. The house, completed in 1844, included a large brick home and an attached log cabin, which served as a location for his mercantile business (Figure 18, Figure 19).[75] Throughout his life, John T. Wilson gave back to the community, contributing land for a children's home in Adams County and money for the Civil War Soldiers' Monument.[76] In total, he willed over $500,000 to charitable causes.[77]

In 2006, Ralph Alexander, a retired high school superintendent of area vocational/technical schools, became the unexpected steward of John T. Wilson's legacy. Intending to buy a railroad caboose, Alexander ventured to the John T. Wilson home. Once there, he was captivated by the property, stating, "there was something, I can't tell you why, that drew me to it – the idea of restoring a historical property." Over dinner, he told his wife about the property, who joked that it would make a good bed and breakfast. His interest brought him back to the property, bringing a friend with experience in carpentry. According to Alexander, his friend was skeptical, stating that "you're foolish if you even think about doing this." Alexander knew he would have a hard time financing the property's restoration and that the possibility of convincing a bank that he could rehabilitate a 19th century home into a bed and breakfast was a hard sell. His resolve was further set, though, when he sat in the lobby of the National Bank of Adams County and looked up to see a framed picture of the John T. Wilson house. Alexander closed on the property in twenty days and the work began shortly after.

Alexander had never heard of the OHPTC until he met with a group from Shawnee State University. He learned that since the home was listed in the National Register of Historic Places in 1977 it was eligible for federal and state historic preservation tax credits.[78] A single independent purchaser with few investors,

[74] John T. Wilson Homestead. (2011). *John T. Wilson Homestead*. Retrieved August 11, 2015, from John T. Wilson : http://www.johntwilsonhomestead.com/john-t-wilson/

[75] Ibid.

[76] Ibid.

[77] Ibid.

[78] Ohio History Connection. (2015). *John T. Wilson Homestead*. Retrieved August 11, 2015, from State Historic Preservation Office Awards: https://www.ohiohistory.org/preserve/state-historic-preservation-office/hpawards/past-recipients/2014-shpo-awards/john-t-wilson-homstead.

he submitted his application alongside many large developers asking for millions of dollars in tax credits. According to Alexander, he was one of only four small projects to apply during the OHPTC's first round and, initially, the state did not fund his project. However, after submitting additional drawings, the state awarded him an OHPTC for $61,756 in 2008, putting Alexander on a five-year timeline to complete the restoration. He completed the work in 2012 and the Ohio Historic Preservation Office certified the project. Alexander acknowledges that without the OHPTC, "there is no way we could have completed this project to the degree that we did, and to the quality that we did. We couldn't have put that extra money in this to make this what it is today if we hadn't had these tax credits."

Approximately three weeks after Alexander purchased the property, an investor toured the site and suggested demolishing the house. His idea was to split the 42-acre parcel into 5-acre lots for residential development. Instead, Ralph and his wife, Patricia, Alexander now operate the John T. Wilson Homestead primarily as a bed and breakfast, contributing to Adams County's heritage tourism sector. Many individuals who choose to stay at the property do so because of its historic significance. They specifically travel because they value the home and property's historic value, the connection to the Underground Railroad, its proximity to Serpent Mound (approximately 10 miles away) or because they are preservation enthusiasts. Tom Cross (*Executive Director, Adams County Travel & Visitors Bureau*) noted that "history is one of the largest contributors to what people are interested in," and that it draws them to Adams County for tourism and recreation. However, the John T. Wilson home is much more than a bed and breakfast. It also serves as an historical site open for tours, a meeting facility, a school house, and a location for the annual Adams County Heritage Days festival. The large room that serves breakfast to B&B guests also hosts meetings for community groups and others in the evening.

Alexander points out that the house and the Heritage Days festival have taken on lives of their own, noting that "if this place had fallen down, which was close to happening, none of that would have happened." The Adams County Heritage Days has grown from a small gathering into a two-day festival that attracts about 1,500 people, with the Adams County Travel & Visitors Bureau labelling it one of "6 Don't Miss Events."[79] Heritage Days contributes to the local economy and, according to Paul Worley (*Adams County Commissioner*), "it has an impact because we have a lot of local vendors that sell their wares, whether it is homemade honey or crafts." On a larger scale, tourism is now Adams County's second largest industry, behind manufacturing. The tourism sector has grown by about 10% annually over the past few years.

Through the OHPTC, Alexander turned the John T. Wilson home into a public space to share with the community and to continue the legacy and history of John T. Wilson. Worley emphasized that the OHPTC was vital and without it, "Ralph would have probably turned it [John T. Wilson Homestead] into a private home." If anything, local stakeholders believe that more investment in historic preservation and economic development is needed in Adams County, as not all buildings have the same positive outcome as the John T. Wilson Home. For instance, one of Adams County's notable landmarks, the Counterfeit House, was recently sold and demolished due to disrepair and disinvestment.[80] Reflecting on this

[79] Adams County Travel & Visitors Bureau. (2015). *2015 Visitors & Community Guide*. Retrieved August 11, 2015, from http://adamscountytravel.org/images/AdamsCountyTravelGuide2015-lowres.pdf

[80] (2010, April 12). Counterfeit House Set for Auction May 8. *The Highland County Press*. Retrieved on August 11, 2015 from http://www.highlandcountypress.com/main.asp?SectionID=2&SubSectionID=74&ArticleID=2828

alternate fate, Cross lamented, “it’s a shame that the thing [Counterfeit House] fell down but there was no one to save it.” He further articulated that “you can see signs of decay in other historic places, but we were not fortunate enough to have someone like Ralph step in and restore them.”

In the scope of all historic preservation projects in Ohio, the John T. Wilson home is not the largest nor the most prominent, but it is no less significant. In total it cost Alexander about $575,000 to rehabilitate the home, with around $61,000 coming from the OHPTC. In the end, the estimated cost of the project was significantly more than initially expected, even with Alexander completing much of the work himself, free of charge, as his experience with vocational/technical education gave him an advantage of knowing how to deal with construction and renovation issues. In total, he logged over 7,000 hours of manual labor on the house, reflecting that this project, for him, was truly a labor of love. Alexander summarizes his passion for the project and its intangible benefits as such: “it’s a place Adams County can be proud of. It’s a part of history.”

The legacy of John T. Wilson as a community leader lives on in the capable hands of his contemporary steward, Ralph Alexander. Through the OHPTC, Alexander restored the home to productive use and shared it with all individuals – locals and visitors, alike. Adams County now has another jewel to serve as a tourist attraction and community space. In the end, Ralph Alexander, with the help of the OHPTC, not only preserved an historic property, but also saved a key piece of Adams County’s rich and valuable history.

Figure 18. John T. Wilson Homestead

Figure 19. John T. Wilson Homestead, including some of the grounds

GOODYEAR HALL

1201 E. Market Street

Akron, OH 44305

Developer	IRG Rubber City Market Hall, LLC
Funding Round	10 (June 26, 2013)
OHPTC Amount	$5,000,000
Total Cost	$36,009,150
Building Use	Market-rate housing (109 units) Retail (84,680 sq. ft.) Commercial/office (20,440 sq. ft.) Restaurant (8,760 sq. ft.)
Estimated Job Creation	250 permanent jobs 400 construction jobs
Status	Under construction

The importance of the Goodyear Tire & Rubber Company to Akron's economic, social and historic fabric cannot be overstated, and ties between the company and the City of Akron run deep. As Peter Goffstein (*Senior Vice President, IRG*), the developer of Goodyear Hall, notes: "Goodyear is Akron's history. There is no other Fortune 500 company that is more Akron than Goodyear." Goodyear, the third-largest tire manufacturer in the world, was founded in Akron in 1890. The company has a deep commitment to the city, staying in Akron while all of their competitors moved or closed operations in the 1980s.[81] The adaptive reuse of Goodyear Hall (Figure 20), a 292,000 square foot building, has been central to the multi-year economic revitalization of Akron's East End. The project also carries symbolic importance for the City of Akron with portions of the building becoming public spaces for the greater Akron community. The Goodyear Hall project reflects a shift in Ohio's urban economies from an era of heavy manufacturing and industrial production to mixed-use neighborhoods that blend corporate headquarters, business services, high-quality residences, retail, and recreation.

Located within the nearly 400-acre Goodyear campus, Goodyear Hall was built from 1917-1920 and served as an educational, entertainment, and recreation space for Goodyear employees. Over time, the building also housed the company's gift shop and popular "World of Rubber" exhibition.[82] Designed by renowned Cleveland architectural firm Walker and Weeks, Goodyear Hall is a six-story brick and terra cotta building in the Gothic Revival style that includes an historic ballroom, a 1,000+ seat theater and a gymnasium, in addition to classrooms. The building is attached to the Ohio Savings and Trust Bank designed in the Classic Revival style, making the two buildings appear architecturally distinct from the exterior (Figure 21).[83] Goodyear Hall and the bank building, however, are seamlessly connected on the interior and provided Goodyear employees with a range of financial, educational, entertainment, and recreational benefits.

Goodyear Hall is historically significant as part of the larger Goodyear campus. Additionally, according to interviews with the project developer and local leaders, as many as five NBA teams can trace their history to the Goodyear Hall's gymnasium, where Goodyear's corporate basketball team – the Goodyear

[81] Keith Schneider, (2013). "Akron Shakes off Some Rust with Goodyear Tire's Help," *New York Times*, June 25.
[82] Jim Mackinnon, (2014). "Historic Goodyear Hall transformed as East End project continues; nearby Hilton hotel opens this week," *Akron Beacon Journal*, November 15.
[83] Peter M. Goffstein, (March 19, 2013). Letter to Ohio Development Services Agency, OHPTC Application.

Wingfoots – played in the National Basketball League.[84] In 2015, amid the construction of a multi-million dollar adaptive reuse, the developers opened the historic gymnasium for the Greater Akron Chamber of Commerce's dinner where the organization bestowed its prestigious H. Peter Burg award for community impact to NBA star LeBron James.[85]

In 2007, IRG Rubber City, LLC (a division of Industrial Realty Group) entered into a development agreement with the City of Akron and Summit County for the 400-acre Goodyear campus. As the master developer, IRG acquired the campus in 2009 and constructed a new 640,000 sq. ft., $160M headquarters, which it leases to Goodyear. The company moved the last of its employees out of its former headquarters and Goodyear Hall in 2013.[86] The redevelopment of the remainder of the campus is a multi-phase, long-term project that mixes historic rehabilitations, public space improvements, and new construction, including a new Hilton Garden Inn. The latter, which opened in November 2014, is the first new hotel built in Akron in about four decades. IRG constructed the $18 million, 135-room hotel on a former parking lot.[87]

IRG's first historic rehabilitation project is the adaptive reuse of Goodyear Hall. The developer's vision for the East End is a sustainable, mixed-use environment, in which multifamily housing is an essential component. Although it was challenging to develop the plan for Goodyear Hall due to the building's complexity and unique spaces, it was suited for multifamily housing and, according to IRG, was the most obvious next step in the overall economic revitalization of Akron's East End. The building, which was 60% vacant at the time of the OHPTC application, was designated a local landmark and listed on the National Register of Historic Places in 2013.[88]

The final project blends residential, retail, entertainment, and recreation space in a single building. It includes 109 units of market-rate housing, with ground-floor retail spaces, and indoor parking in the basement. IRG hopes to secure a restaurant for the former bank space. The residential units are mostly loft-style one- or two-bedroom apartments. There are also some unique spaces such as two-story units that open onto a shared outdoor courtyard. IRG is on-schedule to complete Goodyear Hall in fall 2015. To date the residential units are leasing better than expected with nearly half of the units already leased and full occupancy expected by the end of the year. While the developer did not have specific data on the mix of residents, the tenants are a mix of people moving from within the Akron area and people moving to Akron from elsewhere, particularly millennials moving to the city to work at Goodyear – a positive step for Akron, which otherwise often loses residents to surrounding suburbs or nearby cities.

The building's unique spaces include the historic gymnasium (Figure 22), auditorium, and ballroom/community room (Figure 23), making the building stand out from other residential adaptive

[84] "Goodyear Goes from Rubber to Roundball," *PRNewswire*. Retrieved 8/11/2015 from http://www.prnewswire.com/news-releases/goodyear-goes-from-rubber-to-roundball-55206557.html.
[85] Paula Schleis, (2015). "Akron chamber honors LeBron James for work of his charitable foundation," *Akron Beacon Journal*, March 31.
[86] Jim Mackinnon, (2012), "Goodyear busy unstuffing old headquarters as it preps to move employees to new place," *Akron Beacon Journal*, November 19; Jim Mackinnon, (2013), "Finally, a sign that Goodyear will be moving into its new headquarters soon," *Akron Beacon Journal*, February 15; Schneider, "Akron Shakes off Some Rust;"
[87] Jim Mackinnon, "Historic Goodyear Hall transformed;" John Harper, (2014), "Akron opens Hilton Garden Inn, first new hotel since 1980," *Cleveland.com*, November 14.
[88] IRG Rubber City, LLC, (2013), Ohio Historic Preservation Tax Credit Round 10 Application.

reuse projects. While these spaces presented a challenge for the developer – there were few economic models or precedents to base projections for eventual operations and revenue, IRG recognizes that these spaces have unique value, could never be built into a newly constructed building today, and are beneficial to retain as public spaces for the Akron community. Furthermore, they provided IRG with an opportunity to retain a connection between the Goodyear campus and the Akron community by ensuring that at least some of Goodyear Hall would be publically accessible. In a recent interview, the developer indicated that they had recently secured an operator for the gym, and while details are not yet public, they expect to begin hosting youth programming as early as September 2015. IRG is also in the early stages of discussions with an operator for the theater space, the hardest component of the project.

The OHPTC was a key component to the successful, high-quality adaptive reuse of Goodyear Hall. From the developer's perspective, the OHPTC is an essential component of financing the rehabilitation of older buildings, particularly ones such as Goodyear Hall which have unique components that do not have good business models (e.g. the gymnasium and theater). According to Peter Goffstein, IRG "wants to make a difference in communities where we work and, without programs like the OHPTC, we cannot do what we do." The preservation consultant for the project noted that without the OHPTC, the renovation of Goodyear Hall would have been "value-engineered," with a lower-quality product. Key amenities, such as the retention and lighting of the rooftop Goodyear sign (Figure 24) or renovation of the gymnasium, would not have occurred.

Stakeholders from the City of Akron and the Summit County Development Finance Authority remarked that the OHPTC was allowing IRG to take an important landmark within Akron – the Goodyear campus – and to make it useful in a new way for the 21st century. Adele Dorfner Roth (*Deputy Planning Director for Economic Development, City of Akron*) links the OHPTC and Goodyear Hall project to the city's overall revitalization goals, stating that "it is hugely important for urban areas. We are trying to attract young professionals and millennials who are looking for cool, interesting places to live. They don't necessarily go where there's a job – they want to live in a 'place'," with historic buildings, in this case Goodyear Hall, offering that unique, marketable environment. Furthermore, the OHPTC helped to attract additional private capital and financing for the Goodyear Hall project, which is positive for the City of Akron as a whole. In their application for the OHPTC, IRG estimated a leveraged investment ratio of 7.2. The OHPTC was essential in securing additional public financing, especially from the Development Finance Authority of Summit County, which provided about $6.5 million in bond funding for Goodyear Hall.[89] In 2014, the City of Akron approved tax increment financing (TIF) for the East End to funnel funds back into the overall project.[90] The developer also received federal historic preservation tax credits for Goodyear Hall (totaling $4.5 million).

The adaptive reuse of Goodyear Hall is an essential element in the overall economic revitalization of Akron's East End neighborhood, with benefits extending to the City of Akron, as a whole. To fully understand the catalytic impact of Goodyear Hall, city leaders noted that the reuse of Goodyear Hall was inseparable from the larger effort to keep Goodyear in Akron. While Goodyear needed a new, modern

[89] Development Finance Authority of Summit County, (2014), *2014 Annual Report*.
[90] Stephanie Warsmith, (2014), "Akron council approves tax break for Goodyear redevelopment project; money will be put back into the project," *Akron Beacon Journal*, November 3.

headquarters, keeping the company in Akron also required improving the neighborhood and transforming the campus into a vibrant, mixed-use destination. Goodyear Hall is an integral component of the East End. Its retail spaces will benefit hotel patrons and nearby office employees who work at the new Goodyear headquarters and at future offices scheduled for renovation in the former headquarters. The housing units are attractive for Goodyear employees and serve as a marketing tool for securing tenants for renovated spaces in the former headquarters. IRG is currently moving forward on rehabilitation plans for the 1.5 million sq. ft. headquarters building, which is directly across the street from Goodyear Hall. IRG strongly believes that their success with Goodyear Hall is crucial to the viability of the headquarters building, which is a much larger and more difficult project. The developer is willing to invest millions in the headquarters building before having a full slate of tenants lined up and is doing so largely because of their success with Goodyear Hall, along with the hotel project and the new Goodyear headquarters. IRG is using Goodyear Hall to market spaces in the headquarters building, noting that prospective tenants all want a tour of Goodyear Hall and are enticed by the idea of having nearby retail and residential amenities.

Broadly speaking, Goodyear Hall provides a number of positive catalytic benefits to the City of Akron. Aside from returning a historically significant property to productive use and re-establishing a strong tax base in the East End neighborhood, it was important to reopen the building to the community given Goodyear's integral role in Akron's civic identity. Christopher Burnham (*President, Development Finance Authority of Summit County*) captured this sentiment stating that it was unclear if Akron could have recovered if Goodyear had left and that "there is psychological value and impact from economic development investment that we sometimes don't think about." Additionally, the residential component of the project provides Akron with much-needed "middle-market" housing that offers live/work neighborhood opportunities, rather than high-end condominiums or student housing which dominate the Akron rental market. The project also helps rebuild connections between the city's East End and downtown and offers the city a unique, marketable asset, as Adele Dorfner Roth articulated:

> *"If a building is torn down, you can't market that. With Goodyear Hall, we can show this really cool old building and say that it is a great place to have events, that LeBron James had this big dinner there, that the NBA started there. If you have to look at a parking lot and say what happened there, it is not the same thing. To have plaques in front of parking lots is just not the same."*

The adaptive reuse of Goodyear Hall has potentially more widespread, long-term benefits for the State of Ohio. IRG is one of the state's largest landowners, particularly of older, industrial properties. Goodyear Hall is IRG's first OHPTC and residential project in Ohio (the company has used federal preservation tax credits on two projects in California and has worked in Ohio on industrial projects for decades) and the ease of using the credits, the benefits of the OHPTC to financing the project, and the project's overall success have already spurred IRG to embark on additional preservation and adaptive reuse projects, including projects in Canton and Norwood.

Overall, the adaptive reuse of Goodyear Hall has tangible and intangible benefits to the City of Akron, its East End neighborhood, and the State of Ohio, as a whole. The OHPTC was essential to the project's high-quality success, was easy to use, and was very streamlined with IRG's use of the federal preservation tax

credit. The preservation of Goodyear Hall transforms a piece of Akron's heritage into an asset for the 21st century, with the added benefit, according to Adele Dorfner Roth, that "it strengthens our sense of ourselves and our history."

Figure 20. Goodyear Hall, with the gymnasium in the foreground

Figure 21. Goodyear Hall's E. Market Street facade, with the Ohio Savings & Trust Bank

Figure 22. Goodyear Hall's gymnasium, under renovation

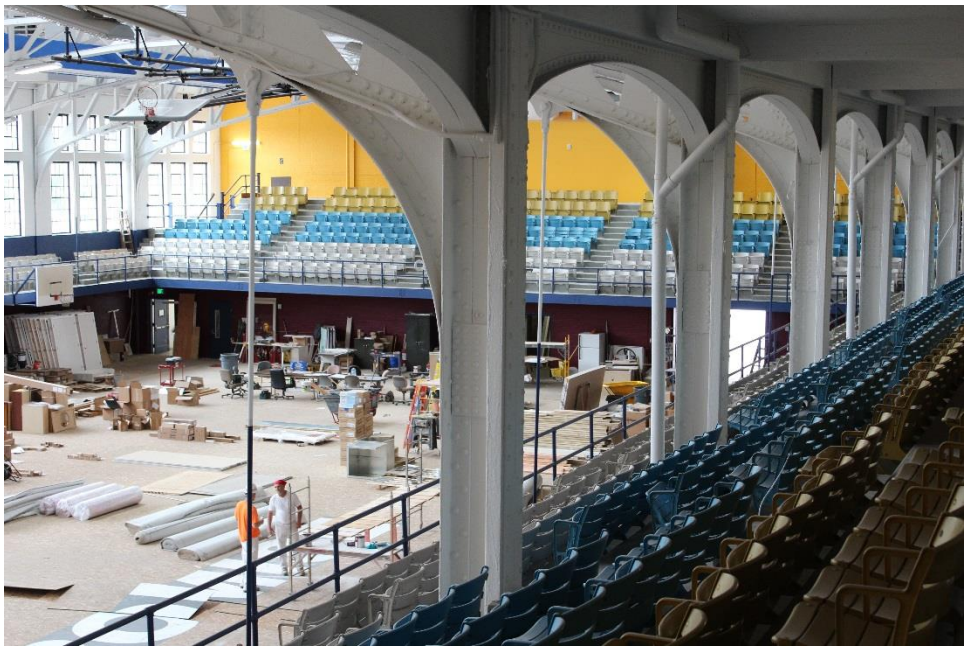


Figure 23. Goodyear Hall's Ballroom, Restored as a Community Room and Rental Space

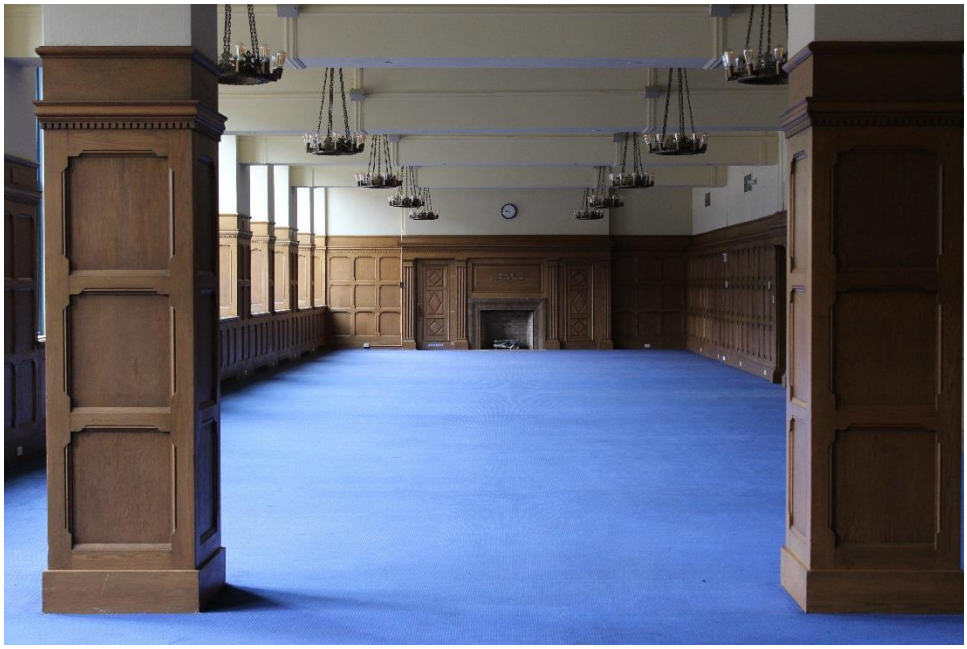


Figure 24. Illuminated Goodyear sign atop Goodyear hall

KRESS BUILDING

117-121 W. Federal Street

Youngstown, OH 44503

Developer	Youngstown Central Area Community Improvement Corporation & ISLE, Inc.
Funding Rounds	6 and 7 (denied)
OHPTC Request	$1,274,425 (Round 6 & 7)
Total Proposed Investment	$5,228,841 (Round 6 & 7)
Proposed Building Use	Residential (5 units) Retail (2,817 sq. ft.) Commercial/office (29,646 sq. ft.)
Estimated Job Creation	70 permanent jobs 40-60 construction jobs
Status	Application denied Demolished

In 2014, spectators gathered to watch the demolition of downtown Youngstown's historic Kress building. Despite significant deterioration from a failing roof and nearly twenty years of neglect and vacancy, the steel-reinforced building held its ground. As Sharon Letson (*Executive Director, CityScape*) reflected, "when they took this building down, they couldn't get it down." Ultimately, of course, the building came down – despite multiple efforts to put together a financing package for rehabilitation and two failed applications for the OHPTC in 2011. Demolition is final and irreversible, and with it comes a loss of community character, identity, and history. The loss of the Kress building reflects the intense difficulty of restoring historic buildings in communities such as Youngstown, where weak market conditions make financing project extremely difficult despite positive change in the downtown core. Without key forms of public finance, including the OHPTC, leaders in Youngstown were not able to save the Kress building.

Built in 1925, the Kress building housed its namesake five-and-dime store until the retail operation closed in 1959.[91] The building was an integral piece of W. Federal Street, Youngstown's downtown "main street." The three-story building had a terracotta façade, a defining characteristic of Youngstown's downtown commercial buildings, and street-level retail space (Figure 25).

By the 1990s, downtown Youngstown was facing severe disinvestment and the city, in an effort to stave off further deterioration and spur revitalization, used its CDBG funding to purchase 80 parcels that included approximately 40 buildings in disrepair – including the Kress building. The city transferred the properties to the newly created Youngstown Area Community Improvement Corporation (CIC), an arm of the Youngstown/Warren Regional Chamber of Commerce. Over the past two decades, the CIC has employed a mix of preservation, demolition, and new construction to transform downtown Youngstown. As of this writing, the CIC has one parcel and no buildings left in its inventory.[92]

For the CIC, the Kress building was one of the last and most challenging buildings to tackle. The building had been in disrepair since the 1990s, with a hole in the roof exposing the interior to the elements and causing structural damage.[93] While first-hand accounts recalled trees growing in the building and collapsed walls, the façade of the building was salvageable and the exterior terra cotta was in sound condition. In 2011, the CIC had located a viable tenant – Iron and String Life Enhancement (ISLE), which planned to relocate its Purple Cat day program for mentally and developmentally disabled adults to the

[91] Karen Bell, (2014), "Kress building demolition mirrored in other states," *The Vindicator*, March 31.
[92] Thomas Humphries, Dave Kosec and David Bozanich, (2015), personal communication, August 4.
[93] David Skolnick, (2013), "The vacant downtown building needs to be demolished," *Vindy.com*, September 17.

Kress building. Prior to this, the CIC had tried to make the Kress building work for a variety of potential tenants, including the Mahoning Valley Sports Museum and Sports Center and the Mahoning Valley Historical Society, without success.[94] The ISLE deal, though, had a complex, yet viable financing package and, with the CIC, moved forward in applying of the OHPTC. The OHPTC applications, submitted in Rounds 6 (Spring 2011) and 7 (Fall 2011), were both unsuccessful. The application included letters of financing commitment from ISLE, Farmers National Bank, and U.S. Congressman Tim Ryan.

In 2013, after financing for the Kress building rehabilitation failed to come together, the CIC decided to proceed with demolition.[95] Demolition began in March 2014, following approval from the city's design review committee. The CIC sold the property to the City of Youngstown for approximately $500,000, which covered the cost of demolition.[96] The city subsequently converted the property to a parking lot (Figure 26).

The demolition of the Kress building illustrates the fragility of complex financing packages needed to rehabilitate historic buildings, particular in markets where traditional, private financing is difficult to secure. Furthermore, this case sheds light on the need for various state programs to work in concert with each other, as developers often use more than one form of public financing. In the case of the Kress building, the CIC and ISLE sought the OHPTC and Clean Ohio brownfield abatement funds, which would have assisted with interior demolition and clean-up, but the awards did not come through.[97] Ultimately, costs escalated as the timeline was extended, demolition and abatement costs increased (particularly without Clean Ohio funds), and the OHPTC applications were denied. Both forms of state funding were necessary to make the project work – without them the developer could not secure traditional, bank financing. In interviews, the CIC stated that if the Clean Ohio grant, which would have covered the demolition and environmental clean-up costs, were a part of the funding up front, the banks and financing would have been in place for the OHPTC application and the private-sector tenant, ISLE, would not have walked away from the deal.

Key stakeholders in Youngstown, including at the CIC, argue that state financing, in this case the OHPTC, is imperative to making projects work in Youngstown, where access to private capital is limited. For example, Dave Kosec (Development Services Manager, Youngstown Area CIC) argues that the OHPTC is especially imperative in weaker-market locations where construction costs are similar to stronger markets, but rental rates are significantly lower. David Bozanich (Director of Finance, City of Youngstown) stated that even with federal and state preservation tax credits, "The City of Youngstown still has to provide 5-10% of the total cost via utility grants just to make it possible to think about project feasibility. Without the federal and state programs, these projects do not happen." Underpinning the fragility of project finance and the importance of state support is the difficulty of securing bank financing and appraisals that make projects viable, as local real estate developer, Dominic Marchionda (NYO Property Group, Erie & Wick buildings) summarized, "apartments are full and demand is significant. But, the

[94] David Skolnick, (2013), "The vacant downtown building needs to be demolished," *Vindy.com*, September 17.
[95] David Skolnick, (2013), "The vacant downtown building needs to be demolished," *Vindy.com*, September 17.
[96] David Skolnick, (2013), "Demolition of Kress Building downtown to start in about 2 weeks," *Vindy.com*, March 5; Karen Bell, "Kress building demolition."
[97] Katie Seminara, (2008), "State Theatre razing on track, officials say," *Vindy.com*, November 28.

financing stack has become more complex and difficult because many banks still don't believe in urban communities like downtown Youngstown."

With the loss of the Kress building, downtown Youngstown lost a small but integral part of its main street (Figure 27). The demolition removed part of the city's legacy, reduced the ability to differentiate downtown based on its cohesive and unique character, and furthered disinvestment rather than revitalization. Interviewees characterized the loss as a "huge detriment" and a "wasted opportunity." The demolition was also detrimental to downtown's pedestrian environment and has reduced the potential for new businesses and street-level activity. Sara Wenger (*Community Development Program Manager, Eastgate MPO*) characterized the loss as: "very significant for downtown because now there really is no feel of density in the one section of town where there was density. Now, we have an underutilized space that pays no tax revenue. It is a void at the epicenter of the city."

Stakeholders in Youngstown believed that if the Kress building had been successfully rehabilitated, it would have had a positive effect on the city, particularly by opening up much-needed space for downtown commerce and street-level activity. For instance, H. William Lawson (*Mahoning Valley Historical Society*) argued that "downtown Youngstown is evolving into a distinct district and building space is finite." Rodney Lamberson (*Strollo Architects*) stated that "the Kress building is needed now more than ever," as other vacant buildings have been rehabilitated and spaces for new commercial activity and residences are limited. Additionally, Sara Wenger posits that "it would have been seen as an asset within a year" had it been rehabilitated.

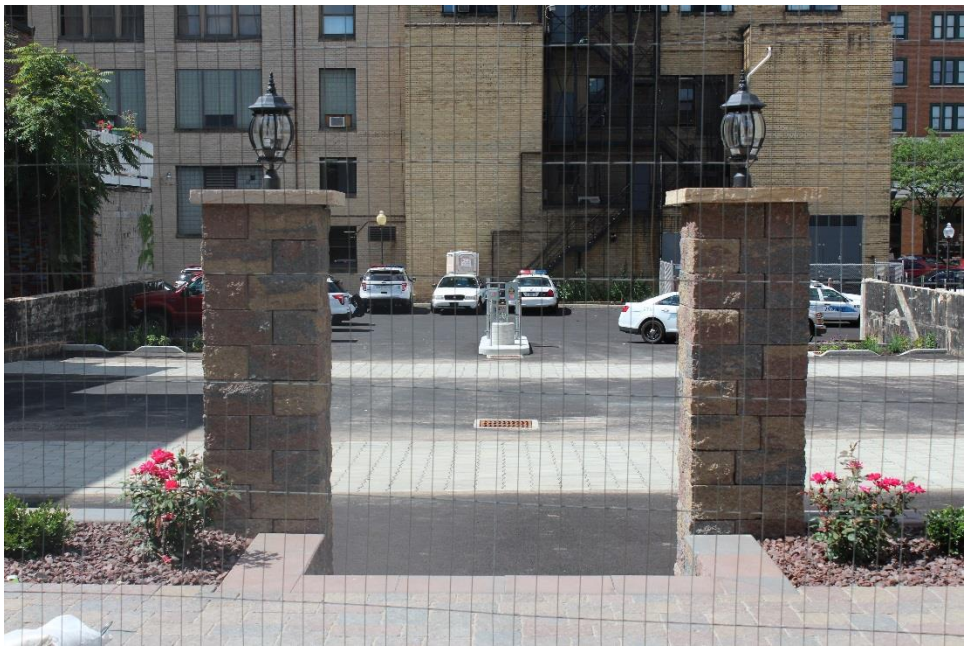
The CIC has a realistic perspective that not every building in downtown Youngstown could or should have been saved, yet it made a concerted effort to find a way to keep the Kress building standing. Ultimately, though, the financing hurdles proved insurmountable and the failure to successfully secure the OHPTC resulted in the building's demolition. The lack of an OHPTC to support the Kress building project not only resulted in the building's demolition, it also resulted in a significant loss of time and investment for involved parties. According to the CIC, the business owner, ISLE, had invested time and money in developing plans for the building; there were personal commitments in place, and 100 hours of work a week was put into the deal. The Round 6 application lists two parcels for the Kress building. In 1995, according to the Mahoning Valley auditor's website, they were assessed at a total of $90,000. In the wake of the recession, their combined value had dropped to $59,920 (a 33% decline). In the aftermath of demolition, their combined value is now $39,560 (a 56% decline from 1995). Furthermore, the city now owns the property, making it a non-contributor to the local tax base.

Despite the failure to secure the OHPTC for the Kress building, local leaders view the program as "critical for cities, such as Youngstown, with distressed downtowns that need to be revitalized" (H. William Lawson, *Mahoning Valley Historical Society*). Reflecting on the CIC's ability to transform all of its inventory over the past two decades, Tom Humphries (*President, Youngstown Area CIC*) stated that "if not for Clean Ohio and the Ohio preservation tax credit, we wouldn't have been able to do what we did." Still, challenges remain, as Dave Bozanich (*Director of Finance, City of Youngstown*) argues that the OHPTC does not go far enough: "The economic disinvestment in cities like Youngstown creates additional challenges. The city cannot step in to fill all the gaps, only some. At the end of the day, in places like Youngstown, it takes more than the state is providing."

Figure 25. The Kress Building before demolition (courtesy of the Youngstown Area CIC)

Figure 26. W. Federal Street, with a chain link fence along the parking lot where the Kress building stood

Figure 27. The sunken parking lot on the site of former Kress building, view from W. Federal Street



The six case studies demonstrate the diversity of OHPTC projects across the state and illustrate many tangible and intangible benefits of rehabilitating historic buildings. As it evidenced from interviews and focus groups, OHPTC-funded building rehabilitations have catalyzed downtown revitalization, improved small town main streets, and supported the tourism and heritage industry across rural Ohio. Universally, the case studies show the importance of the OHPTC to project success, with the demolition of Youngstown's Kress building offering a poignant example of the alternative. While each of the cases has tangible economic and community benefits, they also provide insight into the intangible benefits of preserving community heritage – transforming hulking "white elephants" into productive community amenities – and other psychological benefits not readily captured in economic models. Across the board, it is clear that these buildings, while useful economic engines, are also intricately intertwined with the identity, meaning, and heritage of the state's neighborhoods, towns, and cities.

Prior to their rehabilitation, interviewees described the five completed or in-progress projects (Cleveland Trust Complex, Horizon House, John T. Wilson Home, Old Ohio School for the Deaf, and Goodyear Hall) as vacant, run-down eyesores. These underutilized spaces, while historic, were described as dilapidated, inefficient, and outdated by interview participants. Overall, adjectives describing their pre-OHPTC-funded condition are gloomy and bleak (Figure 28). The transformation is clearly captured by interviewees' choice of post-rehabilitation adjectives (Figure 29). The OHPTC has resulted in places that are cool, functional destinations. These buildings are restored jewels that have been creatively adapted and rejuvenated. They are thriving, animated, and welcoming. They are drivers of economic growth. Above all, they are historical and beautiful.

Figures 28 and 29 display a Wordle[98] of the most common phrases used by the interviewees to describe OHPTC properties before and after renovation. Wordle is an online tool for generating "word clouds" from text provided by users. The clouds give greater prominence to words that appear more frequently in the source text. For example, before the historic preservation tax credits and renovation, these buildings were described by interviewees and focus groups participants as rundown, underutilized, depressing, vacant, tired, and dilapidated. Words used frequently appear larger than those used once. After the restoration of these properties, the buildings were described as beautiful, historical, restored, unique, and functional.

Figure 28. Pre-Rehabilitation Descriptions

Figure 29. Frequencies of Post-Rehabilitation Descriptions

[98] A wordle is an info graphic that displays the most common words in larger font.

6. Financial Analysis: Property Tax Impacts and Cost-Benefit Analysis

This section provides a cost-benefit analysis of the OHPTC program. The analysis has been performed during the life of the program[99], and includes retrospective (*ex post)* analysis beginning from 2007 and into the present time, as well as prospective (*ex ante*) analysis for the next twelve years (until 2030) for a total of 20 years of project analysis from date of inception. The analysis is performed only from the governmental (not societal) perspective and is intended to help address the question of whether the benefits of providing the OHPTC outweigh the costs incurred by state and local governments in Ohio due to administration of the credit. This analysis does not include impacts on the developers, nor external costs or benefits that OHPTC projects can generate for neighboring businesses or residents.[100]

As such, this analysis evaluates if the OHPTC generates net benefits (Net Present Value – NPV) for the state and local governments in Ohio.[101] Since OHPTC is still in place, and there is a continuing debate on whether the credit should be sustained, such cost-benefit analysis will help policy-makers to understand if the OHPTC program is paying for itself from a government perspective (its NPV is positive), or is not financially viable (NPV is negative) for Ohio government. One of the major disadvantages of any cost-benefit analysis is that it is based only on tangible values for which costs and benefits can be counted and monetized. A primary goal of OHPTC is likely to create incentives for individuals or businesses to preserve historical landscapes in Ohio. Such intangible values are not quantifiable, however, and are not a part of the current analysis.

Any cost-benefit analysis compares potential or existing projects with a so called *status quo* (costs and benefits in the absence of the project). Since OHPTC is already in place, the researchers studied additional costs and benefits generated by OHPTC – calculating the difference between current and historical costs and benefits since the inception of the program and comparing those values against what such costs and benefits would be in the absence of OHPTC. The estimates include such benefits as additional revenues generated by income, sales, and property taxes, as well as cost savings from previously abandoned properties. The costs include tax expenditures from provision of the OHPTC (the tax revenues that government could have received if the credit was not offered), administrative costs (costs of administering the credit incurred by government), and compliance costs (costs incurred by investors when complying with application requirements). The description of all analyzed costs and benefits, the rationale behind their inclusion in the cost-benefit analysis, and a methodology for their estimation are provided in details in the next section.

[99] Analysis performed fully within the lifetime of the project studied is called "*in media res"* analysis.
[100] Economic impact of construction and operation phases of each OHPTC project are assessed in the next section.
[101] NPV represents the present value of benefits with the deduction of present value of costs. Future benefits and costs are brought to their present value using discount rates. Read more about what discount rates are and how they were chosen for present analysis in the section titled "Discount rates".

All past costs and benefits are adjusted for inflation using the GDP deflator for nondefense expenses, estimated by the Federal Office of Management and Budgeting (OMB).[102] The GDP deflator is rescaled from 2009 base year in the OMB table, to 2015 base year in current cost-benefit analysis.

Benefits

The benefits of providing the credit from the governmental perspective include additional tax revenues generated by sales, income, and property taxes at OHPTC project sites. Additional tax revenues can be generated from adjacent properties that benefit indirectly from OHPTC, thanks to higher general appeal and desirability of the area. Tax revenues not incorporated in the analysis include franchise tax revenues. The tax was phased out in favor of the Commercial Activity Tax (estimated in the Sales tax section) and completely repealed in 2014. Due to the recency of the OHPTC program, it is not expected that franchise tax could generate revenues sufficient to alter the results of this cost-benefit analysis.

In addition to the tax revenues, the benefits of OHPTC include cost savings for local governments on previously abandoned or partially vacant properties renovated as a part of historical preservation effort.

The benefits' estimates do not consider value added by OHPTC compared to federal credits and attribute all the benefits to OHPTC alone. Since the federal tax credit is guaranteed and the state tax credit is competitively awarded, it is impossible to split benefits between the two programs without significant additional research. Excepting this caveat, the estimates of the benefits for the current cost-benefit analysis are majorly conservative, and in general produce consistent estimates.

Additional Income Tax Revenues

Income tax revenues can be generated both during a project's renovation phase and after the construction is completed. During the renovation phase, the income tax revenues are mainly collected from the earnings of construction workers. The average wages of construction workers were approximated from the online survey data.[103] Income tax revenues are estimated based on the average wage estimates of workers aggregated by each project.

After projects are completed, additional income tax revenues are generated from taxing the earnings of those employed in the stores, hotels, and offices located in renovated properties and properties nearby that may enjoy positive spillover effects of redevelopment (additional jobs created at nearby properties). The wages of permanent employees working in OHPTC sites and neighboring buildings (within 500 feet from the project site) are averaged for each project from QCEW data.[104]

[102] Table 10.1- Gross Domestic Product and Deflators Used In the Historical Tables: 1940-2020. Retrieved on July 25, 2015 from: https://www.whitehouse.gov/omb/budget/Historicals.
[103] The economic impact analysis section of this report provides details on the data extrapolation techniques.
[104] 23 projects are not included as QCEW does not include any employment or earnings data; however, the employment from business establishments located within 500 feet of the project was included.

Income tax estimates incorporate nine state income tax brackets, and, in addition to state income tax, include income tax rates charged by cities and school districts in Ohio.

Since this is a statewide (not local) analysis of costs and benefits associated with OHPTC, in order to estimate additional income tax revenues generated by the preservation credit the income tax revenues are adjusted by the annual unemployment rates. Permanent and temporary workers employed at the OHPTC and neighboring sites likely worked, earned income, and paid taxes in other places in the same or neighboring localities before OHPTC projects. Therefore, only the new income taxes generated by previously unemployed individuals, or additional income taxes collected from individuals who earn higher income working on OHPTC properties can be included in the analysis. The estimates of unemployment are based on average annual unemployment rates in the individual sites' counties for every year from 2007 to 2014[105]. Future income tax revenues are approximated separately for construction and permanent workers based on the three-year moving average.

New income tax revenues generated between 2007 and 2015 due to the OHPTC program are estimated to be over $25 million. Income taxes are expected to bring additional $159.7 million in revenues by 2030. See Table 17 and Table 18 for results from income tax estimates.

Additional Sales and Gross Receipts Tax Revenues

The sales and gross receipts tax revenues are estimated for three types of taxes, including the general retail sales tax (RST), hotel excises (lodging tax), and commercial activity tax (CAT). Retail sales tax is a tax on general purchases, including clothing, household items, nonprescription drugs, food for consumption on premises where sold, and such. RST in Ohio is collected at specified rates by both state and local governments. Lodging tax is applied to all sleeping hotel rooms, and can be levied by counties and cities (villages) in Ohio. Commercial activity tax is a state tax levied on the gross receipts from business activities. CAT rates vary based on the amount of gross receipts. Some other special excises, such as tobacco and alcohol excise revenues can also be generated on OHPTC and neighboring facilities, but there is no record on the share of sales of these products in total retail sales. In this analysis, they are treated as general retail and the revenues are calculated at RST rates.

Other potential sales tax revenues not included in the analysis are the RSTs collected on the purchases of materials for renovation projects[106] and the loss of sales tax revenues associated with lack of business during the construction phase. The researchers believe that the loss of sales tax revenue during construction equalizes the gains in such revenue collected on purchases of construction materials. Lastly, the analysis does not include potential spillover effects from sales taxes because of the lack of statistics on sales in the area.

[105] There is no reason to believe that people employed at OHPTC properties earn higher (or lower) income than their counterparts working in the same positions elsewhere in the same geographical area. Therefore, no adjustments for potential differences in wages are made. County level unemployment data comes from the Bureau of Labor Statistics. Local Area Unemployment Statistics (LAU).

[106] Requirements for specific materials on historical properties might dictate high cost of the materials and therefore make our estimates of benefits even more conservative.

The *status quo* is estimated by calculating state tax revenues based on the total revenue generated by each project and applying RST rates to the portion of revenues generated by retail stores and restaurants on OHPTC properties, hotel excise for hotel revenues, and CAT rates for total revenues collected in each one of the five categories of sales reported in OHPTC buildings (retail, hotel, institutional, office, or residential revenues). As before, a 74% vacancy rate is assumed before renovations.[107] Total sales tax revenues are estimated on the remaining 26% of properties' revenues.

The sales tax revenues from OHPTC are estimated with application of a different vacancy rate. Out of 74 respondents who answered questions about building usage, 33 completed renovations before 2014. Out of these 33, one said that the renovated building was still vacant (about 3.03%), and one indicated a 10% usage of a building. Based on the survey responses, the analysis assumes a 3.1% vacancy rate after renovations. The cost-benefit estimates include the differences in sales tax collections between the *status quo* and new sales tax revenues generated by completed projects.

Sales tax estimates are the most challenging part of this cost-benefit analysis. The analysis so far calculated tax revenues generated on OHPTC properties. Only a small portion of these revenues, however, represents new sales tax revenues for the state government. Sales on OHPTC and adjacent buildings may be new for a locality where the project is, but on a county, or a state level (as this cost-benefit analysis is) these sales are likely relocated from one businesses elsewhere to the others on OHPTC properties, and, therefore, do not represent additional tax revenues for the government.

There is no data on the total dollar value of sales in any reasonable geographical proximity to the OHPTC sites. As such it is impossible to define which part of the sales (and tax collections) in OHPTC buildings are the new sales (and new tax revenues) and which shifted from nearby businesses. To estimate additional sales tax revenues generated by OHPTC properties, the sales tax revenues for the OHPTC properties were multiplied by a proportion of OHPTC revenues in the state of Ohio revenues (collected from the Survey of Business Owners by the US Census Bureau).

It is estimated that sales and gross receipts taxes have not generated any positive revenues. In fact, approximately $48,000 in revenue was lost because of the lack of sales on OHPTC properties during the construction and rehabilitation stages of the projects. The result is also negative due to the highly conservative nature of the sales and gross receipts tax estimates in current analysis. The analysis does not include sales taxes collected on purchases of construction materials, nor does it include additional sales tax revenues collected on properties adjacent to OHPTC sites (in both cases due to unavailability of data). Sales and gross receipt taxes are, however, expected to generate about $4 million in revenues between 2016 and 2030. See Table 17 and Table 18 for additional details on sales and gross receipts tax estimates.

[107] Read more about the estimates of the vacancy rates in the section titled "Cost savings from abandoned properties" below.

Additional Property Tax Revenues

Property taxes were calculated on properties within 150 feet from centroids (geometric center of one building to a center of another building).[108] The data was collected from county assessor's records using the GIS system. The cost-benefit analysis is based on the actual property taxes charged on each property, and accounts for all abatements, credits, and other tax preferences.

For the *status quo* the study uses the actual 2007 property tax revenue on all currently certified projects. It is assumed that this is the base tax revenue that would be generated in the absence of OHPTC rehabilitation projects. To identify the value added by the OHPTC projects, the base revenue is subtracted from the observed (or predicted) property tax revenues. This computation, however, likely overestimates the benefits added by OHPTC as some of these projects would happen in the absence of OHPTC (thanks to federal rehabilitations credits, other government incentives, or personal motivation of property developers).

For 2016 estimates and beyond, the average annual rate of increase[109] is assumed to continue trending as in the past eight years. This yields a very conservative estimate of the future property tax collections, as more properties are renovated over time. The rate of increase in property tax collections has, on average, been higher in the past three years than before. For this cost-benefit analysis the researchers assume that such conservative estimates of future property tax collections and optimistic assumptions about the value added to the tax yield by OHPTC should compensate for each other and produce a consistent estimate of the overall value added to property tax collections by OHPTC.

The estimates of the property tax gains are still conservative because of the way tax delinquencies[110] were handled in this analysis. Information on actual delinquent payments has not been collected for the analysis. These are, however, accounted for in the analysis of vacant properties.

Another detail to consider is that only properties that completed the OHPTC renovations have been included. Sites in the process of application or rehabilitation are not likely to have higher property values or to generate any different property tax revenues than pre-OHPTC values.

It is estimated that new property taxes revenues generated thanks to OHPTC have been around $64.4 million and will bring additional $791 million by 2030. Tables 17 and 18 show the results of the property tax estimates.

Cost Savings from Abandoned Properties

Many OHPTC properties have been abandoned and were not in use before they were awarded the preservation credits and restoration works began. Abandoned properties are costly to local governments

[108] The choice of distance is different for the property tax and income tax estimates. For income tax, the research team made a decision to explore employment change within a 500 foot radius. The choice of distance for property tax analysis is 150 feet, based upon the following study: Ding, C., Simons, R., & Baku, E. (2000). The effect of residential investment on nearby property values: evidence from Cleveland, Ohio. *Journal of Real Estate Research*, *19*(1), 23-48.

[109] In average annual nominal property tax revenue between 2010 and 2014.

[110] Delinquent charges are the unpaid property taxes and penalties.

to maintain and demolish; they require additional police and fire expenses, and there is a loss in the property (and other) tax collections from abandoned and neighboring properties. To estimate the cost savings on renovating abandoned properties, researchers estimated the percentage of all OHPTC sites which would qualify as abandoned based on data from the online survey.[111]

The average cost of vacant and abandoned properties to local governments comes from the 2008 ReBuildOhio report. This report estimates the average tax loss, maintenance, and other costs of maintaining and demolishing vacant properties in eight cities in Ohio. [112]

The total cost savings from previously abandoned properties are estimated to be around $2 million between 2007 and 2030. See Table 17 and Table 18 for results of the cost savings estimates.

Costs

The four major categories of costs related to the OHPTC are the loss of income tax revenues associated with the provision of the credit itself (tax expenditures), loss of other (property, sales, and income) tax revenues during construction, the costs of administering the credit, and compliance costs. The potential loss of tax revenue during construction is not separated in a discrete category of costs, but is rather incorporated in the estimates of benefits that are reduced by the amount of loss.

Tax expenditures due to OHPTC

Like any other income tax credits, the OHPTC is designed to reduce the amount of taxes paid by qualified taxpayers. The Department of Taxation estimates the general fund revenues forgone due to the credit to be between $234 and $313 million between 2009, the first year the credit could have been claimed, and the present.[113] The loss of tax revenues by claiming the OHPTC was estimated as a moving average of the credit claimed in the past three years. The amount of claimed credits was constant in the past five years (except for a drop in 2013), as was the amount of tax credit awarded. Thus, nothing indicates that there might be a substantial increase or reduction in the amount of credits claimed in the considerable future.

[111] 74 respondents answered questions about building usage. Of them 57 said that the buildings were not in use a year before the OHPTC project started (about 74%), and 2 said that the buildings were approximately 50% utilized. A random check of several properties showed that some were delinquent on property tax payments, even when the current owners said the properties were in use before OHPTC renovations. A 74% vacancy rate was applied to the remaining 164 properties approved for OHPTC resulting in approximately 126 additional vacant properties. The projections for the number of OHPTC properties are estimated as a three year moving average of the percentage of approved applications from total submitted applications in each year. Estimates of the number of submitted applications are discussed in the "Compliance costs" section.

[112] Garber, R., Kim, J., Sullivan, K., & Dowell, E. (2008). $60 million and counting: The cost of vacant and abandoned properties to eight Ohio cities. *Community Research Partners*, 3-3.
The same costs per vacant property were assigned to all cities within the same county as a city studied in the report. For the counties not included in the report the average cost across eight cities was estimated.

[113] Ohio tax expenditure budgets for various years. Retrieved on July 25, 2015 from http://www.tax.ohio.gov/communications/publications.aspx.

The total amount of the claimed credit since the inception of the program has been approximately $169 million, and is expected to be an additional $429 million in the next 15 years, if the program continues in the same path. See Table 17 and Table 18 for estimates of tax expenditures due to the OHPTC program.

Administrative costs

Administrative costs include the costs of administering the credit. The OHPTC program is administered by three organizations, including the State Historic Preservation Office (SHPO), the Ohio Development Services Agency (ODSA), and the Ohio Department of Taxation (ODT). Of these three agencies, ODSA and ODT are governmental organizations while SHPO is a nonprofit. Since the assessment of costs and benefits is conducted from the governmental perspective, the administrative costs (and certain benefits, discussed later) of SHPO are not included in the analysis. Minor administrative costs are also incurred by Certified Local Governments (CLGs). The incidence of CLGs involvement with OHPTC is low, and CLGs are partially financed from Federal funds. Therefore, the costs of administering the credit by CLGs are negligible if at all existent, and are not included in the analysis.

Administrative costs were estimated for 2014 by the ODSA staff. Only the share of the costs for administering the OHPTC and not the federal credit were included in the analysis. The following categories of administrative costs were included in the analysis: salary and fringe benefits, indirect costs, personal services (including contracts, memberships, trainings, etc.), supplies and maintenance, equipment, and grants to the developers. ODSA also provided estimates of the full-time employment equivalent for individuals from each department involved in administering the OHPTC beginning from 2007. A 1.5% annual growth in salaries and fringe benefits is assumed over the 20-year period under consideration. The annual values of other categories are approximated based on the number of employees working on the project each year. ODSA and tax departments have the same number of staff members working on the project from 2009 onward.

The costs of administering the credit totaled to about $3.8 million so far, and likely to add up to additional $24 million in the coming 15 years. See Table 17 and Table 18 for results of administrative cost estimates.

Compliance costs

Compliance costs are defined as time and money spent by taxpayers-applicants to conform to OHPTC application requirements. Despite the fact that compliance costs are paid by the developers, and current analysis considers only the benefits and costs incurred by government, compliance costs should still be included in such analysis as they, together with administrative costs, represent total collection costs (see Mikesell, 2014, p 366 for details). Government can bear most of the collection costs (like with property taxation, when county assessors do most of the collection work), or can delegate or transfer some or most of the collection costs to taxpayers (as with income taxes). Such transfer of collection work onto

taxpayers might be the reason why Stiglitz (2000) calls compliance costs "indirect administrative costs".[114] Compliance costs are routinely included in cost-benefit analysis of tax incentives' programs.[115]

OHPTC-related compliance costs are incurred during the application, redevelopment, and certification stages of the process. Potential costs include salaries and wages – as well as fringe benefits – of the developers and their staff members who prepare the applications, travel expenses to attend required meetings with ODSA and SHPO staff, and costs of office materials, mailing expenses, and application fees. Additional costs may include the expenses of hiring outside contractors, such as architects, market analysts, and accountants, to assist with application process. Most of the application requirements for the federal and Ohio historic preservation credits are the same, and costs are shared between applications for state and federal credits.

The estimates of compliance costs are based mainly on responses to the online survey, which included a set of questions for developers that requested estimates of compliance costs. From 79 survey respondents, 31 answered compliance questions (about 40% of the respondents).[116] Since compliance costs are shared between state and federal applications, respondents were asked to evaluate the share or percentage of resources spent on OHPTC alone. The share of resources dedicated to OHPTC compliance is estimated from the original responses, which are summarized in Figure 30. In the "other" category respondents mentioned the help of engineers, the hiring of other consultants, or an additional (tax credit reservation) fee a project had to pay.[117] Two types of costs were estimated from data not based on the survey responses - the amount of total fees (application, certification, and servicing fees), and travel costs for a required meeting in Columbus with ODSA and SHPO staff.

The fees were introduced on July 1, 2011. Application fees are paid by all applicants upon submission during the first stage of the project. The fee is estimated based on the amount of a requested tax credit, and does not exceed $10,000. For example, for an application requesting $50,000 in preservation credit, the fee is $500; the application fee for a $300,000 request is $1,000. The future amount of application fees are predicted based on the number of OHPTC applications submitted in the past several years and average fees per submitted application. The total number of federal applications has been within the

[114] Joseph E. Stiglitz (2000). Economics of the Public Sector, Third Edition, W.W. Northon & Company.

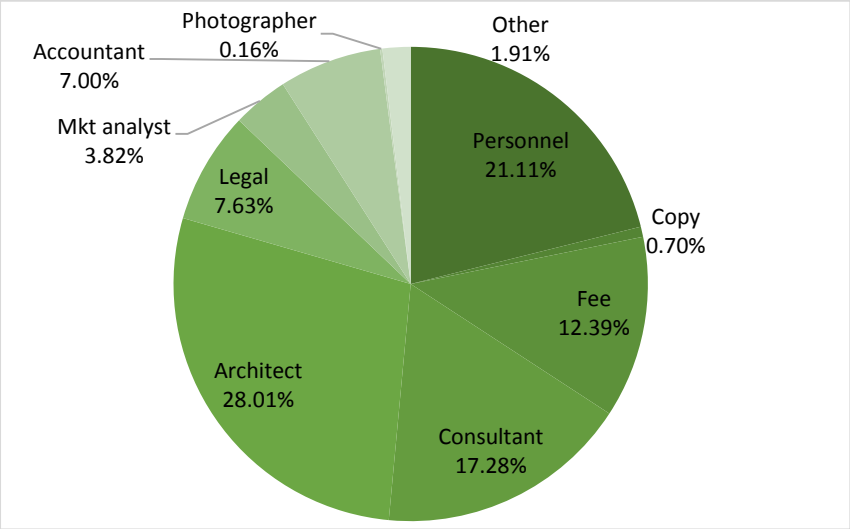
[115] See for example, Chen, D. (2015). The Framework for Assessing Tax Incentives: A Cost-Benefit Analysis Approach.; Bennett, F., Brewer, M., & Shaw, J. (2009). *Understanding the compliance costs of benefits and tax credits* (No. R70). IFS Reports, Institute for Fiscal Studies.; Lester, J. (2012). Benefit-cost analysis of R&D support programs. *Canadian Tax Journal/Revue Fiscale Canadienne*, *60*(4).

[116] Despite a quite small percentage of responses to compliance survey questions (approximately 40%), these respondents are very representative of a general pool of developers who answered the survey. They submitted applications (and incurred major compliance costs) in all years of OHPTC existence, although there are more responses from those who applied for the credit in the past six years, and fewer responses from those who applied in 2008 and 2009. These 31 respondents represent a variety of projects that differ by project cost, type of renovated property, and location of the property.

[117] Since not all survey respondents included the costs of copying, mailing, and office materials, or of using company personnel, these numbers were adjusted based on the responses of those who included such estimates in the compliance costs. The survey was sent out only to those who were approved to receive OHPTC. Compliance costs are, however, incurred by all who apply for the credit, not only those who eventually received it. The response rates were averaged among all those who answered the compliance questions form the survey, and applied to all applicants independent of whether they were eventually approved for OHPTC.

same boundaries both before and after the state credit was implemented. A three-year moving average is used to predict the number of applications and the average fee. The base estimate includes a 2% growth rate in the number of OHPTC application beginning in 2017.

Figure 30. Compliance costs (Based on the survey results)



The *servicing fee* is paid within three months of application approval. The fee is 0.5% of the approved tax credit. In addition to the servicing fee, participants are asked to pay a certification fee. The *certification fee* is a final payment equal to 1.5% of the tax credit less the sum of application and servicing fees. The combined fees for the OHPTC thus total 1.5% of the credit. The certification and servicing fees are only paid by projects that are awarded OHPTC (and complete required renovations). Future certification and servicing fees are predicted based on a three-year moving average. The total amounts of each type of fee have been higher in the first than the second half of each year, and are thus considered separately. There is no reason to believe that there will be changes in Ohio legislature that would increase budgetary provisions for the OHPTC program in future. The total number and value of certified OHPTC projects should consequently remain largely unchanged. While the total amount of certification and servicing fees will vary from one year to another, it should remain relatively constant on a longer timeline.

Application, certification, and servicing fees are part of the compliance costs; however, they are also benefits to SHPO and ODSA that pay for salaries, fringes, and other expenses. The revenues from fees are divided evenly between SHPO and ODSA. Pipeline grants, which provide developers assistance with the application process[118], are financed by OHPTC fees. Pipeline grants are a part of the administrative costs for ODSA, although they are distributed by the SHPO. At the same time, these grants also reduce

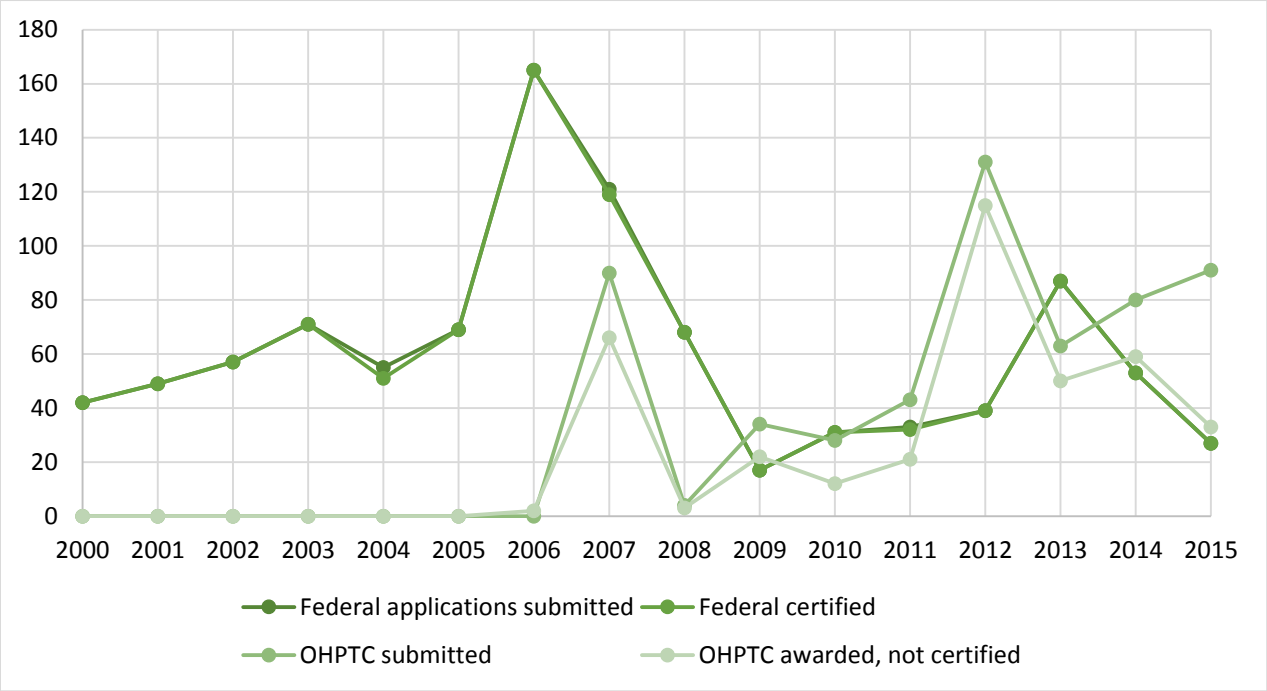
[118] Pipeline grants are created to offset the costs of getting nominated for the National Register of Historic Places. Once nominated, developers become eligible to apply for the tax credits.

compliance costs for developers. In the baseline estimates, 50% of fees allocated for SHPO are considered compliance costs, while the other 50% are considered transfers and are not included in the analysis.

Finally, travel costs are estimated based on the distance between the project site and ODSA office in downtown Columbus, where meetings take place[119]. The distance to and from Columbus for all approved projects is calculated by MapQuest®. All other projects are assigned an average distance of 108.4 miles each way, calculated from all existing currently approved projects and the ODSA office. The mileage is then multiplied by the standard mileage rates for business travel identified annually by the IRS (57.5 cents a mile in 2015).[120] The compliance costs after all adjustments are summarized in Figure 32.

The total compliance costs between 2007 and 2030 are expected to be approximately $61 million. Table 17 and Table 18 show the results of compliance cost estimates.

Figure 31. Federal and state applications submitted and awarded between 2000 and 2015

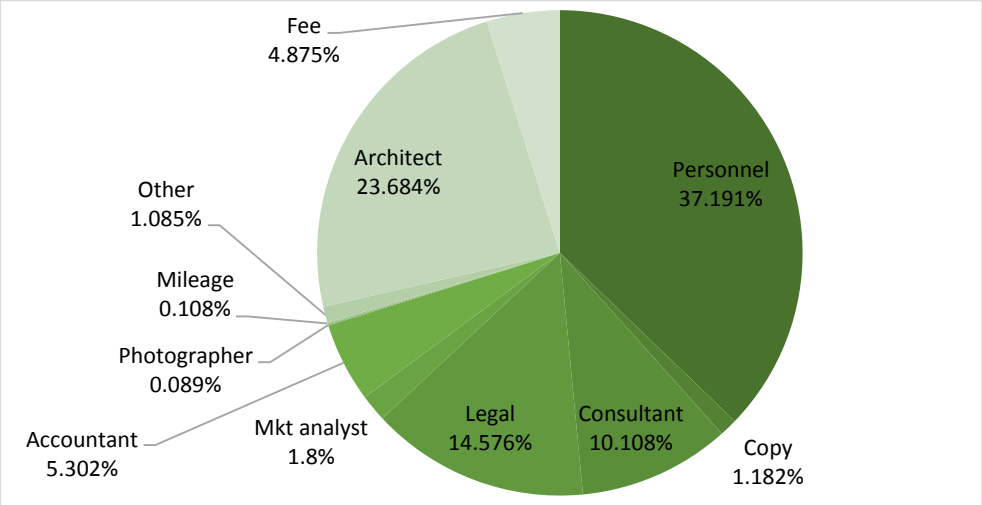


Source: SHPO

[119] Sometimes not developers, but ODSA staff travel to the project sites. In this analysis all travel costs are assigned to the compliance costs where in reality some of them are a part of administrative costs (not included in administrative costs estimates).

[120] Standard mileage rates retrieved on August 20, 2015 from: http://www.irs.gov/Tax-Professionals/Standard-Mileage-Rates.

Figure 32. Average compliance costs for OHPTC projects



Discount rate

Several discount rates[121] are used in the analysis. These discount rates are based on governmental ability to borrow money from private sources. The preferred estimates are based on the 2.8% nominal rate. This is the rate suggested by the Circular No. A-94 for cost-benefit analysis of Federal government programs.[122] This cost-benefit analysis is extended for the period of 15 years from the present; the closest 10-year maturity is used for the analysis.

The yield on taxable bonds issued by the state of Ohio has similarly been 2.8% in 2015.[123] The rate on taxable bonds is considered more appropriate as it more closely approximates the market rate.[124] Sensitivity analysis is performed with additional discount rates of 2.05, 2.4, and 3.22 percent.[125] The discount rate of 2.8% is used in the preferred estimates.

[121] Discount rate is the rate used to discount future costs and benefits to their present value. It is not equal to inflation (or projected inflation) rate, but rather represents a rate that government could have earned if it had invested money elsewhere (not the OHPTC program). The discount rate helps to convert the future flows of costs and benefits to their present value, and to eventually estimate the Net Present Value (NPV) of the project.

[122] Nominal and real rates are published every December by the Federal Office of Management and Budgeting (OMB), and are based on the interest rates of treasury bonds and notes with different maturities. The circular suggests such rates for the base-case analysis of all Federal government projects. It reads that this discount rate "approximates the marginal pretax rate of return on an average investment in the private sector in recent years." 2.8% and 0.9% rates are the yields on treasury bonds maturing in 10-years. The rates are published for the bonds maturing in 3, 5, 7, 10, 20, and 30 years. Circular No. A-94 Revised. Retrieved on August 1, 2015 from: https://www.whitehouse.gov/omb/circulars_a094/a94_appx-c.

[123] Source: various official statements of the State of Ohio General Obligation (GO) bonds dated in 2015.

[124] Mikesell, J. L. (2014). Fiscal Administration: Analysis and Applications for the Public Sector (Ninth ed.): Thompson Wadsworth, p. 328.

[125] These alternative rates are based on the yields from tax exempt GO bonds issued by the state of Ohio in 2015 (Ohio's current credit rating is AA+ by S&P and Fitch, and Aa1 by Moody's). The rates on such bonds issued for different purposes varied between 2.05% and 2.29% with ten-year maturities (maturing in 2025), and 2.46-2.49 percent rate for bonds maturing in 2030. Yahoo Finance reports a current yield of 2.4% (last month's yield of

Results of Cost-Benefit Analysis

Overall analysis, under any estimates, shows that the OHPTC program should generate positive net benefits by the year 2024. The project estimates yield a positive NPV sooner with a lower discount rate (2.05%) and later with a higher discount rate (3.22%). Under all estimates, the program (in its current state and condition) is shown to generate substantive positive net benefits during the 23-year horizon from the inception of the program in 2007. The net benefits are expected to further grow after the studied horizon.

As of this year OHPTC program has, however, not paid for itself (Net Present Value, NPV, is negative). The assessment shows that the costs of providing the credit so far outweighed the monetary benefits from it for the state and local government. In general, the OHPTC program has generated approximately $90.3 million in benefits over the eight years since its inception in 2007, while the combined costs of providing the credit over the same time totaled approximately $201.1 million.

The OHPTC program is very young. While costs of providing the credits were incurred even before the program officially commenced (in 2006-2007), the benefits began to accumulate during construction phase and mainly after the first projects were completed (not earlier than 2009). As more projects are completed, the benefits from the program have been shown to grow at an increasing rate, while most costs have remained stable during the last three to five years (dependent on the type of costs). Under the preferred analysis (2.8% discount rate), the benefits from the OHPTC projects are estimated to be around $956.4 million (mostly from property tax collections) over the next 15 years of the life of a project, while the costs will total approximately $486.3 million between 2016 and 2030. These changes will total an estimated $470 million in net benefits over the next 15 years.

There are two noteworthy features of the analysis. First, in general, the estimates of the OHPTC program benefits are conservative, and the program may pay for itself sooner even under higher discount rates. Second, as noted from the beginning of the cost-benefit analysis, the assessments were conducted from a purely governmental (not societal) perspective. The program may generate positive net benefits much sooner (or later) if the benefits and costs to private parties are included in the analysis.

2.44%) on 10-year AA-rated bonds (as of 8/24/2015). Similarly rated corporate bonds are earning a current yield of 3.22% (3.37% last month), and the current yield on US treasury bonds is 2.04% (2.32% last month).

Table 17. Costs-Benefits Estimates for OHPTC Projects from Government Perspective at Discount Rates 2.8 and 2.05

Years	2007-2015	2015-2030	2007-2030	2015-2030	2007-2030
Discount rate		*2.8%*		*2.05%*	
Benefits					
Additional property tax revenues	64,418,166.32	791,251,491.48	855,669,657.80	852,804,179.62	917,222,345.94
Additional income tax revenues	25,349,194.71	159,707,851.25	185,057,045.95	169,457,852.94	194,807,047.65
Additional sales and gross receipts tax revenues	-48,123.50	4,012,561.34	3,964,437.83	4,357,400.38	4,309,276.87
Cost savings from vacant properties	625,609.64	1,403,516.50	2,029,126.13	1,485,380.99	2,110,990.63
Total Benefits	**90,344,847.16**	**956,375,420.56**	**1,046,720,267.71**	**1,028,104,813.93**	**1,118,449,661.09**
Costs					
OHPTC credits claimed	169,310,451.58	429,030,408.25	598,340,859.82	444,460,564.77	613,771,016.35
Administrative costs	3,795,248.56	24,075,817.57	27,871,066.14	21,123,685.30	24,918,933.86
Compliance costs	27,989,019.79	33,241,744.56	61,230,764.35	35,134,408.32	63,123,428.11
Total costs	**201,094,719.93**	**486,347,970.37**	**687,442,690.31**	**500,718,658.38**	**701,813,378.32**
Net Present Value (NPV)	**-110,749,872.78**	**470,027,450.18**	**359,277,577.41**	**527,386,155.54**	**416,636,282.77**

Table 18. Costs-Benefits Estimates for OHPTC Projects from Government Perspective at Discount Rates 2.4 and 3.22

Years	2007-2015	2015-2030	2007-2030	2015-2030	2007-2030
Discount rate		*2.4%*		*3.22%*	
Benefits					
Additional property tax revenues	64,418,166.32	842,490,091.11	887,783,488.96	759,195,297.55	823,613,463.87
Additional income tax revenues	25,349,194.71	164,809,101.58	199,944,997.15	154,582,527.56	179,931,722.26
Additional sales and gross receipts tax revenues	-48,123.50	4,192,264.05	4,144,140.55	3,833,662.58	3,785,539.07
Cost savings from vacant properties	625,609.64	1,446,345.35	2,071,954.99	1,360,492.26	1,986,101.89
Total Benefits	**90,344,847.16**	**1,012,937,802.09**	**1,093,944,581.65**	**918,971,979.94**	**1,009,316,827.09**
Costs					
OHPTC credits claimed					
Administrative costs	169,310,451.58	437,131,387.69	606,441,839.26	420,827,307.74	590,137,759.32
Compliance costs	3,795,248.56	21,497,337.16	25,145,262.49	20,746,564.98	24,394,490.30
Total costs	27,989,019.79	34,232,154.42	62,221,174.21	32,246,285.76	60,235,305.55
Net Present Value (NPV)	**201,094,719.93**	**492,860,879.27**	**693,808,275.96**	**473,820,158.48**	**674,767,555.18**

7. Economic Impact of OHPTC Projects

This section of the report outlines the economic impact of the 2014 operations of facilities that were rehabilitated using the Ohio Historic Preservation Tax Credit, as well as the economic impact of the construction and renovation expenditures that occurred between 2008 and 2014. All economic impacts are estimated for the entire state of Ohio. Both the operations and the rehabilitation of these buildings affect the economy – a concept that is referred to as economic impact.

Both operations and renovations are linked to other industries through buy-sell relationships. To produce goods and services, companies buy intermediary goods and services from other companies both inside and outside of their industry. The buy-sell relationships that occur in the state of Ohio contribute to the economic impact of the OHPTC. The economic impact is based on estimates of statewide employment and revenue generated by the businesses located in the renovated facilities, as well as the construction expenditures arising from renovations.

Methodology

This section explores the economic impact of the OHPTC on the state of Ohio by using IMPLAN® Professional and 2013 IMPLAN Data Files. IMPLAN Professional 3.0 is an economic impact assessment software system. The use of IMPLAN data files allows for the creation of sophisticated models of local economies to estimate a wide range of economic impacts. For the purposes of this impact, it was assumed that all of the projects would not have been completed in the absence of the OHPTC.[126]

The input-output model measures how the economy will respond to the expansion of a specific industry. For example, growing demand for construction materials may cause producing companies to increase activity, and in the process invest in infrastructure and hire additional people. The first round of industry expansion is a direct effect from the investment. The producing companies may also contract out to suppliers, such as service companies, and those suppliers may in turn contract to others for goods and services. This can be thought of as purchases made in the supply chain that are an indirect result of the renovation of the sites. There is a third round of spending that can also be captured. This is identified as the spending that comes from employees of companies and their suppliers. This consumer spending is induced by the spending of the employees and all who serve them, from hotels and restaurants to barbers and grocery stores. This analysis presents direct and indirect economic impact together and addresses induced effect from the consumer spending separately.

[126] The economic impacts contained in this report are based on the information provided to the Center for Economic Development by the Ohio Development Services Agency and in survey responses by developers and operators of renovated sites. The financial information is taken as data, and no attempt was made to verify or audit the financial systems and procedures of the individual projects. Also, this report does not include the economic value of intangible items such as the social value of preserving historic buildings. Every attempt was made to accurately measure and place the true economic impacts.

The report measures impacts on the state with four indicators: employment, labor income, output, and value added.[127] Employment measures the number of jobs supported in Ohio by the renovation and development conducted in OHPTC properties. Labor income is calculated by combining payroll paid to employees and proprietors' income for employees. It represents additional household earnings created in the state due to the expenditures from construction and operations. Output measures the total value of goods and services produced in the state as a result of the spending on the construction and operations at the sites. Value added calculates the value of goods and services less the intermediary goods and represents a portion of output – often referred to as Gross Domestic Product.

To estimate the economic impact of the construction and operations spending, only the purchases that were made in the state of Ohio are included in the model. Any purchases outside the state were excluded from the model. IMPLAN data discounts total purchases according to the pattern of buy-sell relationships between Ohio industries based on a local purchase percentage.

Overview of Tax Credit Projects

A total of 238 projects have been awarded the OHPTC since the program's inception (Table 19). These projects include 313 buildings with nearly 22 million square feet of space and almost 8,000 residential units. The total project costs were just under $3.5 billion, with $2.7 billion in qualified rehabilitation expenditures which allowed for $482 million in OHPTC awards.

Table 19. OHPTC Project Details

Number of Projects	238
Number of Buildings	313
Total Square Footage	21,991,085
Total Residential Units	7,975
Total Project Costs	$3,495,348,284
Qualified Rehabilitation Expenditures	$2,693,071,622
OHPTC Awards	$482,278,984

[127] The tax impact from the IMPLAN model was not included in this report as a detailed analysis of taxes is located in Chapter 5.

Building Operations Impact

Two data sources were used to estimate building operation costs. A data sheet from the Ohio Development Services Agency provided basic information on all projects including size, use, costs, and award dates. Additionally, a survey was administered by the Center for Economic Development to all recipients of the OHPTC. The survey collected data on building use (retail, hotel, institutional, residential, office, industrial, vacant, or other), number of employees, and total revenues of OHPTC projects before and after rehabilitation. This data was used to calculate the net change in employment and revenue after rehabilitation since only new employment at each site is considered as economic impact. Because not every OHPTC recipient responded to the survey, estimates for the remaining properties were determined by multiplying the total square footage of each property against the average revenue per square foot. This multiplier was calculated from the answers of OHPTC recipients that did respond to the survey. For those projects without a response, this multiplier was applied to the known size of the project from the state records in order to calculate the estimated new employment for each site based on the actual data reported by those that completed the survey (minus two outliers omitted due to inconsistent responses).

New employees that existed after renovation were then entered into the model and employees that existed prior to renovation and after the completion were omitted. The data was next organized by building use and entered into the IMPLAN model for analysis. The new employees and new revenue were entered into different IMPLAN sectors based on the final use of the building. These building uses that were included in the model were based on the data provided by the state on final project uses and included retail, hotels and motels, real estate, and other specific categories. Each project was entered into the model by its specific use. It is important to note that only projects which have been designated as "Certified" by the Ohio Development Services Agency were considered in this portion of the analysis. A designation of "Certified" indicates that the project is complete and is no longer under construction.

The total direct and indirect employment impact from the additional building operations created is 12,214 employees in 2015 (Table 20).[128] Of this, 79% (9,606 employees) is represented in the direct effect, which means that employees work directly for the buildings that have been rehabilitated. Twenty one percent (2,608 employees) is represented in the indirect effect: employees of suppliers to the businesses at the project site.

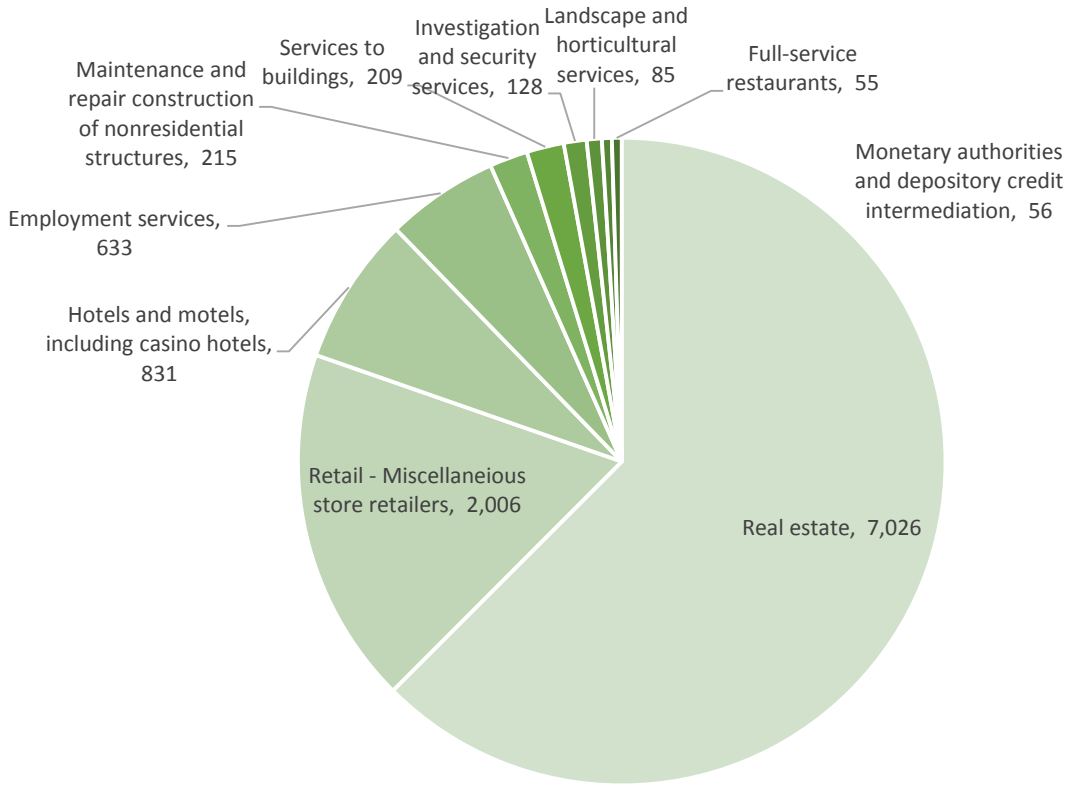
Table 20. Additional Direct & Indirect Operations Impact, 2015 (In 2015 USD$)

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	9,606	$977,859,720	$1,897,759,387	$1,522,258,124
Indirect Effect	2,608	$115,858,173	$199,752,881	$350,923,044
Direct + Indirect Effect	12,214	$1,093,717,893	$2,097,512,268	$1,873,181,168

[128] This number differs from the total jobs created that were reported to the state in the applications. This is due to the fact that survey results estimated the actual jobs that existed after renovation. Additionally, only new jobs were taken into account in the impact; if a building had 10 employees before renovations and now has 15, only the 5 new jobs were entered into the model, which represents the true economic impact.

Figure 33 shows the top ten industries in terms of employment impact. The highest number of employees is in *Real estate* (7,026, 58%). This is followed by *Retail - Miscellaneous store retailers*, (2,006, 16%), *Hotels and motels, including casino hotels* (831, 7%), and *Employment services* (633, 5%).

Figure 33. Top 10 Industries in Terms of Employment Direct and Indirect Impact



In terms of labor income, which represents combined payroll, proprietor income, and benefits, the total economic impact was $1.1 billion. Almost $1 billion was in the direct effect (89%), with $116 million in the indirect effect (11%). The industries with the highest direct employment were *Real Estate*, *Retail - Miscellaneous store retailers*, and *Hotels and motels, including casino hotels*.

The value added impact, or gross state product, was $2.1 billion. Just under $1.9 billion was in the direct effect (90%), with $200 million in the indirect effect (10%). The three highest industries in terms of the indirect effect were *Employment Services*, *Real Estate*, and *Maintenance and repair construction of nonresidential structures*.

The total output impact, the total value of goods and services produced in the state due to these projects, was valued at $1.9 billion in 2015. Over $1.5 billion was in the direct effect (81%), with $351 million in the indirect effect (19%). The three highest industries in terms of the indirect effect were *Hospitals*, *Full-service restaurants*, and *Limited-service restaurants*, reflecting that this represents household spending.

Figure 34 shows the total for each of the financial impact measures by direct and indirect effect. The value added impact has the largest direct effect, followed by output, and then labor income.

Figure 34. Labor Income, Value Added, and Output Impact by Effect, 2015 (2015$)

Additionally, the household spending of those new employees working in the renovated buildings and those working for the suppliers to the buildings create an additional impact called the induced effect. This represents 7,181 employees, $309 million in labor income, $539 million in value added, and $940 million in output as their spending on goods and services circulates the economy.

Construction Impact

Similar to the building operations impact, both state and survey data was utilized to estimate the economic impact from renovation of the historic structures. The analysis began by first measuring the percent change between the total renovation costs from completed surveys and the original cost estimates provided to the state by the developers. For projects for which no survey response was received, the average percent change between actual and estimated costs to renovate was then applied to the original cost estimates in order to estimate their actual construction costs. This allowed for the combination of actual data from the survey responses with estimates of actual costs from the original proposals. Then, an average time to complete projects by project size was calculated from survey responses and again applied to projects without a survey response. A minimum of one year and a maximum of six years of construction were assumed. The construction costs were then split by the number of years required to complete each project and entered into the model by year from 2008-2020. Total spending that occurred in Ohio (again as estimated by the IMPLAN model and the local purchase percentage) was entered into the model under the category "Maintenance and repair construction of nonresidential structures" which is the sector which most closely mirrors the work undertaken in historic renovation projects.

The analysis of the construction of the projects is divided between construction that has already been completed (2008-2015) and anticipated construction (2016-2020). This was done to show the costs which have already been incurred as well as projected costs, acknowledging that the projected estimates in future years will likely increase when additional projects are awarded the OHPTC in coming years.

Table 21 shows the direct and indirect construction impact for the years 2008 through 2015, which represents the start of the program through the current year. The direct and indirect employment impact is an annual average of 3,244 jobs, the labor income impact is $1.4 billion, the value added impact is $1.8 billion, and the output impact is $4.2 billion.

Table 21. Direct and Indirect Economic Impact of Construction, 2008-2015

Employment*	3,244
Labor Income	$1,436,947,343
Value Added	$1,789,364,411
Output	$4,205,803,443

*average annual employment

The projects that have been awarded the OHPTC have construction costs that vary by year. Table 22 shows total economic impact for each year between 2008 and 2015. The largest impact across all categories occurred in 2015, while the smallest occurred in 2011.

Table 22. Direct and Indirect Economic Impact of Construction by Year, 2008-2015

	Employment*	Payroll	Value Added	Output
2008	3,433	$ 190,060,652	$ 236,673,785	$ 556,288,811
2009	3,864	$ 213,936,392	$ 266,405,145	$ 626,170,763
2010	2,122	$ 117,498,196	$ 146,315,096	$ 343,905,653
2011	1,694	$ 93,783,349	$ 116,784,089	$ 274,494,622
2012	2,694	$ 149,173,487	$ 185,758,880	$ 436,616,123
2013	3,495	$ 193,524,039	$ 240,986,582	$ 566,425,804
2014	3,693	$ 204,492,353	$ 254,644,918	$ 598,529,006
2015	4,958	$ 274,478,875	$ 341,795,916	$ 803,372,661

*Average annual employment

The average annual employment impact from the construction between 2008 and 2015 is 3,244 (Table 23). Of this, 1,911 employees (59%) are represented in the direct effect, which means that they worked directly on rehabilitation projects. Over 1,300 employees (41%) are represented in the indirect effect, working for suppliers to the construction industry.

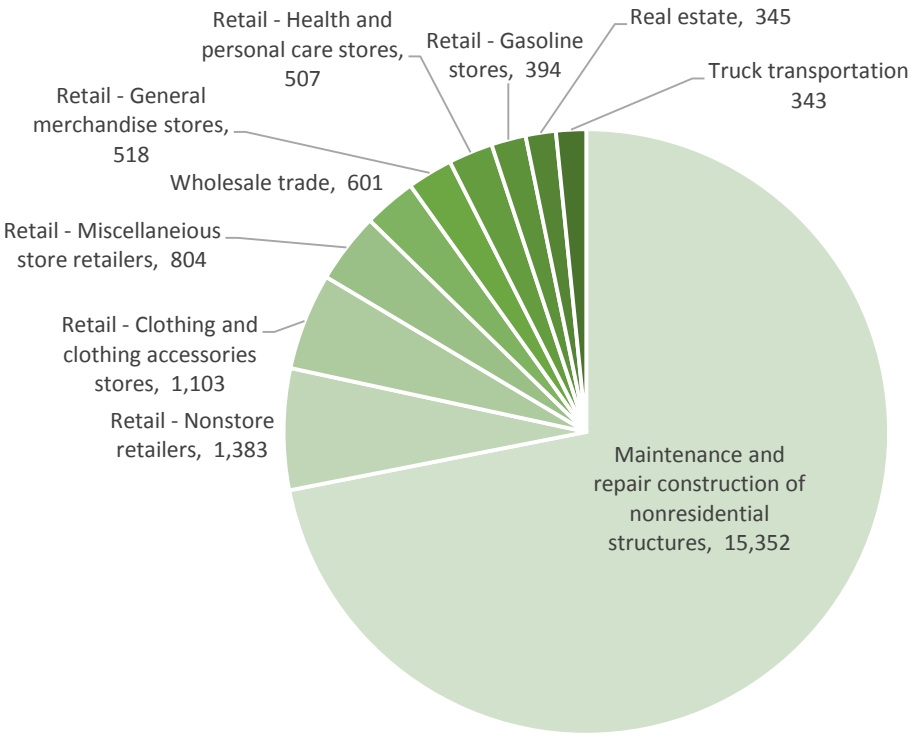
Table 23. Direct and Indirect Economic Impact of Construction, 2008-2015

	Employment*	Payroll	Value Added	Output
Direct Effect	1,911	$974,940,997	$993,265,361	$2,710,717,438
Indirect Effect	1,333	$462,006,346	$796,099,050	$1,495,086,005
Direct + Indirect Effect	3,244	$1,436,947,343	$1,789,364,411	$4,205,803,443

*Average annual employment

Figure 35 shows the top ten industries in terms of annual average employment impact. The highest number of employees is in *Maintenance and repair construction of nonresidential structures* (15,352, 59%). This is followed by *Retail – Nonstore retailers*, (1,383, 5%), *Retail - Clothing and clothing accessories stores* (1,103, 4%), and *Retail - Miscellaneous store retailers* (804, 3%).

Figure 35. Top 10 Industries in Terms of Average Annual Employment Direct and Indirect Impact, 2008-2015



For labor income, which represents combined payroll, proprietor income, and benefits, the total economic impact was $1.4 billion. Almost $1 billion was in the direct effect (68%) with $462 million in the indirect effect (32%). The industries with the highest labor income were *Maintenance and repair construction of nonresidential structures*, *Wholesale trade*, and *Hospitals*.

The value added impact of the renovation projects between 2008 and 2015 was $1.8 billion. Just under $1 billion was in the direct effect (56%) with $796 million in the indirect effect (44%). The three highest industries in terms of the indirect effect were *Maintenance and repair construction of nonresidential structures*, *Wholesale trade*, and *Real estate*.

The output impact, the total value of goods and services produced in the state due to these projects, was valued at $4.2 billion between 2008 and 2015. Over $2.7 billion was in the direct effect (64%) with $1.5 billion in the indirect effect (36%). The three highest industries in terms of the indirect effect were *Maintenance and repair construction of nonresidential structures, Wholesale trade*, and *Retail - Nonstore retailers*.

Figure 36 shows the total for each of the financial impact measures by direct and indirect effect. The output impact has the largest direct effect, followed by labor income, then value added.

Figure 36. Labor Income, Value Added, and Output Impact by Effect, 2008-2015 (2015$)

Additionally, the household spending of those new employees working on the renovation as well as those working for the suppliers to renovation create an additional impact called the induced effect. This represents 1,185 employees, $408 million in labor income, $711 million in value added, and $1.2 billion in output as new employees' spending on goods and services circulates the economy.

Looking ahead to the projects that have already received the OHPTC and will be working on rehabilitation over the next five years, the data shows that in the direct and indirect effects there will be approximately 1,465 average annual employees, labor income of $406 million, value added impact of $505 million, and output of $1.2 billion (Table 24).

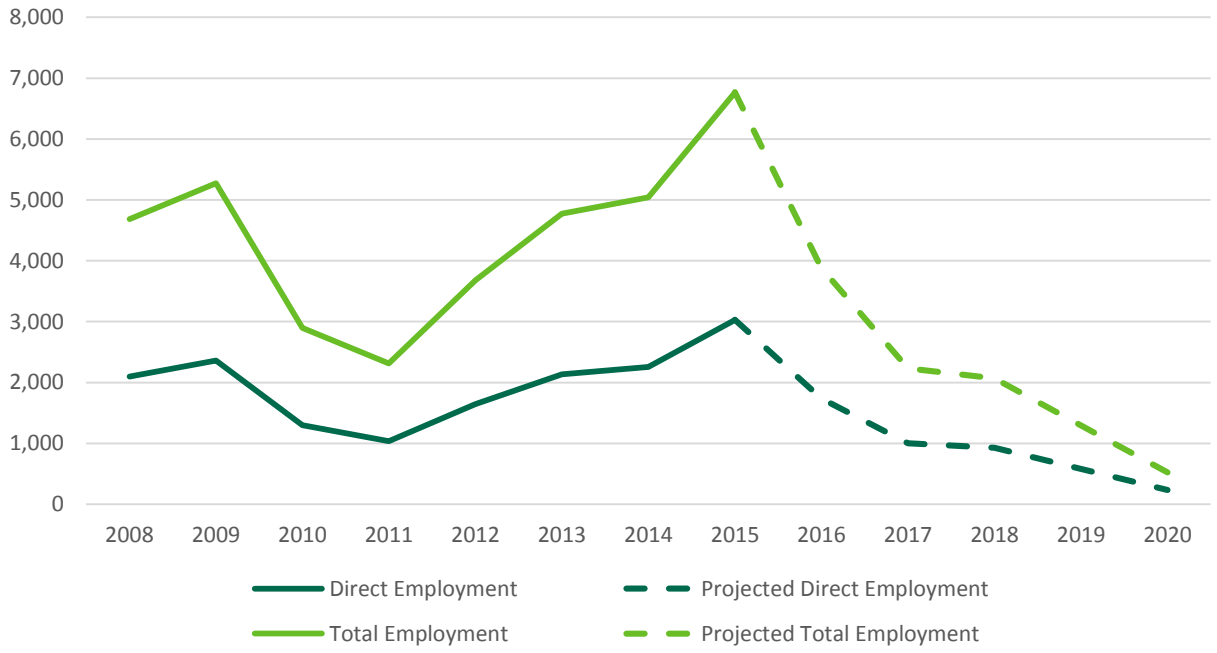
Table 24. Direct and Indirect Economic Impact of Construction, 2016-2020

Employment*	1,465
Payroll	$405,653,261
Value Added	$505,141,343
Output	$1,187,307,184

*Average annual employment

Figure 37 shows the level of average annual employment for the thirteen years since the inception of the OHPTC in 2008 through the end of current construction projections in 2020.[129] Although projected employment trails off in 2015, it is expected that additional projects will be certified and new projects will be awarded the OHPTC, which will increase future employment.

Figure 37. Average Annual Employment for Construction, 2008-2020



Economic Impact of the OHPTC per Million Dollars

The OHPTC program must meet standards of historic preservation but also be a fiscally responsible investment for the state. Considering 2014 operations of facilities that have completed rehabilitation, for every $1 million the state invests in the OHPTC Program, the program yields $118,481 in labor income, $105,257 in value added impact, and $230,528 in output impact (Table 25), as measured by direct and

[129] The total employment in this table represents the direct and indirect employment only and does not include the household spending (induced effect).

indirect impacts. Similarly, for every employee working at one of the rehabilitated sites (one job supported by the additional operations), 27% of one additional employee is generated in the state,[130] along with an additional $113,858 in labor income, $218,354 in value added impact, and $195,001 in output impact, accounting for direct and indirect impacts.[131] Induced effect is not included in these calculations.

Table 25. Operations Direct and Indirect Impact per Employee and per Dollar spent on OHPTC Program, 2014

	Employment	Labor Income	Value Added	Output
Per $1 million Investment	0.27	$118,481	$105,257	$230,528
Per Employee	1.27	$113,858	$218,354	$195,001

For each $1 million that the state invested between 2008 and 2015 in terms of construction, the program yielded $473,881 in labor income, $801,497 in value added impact, and $551,546 in output impact (Table 26) as measured by direct and indirect effects. Similarly, for each new employee at one of the rehabilitated sites, an additional 70% of one employee is generated, as well as an additional $751,935 in labor income, $936,350 in value added impact, and $2.2 million in output impact, accounting for direct and indirect impacts. Induced effect is not included in these calculations.

Table 26. Construction Direct and Indirect Impact per Employee and per Dollar spent on OHPTC Program, 2008-2015

	Employment	Labor Income	Value Added	Output
Per $1 million Investment	0.70	$473,881	$801,497	$551,546
Per Employee	1.70	$751,935	$936,350	$2,200,839

While noting the importance of preserving Ohio's historic structures as part of the fabric of the state's cities and towns, it is also imperative to examine the fiscal benefits provided by such a sizeable public investment. By allowing developers to close the gap in financing historic structures, this program allows them to choose renovation in lieu of demolishing or ignoring historic elements. Additionally, the program, as shown through this economic impact analysis, is a job and wealth generator for the state – creating direct and indirect benefits of 12,214 permanent jobs and an annual average of 3,244 construction-related jobs, while adding approximately $2.1 billion per year to the gross state product from the increased operations at these sites and $1.8 billion from the renovation of projects since 2008.

[130] An additional employee is a summation of the small fractions of employment generated across multiple sectors of the economy.
[131] Detailed explanation of economic impact indicators is provided on page 52.

APPENDICES

Appendix A. Literature References

Appendix B. Survey Questionnaire

Appendix C. Real Estate Property Data

- Appendix Table C-1. Data for Project Parcels Used in Analyses
- Appendix Table C-2 Taxable Market Value for Selected Years and Places, by Type

Appendix D. About the Study Team

Appendix A: Literature References

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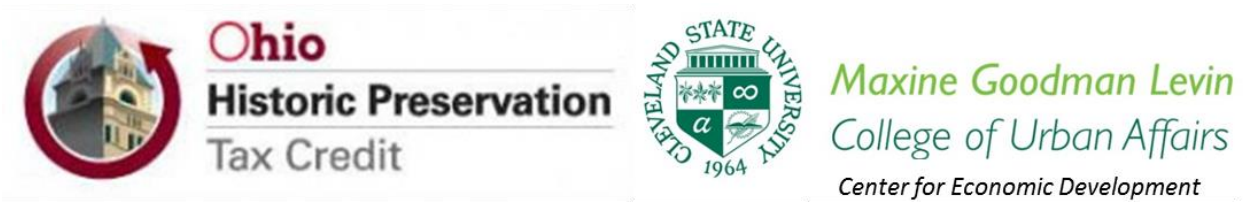
Appendix B: Survey Questionnaire



Dear Ohio Historic Preservation Tax Credit Recipient:

The Center for Economic Development (The Center) at Cleveland State University's Levin College of Urban Affairs is conducting research to evaluate the economic impact and effectiveness of the Ohio Historic Preservation Tax Credit Program with funding provided by the Ohio Development Services Agency. On behalf of the Center and the Ohio Development Services Agency, we are asking you to participate in this confidential survey.

The survey will take approximately 10-15 minutes of your time. All responses are strictly confidential and the data will be aggregated, so that no information can be attributed to an individual company.

If you have any questions regarding the study or this survey, please contact Iryna V. Lendel (216-875-9967; i.lendel@csuohio.edu) at the Center for Economic Development, Maxine Goodman Levin College of Urban Affairs at Cleveland State University.

Informed Consent
Your participation in the study is voluntary. You may withdraw from the research and discontinue the survey at any time. All participants shall remain anonymous; no identified individual, business, or propitiatory information will be made public without his/her written permission.

If you have any questions regarding your rights as a research subject, you may contact Cleveland State University's Institutional Review Board at 216-687-3630.

I have read and understand the consent form and agree to participate:[132]
A. Yes
B. No

[132] This is the only mandatory question of the survey. If participant says/clicks "No" then they will be transferred to the end of the survey.

INTRO

1. What is the address of the Ohio Historic Preservation Tax Credit project that you were associated with?
    a. Name
    b. Address
    c. City

PROJECT INFORMATION

2. Was the building in use within the last year before the redevelopment using the Ohio Historic Preservation Tax Credit?
    a. Yes
    b. No

3. It is important to understand the use of the building BEFORE and in 2015. Please provide the following information:

Please leave blank if not applicable

	Building Information 1-Year before Rehabilitation			**Building Information in 2015:**		
	Building Use (Percentage)	Number of Employees	Total Revenue (Gross Receipts)	Building Use (Percentage)	Number of Employees	Total Revenue (Gross Receipts)
Retail						
Hotel						
Institutional						
Residential						
Office						
Industrial						
Vacant						
Other						

***If a respondent answers hotel or residential they are piped Q4;
If a respondent answers retail they are piped Q5,
If not, continue, to Q6 ****

4. Since you indicated the building was/is used for residential and/or a hotel, could you please indicate the number of units and average annual occupancy rate.

   Please leave blank if not applicable

	Building Information 1-Year before Rehabilitation		Building Information in 2015:	
	Number of Units	**Average Annual Occupancy rate**	**Number of Units**	**Average Annual Occupancy rate**
Low-Income Residential				
Market-rate Residential				
Hotel				

5. Since you indicated the building was/is used for retail, could you please indicate the type of retail at the property BEFORE rehabilitation and in 2015?

   Please leave blank if not applicable

	Building Information 1-Year before Rehabilitation	**Building Information in 2015**
Groceries/Food	☐	☐
Pharmacy	☐	☐
Cigarettes	☐	☐
Liquor, Beer, & Wine	☐	☐
Household Items, cloth	☐	☐
Other _____	☐	☐

6. Please provide an estimate of the annual operating budget of the building in the year prior to redevelopment.
   $_____

7. Please provide an estimate of the value of the land and building in the year prior to re-development.
   $_____

BANNER AT TOP OF EVERY PAGE IN SECTION: It is important for us to understand the building use **during** construction, please answer the following questions:

8. From breaking ground, how many years did it take you to complete the redevelopment?

   A: The building was under construction from [YEAR] to [YEAR]

9. What was the total cost of the redevelopment project? Please indicate costs per year. If you do not know the costs per year, please provide total redevelopment costs.

Year	Cost
Year 1	
Year 2	
Year 3	
Year 4	
Year 5	
Year 6	
Year 7	
Year 8	
Year 9	
Year 10	

Total $_____

BANNER AT TOP OF EVERY PAGE IN SECTION: It is important for us to understand the building use **after** construction was completed, please answer the following questions:

10. Please provide an estimate of the current annual operating budget of the building.
    $_____

11. Please provide an estimate of the current value of the land and building.
    $_____

12. Do you know of any nearby development or redevelopment that occurred since the project for that property was completed? (open-ended)

TAX SECTION

13. Over how many years do you plan to claim (or did claim) your Ohio Historic Preservation Tax credit?
    A: FROM [ ] TO [ ]

14. On average, what amount will you /did you claim of the tax credit each year?
    $_____

15. It is important for us to understand the money you spent on all phases of the Ohio Historic Preservation Tax project in order to evaluate it.

    Please indicate the resources you spent on compiling your application for the Ohio Historic Preservation Tax Credit and what portion, if any, were used to help compile your Federal Historic Preservation Tax Credit application.
    You can provide this information in dollars or hours spent on the application.

Spending location	**Ohio Historic Preservation Tax Credit Application**		**Resources shared with Federal Historic Preservation Tax Credit**
INTERNAL TO THE COMPANY	Dollar Amount	Hours	**Percentage**
Company Personnel			
Copying, mailing, office materials			
Application fee			
EXTERNAL TO THE COMPANY	Dollar Amount	Hours	**Percentage**
Historic preservation consultant(s)			
Architect(s)			
Legal council			
Market analyst(s)			
Accountant, tax, or financial advisor(s)			
Photographer			
Other_____			

16. Without the Ohio Historic Preservation Tax credit, would this project have happened? Explain.

RESPONDENT INFORMATION

17. Name
18. Title
19. Company Name
20. Ownership Structure of Company:
    a. Sole proprietorship
    b. Partnership
    c. “S” Corporation
    d. “C” Corporation
21. Company sector:
    a. Nonprofit private
    b. For-profit
    c. Public

Appendix C: Real Estate Property Data

Appendix Table C-1. Data for Project Parcels Used in Analyses

Project	Project Name	City	Taxable Market Value			All Market Value*			Taxes (Half Year)		
			Before Project	After Project	Percent Change	Before Project	After Project	Percent Change	Before Project	After Project	Percent Change
ODSA-2013-02502	Ford Motor Company Cleveland Plant (Cleveland Institute of Art)	Cleveland	$369,000	$385,800	4.6%	$1,692,000	$17,601,900	940.3%	$5,163	$6,795	31.6%
ODSA-2013-02503	William Taylor, Son, and Co. Department Store (668 Euclid)	Cleveland	$3,941,100	$8,102,500	105.6%	$3,941,100	$19,449,800	393.5%	$55,386	$142,701	157.6%
ODSA-2013-02506	Second National Bank Building	Hamilton	$150,000	$150,000	0.0%	$150,000	$1,422,930	848.6%	$1,481	$1,667	12.5%
ODSA-2013-02515	Union Gospel Press	Cleveland	$1,260,600	$1,485,800	17.9%	$1,260,600	$7,764,800	516.0%	$993	$26,169	2534.4%
ODSA-2013-02516	Neal Terrace Apartments	Cleveland	$875,600	$517,300	-40.9%	$875,600	$2,035,100	132.4%	$12,249	$9,111	-25.6%
ODSA-2013-02517	Boulevard Terrace Apartments	Cleveland	$1,684,900	$1,561,200	-7.3%	$1,684,900	$4,157,300	146.7%	$23,570	$27,496	16.7%
ODSA-2013-02520	Hanna Building Complex	Cleveland	$3,416,600	$13,049,900	282.0%	$16,178,100	$13,503,500	-16.5%	$47,796	$232,806	387.1%
ODSA-2013-02521	Cogswell Hall	Cleveland	$324,700	$344,600	6.1%	$324,700	$1,751,900	439.5%	$4,563	$6,069	33.0%
ODSA-2013-02522	Capitol Theater	Cleveland	$1,991,400	$1,686,600	-15.3%	$1,991,400	$1,821,400	-8.5%	$27,987	$29,705	6.1%
ODSA-2013-02523	Fort Piqua Hotel	Piqua	$215,800	$227,400	5.4%	$215,800	$5,804,000	2589.5%	$1,918	$2,346	22.3%
ODSA-2013-02525	Erie Terminal	Youngstown	$465,890	$2,216,930	375.8%	$465,890	$2,216,930	375.8%			0.0%
ODSA-2013-02526	Realty Building	Youngstown	$465,140	$1,618,830	248.0%	$465,140	$1,618,830	248.0%			0.0%
ODSA-2013-02527	Higbee Building	Cleveland	$5,750,000	$113,963,900	1882.0%	$5,750,000	$113,963,900	1882.0%	$80,438	$2,007,129	2395.3%
ODSA-2013-02529	Andrew Jackson Residence	Akron	$184,560	$387,620	110.0%	$184,560	$387,620	110.0%	$1,851	$6,013	224.8%
ODSA-2013-02530	Seneca Hotel	Columbus	$1,500,000	$1,301,100	-13.3%	$1,500,000	$1,301,100	-13.3%	$17,478	$18,389	5.2%
ODSA-2013-02531	St. Luke's Hospital	Cleveland	$1,171,300	$918,300	-21.6%	$1,171,300	$1,072,300	-8.5%	$16,386	$16,173	-1.3%
ODSA-2013-02532	Cleveland Club / Tudor Arms	Cleveland	$0	$5,530,000	0.0%	$500,000	$9,625,000	1825.0%	$0	$97,395	0.0%
ODSA-2013-02533	Central National Bank/United Office Bldg	Cleveland	$2,211,600	$2,422,000	9.5%	$2,211,600	$2,422,000	9.5%	$30,939	$42,656	37.9%
ODSA-2013-02534	Shawnee Hotel	Springfield	$1,908,650	$1,795,350	-5.9%	$1,908,650	$1,795,350	-5.9%	$20,450	$23,107	13.0%
ODSA-2013-02535	West Side YMCA	Cleveland	$1,093,600	$956,800	-12.5%	$556,400	$3,732,400	570.8%	$15,302	$13,891	-9.2%
ODSA-2013-02536	John T. Wilson Home and Farm	Scott Township	$67,300	$177,800	164.2%	$67,300	$177,800	164.2%	$53	$893	1579.0%
ODSA-2013-02537	Golden Lamb	Lebanon	$570,570	$848,670	48.7%	$570,570	$848,670	48.7%	$4,801	$9,054	88.6%
ODSA-2013-02538	Arrow Apartments	Cincinnati	$73,700	$286,030	288.1%	$73,700	$286,030	288.1%	$903	$4,421	389.6%
ODSA-2013-02540	American Can Building	Cincinnati	$296,300	$14,485,440	4788.8%	$296,300	$14,485,440	4788.8%	$3,627	$223,000	6048.4%
ODSA-2013-02550	Westfalen Lofts	Cincinnati		$1,211,500	0.0%		$1,211,500	0.0%		$2,789	0.0%
ODSA-2013-02551	Saengerhalle	Cincinnati	$423,200	$2,665,670	529.9%	$423,200	$2,665,670	529.9%	$5,121	$6,158	20.3%
ODSA-2013-02552	1422 Pleasant Street	Cincinnati		$319,900	0.0%		$319,900	0.0%		$625	0.0%
ODSA-2013-02553	1411 Pleasant Street	Cincinnati		$409,790	0.0%		$409,790	0.0%		$816	0.0%
ODSA-2013-02554	Allerton Hotel	Cleveland	$3,337,800	$3,741,000	12.1%	$3,337,800	$3,741,000	12.1%	$46,693	$65,887	41.1%
ODSA-2013-02555	1346 Broadway	Cincinnati	$63,700	$364,590	472.4%	$63,700	$364,590	472.4%	$769	$1,564	103.5%
ODSA-2013-02556	Standart-Simmons Hardware Company	Toledo	$575,000	$2,946,029	412.4%	$575,000	$2,946,029	412.4%	$7,545	$5,885	-22.0%
ODSA-2013-02559	ASM Headquarters and Geodesic Dome	Russell Township			0.0%	$4,832,800	$5,585,600	15.6%	$0	$0	0.0%
ODSA-2013-02560	Born Capital Brewery Bottle Works	Columbus	$943,700	$950,000	0.7%	$943,700	$950,000	0.7%	$0	$48,054	0.0%
ODSA-2013-02561	Youngstown YWCA	Youngstown	$601,200	$885,470	47.3%	$601,200	$885,470	47.3%			0.0%
ODSA-2013-02562	Kaiser Building	Akron	$365,000	$362,700	-0.6%	$365,000	$362,700	-0.6%	$4,824	$5,626	16.6%
ODSA-2013-02563	Apollo Theatre	Oberlin	$250,800	$1,706,460	580.4%	$250,800	$1,706,460	580.4%			0.0%
ODSA-2013-02567	Berwick Hotel Apartments	Cambridge	$749,486	$723,480	-3.5%	$749,486	$723,480	-3.5%	$7,264	$7,779	7.1%
ODSA-2013-02572	Federal Reserve Building	Cincinnati	$3,764,600	$11,649,510	209.4%	$3,764,600	$11,649,510	209.4%	$53,774	$73,616	36.9%
ODSA-2013-02573	Metropole Building	Cincinnati	$6,250,000	$18,974,250	203.6%	$6,250,000	$18,974,250	203.6%	$52,759	$294,889	458.9%
ODSA-2013-02578	Federal Building	Youngstown	$147,300	$682,830	363.6%	$147,300	$682,830	363.6%			0.0%
ODSA-2013-02579	University Tower Apartments	Cleveland	$2,195,400	$2,281,300	3.9%	$2,195,400	$3,856,800	75.7%	$31,174	$40,178	28.9%
ODSA-2013-02583	Union Building	Cleveland	$2,206,900	$4,834,000	119.0%	$2,206,900	$4,834,000	119.0%	$31,309	$85,136	171.9%

Project	Project Name	City	Taxable Market Value			All Market Value*			Taxes (Half Year)		
			Before Project	After Project	Percent Change	Before Project	After Project	Percent Change	Before Project	After Project	Percent Change
ODSA-2013-02585	East Ohio Gas/Rockwell Building	Cleveland	$2,375,000	$16,035,900	575.2%	$2,375,000	$16,035,900	575.2%	$33,694	$282,424	738.2%
ODSA-2013-02590	Stuyvesant Hall	Delaware			0.0%	$7,801,200	$1,418,200	-81.8%	$0	$0	0.0%
ODSA-2013-02594	Haddon Hall Apartments	Cincinnati	$1,539,790	$4,720,000	206.5%	$1,539,790	$4,720,000	206.5%	$21,572	$72,690	237.0%
ODSA-2013-02596	15th and Republic	Cincinnati	$248,670	$605,440	143.5%	$248,670	$605,440	143.5%	$5,725	$8,484	48.2%
ODSA-2013-02600	Gifford House and Carriage House	Cleveland	$150,000	$325,000	116.7%	$150,000	$325,000	116.7%	$2,130	$5,724	168.7%
ODSA-2013-02605	Rialto Theater	Cleveland	$225,200	$1,025,000	355.2%	$225,200	$1,025,000	355.2%	$3,198	$18,053	464.5%
ODSA-2013-02607	Vincent Tower	Cleveland	$12,517,600	$15,000,000	19.8%	$12,517,600	$18,995,400	51.7%	$160,132	$264,180	65.0%
ODSA-2013-02608	Yankee Trader Building	Columbus	$377,300	$377,300	0.0%	$377,300	$377,300	0.0%	$5,185	$32,366	524.2%
ODSA-2013-02618	Bodenheimer-Mayer House	Lancaster	$113,990	$123,490	8.3%	$113,990	$123,490	8.3%	$734	$961	30.9%
ODSA-2013-02633	Ohio Theatre	Toledo			0.0%	$537,629	$70,200	-86.9%	$7,478	$1,165	-84.4%
ODSA-2013-02662	Clione Bailey House	Westerville	$99,100	$106,700	7.7%	$99,100	$106,700	7.7%	$1,407	$1,640	16.5%
ODSA-Mega1	BW Conserv. Music, Beech St. Residence Halls	Berea	$3,790,100	$7,445,000	96.4%	$5,438,500	$9,455,100	73.9%	$54,213	$118,150	117.9%
ODSA-Mega10	Sunshine Cloak Bldg., M.T. Silver Bldg.	Cleveland	$936,400	$2,502,600	167.3%	$936,400	$2,502,600	167.3%	$13,160	$44,076	234.9%
ODSA-Mega15	Scott A. Rogers Bldg., Liberty Bldg.	Cleveland	$726,000	$1,412,000	94.5%	$726,000	$2,628,600	262.1%	$10,204	$24,868	143.7%
ODSA-Mega2	McCrory, Kresge, Petrie Plus Bldgs.	Cleveland	$2,715,200	$3,583,700	32.0%	$2,715,200	$6,333,800	133.3%	$37,984	$63,116	66.2%
ODSA-Mega3	Cowell & Hubbard, Woolworth, Middough	Cleveland	$2,647,200	$3,122,300	17.9%	$2,647,200	$3,122,300	17.9%	$37,289	$54,990	47.5%
ODSA-Mega8	1405-1409, 1411, 1413, 1417, 1419 Vine St., Cincinnati Color Bldg.	Cincinnati	$296,830	$3,129,930	954.5%	$296,830	$3,129,930	954.5%	$1,366	$18,096	1224.6%

* "All Market Value" includes exempt value, where it was possible to extract it

[a] The following projects were consolidated into one for the purpose of analysis: 02575 and 02624

[b] The following projects were consolidated into one for the purpose of analysis: 02500 and 02501

[c] The following projects were consolidated into one for the purpose of analysis: 02519 and 02557

[d] The following projects were consolidated into one for the purpose of analysis: 02541, 02542, and 02543

[e] The following projects were consolidated into one for the purpose of analysis: 02566, 02587, and 02588

[f] The following projects were consolidated into one for the purpose of analysis: 02545, 02546, 02547, 02548, 02549, 2569

Appendix Table C-2 Taxable Market Value for Selected Years and Places, by Type

RESIDENTIAL TAXABLE MARKET VALUE						Percent Changes			
	2006	2007	2008	2009	2014	2006–2014	2007–2014	2008–2014	2009–2014
Cincinnati	9,882.62	9,940.80	10,087.74	10,013.84	8,857.57	-10.37	-10.90	-12.19	-11.55
Cleveland	8,733.04	8,690.38	8,748.60	7,695.83	5,815.89	-33.40	-33.08	-33.52	-24.43
Columbus	27,139.41	27,485.60	27,629.05	27,682.48	24,651.52	-9.17	-10.31	-10.78	-10.95
Ohio	487,153.36	498,819.72	507,015.96	496,080.95	462,519.59	-5.06	-7.28	-8.78	-6.77
COMMERCIAL TAXABLE MARKET VALUE						Percent Changes			
	2006	2007	2008	2009	2014	2006–2014	2007–2014	2008–2014	2009–2014
Cincinnati	5,127.99	5,066.63	5,237.62	5,325.31	4,556.47	-11.15	-10.07	-13.01	-14.44
Cleveland	5,971.44	5,677.03	5,679.74	6,090.91	6,221.28	4.18	9.59	9.53	2.14
Columbus	13,237.37	13,599.26	14,012.77	14,036.18	12,689.06	-4.14	-6.69	-9.45	-9.60
Ohio	116,905.10	118,564.71	122,898.37	123,982.85	115,179.26	-1.48	-2.86	-6.28	-7.10
INDUSTRIAL TAXABLE MARKET VALUE						Percent Changes			
	2006	2007	2008	2009	2014	2006–2014	2007–2014	2008–2014	2009–2014
Cincinnati	758.82	761.87	791.06	791.15	693.11	-8.66	-9.02	-12.38	-12.39
Cleveland	1,253.95	1,279.17	1,264.11	1,283.19	1,173.91	-6.38	-8.23	-7.14	-8.52
Columbus	2,764.66	2,775.63	2,831.71	2,892.36	2,587.99	-6.39	-6.76	-8.61	-10.52
Ohio	27,969.65	28,303.31	29,142.64	29,470.70	27,721.31	-0.89	-2.06	-4.88	-5.94
RESIDENTIAL + COMMERCIAL + INDUSTRIAL TAXABLE MARKET VALUE						Percent Changes			
	2006	2007	2008	2009	2014	2006–2014	2007–2014	2008–2014	2009–2014
Cincinnati	15,769.43	15,769.30	16,116.43	16,130.29	14,107.15	-10.54	-10.54	-12.47	-12.54
Cleveland	15,958.43	15,646.58	15,692.46	15,069.93	13,211.07	-17.22	-15.57	-15.81	-12.33
Columbus	43,141.45	43,860.48	44,473.53	44,611.03	39,928.57	-7.45	-8.96	-10.22	-10.50
Ohio	632,028.11	645,687.74	659,056.96	649,534.49	605,420.16	-4.21	-6.24	-8.14	-6.79

Source: Ohio Department of Taxation Data Abstracts
ALL VALUES ARE IN $ MILLIONS, no adjustment for inflation

Appendix D: About the Study Team

Iryna V. Lendel

Iryna Lendel is Research Associate Professor of Economic Development and Assistant Director of the Center for Economic Development at the Maxine Goodman Levin College of Urban Affairs at Cleveland State University. Dr. Lendel was the principal investigator for this project and developed the overall framework and methodologies for research components of the project. Lendel managed the team of researchers and participated in each phase of the project. Dr. Lendel is an economist with 20 years of experience conducting applied economic research and analyzing regional and urban economic development. Her research portfolio includes projects on industry analyses; state and regional science and innovation policies; university products; and high-tech, emerging, and creative industries and their role in economic development. Dr. Lendel also writes on energy policy and is affiliated with the Energy Policy Center at the Urban College. Dr. Lendel earned a Ph.D. in Economic Development from the Cleveland State University and a Ph.D. in Economics from the Lviv Regional Institute of Ukrainian Academy of Science.

Candice Clouse

Candice Clouse is the Program Manager in the Center for Economic Development at the Maxine Goodman Levin College of Urban Affairs at Cleveland State University. Ms. Clouse was the primary researcher for the economic impact analysis. She also participated in creating case studies and developing methodology for data estimation. Her areas of expertise are regional and urban economic development, economic impact analysis, industry analysis, and place image. Ms. Clouse is a Ph.D. candidate in Urban Studies with a concentration in economic development.

Ellen Cyran

Ellen Cyran is a senior programmer/analyst for the Center for Economic Development at the Maxine Goodman Levin College of Urban Affairs at Cleveland State University. She received a M.S. in Mathematics from Cleveland State University and a B.S. in Computer Science from Bowling Green State University. Ms. Cyran has experience in conducting research using regression analysis, creating population projections and economic trends, database programming and design, Geographic Information Systems (GIS), and system administration.

Tatyana Guzman

Tatyana Guzman is an Assistant Professor of Government Finance and Policy Analysis in the Levin College of Urban Affairs in Cleveland State University (CSU). She has taught classes in Public Finance, Budgeting, Statistics, Research Methods, and Economics at Indiana University Bloomington, Indiana University – Purdue University Indianapolis, and CSU. Tatyana's primary research interests are in municipal finance, personal income tax, and higher and secondary education finance. Her works have been published in Public Budgeting and Finance, Policy Studies Journal, Tax Notes, and other outlets.

Merissa Piazza

Merissa C. Piazza is a Research Associate for the Center for Economic Development at the Maxine Goodman Levin College of Urban Affairs at Cleveland State University. She specializes in economic development, methodology, workforce development, and entrepreneurship. Ms. Piazza played a significant role in all elements of the case studies, including methodology design, conducting interviews, data collection, and drafting reports. She was also involved with all elements of the design, measurement, collection, and analysis of the Ohio Historic Preservation Tax Credit Program Survey. In addition to working full time for the Center, she is a doctoral candidate in Urban Studies and Public Policy specializing in entrepreneurship and public policy.

Stephanie Ryberg-Webster

Stephanie Ryberg-Webster is an Assistant Professor of Urban Studies in the Levin College of Urban Affairs at Cleveland State University. Her research broadly explores the intersections of historic preservation and urban development, with current projects addressing: preservation in post-industrial, legacy cities; synergies and tensions between preservation and community development; federal and state historic rehabilitation tax credits; the preservation of Cleveland's African American heritage; and this history of historic preservation in Cleveland. Dr. Ryberg-Webster earned a Ph.D. from the University of Pennsylvania in 2010 and holds a Master of Historic Preservation from the University of Maryland and a Bachelor of Urban Planning from the University of Cincinnati.

Charlie Post

Charlie Post has been a Project Manager/Research Associate in the Levin College since 1992. Charlie provides computer programming and data analysis related to the various facets of urban and regional policy. He cleans, assembles, and analyzes the Cuyahoga County Fiscal Office data files, which allow for the parcel-level tracking of sales and market values, tax assessments, and delinquencies, among many other real property characteristics variables. Charlie earned a B.A. in Economics and Math from Earlham College, an M.A. in Economics from Washington University, and an M.S. in Public Policy and Management from Carnegie-Mellon University.

Kenneth Kalynchuk

Kenneth Kalynchuk is a research assistant at the Center for Economic Development in the Maxine Levin Goodman College of Urban Affairs at Cleveland State University. He holds a degree in Urban & Regional Studies from Cornell University, where his research focused on neighborhood identity and international development. Ken was involved in research on case studies, employment and demographics. His previous work experience is centered on community engagement in Cleveland and Portland, Oregon. Kenneth is currently enrolled in the Masters of Urban Planning and Development at Cleveland State University, where he is concentrating in real estate development.

The research team appreciates extensive data support provided by graduate assistants from the Center for Economic Development, **Bryan Townley** and **Jinhee Yun**.