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Nassau County, NY Office of the Comptroller Sales Tax Revenue Analysis Executive Summary

May 14, 2020

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Contents

- **Background**
- **Overview of County's Sales Tax Revenue**
- **Sales Tax Revenue Analysis & Financial Revenue Modeling Tool**

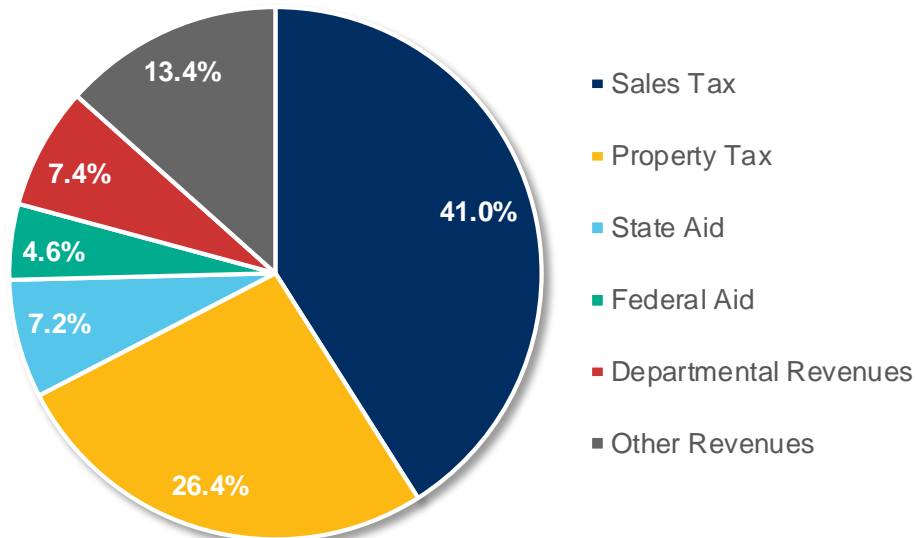
Background

- Given the current economic climate due to COVID-19, Nassau County, New York Office of the Comptroller (“County”) engaged Crowe LLP (“Crowe”) to develop a financial revenue model to assess sales tax revenues.
- Key activities include:
 - Review Nassau County sales tax data (e.g., historical collections)
 - Conduct benchmarking research
 - Determine revenue assumptions collaboratively, with County approval of assumptions for use in model
 - Build revenue planning model
 - Document potential revenue scenarios based on agreed-upon assumptions

Overview of the County's Sales Tax Revenue

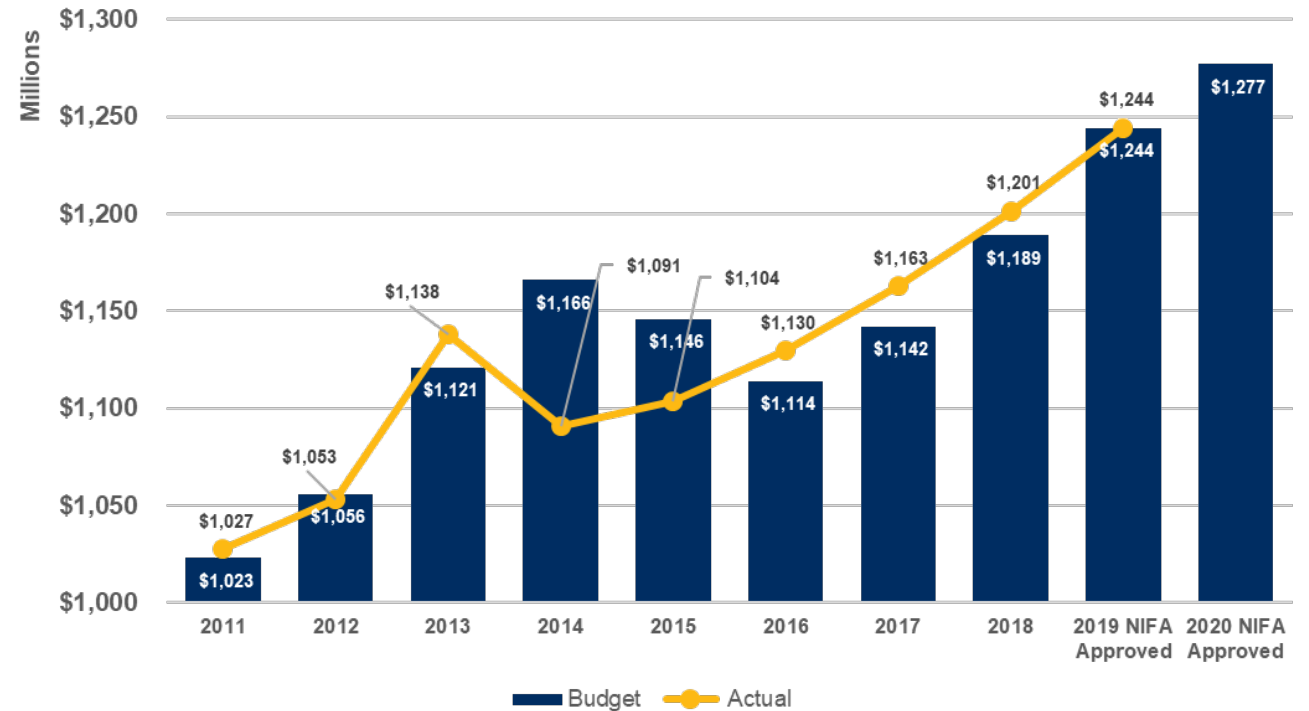
- Sales tax is the largest source of revenue for Nassau County, historically around 40%.
- The 2020 NIFA approved budget includes \$1.277 billion for sales tax revenues.
- Total taxable sales and purchases range between \$25 - \$28 billion annually for Nassau County, over the last 4 sales tax years.

Revenue of Major Operating Funds - 2020 Budget



Note: Excludes interdepartmental transfers and Sewer & Storm Water Resources District

Sales Tax Revenue Budget v. Actual (2011 - 2020)

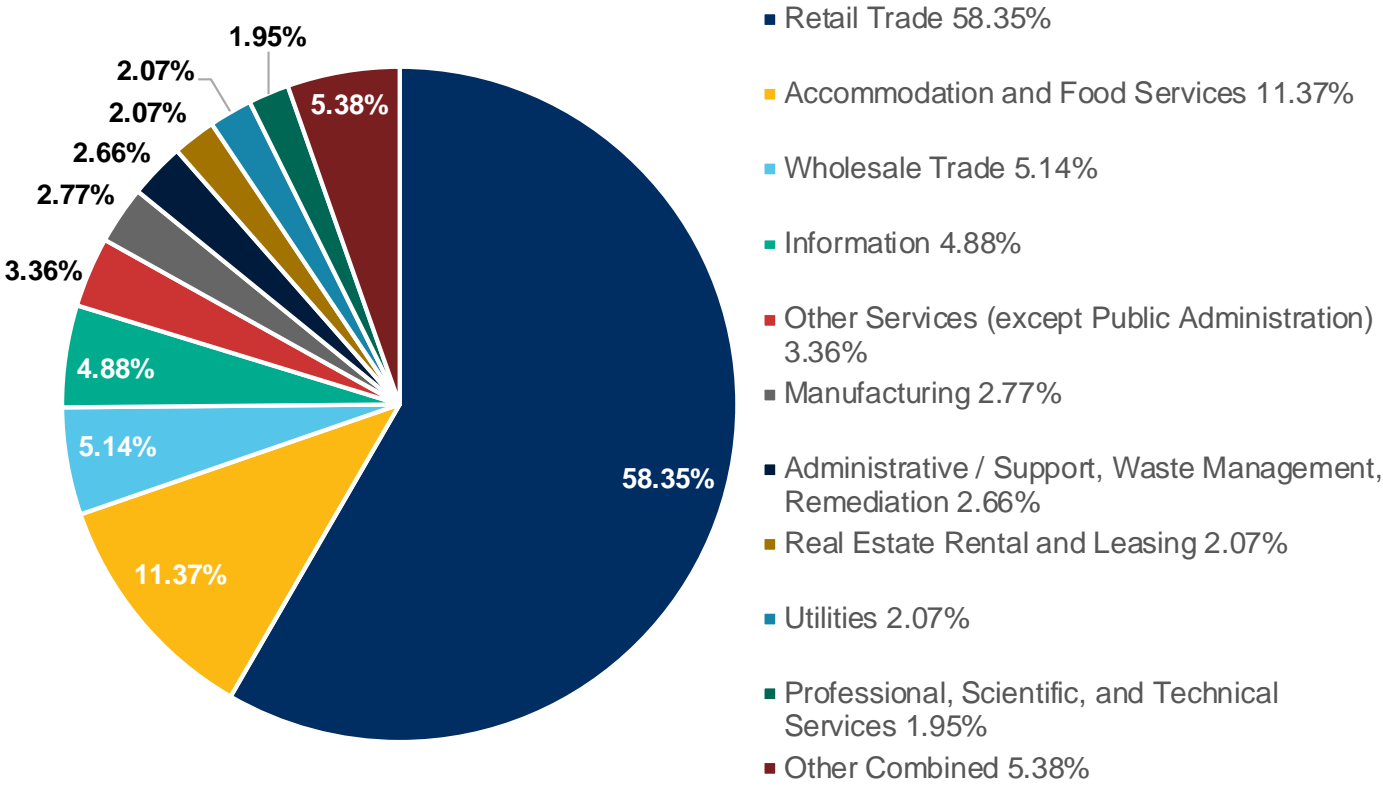


Source: Nassau County data including 2020 NIFA Approved Budget

Overview of the County’s Sales Tax Revenue: Economic Activity Breakdown

- Taxable sales data classified by **economic activity** is available from the State of New York for Nassau County using the **North American Industry Classification System (NAICS)**. NAICS is a federal standard for collecting and analyzing data related to the business economy.
- For Nassau County, the **Retail Trade** sector represents the **largest source of sales tax revenue at 58.35%** based on the average from state sales tax years 2015 – 2019.
- The following slides provide further breakdown of **Retail Trade** and **Accommodations and Food Services**, the two largest categories of taxable sales for the County. These two sectors collectively comprise nearly 70% of total taxable sales activities.

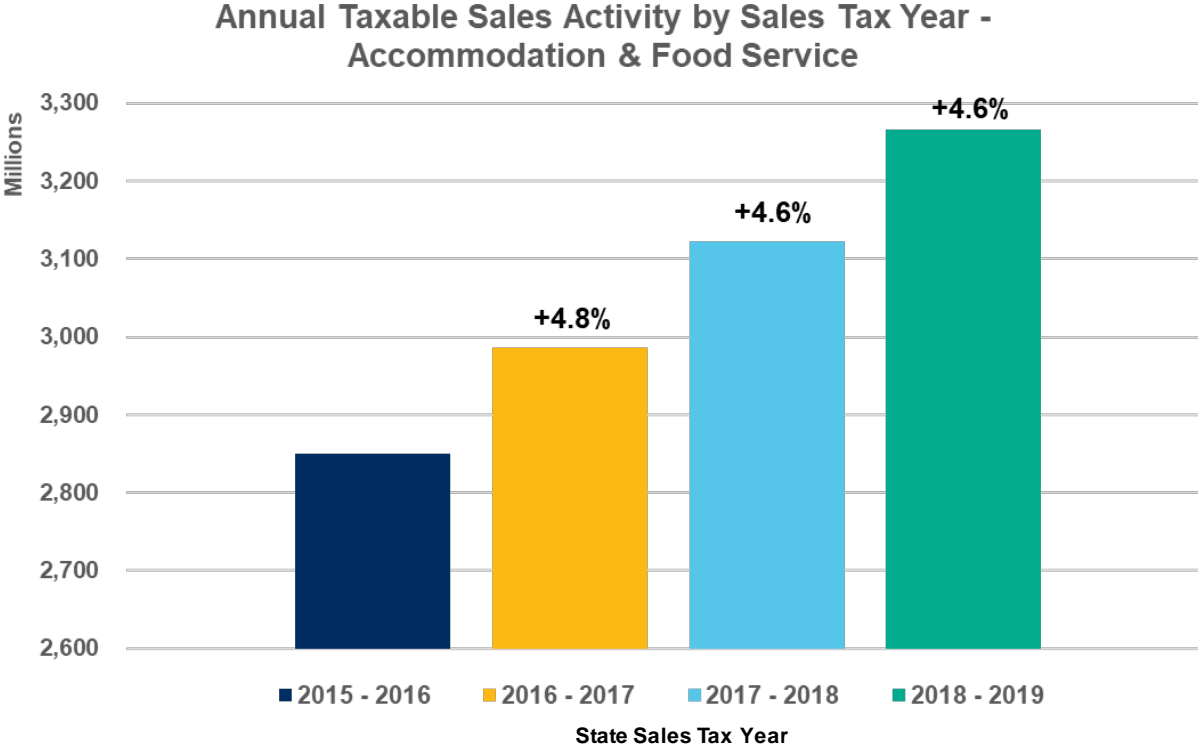
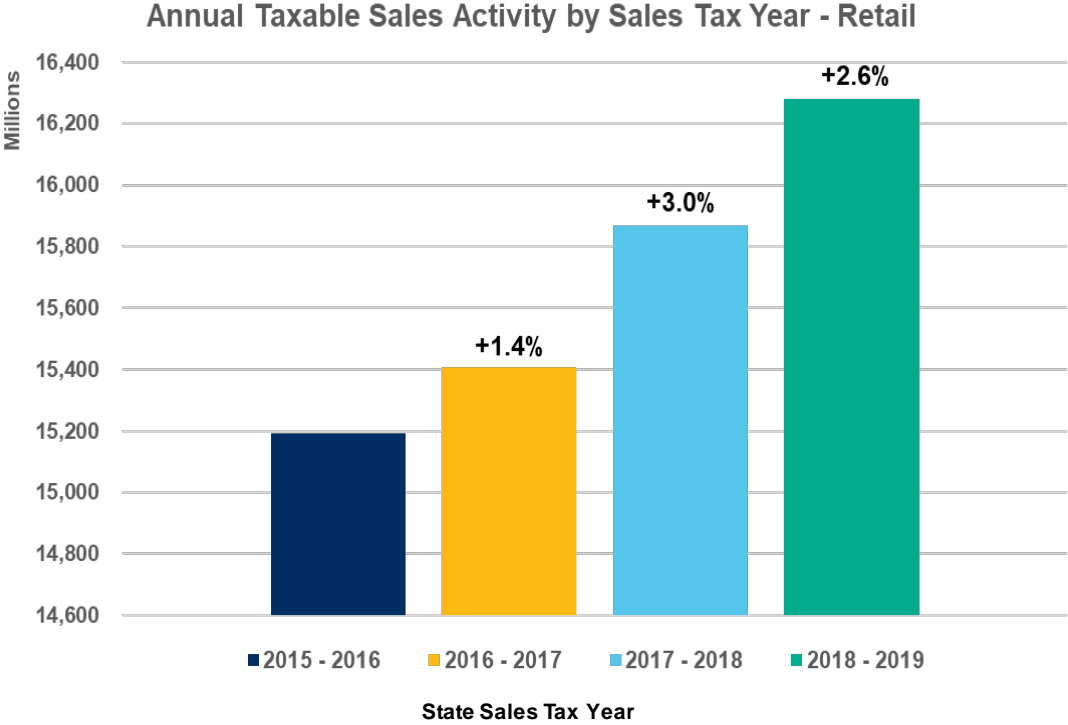
% of Total Taxable Sales by NAICS Sector for Nassau County (Average of New York State Sales Tax Years 2015 – 2019)



Source: <https://data.ny.gov/>

Overview of the County's Sales Tax Revenue: Retail Trade and Accommodations & Food Services Sectors (Nearly 70% of Total Sales Tax Revenues)

As outlined on the previous page, **Retail Trade** and **Accommodations and Food Services** are the two largest sectors of taxable sales for the County. These two sectors collectively comprise nearly 70% of total taxable sales activities and have demonstrated year-over-year growth over the past 4 years. The next two slides provide additional detail on the sub-sectors in each of these key revenue areas.



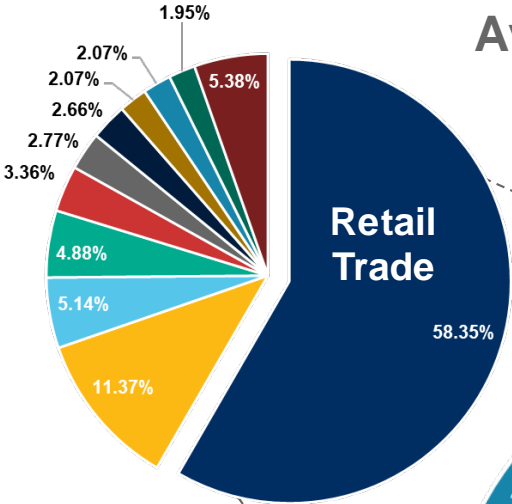
Source: <https://data.ny.gov/>

Overview of the County's Sales Tax Revenue: Retail Trade (58.35% of Total Sales Tax Revenues)

Retail Trade represents the largest source of Nassau County's taxable sales and purchases at **nearly 60% annually**.

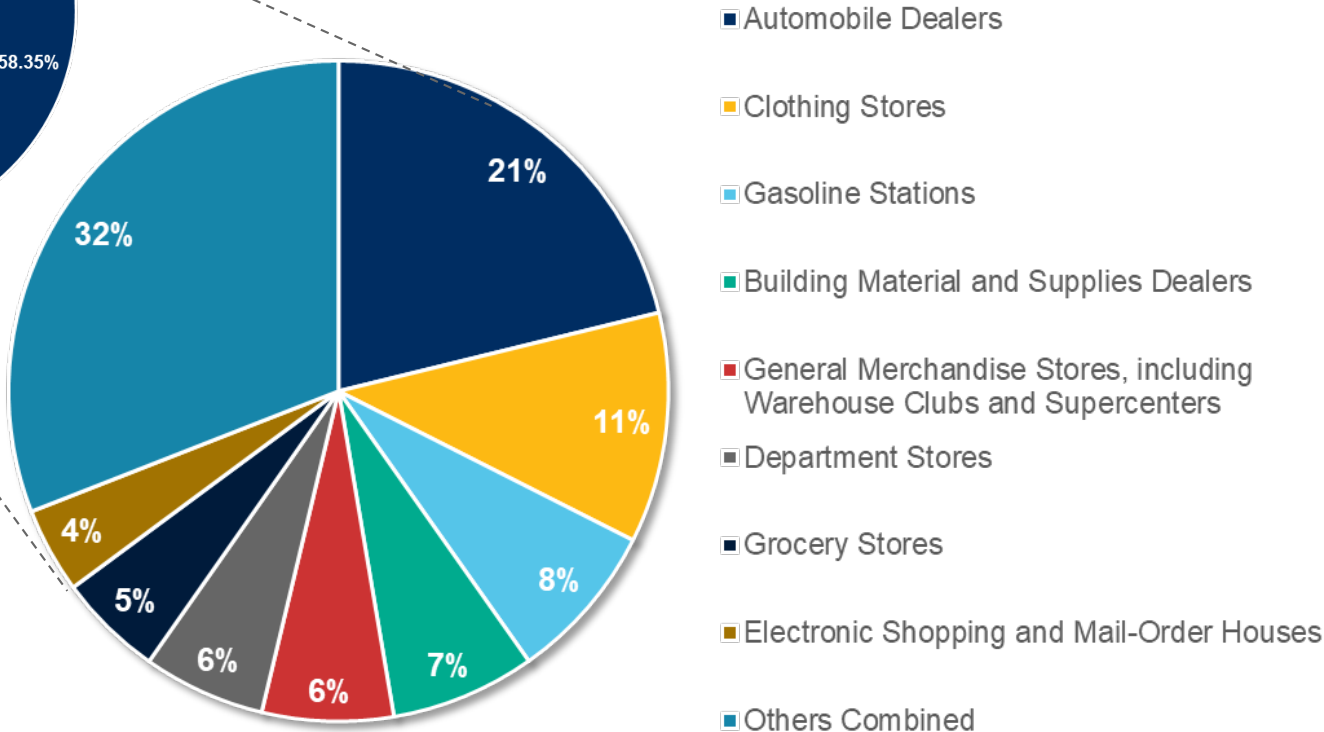
There are **27 Retail Trade sub-sectors**, as presented in the pie chart to the right.

Of note, the "Others Combined" category comprises 19 sub-sectors.



Average % of Total Taxable Sales by NAICS Sector for Nassau County – Retail Trade Sub-Sector

Retail Sub-Sectors



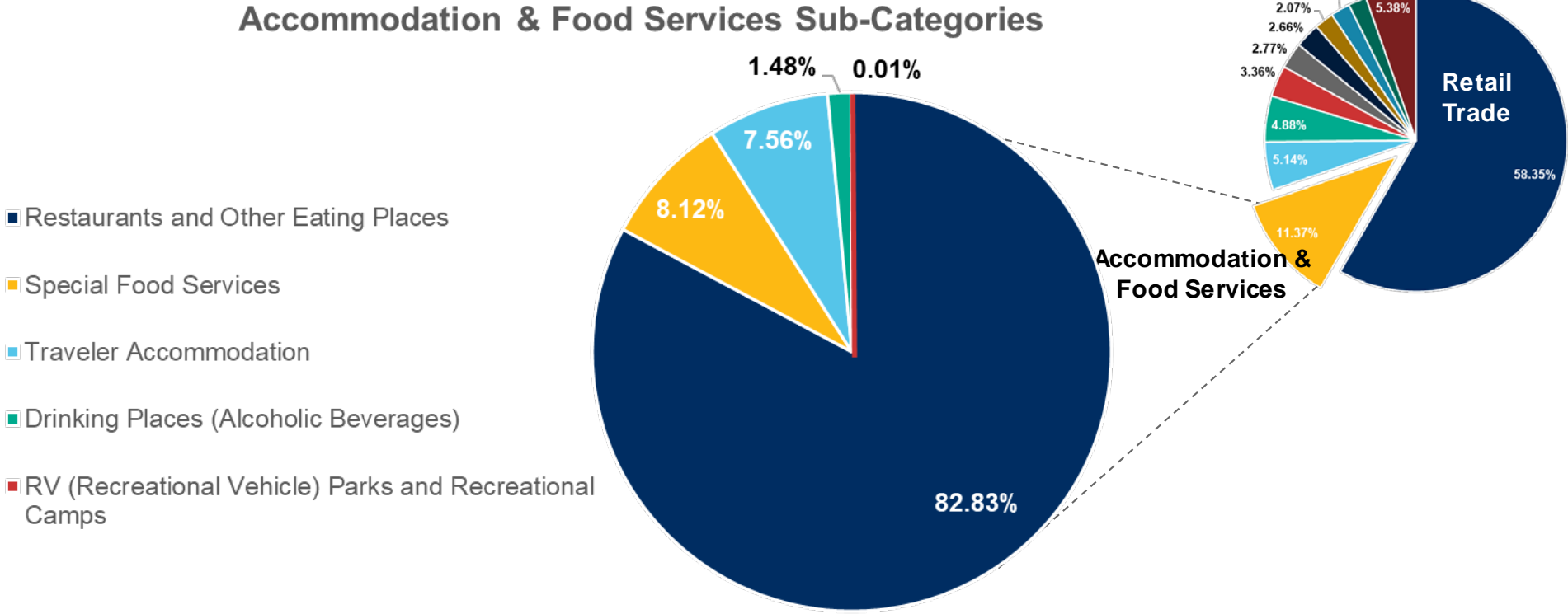
Source: <https://data.ny.gov/>

Overview of the County’s Sales Tax Revenue: Accommodation & Food Services (11.37% of Total Sales Tax Revenues)

Accommodation & Food Sources represents the 2nd largest source of Nassau County’s taxable sales and purchases at **11% annually**.

The majority of taxable sales within this sector are in the **Restaurant and Other Eating Places** sub-sector.

Average % of Total Taxable Sales by NAICS Sector for Nassau County – Accommodation & Food Services Sub-Sector



Source: <https://data.ny.gov/>

Sales Tax Revenue Analysis & Financial Revenue Modeling Tool

- The County's financial revenue modeling tool is designed to analyze sales tax revenue based on a variety of assumptions approved by the Nassau County Comptroller's Office.
- The financial model is intended to provide the Comptroller's Office with a flexible tool to analyze revenue as new information becomes available in the wake of COVID-19.
- The financial revenue modeling tool utilizes data from two primary sources, as described below:

Nassau County Financial Data

Historical data on the gross sales tax revenue collected by Nassau County from 2008 through May 2020. Data is exported from the County's financial system and provided to Crowe in an Excel format. The purpose of this data is to establish a baseline and provide inputs for assumptions based on historical trends.

State of New York Taxable Sales & Purchases Quarterly Data

Historical data on the taxable sales and purchase activity by geography and NAICS sector for the last four full sales tax years (2015-2019; state sales tax years are March – February). The New York Department of Taxation & Finance releases this data on a quarterly basis. The data is available for export as an Excel file from the state's website (<https://data.ny.gov>).

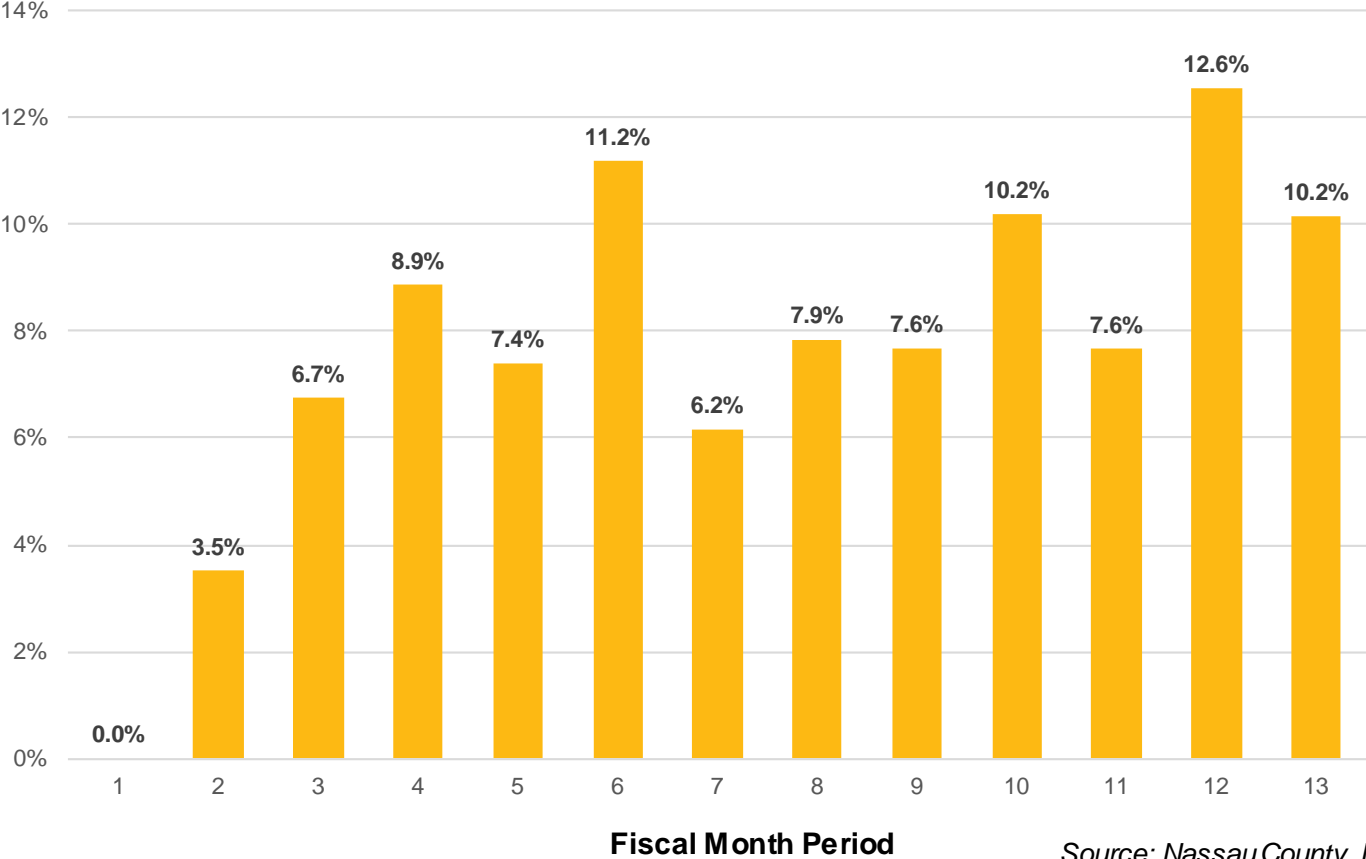
Sales Tax Revenue Analysis & Financial Revenue Modeling Tool: Data Inputs & Assumptions – Seasonality in Sales Tax Revenue Collections

A review of the County’s historical data indicates likely seasonality in sales tax collections.

Therefore, the model accounts for the seasonal collection variances, using average collections over the past 5 years.

Note: The County uses fiscal month 13 as an accrual month to accommodate year-end revenues and expenditures.

Average Share of Sales Tax Revenue by Fiscal Month Period (2015 - 2019)



Source: Nassau County, NY

Sales Tax Revenue Analysis & Financial Revenue Modeling Tool: Data Inputs & Assumptions – Essential vs. Non-Essential Businesses

Whether business are operating, and at what levels, is an input into the sales tax revenue model.

The table to the right outlines the sectors, using NAICS, indicating the number of sub-sectors for each that may be deemed “essential” or “non-essential.”

While a business or sector may be deemed “non-essential,” it may still be operating and collecting sales tax revenues. This is also considered in the model.

Sources:
 State of New York’s guidance on essential/non-essential business, <https://esd.ny.gov/guidance-executive-order-2026>; List of NY’s Essential Businesses by SIC Code, <https://siccode.com/page/coronavirus-essential-businesses-by-sic-code>, and Crosswalk between SIC Code and NAICS Code, <https://r7j8i9x2.rocketcdn.me/wp-content/uploads/2014/10/NAICS-to-SIC-Crosswalk.pdf>

Sector Breakdown by Essential and Non-Essential

Sector (Sorted by % of Taxable Sales)	% of Total Taxable Sales	Number of Sub-Sectors Deemed “Essential”	Number of Sub-Sectors Deemed “Non-Essential”
Retail Trade	58.35%	10	19
Accommodation and Food Services	11.37%	5	1
Wholesale Trade	5.14%	8	11
Information	4.88%	8	5
Other Services (except Public Administration)	3.36%	3	11
Manufacturing	2.77%		
Administrative / Support / Waste / Remediation	2.66%		
Real Estate Rental and Leasing	2.07%		
Utilities	2.07%		
Professional, Scientific, and Technical Services	1.95%		
Construction	1.76%		
Arts, Entertainment, and Recreation	1.36%		
Public Administration	1.08%	98	115
Finance and Insurance	0.44%		
Transportation and Warehousing	0.31%		
Health Care and Social Assistance	0.16%		
Unclassified	0.10%		
Management of Companies and Enterprises	0.08%		
Educational Services	0.05%		
Agriculture, Forestry, Fishing and Hunting	0.03%		
Mining	0.01%		
TOTAL	100.00%	132	162

Sales Tax Revenue Analysis & Financial Revenue Modeling Tool: Data Inputs & Assumptions – Level of Sector Business Activity by NAICS

- Historical taxable sales data is utilized to determine the industry-specific share of taxable sales activity for each economic sector.
- Using NAICS classifications, the revenue model allows the user to set an assumption on the potential level of business activity that a sector or sub-sector may experience in a specific month, given COVID-19 or any other potential impacts in the future.
- The level of business activity is defined as the expected percentage of sales tax revenues that the sector or sub-sector will collect during a fiscal month period relative to historical sales, as illustrated in the chart below.

Level of Sector Business Activity

Sector Status	Multiplier	Assumption
Closed - 0%	0%	Sector will generate 0% of expected sales in this period.
Partial - 25%	25%	Sector will generate 25% of expected sales in this period.
Partial - 50%	50%	Sector will generate 50% of expected sales in this period.
Partial - 75%	75%	Sector will generate 75% of expected sales in this period.
Open - 100%	100%	Sector will generate 100% of expected sales in this period.

Sales Tax Revenue Analysis & Financial Revenue Modeling Tool: Data Inputs & Assumptions – Additional Information

In addition, the following information is included in the model as inputs and assumptions:

Overview	Input or Assumption
Timing of Sales Tax Distributions to Nassau County	The State of New York issues an annual schedule of payments for sales tax reporting, collection and distribution. The model utilizes the payment schedule to estimate the timing and frequency of payments to Nassau County. In most cases, payments are received for sales tax activity 1 month in arrears. The model may be updated in the event the state issues changes to the schedule.
Longevity of Stay-at-Home Orders	The revenue model considers that the length of stay-at-home orders will impact essential and non-essential businesses across industry sectors differently.
Phased Re-Opening Approach	The model is designed to adjust on a fiscal month period, considering a phased re-opening of businesses across industry sectors. The model allows Nassau County to update assumptions related to essential business designations and the longevity of stay-at-home orders – including the flexibility to analyze potential future shutdowns.
Baseline Revenues & Annual Growth in Sales Tax Revenues	The model uses historical Nassau County revenues as the baseline, and sets the baseline for future years based on a combination of Nassau County budget projections and a 3-year moving average of year-over-year growth by fiscal month period. For revenue modeling scenarios, the user may adjust the annual growth values to align with estimates that the annual growth will be either lower, higher, or in alignment with the baseline scenario.

Sales Tax Revenue Analysis: Overview of Scenarios (as of May 12, 2020)

- With no relevant precedent for the COVID-19 pandemic, it is impossible to predict with accuracy the economic repercussions of the COVID-19 pandemic.
- Two scenarios are presented on the forthcoming slides based on assumptions approved by the County, and based on data available as of May 12, 2020. As additional and/or updated information becomes available, the County may utilize the tool to produce additional scenarios.
- The scenarios on the forthcoming slides are based on length and timing of stay-at-home orders, and the impact to taxable sales activities predominately using industry sector assumptions. The scenarios include:

Current Phased Re-opening:

- Assumes closings started mid-March 2020 with a gradual re-opening starting in June 2020.
- Assumes no additional stay-at-home orders.

Hypothetical Second Wave:

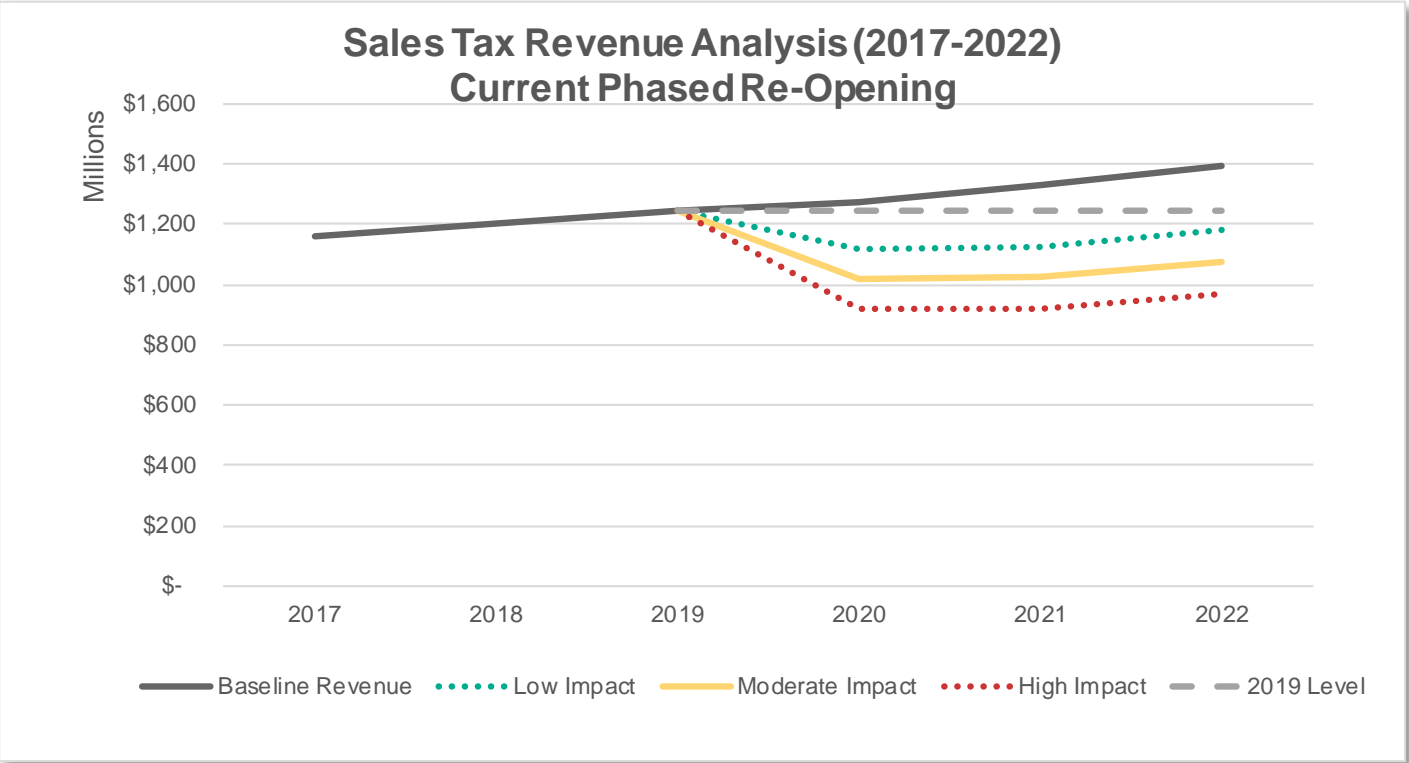
- Assumes closing started mid-March 2020 with a gradual re-opening starting June 2020.
- Assumes a second stay-at-home order beginning mid-October 2020, followed by a gradual re-opening.

Note: The Hypothetical Second Wave scenario is provided for informational purposes to illustrate the potential compounding effect of such an event. While some health experts have indicated the potential for a second wave, it is impossible to accurately determine if and when this wave of closures could occur.

Sales Tax Revenue Analysis Current Phased Re-opening Scenario: 2017 – 2022 Overview (as of May 12, 2020)

The **Current Phased Re-opening Scenario** assumes the stay-at-home order started mid-March 2020 with a gradual re-opening starting in June 2020.

Under this scenario, based on the assumptions approved by the Nassau County Comptroller’s Office on May 12, 2020, **sales tax revenues may experience a decline between \$156.4 – 360.1 million in 2020. This is a decline of 12.25 – 28.20% of planned 2020 sales tax revenue as illustrated by the grey baseline and yellow estimated lines on the graph to the right.**



Impact Estimate	Difference from Baseline	Percent Change from Baseline
High Impact	\$ (360,063,796)	-28.20%
Moderate Impact	\$ (258,218,400)	-20.23%
Low Impact	\$ (156,373,003)	-12.25%

Sales Tax Revenue Analysis Current Phased Re-opening Scenario: 2020 Impact Range + Analysis Through 2022 (as of May 12, 2020)

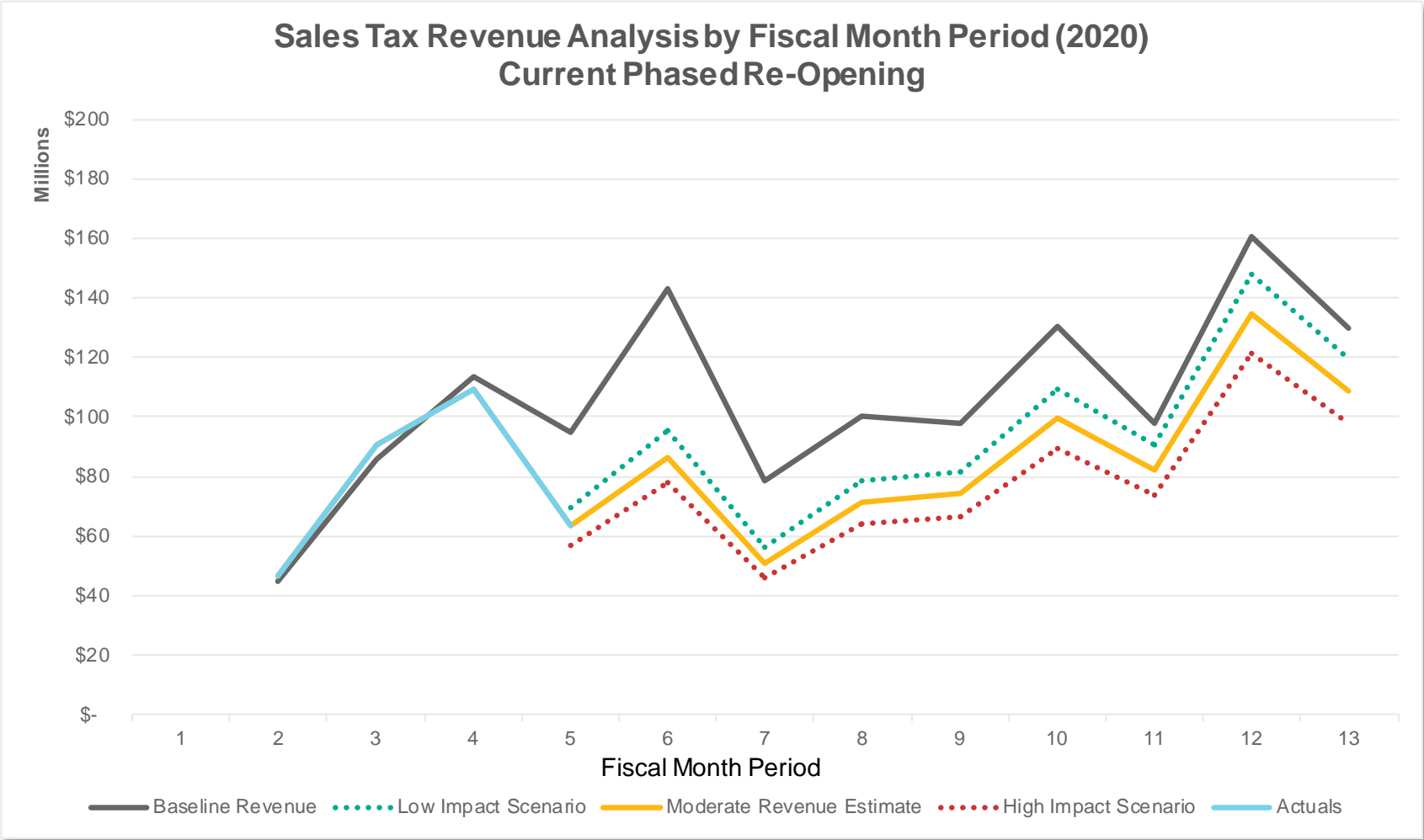
The analysis below illustrates the 2020 sales tax revenue budget as the baseline, with future years assuming an average growth rate based on the historical 3-year trend. The estimated revenue of high, medium and low impact illustrate the results of the analysis, all trending lower than the baseline.

Fiscal Year	Baseline Revenue	Estimated Revenue - High Impact	Estimated Revenue - Moderate Impact	Estimated Revenue - Low Impact
2020	\$ 1,276,672,363	\$ 916,608,567	\$ 1,018,453,963	\$ 1,120,299,360
2021	\$ 1,330,134,850	\$ 921,813,857	\$ 1,024,237,619	\$ 1,126,661,381
2022	\$ 1,393,335,249	\$ 966,494,253	\$ 1,073,882,503	\$ 1,181,270,753

Sales Tax Revenue Analysis Current Phased Re-opening Scenario: 2020 Estimates by Fiscal Period – Chart (as of May 12, 2020)

The chart to the right illustrates the baseline / budgeted sales tax revenue by fiscal month period in the grey line, with the actuals for periods 1-5 in the aqua line, and moderate estimates for periods 6-13 in the yellow line.

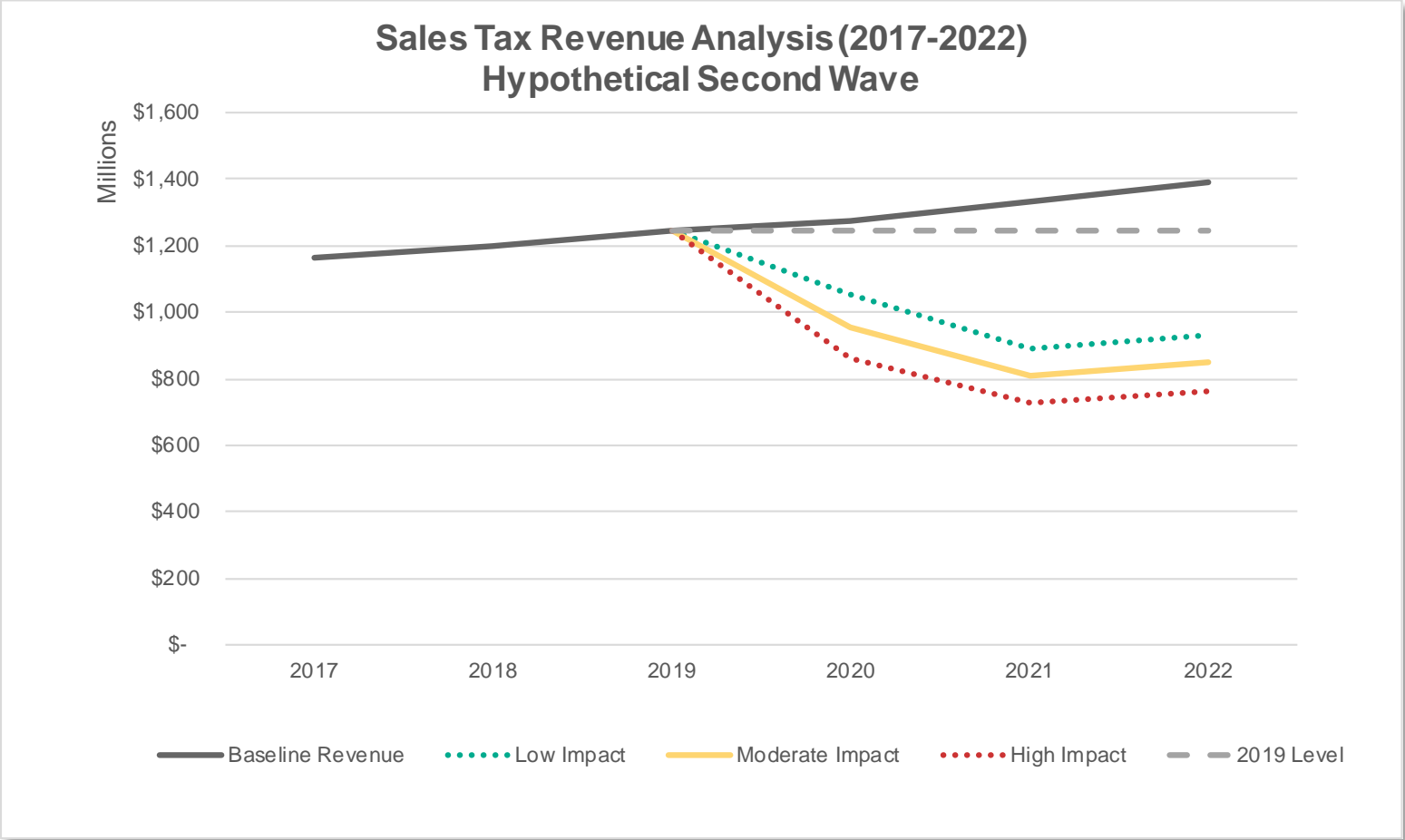
Dotted lines represent the low and high impact range modifiers.



Sales Tax Revenue Analysis Hypothetical Second Wave Scenario: 2017 – 2022 Overview (as of May 12, 2020)

The **Hypothetical Second Wave Scenario** assumes the stay-at-home order started mid-March 2020 with a gradual re-opening starting in June 2020 and then a second stay-at-home order beginning mid-October 2020, followed by a gradual re-opening.

Under this scenario, based on the assumptions approved by the Nassau County Comptroller’s Office on May 12, 2020, **sales tax revenues may experience a decline between \$225.6 – 416.7 million in 2020 and \$439.8 – 601.7 million in 2021. This represents a decline of 17.67 – 32.64% in 2020 and 33.06 – 45.23% in 2021 of planned sales tax revenue as illustrated by the grey baseline and yellow estimated lines on the graph to the right.**



Sales Tax Revenue Analysis Hypothetical Second Wave Scenario: 2020 – 2021 Impact Range + Analysis Through 2022 (as of May 12, 2020)

The analysis below illustrates the 2020 sales tax revenue budget as the baseline with future years assuming an average growth rate based on the historical 3-year trend. The estimated revenue of high, medium and low impact illustrate the results of the analysis, all trending lower than the baseline.

Fiscal Year	Baseline Revenue	Estimated Revenue - High Impact	Estimated Revenue - Moderate Impact	Estimated Revenue - Low Impact
2020	\$ 1,276,672,363	\$ 859,999,648	\$ 955,555,165	\$ 1,051,110,681
2021	\$ 1,330,134,850	\$ 728,453,713	\$ 809,393,015	\$ 890,332,316
2022	\$ 1,393,335,249	\$ 763,675,760	\$ 848,528,623	\$ 933,381,485

Based on the analysis, the potential impact to sales tax revenues indicate a potential decrease of 17.7-32.6% in **2020** and 33-45.2% in **2021** from the baseline.

2020

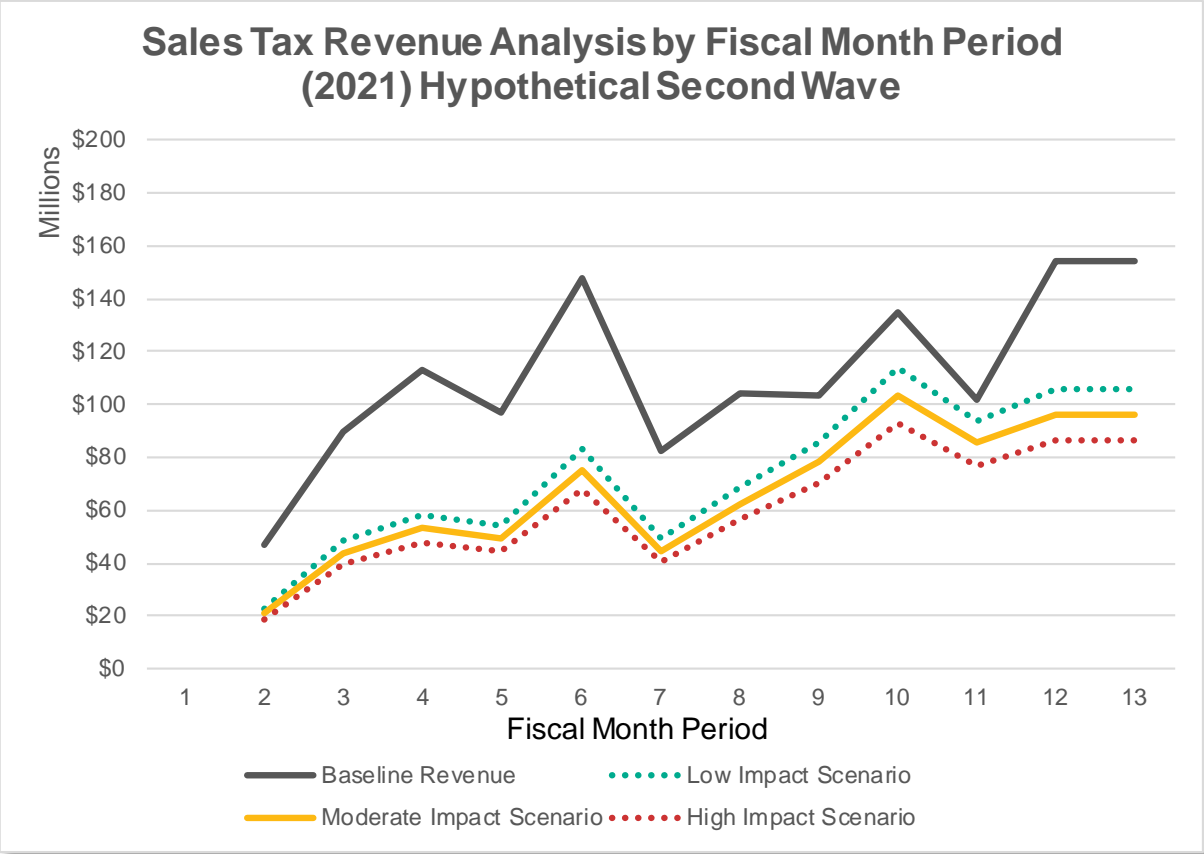
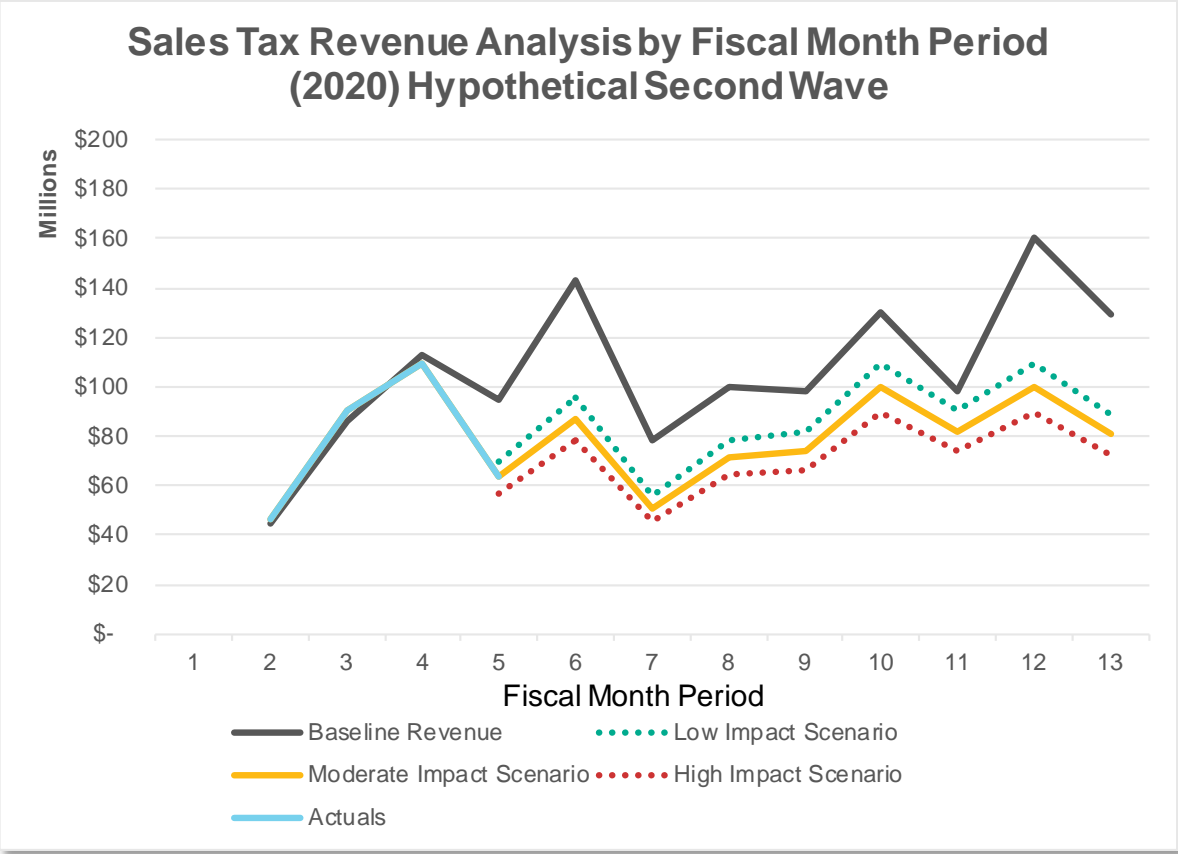
Impact Estimate	Difference from Baseline	Percent Change from Baseline
High Impact	\$ (416,672,715)	-32.64%
Moderate Impact	\$ (321,117,198)	-25.15%
Low Impact	\$ (225,561,682)	-17.67%

2021

Impact Estimate	Difference from Baseline	Percent Change from Baseline
High Impact	\$ (601,681,136)	-45.23%
Moderate Impact	\$ (520,741,835)	-39.15%
Low Impact	\$ (439,802,533)	-33.06%

Sales Tax Revenue Analysis Hypothetical Second Wave Scenario: 2020 – 2021 Estimates by Fiscal Period – Charts (as of May 12, 2020)

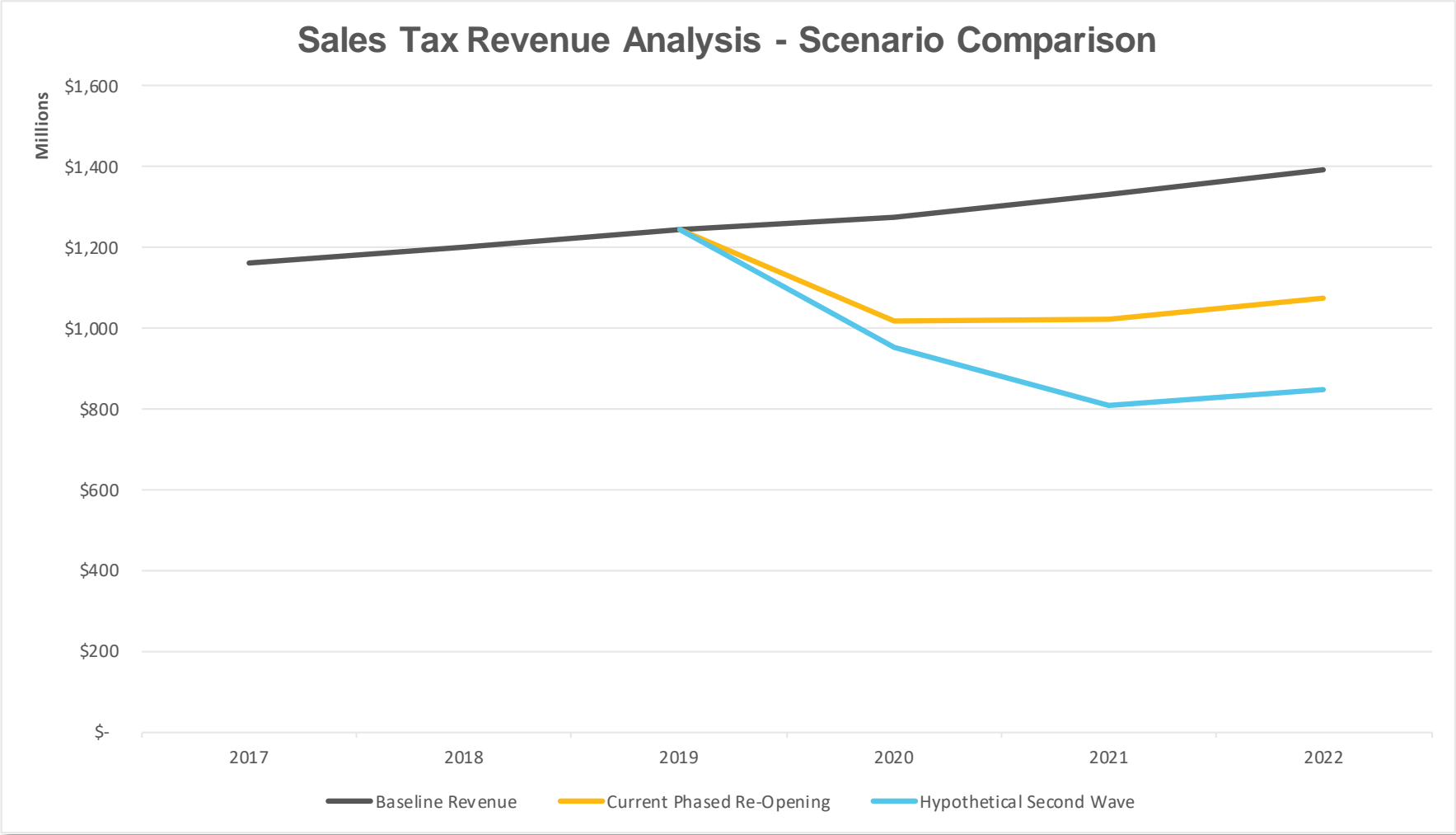
The charts below illustrate the baseline / budgeted sales tax revenue by fiscal month period in the grey line, with the actuals for fiscal month periods 2020 1-5 in the aqua line. Moderate estimates for 2020 fiscal month periods 6-13 and all fiscal month periods of 2021 are shown in the yellow line. Dotted lines represent the low and high impact range modifiers for all future fiscal month periods.



Sales Tax Revenue Analysis Comparison Scenario Comparison: Current Phased Re-opening and Hypothetical Second Wave Scenarios (as of May 12, 2020)

The chart to the right illustrates moderate estimates for both analysis scenarios.

The **Current Phased Re-opening Scenario** is represented by the yellow line and the **Hypothetical Second Wave Scenario** is represented by the aqua line.





End of Report

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