

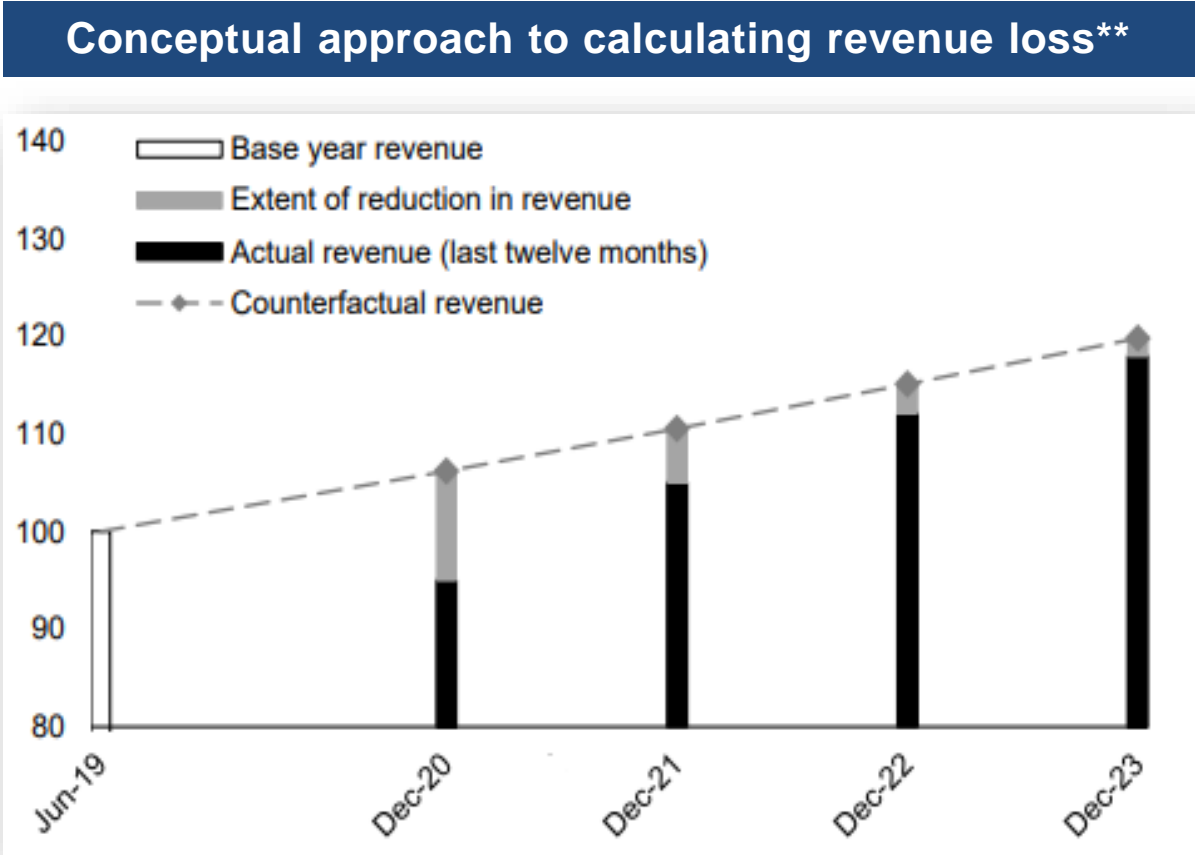


COVID-19 Financial Response

Revenue Loss Calculator: Step-By-Step Guide

Revenue Reduction Overview

- Step 1** • Determine eligible “general revenues” and calculate Base Year Revenue
- Step 2** • Calculate Counterfactual (4.1% or 3-yr historical)
- Step 3** • Determine Actual Revenue
- Step 4** • Subtract Actual Revenue from Counterfactual Revenue
- Step 5** • Report to U.S. Treasury

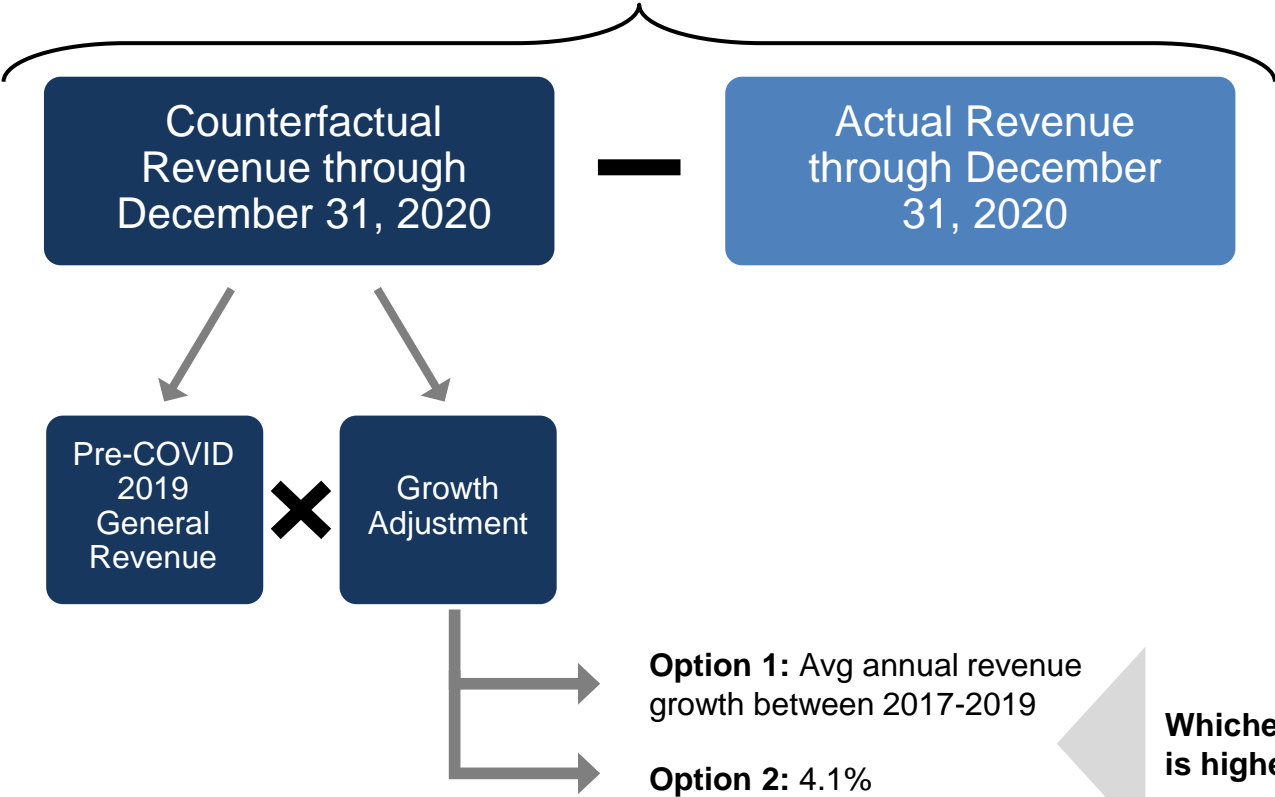


Losses are determined by calculating counterfactual revenue to estimate revenue growth absent the pandemic through a 4-step calculation process requiring actual revenue

**Reproduced from U.S. Treasury Coronavirus State and Local Fiscal Recovery Funds: Interim Final Rule. The Interim Final Rule is available here and still subject to change: <https://www.govinfo.gov/content/pkg/FR-2021-05-17/pdf/2021-10283.pdf>

Revenue Reduction Calculation

2020 Revenue Reduction Calculation Overview



- Step 1 • Determine eligible “general revenues” and calculate Base Year Revenue
- Step 2 • Calculate Counterfactual (4.1% or 3-yr historical)
- Step 3 • Determine Actual Revenue
- Step 4 • Subtract Actual Revenue from Counterfactual Revenue
- Step 5 • Report to U.S. Treasury


Losses are determined by calculating counterfactual revenue to estimate revenue growth absent the pandemic

Revenue Loss Calculator

- Cook County is providing an Excel revenue loss calculator as a resource for municipalities*
- Calculator allows municipalities to determine revenue loss amounts, model forecasts, and visualize revenue recovery scenarios through 2023
- Calculator only requires municipalities to input fiscal year end date and eligible revenue data for 2016 – 2020

*This resource was developed by Cook County and is intended for **planning purposes** only. This tool is not an official Department of Treasury resource. Final guidance from the Treasury Department is still pending and subject to change. US Treasury disallows the use of projections for revenue loss reporting.

Screenshot Map of Excel Calculator



Revenue Loss Calculator

ARPA Revenue Loss Calculation

Date Fiscal Year Ended Prior to Pandemic	11/30/2019				
Base Revenue (FY2019)	\$2,150,000	A			
Growth Rate	4.1%	B			
Months elapsed since base year	X		12/31/2020	12/31/2021	12/31/2022
Counterfactual Revenue			\$2,245,657	\$2,337,729	\$2,433,576
Actual revenue for the period	Y		\$1,950,000	\$2,127,755	\$2,321,713
Revenue Loss			(\$295,657)	(\$209,974)	(\$111,862)

This cell is linked to C77 on the '2019 Revenue Statement' Tab
Input actual general revenue collected during 12-month period ending on each calculation date (i.e. actual revenue collected in the 2020 calendar year for December 31, 2020 calculation date). Cell can be linked to cell C77 tab '2020 Revenue_Actual_Revenue'

Revenue Loss Calculator

Year	Total Revenues	Change	% change
Fiscal Year 2016	\$2,040,000		
Fiscal Year 2017	\$1,950,000	-\$90,000	-4.41%
Fiscal Year 2018	\$2,005,000	\$55,000	2.82%
Fiscal Year 2019	\$2,150,000	\$145,000	7.23%
These totals pulled from Revenue Statement tabs.			1.88% Calculated 3-year Average Growth Rate

Yearly Growth Rate For 2023 Full Recovery

9.1%

Growth percentage automatically calculated to simulate a 'full revenue recovery' by setting 2023 actual revenue equal to 2023 counterfactual revenue.

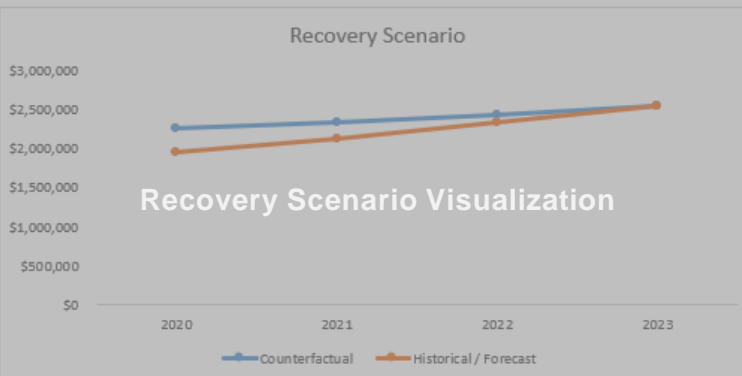
This growth rate is then used to calculate forecasts for actual revenue for 2021 and 2022 (F11 and G11).

Eventual manual input for Cells F11, G11, and H11 should be based on actual revenue collected in 2021, 2022, and 2023.

3-Year Historical Average Growth Rate Calculator

Year	Total Revenues	Change	% change
Fiscal Year 2016	\$2,040,000		
Fiscal Year 2017	\$1,950,000	-\$90,000	-4.41%
Fiscal Year 2018	\$2,005,000	\$55,000	2.82%
Fiscal Year 2019	\$2,150,000	\$145,000	7.23%
These totals pulled from Revenue Statement tabs.			1.88% Calculated 3-year Average Growth Rate

Recovery Scenario Visualization



—●— Counterfactual —●— Historical / Forecast

Legend

Counterfactual Revenue (calculated)
Manual Input Needed
Forecast (For planning purposes only)

A Total general revenue for the base year (the last full fiscal year prior to COVID impact).
B Growth rate is computed as the larger of 4.1% or the average growth rate of the three fiscal years prior to COVID impact.
X Number of months from the base year noted in **A** above to the respective calendar year end.
Y Enter actual general revenue for the calendar year.

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Revenue Loss Calculator

ARPA Revenue Loss Calculation

Date Fiscal Year Ended Prior to Pandemic	11/30/2019					
Base Revenue (FY2019)	\$2,150,000					
Growth Rate	4.1%					
			12/31/2020	12/31/2021	12/31/2022	12/31/2023
Months elapsed since base year			13	25	37	49
Counterfactual Revenue			\$2,245,657	\$2,337,729	\$2,433,576	\$2,533,352
Actual revenue for the period			\$1,950,000	\$2,127,755	\$2,321,713	\$2,533,352
Revenue Loss			(\$295,657)	(\$209,974)	(\$111,862)	\$0

Revenue loss calculator allows users to automatically generate counterfactual revenue, 2020 revenue loss and recovery scenarios by following these steps:

1. Manually input your municipality's last fiscal year end date prior to the pandemic
2. Identify eligible 2019 revenue and manually input into 2019 Revenue Statement tab
3. Manually input eligible revenue data from 2016 – 2018
4. Manually input 2020 actual revenue
5. View actual revenue loss calculation for 2020 and forecast full recovery scenario for 2021 to 2023

Calculator Color Key	
Yellow	Manual Input
Blue	Counterfactual Revenue (calculated value)
Gray	Forecasted Total

Revenue Loss Calculator

ARPA Revenue Loss Calculation

Date Fiscal Year Ended Prior to Pandemic	11/30/2019					
Base Revenue (FY2019)	\$2,150,000					
Growth Rate	4.1%					
			12/31/2020	12/31/2021	12/31/2022	12/31/2023
Months elapsed since base year			13	25	37	49
Counterfactual Revenue			\$2,245,657	\$2,337,755	\$2,430,853	\$2,533,352
Actual revenue for the period			\$1,950,000	\$2,127,755	\$2,321,713	\$2,533,352
Revenue Loss			(\$295,657)	(\$209,974)	(\$111,862)	\$0

Forecast

- Revenue loss calculator allows users to forecast revenue loss from 2021 – 2023 **for planning purposes only***
- U.S. Treasury reporting requires **actual revenue**

Inputs	Outputs
1. Fiscal Year End Date	1. Months Elapsed Since Base Year (n)
2. Base Year Revenue	2. Counterfactual Revenue for each year from 2020 - 2023
3. Growth Adjustment	3. Revenue Loss for each year
4. Actual Revenue (2016-2020)	4. Yearly Growth Rate for Full Revenue Recovery in 2023

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1. Manually input your municipality's last fiscal year end date prior to the pandemic

Revenue Loss Calculator

ARPA Revenue Loss Calculation

Date Fiscal Year Ended Prior to Pandemic	11/30/2019		
Base Revenue (FY2019)	\$2,150,000		
Growth Rate	4.1%		
			12/31/2020
Months elapsed since base year			13
Counterfactual Revenue			\$2,245,657
Actual revenue for the period			\$1,950,000
Revenue Loss			(\$295,657)

Manually input municipality's fiscal year end date (cell C5)

Months elapsed since base fiscal year end date is automatically calculated (n)

2. Identify eligible 2019 revenue and manually input into 2019 Revenue Statement tab

“Base revenue” is general revenue collected in the most recent full fiscal year prior to the COVID-19 public health emergency (January 27, 2020)

Revenue Loss Calculator

Fiscal Year End	11/30/2019
Base Revenue	2,150,000
Growth Rate	4.1%

- The workbook includes tabs with revenue statement templates for years 2016 – 2019
- Users modify 2016 - 2019 revenue statement tabs to determine eligible revenue sources and base year revenue
- Totals from each year are used in the 3-year historical average calculation on the Calculator tab

*Not all revenues listed may be relevant to all municipalities and the revenues listed in the individual yearly revenue tabs is not a comprehensive list. Municipalities should contact their tax advisor or attorney for revenue specific questions.

‘2019 Revenue Statement’ Tab*

Taxes		Amount of tax collections for all taxes imposed by the government.	
Property Tax			
Property Tax	Y	\$	700,000.00
Sales and Gross Receipts Tax			
General Sales and Use Tax	Y	\$	-
Selective Sales Tax			
Alcoholic Beverage	Y	\$	50,000.00
Amusements Sales Tax	Y	\$	-
Motor Fuels Sales Tax	Y	\$	200,000.00
Parimutuels Tax	Y	\$	-
Public Utilities Sales Tax	Y	\$	50,000.00
Tobacco Products Tax	Y	\$	-
Other Sales Tax	Y	\$	-
Licensing and Permit Taxes			
Alcoholic Beverage Licensing and Permits	Y	\$	250,000.00
Building/Construction Permits	Y	\$	-
Amusements Licensing and Permits	Y	\$	-
Motor Vehicles Licensing and Permits	Y	\$	-
Public Utilities Licensing and Permits	Y	\$	-
Occupation and Business Licensing and Permits	Y	\$	-
Other Licensing and Permits	Y	\$	-
Income Tax			
Individual Income Tax	Y	\$	-
Corporate Income Tax	Y	\$	500,000.00
License and Permit Tax			
Alcoholic Beverage	Y	\$	-
Amusements	Y	\$	-
Motor Vehicles	Y	\$	-
Public Utilities	Y	\$	-
Occupational and Business Licenses	Y	\$	-
Other Selective Sales	Y	\$	-
Other Taxes			
Death and Gift Tax	Y	\$	-
Documentary and Stock Transfer Tax	Y	\$	-
Severance Tax	Y	\$	-
Other	Y	\$	-
Intergovernmental Revenue		Amount of revenue in form of grants, share of taxes imposed by others, PILOTS, or reimbursement for services	
Intergovernmental Revenue			
From Other Local Governments	Y	\$	10,000.00
From the State	Y	\$	40,000.00
From the Federal Government	N	\$	-

2. Identify eligible 2019 revenue and manually input into 2019 Revenue Statement tab

Example Revenue Statement*

Revenue Category	Account	Eligible?	2019 Governmental Activities	2019 Business-Type Activities
Charges for Service	Recreation Fees	✓	\$300,000	\$80,000
Operating & Capital Grants	CRF	X	\$1,000,000	\$0
	State Hwy Maintenance	✓	\$400,000	\$0
Taxes	Sales	✓	\$100,000	\$0
	Property	✓	\$750,000	\$100,000
	Liquor	✓	\$75,000	\$0
	Hotel	✓	\$0	\$0
	Municipal Utility	X	\$120,000	\$0
Miscellaneous Revenue	Refunds	X	\$0	\$50,000
	Parking Meters	✓	\$300,000	\$0
Investment Income	Sales	X	\$0	\$25,000
	Interest	✓	\$45,000	\$0
Total Eligible General Revenue			\$2,150,000	

'2019 Revenue Statement' Tab

Taxes		Amount of tax collections for all taxes imposed by the government.	
Property Tax			
Property Tax	Y	\$	700,000.00
Sales and Gross Receipts Tax			
General Sales and Use Tax	Y	\$	-
Selective Sales Tax			
Alcoholic Beverage	Y	\$	50,000.00
Amusements Sales Tax	Y	\$	-
Motor Fuels Sales Tax	Y	\$	200,000.00
Parimutuels Tax	Y	\$	-
Public Utilities Sales Tax	Y	\$	50,000.00
Tobacco Products Tax	Y	\$	-
Other Sales Tax	Y	\$	-
Licensing and Permit Taxes			
Alcoholic Beverage Licensing and Permits	Y	\$	250,000.00
Building/Construction Permits	Y	\$	-
Amusements Licensing and Permits	Y	\$	-
Motor Vehicles Licensing and Permits	Y	\$	-
Public Utilities Licensing and Permits	Y	\$	-
Occupation and Business Licensing and Permits	Y	\$	-
Other Licensing and Permits	Y	\$	-
Income Tax			
Individual Income Tax	Y	\$	-

2a. Assess revenue statements and sources to determine eligible revenues based on available Treasury guidance (note: some aggregated revenues may be partially ineligible and require disaggregation)

2b. Input eligible revenues into yellow highlighted tabs and revenue statement line items as applicable

*Highlighted revenues are likely ineligible revenues. Not all revenues listed may be relevant to all municipalities and the revenues listed in the individual yearly revenue tabs is not a comprehensive list. Municipalities should contact their tax advisor or attorney for revenue specific questions.

3. Manually input eligible revenue data from 2016 – 2018

Calculator includes templates for Fiscal Year 2016 – 2018 in separate tabs in the same format as those for 2019

3-Year Historical Average Growth Rate Calculator

Year	Value	Change	% change
2016	\$2,040,000		
2017	\$1,950,000	-\$90,000	-4.41%
2018	\$2,005,000	\$55,000	2.82%
2019	\$2,150,000	\$145,000	7.23%
			1.88%

Automatically populated with sum of all entered revenues from 'Revenue Statement' tabs

Calculates 3-year historical growth rate

Revenue Loss Calculator

ARPA Revenue Loss Calculation

Date Fiscal Year Ended Prior to Pandemic	11/30/2019		
Base Revenue (FY2019)	\$2,150,000		
Growth Rate	4.1%		
			12/31/2020
Months elapsed since base year			13
Counterfactual Revenue			\$2,245,657
Actual revenue for the period			\$1,950,000
Revenue Loss			(\$295,657)

Calculator automatically selects higher growth rate (4.1% or 3-year historical average)

4. Manually input 2020 actual revenue

Revenue Loss Calculator

ARPA Revenue Loss Calculation

Date Fiscal Year Ended Prior to Pandemic	11/30/2019		
Base Revenue (FY2019)	\$2,150,000		
Growth Rate	4.1%		
			12/31/2020
Months elapsed since base year			13
Counterfactual Revenue			\$2,245,657
Actual revenue for the period			\$1,950,000
Revenue Loss			(\$295,657)

Automatically calculated counterfactual revenues for calendar years 2020 to 2023

2020 actual revenue in cell F11*

Calculated 2020 revenue loss

*Input actual general revenue collected during 12-month period ending on each calculation date (i.e. actual revenue collected in the 2020 calendar year for December 31, 2020 calculation date)

5. View actual revenue loss calculation for 2020 and forecast full recovery scenario for 2021 to 2023*

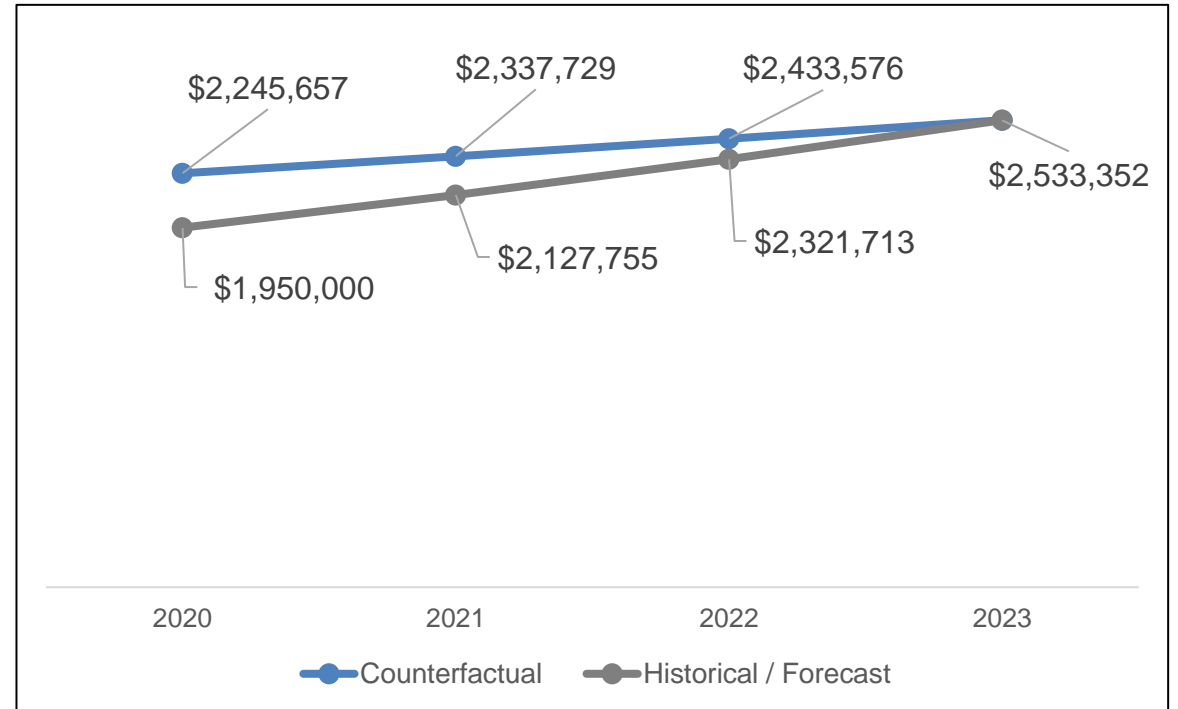
Automatically calculated 2021 and 2022 revenue loss figures assuming full revenue recovery in 2023 *

12/31/2020	12/31/2021	12/31/2022	12/31/2023
13	25	37	49
\$2,245,657	\$2,337,729	\$2,433,576	\$2,533,352
\$1,950,000	\$2,127,755	\$2,321,713	\$2,533,352
(\$295,657)	(\$209,974)	(\$111,862)	\$0

Yearly Growth Rate For 2023 Full Recovery	9.1%
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Automatically calculated compound annual growth rate needed for full revenue recovery in 2023

Recovery scenario with higher growth rate*



Calculator automatically generates visualization to project *needed revenues in 2021 and 2022 based on calculated counterfactual* for a full revenue recovery in 2023

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Report 2020 revenue replacement in Interim Report (metro cities only)

Revenue Replacement Entry Screen (Interim Report)

Revenue Loss Calculator

Cell C5 – C7	emic	11/30/2019	
		\$2,150,000	
		4.1%	
			12/31/2020
Months elapsed since base year			13
Counterfactual Revenue			\$2,245,657
Actual revenue for the period	Cell F11		\$1,950,000
Revenue Loss			(\$295,657)

Cell F12: 2020 revenue replacement amount to report to Treasury

Revenue Replacement Key Inputs

*Base Year Revenue● **Cell C6: \$2,150,000**

*Fiscal Year End Date● **Cell C5: 11/30/2019**

*Growth Adjustment Used● **Cell C7: 4.1%**

*Actual General Revenue as of 12 months ended December 31, 2020● **Cell F11: \$1,950,000**

*Estimated Revenue Loss Due to Covid-19 Public Health Emergency● **Cell F12: \$295,657**

*Were Fiscal Recovery Funds used to make a deposit into a pension fund?●
Yes

*Please provide an explanation of how revenue replacement funds were allocated to government services

Revenue Replacement Funds Explanation

Provide explanation for how revenue replacement funds were allocated to government services in the rich text field

Clear Form

Back Save Next

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