

WTP MIN-MAX Results

Final Graphs

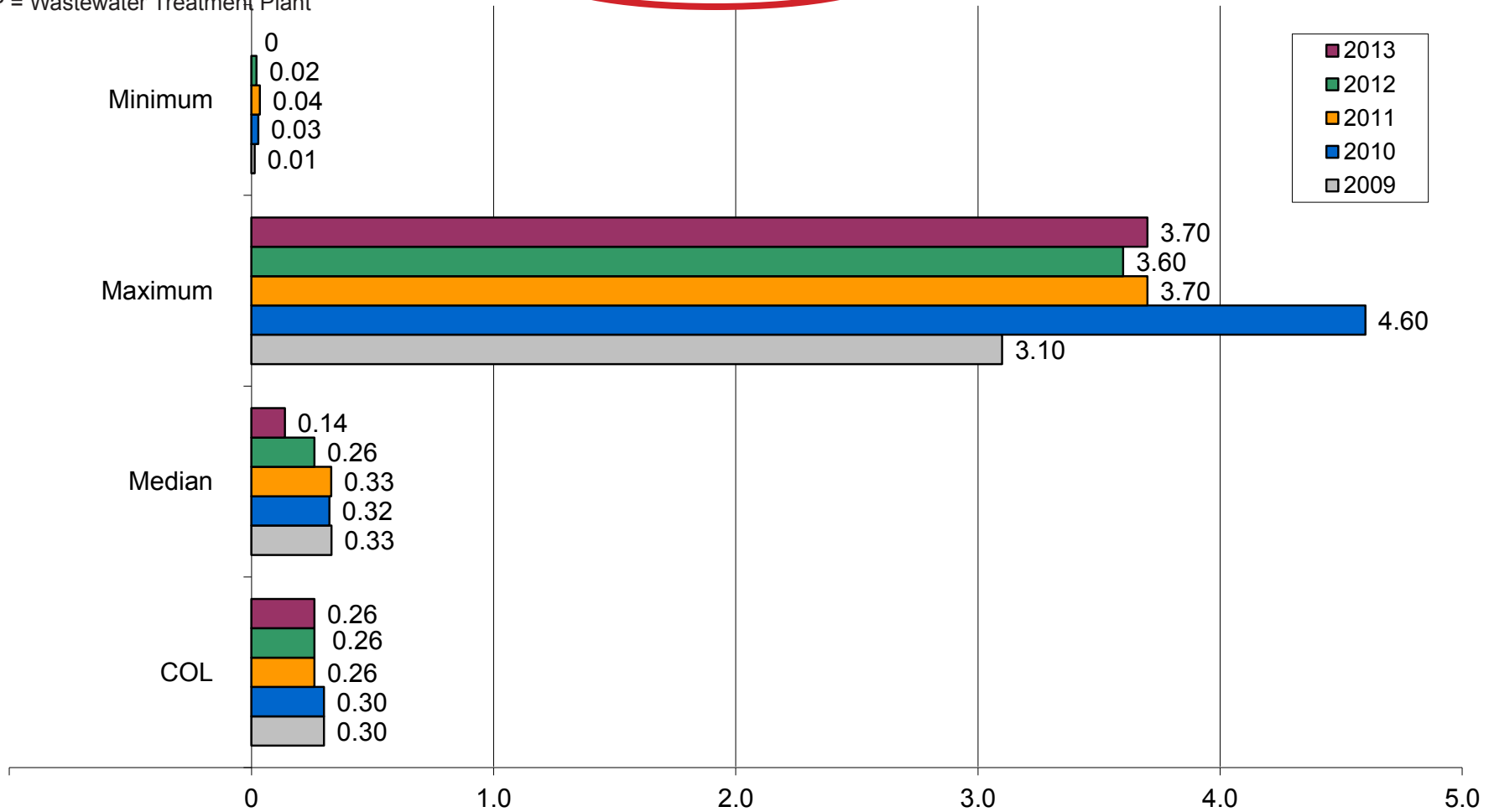
System:
 Water Utility = Water Treatment & Distribution
 Water Distribution
 WTP = Water Treatment Plant
 WWTP = Wastewater Treatment Plant

Median Value for Nitrates (mg/L)

Water Filtration Plants

Attempt to normalize data by combining like systems.

KPI Measured
Protect Public Health and Safety - 3



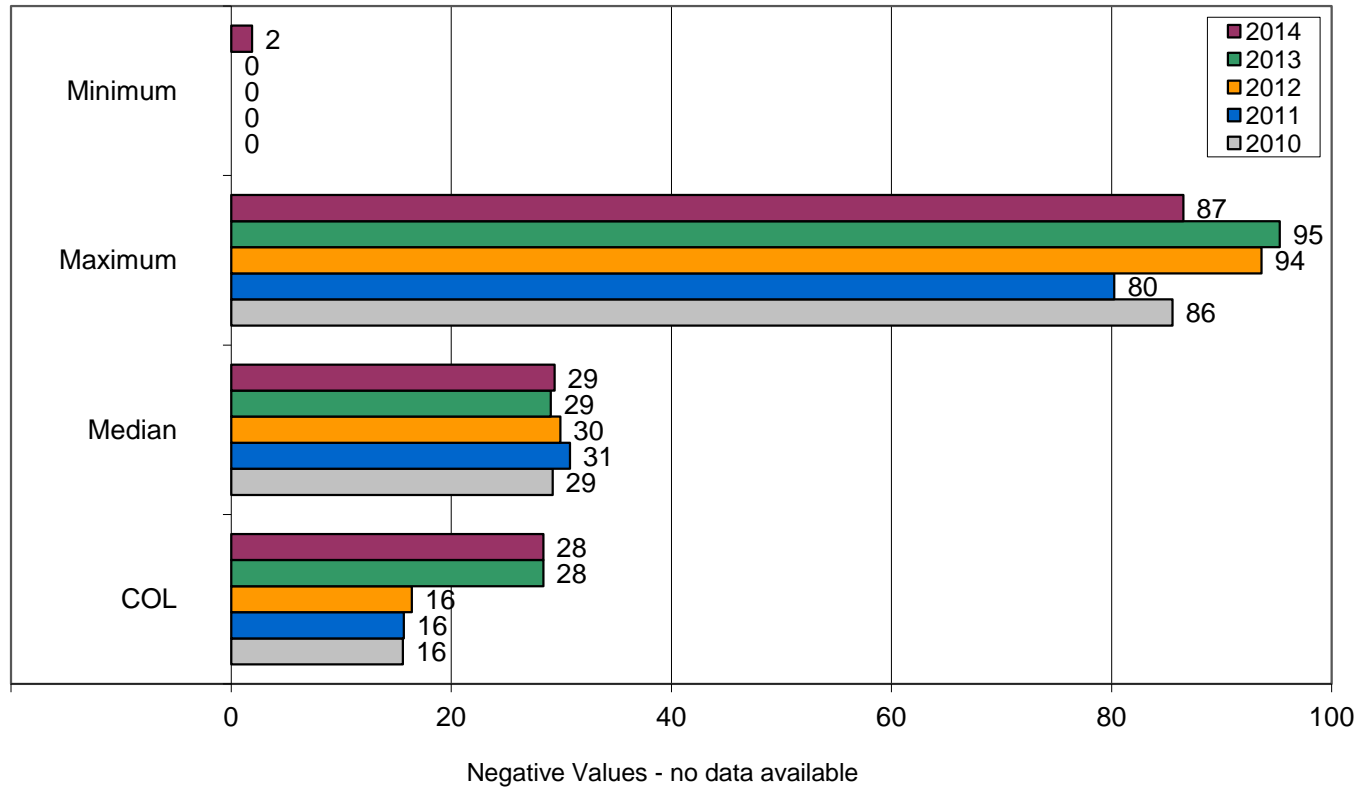
Negative Value - no data available

Group Target <10mg/L

Target set during the annual workshop by members.
 Not all metrics have a Group Target

Ensure Adequate Capacity - 1

of Hours of Treated Water Storage Capacity at Average Day Demand
All Water Utilities

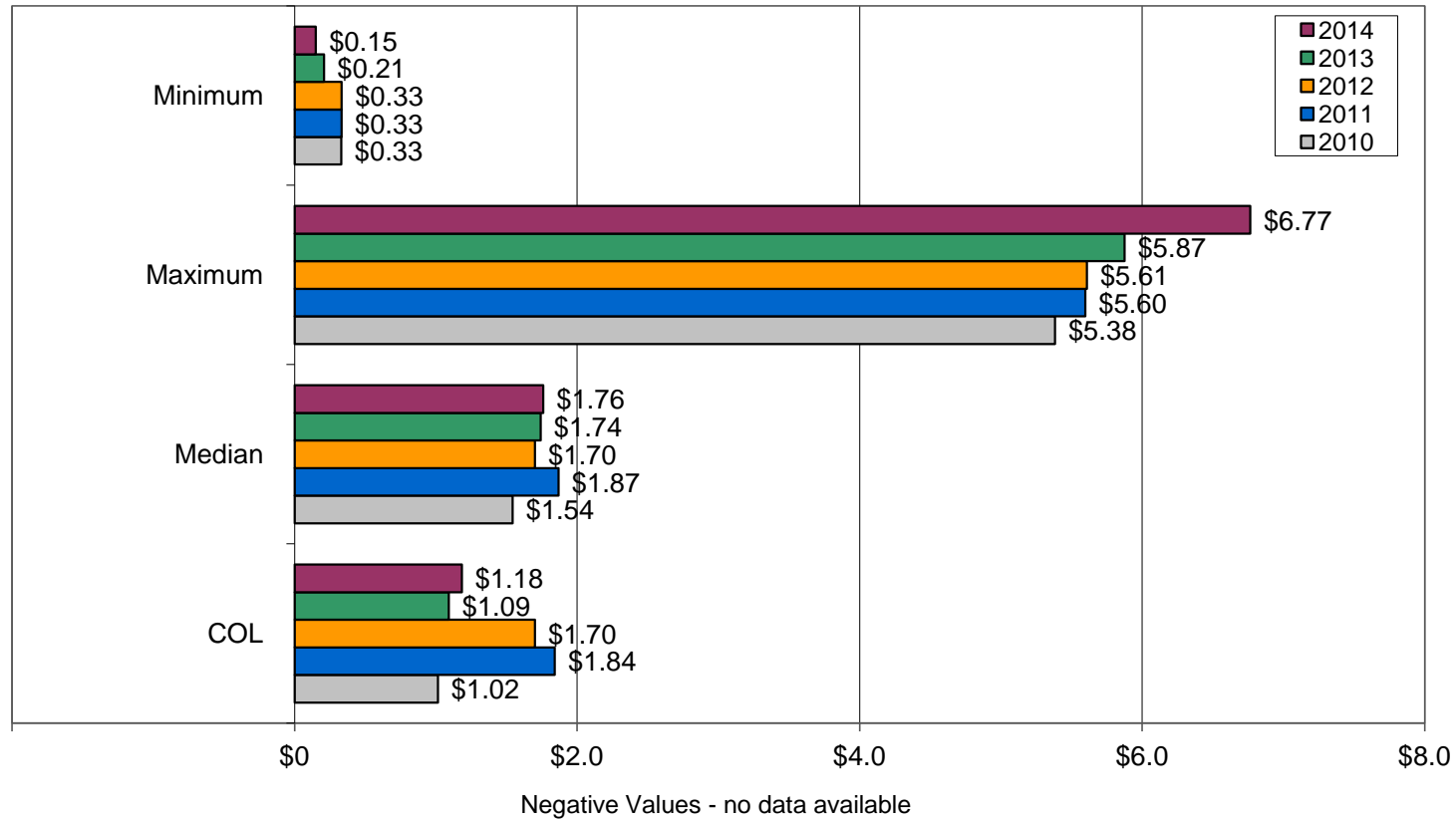


Staff Comments: Average day demand decreased in 2013 primarily the result of major industry closing.

Meet Service Requirements with Economic Efficiency - 1

Cost of Water Quality Monitoring / Population Served

Integrated System Utilities

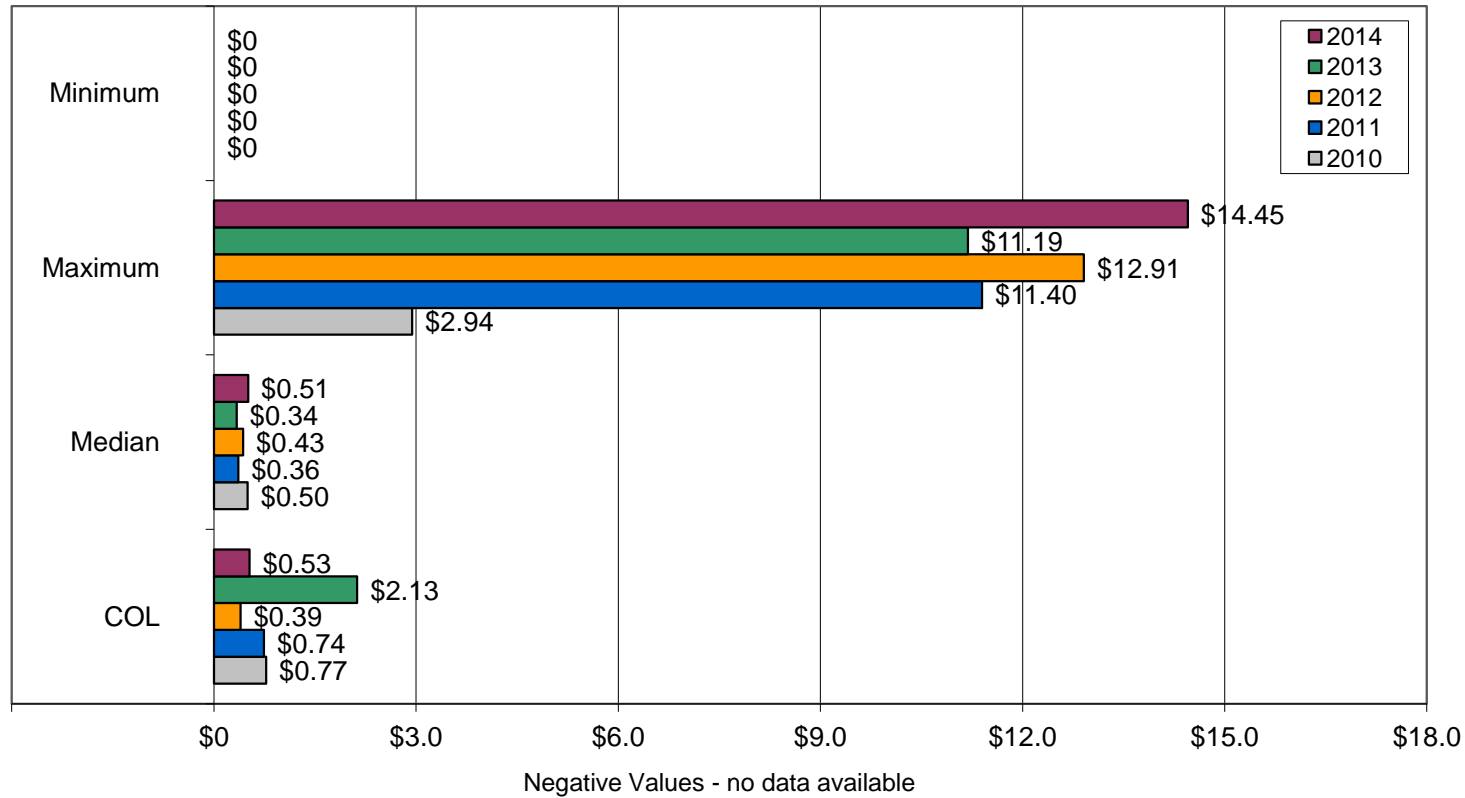


Staff Comments: This number is based primarily on the cost of lab services. As it has shown changes over five years, we plan to go to tender in 2016/2017. We will also be contacting those municipalities in the minimum category to gain insight into how they are able to keep water quality monitoring costs low.

Protect the Environment - 1

Cost of Water Conservation Program / Population Served

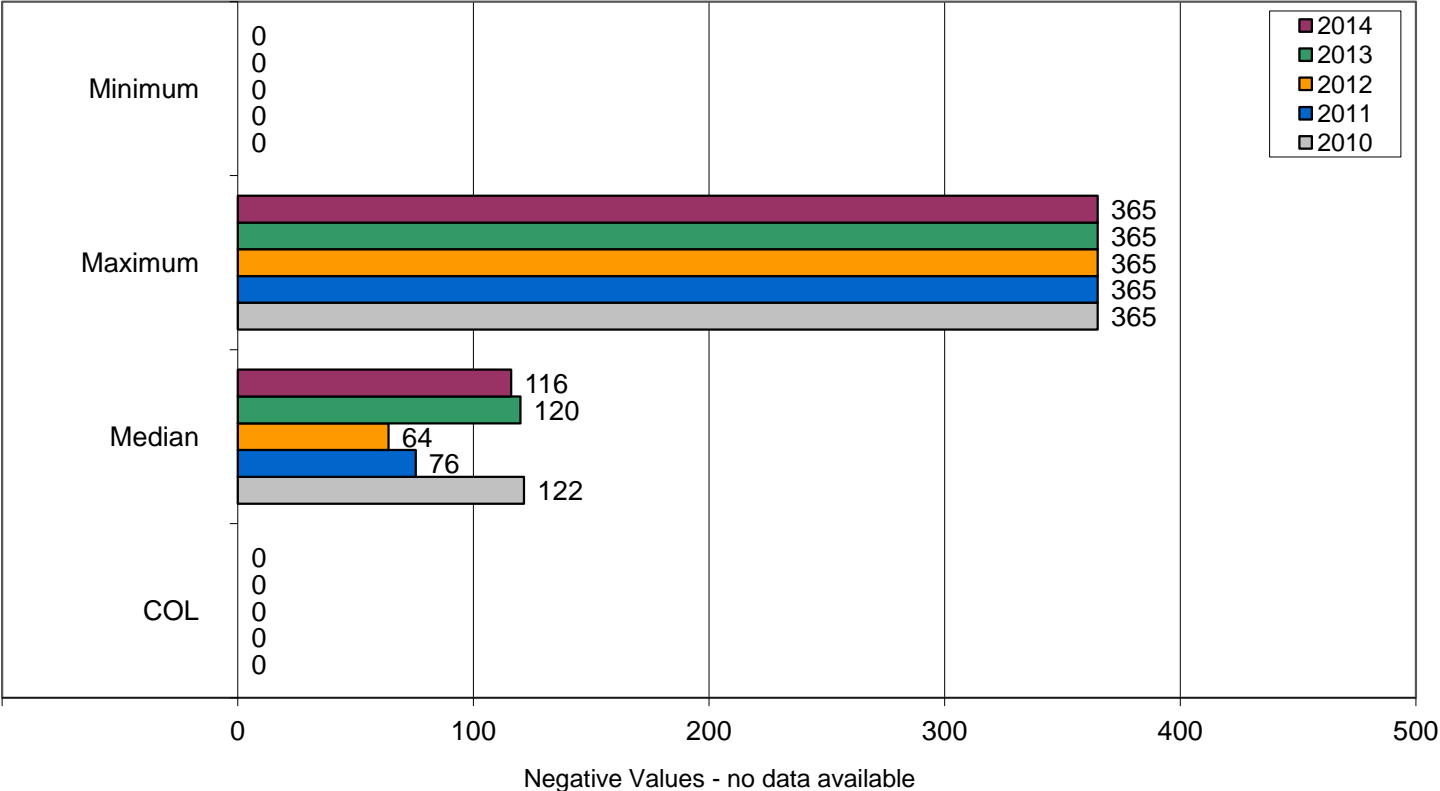
All Water Utilities



Staff Comments: The Quench Buggy was purchased as a capital item in 2013.

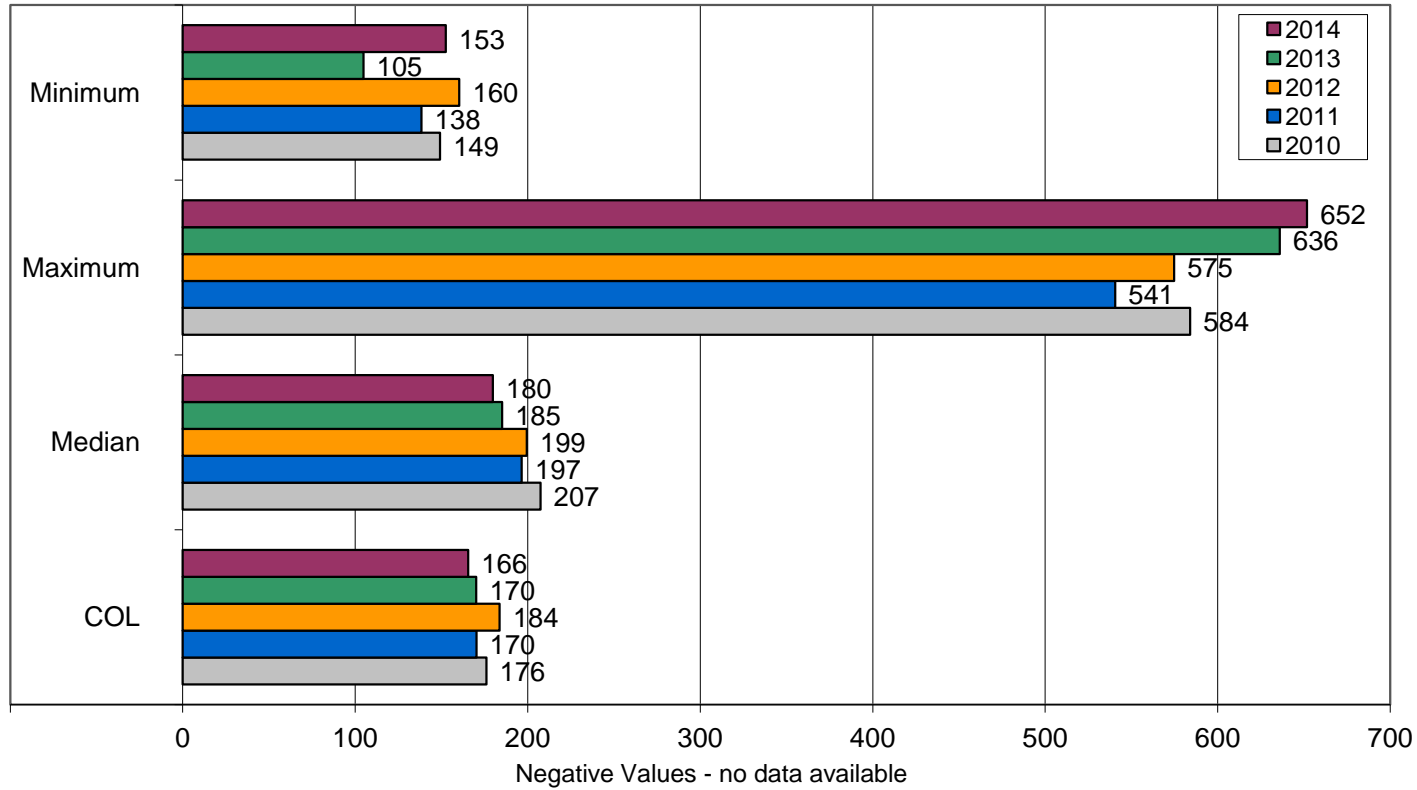
Protect the Environment - 2

of Days of Water Restrictions
All Water Utilities



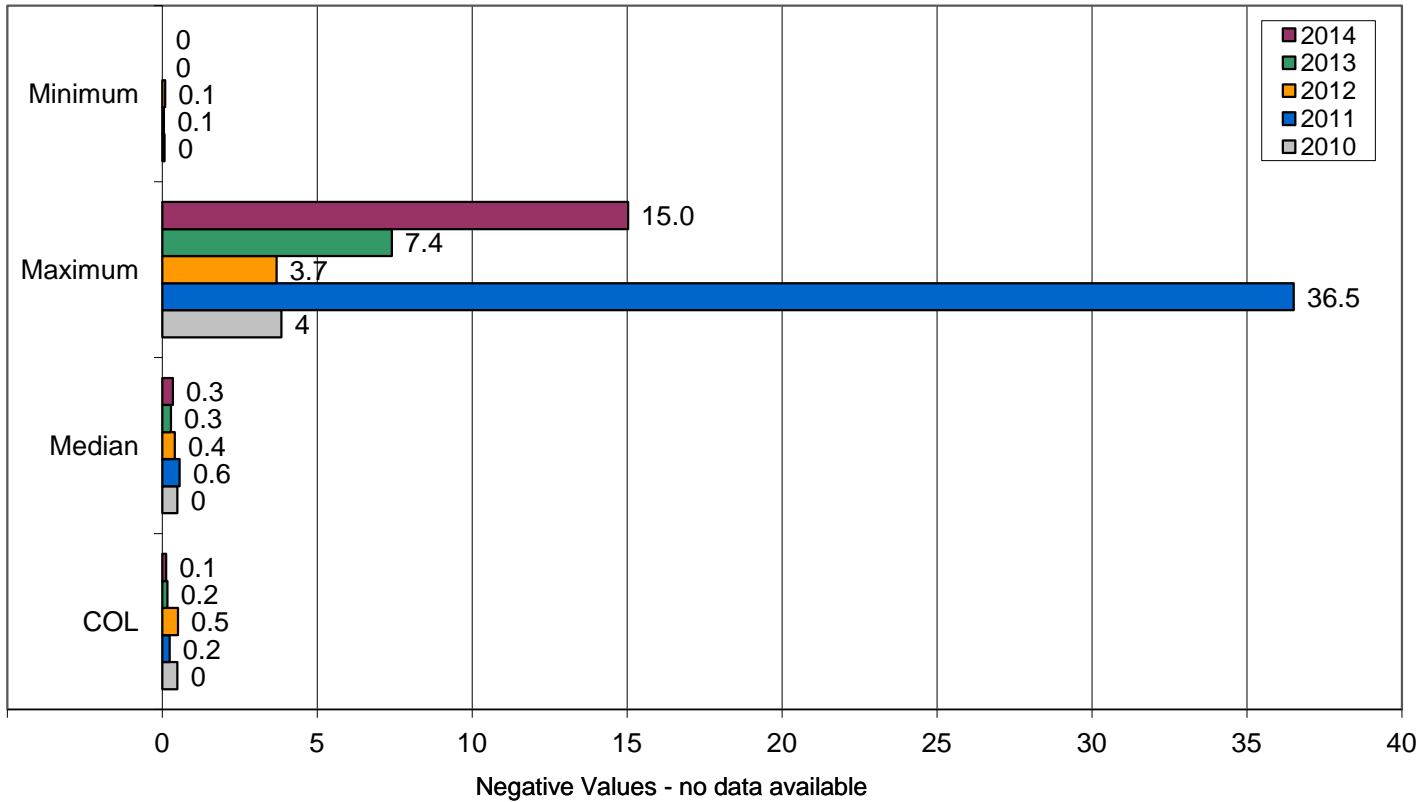
Protect the Environment - 3
Per Capita Average Day Consumption for Residential Customers
(lpcd)

Water Distribution and Integrated Utilities



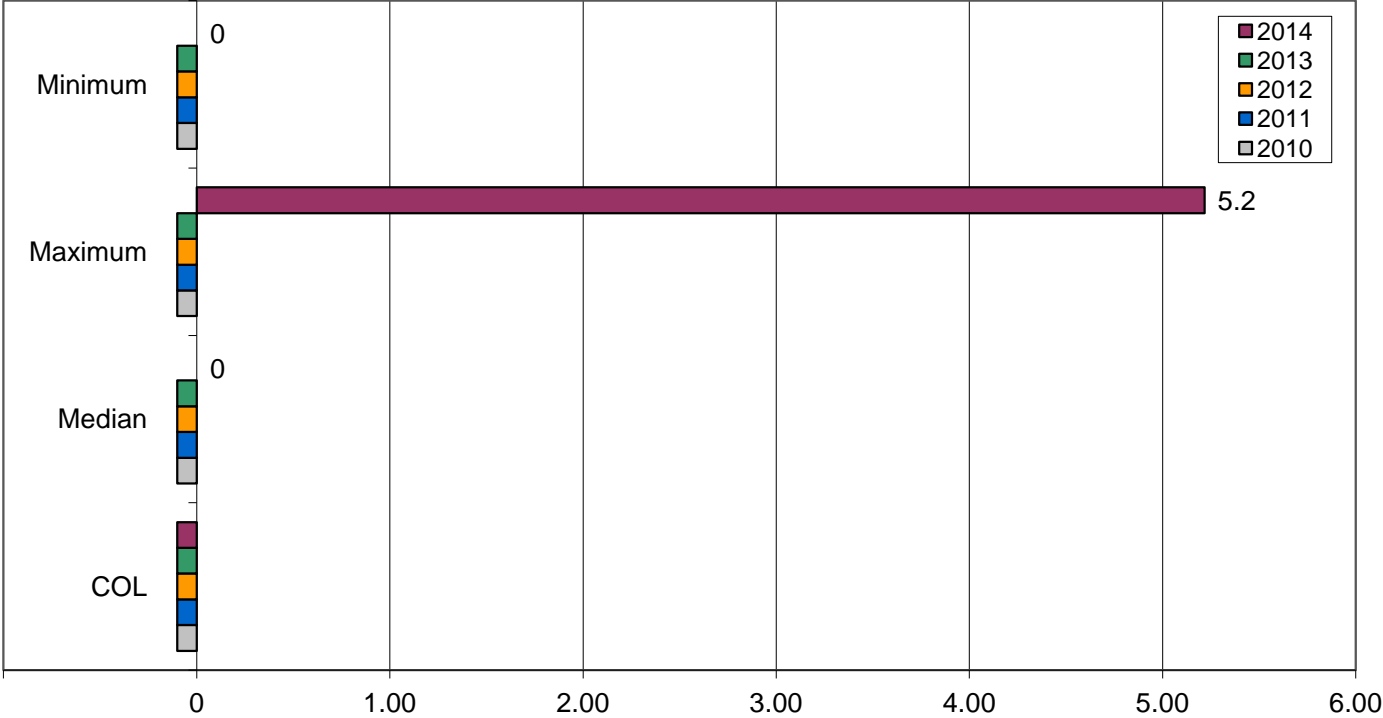
Have Satisfied and Informed Customers - 1

of Water Quality Customer Complaints / 1,000 People Served
Water Distribution and Integrated Utilities



Protect Public Health and Safety - 1

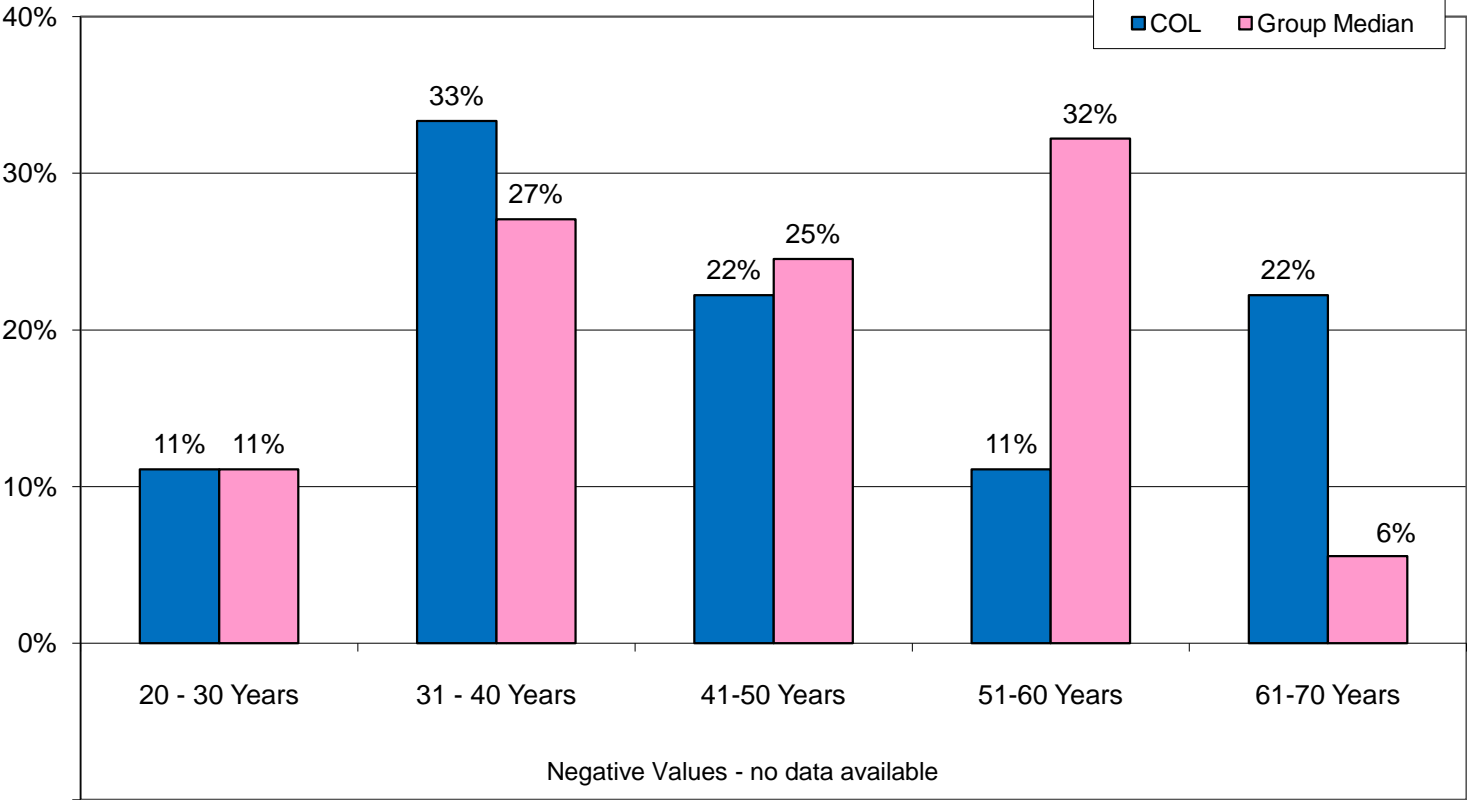
Connections Affected by Boil Water Advisory / 1000 Service Connections
All Water Utilities



Negative Values - no data available

Note: This graph is based on the new metric - no historical data available

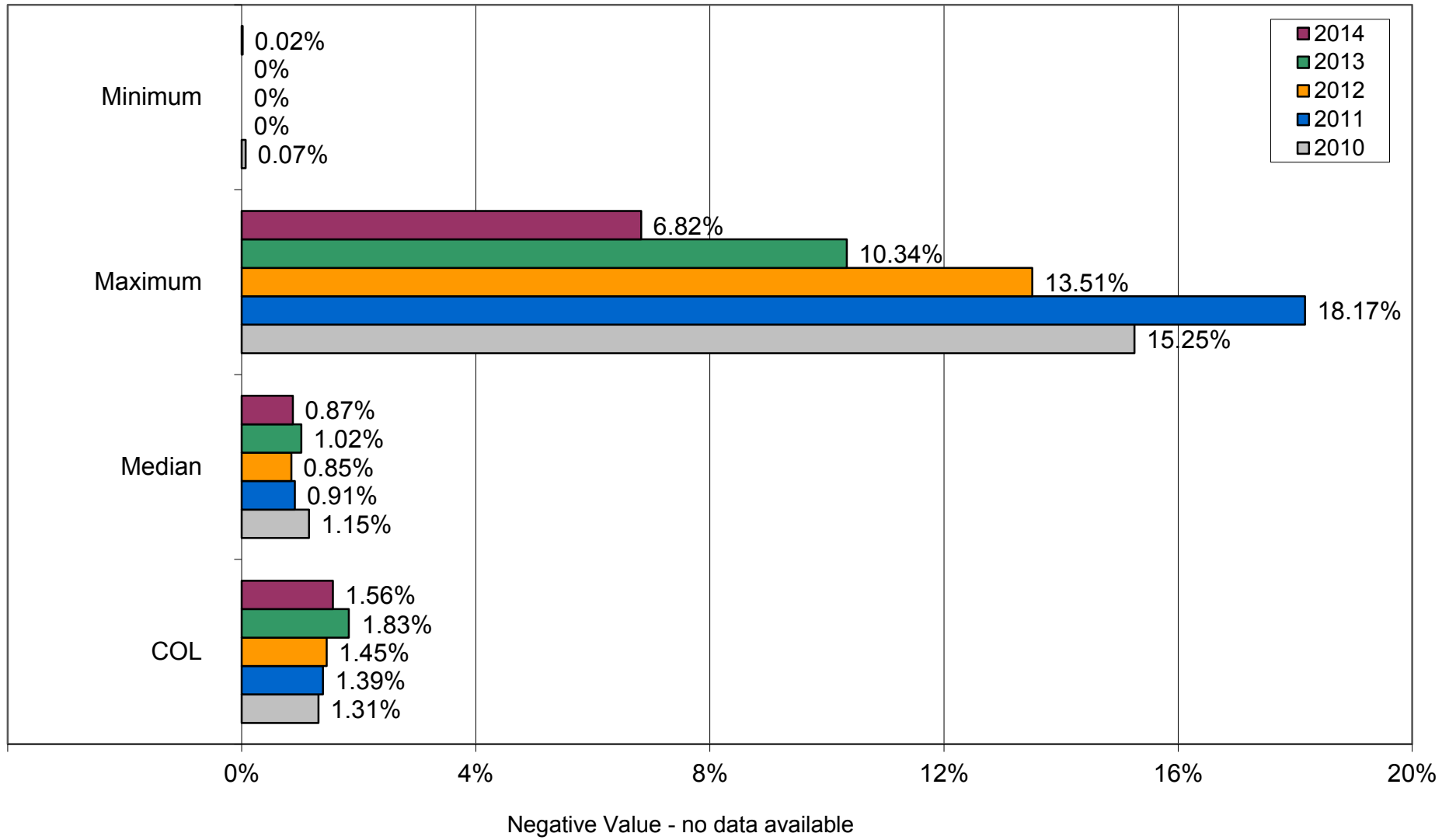
Distribution of Workforce by Age
All Water Systems



Provide Reliable Service and Infrastructure - 1

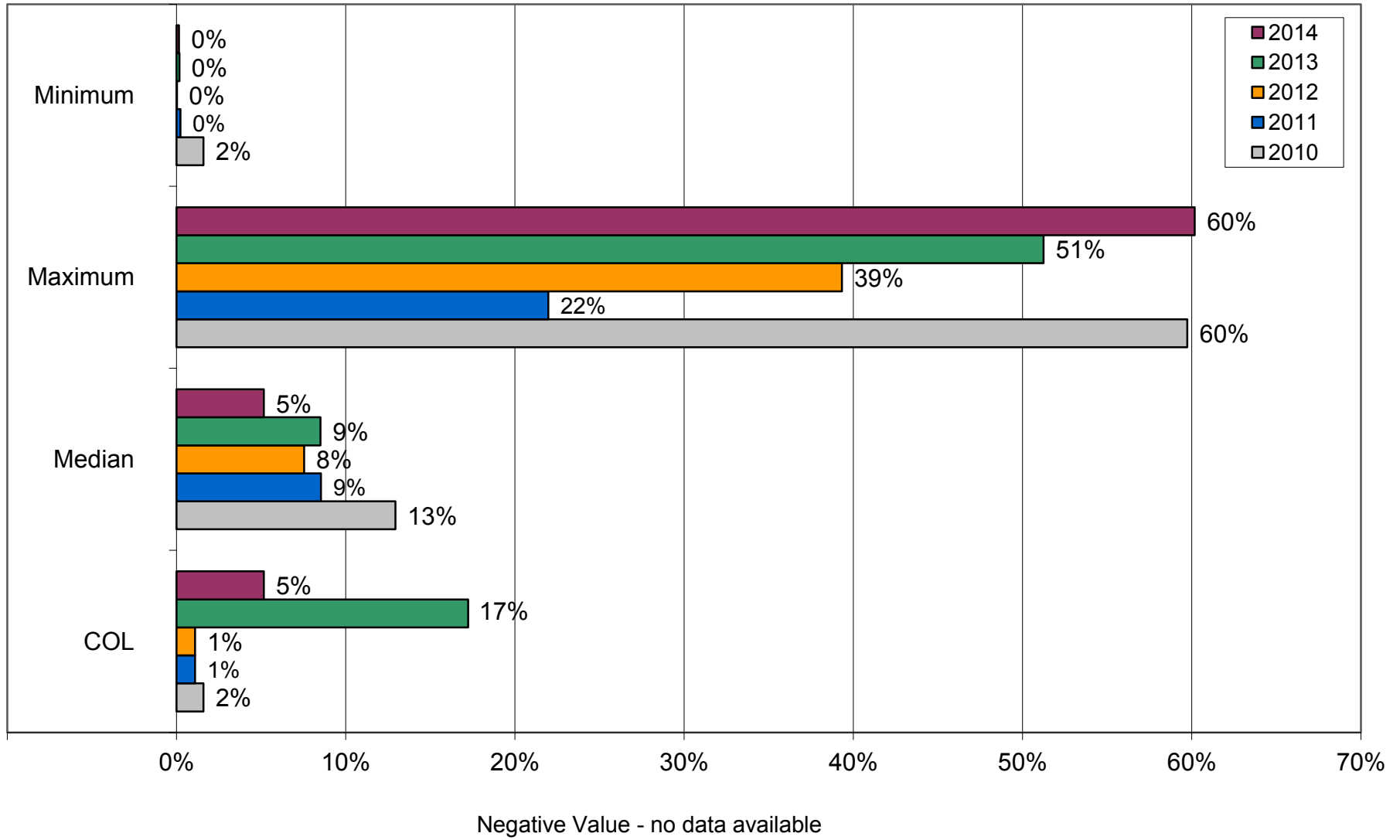
5 Year Running Average Capital Reinvestment / Replacement Value

All Water Systems



Unscheduled Maintenance Hours / Total Maintenance Hours

All Water Systems

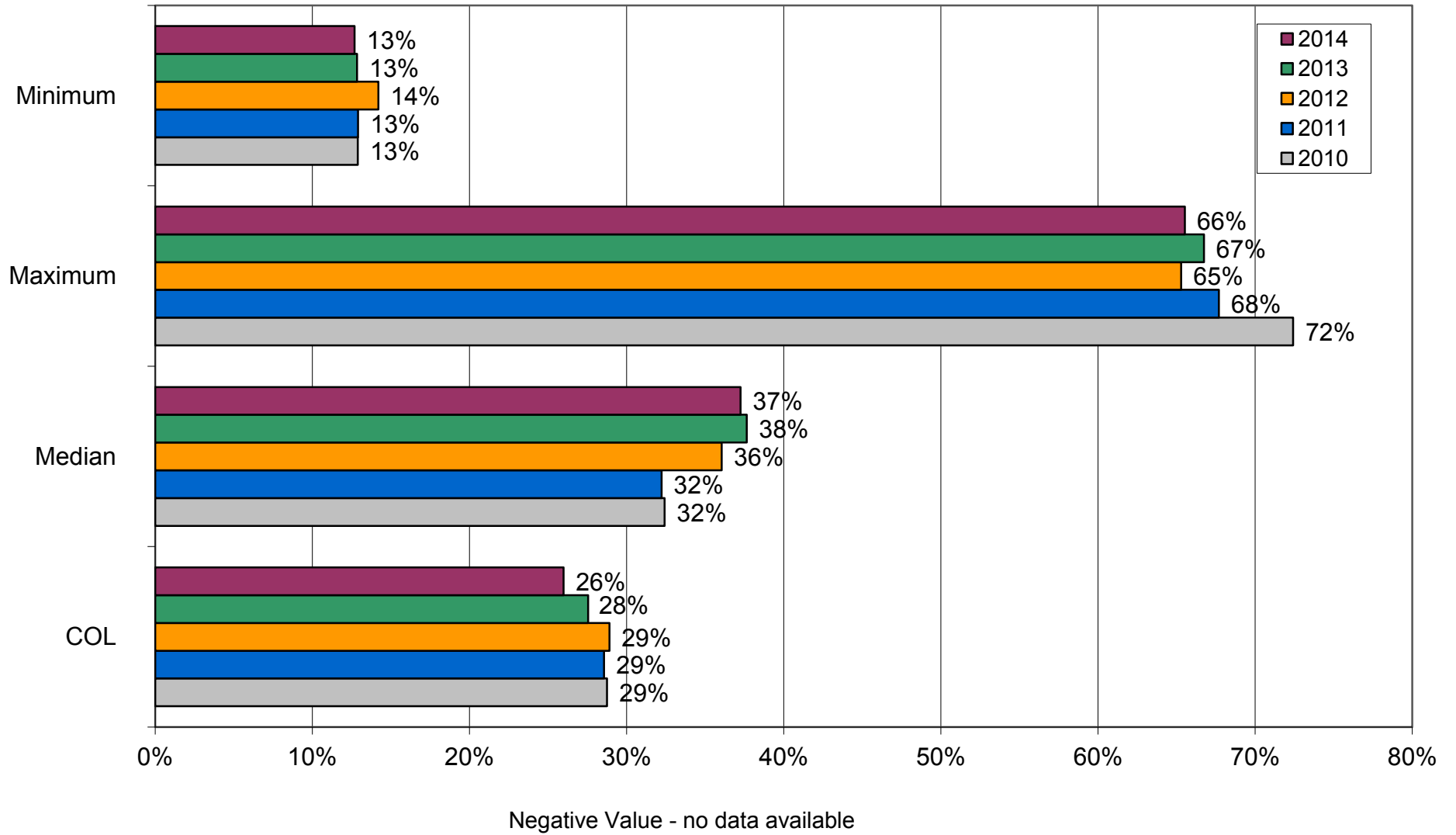


Staff Comment: The increase in 2013 is the result of the way in which maintenance time was tracked. It is staff's opinion that prior to 2013, maintenance hours were not being tracked appropriately; this was corrected in 2013.

Ensure Adequate Capacity - 1

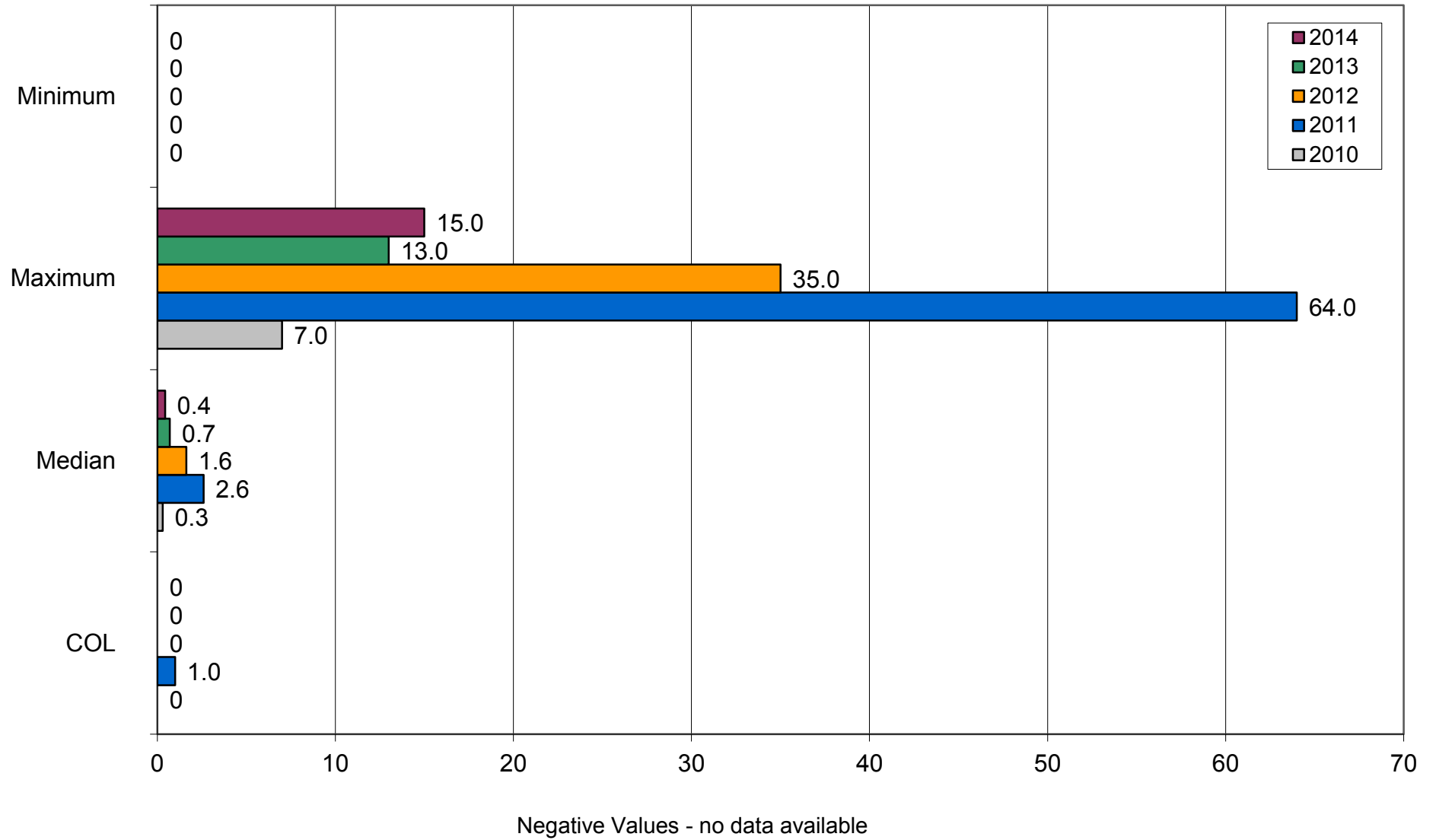
Average Day Demand / Existing Water Licence Capacity

All Water Systems



Ensure Adequate Capacity - 2*

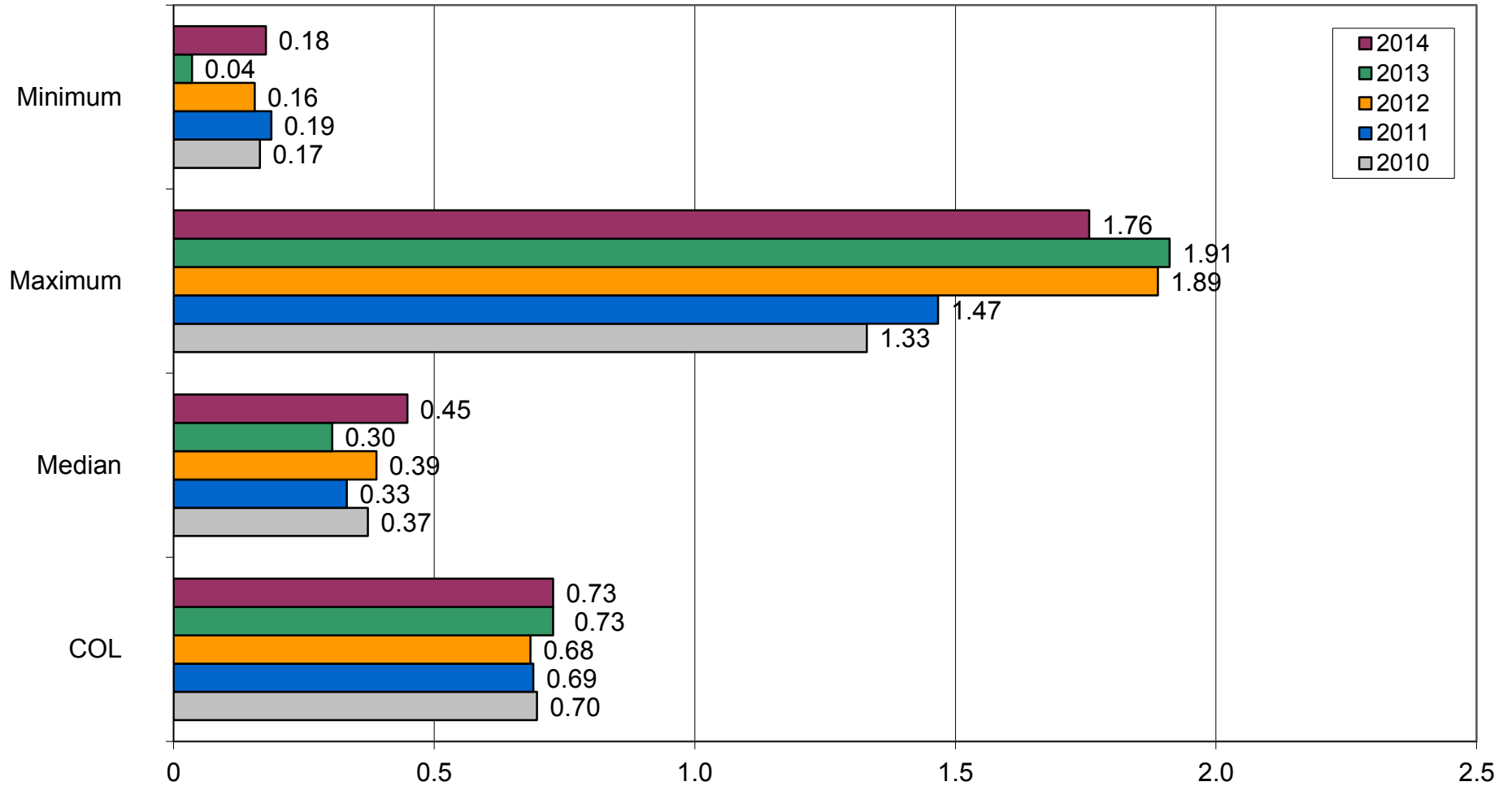
of Days the Plant Operated at >90% Capacity
Water Filtration Plants



Meet Service Requirements with Economic Efficiency - 2

Total FTEs / 1,000 ML Treated

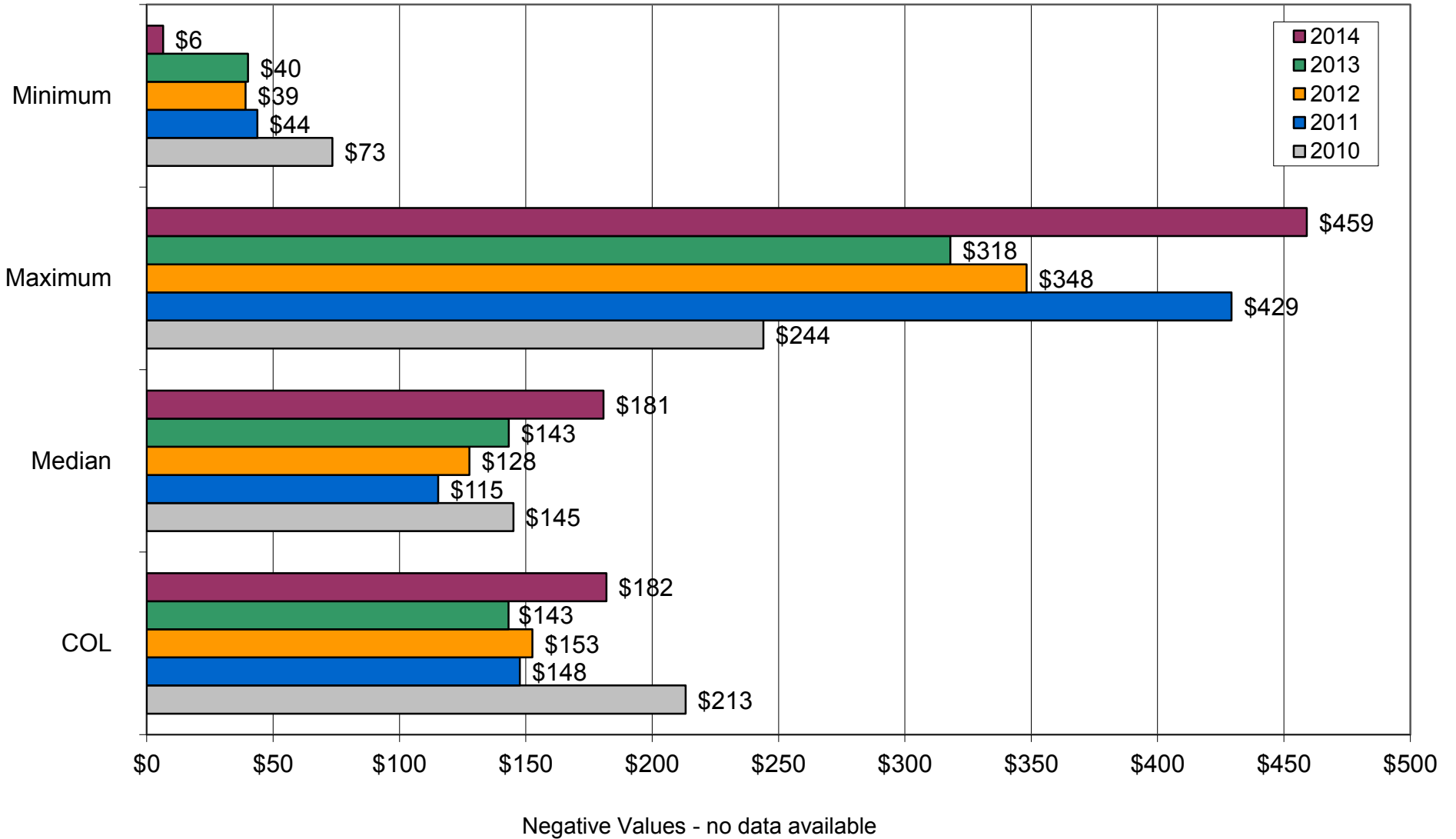
Membrane Filtration Plants



Negative Values - no data available

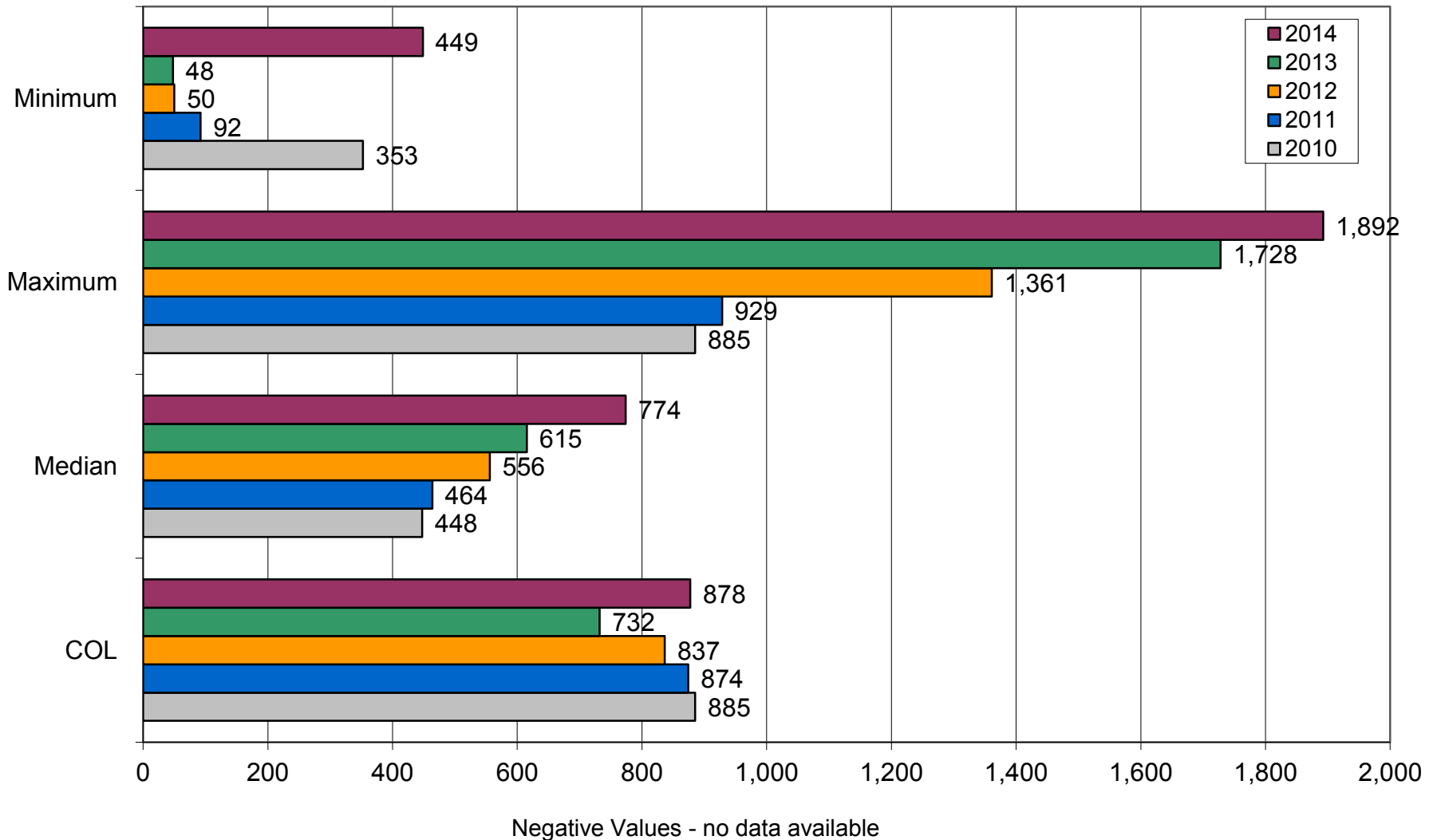
Meet Service Requirements with Economic Efficiency - 3

O&M Cost / ML Treated
Membrane Filtration Plants



Meet Service Requirements with Economic Efficiency - 5

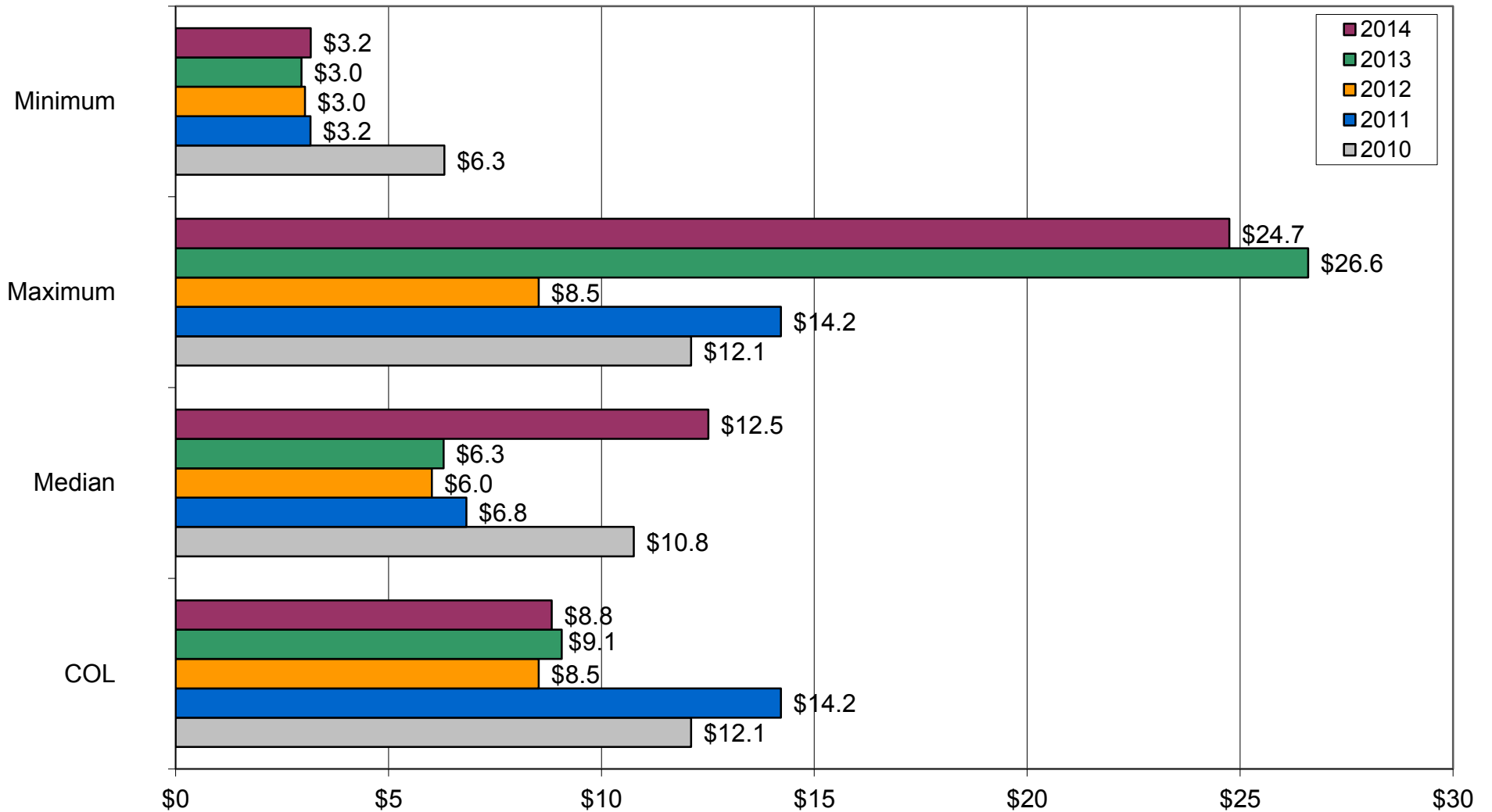
Energy Consumed in kWh / ML Treated
Membrane Filtration Plants



Staff Comments: Our higher energy consumption is in part due to the age of out membranes. With the approval of PW2016-22 "Membrane Replacement" we can expect to start seeing a downward trend in this metric beginning in 2017/2018.

Meet Service Requirements with Economic Efficiency - 6

Chemical Cost / ML Treated
Membrane Filtration Plants

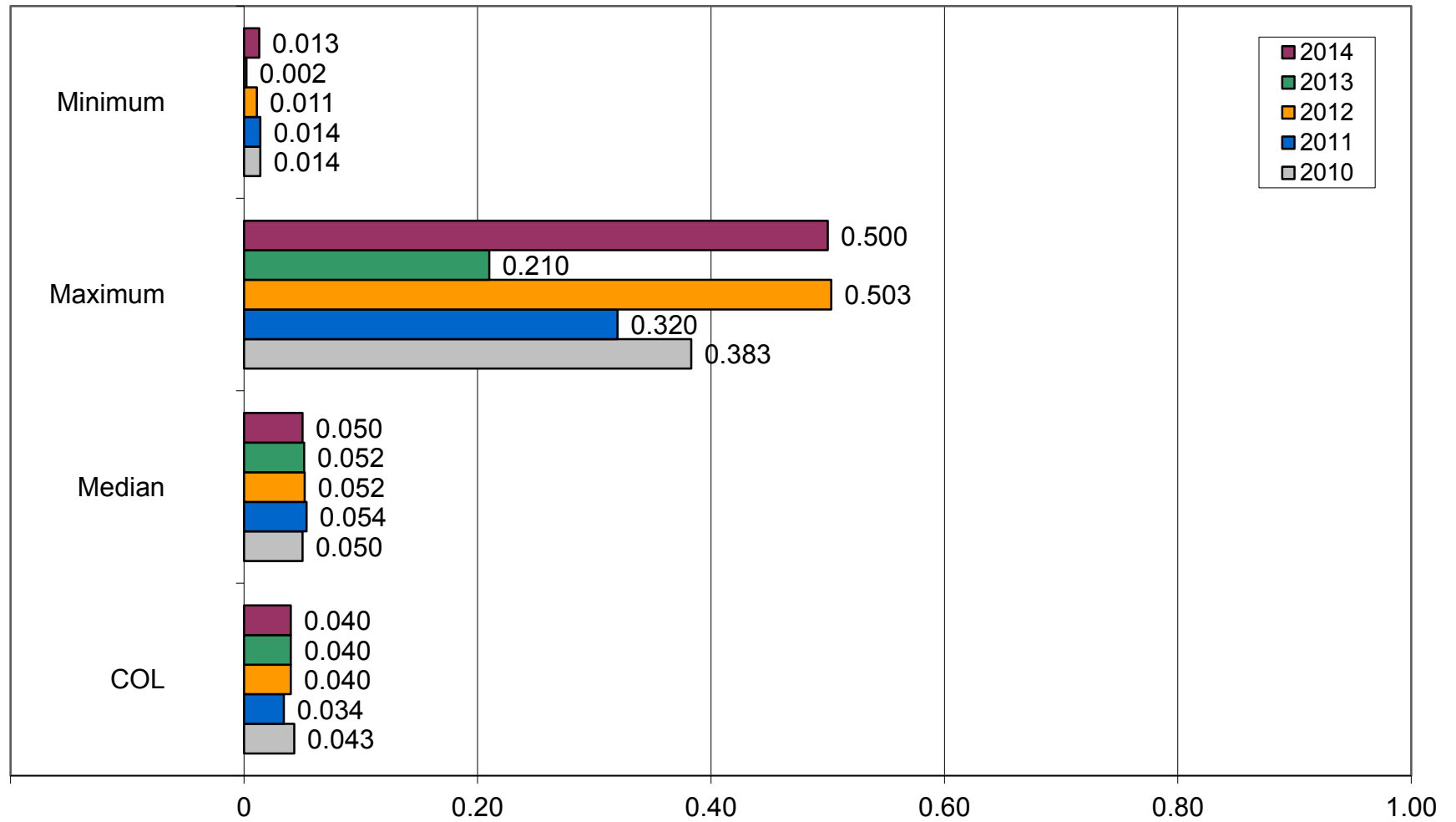


Negative Values - no data available

Staff Comments: A tender for the Supply of Chemicals is currently being prepared by staff and will be presented to Council for approval in Fall 2016.

Average Value for Turbidity (NTU)

Water Filtration Plants

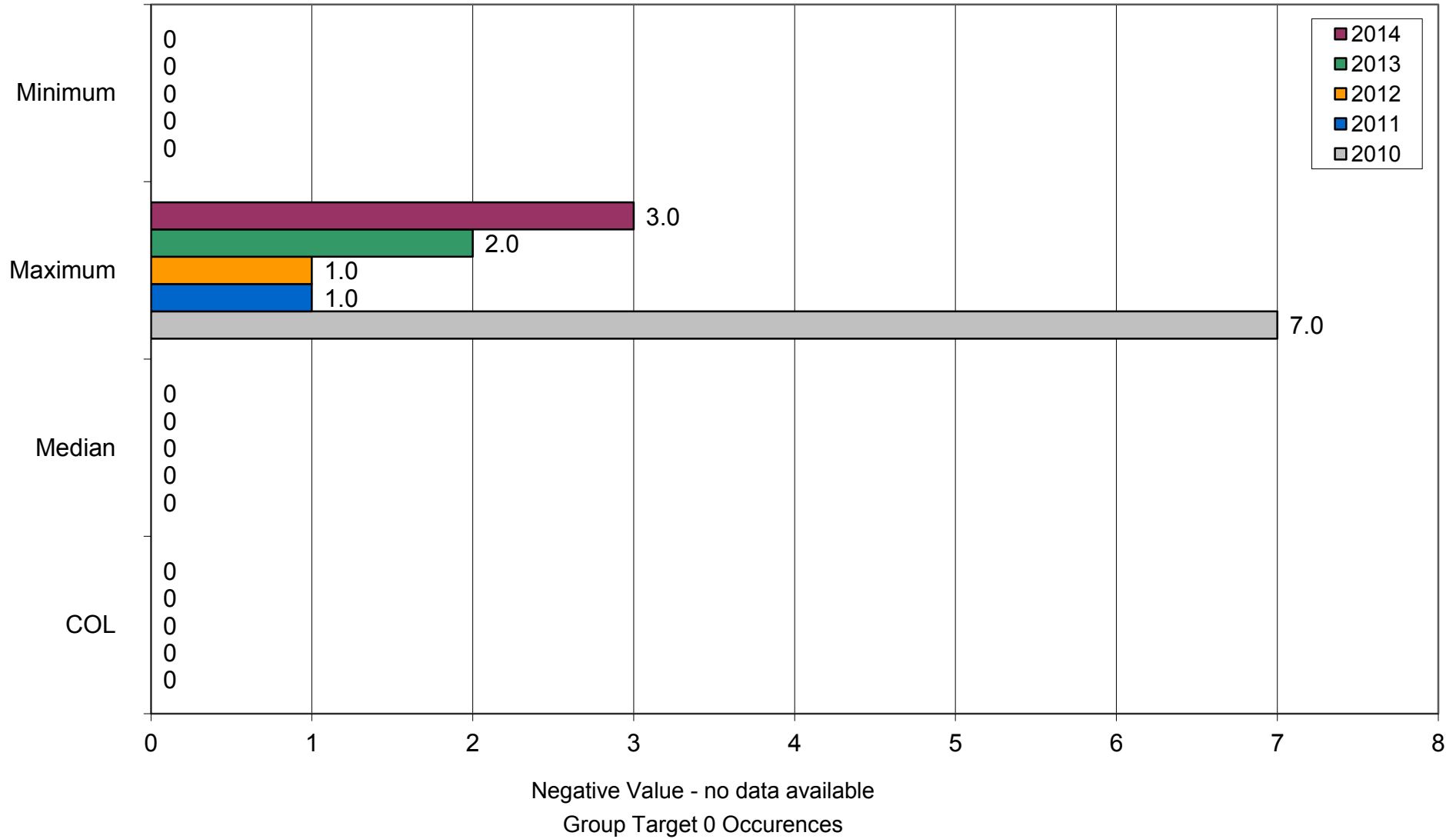


Negative Values - no data available

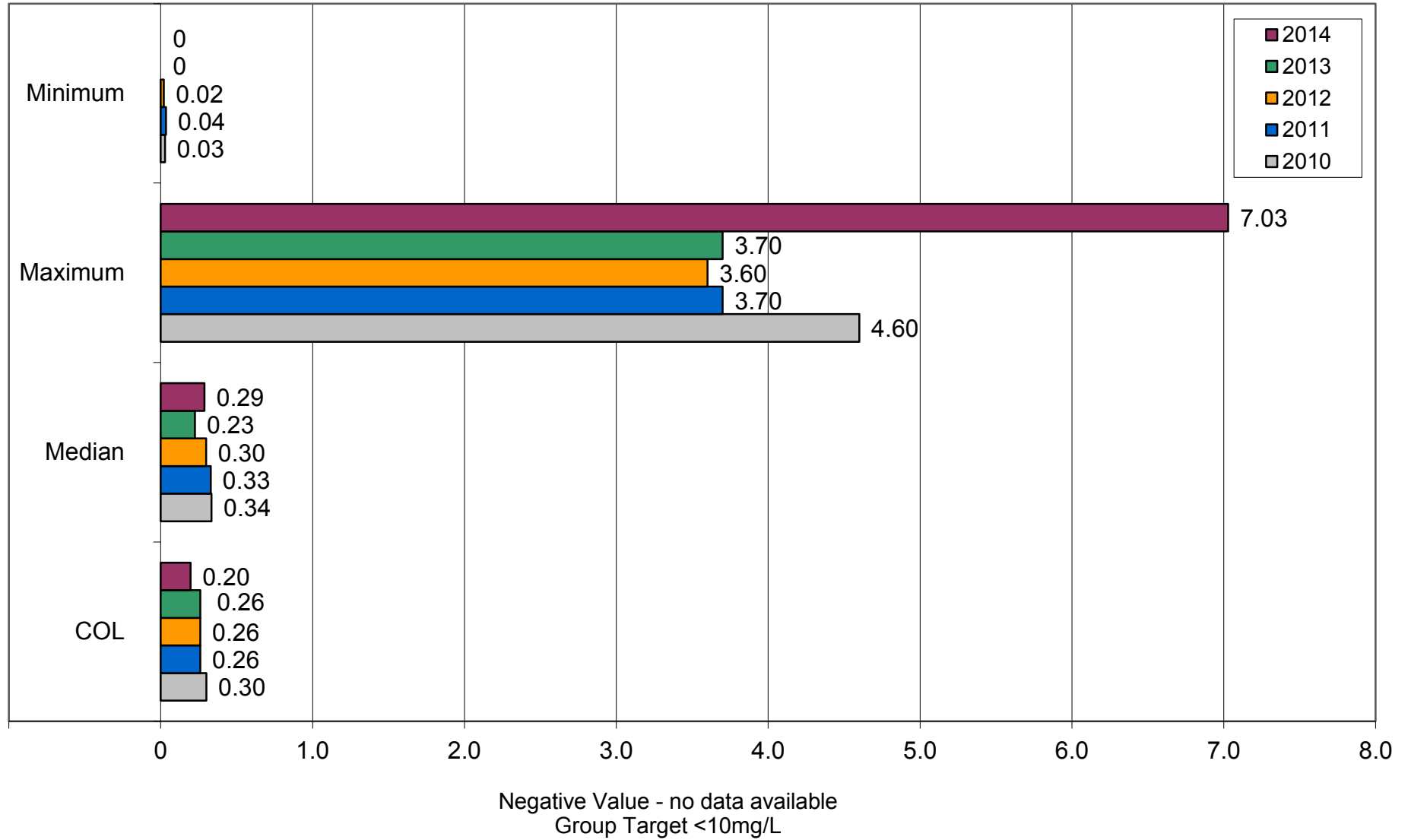
Group Target <0.3 NTU

Protect Public Health and Safety - 2

of Occurrences of Total Coliforms
Water Filtration Plants

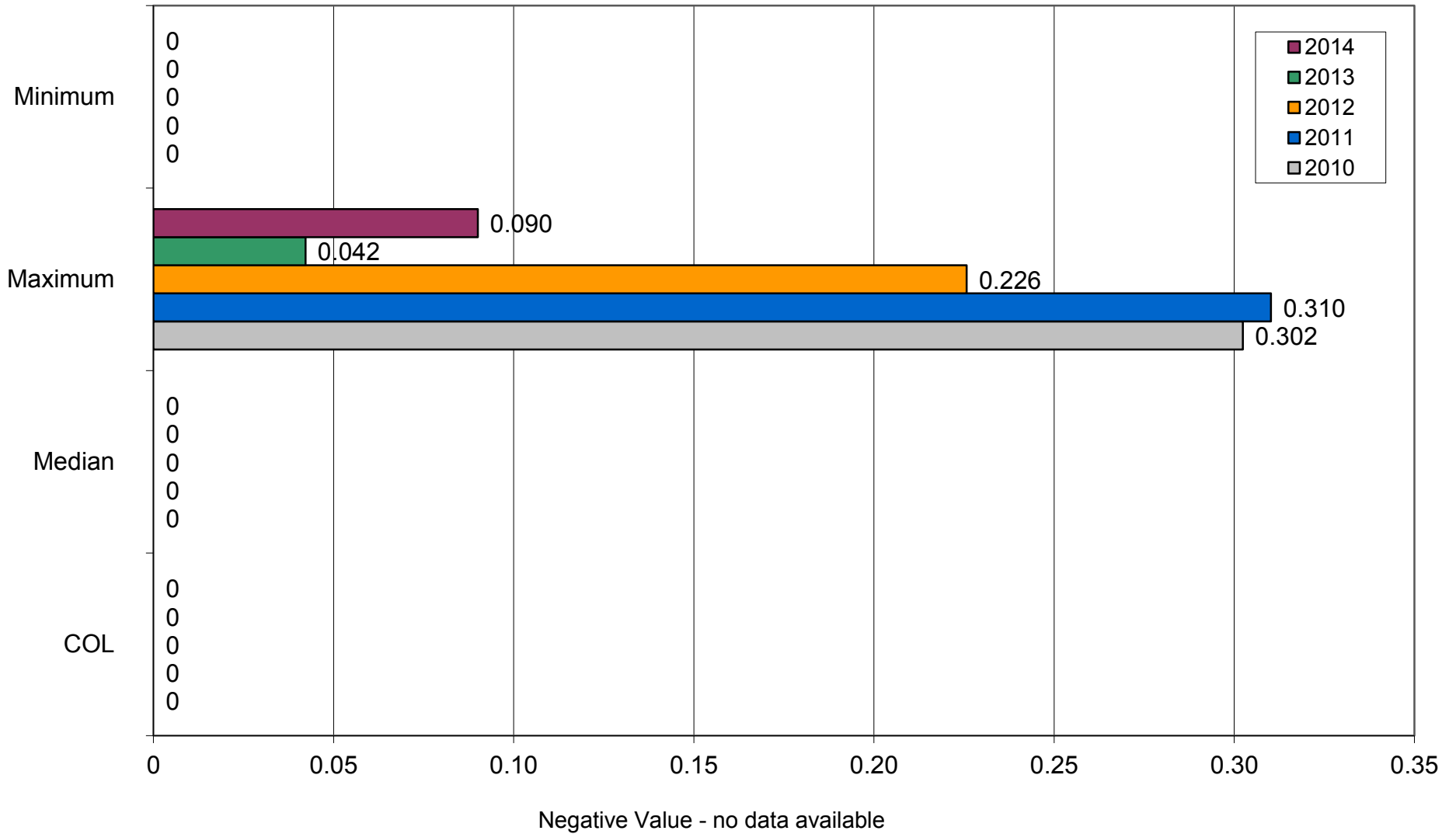


Median Value for Nitrates (mg/L) Water Filtration Plants

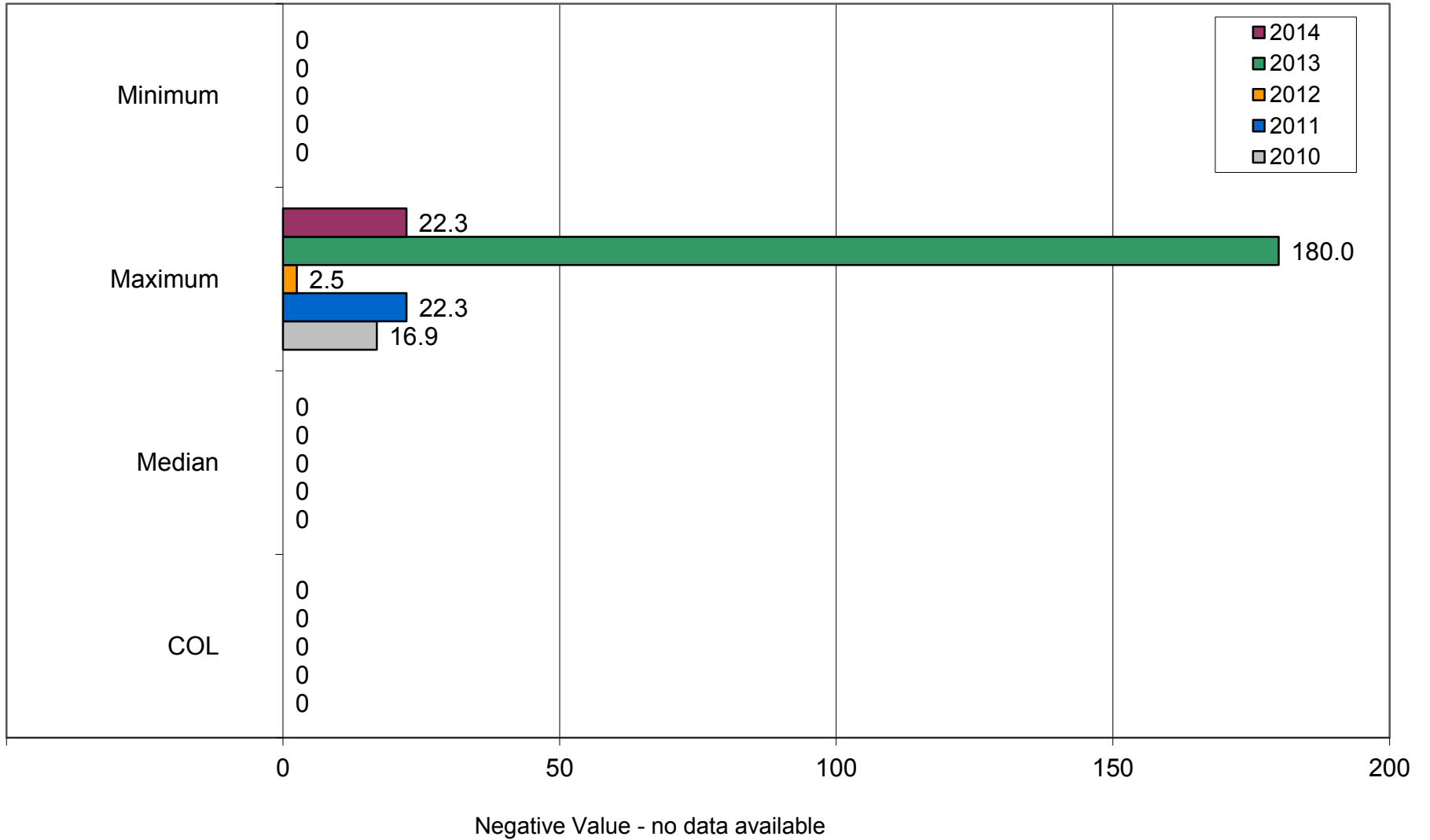


Provide a Safe and Productive Workplace - 1

of O&M Accidents with Lost Time / 1,000 Labour Hours
All Water Systems

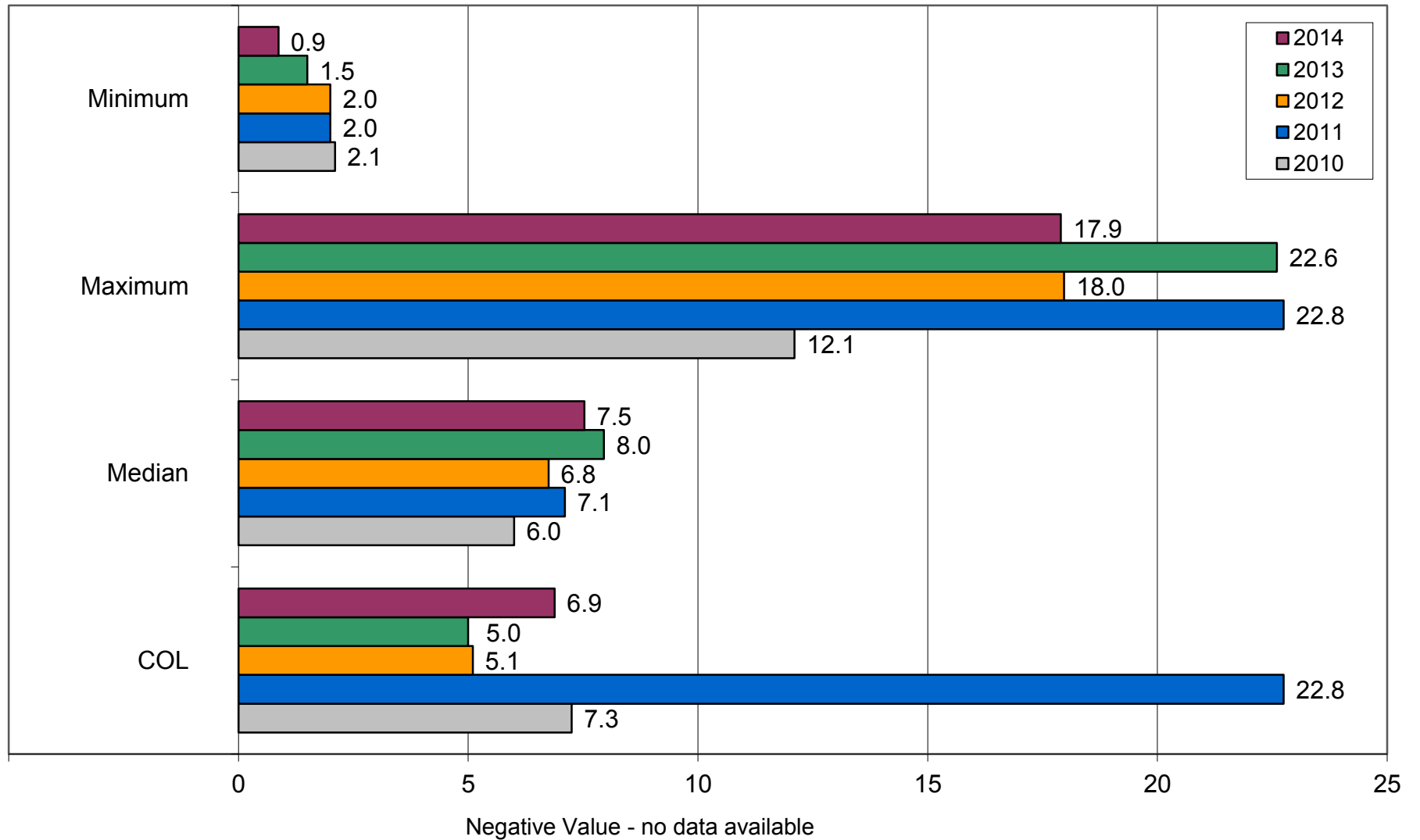


of Lost Hours due to O&M Accidents / 1,000 Labour Hours All Water Systems



Provide a Safe and Productive Workplace - 3

of Sick Days Taken per O&M Employee
All Water Systems

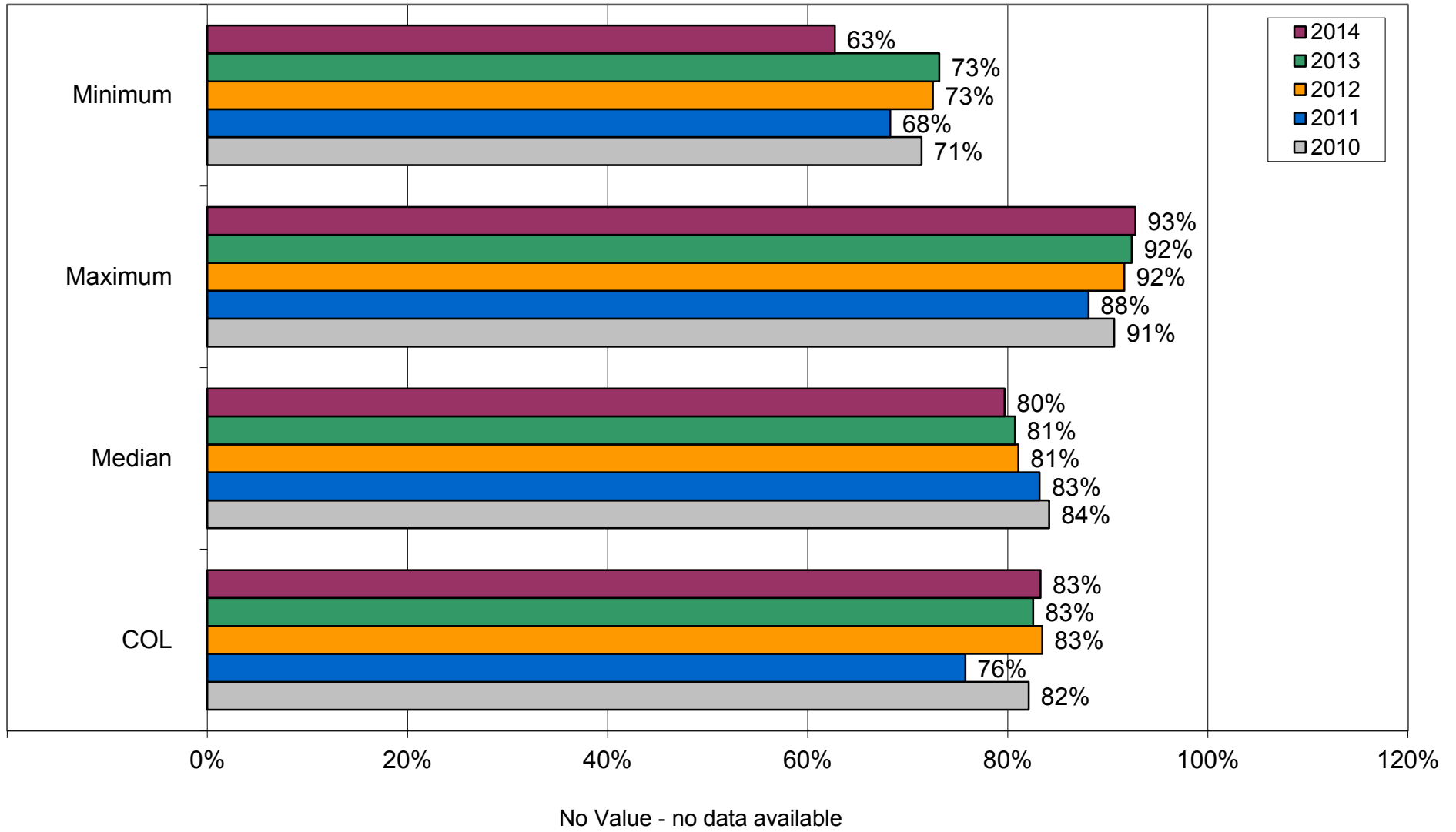


Staff Comments: In 2011 an employee was on long-term sick leave.

Provide a Safe and Productive Workplace - 4

Total Available O&M Hours / Total Paid O&M Hours

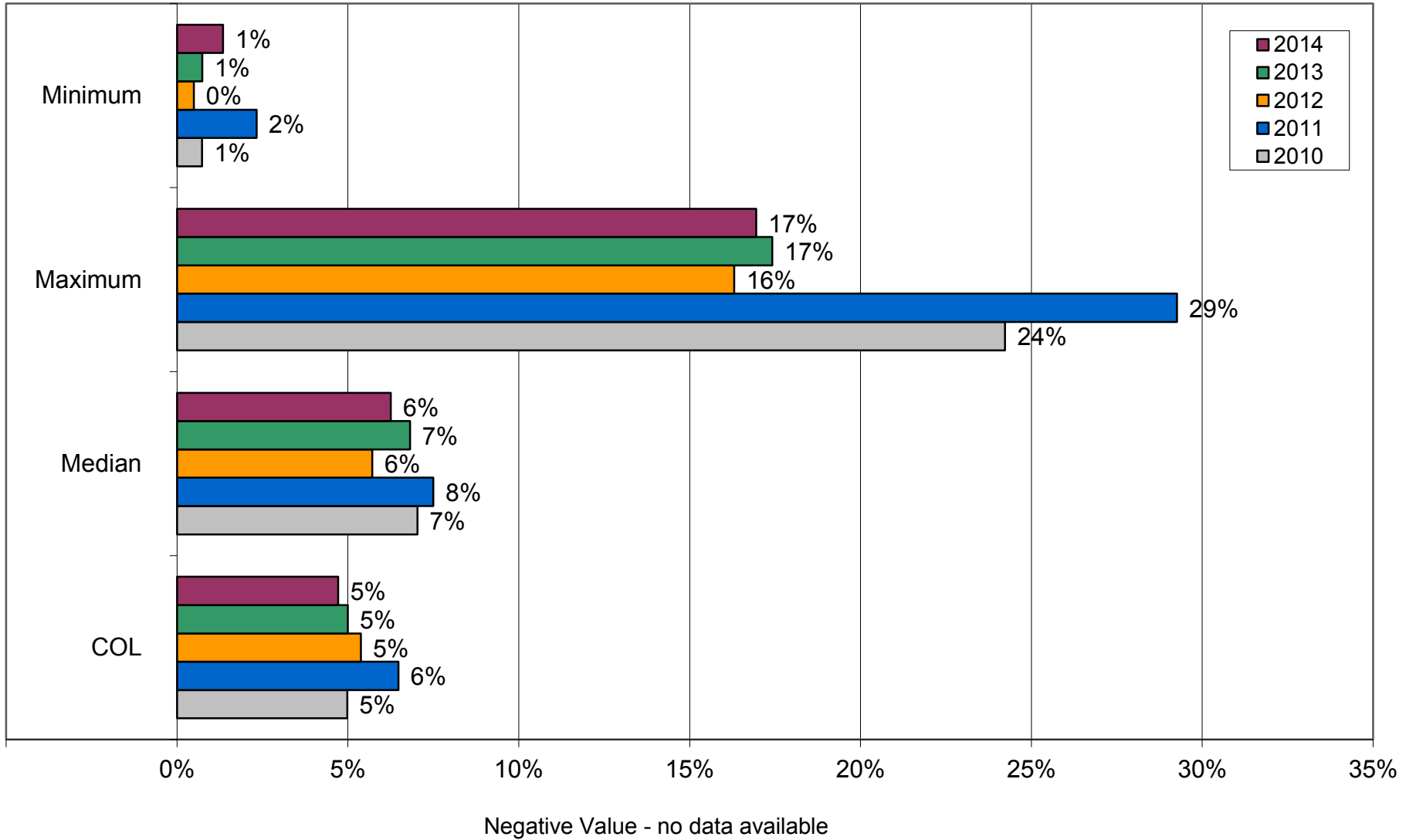
All Water Systems



Provide a Safe and Productive Workplace - 5

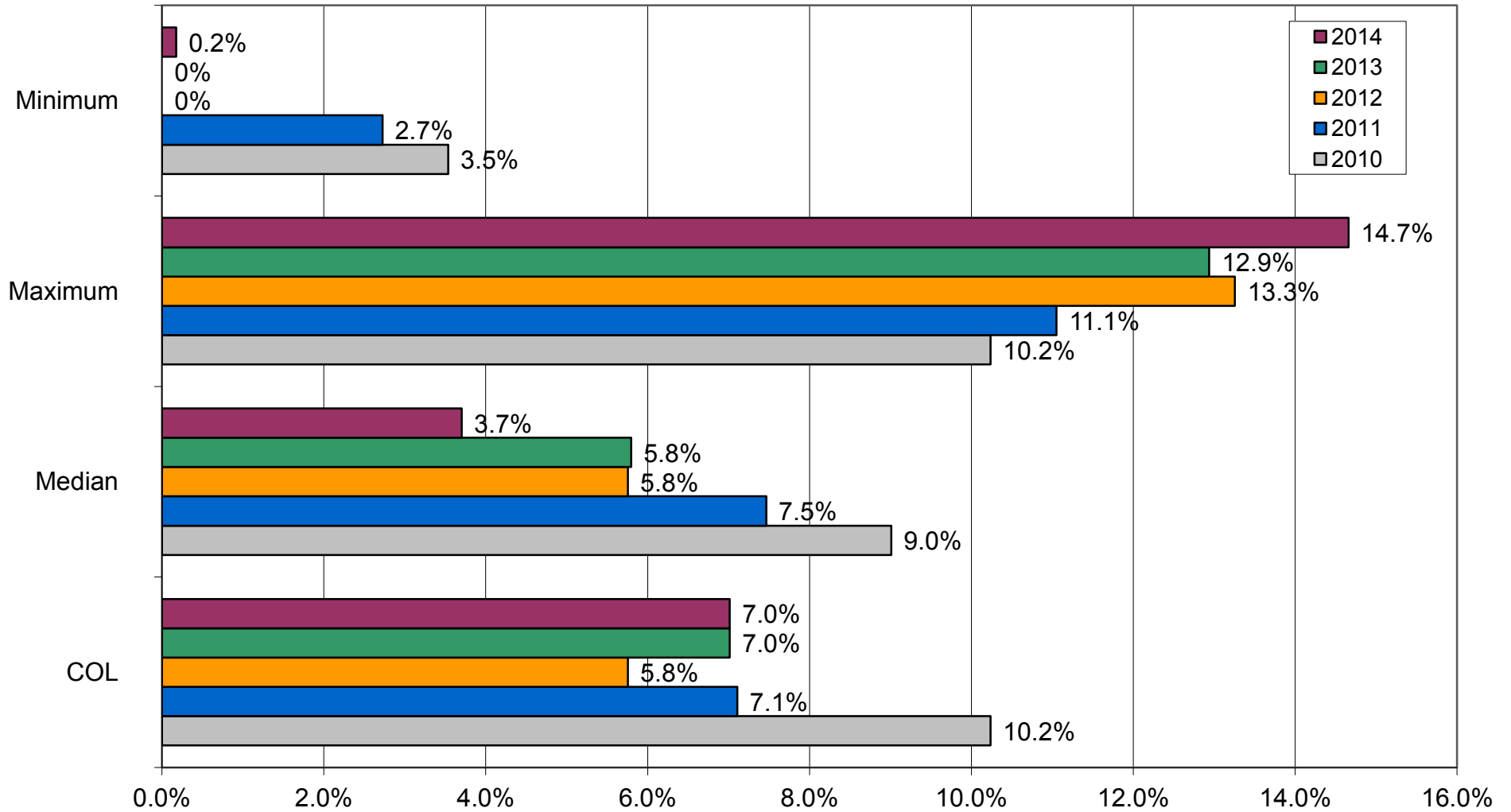
Total Overtime O&M Hours / Total Paid O&M Hours

All Water Systems



% of Water Wasted During Treatment Process

Water Filtration Plants

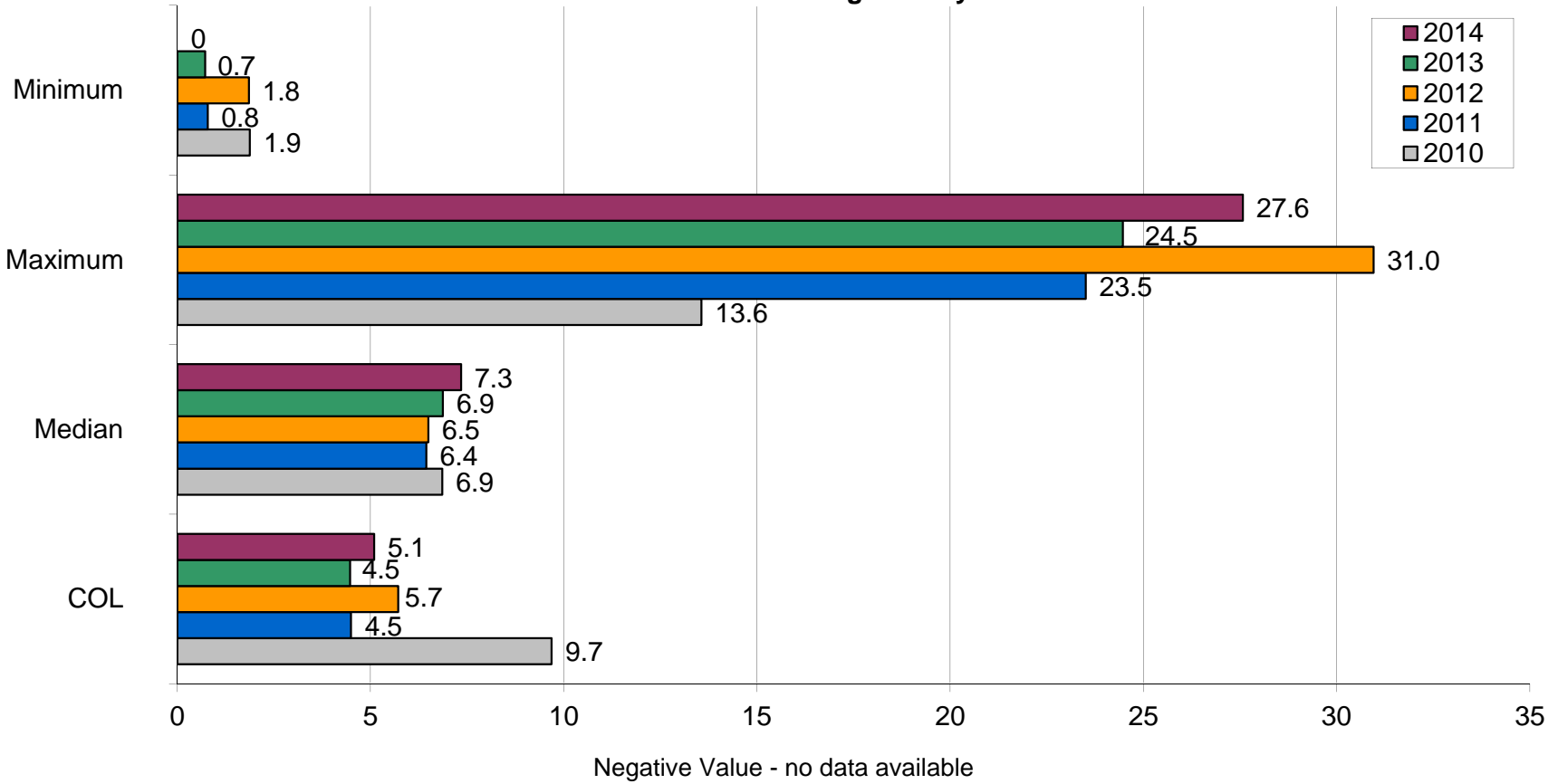


Negative Value - no data available

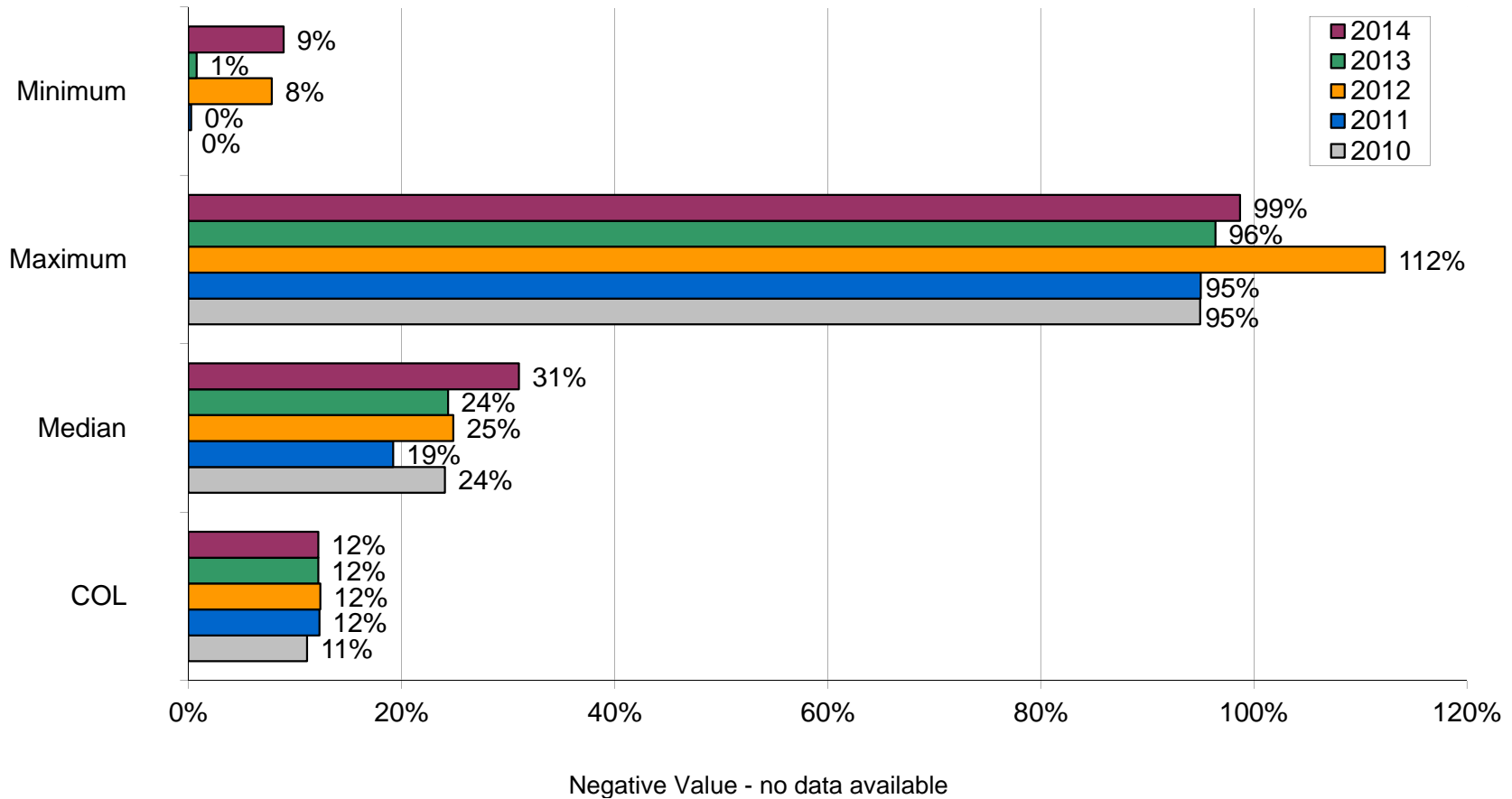
Staff Comments: A minimal amount of water is wasted during the treatment process as a result of back-washing. This is a standard and necessary process.

Provide Reliable Service and Infrastructure - 1

of Main Breaks / 100 km Length
Water Distribution & Integrated Systems



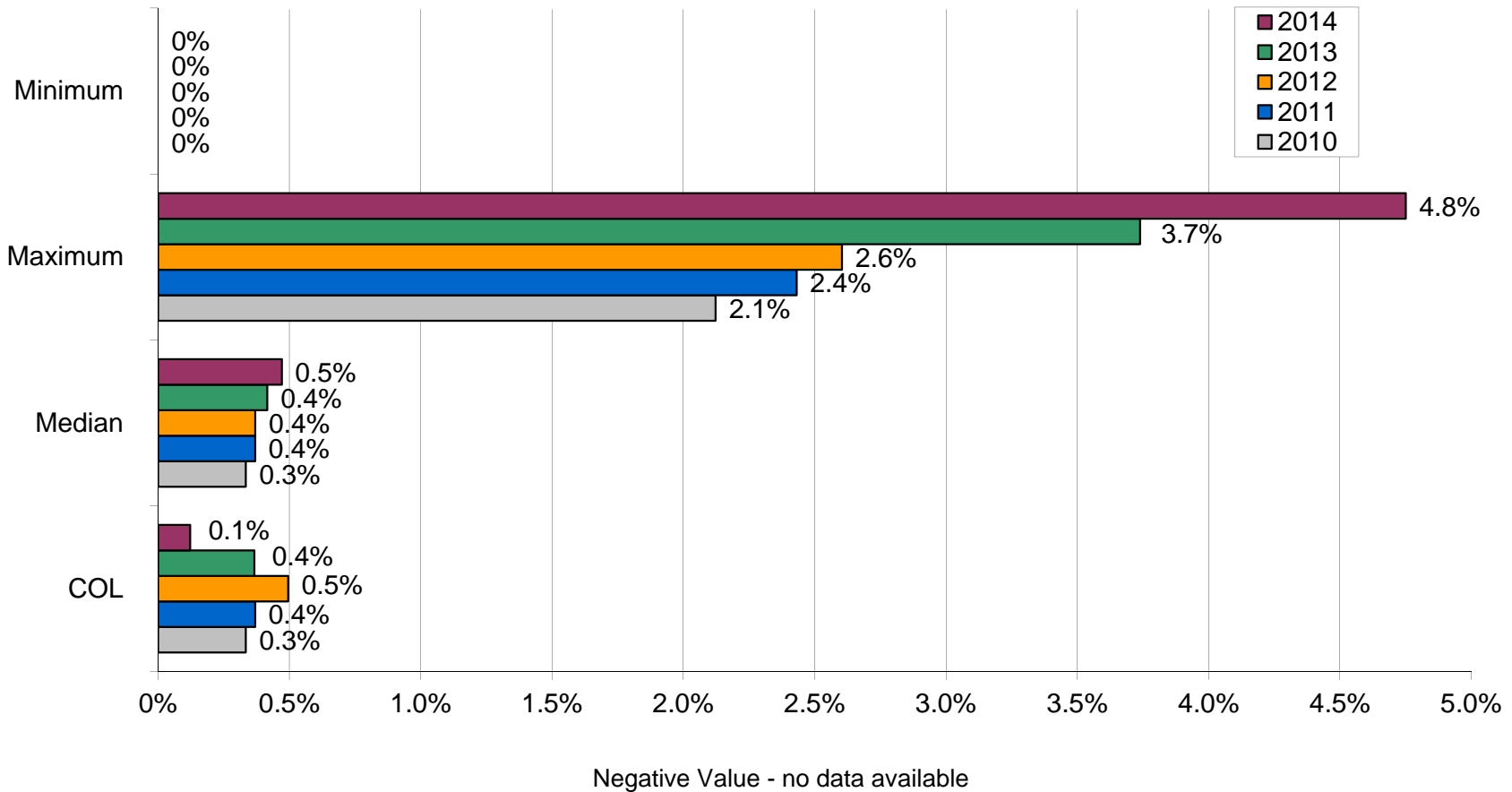
Provide Reliable Service and Infrastructure - 2
% of Valves Cycled
Water Distribution & Integrated Systems



Staff Comments: A regular valve maintenance program continues to be an area of improvement for the department. Implementing the Pearl-Worktech work order management system (currently in progress) should assist with this program.

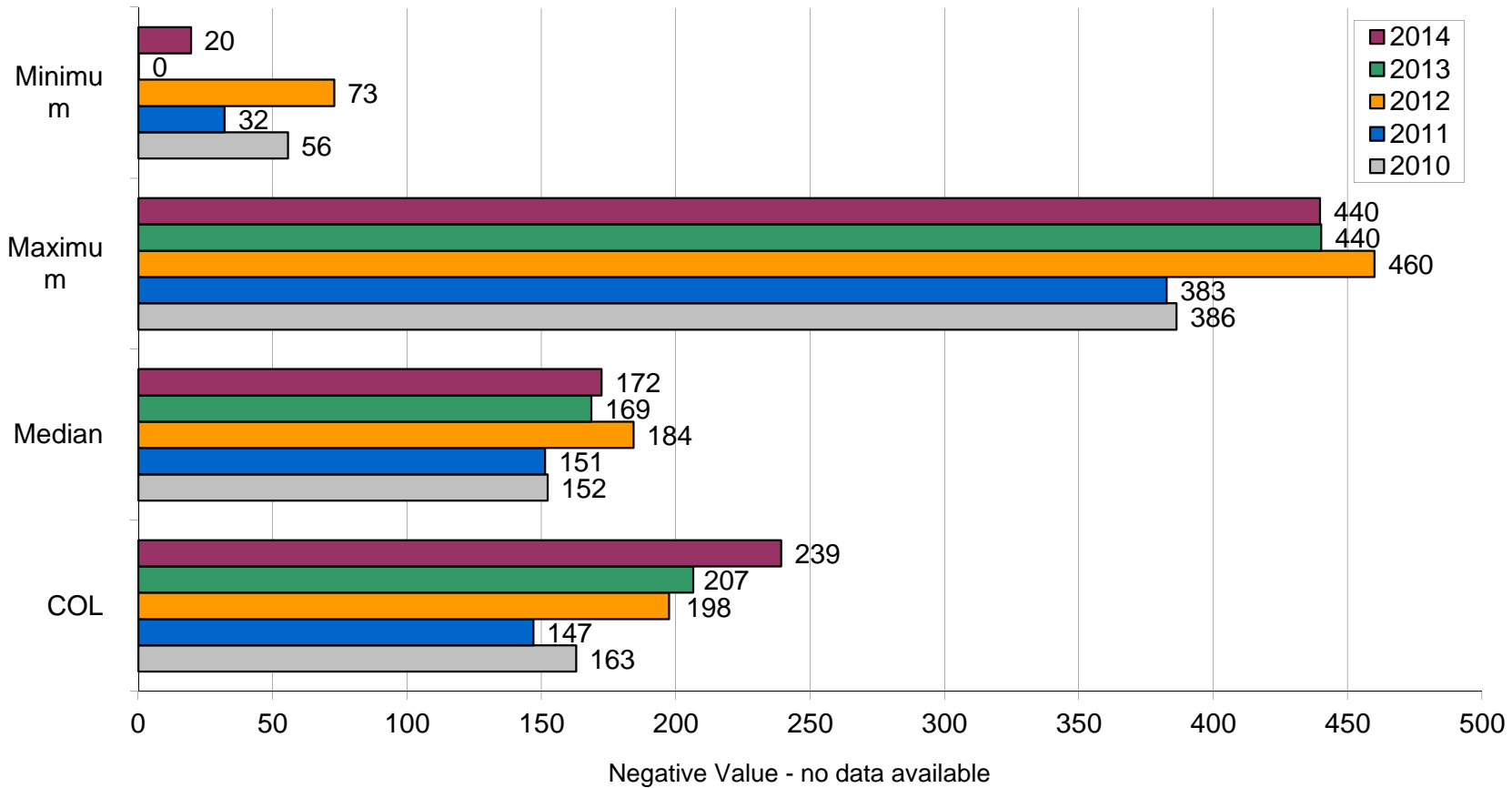
Provide Reliable Service and Infrastructure - 3

% of Inoperable or Leaking Valves
Water Distribution & Integrated Systems



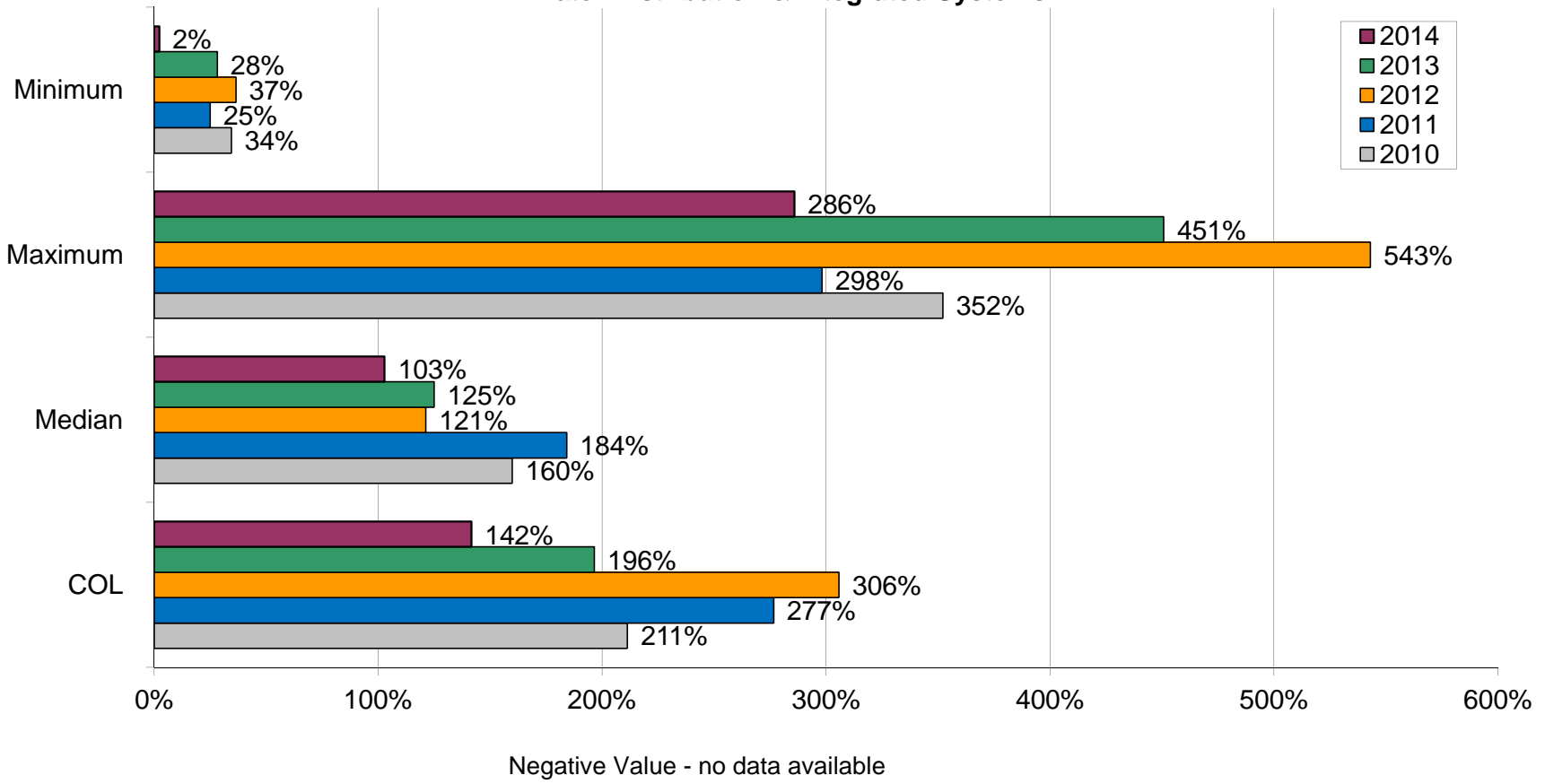
Provide Reliable Service and Infrastructure - 4*

Non-Revenue Water (L/connection/day)
Water Distribution & Integrated Systems with Universal Metering

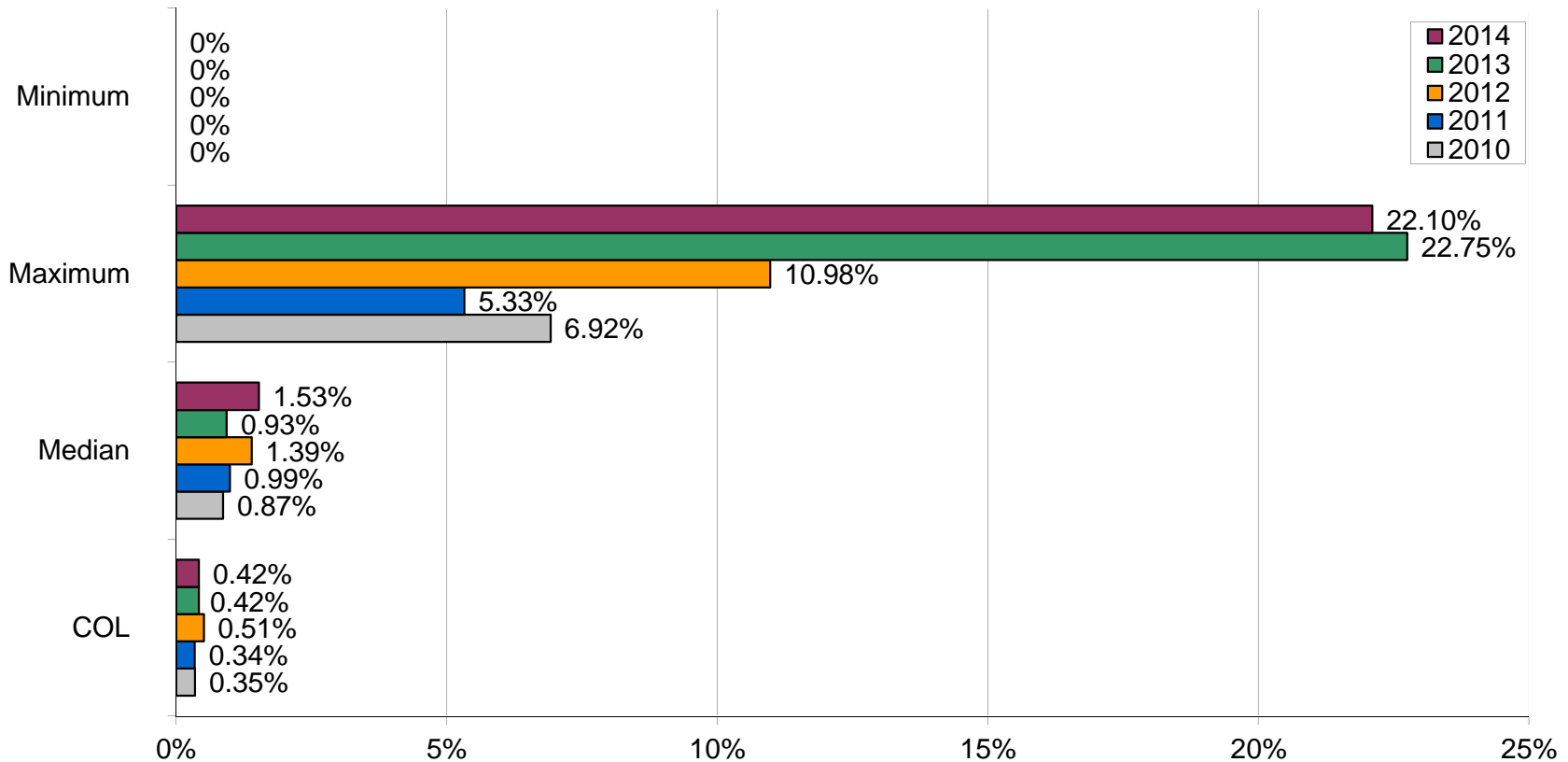


Staff Comments: The calculation for non-revenue water is: Total water delivered from the plant - billed authorized consumption. Examples of non-revenue water could be leaks, mainbreaks, slow meters or in the case of the increase in 2013 and 2014 frozen services which results in temporary lines being continuously run to avoid refreezing.

Provide Reliable Service and Infrastructure - 5
% of Hydrants Inspected and Winterized
 Water Distribution & Integrated Systems



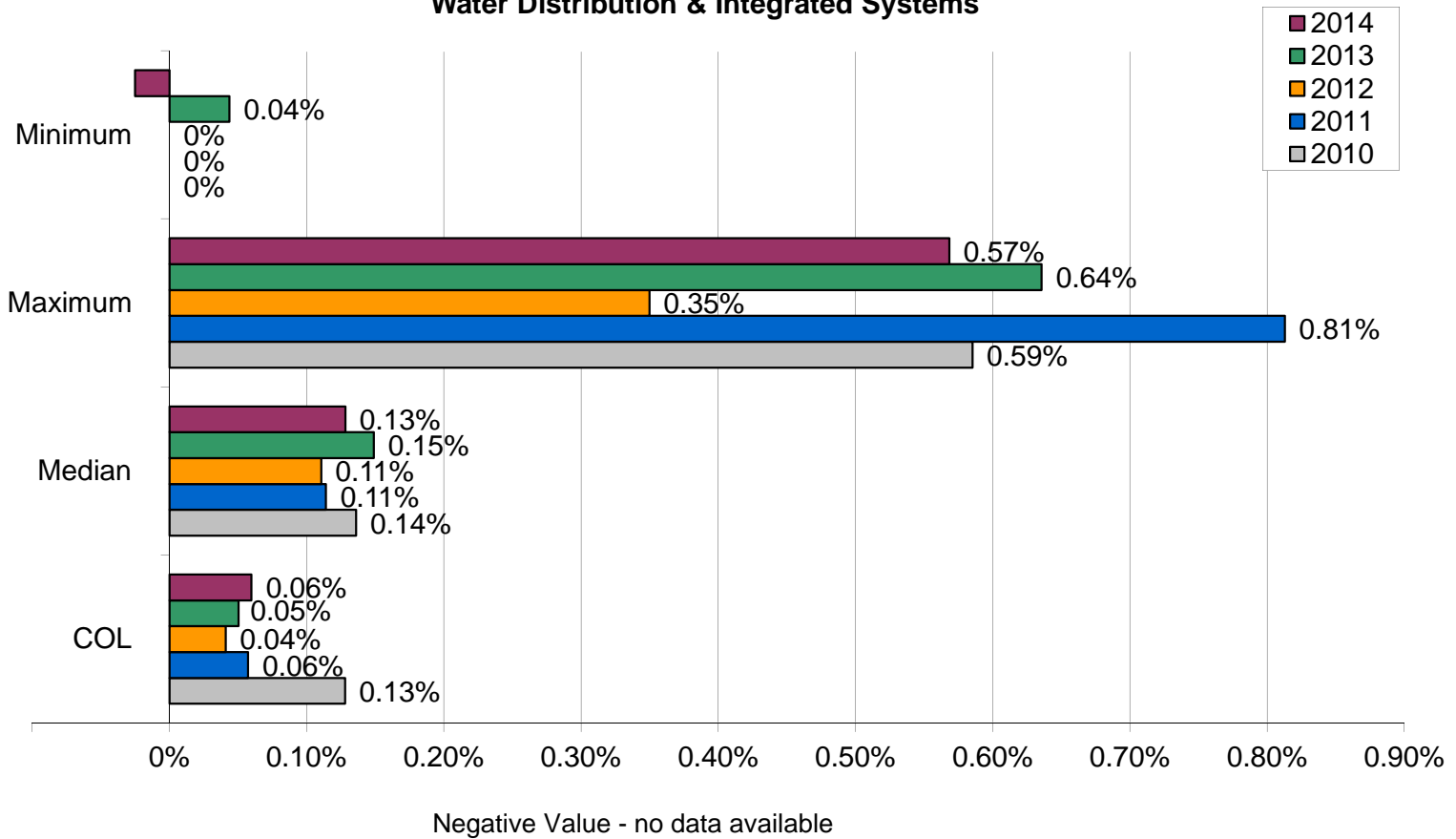
Provide Reliable Service and Infrastructure - 6
% of Inoperable or Leaking Hydrants
Water Distribution & Integrated Systems



Negative Value - no data available

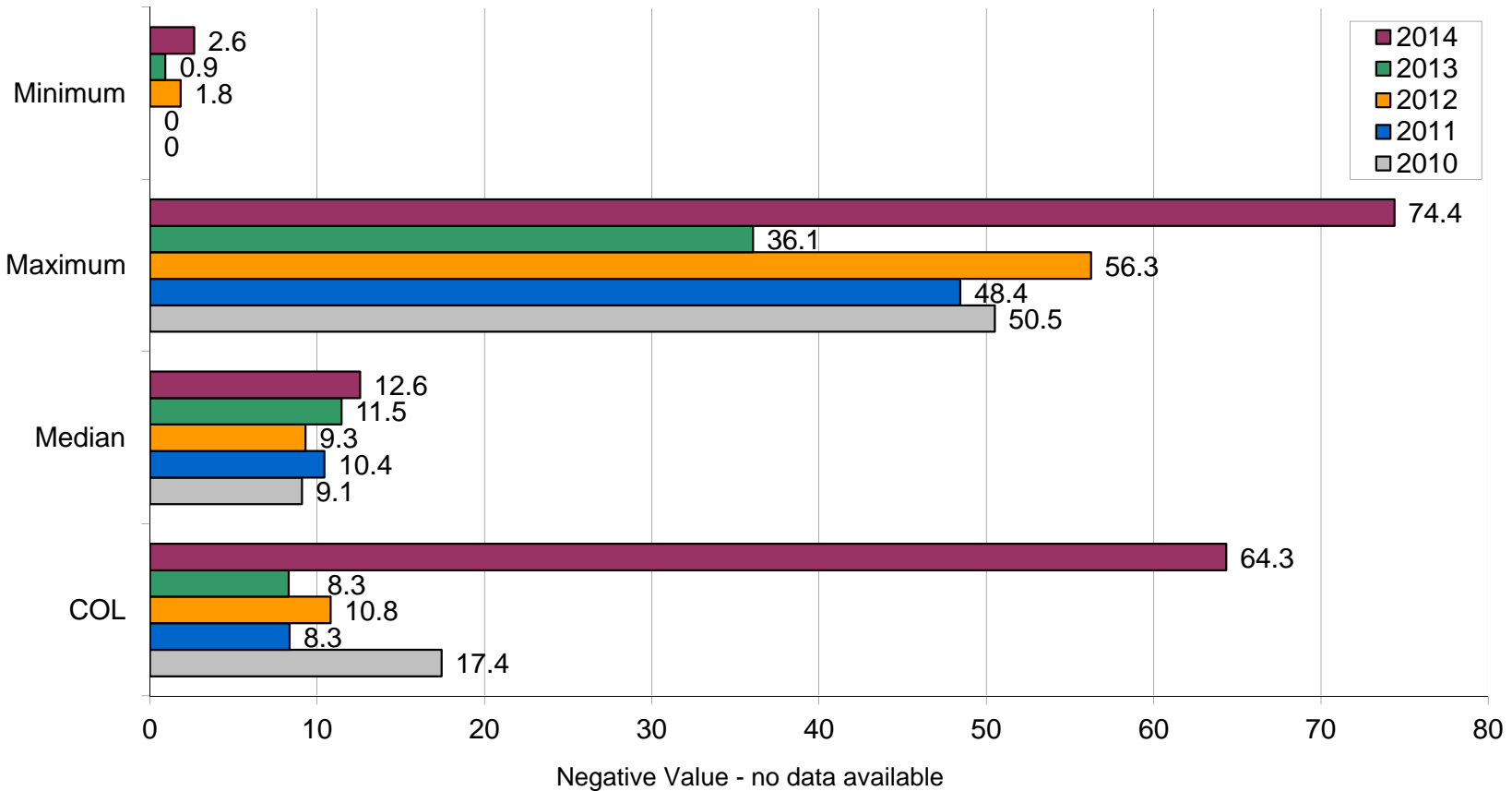
Provide Reliable Service and Infrastructure - 7

of Emergency Service Connection Repairs & Replacements / # of Service Connections
Water Distribution & Integrated Systems



Provide Reliable Service and Infrastructure - 8

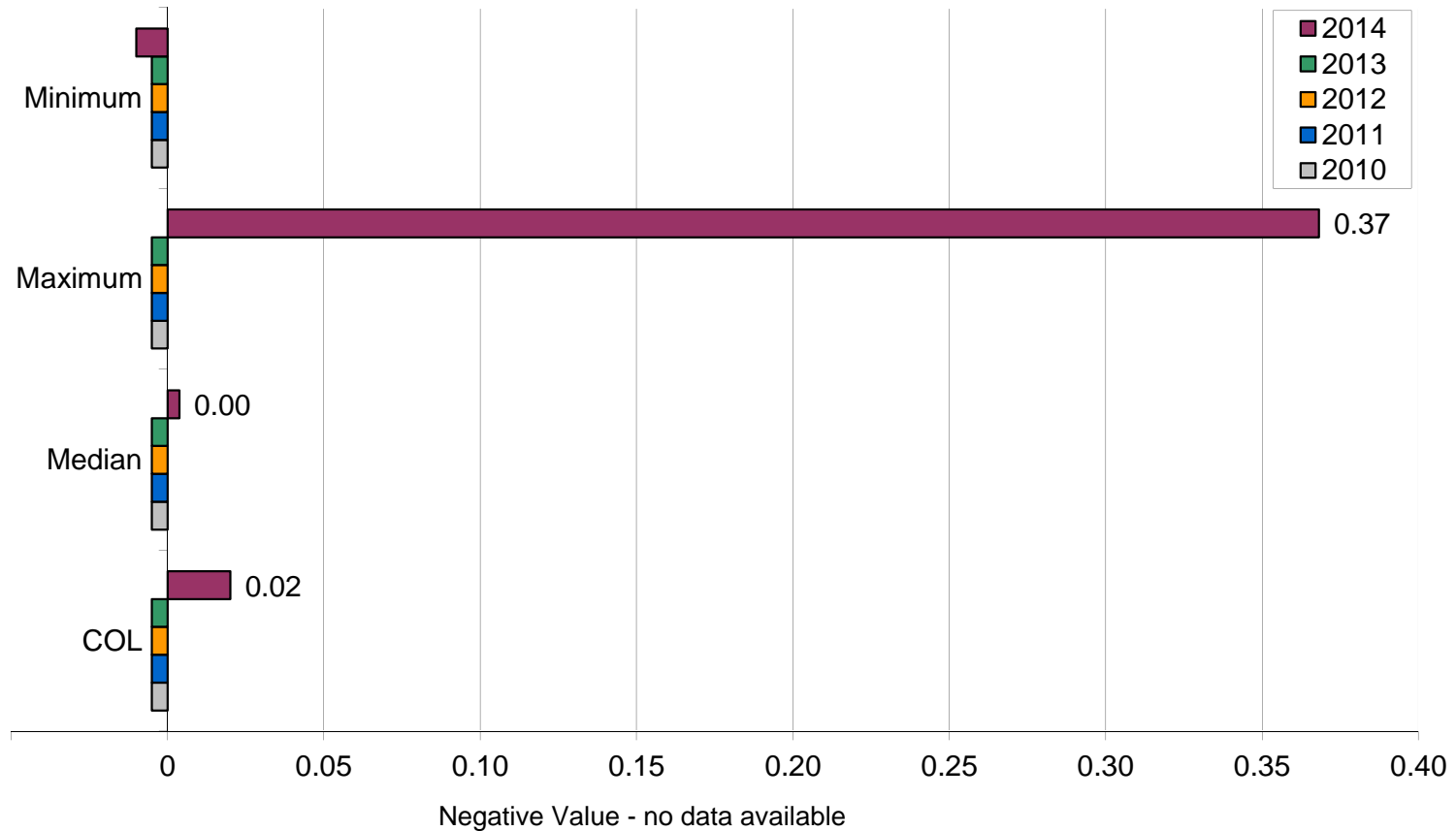
of Unplanned System Interruptions / 100km Length
Water Distribution & Integrated Systems



Staff Comments: The higher number for 2014 is a result of frozen services. At the 2014 workshop, members discussed how frozen services should be tracked and determined "unplanned system interruption" was the best category.

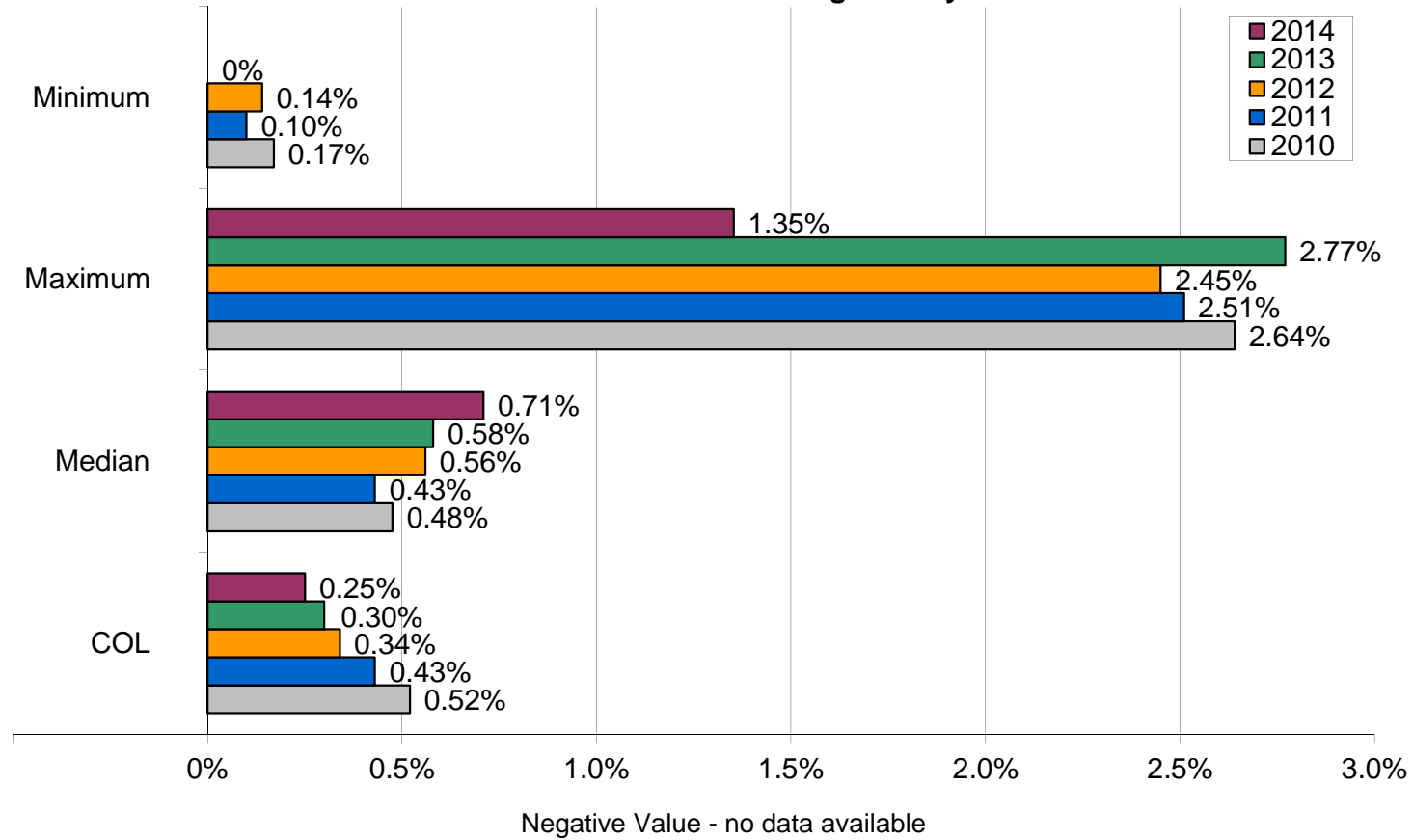
Provide Reliable Service and Infrastructure - 9

Total Customer Days without Service / Total # of Service Connections
 Water Distribution & Integrated Systems



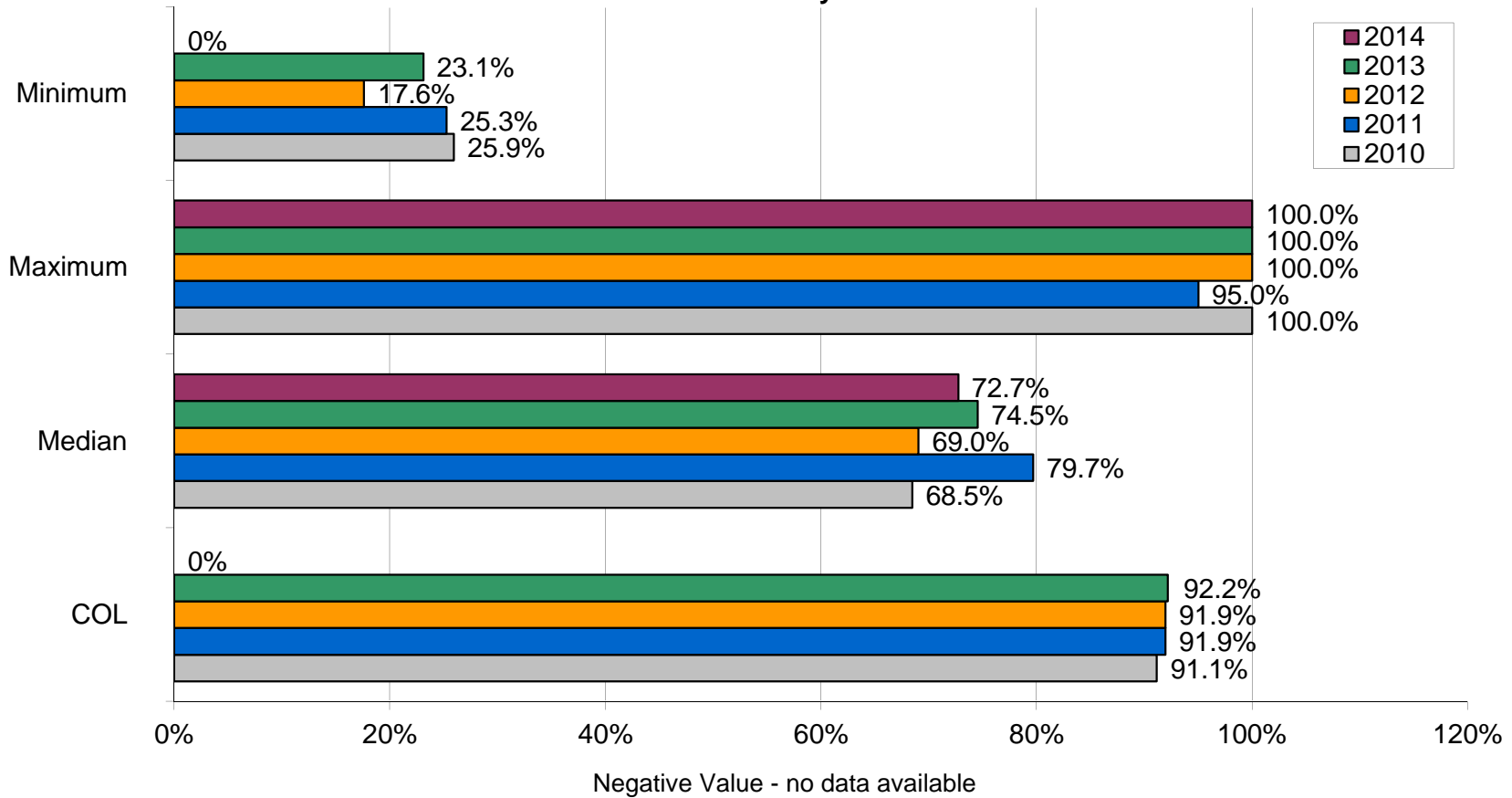
Staff Comments: This graph is new for 2014 and was created at the request of members. 2014 results are reflective of days without services due to frozen services.

Provide Reliable Service and Infrastructure - 10
5 Year Running Average Capital Reinvestment / Replacement Value
Water Distribution & Integrated Systems

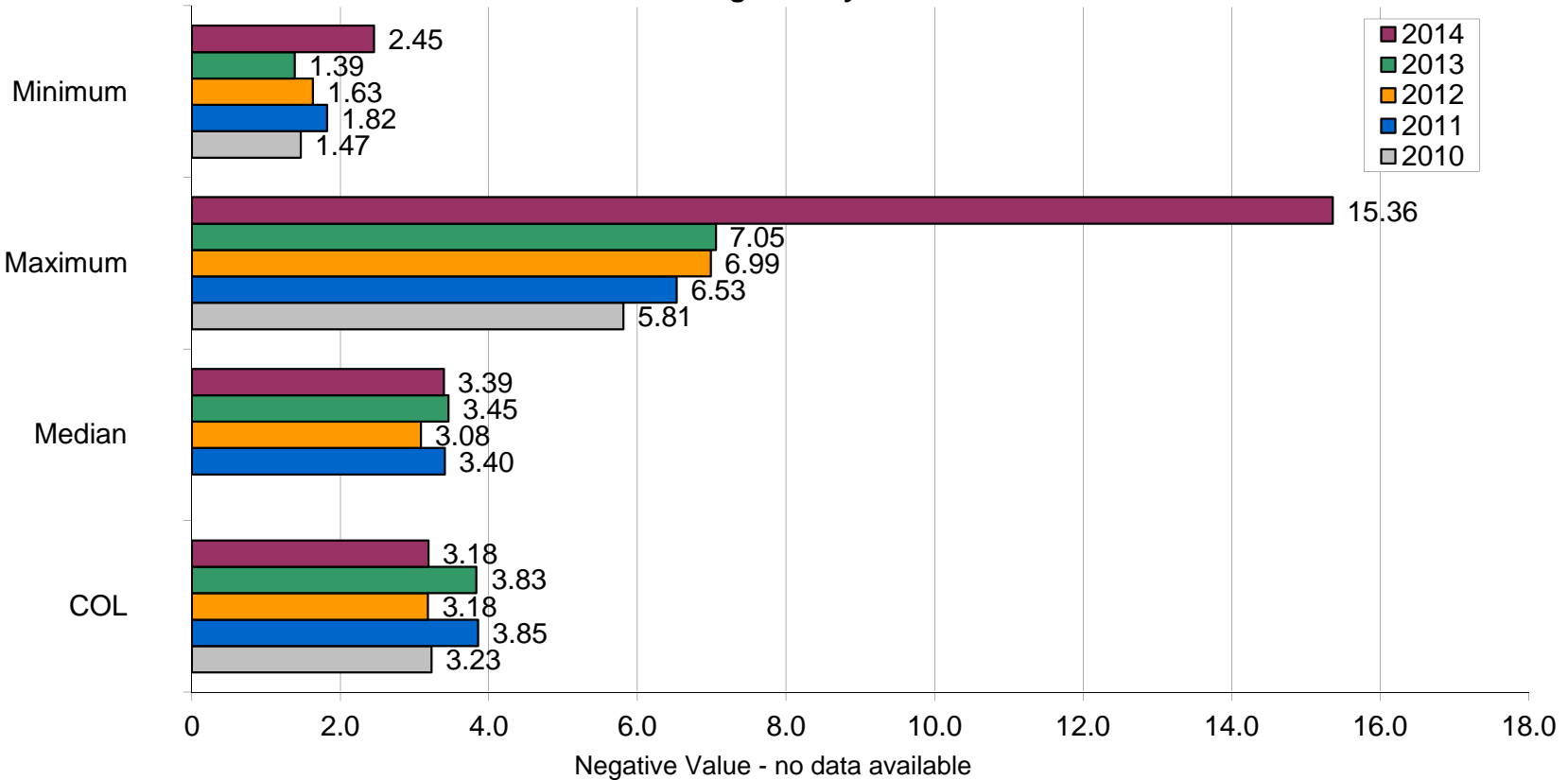


Provide Reliable Service and Infrastructure - 11 Total Corrective Maintenance Hours / Total Maintenance Hours

All Water Systems



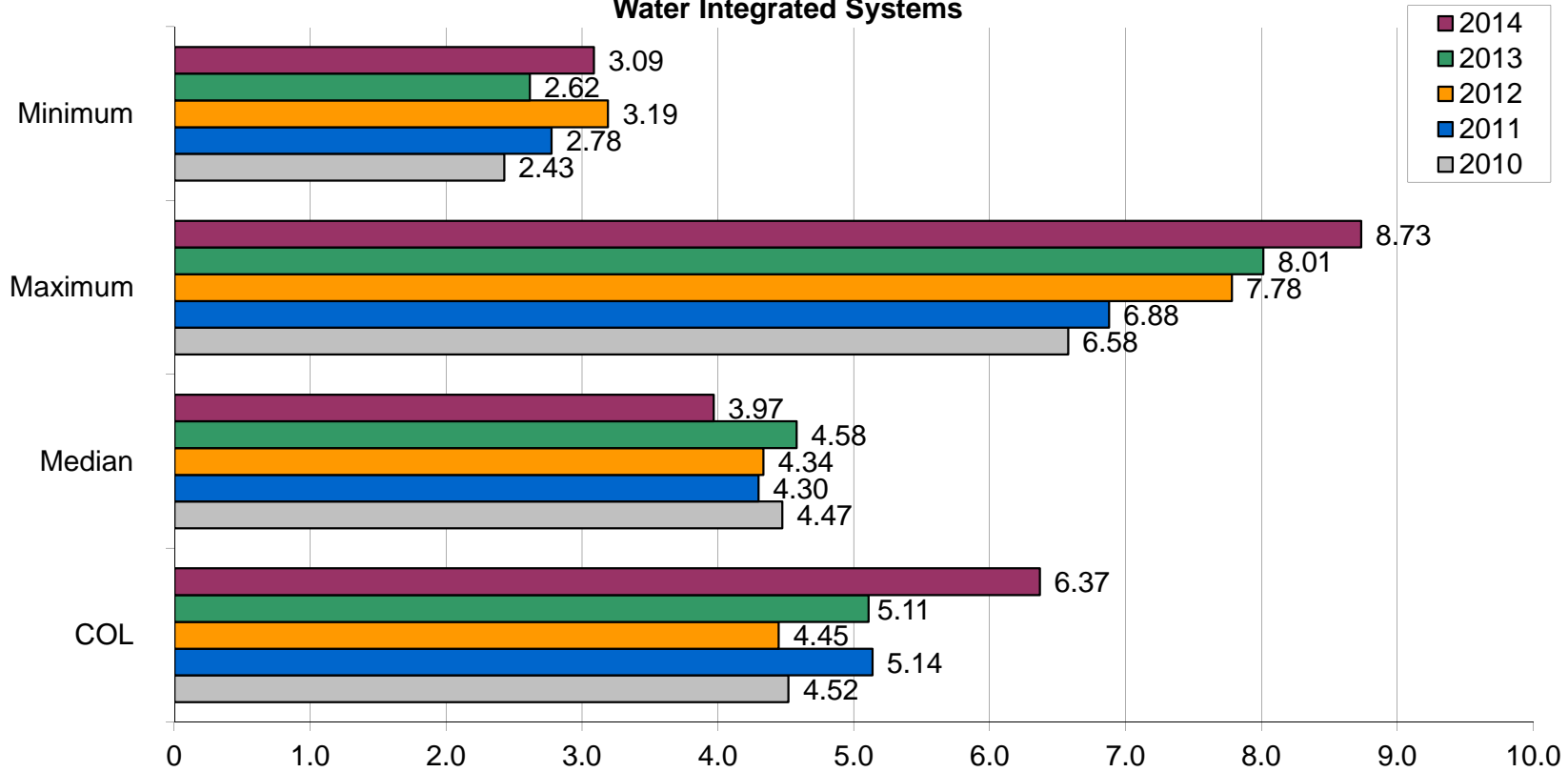
Meet Service Requirements with Economic Efficiency - 1
of O&M FTEs / 100km Length
Water Integrated Systems



Negative Value - no data available
 The values include contracted staff where data was provided

Meet Service Requirements with Economic Efficiency - 2 Total # of FTEs / 100km Length

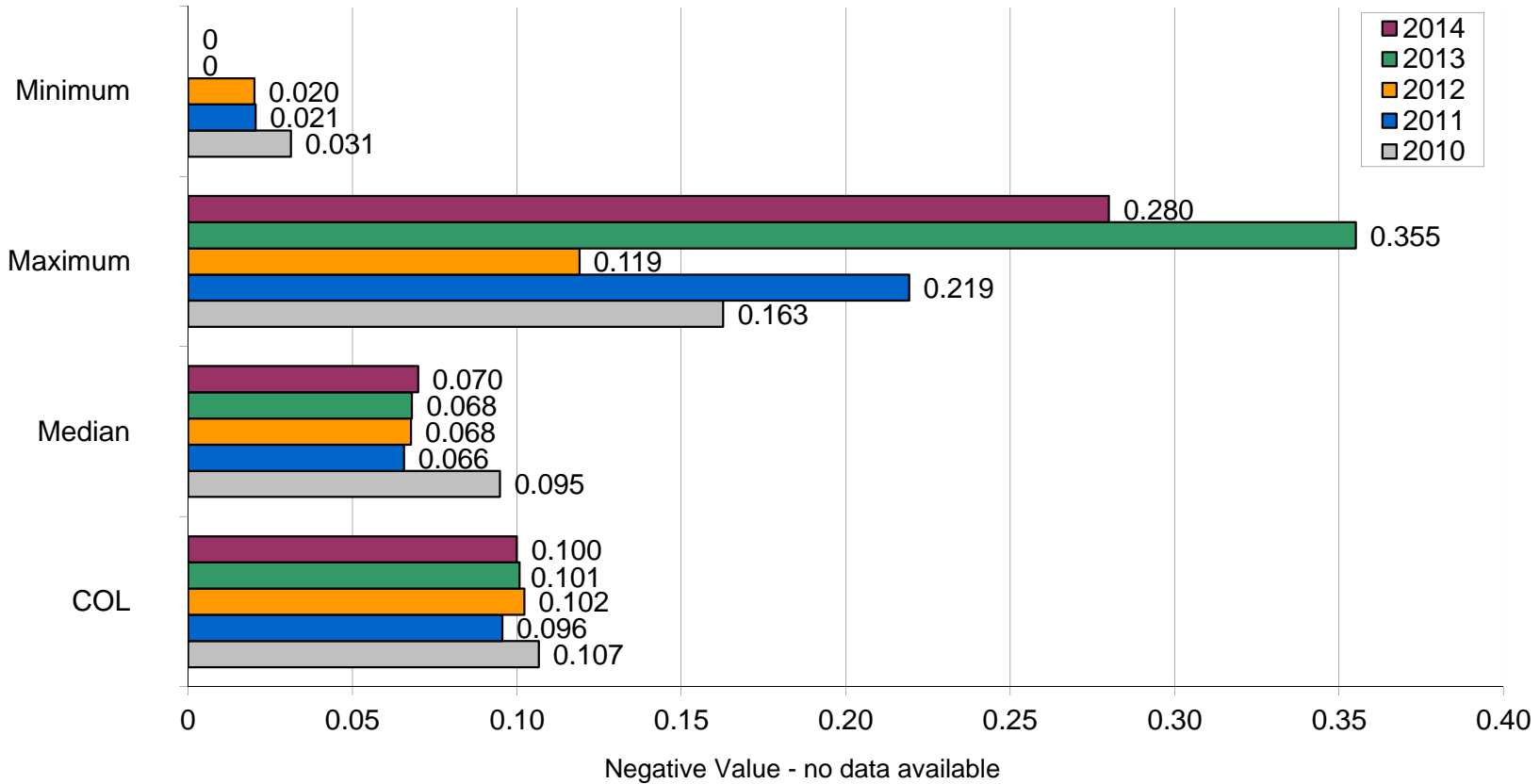
Water Integrated Systems



Negative Value - no data available
The values include contracted staff where data was provided

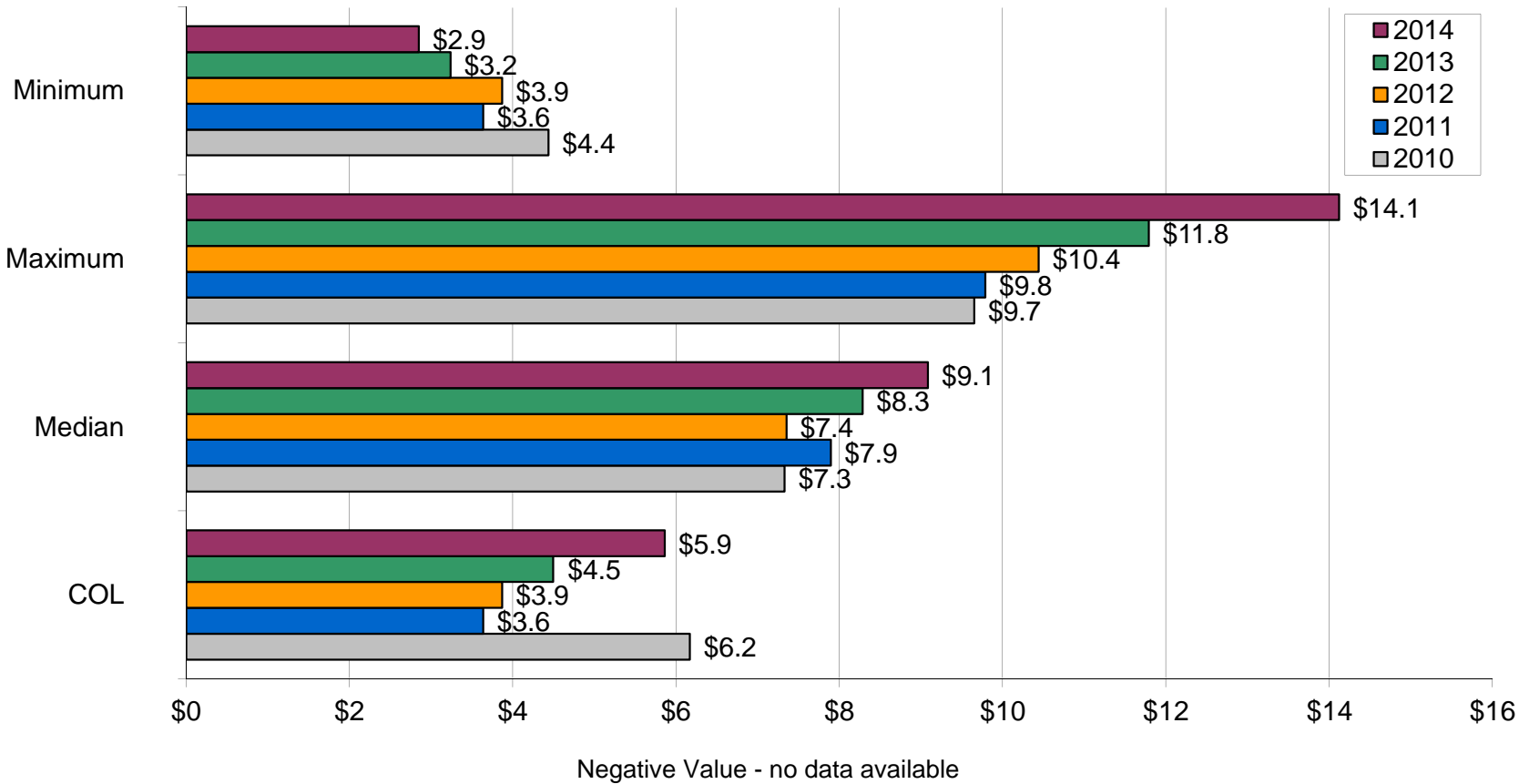
Meet Service Requirements with Economic Efficiency - 3* # of Inhouse Metering O&M FTEs / 1000 Meters

Water Distribution & Integrated Systems with Universal Metering



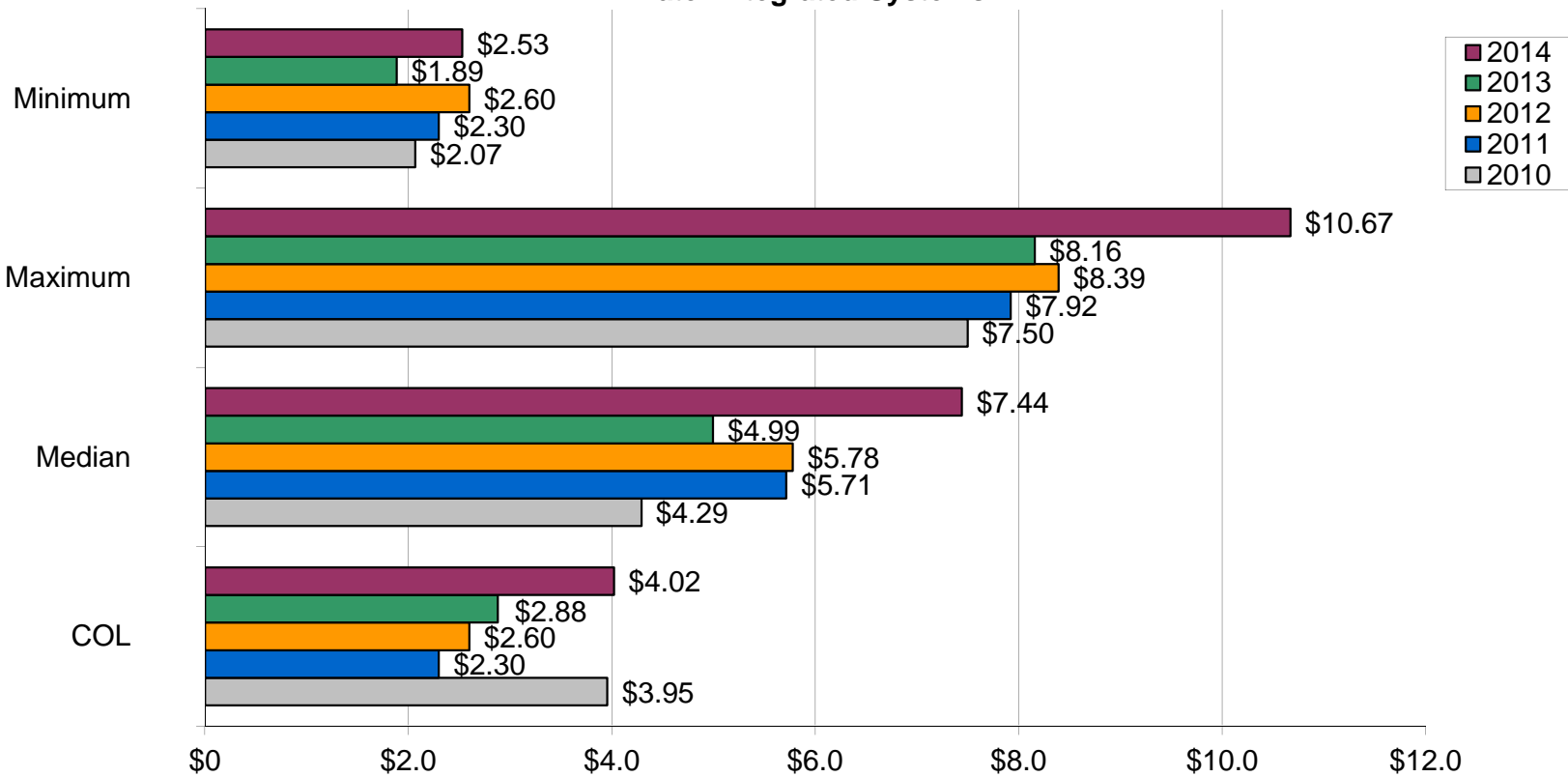
Meet Service Requirements with Economic Efficiency - 4

O&M Cost ('000) / km Length
Water Integrated Systems



Meet Service Requirements with Economic Efficiency - 6 Pipes O&M Cost ('000) / km Length

Water Integrated Systems

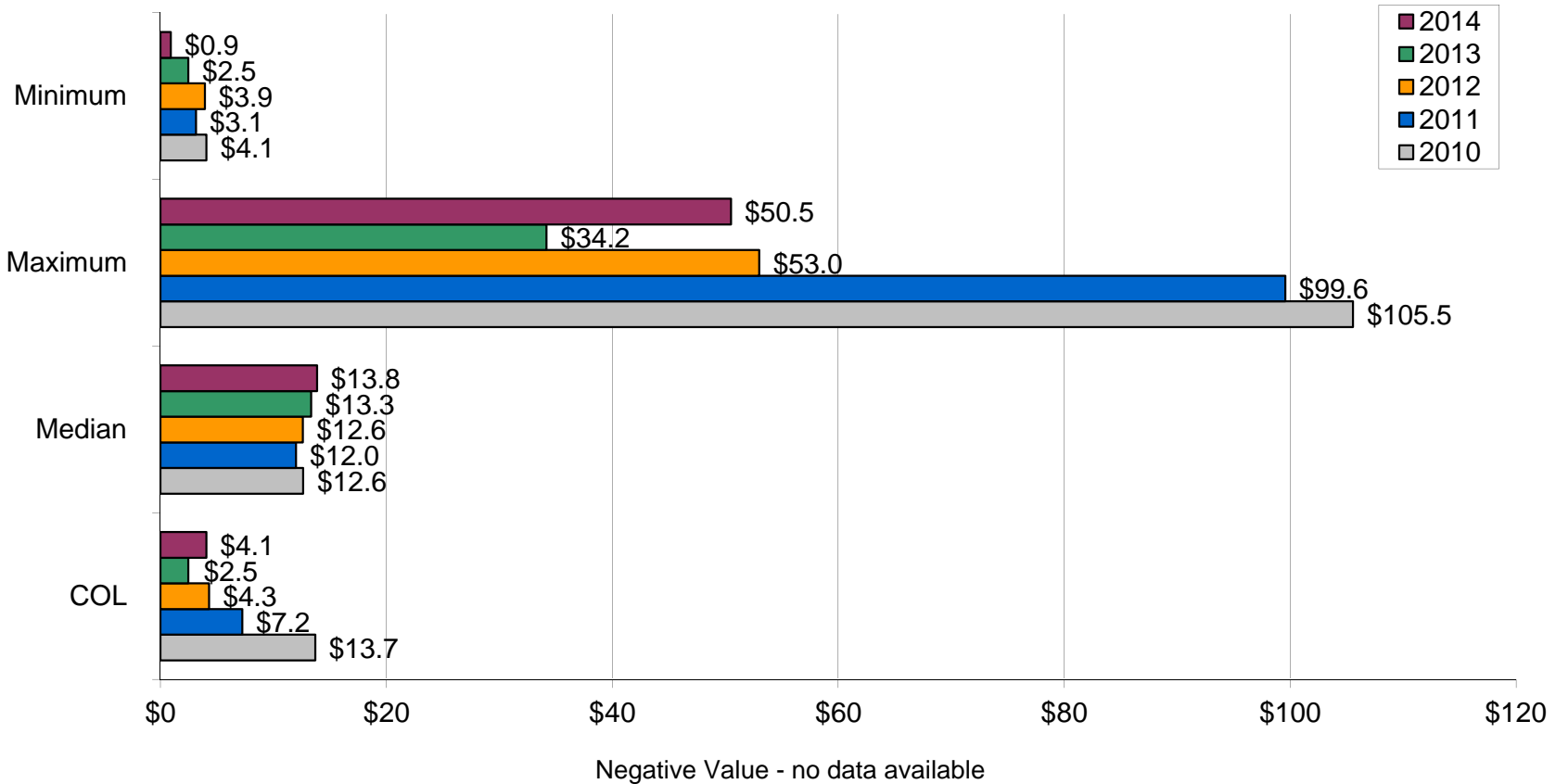


Negative Value - no data available

Meet Service Requirements with Economic Efficiency - 7

Metering O&M Cost / # of Meters

Water Distribution & Integrated Systems with Universal Metering

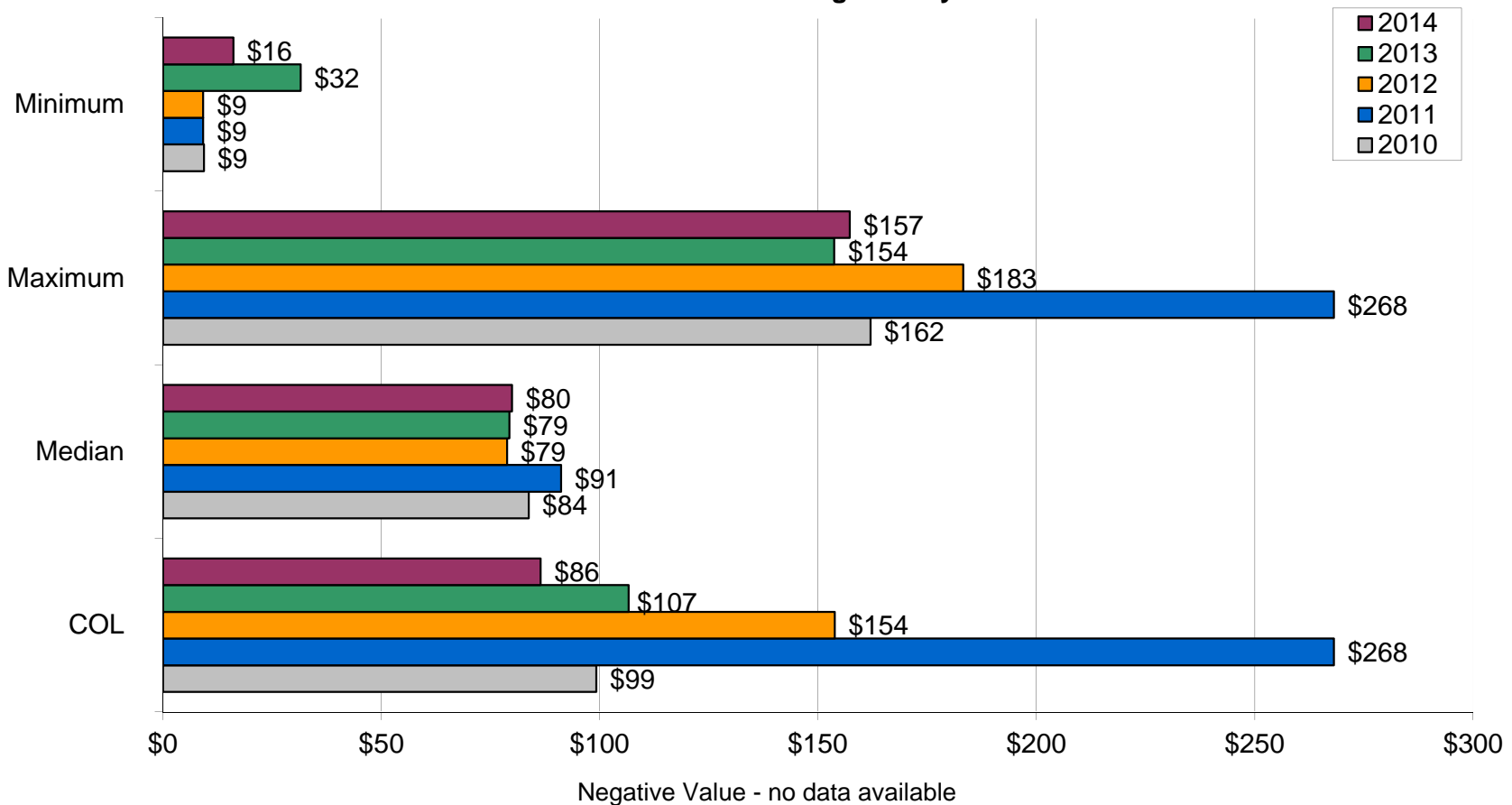


Staff comments: The decrease in 2011-2013 is not the result of less metering work needing to be done, but simply the result of the Customer Service Representative having less time to spend on meter work due to locating requirements.

Meet Service Requirements with Economic Efficiency - 9

Cost of Fire Hydrant O&M / # of Fire Hydrants

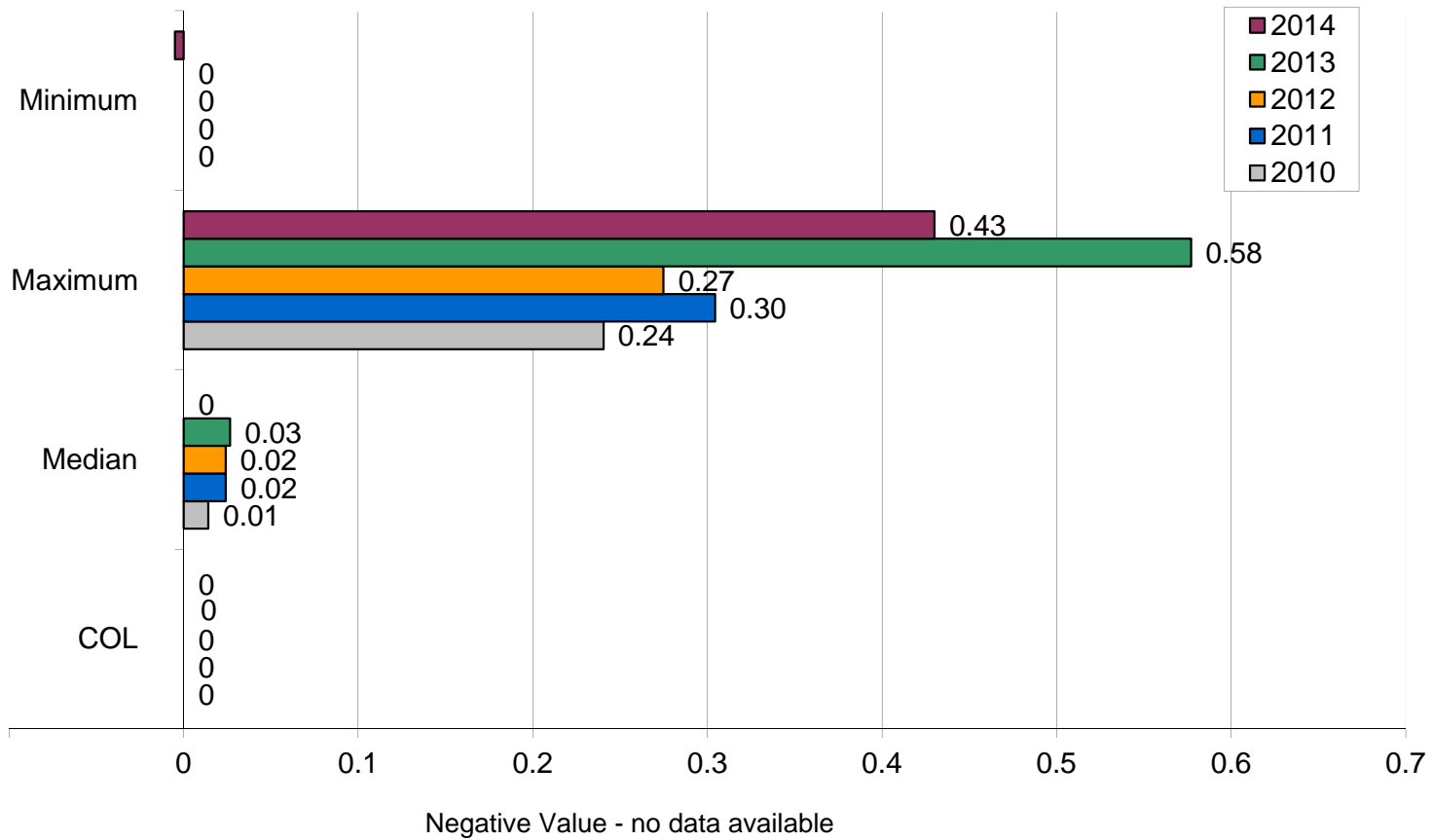
Water Distribution & Integrated Systems



Staff comments: 2011 included hydrant maintenance work billed back to the Town of Collingwood. All other years included only the cost of hydrant work (flushing) assumed by the water utility. We anticipate this number to increase in 2015 as a result of hydrant maintenance being absorbed through the water budget and not the tax base.

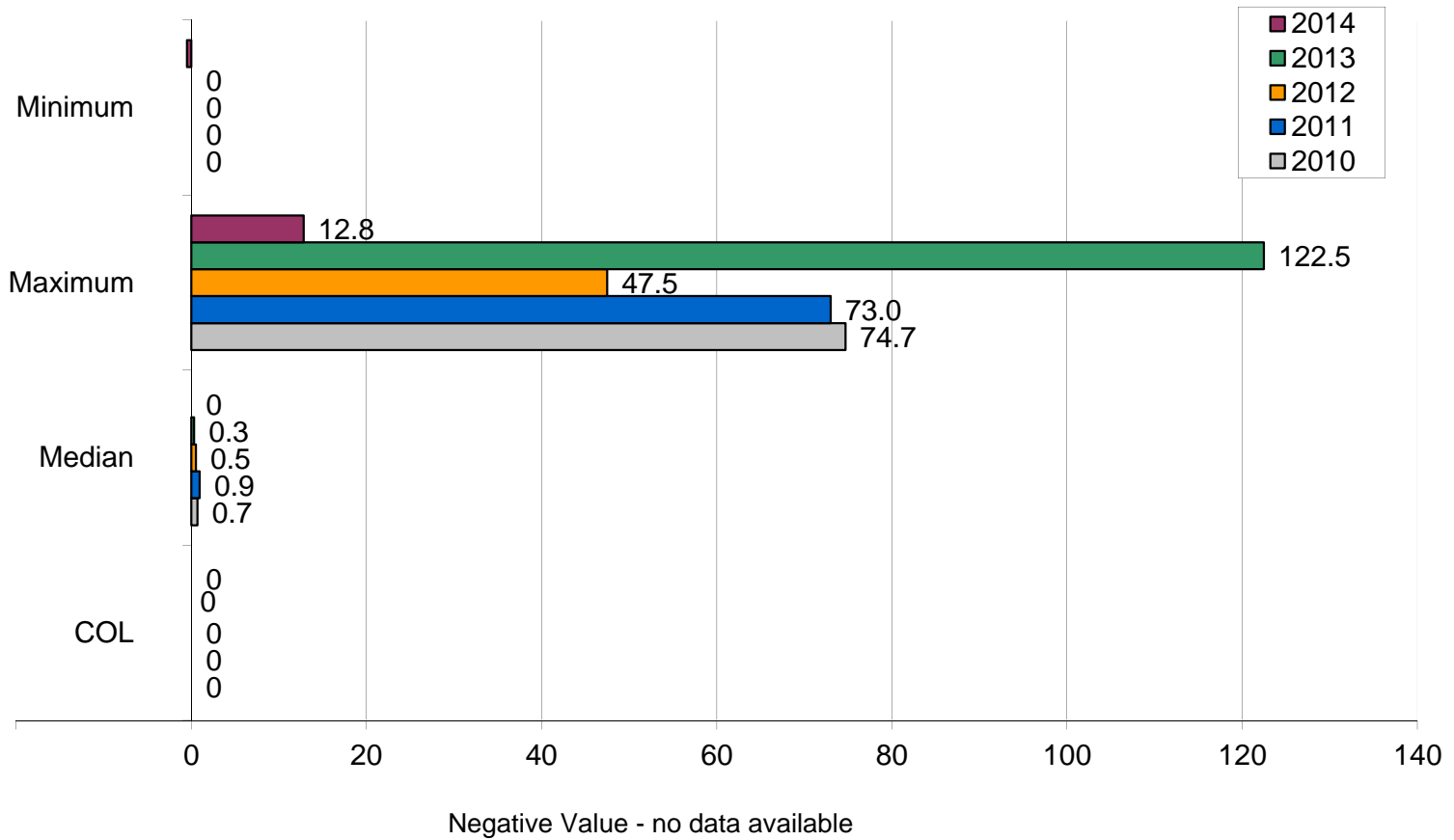
Provide a Safe and Productive Workplace - 1
of O&M Accidents with Lost Time / 1000 O&M Labour Hours

All Water Systems

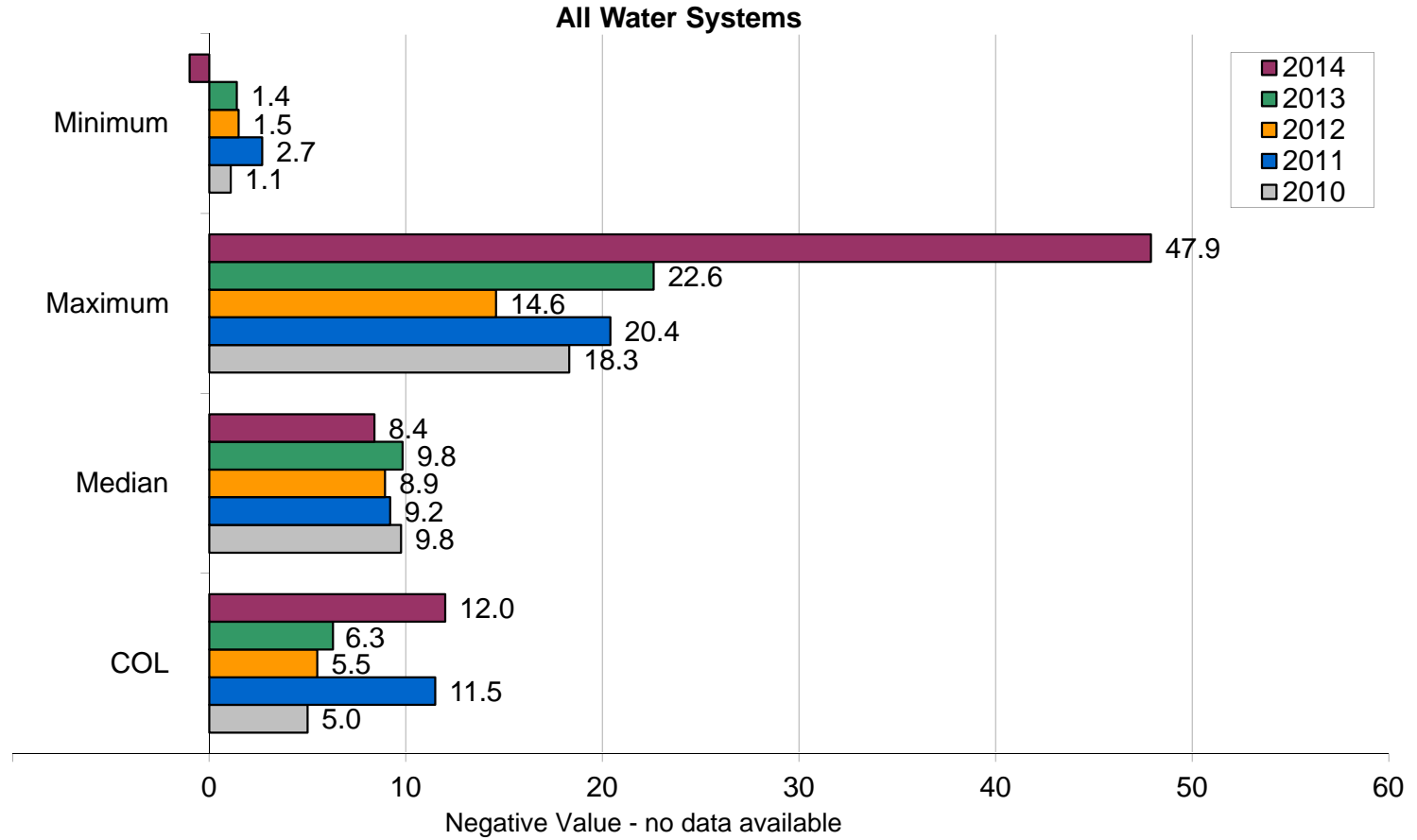


Provide a Safe and Productive Workplace - 2
of Lost Hours due to O&M Accidents / 1000 O&M Labour Hours

All Water Systems



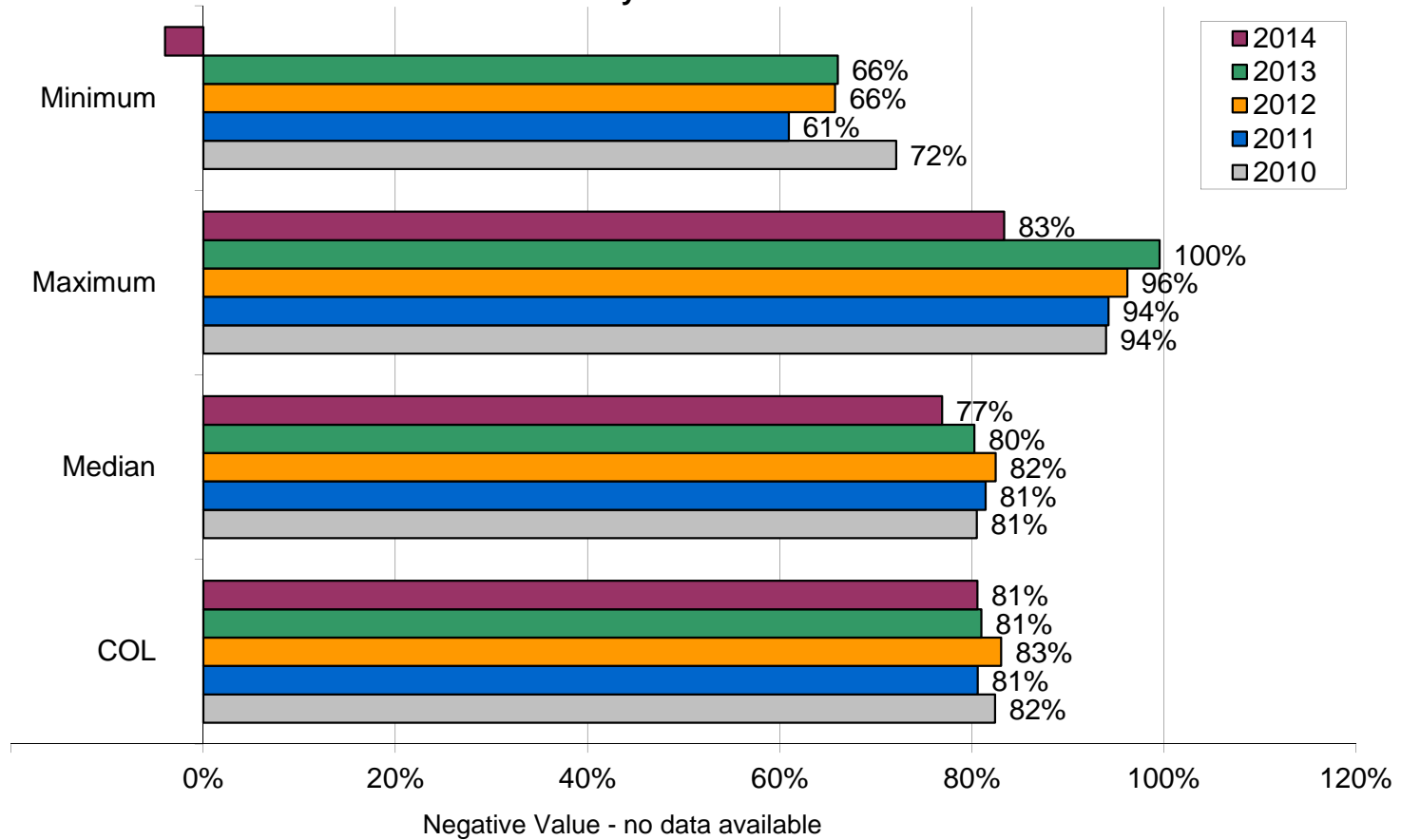
Provide a Safe and Productive Workplace - 3
of Sick Days Taken per O&M Employee



Provide a Safe and Productive Workplace - 4

Total Available O&M Hours / Total Paid O&M Hours

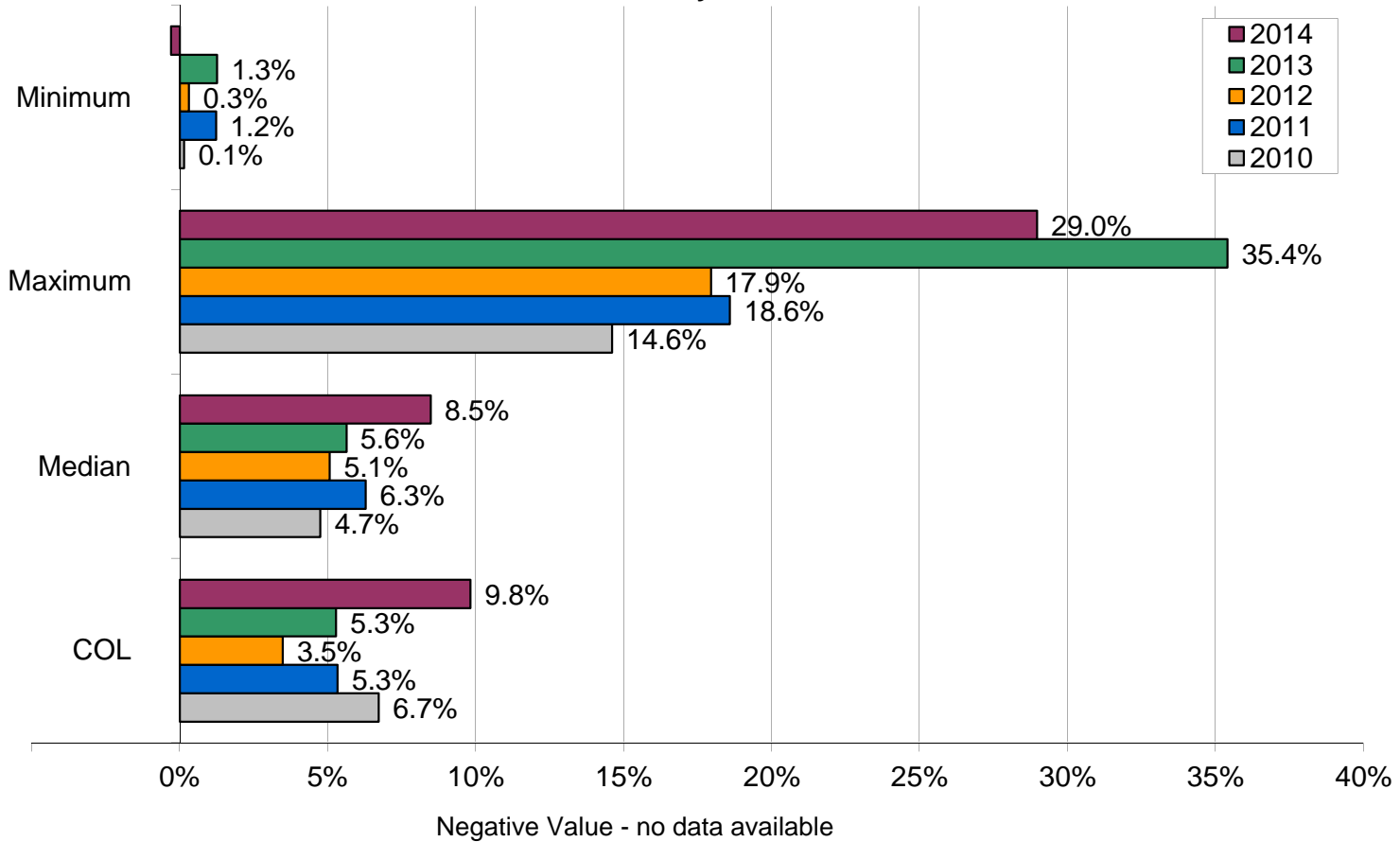
All Water Systems



Provide a Safe and Productive Workplace - 5

Total Overtime O&M Hours / Total Paid O&M Hours

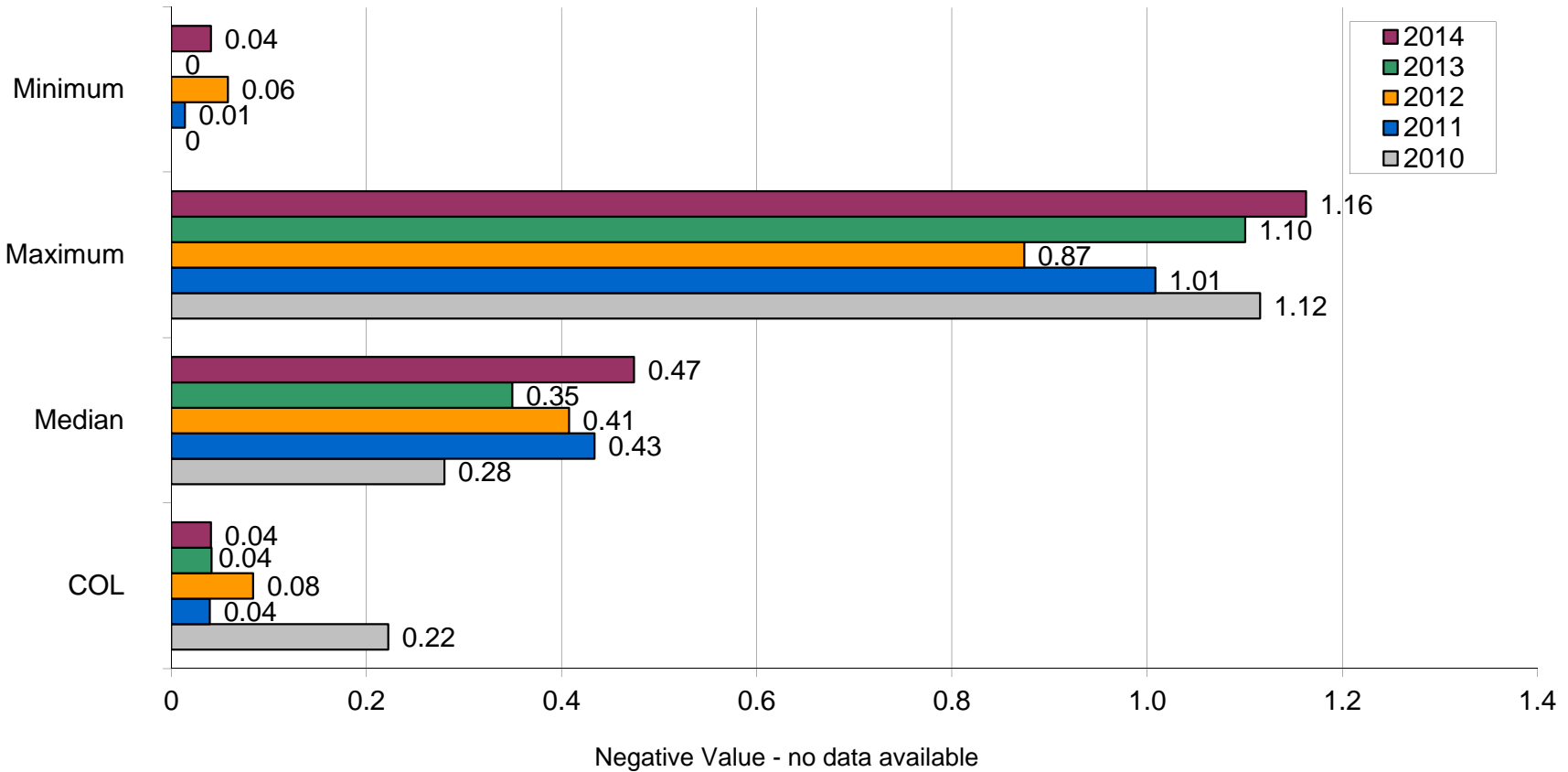
All Water Systems



Staff Comments: Increase in 2014 the result of overtime for frozen services.

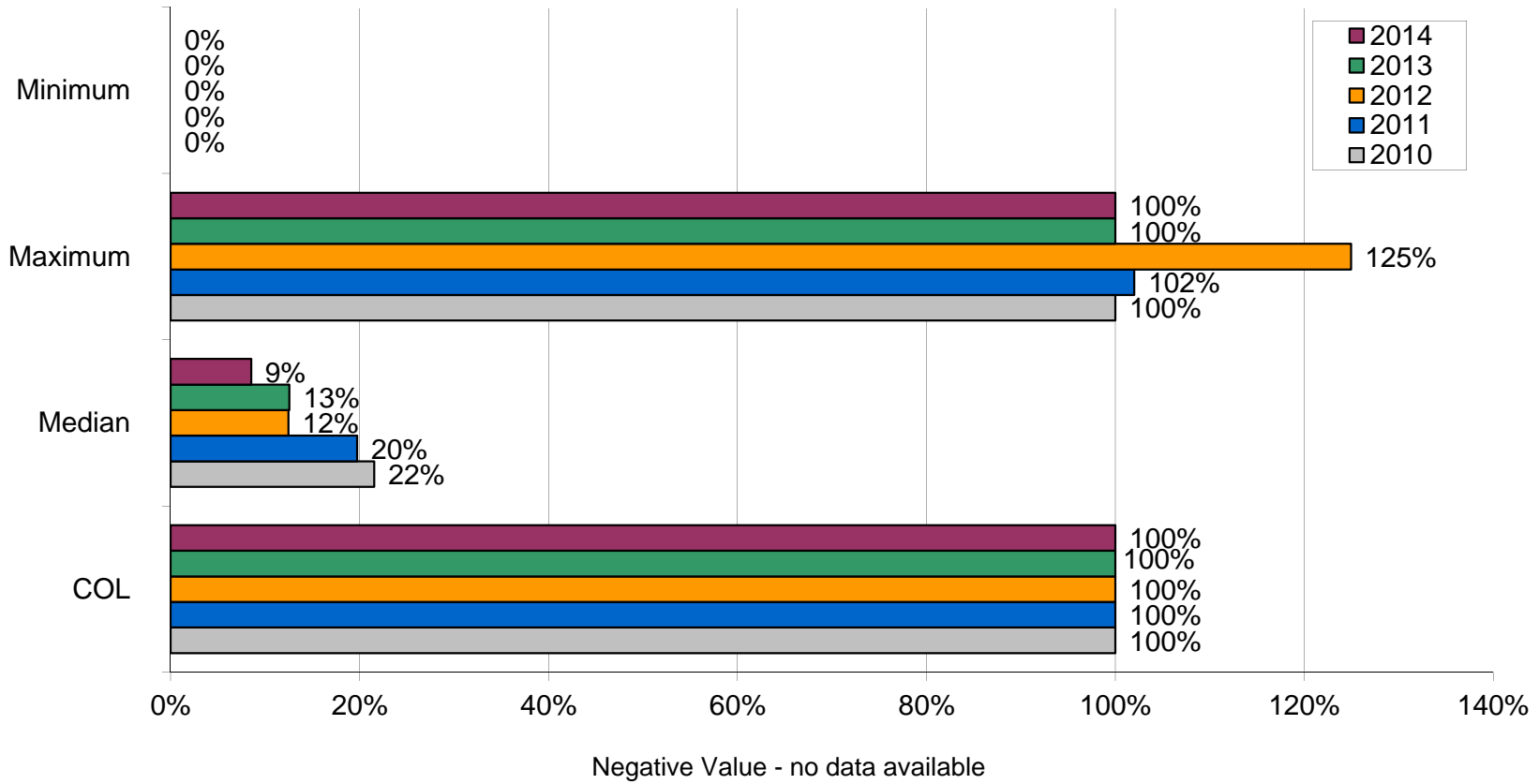
Have Satisfied and Informed Customers - 1

of Water Pressure Complaints by Customers / 1,000 People Served
Water Distribution & Integrated Systems



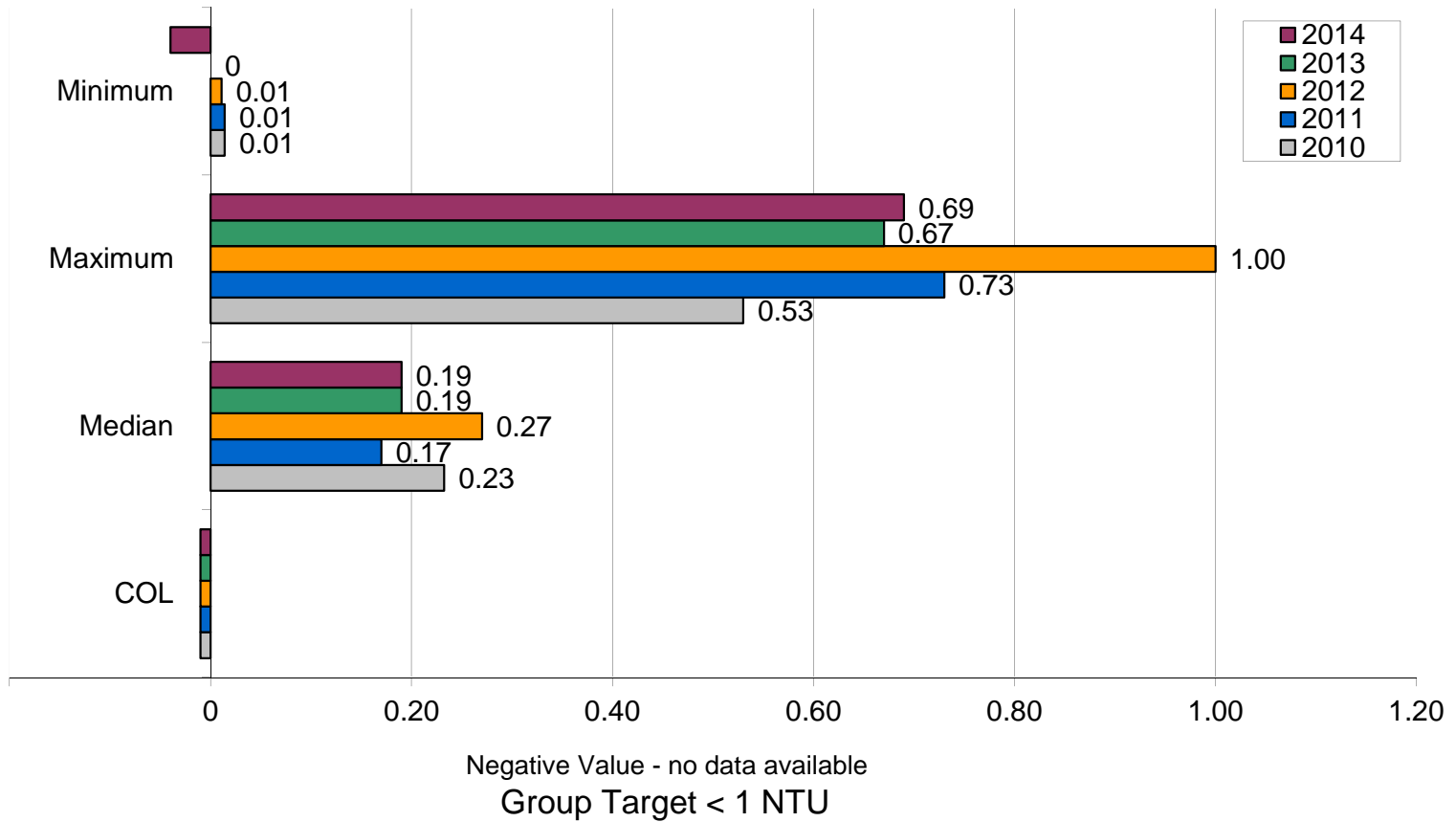
Protect Public Health and Safety - 1

% of Cumulative Main Length Cleaned



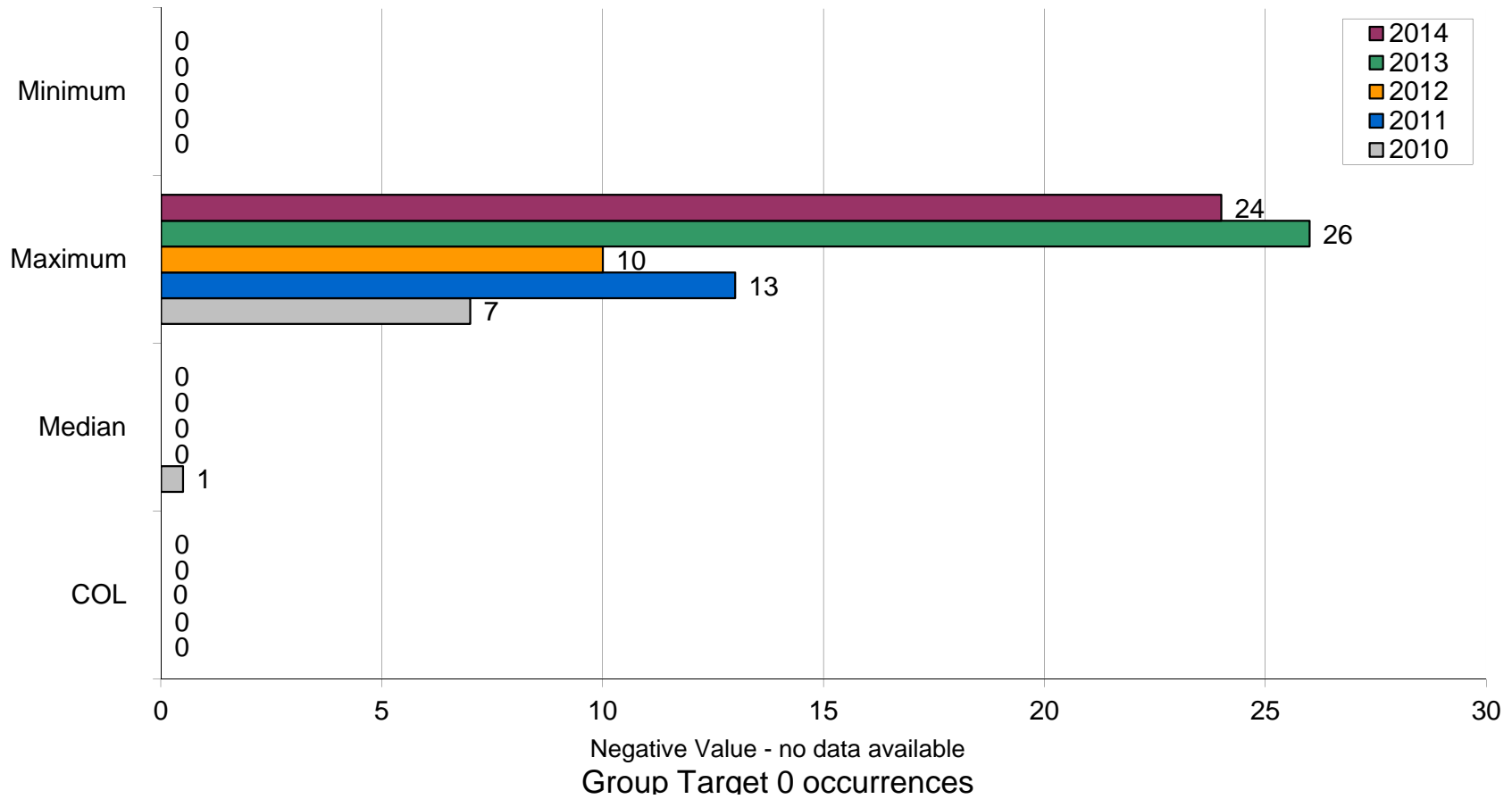
Protect Public Health and Safety - 2

Average Value for Turbidity (NTU)
Water Distribution & Integrated Systems



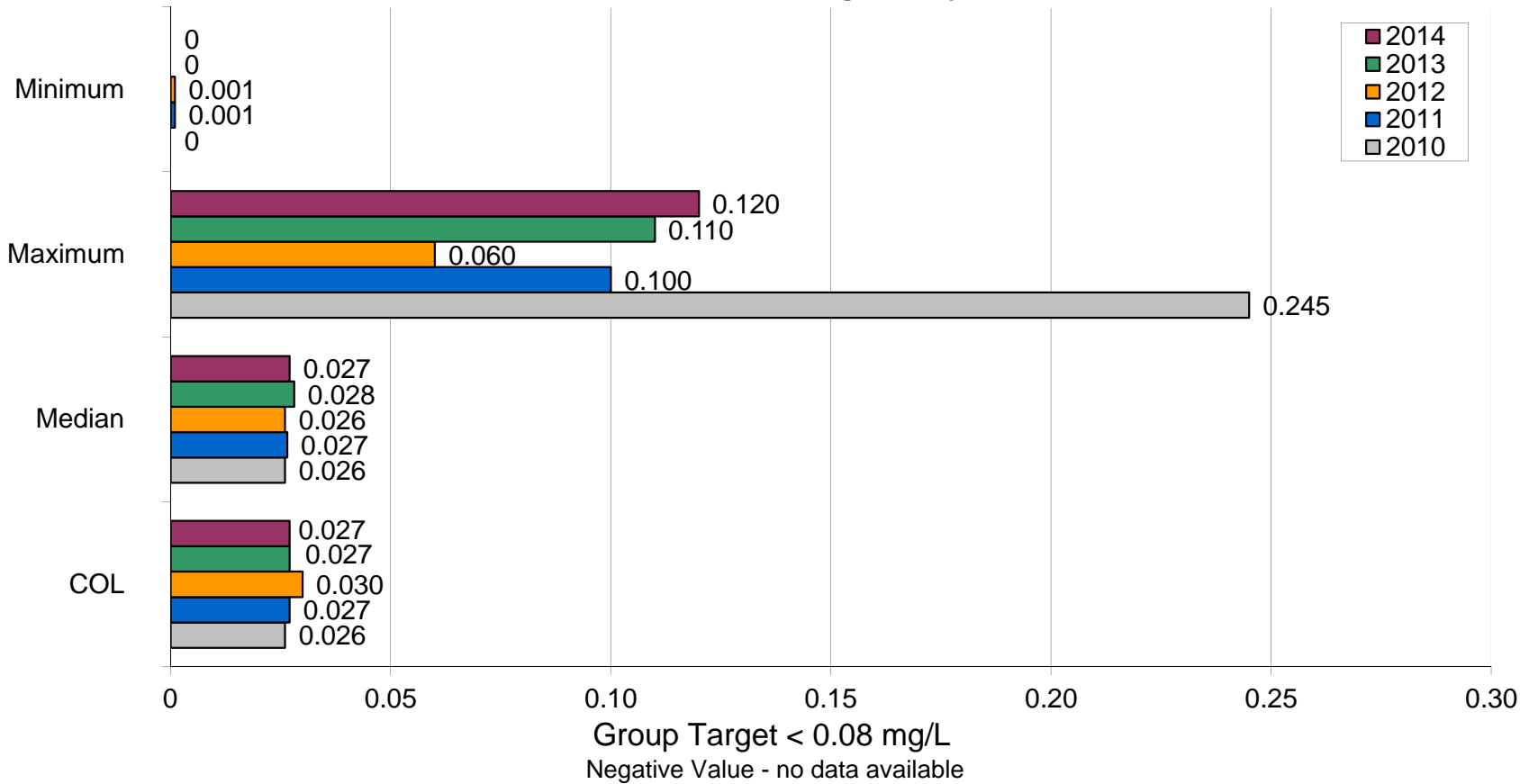
Protect Public Health and Safety - 3

of Days with Total Coliforms
Water Distribution & Integrated Systems



Protect Public Health and Safety - 4

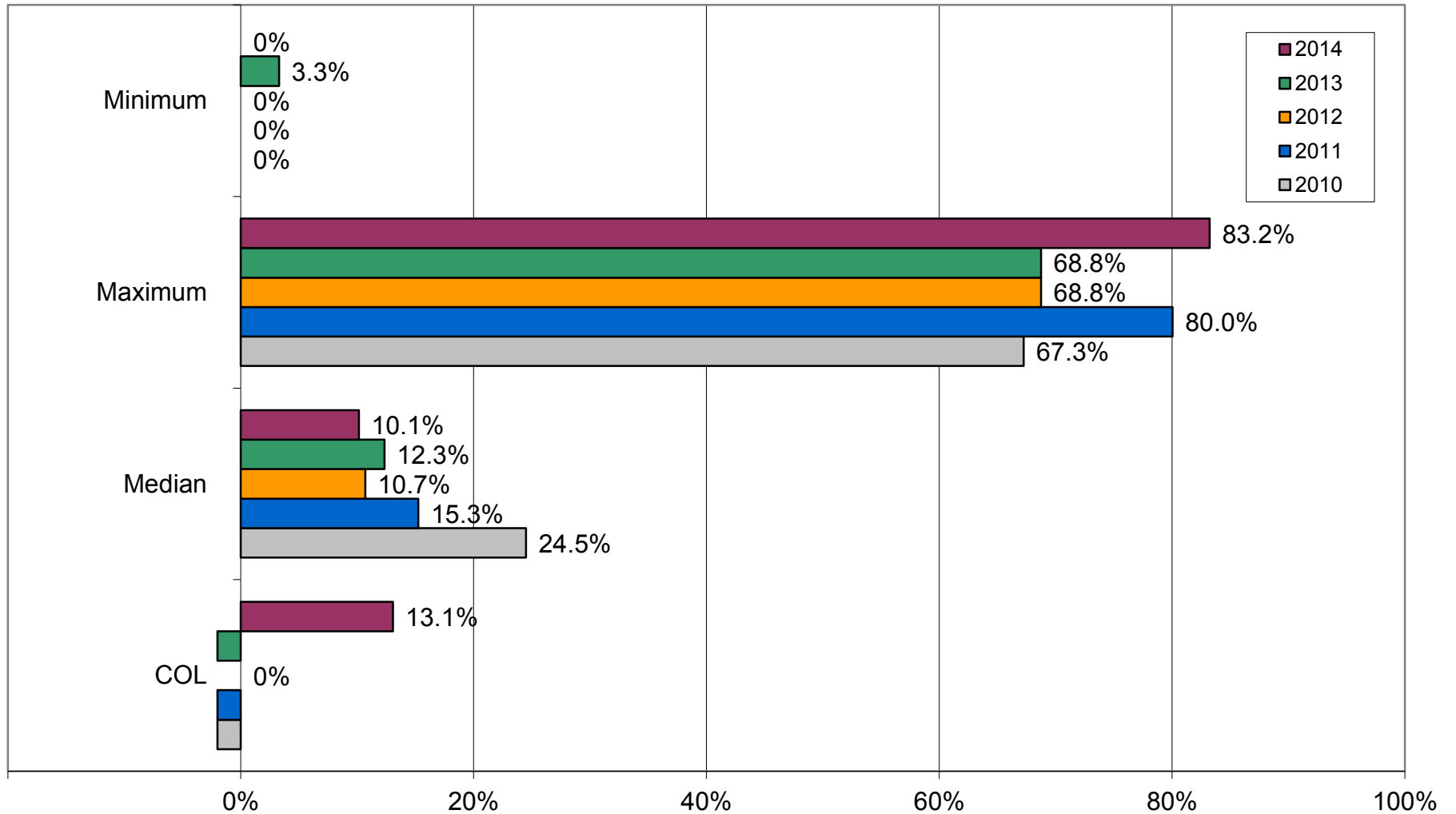
Average Value for THMs (mg/L)
Water Distribution & Integrated Systems



Provide Reliable Service and Infrastructure - 2

% Reactive Maintenance

All WWTPs

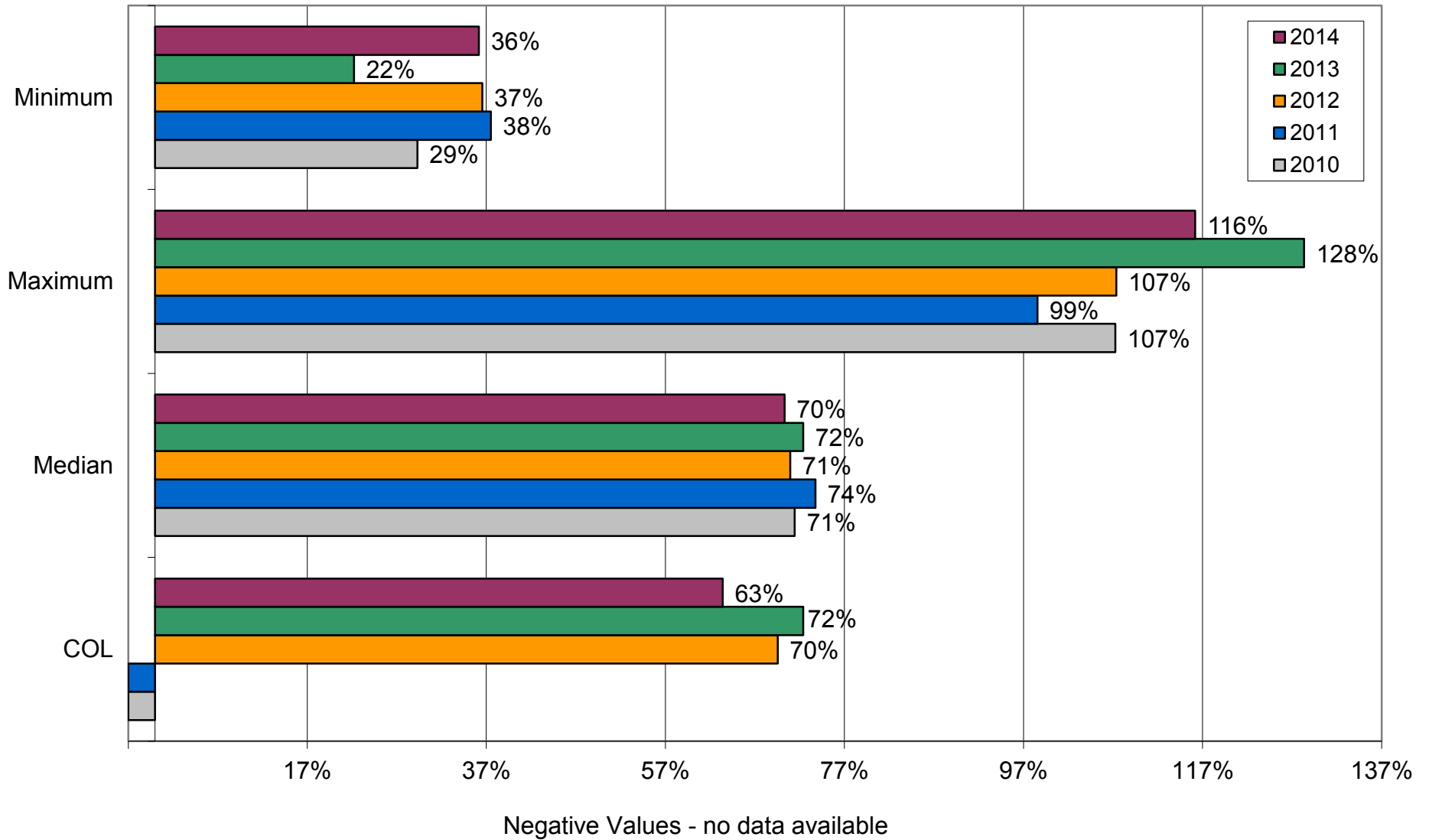


Negative Values - no data available

Staff Comments: 2014 was the first year this was able to be tracked and therefore reported properly.

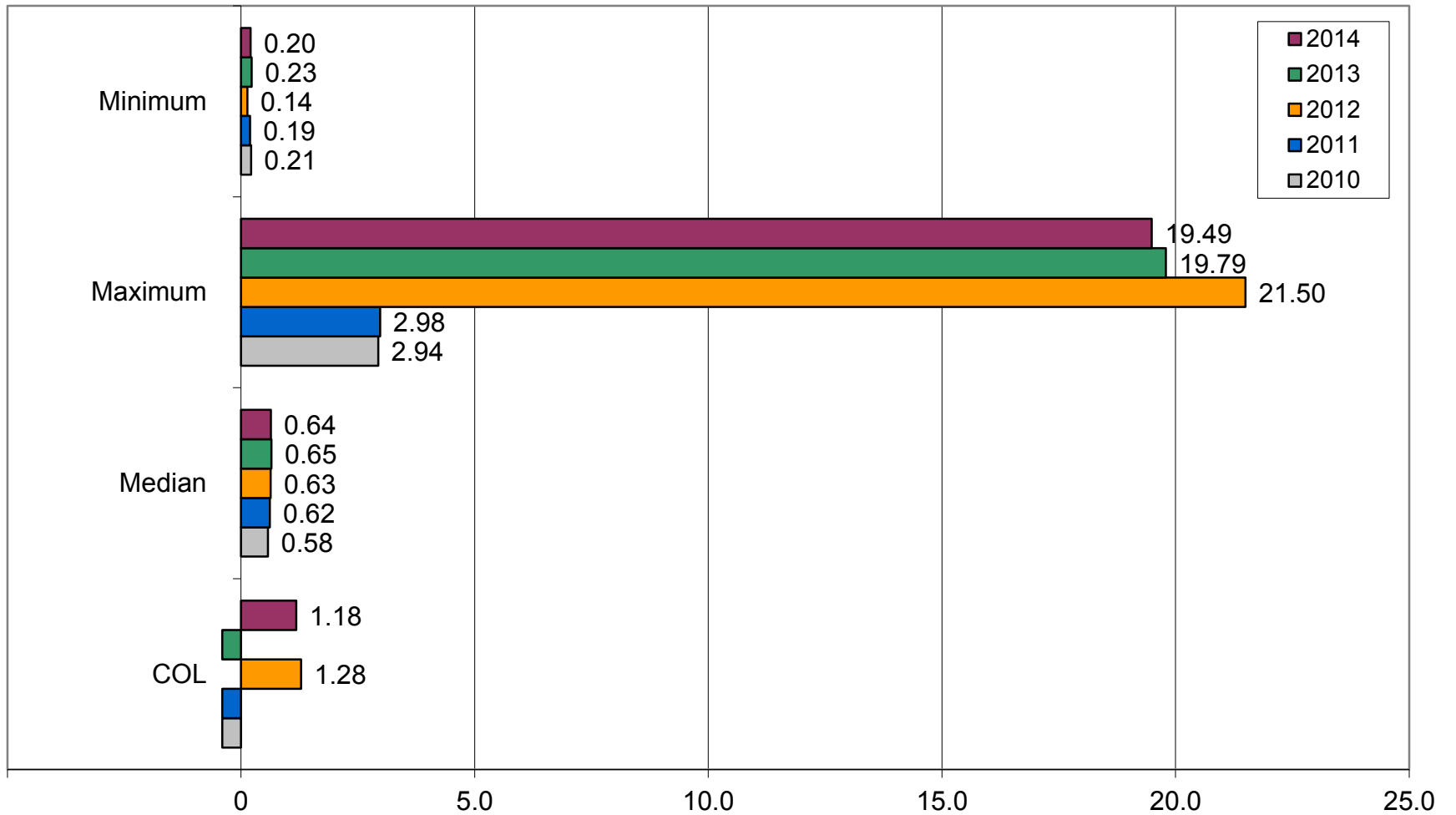
Ensure Adequate Capacity - 1

% of Design AAF Capacity Utilized
All WWTPs



Meet Service Requirements with Economic Efficiency - 1

of O&M FTEs / 1,000 ML Treated
Secondary and BNR WWTPs



Negative Values - no data available

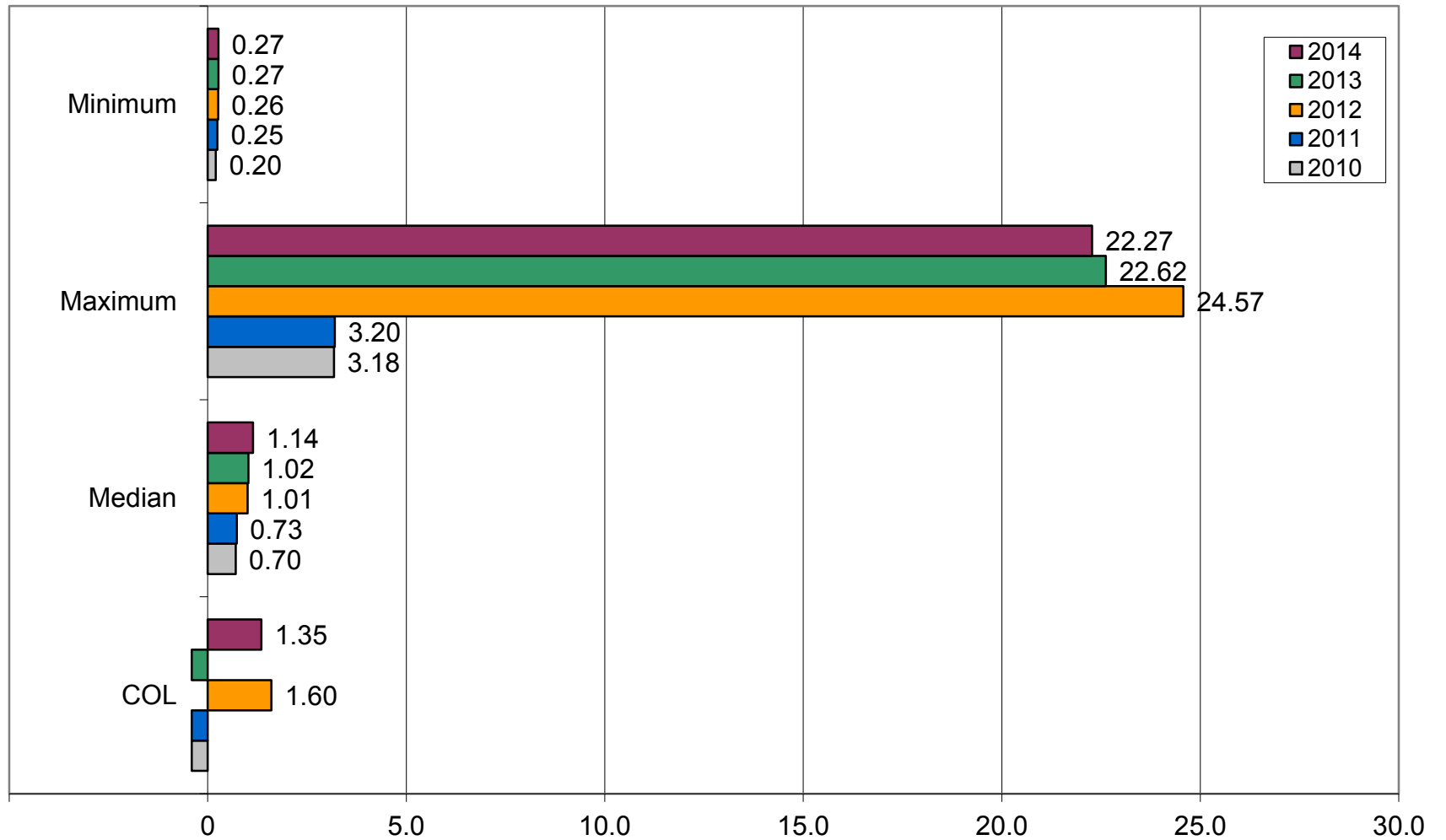
The values include contracted staff where data was provided

Staff Comments: Data for 2013 was not submitted in error.

Meet Service Requirements with Economic Efficiency - 2

Total # of FTEs / 1,000 ML Treated

Secondary and BNR WWTPs



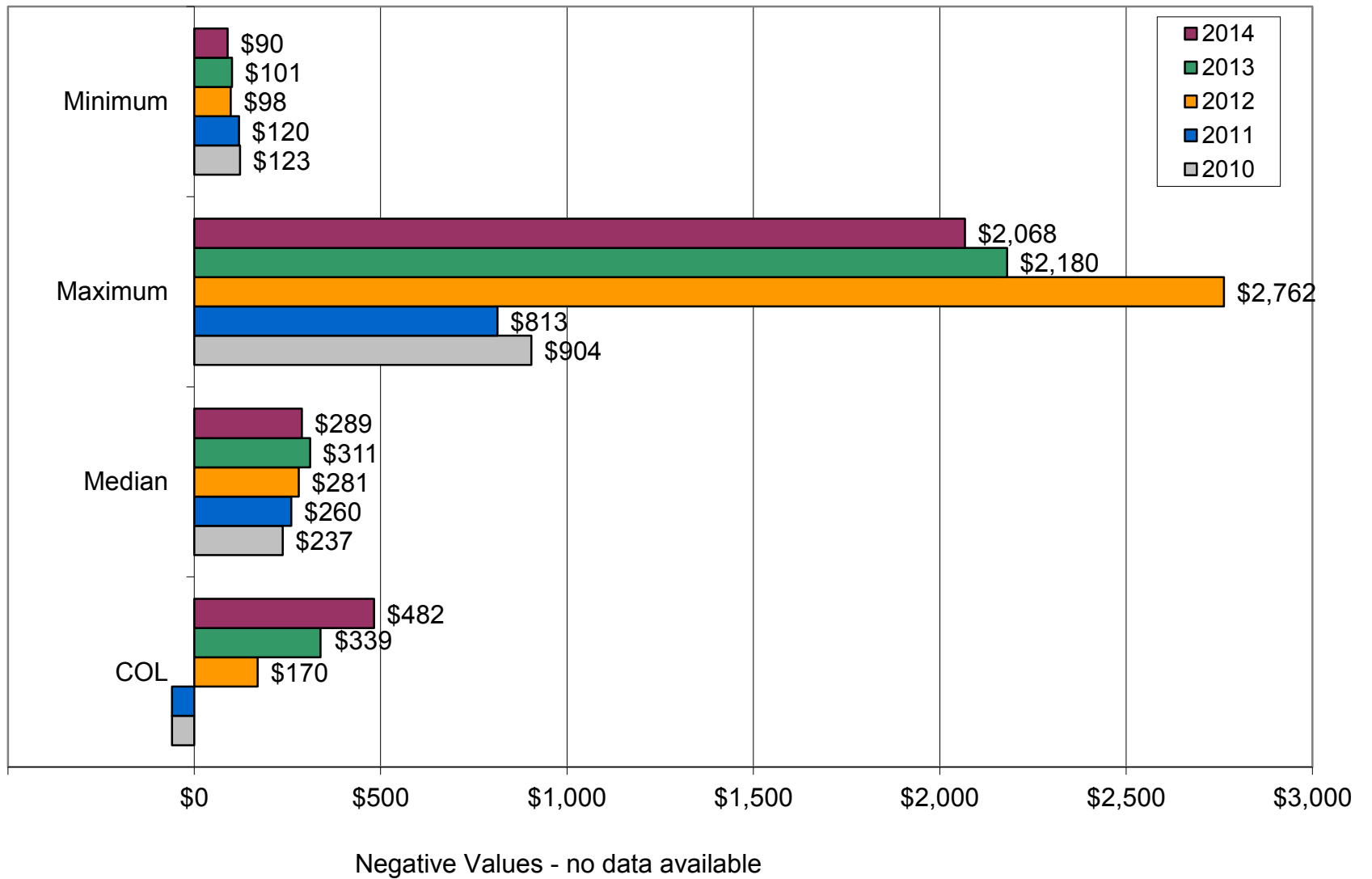
Negative Values - no data available

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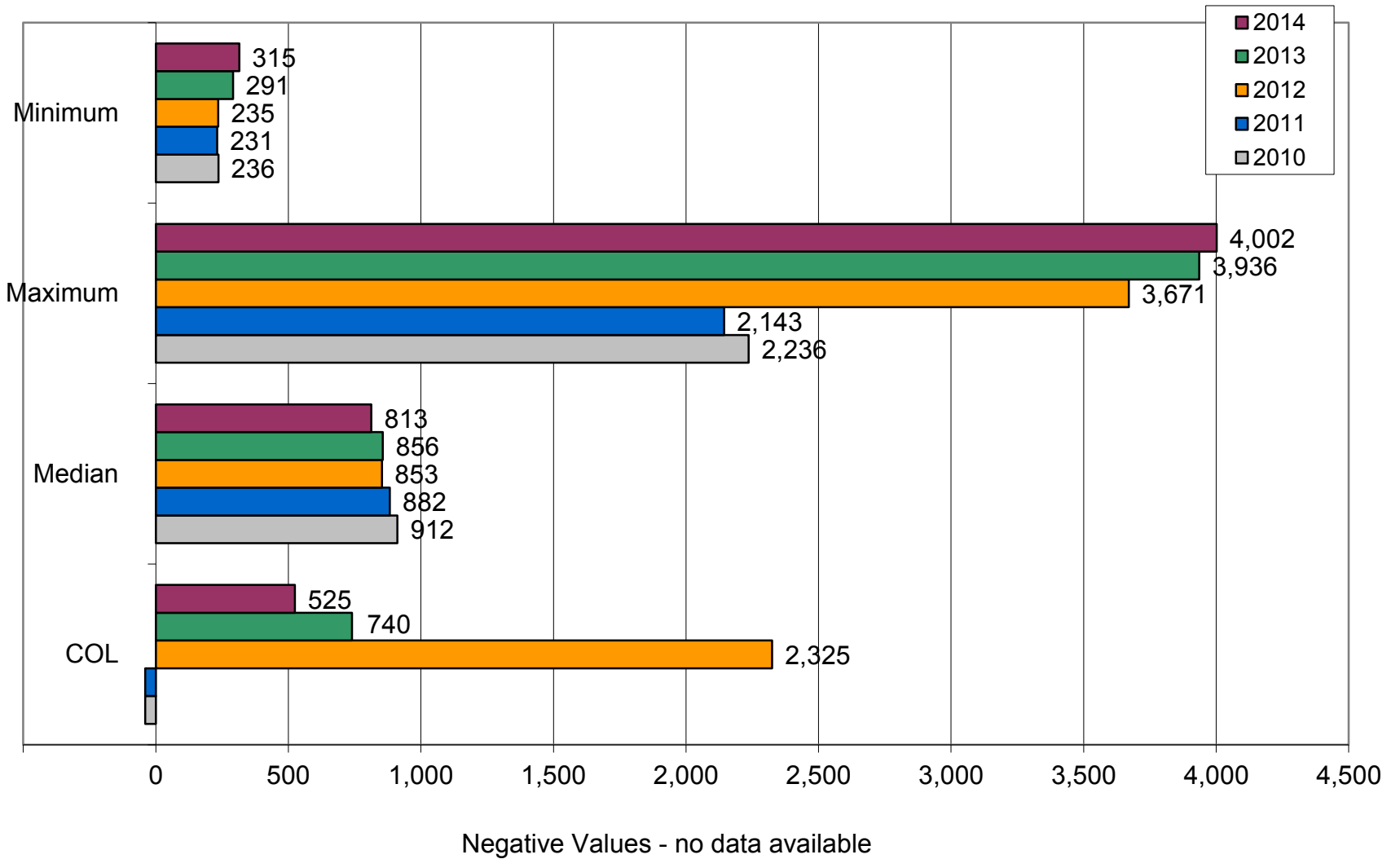
Meet Service Requirements with Economic Efficiency - 3

O&M Cost / ML Treated
Secondary and BNR WWTPs



Meet Service Requirements with Economic Efficiency - 4

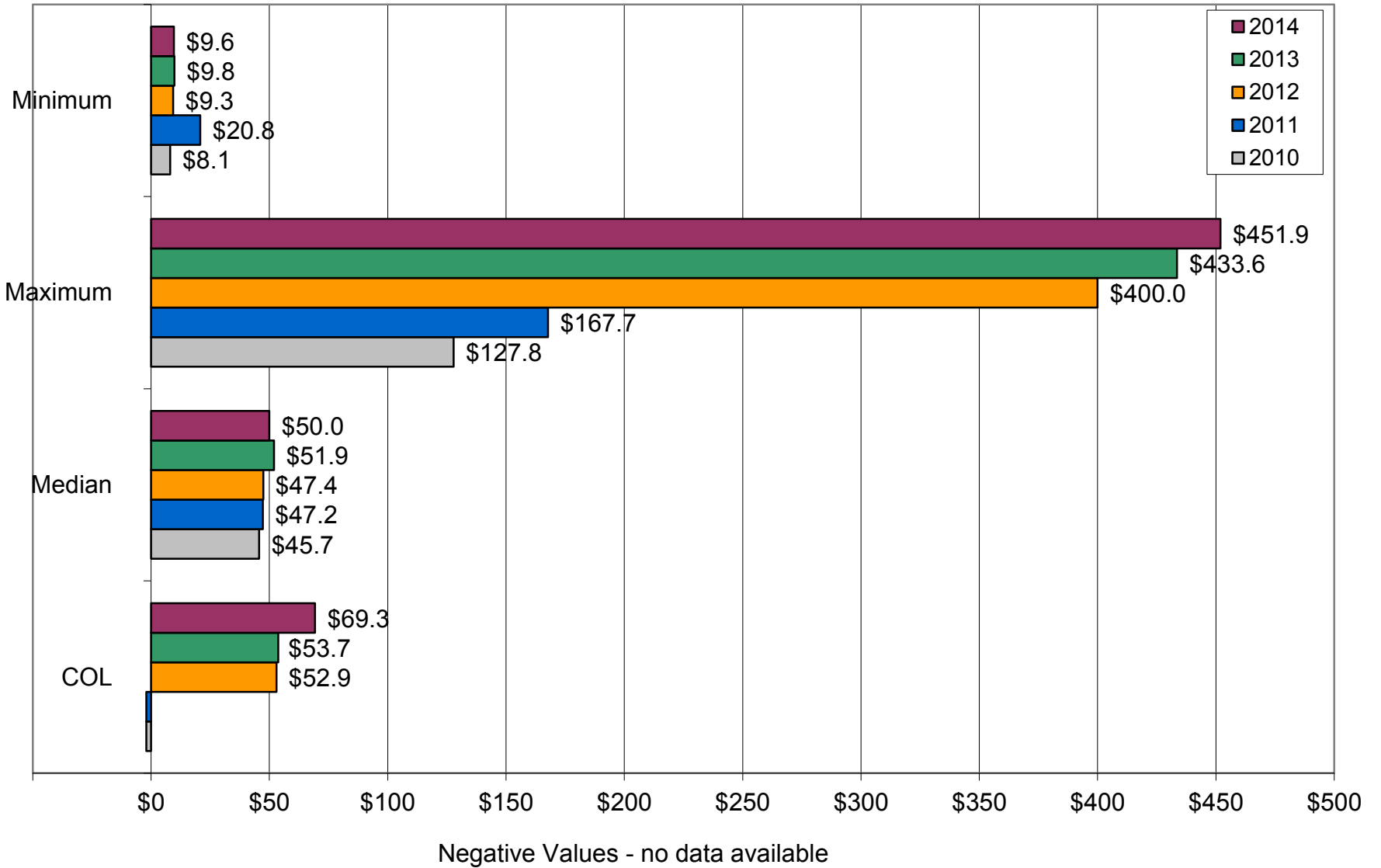
Energy Consumed (kWh) / ML Treated
Secondary and BNR WWTPs



Staff Comments: 2012 has been identified as a submission error and will be corrected in the 2015 data iteration.

Meet Service Requirements with Economic Efficiency - 5

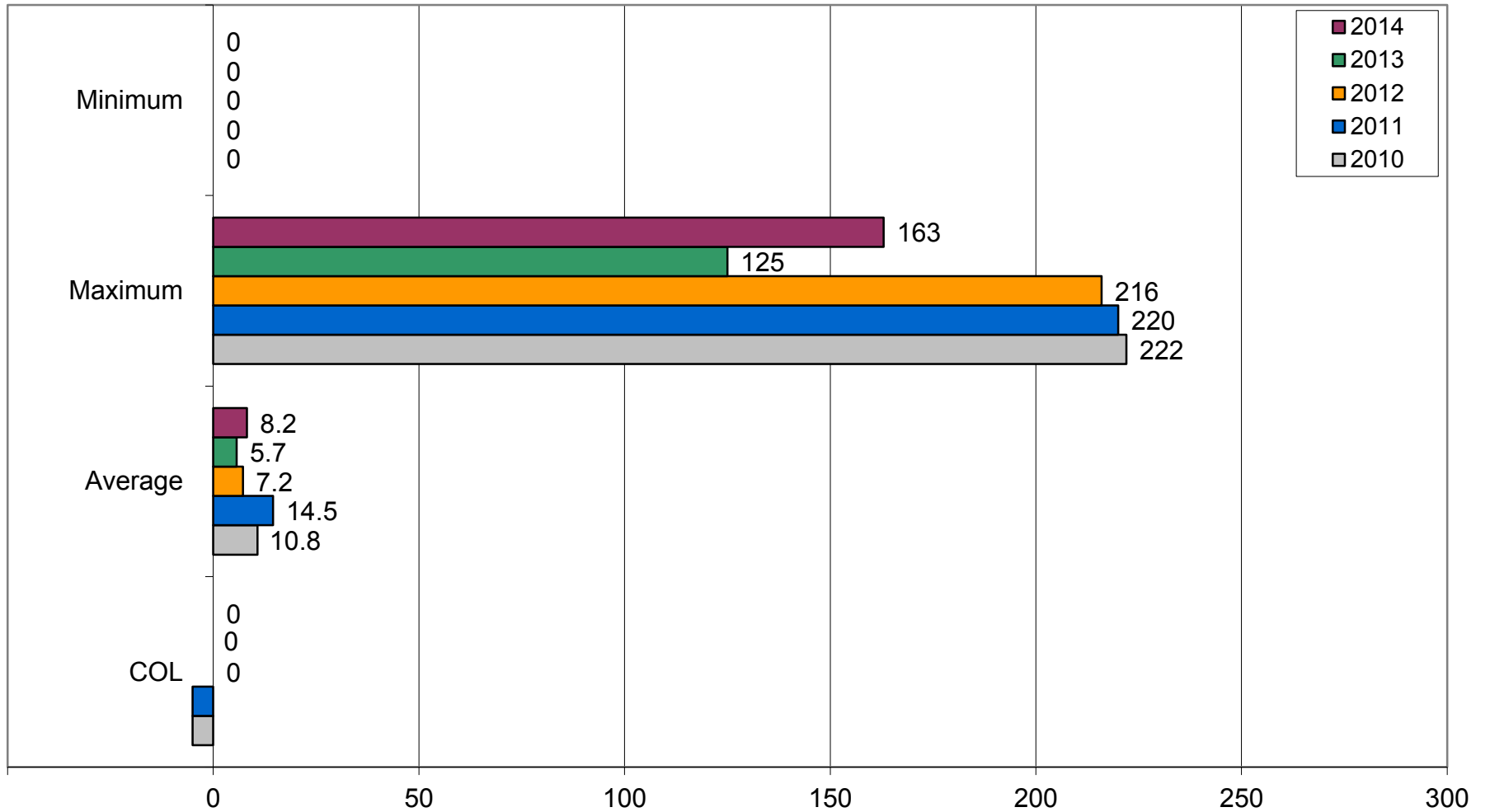
Cost of Purchased Energy / ML Treated
Secondary and BNR WWTPs



Protect the Environment -1

of Regulated Tests Out of Compliance

All WWTPs

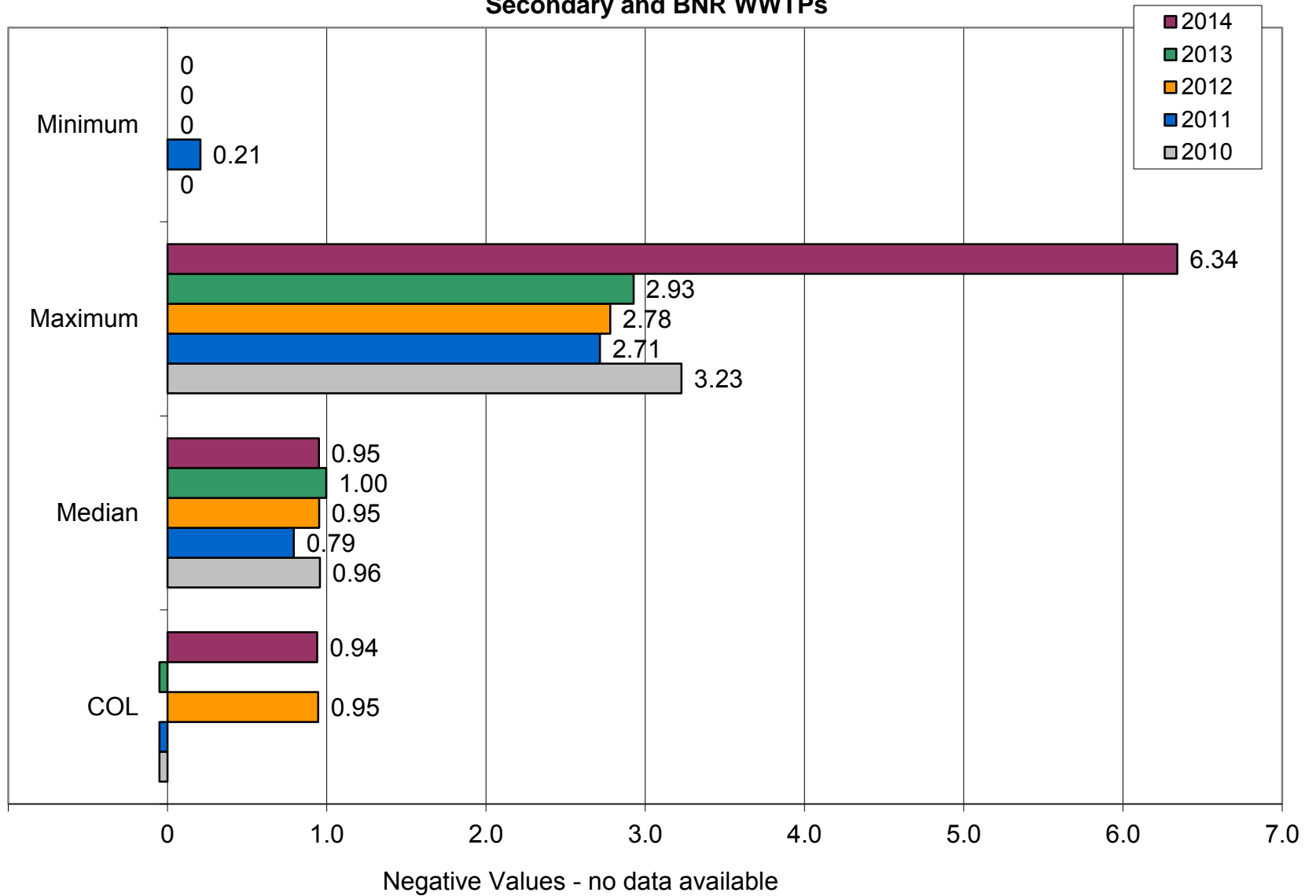


Negative Values - no data available

Protect the Environment - 2

kg of BOD Discharged to the Environment per Capita

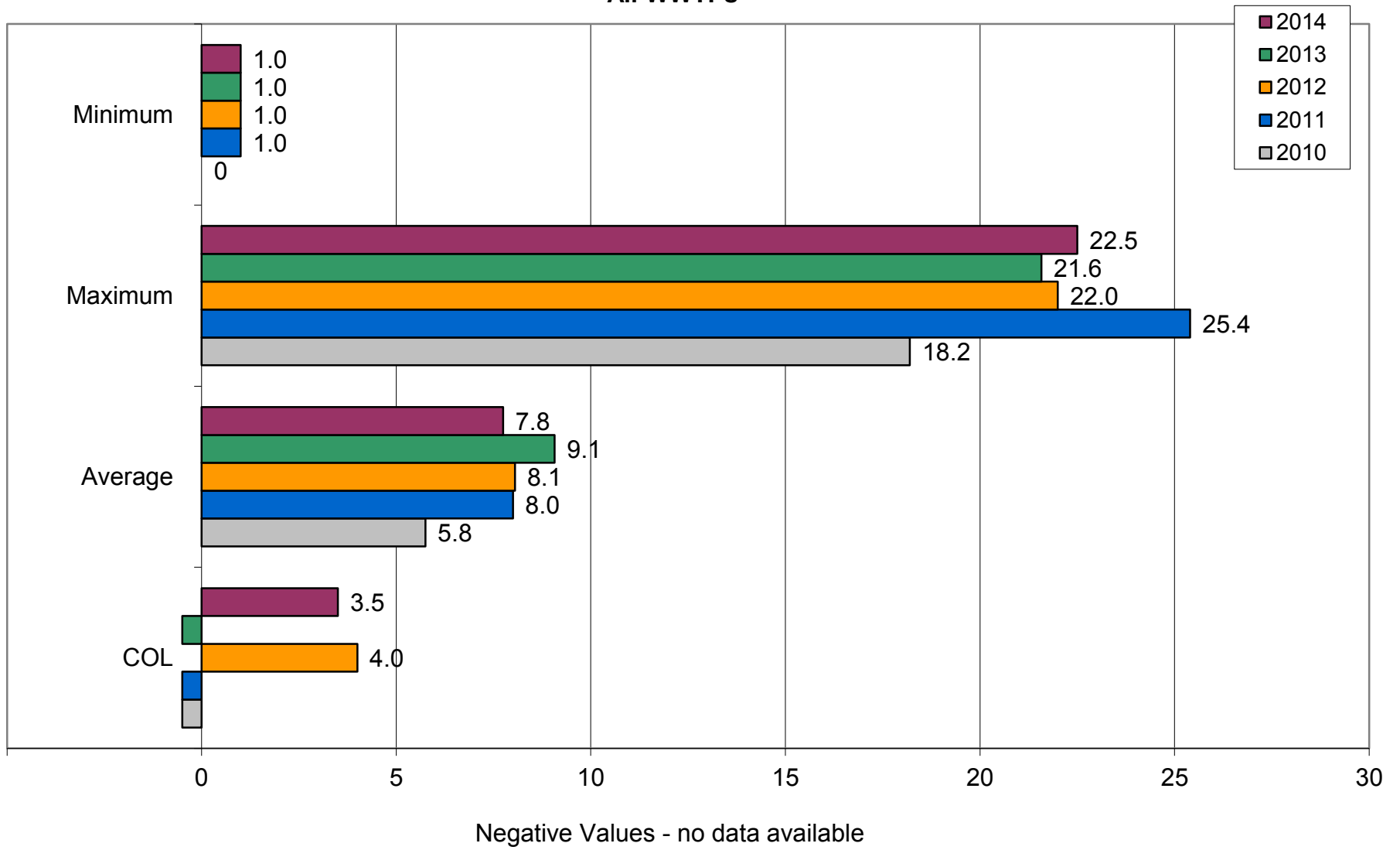
Secondary and BNR WWTPs



Staff Comments: 2013 data not submitted in error.

Sick Days Taken per Field Employee

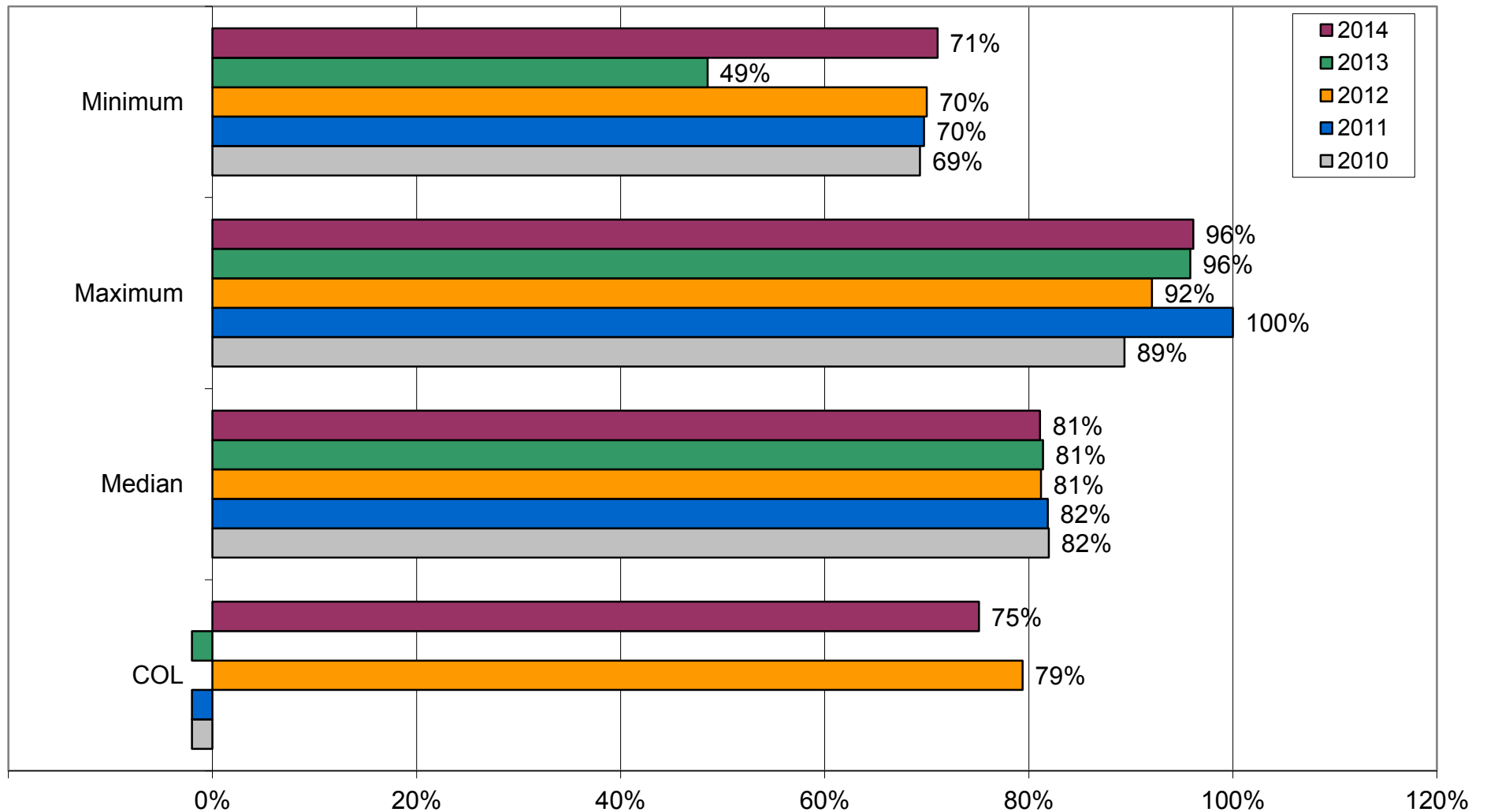
All WWTPs



Provide a Safe and Productive Workplace - 2

Total Available Field Hours / Total Paid Field Hours

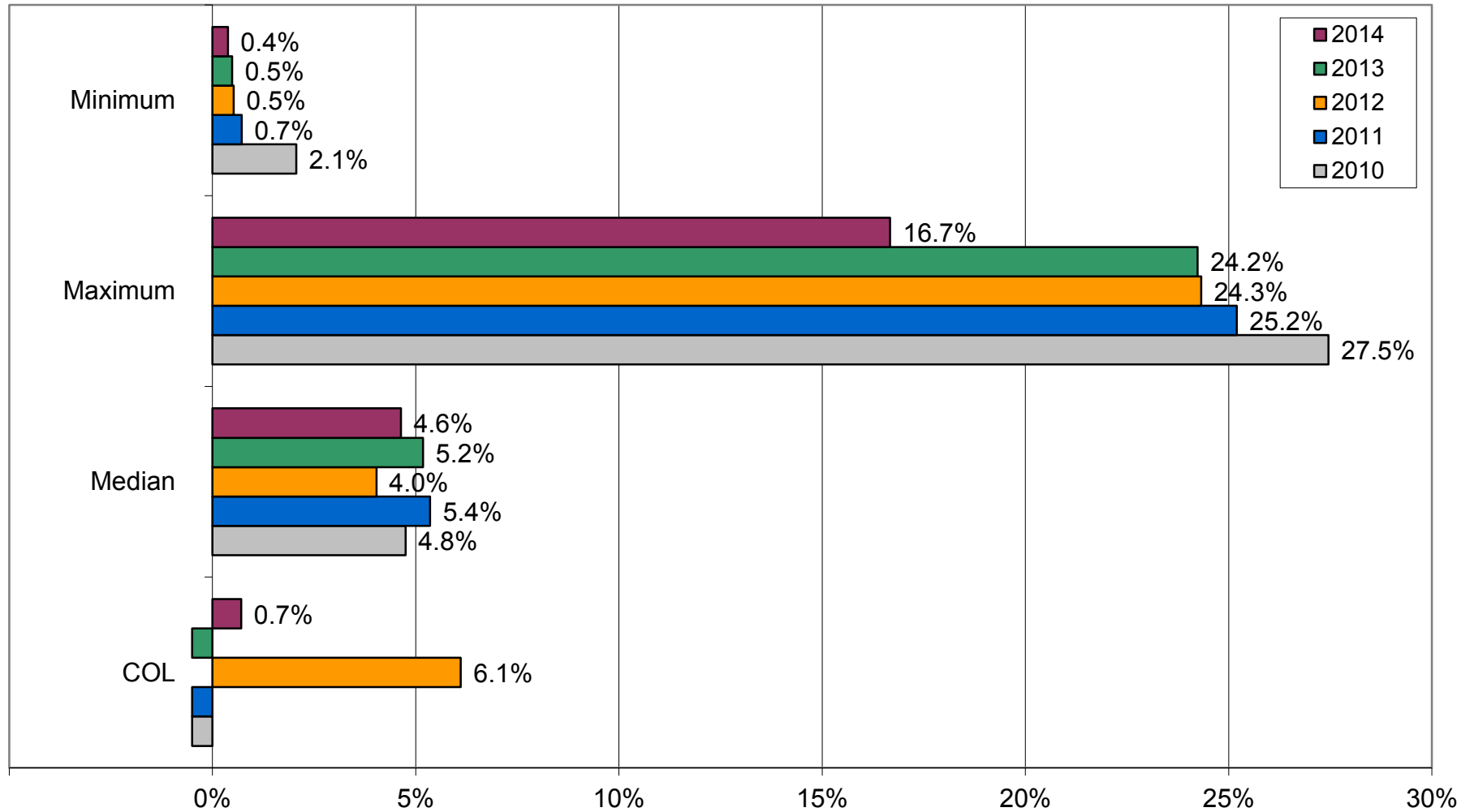
All WWTPs



No values - no data available

Staff Comments: Data was not tracked properly in 2013 and has not been included.

Total Overtime Hours / Total Paid Field Hours
All WWTPs

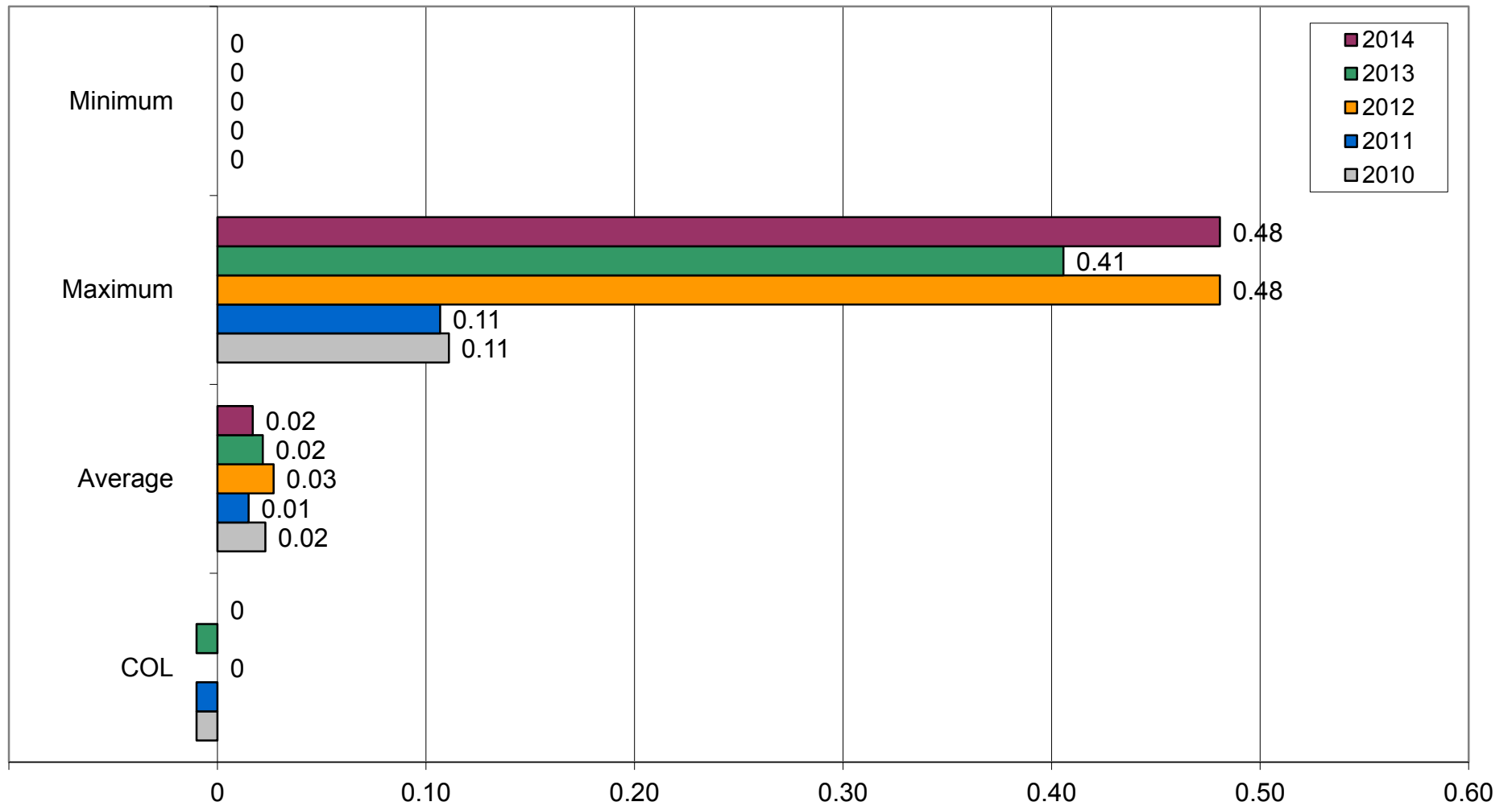


Negative Values - no data available

Staff Comments: Data was not tracked properly in 2013 and has not been included.

of Field Accidents with Lost Time / 1,000 Field Labour Hours

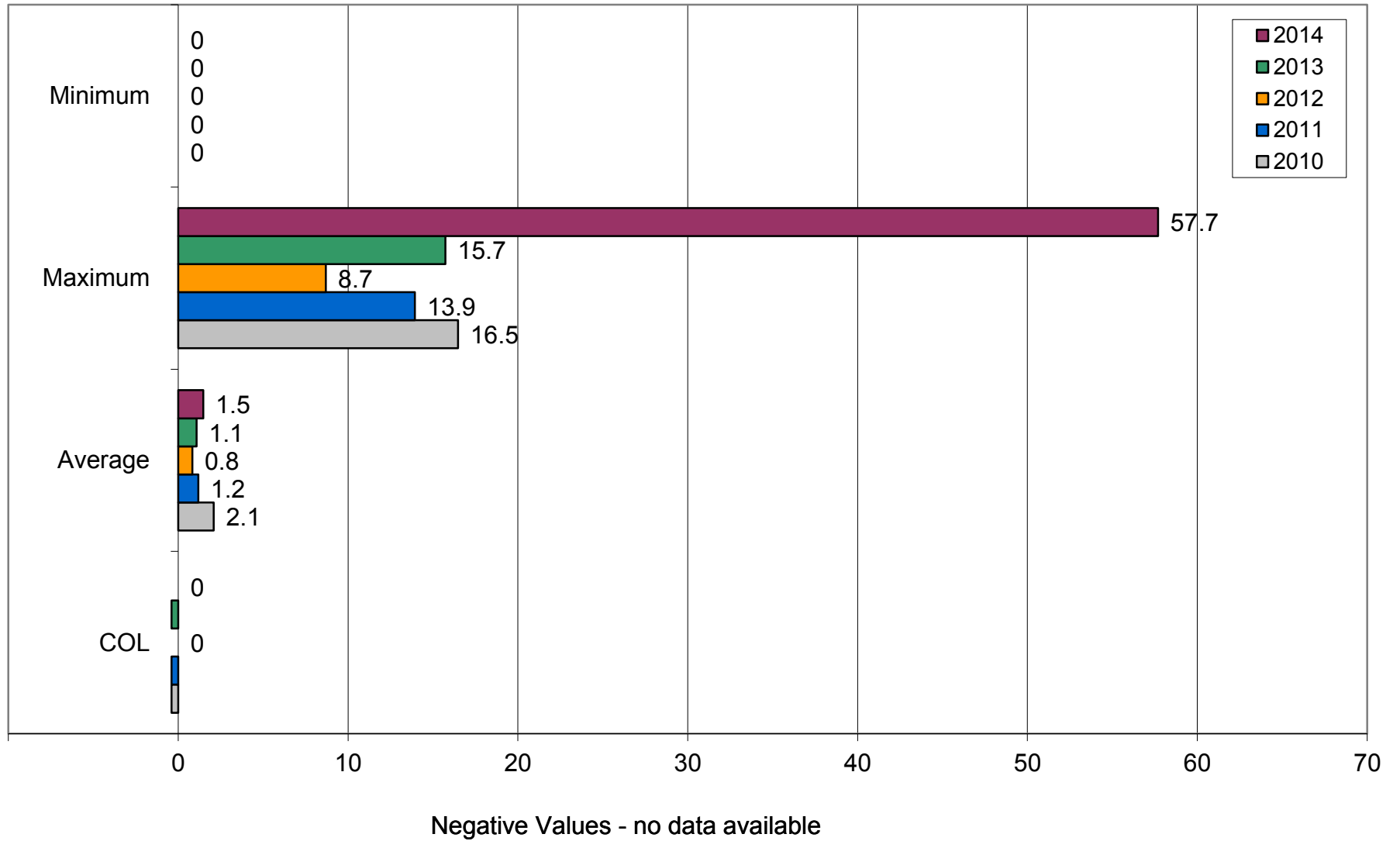
All WWTPs



Negative Values - no data available

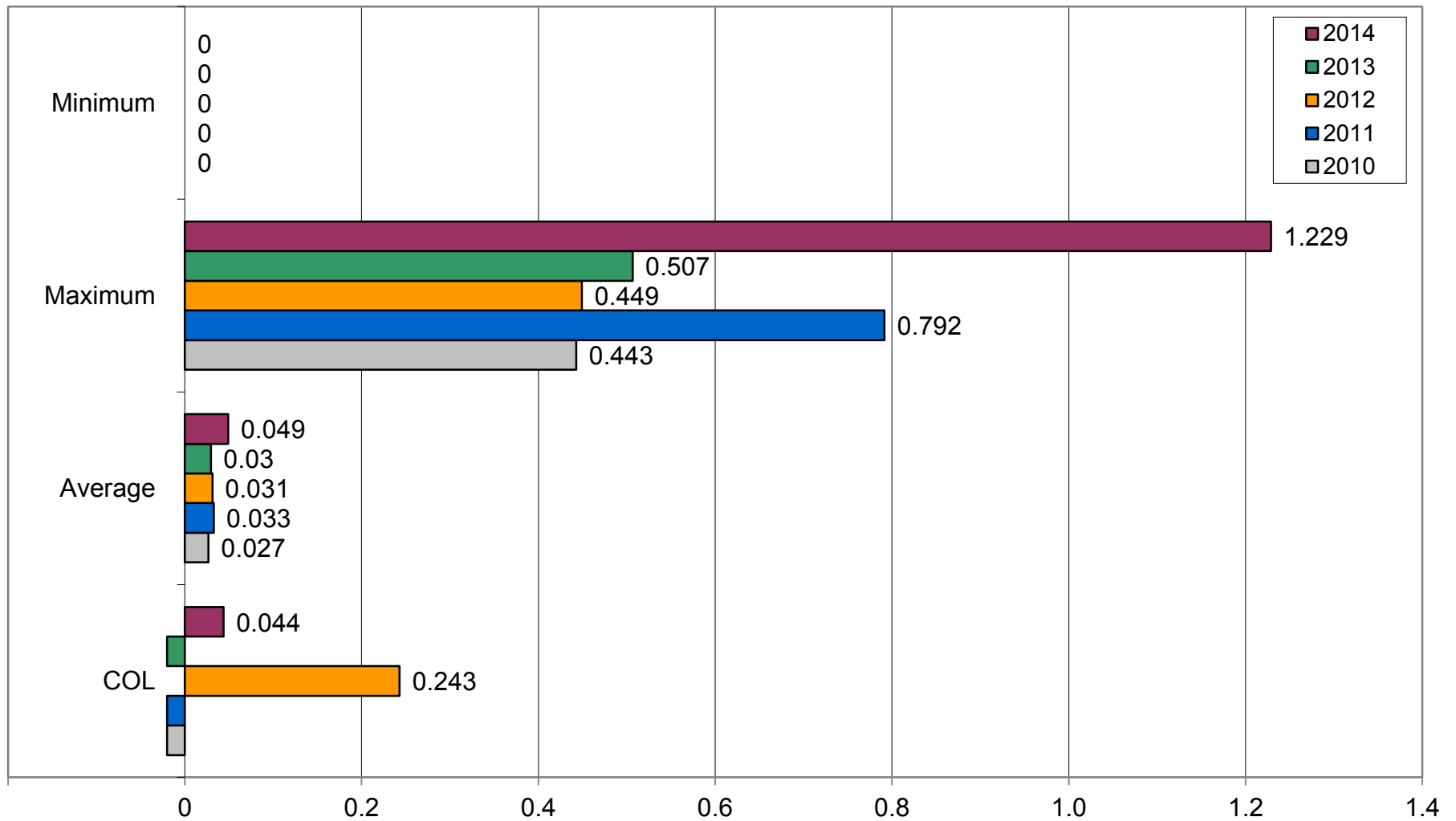
Provide a Safe and Productive Workplace - 5

of Lost Hours Due to Field Accidents / 1,000 Field Labour Hours
All WWTPs



Have Satisfied and Informed Customers - 1

of Odour Complaints / 1,000 People Served
All WWTPs



Negative Values - no data available

Staff Comments: Data was not tracked properly in 2013 and has not been included.