

Five Year Analysis of Household Solid Waste and Recycling Fees

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**Recycling and Materials Management Section
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Introduction

The N.C. Department of Environmental Quality's Division of Environmental Assistance and Customer Services' ([DEACS](#)) Recycling and Materials Management Section ([RMMS](#)) analyzed five years of local government solid waste and recycling fee data collected from [Solid Waste and Materials Management Annual Reports](#) from fiscal year (FY) 2015-16 through FY 2019-20. Annual reports are completed by every local government in the state.

Household Solid Waste and Recycling Fees

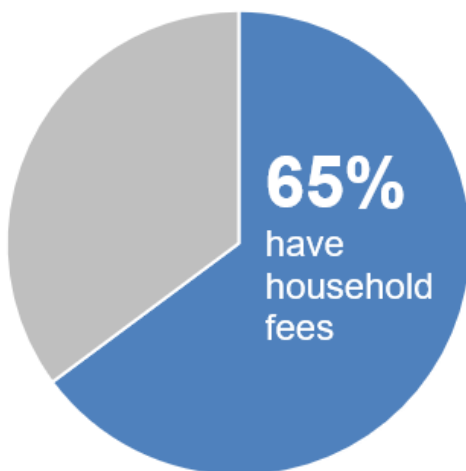
Of the 652 local governments in North Carolina, 435 operated or contracted for recycling programs in FY 2019-20. All 100 counties in the state have recycling programs. Of the 552 North Carolina municipalities, 335, or 61 percent, have their own recycling programs.

Most local government recycling programs in the state are funded in whole or in part through household fees, property taxes, or a combination of the two. Other mechanisms for funding solid waste and recycling services include landfill tipping fees and volume/weight-based fees for municipal solid waste.

This analysis includes the annual solid waste, recycling, yard waste, bulky waste, and/or availability fees charged by local governments per household. The sum of these fees is referred to as the "combined solid waste and recycling fee." It includes only those fees which are charged monthly or annually; bulky item and yard waste pickup that is charged per collection is not included. Most governments with recycling programs provided one total sum for all their solid waste services.

Due to an improvement in methodology to capture more accurate data, the figures provided throughout this report differ from those in DEACS' previous Five-Year Analysis of Household Solid Waste and Recycling Fees (FY 2015 – FY 2019).

Figure 1. Recycling programs with household fees in FY 2019-20.

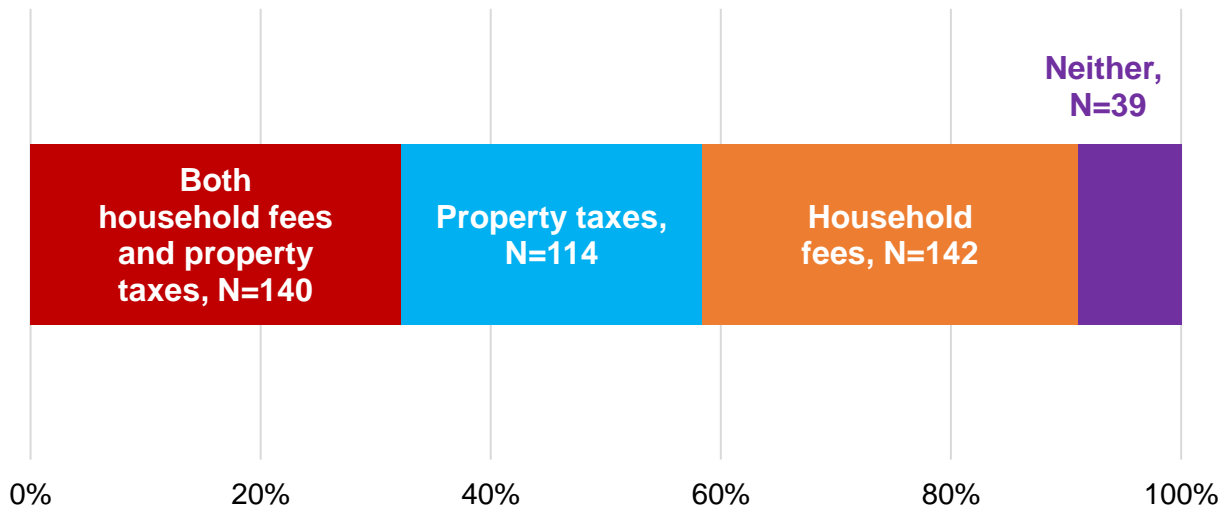


In FY 2019-20, 282 local governments with recycling programs, or 65 percent of the state's 435 local government recycling programs, funded their programs using household fees (identified as the combined solid waste and recycling fee above) either in whole or in part.

As shown in Figure 2 below, 142 recycling programs were funded using household fees, 114 were funded using property taxes, and 140 were funded using a combination of property taxes and household fees.

Thirty-nine local government recycling programs either did not report their funding mechanisms or did not use property taxes or household charges. Of these 39 programs, 26 did not report any funding mechanisms or provided inconsistent data and were removed from this analysis. Thirteen recycling programs did not report using either property taxes or household fees to fund their programs, and instead reported using landfill tipping fees and/or volume/weight-based fees.

Figure 2. Local government funding of recycling programs through property taxes and household fees, FY 2019-20 (N=435).



Combined Solid Waste and Recycling Fees

The average annual household fee for combined solid waste and recycling services increased by \$21, or 13 percent, between FY 2015-16 and FY 2019-20 as shown in Table 1 and Figure 3 below. The average combined solid waste and recycling fee in FY 2019-20 was \$14.53 per month.

Of the 282 recycling programs with combined solid waste and recycling household fees in this analysis, 192 local governments, or 68 percent, increased their fees during the past five fiscal years. Twenty-seven percent of recycling programs with household fees did not increase their fees, and five percent of recycling programs with household fees decreased their fees.

Table 1. Combined annual solid waste and recycling fees, FY 2015-16 through FY 2019-20, N=282.*

	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	Total Increase
Average	\$154	\$157	\$161	\$168	\$174	\$21
Median	\$157	\$161	\$165	\$168	\$174	\$17

*All numbers are rounded to the nearest whole number.

Figure 3. Average and median combined annual household charges for solid waste, recycling, yard waste, bulky waste, and/or availability fees from FY 2015-16 to FY 2019-20, N=282.

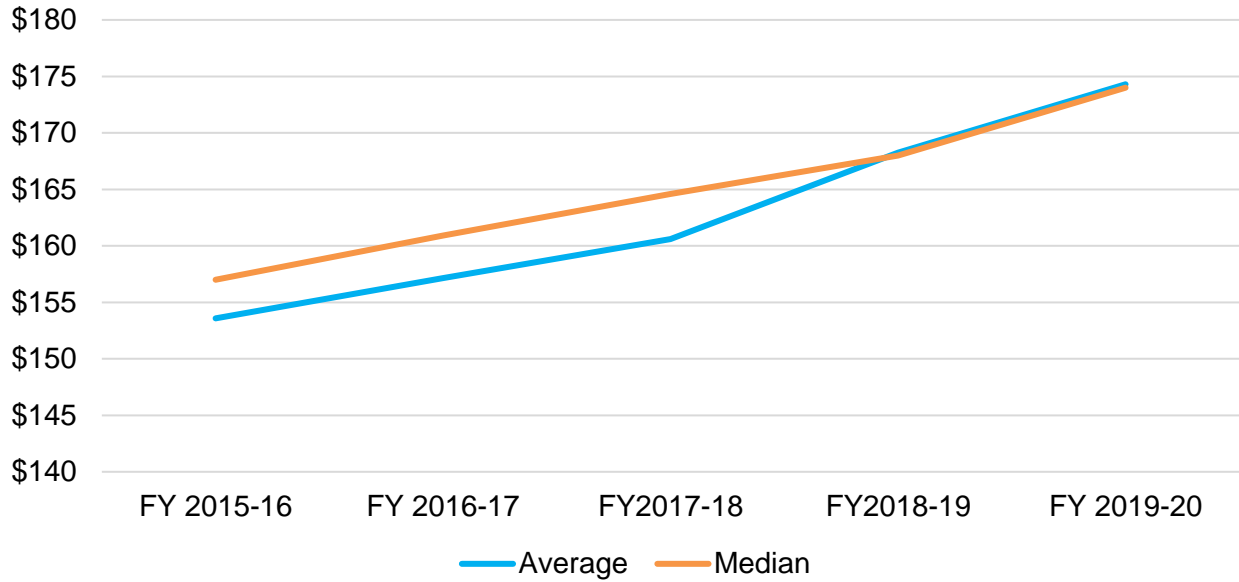
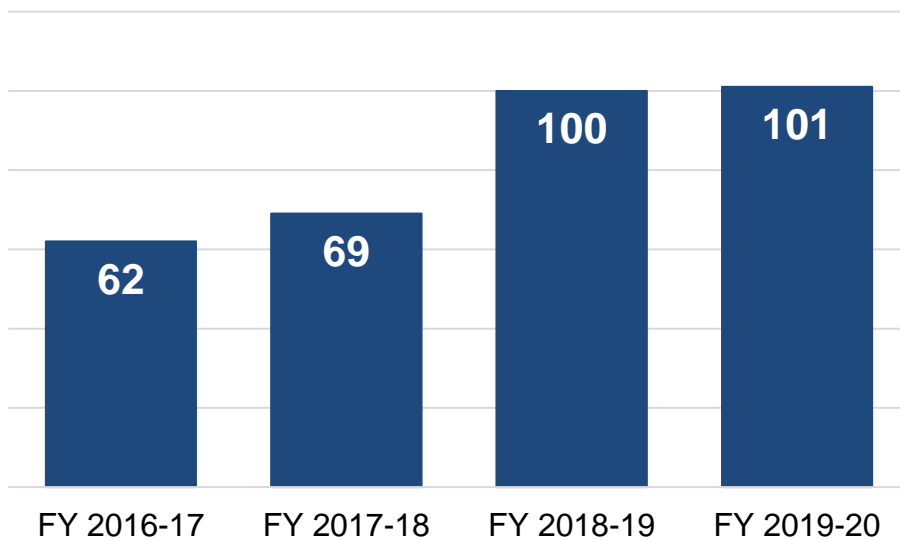


Figure 4 shows the number of local governments that increased their combined solid waste and recycling fees from FY 2016-17 to FY 2019-20. The largest fee increase occurred in FY 2019-20, when 101 local governments raised their combined fees an average of \$6.05.

Figure 4. Number of recycling programs (out of 282 programs funded in whole or in part by household fees) that increased combined solid waste and recycling fees in a given fiscal year.



County Versus Municipality Combined Solid Waste and Recycling Fees

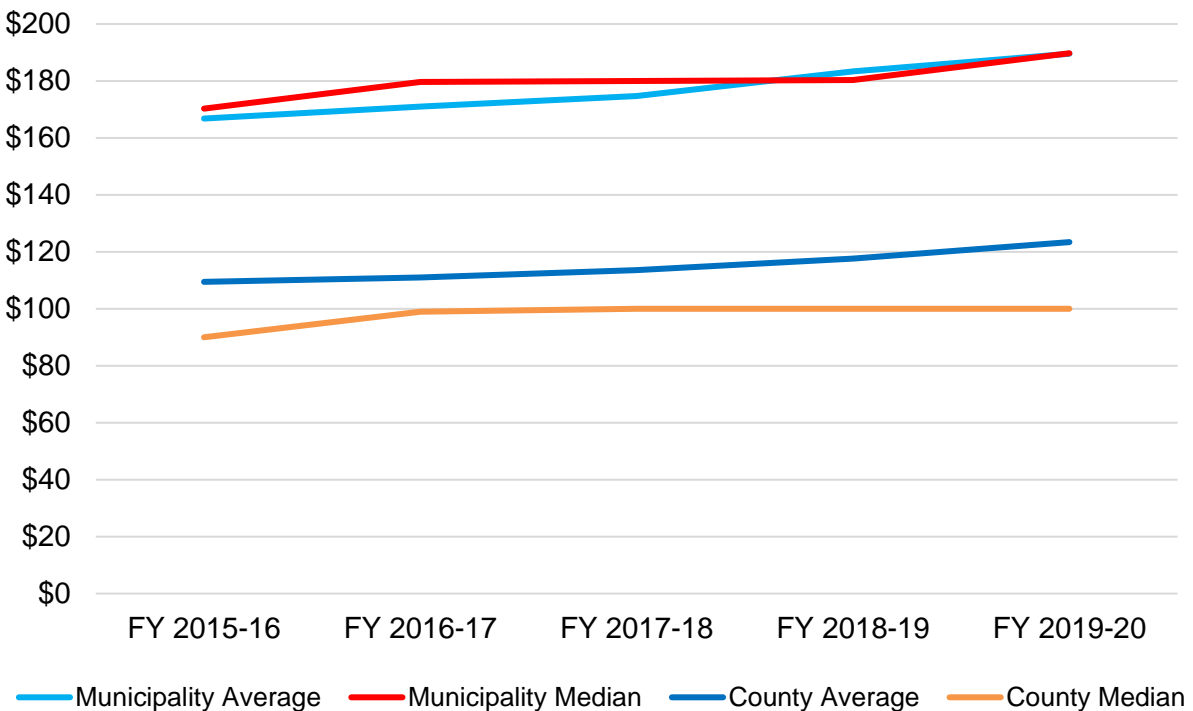
Municipal solid waste and recycling fees are consistently higher than county fees as shown in Table 2 and Figure 5 below. In FY 2019-20, annual municipal fees were \$66 higher, on average, than county fees. In the same fiscal year, the median municipal fee was \$90 higher than the median county fee.

Table 2. Annual combined solid waste and recycling fees by county (N=65) and municipality (N=217), FY 2015-16 through 2019-20.*

	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Municipality Average	\$167	\$171	\$175	\$183	\$190
Municipality Median	\$170	\$180	\$180	\$180	\$190
County Average	\$109	\$111	\$114	\$118	\$123
County Median	\$90	\$99	\$100	\$100	\$100

*All numbers are rounded to the nearest whole number.

Figure 5. Average and median combined annual household charges for solid waste and recycling by county (N=65) and municipality (N=217), FY 2015-16 to FY 2019-20.



County Solid Waste and Recycling Fees

Most counties operate drop-off convenience sites for recycling drop-off programs instead of operating curbside programs. In FY 2019-20, of the 100 counties, 80 have drop-off recycling programs; 17 have both curbside and drop-off programs; and three have only curbside recycling programs. Sixty-five counties implement household fees for their recycling and solid waste programs.

As shown in Table 3, county annual combined household fees for solid waste and recycling are least expensive for drop-off only recycling programs and most expensive for curbside-only recycling programs. While Table 3 shows combined solid waste and recycling fees, the collection methods shown reflect only county collection methods for recycling. Counties may or may not have the same collection methods for solid waste, yard waste, and/or bulky waste.

Table 3. Annual combined county solid waste and recycling fees (N=65) by recycling collection method, FY 2019-20.

Recycling Collection Method	No. Counties with Household Fees	Average	Median
Drop-off Only	55	\$110	\$98
Drop-off and Curbside	8	\$182	\$165
Curbside Only	2	\$268	\$268

Municipal Solid Waste and Recycling Fees

Most municipalities with recycling programs operate or contract for curbside recycling service. Of the 335 municipalities with recycling programs in FY 2019-20, 257 municipalities have curbside recycling programs; 44 have both curbside and drop-off programs; and 31 have only drop-off recycling programs. Three additional municipalities have other recycling programs that are not categorized as traditional drop-off or curbside programs.

Shown in Table 4 below, 215 municipalities have combined solid waste and recycling fees for their curbside and/or drop-off recycling programs. While Table 4 shows combined solid waste and recycling fees, the collection methods shown reflect only municipal collection methods for recycling. Municipalities may or may not have the same collection methods for solid waste, yard waste and/or bulky waste.

Table 4. Annual combined municipal solid waste and recycling fees (N=215) by recycling collection method, FY 2019-20.

Recycling Collection Method	No. Municipalities with Household Fees	Average	Median
Curbside Only	162	\$190	\$187
Drop-off and Curbside	32	\$195	\$195
Drop-off Only	21	\$184	\$192

Standalone Recycling Fees

Of the 282 recycling programs with household charges included in this analysis, 91 local governments reported separate household fees for recycling and solid waste and provided consistent data across the study period.

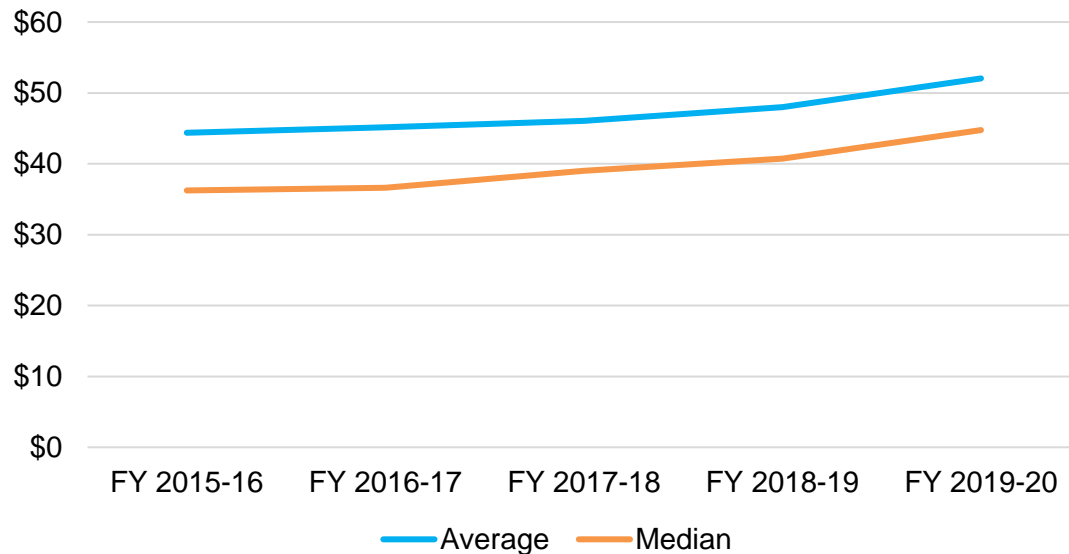
Shown in Table 5 and Figure 6 below, the average annual household recycling fee increased by \$8 between FY 2015-16 and FY 2019-20. The average recycling fee in FY 2019-20 was \$4.34 per month. However, these figures do not include the remaining 191 recycling programs with household charges that did not separate their recycling fees from their combined solid waste and recycling fees.

Table 5. Annual standalone recycling fees, FY 2015-16 through 2019-20, N=91.*

	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	Total Increase
Average	\$44	\$45	\$46	\$48	\$52	\$8
Median	\$36	\$37	\$39	\$41	\$45	\$9

*All numbers are rounded to the nearest whole number.

Figure 6. Average and median annual household recycling fee, FY 2015-16 to FY 2019-20, N=91.



Conclusion

Of the 435 local governments in North Carolina that have recycling programs, a majority (65 percent) charge recycling and solid waste household fees. Sixty-eight percent of recycling programs with household fees for solid waste and recycling increased their fees over the past five fiscal years. The largest combined solid waste and recycling fee increase in the past five years occurred in FY 2019-20, when 101 local governments increased their household fees an average of \$6.05 per year, or \$0.50 per month.

On average, combined solid waste and recycling fees increased by 13 percent over the past five fiscal years. The statewide average solid waste and recycling fee in FY 2019-20 was \$14.53 per month, up from \$12.80 per month in FY 2015-16.

For comparison to other utilities, the median residential water bill in North Carolina in 2020 was \$35.98 per 5,000 gallons, and the median wastewater bill per 5,000 gallons was \$44.27.¹ Households in North Carolina use an average of 4,000 to 5,000 gallons of water per month.² The average monthly residential electricity bill in North Carolina in 2020 was \$118.44.³ The average standalone recycling fee reported by local government recycling programs in FY 2019-20 was \$4.34 per month.

¹ https://efc.sog.unc.edu/wp-content/uploads/sites/1172/2021/05/NC-2020_Final.pdf

² https://efc.sog.unc.edu/wp-content/uploads/sites/1172/2021/06/NCLM_EFC_Annual_Rates_Report_20181.pdf

³ https://www.eia.gov/electricity/sales_revenue_price/pdf/table5_a.pdf