



THE UNITED STATES
CONFERENCE OF MAYORS
WATER COUNCIL



October 2022

**\$144.6 Billion All-Time High Local
Spending on Water and Sewer
Utilities in 2020 – CARES Act Fiscal
Stimulus Makes an Impact**



THE UNITED STATES CONFERENCE OF MAYORS

Francis X. Suarez

President
United States Conference of Mayors
Mayor of Miami, FL

Hillary Schieve

Vice President
United States Conference of Mayors
Mayor of Reno, NV

Andrew J. Ginther

Second Vice President
United States Conference of Mayors
Mayor of Columbus, OH

Deborah Robertson

Mayor of Rialto, CA
Co-Chair, Mayors Water Council

Daniel Horrigan

Mayor of Akron, OH
Co-Chair, Mayors Water Council

Tom Cochran

CEO and Executive Director
United States Conference of Mayors

\$144.6 Billion All-Time High Local Spending on Water and Sewer Utilities in 2020 – CARES Act Fiscal Stimulus Makes an Impact

SUMMARY

The Conference of Mayors tracks long-term trends in local water and sewer utility infrastructure and finances because continuity of utility services provided by the City are critical to protect public health, environmental quality and the economic base of communities. Annual Census reports provide financial information on expenditures and revenues that taken together offer a national aggregate measure of local utility infrastructure investment and budget performance. This report examines several financial aspects of public utility expenditures and revenues over the period 1993 to the recently released Census data for 2020. Widespread concern over the 2020 pandemic, a national unemployment spike from under 4% in 2019 to 8.1%, and travel restrictions caused budget planners to reconsider impacts that could reduce both expenditures and revenues – that didn't happen. Contrary to those concerns, both expenditures and revenues increased in 2020 rather than decreased. The 2020 financial data for local utilities does not yet fully reflect impacts of the first year of pandemic related restrictions, but does reflect historic levels of financial support for families and businesses that rely on local utilities in the \$2.2 trillion Coronavirus Aid, Relief, and Economic Security (CARES) Act, and that made a fiscal difference for local utilities.

The CARES Act, signed into law on March 27, 2020, was a \$2.2 trillion fiscal support and stimulus package Congress adopted in 2020 in response to COVID-19. The law was designed to provide public health protection and to avoid a national economic meltdown. The CARES Act dedicated historic levels of funding: to support individuals with direct payments from the Treasury, to extend and expand unemployment benefits, and to provide financial assistance to industry, small businesses, hospitals and state and local government. Perhaps the most direct link between water and sewer utilities and CARES Act funding was the income support generated by the elective use of funds for customers to pay their utility bills. It is likely that some of the funding aid that started flowing soon after CARES became law created an increased degree of confidence in continuing to fund local utility projects while also helping to support the continued revenue streams from customer payment. CARES funding helped local utilities finances, provided a measure of stability between expenditures and infrastructure investment and continuity of critical services to the customer, and was a positive factor in the record expenditures of \$144.6 billion in 2020.

Key Findings:

- The 2019 to 2020 change in municipal utilities expenditures indicates a remarkable 7.3% increase, adding more than \$10 billion in spending for a total of \$144.6 billion, when a 4% increase, or roughly \$4.5 billion, in additional spending was expected based on long-term trends. The pandemic caused economic uncertainty would suggest that the normal 4% increase might be substantially reduced.
- A rough measure of sustainable utility finances is the ratio of utility expenditures to revenues.

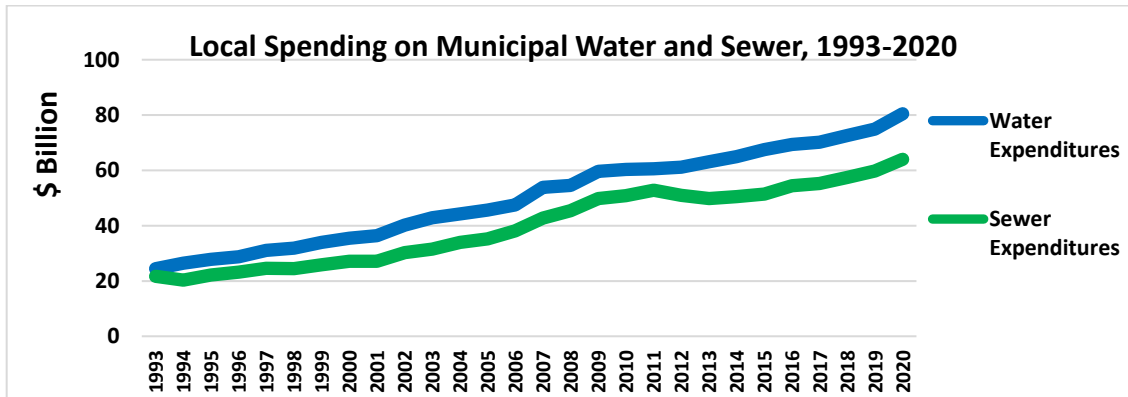
-
- The ratio for sewer expenditures divided by revenues remained relatively stable (2018-2020) at 0.96, a 4% surplus for sewer.
 - The ratio for water was 1.06, a 6% shortfall in 2020.
 - The cumulative combined expenditures for local water and sewer utility infrastructure and services from 1993 to 2020 is \$2.53 trillion.
 - \$1.1 trillion sewer utility expenditures.
 - \$1.4 trillion total water utility expenditures.
 - CARES Act provided some utility support via several categories of funding that allowed use of funds to pay utility bills:
 - A \$367 billion loan and grant program for small businesses helped keep them active and provided continued employment.
 - An expansion of unemployment benefits to include furloughed workers, gig workers, and freelancers, with benefits increased by \$600 per week for a period of four months.
 - Direct payments to families of \$1,200 per adult and \$500 per child for households making up to \$75,000.
 - \$500 billion funds for loans to corporations overseen by an inspector general and a congressional panel.
 - \$150 billion to state and local governments.

I. Long-Term Municipal Utility Expenditure Trends, 1993-2020

Local government spending on municipal water and sewer reached an all-time annual high of \$144.6 billion in 2020 according to the United States Census Bureau’s recently released estimates for State and Local Government Finances. Spending in 2020 increased by \$10 billion - a 7.3% increase, when \$4.5 billion or 4% increase is more in line statistically with spending trends in the last two decades or more.¹ Explaining the spike in spending on local utilities is difficult because the \$2.2 trillion Coronavirus Aid, Relief, and Economic Security (CARES) Act provided financial resources that were used for local utility spending and customer revenue replacement. The relationship between the 2020 CARES Act and utility finances is direct but not quantifiable due to the lack of reporting on use of funds by eligible entities receiving financial assistance.

An analysis of long-term expenditure trends from 1993 to 2020 (Figure 1) demonstrates “near” continuous increased spending over time. This trend is primarily associated with normal economic conditions, but there is also substantial influence from federal economic stimulus policies. For example, there is a noticeable uptick in spending between 2009 and 2010 when \$6 billion in grant-funding for utility “shovel-ready” construction projects was included in the American Relief and Reinvestment Act (ARRA) – a Congressional response to the Great Recession. The post-Great Recession period between 2010 and 2016 experienced a drop in aggregate local utility infrastructure construction spending and relatively flat spending between 2010 and 2013. Unlike the CARES Act, the ARRA financial stimulus policy addressing economic distress caused by the Great Recession had a quantifiable effect on some utilities. The economic disruption triggered by pandemic restrictions in 2020 did not flatten local spending on utility infrastructure similar to the effects of the Great Recession, but investment increased more than expected.

Figure 1:

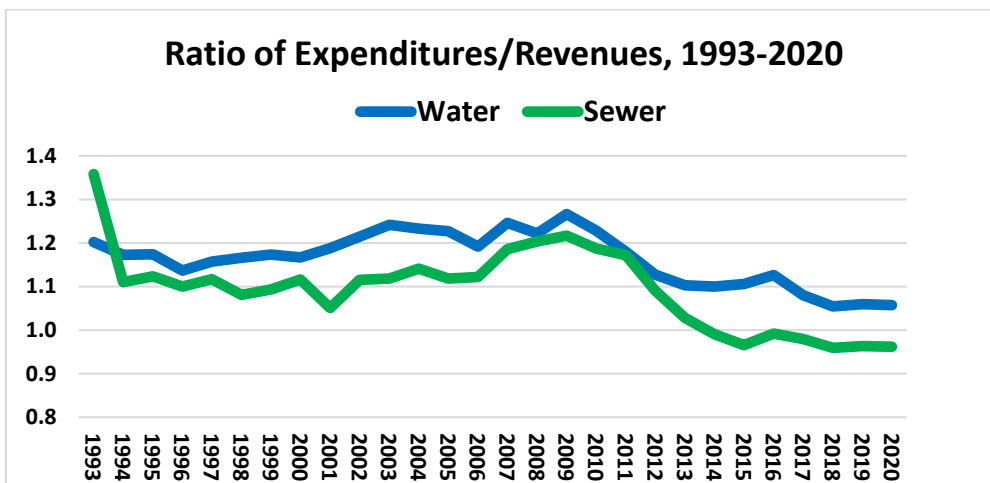


II. Municipal Utility Revenue Trends

¹ The 28 year average growth in local water and sewer utilities is 4.3%, and one standard deviation is 3.3%. An average of 7.3% growth in 2020 approaches two standard deviations from the average.

Closing the longstanding gap between utility expenditures and revenues is a challenge that has seen much progress, (Figure 2). The ratio of expenditures to revenues is a rough measure of how close a utility comes to raising the revenues to sustain a facility and its operations. A ratio of 1.0 indicates that revenues cover expenditures for the budget year. Ratios above 1.0 indicate a shortfall in revenues and a ratio below 1.0 indicates surplus revenues. A higher ratio may be explained, partly, by the time-process involved with obligating debt to begin construction with revenues following the beginning or modification of operations. This measure helps explain how utilities have improved over the last 28 years in generating sustainable revenues. For example, 1993 annual local sewer expenditures were \$21.7 billion and revenues were \$15.9 billion, a ratio of 1.36, or, a 36% shortfall in revenues. Fast forward to 2020 and sewer revenues at \$66.5 billion exceeded expenditures of \$64 billion, a ratio of 0.96, indicating surplus instead of deficits. Water expenditures in 1993 were \$24.4 billion with revenues of \$20.3 billion, a ratio of 1.2.; but in 2020 expenditures were \$80.4 billion with revenues of \$76 billion, a ratio of 1.06. Much of the progress in raising sustainable revenues are due to efficiency and technology improvements.

Figure 2:



III. The Cumulative Local Government Investment in: Local Water/Sewer Infrastructure and Services

Cumulative local expenditures for both water and sewer utility infrastructure and operations from 1993 to 2020 reached a total of \$2.53 trillion. Total sewer utility expenditures were \$1.1 trillion; and total water utility expenditures were \$1.4 trillion.

IV. What Changed in Water and Sewer Infrastructure Investment

Total state and local construction spending in 2020 was \$340 billion, a \$22 billion, or 7%, increase over 2019. 2020 local utility construction spending was \$44.4 billion compared to \$40.6 billion in 2019, a 7.5% increase. The increase was uneven across utility categories, (Table 1).

The single largest utility construction expenditure category is sewer line and pump station at \$10.4 billion in 2020, down from \$10.5 billion in 2019, a less than 1% decline. The next largest expenditure, wastewater plant, grew by 15% from \$8.4 billion in 2019 to \$9.7 billion in 2020. Water lines, the third largest expenditure category, grew over 12% from \$7.1 billion 2019 to \$8.1 billion in 2020. Water supply plant also grew 8.8% over 2019 to \$5.6 billion in 2020. Several other water supply components exhibit appreciable gains in 2020, such as pump stations and tank-towers with an additional \$617 million and \$292 million expenditure, respectively.

**Table 1:
Annual Construction Spending for Sewer and Water Infrastructure**

Type of Construction:	2019	2020	2019-2020	2019-2020
Total State and Local Construction	(\$ Millions)	(\$ Millions)	Change %	Change (\$ Millions)
	318,069	340,241	7.0	22,172
Sewage/dry waste	13,331	12,537	-6.0	-794
Plant	2,629	1,908	-27.4	-721
Line/pump station	10,551	10,475	-0.7	-76
Waste water	11,713	13,901	18.7	2,188
Plant	8,461	9,780	15.6	1,319
Line/drain	3,252	4,120	26.7	868
Water Supply	15,613	18,010	15.4	2,397
Plant	5,206	5,665	8.8	459
Well	752	715	-4.9	-37
Line	7,189	8,096	12.6	907
Pump station	1,071	1,688	57.6	617
Reservoir	720	879	22.1	159
Tank-Tower	676	968	43.2	292

Data and Methods

The information examined in this report derives from two separate but compatible data sets. The time series review of annual estimated expenditures and revenues ranges from 1993 to 2020, and the data are found in the Census' Annual State and Local Government Finances. This information provides quantitative measures of aggregate local spending and revenues nationally. More specifically, the data are analyzed to display changes in spending and revenues over time, and to

measure cumulative spending on water and sewer utilities over the review period 1993-2020, and to examine the ratio of expenditures to revenues as a performance measure.

The second Census data set - Annual Value of State and Local Construction Put in Place 2012 – 2021, reports monthly and annual information on local sewer and water infrastructure expenditures. This information is reviewed to identify which infrastructure components experienced investment growth or decline in 2020 compared to pre-pandemic 2019. The Census reports estimated construction spending by local government for: 2 sewer categories (plant and line/pump); 2 wastewater categories (plant and line/drain), and 6 water supply plant categories (treatment plant, line, pump station, well, tank/tower and reservoir).

Comments

The 2020 health protection mandate for the first year of widespread pandemic restrictions in America and elsewhere triggered fiscal uncertainty and concerns about economic stability. Such uncertainty affected the planning and budget decisions of all levels of government including public works and utilities, business and industry, and families and households. The local government finance reports for 2020, however, suggest a robust utility sector when a downturn was expected.

Congress made an extraordinary decision to begin combating the effects of the pandemic by appropriating over \$2.2 trillion in a broad-based fiscal stimulus package. The CARES Act is the largest rescue package in U.S. history. The exact dollar value added to local utility revenues from the variety of programs in the law is unknown but may be partially explained by the law's direct payments to individuals and households, state and local government, unemployment insurance, ban on home evictions, some bans on utility shut-offs, etc. Overall estimates of 2020 expenditures and revenues, however, provides indirect evidence that CARES Act funding found its way to support local utilities.

Local utility financing will get a boost from Congressional funding for the rest of this decade as the programs in several new laws are implemented. The CARES stimulus legislation was followed in Congress by a series of laws designed to continue economic and health protection measures, (Figure 3). The American Rescue Plan Act (ARPA) was signed into law in March of 2021, followed by the Infrastructure Investment and Jobs Act (IIJA) (also called the Bipartisan Infrastructure Law (BIL)) in November of 2021, and that law was followed by the Inflation Reduction Act (IRA) signed into law in August 2022. These laws provide continued fiscal support for people, industry, small businesses and communities. ARPA funding allows use of funds for health protection, infrastructure investment in water and sewer projects, and revenue replacement for utilities. The IIJA provides over \$50 billion in new federal financial assistance for water and sewer infrastructure projects. The IRA allows use of funds for utility projects that make both water and energy use more efficient and increasing the use of renewable energy.

Figure 3:

