



# 2019

 American Water Works Association  
Utility Benchmarking Survey

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# Introduction

AWWA's Utility Benchmarking Program continuously tracks utility performance indicators developed and applied by water industry professionals to provide a framework for improving both operational efficiency and managerial effectiveness for all utilities. The basis of this program is a system of well-defined and time-tested performance indicators specific to the water sector. These indicators were designed to help utilities providing water and/or wastewater services improve their operational efficiency and managerial effectiveness.

Survey questions collect utility performance data. i.e., metrics, which are used to calculate performance indicators categorized in the following five areas:

- Organizational Development

- Business Operations

- Customer Service

- Water Operations

- Wastewater Operations.

The full list of indicators in each category are as follows, new indicators to be reported in 2019 are highlighted below:

## Organizational Development

- Organizational Best Practices

- Staffing Levels

  - Total FTEs

  - FTEs by Job Category (%)

- Training (hours per employee)

- Emergency Response Readiness Training (hours per employee)

- Customer Accounts (accounts per employee)

- Employee Turnover (%)

- Retirement Eligibility (%)

- Employee Health & Safety Severity Rate

- Recordable Incidents of injury or illnesses

- Near Misses

- Strategic Workforce Planning (*NEW in 2019*)

- Employee Vacancies (*NEW in 2019*)

## Business Operations

- Debt Ratio (%)
- Return on Assets (%)
- Days of Cash on Hand
- Debt-Service Coverage Ratio
- Days of working capital
- Operating Ratio (%)
- Bond Rating
- Insurance Claims (*NEW in 2019*)
  - Severity of Insurance Claims (*NEW in 2019*)
  - Average Severity
- System Inspection (%)
- System Renewal/Replacement (%)
- Triple-Bottom-Line Index (%)
- Sustainability
  - Nutrient Recovery
  - Biosolids Reuse (%)
  - Nonportable consumptive use (%)
  - Habitat/watershed protection goals
  - Green Infrastructure planning
  - Energy Optimization planning
- Risk and Resiliency (*NEW in 2019*)
  - Risk Assessment & Response Preparedness (*NEW in 2019*)
  - Emergency Response Plan (*NEW in 2019*)
  - Recovery and Mitigation (*NEW in 2019*)
  - Cybersecurity Preparedness (*NEW in 2019*)

## Customer Service

- Service Complaints
  - Customer Service Complaints/1,000 accounts
  - Customer Service Complaints/population served (*NEW in 2019*)
  - Technical Service Complaints/1,000 accounts
  - Technical Service Complaints/population served (*NEW in 2019*)
- Call Center Indicators
  - Average Talk Time (minutes)
  - Average Wait Time (minutes)
  - Abandoned Calls (%)
  - Average Calls per Call Center Representative
  - First Call resolution
- Customer Service Cost per Account (\$/account)

- Residential Service Charges
  - Residential Cost of Water Service (\$/month)
  - Residential Cost of Wastewater Service (\$/month)
  - Residential Cost of Stormwater Service (\$/month)
- Billing Accuracy (errors/10,000 billings)
  - Frequency of Billing (*NEW in 2019*)
  - Estimated Billing Rate (*NEW in 2019*)
  - Metering Prevalence (*NEW in 2019*)
  - Metering: Frequency of Meter Reads (*NEW in 2019*)
  - Metering: Read Success Rate (*NEW in 2019*)
- Per Capita Consumption (gal/person/day)
- Service Affordability
  - Water Service Affordability (%)
  - Wastewater Service Affordability (%)
  - Stormwater Service Affordability (%)
- Delinquency rate
- Low-income assistance program offered
- Low-income billing assistance rate
- Stakeholder Outreach Index
- Customer Service – Preferred Method of Contact
- Water Service Disruptions
  - Disruptions of Water Service (outages/1,000 accounts)
    - Planned by Event Duration (< 4 hr, 4–12 hr, > 12 hr)
    - Unplanned by Event Duration (< 4 hr, 4–12 hr, > 12 hr)
  - Average Time to Address Water Service Disruptions (hr)
  - Disruption Frequency of Water Service
- Wastewater Service Disruptions
  - Disruptions of Wastewater Service (outages/1,000 accounts)
    - Planned by Event Duration (< 4 hr, 4–12 hr, > 12 hr)
    - Unplanned by Event Duration (< 4 hr, 4–12 hr, > 12 hr)
  - Average Time to Address Wastewater Service Disruptions (hr)
  - Disruption Frequency of Wastewater Service

## Water Operations

- Regulatory Compliance—Water (%)
- Water Produced (MGD per employee)
- Water Supply
  - Current Water Demand (%)
  - Available Water Supply (years)
- Water Distribution System Integrity
  - Leaks/100 miles of pipe
  - Breaks/100 miles of pipe
  - Combined Leaks and Breaks

Hydrant effectiveness / out of service rate  
O&M Costs for Water Services  
    (\$/account)  
    (\$/MG)  
    (\$/100 miles of pipe)  
    Treatment O&M costs  
    Distribution O&M Costs (\$/100 miles of pipe)  
    O&M Percentage of Water Services  
Maintenance—Water  
    Planned Maintenance (%) [Overall, Linear, Vertical Ratios]  
    Corrective Maintenance to Production (hr/MG)  
    Planned Maintenance to Production (hr/MG)  
    Corrective Maintenance to Distribution System Length (hr/100 miles of pipe)  
    Planned Maintenance to Distribution System Length (hr/100 miles of pipe)  
Energy Consumption—Water (kBTU/year/MG)  
AWWA Water Audit Software

## Wastewater Operations

Wastewater Compliance Rate (*modified reporting*)  
    Wastewater Treatment Operations (%) (*NEW in 2019*)  
    Collection System Operations (%) (*NEW in 2019*)  
Wastewater Processed per Employee  
Non-Capacity Sewer Overflow ow Rate (per 100 miles of pipe)  
Capacity Sewer Overflow Rate (per 100 miles of pipe)  
Collection System Integrity (failures/100 miles of pipe)  
O&M Costs for Wastewater Service  
    (\$/account)  
    (\$/MG)  
    (\$/100 miles of pipe)  
    Collection O&M Costs (\$/100 miles of pipe)  
    Treatment O&M Cost (\$/MG)  
    O&M Percentage of Wastewater Services  
    O&M Percentage of Stormwater Services  
Maintenance—Wastewater  
    Planned Maintenance (%) [Overall, Linear, Vertical Ratios]  
    Corrective Maintenance to Treatment (hr/MG)  
    Planned Maintenance to Treatment (hr/MG)  
    Corrective Maintenance to Collection (hr/100 miles of pipe)  
    Planned Maintenance to Collection (hr/100 miles of pipe)  
Energy Consumption—Wastewater (kBTU/year/MG)

