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Tax Incentive Evaluation: Georgia's Historic Rehabilitation Tax Credit

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Prepared by:

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For:

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Executive Summary

Georgia's income tax credit for rehabilitation of historic properties (Ref. O.C.G.A. §48-7-29.8) was enacted in 2002 to enhance the Federal Historic Rehabilitation Tax Credit incentivizing rehabilitation of historically important properties. The Georgia Historic Rehabilitation Tax Credit (HRTC) allows owners of eligible historic properties to reduce state income tax liabilities by 25 percent (30 percent in target areas) of qualified rehabilitation expenditures. Under its current terms, enacted though Georgia House Bill 469 (2022), the program is subject to an aggregate cap for historic homes, as defined, of $5 million per year for 2023-24, after which historic homes are no longer eligible for the credit. HB 469 also set a $30 million program cap for other historic structure projects for 2023-27, after which the tax credit is no longer available for either homes or other historic structures.

The purpose of this report is to evaluate the Georgia HRTC, in accordance with the provisions of O.C.G.A. §28-5-41.1 (2021 Senate Bill 6), in terms of its fiscal and economic impacts, as well as its public benefits. In addition, the report describes the terms and qualifications for the federal HRTC upon which the Georgia credit is based, and discusses the administration of the program in Georgia, similar programs in other states, and other research into federal or state HRTC programs. Key findings are summarized below.

Net Change in State Revenue

As detailed in section 3 of this report, we estimate that Georgia's HRTC will reduce state income tax revenues by approximately $20 million in state fiscal year (FY) 2023. This amount represents the state tax expenditures for the program from credits earned on HRTC projects and utilized to offset state income tax liability on returns filed during FY 2023.

Section 7 of the report evaluates the state revenue impacts of a representative year's HRTC projects, with credits generated from a hypothetical $212 million of qualified rehabilitation expenditures, the average annual total for projects certified by the Georgia Department of Community Affairs (DCA) in 2017-19. Costs and benefits, evaluated on a present-value basis, include the cost of tax credits claimable after project completion, offsetting revenue gains from economic activity – direct, indirect, and induced – during the construction phase of the projects and the first 15 years of operations for net new operating activities of commercial projects, and the opportunity cost of the tax expenditure. The opportunity cost is measured as the value of revenue gains from the hypothetical *alternate use* of funds on general government expenditures.

Using DCA and Department of Revenue (DOR) data for a representative project year, defined as the average of 2017-19 activity, the value of claimed credits is approximately $29 million. This state revenue reduction is partially offset by gains of approximately $23.75 million from construction phase activity and the present value of operating phase gains. Of these additional gains, $15.2 million is estimated in our "but-for" analysis to be attributable to activities that likely would have happened anyway, even in the absence of the Georgia HRTC. Finally, the state revenue gain from the alternate use of the tax expenditures is estimated at about $1.9 million. The resulting net state revenue impact of a representative year's HRTC projects is estimated to be a loss of approximately $22 million. Local revenue gains during the construction and

operating phases of the projects, again net of estimated gains from the alternate use of state funds and the "but-for" adjustment, are estimated at about $1 million on a present-value basis.

Net Change in State Expenditures

Administration of the HRTC program is conducted by two state agencies: the Department of Community Affairs and Department of Revenue. DOR reported that they do not track administrative expenses for this program. DCA administration of the state and federal programs is supported by fee revenue as well as a federal funds for the administration of the federal HRTC. The agency reported net administrative costs of about $0.09 million for FY 2022.

Net Change in Economic Activity

Economic activity associated with HRTC projects is estimated in two steps, the first being a standard IMPLAN analysis (described more fully in section 6) of direct, indirect, and induced effects of a representative year's projects, without consideration of causality. That is, we assume that, but for the availability of the state credits, none of the projects receiving the credits would have been undertaken. This assumption is a common simplification of economic impact analyses, but it is not likely realistic. The degree to which projects would or would not have been undertaken absent the state HRTC is ultimately an empirical question. In fact, we know that historic rehabilitation projects are undertaken in states without similar state incentives.

As a second step, we use data from Federal HRTC projects in Georgia and two neighboring states that do not have state HRTC programs to empirically test whether the number of income-producing historic rehabilitation projects in Georgia is statistically greater than the number one should expect with only the federal HRTC and other federal subsidies. We statistically match Georgia places to economically and demographically similar places in neighboring states with no state-level HRTC or similar program in order to estimate a *treatment effect* of the state credit, the number of projects in Georgia places over and above the number in the matched, untreated places in other states. Section 6 details this step of the analysis.

IMPLAN Analysis

Results of step one, the IMPLAN analysis, suggest that the representative year's projects, involving total investments of about $56 million for residential projects (historic homes and multifamily residential) and $155 million for nonresidential projects, can be expected to result in about $401 million in economic gross output during the construction phase of the projects and about $73 million annually during the operating phase. The associated increases in valued added or state gross domestic product (GDP) are estimated at $202 million and $42 million, respectively. Gross labor income effects are estimated at $113 and $18 million, respectively.

"But-For" Analysis

The empirical analysis in step two finds significantly more income-producing rehabilitation projects in Georgia than in similar places in neighboring states without the credit. However, results suggest that many of the projects would likely have occurred even in the absence of the state credit. The estimated "treatment effect" of the state-level incentive suggests that around 112 additional income-producing rehabilitation projects from 2009-2020, or about 36 percent of the

total income-producing projects over that period, could fairly be attributed to the presence of the state credit.

Net Change in Public Benefit

Preserving Georgia's historical assets and incentivizing rehabilitation of historic structures has benefits beyond the scope of this evaluation, but there is a body of research supporting additional tourism benefits associated with historic heritage, credits as a de facto housing policy for the preservation (and creation) of market-rate and affordable housing without gentrification, and as a catalyst for neighborhood revitalization. Based on the empirical analysis in this report, it appears that the Georgia HRTC has partially contributed to the realization of these benefits by increasing the number of historic rehabilitation projects in Georgia beyond that which we would expect absent the state credit.

On an economic and fiscal basis, we find net public benefits as summarized in Table ES1 below. For the economic net benefit, income and output gains are first adjusted based on the "but-for" analysis so as to reflect only the share of projects likely not to have been built in the absence of the state credit. Second, they are adjusted for the opportunity cost of the state tax expenditures on credits, the economic impacts associated with spending the same amount on a basket of government programs and services in proportion to recent state budget breakdowns.

For the fiscal benefits, forgone revenues from utilization of tax credits are partially offset by positive net revenues, after adjustment to reflect only the activity our analysis finds to be attributable to the state credits, from the construction phase and ongoing operation of rehabilitated properties. After also accounting for opportunity costs (the revenues associated with the alternate use of funds) and administrative costs, we find that the Georgia HRTC produces a net revenue loss to the state of some $22.4 million on a representative year's projects and a small, $1.1 million gain to local governments.

Table ES1. Net Economic and Fiscal Benefits (Costs) of the Georgia HRTC

	Labor Income		**Value Added**		**Revenue***	
($ *millions*)	**Construc-tion**	**Ongoing (Annual)**	**Construc-tion**	**Ongoing (Annual)**	**State**	**Local**
HRTC Activity:						
Forgone revenue					($32.3)	
Gross impacts	$113.0	$18.0	$202.0	$42.0	$23.8	$3.5
Less:						
But-for reduction	($72.3)	($11.5)	($129.3)	($26.9)	($15.2)	($2.3)
Administrative costs					($0.1)	
Net HRTC Activity	**$40.7**	**$6.5**	**$72.7**	**$15.1**	**($23.8)**	**$1.3**
Alternate Use of Funds:						
Increased state spending	($32.0)		($39.0)		($2.2)	($0.8)
HRTC Net Benefits (Costs)	**$8.7**	**$6.5**	**$33.7**	**$15.1**	**($26.0)**	**$0.5**

* Estimates of HRTC revenue impacts include construction-related and, for commercial projects, the present value of 15 years of ongoing net new business operations.

Contents

1. Introduction

Georgia's income tax credit for rehabilitation of historic properties (Ref. O.C.G.A. §48-7-29.8) was enacted in 2002 to enhance the Federal Historic Rehabilitation Tax Credit incentivizing rehabilitation of historically important properties. The Georgia Historic Rehabilitation Tax Credit (HRTC) allows owners of eligible historic properties to reduce state income tax liabilities by 25 percent (30 percent in target areas) of qualified rehabilitation expenditures. Under its current terms, enacted though Georgia House Bill 469 (2022), the program is subject to an aggregate cap for historic homes, as defined, of $5 million per year for 2023-24, after which historic homes are no longer eligible for the credit. HB 469 also set a $30 million program cap for other historic structure projects for 2023-27, after which the tax credit is no longer available for either homes or other historic structures.

The purpose of this report is to evaluate the Georgia HRTC, in accordance with the provisions of O.C.G.A. § 28-5-41.1 (2021 Senate Bill 6), in terms of its fiscal and economic impacts, as well as its public benefits. In addition, the report describes the terms and qualifications for the federal HRTC upon which the Georgia credit is based, and discusses the administration of the program in Georgia, similar programs in other states, and other research into federal or state HRTC programs.

The reports first discusses the background and administration of the Georgia HRTC, followed by a summary of HRTC-related activity, a discussion of other states' programs, a brief review of the related academic literature, the economic and fiscal impact of a representative year of credit-eligible projects net of activity that would have occurred in the absence of the credit and net of activity that would have occurred from an alternate use of the tax expenditures on HRTC's for the same amount of general state spending. A brief discussion of other public benefits associated with incentivizing the rehabilitation of historic structures is also included.

2. Tax Provision Background/Overview

History

Georgia's income tax credit for rehabilitation of historic properties was signed into law in 2002 (O.C.G.A Section 48-7-29.8). The program is administered by DCA's Historic Preservation Division (HPD) and the Georgia DOR. To qualify for the credit, the structure must be located within a national historic district, listed on the National Register of Historic Places, listed on the Georgia Register of Historic Places, or certified by DCA as contributing to the historical significance of a Georgia Register Historic District.

Effective January 1, 2009, HB 851 substantially changed Georgia's Historic Preservation Tax Credit, increasing the credit percentage on qualified rehabilitation expenditures (QREs) as well as the maximum amount of credits for individual projects.

HB 308, effective January 1, 2016, for projects completed after January 1, 2017, introduced higher project credit caps for projects other than historic homes, particularly those that create substantial jobs or investment. HB 308 also eliminated carryforwards for projects other than historic homes but made credits on these projects transferable.

The most recent changes to Georgia's HRTC were enacted through SB6 and HB 469, effective January 1, 2022 and 2023, respectively. These bills extended some of the earlier provisions while altering the caps and phasing out the tax credit. Table 1 summarizes the evolution of Georgia credit since 2002.

Currently, Georgia allows a 25 percent credit on project QREs for both historic homes and other historic structures, with an additional 5-percent credit for historic homes located in low-income housing areas designated by the U.S. Department of Housing and Urban Development (HUD).

QREs include expenditures defined as such by Section 47(c)(2) of the Internal Revenue Code of 1986 and any amount spent on the rehabilitation that is properly chargeable to a capital account, but not costs of acquisition of the property or costs attributable to expanding the property, site preparation, or any personal property. Rehabilitation expenses must exceed a minimum threshold to qualify for the incentive. For historic homes, the minimum threshold is the lessor of $25,000 or 50 percent of the owner's adjusted basis of the property. However, if the historic home is in a HUD-designated low-income housing area, then the minimum threshold is $5,000. For any other certified structure, the minimum threshold is equal to the greater of $5,000 or the adjusted basis of the property.

The credit for any historic home cannot exceed $100,000 in any 120-month period. For any other certified structures, credit is capped at $5 million for any taxable year unless the project creates 200 or more full-time, permanent jobs or $5 million in annual payroll within two years of the placed in-service date, in which case the credit is capped at $10 million.

Finally, under current law, credits issued for projects earning more than $300,000 in credits cannot exceed $25 million per calendar year prior to January 1, 2022. For 2022, aggregate credits for all projects earning credits of $300,000 or less are capped at $5 million while projects earnings more than $300,000 of credits are subject to an aggregate cap of $25 million. For historic homes, credits are capped at $5 million per year from 2023 through 2024; no credits are allowed for historic homes on or after January 1, 2025. For all other certified structures, aggregate credits are capped at $30 million per year for 2023-27. On and after January 1, 2028, no credits shall be allowed on any structures.

Table 1. Legislative History of the Georgia Historic Rehabilitation Tax Credit, O.C.G.A. §48-7-29.8

Provision	Property Type	Credit % QRE	Credit Cap	Carryforward period	Program Cap
HB 1441, effective Jan. 1, 2004	Principal residence	10% (15% in target areas)	$5,000	10 years	None
	Other certified structures	20%	$5,000	10 years	None
HB 851, effective Jan. 1, 2009	Principal residence	25% (30% in target areas)	$100,000	10 years	None
	Other certified structures	25%	$300,000	10 years	None
HB 308, effective Jan. 1, 2016	Principal residence	25% (30% in target areas)	$100,000	10 years	None
	Other certified structures ≤$300,000 of credits	25%	$300,000	No carryforward, but may be sold or transferred 1 time	None
	Structures >$300,000 of credits	25%	$5 million*	No carryforward, but may be sold or transferred 1 time	$25 million
SB 6, effective Jan. 1, 2022	Principal residence	25% (30% in target areas)	$100,000	10 years	$5 million (combined)
	Other certified structures ≤$300,000 of credits	25%	$300,000	No carryforward, but may be sold or transferred 1 time	
	Structures >$300,000 of credits	25%	$5 million*	No carryforward, but may be sold or transferred 1 time	$25 million
HB 469, effective Jan. 1, 2023	Principal residence	25% (30% in target area)	$100,000	10 years	$5 million
	Other certified structures	25%	$5 million*	No carryforward, but may be sold or transferred 1 time	$30 million
Effective Jan. 1, 2025	Principle Residence	NONE			
	Other certified structures	25%	$5 million*	No carryforward, but may be sold or transferred 1 time	$30 million
Effective Jan. 1, 2028	NONE				

* Project cap is $10 million if certain job creation (200 full-time) or payroll ($5 million/year) requirements are met within two years.

Purpose

The purpose of the Georgia HRTC is to encourage investment in the rehabilitation of historic properties in Georgia and thus promote preservation of the States' historic assets. It is designed to enhance the Federal HRTC incentivizing rehabilitation of historic properties.

How the Tax Provision Works

The Georgia HRTC standards for QREs align with those of the federal HRTC. Thus, the process for determining the historical appropriateness of rehabilitation efforts to qualify for the credit satisfies the requirements for both the Federal and Georgia HRTC.

The process starts with property owners' submission of a Part A – Preliminary Certification application to the Georgia HPD and payment of a review fee. Ideally, this application is submitted prior to the start of rehabilitation work. From the Part A application, HPD determines the eligibility of the property as well as whether the proposed rehabilitation project meets the DCA *Standards for Rehabilitation*. HPD provides a signed copy of the application with comments to the applicant (within 30 days). It is the applicant's responsibility to submit the signed application to the Georgia DOR to receive an allocation for capped tax credits.

After the completion of the rehabilitation work, the property owner(s) submit Part B-Final Certification application and review fee to the HPD. The HPD determines whether the rehabilitation project meets the *Standards of Rehabilitation* and certifies the project if it does. Rehabilitation projects are, under certain circumstances, also eligible for a property tax freeze and income-producing properties are eligible for the federal HRTC. The Part B-Final Certification process also determines eligibility for these programs.

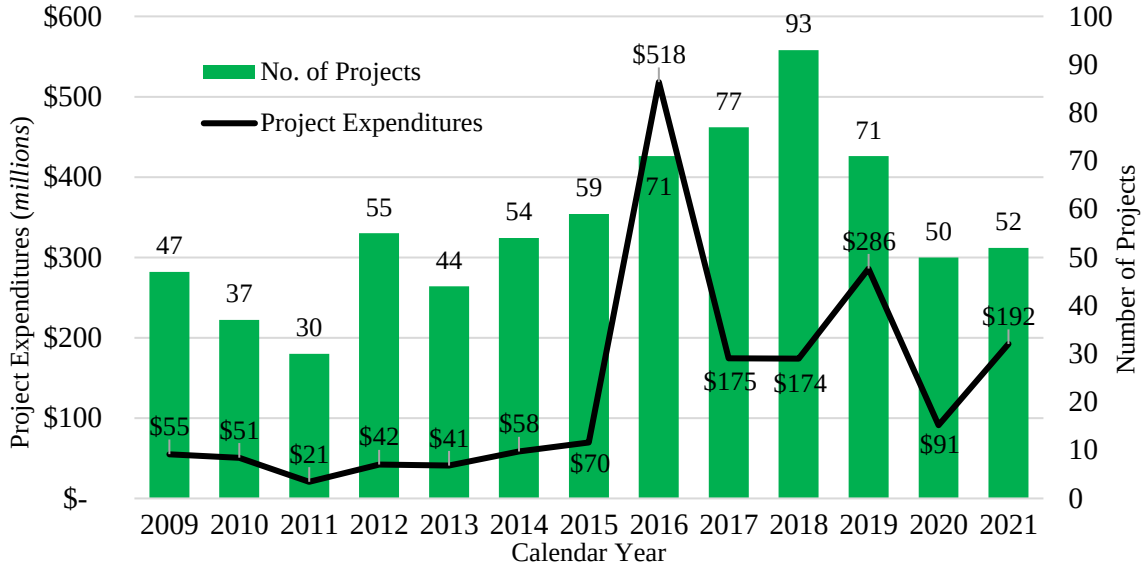
After receiving final certification, it is the applicant's responsibility to submit the certification with their tax returns, along with DOR form IT-RHC. DOR ultimately determines eligibility and approves amounts of the state-level credit.

3. Tax Provision-Related Activity

Project Activity

Based on the data from DCA, between 2009 and 2021, 768 projects applied for or received Part B certification for the historic rehabilitation tax credit in Georgia. The total value of these projects equaled over $1.7 billion, with an average cost of $2.4 million per project. As seen in Figure 1, the annual number of Georgia HRTC projects increased fairly steadily after 2011 until peaking in 2018. Activity slowed considerably for 2020 and 2021, during the COVID pandemic. The peak years prior to COVID, 2016-19, averaged about 78 projects and $239 million in project expenditures annually.

Figure 1. Number and Total Expenditures of Georgia Rehabilitation Projects, 2009-21

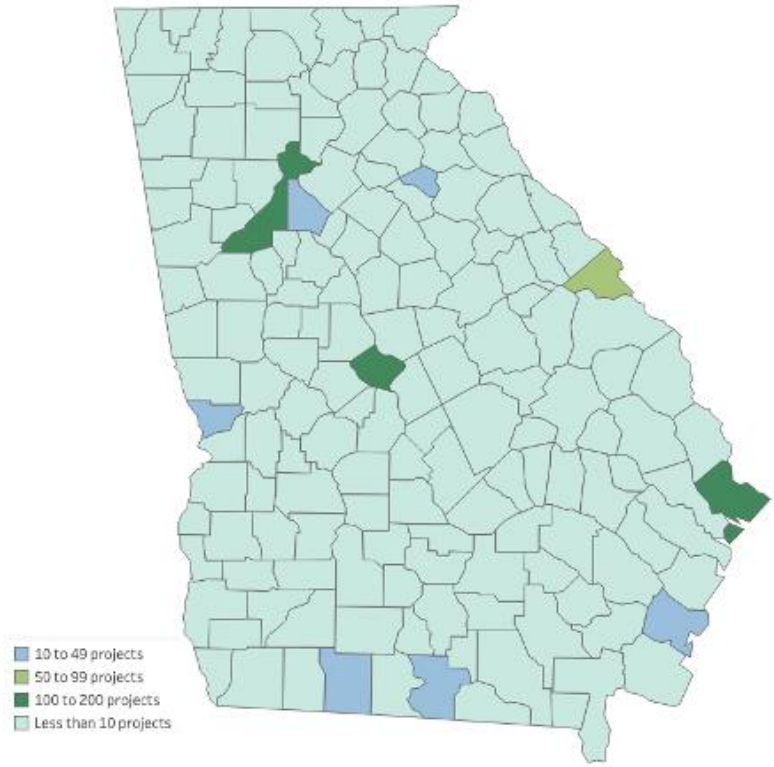


Historic preservation projects are heavily concentrated in a few counties. As shown in Table 4, the top 10 counties accounted for approximately 85 percent of the projects and 88 percent of total project expenditures completed in the years from 2009 to 2021. Figure 2 shows the distribution of all projects over this period across Georgia counties.

Table 2: Top 10 Counties by Rehabilitation Activity, 2009-2021

County	Number of projects	Total project costs
Bibb	200	$165,435,889
Chatham	166	$295,408,676
Fulton	131	$874,209,106
Richmond	59	$90,119,053
DeKalb	35	$16,271,004
Muscogee	23	$95,207,164
Clarke	12	$7,547,615
Lowndes	10	$14,141,777
Glynn	10	$11,012,696
Thomas	10	$4,979,509
Total	**656**	**$1,574,332,489**
Share of total GA HRTC Projects	85%	88%

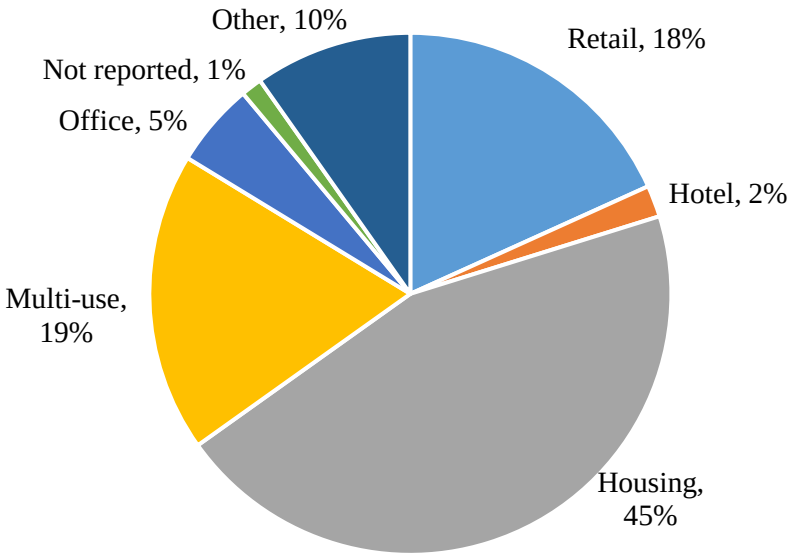
Figure 2: Total number of HRTC projects (2009-2021), by County



Source: DCA and authors' calculations

Figure 3 shows the distribution of commercial projects by project type or use over the 2009-21 period. Among these properties, 45 percent of credits were earned renovating rental housing projects. Multi-use and retail structures accounted for 19 and 18 percent of the credit use respectively.

Figure 3. Use of Credits by Commercial Project Type, 2009-21



Tax Credit Activity

Figures 4A, 4B, and 5 describe the tax provision-related activity as reported by DOR. Figure 5 also contains our projected HRTC utilization through 2027.

As noted above, taxpayers must file the certification with their tax returns, along with DOR form IT-RHC, after the project is certified (Part A – Preliminary Certification) by the DCA. The DOR allocates credits under each program cap and ultimately approves the credits. This "certificate begin year" thus represents the year DOR allocated credits for the project, but may differ from the year in which the projects were completed and final credit amounts certified. The DOR-reported amounts shown in Figures 4A and 4B of net credits generated (blue bars) represent credits certified and recorded by DOR to the project's credit certificate, but dated the certificate begin year.

It is the final certification that determines the tax year for which credits may first be claimed on a tax return to offset tax liability. Claimed or utilized credits (red bars) shown in Figures 4A and 4B represent the accumulated amounts of credits associated with projects from the given certificate begin year that have been utilized to offset tax liability in any year to date.

Figures 4A and 4B illustrate that a substantial portion of credits generated in a given year are not utilized immediately, or in some cases for several years, if at all. The "end outstanding" amount in Figure 4A, reported as such by DOR, is the accumulated difference between generated credits and utilized credits, including that of the given year plus any outstanding balance from previous years. Thus, it is not a precise accounting of credit carryforwards as it may include amounts from expired credits. Nevertheless, given the long (10-year) carryforward period for credits on historic homes and the relatively small amounts of such credits generated more than ten years ago, the end outstanding balance for historic homes credits should not materially overstate carryforward balances.

Taxpayers utilizing the credit for historic projects other than homes may not carry forward unused credits, thus amounts reported as end outstanding by DOR may be expired, though amounts earned in the most recent years may still be claimable on returns yet to be filed, including extended or amended returns. Thus, for these credits, the portion of end-outstanding amounts that may still be claimed on returns cannot be determined at this time and Figure 4B shows only amounts generated and utilized.

Figure 4A. Tax Provision Related Activity for Historic Homes

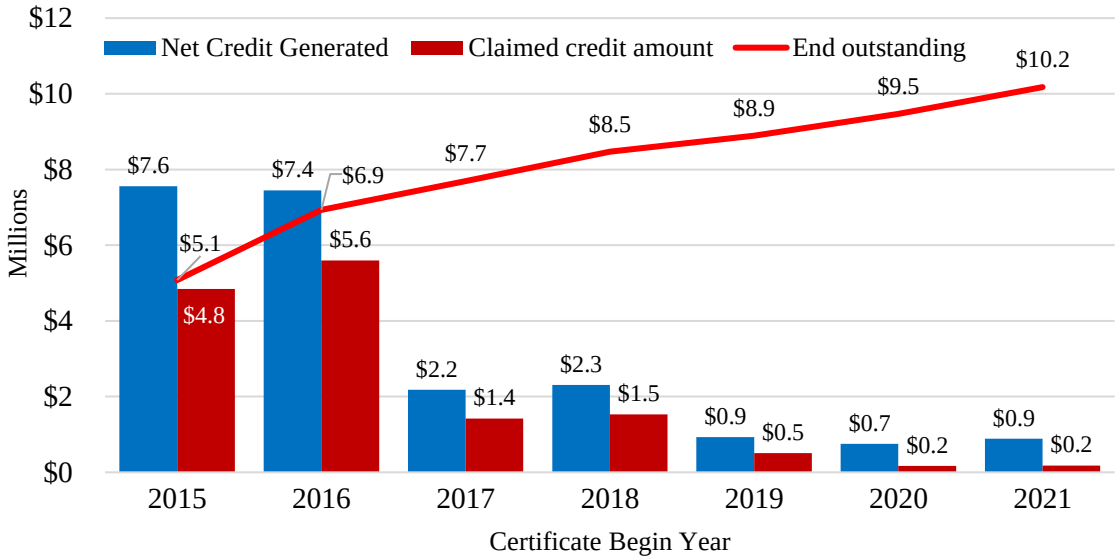
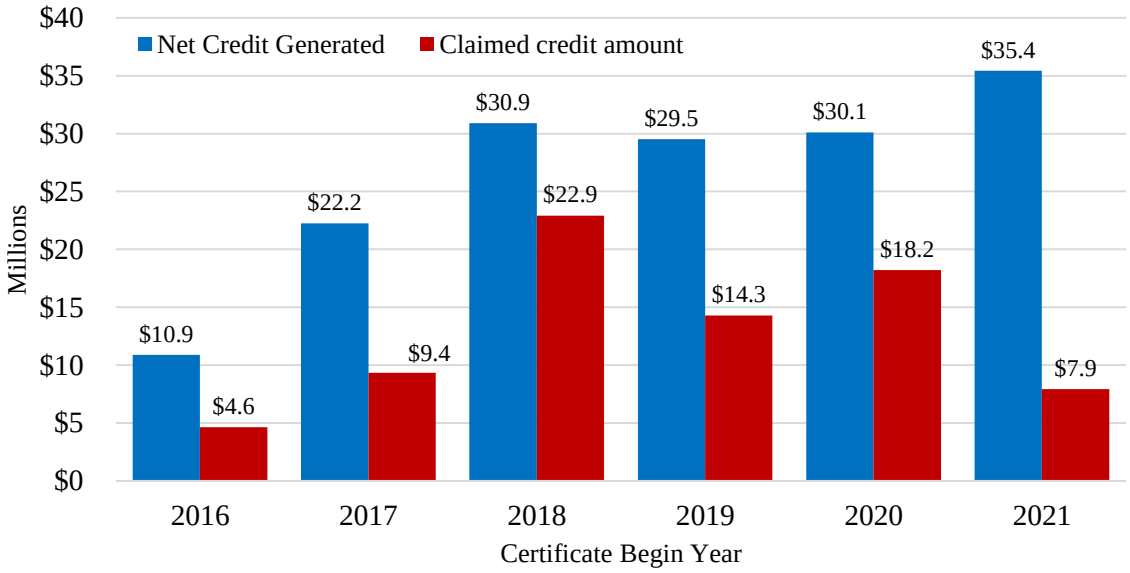


Figure 4B. Tax Provision Related Activity for Other Historic Structures



Note that even for projects where credits may not be carried forward, projects with certificate begin years toward the end of our data may have been completed in a tax year for which returns are not yet due, have been extended, or may still be amended. Projects in the 2021 cohort, particularly larger ones, may not be complete or returns may not have been filed or processed, so the share utilized to date is unsurprisingly smaller than in earlier years. Projects receiving preliminary certification and credit allocations in 2019 may have been delayed by the COVID pandemic, possibly explaining the lower cumulative utilization of credits from that cohort of projects compared to the 2018 and 2020 cohorts.

Of all certificate-begin years in the data, the highest cumulative utilization is for 2014 and 2018 projects, at 74 percent. 2017 and 2019, however, are below 50 percent, though again, the latter may have been affected by the pandemic. The weighted-average cumulative utilization for the peak years of activity excluding the 2021 cohort, 2018-20, is about 61 percent. Taking a longer average over 2014-20, but excluding 2019 because of possible pandemic delays, we again get an average of about 61 percent.

Discussions with DOR and DCA, and a response from the Metro Atlanta Chamber did not reveal a reason that a material portion of taxpayers complete all necessary steps, including filing the IT-RHC and thus generating credits in the DOR data, but apparently do not ultimately claim the credit. Analysis of DOR data also revealed no consistent patterns amongst projects that ultimately claim their generated credits and those that do not.

Finally, we show in Figure 5 the historical utilization of HRTCs by state fiscal year in which returns were filed utilizing the credits to offset state income tax liability and in which tax collections are reduced. This realization of the tax expenditure by the state is relevant dating for state budget purposes and the basis on which the Georgia Tax Expenditure Report projections of future tax expenditures are made. The projected periods shown in Figure 5 reflect the most recent legislative changes to the credit, including the phase out of credits for private homes, as well as the Fiscal Research Center's analysis of trends in activity and other factors. Note that FY 2022 is likely inflated by delayed filing of tax year 2020 returns, the filing deadline for which was deferred from April to July 2021.

Table 3 allocates the estimated fiscal year tax expenditures (credits utilized) between individual and corporate income taxes, based on historical patterns in DOR utilization reporting by tax type.

Figure 5. Historical and Projected Utilization of Credits

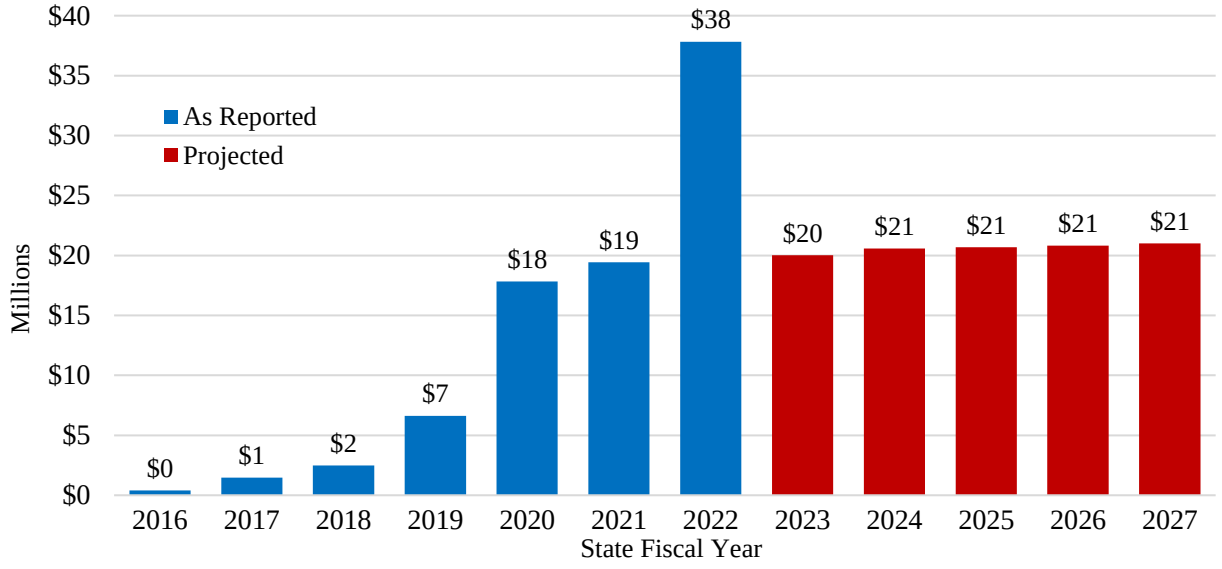


Table 3: Tax Expenditure Estimates by Tax Type

($ *millions*)	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**
Individual	15	28	15	15
Corporate	5	10	5	5
Total	**19**	**38**	**20**	**21**

4. Other States' Programs

Key Features of Effective State HRTC Programs

As of 2022, 40 states (including Georgia) have active state tax credit programs for preservation of historic properties. While the tax credits vary from state to state, most programs include a common set of basic elements. Some of the qualities of effective state tax credit programs include:

- Criteria for determining which structures are eligible for the credit
- Standards to ensure the rehabilitation maintains the building's historic and architectural integrity
- Credits are available to commercial property and in most cases to owner-occupied residences. This is important because federal credit is not available for owner-occupied residences.
- A formula for determining the value of the credit granted that is expressed as a percentage of the amount spent on the rehabilitation work that meets the requirements for being a QRE. Typically, the percentage ranges from 20 percent to 30 percent of QREs.
- Transferable credits, including:
  - Credits can be sold outright to a third party. For example, Kansas, Kentucky, and Missouri allow the taxpayer to sell the tax credits in this manner.
  - A disproportionate distribution of the credit, allowing an out-of-state person or entity to acquire federal tax credit while a taxpayer within the state in which the project is located acquires the state tax credit. Virginia, Kansas, and Delaware allow the credit to be passed through in this manner.
- Provision for carrying credits backward or forward to offset previously paid taxes or taxes to be paid in the future.
- Refundable credits, so that any unused amount is paid in cash to the holder of the credit.
- Some states set aside certain percentage of the credits or offer higher credit rates or project caps for rural, economically distressed, or for other targeted areas or for smaller projects. Some examples include:
  - Alabama sets aside 40 percent of its credits for projects in counties with a population less than 170,000.
  - West Virginia sets aside $5 million for projects with less than $500,000 QRE.
  - Missouri does not cap projects with less than $1.1 million in QREs.
  - Georgia offers a higher credit rate for historic home projects in HUD-designated target areas.
  - Maine offers a 25 percent "Small Project Rehabilitation Credit" for buildings that have between $50,000 and $250,000 in rehabilitation costs.

- Maryland additionally offers a 20 percent credit for small commercial projects with $50,000 or less in QREs and no more than 75 percent residential rental.
- Massachusetts sets aside 25 percent of the credit cap for projects with affordable housing.
- South Carolina's HRTC has a provision for a 25 percent tax credit that can be taken against corporate license fees and insurance premium taxes, in addition to income taxes, for rehabilitating abandoned textile mill buildings.
- Similarly, New York promotes rehabilitating historic barns by providing 25 percent of the cost of rehabilitation of barns that are income-producing and built before 1945.
- New Mexico caps project credits at $25,000 for projects outside an Arts and Cultural District but allows a higher $50,000 cap for projects located within such districts.

HRTC Terms Across the States

Not all state programs are created equally. Two factors that influence the effectiveness of state historic tax credits are transferability (or lack thereof) and limits or caps on the credit amount by project, in aggregate, or both.

For a state tax credit to be useful, it is important that taxpayers are able to use the credit to offset state tax liability. Each rehabilitation project possesses unique challenges, thus states offering multiple ways to transfer HRTCs can help address the typical financing issues associated with the projects. Multiple avenues of transfers also attract private investors into the projects. States have addressed this issue in two ways:

- *Allocation by partner agreement*: state tax credits can be allocated to stakeholders by mutual agreement within the ownership group. Often developers do not owe enough in state taxes to fully utilize the credit themselves. Under this transfer mechanism, the ownership group has the ability to assign the tax credit to investors with sufficient state tax liability to fully use the credits as a means of financing for the project.
- *Direct transfer*: the ability to make an outright transfer or assignment of the tax credit to another person or entity. Once the rehabilitated building is placed in service and final tax credit certificate obtained, the taxpayer may assign or sell the credits outright to a third party with sufficient tax liability to use it.

Refundability ensures that taxpayers are able to realize the full benefit of credits earned regardless of whether they have sufficient state tax liability to offset because any amount in excess of state tax liability for the period when they are eligible to claim the credit is simply refunded to them. Refundability also shortens the time to realization by investors of the benefits of a credit and reduces the need for complicated ownership structures to match rights to claim credits to investors better able to utilize them.

Regarding credit caps, while many states' HRTC laws include an annual aggregate cap, individual project cap, or both to provide a degree of budgetary certainty, more often these caps create uncertainty for developers trying to complete their projects on schedule. Where demand exceeds the credit limit offered by states, applicants must either compete for credits or participate in a lottery or other allocation system. In such situations, a low aggregate cap might prevent

many projects from occurring (Shores, 2012). Similarly, high impact projects are discouraged to participate due to the lack of certainty regarding allocation of credits, which in turn leads to lost investment opportunities (National Trust for Historic Preservation, 2018). As a result, projects in economically depressed locations suffer the most from this lack of certainty. Historic structures that have the potential to improve some of the most underserved neighborhoods continue to be left underutilized or entirely unused.

Another consideration in structuring a state historic preservation tax credit is whether the state tax credit can be used in conjunction with the federal rehabilitation credit. Developers can bolster their financing of the project with the combination of both state and federal tax credits (Shores, 2012). Only South Carolina and Colorado utilize the same application for both federal and state historic preservation tax credits (for income-producing properties). Other states such as Minnesota, Missouri, and Oklahoma, encourage applicants to apply to both the federal and state programs concurrently.

Finally, while most states offer HRTCs ranging from 20 to 30 percent of QRE, New Jersey offers credits of 45 percent of QRE for projects located within a qualified incentive tract while projects not located within the qualified incentive tract earn 40 percent. South Carolina allows a credit of 25 percent of QREs of eligible properties, but it reduces the credit to 10 percent for commercial properties eligible for federal credit. Similarly, Vermont and West Virginia also have provision for a 10 percent add-on to federal credit.

Table 4 shows the variability of credit rates, caps, transfer mechanisms and other terms of state-level HRTCs.

Table 4: State HRTC Program Terms

State	Credit % for Income-Producing Properties	Additional Credits	Annual aggregate cap	Per project cap	Direct Transfer	Allocation by Partner Agreement	Refundable	Sunset Date
Alabama	25%	25% homeowners	$20 million	$5 million	X		X	2027
Arkansas	25%	25% homeowners	$8 million	$1.6 million	X	X		2037
California	20%		$50 million					2026
Colorado	25% for < $2M QRE; 20% for $2M+ QRE	30% disasters; 35% rural communities; 20% homeowners	$10 million	$1 million	X	X		2029
Connecticut	25%	30% affordable housing; 30% homeowners	$31.7 million	$4 million	X	X		NA
Delaware	20%	30% affordable housing & nonprofits; 30% homeowners	$8 million	$1.5 million for small projects; $2 million for larger projects	X	X		2028
Georgia	25%	25% homeowners; 30% for nonprofits	$5 million combined for all projects earning $300,000 or less; $25 million for all projects earning more than $300,000*	$5 million; $10 million if employment or payroll requirements met	X	X		2027
Hawaii	25%	30% affordable housing	$1 million			X	X	2024
Illinois	25%		$15 million	$3 million		X		2026
Indiana		20% homeowners	$250,000					NA
Iowa	25%	25% homeowners	$45 million	None		X	X	NA
Kansas	25%	25% homeowners; 30% for nonprofits	None	None	X	X		NA
Kentucky	up to 20%	30% homeowners	$5 million	$400,000	X	X	X	NA
Louisiana	20%		$125 million	$5 million	X			2026
Maine	25%	30% affordable housing	None	$5 million per building		X	X	2030
Maryland	20%	20% homeowners; 40% affordable housing	$20 million	By opportunity zone level: 2 - $5.5 million; 1 - $5.5 million; not in an OZ - $5 million		X	X	2031
Minnesota	20%		None	None	X	X	X	2025
Mississippi	25%	25% homeowners	$12 million ($180 million for whole program)	None		X	X	2030
Missouri	25%	25% homeowners	$90 million	None	X	X		NA
Montana	25% of federal credit		None					NA
Nebraska	20%		$15 million	$1 million				NA
New Hampshire	local governing body sets		NA	NA				NA
New Jersey	40%	45% if in qualified incentive tract	$50 million	$4 million				NA

State	Credit % for Income-Producing Properties	Additional Credits	Annual aggregate cap	Per project cap	Direct Transfer	Allocation by Partner Agreement	Refundable	Sunset Date
New Mexico	50%	50% homeowners	None	$50,000 if located within an Arts and Cultural District; $25,000 outside such districts		X		NA
New York	20%	20% homeowners; 25% for historic barns	None	$5 million			X	2024
North Carolina	15% for ≤ $10M QRE; 10% for $10-$20M QRE	Add 5% in target areas or sites; 15% homeowners	None	$4.5 million		X		NA
North Dakota	25% for projects in Renaissance Zones	25% homeowners	None	$250,000 in Renaissance Zone				NA
Ohio	25%	25% homeowners	$60 million	$5 million		X	X	NA
Oklahoma	20%		None	None	X			NA
Pennsylvania	25%		$3 million	$500,000	X			2031
Rhode Island	20%	25% if 1/4 space for business		$5 million	X	X		2023
South Carolina	10%	25% homeowners	None	$1 million on 25% credits		X		NA
Texas	25%		None	None	X	X		NA
Utah	None	20% rental residential	None	None				NA
Vermont	10% downtown; 25% façade; 50% code improvements		$2.4 million	$50,000	X			NA
Virginia	25%	25% homeowners	None	$5 million		X		2025
West Virginia	25%	20% homeowners	None	None	X	X		NA
Wisconsin	20%	25% homeowners	None	$3.5 million	X	X		NA

5. Literature Review

Despite the prevalence of state historic tax credit programs noted above, there exists a dearth of rigorous academic evaluation of their effectiveness. Some states have undertaken program evaluations, but their methods and reliability vary greatly. There are, however, a few existing studies of the federal HRTC from which some general conclusions may be drawn. Additionally, there is a large body of work on changes in property values associated with historic districts as well as some evidence on spillovers associated with rehabilitation of abandoned or derelict properties.

Studying the Federal HRTC projects in Richmond, VA from 1997-2010, Ryberg-Webster (2014) documents that it encourages investment in potentially risky markets, serves as a de facto housing policy that encourages the preservation of market-rate and affordable housing, and is linked to significant neighborhood revitalization without associated gentrification. These findings are supported by Kinahan's (2018) investigation of Federal HRTC housing projects in six legacy cities over the same period. Kinahan finds no significant changes in the racial composition, share of residents with a bachelor's degree, median gross rent, or housing tenure in neighborhoods receiving Federal HRTC supported housing investments compared to neighborhoods that did not. Federal HRTC neighborhoods did, however, experience a significant 3.3 percent increase in median household income in the decade following the investments compared to other neighborhoods. Notably, the share of low-income households also increased in the neighborhoods where the HRTC projects created new or renovated existing affordable housing units.

Kinahan focuses on rental housing because Federal projects are limited to income-producing properties, but the Georgia credit may also be utilized by owner-occupiers of historic homes. It is possible that rehabilitation and renovation of historic, private residences could have a significant impact on the value of surrounding properties. Studies of the effect of historic district designations generally find that property values increase after listing on the National Register of Historic Places (Oba and Noonan, 2020; Zhou, 2021). Listing on the National Register is one of the criteria for Federal and Georgia HRTC eligibility. HRTC-induced rehabilitation of abandoned or neglected properties in these neighborhoods would increase property values in these neighborhoods by limiting their well-documented negative price "contagion" and crime effects (Harding et al., 2009; Hirokawa and Gonzalez, 2010; Immergluck and Smith, 2006a, 2006b; Lin et al., 2009; Fout et al., 2017; Stacy, 2017). Recent research also notes that renovation and rehabilitation of distressed properties significantly increases the value of nearby buildings relative to demolition (vom Hofe et al., 2019).

6. Economic Activity

Overview of how economic activity is measured

We measure economic activity using data from the approved Part B applications to estimate a representative year of HRTC project activity. For primary residences, the construction phase is the primary impact; however, ongoing impacts could also accrue through increased property values and property tax revenues for surrounding properties. For income-producing properties, additional ongoing economic impacts accrue through the associated rental income and new

economic activity in the property. Gross economic impacts are estimated using the IMPLAN regional input-output model.

We calculate the net effect of the state-level credit with two important adjustments, the first a "but-for" adjustment to account for rehabilitation projects that likely would have been undertaken even in the absence of the state HRTC. This analysis involves statistically comparing the incidence of federal HRTC projects in Georgia places with the incidence in similar places in states that do not have a state-level HRTC.

The second adjustment is for the opportunity cost of expending state funds through the tax code on the credits, thus reducing what could be expended for other purposes that also may have positive economic impacts.

IMPLAN model

To estimate the economic impact of the HRTC in Georgia, the IMPLAN model is used. IMPLAN is a regional input-output model that is used to estimate how an initial change in spending or revenue for any industry category works its way through a regional economy. It also has data on the size of each industry in the economy in terms of revenue and employment at the state and county level. This analysis uses IMPLAN model data for the average of 2017 to 2019, adjusted forward to represent average annual revenues and wages in 2021 dollars.

The model uses sector multipliers to estimate the impact of the initial spending by firms on suppliers of goods and services to the sectors of interest. Below is a discussion of the relevant IMPLAN terms used in the report.

- *Output* is the value of production. This includes the value of all final goods and services, as well as all intermediate goods and services used to produce them. IMPLAN measures output as annual firm-level revenues or sales, assuming firms hold no inventory.
- Estimates of output changes resulting from construction activity are then used to estimate state and local sales tax revenue.
- *Labor income* includes total compensation—wages, benefits, and payroll taxes—for both employees and self-employed individuals. Wage-gain estimates are used to estimate incremental state income tax revenue.
- *Employment* includes full-time, part-time, and temporary jobs, including the self-employed. Job numbers do not represent full-time equivalents, so one individual may hold multiple jobs.
- Three changes (effects) comprise the total impact and can be calculated for relevant construction activity reviewed (output, employment, and labor income).
    - *Direct effects* are the changes that initiate the ripple effect. For purposes of this analysis, direct effects are increased firm output (revenue) directly attributable to construction activity and the associated firm employment and labor income supported by this output.
    - *Indirect effects* are the economic activity supported by business-to-business purchases in the supply chain for construction activity firms. For example, a construction firm purchases raw materials and equipment needed in its building activity. Each of the

supplying businesses subsequently spends a portion of the money they receive on their own production inputs, which in turn prompts spending by the suppliers of these inputs. This spending continues but progressively decreases due to "leakages," which occur when firms spend money on imports (including imports from other states), taxes, and profits.

- *Induced effects* are economic activity that occurs from households spending labor income earned from the direct and indirect activities. This activity results from household purchases on items such as food, healthcare, and entertainment. The labor income spent to generate these effects does not include taxes, savings, or compensation of nonresidents (commuters) as these leave the local economy (leakage).

Construction-related impacts

Data on construction-related *expenses* were obtained from DCA. Table 5 summarizes the data for the construction expenses and total projects for the years 2017-19. We use the average of 2017-19 activity in modeling the impacts of a representative year of credit-related projects. The IMPLAN codes used in the model were maintenance and repair construction of residential structures (61) and maintenance and repair construction of non-residential structures (60). Thus, we distinguish the projects into residential and non-residential categories for each of the representative years. Table 6 reports the direct, indirect, and induced effects for the construction phase.

Table 5. Average Annual Construction Expenditures by Category, 2017-19 ($ *millions*)

Category	Expenditures	Average Projects	Average Project Expenditures
Residential structures*	$56.3	29	$1.9
Non-residential structures	$155.3	27	$5.8
Total	**$211.6**	**56**	**$3.8**

Source: DCA data and authors' calculations
* Includes multi-family residential

Table 6. Gross Construction-Phase Economic Impact ($ *millions*)

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	954	$55.8	$95.6	$211.6
Indirect Effect	545	$32.1	$59.8	$109.0
Induced Effect	512	$24.6	$46.8	$80.1
Total Effect	**2,011**	**$112.5**	**$202.1**	**$400.6**

Source: IMPLAN and authors' calculations

Ongoing operations impacts

This section estimates the economic impact of the ongoing operations of the rehabilitated properties. The first step is to determine if the businesses operating in the rehabilitated buildings began operating after the rehabilitation. To accomplish this, we narrow the filter in our google search to the year the projects were placed in service. Furthermore, we group the projects into

two categories – large projects are projects with cost of $1 million or more and small projects with cost less than $1 million. From 2017 to 2019, the total number of projects were 241 out of which 75 were large projects. These large projects made up to 90 percent of total project costs in the same time period. Out of the 75 projects, 65 projects were new business. For instance, A.J. Miller High School in Macon was in an abandoned state before the rehabilitation. It was turned into an apartment complex after the renovation.

The second step is to generate the revenue estimates for the businesses. The largest single use of the renovated historical buildings was for residential properties, followed by commercial office space. Revenues for residential rental properties are estimated using the rental price per unit and number of units. Similarly, revenues for hotels are generated using the number of rooms, price estimates per room, and average occupancy rate in the area. For commercial properties and other categories, we estimate the revenue using the rehabilitated square footage data from DCA and average rental price per square foot of neighborhood locations. For smaller projects, we assume 50 percent of the rehabilitated projects result in new revenue generation. Table 7 shows the annual revenue estimates for different categories.

Table 7. Annual revenue estimates

IMPLAN Code	Category	Annual estimate	No. of Projects
411	Retail - General merchandise stores	$183,347	5
422	Warehousing and storage	$755,109	1
429	Motion picture and video industries	$265,176	1
447	Other real estate	$10,147,170	56
448	Tenant-occupied housing	$10,802,095	80
485	Offices of other health practitioners	$37,675	2
501	Museums, historical sites, zoos, and parks	$1,433,618	2
505	Fitness and recreational sports centers	$11,196	1
507	Hotels and motels, including casino hotels	$9,628,990	2
509	Full-service restaurants	$7,327,073	7
520	Other personal services	$22,044	1
	Total	**$40,613,493**	**158**

Table 8 presents the direct, indirect, and induced spending created by the projects potentially incentivized by the tax credit program.

Table 8. Gross Annual On-Going Economic Impact ($ *millions*)

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	312	$8.5	$24.7	$40.5
Indirect Effect	106	$5.7	$9.9	$19.1
Induced Effect	83	$4.0	$7.6	$13.0
Total Effect	**500**	**$18.2**	**$42.3**	**$72.6**

Source: IMPLAN and authors' calculations

The projects add direct spending of $40 million into the state's economy annually. The direct spending creates an additional $32 million in annual indirect and induced spending for a total increase of $73 million in the state's economy. Additionally, the projects will create $18 million in income for Georgia residents and support a total of 500 permanent jobs in the economy. This income and these jobs will be a permanent part of the economy in the areas affected.

This is a conservative estimate. It assumes the rental income from the commercial properties as their only revenue source. It does not account for any additional revenue generated from businesses occupying those commercial properties. It further assumes 50 percent of the revenue generated from projects with costs less than $1 million is new revenue.

"But-For" Analysis: Testing the Counterfactual

The analysis of gross activity in the previous section does not address an important question about the proportion of gross activity that is induced by the Georgia HRTC. As is common in economic impact analyses using IMPLAN or similar models, the economic impact estimates above do not address the "but-for" question:

> *"But for" the Georgia HRTC, would these historic rehabilitation investments not have been undertaken?*

That is, how many of the projects (and thus estimated gains) occur only because of the Georgia HRTC incentive and how many of the projects would have occurred even in the absence of the state credit. If projects that would have occurred anyway are included in the economic impact estimates, then those estimates are overstated.

Georgia projects that qualify for the $300,000, $5 million, and $10 million HRTC caps, i.e., historic structures other than principal residences, also qualify for the Federal Historic Rehabilitation Tax Credits. Considering that the eligibility guidelines for Federal and Georgia HRTCs use the same guidelines, the but-for question is not an unreasonable one to ask. To attempt to answer this question for the income-producing projects that also qualify for Federal HRTCs, we use econometric methods and data described below to test whether, all else the same, historic rehabilitation investment in Georgia communities is measurably greater than in similar communities outside of Georgia that lack a state-level HRTC. Unfortunately, we cannot use this strategy for assessing the relative proportion of primary residence, historic home renovations that qualify for the $100,000 Credit Cap, because these projects are not eligible for the Federal HRTC. Data on historic home rehabilitations would be limited to states that provide credits for these projects, leaving no potential control group from states with no homes credit.

Data and Methods

This portion of the evaluation is based on two primary data sources. The first is state reports prepared by the National Trust for Historic Preservation and Historic Tax Credit Coalition using the historic tax credit certification data from the National Park Service. The reports detail the project name, address, city, state, year, qualified expenditure, and project use for each project that received the federal HRTC certification between 2001-2020. We focus on the projects from 2009 – 2020 to align with the years for which Georgia DCA records were obtained.

The second data source is the National Historical Geographic Information System (NHGIS), which provides "geographically standardized" time series of demographic and economic variables from the American Community Survey (ACS).[1] We obtain data on all Census-defined places in Georgia, Florida, and Tennessee from the 2005-09 and 2007-11 5-year ACS. We choose the 5-year ACS to avoid issues with missing data for small places. The Census defines a "place" as an incorporated (e.g., cities, towns, boroughs, etc.) or unincorporated concentration of population that is identifiable by name.[2] We choose places in Florida and Tennessee as our pool of potential controls because neither has a state-level HRTC.

We aggregate the Federal HRTC data from 2009-2020 by state and city. We then link each city in the federal HRTC data to the ACS data. We are interested in whether the Georgia HRTC induces additional historic rehabilitation projects, and thus need to allow for both the possibility that more projects occur in some places and that some places have projects that would not have otherwise had any. We therefore retain the ACS data on places that did not have any federal HRTC projects.

Table 9 provides simple summary statistics demonstrating the potential effects of the Georgia HRTC on both the quantity of projects per place and the quantity of places with any projects. During the period 2009-20, 30 Georgia cities received qualified investments in income-producing historic structure renovations compared to 23 Florida and 12 Tennessee cities. There were also more projects per city, on average, in Georgia, than in either Florida or Tennessee. This remains true even after adjusting for city populations. Table 9 suggests the Georgia HRTC may induce investments that would not have otherwise occurred.

Table 9: Georgia, Florida, and Tennessee Federal HTC Projects by City 2009-2020

State	Cities with at least one project	Avg projects per city*	Max projects per city	Avg city projects per 1000 persons*
Georgia	30	9.23	85	0.17
		(19.5)		(0.2)
Florida	23	3.65	29	0.09
		(6.85)		(0.18)
Tennessee	12	8.25	39	0.05
		(13.4)		(0.05)

* Amounts in parentheses are standard deviations.

To estimate the extent to which the Georgia HRTC induces additional historic rehabilitation projects, we compare the number of projects in Georgia cities (including those that receive no investments) with the number of projects in similar Florida and Tennessee cities. We consider places in Georgia as having been *treated* with the Georgia HRTC and use demographic and economic variables to match Georgia places to *control* group places in Florida and Tennessee. We statistically match the sample of Georgia places to Florida and Tennessee places using the

[1] Manson, Steven, Jonathan Schroeder, David Van Riper, Tracy Kugler, and Steven Ruggles. IPUMS National Historical Geographic Information System: Version 16.0 [dataset]. Minneapolis, MN: IPUMS. 2021. http://doi.org/10.18128/D050.V16.0

[2] Glossary (census.gov)

nearest propensity score neighbor.[3] The matching variables include: population, median household income, median contract rent, median housing value, growth in median rents and median values, the shares of the housing stock built in specified periods (pre-1939, 1940s, or 1950s), growth in median rents and values for these same housing stock groupings, and the share of employment in various major industry sectors. We exclude from the potential sample places with less than 300 persons in the ACS 2005-09 data as well as places that do not have historic structures or prices for historic structures in the ACS data.[4] We identify the latter by their having no reported housing structures built in the periods specified above. Table 10 below provides place-level covariate balance statistics, the means and variances of the various matching variables for Georgia. The reported p-value statistics provide a measure of how similar to the treated (Georgia) census units are the matched control units compared to the unmatched pool of all untreated census units. A p-value below 0.1 indicates that the two groups are statistically different from one another at the 10 percent confidence level. Table 10 shows that the treated and control places are well-matched on all covariates, with none being statistically different.

[3] Nearest-neighbor matching is a process that measures the statistical distance between any two observations in a dataset to identify, for each treated observation, the closest or most similar observation among all the potential control observations. The distance measure we use is the distance between the propensity scores for treated and control observations. The propensity score is a weighted index of the demographic and economic variables identified above.

[4] We exclude places with fewer than 300 persons because that is the population of the smallest city in which we observe a Federal HTC project.

Table 10. Covariate Balance, Georgia vs. Control Places

Variable	Treated	Control	p>|t|
Total Population 2005-9	35,262	27,582	0.46
Median Household Income 2005-9	35,916	36,112	0.93
Median Contract Rent 2005-9	492	494	0.95
Median House Value 2005-9	210,000	210,000	0.90
Rent Growth	0.07	0.06	0.49
Rent Growth, Structures Build1939 and before	0.10	0.08	0.71
Rent Growth, Structures Built 1940s	0.07	0.07	1.00
Rent Growth, Structures Built 1950s	0.07	0.09	0.64
Housing Value Growth	-0.31	-0.31	0.72
Housing Value Growth, Structures Built 1939 and before	0.06	0.04	0.73
Housing Value Growth, Structures Built 1940s	0.11	0.06	0.42
Housing Value Growth, Structures Built 1950s	0.04	0.05	0.82
1939 and before Share of Structures	0.10	0.09	0.47
1940s Share of Structures	0.07	0.07	0.77
1950s Share of Structures	0.13	0.13	0.68
Construction Share of Employment	0.07	0.08	0.43
Manufacturing Share of Employment	0.15	0.14	0.79
Wholesale Share of Employment	0.03	0.03	0.99
Retail Share of Employment	0.12	0.11	0.09
Transportation Share of Employment	0.05	0.05	0.43
Information Share of Employment	0.02	0.02	0.75
FIRE Share of Employment	0.06	0.06	0.73
Professional Share of Employment	0.08	0.09	0.56
Education and Health Share of Employment	0.21	0.21	0.88
Arts and Entertainment Share of Employment	0.10	0.11	0.22
Other Share of Employment	0.05	0.04	0.27
Public Share of Employment	0.05	0.05	0.77

Sources: American Community Survey 2005-2009 and 2007-2011 5-year estimates, and authors' calculations

The next step is to use the Georgia (treated) and matched control observations in a regression model to estimate the difference in the number of federal HRTC projects per place between Georgia and matches control cities. The regression includes a dummy variable to indicate treated or control states (i.e., equal to one for Georgia, zero otherwise). We use this model to estimate the average treatment effect (ATE), or the effect of the Georgia HRTC on the number of income-producing historic rehabilitation projects. A value statistically greater than zero would allow us to reject the null hypothesis that the state-level HRTC has no effect on the number of projects in Georgia and provide support for the alternative hypothesis that it increased them.

Results

The results of the regression analysis indicate significantly more income-producing historic rehabilitation investments in Georgia places than in similar Florida and Tennessee places. The first estimate reported in Table 11 shows an estimated average treatment effect on the treated (ATT) of 3.49, significant at the 1-percent level, and an average treatment effect (ATE) of 1.45. The results in Table 11 allow us to reject the null hypothesis of no additional income-producing rehabilitation projects in Georgia places compared to the untreated control group. To understand the statewide impact, we consider the estimated ATE because this is the expected effect of the Georgia HRTC on a randomly chosen place in the sample. We multiply the ATE by the number of qualifying Georgia places (77) to obtain an estimated 111.7 additional income-producing historic rehabilitation investment projects in Georgia from 2009-2020, compared to the number expected without the state-level credit. To put this into perspective, the total number of projects in Georgia over the 2009-20 period was 306, so roughly 36 percent of those could fairly be attributed to the policy based on these results.

Table 11. Regression Results

	Projects Per Place	**Projects Per 1000 Persons Per Place**
ATT	3.49 ***	0.07 ***
(standard error)	(1.74)	(0.02)
ATE	1.45	0.05
N	222	222

*** indicates significance at the 1% level, ** at 5%, and * at 10%

Fortunately, historic home (primary residence) projects account for only a small share of credits generated in recent years in Georgia and do not produce material ongoing revenue from rents if they are primary residences, as they are required to be, so they represent a very small share of overall economic impacts as well. Thus, we assume for simplicity a similar but-for percentage – 36 percent of projects attributable to the credit – for historic home projects as for commercial projects.

The estimates for projects per 1000 persons per place largely confirm these results, with an estimated "but for" percentage of 24 percent (calculated as (0.05*77)/16). We also conducted this analysis of the treatment effect on QREs per Project, but we found no significant effect on the amount spent per project. Taken together, these results suggest that the state-level tax credit induces additional projects rather than inducing existing projects to spend more on qualifying rehabilitations.

Alternate use of forgone revenue/tax expenditure

The HRTC economic impacts estimated above do not account for the opportunity costs of the forgone state revenues, i.e., the economic impacts of alternate uses of the funds expended through the tax credits. SB 6 requires evaluations of tax incentives to include estimates of *net* economic and fiscal impacts, thus requiring consideration of the economic and revenue effects of alternate uses of the funds spent, through tax credits, on this program.

Alternatives could include other economic incentives, spending on other policy areas across state government, or a reduction in taxes that could also result in direct, indirect, and induced economic effects. However, absent information as to how the General Assembly would otherwise choose to spend foregone revenue if not on HRTC, we estimate the impact of using the revenue to fund an equivalent increase in state government spending generally, in proportion to existing expenditures. That is, we allocated the foregone revenue to industry sectors as direct effects based on the sector shares of spending in the state budget. The two largest categories of spending – education (approximately 57 percent) and healthcare (23 percent) – account for about 80 percent of the budget.

Forgone revenues associated with the representative year's projects used for the economic impact estimates above are estimated to be approximately $32.3 million. For details of this estimate, see the forgone revenues subsection of Section 7 below, but in summary, we assume a 25 percent credit generated on the QRE estimates from Table 5 and assume that 61 percent of credits will be utilized to offset tax liability, the average for projects from certificate begin years 2018-20.

Table 12 details the shares of alternate use spending allocated to different government services, based on recent state budget averages, and the IMPLAN industry codes most closely corresponding to the service categories.

Table 12: Alternate Use of Tax Expenditures Allocated to Different Government Services

Category	State Spending Share	IMPLAN Code	IMPLAN Sector Descriptions
Education, PK-12	41.6%	480	Elementary and secondary schools
Education, Post-Sec	15.0%	481	Post-secondary education
Health Care	22.5%	493	Individual and family services
Public Safety, excl Corrections	3.5%	471	Facilities support services
Public Safety, Corrections	4.6%	475	Investigation and security services
Mobile Georgia	7.7%	457	Architectural, engineering, related services
Growing Georgia	1.5%	469	Management of companies and enterprises
General Government	3.6%	469	Management of companies and enterprises

Source: Spending shares based on AFY 2019 and FY 2020 Governor's Budget Report

Table 13 shows the direct, indirect, and induced effects of the alternate use of the tax expenditures on HRTCs. The alternate use, a $32 million increase in state spending, is represented by that amount of direct effect on output in the model. The resulting indirect and induced effects would generate an additional $35 million in output. The increase in value added or state GP is estimated at $43 million while jobs and labor income created are estimated at 867 and $36 million, respectively.

Table 13. Summary of Alternate use economic impacts ($ *millions*)

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	645	$24.6	$23.0	$32.3
Indirect Effect	60	$3.1	$5.3	$10.2
Induced Effect	162	$7.8	$14.8	$25.3
Total Effect	**867**	**$35.5**	**$43.1**	**$67.8**

Source: IMPLAN and authors' calculations

7. Fiscal Impact

Table 14 below summarizes the estimated fiscal impacts of the representative year's projects, including forgone revenues equal to the estimated tax expenditure; revenues from gross economic activity during construction and, on a present-value basis, the ongoing operations of commercial projects; and reductions based on the but-for and opportunity cost (alternate use) analyses above. Administrative costs to state agencies are also shown. Each of these revenue and cost estimates are explained after the table.

Table 14. Fiscal Impact Summary

($ *millions*)	State	Local	Total
Foregone revenue	($32.3)		($32.3)
Additional tax collections related to gross activity	$23.8	$3.5	$27.3
Less:			
Reduction for but-for analysis	($15.2)	($2.3)	($17.5)
Reduction for alternate use	($2.2)	($0.8)	($2.9)
Net State Revenue Impact	**($25.9)**	**$0.5**	**($25.4)**
Less:			
Agency administrative costs	($0.1)		($0.1)
Net Fiscal Impact	**($25.9)**	**$0.5**	**($25.5)**
Return on Investment	**-80.5%**		**-78.9%**

Revenue Impacts

Forgone revenue

We estimate foregone revenue associated with the representative year project expenditures outlined in Table 15 assuming 25 percent credit generation and utilization at 61 percent of credits generated, based on the discussion of utilization in Section 3. The representative-year forgone revenue is thus estimated to be $32.3 million.

Table 15: Estimated Tax Expenditures for Representative Year Projects

	Project Costs	New Tax Credits (25% of QRE)	Utilization (est.)	Tax Expenditure
Residential structures	$56.3	$14.1	61%	$8.6
Non-residential structures	$155.3	$38.8	61%	$23.7
Total	**$211.6**	**$52.9**		**$32.3**

Additional tax revenue is generated through the construction phase of the project as well as through ongoing expenditures. The following subsections detail our estimation of these revenue impacts. We also estimate the additional tax revenue associated with the alternate use scenario outlined in the economic impact section of this report.

Additional tax revenue, construction phase

Table 16 shows the estimates for state and local tax attributable to economic activity associated with the construction of the HRTC projects. State income tax is calculated using employee compensation generated by IMPLAN using an effective tax rate of 3.89 percent.[5] The average labor income estimated during the construction phase is roughly $55,000 per job. The resulting construction-phase income tax revenue is about $4.4 million.

Table 16. State and Local Tax Revenue, Construction-Phase Activity ($ *millions*)

Tax type	State Rev.	Local Rev.
Sales Tax	$3.11	$2.62
Income Tax	$4.38	$0.00
All other state taxes	$1.97	$0.00
Property Tax	$0.00	$0.00
Total	$9.46	$2.62

Source: IMPLAN and authors' calculations

The sales tax estimates from IMPLAN rely on the level of economic activity rather than sales tax rates and tax bases. Instead of these numbers, we estimate state and local sales tax using data from the retail sectors generated by IMPLAN. IMPLAN only reports the net retail margin, thus the revenue estimates are adjusted by the retail margin for each sector to generate a taxable revenue amount, as sales tax in Georgia is charged on the full price of the goods sold which includes the price paid to the supplier. State sales tax is calculated using the state sales tax rate of 4 percent and local sales tax is calculated using a local sales tax rate of 3.37 percent, the population-weighted average as of July 1, 2022, according to the Tax Foundation. Table 19 includes both state and local sales tax estimates.

Approximately 79 percent of Georgia state tax revenue collections are from personal income tax and state sales taxes. Apart from these two taxes, Georgia collects other taxes that make up the remaining 21 percent on average. Two taxes make up about half of the 21 percent – corporate income tax and title ad valorem tax (TVAT). Table 16 shows the estimated revenue from these other taxes based on this state average of 21 percent.

Local governments also receive a large portion of their revenue from property tax, but the rehabilitation properties are subject to a property tax assessment freeze under the state Preferential Property Tax Assessment program, under which property tax assessments are frozen for 8.5 years. This applies to both historic homes and buildings. We therefore do not include additional property taxes in the additional tax revenue estimates. However, existing research

[5] Average effective tax rate (net tax liability / federal AGI) under 2022 law for returns with federal AGI of approximately $55,000 to $90,000.

suggests that rehabilitated properties may increase the value of surrounding properties. It is therefore possible that the credit generates additional property tax revenue that is not reflected in the fiscal impact calculations herein. See Section 8 of this report for further information on these potential spillover effects.

Additional tax revenue, ongoing impacts

Table 17 presents the state and local tax revenues created by the ongoing economic activity for a representative year of projects. We forecast the tax revenue for a 15-year period and discounted it back at the rate of 4.47 percent, the approximate average of the 2- and 10-year treasury bonds as of this writing as a proxy for state treasury investment returns. We use the total personal income forecast for Georgia, net of population growth, as the growth rate for sales tax and income tax.

We assume sales tax and income tax to make up 79 percent of the total tax revenue. This is the average tax collection from those two taxes from 2012 to 2021. We then calculate 'all other state taxes' to be 20.83 percent of the total. Property tax is frozen for 8.5 years. In our calculation, property tax collection begins from year 10.

Over this 15-year period, the projects are estimated to generate, on a present-value basis, $14.29 million in aggregate tax revenue for state and local governments.

Table 17. State and Local Tax Revenue, Ongoing Economic Impacts

($ *millions*)	**Annual revenue**		**PV of 15 years**	
Tax type	**State**	**Local**	**State**	**Local**
Sales Tax	$0.1	$0.1	$0.9	$0.7
Income Tax	$0.7	$0.0	$10.5	$0.0
All Other State Taxes	$0.1	$0.0	$3.0	$0.2
Property Tax	$0.0	$0.0	$0.0	$0.0
Total	**$0.9**	**$0.1**	**$14.3**	**$0.9**

Source: IMPLAN and authors' calculations

State and local taxes generated from alternate use of funds

New annual tax revenues resulting from the alternate use case are estimated in a similar manner as that generated by the construction activity and shown in Table 18. Like the construction activity revenues, the alternate use case revenues are nonrecurring as they result from a one-time tax expenditure.

Table 18. State and Local Tax Revenues, Alternate Use of Funds ($ *millions*)

Tax type	**State Rev.**	**Local Rev.**
Sales Tax	$0.3	$0.3
Income Tax	$1.4	$0.0
All Other Taxes	$0.5	$0.0
Property Tax	$0.0	$0.5
Total state and local tax estimates	**$2.2**	**$0.8**

Source: IMPLAN and authors' calculations

Additional fee revenue

The HRTC does not generate any additional fee revenue that is remitted to the State. DCA collects fees for Part A and Part B applications. The agency costs below reflect those fees.

Net revenue impact

Table 19 contains the estimated net revenue associated with a representative year of HRTC projects. The estimated tax expenditures are as outlined above. The present-value of estimated revenues for ongoing projects apply the estimated revenues for a representative year project summarized above to income-producing projects in each year.

Table 19. Summary of Estimated Revenue Impacts

($ *millions*)	**Construction**	**Ongoing PV****	**Total**
State Revenue Impacts:			
Forgone revenue	($32.3)		($32.3)
Tax collections related to gross activity	$9.5	$14.3	$23.8
Gross State Revenue Impact	**($22.8)**	**$14.3**	**($8.5)**
"But-for" reduction	($6.1)	($9.1)	($15.2)
Alternate use reduction	($2.2)		($2.2)
Net State Revenue Impact	**($31.0)**	**$5.1**	**($25.9)**
Local Revenue Impacts:			
Tax collections related to gross activity	$2.6	$0.9	$3.5
Less:			
"But-for" reduction	($1.7)	($0.6)	($2.3)
Alternate use reduction	($0.8)		($0.8)
Net Local Revenue Impact	**$0.2**	**$0.3**	**$0.5**

**** Includes 15 years of ongoing operations of properties other than historic homes on a present-value basis.**

Administrative costs for state agencies

Table 20 summarizes the estimated agency costs, net of federal funding, for FY 2022. It is important to note that 60 percent of the DCA administrative costs are funded through an agreement with the U.S. federal government.

Table 21 reports the estimated administrative costs for the next five years of the program as well as DCA fee income. DCA charges fees for the review of Part A and Part B applications; estimated total fees collected for FY 2023 are based on an average of the previous four years. Estimated fees for FY 2023 and FY 2024 include primary residence application fees, which will cease once the primary residence credit expires December 31, 2024; for 2025-27, fee income is reduced to reflect the loss of primary residence application fees.

Projected agency costs reflect the DCA agency costs outlined in Table 21 for the most recent fiscal year and adjusted for five percent annual inflation in the projected years. Non-personnel

costs are reduced by 14.5 percent in 2025-2027 to reflect marginal reductions in administrative costs associated with the private residence credit.

DOR reported that they do not track costs associated with administration of the HRTC program.

Table 20: DCA Estimated Administrative Cost Summary

	FY 2022
Salaries and fringe	$533,691
Tools required for job	$9,755
Rent	$22,048
Travel/training	$4,600
Overhead costs	$72,930
Subtotal of costs	$643,023
Less: Federal funding	($320,215)
Agency Costs, net of Federal	**$322,809**

Source: DCA and authors' calculations

Table 21. Estimated Agency Administrative Costs, net of Fees

				Projected		
($ *thousands*)	**FY 2022**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**
Agency Costs, net of Federal	$322.8	$329.3	$335.9	$342.6	$349.4	$356.4
Total Fees Collected	($228.7)	($284.2)	($284.2)	($282.1)	($282.1)	($282.1)
Net Agency Costs	$94.1	$45.0	$51.6	$60.4	$67.3	$74.3

Source: Georgia DCA, Georgia DOR, authors' calculations

8. Other Public Benefits

In addition to the economic and fiscal benefits outlined above, additional public benefits may be attributable to the program.

To the extent that program encourages historic preservation activities that would not otherwise occur, the HRTC provides public benefits associated with the amenity, tourism, and economic catalyst of historic assets.

As discussed in the literature review section, the HRTC also acts as a de facto housing policy that encourages the preservation (or conversion) of structures offering market-rate and affordable housing. The literature also suggests that the HRTCs contribute significantly to neighborhood revitalization without gentrification.

The rehabilitation of existing structures also has the potential to increase the value of nearby properties and thereby increase property tax revenue. Estimating the extent to which properties receiving the HRTC affect nearby property values is beyond the scope of this evaluation. However, recent literature suggests rehabilitation of distressed and abandoned buildings can increase nearby property values by as much as 14 percent (vom Hofe et al. 2018).

9. Conclusions

A representative year of Georgia HRTC projects induces estimated gross economic activity of approximately $401 million in output, $202 million in state GDP, and 2,011 jobs garnering $113 million in labor income during the construction phase of HRTC projects. Once completed, the rehabilitations of income-producing commercial and housing properties are estimated to produce ongoing economic activity from the operational phase of the properties, including 500 jobs, $18 million in labor income, $42 million in state GDP, and $73 million in gross output per year. This new economic activity generates $24 million and $4 million, respectively, in annual state and local government revenues. The expected tax expenditures associated with these projects total $32 million.

The "but-for" analysis indicates that 36 percent of this economic activity would not have occurred in the absence of the Georgia HRTC. Accounting for the portion of economic activity that would have occurred otherwise as well as activity associated with an alternate use of the tax expenditures on general government spending, the construction phase of Georgia HRTC projects can be expected to generate $195 million in output, $73 million in State GDP, and 125 jobs garnering $41 million in labor income. Ongoing jobs, labor income, state GDP, and gross output are estimated, after the but-for and alternate-use adjustments, at approximately 180, $7 million, $15 million, and $26 million, respectively.

Gains in broad economic measures, of course, contribute to state and local tax revenues, but at the cost of the state tax expenditures on credits and the lost opportunity to spend this amount on other priorities or to reduce taxes. Net of the but-for and alternate-use adjustments as well as the tax expenditure cost, we estimate net state revenue effects of the representative year of projects to be a loss of $26 million at the state level and a gain to local governments of $0.5 million, including the present value of 15 years of revenues from ongoing activity arising from the projects. After a modest amount of agency net costs for administering the program, the state's ROI, its return on investment for the $32.3 million estimated tax expenditure, is negative 80 percent. Counting the local gains, the ROI is negative 79 percent.

Other potential public benefits that are not included in these estimates include increased property values and tax revenues for surrounding properties, preservation of (or conversion to) affordable and market-rate housing stock, and the tourism and amenity values associated with historic preservation. Thus, the overall public and economic benefits included in this report likely understate the overall value of the Georgia HRTC, though by how much is uncertain.

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