

Data Trends: A Closer Look
Thursday, 11:00 a.m.-12:00 p.m.
Grand Ballroom

Release and Waste Management Trends of Toxics in and Around Indian Country Using TRI

Steve Witkin, Presenter

In 2014, within 10 miles of Indian Country, over 220 million pounds of toxics chemicals were released into the environment from 1,873 large industrial facilities. Both on-site releases and total waste managed has increased from 10 years ago. The Toxics Release Inventory (TRI) contains 28 years of data on these releases of toxics into the environment from major industrial sources. Since 1991, data on waste management activities have also been included into the database. Attendees of this session will learn what information can be found using the TRI, techniques to easily aggregate the data which in some cases uses fully automated queries, and how to obtain trend reports.

Management of Ozone-Depleting Substances Reported to the TRI

Katherine Sleasman, Presenter

In 1987, the international treaty called The Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol) was established to gradually eliminate the production and consumption of ozone depleting substances (ODS), including chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs), to limit their damage to the earth's ozone layer. Signatory countries, including the United States, agreed to phaseout the production and consumption of ODS. EPA regulations issued under Sections 601-607 of the Clean Air Act phaseout the production and import of ODS, consistent with the schedules developed under the Montreal Protocol. The U.S. phaseout has operated by reducing in stages the amount of ODS that may be legally produced or imported into the U.S. The Parties to the Montreal Protocol have changed the phaseout schedule over time, through adjustments and amendments, and EPA has also accelerated the phaseout under its Clean Air Act authority. ODS are included on the TRI chemical list and, hence, the quantities released to the environment or otherwise managed as waste are reportable to EPA's TRI Program. This presentation will provide an overview of the ongoing management of ODS and demonstrate the decreases in emissions over time using the TRI data.

Is Social Inequality Associated with Worsening Environmental Quality? Evidence from U.S. Metropolitan Areas

Justin Scoggins and Madeline Wander, Presenters

A growing body of research suggests that working toward social equity—particularly reducing racial and other disparities in income—may benefit the economy. An intriguing parallel set of cross-sectional analyses suggests that reducing environmental inequality by race and income can improve environmental quality overall. In this study, we examine the longitudinal relationship between initial levels of social inequality (using a variety of measures) and subsequent changes in environmental quality over time across the largest 150 metropolitan areas in the U.S. To measure environmental quality, we use toxicity-weighted concentrations of industrial emissions from the US EPA's Risk Screening Environmental Indicators (RSEI) model, which is derived from the TRI. While one limitation of the RSEI data is that it only covers emissions from stationary sources, a major advantage is that it is the only dataset with a sophisticated spatial measure of the health risk posed by air pollution that can be constructed to be consistent over time. Our results suggest that higher levels of initial inequality, particularly environmental inequality, are associated with higher subsequent levels of toxic concentrations (or lower environmental quality). We hope our presentation will help create new bridges of understanding between the environmental justice and more traditional environmental advocates and result in a better understanding of the RSEI data and the unique sorts of analyses that can be done with it.