

Safe Drinking Water Information System Federal Version (SDWIS/FED)

(Used for Indicators E7 and E8)

Brief description of the dataset	SDWIS/FED is EPA’s national database that manages and collects public water system information from states, including reports of drinking water standard violations, reporting and monitoring violations, and other basic information, such as water system location, type, and population served. (http://water.epa.gov/scitech/datatit/databases/drink/sdwisfed/basicinformation.cfm)
Who provides the data set?	U.S. Environmental Protection Agency, Office of Ground Water and Drinking Water.
How are the data gathered?	Violation data for all public water systems are provided by states and EPA regions. Public water systems are required to follow treatment and reporting requirements, to measure contaminant levels, and to report violations of standards.
What documentation is available describing data collection procedures?	Information is available at http://water.epa.gov/scitech/datatit/databases/drink/sdwisfed/basicinformation.cfm
What types of data relevant for children’s environmental health indicators are available from this database?	Relevant data include violations of national standards for drinking water—due to contaminant levels exceeding allowable levels, violations of treatment requirements, or violations of monitoring and reporting requirements—and total population served by each public water system.
What is the spatial representation of the database (national or other)?	SDWIS/FED includes data for all public water systems in the United States.
Are raw data (individual measurements or survey responses) available?	Separate reports for each violation of drinking water standards or monitoring and reporting requirements for individual public water systems are available; measured contaminant levels are not available in SDWIS/FED.
How are database files obtained?	SDWIS/FED violation and inventory data were obtained from OGWDW staff who compiled the data into a dataset listing the water system, state, violation type and code, chemical contaminant code, violation dates, and the population served
Are there any known data quality or data analysis concerns?	The estimated number of people served by each public water system is approximate. Estimates are updated when there is a significant change in a water system’s population. Some water systems serve more than one state (the primary state is reported) and water systems often serve more than one county. Many people obtain drinking water from more than one public water system. Although the data are largely accurate, EPA is aware of underreporting of some violation data in SDWIS/FED. Several states have recently found and corrected significant errors in their violation databases.
What documentation is available describing quality assurance procedures?	EPA routinely evaluates drinking water programs by conducting data verification audits, which evaluate state compliance decisions and reporting to SDWIS/FED. Every three years, the agency prepares summary evaluations based on the data verification. These evaluations are available at: http://www.epa.gov/safewater/databases/sdwis/datareliability.html .
For what years are data available?	1976 – present.
What is the frequency of data collection?	Quarterly.

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What is the frequency of data release?	Quarterly.
Are the data comparable across time and space?	Violations across time are often not comparable because of changes in regulations and changes in drinking water standards (maximum contaminant levels), and variability over time in monitoring and reporting violations. Data may not be geographically comparable due to variations in state enforcement and database quality.
Can the data be stratified by race/ethnicity, income, and location (region, state, county or other geographic unit)?	Data can be stratified by state and county, with some uncertainty because boundaries of public water systems do not coincide with state and county boundaries. The state and county reported in SDWIS/FED are the primary state and county served by the water system. Data cannot be stratified by demographic characteristics because SDWIS/FED reports only the total population served by a public water system, without any demographic information.