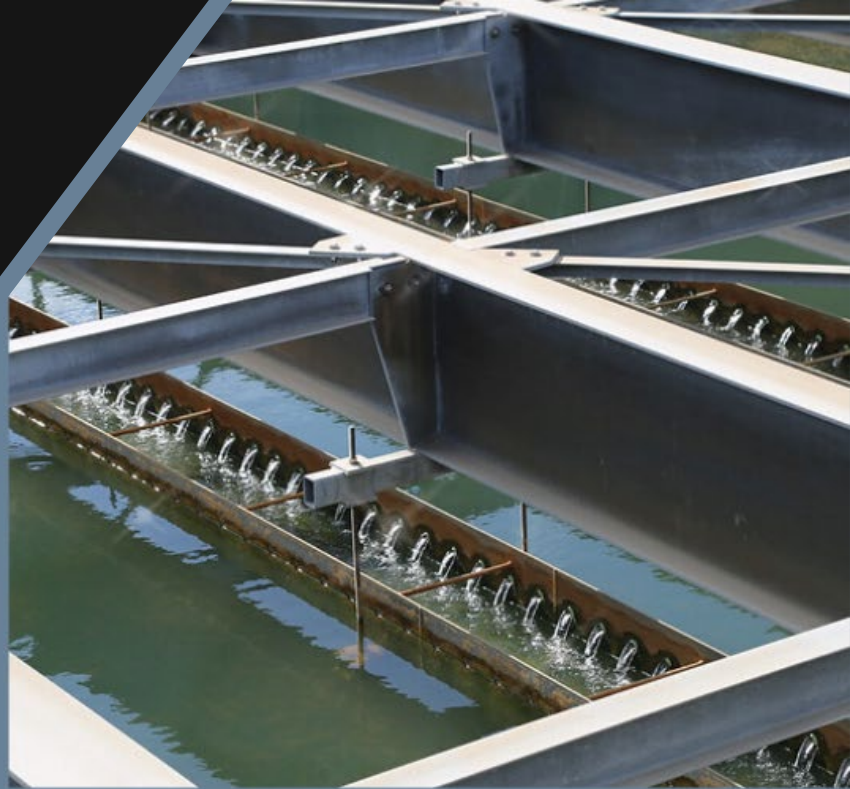




WATER / WASTEWATER RATE & IMPACT FEE STUDY

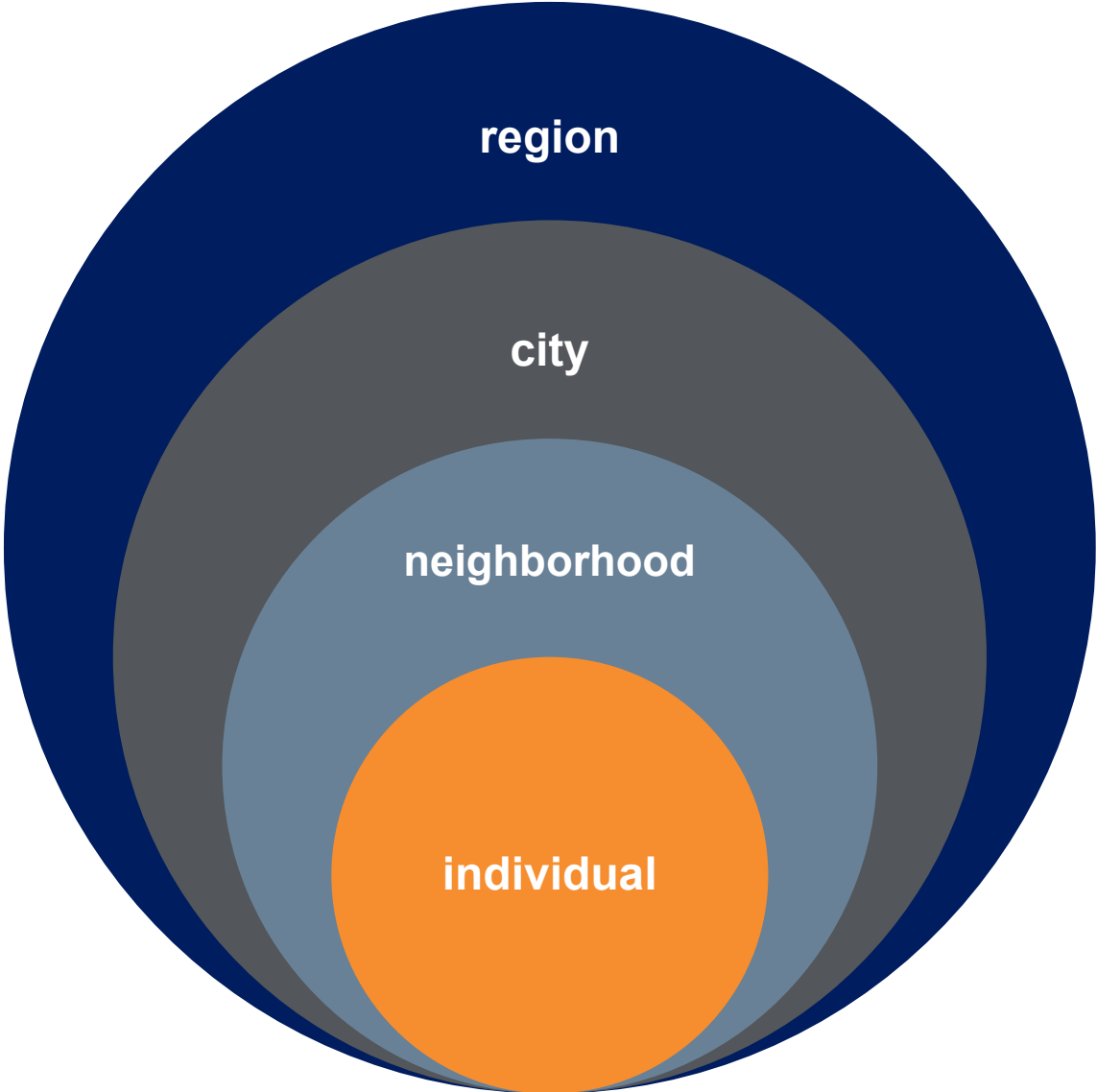
**CAROL ELLINGER HADDOCK, PE
DIRECTOR**





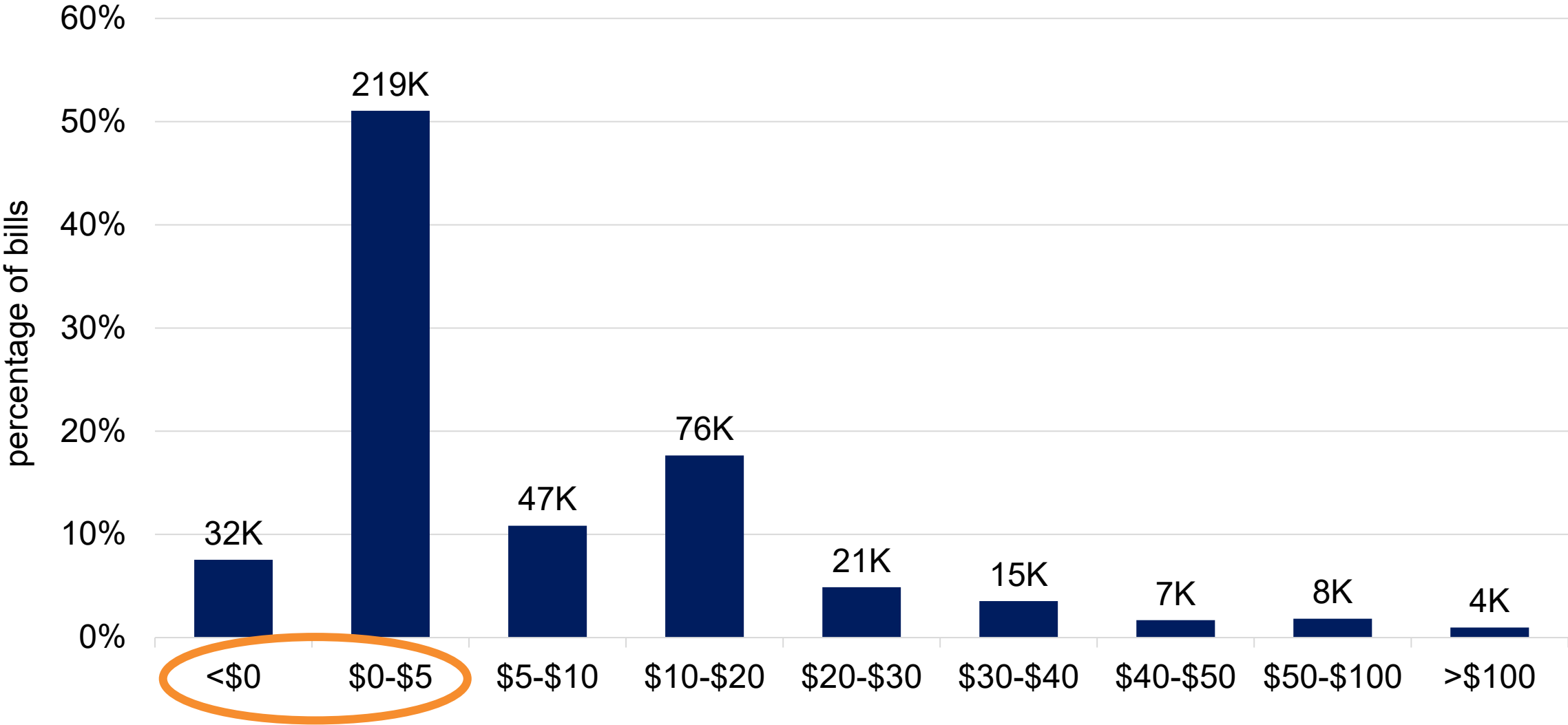
FRAMING RESILIENCE BUILDING

- achieving equity & inclusion
- building forward
- improving health & safety
- integrated housing & mobility
- living with & without water

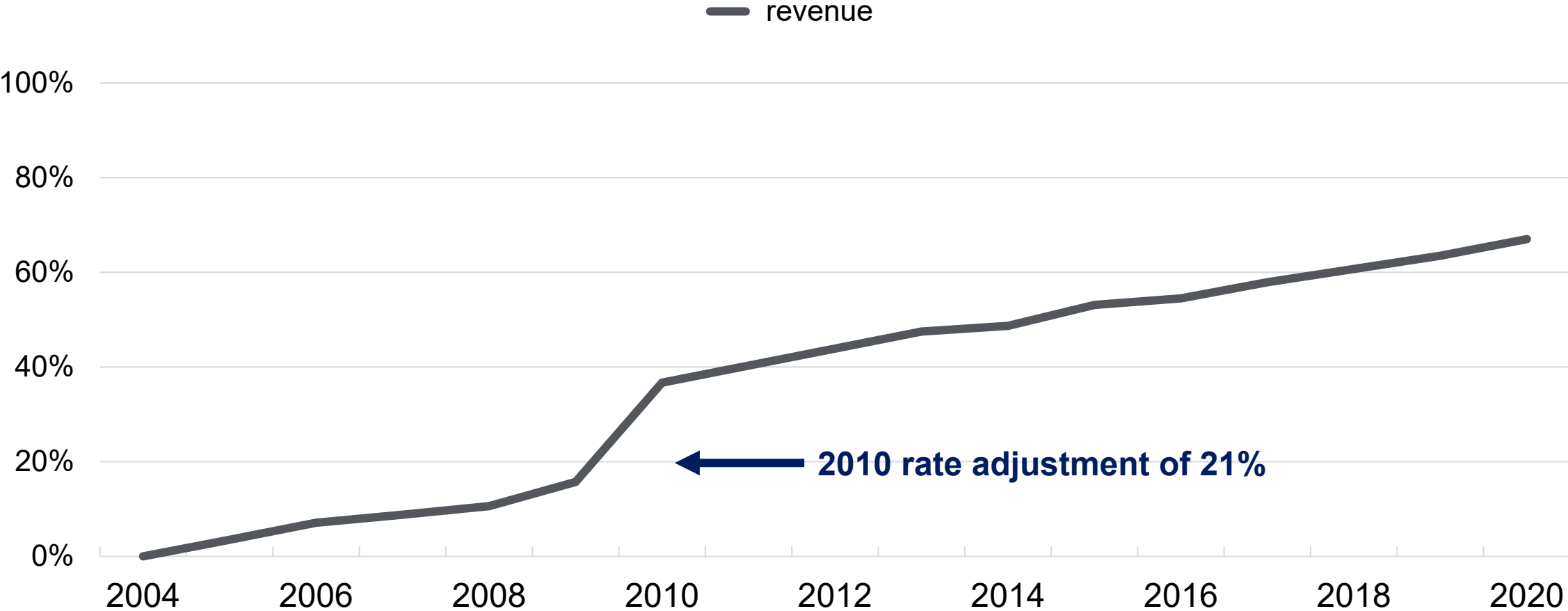




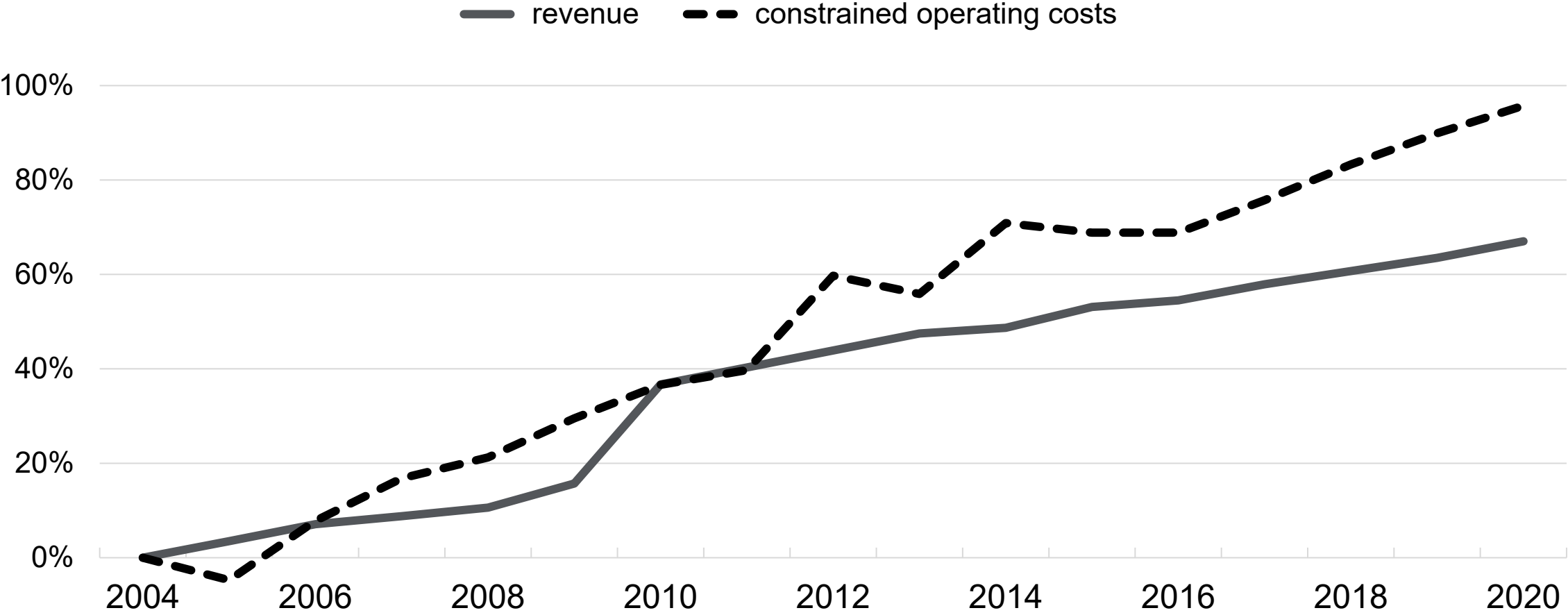
DISTRIBUTION OF RECOMMENDED JULY 2021 INCREASE FOR SINGLE FAMILY RESIDENTIAL



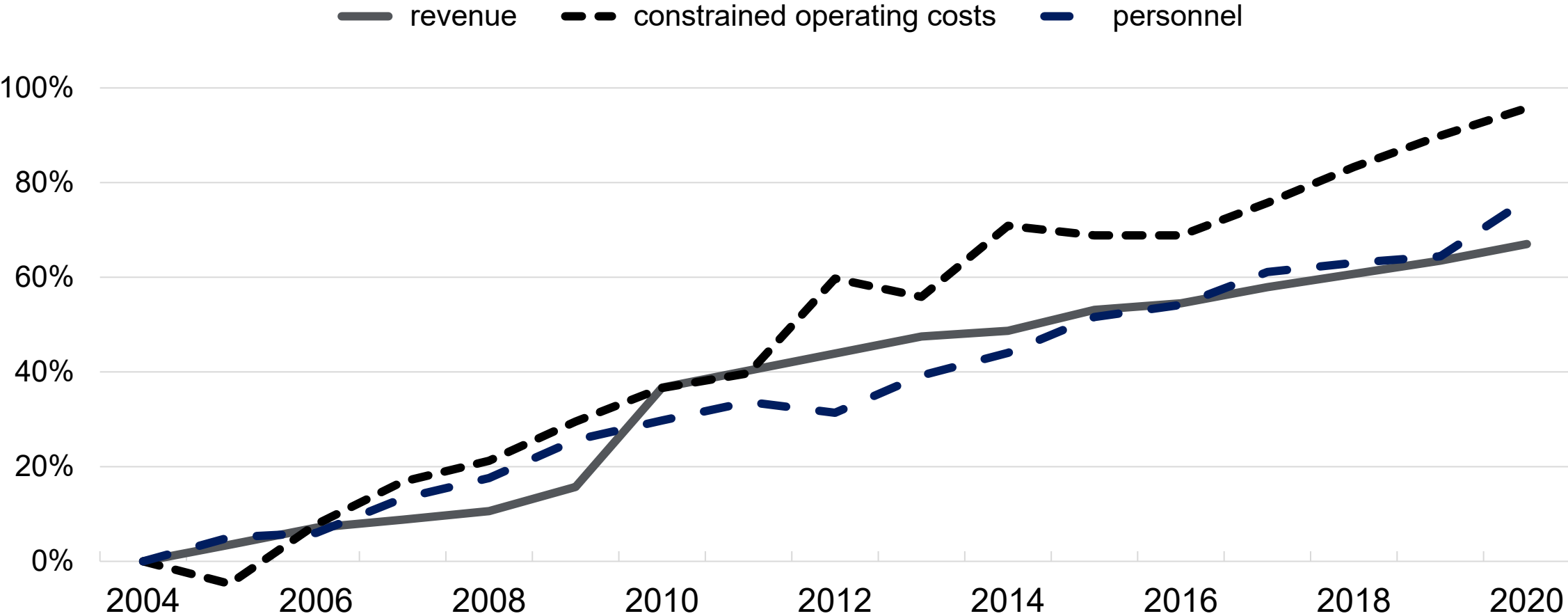
REVENUE CHANGES OVER TIME



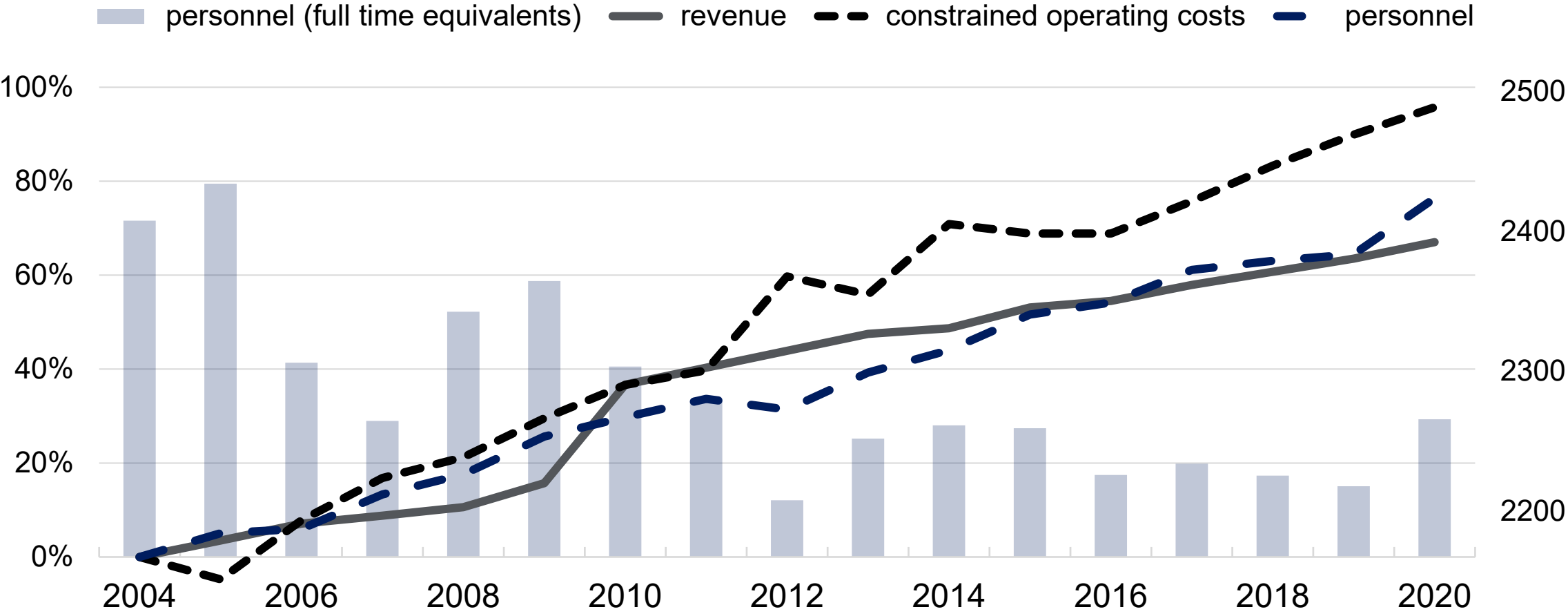
EXPENSES COMPARED TO REVENUES



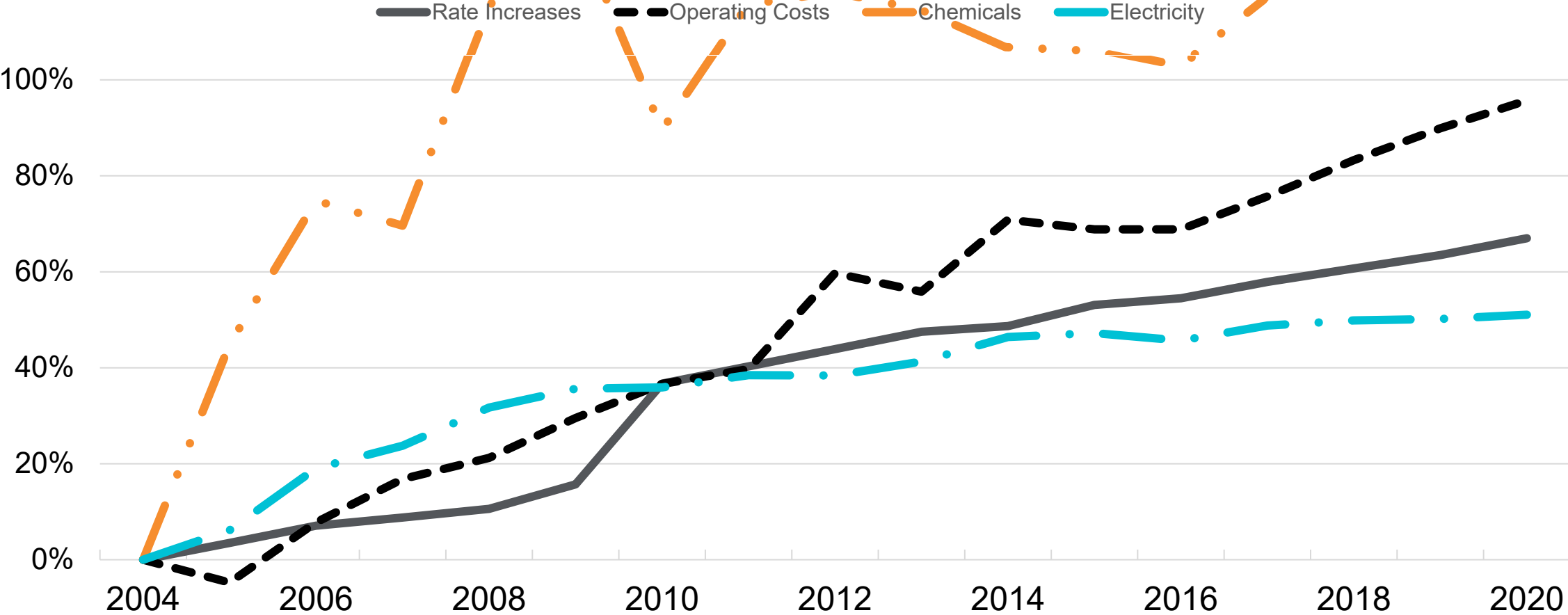
PERSONNEL EXPENSES



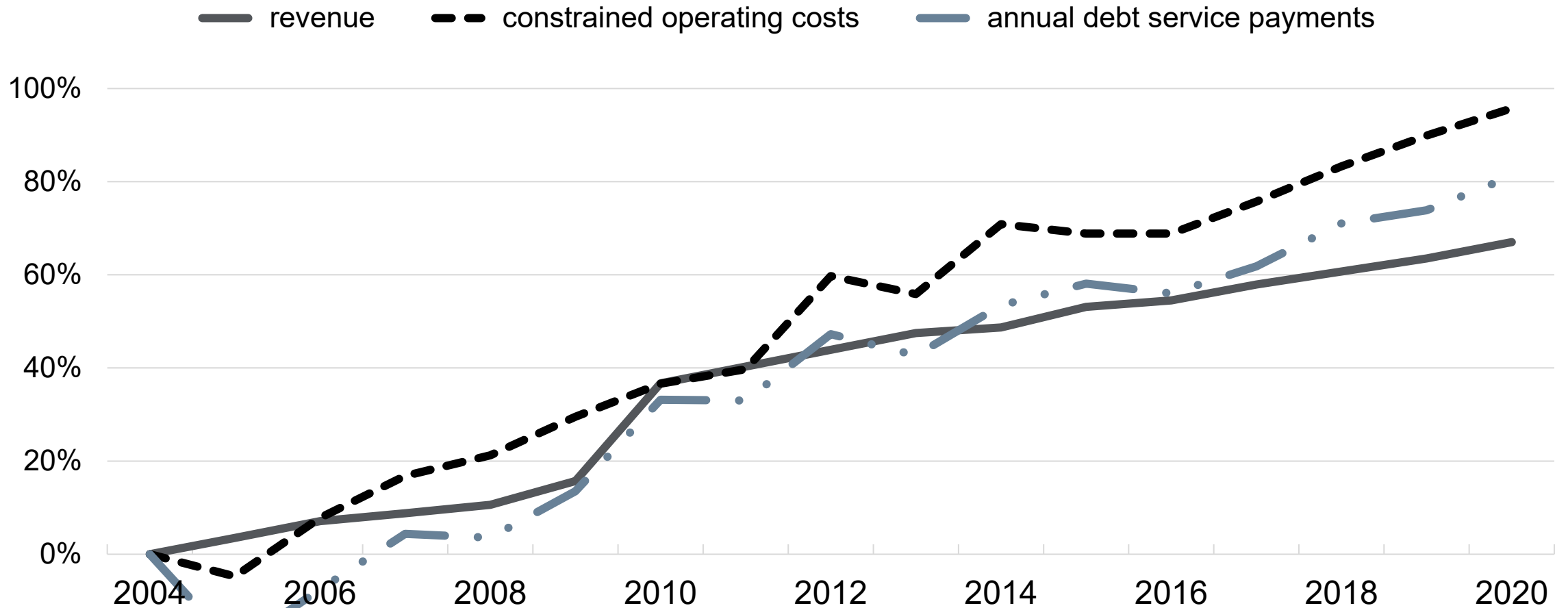
PERSONNEL EXPENSES



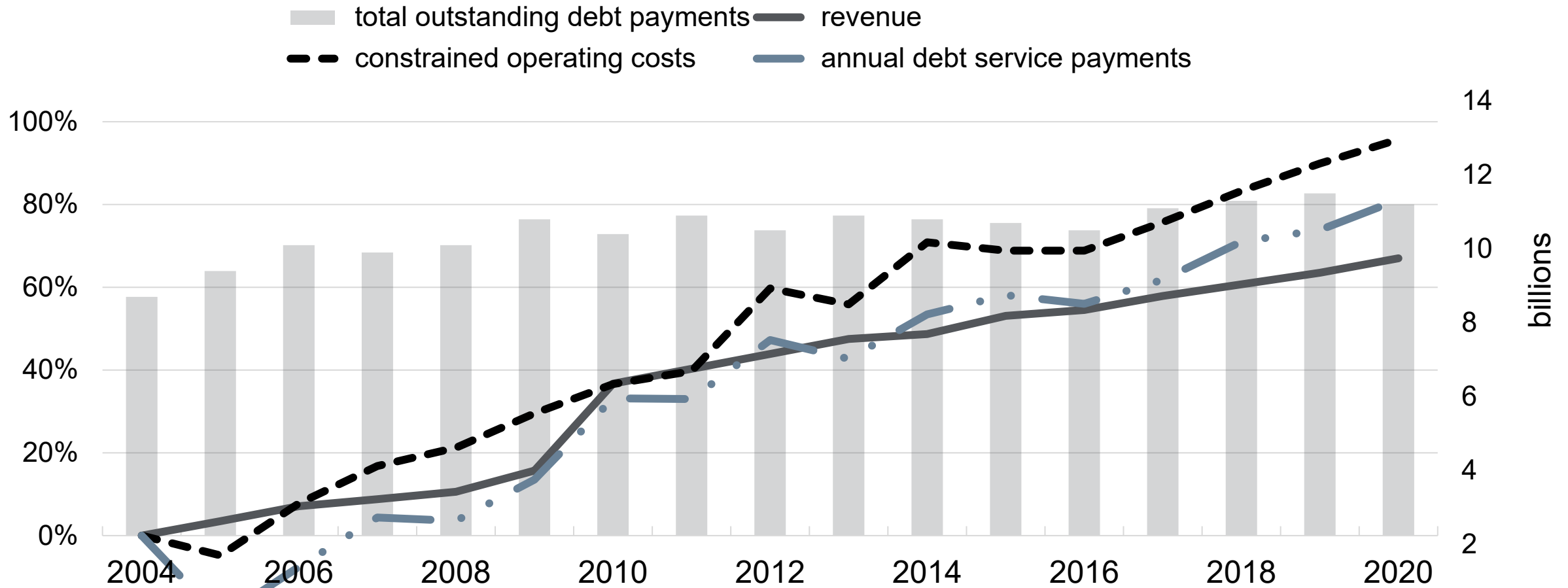
ELECTRICITY AND CHEMICALS



DEBT

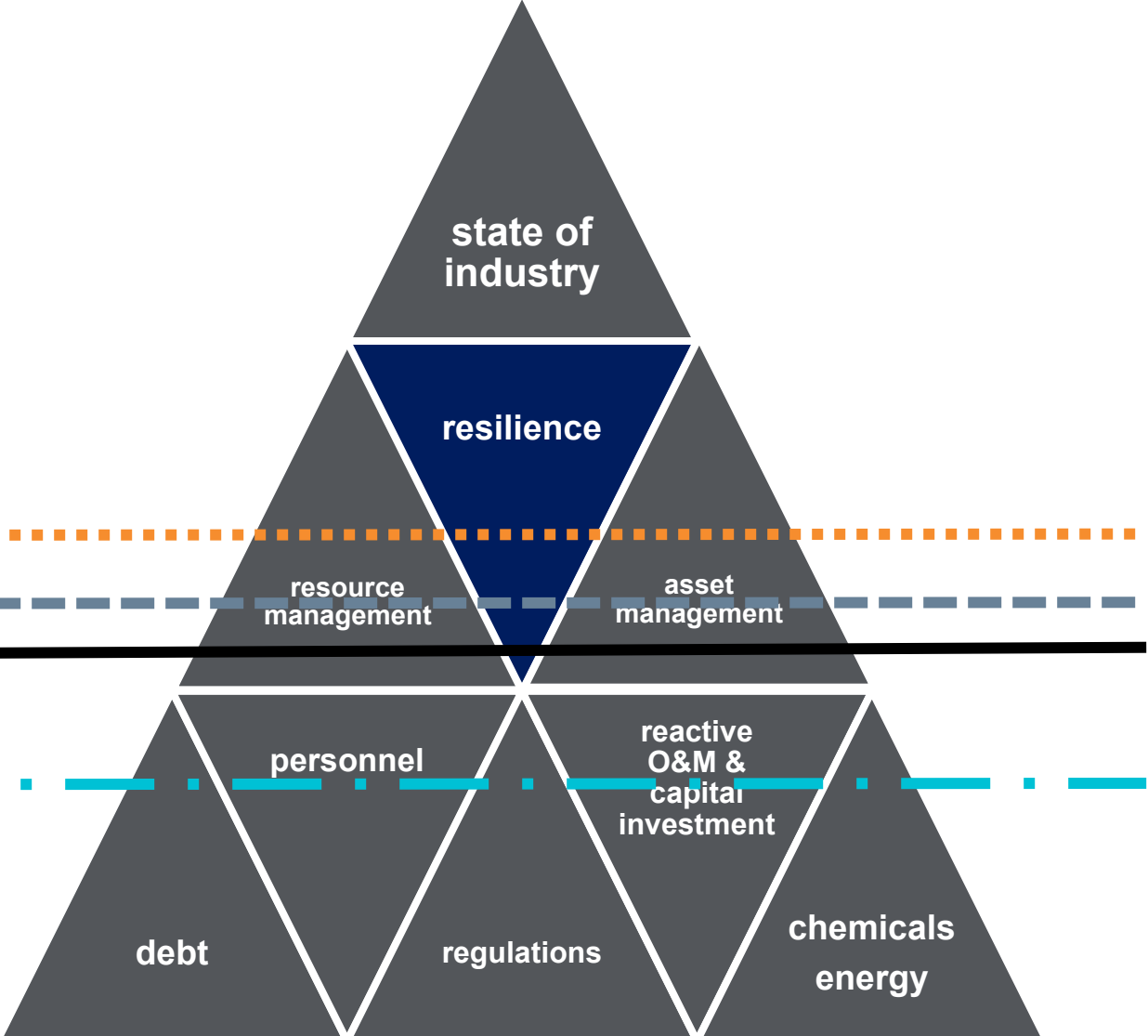


DEBT



INVESTING FOR RESILIENCE

- federal infrastructure bill**
- recommended funding**
- where we are**
- expected degradation**



FUND TYPES

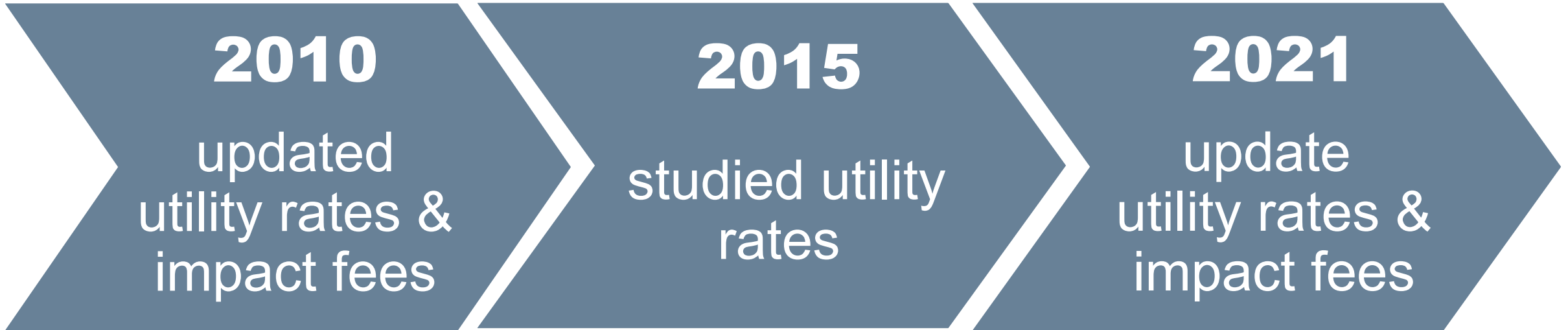
GENERAL (property & sales tax)	ENTERPRISE (user fees - rates)
fire	Houston Water
housing	(combined utility system)
libraries	convention & entertainment
parks	Houston airports
police	dedicated drainage & street renewal fund
solid waste	

REVENUE

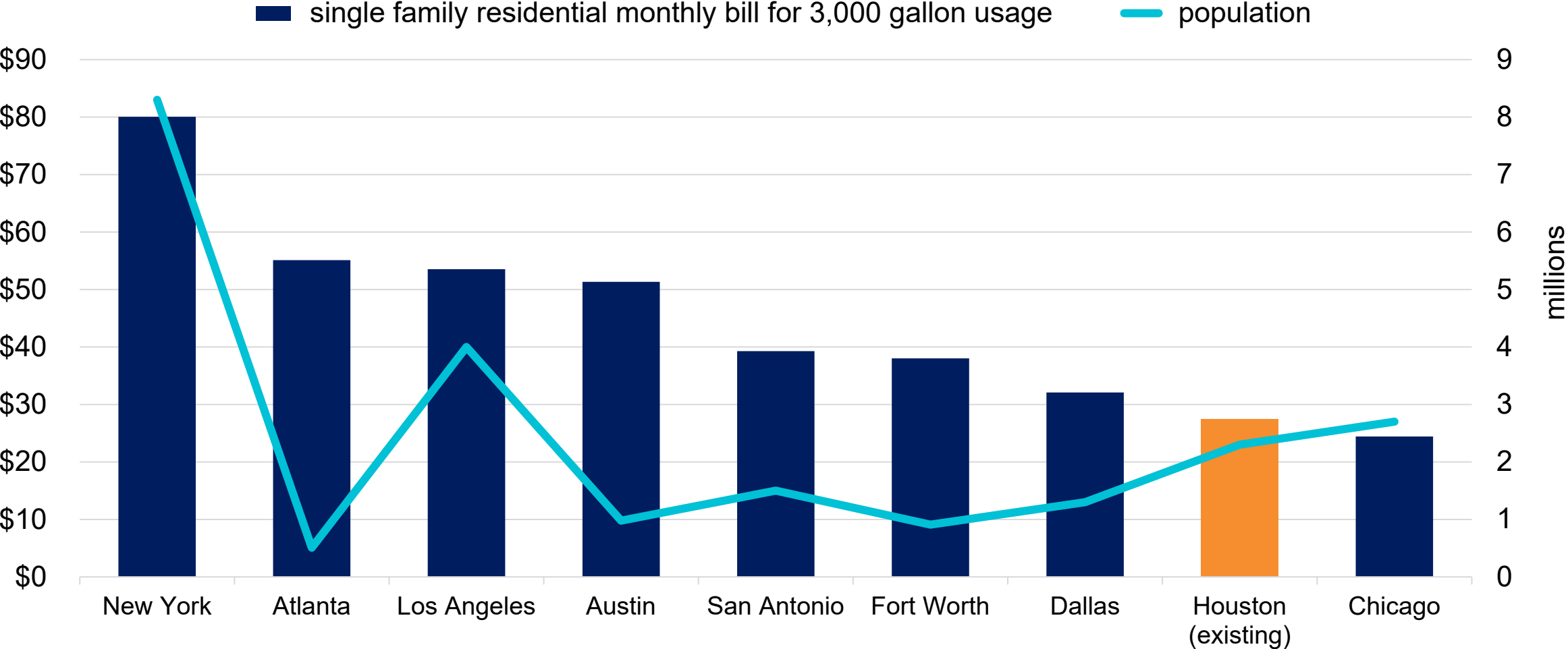
	UTILITY BILLS	IMPACT FEE
CHARGE	monthly usage	one-time connection
CUSTOMER	existing	new
FUNDS	plants + pipes operations & maintenance	infrastructure for growth
	replace / upgrade existing infrastructure	

COST OF SERVICE RATE STUDY

TIMELINE – RATE STUDY



MONTHLY BILL COMPARISON



RATE DEVELOPMENT

revenue
requirement
analysis

cost of service
analysis

rate design

RATE DEVELOPMENT

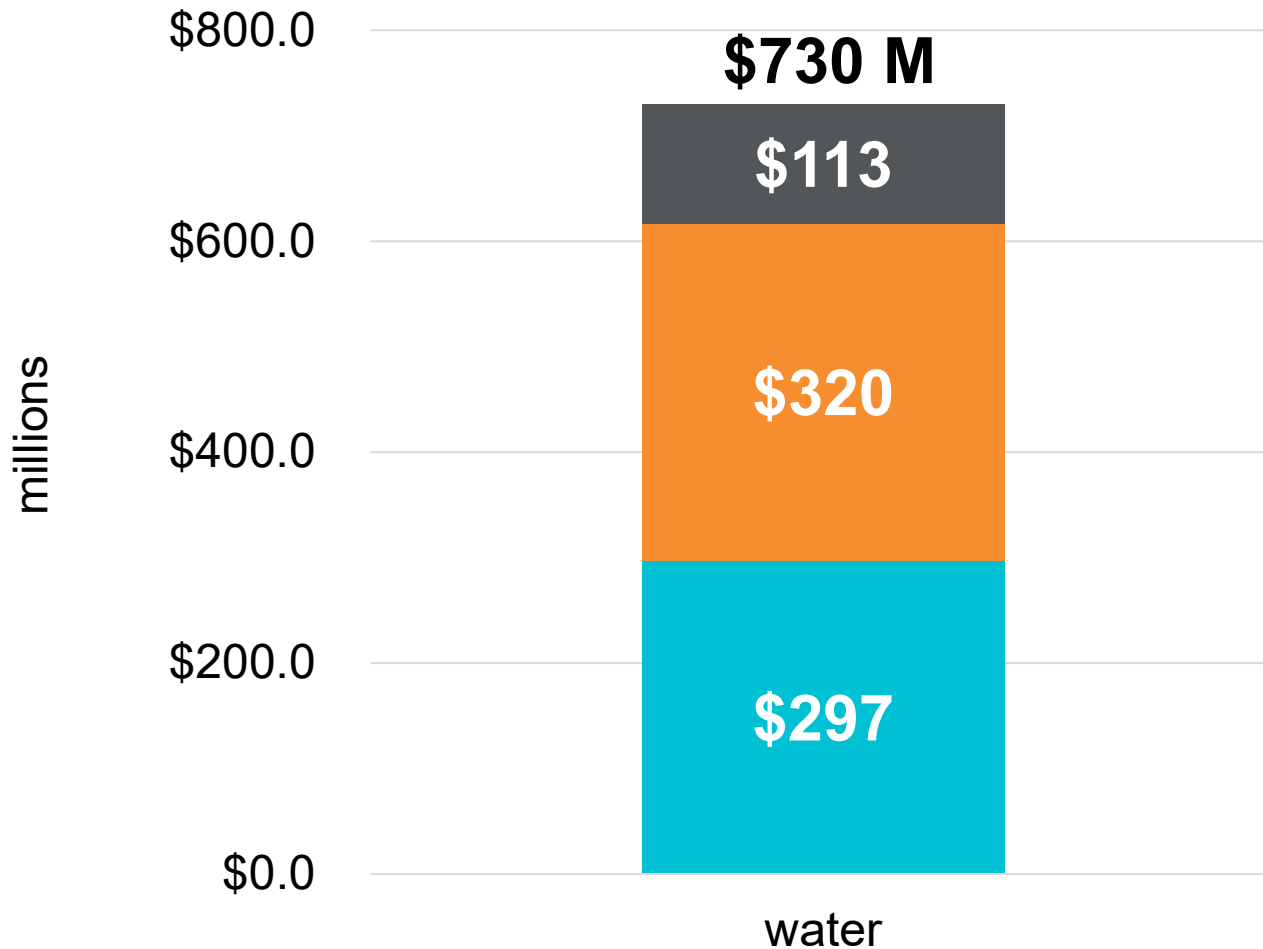
**revenue
requirement
analysis**

**cost of service
analysis**

rate design

WATER REVENUE REQUIREMENTS (FY 2022*)

■ O&M budget projection ■ debt service ■ PayGo & other

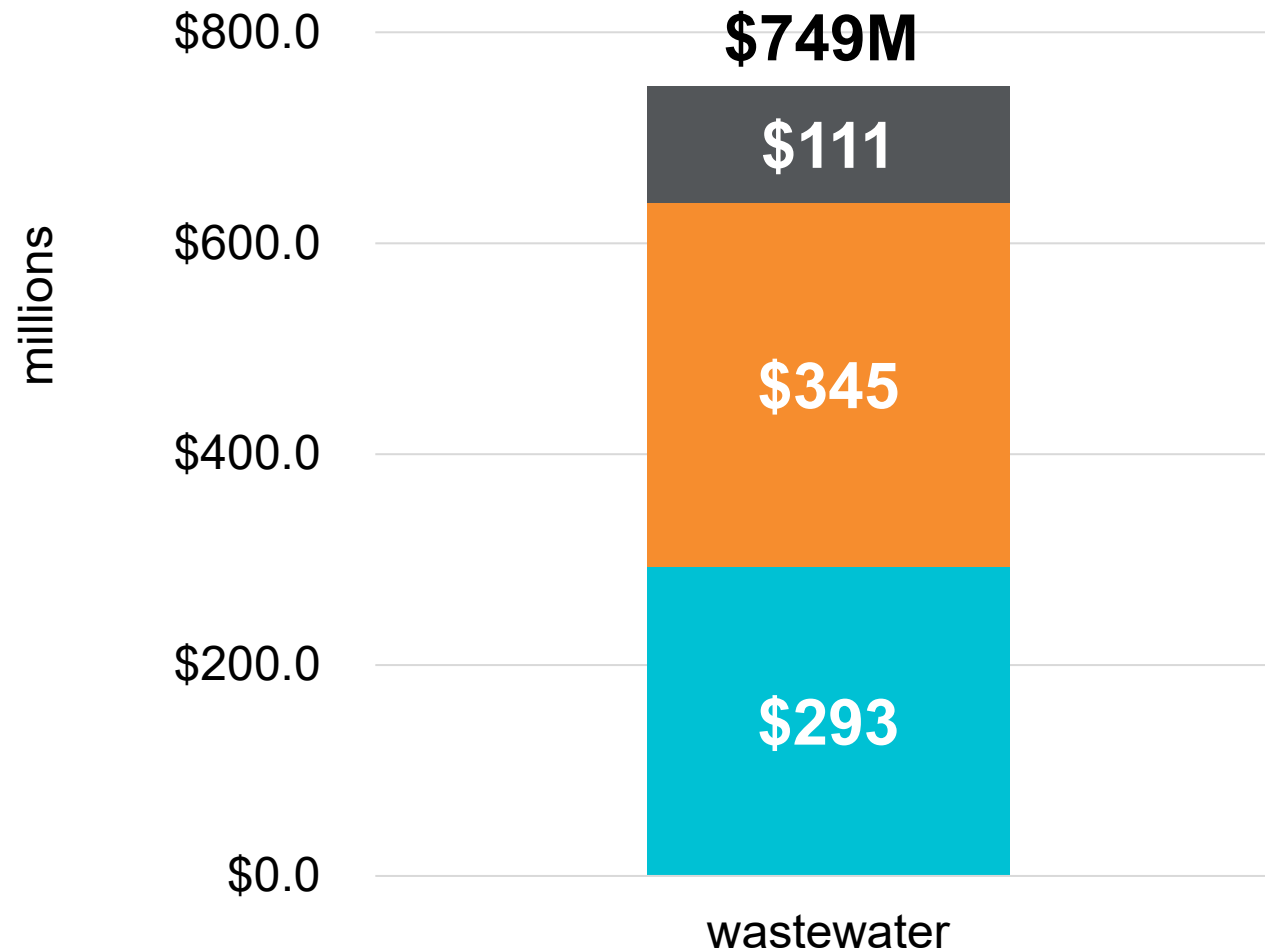


ACTIVITIES

- safe drinking water for 4.2M customers
- operate & maintain 3 water plants
- operate & maintain 7K miles of water line
- customer service for 480K accounts
- respond & recover from disasters

WASTEWATER REVENUE REQUIREMENTS (FY 2022*)

■ O&M budget projection ■ debt service ■ PayGo & other



ACTIVITIES

treat wastewater for 2M customers

comply with consent decree

operate & maintain 39 plants and 381 lift stations

maintain 6.2K miles of gravity & force mains

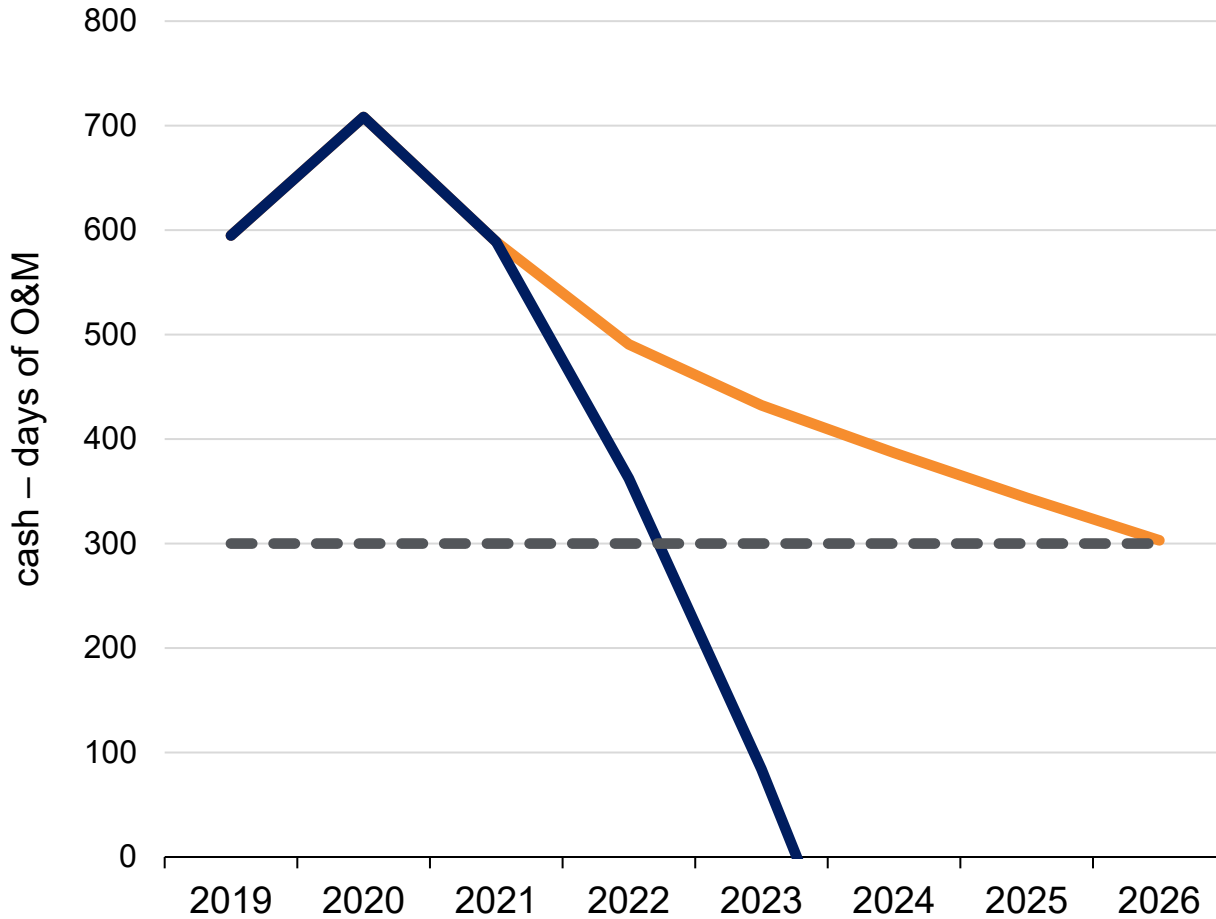
rehab/renew or replace 155 miles of wastewater line

customer service for 480K accounts

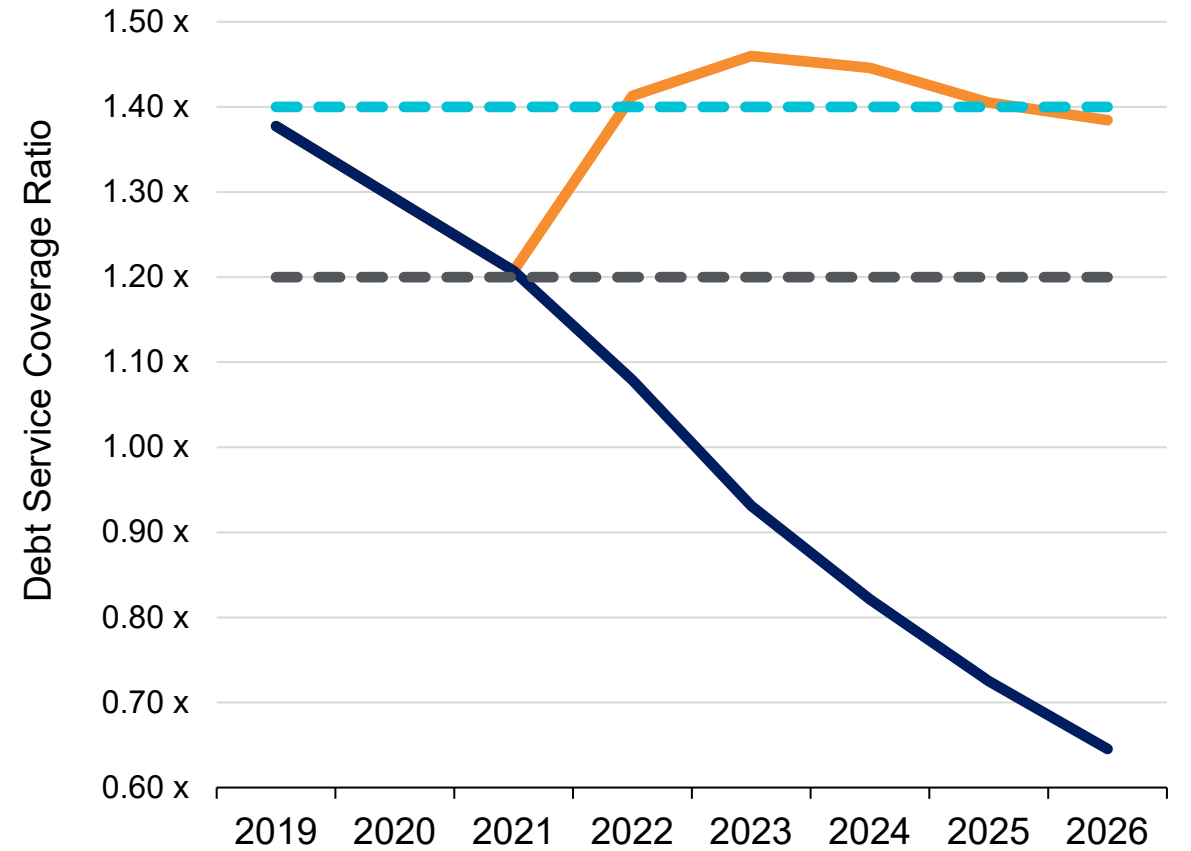
respond to & recover from disasters

RESERVE FUND & DEBT SERVICE COVERAGE

- cash balance (with increase)
- cash balance (no increase)
- minimum cash balance



- debt service coverage ratio (with increase)
- debt service coverage ratio (no increase)
- target debt service coverage ratio
- minimum debt service coverage ratio



RATE DEVELOPMENT

revenue
requirement
analysis

cost of service
analysis

rate design

COST ALLOCATION FACTORS

COMPONENT	TYPE	WATER	WASTEWATER
monthly charge based on meter size	fixed	customer service capacity fire flow	customer service capacity
volumetric rate	variable	base peaking	flow waste stream characteristics

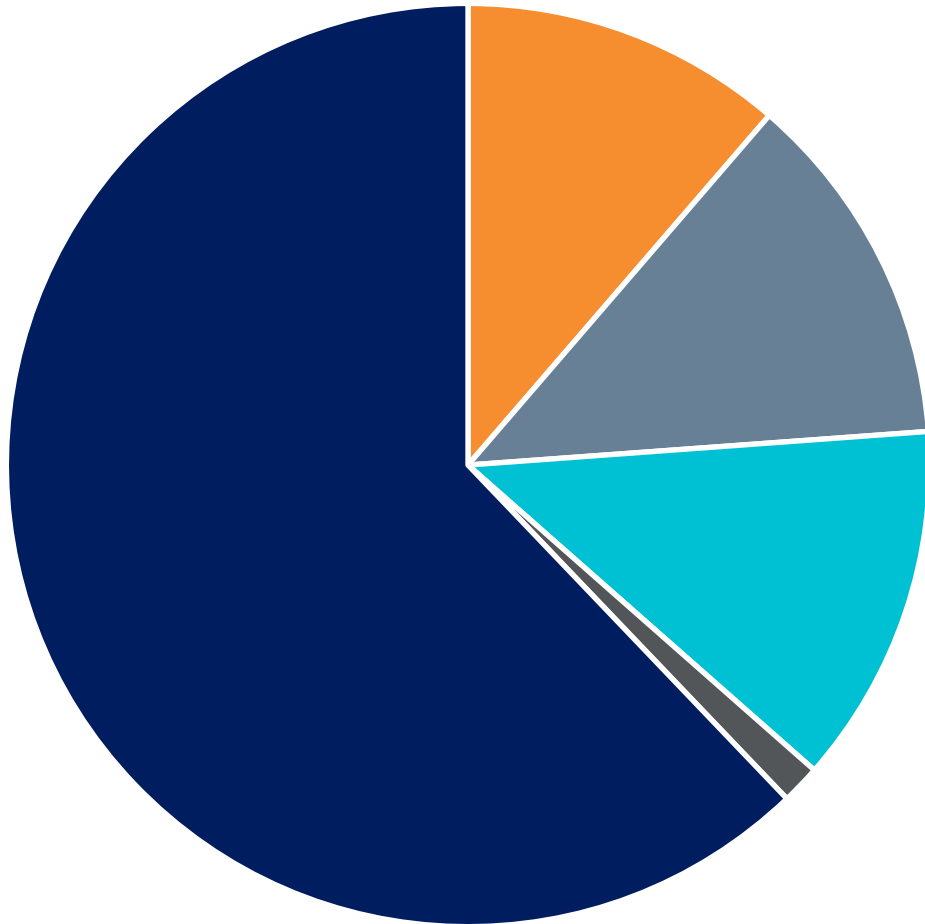


FIRE FLOW

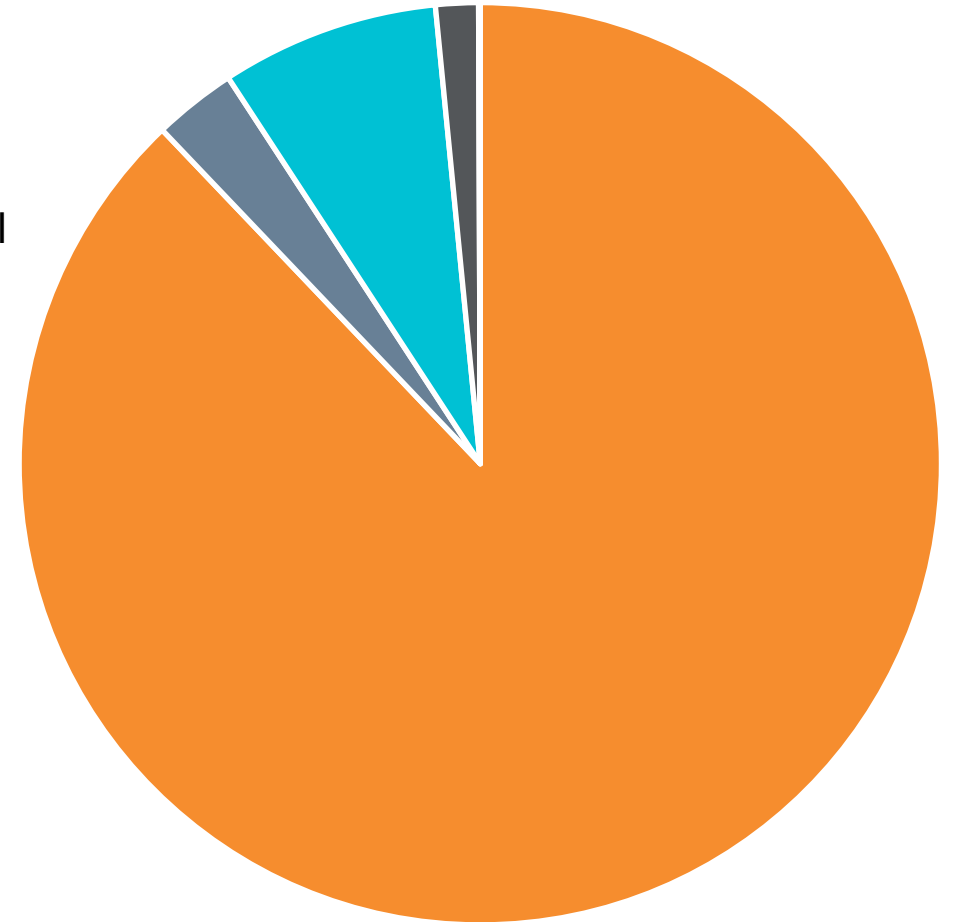
- minimum infrastructure to support fire flow is needed throughout the city
- provides a critical public safety benefit

WATER USE AND ACCOUNTS BY CUSTOMER TYPE

usage



accounts



- single family residential
- multifamily residential
- commercial/industrial
- specialty
- treated & untreated contract water

USAGE BY CUSTOMER TYPE

TYPE	MEDIAN MONTHLY USAGE	MOST COMMON METER SIZE	90 th PERCENTILE MONTHLY USAGE
single family residential	3.4K gallons	5/8 inch	9K gallons
multifamily residential	13K gallons	1 inch	485K gallons
commercial	5K gallons	5/8 inch	95K gallons

RATE DEVELOPMENT

revenue
requirement
analysis

cost of service
analysis

rate design

RATE DEVELOPMENT

COMPONENT	TYPE	BASIS	RECOVERS
basic service	fixed	customer type meter size	capacity fire flow customer service
consumption	variable	customer type metered water usage	operations & maintenance
TCEQ	fixed	per connection	state connection fee (pass-through)
conservation credit	variable	single family residential 3K gallons or less	n/a

SAMPLE UTILITY BILL – SINGLE FAMILY RESIDENTIAL 5/8 INCH METER WITH 3,000 GALLONS USAGE



City of Houston Utility Bill

713.371.1400
www.houstonwater.org

Detailed Meter Usage

Meter Type	Meter Number	Meter Size (Inches)	Previous Reading	Current Reading	Gallons in Thousands	Read Date
WATER RES	000####-##-0.625	0.625	1106	1109	3	current

Payments Received	Adjustments	Current Charges
4/1/2021 \$##.##		Residential Base Water Charge Water Basic Service \$5.82 Residential Base Sewer Charge Wastewater Basic Service \$12.37 Residential Consumption Water Charge \$8.26 Residential Consumption Sewer Charge Wastewater \$0.94 Drainage Charge \$5.00 Solid Waste Cart Fee \$1.14

SAMPLE UTILITY BILL – SINGLE FAMILY RESIDENTIAL 5/8 INCH METER WITH 3,000 GALLONS USAGE

Previous Reading	Current Reading	Gallons in Thousands	Read Date
1107	1110	3	current

	Current Charges		after July 1, 2021
Residential Water Basic Service Charge	\$5.82	\$6.25	
Residential Wastewater Basic Service Charge	\$12.37	\$10.00	
Residential Consumption Water Charge	\$8.26	\$3.00	
Residential Consumption Wastewater Charge	\$0.94	\$12.00	
Drainage Charge	\$5.00	\$5.00*	
Solid Waste Cart Fee	\$1.14	\$1.14*	
TCEQ Connection Fee		\$0.21	
	TOTAL	\$33.53	\$37.60
			\$4.07

SINGLE FAMILY RESIDENTIAL CONSUMPTION RATES

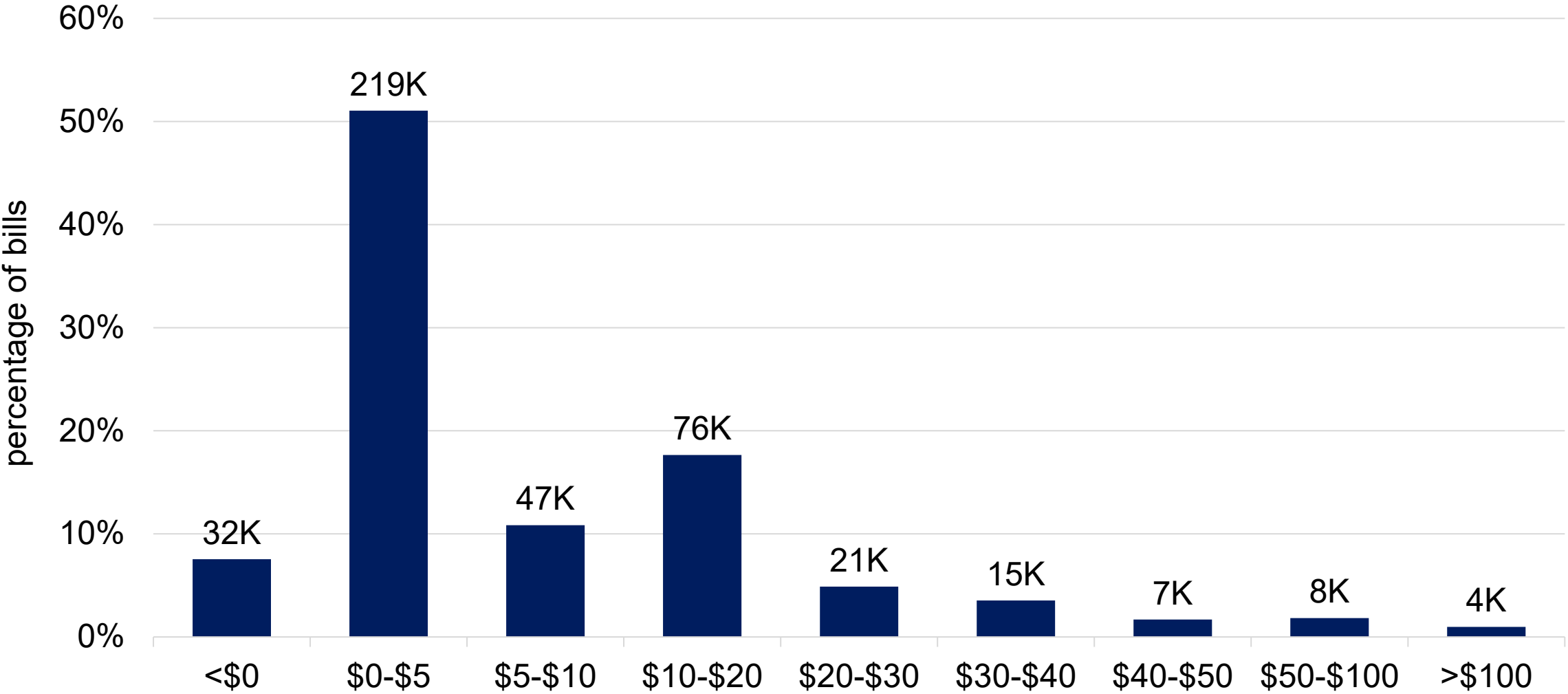
RATE BLOCK	WATER		WASTEWATER	
	EXISTING	PROP. JULY 2021	EXISTING	PROP. JULY 2021
customers with usage up to 3K gallons per month (includes conservation credit)				
first 1 kgal	\$0.16	\$1.00	n/a	
next 1 kgal	\$7.65			
next 1 kgal	\$0.45			
customers with usage in excess of 3K gallons per month (not eligible for conservation credit)				
first 1 kgal	\$0.16	\$5.50	\$0.20	\$4.00
next 1 kgal	\$7.65		\$0.41	
next 1 kgal	\$0.45		\$0.33	
next 1 kgal	\$12.56		\$17.20	\$10.50
next 1 kgal	\$5.29		\$6.22	
next 1 kgal	\$5.29			
next 6 kgal	\$5.74		\$8.00	
next 8 kgal	\$9.46	\$11.00	\$9.05	
next 20 kgal	\$9.46	\$15.00		

SAMPLE UTILITY BILL – SINGLE FAMILY RESIDENTIAL 5/8 INCH METER WITH 4,000 GALLONS USAGE

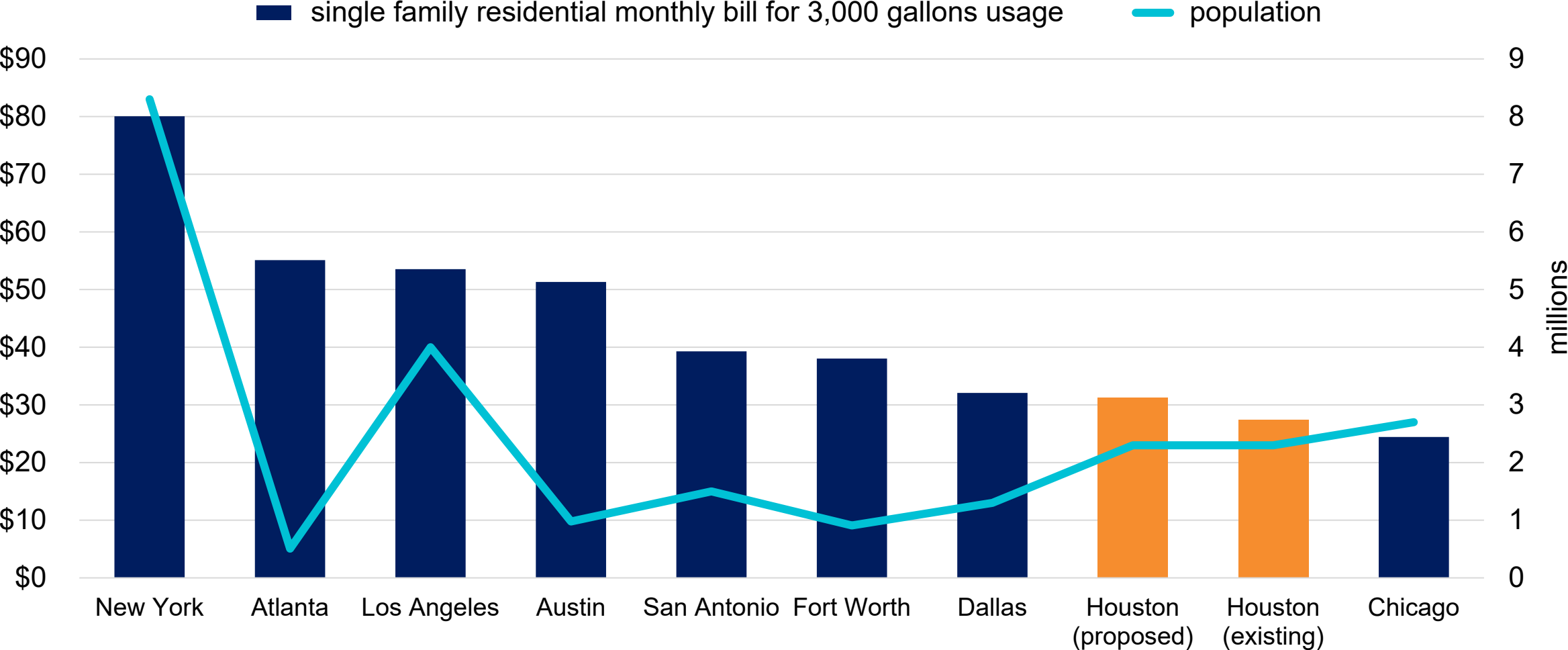
Previous Reading	Current Reading	Gallons in Thousands	Read Date
1106	1110	4	current

	Current Charges		after July 1, 2021
Residential Water Basic Service Charge	\$5.82	\$6.25	
Residential Wastewater Basic Service Charge	\$12.37	\$10.00	
Residential Consumption Water Charge	\$20.51	\$22.00	
Residential Consumption Wastewater Charge	\$17.88	\$22.50	
Drainage Charge	\$5.00	\$5.00*	
Solid Waste Cart Fee	\$1.14	\$1.14*	
TCEQ Connection Fee		\$0.21	
	TOTAL	\$62.72	\$67.10
			\$4.38

DISTRIBUTION OF RECOMMENDED JULY 2021 INCREASE FOR SINGLE FAMILY RESIDENTIAL



MONTHLY BILL COMPARISON



SAMPLE UTILITY BILL – MULTIFAMILY RESIDENTIAL 1-INCH METER WITH 13,000 GALLONS USAGE

Previous Reading	Current Reading	Gallons in Thousands	Read Date
4445	4458	13	current

Current Charges		after July 1, 2021	
Multifamily Water Basic Service Charge	\$7.50	\$8.79	
Multifamily Wastewater Basic Service Charge	\$11.17	\$12.42	
Multifamily Consumption Water Charge	\$87.88	\$96.20	
Multifamily Consumption Wastewater Charge	\$60.45	\$70.80	
Drainage Charge	\$33.11	\$33.11*	
Solid Waste Cart Fee	\$1.14	\$1.14*	
TCEQ Connection Fee		\$0.21	
TOTAL	\$201.25	\$222.67	\$21.42

*Drainage Charge and Solid Waste Cart Fee are not part of this study.

SAMPLE UTILITY BILL – COMMERCIAL 5/8-INCH METER WITH 5,000 GALLONS USAGE

Previous Reading	Current Reading	Gallons in Thousands	Read Date
3901	3906	5	current

Current Charges		after July 1, 2021
Commercial Basic Service Water Charge	\$6.05	\$6.25
Commercial Basic Service Wastewater Charge	\$10.64	\$10.00
Commercial Consumption Water Charge	\$23.88	\$27.75
Commercial Consumption Wastewater Charge	\$33.88	\$37.00
Drainage Charge	\$46.88	\$46.88*
TCEQ Connection Fee		<u>\$0.21</u>
	<u>\$121.33</u>	<u>\$128.09</u>

TOTAL

\$6.76

LEAK BALANCE REMAINING

additional relief for private side leaks

remedy for excessive balances

single family residential only

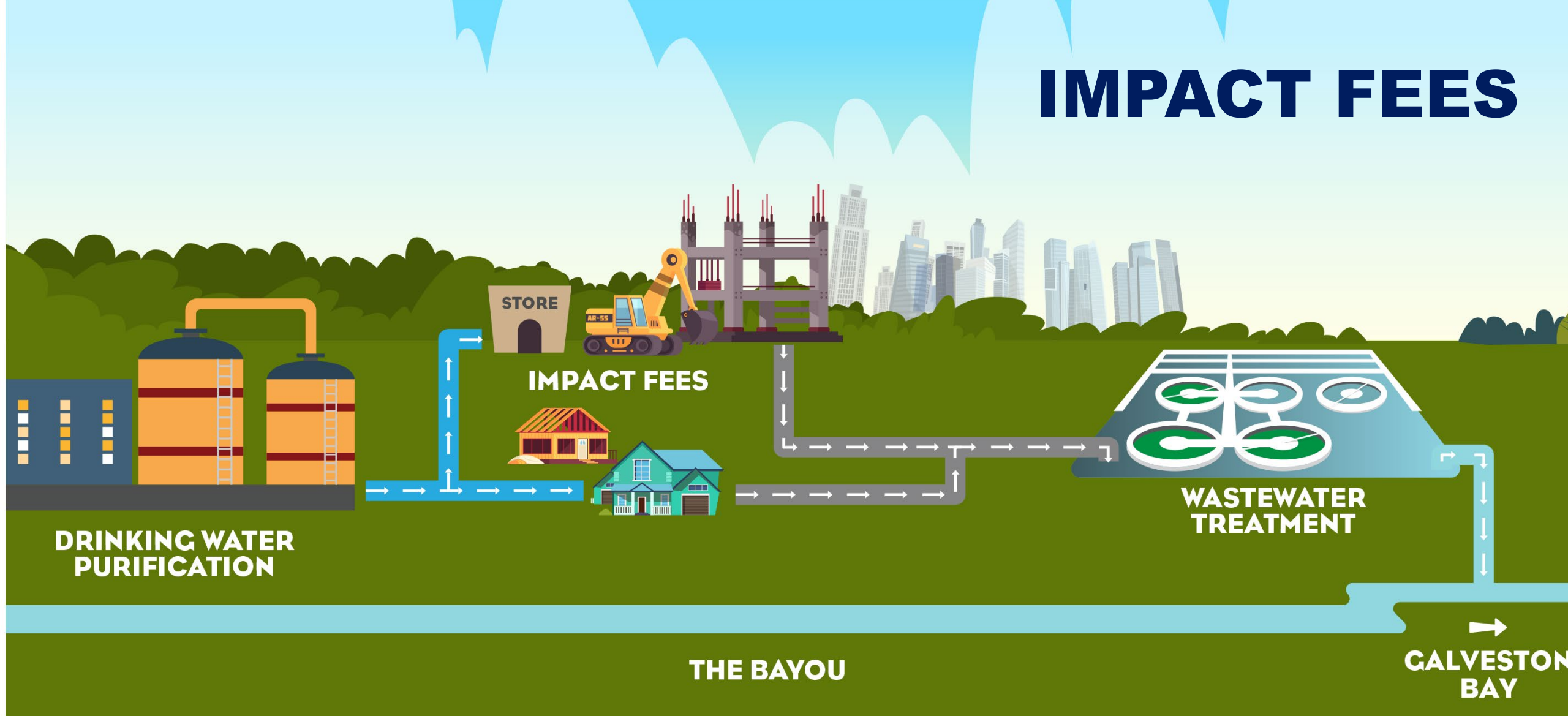
average benefit for qualified single
family residential customers

- low-income seniors: \$752
- all others: \$1,749



*2019 Approved Leak Adjustments

IMPACT FEES



TIMELINE IMPACT FEES



*In accordance with section 418.016 of the Texas Government Code, the Office of the Governor grants the City of Houston's request to suspend Texas Local Gov't Code Sections 395.014(a)(6) and 395.052 to the extent necessary to delay until **July 1, 2021** the deadlines for updating the capital improvement plan required under Chapter 395 of the Local Government Code.

IMPACT FEE COMPARISON

	POPULATION	IMPACT FEE
AUSTIN	979K	\$7.2K
SAN ANTONIO	1.5M	\$7.2K*
LOS ANGELES	4.0M	\$5.6K
FORT WORTH	910K	\$3.5K
ATLANTA	507K	\$3.5K
HOUSTON (EXISTING)	2.3M	\$1.9K
CHICAGO	2.7M	\$3.8K/acre
NEW YORK	8.3M	N/A
DALLAS	1.3M	N/A

* San Antonio has multiple services areas. This represents the average fee.
2019 census.gov

IMPACT FEE CALCULATION

LAND USE ASSUMPTIONS

provides number of added service units

water: 195,259
wastewater: 98,363

CAPITAL IMPROVEMENTS

provides cost of eligible capital improvements

water: \$1,263,798,197
wastewater: \$455,738,955

$$\text{CALCULATED IMPACT FEE} = \frac{\text{cost of eligible capital improvements}}{\text{added service units}}$$

maximum allowed impact fee is 50% calculated impact fee TLGC 395.014(7)(B)

WATER IMPACT FEE CALCULATION

$$\text{calculated fee} = \frac{\$1,263,798,197}{195,259 \text{ service units}}$$

= \$6,472.42 per service unit

	CALCULATED IMPACT FEE	MAXIMUM ALLOWED	FEE	% OF CALCULATED
current	\$3,837.62	\$1,918.81	\$790.55	20.6%
proposed	\$6,472.42	\$3,236.21	\$1,618.11 (FY2022)	25.0% (FY 2022)

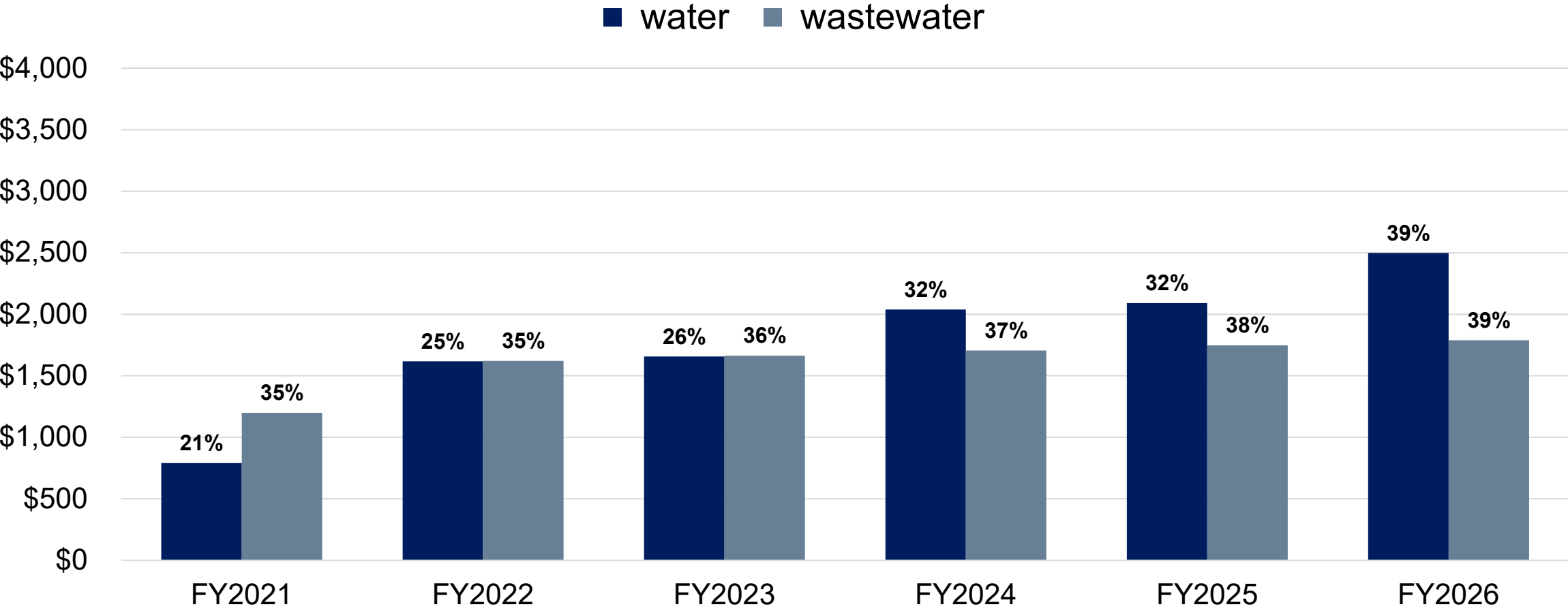
WASTEWATER IMPACT FEE CALCULATION

$$\text{calculated fee} = \frac{\$455,738,955}{98,363 \text{ service units}}$$

= \$4,633.24 per service unit

	CALCULATED IMPACT FEE	MAXIMUM ALLOWED	FEE	% OF CALCULATED
current	\$3,426.02	\$1,713.01	\$1,199.11	35.0%
proposed	\$4,633.24	\$2,316.62	\$1,621.63 (FY2022)	35.0% (FY 2022)

IMPLEMENTATION PLAN



bars labeled with % of calculated fee – maximum allowed is 50% of calculated fee

IMPACT FEE COMPARISON

	POPULATION	IMPACT FEE
AUSTIN	979K	\$7.2K
SAN ANTONIO	1.5M	\$7.2K*
LOS ANGELES	4.0M	\$5.6K
FORT WORTH	910K	\$3.5K
ATLANTA	507K	\$3.5K
HOUSTON (PROPOSED)	2.3M	\$3.2K
CHICAGO	2.7M	\$3.8K/acre
NEW YORK	8.3M	N/A
DALLAS	1.3M	N/A

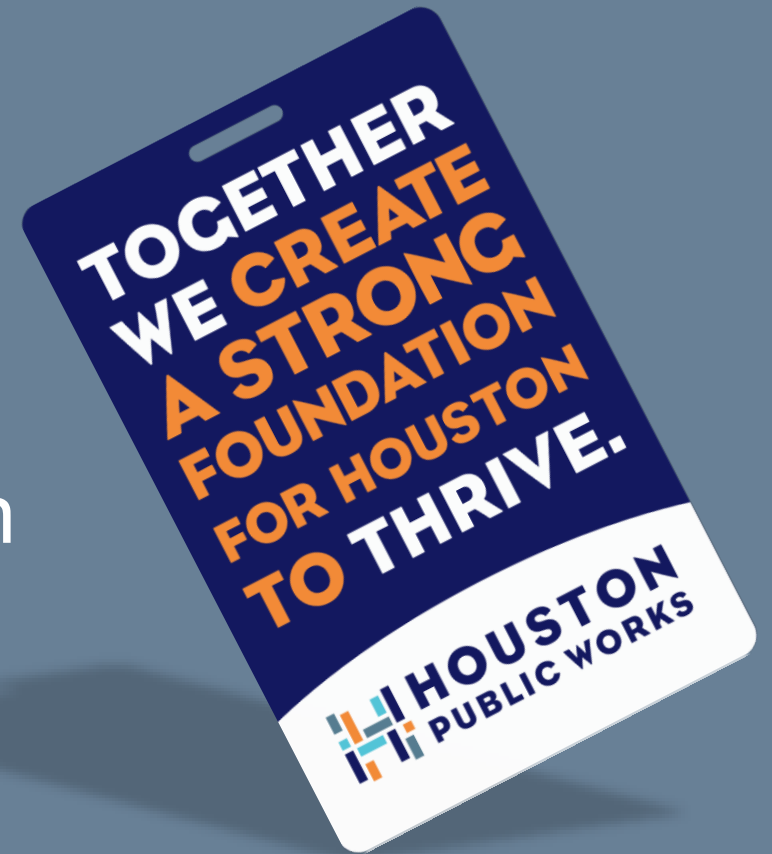
* San Antonio has multiple services areas. This represents the average fee.
2019 census.gov

SCHEDULE

MARCH 24	Council Action Calling Public Hearing
APRIL 1	Planning Commission
APRIL 20	Planning Commission Comments to Council
APRIL 27	Budget & Fiscal Affairs
APRIL 28	Public Hearing at City Council
MAY	Council Action

PURPOSE

together we create a strong foundation
for Houston to thrive



5 TO THRIVE VALUES

integrity | teamwork | ownership | communication | respect

thank you!



houstonpublicworks.org

  @houpublicworks