

NACWA

2016 COST OF CLEAN WATER INDEX

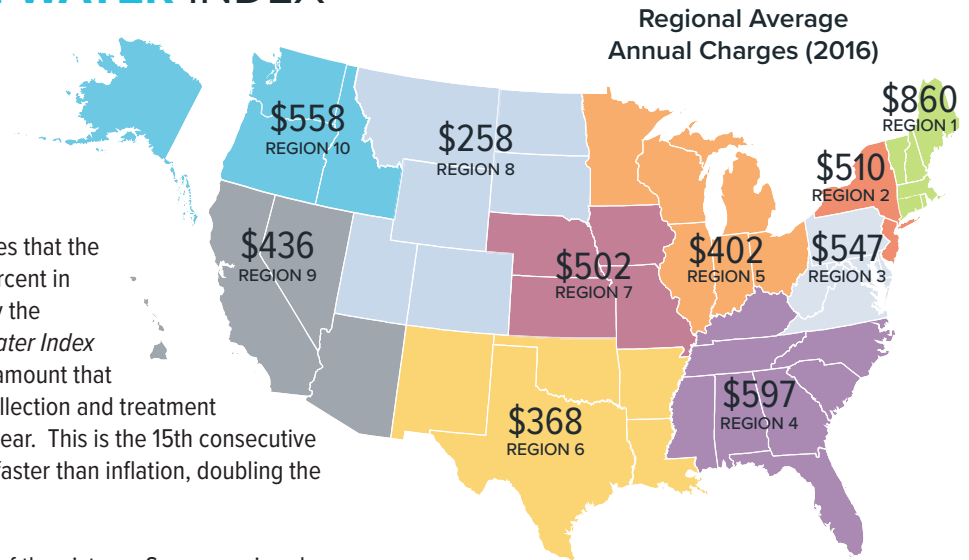
Average Charge for Wastewater Services Increases 2.6% in 2016

NACWA's 2016 *Cost of Clean Water Index* indicates that the average cost of wastewater services rose 2.6 percent in 2016, double the rate of inflation as measured by the Consumer Price Index (CPI) (see *Cost of Clean Water Index vs. Inflation* chart below). The national average amount that a single-family residence pays for wastewater collection and treatment (i.e., the sewer service charge) is now \$479 per year. This is the 15th consecutive year that sewer service charges have increased faster than inflation, doubling the average sewer service charge since 2002.

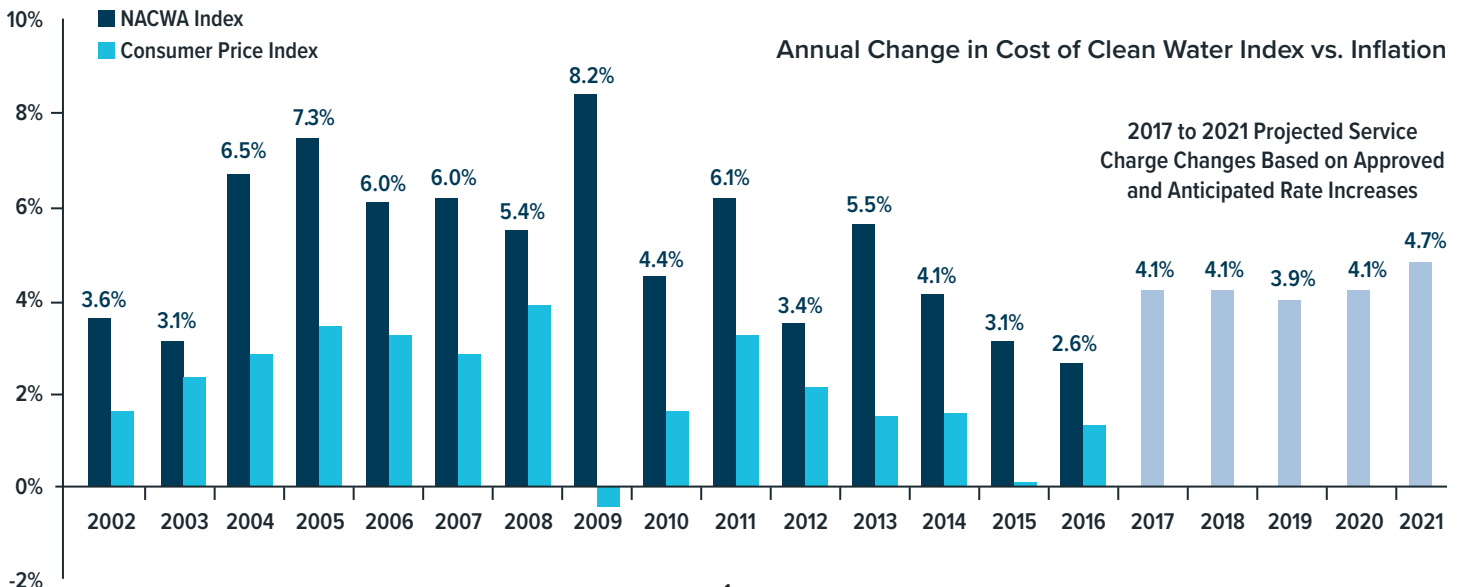
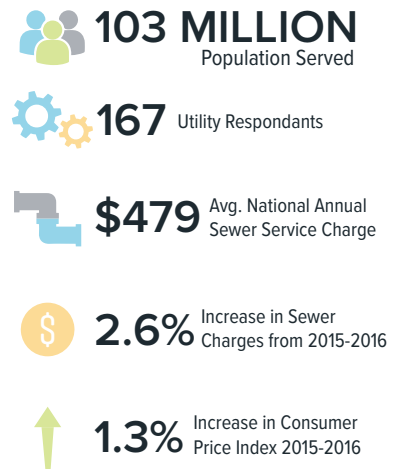
The national average of \$479 provides only part of the picture. Sewer service charges vary widely among EPA regions and states, and are affected by demographics, geography, aging infrastructure, local water quality issues (e.g., total maximum daily loads), wet weather infrastructure needs, and drought-related water conservation. As an example of these variations, the *Regional Average Annual Charge* map (above) shows a breakdown of average charges by EPA region. The average service charge by region varies from a low of \$258 in EPA Region 8 to a high of \$860 in EPA Region 1.

The *Cost of Clean Water Index vs. Inflation* chart (below) presents a national snapshot of the increase in service charges, as compared to inflation, since 2002. Table A-1 (see *Cost of Clean Water Data Annex*, page 3) provides a breakdown of NACWA *Index* values and service charges back to 1985, the base year for the *Index*. The values for 2016 are based on the responses from 167 NACWA members serving nearly 103 million people.

In 2016, a majority of clean water utilities implemented rate structures that resulted in increases in the average annual household service charge. However, in some communities (6% of respondents), volume-based rates increased, but average service charges dropped due to reductions in residential water use. Additional national and regional data are included in Tables A-1 and A-3 (see *Cost of Clean Water Data Annex*, pages 3-4).



2016 NACWA Cost of Clean Water Index Summary



Projected Charges Expected to Increase 3.9 to 4.7% per Year

Customers pay for sewer services in a variety of ways. Charges may be based on property values, gallons of water used, on a flat rate, or include some combination of these values. Because of this variability, the NACWA *Index* uses what the average single-family residence pays annually because it is a more consistent measure to track the cost of service over time.

This year NACWA's *Index* indicates that clean water utilities are expecting average charges to continue to increase from 3.9 to 4.7% per year for the next five years. Consent decree requirements and associated new capital construction and debt service were the top reasons cited by respondents for projected rate increases greater than 25 percent (over 5 years). Other drivers for large rate increases include infrastructure rehabilitation and replacement, higher operation and maintenance costs, combined sewer overflow (CSO) long-term control plan compliance, and sewer system improvements to reduce sanitary sewer overflows (SSOs).

The *Projected Increases in Charges, 2017-2021* chart (right) shows the projected percentage increase in charges distributed among agency respondents. Of those utilities responding, nearly one-half of agencies project cumulative five-year rate increases above 25 percent

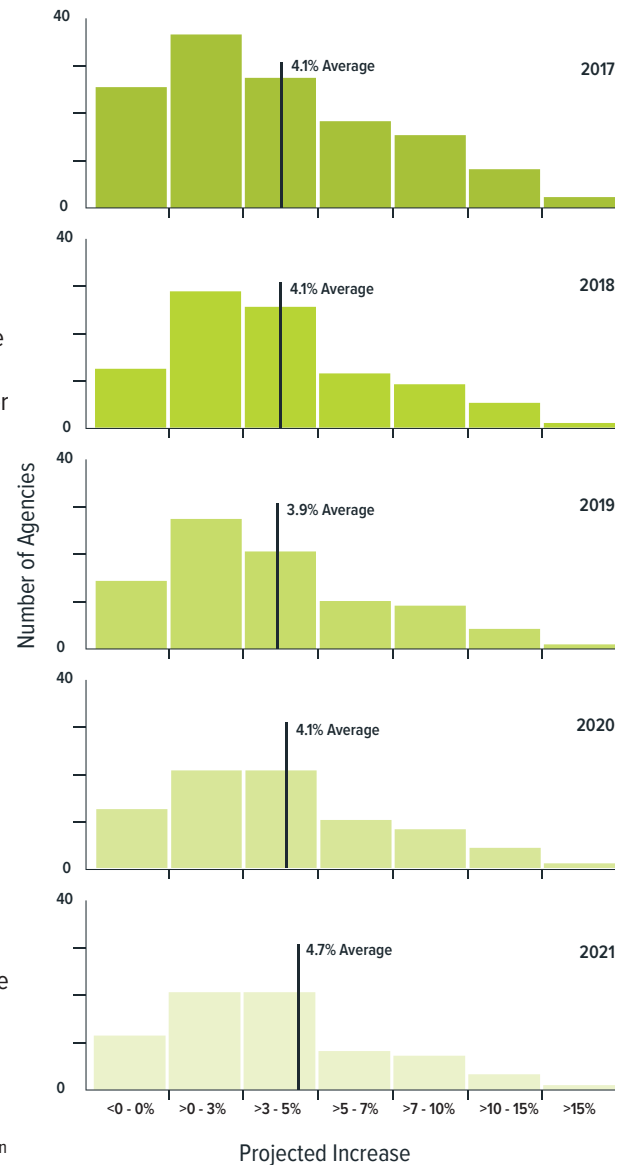
Average Annual Service Charge Has Doubled in Last 14 Years

The *Average Annual Service Charge* chart (below) presents a national snapshot of sewer service charges since 2000, and provides a projection of average charges through 2021. From 2002 to 2016, the average annual service charge has doubled from \$239 to \$479. Meanwhile, the Consumer Price Index (CPI) has increased only 33 percent in this same time period.

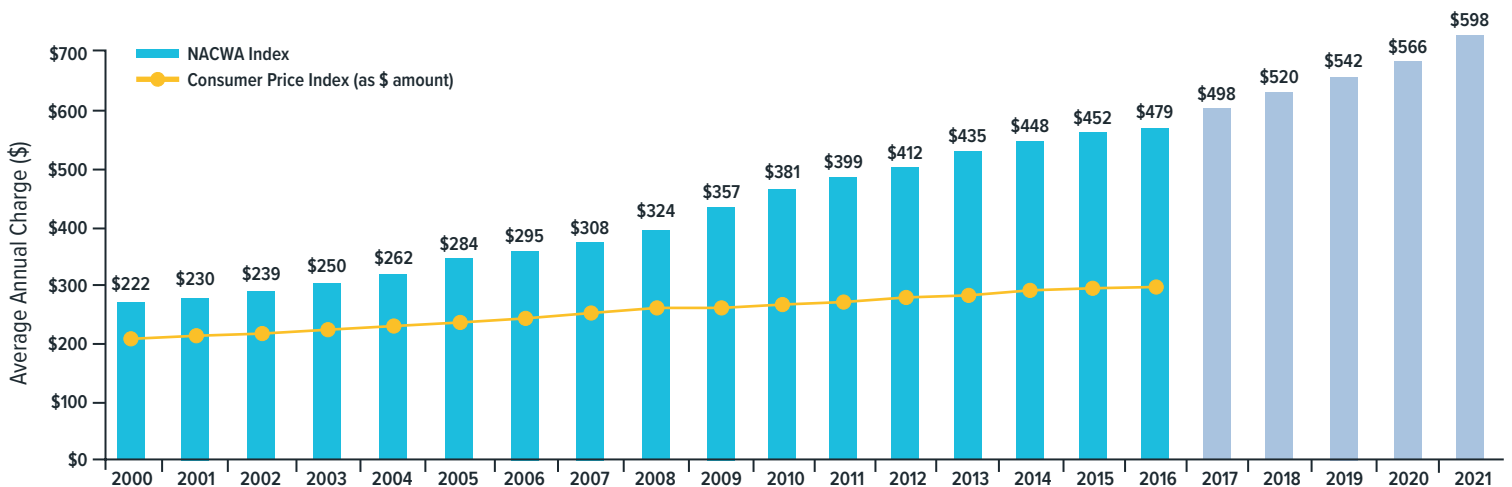
The average annual sewer charge of \$479 represents 1.97 percent of the 2016 Federal poverty income threshold (\$24,300) for a family of four. This proportion has risen from 1.3 percent in 2000. Projected increases in rates show the average charge reaching nearly \$600 by 2021.

Disclaimer: The NACWA Index strives to use the best available data each year when determining current and historical household charges and trends. These data are intended for comparison purposes only, and are subject to change from one year to the next. While this document presents the most up-to-date data available, if better data become available in the future, the data presented here may be modified.

Projected Increases in Charges 2017-2021



Average Annual Service Charge, 2000-2016 & Projected



2016 NATIONAL DATA ANNEX

Table A-1: NACWA Cost of Clean Water Index, 1985 to 2016

Year	NACWA Index	Change from Previous Year	Average Service Charge (\$)	Change from Previous Year (\$)	Change to Consumer Price Index	Total Responses	Population represented (in millions)	Total Responses in Both Previous and Current Year
1985	100.0		\$102.75			155	88.6	
1986	106.8	6.8%	\$109.69	\$6.95	1.9%	158	88.8	155
1987	112.4	5.3%	\$115.51	\$5.82	3.6%	157	88.8	157
1988	119.9	6.9%	\$123.17	\$7.99	4.1%	163	91.3	157
1989	130.1	8.4%	\$133.65	\$10.35	4.8%	166	92.0	163
1990	141.0	8.4%	\$144.84	\$11.25	5.4%	169	92.3	166
1991	153.7	8.9%	\$157.88	\$12.84	4.2%	171	92.5	169
1992	166.7	8.5%	\$171.33	\$13.84	3.0%	175	94.7	171
1993	183.1	8.3%	\$188.12	\$13.78	3.0%	184	100.5	170
1994	193.4	5.1%	\$198.68	\$10.32	2.6%	194	102.4	182
1995	197.8	2.2%	\$203.22	\$4.23	2.8%	199	99.6	189
1996	201.7	3.6%	\$207.28	\$6.44	3.0%	205	105.8	195
1997	203.9	1.3%	\$209.49	\$2.88	2.3%	208	107.9	202
1998	207.8	2.4%	\$213.52	\$4.89	1.6%	214	106.6	204
1999	209.8	0.7%	\$215.61	\$1.90	2.2%	224	109.4	210
2000	216.4	3.0%	\$222.31	\$6.41	3.4%	234	113.7	218
2001	223.5	2.2%	\$229.63	\$4.47	2.8%	238	113.5	227
2002	232.6	3.6%	\$238.99	\$8.45	1.6%	220	107.8	215
2003	243.0	3.1%	\$249.71	\$7.69	2.3%	232	108.4	198
2004	254.8	6.5%	\$261.79	\$16.10	2.7%	222	109.0	200
2005	276.3	7.3%	\$283.91	\$18.79	3.4%	213	108.7	188
2006	287.1	6.0%	\$295.03	\$17.23	3.2%	203	107.0	177
2007	299.4	6.0%	\$307.60	\$16.47	2.8%	196	104.6	173
2008	315.4	5.4%	\$324.11	\$18.00	3.8%	191	107.6	165
2009	347.3	8.2%	\$356.90	\$26.41	-0.4%	171	103.4	161
2010	371.2	4.4%	\$381.45	\$16.82	1.6%	181	100.7	143
2011	387.7	6.1%	\$398.57	\$23.78	3.2%	176	104.0	158
2012	401.6	3.4%	\$412.17	\$13.97	2.1%	179	108.1	148
2013	424.3	5.5%	\$435.26	\$22.53	1.5%	183	107.8	155
2014	436.4	4.1%	\$448.40	\$17.43	1.6%	183	112.4	164
2015	439.9	3.1%	\$451.90	\$13.54	0.1%	172	109.8	157
2016	466.1	2.6%	\$478.87	\$15.56	1.3%	167	102.8	150

Note 1: The value of the annual Service Charge Index is based on all responses received. The base year has been indexed to the value of 100.

Note 2: The annual percent change in the Index (national and regional) is based on the responses of those agencies that responded in both the previous year and the current year using the same calculation method.

2016 NATIONAL DATA ANNEX

Table A-2: Projected Annual Service Charge Increases, 2017-2021

	2017	2018	2019	2020	2021
Average Annual Increase (%)	4.1%	4.1%	3.9%	4.1%	4.7%
Average Service Charge (Projected \$)	\$498.24	\$520.03	\$541.69	\$565.99	\$598.36
Change from Previous Year (\$)	\$19.37	\$21.79	\$21.66	\$24.30	\$32.37
# of Total Responses	138	136	131	131	129
# of Responses with Numeric Estimates	131	91	85	75	70
Approved	46%	21%	12%	9%	7%
Planned	26%	41%	43%	44%	39%
No Change	18%	8%	8%	6%	5%
Uncertain	10%	29%	37%	41%	49%

Table A-3: Regional Annual Average Sewer Service Charges, 2016 Summary

	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	National
# of agencies	5	13	22	26	29	14	10	8	25	15	167
Population	2.8	15.0	12.3	10.2	15.8	12.3	4.6	2.7	21.5	5.0	102.8
2016 Charge											
Average	\$860.09	\$509.82	\$547.29	\$597.06	\$401.59	\$368.41	\$501.97	\$258.41	\$435.60	\$557.88	\$478.87
Median	\$473.68	\$411.11	\$446.56	\$455.04	\$424.44	\$359.16	\$420.79	\$265.71	\$445.00	\$492.31	\$435.60
Minimum	\$330.00	\$178.15	\$234.96	\$255.84	\$167.76	\$216.60	\$247.01	\$182.88	\$221.09	\$300.66	\$167.76
Maximum	\$967.25	\$648.08	\$706.68	\$1,485.24	\$812.45	\$862.20	\$702.44	\$471.72	\$1,270.80	\$776.74	\$1,485.24
% Change											
1-year (2015-16)	5.8%	1.1%	2.7%	3.0%	1.0%	1.8%	8.9%	3.1%	2.4%	4.2%	2.6%
3-year (2013-16)	14.0%	8.8%	9.7%	10.1%	16.5%	3.4%	25.0%	15.7%	5.7%	10.4%	9.8%
5-year (2011-16)	24.8%	17.8%	26.6%	10.6%	22.0%	17.3%	58.3%	18.3%	13.8%	21.8%	19.8%

2016 EPA REGIONAL DATA ANALYSIS

Table R-1: Service Charge Index By EPA Region (1985-2016)

Year	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	National
1985	69.8	85.4	121.1	139.0	137.5	106.0	63.4	101.8	63.1	115.4	100.0
1986	80.0	89.6	137.2	144.0	141.3	121.4	68.2	101.9	68.0	124.8	106.8
1987	98.0	100.3	139.1	152.7	136.5	142.4	70.7	102.1	73.4	129.4	112.4
1988	106.2	110.1	142.8	148.1	139.5	155.2	72.2	108.8	85.2	139.0	119.9
1989	143.0	127.2	151.5	155.6	140.3	163.6	74.2	105.6	100.4	150.5	130.1
1990	166.7	147.0	154.3	163.4	145.3	176.0	73.6	115.3	114.8	158.6	141.0
1991	194.4	166.8	185.5	171.1	149.9	168.7	82.3	120.4	131.8	173.7	153.7
1992	218.5	195.3	187.1	178.4	158.0	171.0	92.8	125.8	147.6	193.0	166.7
1993	304.2	196.7	208.7	189.6	166.6	187.4	132.1	137.9	162.4	200.7	183.1
1994	306.0	222.5	213.5	203.8	173.3	191.7	141.6	136.2	173.2	224.9	193.4
1995	303.3	215.2	213.3	215.5	178.9	206.9	142.3	145.9	175.9	245.6	197.8
1996	320.6	206.4	222.6	224.2	180.4	212.1	144.9	143.9	183.2	258.7	201.7
1997	310.2	208.1	222.9	235.3	176.8	211.0	153.5	143.6	187.2	265.2	203.9
1998	314.7	214.6	228.7	234.1	177.8	208.6	160.5	145.3	196.6	272.7	207.8
1999	316.1	222.4	230.1	241.1	182.9	207.0	163.1	150.6	191.5	277.5	209.8
2000	312.6	222.1	237.2	251.5	186.7	212.3	163.9	151.2	202.0	297.5	216.4
2001	310.2	249.0	243.5	257.2	190.0	212.8	170.3	155.4	206.7	305.9	223.5
2002	316.9	268.7	242.9	261.6	201.8	219.6	175.3	154.2	215.1	338.9	232.6
2003	337.6	279.0	237.6	303.0	214.2	222.5	166.9	148.4	214.1	365.1	243.0
2004	364.5	280.9	275.4	292.0	212.9	257.9	179.7	171.2	230.3	376.7	254.8
2005	423.1	313.1	299.2	323.4	227.8	259.0	199.7	167.4	242.3	413.1	276.3
2006	438.3	328.7	319.8	308.8	250.5	278.8	231.0	169.5	260.6	352.9	287.1
2007	507.6	341.8	343.0	337.0	254.4	251.8	229.3	175.1	271.9	371.6	299.4
2008	558.8	365.1	357.3	317.4	270.5	265.3	240.7	175.5	304.5	396.5	315.5
2009	593.5	380.6	389.8	342.3	329.5	283.4	271.9	185.1	338.7	403.7	347.3
2010	587.2	386.5	398.8	386.7	353.4	281.6	268.3	194.0	411.8	403.1	371.2
2011	676.2	425.7	422.4	425.0	369.0	307.4	312.8	212.9	377.1	435.0	387.7
2012	680.2	424.3	450.2	469.4	376.7	325.4	347.7	213.4	377.1	459.3	401.6
2013	681.1	447.9	480.5	477.6	396.6	357.1	384.5	219.0	389.9	488.8	424.3
2014	703.0	468.7	474.1	457.7	426.6	361.7	427.6	226.1	408.1	497.7	436.3
2015	791.0	482.8	483.6	463.2	417.8	356.3	463.3	244.0	404.3	519.1	439.9
2016	837.1	496.2	532.6	581.1	390.1	358.6	488.5	251.9	423.9	542.9	466.1
# of Responses	5	13	22	26	29	14	10	8	25	15	167
Population	2.8	15.0	12.3	10.2	15.8	12.3	4.6	2.7	21.5	5.0	102.8

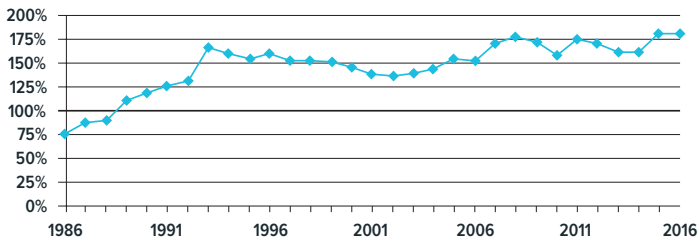
Note 3: Table R-1 is based on all responses received. Year-to-year comparisons should not be performed in these data, but on the change in the Index among common survey respondents, as shown in Table R-2. For example, recent values for Region 5 are impacted by differences in survey respondents between 2015 and 2016. Region 5 utilities responding to the 2016 survey indicated a lower average service charge than Region 5 utilities responding in 2015 (Table R-1). However, an analysis of common Region 5 utility respondents between 2015 to 2016, shows a slight increase in the average service charge (Table R-2).

Table R-2: Service Charge Index Change vs. Inflation Rate by EPA Region (1986-2016)

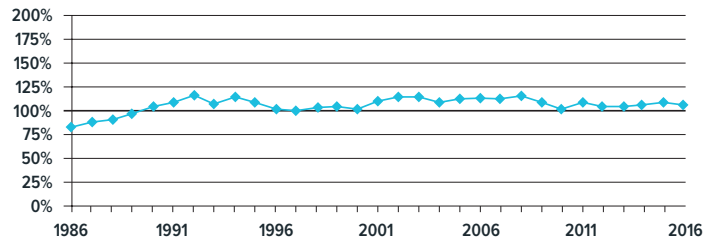
Year	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	National	CPI
1986	14.6%	4.9%	13.3%	4.1%	2.7%	14.6%	7.7%	0.1%	7.7%	8.2%	6.8%	1.9%
1987	22.4%	11.9%	1.4%	6.0%	-3.4%	17.3%	3.6%	0.2%	7.9%	3.7%	5.3%	3.6%
1988	8.9%	9.8%	2.8%	3.3%	2.2%	8.8%	2.1%	6.5%	15.7%	7.4%	6.9%	4.1%
1989	34.7%	15.6%	6.1%	5.1%	0.6%	5.4%	2.7%	-3.0%	17.1%	8.2%	8.4%	4.8%
1990	20.0%	15.6%	1.9%	5.0%	3.5%	7.6%	-0.8%	9.3%	14.1%	5.4%	8.4%	5.4%
1991	16.6%	13.4%	20.3%	3.7%	3.2%	-4.2%	11.8%	4.4%	14.8%	9.5%	8.9%	4.2%
1992	12.4%	16.9%	2.0%	4.3%	5.4%	1.0%	12.8%	4.4%	11.9%	11.1%	8.5%	3.0%
1993	34.9%	1.4%	1.4%	6.9%	6.1%	9.9%	42.3%	6.9%	10.1%	3.3%	8.3%	3.0%
1994	4.0%	5.0%	2.2%	8.8%	4.0%	2.3%	10.3%	2.8%	6.6%	12.4%	5.1%	2.6%
1995	0.6%	0.9%	-1.3%	4.6%	1.1%	7.9%	-2.8%	6.1%	1.4%	9.2%	2.2%	2.8%
1996	1.8%	4.4%	4.4%	4.0%	2.1%	2.0%	1.8%	0.1%	4.2%	5.3%	3.6%	3.0%
1997	0.4%	1.2%	0.1%	6.0%	-1.8%	-0.6%	6.0%	-0.3%	2.2%	2.5%	1.3%	2.3%
1998	1.6%	3.0%	1.7%	1.6%	0.8%	-1.1%	4.6%	0.5%	5.0%	2.9%	2.4%	1.6%
1999	0.4%	1.5%	0.7%	2.8%	2.4%	-0.6%	2.5%	3.6%	-2.3%	1.9%	0.7%	2.2%
2000	0.1%	1.8%	-0.1%	3.4%	2.3%	2.6%	-2.9%	0.4%	6.0%	7.2%	3.0%	3.4%
2001	1.5%	2.3%	2.6%	3.2%	1.4%	0.5%	3.9%	2.1%	2.1%	2.8%	2.2%	2.8%
2002	1.9%	5.1%	-0.2%	1.9%	6.3%	1.6%	3.2%	-0.8%	3.9%	10.2%	3.6%	1.6%
2003	7.3%	5.3%	-0.7%	5.6%	6.2%	1.1%	1.7%	-3.7%	0.1%	4.7%	3.1%	2.3%
2004	11.8%	2.7%	16.6%	7.0%	-0.5%	14.5%	11.4%	2.9%	5.8%	5.8%	6.5%	2.7%
2005	17.4%	4.6%	6.3%	9.0%	10.6%	4.4%	11.3%	0.2%	4.6%	9.0%	7.3%	3.4%
2006	6.3%	8.0%	6.6%	3.3%	8.9%	7.2%	3.7%	1.3%	4.3%	4.6%	6.0%	3.2%
2007	10.9%	4.3%	6.7%	5.5%	3.0%	-7.5%	0.9%	3.6%	10.0%	5.6%	6.0%	2.8%
2008	5.5%	11.1%	1.7%	1.8%	3.5%	3.6%	11.3%	1.7%	6.4%	2.8%	5.4%	3.8%
2009	6.0%	6.1%	8.5%	5.5%	12.7%	7.2%	5.9%	4.0%	9.9%	3.9%	8.2%	-0.4%
2010	4.4%	2.2%	3.8%	10.7%	6.9%	0.7%	9.0%	-3.4%	4.5%	-2.4%	4.4%	1.6%
2011	5.2%	8.0%	6.3%	4.6%	5.3%	6.8%	9.8%	12.5%	4.0%	9.6%	6.0%	3.2%
2012	4.7%	1.8%	3.3%	2.6%	1.2%	4.3%	8.4%	0.1%	5.3%	4.8%	3.4%	2.1%
2013	4.8%	6.6%	8.7%	2.1%	5.0%	8.6%	10.0%	2.1%	3.8%	5.6%	5.5%	1.5%
2014	2.7%	5.0%	1.6%	5.7%	7.4%	-0.4%	7.1%	3.7%	3.8%	3.3%	4.1%	1.6%
2015	4.2%	2.2%	7.0%	0.6%	7.9%	3.2%	8.5%	8.4%	-0.8%	2.3%	3.1%	0.1%
2016	5.8%	1.2%	2.7%	3.0%	1.0%	1.8%	8.9%	3.1%	2.4%	4.2%	2.6%	1.3%

2016 EPA REGIONAL DATA ANALYSIS

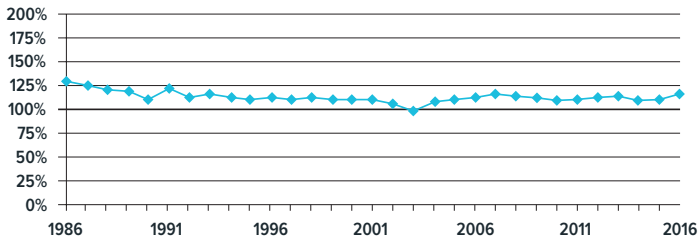
Regional Service Charge Index as a Percent of the National Average (1986-2016)



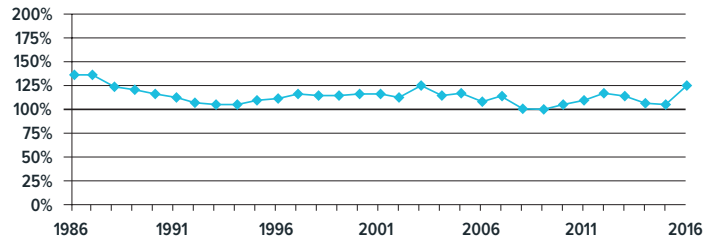
REGION 1



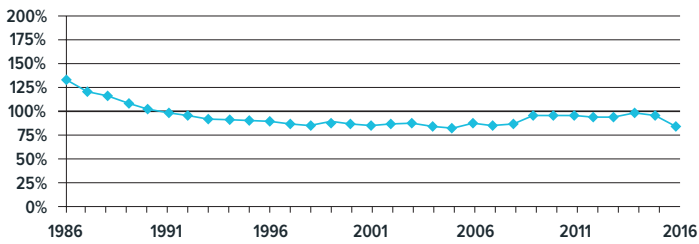
REGION 2



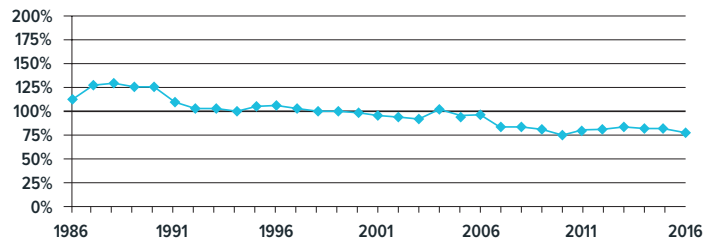
REGION 3



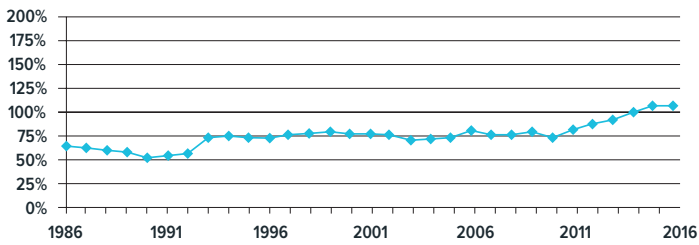
REGION 4



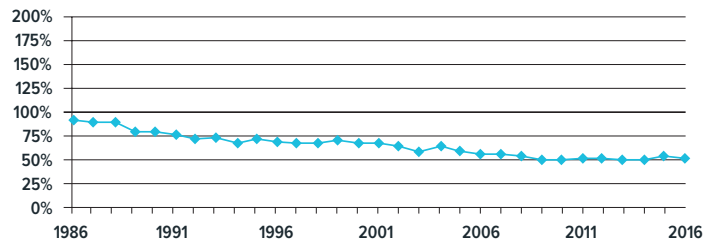
REGION 5



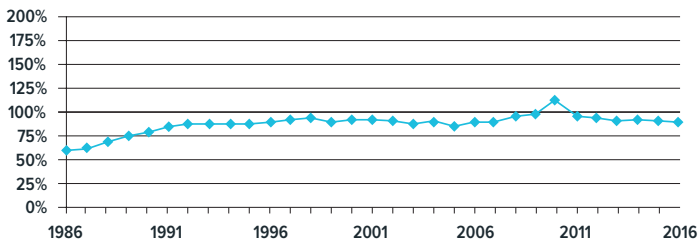
REGION 6



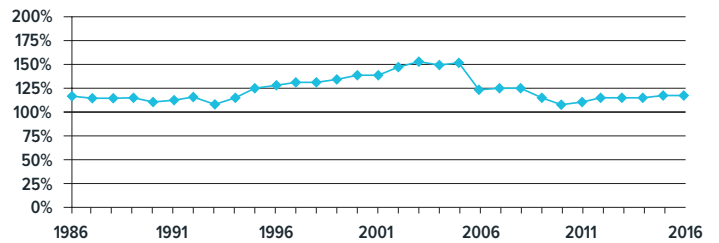
REGION 7



REGION 8



REGION 9



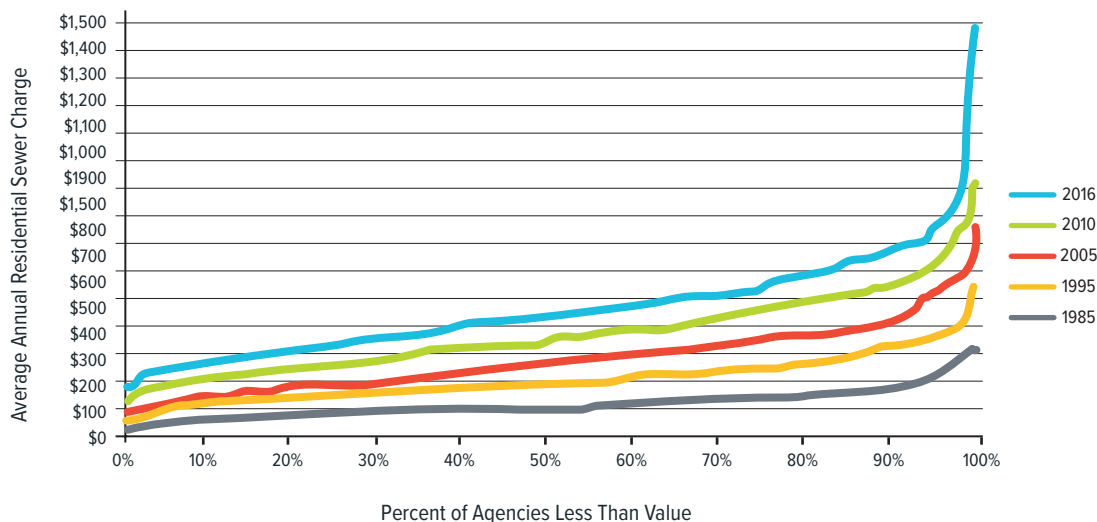
REGION 10

2016 EPA REGIONAL DATA ANALYSIS

Table R-3: Average Annual Sewer Service Charge by EPA Region (1985-2016)

Year	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	National
1985	\$71.74	\$87.74	\$124.46	\$142.85	\$141.32	\$108.90	\$65.12	\$104.57	\$64.87	\$118.54	\$102.75
1986	\$82.23	\$92.07	\$140.97	\$147.95	\$145.19	\$124.77	\$70.12	\$104.70	\$69.87	\$128.23	\$109.69
1987	\$100.65	\$103.02	\$142.94	\$156.86	\$140.29	\$146.30	\$72.68	\$104.95	\$75.39	\$132.98	\$115.51
1988	\$109.09	\$113.10	\$146.69	\$152.13	\$143.33	\$159.47	\$74.20	\$111.79	\$87.50	\$142.84	\$123.17
1989	\$146.94	\$130.73	\$155.64	\$159.89	\$144.18	\$168.07	\$76.20	\$108.46	\$103.14	\$154.60	\$133.65
1990	\$171.31	\$151.08	\$158.54	\$167.91	\$149.25	\$180.86	\$75.60	\$118.51	\$117.91	\$162.91	\$144.84
1991	\$199.77	\$171.40	\$190.65	\$175.78	\$154.06	\$173.30	\$84.55	\$123.73	\$135.38	\$178.43	\$157.88
1992	\$224.52	\$200.66	\$192.20	\$183.28	\$162.39	\$175.65	\$95.38	\$129.22	\$151.63	\$198.31	\$171.33
1993	\$312.62	\$202.08	\$214.43	\$194.79	\$171.21	\$192.52	\$135.78	\$141.67	\$166.91	\$206.26	\$188.12
1994	\$314.46	\$228.65	\$219.33	\$209.38	\$178.02	\$196.97	\$145.44	\$139.99	\$177.98	\$231.06	\$198.68
1995	\$311.61	\$221.16	\$219.13	\$221.46	\$183.78	\$212.54	\$146.26	\$149.95	\$180.75	\$252.36	\$203.22
1996	\$329.39	\$212.09	\$228.72	\$230.37	\$185.35	\$217.93	\$148.84	\$147.90	\$188.26	\$265.79	\$207.28
1997	\$318.71	\$213.84	\$229.04	\$241.79	\$181.65	\$216.85	\$157.71	\$147.52	\$192.36	\$272.46	\$209.49
1998	\$323.37	\$220.48	\$234.95	\$240.56	\$182.65	\$214.37	\$164.92	\$149.30	\$202.00	\$280.25	\$213.52
1999	\$324.77	\$228.57	\$236.39	\$247.73	\$187.89	\$212.70	\$167.56	\$154.73	\$196.78	\$285.14	\$215.61
2000	\$321.19	\$228.20	\$243.75	\$258.41	\$191.88	\$218.11	\$168.41	\$155.33	\$207.56	\$305.72	\$222.31
2001	\$318.72	\$255.85	\$250.23	\$264.27	\$195.22	\$218.68	\$174.99	\$159.72	\$212.39	\$314.30	\$229.63
2002	\$325.60	\$276.08	\$249.55	\$268.74	\$207.32	\$225.66	\$180.12	\$158.41	\$220.99	\$348.21	\$238.95
2003	\$346.87	\$286.70	\$244.16	\$311.31	\$220.11	\$228.64	\$171.49	\$152.46	\$220.01	\$375.13	\$249.44
2004	\$374.54	\$288.61	\$282.95	\$300.02	\$218.75	\$264.95	\$184.68	\$175.91	\$235.86	\$387.05	\$261.48
2005	\$434.72	\$321.74	\$307.43	\$332.32	\$234.03	\$266.10	\$205.16	\$172.02	\$248.99	\$424.45	\$283.91
2006	\$450.31	\$337.77	\$328.61	\$317.28	\$257.38	\$286.47	\$237.39	\$174.16	\$267.69	\$362.64	\$294.98
2007	\$521.61	\$351.17	\$352.44	\$346.23	\$261.41	\$258.73	\$235.62	\$179.91	\$279.37	\$381.80	\$307.60
2008	\$574.21	\$375.19	\$367.16	\$326.15	\$277.94	\$272.61	\$247.33	\$180.30	\$312.89	\$407.39	\$324.11
2009	\$609.85	\$391.05	\$400.52	\$351.74	\$338.53	\$291.17	\$279.35	\$190.15	\$347.99	\$414.82	\$356.90
2010	\$603.38	\$397.14	\$409.75	\$397.34	\$363.08	\$289.33	\$275.64	\$199.36	\$423.15	\$414.22	\$381.45
2011	\$694.75	\$437.43	\$433.97	\$436.66	\$379.11	\$315.88	\$321.44	\$218.77	\$387.45	\$447.01	\$398.54
2012	\$698.93	\$435.98	\$462.55	\$482.27	\$386.52	\$334.36	\$357.31	\$219.23	\$387.48	\$471.93	\$412.17
2013	\$699.85	\$460.26	\$493.67	\$490.74	\$407.50	\$366.93	\$395.11	\$225.02	\$400.58	\$502.29	\$435.26
2014	\$722.31	\$481.57	\$487.14	\$470.27	\$438.32	\$371.67	\$439.35	\$232.31	\$419.37	\$511.42	\$448.39
2015	\$812.79	\$496.06	\$496.90	\$475.95	\$429.10	\$366.07	\$476.01	\$250.67	\$415.45	\$533.32	\$451.90
2016	\$860.09	\$510.38	\$547.29	\$597.06	\$401.59	\$368.41	\$501.97	\$258.41	\$435.60	\$557.88	\$478.67
# of Responses	5	13	22	26	29	14	10	8	25	15	167
Population (millions)	2.8	15.0	12.3	10.2		12.3	4.6	2.7	21.5	5.0	102.8

Distribution Trend of Average Annual Residential Charge (National)



2016 EPA REGIONAL DATA ANALYSIS

Regional Distribution of Service Charges (2016) (Charge vs. Percent of Charges Less Than Value)

