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# QUARTERLY UPDATE OF THE LONG-TERM REVENUE FORECAST

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Statutory Report to the Cook County Board of Commissioners

1/27/2021



## Introduction

In accordance with Section Sec. 2-78 of the Cook County Code which states:

- b) The purpose of the Independent Revenue Forecasting Commission (IRFC) will be to review and analyze an annual five-year revenue forecast (the “forecast”) for the County as developed and prepared by the Chief Financial Officer (the “CFO”). Updates pertaining to the forecast will be provided to the IRFC, the Board and posted on the IRFC website on a quarterly basis by the CFO. The forecast will include, but not be limited to, analysis of the following County revenue streams: Sales and Use taxes, Property Taxes, Cigarette Taxes, Fuel Taxes and other sources of County revenue.

The following provides an update between the Long-term Financial plan provided to the IRFC and posted on the County’s Website on 10/30 and the forecast used in the FY 2021 Adopted Budget. This report includes a variance analysis comparing the two forecasts and provides an explanation for each variance, along with additional supporting detail outlining progress made on the County’s Sales Tax Projections and a summary of the impact of the Revenue projections on our Long-term Expense Projections for both the General and Health Funds. We conclude with an out-year forecast of the County’s Unassigned Ending Fund Balance.

## Variance Analysis

Table 1: Nominal Variance Between 10/30 and 1/27

Revenue	Estimate	Budget	Forecast			
	FY20	FY21	FY22	FY23	FY24	FY25
401170-County Use Tax			3,098,000	3,198,000	3,302,000	3,410,000
401390-State Income Tax			(2,225,053)	(2,265,104)	(2,305,876)	(2,347,382)
402100-County Treasurer		10,000,000	10,542,000	11,114,000	11,716,000	12,350,000
402300-Building and Zoning			311,000	316,000	322,000	328,000
403210-Medical Examiner		(575,000)	622,000	336,000	49,000	(237,000)
406010-State of Illinois		2,334,125	2,380,808	2,428,424	2,476,992	2,526,532
407080-Other		(10,000,000)	(10,000,000)	(10,000,000)	(10,000,000)	(10,000,000)
TOTAL VARIANCE		1,759,125	4,728,754	5,127,319	5,560,116	6,030,150



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Use Tax, State Income Tax, and Building and Zoning had changes in the out years. This is due to last minute changes to the FY21 budget values that we did not have an opportunity to fully incorporate into our long term forecasts during the President's Recommendation phase. These changes have now been reflected in the forecasts.

State of Illinois was increased to reflect an amendment that restored 41 unoccupied payroll positions in the Juvenile Temporary Detention Center (JTDC), eliminated from the Circuit Court's 2021 budget in accordance with the county's budget reduction request. The salaries for these positions are reimbursable by the State of Illinois, pursuant to 730 ILCS 110/15 (4): The Administrative Office of the Illinois Courts (AOIC) has approved all positions included in the amendment for reimbursement. Further, due to the high number of position vacancies at the JTDC, the AOIC's 2020-2021 subsidy allocations significantly exceed the value of current reimbursement requests. As such, Cook County will be reimbursed for the salaries associated with hiring into these positions.

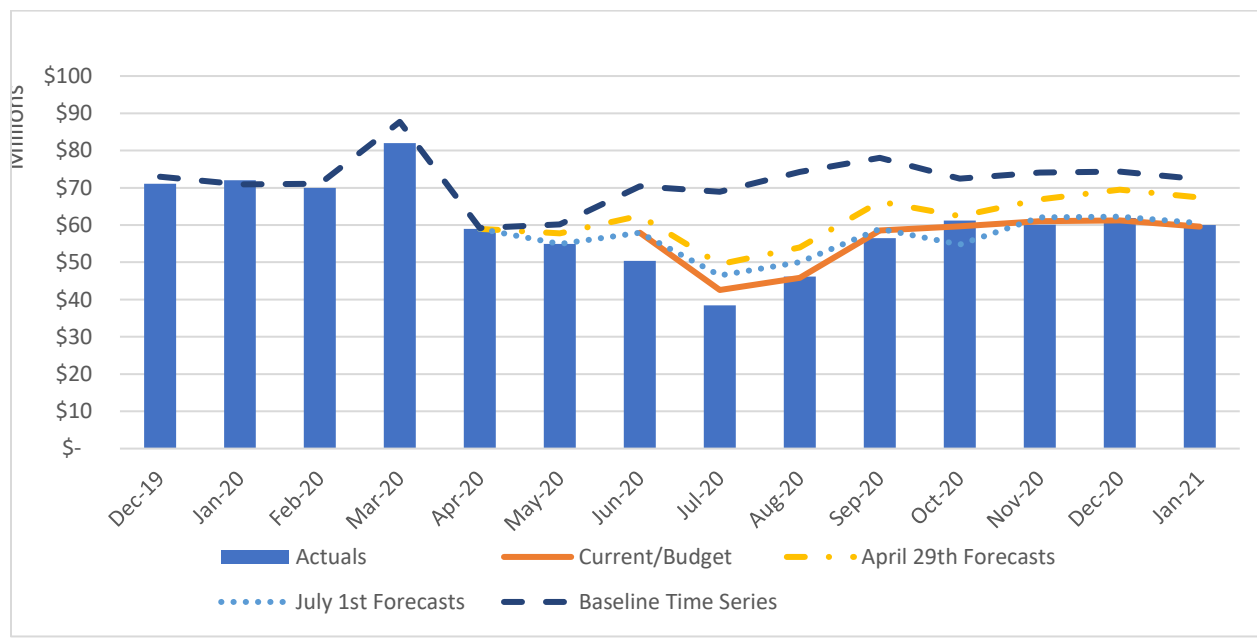
The Medical Examiner had a proposed fee increase that was struck down, so their FY21 budget value went down. Additionally, we changed the long term methodology to a flatline from FY21 budget instead of growing off past actuals since the fee structure is changing this year. \$10,000,000 was transferred from other to the county treasurer, with corresponding changes to the out years



## Sales Tax Estimate

As previously discussed, retail sales have been heavily impacted by social distancing policies due to COVID-19 concerns. Forecasting this impact on Cook County's sales tax revenue has been a major focus of the Independent Revenue Forecasting Commission in 2020. As more information has become available, the sales tax forecast has improved. The forecast presented in April underestimated the impacts of COVID-19 and was optimistic. The first available Cook County specific data showed that Cook County had a greater decrease in brick and mortar spending than the national average. The forecasts presented in July showed lower estimates to reflect this new information. The current forecast reflects Cook County sales tax revenues received during the various phases of the Restore Illinois plan and incorporates trends from consumer credit card data.<sup>1</sup>

**Chart 1: FY 20 Sales Tax Actuals vs Prior Forecasts**



Quantitatively, the forecasts have demonstrably improved over time. Evaluating the period of May-October 2020 (revenues received in August 2020 - January 2021), the mean absolute percentage error (MAPE) of the current forecast was just 1.70%, a significant improvement over prior forecasts, thanks in part to the continued support and direction from the Independent Revenue Forecasting Commission.

<sup>1</sup> <https://tracktherecovery.org/>



**Table 2: Sales Tax Forecast Over-Time**

Remittance Date*	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	MAPE
Collection Date	May-20	June-20	July-20	Aug-20	Sep-20	Oct-20	
Actuals	46,160,237	56,464,654	61,177,462	60,080,433	61,922,896	59,972,885	
Baseline Time Series	74,225,224	78,009,614	72,467,535	74,123,334	74,369,676	72,292,853	29.09
April 29th Forecasts	53,960,928	66,271,048	62,408,996	66,886,700	69,497,303	67,396,781	11.59
July 1st Forecasts	50,053,234	58,956,311	54,767,846	62,053,930	62,260,160	60,521,504	4.68
Current Forecast	45,845,385	58,528,593	59,681,865	61,045,527	61,248,406	59,538,003	1.70

## Long Term Fiscal Plan

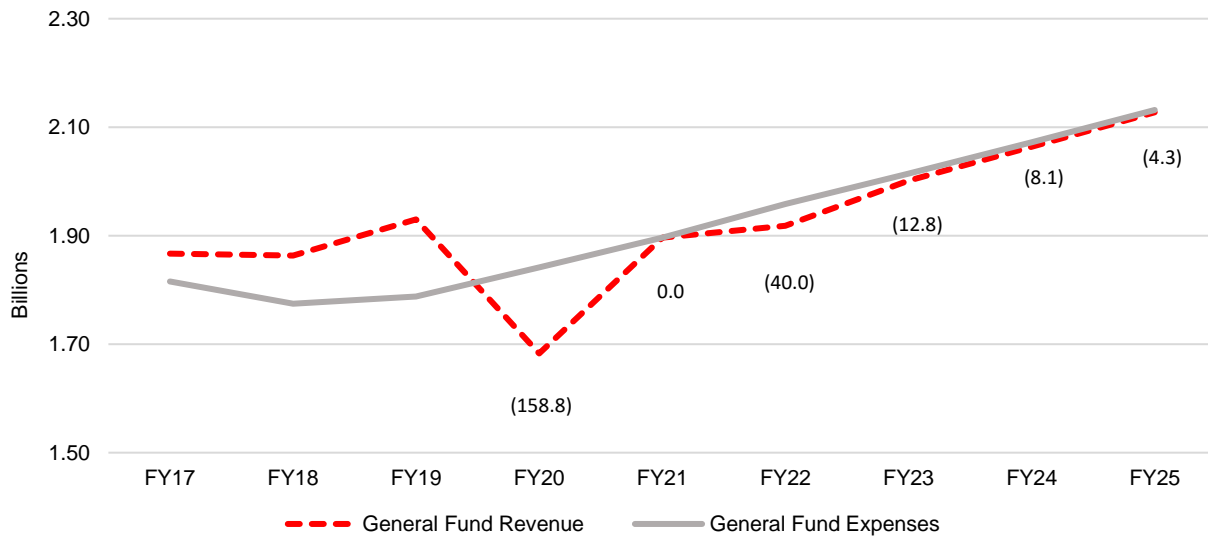
Pursuant to Executive Order 2012-01, Cook County prepares a long-term financial forecast to support responsible long-term planning. Cook County's \$6.9 billion budget helps support vital public safety, public health and property tax related services for its residents. Although Cook County has a diverse revenue base, expenditures rise over time due to inflationary pressures (with medical trends for health benefits and several other categories of expenditures growing faster than general inflation), whereas natural growth in revenues struggle to keep pace. Several critical revenue sources are declining over time or growing at rates below general inflation. This makes structurally balancing the budget challenging and necessitates difficult decisions. The addition of Cannabis Revenue, Online Sales Tax and Sport-wagering Tax in FY2021 has the potential to help offset these structural deficits in the out-years. However, these new revenues represent an additional source of uncertainty that will not be fully understood until the County begins to receive payments from the State.



## General Fund

Between FY2021 and FY2025 total General Fund expenses are expected to increase by \$235.4 million, or about 3.0% annually. Further details about the Long-Term Expense forecast can be found in the executive summary of the FY 2021 Budget.<sup>2</sup> Total General Fund revenues are expected to increase at a rate of 2.9% annually and be \$231.1 million higher by FY2025. This growth can be almost entirely attributed to the new revenue streams of Online Sales, Cannabis and Sports Wagering which are estimated at a combined value of \$215.5 million with Online Sales Tax contributing \$195.5 million alone. However, over half of Cook County's revenue streams are either declining or failing to keep pace with inflation. This includes Gas and Diesel Tax, Cigarette Tax and Property Taxes. The base tax levy on property has remained flat since 1992 and, therefore, has continuously declined in real terms, net of inflation. The brick and mortar component of Sales Tax are projected to largely grow with the economy with an expected increase of \$54.6 million or 1.8% annually, but it is also subject to potential economic volatility and sensitive to social distancing policies. In the near future, Cook County will need to either reduce expenses, identify new revenues, or replace existing revenues with ones that grow at the rate of inflation to maintain a balanced budget, particularly if new revenue sources do not meet expectations.

**Chart 2: General Fund Net Surplus/(Deficit) Projections**



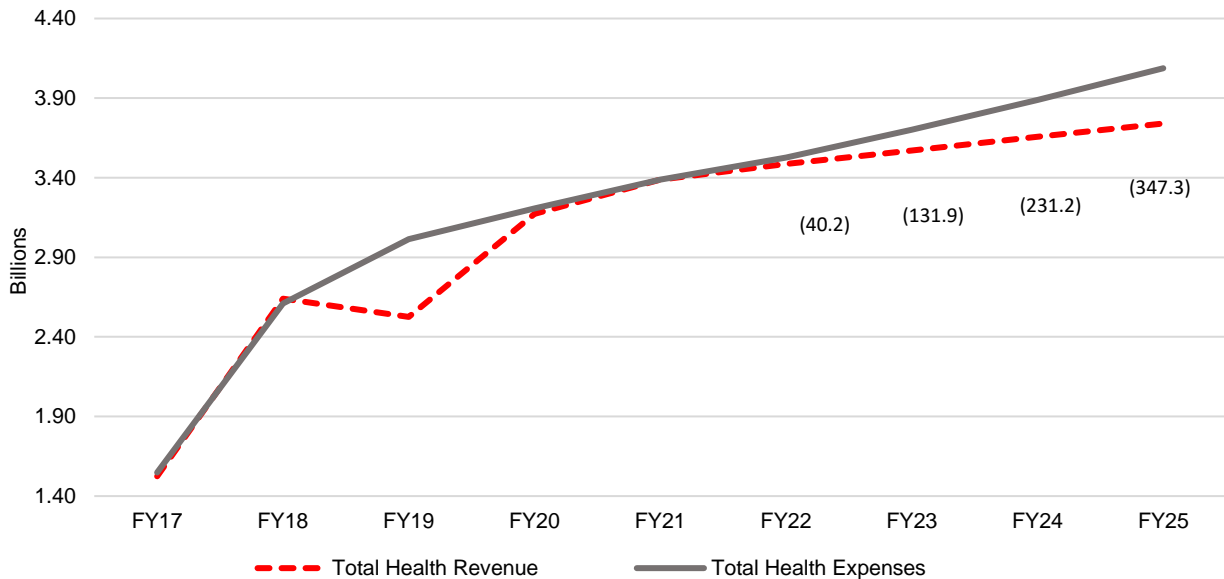
<sup>2</sup><https://www.cookcountyil.gov/sites/default/files/service/volume-i-budget-overview-fy21-annual-appropriation.pdf>



## Health Funds

By FY2025, CCH revenues, after the Property Tax allocation, are expected to increase by \$352.8 million over the FY2021 budget, a compound Annual Growth Rate of 2.5%. Beginning in FY2021, the Health Enterprise Fund's portion of the property tax levy is assumed to increase by \$40 million and increase by another \$10 million each year thereafter. Patient Fee Revenues, composed of Medicaid, Medicare, Private Payors and Graduate Medical Education (GME) payments, are expected to increase by 46.2% from the FY2020 estimate to the FY2021 budget. Unfavorable results in these patient fees in FY2020 can largely be attributed to the impact of COVID-19, the associated reduction in Emergency Room visits, suspension of elective surgeries and routine appointments. In the succeeding years, from FY2021 to FY2025, these revenues are expected to increase at a Compound Annual Growth rate of 2.3% as management initiatives, such as improving the internal capture rate for CountyCare, reducing CCH's proportion of Countywide uncompensated care and expediting application processing, are assumed within the model. Health Plan Services revenues are expected to increase by \$277.2 million at an annual rate of 3.0% by FY2025. Accordingly, Health Fund Revenue is expected to generate a deficit of nearly \$347.3 million by FY25 when compared to expenses.

**Chart 3: Health Fund Net Surplus/(Deficit) Projections**

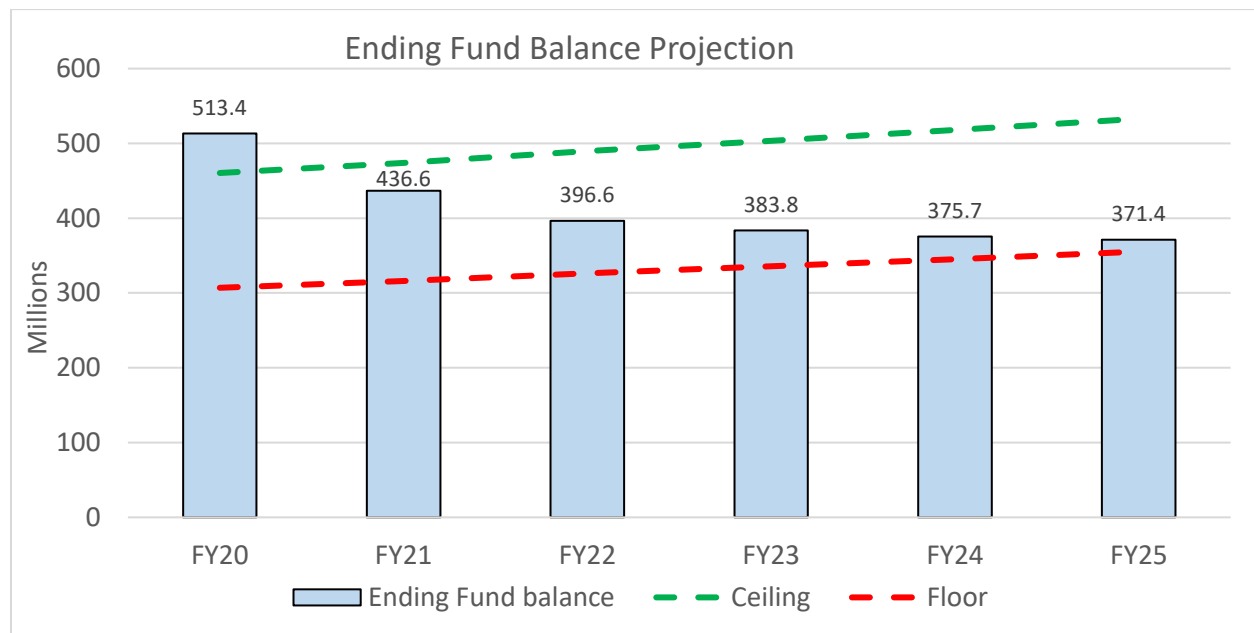




## Fund Balance Projection

In FY2020, the County's beginning fund balance within the General Fund was \$456.4 million. In April of this year, the County received approximately \$428.6 million in Coronavirus Relief (CRF). Approximately, \$132.9 million was made available for economic development activities and as reimbursement to local governments in Suburban Cook County, \$49.9 million was reserved for use in FY2021, leaving approximately \$245.8 million to help offset expenses related to the County's efforts to contain the coronavirus at the Cook County Jail, hospital and across the County's Departments. As part of the FY2020 adopted budget, \$10 million in fund reserves was allocated to the General Fund and \$20 million was reclassified from unassigned to assigned as part of the County's efforts to establish a Pension Stabilization reserve. Based on current estimates for FY2020, we anticipate a net operating deficit, of approximately \$158.8 million prior to reimbursements from the Coronavirus Relief Fund. By the end of FY2020, the anticipated end of year fund balance will be approximately \$513.4 million. For FY21, the Appropriation Bill allocates \$76.8 million of the County's unassigned fund balance for General Fund operating purposes resulting in an estimated end of year fund balance of \$436.6 million, which is just over 22% of the County's annual budgeted expenditures. According to the long-term revenue and expense forecasts for FY2022 to FY2025, the long term projected unassigned Fund balance is estimated to be \$396.6 million, \$383.8 million, \$375.7 million and \$371.4 million in FY2022, 2023, 2024 and 2025 respectively.

**Chart 4: Ending Fund Balance Projection**







## FY 2021 CCH Project Plan

Long term revenue forecasting at Cook County continues to be a work in progress around multiple recurring revenue sources. However, sources at CCH have been identified by the Independent Revenue Forecasting Commission as requiring additional research and formality around forecasting methodologies and practices. Further, in doing so, additional understanding around current practices regarding net patient services and health plan services revenue collection is critical to reducing variation while increasing accuracy in forecasts.

A major goal for FY2021 will be to strive for greater collaboration with CCH, with an end goal of producing forecasts that are reasonable, conservative, and explainable within acceptable tolerance levels and deemed satisfactory by the Independent Revenue Forecast Commission.

## Economic Update

Economic indicators were compared on a monthly basis between 2019 and 2020, to provide insight to analysis performed for the county and understanding of the effects of the COVID-19 pandemic. Data was found related to Gross Metro Product, Consumer Price Index (CPI), labor, median household income, total personal income, and retail sales for 2019 and 2020 for the Chicago-Naperville-Elgin metropolitan area. CPI data was sourced from the Bureau of Labor Statistics, while other metrics came from Moody's Analytics which bases their forecast and numbers on data provided by the U.S Census Bureau, the Bureau of Economic Analysis, and the Bureau of Labor Statistics. Except for CPI, data for 2020 is forecasted by Moody's Analytics. 2019 data used to identify percent change of metrics in 2020 is real quarterly values interpolated into months by Moody's Analytics.

The Gross Metro Product averaged \$670 Billion in 2020, which was a 2.4% decline compared to 2019. This decline is comparable to the change in national GDP, which decreased 2.3% in 2020 compared to 2019, according to the Bureau of Economic Analysis. CPI averaged 243.69 in the Chicago Metro Area in 2020, an increase of 1.2%, slightly below the national average of a 1.4% increase. The labor force saw a 7.1% decrease in number employed in 2020. Nationally, there was a decrease in number employed of 6.9% from 2019, and a significant rise in unemployment claims in 2020, with the greatest number of claims in April. Both total and median household income have risen in the Chicago metropolitan area in 2020 from 2019, with total income showing greater growth over the year than median. This suggests a K shaped recovery, in which the high-income population see income growth that the middle and lower class don't experience. Retail sales rose 9.1% in 2020, primarily driven by retail consumption in the second half of the fiscal year.



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**Table 3: 2020 Actuals and Forecasts of Economic Indicators, Chicago-Naperville-Elgin Metropolitan Area**

	Gross Metro Product in Billions	Consumer Price Index	Labor: Number of Employed in Thousands	Income: Median Household	Real Income: Total Personal per Capita <sup>3</sup>	Real Disposable Personal Income per Capita*	Retail Sales in Billions
December	701.41	242.08	4,730.34	75,536.13	57,766.45	50,784.08	182.71
January	704.38	244.36	4,774.27	74,747.31	57,606.07	50,524.51	181.92
February	693.19	244.41	4,705.25	74,923.69	58,114.90	51,075.72	181.58
March	663.86	242.66	4,480.60	76,506.69	59,549.38	52,738.40	182.18
April	630.24	240.36	4,193.60	78,661.03	61,429.54	54,902.11	184.69
May	613.61	242.65	3,993.74	80,040.60	62,965.68	56,576.34	190.26
June	626.44	243.48	3,976.91	79,739.85	63,566.18	57,054.94	199.12
July	656.62	244.05	4,087.81	78,107.55	63,169.17	56,407.77	208.90
August	683.77	244.34	4,219.88	75,906.00	61,887.27	54,962.65	216.42
September	692.68	245.75	4,289.42	73,990.52	60,150.51	53,289.80	219.31
October	688.53	245.58	4,305.02	73,078.26	59,085.63	52,405.02	218.89
November	682.16	244.61	4,301.05	73,877.81	60,040.81	53,472.00	217.44
Average	669.74	243.69	4,338.16	76,259.62	60,444.30	53,682.78	198.62

**Table 4: Percent Change between 2019 Actuals and 2020 Actuals/Forecasts**

	Gross Metro Product	CPI	Labor: Number of Employed	Income: Median Household	Income: Total Personal per Capita	Disposable Personal Income per Capita	Retail Sales
December	3.7%	2.2%	1.0%	2.7%	0.5%	-0.3%	2.3%
January	3.9%	2.6%	2.0%	1.1%	-0.3%	-1.0%	1.7%
February	1.9%	2.0%	0.6%	0.9%	0.2%	0.1%	1.3%
March	-2.6%	1.1%	-4.0%	2.5%	2.8%	3.7%	1.1%
April	-7.8%	0.3%	-10.1%	4.9%	6.3%	8.3%	1.8%
May	-10.5%	0.4%	-14.4%	6.4%	9.3%	11.9%	4.2%
June	-9.0%	1.1%	-15.0%	5.8%	10.4%	12.8%	8.5%
July	-4.9%	1.0%	-12.8%	3.4%	9.6%	11.2%	13.5%
August	-1.1%	1.0%	-9.9%	0.1%	7.1%	7.8%	17.3%
September	0.3%	1.4%	-8.0%	-3.0%	3.7%	4.0%	18.9%
October	-0.3%	1.0%	-7.3%	-4.5%	1.6%	2.0%	18.8%
November	-1.7%	0.8%	-7.8%	-3.3%	3.4%	4.4%	18.5%
Total	<b>-2%</b>	<b>1.2%</b>	<b>-7.1%</b>	<b>1.4%</b>	<b>4.5%</b>	<b>5.4%</b>	<b>9.1%</b>

<sup>3</sup> Per Capita Income calculated as the proportion of total personal income to the population in the metropolitan area



National retail sales have shown interesting trends through 2020. With social distancing mandates, e-commerce sales have grown massively in 2020. Historically, e-commerce sales have grown about 15% year over year. The 2nd quarter of 2020 had 44.5% growth from one year prior to make up 16.1% of total retail sales. E-commerce sales in the 3rd quarter of 2020 have leveled off, but remain high. This is promising for the beginning of online sales tax collections for Cook County on January 1, 2021. Cook County is expecting some level of permanent shift from brick and mortar to online even after full lifting of social distancing mandates preventing in person shopping.

**Table 5: US Census Bureau Quarterly E-Commerce 3Q 2020**

Quarter (Seasonally Adjusted)	E-commerce as a Percent of Total	Percent Change From Prior Quarter		Percent Change From Same Quarter A Year Ago	
		Total	E-commerce	Total	E-commerce
3rd quarter 2020(p)	14.3	12.0	-1.0	7.0	36.7
2nd quarter 2020(r)	16.1	-3.9	31.9	-3.5	44.5
1st quarter 2020	11.8	-1.1	2.4	2.1	14.8
4th quarter 2019	11.3	0.5	2.2	3.8	16.6
3rd quarter 2019(r)	11.2	1.0	4.7	3.8	17.3

The latest national retail trade report shows that several of our top sales tax categories are significantly down from one year ago. In particular, this includes food and drinking places at -21.2%.



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**Table 6: US Census Bureau Advance Monthly Retail Trade Report December 2020**

Kind of Business	Dec 2020 Percent Change from	
	Nov. 2020	Dec. 2019
Retail & food services, total	-0.7	2.9
Total (excl. motor vehicle & parts & gasoline stations)	-2.1	2.6
Motor vehicle & parts dealers	1.9	10.1
Furniture & home furn. Stores	-0.6	3.1
Electronics & appliance stores	-4.9	-16.6
Building material & garden eq. & supplies dealers	0.9	17.0
Food & beverage stores	-1.4	8.9
Grocery stores	-1.7	7.9
Health & personal care stores	1.1	5.8
Gasoline stations	6.6	-12.1
Clothing & clothing accessories stores	2.4	-16.0
Sporting goods, hobby, musical instrument, & book stores	-0.8	15.2
General merchandise stores	-1.2	1.1
Department stores	-3.8	-21.4
Miscellaneous store retailers	1.7	4.7
Nonstore retailers	-5.8	19.2
Food services & drinking places	-4.5	-21.2