2022 ANNUAL REPORT

Connecticut

Department of Economic and Community Development

CT.GOV/DECD

TABLE OF CONTENTS

I. BUSINESS ASSISTANCE TAX CREDITS

A. DECD Administered Business Assistance Tax Credit Programs

For a listing of DECD tax credit recipients, please click here.

Estimated Economic Impacts of Tax Credit Programs: Methodology

The economic impact analyses of the tax credits below consist of either an estimated direct impact analysis or an estimated total impact analysis. The estimated direct impact is the tax revenue generated by the activity for which the tax credit is awarded: these are the estimated tax revenues generated by the newly created jobs and the construction and investment activity. New jobs generate new income taxes and the construction and investment generate new sales taxes. The direct net economic impact is the sum of the estimated income taxes and estimated sales taxes minus the lost tax revenues to the state due to the tax credit. Direct corporate taxes are not reported as we do not have a reliable method of estimating it. The direct impact is the most conservative estimate of the economic impact of the program under review. The estimated net direct impact analysis does *not* include any potential downstream impacts in the economy from the additional spending or jobs created.

The estimated total impact is the sum of the direct, indirect, and induced impact of the tax credit program. The total estimated fiscal revenues reported therefore incorporate the 'direct' additions to state net revenues (the "direct impact" explained above), the 'indirect impacts' (for example, the income taxes from the construction jobs needed to build a new building) and the 'induced impact' (for example, revenues generated when new employees at the company and those filling indirectly created jobs spend their income on food, clothing and other items which would generate sales tax revenue to the state). Estimated state expenditures incorporate the direct cost to the state of the tax credits, plus additional indirect and induced government spending due to the additional economic activity. We use the total economic impact evaluation methodology when we have insufficient data to conduct a direct impact analysis. This typically happens when the goal of the tax credit goes beyond job creation and investment; for example, enterprise zones which target development in the local community, and film tax credits which aim to build a film and digital media industry in the state. For these types of programs, we estimate the total economic impact using DECD's REMI Tax-PI model.

1. Special Act- Lockheed Martin

i. Program Description

In FY 2017 DECD and Lockheed Martin Corporation entered into a Special Act contract for up to $140,000,000 in grants and $80,000,000 in sales and use tax exemptions to be funded evenly between 2019 and 2033. In exchange for this assistance Lockheed Martin will maintain its primary helicopter manufacturing operation and headquarters in Connecticut and produce up to 200 CH-53K (King Stallion) heavy lift helicopters in the state through at least June 2032. Please click here for additional details on the employment, in-state supply chain spending, and capital expenditure targets Lockheed Martin must achieve to earn the entire incentive package.

Based on the maximum contracted employment, the project's financial assistance per job is shown in the table below.

Table 1: Financial Assistance per Job	
Total Assistance	$ 220,000,000
Jobs to be created and retained	8,582
Total Assistance per Job	$ 25,635

Source: DECD

ii. Program Activity

As of June 30, 2022, Lockheed Martin has earned an offset of $22,856,000 in sales and use taxes and obtained $27,464,285 in grant funding. Additional grant funding was released by DECD in FY 2023 and will be reported in the next annual report. The table below shows the estimated revenues from Lockheed Martin in FY 2019 through FY 2022, based on data reported by the company.

Table 2: Net Direct Economic Impact of Lockheed Martin FY 2019-FY 2022	
New Jobs Reported	1,665
Estimated Income Taxes from New Jobs	$ 32,776,045
Estimated Sales Taxes from Capital Expenses	$ 23,591,822
Estimated Direct Total State Revenue	$ 56,367,867
Incentive Cost to State*	$ 26,353,804
Net Direct State Revenue	$ 30,014,063

Source: DECD Analysis
Note: Direct State Revenue does not include estimates of corporate business taxes or other direct taxes. The incentive cost to the state are the tax credits and debt service on grants awarded.

2. Stranded Tax Credit/ Sales and Use Tax Offset Program

i. Program Description

The Stranded Tax Credit program was established in June 2017 by Public Act 17-2. Per statute, the program is capped at $50,000,000. An accumulated credit is defined as non-incremental research and development tax credits (CGS Sec. 12-217n) that have not been taken through the business's last complete income year prior to its program application date (therefore, the credits are "stranded"). This program is designed to allow businesses to offset such Accumulated R&D Credits against their sales and use tax liabilities so long as it undertakes a capital project that meets one of the following objectives:

- Expands the business's scale or scope
- Increases employment at the business
- Generates a substantial return to the state's economy

ii. Program Activity

As of FY 2022 DECD approved 2 applications.

Company	Contract Date	Credits Allocated	Credits Issued	Status of Capital Project
ASML US LLC	6/27/2018	$ 6,000,000	$ 6,000,000	Complete
Boehringer Ingelheim USA Corporation & Boehringer Ingelheim Pharmaceuticals, Inc.	2/18/2020	$ 14,000,000	$ 0	In process
Total		$ 20,000,000	$ 6,000,000	

Table 3: Stranded Tax Credit Activity as of June 30, 2022

Source: DECD

Table 4: Financial Assistance per Job	
Total Tax Credits Allocated	$ 20,000,000
Jobs to be created and retained	3,949
Total Credits Allocated per Job	$ 5,065

Source: DECD
Note: ASML also received MAA funding. The contractual job requirement is included in the table above.

iii. State Revenue Generated

ASML received their full allocation of credits in FY21. The estimated revenues generated to date and the 10-year projection assuming current employment levels is shown below.

Table 5: ASML Sales and Use Tax Offset State Revenue To-Date and Projection

	Revenue Totals To-Date 2018-2022 (Nominal $)	10-Year Projected Totals (Nominal $)
Tax Credits Earned	$ 6,000,000	
Estimated Income Taxes - Direct	$ 13,209,133	$ 29,752,200
Estimated Sales Taxes - Direct	$ 1,840,205	$ 1,840,205
Total Estimated State Revenue - Direct	$ 15,049,338	$ 31,592,405

Source: DECD Analysis
Note: Direct State Revenue does not include estimates of corporate business taxes or other direct taxes.

The table below shows the estimated revenues from Boehringer at the time of application. The projections will be updated when the company begin to claim credits.

Table 6: Boehringer Sales and Use Tax Offset State Revenue Projection		
	5-Year Totals (Nominal $)	10-Year Totals (Nominal $)
Tax Credits Allocated	$ 14,000,000	
Estimated Income Taxes - Direct	$ 834,560	$ 2,124,374
Estimated Sales Taxes - Direct	$ 3,525,520	$ 3,881,120
Total Estimated State Revenue - Direct	$ 4,360,080	$ 6,005,494

Source: DECD Analysis
Note: Direct State Revenue does not include estimates of corporate business taxes or other direct taxes. The allocation above was based on direct, indirect and induced impact.

iv. Recommendation:
DECD recommends the program continue within available appropriations.

3. Urban and Industrial Site Reinvestment Tax Credit (URA)

i. Program Description
URA credits are designed to incent development of new jobs and economic activity by companies or developers across the state. The full tax credit is allowable over ten years as follows:

- The income year in which the investment was made and the two succeeding income years, 0%;
- The third full income year following the year in which the investment was made and the three succeeding income years, 10%; and,
- The seventh full income year following the year in which the investment occurred and the two succeeding income years, 20%.

The URA program is capped at $950 million in awardable credits and individual projects may not exceed $100 million in awardable credits. If a project exceeds $20 million in awardable tax credits, it must be approved by the legislature. These credits may be assigned once by the holder.

ii. URA Program Activity
The table below shows the URA recipients over the last ten years along with the total tax credits awarded and earned (the state’s tax cost). This list contains companies that signed contracts within this time frame. The total credits awarded as presented below represent the potential credits the company may claim. Credits for which certificates were issued to companies by DECD from FY 2013 through FY 2022 are listed under “credits earned.”

Table 7: Urban and Industrial Site Reinvestment Tax Credits, FY 2013-FY 2022				
Applicant	**Town**	**Contract Fiscal Year**	**Total Credits Awarded**	**Total Credits Earned**
Dollar Tree	Windsor	2013	$ 20,000,000	$ 20,000,000
Alexion Pharmaceuticals, Inc.	New Haven	2013	$ 5,000,000	$ 5,000,000
Plainfield Renewable Energy, LLC	Plainfield	2013	$ 10,000,000	$ 10,000,000
ESPN, Inc.	Bristol	2014	$ 10,000,000	$ 10,000,000
Frito-Lay, Inc.	Dayville	2014	$ 3,000,000	$ 3,000,000
HomeServe USA Corp.	Norwalk	2014	$ 15,000,000	
Lee Company	Westbrook	2015	$ 10,000,000	$ 8,000,000
Pitney Bowes	Stamford	2015	$ 10,000,000	$ 3,894,550
Vineyard Vines	Stamford	2015	$ 8,000,000	$ 4,800,000
XL America, Inc.	Hartford	2015	$ 7,255,184	$ 2,902,072
Bridgewater Associates, LP	Westport	2016	$ 30,000,000	$ 12,000,000
Conair Corporation	Stamford	2016	$ 15,000,000	$ 11,400,000
Fed Ex	Middletown	2016	$ 20,000,000	$ 8,000,000
Linde, Inc. f/k/a Praxair, Inc.	Danbury	2016	$ 16,000,000	$ 4,800,000
Bob's Discount Furniture	Manchester	2017	$ 11,000,000	$ 3,300,000
Partner Reinsurance Company	Greenwich	2017	$ 1,437,492	$ 431,247
Polamer Precision	New Britain	2017	$ 10,000,000	
Trader Joe's East, Inc.	Bloomfield	2017	$ 7,000,000	$ 2,100,000
Henkel of America, Inc.	Rocky Hill	2018	$ 5,000,000	$ 500,000
Indeed, Inc.	Stamford	2018	$ 15,000,000	
Charter Communications	Stamford	2019	$ 15,000,000	$ 2,000,000
Charter Communications	Stamford	2019	$ 8,000,000	
Indeed, Inc.	Stamford	2019	$ 5,000,000	
World Wrestling Entertainment	Stamford	2019	$ 8,500,000	
Amazon.com Services LLC	North Haven	2021	$ 15,000,000	
Americold Logistics LLC	Plainville	2021	$ 3,000,000	
Nordson Corporation	Norwich	2021	$ 900,000	
101 College Street, LLC	New Haven	2021	$ 18,500,000	
TOTAL			**$ 302,592,676**	**$ 112,127,869**

Source: DECD
Note: The tax credit awards may have been reduced to account for reallocated funds. Companies that left the program without receiving a URA credit have been removed from this table.

iii. Estimated Direct Economic Impact of the URA Program

The table below presents the estimated direct economic impact of companies that entered the URA program over the last ten years. The data used to evaluate the fiscal impact is supplied by the companies during their annual certification process. The direct jobs data consists only of newly created jobs reported by the companies while active in the program and does not include retained jobs. The direct state revenue comprises estimated income tax revenues generated by the new jobs plus estimated sales tax revenues generated by the eligible capital expenses. Some companies were eligible for exemptions under the sales and use tax exemption program administered by Connecticut Innovations; these amounts were deducted from the sales tax estimations.

Table 8: Net Direct Fiscal Impact of URA Program in Nominal Dollars FY 2013-FY 2022	
	URA Direct Impact
New Jobs Reported – Annual Average Above Baseline*	2,456
Estimated Cumulative Direct State Revenue	$ 235,185,425
Estimated Cumulative Direct State Costs (Tax Credits)	$ 112,127,869
Estimated Cumulative Net Direct Revenue	$ 123,057,556

Source: DECD
*Note: *Direct jobs are those reported by the companies to DECD while active in the program. Direct State Revenue does not include estimates of corporate business taxes or other direct taxes.*

The table below shows the tax credit allocated per job to be created or retained.

Table 9: URA Tax Credits Allocated per Job to be Created or Retained Based on Maximum Contractual Job Obligations	
Tax Credits Allocated	$ 302,592,676
Jobs to be Created or Retained	26,459
Tax Credits Allocated per job	$ 11,436

Source: DECD
Note: The number of jobs retained and created have been adjusted to account for duplication for companies that have received assistance from more than one program or more than one URA contract. If a company has an MAA/URA contract the jobs are included above unless the company has left the URA program without receiving a tax credit.

iv. Recommendation:

We recommend maintaining the URA tax credit program because it has generated sizable net benefits. Moreover, qualifying firms are reviewed each year and may incur penalties and/or reduced tax credits if they do not meet job or net benefit requirements. This allows DECD to closely monitor the program, track the economic activities and benefits associated with the program, and only provide tax benefits for value created.

4. Film, Television and Digital Media Tax Credits

DECD retained a consulting firm specializing in film, television and digital media industry-specific economic impact studies to perform a comprehensive evaluation of the agency's film incentive programs, which was released in February 2022 (the study can be found here). The study (referred to below as the Olsberg report) covered the film incentive programs through FY 2020. The analysis for the annual report below is for the latest fiscal year FY 2022. We have updated and streamlined the analysis below incorporating some information from the Olsberg report, and we compare the annual report analysis results with those of the report.

The Olsberg report evaluated the economic impact of the film tax incentives utilizing survey, industry and DECD data. They used IMPLAN, an economic impact model, to evaluate the impact of the credits and associated activity on macroeconomic variables in the state such as employment, personal income, output (total sales) and Gross Value Added (GVA), a measure of total economic value similar to Gross Domestic Product (GDP). The report utilized two approaches: an expenditure-based ("bottom-up") approach which evaluated the economic impact of the expenditures eligible for the tax credits; and an industry ("top-down") approach that took into account survey data indicating the importance of the film incentives to the digital and motion picture industry in the state.

DECD's annual report statute requires an estimation of the fiscal economic impact of DECD incentives. The fiscal impact of an economic activity consists of the state government revenue generated by the activity (taxes paid to the state) and state government expenses generated by the activity (government spending). When data is available DECD estimates a conservative "direct fiscal impact" of its incentive programs: the income and sales taxes generated by the activity for which the incentives are awarded minus the cost of the incentive to the state.

When jobs and other necessary data to do direct impact estimations are not available, DECD uses the CT REMI model to estimate the total fiscal impact to the state, which is the sum of the direct, indirect and induced fiscal returns and expenses arising from the company activity and incentives awarded. The direct fiscal returns are the taxes generated by the activity for which the incentives are awarded, such as the income taxes paid by the workers hired for the eligible production and sales taxes generated by purchases made for the production. The indirect and induced revenues are taxes generated by the supply chain and other activity that supports the production, plus those that arise as the newly earned incomes are spent in the economy. The total impact therefore accounts for the "ripple effect" of new economic activity as it works its way through the economic system. The REMI model also estimates changes in state expenditures that arise due to the new activity in the economy. These are generally indirect effects; for example, the availability of new jobs due to the incentive can lead to population changes as workers move to take advantage of better opportunities, and government services expand to serve the higher population. The difference between estimated new revenues and estimated new expenditures in the net total fiscal impact of the incentive.

Fiscal impact analyses were not a focus of the Olsberg report, as it is considered too narrow a measure of return on investment for an industry-wide economic impact analysis. The goal of DECD's film incentives program is to expand the motion picture and digital media production industry in the state and the Olsberg report was an evaluation of the progress towards that goal. They do report fiscal revenue estimates for FY 2020. We compare it to DECD's fiscal analysis below.

i. Program Description

The Office of Film, Television & Digital Media assists film, television and digital media companies with three tax incentive programs based on qualified in-state expenditures. *Film tax credit recipients can be found here.*

During FY 2022, over $144 million in tax credits were issued for $508.4 million spent in Connecticut by qualified productions (the productions mostly occurred prior to FY 2022).

Table 10: DECD FY 2022 Film Tax Credit Activity			
Tax Credit Program	Company Spend	Tax Credits Issued	Number of Credits
Film, Television & Digital Media	$ 432,517,618	$ 129,757,986	31
Digital Animation Production Co.	$ 0	$ 0	0
Film Infrastructure	$ 75,921,074	$ 15,184,215	3
TOTAL	**$ 508,438,692**	**$ 144,942,201**	**34**

Source: DECD

(1) Estimated Economic and Fiscal Impacts of the Film Tax Credits

In previous annual reports, we have conducted a ten-year impact analysis using the REMI model and presented the estimated total fiscal impact of each incentive. However as we have stated each year, that methodology is limited and presents an incomplete picture of the impact of the incentives. For example, in the modeling process, incorporating certain jobs that are tied to the productions each year requires removing them when the production is complete, which suggests a loss of jobs in the industry when there isn't any. This fluctuation in modeled jobs impacted state revenue and expenditure estimates, skewing the results.

This year DECD updated our impact estimation methodology incorporating new information obtained from the Olsberg report and conducted a one-year impact estimate for the incentive programs. Because we do not have job creation data tied to the tax credit, and because the intent of the tax credits is to build a film and digital media production industry in the state, we conduct a total economic impact analysis for the film and digital media production tax credit utilizing DECD's REMI model, which presents the direct, indirect and induced activity that results from the tax credit. This also allows a comparison to the results of the Olsberg report which utilized the IMPLAN economic model.

Due to the different build of the IMPLAN and REMI models, and the different process of modeling tax credits in each, the results from the two models will not be identical. We have updated the impact estimation methodology for the film tax credits based on the study's findings and estimate the impact of the programs below. Because the consultants' report covered the history of the tax credit program, we estimate the impact of the film tax credits for the most recent fiscal year.

(2) Film & Digital Media Production Tax Credit

An eligible production company that produces a qualified production and incurs qualified production expenses or costs in excess of $100,000 may apply for a tax credit equal to 10% to 30% of production expenses and costs incurred in Connecticut. Expenses claimed for the film and digital media production tax credit may not be used in claiming either the digital animation tax credit or the infrastructure tax credit (see below). This tax credit intends to attract more film, television, and digital media productions to the state than if the credit did not exist.

As of July 1, 2013, motion pictures are no longer a “qualified production” with the exception of any motion picture for which twenty-five per cent or more of the principal photography shooting days are at a facility that receives not less than twenty-five million dollars in private investment and opens for business on or after July 1, 2013.

(a) Estimated Economic Impact of the Film & Digital Media Production Tax Credit

The Olsberg study evaluated the economic impact of the tax credit program using an “expenditure approach”, by estimating the impact of the film and digital media production expenses that qualified for the credit. Though DECD does not annually report the economic impact of the credits using the macroeconomic indicators used by the authors of the Olsberg study, we have included it below for FY 2022 for comparison.

Table 11: Estimated Total Economic Impact of the Film & Digital Media Production Tax Credit FY 2022

	FY 2022	Per $1 of credit
Inputs		
Eligible Production Spending	$ 432,517,618	
Total Credits Issued	$ 129,757,986	
Results		
Estimated New Employment	1,887	
Estimated New Gross Domestic Product (GDP)	$ 364,948,000	$ 2.81
Estimated New Output (Total Sales)	$ 539,163,000	$ 4.16

Because the comparison is not for the same fiscal year (Olsberg’s FY 2020 vs. DECD’s FY 2022 estimations), the underlying inputs – tax credit amount, eligible spending amount – are not the same, so the results will differ. Plus the differences in the underlying structure of the two models and the estimation methodologies will lead to more variation in the results. However, DECD’s economic impact estimations of the film and digital media prediction tax credit align with that of the Olsberg report, showing over $4 of new economic activity in the economy per $1 of tax credit awarded in FY 2022.

(3) Estimated Fiscal Impact of the Film & Digital Media Production Tax Credit

DECD streamlined the fiscal impact estimation of the film and digital media production tax credit utilizing new information from the Olsberg report. The Olsberg study reports the results of surveys conducted of the users of the film & digital media production tax credit. The results indicate that the availability of the tax credits were critical to their location and expansion decisions in the state, with the majority of survey respondents saying it was the most important factor. The report concludes that the tax credits incentivized the growth of the industry in the state and that a significant portion of the jobs in the industry would not be in the state in the absence of the tax credits.

Using this information the Olsberg study conducted a "top-down" analysis of the impact of all three tax credits, using a range of industry employment. We have adopted this same foundation to obtain a more comprehensive estimate of the fiscal impact of the film and digital media production tax credit.

The two industries that utilize the tax credits are the motion picture industry and the broadcasting industry. We estimate the economic impact of the film and digital media production tax credit using 50% of these industries' jobs in the state. This is the mid-point of the range the Olsberg report used and is a conservative estimate based on the responses to the authors' surveys.

Employee head count data used for the estimation below are state industry data reported by the Bureau of Labor Statistics (BLS) for 2021, the last year for which detailed industry data is available. The data shows a total of 9,524 jobs in the two industries in 2021, so 50% of those jobs (4,762) are used for the estimations below.

The estimated impact below is for credits issued in FY2022.

Table 12: Estimated Total Fiscal Impact of the Film & Digital Media Production Tax Credit FY 2022

	FY 2022	Per $1 of credit
Inputs		
50% of Industry Jobs	4,762	
Total Credits Issued	$ 129,757,986	
Results		
Estimated State Revenues	$ 35,464,230	$ 0.27
Estimated State Expenditures	$ 34,607,090	
Estimated Net State Revenue	$ 857,140	

Source: Bureau of Labor Statistics, DECD

The estimated state revenues above incorporate the loss of state revenues equivalent to the amount of the tax credit issued. The $35.5 million is therefore new revenues net of the cost of the tax credit. The estimated state expenditures are new expenses the state may incur because of the new activity (for example, significant new economic activity can result in population changes as more workers move their families towards new job opportunities, and the increased population drives up government spending on services). The positive net figure above indicates that when taking indirect and induced new state spending into account, approximately 50% of industry employment, or around 4,700 jobs in the two industries, were necessary for the tax credit to “break even” in FY 2022.

As mentioned above, estimating the fiscal impact of the film tax credits were not a focus of the Olsberg report. However they do conduct a fiscal impact analysis for FY 2020. Though the estimation methodologies differ, DECD’s results above align with the Olsberg estimations with state revenues increasing by $0.27 per $1 of the tax credit.

(a) Recommendation

Certain benefits to the state are not captured in the results. For example, the three film tax credit programs stimulated investment in educational programs at both the state’s community and private colleges to build the workforce required to support the film, television and digital animation industries. In particular, the production tax credit has encouraged the relocation of major networks, digital media companies and production operations. The state’s strengthened production infrastructure supported and continues to support a range of projects, further encouraging companies to carry out long-term productions in Connecticut.

The combination of the three film tax credit programs, the successful recruitment of various digital media companies, and the related investment in building a workforce lead us to recommend maintaining this program.

(4) Film Production Infrastructure Tax Credit

This tax credit is available to a taxpayer that invests in a state-certified entertainment infrastructure project. The credit intends to help establish a film and digital animation industry presence in Connecticut by incentivizing capital investment in plant and equipment for pre- and post-production facilities and investment in educational programs that produce the workforce needed by the film and digital animation industry.

The amount of film infrastructure credits issued in FY 2022 is $15.2 million for over $75.9 million in eligible infrastructure expenses.

(5) Estimated Fiscal Impact for the Film Production Infrastructure Tax Credit
To account for the indirect and induced impact for of the eligible infrastructure activity, we present the total impact estimated using DECD's REMI model below.

Table 13: Estimated Total Fiscal Impact of the Film Infrastructure Tax Credit FY 2022		
	FY 2022	Per $1 of credit
Inputs		
Eligible Infrastructure Spending	$ 75,921,074	
Total Credits Issued	$ 15,184,215	
Results		
Estimated New Construction and Related Jobs	759	
Estimated State Revenues	-$ 10,381,000	-$ 0.68
Estimated State Expenditures	$ 1,149,000	
Estimated Net State Revenue	-$ 11,530,000	

The estimated state revenues above incorporate the loss of state revenues equivalent to the amount of the tax credit issued. The loss of $10.4 million in tax revenues is therefore new revenues net of the cost of the tax credit. The estimated state expenditures are new expenses the state may incur because of the new activity (for example, significant new economic activity can result in population changes as more workers move their families towards new job opportunities, and the increased population drives up government spending on services).

The economic and fiscal impacts of construction and related activities dissipate quickly upon completion. We cannot model new permanent employment associated with the infrastructure project because credit applicants are not required to provide information on employment or procurement in the new facilities. We do not assign any jobs to the facilities because we already assigned 50% of the industry workforce to the film and digital media production tax credit above. Because industry jobs are most likely associated with the availability of both film tax credits, we are understating the impact of the infrastructure tax credit.

The analysis presented here therefore represents a partial picture of the benefit of the infrastructure projects undertaken by the recipient firms, as we cannot say which credit is responsible for which jobs. Because we have no knowledge of the totality of net new economic activity the infrastructure projects facilitate, we cannot determine the entire net benefit of the infrastructure tax credit program; here we analyze it in isolation.

The new employment above is mostly in the construction sector with a few in supporting sectors. It is a narrow measure of the impact of the film infrastructure credit; data on new jobs in the facilities, for example, from the companies that utilize the credit would enable DECD to conduct a fuller evaluation of the benefits of this credit. The Olsberg report used the same methodology as above and drew the same conclusions.

(a) Recommendation

Given that we do not know what other benefits (such as net new jobs and procurement) accrue to the state, we recommend that this program continue and that we collect related job creation and operational data that the infrastructure tax credit program facilitates to better assess future credit usage.

(6) Digital Animation Tax Credit

A Digital Animation Tax Credit is available to state-certified digital animation production companies that engage in digital animation production activities on an ongoing basis. The credit intends to help establish a digital animation industry presence in Connecticut by incentivizing increased employment and capital investment in plant and equipment for digital animation facilities. No new Digital Animation credits were issued in FY 2022.

5. Insurance Reinvestment Fund Tax Credits

i. Program Description

The Insurance Reinvestment Fund (IRF) tax credit was designed to stimulate investments in Connecticut's insurance businesses and businesses providing services to insurance companies to help them grow. The original program was modified by the legislature in the 2010 legislative session and now the two programs (the original version and the modified version) are known as the First and Second Insurance Reinvestment Fund tax credit programs. The second program was further amended in 2015 to form a third program named CTInvest. No new investments are now eligible under the First Insurance Reinvestment Program and no new credits have been issued. This section details the two programs that are currently active, and the following sections evaluate their performance. Tax credits are available to taxpayers making investments in an Insurance Reinvestment Fund that then reinvests in Connecticut companies in targeted industries. Investors could make debt or equity investments and receive a dollar-for-dollar tax credit equivalent to their investment prorated over ten years such that under the Second Insurance Reinvestment program, 10% of the credit could be claimed in years four through seven and 20% of the credit could be claimed in years eight through ten. Under CTInvest, the credits are distributed in years six through ten in tranches of 20%.

To obtain the credit, the insurance business in which the investment was made had to annually submit a request for eligibility with DECD to determine whether the requirements of the program were met. We do know the number of jobs created as a result of the investment in each company by comparing the number of jobs at application with the number of jobs reported during the annual eligibility process. The difference is assumed to be a result of the investment.

(1) Second Insurance Reinvestment Fund Tax Credit

The Second Insurance Reinvestment Fund tax credit can only be applied against the taxes imposed under Chapters 207 (insurance, hospital and medical services corp. tax), and CGS §38a-743 (insurance premiums tax). No new investments occurred in FY2022 under the Second IRF tax credit. Additional credits of $1.98 million were issued in FY2022. The results below cover the full time period during which the Second IRF program has been active, and therefore includes some 2011 activity as well.

(a) Estimated Net Economic Impact of the Second Insurance Reinvestment Fund Tax Credit

The total economic impact of the Second IRF program was estimated using the REMI Tax-PI model. The table below reports the results of the economic simulation. These numbers represent the estimated net new economic activity in the Connecticut economy generated by the Second Insurance Reinvestment Tax Credit. The total impact includes estimated direct, indirect and induced economic activity.

Table 14: Estimated Total Economic Impact of the Second Insurance Reinvestment Fund Tax Credit from 2011-2022

	Total Impact	Revenue earned per $1 of credit
Total Fund Investments	$ 200,000,000	
Total Credits Issued	$ 200,000,000	
Estimated Total New Jobs* – Annual Average Above Baseline	5,057	
Estimated Cumulative Total State Revenues	$ 295,073,996	$ 1.48
Estimated Cumulative Total State Expenditures	$ 253,731,016	
Estimated Cumulative Net State Revenue	$ 41,342,980	

Source: DECD
*Note: *Total jobs are estimated new direct, indirect and induced employment as a result of the program. Total state revenues and expenditures are the sum of the estimated new direct, indirect and induced state revenues and expenditures generated by the program.*

(2) CTInvest - Third Insurance Reinvestment Fund Tax Credit

In 2015, the legislature amended the Insurance Reinvestment Fund tax credit to provide a new tax credit under the name CTInvest which can only be applied against the taxes imposed under Chapters 207 (insurance, hospital and medical services corp. tax), and CGS §38a-743 (insurance premiums tax). This tax credit was an extension of the second Insurance Reinvestment Fund tax credit. Under this program is the tax credit certificates are to be distributed in years six through ten in tranches of 20%. The first certificates were distributed in FY 21.

Table 15: CTInvest Fund Managers' Investments and Job Creation 2016-2021	
Investments by Industry	**Total**
Utilities	$ 20,450,000
Construction	$ 2,800,000
Food Manufacturing	$ 2,825,000
Beverage and Tobacco Product Manufacturing	$ 4,925,000
Paper Manufacturing	$ 10,632,681
Chemical Manufacturing	$ 2,814,919
Fabricated Metal Product Manufacturing	$ 650,143
Computer and Electronic Product Manufacturing	$ 1,105,751
Other Transportation Equipment Manufacturing	$ 1,500,000
Merchant Wholesalers, Nondurable Goods	$ 3,800,000
Retail Trade	$ 9,472,000
Publishing Industries Except Internet	$ 14,923,774
Securities, Commodity Contracts and Other Financial Investments and Related Activities	$ 3,000,000
Rental and Leasing Services	$ 2,100,000
Professional and Technical Services	$ 18,819,466
Administrative and Support Services	$ 144,488
Waste Management and Remediation Services	$ 7,084,414
Ambulatory Health Care Services	$ 15,500,000
Social Assistance	$ 6,000,000
Performing Arts, Spectator Sports	$ 1,250,000
Total Investments	**$ 129,797,654**
Job Creation (across all industries)	**1,428**
Tax Credits Issued by DECD	**$ 71,372,346**

Source: DECD

Note: Does not include jobs that were counted towards other DECD assistance.

(a) Estimated Net Economic Impact of CTInvest (Third Insurance Reinvestment Fund Tax Credit)

The total economic impact of the CTInvest program was estimated using the REMI Tax-PI model. The table below reports the results of the economic simulation. These numbers represent the estimated net new economic activity in the Connecticut economy generated by the CTInvest Tax Credit. The total impact includes estimated direct, indirect and induced economic activity.

Table 16: Estimated Total Economic Impact of the CTInvest Tax Credit from 2016-2022		
	Impact	**Revenue earned per $1 of credit**
Total Fund Investments	$ 129,797,654	
Total Credits Issued	$ 71,372,346	
Estimated Total New Jobs – Annual Average Above Baseline	2,895	
Estimated Cumulative Total State Revenues	$ 120,813,066	$ 1.69
Estimated Cumulative Total State Expenditures	$ 60,653,848	
Estimated Cumulative Net State Revenue	$ 60,159,218	

Source: DECD
*Note: *Total jobs are estimated new direct, indirect and induced employment as a result of the program. Total state revenues and expenditures are the sum of the estimated new direct, indirect and induced state revenues and expenditures generated by the program.*

(b) Recommendation

Because the first certificates were distributed in FY 21, it is too early for DECD to make a recommendation based on the program's performance. DECD will continue to monitor the impact of the program and recommends the program continue within available appropriations.

6. Property Tax Abatements for Investment in Enterprise Zones

i. Program Description

Companies that locate in an Enterprise Zone can apply for a five-year, 80% abatement of local property taxes on qualifying real and personal property subject to the property being new to the grand list of the municipality as a direct result of a business expansion or renovation project or in the case of an existing building, having met the vacancy requirement. The firm's property tax abatement is equal to 80% of the assessed value (which is 70% of market value) of new plant and equipment, multiplied by the appropriate mill rate. The State reimburses the municipality for 50% of the foregone taxes.

There are several types of Enterprise Zones across the state. Targeted Investment Communities may offer EZ benefits within their bounded Enterprise Zones, as well as offering entertainment district and/or railroad depot zone benefits, where pre-approved by DECD. The Urban Jobs Program provides EZ-level benefits to eligible companies with suitably induced projects located in a Targeted Investment Community but outside of the bounded Enterprise Zone, the entertainment district, and the railroad depot zone. Other zones across the state within the Enterprise Zone Program include: Airport Development Zones, Bioscience Enterprise Corridor Zones, Contiguous Municipality Zones, Defense Plant Zones, Enterprise Corridor Zones, Knowledge Center Enterprise Zones, and Manufacturing Plant Zones.

Details about the various Enterprise Zones can be found here.

ii. Program Activity

The table below shows the dollar amounts claimed for newly certified eligible investments and the associated value of the investments for 2022. DECD certifies companies as being eligible for EZ benefits, and municipalities that grant the abatements file claims with the state's Office of Policy and Management (OPM) for state reimbursement.

Table 17: Property Tax Abatements for Investment in Enterprise Zones, 2022 (Grand List Year 2021)	
Claimed Abatements for Newly Certified Investments	$ 4,319,471
Number of New Certifications	26
Associated Investment Value Based on Assessment	$ 271,972,119

Source: DECD and OPM

iii. Estimated Economic and Fiscal Impacts of the Property Tax Abatements for Investment in Enterprise Zones

Because companies are not required to report employment and other relevant data, we analyze the estimated total economic impact of the enterprise zone abatements for 2022 utilizing the REMI Tax-PI model. The estimated total impact is the sum of the direct, indirect and induced impact of the tax credit program. The program year for the EZ program is the Grand List Year (GLY), which runs October 1st through September 30th, with the October date determining the GLY.

The results below are for GLY 2021 investments. The 2022 impact analysis only incorporates investments that were new to the municipalities' grand lists for GLY 2021, as DECD does not have employment and other data from previously approved recipients to conduct an ongoing analysis of their impacts to the region. Claims under all Enterprise Zone types are in the data provided to DECD by OPM and are incorporated into the impact analysis below.

We assume the investment would not have occurred in the region were not for the EZ program. To avoid double counting, we removed Charter Communication's project expenses from this analysis as they are used in our URA tax credit analysis. The company's abatement and associated state costs are included in the analysis. Companies may claim abatements for two types of property new to the grand list: real estate and personal property. Real estate investments could either be acquisitions or construction and/or renovations. Estimates provided to DECD by the companies seeking certification in GLY 2021 showed an average of 45% of real estate investment was targeted for acquisition, and 55% was targeted for construction and/or renovation. We assumed actual investments made followed the same plan and applied these same percentages towards the market value of real estate expense claims (actual expenses may differ from projections provided to DECD). We assume the state will reimburse the municipalities for the full 50% of the abatements. The full estimated economic impact is shown below.

The estimated results suggest that the EZ abatement program had a positive impact in 2022 for GLY 2021 investments. Note that this analysis does not include Charter Communication's capital expenses of $220 million but does include the company's abatement and estimated state reimbursement to the city of Stamford. This is a partial analysis as it does not include abatements made for projects beginning in prior years.

Table 18: Estimated Total Economic Impact of New Investments in 2022 Enterprise Zone Program

	Impact in 2022 (GLY 2021)	Revenue earned per $1 of state contribution
Abatements Claimed for New Investments	$ 4,319,471	
Assumed State Reimbursement to Towns	$ 2,159,735	
Estimated Total State Revenues*	$ 1,194,780	
Estimated Total State Expenditures	$ 787,004	$ 0.55
Estimated Net State Revenue	$ 407,777	

Source: DECD

*Note: *Total state revenues and expenditures are the sum of the estimated new direct, indirect and induced state revenues and expenditures generated by the program.*

It is important to note that the purpose of the enterprise zone program is to yield benefits to the designated community, and the return to the state is of secondary concern. The goal is that by locating in an area in which it normally would not, the company fuels local economic development by employing local residents and stimulating local businesses. The community's tax base is also strengthened.

iv. Recommendation

Requirements should be added to the program to ensure that the benefits to the state, by way of increased revenue, offset the cost of the state's reimbursement to the municipality for the tax abatement. Additionally, this program should be funded by the state on an ongoing annual basis (where the state reimburses local communities for 50% of the abatement) through the General Fund versus bonded financing. The Distressed Funding does have a line item in the General Fund but in the past two years, the amount budgeted has not been sufficient to reimburse the claims in full. The additional money necessary has been brought to the Bond Commission in these last two years and approved in full.

B. Connecticut Innovations Business Tax Credit Programs

In this section, we present available information on tax credit programs that target economic development but are not administered by DECD. The analysis provides estimated activity incented by the credit, which is a measure of the direct economic activity associated with the credit. Additional information, including jobs data if available, can be found in CI's annual report, linked on page 33.

We are unable to do an extended analysis of these credits or make a recommendation about the programs because we do not have the necessary information. DECD has not conducted an audit, review or compilation of the data provided by CI below.

1. Angel Investor Tax Credit

The Angel Investor tax credit is administered by Connecticut Innovations, Inc. (CI). It provides a credit for a cash investment of not less than $25,000 in the qualified securities of a Connecticut business by an angel investor. The credit is applicable to taxable years beginning on or after January 1, 2010 and is applicable to the investors' personal income tax. Qualified Connecticut businesses must have been in business for less than seven years and have less than 25 paid employees, 75% of whom must be Connecticut residents. Gross revenue must be less than $1 million and management and their families must have majority ownership of the venture.

An ***angel investor*** is an accredited investor, as defined by the Securities and Exchange Commission, or network of accredited investors who review new or proposed businesses for potential investment who may seek active involvement, such as consulting and mentoring, in a Connecticut business. The angel investor may apply to CI to reserve a tax credit equal to 25 percent of the cash investment. The angel investor must choose from a list of Connecticut businesses that CI has determined are qualified to receive cash investments eligible for the angel investor tax credit. The angel investor must not have a majority ownership of the business it seeks to invest in.

The most current statistics for this program are shown below (2021 is the most recent tax year we have tax claims data for), followed by a summary of the investments by industry.

Table 19: Angel Investor Tax Credit Program (01/2013-12/2022)	
Number of Investments	1,489
Investments in Qualified Connecticut Businesses	$ 115,626,104
Tax Credits Issued (through 12/31/2022*)	$ 28,881,771
Tax Credits Claimed (through 2021, from DRS)	$ 21,263,453

*Source: Connecticut Innovations and DRS, *2022 data preliminary*

Angel Investor tax credit claims were $4.0 million in FY21, and the impact on annual state revenues over the last ten years is $21.26 million of tax credits claimed against the personal income tax. More information on the Angel Investor tax credit program can be found here.

The businesses by broad industry category and the amounts invested in them are shown below.

Table 20: Angel Investments by Company Category, 2013-2022	
Bioscience	$ 50,793,330
Clean Technology	$ 7,798,773
Information Technology	$ 38,133,097
Advanced Materials	$ 640,000
Other	$ 18,260,904
Total	**$ 115,626,104**

Source: Connecticut Innovations
Note: Numbers may not total due to rounding.

2. Cannabis Angel Tax Credit Program

In 2021, Connecticut established the Cannabis Angel Tax Credit Program for qualified angel investors to invest at least $25,000 in a Qualified Cannabis Business (QCB).

The program offers annual tax credits of $15 million for $37.5 million of investments (which is equal to a 40 percent tax credit against a Connecticut tax liability). An investment in a Qualified Cannabis Business (QCB) of $25,000 to $1,250,000 qualifies for a 40 percent credit toward a Connecticut income tax liability. The maximum credit allowed per investor is $500,000.

Table 21: Cannabis Angel Investor Tax Credit Program 2022	
Number of Investments	24
Investments in Qualified Cannabis Businesses	$ 2,100,000
Tax Credits Issued (through 12/31/2022*)	$ 840,000

*Source: Connecticut Innovations, *2022 data preliminary*

The program runs from July 1 to June 30 of the fiscal year and expires on June 30, 2028.

3. Sales and Use Tax Exemption

The Sales and Use Tax exemption is administered by Connecticut Innovations, Inc. (CI). The exemption is for a company's anticipated qualifying capital equipment and/or construction materials. This exemption will relieve the company and/or the developer from Connecticut sales tax, up to a CI Board-approved amount. Active deals as of 06/30/2022 are listed in the table below.

Table 22: FY 2022 Sales and Use Tax Exemption Active Deals				
Date Approved	**Company Name**	**Approved Exemption**	**Eligible Purchase Total (based on 6.35% sales tax)**	**Exemption Used (through FY 2022)**
06/18/18	Electric Boat	$ 20,000,000	$ 314,960,630	$ 3,643,835
04/18/19	Cigna	$ 4,000,000	$ 62,992,126	$ 3,186,256
02/05/19	Indeed	$ 3,000,000	$ 47,244,094	$ 11,719
11/19/19	Horst	$ 350,000	$ 5,511,811	$ 261,178
02/06/20	500, LLC	$ 1,000,000	$ 15,748,031	$ 770,331
06/23/20	Charter Communications	$ 7,000,000	$ 110,236,220	$ 3,409,723
08/31/20	Americold	$ 1,500,000	$ 23,622,047	$ 1,499,999
04/06/21	Frito Lay	$ 5,500,000	$ 86,614,173	$ 282,277
06/23/20	101 College Street, LLC	$ 5,000,000	$ 78,740,157	$ 378,278
04/06/21	Day Hill Dome	$ 350,000	$ 5,511,811	$ 83,934
10/02/19	WWE, Inc	$ 5,000,000	$ 78,740,157	$ 1,156,306
10/29/21	Ranpak Corp.	$ 750,000	$ 11,811,024	$ 0
04/06/21	SIFI Networks East Hartford, LLC	$ 450,000	$ 7,086,614	$ 0
02/15/22	Travelers	$ 750,000	$ 11,811,024	$ 0
	TOTALS	**$ 54,650,000**	**$ 860,629,921**	**$ 14,683,836**

Source: Connecticut Innovations

Companies currently active in the program have an approved total of $54.65 million in sales and use tax exemptions, of which $14.6 million of have been claimed. The eligible construction and capital expenses amount to $861 million.

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II. ECONOMIC DEVELOPMENT PROGRAMS AND ACTIVITIES

A. Economic Development Investment Analysis

A listing of DECD's Economic Development recipients can be found here.
DECD's Recovery Bridge Loan recipients can be found here.

The table below shows the various types of direct financial assistance DECD provided.

Table 23: Active Direct Assistance Portfolio Value by Assistance Type				
	FY 2022		Portfolio	
Assistance Type	Assistance Amount	Percentage of Total	Assistance Amount	Percentage of Total
Loans	$ 0	0%	$ 836,383,123	65.1%
Grants	$ 11,787,500	100.0%	$ 427,955,990	34.9%
TOTAL	**$ 11,787,500**	**100.0%**	**$ 1,264,339,113**	**100.0%**

Source: DECD
Note: Numbers may not total due to rounding.

The state's borrowing cost per the Office of the State Treasurer in FY 2022 was 3.55% for 20-year tax-exempt bonds. The following table provides a breakdown of DECD's active portfolio by funding source. Please note that throughout this section MAA program data includes First Five companies that received direct financial assistance.

Table 24: Value by Funding Source							
	FY 2022				Portfolio		
Funding Source	No. of Companies	Assistance Amount	Percentage of Total	No. of Companies	Assistance Amount	Percentage of Total
MAA	4	$11,787,500	100.0%	225	$ 898,673,554	70.0%
EXP	0	$ 0	0.0%	1,104	$ 225,015,559	17.5%
Other	0	$ 0	0.0%	3	$ 140,650,000	12.5%
TOTAL	**4**	**$11,787,500**	**100.0%**	**1,332**	**$1,264,339,113**	**100.0%**
MAA- Lending Partners				1	$ 35,000	n/a
MAA- CI Seamless				9	$ 4,320,000	n/a
EXP- Lending Partners				307	$ 36,642,770	n/a
Inactive MAA Projects				18	$ 77,568,000	n/a
Inactive EXP Projects				811	$ 89,048,320	n/a

Source: DECD
Note: For MAA funding, only business assistance recipients are included in the count above. Manufacturing Innovation Fund projects funded with MAA funds are not included in this section. Companies may have received funding under more than one program or under more than one contract. Companies assisted by DECD's lending partners and MAA-CI Seamless recipients are not listed on Open Data since compliance is managed by our Partner entity. Inactive projects include companies that have gone out of business, repaid their assistance and left the program or completed all the contract requirements. EXP projects funded in FY2012 are all included in the inactive portfolio. MAA and "Other" projects are included in this report for 10 years. A company may appear on the active and inactive list if it has multiple contracts. Inactive projects, lending partner projects and Seamless projects are not included in the tables that follow unless otherwise noted. The Recovery Bridge Loans, Connecticut CARES Small Business Grant and Connecticut CARES Business Grants are not included in this section.

As a result of DECD's active business assistance investments of approximately $1.3 billion, an additional $5 billion was invested in Connecticut's economy. In other words, for every dollar invested by DECD, approximately $4 was invested by other sources into the same business projects.

Table 25: Active Portfolio Leverage Ratio			
	Leverage Ratio	**Non-DECD Funds**	**DECD Investment**
Active Portfolio	4.0	$ 5,089,313,347	$ 1,264,339,113

Source: DECD

Note: The table above includes $1,184,000,000 in project costs for Lockheed Martin, a Special Act recipient. This is a $140,000,000 grant with a total budget of $19,341,402,994. Including the total $19B budget would have skewed the leverage ratio.

In FY 2022 DECD estimated $17,676,194 in MAA loans and $11,096,855 in EXP loans were uncollectable. This may include lending partner loan and Seamless loans and include contracts that originated outside the scope of this annual report. In FY 2022 DECD forgave $29,579,959 in MAA loans and $120,000 in EXP loans in accordance with contract provisions.

The table below shows the industry mix of DECD's active business assistance portfolio.

Table 26: Active Portfolio Industrial Composition			
NAICS	**Industry**	**Direct Assistance**	**%**
31-33	Manufacturing	$ 611,107,344	48.3%
54	Professional, Scientific, and Technical Services	$ 116,172,702	9.2%
52	Finance & Insurance	$ 112,243,679	8.9%
51	Information	$ 91,576,613	7.2%
62	Health Care & Social Assistance	$ 55,896,414	4.4%
44-45	Retail Trade	$ 44,754,982	3.5%
56	Administrative and Support/ Waste Management	$ 44,359,353	3.5%
42	Wholesale Trade	$ 41,823,975	3.3%
81	Other Services (except Public Administration)	$ 28,210,322	2.2%
48-49	Transportation and Warehousing	$ 22,011,884	1.7%
72	Accommodation & Food Services	$ 19,735,409	1.6%
23	Construction	$ 16,616,527	1.3%
71	Arts, Entertainment & Recreation	$ 16,497,000	1.3%
61	Educational Services	$ 11,638,400	0.9%
53	Real Estate and Rental & Leasing	$ 9,475,780	0.7%
55	Management of Companies & Enterprises	$ 9,000,000	0.7%
11	Agriculture, Forestry, Fishing & Hunting	$ 6,207,300	0.5%
22	Utilities	$ 4,780,000	0.4%
21	Mining, Quarrying, and Oil & Gas Extraction	$ 2,000,000	0.2%
92	Public Admin Total	$ 231,430	0.0%
	TOTAL	**$ 1,264,339,113**	**100.0%**

Source: DECD

Note: Numbers may not total due to rounding.

B. Job Creation and Retention Analysis

The following information is a summary of job audits that have been conducted for companies in DECD's portfolio (Direct Assistance and URA Tax Credits) that have contractual employment obligations.

Table 27: Business Assistance Portfolio Job Audit Results as of June 30, 2022

		Contract Requirements				% of Contract
Job Audit Result	**# of Audits Completed**	**Jobs Retained**	**Jobs Created**	**Total Job Obligation**	**Actual Jobs Per Audit**	**Requirement Attained**
Met	941	37,714	11,825	49,539	55,686	112.4%
Not Met	426	7,454	2,312	9,766	7,395	75.7%
TOTAL	**1,367**	**45,168**	**14,137**	**59,305**	**63,081**	**106.4%**

Source: DECD

Note: A company may have more than one audit. Duplicate jobs retained, created and jobs per audit have been removed from this analysis across contracts and programs. This table includes URA tax credit recipients with completed job audits. MAA and URA companies may have multiple audit requirements over a span of several years. The results above are not meant to show the results of the company's final job audit. It does not include companies that went out of business but includes audits for other inactive companies, including 2012 EXP projects. COVID assistance programs do not have contractual employment obligations.

C. Wage Analysis

Tables in this section provide the results of a FY 2022 active portfolio wage analysis based on survey results. Please note that Recovery Bridge Loan recipients are not included in this section.

Table 28: Active DECD Portfolio Wage Analysis Based on Survey Responses	
Weighted Average	$ 93,684
High	$ 248,623
Low	$ 25,000
Median	$ 57,201

Source: DECD

The following table shows the portfolio wage data, stratified by industry.

Table 29: Business Assistance Portfolio Wages by Industry			
NAICS Code	NAICS Category	# of Companies	Portfolio Weighted Average Wage
11	Agriculture, Forestry, Fishing & Hunting	1	$ 48,500
22	Utilities	1	$ 50,750
23	Construction	5	$ 63,506
31-33	Manufacturing	58	$ 83,951
42	Wholesale Trade	10	$ 106,823
44-45	Retail Trade	14	$ 61,082
48-49	Transportation and Warehousing	2	$ 94,639
51	Information	6	$ 95,873
52	Finance and Insurance	5	$ 214,644
53	Real Estate and Rental / Leasing	1	$ 113,358
54	Professional, Scientific and Technical Services	29	$ 98,456
56	Administrative and Support and Waste Management and Remediation Services	3	$ 67,084
61	Educational Services	2	$ 85,880
62	Health Care and Social Assistance	12	$ 58,906
71	Arts, Entertainment and Recreation	5	$ 60,301
72	Accommodation and Food Service	10	$ 47,228
81	Other Services (Except Public Administration)	8	$ 56,087

Source: DECD

D. Economic Development Direct Assistance Programs

1. Manufacturing Assistance Act Program (MAA)

The MAA program was DECD's primary funding source for providing direct financial assistance to businesses. Per CGS Sec. 32-221, the goals of the MAA program are to:

- Promote the retention, expansion, and diversification of existing manufacturing and other economic base businesses in targeted industries;
- Encourage manufacturing and other economic base businesses from other geographic areas to locate into the state; and
- Enhance employment opportunity and the tax base of communities, particularly in the state's more economically disadvantaged communities.

An analysis of the MAA portfolio shows these goals are being met. Approximately 67% of MAA active assistance has gone to businesses in the manufacturing, finance & insurance and professional service industries. 45 MAA recipients are located in the state's distressed municipalities. Companies in DECD's MAA portfolio (active and inactive) have committed to create 16,358 jobs and retain 37,245 jobs. Please note these job numbers have been adjusted for duplication across contracts and programs.

Table 30: MAA Financial Assistance per Job to be Created or Retained Based on Maximum Contractual Job Obligations	
Total Assistance	$ 976,241,554
Jobs to be Created or Retained	53,603
Financial Assistance per Job	$ 18,212

Source: DECD

Notes: This calculation includes the Active and Inactive MAA projects. This table reflects a company's maximum job obligation and does not reflect actual jobs created or retained. Duplicate jobs to be created/retained have been removed. Duplicates could be caused by a company having multiple MAA contracts or MAA/URA contracts. Jobs for ASML are included in the Stranded Tax Credit section of this report.

i. Estimated Direct Economic Impact of the MAA Program:

The below table shows the cumulative direct impact of the MAA program over the most recent 10 years (FY 2013- FY 2022). The direct jobs are those reported to DECD as newly created jobs while active in the program. This data is obtained through company surveys and audits. The direct net state revenue estimated below is the difference between the direct revenues generated by the program and its direct expenses. The direct impact comes from the jobs created at the company and capital expenditures made by the recipients of the MAA funds, so the direct revenues under the program are the estimated income taxes and sales taxes generated by each of these respectively. The direct expenses are the costs to the state government to fund the program, which is the estimated debt service it pays on the bonds issued to finance MAA grants and loans. These costs are offset by the repayments of loans made by the recipients and any penalties they pay for not meeting required conditions after receiving the funds. Earned forgiveness reduces the loan repayment amounts and are incorporated into the totals as well. Some companies were eligible for exemptions under the sales and use tax exemption program administered by Connecticut Innovations; the exemptions claimed through FY2022 were deducted from the revenue estimations.

Table 31: MAA Estimated Direct Economic Impact FY 2013-2022	
New Jobs Reported – Annual Average Above Baseline*	7,750
Average Direct Net State Revenue	$ 15,100,932
Cumulative Direct Net State Revenue	$ 151,009,320

Source: DECD analysis

*Note: *Direct jobs taken into account for the direct impact estimations only include data from company surveys and completed audits taken while the company was active in the program. Retained jobs are not included in this estimation. Direct State Revenue does not include estimates of corporate business taxes or other direct taxes.*

The direct net revenue above shows that on *average* estimated direct revenues exceeded the estimated costs of the program by over $15 million a year over the last ten years, as the estimated cumulative total of the net direct revenue it generated over this time period is over $151 million (in nominal dollars). This analysis does not include any potential downstream (i.e. indirect and induced) impacts in the economy from the additional spending or jobs created.

ii. Recommendation

Going forward, DECD will use JobsCT as its primary incentive tool and minimize the use of MAA. JobsCT is designed to be a simple, transparent, targeted, earn-as-you-grow incentive for businesses to expand and relocate to Connecticut. More information can be found here.

Additionally, DECD plans to administer the Governor's Closing Fund. This fund will support large companies that relocate to Connecticut and create new jobs with grant funding to offset relocation costs.

2. Small Business Express Program (EXP)

The goal of the EXP program was to provide the capital necessary to fuel small business growth. The 1,915 companies funded through the EXP program have committed to create 7,672 jobs and retain an existing 20,427 jobs. (Please note these job numbers have been adjusted for duplication across contracts and programs.)

Table 32: EXP Financial Assistance per Job to be Created or Retained Based on Contractual Requirements

Total Assistance	$ 314,063,879
Jobs to be Created & Retained	28,099
Financial Assistance per Job	$ 11,177

Source: DECD

Note: This calculation includes the Active and Inactive EXP portfolios. The inactive portfolio includes EXP projects funded in FY2012. This table reflects a company's maximum job obligation and does not reflect actual jobs created or retained. Duplicate jobs to be created/retained have been removed. Duplicates could be caused by a company having multiple EXP contracts or an EXP and MAA contract. If a company has funding from both EXP and MAA the EXP job requirement was reduced to 0 regardless of the timing of the MAA and EXP contracts.

The EXP portfolio delinquency rate is approximately 3.4% based on a total portfolio value of over $399,400,000. The EXP portfolio for the delinquency rate calculation includes Recovery Bridge loans, certain EXP projects funded with MAA funds and may include certain lending partner projects.

i. Estimated Direct Economic Impact of the EXP Program:

The table below shows the estimated direct impact of the EXP program from its inception through FY 2022. The direct jobs are those reported to DECD as newly created jobs while active in the program. This data is obtained through company surveys and audits, and does not include retained jobs and newly created jobs not yet reported to DECD. The direct net state revenue is defined as the difference between the direct revenues generated by the program and its direct costs. The direct impact comes from the jobs and capital expenses created by the recipients of the EXP funds, so the direct revenues under the program are the estimated income taxes and sales taxes generated by each of these respectively. The direct costs are the costs to the state government to fund the program, which is the estimated debt service it pays on the bonds issued to finance EXP grants and loans. These costs are offset by the repayments of loans made by the recipients and any penalties they pay for not meeting the required conditions after receiving the funds. Any loan forgiveness earned is incorporated into the analysis.

Table 33: EXP Estimated Direct Economic Impact FY 2012-2022	
New Jobs Reported – Annual Average Above Baseline	4,973
Average Estimated Direct Net State Revenue	$ 11,458,900
Cumulative Estimated Direct Net State Revenue	$ 126,047,500

Source: DECD analysis

Note: Direct jobs taken into account for the direct impact estimations only include data from completed audits taken while the company was active in the program. Retained jobs are not included in this estimation. Recovery Bridge Loans are not included in this analysis. Direct State Revenue does not include estimates of corporate business taxes or other direct taxes.

The direct net revenue shows that on average estimated direct revenues exceeded the estimated costs of the program by over $11 million per year over the life of the program to date through FY 2022, and the estimated cumulative total of the net direct revenue it generated is over $126 million. This analysis does not include any potential downstream impacts (i.e. indirect and induced) in the economy from the additional spending or jobs created.

ii. Recommendation

DECD is transitioning out of the direct lending business and will partner with the private sector to incentivize increased lending to small businesses particularly in undercapitalized and under-resourced communities via the Connecticut Boost Fund. The Boost Fund officially launched in FY 2023 and more information can be found here.

3. Other Funding Sources

DECD has 2 projects that received direct financial assistance from a program other than MAA or EXP. Only one is included in the table below since Lockheed Martin's financial assistance per job is reported in the tax credit section of this report.

Table 34: Financial Assistance per Job to be Created or Retained Based on Maximum Contractual Requirements	
Total Assistance	$ 650,000
Jobs to be Retained or Created	28
Financial Assistance per Job	$ 23,214

Source: DECD

E. Other Business Support Programs Administered in FY 2022

1. Recovery Bridge Loan

In response to the COVID-19 pandemic, DECD administered the Recovery Bridge Loan Program out of available EXP appropriations. The goal of the Bridge Loan Program was to provide emergency cash flow relief to small businesses and nonprofits with 100 or fewer employees who were negatively impacted by the coronavirus. DECD entered into 2,122 contracts for interest free loans totaling $41,833,220. Recipients do not have a job creation or retention requirement. As of January 23, 2023 $32,509,367 was repaid, $19M of which was repaid in FY 2022. This was a short-term crisis response and will not be continued.

2. Manufacturing Innovation Fund

The Manufacturing Innovation Fund (MIF) was created to support the growth, innovation and progress of Connecticut's advanced manufacturing sector. The MIF programs are centered on four principles: Accelerate growth, cultivate talent, develop talent, and facilitate innovation.

According to the 2022 MIF Annual Report, as of June 30 2022, the MIF had assisted approximately 2,174 companies and invested approximately $81 million to help accelerate growth, cultivate talent, and boost investments in innovation. The MIF is administered by DECD, the agenda and programming developed through the advice and counsel of a 10-member advisory board made up of senior leaders from the manufacturing industry. The Board's 2022 Annual Report can be found here.

DECD recommends the continuation of this program. It has yielded positive benefits for Connecticut's manufacturing industry.

3. Minority Business Revolving Loan Fund

Financial assistance under this $25,000,000 program is in the form of loans targeting minority businesses. HEDCO, Inc. was chosen to administer the program and will manage the program with $5,000,000 per year for five years.

Table 35: MBI Revolving Loan Fund Program Activity as of June 30, 2022	
Contracts executed	120
Assistance Amount	$ 6,671,565

Source: DECD and HEDCO
Note: Includes New Haven Partnership Lending Program recipients which were partially funded with MBRLF dollars.

This program has been critical to supporting woman and minority-owned businesses. DECD recommends the continuation of this program.

4. International Trade and Foreign Direct Investment

The role of the International and Domestic Business Development Team is to facilitate commercial international and out-of-state activities in Connecticut and to support protocol duties for members of the international diplomatic corps and foreign delegations visiting Connecticut in conjunction with the state's economic development objectives.

Accomplishments during FY 2022 include:

- Governor Lamont's business development mission to Israel.
- DECD administered $300,000 in FY 2021-2022 State Trade and Export Promotion (STEP) grant funds from the U.S. SBA. The purpose of the grant is to increase the number of small businesses that export, increase the value of exports for current small business exporters, and increase significant new trade opportunities for small businesses. STEP assisted 64 eligible small businesses with various export activities, including trade missions; foreign, domestic, and virtual trade shows; U.S. Department of Commerce services; website translation and export training.
- DECD was awarded $200,000 is STEP funds for federal FY 2022-2023.
- Connecticut's presence and participation at the 2022 Paris Air Show and 2022 SelectUSA Summit.
- DECD also served on committees and boards of various internationally oriented organizations, including the Eastern Trade Council (ETC), State International Development Organizations (SIDO), and MetroHartford Alliance's Global Business Committee.
- In FY 2022, DECD hosted and interfaced with several virtual, foreign delegations, including Taiwan, Israel, Italy, the U.K., and Poland.

5. Airport Development Zones

Claims data from companies located in Airport Development Zones is included in the Enterprise Zone data provided to DECD by OPM, and therefore are incorporated into the Enterprise Zone economic impact analysis in the tax credit section of this report.

Two companies certified by DECD in Program Year 2021 applied for their first airport development zone benefits in 2022. The costs and benefits below are estimates based on data from OPM and information provided to DECD by the companies during their certification process (actual expenses may differ from projections provided to DECD). The companies are in the Bradley ADZ.

Table 36: New Applications for ADZ Benefits in 2022

	Amount
Market Value of Real Estate Additions to Grand List	$ 9,079,600
Market Value of Personal Property Additions to Grand List	$ 37,500
Total Abatement to Companies in 2022	$ 146,071
Estimated Sales Tax on Personal Property and Construction Materials	$ 122,305
Estimated Real Estate Conveyance Tax on Real Estate Acquisition	$ 43,582
Total Estimated Revenue to State	$ 165,887
Assumed State Reimbursement (50% of Abatement)	$ 73,035
Net Revenue to State	**$ 92,581**

Source: DECD, OPM

DECD does not have any recommended changes to the existing Airport Development zones.

6. Qualified Opportunity Zones

Qualified Opportunity Zones ("OZ") were established by the 2017 Federal Tax Cuts and Jobs Act to spur long-term private sector investments in low-income communities nationwide. The OZ program offers significant tax incentives to investors who realize capital gains and subsequently reinvest those capital gains into OZs through a Qualified Opportunity Fund ("Fund"). Connecticut has 72 OZs approved by the U.S. Treasury.

7. Tech Talent Fund

DECD, in consultation with the Technology Talent Advisory Committee, administers the Tech Talent Fund- a resource for both workers and employers to ensure Connecticut has the workforce talent needed to fuel growth in its tech sectors. After issuing a comprehensive report on strategies to address the issue in December 2016, DECD then began making a series of strategic investments. The first was in the Tech Talent Bridge, administered by Connecticut Innovations, a program which provides matching grants to companies hiring tech interns from local colleges and universities. The department also put out a RFP in 2018, and subsequently selected three organizations to begin specialized technology training programs focused on building capacity in the areas of Full Stack Development and Data Science & Analytics to meet a critical area of skills demand by Connecticut companies. The organizations selected were: General Assembly Space, Inc., Tech Talent South, LLC and the Holberton

School at District Arts & Education, Inc. The programs began in the second quarter of 2019 in the Hartford, New Haven and Stamford areas. Over 290 participants have enrolled in the technology training programs.

To assist Connecticut's unemployed and post-secondary remote-learners amidst the outbreak of COVID-19, the Governor's Workforce Council team and related partner agencies made available a broad array of free market-tested online course offerings. The Remote-Learning and Workforce Training programs provided are: SkillUp CT (Metrix Learning/Skillsoft) and 180 Skills. Skillsoft focuses on providing IT, Business Analysis, and Project Management certificates, while 180 Skills focuses on providing credentials in entry-level manufacturing and basic employability skills. The course offerings are for a variety of populations: 180 Skills is for any individual approved for unemployment insurance in 2020, post-secondary students, and incumbent workers in the manufacturing space. SkillUp CT is for those approved for unemployment insurance in 2020.

In 2021, DECD contracted with Capital Workforce Partners to launch two IT training programs Also focused on credential-based training leading to employment in an IT-related occupation. The Merit America IT Support program offers participants the opportunity to receive IT training and earn industry-recognized credentials from Google over a 14-week program. The program curriculum consists of both technical and professional assignments.

The second initiative utilizes the Year Up IT strategy to simultaneously develop and commit employer demand for Opportunity Talent and develop new pathways and programs to increase the number of trained, motivated, and ready candidates to meet that demand.

Also in FY 2022, DECD contracted with the New England Board of Higher Education to launch the CT Higher Education – Tech Talent Accelerator program. The goal of this program is to increase the supply of in-demand technology programs, credentials and graduates in the state and boost the competitiveness of Connecticut's public and independent higher education institutions. The program is an industry-driven joint initiative by the New England Board of Higher Education (NEBHE) and the Business-Higher Education Forum (BHEF). The partnership is anchored in a vetted, evidence-based methodology that: convenes business and extracts key skills and hiring inputs using labor market information and Regional Sector Partnerships (RSPs); funds proposed solutions from higher education that maximize higher education's desire to meet business needs and the opportunity to retain tech talent in Connecticut; and accelerates student success by leveraging industry-recognized credentials and existing Connecticut workforce investments to maximize pathways to tech jobs.

Table 37: Tech Talent Fund Activity as of 6/30/2022	
Recipient	**Contract Amount**
Connecticut Innovations	$ 500,000
Tech Talent South, LLC	$ 1,250,000
District Arts & Education, Inc.	$ 2,800,000
General Assembly Space, Inc.	$ 1,250,000
SkillUp CT	$ 352,000
180 Skills	$ 422,200
Capital Workforce Partners	$ 1,383,136
New England Board of Higher Education	$ 1,045,880
Capital Workforce Partners	$ 1,660,385

Source: DECD

DECD recommends the program continue within available appropriations.

8. Programs Administered by Connecticut Innovations

In accordance with CGS Sec. 32-47a, CI is required to submit an annual report to the state legislature. CI's 2022 annual report can be found here. Additionally, in 2021 CI conducted an economic impact analysis of their programs. The results of that report can be found here. It is important to note that CI and DECD fund some of the same companies. Combining CI's and DECD's numbers would likely lead to double counting in certain categories such as number of recipients, leveraged dollars, jobs to be created or retained and economic impact.

DECD has not conducted an audit, review or compilation of the reports linked in this section.

F. Office of the Permit Ombudsman

The Office of the Permit Ombudsman was created within DECD to expedite regulatory state agency approvals for qualified economic development projects that need environmental, public health, and transportation permits. The Permit Ombudsman (PO) acts as a facilitator between state regulatory agencies and businesses to fast-track projects through regulatory approvals and to resolve permitting issues.

During FY 2022 the Permit Ombudsman highlighted activities include:

- The PO has been working with the Department of Public Health (DPH) working group on developing and implementing a reciprocal process for Itinerant Food Vendor Permit. The collaborative work began in December of 2021 with weekly meetings. As of right now, there are 14 Local Health Departments/Districts that have signed the MOU for reciprocal licensing process. DPH continues with finalizing their website and database inputs needed for the streamlines licensing.
- The PO has been working very closely with the Department of Energy and Environmental Protection's Client Concierge Team to better facilitate communications and responsiveness between DECD and its clients with priority developments projects. There are ongoing bi-

weekly scheduled meetings between the agencies to discuss any new and existing projects that been tracked by both departments.

- The PO responded to inquiries for businesses and companies seeking to understand State applicable regulatory framework and permitting processes.
- The PO helped with setting up pre-application meetings with the regulatory agencies for business seeking expansion or relocation in the state to map out the process and timeline for obtaining critical permits and approvals.
- The PO in collaboration with the DEEP and DOT has been working with Amazon Team on coordinating permitting activities for all the current and proposed facilities in the state. Meetings take place once per month.

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Table 38: FY 2022 Permits Ombudsman Activity						
Municipality	**Applicant's Name/ Business Type**	**Date of Request**	**Reasons for Eligibility**	**Participating Agencies/ Division Involved**	**Type of Permit**	**Date(s) for granting/ denying the permit(s)**
Bridgeport	Barnum Landing Ferry Terminal and Wind Farm Activity	6/1/2021	Economic Development	DEEP	Coastal Structures, Dredging and Fill and Remediation Engineered Control Variance with Environmental Land Use Restrictions	Engineering Controls approved 7/26/2021. Last permit on structures and dredging received on 8/28/2022
South Windsor	Amazon Last Mile	6/21/2021	Economic Development	DEEP and DOT	NDDB, OSTA, SW	SW issued on 8/13/2021
Waterbury	Amazon Last Mile	7/19/2021	Economic Development	DEEP and DOT	All DEEP permits – including general discharge, OSTA traffic	n/a
Wallingford	AMZL Last Mile Facilities	7/19/2021	Economic Development	Local, DEEP, DOT	OSTA and CTDEEP GP to be submitted in May/June 2021. NDDB in technical review as of 1/19/2021. NDDB needed to work through technical issue with threatened plant species. NDDB determination issued 6/23/2021	Town has not permitted project. Construction Stormwater GP in technical review 7/27/2021. Active 9/24/2021. Wants to start construction October 1.
South Windsor	Amazon 240 Ellington Road	3/29/2021	Economic Development	DEEP, DOT, OSTA	DEEP, OSTA	NDDB issued on 7/3/2021, OSTA ongoing
Wallingford	Amazon 5 Research Parkway	3/31/2021	Economic Development	DEEP, OSTA	NDDB determination, GP, and OSTA	NDDB approval on 6/23/2021. Stormwater GP approved on 9/24/2021
Glastonbury	Amazon Last Mile	2/24/2021	Economic Development	DEEP, OSTA	DEEP all permits including discharge, OSTA approvals	NDDB approval on 9/5/2020. Construction Stormwater GP approved 6/9/2021. OSTA-AD on 7/17/2021
Newington	Amazon	n/a	Economic Development	DEEP, OSTA	DEEP all permits including discharge, OSTA approvals	NDDB 11/2/2021, CTDEEP SWM GP on 2/20/2022

Table 38: FY 2022 Permits Ombudsman Activity						
Municipality	**Applicant's Name/ Business Type**	**Date of Request**	**Reasons for Eligibility**	**Participating Agencies/ Division Involved**	**Type of Permit**	**Date(s) for granting/ denying the permit(s)**
Branford	Amazon	n/a	Economic Development	DEEP, OSTA	DEEP all permits including discharge, OSTA approvals	NDDB 11/21/2021
Stratford	Amazon Last Mile	6/19/2021	Economic Development	DEEP, DOT	DEEP all permits including discharge, OSTA approvals	n/a
Killingly	Frito Lay	Ongoing	Economic Development	DEEP (Water/Air), DOT (OSTA Review)	Pre-app meeting with Air on 6/24/2021. The air permit must include the entire project	NDDB approved 6/25/2021. Water diversion registration approved 7/9/2021. Stormwater GP issued 8/5/2022. Title V permit received 8/19/2022
TBD	Phibro-Hardlevel; discussion re Cooking Oil Collection	5/3/2022	Economic Development	DEEP	n/a	n/a
Windsor	Central New England Railroad and Windsor Sanitation	3/18/2022	Economic Development	DOT	n/a	Connected Mr. Lucien with DOT
Hartford	Rentschler Field Redevelopment	4/19/2022	Economic Development	DEEP and OPM	n/a	NDDB issued 4/29/2022. NDDB Determination letter was sent to VHB. Stormwater Construction GP was submitted 9/8/2022.
Bridgeport	Steelpoint	4/17/2022	Economic Development	DEEP, EPA	n/a	Entered BRRP on 10/11/2022. DEEP is expecting a revised ECVR Part 1 and Part 2 as well as a RAP 11/7/2022 and DEEP can continue their review towards approval.
Farmington	504 Main Street, Farmington	1/31/2022	Economic Development	n/a	n/a	Made connection with the Town of Farmington for potential funding and DEEP

Source: DECD, Office of the Permit Ombudsman

G. Office of Brownfield Remediation and Development

A brownfield is any abandoned or underutilized site where redevelopment and reuse has not occurred due to the presence of pollution in the buildings, soil or groundwater that requires remediation before or in conjunction with the restoration, redevelopment or reuse of the property.

Information on DECD's Brownfield programs can be found here. A listing of DECD's Brownfields program recipients can be found here.

The Office of Brownfield Remediation and Development (OBRD) is a dedicated office within DECD with the primary mission to be a one-stop resource for brownfield development in Connecticut. As such, OBRD coordinates the state's response for brownfield assistance to communities and businesses. Brownfield redevelopment projects are usually long term and have a variety of complicated environmental, legal, and financial obstacles to overcome.

Since FY 2013, DECD has funded 259 brownfield projects spanning over 76 municipalities with approximately $225 million in funding through a mix of loans and grants. This funding has leveraged approximately $3 billion in other funds, resulting in a leverage ratio of approximately $13.63 invested by non-DECD partners for every dollar of OBRD funding.

Table 39: Brownfield Funding Activity

	# of Projects	Total DECD Investment	Non- DECD Funds	Leverage Ratio	Impacted Acreage
FY 2022	20	$ 12,655,779	$ 52,484,791	4.15	237.50
Brownfield Portfolio (FY 2013 to FY 2022)	259	$ 224,834,368	$ 3,065,857,943	13.63	3,326.38

Source: DECD/ OBRD

Note: Brownfield Program Activity statistics also include the federal EPA RLF program. The number of projects and acreage columns may have been adjusted to eliminate duplication for sites that have received funding in multiple phases, or under multiple contracts/programs

OBRD collaborates with state agency partners such as the CT Department of Energy and Environmental Protection, the CT Department of Public Health, federal agency partners such as the Environmental Protection Agency and the regional council of governments to bring back brownfields into economic use.

OBRD conducted Funding Round 14 under the Brownfield Municipal Grant Program (C.G.S. Sec. 32-763) and on January 6, 2022, awarded approximately $18 million in grant funding to 14 projects spanning 13 municipalities to help them assess and remediate brownfield sites so that they can be put back to productive use. Many of the remediation grant awards are for public-private partnerships that will significantly help leverage private investment in the state.

OBRD also conducted Funding Round 15 Brownfield Municipal Grant Program (C.G.S. Sec. 32-763) associated with the assessment of brownfield properties; and on May 23, 2022, awarded approximately $1 million in grant funding to 6 projects spanning 6 municipalities. The assessment funding provides seed money for the crucial initial steps in identifying the potential and obstacles for redevelopment of a brownfield site.

The table below shows DECD's brownfield funding activity by program.

Table 40: Brownfield Funding Activity by Program				
	FY 2022		Portfolio	
Program Name	**# of Projects**	**Total DECD Investment**	**# of Projects**	**Total DECD Investment**
Remedial Action and Redevelopment Municipal Grant	19	$ 9,449,779	162	$ 91,542,676
Targeted Brownfield Development Loan	0	$ 0	51	$ 87,685,001
Brownfield Area-Wide Revitalization Planning Grant	0	$ 0	12	$ 2,040,000
State-Owned Brownfield Properties Program	0	$ 0	4	$ 15,885,000
Special Contaminated Property Remediation and Insurance Fund Revolving Loan	0	$ 0	8	$ 995,864
Urban Action Program & Special Act	1	$ 3,206,000	15	$ 21,081,000
U.S. EPA Revolving Loan Fund	0	$ 0	3	$ 1,490,000
MAA	0	$ 0	2	$ 1,884,827
Urban Sites Remedial Action	0	$ 0	2	$ 2,230,000
TOTAL	**20**	**$ 12,655,779**	**259**	**$ 224,834,368**

Source: DECD/ OBRD

*Note: Brownfield Program Activity statistics also include the federal EPA RLF program. *The number of projects and acreage columns may have been adjusted to eliminate duplication of sites that have received funding in multiple phases, or under multiple contracts/programs.*

DECD has several non-funding Brownfield programs. Activity for those programs is below.

Table 41: Non-funding Brownfield Program Activity		
Program	**FY 2022 Approvals**	**FY 2013-2022 Active** Approvals**
Brownfield Remediation and Revitalization (BRRP) Liability Relief Program	4	47**
Abandoned Brownfield Cleanup (ABC) Liability Relief Program	9	34
Connecticut Brownfield Land Bank Program – Land Bank Approvals	0	3

Source: DECD

*Note: **Occasionally, the BRRP and ABC approvals are withdrawn due to property transactions not occurring. Therefore, only active approvals for this period have been reported.*

DECD recommends the continuation of the Brownfields programs.

The OBRD also manages the state's Dry Cleaning Establishment Remediation Fund (DCERF), which provides grants to eligible dry cleaning business operators and owners for the assessment, cleanup, containment or mitigation of pollution resulting from releases of chemicals used in dry cleaning. For more information on the program please click here.

The table below outlines the FY 2022 activity for that program.

Table 42: Dry Cleaning Remediation Funds FY 2022 Activity		
Applicant	**Dry Cleaning Establishment/Address**	**Grant Amount**
Taylor Place, LLC	Sons Better Cleaners (1259 Boston Post Rd., Westbrook CT)	$ 72,500
J. Laundromart, LLC	Village Cleaners & Tailors (183 West Main St, Avon CT)	$ 128,300
Battiston's of Manchester, Inc	Battiston Dry Cleaners (441 West Middle Turnpike, Manchester CT)	$ 300,000
TOTAL		$ 500,800

Source: OBRD, DECD

DECD invites businesses on a waiting list to formally apply when funding becomes available.

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III. COMMUNITY DEVELOPMENT PROGRAMS

A. Community Development Impact

DECD's broad community development portfolio includes a wide variety of project types including arts and entertainment, economic development planning and technical program support. Community development activities create the environment necessary for sustainable economic growth, stable neighborhoods and healthy communities. Community development activities address the quality-of-life issues that create and reinforce the foundation that effective economic and housing development depend upon for success. DECD recommends the continuation of these programs and supports the ongoing partnership between the department and its community development partners.

B. Capital Projects

A complete listing of DECD's Capital Projects recipients can be found here.

DECD's Capital Projects Portfolio includes projects funded through a variety of programs including the Small Town Economic Assistance Program and Urban Action Grant Program. In general, DECD acts only as the administrator of these programs, since OPM has primary decision-making responsibility. In FY 2022 the state invested over $16 million into 23 community development projects bringing DECD's portfolio value to over $468 million.

Table 43: DECD Capital Projects Activity

	# of Projects	Leverage Ratio	Total Project Cost	State Investment
FY 2022	23	.16	$ 2,716,585	$ 16,992,573
CD Portfolio	341	.53	$ 261,196,773	$ 488,282,110

Source: DECD

Note: In 2022 Electric Boat's $20 million 2019 infrastructure grant was moved to the Capital Projects Portfolio. No leveraged funds were included since leveraged funds are included in the MAA section of the report.

C. Community Investment Fund (CIF) 2030

The Community Investment Fund 2030 (CIF), authorized in Section 32-285a of the Connecticut General Statutes, was launched in FY 2021-22. CIF will foster economic development in historically underserved communities across the state. CIF will provide a total of up to $875 million over five years to eligible municipalities as well as not-for-profit organizations and community development corporations that operate within them. Municipalities designated in state law as Public Investment Communities or Alliance Districts are eligible.

Grants are available for:

- Capital improvement programs, such as brownfield remediation, affordable housing, infrastructure, clean energy development, and home or public facility rehabilitation
- Small business capital programs, including revolving or microloan programs, gap financing, and startup funds to establish small businesses

The CIF Board of Directors, comprised of members of the executive and legislative branches, will review applications and make recommendations to the Governor and State Bond Commission. CIF will award up to $175 million each fiscal year across two or more application periods per year. CIF launched its first application round in FY 2021-22 and awards will be announced in FY 2022-23. Beginning with FY 2022-23 the CIF board will submit an annual report on program activity to the General Assembly, the Black and Puerto Rican caucus, the Auditors of Public Accounts and the Governor accordance with CGS Sec. 32-285a(a)(c)(6).

D. Connecticut Communities Challenge Program (CCC)

In FY 2021-22 DECD launched the CT Communities Challenge Program, a competitive grant application process to fund multiple projects in an effort to improve livability, vibrancy, convenience and equity of communities throughout the state. The Program is intended to potentially create approximately 3,000 new jobs. It is DECD's goal to allocate up to 50% of the funds to eligible and competitive projects in distressed municipalities. Successful projects will likely include multiple of the below elements:

- **Transit-oriented development** that densifies commercial and/or residential land uses near transit hubs,
- **Downtown / major hub development** that improves or reuses existing property (Brownfields remediation may be a component of such application)
- **Essential infrastructure** that facilitates future development
- **Housing** to support affordability, accessibility and local workforce,
- **Mobility improvements** that increase connectivity to transit and promotes economic activity, including pedestrian, ADA, and bicycle improvements
- **Public space improvements** that provide amenities to the community, including open spaces, public art projects, wayfinding, and lighting and safety improvements

In FY2022 DECD announced $45 million in funding for 12 projects.

E. State Historic Preservation Office (SHPO)

1. Tax Credits

A listing of DECD's SHPO tax credit recipients can be found here.

Under its two tax credit programs, in FY 2022 SHPO issued over $19 million in tax credit vouchers to 64 recipients.

Table 44: FY 2022 SHPO Tax Credit Activity

Tax Credit Program	Number of Vouchers Issued	Voucher Amount
Historic Rehabilitation Tax Credit	9	$ 18,095,179
Historic Homes Rehabilitation	55	$ 1,015,785
TOTAL	**64**	**$ 19,110,964**

Source: DECD

Additionally, SHPO processed 17 new projects under the federal historic rehabilitation tax credit program. For annual reports of the federal historic tax credit program visit the National Park Service's website.

2. Grants

In FY 2022 SHPO granted over $3.2 million in grants to 68 eligible recipients through its various grant programs. This year, the Institutional Support for Capacity Building grant, which runs on a 2-year cycle made awards to 3 grantees. As the Stewardship Relief Grant hit its sunset, the number of grants under the program reduced from 40 in FY 2021 to 5 in FY 2022. However, while the overall number of grants in all programs was lower, the amount of funding awarded was actually a half million more than in FY 2021. *A listing of DECD's SHPO grant recipients can be found here.*

Table 45: FY 2022 SHPO Grant Activity

Program	Number of Recipients	Grant Amount
Certified Local Government	10	$ 188,300
Historic Restoration Fund	23	$ 1,927,321
Partners in Preservation	2	$ 316,300
Institutional Support for Capacity Building	3	$ 300,000
Historic Preservation Survey & Planning	25	$ 483,100
Stewardship Relief Grant	5	$ 4,985
TOTAL	**68**	**$ 3,220,006**

Source: DECD

F. Connecticut Office of the Arts (COA)

The Office of the Arts works to inspire a culture of creativity in Connecticut by supporting arts making and arts participation for all people. The Office uses the lenses of relevance, equity, access, diversity, and inclusion (READI) to guide programmatic and investment decisions to support artists and non-profit arts organizations in the belief that these tenets are critical to the vitality and economic success of our neighborhoods, towns, and cities. Working in collaboration with divisions within the agency, we are committed to supporting and fully engaging diverse members of our communities in arts policy, practice, and decision making. The COVID-19 pandemic continued to challenge arts organizations through the entirety of fiscal year 2022. In addition to funds provided directly through the Office of the Arts, COA partnered with Connecticut Humanities to offer over $17 MM in state-funded operating support to over 630 art and humanities nonprofit organizations. In addition, COA was designated by the Office of Policy and Management responsibility for approximately $5MM in state relief funds from the American Rescue Plan. In addition, COA collaborated with CT Humanities to administer the second year of the "CT Summer at the Museum" grant program to support family learning at participating museums across the state. During FY 2022, COA granted $66,051,390 to 838 organizations. *A listing of DECD's Arts grant recipients can be found. A listing of DECD's Arts grant recipients can be found here.*

Table 46: FY 2022 Arts Grant Activity		
Program	**Number of Recipients**	**Grant Amount**
ARPA Grants	21	$ 4,985,019
Artists Respond Grant- Round 1	50	$ 207,500
Artists Respond Grant- Round 2	62	$ 295,000
Empower Grants	4	$ 46,000
Arts Endowment	170	$ 860,972
Designated Regional Service	6	$ 308,000
Directed Local Funds	43	$ 3,927,254
Directed Local Funds- 2nd year (state carry-forward)	59	$ 33,997,931
Elizabeth Mahaffey Fellowship	3	$ 7,055
Strategic Initiative Partnership	31	$ 981,589
GOS for Small Theaters and Performing Groups	136	$ 2,999,900
Supporting Arts	191	$ 1,003,459
CT Museums Free	53	$ 13,931,711
DLF Kid Museums	9	$ 2,500,000
TOTAL	**838**	**$ 66,051,390**

Source: DECD

G. Connecticut Office of Tourism

Released in 2019, The Economic Impact of Travel in Connecticut report revealed that all business sectors of the Connecticut economy benefit from tourism activity directly and/or indirectly. The report can be found here. The report indicated that tourism:

- Generated $15.5 billion in business sales supported by traveler spending in Connecticut in 2017;
- Generated $2.2 billion in tax revenues, including $960 million in state/local tax revenue, from visitor activity in 2017; and
- Supported 84,254 jobs directly, and 123,521 jobs indirectly (jobs supported by tourism activities) in 2017.

A new report, reflecting the calendar year 2021 economic impact is in development.

FY2022 was a year of many changes for the Office of Tourism. Bolstered by relief funds supporting a strong recovery for the rebounding tourism sector, much was accomplished:

- The *Full Color Connecticut* campaign supporting the fall season ran from early September through mid-November and earned 115 million paid media impressions (a 110% increase over fall 2021) and 449 million PR impressions. Utilizing TV, video, Out of Home, and digital tactics, the campaign also won the coveted Gold HSMAI Adrian Award for best integrated campaign.

- Prior to the pandemic, budgets did not allow a significant winter-focused campaign, but relief funds enabled the *State I'm In* campaign. This innovative branding campaign challenged stereotypes of Connecticut and promoted winter activities in TV, Out of Home and digital tactics. The campaign drove nearly 2 million visits to CTvisit.com during the campaign timeframe of late November-March, a 62% increase in traffic. Additionally, the *State I'm In* was awarded 3 Bronze HSMAI Adrian Awards in the categories for Best TV Advertising, Best Influencer Marketing Program and Best Content Marketing Program.
- A new direction for Connecticut Tourism was launched, with a new vision and mission to promote Connecticut as a world-class destination with more energy, vibrancy, diversity, and inclusion. Supporting the new direction, the Office of Tourism:
  - Greatly increased the focus on Global Travel Industry Sales, Groups & Meetings, Sports Tourism, and Drive Market Sales, as well as Cultural, Heritage, LGBTQ+, and Multicultural Tourism.
  - Created a new brand specifically for Tourism as is the best practice with larger destinations like California and Florida. This new CTVISIT brand was rolled out across all tactics and included integrated brands for the Connecticut Tourism Districts and the Connecticut Convention and Sports Bureau.
  - Launched a new CTvisit.com website within the new brand, now showcasing the themed channels for interest categories such as Arts & Culture, Outdoor Adventure, Culinary, Gaming, Lodging, LGBTQ+, and Multicultural.
  - Developed and began a new year-round campaign that promotes an edgier, more energetic, more vibrant, and inclusive view of the state, *Find Your Vibe.*
  - Promoted the *Find Your Vibe* campaign, which launched in late May/early June 2022 and included a greatly expanded footprint as well as higher profile tactics:
    - In addition to the core drive markets of CT, NY, RI, and MA, the new campaign targets expanded drive markets including NJ, VT, PA, NH and ME.
    - All-new fly-in markets now reached with the campaign include FL, VA and NC, as well as international markets of Canada, UK/Ireland and Germany.
    - Tactics were expanded past the core SEM, social, content seeding and billboards to include more TV, grand out of home video in NYC and Boston transit hubs, on sidewalk kiosks all over Manhattan, and on bus wraps, train cars, taxi tops and JetBlue and American Airlines flight seat back screens.
    - Since the campaign launched at the end of the fiscal year and will run year-round, the impressive results will be reported with next fiscal year's Annual Report. But even within FY22, the campaign won three Silver HSMAI Adrian Awards for Best TV Advertising, Best Integrated Campaign, and Best DEI Marketing. This third award was most important since DEI Marketing was the theme of the Adrian's this year and since showing the state's diversity, ethnicity and inclusion was one of the Office of Tourism's top goals.

- Restructured and grew PR efforts to now focus more nationally and within specific lifestyle themes. The changes increased PR impressions over 50%, with over 1.5 billion impressions in summer alone.
- Brought back the popular CT Summer at the Museum program which generated 351,000 visits to the CTvisit page detailing the program.
- Partnered with Sound on Sound Music Festival, that drew 60,000 attendees, over half of which traveled-in from out-of-state.
- Featured our welcoming LGBTQ+ pride at major Pride events in NYC and Connecticut.
- Began a significant Welcome Center upgrade initiative, partnering with OmniExperience, the leading welcome center organization.
- Managed an award-winning content marketing program that helped drive interest in the state. The program, which included the development of hundreds of thought-provoking and timely articles about where to eat, stay, and play in Connecticut drove 60% of the web traffic to CTvisit.com.
- Engaged over 7 million website visitors on CTvisit.com, a 27% increase over FY21, earning Connecticut the distinction of being the most visited tourism website in New England.

All of these efforts featured hundreds of tourism and industry partners from across the state and engaged dozens of local representatives through the Office of Tourism's Regional Tourism Marketing Program.

- Represented over 6,000 industry partners on CTvisit.com
- Featured over 2,000 tourism businesses in Office of Tourism PR, advertising & content marketing.

The new direction is clearly making a significant impact and is bringing Connecticut's Tourism industry the new energy it needs. FY22 saw:

- Lodging occupancy rates increased 30.7% YOY
- CT room revenue up 67.1% YOY, which surpasses the prior high-water mark of 2019 by 1%
- Short-term rentals, which now make up approximately 10% of our lodging industry, and which we are now able to measure, increased almost 30% YOY
- In fact, CT was ranked the #1 state in the nation for growth of overnight stays from drive markets compared to the pre-pandemic 2019.

IV. EMPLOYMENT INDICATORS AND GROSS STATE PRODUCT (GSP)

A. Industry Employment

The following table provides the Connecticut employment by industry at the two-digit North American Industry Classification System (NAICS) code level. Health Care and Social Assistance is the largest industry in terms of annual average employment which accounted for 16.8% of total employment in 2021, followed by Government sector at 13.3% and Retail Trade industry at 10.5%.

Table 47: Connecticut Employment by Industry, 2021

NAICS Code	Industry	Annual Average Employment	% of Total
11	Agriculture, forestry, fishing and hunting	4,883	0.3%
21	Mining	479	0.0%
22	Utilities	4,976	0.3%
23	Construction	59,317	3.7%
31-33	Manufacturing	152,859	9.6%
42	Wholesale trade	57,252	3.6%
44-45	Retail trade	167,286	10.5%
48-49	Transportation and warehousing	60,443	3.8%
51	Information	29,908	1.9%
52	Finance and insurance	97,447	6.1%
53	Real estate and rental and leasing	18,620	1.2%
54	Professional and technical services	95,314	6.0%
55	Management of companies and enterprises	30,426	1.9%
56	Administrative and waste management	87,855	5.5%
61	Educational services	57,571	3.6%
62	Health care and social assistance	268,078	16.8%
71	Arts, entertainment, and recreation	23,165	1.5%
72	Accommodation and food services	111,170	7.0%
81	Other services, except public administration	50,461	3.2%
99	Nonclassifiable establishments	1,943	0.1%
	Government	212,385	13.3%
	Statewide total	1,591,837	100.0%

Source: Connecticut Department of Labor, Labor Market Information, 2020 QCEW Program Data
Note: Numbers may not total due to rounding.

B. Unemployment Rate

According to the U.S. Bureau of Labor Statistics, the United States had an average unemployment rate of 3.6% and Connecticut had an average unemployment rate of 4.3% in 2022.

C. Gross State Product (GSP) by Industry

In 2021, the Finance and Insurance industry accounted for 14.8% of the state's economy, followed by Real Estate, Rental and Leasing with 13.3% and Manufacturing with 11.7%. Government, and the Health Care and Social Assistance sectors rounded the top five with 9.5% and 8.3%, respectively.

Table 48: 2021 Connecticut GSP by Industry (millions of current $)			
	Industry	**GSP**	**% of Total**
11	Agriculture, forestry, fishing and hunting	315.9	0.1%
21	Mining, quarrying, and oil and gas extraction	181.7	0.1%
22	Utilities	4,880.0	1.6%
23	Construction	7,796.0	2.6%
31-33	Manufacturing	34,875.7	11.7%
42	Wholesale trade	16,675.3	5.6%
44-45	Retail trade	16,095.3	5.4%
48-49	Transportation and warehousing	6,024.7	2.0%
51	Information	16,830.9	5.6%
52	Finance and insurance	44,281.2	14.8%
53	Real estate and rental and leasing	39,606.3	13.3%
54	Professional, scientific, and technical services	20,469.2	6.9%
55	Management of companies and enterprises	6,422.1	2.2%
56	Administrative and support and waste management and remediation services	8,374.7	2.8%
61	Educational services	6,907.9	2.3%
62	Health care and social assistance	24,826.8	8.3%
71	Arts, entertainment, and recreation	2,757.7	0.9%
72	Accommodation and food services	7,170.4	2.4%
81	Other services (except government and government enterprises)	5,419.1	1.8%
99	Government and government enterprises	28,484.2	9.5%
	TOTAL	298,395.2	100.0%

Source: U.S. Bureau of Economic Analysis
Note: In millions of current dollars. Numbers may not total due to rounding.

V. APPENDIX

A. The REMI Model

The Connecticut REMI Tax-PI model is a dynamic, multi-sector, regional economic model developed and maintained for the Department of Economic and Community Development by Regional Economic Models, Inc. of Amherst, Massachusetts. This model provides detail on all eight counties in the State of Connecticut and any combination of these counties. The REMI model includes the major inter-industry linkages among 466 private industries, aggregated into 67 major industrial sectors. With the addition of farming and three public sectors (state and local government, civilian federal government, and military), there are 70 sectors represented in the model for the eight Connecticut counties.§

The REMI model is based on a national *input-output* (I/O) model that the U.S. Department of Commerce (DoC) developed and continues to maintain. Modern input-output models are largely the result of groundbreaking research by Nobel laureate Wassily Leontief. Such models focus on the inter-relationships between industries and provide information about how changes in specific variables—whether economic variables such as employment or prices in a certain industry or other variables like population affect factor markets, intermediate goods production, and final goods production and consumption.

The REMI Connecticut model takes the U.S. I/O "table" results and scales them according to traditional regional relationships and current conditions, allowing the relationships to adapt at reasonable rates to changing conditions. Listed below are some salient structural characteristics of the REMI model:

- REMI determines consumption on an industry-by-industry basis, and models real disposable income in Keynesian fashion, that is, with prices fixed in the short run and GDP (Gross Domestic Product) determined solely by aggregate demand.
- The demand for labor, capital, fuel, and intermediate inputs per unit of output depends on relative prices of inputs. Changes in relative prices cause producers to substitute cheaper inputs for relatively more expensive inputs.
- Supply of and demand for labor in a sector determine the wage level, and these characteristics are factored by regional differences. The supply of labor depends on the size of the population and the size of the workforce.
- Migration—that affects population size—depends on real after-tax wages as well as employment opportunities and amenity value in a region relative to other areas.
- Wages and other measures of prices and productivity determine the cost of doing business. Changes in the cost of doing business will affect profits and/or prices in a given industry.

♣ The seminal reference is George I. Treyz (1993), Regional Economic Modeling: A Systematic Approach to Economic Forecasting and Policy Analysis, Kluwer Academic Publishers, Boston.

When the change in the cost of doing business is specific to a region, the share of the local and U.S. market supplied by local firms is also affected. Market shares and demand determine local output.

- "Imports" and "exports" between states are related to relative prices and relative production costs.
- Property income depends only on population and its distribution adjusted for traditional regional differences, *not* on market conditions or building rates relative to business activity.
- Estimates of transfer payments depend on unemployment details of the previous period, and total government expenditures are proportional to population size.
- Federal military and civilian employment is exogenous and maintained at a *fixed* share of the corresponding total U.S. values, unless specifically altered in the analysis.

Because each variable in the REMI model is related, a change in one variable affects many others. For example, if wages in a certain sector rise, the relative prices of inputs change and may cause the producer to substitute capital for labor. This changes demand for inputs, which affects employment, wages, and other variables in those industries. Changes in employment and wages affect migration and the population level that in turn affect other employment variables. Such chain-reactions continue in time across all sectors in the model. Depending on the analysis performed, the nature of the chain of events cascading through the model economy can be as informative for the policymaker as the final aggregate results. Because REMI generates extensive sectoral detail, it is possible for experienced economists in this field to discern the dominant causal linkages involved in the results.

The REMI model is a structural model, meaning that it clearly includes cause-and-effect relationships. The model shares two key underlying assumptions with mainstream economic theory: *households maximize utility* and *producers maximize profits*. In the model, businesses produce goods to sell to other firms, consumers, investors, governments and purchasers outside the region. The output is produced using labor, capital, fuel and intermediate inputs. The demand for labor, capital and fuel per unit output depends on their relative costs, because an increase in the price of one of these inputs leads to substitution away from that input to other inputs. The supply of labor in the model depends on the number of people in the population and the proportion of those people who participate in the labor force. Economic migration affects population size and its growth rate. People move into an area if the real after-tax wage rates or the likelihood of being employed increases in a region.

Supply of and demand for labor in the model determine the real wage rate. These wage rates, along with other prices and productivity, determine the cost of doing business for each industry in the model. An increase in the cost of doing business causes either an increase in price or a cut in profits, depending on the market supplied by local firms. This market share combined with the demand described above determines the amount of local output. The model has many other feedbacks. For example, changes in wages and employment impact income and consumption, while economic expansion changes investment and population growth impacts government spending.

In order to understand how the model works, it is critical to know how the key variables in the model interact with one another and how policy changes are introduced into the model. To introduce a policy change, one begins by formulating a policy question. Next, select a baseline forecast that uses the baseline assumptions about the external policy variables and then generate an alternative forecast using an external variable set that includes changes in the external values, which are affected by the policy issue.

Figure B2 shows how this process would work for a policy change called Policy X. In order to understand the major elements in the model and their interactions, subsequent sections examine the various blocks and their important variable types, along with their relationships to each other and to other variables in the other blocks. The only variables discussed are those that interact with each other in the model. Variables determined outside of the model include:

- Variables determined in the U.S. and world economy (e.g., demand for computers).
- Variables that may change and affect the local area, but over which the local area has no control (e.g., an increase in international migration).
- Variables that are under control of local policy (e.g., local tax rates).

For simplicity, the last two categories are called policy variables. Changes in these variables are automatically entered directly into the appropriate place in the model structure. Therefore, the diagram showing the model structure also serves as a guide to the organization of the policy variables (see Figure B3).

Figure 1

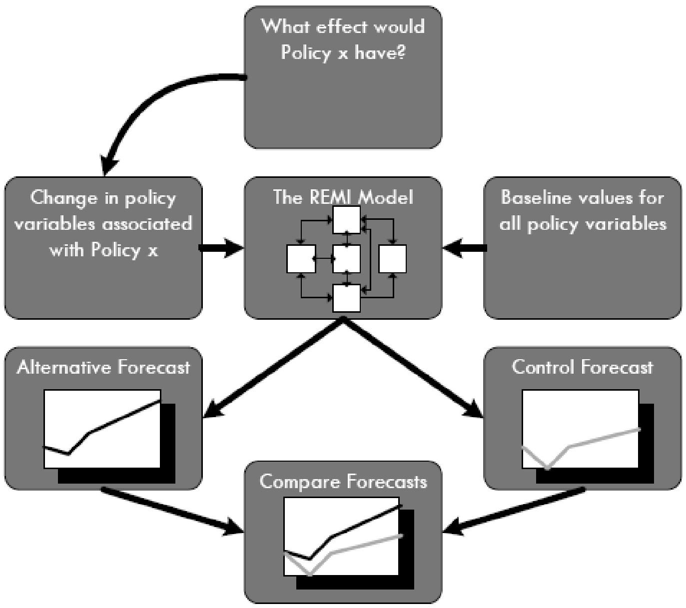
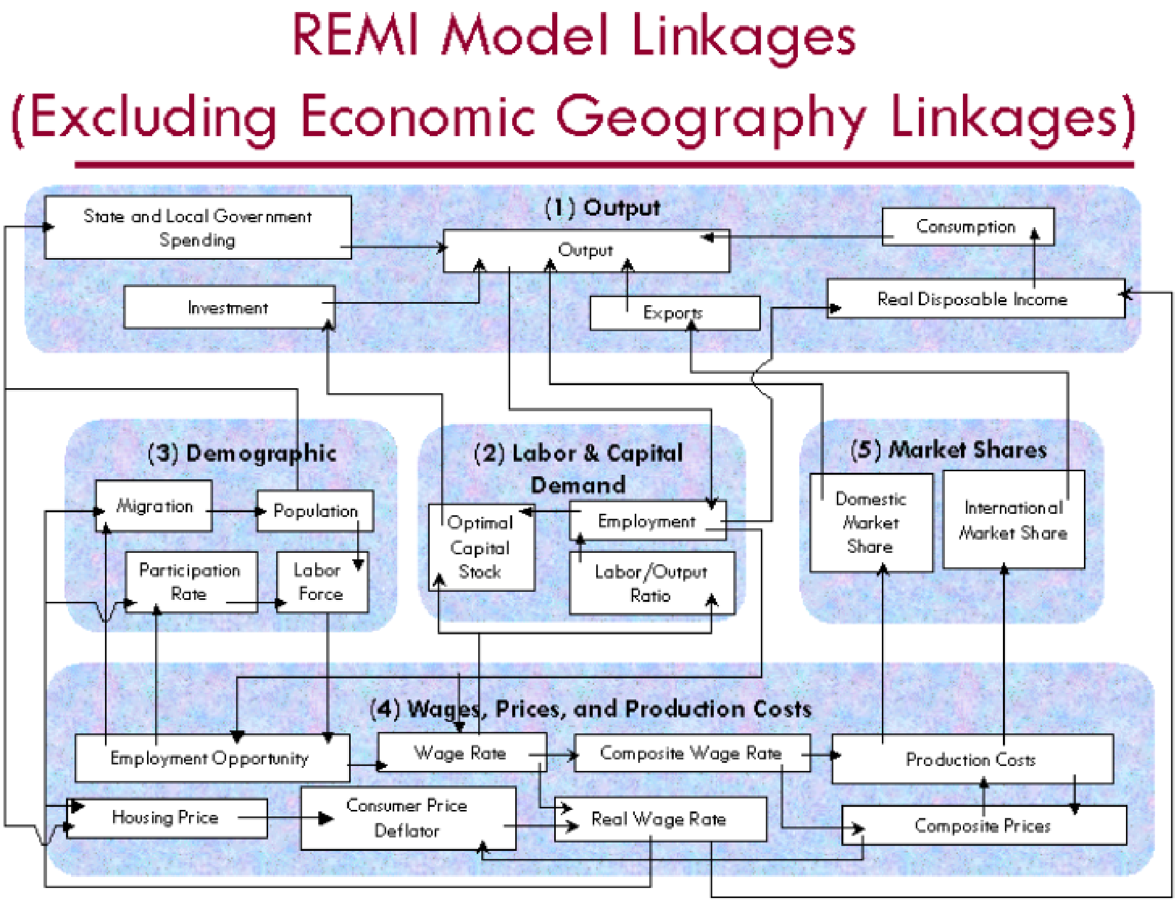

What effect would Policy x have?
Change in policy variables associated with Policy x
The REMI Model
Baseline values for all policy variables
Alternative Forecast
Control Forecast
Compare Forecasts

Figure 2


REMI Model Linkages
(Excluding Economic Geography Linkages)
(1) Output
State and Local Government Spending
Output
Consumption
Investment
Exports
Real Disposable Income
(3) Demographic
Migration
Population
Participation Rate
Labor Force
(2) Labor & Capital Demand
Optimal Capital Stock
Employment
Labor/Output Ratio
(5) Market Shares
Domestic Market Share
International Market Share
(4) Wages, Prices, and Production Costs
Employment Opportunity
Wage Rate
Composite Wage Rate
Production Costs
Housing Price
Consumer Price Deflator
Real Wage Rate
Composite Prices