

Division of Solid and Infectious Waste

1990-2000 Summary of Solid Waste Management in Ohio:



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**2000 Summary of Solid Waste Management in Ohio:
Recycling, Reduction, Incineration, & Disposal**

Data for Calendar Years 1990 through 2000

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Introduction

The *Summary of Solid Waste Management in Ohio* provides an overview of state of solid waste management in Ohio in 2000 as well as an account of the trends in solid waste management since Ohio's solid waste management planning program was instituted in 1990. The report provides data on the generation of solid waste by Ohio's residents and businesses as well as the methods used to manage that solid waste. The report also summarizes the reduction and recycling programs Ohio's solid waste management districts have implemented to achieve the goals established in the State Solid Waste Management Plan (State Plan). Selected programs have been highlighted and described in more detail.

In 2000, Ohio was operating under the *1995 State Solid Waste Management Plan (1995 State Plan)* that contained seven goals designed to reduce Ohio's reliance on landfills for the management of solid waste. Each of these seven goals is considered essential to the State Plan, however, Ohio EPA considers Goals #1 and #2 to be the primary goals. Goal #1 of the 1995 State Plan requires that solid waste management districts provide access to alternative waste management opportunities to residential and commercial waste generators. Goal #2 requires solid waste management districts to reduce and/or recycle mandated percentages of their residential/commercial and industrial waste streams. The residential/commercial sector must reduce and/or recycle at least 25 percent of the waste generated by that sector. The industrial sector must reduce and/or recycle at least 50 percent of the waste generated.

Individual solid waste management districts have the choice of complying with either Goal 1 or 2. This report focuses on the progress that has been made, both by the state as a whole as well as by the individual SWMDs towards achieving these goals. *Since there is no statewide goal for access, it is important to note that it is difficult to provide an accurate analysis of the progress that has been made towards achieving Goal 1.* The Ohio Department of Natural Resources is in the process of developing a GIS mapping system, however, that will be available online in the future. One of the intended uses of the GIS system is to analyze the extent to which citizens in Ohio have access to recycling opportunities.

The *Summary of Solid Waste Management in Ohio* identifies disposal, waste reduction, and recycling trends reported by Solid Waste Management Districts (SWMDs) for the years 1990 through 2000. The data in this report include only waste which has been generated in Ohio; it does **not** include waste imported into Ohio from other states or Canada. A summary of the findings in this report includes:

SWMD Programs

- At least twenty-five districts provided some form of direct, on-site assistance to business and/or industry during 2000 for purposes of waste stream assessment, waste reduction, recycling, pollution prevention, or recycling market development. This figure is up from eighteen in 1996
- All 52 SWMDs, reported conducting some type of household hazardous waste management program in 2000, this figure was up from 47 in 1996
- During 2000, 47 out of 52 SWMDs had residential curbside recycling programs. Of these 47, at least 45 SWMDs reported that they owned, operated or funded their curbside or drop-off recycling services. This figure is up from only 23 districts in 1996.

Disposal

- Landfill disposal continues to be the predominant form of solid waste management.
- 61 percent of Ohio-generated waste is disposed in the SWMD where it is generated.
- The total amount of Ohio-generated solid waste disposed has increased from 12.9 million tons in 1990 to 20.5 million tons in 2000.
- Between 1990 and 2000, the amount of waste disposed from the residential-commercial sector increased by 0.56 pounds per person per day (pppd) while industrial disposal increased by 2.89 pppd during the same time period.

Waste Reduction and Recycling

- Total waste reduction and recycling increased from 26 percent in 1990 to 32 percent in 1995, and again to 43 percent in 2000.
- 15 SWMDs reported residential-commercial reduction/recycling rates greater than or equal to 25 percent for 2000¹.
- Total reduction and recycling rates for SWMDs varied from 2.4 percent to 41 percent in 2000.

Waste Generation

- Between 1990 and 2000, statewide solid waste generation increased approximately 105 percent from 17.4 million tons to 35.8 million tons. On a per capita basis, total waste generation has increased from 8.8 pppd to 17.4 pppd.
- Ohio's residential-commercial generation rate of 6.82 pppd remains substantially higher than the 4.5 pounds per person per day that represents the national average for 2000.

The majority of the information in the Planning Summary Report is based on SWMD Annual District Reports (ADRs) for calendar years 1992 through 2000 with emphasis on 2000 data. The waste reduction and recycling data is compiled by SWMDs through local surveys. Disposal data is obtained directly from solid waste facilities. 1990 information comes from solid waste management plans submitted by SWMDs. Other sources of information used in compiling this report include *Ohio Solid Waste Facility Data Reports* for calendar years 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, and 2000 and *Municipal Solid Waste in the United States: 2000 Facts and Figures*, published by the U.S. Environmental Protection Agency.

For purposes of this report, Ohio EPA has adjusted some of the disposal estimates provided by solid waste landfills in instances where other sources of information appear to be more accurate or complete than the data reported by the landfill. For example, if a SWMD's disposal as reported by a given landfill excludes waste that was generated within that district but went through an out-of-district transfer station, the tons accepted by the transfer station have been added to the disposal total. Ohio EPA also prepared estimates for the amount of Ohio-generated waste disposed outside of Ohio for those SWMDs exporting waste from Ohio, that were unable to get reports from out-of-state facilities.

The ability of SWMDs to collect information from recyclers and processors has improved greatly since 1990; a task that has made more difficult because these entities are not mandated by state law to report this information. Many SWMDs received much higher survey response rates from industries, recyclers, or haulers in 2000 when compared with 1992. This suggests that the more recent data may be more accurate. Nevertheless, any conclusions regarding solid waste management trends drawn from the data presented in the remainder of this report need to be considered in the context of continuing data collection problems.

¹This statement is based on recycling and waste reduction data that is reported to Ohio EPA by solid waste management districts. This data is then compared to data that is collected by entities that collect and process recyclable materials. Ohio EPA strongly suspects that some of this data may be erroneous and has resulted in the recycling/reduction rates for several solid waste management districts being overstated.

District Programs and Strategies for Better Solid Waste Management

Since the first solid waste management plan was approved by Ohio EPA in 1991, districts have implemented a great variety of programs and strategies to increase waste reduction and recycling, and improve solid waste management in general. Some of these programs and strategies include the following:

- education and awareness
- subsidizing recycling and waste reduction activities
- implementing new recycling opportunities (both curbside and drop-off collection)
- technical assistance for a wide array of services, including waste stream assessments to business and industry, implementing residential recycling programs, establishing office paper recycling programs, and contract services for waste and recyclables collection
- seminars and workshops for business and industry to promote waste reduction, pollution prevention, and using recycled-content products
- sponsoring market development projects which demonstrate the use of recycled-content products
- opportunities for recycling specific "hard-to-manage" materials such as white goods (e.g. refrigerators, washing machines), Christmas trees, used oil, batteries, phone books, HHW, and scrap tires
- cleaning up open dump sites
- taking enforcement actions against illegal dumping and littering
- encouraging alternatives to landfill disposal for yard waste management, including composting
- implementing material exchange opportunities for business and industry

Education and Awareness Programs - General

The Coshocton-Fairfield-Licking-Perry Joint SWMD has a broad education program that reached 14,426 residents in 2000. Their program consists of youth and adult presentations teacher workshops, events, contests, paid advertisements (50 run in 2000), public service announcements (31 run in 2000), news articles (33 published in 2000), brochures (42,616 distributed in 2000), newsletters, and posters.

The Delaware-Knox-Marion-Morrow Joint SWMD's residential sector education and awareness program consists of teacher mini-grants, brochures, a district newsletter, community presentations and a recycling advertising campaign. A large portion of the work is carried out through partnership with the four county Recycling and Litter Prevention offices. In 2000, \$6,086 was awarded in teacher mini-grants and 37,000 brochures and newsletters were distributed.

The Mahoning County SWMD provides a well-rounded assortment of residential and commercial education programs aimed at providing citizens with information on yard waste, proper disposal of tires, batteries, paint, recycling, and used oil recovery. The District also helps educate the public and provide solutions in these important areas through environmental workshops, public displays and presentations, and the distribution of brochures. The District provides a constant flow of information that is directed to the public to make them aware of the value of waste reduction, waste exchange, household hazardous waste alternatives, reuse and recycling as positive alternatives to disposing of waste in our landfills.

This list demonstrates a range of district programs, but it is certainly not a comprehensive listing of all programs and strategies. Many SWMDs have been operating long enough that their programs change only slightly from year to year.

Education & Awareness - General

All districts have at least one general education and awareness program that encourages waste reduction/recycling. These programs provide information regarding preparation of materials for recycling, and/or provide up-to-date lists of recycling opportunities within the SWMD. General education programs normally focus on the residential sector. Most districts prepare printed material for district residents as part of their educational effort. Some districts also provide workshops and environmental trade shows, and participate in county fairs and other community events. Some districts have established telephone "hotlines" for answering questions and providing information, and/or made presentations to various local organizations.

Most SWMDs publish a newsletter which is sent to local government officials, media outlets, schools, waste haulers, solid waste facilities, and/or interested residents and businesses. These newsletters generally contain up-to-date information concerning events within the district such as household hazardous waste and scrap tire collections, schedules for curbside recycling collection, materials which can be accepted by recycling programs, and other information concerning solid waste management within the district. See the sidebar on the preceding page for examples of on-going education programs for three SWMDs.

Education & Awareness - Schools

In 2000, at least eighteen districts conducted workshops for school teachers, showing how solid waste management can be incorporated into school curricula, or helped develop school curricula focusing on solid waste management. The number of school workshops was down from twenty-five in 1996. Many of these same districts also gave classroom presentations to students and/or conducted tours for students at solid waste facilities. Several districts have also helped set up recycling programs in schools through

Education and Awareness Programs - Schools

The Montgomery Solid Waste Management District offers a wide range of innovative *school programs* free of charge that reach more than 15,000 students and community members in 2000. Speakers are available for in-class *presentations* on recycling, litter, composting, waste reduction and other solid waste issues. In 2000, the District conducted 50 school presentations to 1,577 students and 281 adults. A variety of *contests* allow students of all ages to gain an increased awareness and appreciation of solid waste issues in a fun and creative way. Free services and materials are also available. *Teacher workshops* are scheduled at the Recycling Resource Center at various times throughout the school year. All workshops are free of charge, while some workshops offer stipends and CEU/PDU credits. In 2000, the District held 34 workshops for 335 teachers.

The Hamilton County SWMD publishes *A Teachers Guide to Local Environmental Education Resources*. They also provide a travel voucher program which offers free transportation to classrooms wishing to visit selected programs and tours related to recycling, composting, landfills, and other solid waste issues. The District makes available environmental education grants and has a wide selection of continually evolving classroom presentation and programs that are available throughout the year to help students learn about the 3R's, litter prevention, landfills, and much more. Most programs involve hands-on activities for the students. The District maintains a library of free-loan environmental videos for educators and publishes an online educator's newsletter, *Spencer News*, a wealth of resources for teachers. For more information or to request a presentation at your school, please contact Errin Howard at (614)946-7737.

In 2000 the Solid Waste Authority of Central Ohio (SWACO) conducted educational programs, landfill tours and teacher workshops that reached more than 36,000 students and community members. They also published a 37 page directory of the print materials found in their resource center that are available to educators throughout Franklin County to assist in the development of curricular units or other learning experiences related to issues of solid waste management, such as recycling, composting, litter, energy, natural resources, & refuse handling. Many of these resources include directions for experiments, field observations or other activities. They have been designed for, or may be adapted for, use with various grade or age levels. For more information visit SWACO's website at <http://www.swaco.org> or you may contact SWACO's Planning and Program Development Office, (614)871-8105.

education efforts, technical assistance, or actual collection of recyclables. Examples of school-based programs are described in the sidebar on page 4.

Business & Industry Waste Assessments/ Materials Exchange

Many districts provide some type of assistance to business and/or industry for the purposes of waste reduction, recycling, pollution prevention, or recycling market development. During 2000, at least fifteen districts offered direct technical assistance to business and industry that included waste stream assessments. These programs are designed to accurately identify the types of materials in the waste stream, find ways of reducing the amount of waste produced, and/or finding recycling markets for other materials.

One of the most visible benefits of waste assessment programs is that they connect producers of a "waste" with manufacturers who need that same material for their production process. Several districts have initiated such "waste" or material exchanges, resulting in cost savings to both the generator of the material and the company who uses it. The assistance of these districts was instrumental in establishing a statewide materials exchange in Ohio (OMEx), which began operation in early 1998. Examples of waste assessment programs are described in the sidebar on this page. More information on OMEx can be found at:
www.epa.state.oh.us/opp/omex/omex.html.

Other Business & Industry Assistance

Many districts provide more

Business and Industry Waste Assessment Programs

In 1996 the Lucas County SWMD initiated the Business Waste Reduction Assistance Program, a cooperative venture between the Lucas County Solid Waste Management District and the University of Toledo College of Engineering. The program provides free assessments to Lucas County business and industry to help them cut costs and reduce the amount of waste heading to landfills. To date, the program has identified more than six million pounds of solid waste for potential reuse, reduction, or recycling. The purpose of the Project is to identify and increase waste reduction and recycling in the commercial and industrial sectors. This is accomplished by providing waste minimization assessments, free of charge to Lucas County businesses and manufacturers. Teams of graduate and undergraduate engineering interns conduct the assessments and prepare the final report that includes the following information and analysis: Process Description, Materials Flow Diagram, Source Reduction and Recycling Opportunities, Process Improvement Opportunities, and Complete Solid Waste Characterization. The Lab offers additional services for companies, which include; Implementation Assistance, Special Engineering Projects, and On-site Internships.

The Hamilton County Solid Waste Management District (District) provides free waste assessments for County Industries. This confidential service assists businesses or organizations in assessing and reducing their waste streams. The District reviews the company's waste disposal processes and offers suggestions to reduce, reuse and recycle their waste. The District may also provide detailed options about the disposal of chemical and hazardous wastes. Participating businesses not only reduce their waste but also reduce their disposal costs. The District also publishes a free materials exchange newsletter for businesses. *The Interchange* assists businesses in exchanging materials they no longer want and finds materials businesses need. This publication is published quarterly or you can click on the above logo to go straight to *The Interchange* home page.

The Waste Reduction Assistance Program (WRAP) is a free service of the Ottawa-Sandusky-Seneca SWMD that is designed to assist business, industrial, non-profit, and commercial operations in evaluating and reducing solid waste. A representative of the District visits facilities and conducts waste assessments to evaluate how their waste is presently being managed and make recommendations for improvement. These changes can result in a cost savings for businesses. The services provide businesses help with: 1) making more informed, effective decisions on managing waste, 2) identifying markets for hard to recycle materials, and 3) modifying production techniques to reduce waste.

general assistance for business and industry, including conducting seminars and workshops, helping to locate markets for recyclable materials, and organizing meetings where companies with similar problems can share ideas. District seminars and workshops are typically designed to present information and answer questions regarding waste reduction, recycling, market development, and pollution prevention. Some SWMDs provide the actual recycling services. The sidebar to the right describes district seminars and workshops, and other assistance programs designed for business and industry.

Grant & Subsidy Programs

In 2000, thirty SWMDs gave grants or subsidies directly to local governments, businesses, and non-profit organizations for such programs as curbside recycling, drop-off recycling, purchasing recycled-content products, and research leading to waste reduction. Other grants were awarded to assist drop-off recycling programs and recycling collection drives, for equipment purchase for recycling processing, or for purchase of products made from recycled materials.

Instead of offering grant funding directly, a small subset of these districts provided resources or assistance to help municipalities and/or businesses secure grant funding, for example the Preble County SWMD develops a list of grants and low-interest loans, and the Auglaize County SWMD assists industries in getting grant funding for recycling technologies. The Ashtabula County SWMD identifies opportunities for business grants and loans. The sidebar to the right provides additional examples of grant and subsidy programs operating in Ohio.

Comprehensive Residential Recycling Services.

The *1995 State Solid Waste Management Plan* directs every solid waste management district to ensure that recycling opportunities are available to its residents. Districts achieve this by offering residential recycling services directly, either through contract with a private sector entity, or through a combination of funding and

Other Business and Industry Technical Assistance

Lake County SWMD

The Business Waste Reduction Committee (BWRC) is a subcommittee of the Solid Waste District Policy Committee. It's stated purpose is to serve businesses and citizens of Lake County by facilitating waste reduction, reuse and recycling in the private sector, with the goals of profit improvement, the efficient use of resources, and ultimately a cleaner environment. The district also publishes the "Lake County Business Recycling Review," a newsletter covering topics and resources related to business recycling.

In cooperation with the Labor Management Center located in Toledo, the Lucas County SWMD hosts an on-line industrial sector waste exchange at <http://recycle.utoledo.edu/exchange/>. The District also offers waste exchange on a case-by-case basis, through phone contact and participation in a local committee of recycling professionals representing manufacturers throughout the region.

The Solid Waste Authority of Central Ohio (SWACO) offers several innovative programs created to help small to medium-sized businesses recycle their waste. These programs include Just-In-Time Recycling, Dual Collection, and an online service called Virtual Landfill (see sidebar for Innovative Programs on page 16). 'Just-In-Time' provides desk-sized recycling containers to small and medium business and generated 178 tons of paper in 2000. 'Dual Collection' is a pilot project testing the feasibility of split trash containers at office and multifamily complexes, schools and businesses.

Grant and Subsidy Programs

Portage County SWMD offers a Recycling Coordinator's Reimbursement Grant to qualified recycling collection programs as well as to all existing curbside collection program sponsor communities that employ a full or part time local program coordinator. The district reimburses the sponsor community up to a maximum of \$12,500 per year for the direct salary and benefit costs of managing, maintaining, promoting, evaluating, and expanding the curbside collection program. Portage County SWMD also offers one free year of collection service to all new curbside collection programs. They provide additional program start-up costs, including, promotion, collection bins, program design, implementation, evaluation and management.

direct service. In 2000, SWMDs in Ohio offered residents an average of more than 27 recycling opportunities that were comprised of either curbside (subscription or non-subscription) or drop-off recycling, or some combination of the two. This equates to an average of 16 programs per county. Five SWMDs offered more than 70 opportunities to residents; Cuyahoga County, Stark-Tuscarawas-Wayne Joint, Hamilton County, Coshocton-Fairfield-Licking-Perry Joint SWMD, and the Solid Waste Authority of Central Ohio (SWACO). Another thirteen districts offered more than 30 recycling programs.

Several districts stand out for the high number of curbside programs they provide: Lorain County, Montgomery County, and Lake County. Other noteworthy districts that provide thorough coverage with drop-off opportunities are: Delaware-Knox-Marion-Morrow Joint SWMD, Lucas County, Geauga-Trumbull Joint SWMD, Defiance-Fulton-Paulding-Williams Joint SWMD, and Ottawa-Sandusky-Seneca Joint SWMD.

Some districts also sponsor periodic collection drives for recyclables, or provided the necessary recycling trailers to enable non-profit organizations to collect recyclables. The sidebar to the right provides additional examples of comprehensive district recycling programs.

Processing Recyclables - Materials Recovery Facilities (MRFs)

A number of SWMDs also operate facilities which process recyclables recovered from residential, commercial, and industrial waste. Some of these materials recovery facilities or MRFs, provide recyclables processing and marketing in areas where these type of services are not readily available from other sources. Certain districts also subsidize the operation of the MRF, allowing haulers to deposit recyclables at no charge, thus allowing small haulers to compete more easily for collection contracts or accounts. The sidebar on page 8 provides specific examples of MRFs.

Grants and Subsidy Programs - (continued)

Montgomery County SWMD- offers grants for yard waste and curbside recycling. In 2000, the District provided \$45,800 for yard waste programs, and \$99,820 to assist communities with curbside recycling programs. The District also provided \$140,895 in funding for health departments in 2000.

Comprehensive Residential Recycling Services

Lake County Solid Waste Management District - offers a district-sponsored subsidy of curbside recycling free of charge to residents in 23 of the 23 communities located in the district (population 227,511). Lake County is a leader, offering one of the most comprehensive residential recycling programs in the state of Ohio. In 2000, the District recycled 8,259 tons of glass, plastic, and non-ferrous metals. The District also provides grants to communities to help offset costs incurred with handling yard waste. This successful program resulted in the recycling of 41,294 tons of yard waste in 2000. These combined efforts helped the District achieve a nearly 30 percent residential-commercial recycling rate in 2000.

Lucas County SWMD— offers recycling opportunities in all communities in the County participate in recycling, either through curbside programs, or at 22 recycling drop-off locations. Lucas County also offers yard waste and household hazardous waste drop-off programs. In 2000, Lucas County (population 455,054) collected: nearly 30,000 tons of yard waste, just under 30,000 tires, and nearly 10 million pounds (4,842 tons) of glass, plastic, non-ferrous metal, and commingled recyclables. More than 1,000 households, on average, participate in the household hazardous waste drop-off program, 70 percent from Toledo and 30 percent from the townships and suburbs.

Van Wert County SWMD a small rural district of only 26,882 residents, still manages to offer very thorough access to recycling through a combination of well-established recycling programs. 8 non-subscription curbside programs have been in operation since 1992 and 10 drop-offs have been operating since 1994. All recycling opportunities are operated and funded by the District. The proven success of these programs has resulted in the District achieving a greater than 25 percent residential-commercial recycling rate for every year since 1995. Their rate reached 37.92 percent in 2000.

Handling Special Wastes

In 2000, all districts provided some assistance in managing materials in the solid waste stream that are not generally handled by any other entity, or are expensive to manage. Every one of the 52 solid waste management districts sponsored, funded or facilitated at least one collection for phone books, scrap tires, magazines, appliances and/or household hazardous wastes. As a direct result of these programs, Ohio citizens recycled 73,628 tons of appliances, 23,612 tons of lead-acid batteries, 3,181 tons of household hazardous waste, and 55,053 tons of scrap tires in 2000 (See pages 11-13 for a description of household hazardous waste programs.)

In 2000 the Delaware-Knox-Marion-Morrow Joint SWMD hosted an appliance round-up in each county and collected 1,287 appliances. They also recycled 17,611 tires, and 8 tons of lead-acid batteries! The Portage County SWMD accepts white goods at special events such as Earth Day and Neighborhood Cleanup Day with no charge for Freon recovery. In 2000, the District held 18 events which collected 262,760 lbs of scrap metal.

Several districts have also facilitated pesticide container recycling programs for area farmers, including: Henry County SWMD, Van Wert County SWMD, Warren County SWMD, and Defiance-Fulton-Paulding-Williams Joint SWMD. Districts have implemented such programs because these materials have limited recycling markets, and can be difficult to handle.

Enforcement Programs for Open Dumping and Littering - Cleanup

Most SWMDs experience problems with open dumping and littering. Certain districts have greater problems because of low population density and the cover provided by forested areas. Open dumps and litter cause water pollution, air pollution (when open dumps are set on fire), present a hazard to children, and pose serious health risks due to mosquitoes, rats and other disease-carrying vectors.

Several SWMDs have implemented aggressive programs to prevent open dumping and littering, clean affected stretches of roadways, and enforce the open dumping and littering laws against those who violate them. Many districts sponsor litter

MRFs

Medina County SWMD

Medina's central processing facility (CPF) is a mixed waste material recovery facility. The CPF is owned by the District and operation of the facility is contracted out to Norton Environmental, Inc. All municipal solid waste is flow controlled to the CPF. Mixed waste enters the CPF and is processed through a trommel to open bags and separate large and small items. Large recyclable items are separated via sorting stations and recycling equipment. Corrugated cardboard, newspaper, mixed paper, plastic, aluminum and steel cans are pulled out through the sorting stations. The CPF also serves as a solid waste education center. The CPF site also contains a class IV compost facility as well as Ohio's only class I compost facility.

Portage County SWMD

The District's recycling facility is used primarily for processing recyclable materials including commingled containers (glass jars, bimetal/ aluminum cans, steel cans, plastic bottles) and commingled paper totaling an estimated 70 tons per shift. In 1998, the district expanded acceptable materials to include: appliances and white goods, electronic goods, durable goods, scrap metal and mixed plastics.

Gallia-Jackson-Meigs-Vinton SWMD

In 1999, the District opened a Recycling Center. The development of the facility was funded, in part, by an ODNR Recycle Ohio grant. The center accepts: newspaper; magazines; catalogs; phone books; cardboard; office paper; PET and HDP plastic bottles; clear, brown and green glass bottles and jars; aluminum and steel cans; appliances; and lead-acid and rechargeable batteries. The center also serves as an educational opportunity for the general public.

2000 Recycle Ohio Grant Recipients- MRF statistics

Grantee	Tons recycled
Ashland	2,320
Athens-Hocking	4,227
Auglaize	2,581
Brown	2,091
Fulton	1,488
GJMV SWD ¹	987
Medina	*22,326
Mercer	1,091
Muskingum	1706
Portage	11,570
Shelby	1,663
Van Wert	1,522
Wood	4,243
TOTALS	57,815

Source: Ohio Department of Natural Resources

collection and open dump cleanup events, several have established a hotline for callers offering information about illegal open dumping activity, and some have hired (or provided funding for) a full-time enforcement officer for open dumping and littering.

The Coshocton-Fairfield-Licking-Perry Joint SWMD is one such district that offers a grant to each county within its jurisdiction to hire full time litter collection crews as well as a grant to health departments to respond to open dump complaints and to clean up private property when necessary. The District also provides grants to four sheriff offices to enforce litter laws, and to six health departments to enforce Chapter 3734. In 2000, this funding resulted in the cleanup of 7,658 miles of roadway, 151 tons of litter, and 4,370 tires.

At least fifteen SWMDs have initiated, sponsored and/or funded major cleanups of open dumps, or illegal scrap tire dumps during 2000. That figure is up from only six in 1996. The Geauga-Trumbull Joint SWMD has established an annual scrap tire grant program to assist all 56 of its' political subdivisions with scrap-tire clean-ups. In 2000, 33 communities were awarded scrap tire grants, resulting in the proper disposal or recycling of 23,748 scrap tires.

Pay-As-You-Throw Programs

Pay-As-You-Throw (PAYT) programs (also known as unit-based pricing, variable-rate pricing, or pay per bag) are programs that allow residents to pay for municipal solid waste services on a per-unit basis. PAYT programs, when complimented with strong diversion programs such as recycling and composting, are typically very successful in decreasing waste disposal on the average of 25 to 35 percent. Each PAYT program is unique and designed to fit local needs but the ultimate outcome is that the residents pay according to how much they throw away. The trash set out is measured at the curb by weight or volume when collected by the hauler.

Volume-based programs can vary using bags, tags, stickers, punch cards, or cans. One type of program, bags, requires customers to purchase and use bags with a special logo, color and/or size for all of their trash. The cost of the special bags includes the costs for collection and disposal of the trash.

Re-Use

Montgomery County SWMD

The Montgomery County Material Reuse Facility, better known as "McMRF", is a unique award-winning operation that promotes the reuse, rather than disposal, of usable building materials, art supplies, and office furniture/supplies. Items are collected and redirected to non-profit organizations such as low income housing agencies, school art programs, performing and visual art organizations and individual artists involved in public projects and local government agencies. There is no cost associated with donating or receiving items, so everyone participating in the program benefits. In 2000 alone, over 620,000 pounds of materials were donated to the McMRF.

The Solid Waste Authority of Central Ohio SWMD

(Franklin County) initiated Re:ART & More in 1993. The program accepts unwanted materials destined for the landfill from businesses and makes those materials available to professional artists and students. The quantity of materials donated by businesses and reused has increased with each year of operation. In 2000, the District hosted a gallery showing each month exhibiting works of art created by members using re:ART materials. Columbia Gas hosted an additional exhibit of Re:ART works.

Portage County SWMD partially funds a center established in partnership with Catholic Charities, where residents can drop-off clothing and small durable goods for re-use. In 2000, the center processed approximately 175 tons of clothing and durable goods. The district hopes to expand this program with an overall goal of eventually diverting up to 15 percent of the waste stream.

Since 1997, the Cuyahoga SWMD has published *Pass It On: A Resource-Full Guide to Donating Usable Stuff*, an award-winning guide designed to help people pass on their unwanted but usable items to those in need. It lists 138 community service organizations that use donated items to support their work. These organizations work on behalf of youth, seniors, the homeless, and others in Cuyahoga County. The guide lists twenty-four categories of items accepted for donation including sporting goods, computers, school supplies, gardening tools, office equipments, paint, building materials and more.

Similar to a bag program, a tag or sticker program can be offered which requires the customers to purchase and affix a special tag or sticker to each container or bag of trash.

Another variation allows the customers to select the number or size of containers as their "normal" weekly disposal amount, such as one can or two cans, etc. or a 33-gallon, 60-gallon or 90-gallon container, and they pay according to a scaled structure. Some PAYT programs are so-called "hybrid" programs where a fixed fee or tax payment is charged and trash collection becomes limited. The fee is a base rate and includes a set size/number of trash containers. Additional containers (not covered in the base rate) require a special pre-paid bag, tag or sticker.

PAYT programs can be offered and operated directly by the communities or operated by haulers. Participation in most community-based PAYT programs is not optional. Participation in hauler-based programs is often optional. Hauler-based programs are either contracted by a community or selected by residents. Hauler-based PAYT programs offered directly to customers are especially appealing to fixed-income residents, smaller households and advocates of waste reduction and recycling. However, in many cases the hauler doesn't promote the program; therefore, the customer needs to inquire about a PAYT option or the district needs to promote it.

Some hauler-based programs exist because communities have an ordinance that requires haulers to offer PAYT programs to their customers. In other cases the community has contracted with a hauler to provide the PAYT program to its residents. These options give communities more control over their solid waste management programs and result in greater customer participation in diversion programs such as recycling and yard waste collections. PAYT also works whether the solid waste collection system is automated or manual.

PAYT is a more equitable program than unlimited trash service because it allows residents to have greater control over costs and savings and the charges are based upon the volume or the weight of trash set out at the curb.

There are as many variations of PAYT programs as there are kinds of villages, towns, cities, and metropolitan centers across the country. Although there is a standard methodology for these programs, most programs are tailored to fit local economic conditions, geographic considerations, size of population, current waste disposal structure, and level of program interest and potential participation. No matter which PAYT program a customer or community utilizes, PAYT programs help people to make a connection between individual costs and their disposal habits because PAYT

Pay-As-You-Throw Programs

Athens-Hocking Joint SWMD - City of Athens

Population: 21,342

Contact: Athens-Hocking Joint Solid Waste Management District, (740)797-4208

Solid Waste District website, Athens City website

Athens' Recycling Incentive Program was started about 10 years ago, when trash service cost \$9.50 per month. City residents now select one of two levels of garbage service: \$4.50 per month for one 30-gallon container per week, or \$5.50 per month for two 30-gallon containers per week. An additional \$2.00 per month is added to cover weekly curbside recycling and the entire amount is collected on the residential water bill. Each extra trash container requires a \$1.00 sticker, available at the city offices and at local stores. If a customer puts out an extra container without the sticker, the trash collection staff will add \$2.00 to the residents' water bill by using a hand-held computer. The solid waste district, under contract to the city, provides both the trash and recycling service. The city provides free leaf pickup in the fall.

ACHMSU Joint SWMD - Village of Forest, Hardin County

Population: 1,488

Contact: Village of Forest Administrator, (419)273-2500

PAYT was started in 1998, assisted by grant funding from the Ohio Department of Natural Resources. The PAYT program complements the village's existing drop-off recycling center and avoids the cost of providing curbside recycling service. Residents pay \$11.50 per month (collected on their water bill) to set out two 30-gallon bags of garbage per week. Additional 30-gallon bags must be tagged with a special sticker and bulk pickup items need a certain number of stickers. Stickers are sold by the village and by a local grocery for \$1.00 each. In the program's first year, the city's solid waste collection decreased by 45% and recycling at the drop-off center increased 350%. With the PAYT program, the village avoided having to pass on a tipping fee increase to residents and significantly reduced garbage collection times for their workers.

participants pay for what they dispose. This, in turn, creates incentives to reduce waste (source reduction) and encourages stronger efforts to recycle due to those realized true costs of disposal. Ultimately, each customer is rewarded with a lower trash bill.

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Yard Waste Management

Most districts have some type of yard waste management program. These typically consists of educational efforts on proper lawn care, and publicizing a schedule for leaf collection within district communities. Some districts also have promoted a version of a program called "Don't Bag It", which encourages residents to leave grass clippings on the lawn instead of collecting them. Several SWMDs have implemented "Don't Bag It" programs with the assistance of the Ohio Cooperative Extension Service). Other SWMDs encouraged residents to compost yard waste in their backyard or take it to a centralized collection site. Several SWMDs also provided funding for yard waste drop-offs sites or composting facilities. The sidebar to the right presents some examples of yard waste management activities.

Household Hazardous Waste (HHW) Management Programs

All 52 districts reported conducting some type of HHW management program in 2000, this was up from 45 in 1997. Districts provided telephone assistance, conducted presentations, prepared fact sheets and directories of drop-off sites, prepared videos, and hosted HHW collection events.

According to information submitted by solid waste management districts in their annual district reports, thirty-eight solid waste management districts, representing 65 counties, provided their residents with the opportunity to participate in a household hazardous waste (HHW) collection program in 2000. The number of districts offering HHW programs was up nearly 60 percent from 1996 when only 24 districts serving 37 counties hosted HHW collections. Programs ranged from permanent,

Pay-As-You-Throw Programs - (continued)

Solid Waste Authority of Central Ohio (SWACO) - City of Upper Arlington

Population: 33,686

Contact: City of Upper Arlington - Division of Solid Waste, (614)583-5370

Upper Arlington City and Chamber of Commerce website

In 1992, the city completed its phase-out of separate billing for trash and started the Trash Sticker Program for all residents. Each 33-gallon can or bag of trash must have a sticker on it, currently priced at \$2.25. Trash stickers can be purchased at local stores and at the city building. The PAYT program is self-sustaining through sticker fees, and city employees collect the trash. Weekly curbside recycling is provided by the city at no additional cost. Yard waste is collected curbside once a week, and each container or bundle requires one trash sticker. Or, residents can drop off yard waste free at a local composting facility. The city also provides free pickup for loose leaves in the fall. By 1999, the city had achieved a 36 percent diversion rate for its' solid waste.

Yard Waste

Summit/Akron Solid Waste Authority aggressively pursues yard waste recycling. Each year, the Authority makes funds available to communities, civic groups, schools, and local governments within Summit County for innovative waste reduction programs. In 1999, eleven grants totaling \$189,036 were awarded. The Authority also provides yard waste education, and technical assistance programs to communities undertaking yard waste management. In 2000, the Authority reported recycling 78,449 tons of yard waste. This is up from 20,158 tons in 1997.

The City of Columbus, located in the Solid Waste Authority of Central Ohio's (SWACO) SWMD, initiated a city-wide "free to residents" yard waste collection program. In 1997 this program collected 15,000 tons of yard waste for composting, doubling the amount previously collected in Columbus. The amount of yard waste collected in Columbus ever since had been steadily increasing, from 20,000 tons in 1998 to 27,676 tons in 2000.

full-service collection locations to limited material, temporary collection events.

Temporary, general HHW collections were the most common type of collection event in 2000. Thirty solid waste management districts (representing 54 counties) provided their residents with temporary HHW collection events. Of those 32, twenty-eight solid waste management districts hosted collection events and two participated in events hosted by other solid waste management districts.

Most temporary collection events are held for a duration of one to two days, usually over a weekend. Some solid waste management districts hold several temporary collection events while others hold only one. Many multiple county solid waste management districts hold collection events in each of the member counties. To be considered a “general collection event”, there must be relatively few restrictions placed on what a resident can bring. There are some materials that might be prohibited from “general collection events”, such as explosives and ammunition. Ohio law prevents solid waste management districts from allowing businesses to bring hazardous waste to collection events regardless of the amount of hazardous waste generated by the business.

Seventeen districts reported maintaining a dedicated telephone line for HHW; Portage, Crawford, Holmes, Huron, Lake, Logan, Lucas, Mahoning, Van Wert, Cuyahoga, Adams-Clermont, Summit/Akron, Stark-Tuscarawas-Wayne, Defiance-Fulton-Paulding-Williams, Fayette-Highland-Pickaway-Ross, and Guernsey-Monroe-Morgan-Muskingum-Noble-Washington. By contrast, only six districts maintained a hotline in 1996. The most common material that residents call the hotlines with questions about is paint.

Thirty-six districts reported offering classroom presentations or public education on HHW in 2000. That is double the number of districts (18) that offered such demonstrations in 1996. Districts also ran HHW –related advertisements, press releases and public service announcements in newspapers and on the radio and TV. They also distributed information through utility bills, and mailers on HHW issues. In many cases, these fact sheets and advertisements promoted up-coming collection events.

Four districts hosted a permanent site for HHW collection in 2000. The Summit/Akron Solid Waste

Household Hazardous Waste Programs

Franklin County - In 2000, the Solid Waste Authority of Central Ohio sponsored eight household hazardous waste collection events throughout Franklin County and reported recycling 182.13 tons of household hazardous waste. These collection events were held in the spring, summer, and fall, and each collection event lasted for two days on a weekend. The program has been so successful that the District is considering plans to open a permanent collection site.

The Montgomery County SWMD offers residents a household hazardous waste program that consists of both a daily drop-off location for a limited number of materials and periodic special collection events for other materials. The daily drop-off program accepts automotive batteries, motor oil, transmission fluid, antifreeze, paint (including latex, oil-based and aerosol), varnishes and stains, thinners and strippers, mineral spirits, household batteries, and fluorescent lights. Materials are recycled or disposed of properly, whichever is appropriate. In 2000, the District collected almost 212 tons of material through the daily drop-off program. The special collection events collect materials not collected through the daily drop-off, and are operated on a registration-only basis. In 2000, approximately twelve tons of materials were collected through the special collection events.

In 1996, the Summit/Akron Solid Waste Management Authority constructed its Household Hazardous Waste Recycling Center which the Authority considers to be the heart of its household hazardous waste program. The Center is a permanent household hazardous waste collection facility that has operated from April to September every year since it was opened. The Center is open two days during the week to allow residents to drop-off materials. The Center is operated through a contract with a hazardous waste contractor who is also responsible for recycling or disposing of the collected material. The Authority places few restrictions on the types of materials that residents can bring to the Center, but ammunition, explosives, large compressed gas cylinders, and radioactive materials are not accepted. In 2000, 9,419 households participated, 756 tons were processed, 355 tons were recycled for a total cost of \$488,157. Beginning in 2001, the Authority began accepting computers from residents. In 2000 the Authority fielded 20-30 HHW related calls per day, ran 5 satellite HHW collection sites, and conducted more than 75 HHW-related presentations to civic groups and schools.

Management Authority constructed a dedicated facility in 1996 and has been operating it from April through October each year since. Crawford, Montgomery, and Portage districts also operate permanent HHW collection facilities. SWACO (Franklin County) and Geauga-Trumbull are currently considering establishing permanent household hazardous waste collection sites. The Logan County SWMD hosts permanent collection sites for household batteries.

In 1999 thirty-three districts submitted detailed information on the amount and types of materials collected at HHW events. In that year, a total of almost 6 million pounds of material were collected through the general collection events.

Latex paint constituted 24 percent of the material collected at these events. All types of paint totaled 34 percent of the waste handled. Adding paint/solvent mixtures and paint cans to this category ("Paint Products" in Figure 1) brings the percentage up to 34 percent of the total. The second largest category, flammables, pesticides and chlorinated products (which includes adhesives, waxes, polishes, and items too thick or contaminated to pour in with fuels), constituted 8 percent of the waste collected. Used oil, oil/transmission fluid and antifreeze oil mixtures constituted 7 percent of the total waste handled.

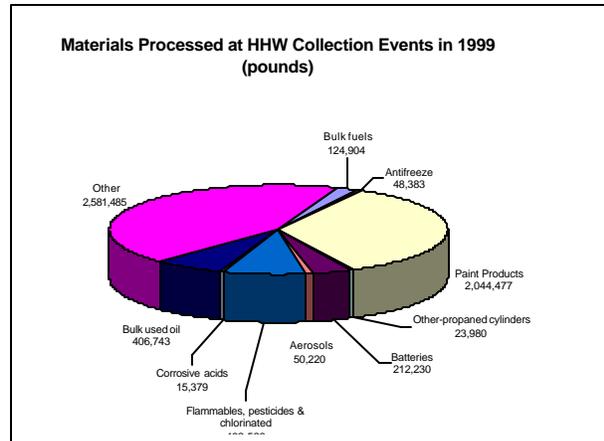


Fig. 1 Materials Processed at HHW Collection events in 1999

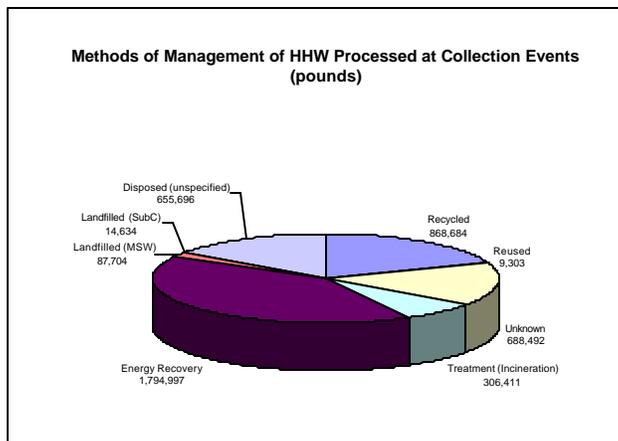


Fig. 2 Methods of Management of HHW Processed at Collection Events (in pounds)

Sixty percent of the waste collected (down from seventy percent in 1996) was reused, recycled or used as fuel (Figure 2). Another 24 percent was incinerated or landfilled. The method used to manage the remaining sixteen percent of the waste collected is unknown.

In 2000 the total statewide cost for temporary collection events was \$3 million. Table 1, on page 14, shows the number of districts that sponsored general collection programs from 1988 through 2000, the average cost per vehicle, cost per pound, and pounds collected per car. The number of districts offering general HHW collection increased from 1992 through 1996. However, before 1996 only a subset were able to provide data on the total pounds collected, costs and number of

vehicles. General HHW events collected an average of 199 lbs of material per vehicle. This supports U.S. EPA's estimate that as much as 100 pounds of HHW can accumulate in the average home over time.

The average cost per pound for general temporary HHW collection dropped from \$0.84/lb in 1992 to \$0.49/lb in 2000 (Table 1). However, some districts are still paying fairly high rates as illustrated by the line representing the "Highest \$/lb Paid" in Figure 3.

Recycling Market Development

Many Districts actively encourage the use of recycled-content materials within their district in order to provide stronger markets for recyclables. Several districts hold workshops designed to show the availability of recycled-content materials and the vendors who sell them. Districts also participate jointly with businesses within their borders in market development projects partially funded by the Ohio Department of Natural Resources. A few districts use recycled-content materials in highly visible construction projects to demonstrate the viability of the product and its availability. The sidebar on page 15 provides examples of recycling market development activity in the SWMDs.

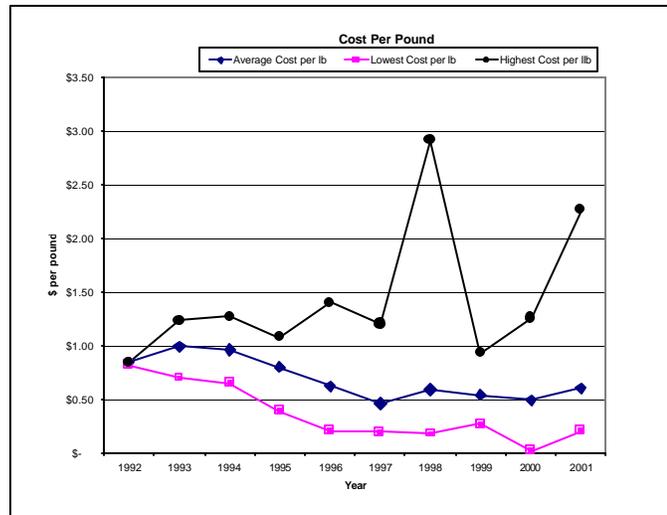


Figure 3 Cost Per Pound for HHW Collections Events: 1992-2001

Year	Total # of Participating SWMDs	Cost per car		Cost per pound		Pounds per car	
		Average	Range	Average	Range	Average	Range
1992	8	\$128 (6 SWMDs)	\$70-\$186	\$0.84 (2 SWMDs)	\$0.82-\$0.84	128 (3 SWMDs)	86-136
1993	9	\$81 (6 SWMDs)	\$48-\$157	\$0.99 (5 SWMDs)	\$0.70-\$1.23	73 (6 SWMDs)	69-126
1994	13	\$67 (10 SWMDs)	\$40-\$113	\$0.96 (5 SWMDs)	\$0.65-\$1.27	63 (6 SWMDs)	55-123
1995	14	\$68 (11 SWMDs)	\$36-\$202	\$0.80 (6 SWMDs)	\$0.39-\$1.08	84 (6 SWMDs)	56-129
1996	24	\$67 (21 SWMDs)	\$22-187	\$0.62 (22 SWMDs)	\$0.20-\$1.40	103 (21 SWMDs)	55-328
1997	28	\$79 (25 SWMDs)	\$19-\$205	\$0.46 (26 SWMDs)	\$0.19-\$1.20	177 (26 SWMDs)	23-503
1998	27	\$62 (25 SWMDs)	\$20-\$195	\$0.59 (24 SWMDs)	\$0.18-\$2.92	125 (25 SWMDs)	20-368
1999	29	\$59 (27 SWMDs)	\$16-\$99	\$0.53 (26 SWMDs)	\$0.27-\$0.93	114 (26 SWMDs)	34-251
2000	30	\$69 (28 SWMDs)	\$25-\$178	\$0.49 (27 SWMDs)	\$0.08-\$1.26	199 (25 SWMDs)	40-858

Electronics Collection

Although electronic waste is less than 10 percent of the current solid waste stream, it is growing 2-3 times faster than any other waste stream (*source: Office of the Federal Environmental Executive*). Computer disposal in particular is a growing problem. Approximately 25 million computers are made in America each year. A recent National Safety Council study predicts that by 2005, the number of outmoded computers per year will exceed the number of new computers produced by 18 percent. In the United States alone, 20 million or more PCs become obsolete

each year, meaning more than 315 million computers will have been disposed by 2004. It is estimated that computers, TVs and other electronic equipment accounts for 220 million tons of waste each year in the U.S., More than 10 percent of electronic waste goes straight to landfills and that percentage is quickly climbing.

It costs the consumer, on average, approximately 20 dollars to recycle a monitor and computer and many people are reluctant to absorb this cost. As a result, USEPA studies show that most discarded personal computers — about 80 percent — end up at landfills.

By the year 2000, seven SWMDs had established computer and/or electronics recycling programs, including: Cuyahoga County, Erie County, Gallia-Jackson-Meigs-Vinton Joint, Guernsey-Monroe-Morgan-Muskingum-Noble-Washington Joint, Lake County, Montgomery County, and Portage County.

The Cuyahoga County SWMD hosts one of the nation's largest recycling programs for unwanted household computer equipment. Computers are collected by participating communities (23/59 communities in 2000) and through District-sponsored events twice per year. The equipment is donated to the Computers for Education Program of Ohio, an organization which refurbishes computers for low-cost distribution to schools. Computers which are too old for re-use are dismantled and the components are recycled. In 2000, the program collected 50 tons of computer equipment, including 1,661 CPU's, 1,398 monitors, 1,146 key boards, 624 printers, and 1,103 mice. The program went on to collect 161 tons in 2001.

Contracting Services

Some of the districts assist local municipalities, villages and townships with preparing bid specifications for waste collection, yard waste collection, and recycling collection services. Many times a district will offer legal counsel, or technical expertise to review contracts and specifications, to ensure that the city, village, or township obtains the best value for the money they spend. In the past, both the Warren County SWMD and the Guernsey-Monroe-Morgan-Muskingum-Noble-Washington SWMD have assisted municipalities and townships in this manner.

Recycling Market Development - Highlight on ODNR DRLP 2000 MARKET DEVELOPMENT GRANT PROJECTS

As of 2000, the ONDR-DRLP's Market Development Grant (MDG) program awarded \$2.2 million for successful market development projects throughout Ohio. The division's most successful MDG projects are described below. For more information, contact DRLP by email, or call (614) 265-6333.

Lucas County SWMD with Phoenix Technologies, LP was awarded a \$150,000 grant as part of a \$1.1 million project to install a high-tech commercial scale reactor and related equipment to purify PET plastic flake generated from curbside recycling bottle collections. The new equipment will allow Phoenix to produce over 4,000 tons of decontaminated PET resin per year for use in bottle manufacturing operations. In 2001, Phoenix received USFDA approval to use the recycled PET resin in direct food contact applications; this was the first such approval in the United States.

Portage County SWMD with Custom PlasTech, LTD was awarded a \$75,000 grant as part of a \$300,000 project to purchase molds, fixtures, and a material handling system to enable Custom PlasTech to manufacture blow-molded plastic products that contain at least 10 percent post-consumer HDPE. The company will eventually use 100 tons or more of recycled milk and detergent bottles per year to manufacture their specialty products, including a line of safety barricades.

Solid Waste Authority of Central Ohio with Rumpke Recycling was awarded a \$150,000 grant as part of a \$396,000 project designed to improve the central Ohio residential plastics recycling market. Rumpke will purchase two automated bottle-sorting machines and install them at its Columbus facility to separate HDPE plastic from PET plastic in mixed bales.

Wood County SWD and PETE Processors, Inc. were awarded a \$37,400 grant as part of a \$75,000 project to help reduce production costs for PETE Processors, an intermediate plastics processor, and improve economics for communities that sell plastic bottles to the company. PETE Processors will install an automated bottle-sorting machine to separate HDPE plastic from PET plastic in mixed bales.

Noteworthy/Innovative Programs

The Delaware-Knox-Marion-Morrow Joint SWMD has one village taking a lead on curbside recycling. The Village of Gambier in Knox County was home to 1,871 people in 2000. As an incentive to get residents to recycle, the village will pay for their solid waste disposal from general tax revenue dollars; however, if a resident does not participate in the curbside collection programs, their household is invoiced for monthly trash collection.

In 1993 the Darke County Solid Waste Management District became the first district in Ohio to enroll in the Model Community, a nationally recognized not-for-profit program promoting waste reduction through community involvement. The Model Community trains individual volunteers or community representatives to reduce waste by adopting four standards: preventing waste in the first place, eliminating harmful toxins, recycling, and purchasing recycled products. In 2000 the district's program was selected as an outstanding environmental education project for the general public audience, by an independent team of evaluators at the Ohio Environmental Education Fund.

Christmas Tree Recycling was the first program implemented by the Carroll-Columbiana-Harrison SWMD back in 1993. The program is carried out every year with help from county highway departments, townships and municipalities. All three counties have a central location where trees from satellite sites are brought and chipped into mulch. In 2000, the program recycled 7 tons of Christmas trees. Eight other Districts offer Christmas tree recycling, including: Clinton, Mahoning, Miami, Geauga-Trumbull, Carroll-Columbiana-Harrison, Ottawa-Sandusky-Seneca, Stark-Tuscarawas-Wayne, and Guernsey-Monroe-Muskingum-Noble-Washington.

The Solid Waste Authority of Central Ohio (SWACO) sponsors Virtual Landfill, a free service which allows businesses to exchange, trade or sell waste materials. Virtual Landfill is a materials exchange service that helps businesses save money while reducing the amount of trash that goes into landfills. Virtual Landfill connects companies that generate waste or have a surplus of equipment, chemicals and materials, with companies that can reuse or recycle those unwanted materials. Virtual Landfill lists both materials available and materials wanted by businesses.

Ohio Communities with PAY-as-you-throw

Community	Community Population	Solid Waste District	Program Type	Offered By	Optional	Start Date
Milford	6,284	AC	Hybrid	Community	No	1993
Athens	21,342	Athens Hocking	Hybrid	Community	No	1991
Buckland	255	Auglaize	Bag	Community	No	Pre-1970
New Bremen	2,909	Auglaize	Bag	Community	No	1990
New Knoxville	891	Auglaize	Bag	Community	No	1988
Wapakoneta	9,474	Auglaize	Bag with separate fee	Community	No	1995
Carrollton	3,190	CCH	Bag	Community	No	Unknown
Clark County SWMD	144,742	Clark	Bag	Hauler	Yes	Unknown
New Carlisle	5,735	Clark	Bag	Community	No	1983
South Charleston	1,850	Clark	Bag	Hauler	Yes	1990
Springfield	65,358	Clark	Bag	Hauler	Yes	1986
Greenville	13,294	Darke	Bag	Hauler	Yes	1992
Osgood	255	Darke	Bag	Hauler	Yes	Unknown
Delta	2,930	DFPW	Sticker	Community	No	1990
Huron	7,958	Erie	Hybrid	Community	No	1970
Bazetta Township	6,306	GT	Bag	Hauler	Yes	pre-1994
Champion	9,762	GT	Bag	Hauler	Yes	pre-1994
Hartford	412	GT	Bag	Community	Yes	pre-1994
Johnston	2,040	GT	Bag	Community	Yes	1995
Kinsman	1,943	GT	Bag	Hauler	Yes	1995
Mecca	2,829	GT	Bag	Hauler	Yes	pre-1994
Southington	3,817	GT	Bag	Hauler	Yes	pre-1994
Vernon Township	1,765	GT	Bag	Hauler	Yes	1990
Yellow Springs	3,761	Greene	Hybrid	Community	No	Unknown
Madeira	8,923	Hamilton	Hybrid	Community	No	1993
Mariemont	3,408	Hamilton	Sticker with separate fee	Community	No	1992
North College Hill	10,082	Hamilton	Sticker	Community	No	1991
Mentor	50,278	Lake	Can and Bag	Community	No	1996
Celina	10,303	Mercer	Bag	Community	No	Unknown
Chickasaw	364	Mercer	Bag	Community	No	1990
Coldwater	4,482	Mercer	Bag	Community	No	Unknown
Rockford	1,126	Mercer	Bag	Hauler	No	1990
Tipp City	9,221	Miami	Bag	Community	Yes	1995
Anna	1,319	North Central Ohio	Bag	Community	No	Unknown
Botkins	1,205	North Central Ohio	Bag	Community	No	1996
Forest	1,488	North Central Ohio	Hybrid	Community	No	1998

Community	Community Population	Solid Waste District	Program Type	Offered By	Optional	Start Date
Kenton	8,336	North Central Ohio	Bag with separate fee	Community	No	2000
Marysville	15,942	North Central Ohio	Bag with separate fee and Can	Community	No	1993
Fostoria	13,931	OSS	Bag	Hauler	Yes	1997
Tiffin	18,135	OSS	Bag	Hauler	Yes	1990
Atwater	2,762	Portage	Bag	Hauler	Yes	Unknown
Aurora	13,556	Portage	Can and Bag	Hauler	Yes	1997
Freedom	2751	Portage	Bag	Hauler	Yes	pre-1994
Garrettsville	2,262	Portage	Bag	Community	Yes	1980
Hiram	1,242	Portage	Bag	Community	No	1996
Kent	27,906	Portage	Ordinance	Hauler	Yes	1990
Mantua	1,046	Portage	Bag	Hauler	Yes	1991
Nelson	2,985	Portage	Bag	Hauler	Yes	pre-1994
Randolph	5,504	Portage	Can	Community	No	Unknown
Ravenna	11,771	Portage	Bag	Hauler	Yes	Unknown
Shalersville	5,976	Portage	Bag	Hauler	Yes	1990
Streetsboro	12,311	Portage	Can and Bag	Community	No	1997
Suffield	6,383	Portage	Bag	Hauler	Yes	1984
Windham	2,806	Portage	Bag	Hauler	Yes	pre-1994
Mansfield	49,346	Richland	Bag	Hauler	Yes	Unknown
Upper Arlington	33,686	Solid Waste Authority of Central Ohio	Sticker	Community	No	1992
Marietta	14,515	South Eastern Ohio	Sticker	Community	Yes	1992
Uniontown	2,802	Stark Tuscarawas Wayne	Bag	Hauler	Yes	Unknown
Barberton	27,899	Summit Akron	Bag	Community	No	1970
Cuyahoga Falls	49,374	Summit Akron	Bag	Community	Yes	1991
Hudson	22,439	Summit Akron	Ordinance	Hauler	Yes	1998
Mogadore	3,893	Summit Akron	Hybrid	Hauler	No	1992
Stow	32,139	Summit Akron	Ordinance	Hauler	Yes	1992

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Waste Management Methods in Ohio

Landfill disposal continues to be the predominant form of solid waste management in Ohio. Figure 4 shows the proportions of the waste stream managed by landfilling, incineration, and reduction/recycling from 1992 through 2000. Landfilling has increased almost every year since 1990, but reduction/recycling has increased even more as a percentage of the total waste managed. A large increase in reduction/recycling from 1995 to 1996 was due in large part to a change in the way reduction/recycling amounts were calculated in 1996. These increases will be discussed in more detail later in this report. Incineration has continued to decrease as solid waste incinerators in Ohio have continued to close. There was one active incinerator that was licensed to accept mixed municipal solid waste at the end of 2000 and that incinerator burned primarily infectious waste.

Landfill Disposal

Statewide

Total landfill disposal increased from almost 13 million tons in 1990 to more than 20 million tons in 2000. The total amount of waste disposed in 2000 was more than the amount disposed in 1999 (by 127,090 tons), but less than the total amount disposed in 1998 (by 345,868 tons). This decrease in disposal was mostly attributable to a decrease in the amount of waste disposed in captive landfills. The waste disposed in captive landfills in 2000 decreased by 1,182,172 tons below 1998 captive levels. Most of this decrease can be attributed to three captive facilities that dispose of waste from coal-fired plants located in the Adams-Clermont SWMD, Gallia-Jackson-Meigs-Vinton SWMD and Coshocton-Fairfield-Licking-Perry SWMD, which saw a combined decrease in disposal equal to 735,110 tons (3.5 percent of total disposal). These facilities include the Zimmer Industrial Landfill (Clermont county), the Gavin Residual Waste Landfill (Gallia county), and the CSP Conesville Residual Waste Landfill (Coshocton county). Disposal at these facilities in 2000 was equal to 23.6 percent of total landfill disposal in Ohio. This figure is down from 26.8 percent of total landfill disposal in 1998.

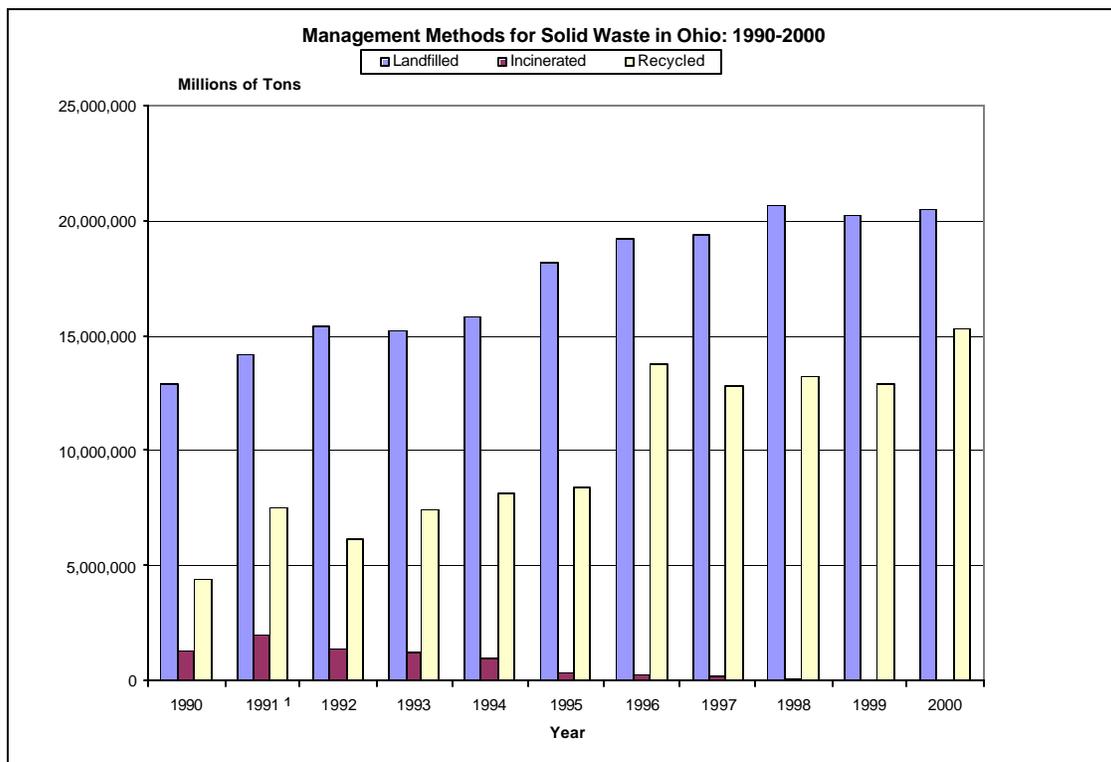


Figure 4. Management Methods for Solid Waste in Ohio: 1990-2000. ¹ 1991 Values are estimated.

If all coal combustion wastes are subtracted from landfill disposal, total industrial disposal is 2,901,000 tons and 4,702,441 tons for 1990 and 2000, respectively. As shown in Table 2, the statewide landfill disposal rate has increased 52 percent from 6.54 pounds per person per day (pppd) in 1990 to 9.98 pppd in 2000. Contributing factors to this increase are increases in generation rate, and decreased incineration due to solid waste incinerators closing. Both the residential-commercial and industrial sectors show a trend toward increased disposal since 1990. In addition, residential-commercial solid waste continues to be the largest category of statewide disposal at 53 percent. Industrial waste disposal comprised the remaining 47 percent of waste disposal including exempt waste.

Year	<u>Tons Disposed</u>			<u>Pounds per Person per Day Disposed</u>		
	Residential/ Commercial	Industrial	Total	Residential/ Commercial	Industrial	Total
1990	9,385,247	3,541,154	12,926,401	4.78	1.81	6.59
1991	8,612,056	5,560,299	14,172,355	4.39	2.84	7.23
1992	9,079,638	6,373,650	15,453,288	4.61	3.25	7.86
1993	9,155,848	6,069,163	15,225,011	4.59	3.07	7.67
1994	9,320,081	6,519,363	15,839,444	4.63	3.26	7.89
1995	9,506,973	8,704,291	18,211,264	4.71	4.38	9.09
1996	9,892,907	9,358,698	19,251,605	4.91	4.72	9.63
1997	9,943,160	9,442,898	19,386,058	4.90	4.66	9.56
1998	10,580,852	10,298,103	20,878,955	5.18	5.04	10.22
1999	10,718,167	9,687,830	20,405,997	5.23	4.73	9.96
2000	10,968,900	9,564,188	20,533,087	5.33	4.65	9.98

Total Ohio-generated waste disposed in 2000 was 20,533,087 tons. As shown in Figure 5, the majority of solid waste generated in Ohio continues to be disposed within the SWMD where it is generated (in-district disposal). The trend, however, is towards out-of district disposal (includes waste exported out-of-state). In 2000, 60 percent of disposal was in-district disposal, down from 66 percent in 1996. This trend should not be surprising, given the

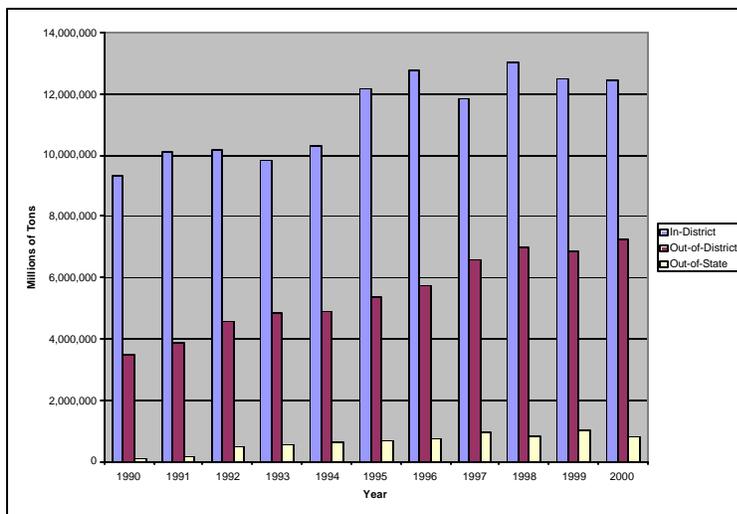


Figure 5. Where Did SWMDs Dispose of their Waste? In-district? Out-of-district? Out-of-State?

decreasing number of operating landfills. In 2000, 19 SWMDs (up from 17 in 1996) totaling 39 counties did not have a publicly-available landfill. These districts accounted for 27 percent of the waste disposed out-of district. The remaining 73 percent was disposed out-of district by districts which do have a landfill.

Disposal in out-of-state landfills has also increased since 1990. This is due in part to better record-keeping in neighboring states, and because of the close proximity of many regional landfills in adjacent states. Ohio exported four percent of the total amount of Ohio-generated waste that was landfilled in 2000.

Disposal by Solid Waste Management District

Figure 6 shows that the landfill disposal rate for 44 out of 52 SWMDs is under 10 pounds/person/day, Table 11 on page 93 at the end of this report lists the full name of each SWMD shown in Figure 6 and Table 6 beginning on page 33 lists the actual tonnages and pounds per person per day disposed for each SWMD. For many of the

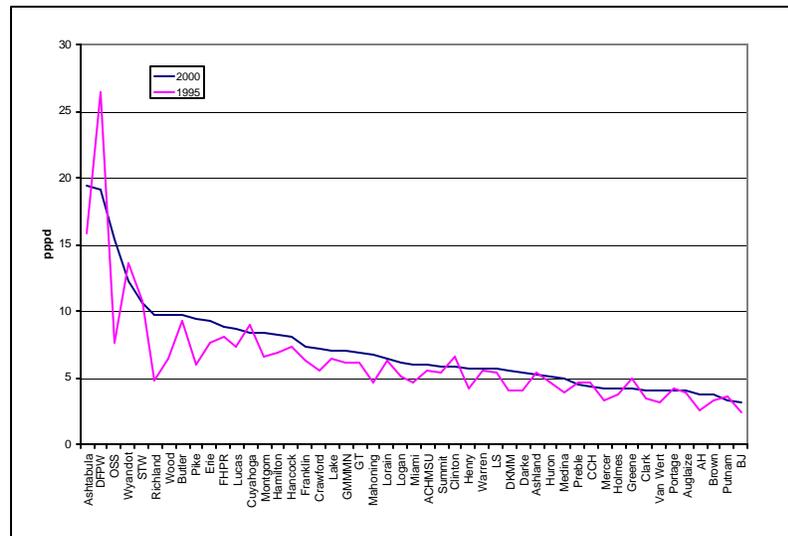


Figure 6. Total Landfill Disposal Rate by SWMD for 2000 (AC, GJMV, & CFLP excluded)

following figures and tables, the disposal totals for the Adams-Clermont SWMD (AC), Gallia-Jackson-Meigs-Vinton SWMD (GJMV), and Coshocton-Fairfield-Licking-Perry SWMD (CFLP) have either been adjusted or removed from the chart altogether to account for the very large amount of industrial waste landfilled at the three facilities disposing waste from coal-fired power plants as mentioned previously.

The total landfill disposal rate for Ohio solid waste management districts have largely followed the same trend that was set in 1995, meaning the districts with a low rate back in 1995 are still the districts with the lower rate of disposal in 2000. The rates of disposal in 2000 ranged from 3.18 pppd in the Belmont-Jefferson SWMD to more than 19.4 pppd in Ashtabula. The disposal rate for the Belmont-Jefferson SWMD is very likely understated because some of the waste being transported to West Virginia landfills for disposal is not always reported to the district or to Ohio EPA. Wyandot stands out as having the lowest population density combined with a greater than average total disposal rate of 12.34 pppd, which is surprising as the Wyandot SWMD is primarily rural in nature. The Wyandot Landfill disposes of nearly all of the district's waste as well as waste from more than 30 other districts and New York and New Jersey. It is possible that some of the waste originating outside of the district is mischaracterized as coming from Wyandot when it arrives at the landfill.

Most districts have a population density less than 1,500 people per square mile and a total disposal rate between 4 and 10 pounds per person per day. Three solid waste management districts with average population density stand out as having very high total disposal rates, these include Ashtabula (19.44 pppd), Defiance-Fulton-Paulding-Williams (19.12 pppd) and Ottawa-Sandusky-Seneca (15.48 pppd). In all three cases, the higher-than-average disposal rate is due to higher-than-average disposal at captive industrial facilities. In fact, DFPW has the highest industrial generation rate due to the large amount of waste generated at the GM manufacturing plant located within the district. It is also interesting to point out the effect captive disposal can have on a district's recycling rate. Ashtabula and Ottawa-Sandusky-Seneca, for example, rank among SWMDs with the lowest total recycling rates. Ashtabula ranks the lowest with a 15 percent total recycling rate and Ottawa-Sandusky-Seneca ranks fourth at 25 percent. Ottawa-Sandusky-Seneca SWMD is home to several lime plants, which were de-regulated at the end of 2000, therefore beginning in 2001 Ottawa-Sandusky-Seneca should see a decrease in their total disposal and generation rates and an increase in their overall recycling rate. Interestingly, DFPW has the ninth highest total recycling rate (70 percent) thanks in large part to a large amount of industrial recycling that takes place at the GM Plant. The three solid waste management districts with the highest population density - Franklin, Hamilton and Cuyahoga - all have total disposals rates under 10 pppd.

Figure 7 shows the residential/commercial disposal rate variation among SWMDs for the years 2000, 1995 and 1990. It shows that for the past ten years, residential/commercial disposal rates have varied and fluctuated

between 1.5 pppd and 7.75 pppd. Several districts have experienced a decrease in their residential disposal rate, including; Clinton, Hancock and STW. These districts have all lowered their rate by one pound per person per day or more. Clinton's residential/commercial disposal rate dropped from nearly 6 pppd to just under 4 pppd in 2000.

Figure 7 also shows which districts have witnessed the greatest increase in residential/commercial disposal since 1990. The Lawrence-Scioto SWMD's disposal rate, for example, rose from 1.27 pppd in 1990, to 2.75 pppd to 3.61 pppd in 2000. The Fayette-Highland-Pickaway-Ross (FHPR) SWMD shows a disposal rate increase from approximately 2.5 pppd for 1990 to slightly more than 6 pppd in 1995 and 2000.

Roughly 65 percent of all solid waste management districts had a residential-commercial disposal rate less than 5 pppd, 28 percent fell between 5 and 7 pppd, and less than 5 percent had a rate greater than 7 pppd.

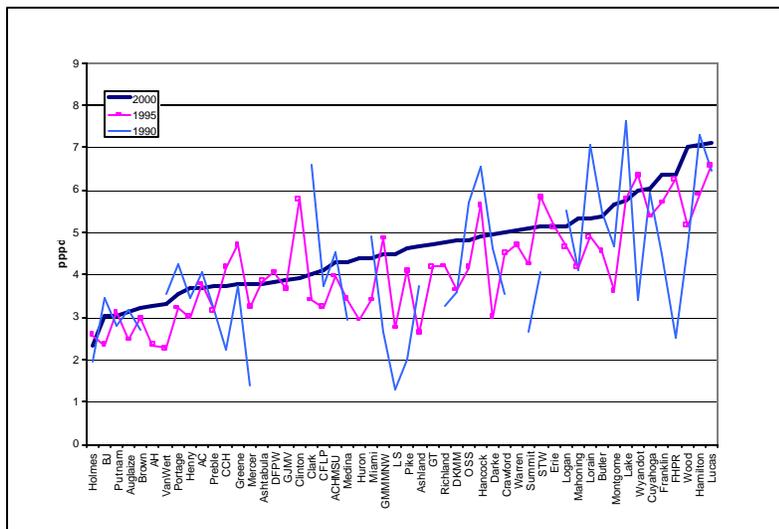


Figure 7. Changes in Landfill Disposal Rate for Residential-Commercial Waste

The increase in the landfill disposal rate for the Summit County SWMA is probably due to the closure of a major incinerator in 1995, resulting in more district waste being landfilled. (The landfill disposal amounts for each SWMD are shown in Table 6 beginning on page 33. Table 6 provides the amount disposed in tons and pounds/person/day for 1990-1999.)

As stated previously, most SWMDs dispose their solid waste within their own district, even though the number of SWMDs utilizing in-district landfill disposal has decreased

since 1995 (Figure 8). The amount of in-district disposal has remained relatively constant for those districts that continue to have operating landfills, with few exceptions. The districts at the far left of Figure 8 do not have an operating publicly-available landfill and therefore do not have any in-district disposal. Significant changes in in-district disposal totals from 1995 to 2000 are usually the result of landfills closing or opening in that district. Since 1995, increases to in-district disposal have occurred in Richland SWMD, Ottawa-Sandusky-Seneca SWMD, Franklin SWMD, and Hamilton. Major decreases to in-district disposal are limited to Cuyahoga which disposed of 1.7 million tons in-district in 1990 and only 202,000 tons in 2000.

The opening and closing of publicly-available landfills could have a direct impact on in-district disposal. Since this report was last published in 1997, nine publicly-available landfills have closed in the following counties; Ashland, Cuyahoga, Fairfield, Auglaize, Columbiana, Hamilton, Huron and Warren. Two of these closures were in Cuyahoga county- Cuyahoga Regional Sanitary Landfill and BFI Glenwillow Sanitary Landfill, which could, at least in part, explain the decrease in in-district disposal in Cuyahoga as well as some of the other districts showing a decrease. Conversely, some of the significant increases can be explained by new publicly-available landfills coming online. Since 1997, three new publicly-available landfills have opened in Fairfield, Coshocton and Richland. Additionally, a new scrap tire monofill was licensed in Pike County in 2000.

Figure 9 shows the relationship between in-district, out-of-district, and district imports of Ohio-generated waste for each SWMD for 2000. Like Figure 8, the SWMDs at the far left of the x-axis in Figure 9 (i.e. Darke, Medina, Miami, Van Wert, etc.) had no operating landfills during 2000, and therefore, disposed of all their waste out-of-district (and/or out-of-state). Districts with no publicly-available in-district landfill, that disposed over 200,000 tons (including out-of-state exports) in 2000 include:

- Allen-Champaign-Hardon,-Madison-Shelby-Union (ACHMSU)
- Guernsey-Monroe-Morgan-Muskingum-Noble-Washington (GMMMNW)
- Delaware-Knox-Marion-Morrow (DKMM)
- Fayette-Highland-Pickaway-Ross (FHPR)

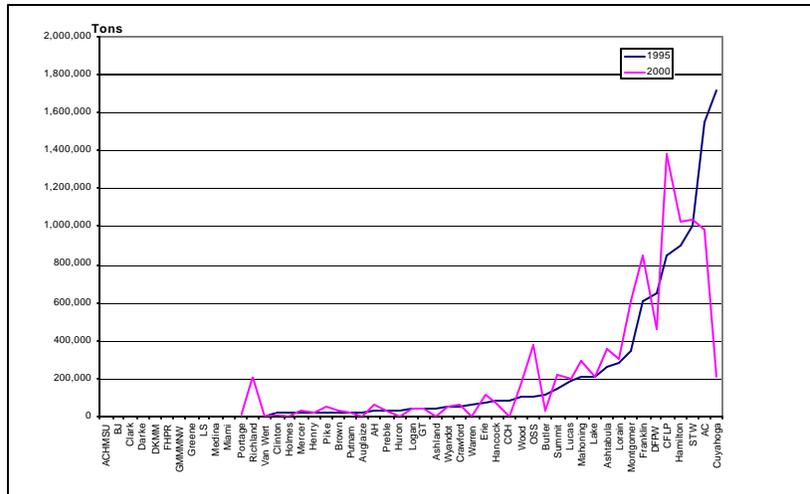


Figure 8. Changes in In-district Landfill Disposal 1995 vs. 2000

The highest in-district disposal totals were registered by the Stark-Tuscarawas-Wayne (STW), Franklin, and

Hamilton SWMDs, with each district disposing more than 900,000 tons (excluding Coshocton-Fairfield-Licking-Perry (CFLP), and Gallia-Jackson-Meigs-Vinton (GJMV), and Adams -Clermont SWMDs which have a very high in-district disposal total due to the coal-burning power plant waste disposed in captive landfills.

Since 1995, and possibly earlier, Stark-Tuscarawas -Wayne (STW) has imported more Ohio-generated waste from other SWMDs (1.6 million tons) than any other district. Other districts importing more than 500,000 tons from other districts include; Coshocton-Fairfield-Licking-Perry (CFLP), Hamilton, and Mahoning SWMDs. In addition, several SWMDs, with major in-district landfills also sent large amounts of waste to out-of-district Ohio landfills (Lucas SWMD, and Franklin SWMD). At the end of 2000, both the Hoffman Road in Lucas and Franklin Sanitary Landfill in Franklin were estimated to have more than 25 years of remaining capacity.

A number of SWMDs send waste to landfills in adjacent states for disposal. In 2000, 26 districts transported some portion of their waste out of Ohio for disposal, while 23 SWMDs used out-of-state landfills in 1995. Most of these districts are located on Ohio's borders, and typically use facilities in neighboring states. Part of the increase in SWMDs using out-of-state landfills probably resulted from better data collection. Table 7, beginning on page 48, shows the estimated amount of waste disposed in-district, out-of-district, and out-of-state for each SWMD from 1990 through 2000.

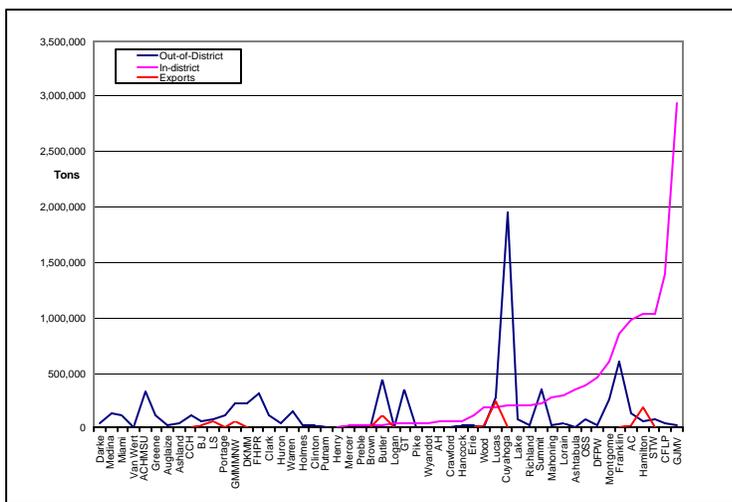


Figure 9. Relationship Among In-district, Out-of-District, and Exported Ohio Waste for Landfill Disposal in 2000

Incineration

Management of solid waste through incineration and waste-to-energy (WTE) facilities in Ohio has ranged from seven percent of the total waste stream in 1990 to four percent in 1994, and 1.1 percent in 1999. Incineration and WTE has never been a major method of waste management statewide, however, it was an integral part of waste disposal in the cities of Columbus and Akron, and in Montgomery County in years past. Columbus' WTE facility closed in 1994 and Akron's facility closed in early 1995. As of May 1997, both of the facilities in Montgomery County have also closed. The primary reason for the closures was the prohibitive costs of upgrading the facilities to meet clean air regulations.

Reduction and Recycling

Statewide

Total reduction and recycling has increased from 26 percent statewide in 1990 to 44 percent in 2000 (Table 3 below). In 1995, the statewide reduction/recycling rate decreased slightly compared with 1994 estimates. This was primarily a result of the closure of two large incinerators, and the opening of the Gavin Residual Waste Landfill which disposed more than two million tons of waste from a coal-fired power plant. If the waste disposed at the Gavin Landfill is omitted from the reduction/recycling calculations, Ohio's waste reduction/recycling (WRR) rate is 34.5 percent for 1995. If the waste from all three landfills in Ohio disposing wastes from coal-fired power plants is subtracted from the generation amount, the statewide WRR rate for 1995 is 37.8 percent. In 2000, if 4,861,747 tons of waste from the coal-fired power plants is removed, the statewide WRR rises to 48 percent and the statewide industrial recycling rate rises to 72 percent.

Year	Tons Reduced Recycled			% of Tons Reduced Recycled		
	Res/Com	Industrial	Total	R/C%	IND%	TOT%
1990	2,260,000	2,186,000	4,446,000	19.4	38.2	25.6
1992	2,201,000	3,958,000	6,158,000	19.5	38.3	28.5
1993	2,271,000	5,142,000	7,413,000	19.9	45.9	32.8
1994	2,451,000	5,760,000	8,210,000	20.8*	46.9	34.1
1995	1,942,000	6,523,000	8,465,000	17.0*	42.8	31.7
1996	2,553,700	11,284,700	13,838,400	20.6*	54.6	41.8
1997	2,589,000	10,287,000	12,876,000	20.6	52.1	39.9
1998	2,373,000	10,856,000	13,229,000	18.5	51.4	39
1999	2,477,000	10,547,000	13,024,000	19.1	51.8	39.1
2000	2,712,535	12,199,869	14,912,404	19.8	56.1	42.1

Reduction and recycling totals for both sectors increased substantially in 1996 due to a change in the methodology used to calculate recycling in the 1995 *State Solid Waste Management Plan (1995 State Plan)*. Prior to 1996, the 1989 *State Plan* was used to calculate recycling for the year 1990-1995. The 1995 *State Plan* added the following materials to the list of "creditable" materials; yard waste, household hazardous waste, motor oil, and industrial waste

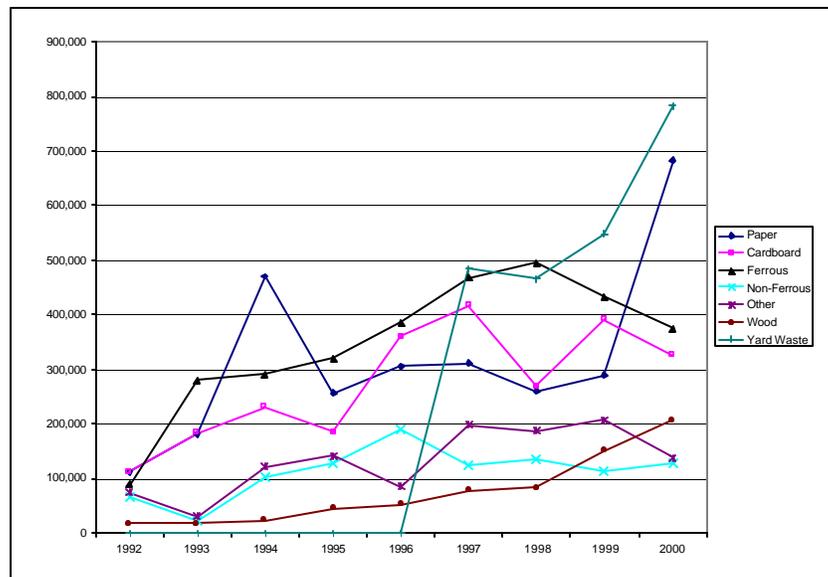


Figure 10. Top 6 Residential/Commercial Materials Recycled in 2000

recycling stemming from programs that were initiated prior to 1985. For the residential/ commercial sector, the addition of yard waste, in particular, has had a large impact on the residential/commercial recycling rate. In 1996, the first year it was counted it comprised 19 percent of the residential total in 2000 this percentage had risen to 28 percent (See Table 4 on page 25).

The waste category with the greatest discrepancy between 1996 and 2000 is industrial food waste. The large number reported in 1996 is an aberration when compared with other years. With the exception of 1996, industrial food waste has never totaled more than 200,000 tons. Ohio EPA believes the large number is caused by one solid waste management district's over-reporting.

By far, since 1996 the largest gains in recycling have come from the industrial sector. Rather consistently, across categories with the exception of food waste and textiles, the industrial amount recycled in 2000 is greater than in 1996. Many residential categories, on the other hand, have decreased since 1996, including; appliances, batteries, food glass, metals, cardboard, paper and plastics. The residential/commercial categories increasing the fastest include wood, yard waste, and scrap tires. Textiles have held steady. The cause for the lagging in residential/commercial recycling amounts, despite an increase in programming targeting this sector, is difficult to explain. The prices for recycled commodities have not been as strong as they were in the earlier part of the 1990s and this could in part explain the decrease across some of the more major categories such as glass, cardboard, paper and plastic. It may also be that the numbers are reflecting the growing popularity of composting throughout Ohio. As already discussed in part one of this text, yard waste collection programs have been proven to be very effective and popular when implemented on a large scale, for example in the city of Columbus.

Material	Residential/Commercial Tons		Industrial Tons	
	1996	2000	1996	2000
Appliances	97,397	64,474	552	1,001
Batteries				
Lead-acid (wet-cell)	11,224	23,612	2,347	2,603
Household (dry-cell)	53	27	50	10
Food	102,477	36,758	1,032,600	104,317
Glass	45,800	38,210	381,700	469,613
Household Hazardous Waste	N/A	3,110	--	--
Ferrous Metals	385,939	374,519	3,746,929	4,462,955
Non-Ferrous Metals	189,527	130,002	502,718	869,662
Paper				
Cardboard	360,400	326,286	389,700	474,729
All other paper ¹	305,200	317,615	319,400	751,133
Plastics	24,200	22,967	94,700	244,613
Rubber	400	2,688	21,000	32,766
Scrap Tires				
Passenger	14,833	45,410	67	1,977
Truck	359	6,614	297	
Other	4,417	2,982	9,431	
Textiles	11,572	11,515	2,683	1,367
Used Oil	N/A	25,803	--	--
Wood	53,600	207,782	838,100	1,262,790
Yard waste	495,000	782,236	--	104,485
Other	451,302	289,925	3,942,426	3,415,848
Statewide Total	2,553,700	2,712,535	11,284,700	12,199,869

¹ 365,805 tons of other paper reported by Belmont-Jefferson has been removed

Reduction/Recycling by Solid Waste Management District

Figure 11 shows that 44 out of 52 SWMDs increased total reduction and recycling percentages from 1995 through 2000. One district, Henry SWMD, stayed the same. The district showing the greatest increase is Athens-Hocking SWMD, which increased their total reduction/recycling rate from 13 percent in 1995 to 65 percent in 2000. Eleven districts show an increase of greater than 20 percent including; Greene County SWMD, Clinton County

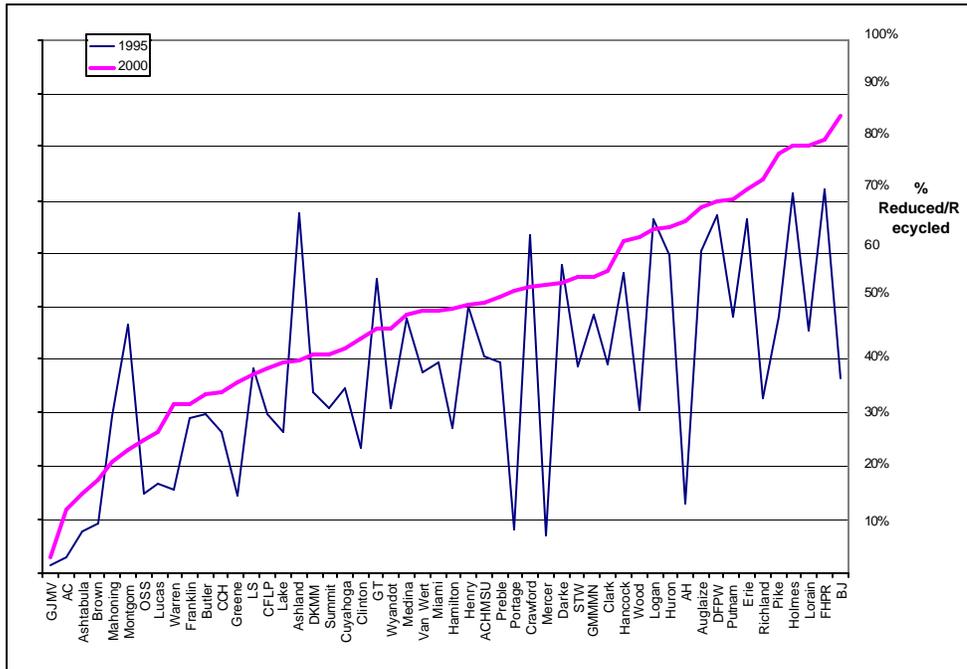


Figure 11. Changes in Reduction/Recycling Percentage by SWMD: 1996 versus 2000

SWMD, Hamilton County SWMD, Portage County SWMD, Mercer County SWMD, Wood County SWMD, Putnam County SWMD, Richland County SWMD, Pike County SWMD, Lorain County SWMD, Belmont-Jefferson Joint Solid Waste Authority. In most cases, the districts reporting the highest overall recycling rates also have high industrial recycling rates. The districts reporting a better than 20 percent increase in their overall reduction and recycling rate all have industrial recycling rates greater than 70 percent and nine of the eleven report industrial recycling rates greater than 85 percent.

It is important to note that the calculation of the reduction/recycling rate for the Adams-Clermont, the Gallia-Jackson-Meigs-Vinton, and Coshocton-Fairfield-Licking-Perry SWMDs includes disposal of very large quantities of waste from coal-burning power plants. Even though there are considerable on-going efforts to recycle or

SWMD	WRR w/coal waste	WRR w/out coal waste
Gallia-Jackson-Meigs-Vinton SWMD	3%	50%
Adams-Clermont SWMD	12%	49%
Coshocton-Fairfield-Licking-Perry SWMD	38%	60%

beneficially use the waste being disposed at these facilities, the current reduction/recycling rates include only the beginnings of such projects. The calculation of the total waste reduction and recycling rate (WRR) for 2000 with and without this waste is as follows:

While there are some notable exceptions, in most SWMDs, the industrial sector contributes a much greater portion towards the reduction-recycling total percentage than the residential/commercial sector. The amount of industrial reduction/recycling as a percentage of the total waste recycled by each district is shown in Figure 12 for each SWMD. Districts with higher residential-commercial contributions towards the recycling rate than industrial include Lawrence-Scioto SWMD, Greene SWMD, Franklin SWMD, Lake SWMD, and Van Wert SWMD. In 1996, Lawrence-Scioto's industrial recycling comprised 75 percent of the district's total recycling and in 2000, this percentage dropped to less than 1 percent, however this is primarily due to an error in reporting which counted 57,000 tons of wood waste as residential, which in fact, was industrial recycling.

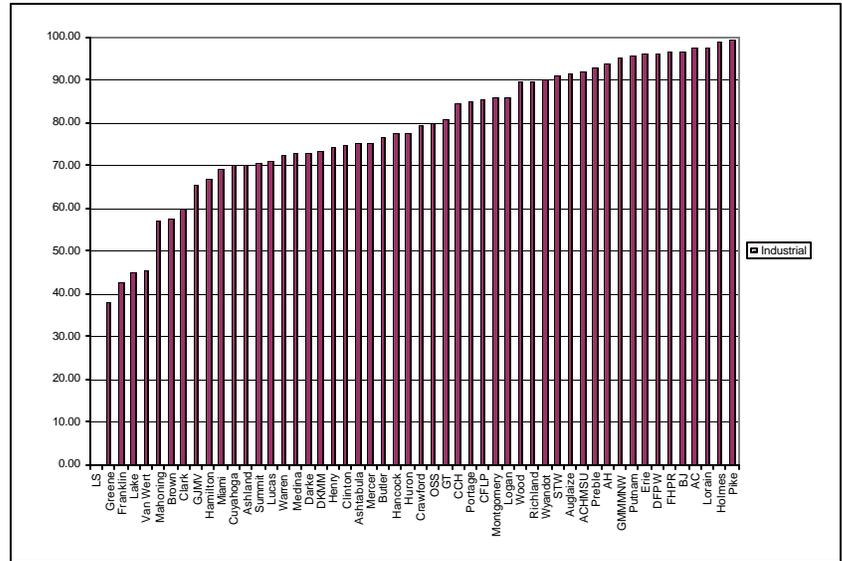


Figure 12. Industrial Recycling as a % of Total Recycling by SWMD

Portage SWMD and Putnam SWMD are two districts that previously recycled a higher percentage of residential/commercial recycling, but by 2000 both district's were recycling a greater percentage of industrial waste. In 1996, 37 percent of all waste recycled in Portage was industrial and by 2000, this percentage had risen to 85 percent. During that same time, the percentage of industrial waste recycled in Putnam SWMD rose from 46 percent in 1996 to just over 95 percent in 2000.

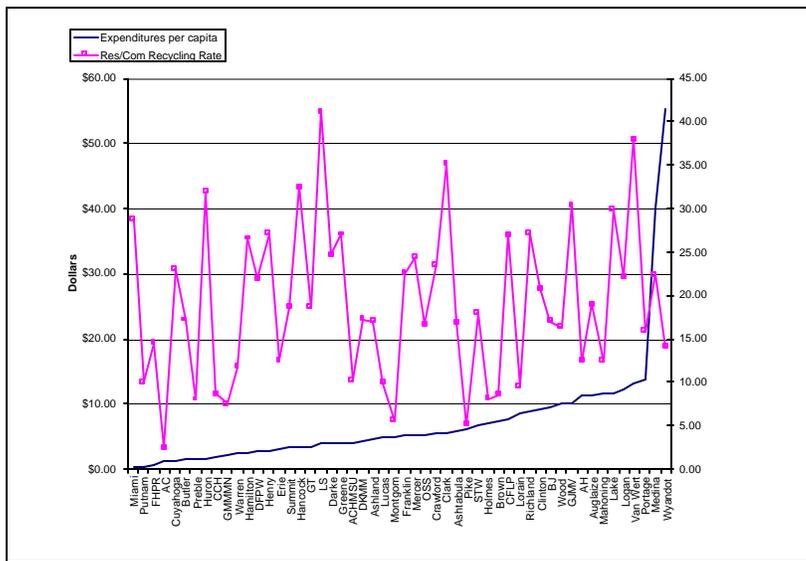


Figure 13. District expenditures per capita vs. R/C recycling rate 2000

Total reduction and recycling rates in 2000 varied considerably among SWMDs in 2000 from a low of 2.95 percent in the Gallia-Jackson-Meigs-Vinton Joint SWMD to a high of 86 percent in the Belmont-Jefferson Solid Waste Authority. One district showing a dramatic change in overall recycling rate is Mahoning SWMD. The district reported a total waste reduction and recycling rate of 65 percent in 1996, and in 2000, a rate of 20 percent.

The average total recycling rate has risen from 37 percent in 1995 to 49 percent in 2000. The average residential/commercial recycling rate in 2000 was 19 percent. The district reporting the highest rate is Lawrence-Scioto (41%) followed by Van Wert (38%).

To better understand residential/commercial recycling rates in Ohio, we charted the residential/commercial recycling rate against the expenditures per capita for each SWMD. The resulting chart (Figure 13) does not indicate a clear correlation, in fact the district's reporting the highest residential/recycling rate both spend less than ten dollars per capita per year. Figure 13 shows that most district's spend less than \$10 per capita and have a residential/commercial recycling rate ranging from five to 40 percent. Plotting the residential/commercial recycling rate over the population for each SWMD does not yield any obvious results either. Figure 14 shows that 45 out of 52 districts have a population less than 400,000 people and have a residential/commercial recycling rate that varies between five and 40 percent.

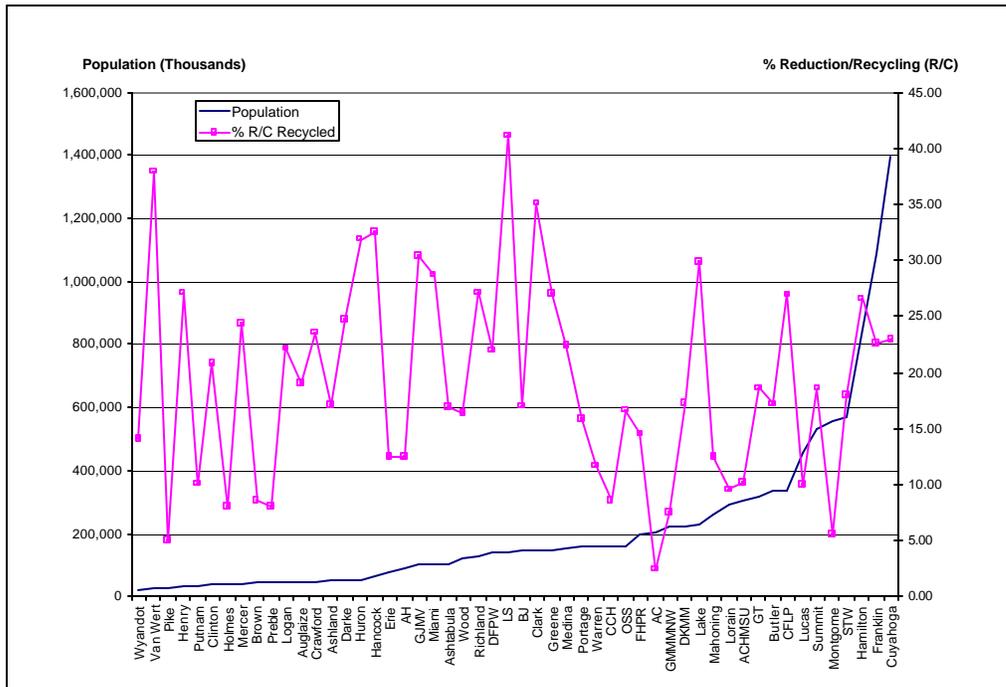


Figure 14. Percent Residential/Commercial Reduction and Recycling versus Population by SWMD for 2000

Waste Generation

The U.S. Environmental Protection Agency defines waste generation as the amount of materials and products that enter the waste stream and before materials recovery, composting, or combustion takes place. Waste generation can be estimated in several different ways. Examples include using national averages, sometimes in combination with waste volume and composition studies, and surveys. The use of national averages is perhaps the easiest approach to estimate R/C generation; however, national or statewide generation rates for specific industrial categories often do not accurately reflect local conditions or predict industrial generation for a particular geographic area.

A second method for estimating waste generation uses the sum of **disposal totals plus total reduction/recycling (TRR)**; this method can also provide a reasonably good estimate of waste generation in most cases. Errors in the disposal + TRR method can result from the mischaracterization of waste at disposal facilities, unreported waste disposal at out-of-state facilities, double counting of data when reporting and/or open dumping that is unaccounted for.

The differences between waste generation estimates made using different methods have narrowed significantly between 1990 and 2000. This is true for both the residential-commercial sector and the industrial sector. The reduced differences suggest that survey efforts are producing more accurate and complete information and/or that the accuracy of disposal and TRR data have also improved.

Table 5 shown below lists Ohio's waste generation as calculated using the sum of **disposal + TRR**. Residential/commercial (R/C) generation increased 17 percent between 1990 and 2000 while industrial waste generation has increased by 280 percent. A large portion of the increase in the industrial waste stream can be attributed to the increase in coal combustion wastes.

Ohio's residential-commercial generation rate for 2000 was 6.65 pounds per person per day (pppd), which was well above the national average of 4.5 pppd published in *Municipal Solid Waste in The United States: 2000 Facts and Figures* (USEPA 2001). The national average includes yard waste as 14 percent of total generation. Ohio data, by contrast, includes only yard waste that was disposed in landfills between 1990 and 1995. Since 1990, much of the yard waste generated in Ohio has been composted or managed by direct land application and has not been a part of the waste generation totals. This may account for some of the decrease in the residential-commercial generation rate between 1990 and 1995.

The jump in the residential-commercial generation rate for 1996 (Table 5) is likely due to the inclusion of composted yard waste and land applied yard waste in the waste generation totals.

Year	<u>Tons Generated</u>			<u>Pounds per Person per Day</u>		
	Residential/ Commercial	Industrial	Total	Residential/ Commercial	Industrial	Total
1990	11,645,247	5,727,154	17,372,401	5.88	2.89	8.77
*1991	10,842,556	8,632,299	19,474,855	5.77	4.04	9.81
1992	11,280,638	10,331,650	21,612,288	5.66	5.18	10.84
1993	11,426,848	11,211,163	22,638,011	5.70	5.60	11.30
1994	11,771,081	12,279,363	24,050,444	5.82	6.07	11.89
1995	11,448,973	15,227,291	26,676,264	5.68	7.56	13.24
1996	12,445,907	20,642,698	33,088,605	6.16	10.24	16.40
1997	12,532,160	19,729,898	32,262,058	6.14	9.65	15.79
1998	12,953,852	21,154,103	34,107,955	6.24	10.30	16.54
1999	13,195,167	20,234,830	33,429,997	6.33	9.94	16.27
2000 ¹	13,681,435	21,764,057	35,445,491	6.65	10.58	17.24

¹. Excludes 365,805 tons of other paper reported by Belmont-Jefferson SWMD
* 1991 values are estimated

Why is the Ohio residential-commercial generation rate higher than the national average, and why is it continuing to rise?

The exact reason for Ohio's high waste generation numbers is unclear, but calculations performed by the individual SWMDs also support the higher figure. Ohio has a slightly higher urban-to-rural population ratio than the national average; this would normally suggest a higher disposal and generation rate for Ohio compared to national averages.

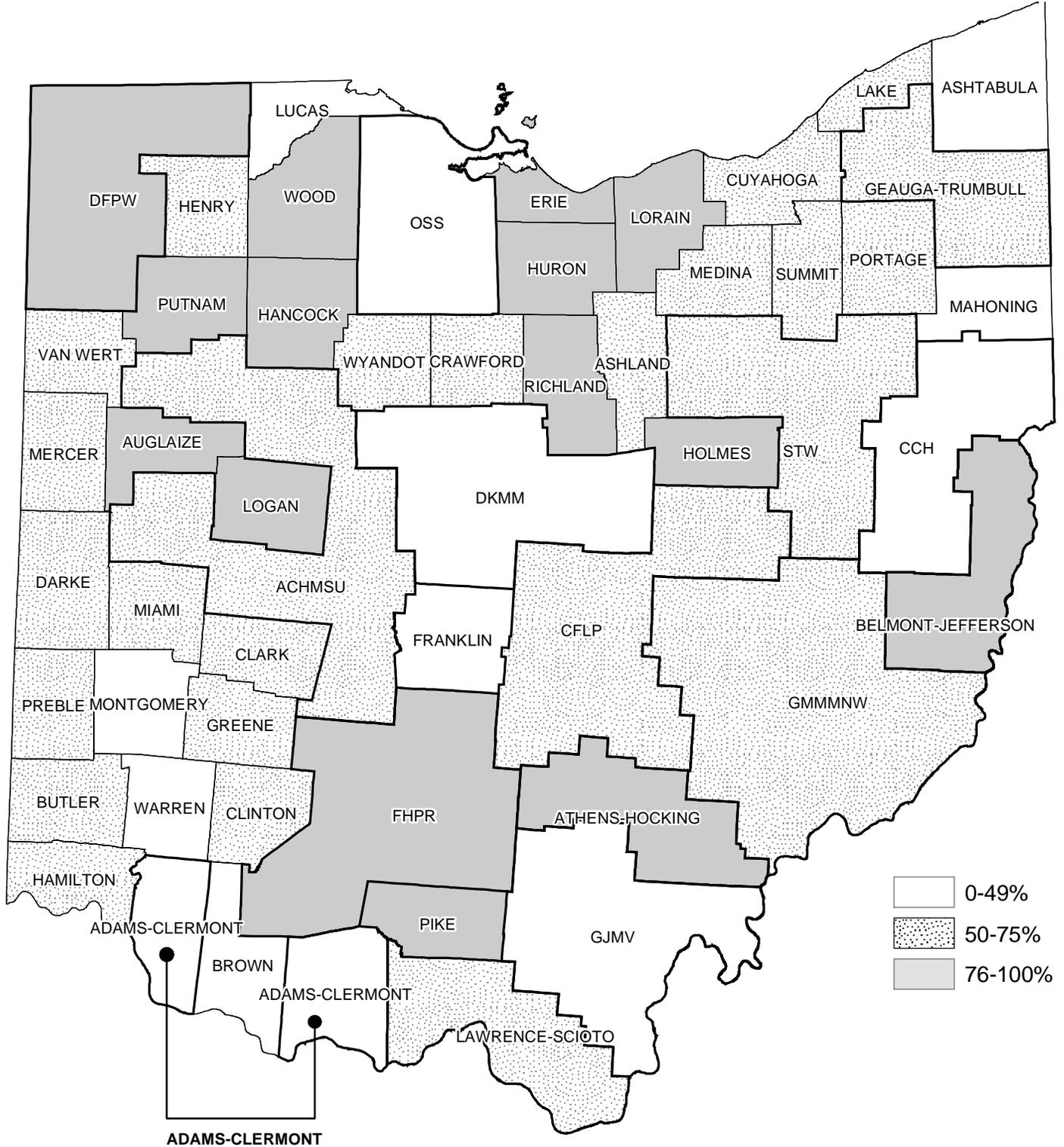


Figure 15. Total Waste Reduction and Recycling Rates for Each SWMD in 2000

Another potential factor influencing the Ohio generation rate could be mischaracterization of waste and recycling figures. Some industrial waste delivered to landfills may be incorrectly characterized as residential-commercial waste. Solid waste which is first delivered to transfer facilities prior to disposal at a landfill has an even higher likelihood of being mischaracterized. In fact, some landfills have indicated to OEPA that they automatically record all incoming waste from a transfer facility residential-commercial waste. Ohio EPA made some adjustments in the 2000 disposal amounts in an attempt to correct for these mischaracterizations; however, there may be room to further improve the accuracy of these estimates in the future.

Recycling figures reported by SWMD's are sometimes overstated due to double counting and waste mischaracterization. This inflates the TRR value in the waste generation calculation (Total disposal + TRR). For example, recyclables sent from one district to a MRF in another district are sometimes counted twice: once by the sending district and again by the receiving district. This is because many MRFs do not track the origin of materials, but rather report one total to the host SWMD. This is another area where improvements in data analysis might be made.

Waste Generation by Solid Waste Management Districts

Waste generation based upon disposal plus recycling has generally increased in most SWMDs from 1990 to 2000. However, these results do not necessarily mean that more waste is actually being produced. SWMDs have become much more successful over the past five years documenting the amount of reduction and recycling that is occurring. Since waste generation is determined in Figure 16 (and in Table 5) by the sum of disposal plus reduction/recycling, waste generation automatically increases as reduction/recycling increases. Also, between 1990 and 2000 a number of new industries that generated very large solid waste streams began operations and/or opened captive landfills in some districts.

The waste generation rate as determined by disposal plus reduction/recycling in 2000 is shown in Figure 14 for each SWMD. For most SWMDs with total generation rates below 10 pounds per person per day, the residential-commercial generation rate is higher than the industrial generation rate.

Districts reported total generation rates above 10 pppd are most often the result of relatively large industrial waste generation rates. Districts with total waste generation rates above 20 pounds per person per day typically have one or two very large industrial generators operating within the district that generate the bulk of the waste for that district. Industries that produce the largest solid waste streams include coal burning power plants, paper mills, foundries, lumber mills, glass works, and food processing plants, among others.

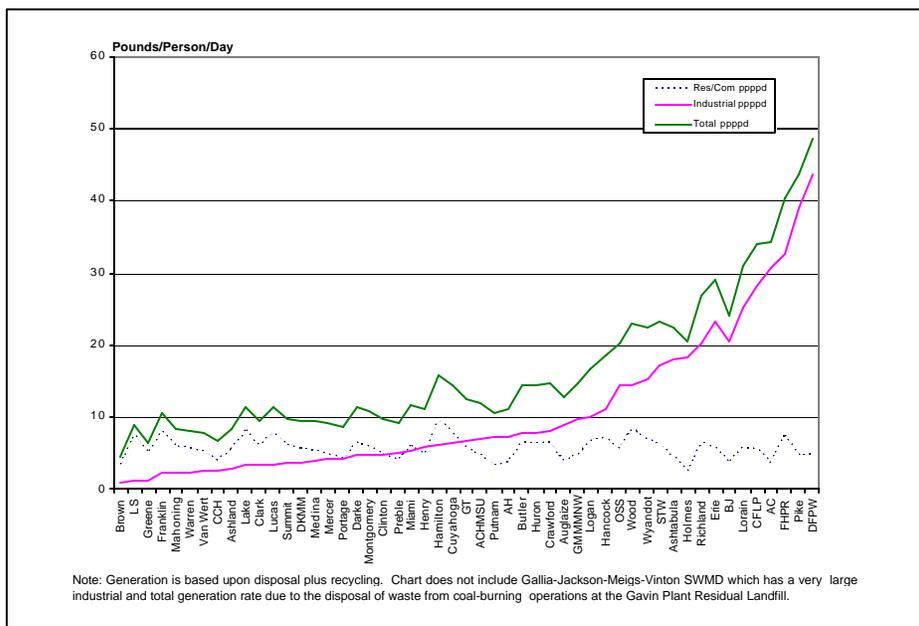


Figure 16. Comparison of Residential/Commercial versus Industrial Waste Generation by SWMD for 2000

A number of district-related factors can cause errors in the generation rates. Waste is often mischaracterized at the landfill as coming from the wrong district. This can be the result of haulers

that operate across multiple counties, mixing of waste at transfer stations and even deliberate deception on the part of some haulers in order to avoid SWMD generation fees. In addition, waste hauled out of state is often not tracked accurately by the generating district for a number of reasons.

An analysis of residential-commercial waste streams

Figure 17 shown to the right compares residential-commercial waste generation rates (based upon disposal plus reduction/recycling) to the population density for each SWMD. In general, SWMDs with higher population density appear to have higher generation rates, also. Assuming that residents in rural areas are more likely than urban residents to manage their solid waste on their own property, waste generation would be expected to be higher in urban areas.

In addition, urban areas typically have a much greater concentration of commercial/service industries. A larger commercial waste stream leads to higher waste generation in urban areas.

Figure 17 also shows that highly urbanized districts such as Hamilton, Lucas, and Cuyahoga have the highest residential-commercial generation rates, as expected. However, some rural districts which would be expected to have low residential-commercial generation rates, instead have quite high generation rates (e.g. Clinton, Erie, and Wyandot SWMDs). In the case of Erie County, the presence of a large amusement park and substantial summer tourist population contributes to the R/C waste stream and results in underestimated population figures.

Table 9 beginning on page 77 shows the estimated waste generation as determined by disposal plus reduction/recycling for each SWMD.

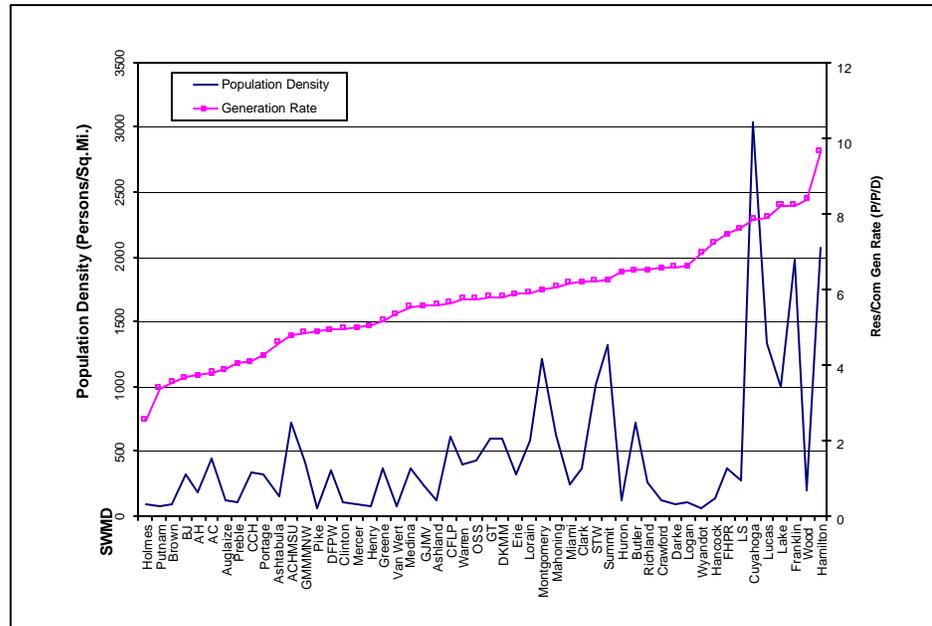


Figure 17. Residential/Commercial Waste Generation versus Population Density by SWMD for 2000

Table 6. Amounts Disposed in Landfills by SWMD: 1990 - 2000

SWMD/ Year	Tons Disposed			Pounds Per Person Per Day Disposed		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Adams-Clermont Joint SWMD						
1990	127,780	5,965	133,745	4.05	0.19	4.24
1991	120,488	1,536,368	1,656,856	3.74	47.73	51.47
1992	147,745	1,679,282	1,827,027	4.54	51.66	56.20
1993	127,429	1,568,007	1,695,436	3.88	47.77	51.65
1994	132,937	1,515,226	1,648,163	3.81	43.42	47.23
1995	126,263	1,559,507	1,685,770	3.78	46.67	50.45
1996	130,793	1,925,602	2,056,395	3.88	57.16	61.05
1997	133,315	1,540,568	1,673,883	3.86	44.65	48.52
1998	133,972	1,822,315	1,956,287	3.84	52.22	56.06
1999	134,380	1,613,971	1,748,351	3.81	45.74	49.54
2000	136,596	996,698	1,133,294	3.68	26.84	30.51
Averages:	131,972	1,433,046	1,565,018	3.89	42.18	46.08
Allen-Champaign-Hardin-Madison-Shelby-Union Joint SWMD (North Central SWMD)						
1990	233,196	106,287	339,483	4.55	2.07	6.62
1991	161,220	110,033	271,253	3.15	2.15	5.30
1992	193,612	71,085	264,697	3.58	1.31	4.90
1993	162,447	98,752	261,199	3.18	1.93	5.11
1994	202,314	52,121	254,435	3.96	1.02	4.98
1995	202,797	82,320	285,117	3.97	1.61	5.58
1996	224,805	72,966	297,771	4.40	1.43	5.83
1997	253,046	53,995	307,041	4.96	1.06	6.02
1998	251,904	55,280	307,184	4.94	1.08	6.03
1999	248,741	79,476	328,217	4.46	1.42	5.88
2000	239,763	92,383	332,146	4.29	1.65	5.94
Averages:	215,804	79,518	295,322	4.12	1.52	5.65
Ashland County SWMD						
1990	32,316	11,916	44,232	3.73	1.37	5.10
1991	29,497	23,080	52,577	3.40	2.66	6.06
1992	24,438	21,926	46,364	2.77	2.49	5.26
1993	28,433	14,596	43,029	3.20	1.64	4.84
1994	23,719	27,182	50,901	2.61	2.99	5.59
1995	24,098	25,053	49,151	2.63	2.73	5.36
1996	32,587	24,332	56,919	3.54	2.64	6.18
1997	34,024	23,839	57,863	3.68	2.58	6.26
1998	39,094	18,752	57,846	4.21	2.02	6.24
1999	50,007	11,225	61,232	5.37	1.21	6.58
2000	43,411	6,097	49,508	4.65	0.65	5.30
Averages:	32,874	18,908	51,783	3.61	2.08	5.70
Ashtabula County SWMD						
1994	88,626	207,546	296,172	4.76	11.16	15.92
1995	71,723	224,358	296,081	3.84	12.00	15.84
1996	79,499	209,863	289,362	4.24	11.20	15.45
1997	80,479	237,827	318,306	4.28	12.65	16.93
1998	71,261	315,369	386,630	3.78	16.72	20.50
1999	68,282	393,042	461,324	3.61	20.78	24.39
2000	71,228	293,145	364,373	3.80	15.64	19.44

Table 6. Amounts Disposed in Landfills by SWMD: 1990 - 2000

SWMD/ Year	Tons Disposed			Pounds Per Person Per Day Disposed		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Averages:	75,871	268,735	344,606	4.04	14.30	18.35
Ashtabula-Geauga-Trumbull Joint SWMD						
1990	270,860	82,548	353,408	3.65	1.11	4.76
1991	266,615	167,450	434,065	3.57	2.24	5.81
1992	287,613	224,742	512,355	3.83	2.99	6.82
1993	235,870	204,615	440,485	3.13	2.71	5.84
Averages:	265,239	169,838	435,078	3.54	2.26	5.80
Athens-Gallia-Hocking-Jackson-Meigs-Vinton Joint SWMD						
1990	94,269	12,194	106,463	2.84	0.37	3.21
1991	52,070	28,444	80,514	1.56	0.85	2.42
1992	103,886	4,372	108,258	3.12	0.13	3.25
1993	97,166	15,951	113,117	2.92	0.48	3.40
Averages:	86,847	15,240	102,088	2.61	0.45	3.06
Athens-Hocking Joint SWMD						
1994	45,056	3,295	48,351	2.81	0.21	3.02
1995	35,343	2,439	37,782	2.35	0.16	2.51
1996	39,694	1,465	41,159	2.49	0.09	2.58
1997	37,281	3,633	40,914	2.35	0.23	2.58
1998	40,801	12,253	53,054	2.57	0.77	3.34
1999	46,154	16,088	62,242	2.91	1.01	3.92
2000	51,861	8,395	60,256	3.27	0.53	3.80
Averages:	42,312	6,795	49,108	2.67	0.42	3.10
Auglaize County SWMD						
1990	25,877	22,379	48,256	3.18	2.75	5.93
1991	32,021	15,183	47,204	3.93	1.86	5.79
1992	32,159	14,053	46,212	3.94	1.72	5.66
1993	30,068	13,990	44,058	3.68	1.71	5.39
1994	20,354	14,218	34,572	2.39	1.67	4.06
1995	21,107	12,644	33,751	2.47	1.48	3.95
1996	22,115	13,787	35,902	2.58	1.61	4.19
1997	19,129	14,235	33,364	2.23	1.66	3.89
1998	24,790	7,324	32,114	2.86	0.85	3.71
1999	32,135	1,206	33,341	3.69	0.14	3.83
2000	26,548	7,769	34,317	3.12	0.91	4.03
Averages:	26,027	12,435	38,462	3.09	1.48	4.58
Belmont-Jefferson Joint SWMD (Belmont-Jefferson Solid Waste Authority)						
1990	103,630	20,723	124,353	3.47	0.69	4.17
1991	111,259	20,654	131,913	3.77	0.70	4.47
1992	110,890	20,586	131,476	4.04	0.75	4.79
1993	110,593	50,136	160,729	4.04	1.83	5.88
1994	110,153	20,449	130,602	4.04	0.75	4.79
1995	63,525	2,440	65,965	2.34	0.09	2.43
1996	68,040	1,491	69,531	2.39	0.05	2.44
1997	86,565	1,597	88,162	3.06	0.06	3.12
1998	76,436	10,837	87,273	2.71	0.38	3.09
1999	77,626	6,414	84,040	2.94	0.24	3.18

Table 6. Amounts Disposed in Landfills by SWMD: 1990 - 2000

SWMD/ Year	Tons Disposed			Pounds Per Person Per Day Disposed		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Belmont-Jefferson Joint SWMD (Belmont-Jefferson Solid Waste Authority)						
2000	79,309	4,426	83,735	3.02	0.17	3.18
Averages:	90,729	14,523	105,252	3.25	0.52	3.77
Brown County SWMD (Brown County Solid Waste Authority)						
1990	17,145	720	17,865	2.68	0.11	2.80
1991	21,495	4,244	25,739	3.29	0.65	3.94
1992	13,503	7,300	20,803	2.07	1.12	3.18
1993	14,679	6,118	20,797	2.22	0.93	3.15
1994	14,665	7,985	22,650	2.10	1.14	3.24
1995	20,049	1,837	21,886	2.97	0.27	3.25
1996	20,942	2,282	23,224	3.10	0.34	3.43
1997	22,198	3,519	25,717	3.48	0.55	4.03
1998	22,648	3,376	26,024	3.55	0.53	4.08
1999	23,549	4,587	28,136	3.32	0.65	3.97
2000	24,929	4,216	29,145	3.23	0.55	3.78
Averages:	19,618	4,198	23,816	2.90	0.62	3.53
Butler County SWMD						
1990	287,422	287,739	575,161	5.45	5.45	10.90
1991	242,801	202,342	445,143	4.58	3.82	8.40
1992	241,160	254,322	495,482	4.53	4.78	9.31
1993	255,479	249,905	505,384	4.59	4.49	9.08
1994	281,860	354,348	636,208	4.97	6.25	11.21
1995	260,136	273,397	533,533	4.54	4.77	9.31
1996	289,587	330,938	620,525	4.99	5.70	10.69
1997	278,378	298,005	576,383	4.66	4.99	9.66
1998	296,714	355,269	651,983	4.92	5.89	10.81
1999	307,692	357,664	665,356	5.09	5.92	11.01
2000	327,313	260,002	587,315	5.39	4.28	9.67
Averages:	278,958	293,084	572,043	4.88	5.12	10.00
Carroll-Columbiana-Harrison Joint SWMD						
1990	60,870	3,918	64,788	2.22	0.14	2.36
1991	68,170	7,290	75,460	2.50	0.27	2.77
1992	69,554	5,446	75,000	2.56	0.20	2.76
1993	90,664	14,452	105,116	3.35	0.53	3.88
1994	104,735	11,780	116,515	3.70	0.42	4.11
1995	112,592	12,251	124,843	4.18	0.46	4.64
1996	88,369	14,619	102,988	3.21	0.53	3.75
1997	82,699	15,610	98,309	3.01	0.57	3.58
1998	86,700	18,700	105,400	3.16	0.68	3.84
1999	108,788	12,536	121,324	3.96	0.46	4.42
2000	109,031	20,108	129,139	3.73	0.69	4.42
Averages:	89,288	12,428	101,716	3.23	0.44	3.68
Clark County SWMD						
1990	173,984	781	174,765	6.60	0.03	6.63
1991	138,390	1,162	139,552	5.26	0.04	5.30
1992	121,185	1,058	122,243	4.49	0.04	4.53

Table 6. Amounts Disposed in Landfills by SWMD: 1990 - 2000

SWMD/ Year	Tons Disposed			Pounds Per Person Per Day Disposed		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Clark County SWMD						
1993	115,913	1,025	116,938	4.29	0.04	4.33
1994	105,976	4,362	110,338	3.93	0.16	4.09
1995	92,465	3,514	95,979	3.41	0.13	3.54
1996	96,177	1,345	97,522	3.54	0.05	3.59
1997	98,381	2,073	100,454	3.62	0.08	3.70
1998	101,864	9,084	110,948	3.74	0.33	4.08
1999	103,014	2,263	105,277	3.79	0.08	3.87
2000	106,201	2,330	108,531	4.02	0.09	4.11
Averages:	113,959	2,636	116,595	4.24	0.09	4.34
Clinton County SWMD						
1994	38,706	3,560	42,266	5.63	0.52	6.15
1995	37,721	5,207	42,928	5.79	0.80	6.59
1996	37,209	12,263	49,472	5.69	1.87	7.56
1997	34,361	4,812	39,173	4.89	0.68	5.58
1998	29,315	8,156	37,471	4.15	1.15	5.30
1999	31,190	7,288	38,478	4.41	1.03	5.45
2000	25,966	12,579	38,545	3.91	1.89	5.80
Averages:	33,495	7,695	41,190	4.92	1.13	6.06
Clinton-Warren Joint SWMD						
1990	142,431	9,478	151,909	5.27	0.35	5.62
1991	127,108	8,153	135,261	4.67	0.30	4.97
1992	149,481	7,124	156,605	5.35	0.25	5.60
1993	28,629	7,897	36,526	1.01	0.28	1.29
Averages:	111,912	8,163	120,075	4.07	0.29	4.37
Coshocton-Fairfield-Licking-Perry Joint SWMD						
1990	200,384	749,005	949,389	3.72	13.89	17.61
1991	198,182	748,533	946,715	3.66	13.83	17.49
1992	218,593	919,700	1,138,293	4.02	16.92	20.94
1993	178,715	737,387	916,102	3.17	13.06	16.23
1994	183,959	864,097	1,048,056	3.31	15.56	18.87
1995	191,856	738,594	930,450	3.23	12.42	15.64
1996	208,408	791,271	999,679	3.51	13.32	16.83
1997	240,408	940,432	1,180,840	4.05	15.83	19.88
1998	238,085	1,164,801	1,402,886	3.96	19.37	23.33
1999	247,676	1,012,635	1,260,311	4.09	16.74	20.83
2000	250,549	1,182,621	1,433,170	4.12	19.43	23.55
Averages:	214,255	895,370	1,109,626	3.71	15.48	19.19
Crawford County SWMD						
1990	30,899	14,284	45,183	3.55	1.64	5.19
1991	34,966	11,866	46,832	4.05	1.37	5.43
1992	36,031	10,407	46,438	4.15	1.20	5.35
1993	43,487	13,716	57,203	5.09	1.60	6.69
1994	36,811	11,104	47,915	4.25	1.28	5.53
1995	39,201	9,654	48,855	4.50	1.11	5.61
1996	39,643	9,269	48,912	4.57	1.07	5.64

Table 6. Amounts Disposed in Landfills by SWMD: 1990 - 2000

SWMD/ Year	Tons Disposed			Pounds Per Person Per Day Disposed		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Crawford County SWMD						
1997	41,372	13,372	54,744	4.79	1.55	6.34
1998	39,238	14,481	53,719	4.55	1.68	6.22
1999	42,665	15,036	57,701	5.04	1.78	6.81
2000	43,942	18,971	62,913	5.02	2.17	7.18
Averages:	38,932	12,923	51,855	4.50	1.49	5.99
Cuyahoga County SWMD						
1990	1,531,685	344,178	1,875,863	5.94	1.34	7.28
1991	1,416,018	515,416	1,931,434	5.52	2.01	7.53
1992	1,495,462	567,098	2,062,560	5.83	2.21	8.04
1993	1,556,039	541,744	2,097,783	6.06	2.11	8.17
1994	1,546,785	589,352	2,136,137	6.04	2.30	8.34
1995	1,372,208	936,154	2,308,362	5.38	3.67	9.05
1996	1,453,499	718,109	2,171,608	5.83	2.88	8.71
1997	1,550,601	663,344	2,213,945	6.13	2.62	8.75
1998	1,524,213	511,202	2,035,415	6.04	2.03	8.07
1999	1,545,769	627,981	2,173,750	6.17	2.51	8.68
2000	1,536,943	615,644	2,152,587	6.04	2.42	8.46
Averages:	1,502,656	602,747	2,105,404	5.90	2.37	8.28
Darke County SWMD						
1990	43,221	110	43,331	4.61	0.01	4.62
1991	37,758	371	38,129	4.06	0.04	4.10
1992	36,636	12,466	49,102	3.74	1.27	5.01
1993	28,360	6,296	34,656	2.90	0.64	3.54
1994	36,443	1,401	37,844	3.69	0.14	3.83
1995	28,904	10,526	39,430	3.00	1.09	4.09
1996	32,835	7,936	40,771	3.41	0.82	4.24
1997	34,326	859	35,185	3.57	0.09	3.66
1998	49,153	2,834	51,987	5.12	0.30	5.42
1999	37,985	28,407	66,392	3.96	2.96	6.92
2000	47,654	4,204	51,858	4.97	0.44	5.41
Averages:	37,570	6,855	44,425	3.91	0.71	4.62
Defiance-Fulton-Paulding-Williams Joint SWMD						
1990	84,831	447,161	531,992	3.51	18.53	22.04
1991	69,461	418,952	488,413	2.89	17.43	20.32
1992	80,930	429,888	510,818	3.28	17.41	20.69
1993	93,312	632,752	726,064	3.73	25.26	28.98
1994	88,206	807,099	895,305	3.51	32.07	35.58
1995	102,662	565,099	667,761	4.06	22.36	26.42
1996	107,947	574,301	682,248	4.26	22.68	26.94
1997	111,166	658,057	769,223	4.37	25.89	30.26
1998	65,979	552,026	618,005	2.59	21.64	24.22
1999	103,521	514,948	618,469	4.06	20.18	24.24
2000	97,857	390,032	487,889	3.84	15.29	19.12
Averages:	91,442	544,574	636,017	3.64	21.70	25.34

Table 6. Amounts Disposed in Landfills by SWMD: 1990 - 2000

SWMD/ Year	Tons Disposed			Pounds Per Person Per Day Disposed		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Delaware-Knox-Marion-Morrow Joint SWMD						
1990	135,946	13,396	149,342	3.61	0.36	3.97
1991	121,840	12,547	134,387	3.20	0.33	3.52
1992	129,491	14,594	144,085	3.35	0.38	3.73
1993	139,259	11,657	150,916	3.57	0.30	3.87
1994	150,294	20,372	170,666	3.73	0.51	4.23
1995	144,507	18,759	163,266	3.64	0.47	4.11
1996	155,600	30,480	186,080	3.83	0.75	4.58
1997	173,620	49,970	223,590	4.35	1.25	5.60
1998	156,385	20,258	176,643	3.89	0.50	4.39
1999	168,089	32,563	200,652	4.15	0.80	4.95
2000	196,361	33,658	230,019	4.81	0.82	5.63
Averages:	151,944	23,477	175,422	3.82	0.58	4.41
Erie County SWMD						
1994	68,414	51,358	119,772	5.17	3.88	9.04
1995	67,947	34,204	102,151	5.12	2.58	7.69
1996	73,478	30,356	103,834	5.53	2.28	7.81
1997	71,835	35,305	107,140	5.35	2.63	7.98
1998	65,954	46,318	112,272	4.90	3.44	8.34
1999	71,470	47,971	119,441	5.29	3.55	8.84
2000	70,382	56,508	126,890	5.14	4.13	9.27
Averages:	69,925	43,145	113,071	5.21	3.21	8.42
Erie-Huron Joint SWMD						
1990	113,575	144,786	258,361	5.07	6.47	11.54
1991	90,538	164,459	254,997	4.05	7.36	11.42
1992	92,045	129,425	221,470	4.13	5.81	9.94
1993	70,487	224,284	294,771	3.17	10.07	13.24
Averages:	91,661	165,738	257,399	4.10	7.42	11.53
Fayette-Highland-Pickaway-Ross Joint SWMD						
1990	82,061	99,004	181,065	2.49	3.00	5.49
1991	116,568	215,088	331,656	3.53	6.52	10.05
1992	136,470	285,575	422,045	4.08	8.54	12.63
1993	97,978	122,570	220,548	2.91	3.64	6.55
1994	177,059	58,417	235,476	5.22	1.72	6.94
1995	214,034	64,785	278,819	6.26	1.90	8.16
1996	162,613	79,748	242,361	4.73	2.32	7.05
1997	208,532	94,132	302,664	5.84	2.63	8.47
1998	224,333	20,434	244,767	6.25	0.57	6.82
1999	162,922	93,697	256,619	4.52	2.60	7.12
2000	227,532	88,750	316,282	6.38	2.49	8.87
Averages:	164,554	111,109	275,663	4.74	3.26	8.01
Franklin County SWMD (Solid Waste Authority of Central Ohio)						
1990	798,455	18,789	817,244	4.50	0.11	4.61
1991	647,576	32,181	679,757	3.64	0.18	3.83
1992	393,501	267,680	661,181	2.20	1.50	3.70
1993	657,499	65,712	723,211	3.66	0.37	4.03

Table 6. Amounts Disposed in Landfills by SWMD: 1990 - 2000

SWMD/ Year	Tons Disposed			Pounds Per Person Per Day Disposed		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Franklin County SWMD (Solid Waste Authority of Central Ohio)						
1994	630,725	70,067	700,792	3.45	0.38	3.83
1995	1,037,202	97,431	1,134,633	5.71	0.54	6.25
1996	1,087,168	86,611	1,173,779	5.96	0.47	6.43
1997	1,034,797	126,737	1,161,534	5.55	0.68	6.23
1998	1,160,495	132,425	1,292,920	5.99	0.68	6.67
1999	1,173,403	109,475	1,282,878	5.99	0.56	6.55
2000	1,259,535	185,635	1,445,170	6.37	0.94	7.31
Averages:	898,214	108,431	1,006,645	4.82	0.58	5.40
Gallia-Jackson-Meigs-Vinton Joint SWMD						
1994	61,943	11,295	73,238	3.40	0.62	4.02
1995	67,332	2,153,211	2,220,543	3.67	117.23	120.89
1996	68,803	2,528,049	2,596,852	3.80	139.73	143.54
1997	61,447	2,517,373	2,578,820	3.34	136.86	140.20
1998	67,215	2,789,126	2,856,341	3.61	149.61	153.22
1999	68,616	2,366,333	2,434,949	3.73	128.47	132.19
2000	70,535	2,882,678	2,953,213	3.88	158.61	162.49
Averages:	66,555	2,178,295	2,244,850	3.63	**.**	**.**
Geauga-Trumbull Joint SWMD						
1994	186,310	176,251	362,561	3.27	3.10	6.37
1995	240,411	111,268	351,679	4.19	1.94	6.13
1996	229,771	136,215	365,986	3.99	2.37	6.36
1997	225,010	122,571	347,581	3.91	2.13	6.05
1998	234,795	111,443	346,238	4.15	1.97	6.12
1999	224,760	105,591	330,351	3.92	1.84	5.75
2000	271,572	123,365	394,937	4.72	2.14	6.86
Averages:	230,375	126,672	357,047	4.02	2.21	6.23
Greene County SWMD						
1990	90,631	1,177	91,808	3.75	0.05	3.80
1991	99,392	1,283	100,675	4.09	0.05	4.15
1992	85,279	41,292	126,571	3.50	1.69	5.19
1993	125,933	1,253	127,186	4.94	0.05	4.99
1994	207,884	3,126	211,010	8.14	0.12	8.26
1995	121,908	4,577	126,485	4.71	0.18	4.89
1996	101,218	8,265	109,483	3.88	0.32	4.20
1997	94,172	14,435	108,607	3.58	0.55	4.13
1998	127,771	13,203	140,974	4.82	0.50	5.32
1999	119,816	12,989	132,805	4.49	0.49	4.98
2000	100,297	12,454	112,751	3.76	0.47	4.22
Averages:	115,845	10,368	126,214	4.51	0.40	4.92
Guernsey-Monroe-Morgan-Muskingum-Noble-Washington Joint SWMD (Southeast)						
1990	111,907	38,402	150,309	2.67	0.92	3.59
1991	82,027	44,215	126,242	1.96	1.06	3.01
1992	91,604	29,890	121,494	2.19	0.71	2.90
1993	148,960	40,655	189,615	3.57	0.97	4.54
1994	167,971	72,339	240,310	4.03	1.73	5.76

Table 6. Amounts Disposed in Landfills by SWMD: 1990 - 2000

SWMD/ Year	Tons Disposed			Pounds Per Person Per Day Disposed		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Guernsey-Monroe-Morgan-Muskingum-Noble-Washington Joint SWMD (Southeast)						
1995	198,445	53,904	252,349	4.86	1.32	6.17
1996	197,354	44,600	241,954	4.85	1.10	5.94
1997	158,963	80,803	239,766	3.92	1.99	5.91
1998	175,905	84,600	260,505	4.35	2.09	6.45
1999	163,523	71,998	235,521	4.06	1.79	5.85
2000	179,560	101,220	280,780	4.48	2.52	7.00
Averages:	152,383	60,238	212,622	3.72	1.47	5.19
Hamilton County SWMD						
1990	1,160,553	122,770	1,283,323	7.31	0.77	8.08
1991	1,082,416	171,943	1,254,359	6.82	1.08	7.91
1992	1,072,854	121,622	1,194,476	6.77	0.77	7.54
1993	1,031,961	153,066	1,185,027	6.52	0.97	7.48
1994	998,280	218,653	1,216,933	6.30	1.38	7.68
1995	932,894	150,818	1,083,712	5.90	0.95	6.85
1996	1,005,121	154,502	1,159,623	6.36	0.98	7.34
1997	960,908	131,894	1,092,802	6.18	0.85	7.03
1998	954,923	189,234	1,144,157	6.14	1.22	7.36
1999	998,500	239,653	1,238,153	6.51	1.56	8.07
2000	1,093,002	181,087	1,274,089	7.09	1.17	8.26
Averages:	1,026,492	166,840	1,193,332	6.53	1.06	7.60
Hancock County SWMD						
1990	73,739	1,312	75,051	6.53	0.12	6.65
1991	61,832	11,165	72,997	4.85	0.88	5.72
1992	52,901	35,783	88,684	4.36	2.95	7.30
1993	50,960	20,993	71,953	4.16	1.72	5.88
1994	57,854	25,128	82,982	4.92	2.14	7.06
1995	64,006	18,528	82,534	5.65	1.64	7.29
1996	60,726	17,427	78,153	5.12	1.47	6.59
1997	62,846	19,497	82,343	5.30	1.64	6.94
1998	61,477	29,910	91,387	5.18	2.52	7.70
1999	59,500	33,156	92,656	5.01	2.79	7.80
2000	59,203	38,372	97,575	4.89	3.17	8.07
Averages:	60,458	22,842	83,301	5.08	1.91	7.00
Henry County SWMD						
1990	17,689	15,978	33,667	3.46	3.13	6.59
1991	17,681	15,180	32,861	3.33	2.86	6.19
1992	17,423	16,755	34,178	3.28	3.15	6.43
1993	16,414	8,416	24,830	3.09	1.58	4.67
1994	16,144	7,982	24,126	2.99	1.48	4.47
1995	16,262	6,677	22,939	2.99	1.23	4.22
1996	16,050	5,036	21,086	3.16	0.99	4.15
1997	18,513	6,270	24,783	3.40	1.15	4.55
1998	19,592	7,371	26,963	3.59	1.35	4.94
1999	22,317	8,557	30,874	4.09	1.57	5.65
2000	20,067	11,360	31,427	3.67	2.08	5.75

Table 6. Amounts Disposed in Landfills by SWMD: 1990 - 2000

SWMD/ Year	Tons Disposed			Pounds Per Person Per Day Disposed		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Averages:	18,013	9,962	27,975	3.36	1.87	5.23
Holmes County SWMD						
1990	11,506	13,499	25,005	1.95	2.28	4.23
1991	13,758	11,367	25,125	2.33	1.92	4.25
1992	14,606	12,354	26,960	2.37	2.01	4.38
1993	13,128	11,149	24,277	2.10	1.79	3.89
1994	14,322	14,514	28,836	2.24	2.27	4.51
1995	16,585	7,442	24,027	2.58	1.16	3.74
1996	26,830	4,124	30,954	4.36	0.67	5.03
1997	17,391	11,002	28,393	2.71	1.71	4.43
1998	28,100	3,241	31,341	4.33	0.50	4.83
1999	15,780	10,458	26,238	2.43	1.61	4.04
2000	15,487	12,837	28,324	2.32	1.92	4.24
Averages:	17,044	10,180	27,225	2.70	1.62	4.32
Huron County SWMD						
1994	25,913	20,170	46,083	2.68	2.09	4.77
1995	28,730	17,073	45,803	2.94	1.75	4.69
1996	31,697	15,052	46,749	3.25	1.54	4.80
1997	33,477	19,718	53,195	3.42	2.02	5.44
1998	32,726	19,181	51,907	2.99	1.75	4.74
1999	32,044	14,902	46,946	2.92	1.36	4.28
2000	43,482	7,676	51,158	4.40	0.78	5.18
Averages:	32,581	16,253	48,834	3.23	1.61	4.84
Lake County SWMD						
1990	300,117	28,798	328,915	7.65	0.73	8.38
1991	242,358	46,906	289,264	6.15	1.19	7.34
1992	246,062	23,362	269,424	6.23	0.59	6.82
1993	219,898	20,343	240,241	5.55	0.51	6.06
1994	233,521	21,212	254,733	5.87	0.53	6.41
1995	231,436	23,434	254,870	5.80	0.59	6.39
1996	223,356	18,807	242,163	5.59	0.47	6.06
1997	205,775	15,295	221,070	5.12	0.38	5.50
1998	231,166	16,030	247,196	5.66	0.39	6.05
1999	232,262	24,444	256,706	5.52	0.58	6.10
2000	239,254	54,350	293,604	5.76	1.31	7.07
Averages:	236,836	26,634	263,471	5.89	0.66	6.56
Lawrence-Scioto Joint SWMD						
1990	33,645	30,085	63,730	1.27	1.13	2.40
1991	31,762	32,127	63,889	1.20	1.22	2.42
1992	52,860	45,001	97,861	2.05	1.74	3.79
1993	60,981	120,006	180,987	2.32	4.56	6.88
1994	66,388	35,477	101,865	2.50	1.33	3.83
1995	72,965	70,423	143,388	2.75	2.65	5.40
1996	82,240	83,358	165,598	3.10	3.14	6.23
1997	100,865	104,110	204,975	3.80	3.92	7.72
1998	92,997	68,537	161,534	3.50	2.58	6.08

Table 6. Amounts Disposed in Landfills by SWMD: 1990 - 2000

SWMD/ Year	Tons Disposed			Pounds Per Person Per Day Disposed		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Lawrence-Scioto Joint SWMD						
1999	95,487	72,344	167,831	3.61	2.74	6.35
2000	116,386	30,396	146,782	4.49	1.17	5.66
Averages:	73,325	62,896	136,221	2.77	2.38	5.15
Logan County SWMD						
1990	39,773	413	40,186	5.50	0.06	5.55
1991	38,661	2,549	41,210	5.00	0.33	5.33
1992	34,246	2,363	36,609	4.43	0.31	4.73
1993	34,906	404	35,310	4.45	0.05	4.50
1994	34,903	4,104	39,007	4.28	0.50	4.78
1995	36,783	3,970	40,753	4.65	0.50	5.15
1996	46,586	4,050	50,636	5.84	0.51	6.35
1997	44,642	4,773	49,415	5.55	0.59	6.15
1998	40,607	9,116	49,723	5.05	1.13	6.19
1999	37,520	12,322	49,842	4.56	1.50	6.06
2000	42,624	7,987	50,611	5.16	0.97	6.13
Averages:	39,204	4,731	43,936	4.95	0.58	5.53
Lorain County SWMD						
1990	356,010	67,262	423,272	7.05	1.33	8.38
1991	278,770	68,751	347,521	5.53	1.36	6.89
1992	249,324	90,240	339,564	4.95	1.79	6.75
1993	274,759	78,875	353,634	5.28	1.52	6.80
1994	253,883	59,547	313,430	4.98	1.17	6.15
1995	256,231	70,998	327,229	4.89	1.36	6.25
1996	251,825	79,675	331,500	4.77	1.51	6.28
1997	239,296	74,908	314,204	4.50	1.41	5.91
1998	247,703	108,707	356,410	4.62	2.03	6.65
1999	255,410	55,688	311,098	4.73	1.03	5.76
2000	281,919	60,207	342,126	5.33	1.14	6.47
Averages:	267,739	74,078	341,817	5.14	1.42	6.57
Lucas County SWMD						
1990	542,451	110,183	652,634	6.46	1.31	7.77
1991	472,462	66,005	538,467	5.63	0.79	6.42
1992	521,821	131,930	653,751	6.23	1.58	7.81
1993	530,687	85,636	616,323	6.35	1.02	7.37
1994	537,189	43,221	580,410	6.43	0.52	6.95
1995	548,499	64,544	613,043	6.58	0.77	7.35
1996	527,251	110,333	637,584	6.34	1.33	7.66
1997	540,630	121,176	661,806	6.52	1.46	7.98
1998	626,176	79,465	705,641	7.53	0.96	8.48
1999	604,858	173,352	778,210	7.27	2.08	9.35
2000	590,307	127,766	718,073	7.11	1.54	8.65
Averages:	549,302	101,237	650,540	6.58	1.21	7.79
Mahoning County SWMD						
1990	198,515	4,138	202,653	4.12	0.09	4.20
1991	191,787	12,037	203,824	4.01	0.25	4.26

Table 6. Amounts Disposed in Landfills by SWMD: 1990 - 2000

SWMD/ Year	Tons Disposed			Pounds Per Person Per Day Disposed		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Mahoning County SWMD						
1992	236,378	14,079	250,457	4.88	0.29	5.17
1993	269,802	14,985	284,787	5.55	0.31	5.86
1994	308,177	15,822	323,999	6.40	0.33	6.73
1995	200,093	20,474	220,567	4.18	0.43	4.61
1996	213,336	30,654	243,990	4.65	0.67	5.31
1997	224,896	43,688	268,584	4.75	0.92	5.68
1998	241,534	52,573	294,107	5.12	1.11	6.23
1999	275,519	28,920	304,439	5.84	0.61	6.45
2000	249,255	66,820	316,075	5.31	1.42	6.74
Averages:	237,208	27,653	264,862	4.98	0.58	5.56
Medina County SWMD						
1990	68,139	854	68,993	2.96	0.04	3.00
1991	62,694	19,515	82,209	2.71	0.84	3.55
1992	83,493	4,842	88,335	3.57	0.21	3.78
1993	68,732	10,971	79,703	2.88	0.46	3.34
1994	74,252	9,093	83,345	3.06	0.37	3.43
1995	84,673	11,601	96,274	3.42	0.47	3.89
1996	94,446	12,297	106,743	3.73	0.49	4.22
1997	98,394	14,582	112,976	3.65	0.54	4.20
1998	109,572	18,606	128,178	3.97	0.67	4.65
1999	113,808	14,440	128,248	4.02	0.51	4.53
2000	118,508	18,894	137,402	4.30	0.69	4.98
Averages:	88,791	12,335	101,127	3.47	0.48	3.95
Mercer County SWMD						
1990	9,826	10,710	20,536	1.38	1.51	2.89
1991	17,149	1,600	18,749	2.41	0.22	2.64
1992	16,784	3,537	20,321	2.32	0.49	2.81
1993	14,162	6,951	21,113	1.95	0.96	2.91
1994	6,565	156	6,721	0.89	0.02	0.91
1995	22,946	180	23,126	3.23	0.03	3.25
1996	24,428	1,152	25,580	3.44	0.16	3.60
1997	27,507	2,112	29,619	3.77	0.29	4.06
1998	26,732	3,579	30,311	3.67	0.49	4.16
1999	28,376	4,841	33,217	3.89	0.66	4.55
2000	27,511	3,825	31,336	3.77	0.52	4.29
Averages:	20,180	3,513	23,693	2.79	0.48	3.27
Miami County SWMD						
1990	78,822	1,078	79,900	4.89	0.07	4.95
1991	50,086	22,980	73,066	3.12	1.43	4.56
1992	53,012	25,786	78,798	3.08	1.50	4.57
1993	54,567	26,872	81,439	3.15	1.55	4.69
1994	64,951	23,769	88,720	3.69	1.35	5.04
1995	60,550	23,025	83,575	3.41	1.30	4.71
1996	83,509	6,278	89,787	4.68	0.35	5.03
1997	86,831	6,833	93,664	4.84	0.38	5.22
1998	74,366	27,410	101,776	4.13	1.52	5.65

Table 6. Amounts Disposed in Landfills by SWMD: 1990 - 2000

SWMD/ Year	Tons Disposed			Pounds Per Person Per Day Disposed		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Miami County SWMD						
1999	84,585	92,320	176,905	4.65	5.08	9.73
2000	80,415	28,434	108,849	4.40	1.55	5.95
Averages:	70,154	25,889	96,043	4.00	1.46	5.46
Montgomery County SWMD						
1990	488,262	204,769	693,031	4.66	1.96	6.62
1991	466,097	211,602	677,699	4.45	2.02	6.47
1992	479,243	257,931	737,174	4.57	2.46	7.03
1993	508,782	289,327	798,109	4.85	2.76	7.61
1994	350,083	301,175	651,258	3.31	2.85	6.15
1995	381,184	306,159	687,343	3.63	2.92	6.55
1996	495,638	350,827	846,465	4.72	3.34	8.06
1997	516,572	407,267	923,839	4.96	3.91	8.86
1998	534,507	336,640	871,147	5.13	3.23	8.36
1999	551,781	327,689	879,470	5.30	3.15	8.45
2000	576,779	284,091	860,870	5.66	2.79	8.44
Averages:	486,266	297,952	784,218	4.65	2.85	7.51
Ottawa-Sandusky-Seneca Joint SWMD						
1990	175,560	53,736	229,296	5.71	1.75	7.46
1991	129,101	68,981	198,082	4.20	2.24	6.44
1992	126,655	72,894	199,549	4.28	2.46	6.74
1993	126,369	87,310	213,679	4.26	2.94	7.20
1994	118,269	98,904	217,173	3.97	3.32	7.28
1995	125,065	105,801	230,866	4.18	3.54	7.72
1996	138,765	132,054	270,819	4.66	4.44	9.10
1997	142,201	200,513	342,714	4.79	6.75	11.53
1998	143,161	396,903	540,064	4.77	13.23	18.01
1999	128,806	352,593	481,399	4.29	11.76	16.05
2000	141,603	314,405	456,008	4.81	10.67	15.48
Averages:	135,959	171,281	307,240	4.53	5.73	10.27
Pike County SWMD						
1990	9,217	1,538	10,755	1.98	0.33	2.31
1991	8,077	2,408	10,485	1.72	0.51	2.24
1992	14,519	3,703	18,222	3.07	0.78	3.86
1993	14,091	6,239	20,330	3.08	1.36	4.44
1994	15,532	25,583	41,115	3.26	5.37	8.64
1995	19,268	9,161	28,429	4.10	1.95	6.05
1996	16,992	6,517	23,509	3.63	1.39	5.02
1997	14,931	7,646	22,577	3.20	1.64	4.84
1998	20,708	8,463	29,171	4.16	1.70	5.85
1999	19,508	16,574	36,082	3.92	3.33	7.24
2000	23,432	24,262	47,694	4.64	4.80	9.44
Averages:	16,025	10,190	26,215	3.34	2.10	5.44
Portage County SWMD						
1990	108,756	1,058	109,814	4.27	0.04	4.32
1991	97,447	808	98,255	3.72	0.03	3.75

Table 6. Amounts Disposed in Landfills by SWMD: 1990 - 2000

SWMD/ Year	Tons Disposed			Pounds Per Person Per Day Disposed		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Portage County SWMD						
1992	106,854	6,881	113,735	4.06	0.26	4.32
1993	115,910	4,032	119,942	4.33	0.15	4.48
1994	123,620	13,375	136,995	4.55	0.49	5.04
1995	86,848	27,837	114,685	3.22	1.03	4.25
1996	81,008	11,606	92,614	2.99	0.43	3.42
1997	76,993	9,091	86,084	2.82	0.33	3.15
1998	105,576	9,061	114,637	3.86	0.33	4.19
1999	105,168	15,655	120,823	3.83	0.57	4.40
2000	102,249	15,181	117,430	3.56	0.53	4.09
Averages:	100,948	10,416	111,364	3.74	0.38	4.12
Preble County SWMD						
1990	22,873	7,842	30,715	3.16	1.08	4.24
1991	21,808	5,270	27,078	3.01	0.73	3.73
1992	23,694	4,904	28,598	3.18	0.66	3.84
1993	26,000	6,333	32,333	3.46	0.84	4.31
1994	23,811	7,466	31,277	3.14	0.99	4.13
1995	23,921	11,512	35,433	3.16	1.52	4.68
1996	28,400	7,884	36,284	3.70	1.03	4.73
1997	24,439	6,752	31,191	3.14	0.87	4.01
1998	26,557	7,377	33,934	3.63	1.01	4.64
1999	27,390	6,937	34,327	3.74	0.95	4.69
2000	28,650	6,523	35,173	3.71	0.84	4.55
Averages:	25,231	7,163	32,394	3.36	0.95	4.32
Putnam County SWMD						
1990	17,115	6,272	23,387	2.79	1.02	3.81
1991	17,868	2,703	20,571	2.90	0.44	3.34
1992	19,918	3,629	23,547	3.18	0.58	3.76
1993	20,827	2,871	23,698	3.29	0.45	3.75
1994	19,816	3,039	22,855	3.12	0.48	3.60
1995	19,949	3,343	23,292	3.11	0.52	3.63
1996	16,149	2,284	18,433	2.51	0.35	2.86
1997	15,415	2,057	17,472	2.41	0.32	2.73
1998	17,872	1,294	19,166	2.68	0.19	2.88
1999	14,366	2,878	17,244	2.22	0.44	2.66
2000	19,718	1,571	21,289	3.03	0.24	3.28
Averages:	18,092	2,903	20,995	2.84	0.45	3.29
Richland County SWMD						
1990	75,791	8,190	83,981	3.28	0.35	3.63
1991	80,607	25,733	106,340	3.51	1.12	4.64
1992	84,834	16,930	101,764	3.67	0.73	4.41
1993	92,195	14,031	106,226	4.00	0.61	4.61
1994	96,183	14,530	110,713	4.12	0.62	4.74
1995	96,441	14,989	111,430	4.20	0.65	4.85
1996	118,439	7,766	126,205	5.12	0.34	5.45
1997	99,790	76,745	176,535	4.34	3.34	7.68
1998	108,736	101,225	209,961	4.73	4.40	9.13

Table 6. Amounts Disposed in Landfills by SWMD: 1990 - 2000

SWMD/ Year	Tons Disposed			Pounds Per Person Per Day Disposed		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Richland County SWMD						
1999	133,668	100,017	233,685	5.81	4.35	10.16
2000	112,628	119,074	231,702	4.75	5.02	9.78
Averages:	99,937	45,384	145,322	4.32	1.95	6.27
Stark-Tuscarawas-Wayne Joint SWMD						
1990	428,450	240,411	668,861	4.06	2.28	6.34
1991	552,068	351,093	903,161	5.21	3.32	8.53
1992	638,726	338,371	977,097	6.01	3.18	9.20
1993	648,898	400,345	1,049,243	6.08	3.75	9.84
1994	600,645	461,837	1,062,482	5.61	4.31	9.93
1995	625,786	538,156	1,163,942	5.83	5.01	10.84
1996	521,240	423,304	944,544	4.84	3.93	8.77
1997	573,422	478,236	1,051,658	5.53	4.61	10.14
1998	614,789	545,604	1,160,393	5.92	5.26	11.18
1999	510,535	434,394	944,929	4.91	4.18	9.09
2000	531,907	580,039	1,111,946	5.12	5.58	10.69
Averages:	567,860	435,617	1,003,477	5.37	4.12	9.50
Summit County SWMD (Summit-Akron Solid Waste Authority)						
1990	248,808	126,563	375,371	2.65	1.35	3.99
1991	265,673	60,004	325,677	2.82	0.64	3.46
1992	499,750	76,441	576,191	5.27	0.81	6.07
1993	361,827	28,110	389,937	3.79	0.29	4.09
1994	309,364	85,983	395,347	3.21	0.89	4.10
1995	408,912	114,128	523,040	4.25	1.19	5.43
1996	490,114	107,725	597,839	5.07	1.11	6.19
1997	396,483	97,376	493,859	4.10	1.01	5.11
1998	411,934	109,295	521,229	4.20	1.11	5.31
1999	519,759	45,786	565,545	5.35	0.47	5.82
2000	494,836	76,023	570,859	5.09	0.78	5.87
Averages:	400,678	84,312	484,990	4.16	0.87	5.04
Van Wert County SWMD						
1990	16,813	1,112	17,925	3.54	0.23	3.78
1991	14,392	158	14,550	2.71	0.03	2.74
1992	17,652	7,553	25,205	3.78	1.62	5.39
1993	14,635	7,132	21,767	3.15	1.53	4.68
1994	13,876	7,447	21,323	2.57	1.38	3.96
1995	10,440	4,011	14,451	2.27	0.87	3.14
1996	16,562	1,145	17,707	3.39	0.23	3.62
1997	13,514	3,353	16,867	2.46	0.61	3.07
1998	16,679	1,858	18,537	3.40	0.38	3.78
1999	16,801	2,572	19,373	3.43	0.52	3.95
2000	16,272	3,889	20,161	3.32	0.79	4.11
Averages:	15,239	3,657	18,896	3.09	0.74	3.83
Warren County SWMD						
1994	103,745	10,040	113,785	4.49	0.43	4.92
1995	105,679	18,811	124,490	4.70	0.84	5.54

Table 6. Amounts Disposed in Landfills by SWMD: 1990 - 2000

SWMD/ Year	Tons Disposed			Pounds Per Person Per Day Disposed		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Warren County SWMD						
1996	114,808	23,455	138,263	5.04	1.03	6.07
1997	133,302	16,399	149,701	5.18	0.64	5.81
1998	137,094	15,425	152,519	5.14	0.58	5.72
1999	139,876	20,038	159,914	5.00	0.72	5.72
2000	146,334	19,437	165,771	5.06	0.67	5.74
Averages:	125,834	17,657	143,491	4.94	0.70	5.64
Wood County SWMD						
1990	95,654	25,929	121,583	4.66	1.26	5.92
1991	99,392	40,284	139,676	4.74	1.92	6.66
1992	105,770	27,981	133,751	5.07	1.34	6.41
1993	125,607	19,204	144,811	5.99	0.92	6.90
1994	121,356	23,100	144,456	5.72	1.09	6.81
1995	110,125	28,302	138,427	5.16	1.33	6.49
1996	106,918	42,160	149,078	4.98	1.96	6.95
1997	123,439	34,920	158,359	5.72	1.62	7.34
1998	95,559	33,501	129,060	4.41	1.54	5.95
1999	111,104	75,609	186,713	5.09	3.47	8.56
2000	153,906	60,476	214,382	7.02	2.76	9.78
Averages:	113,530	37,406	150,936	5.32	1.74	7.06
Wyandot County SWMD						
1990	13,788	21,714	35,502	3.39	5.34	8.73
1991	12,650	19,816	32,466	3.12	4.89	8.01
1992	18,991	9,467	28,458	4.66	2.32	6.98
1993	22,351	2,092	24,443	5.48	0.51	5.99
1994	19,534	9,686	29,220	4.78	2.37	7.15
1995	26,266	29,761	56,027	6.35	7.19	13.54
1996	23,735	38,023	61,758	5.77	9.24	15.01
1997	21,645	19,568	41,213	5.29	4.78	10.07
1998	24,100	21,362	45,462	5.81	5.15	10.97
1999	26,491	24,196	50,687	6.42	5.87	12.29
2000	25,133	26,703	51,836	5.98	6.36	12.34
Averages:	21,334	20,217	41,552	5.18	4.91	10.09

**Table 7. Landfill Disposal In-District, Out-of-District, Out-of-State
by SWMD for 1990-2000**

SWMD/ Year	Tons Disposed			Totals
	In-District	Out-of-District	Out-of-State	
Adams-Clermont Joint SWMD				
1990	10,474	123,271	0	133,745
1991	1,531,585	125,272	0	1,656,857
1992	1,672,798	121,989	32,240	1,827,027
1993	1,562,200	117,957	15,278	1,695,435
1994	1,505,650	128,588	13,925	1,648,163
1995	1,549,525	120,687	15,561	1,685,773
1996	1,917,552	120,736	18,106	2,056,394
1997	1,530,365	120,838	22,679	1,673,882
1998	1,813,362	120,104	22,821	1,956,287
1999	1,603,501	121,831	23,019	1,748,351
2000	981,762	125,574	25,958	1,133,294
Allen-Champaign-Hardin-Madison-Shelby-Union Joint SWMD				
1990	5,555	333,927	0	339,482
1991	875	270,279	0	271,154
1992	0	264,697	0	264,697
1993	0	261,199	0	261,199
1994	0	254,436	0	254,436
1995	0	270,576	14,541	285,117
1996	0	290,190	7,580	297,770
1997	0	299,883	7,158	307,041
1998	0	307,046	138	307,184
1999	0	328,141	76	328,217
2000	0	331,958	188	332,146
Ashland County SWMD				
1990	39,422	4,809	0	44,231
1991	41,806	10,772	0	52,578
1992	41,926	4,438	0	46,364
1993	40,676	2,352	0	43,028
1994	44,752	6,151	0	50,903
1995	42,968	6,185	0	49,153
1996	49,058	7,861	0	56,919
1997	48,390	9,473	0	57,863
1998	0	57,847	0	57,847
1999	0	61,232	0	61,232
2000	0	49,502	6	49,508
Ashtabula County SWMD				
1994	218,726	48,215	29,229	296,170
1995	261,644	30,757	3,682	296,083
1996	265,443	20,214	3,705	289,362
1997	305,785	7,074	5,446	318,305
1998	373,744	7,890	4,996	386,630
1999	447,987	7,464	5,873	461,324

**Table 7. Landfill Disposal In-District, Out-of-District, Out-of-State
by SWMD for 1990-2000**

SWMD/ Year	In-District	Out-of-District	Tons Disposed Out-of-State	Totals
Ashtabula County SWMD				
2000	350,680	5,021	8,673	364,374
Ashtabula-Geauga-Trumbull Joint SWMD				
1990	99,682	253,726	0	353,408
1991	148,870	285,195	0	434,065
1992	127,586	384,770	0	512,356
1993	144,466	296,019	4,492	444,977
Athens-Gallia-Hocking-Jackson-Meigs-Vinton Joint SWMD				
1990	106,155	308	0	106,463
1991	76,855	3,659	0	80,514
1992	100,178	8,080	0	108,258
1993	100,205	12,348	282	112,835
Athens-Hocking Joint SWMD				
1994	20,816	27,375	160	48,351
1995	26,911	10,703	167	37,781
1996	30,499	10,309	351	41,159
1997	34,627	6,141	144	40,912
1998	42,251	10,802	0	53,053
1999	59,099	2,946	197	62,242
2000	57,330	2,926	0	60,256
Auglaize County SWMD				
1990	35,584	12,672	0	48,256
1991	31,522	15,682	0	47,204
1992	29,438	19,176	0	48,614
1993	25,138	18,200	720	44,058
1994	24,250	8,126	2,197	34,573
1995	22,970	10,782	0	33,752
1996	25,420	10,481	0	35,901
1997	24,335	6,505	2,523	33,363
1998	8,544	22,544	1,899	32,987
1999	0	32,360	981	33,341
2000	0	33,909	409	34,318
Belmont-Jefferson Joint SWMD (Belmont-Jefferson Solid Waste)				
1990	42,702	16,568	65,083	124,353
1991	12,838	26,241	92,834	131,913
1992	0	12,785	118,691	131,476
1993	0	56,713	104,015	160,728
1994	0	15,953	114,649	130,602
1995	0	50,059	15,907	65,966
1996	0	56,349	13,182	69,531
1997	0	48,659	39,503	88,162
1998	0	59,501	51,295	110,796

**Table 7. Landfill Disposal In-District, Out-of-District, Out-of-State
by SWMD for 1990-2000**

SWMD/ Year	Tons Disposed			Totals
	In-District	Out-of-District	Out-of-State	
Belmont-Jefferson Joint SWMD (Belmont-Jefferson Solid Waste				
1999	0	58,265	25,775	84,040
2000	0	55,814	27,921	83,735
Brown County SWMD (Brown County Solid Waste Authority)				
1990	16,823	1,041	0	17,864
1991	22,873	2,866	0	25,739
1992	19,253	1,544	0	20,797
1993	19,390	1,407	0	20,797
1994	21,349	1,301	0	22,650
1995	20,366	1,521	0	21,887
1996	22,544	680	0	23,224
1997	24,763	473	480	25,716
1998	25,344	592	88	26,024
1999	27,559	573	4	28,136
2000	28,638	437	69	29,144
Butler County SWMD				
1990	353,462	221,698	0	575,160
1991	174,245	270,947	0	445,192
1992	150,122	345,360	0	495,482
1993	131,746	373,638	0	505,384
1994	130,311	505,897	0	636,208
1995	116,900	380,480	36,155	533,535
1996	141,300	396,875	82,349	620,524
1997	130,130	373,035	73,217	576,382
1998	135,100	516,690	192	651,982
1999	141,706	467,537	56,113	665,356
2000	29,126	447,313	110,877	587,316
Carroll-Columbiana-Harrison Joint SWMD				
1990	41,819	22,968	0	64,787
1991	41,330	34,130	0	75,460
1992	39,335	35,665	0	75,000
1993	52,542	52,574	0	105,116
1994	81,632	34,845	40	116,517
1995	84,813	39,992	40	124,845
1996	35,905	66,886	196	102,987
1997	170	98,131	6	98,307
1998	75	105,270	54	105,399
1999	0	108,150	13,174	121,324
2000	0	113,999	15,141	129,140
Clark County SWMD				
1990	165,713	9,051	0	174,764
1991	96,323	43,229	0	139,552
1992	114,250	7,993	0	122,243

**Table 7. Landfill Disposal In-District, Out-of-District, Out-of-State
by SWMD for 1990-2000**

SWMD/ Year	Tons Disposed			Totals
	In-District	Out-of-District	Out-of-State	
Clark County SWMD				
1993	112,939	4,510	0	117,449
1994	26,401	83,937	0	110,338
1995	0	95,979	0	95,979
1996	0	97,518	3	97,521
1997	0	100,453	0	100,453
1998	0	110,947	0	110,947
1999	0	105,277	0	105,277
2000	0	108,530	0	108,530
Clinton County SWMD				
1994	18,944	23,325	0	42,269
1995	15,760	27,168	0	42,928
1996	14,433	34,966	72	49,471
1997	12,652	26,476	44	39,172
1998	12,736	24,688	46	37,470
1999	12,897	25,581	0	38,478
2000	12,410	26,135	0	38,545
Clinton-Warren Joint SWMD				
1990	64,164	87,744	0	151,908
1991	68,766	66,495	0	135,261
1992	79,953	76,652	0	156,605
1993	19,316	17,209	0	36,525
Coshocton-Fairfield-Licking-Perry Joint SWMD				
1990	899,952	49,436	0	949,388
1991	909,006	37,710	0	946,716
1992	1,084,346	53,949	0	1,138,295
1993	846,728	69,346	0	916,074
1994	975,306	72,750	0	1,048,056
1995	848,161	82,290	0	930,451
1996	906,485	93,179	15	999,679
1997	1,089,482	91,357	0	1,180,839
1998	1,291,444	111,441	0	1,402,885
1999	1,180,169	80,142	0	1,260,311
2000	1,385,810	47,358	0	1,433,168
Crawford County SWMD				
1990	45,183	0	0	45,183
1991	44,537	2,295	0	46,832
1992	45,090	1,249	100	46,439
1993	45,540	11,662	0	57,202
1994	47,709	207	0	47,916
1995	48,410	446	0	48,856
1996	47,853	1,060	0	48,913
1997	49,881	4,862	0	54,743

**Table 7. Landfill Disposal In-District, Out-of-District, Out-of-State
by SWMD for 1990-2000**

SWMD/ Year	Tons Disposed			Totals
	In-District	Out-of-District	Out-of-State	
Crawford County SWMD				
1998	51,907	1,811	0	53,718
1999	55,656	2,045	0	57,701
2000	61,346	1,567	0	62,913
Cuyahoga County SWMD				
1990	1,149,014	726,849	0	1,875,863
1991	1,007,696	923,739	0	1,931,435
1992	993,719	1,068,840	0	2,062,559
1993	1,237,815	857,783	0	2,095,598
1994	1,741,896	395,966	0	2,137,862
1995	1,720,358	587,235	769	2,308,362
1996	995,145	1,172,048	4,414	2,171,607
1997	235,842	1,977,350	753	2,213,945
1998	352,865	1,681,804	745	2,035,414
1999	322,700	1,850,600	450	2,173,750
2000	202,892	1,949,663	34	2,152,589
Darke County SWMD				
1990	0	43,331	0	43,331
1991	0	38,129	0	38,129
1992	0	49,102	0	49,102
1993	0	34,656	0	34,656
1994	0	29,841	8,004	37,845
1995	0	21,287	18,224	39,511
1996	0	20,645	20,125	40,770
1997	0	4,700	30,485	35,185
1998	0	27,262	24,725	51,987
1999	0	24,086	42,306	66,392
2000	0	45,037	6,821	51,858
Defiance-Fulton-Paulding-Williams Joint SWMD				
1990	530,851	1,141	0	531,992
1991	483,970	4,444	0	488,414
1992	510,818	0	0	510,818
1993	720,969	5,095	0	726,064
1994	893,211	2,097	0	895,308
1995	651,025	7,853	8,883	667,761
1996	659,993	7,730	14,524	682,247
1997	754,953	9,550	4,718	769,221
1998	601,202	14,876	1,926	618,004
1999	588,955	28,241	1,270	618,466
2000	460,933	24,897	2,058	487,888
Delaware-Knox-Marion-Morrow Joint SWMD				
1990	120,158	29,184	0	149,342
1991	0	134,387	0	134,387

**Table 7. Landfill Disposal In-District, Out-of-District, Out-of-State
by SWMD for 1990-2000**

SWMD/ Year	Tons Disposed			Totals
	In-District	Out-of-District	Out-of-State	
Delaware-Knox-Marion-Morrow Joint SWMD				
1992	0	144,770	0	144,770
1993	0	150,916	0	150,916
1994	0	170,669	0	170,669
1995	0	163,267	0	163,267
1996	0	186,079	0	186,079
1997	0	223,589	0	223,589
1998	0	176,642	0	176,642
1999	0	200,654	0	200,654
2000	0	230,020	0	230,020
Erie County SWMD				
1994	83,374	36,399	0	119,773
1995	66,759	35,393	0	102,152
1996	68,415	35,419	0	103,834
1997	76,436	30,703	0	107,139
1998	70,890	18,178	23,203	112,271
1999	89,645	16,653	13,143	119,441
2000	106,693	18,996	1,200	126,889
Erie-Huron Joint SWMD				
1990	230,768	27,593	0	258,361
1991	214,496	40,501	0	254,997
1992	176,488	44,563	0	221,051
1993	143,045	152,163	0	295,208
Fayette-Highland-Pickaway-Ross Joint SWMD				
1990	161,278	19,787	0	181,065
1991	278,728	52,928	0	331,656
1992	348,888	73,157	0	422,045
1993	69,005	151,543	0	220,548
1994	91,144	143,778	557	235,479
1995	0	278,821	0	278,821
1996	0	233,886	0	233,886
1997	0	302,617	46	302,663
1998	0	244,737	30	244,767
1999	0	256,619	0	256,619
2000	0	316,283	0	316,283
Franklin County SWMD (Solid Waste Authority of Central Ohio)				
1990	809,316	7,928	0	817,244
1991	604,982	74,774	0	679,756
1992	463,985	197,196	0	661,181
1993	457,324	265,887	0	723,211
1994	415,336	285,460	0	700,796
1995	609,092	524,190	1,349	1,134,631
1996	640,874	510,049	725	1,151,648

**Table 7. Landfill Disposal In-District, Out-of-District, Out-of-State
by SWMD for 1990-2000**

SWMD/ Year	Tons Disposed			Totals
	In-District	Out-of-District	Out-of-State	
Franklin County SWMD (Solid Waste Authority of Central Ohio)				
1997	652,618	508,397	518	1,161,533
1998	627,837	664,799	284	1,292,920
1999	713,595	569,109	174	1,282,878
2000	845,696	599,093	380	1,445,169
Gallia-Jackson-Meigs-Vinton Joint SWMD				
1994	65,830	7,402	6	73,238
1995	2,182,052	23,957	14,535	2,220,544
1996	2,588,178	8,383	290	2,596,851
1997	2,565,901	11,984	935	2,578,820
1998	2,837,193	17,617	1,530	2,856,340
1999	2,415,634	18,601	714	2,434,949
2000	2,932,929	20,253	31	2,953,213
Geauga-Trumbull Joint SWMD				
1994	42,523	320,038	0	362,561
1995	41,220	310,461	0	351,681
1996	63,021	251,981	50,983	365,985
1997	53,778	227,417	66,385	347,580
1998	52,568	284,057	9,612	346,237
1999	55,826	270,675	3,850	330,351
2000	45,217	349,720	0	394,937
Greene County SWMD				
1990	32,361	59,447	0	91,808
1991	0	100,676	0	100,676
1992	0	126,571	0	126,571
1993	0	127,187	0	127,187
1994	0	211,010	0	211,010
1995	0	126,228	257	126,485
1996	0	109,096	387	109,483
1997	0	108,606	0	108,606
1998	0	140,973	1	140,974
1999	0	132,805	0	132,805
2000	0	112,751	0	112,751
Guernsey-Monroe-Morgan-Muskingum-Noble-Washington Joint				
1990	110,513	39,795	0	150,308
1991	63,352	62,889	0	126,241
1992	70,154	51,341	45,852	167,347
1993	2,577	128,215	58,824	189,616
1994	0	153,388	86,924	240,312
1995	0	190,010	62,341	252,351
1996	0	178,616	63,338	241,954
1997	0	181,441	58,325	239,766
1998	0	209,407	53,551	262,958

**Table 7. Landfill Disposal In-District, Out-of-District, Out-of-State
by SWMD for 1990-2000**

SWMD/ Year	Tons Disposed			Totals
	In-District	Out-of-District	Out-of-State	
Guernsey-Monroe-Morgan-Muskingum-Noble-Washington Joint				
1999	0	152,904	82,617	235,521
2000	0	217,861	62,918	280,779
Hamilton County SWMD				
1990	1,062,261	210,589	10,472	1,283,322
1991	1,123,299	116,766	14,294	1,254,359
1992	1,073,411	150,595	15,371	1,239,377
1993	1,031,277	142,831	10,949	1,185,057
1994	1,033,430	170,695	12,808	1,216,933
1995	902,395	134,944	46,373	1,083,712
1996	993,455	98,531	67,637	1,159,623
1997	896,205	132,216	64,380	1,092,801
1998	978,513	116,801	62,881	1,158,195
1999	1,001,043	106,331	130,779	1,238,153
2000	1,029,948	62,380	181,761	1,274,089
Hancock County SWMD				
1990	73,624	1,427	0	75,051
1991	70,834	2,162	0	72,996
1992	73,985	14,699	0	88,684
1993	71,259	690	0	71,949
1994	81,018	1,966	0	82,984
1995	80,669	1,867	0	82,536
1996	62,425	15,728	0	78,153
1997	54,691	27,650	0	82,341
1998	52,826	38,559	0	91,385
1999	55,582	37,074	0	92,656
2000	69,659	27,916	0	97,575
Henry County SWMD				
1990	33,504	162	0	33,666
1991	31,763	1,098	0	32,861
1992	27,014	7,164	0	34,178
1993	24,280	550	0	24,830
1994	22,581	1,546	0	24,127
1995	18,876	2,950	1,114	22,940
1996	17,216	2,535	1,334	21,085
1997	19,380	4,069	1,334	24,783
1998	21,832	3,916	1,213	26,961
1999	17,676	12,367	831	30,874
2000	16,339	15,087	0	31,426
Holmes County SWMD				
1990	24,761	244	0	25,005
1991	24,446	679	0	25,125
1992	26,834	125	0	26,959

**Table 7. Landfill Disposal In-District, Out-of-District, Out-of-State
by SWMD for 1990-2000**

SWMD/ Year	Tons Disposed			Totals
	In-District	Out-of-District	Out-of-State	
Holmes County SWMD				
1993	23,079	1,199	0	24,278
1994	26,697	2,139	0	28,836
1995	18,281	5,747	0	24,028
1996	16,178	14,776	0	30,954
1997	10,713	17,679	0	28,392
1998	8,895	22,446	0	31,341
1999	3,877	22,361	0	26,238
2000	1	28,322	0	28,323
Huron County SWMD				
1994	38,643	7,442	0	46,085
1995	33,855	11,950	0	45,805
1996	26,173	20,576	0	46,749
1997	30,000	23,194	0	53,194
1998	25,153	26,753	0	51,906
1999	0	46,947	0	46,947
2000	0	48,370	2,786	51,156
Lake County SWMD				
1990	304,724	24,191	0	328,915
1991	269,588	19,676	0	289,264
1992	251,252	18,172	0	269,424
1993	202,008	38,233	0	240,241
1994	202,272	52,463	0	254,735
1995	207,533	47,338	0	254,871
1996	201,423	40,739	0	242,162
1997	184,155	36,913	0	221,068
1998	184,863	62,309	22	247,194
1999	202,821	53,885	0	256,706
2000	206,080	87,524	0	293,604
Lawrence-Scioto Joint SWMD				
1990	58,729	5,000	0	63,729
1991	48,383	15,506	0	63,889
1992	55,181	42,680	0	97,861
1993	70,064	29,890	81,083	181,037
1994	0	20,363	81,503	101,866
1995	0	19,839	123,552	143,391
1996	0	39,196	125,360	164,556
1997	0	67,782	137,193	204,975
1998	0	70,753	116,250	187,003
1999	0	74,795	93,036	167,831
2000	0	82,330	64,451	146,781

**Table 7. Landfill Disposal In-District, Out-of-District, Out-of-State
by SWMD for 1990-2000**

SWMD/ Year	Tons Disposed			Totals
	In-District	Out-of-District	Out-of-State	
Logan County SWMD				
1990	39,268	918	0	40,186
1991	40,390	820	0	41,210
1992	36,127	636	0	36,763
1993	35,032	673	0	35,705
1994	38,707	337	0	39,044
1995	40,285	470	0	40,755
1996	49,464	1,165	0	50,629
1997	48,761	653	0	49,414
1998	42,519	4,728	0	47,247
1999	45,705	4,137	0	49,842
2000	44,903	5,707	0	50,610
Lorain County SWMD				
1990	373,315	49,957	0	423,272
1991	329,891	17,630	0	347,521
1992	318,251	21,313	0	339,564
1993	328,641	24,992	0	353,633
1994	286,007	27,426	0	313,433
1995	275,134	52,097	0	327,231
1996	299,291	32,205	3	331,499
1997	289,193	25,010	0	314,203
1998	285,453	70,955	0	356,408
1999	284,228	26,870	0	311,098
2000	302,872	39,254	0	342,126
Lucas County SWMD				
1990	245,988	406,647	0	652,635
1991	207,807	288,330	42,330	538,467
1992	193,243	233,687	226,821	653,751
1993	188,685	200,817	226,821	616,323
1994	172,584	187,879	219,947	580,410
1995	184,652	191,365	237,026	613,043
1996	187,739	210,546	239,299	637,584
1997	199,957	209,767	252,081	661,805
1998	200,769	209,887	294,983	705,639
1999	197,782	270,973	309,455	778,210
2000	195,767	284,348	237,956	718,071
Mahoning County SWMD				
1990	197,492	5,161	0	202,653
1991	196,541	7,283	0	203,824
1992	188,418	62,039	0	250,457
1993	201,067	83,720	0	284,787
1994	227,870	96,129	0	323,999
1995	202,421	18,147	0	220,568

**Table 7. Landfill Disposal In-District, Out-of-District, Out-of-State
by SWMD for 1990-2000**

SWMD/ Year	Tons Disposed			Totals
	In-District	Out-of-District	Out-of-State	
Mahoning County SWMD				
1996	231,406	12,583	0	243,989
1997	263,512	5,046	25	268,583
1998	289,387	3,184	1,535	294,106
1999	281,228	23,211	0	304,439
2000	286,862	29,212	0	316,074
Medina County SWMD				
1990	0	68,993	0	68,993
1991	0	82,210	0	82,210
1992	0	85,541	0	85,541
1993	0	79,703	0	79,703
1994	0	106,053	0	106,053
1995	0	96,276	0	96,276
1996	0	106,743	0	106,743
1997	0	112,975	0	112,975
1998	0	128,176	0	128,176
1999	0	128,248	0	128,248
2000	0	137,402	0	137,402
Mercer County SWMD				
1990	16,560	3,976	0	20,536
1991	17,180	1,204	366	18,750
1992	17,280	2,544	497	20,321
1993	10,289	10,823	0	21,112
1994	2,705	3,469	548	6,722
1995	18,298	64	4,733	23,095
1996	18,730	944	5,906	25,580
1997	23,914	1,008	4,696	29,618
1998	25,100	4,053	1,157	30,310
1999	27,885	4,815	517	33,217
2000	27,484	2,796	1,056	31,336
Miami County SWMD				
1990	0	79,899	0	79,899
1991	0	73,066	0	73,066
1992	0	78,798	0	78,798
1993	0	81,439	0	81,439
1994	0	88,720	0	88,720
1995	0	83,575	0	83,575
1996	0	89,741	45	89,786
1997	0	93,617	48	93,665
1998	0	101,739	36	101,775
1999	0	107,654	69,251	176,905
2000	0	108,848	0	108,848

**Table 7. Landfill Disposal In-District, Out-of-District, Out-of-State
by SWMD for 1990-2000**

SWMD/ Year	Tons Disposed			Totals
	In-District	Out-of-District	Out-of-State	
Montgomery County SWMD				
1990	577,009	116,023	0	693,032
1991	551,368	125,260	0	676,628
1992	288,254	143,511	0	431,765
1993	470,231	327,878	0	798,109
1994	298,855	352,404	0	651,259
1995	343,628	342,984	732	687,344
1996	682,594	163,598	273	846,465
1997	647,473	275,942	423	923,838
1998	571,003	299,277	866	871,146
1999	636,120	242,852	498	879,470
2000	609,144	251,196	531	860,871
Ottawa-Sandusky-Seneca Joint SWMD				
1990	222,239	7,056	0	229,295
1991	191,849	6,229	0	198,078
1992	187,863	11,687	0	199,550
1993	132,750	80,929	0	213,679
1994	93,227	123,947	0	217,174
1995	102,539	128,327	0	230,866
1996	174,185	96,634	0	270,819
1997	251,482	91,231	0	342,713
1998	457,594	82,469	0	540,063
1999	415,142	66,257	0	481,399
2000	381,854	74,153	0	456,007
Pike County SWMD				
1990	10,755	0	0	10,755
1991	9,683	0	0	9,683
1992	15,486	2,736	0	18,222
1993	20,330	0	0	20,330
1994	41,116	0	0	41,116
1995	19,266	9,164	0	28,430
1996	19,553	3,955	0	23,508
1997	22,396	179	0	22,575
1998	28,665	505	0	29,170
1999	35,534	548	0	36,082
2000	46,668	1,025	0	47,693
Portage County SWMD				
1990	97,246	12,568	0	109,814
1991	73,424	24,756	0	98,180
1992	66,611	47,124	0	113,735
1993	63,046	56,896	0	119,942
1994	0	136,995	0	136,995
1995	0	114,686	0	114,686

**Table 7. Landfill Disposal In-District, Out-of-District, Out-of-State
by SWMD for 1990-2000**

SWMD/ Year	Tons Disposed			Totals
	In-District	Out-of-District	Out-of-State	
Portage County SWMD				
1996	0	105,234	0	105,234
1997	0	86,083	0	86,083
1998	0	114,637	0	114,637
1999	0	120,823	0	120,823
2000	0	117,429	0	117,429
Preble County SWMD				
1990	30,298	416	0	30,714
1991	26,888	190	0	27,078
1992	27,418	1,180	0	28,598
1993	28,961	3,372	0	32,333
1994	29,466	1,811	0	31,277
1995	33,848	1,585	0	35,433
1996	31,695	4,589	0	36,284
1997	29,291	1,900	0	31,191
1998	31,998	1,935	0	33,933
1999	31,425	2,785	117	34,327
2000	27,542	7,269	362	35,173
Putnam County SWMD				
1990	22,880	507	0	23,387
1991	19,636	935	0	20,571
1992	22,435	1,111	0	23,546
1993	22,814	884	0	23,698
1994	19,994	2,862	0	22,856
1995	22,679	614	0	23,293
1996	14,000	3,584	849	18,433
1997	11,850	5,622	0	17,472
1998	13,187	5,977	0	19,164
1999	13,717	3,527	0	17,244
2000	14,133	7,156	0	21,289
Richland County SWMD				
1990	0	83,982	0	83,982
1991	0	106,340	0	106,340
1992	0	101,764	0	101,764
1993	0	106,214	0	106,214
1994	0	110,713	0	110,713
1995	0	111,432	0	111,432
1996	0	126,204	0	126,204
1997	27,399	149,136	0	176,535
1998	161,421	48,541	0	209,962
1999	206,127	27,558	0	233,685
2000	213,395	18,307	0	231,702

**Table 7. Landfill Disposal In-District, Out-of-District, Out-of-State
by SWMD for 1990-2000**

SWMD/ Year	Tons Disposed			Totals
	In-District	Out-of-District	Out-of-State	
Stark-Tuscarawas-Wayne Joint SWMD				
1990	585,713	83,147	0	668,860
1991	746,987	156,174	0	903,161
1992	759,085	198,224	0	957,309
1993	898,710	151,998	0	1,050,708
1994	942,559	93,322	26,603	1,062,484
1995	1,007,445	129,894	26,603	1,163,942
1996	914,850	29,694	0	944,544
1997	945,351	106,082	234	1,051,667
1998	1,049,117	111,275	0	1,160,392
1999	879,025	65,904	11	944,940
2000	1,039,706	72,240	0	1,111,946
Summit County SWMD (Summit-Akron Solid Waste Authority)				
1990	137,676	237,694	0	375,370
1991	123,994	201,683	0	325,677
1992	339,697	231,149	0	570,846
1993	142,253	247,684	0	389,937
1994	121,429	273,965	0	395,394
1995	139,596	383,446	0	523,042
1996	136,280	461,503	55	597,838
1997	122,923	370,916	19	493,858
1998	122,760	398,416	52	521,228
1999	197,979	367,351	215	565,545
2000	216,264	354,488	106	570,858
Van Wert County SWMD				
1990	0	1,596	16,329	17,925
1991	0	1,975	12,575	14,550
1992	0	718	24,487	25,205
1993	0	189	21,579	21,768
1994	0	1,247	20,079	21,326
1995	0	2,112	12,340	14,452
1996	0	1,644	17,929	19,573
1997	0	2,508	14,359	16,867
1998	0	3,149	15,387	18,536
1999	0	5,094	14,279	19,373
2000	0	8,141	12,020	20,161
Warren County SWMD				
1994	52,882	60,905	0	113,787
1995	55,786	68,705	0	124,491
1996	49,278	88,971	14	138,263
1997	53,591	96,117	6	149,714
1998	46,405	106,113	0	152,518
1999	7,583	152,128	203	159,914

**Table 7. Landfill Disposal In-District, Out-of-District, Out-of-State
by SWMD for 1990-2000**

SWMD/ Year	Tons Disposed			Totals
	In-District	Out-of-District	Out-of-State	
Warren County SWMD				
2000	0	149,578	16,194	165,772
Wood County SWMD				
1990	112,422	9,160	0	121,582
1991	118,229	21,447	0	139,676
1992	117,830	15,703	874	134,407
1993	104,085	25,065	15,661	144,811
1994	111,383	3,387	29,695	144,465
1995	101,438	11,565	25,426	138,429
1996	112,102	12,532	24,444	149,078
1997	117,309	14,562	26,487	158,358
1998	117,937	11,122	0	129,059
1999	151,806	9,592	25,315	186,713
2000	181,354	12,167	20,860	214,381
Wyandot County SWMD				
1990	34,275	1,228	0	35,503
1991	31,083	1,383	0	32,466
1992	26,716	1,742	0	28,458
1993	23,770	674	0	24,444
1994	28,659	562	0	29,221
1995	46,864	9,167	0	56,031
1996	61,200	557	0	61,757
1997	39,701	1,511	0	41,212
1998	44,116	1,346	0	45,462
1999	45,837	4,850	0	50,687
2000	50,449	1,386	0	51,835

Table 8. Reduction and Recycling by SWMD: 1990 - 2000*

SWMD/ Year	Tons Reduced/Recycled			Reduction/Recycling Rate		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Adams-Clermont Joint SWMD						
1990	6,919	59,398	66,317	5.14	98.65	34.02
1993	16,508	19,446	35,954	11.47	1.23	2.08
1994	20,600	22,786	43,386	13.42	1.49	2.58
1995	21,157	29,092	50,249	14.35	1.90	2.99
1996	23,563	23,064	46,627	15.27	1.22	2.29
1997	14,471	22,265	36,736	9.79	1.47	2.22
1998	12,213	22,428	34,641	8.35	1.26	1.80
1999	12,808	22,737	35,545	8.70	1.44	2.06
2000	3,355	142,727	146,082	2.40	13.26	12.01
Allen-Champaign-Hardin-Madison-Shelby-Union Joint SWMD (North Central SWMD)						
1990	23,796	86,161	109,957	9.26	44.78	24.47
1992	4,096	125,052	129,148	2.07	71.30	34.61
1993	4,170	185,229	189,399	2.50	71.73	44.58
1994	19,296	191,745	211,041	8.71	87.87	47.98
1995	8,375	167,585	175,960	3.97	75.18	40.54
1996	14,522	179,665	194,187	6.07	79.48	41.73
1997	14,522	178,643	193,165	5.43	80.17	39.39
1998	20,690	235,096	255,786	7.59	83.98	46.29
1999	20,562	265,596	286,158	7.64	79.61	47.46
2000	27,222	304,596	331,818	10.20	78.75	50.75
Ashland County SWMD						
1990	1,323	2,780	4,103	3.93	23.10	8.98
1992	2,164	27,002	29,166	8.13	60.07	40.76
1993	2,645	53,301	55,946	8.51	79.84	57.18
1994	3,190	80,828	84,018	11.85	78.73	64.84
1995	3,910	87,393	91,303	13.96	81.35	67.41
1996	11,982	82,626	94,608	26.88	81.95	65.07
1997	13,163	135,593	148,756	27.90	93.48	77.38
1998	4,252	64,349	68,601	9.81	87.97	58.89
1999	2,169	15,715	17,884	4.16	92.04	25.82
2000	8,913	20,777	29,690	17.03	94.23	39.92
Ashtabula County SWMD						
1994	3,204	7,075	10,279	3.49	3.69	3.63
1995	2,924	20,250	23,174	3.92	9.16	7.84
1996	4,272	56,114	60,386	5.10	21.25	17.36
1997	13,736	53,374	67,110	14.58	18.83	17.77
1998	13,470	30,942	44,412	15.90	9.82	11.10
1999	17,462	41,980	59,442	20.37	13.49	14.97
2000	14,436	43,881	58,317	16.85	14.21	14.78
Ashtabula-Geauga-Trumbull Joint SWMD						
1990	16,607	0	16,607	5.78	0.00	4.49
1993	28,674	182,931	211,605	10.84	54.61	35.30

* For years 1990-1995, please note that industrial waste reduced or recycled in programs which were initiated prior to 1985 have not been included in this table. For 1996, recycling totals for both residential/commercial and industrial sectors reflect the changes made in the 1995 State Solid Waste Management Plan (e.g. all industrial waste recycled has been included, yard waste recycled has been included for the residential/commercial sector, etc.)

Table 8. Reduction and Recycling by SWMD: 1990 - 2000*

SWMD/ Year	Tons Reduced/Recycled			Reduction/Recycling Rate		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Athens-Gallia-Hocking-Jackson-Meigs-Vinton Joint SWMD						
1990	13,107	30,246	43,353	12.21	71.27	28.94
1993	7,269	191,355	198,624	6.96	93.08	64.07
Athens-Hocking Joint SWMD						
1994	3,801	1,860	5,661	7.78	36.08	10.48
1995	5,636	0	5,636	13.75	0.00	12.98
1996	8,065	84,933	92,998	16.89	98.35	69.34
1997	9,138	0	9,138	19.69	0.00	18.29
1998	8,370	0	8,370	17.02	0.00	13.64
1999	7,289	109,151	116,440	13.64	87.35	65.27
2000	7,379	109,151	116,530	12.46	93.03	65.99
Auglaize County SWMD						
1990	492	34,825	35,317	1.87	78.68	50.00
1992	2,289	19,452	21,741	6.64	60.35	32.60
1993	1,905	40,102	42,007	5.96	78.76	50.68
1994	3,084	47,177	50,261	13.16	81.32	61.71
1995	3,084	47,177	50,261	12.75	80.23	60.56
1996	6,904	85,044	91,948	23.79	87.49	72.84
1997	7,335	75,256	82,591	27.72	87.72	73.57
1998	7,547	75,256	82,803	23.34	93.62	73.46
1999	7,824	79,410	87,234	19.58	98.59	72.39
2000	6,214	68,975	75,189	18.97	90.02	68.74
Belmont-Jefferson Joint SWMD (Belmont-Jefferson Solid Waste Authority)						
1990	8,550	0	8,550	7.62	0.00	6.51
1992	377	37,197	37,574	0.34	64.37	22.23
1993	376	37,197	37,573	0.34	42.59	18.95
1994	376	37,197	37,573	0.34	64.58	22.35
1995	376	37,197	37,573	0.59	93.92	36.30
1996	376	61,679	62,055	0.55	98.44	47.34
1997	73,777	941	74,718	46.01	51.39	46.07
1998	16,106	4,574	20,680	17.40	32.13	19.37
1999	20,432	216,136	236,568	20.84	97.92	74.21
2000	17,340	535,188	552,528	17.0	99.47	86.00
Brown County SWMD (Brown County Solid Waste Authority)						
1990	1,720	1,168	2,888	9.12	100.00	14.42
1992	1,044	2,576	3,620	7.18	28.26	15.30
1993	992	2,576	3,568	6.33	33.19	15.23
1994	1,608	2,576	4,184	9.88	27.77	16.38
1995	2,007	105	2,112	9.10	18.36	9.33
1996	2,753	2,067	4,820	11.62	77.47	18.28
1997	1,909	71	1,980	7.92	8.48	7.94
1998	1,542	8,347	9,889	6.37	87.37	29.31
1999	1,555	69	1,624	6.19	4.33	6.08

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Table 8. Reduction and Recycling by SWMD: 1990 - 2000*

SWMD/ Year	Tons Reduced/Recycled			Reduction/Recycling Rate		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Brown County SWMD (Brown County Solid Waste Authority)						
2000	2,332	3,154	5,486	8.55	72.52	17.36
Butler County SWMD						
1990	19,731	72,352	92,083	6.42	22.26	14.56
1992	21,650	238,052	259,702	8.24	51.24	35.70
1993	31,878	227,449	259,327	11.09	53.49	36.39
1994	66,639	154,990	221,629	19.12	33.74	27.44
1995	59,133	161,757	220,890	18.52	38.41	29.83
1996	80,943	194,162	275,105	21.85	38.66	31.52
1997	64,475	191,612	256,087	18.81	39.98	31.15
1998	35,932	217,751	253,683	10.80	39.32	28.62
1999	46,392	231,305	277,697	13.10	40.24	29.90
2000	67,798	221,808	289,606	17.16	47.27	33.50
Carroll-Columbiana-Harrison Joint SWMD						
1990	2,100	9,342	11,442	3.33	70.45	15.01
1992	12,273	10,838	23,111	15.00	66.61	23.56
1993	16,311	13,336	29,647	15.25	48.58	22.05
1994	4,739	40,227	44,966	4.33	78.88	28.02
1995	4,039	40,194	44,233	3.46	78.44	26.35
1996	6,174	40,587	46,761	6.53	76.40	31.67
1997	6,329	35,714	42,043	7.11	70.64	30.12
1998	6,148	47,684	53,832	6.62	72.63	33.96
1999	6,302	57,863	64,165	5.48	82.97	34.72
2000	10,270	55,839	66,109	8.61	74.75	34.08
Clark County SWMD						
1990	6,870	0	6,870	3.80	0.00	3.78
1992	7,275	20,630	27,905	5.66	96.83	18.63
1993	7,363	34,209	41,572	5.97	99.03	26.34
1994	22,387	35,915	58,302	17.44	96.85	35.24
1995	24,808	35,915	60,723	21.15	95.00	39.16
1996	27,710	64,475	92,185	22.37	98.02	48.60
1997	28,006	64,080	92,086	22.16	97.25	47.89
1998	40,491	68,771	109,262	28.44	98.17	51.44
1999	38,107	68,880	106,987	27.00	97.62	50.54
2000	57,344	85,841	143,185	35.06	97.56	56.93
Clinton County SWMD						
1994	6,847	8,352	15,199	15.03	98.99	28.15
1995	6,246	5,870	12,116	14.21	74.92	23.39
1996	6,358	11,307	17,665	14.59	53.45	27.29
1997	6,356	11,294	17,650	15.61	85.97	32.77
1998	4,818	30,769	35,587	14.12	83.28	50.07
1999	5,044	21,992	27,036	13.92	78.06	41.98
2000	6,825	20,214	27,039	20.81	70.72	44.05

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Table 8. Reduction and Recycling by SWMD: 1990 - 2000*

SWMD/ Year	Tons Reduced/Recycled			Reduction/Recycling Rate		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Clinton-Warren Joint SWMD						
1990	7,141	15,299	22,440	4.77	75.42	13.21
1992	17,162	44,765	61,927	10.30	90.59	28.66
1993	11,090	25,948	37,038	27.92	81.89	51.87
Coshocton-Fairfield-Licking-Perry Joint SWMD						
1990	12,395	70,641	83,036	5.83	8.62	8.04
1992	16,876	107,057	123,933	7.17	11.16	10.37
1993	19,140	197,139	216,279	9.67	23.05	20.53
1994	25,267	298,844	324,111	12.08	28.97	26.12
1995	33,645	310,250	343,895	14.92	33.36	29.76
1996	42,152	452,069	494,221	16.82	40.13	35.89
1997	48,675	604,578	653,253	16.84	50.57	44.00
1998	59,593	745,135	804,728	20.02	54.40	48.26
1999	67,231	705,926	773,157	21.35	51.20	45.65
2000	92,385	547,229	639,614	26.94	41.40	38.42
Crawford County SWMD						
1990	2,827	4,813	7,640	8.38	28.83	15.15
1992	3,825	33,730	37,555	9.60	76.42	44.71
1993	3,234	34,613	37,847	6.92	75.79	40.97
1994	6,785	60,852	67,637	15.56	84.57	58.54
1995	9,085	74,870	83,955	18.81	88.58	63.21
1996	9,620	77,025	86,645	19.53	89.29	63.93
1997	623	140,992	141,615	1.48	93.26	73.31
1998	678	154,857	155,535	1.70	93.37	75.59
1999	808	47,607	48,415	1.86	84.23	48.42
2000	13,539	52,086	65,625	23.55	80.42	53.68
Cuyahoga County SWMD						
1990	565,725	107,200	672,925	26.97	27.14	27.00
1992	420,600	239,900	660,500	21.95	31.71	24.71
1993	534,381	356,600	890,981	25.56	41.73	30.25
1994	455,900	647,385	1,103,285	22.76	54.41	34.56
1995	457,429	647,385	1,104,814	25.00	47.94	34.74
1996	597,364	1,150,435	1,747,799	29.13	66.08	46.09
1997	525,443	1,068,707	1,594,150	25.31	66.18	43.19
1998	525,425	1,068,782	1,594,207	25.64	68.21	44.08
1999	456,373	1,068,734	1,525,107	22.79	64.38	41.64
2000	458,616	1,066,491	1,525,107	22.98	65.91	42.20
Darke County SWMD						
1990	4,540	856	5,396	9.51	90.30	11.08
1992	1,577	35,169	36,746	4.13	74.19	42.92
1993	2,957	41,766	44,723	9.44	87.21	56.46
1994	3,240	45,117	48,357	8.16	97.03	56.11
1995	4,900	41,847	46,747	14.50	88.86	57.79

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Table 8. Reduction and Recycling by SWMD: 1990 - 2000*

SWMD/ Year	Tons Reduced/Recycled			Reduction/Recycling Rate		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Darke County SWMD						
1996	8,399	47,982	56,381	20.37	90.24	59.72
1997	10,608	99,725	110,333	23.61	99.20	75.85
1998	11,559	44,029	55,588	19.04	94.05	51.70
1999	12,579	44,114	56,693	24.88	61.13	46.19
2000	15,593	42,037	57,630	24.65	97.99	54.29
Defiance-Fulton-Paulding-Williams Joint SWMD						
1990	4,866	41,310	46,176	5.42	8.48	8.01
1992	24,401	525,687	550,088	23.17	55.61	52.36
1993	17,482	886,797	904,279	15.78	63.80	60.25
1994	24,861	618,073	642,934	21.99	54.00	51.12
1995	30,117	782,827	812,944	22.68	72.37	66.94
1996	20,757	1,091,340	1,112,097	16.13	77.30	72.19
1997	21,558	935,571	957,129	16.24	72.36	67.13
1998	24,995	997,340	1,022,335	27.47	71.29	68.61
1999	26,914	798,847	825,761	20.63	69.13	64.21
2000	27,540	725,319	752,859	21.96	76.05	69.76
Delaware-Knox-Marion-Morrow Joint SWMD						
1990	4,030	17,597	21,627	2.88	72.73	13.17
1992	11,631	17,693	29,324	8.24	56.88	17.03
1993	11,631	17,693	29,324	7.71	63.26	16.40
1994	30,108	20,662	50,770	16.69	54.82	23.28
1995	21,688	61,685	83,373	13.05	78.61	34.08
1996	28,590	58,483	87,073	15.52	69.18	32.40
1997	34,795	67,281	102,076	16.70	74.50	34.17
1998	33,948	69,127	103,075	17.84	85.68	38.03
1999	34,031	84,543	118,574	16.84	88.96	39.90
2000	40,805	112,497	153,302	17.21	82.14	40.98
Erie County SWMD						
1994	4,731	156,415	161,146	6.47	80.51	60.26
1995	4,871	171,434	176,305	6.69	88.83	66.33
1996	36,075	212,758	248,833	32.93	92.44	73.25
1997	20,439	251,981	272,420	22.15	92.23	74.54
1998	13,208	264,979	278,187	16.68	90.78	74.97
1999	8,945	221,702	230,647	11.12	87.58	69.15
2000	10,047	261,913	271,960	12.49	87.94	71.90
Erie-Huron Joint SWMD						
1990	7,864	6,986	14,850	6.48	5.00	5.68
1992	7,421	83,377	90,798	7.46	42.09	30.51
1993	6,369	207,602	213,971	8.29	49.29	42.96
Fayette-Highland-Pickaway-Ross Joint SWMD						
1990	17,014	65,292	82,306	17.17	39.97	31.36
1992	14,573	475,197	489,770	9.65	62.72	53.90

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Table 8. Reduction and Recycling by SWMD: 1990 - 2000*

SWMD/ Year	Tons Reduced/Recycled			Reduction/Recycling Rate		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Fayette-Highland-Pickaway-Ross Joint SWMD						
1993	22,530	532,724	555,254	18.70	83.62	73.29
1994	28,409	632,130	660,539	13.83	92.15	74.10
1995	28,409	686,842	715,251	11.72	91.47	72.00
1996	22,933	582,517	605,450	12.36	92.28	74.13
1997	33,288	760,241	793,529	13.77	93.86	75.45
1998	34,347	736,280	770,627	13.28	97.70	76.13
1999	40,565	1,004,667	1,045,232	19.93	96.49	83.98
2000	38,608	1,080,419	1,119,027	14.51	97.32	81.30
Franklin County SWMD (Solid Waste Authority of Central Ohio)						
1990	433,728	208,628	642,356	35.20	91.74	44.01
1992	583,222	139,638	722,860	59.71	34.57	52.36
1993	619,284	229,320	848,604	48.50	78.94	54.15
1994	748,700	299,197	1,047,897	54.28	81.58	60.01
1995	90,893	368,162	459,055	8.06	79.77	28.88
1996	243,643	411,803	655,446	18.31	83.19	35.90
1997	257,745	188,029	445,774	19.94	60.15	27.77
1998	290,712	215,951	506,663	20.03	65.00	28.41
1999	328,189	125,192	453,381	21.86	54.32	26.18
2000	366,039	274,872	640,911	22.52	68.37	31.61
Gallia-Jackson-Meigs-Vinton Joint SWMD						
1994	5,666	10,195	15,861	8.38	47.44	17.80
1995	7,122	20,524	27,646	9.57	0.96	1.24
1996	24,079	43,896	67,975	25.92	1.77	2.64
1997	27,463	28,626	56,089	30.89	1.14	2.15
1998	44,911	33,735	78,646	40.05	1.21	2.71
1999	28,225	53,027	81,252	29.15	2.22	3.26
2000	30,743	58,401	89,144	30.36	2.00	2.95
Geauga-Trumbull Joint SWMD						
1994	23,570	180,880	204,450	11.23	76.25	45.73
1995	26,489	355,551	382,040	9.92	83.62	55.20
1996	49,690	629,398	679,088	17.78	90.52	69.66
1997	74,556	644,355	718,911	24.89	85.76	68.41
1998	75,724	644,517	720,241	24.39	86.20	68.06
1999	60,006	263,283	323,289	21.07	73.07	50.12
2000	62,022	263,283	325,305	18.59	69.63	45.71
Greene County SWMD						
1990	9,364	329	9,693	9.36	26.49	9.57
1992	24,338	0	24,338	22.20	0.00	16.13
1993	8,960	3,314	12,274	6.64	73.01	8.80
1994	14,282	15,384	29,666	6.43	83.35	12.33
1995	16,998	4,412	21,410	12.24	53.38	14.55
1996	24,026	15,384	39,410	19.18	79.56	27.26

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Table 8. Reduction and Recycling by SWMD: 1990 - 2000*

SWMD/ Year	Tons Reduced/Recycled			Reduction/Recycling Rate		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Greene County SWMD						
1997	36,935	15,003	51,938	28.17	74.73	34.35
1998	36,037	15,722	51,759	22.00	77.79	28.13
1999	36,439	16,589	53,028	23.32	69.58	29.44
2000	37,123	22,677	59,800	27.01	76.78	35.82
Guernsey-Monroe-Morgan-Muskingum-Noble-Washington Joint SWMD (Southeast SWMD)						
1990	39,101	12,611	51,712	25.89	24.72	25.60
1992	55,522	21,288	76,810	37.74	48.88	40.28
1993	44,676	27,189	71,865	23.07	48.26	28.75
1994	9,152	210,648	219,800	5.17	81.24	50.37
1995	10,407	210,648	221,055	4.98	85.09	48.43
1996	13,081	300,097	313,178	6.22	94.35	59.26
1997	12,379	300,113	312,492	7.22	86.47	60.28
1998	13,664	300,010	313,674	7.21	83.63	57.21
1999	14,562	300,109	314,671	8.18	89.29	61.20
2000	14,521	295,824	310,345	7.48	81.31	55.63
Hamilton County SWMD						
1990	173,109	57,429	230,538	12.98	47.07	15.84
1992	169,609	57,429	227,038	13.65	40.53	16.40
1993	177,798	203,508	381,306	14.70	69.03	25.34
1994	179,755	203,508	383,263	15.26	68.15	25.95
1995	287,749	102,182	389,931	23.57	47.79	27.18
1996	366,174	1,540,334	1,906,508	26.70	93.88	63.30
1997	346,211	216,222	562,433	26.49	72.80	35.06
1998	342,609	206,024	548,633	26.40	68.65	34.34
1999	327,406	206,175	533,581	24.69	54.56	31.32
2000	395,600	791,391	1,186,991	26.58	86.27	49.34
Hancock County SWMD						
1990	4,059	25,549	29,608	5.22	95.12	28.29
1992	7,118	37,839	44,957	11.86	53.95	34.54
1993	18,431	82,671	101,102	26.56	79.77	58.43
1994	15,675	87,791	103,466	21.32	77.80	55.52
1995	17,829	88,313	106,142	21.79	82.71	56.28
1996	15,045	102,045	117,090	19.86	86.44	60.41
1997	34,945	105,493	140,438	35.73	87.05	64.13
1998	57,195	80,025	137,220	48.20	81.44	63.25
1999	18,363	66,353	84,716	23.58	78.21	52.07
2000	28,485	98,330	126,815	32.48	84.88	62.31
Henry County SWMD						
1990	2,069	22,847	24,916	10.47	58.92	42.57
1992	835	39,374	40,209	4.57	70.59	54.31
1993	6,256	68,314	74,570	27.60	89.08	75.05
1994	7,818	23,316	31,134	32.63	74.69	56.43

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Table 8. Reduction and Recycling by SWMD: 1990 - 2000*

SWMD/ Year	Tons Reduced/Recycled			Reduction/Recycling Rate		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Henry County SWMD						
1995	8,236	14,776	23,012	33.62	68.88	50.08
1996	9,765	60,106	69,871	37.83	92.27	76.82
1997	14,160	64,454	78,614	43.34	91.79	76.41
1998	9,295	46,456	55,751	32.18	87.27	67.89
1999	8,569	36,110	44,679	27.74	83.74	60.37
2000	7,454	21,729	29,183	27.08	70.94	50.18
Holmes County SWMD						
1990	650	7,111	7,761	5.35	34.50	23.69
1992	556	7,627	8,183	3.67	38.17	23.28
1993	3,070	15,346	18,416	18.95	58.12	43.23
1994	3,086	58,141	61,227	17.73	80.02	67.98
1995	1,413	58,168	59,581	7.85	88.66	71.26
1996	1,160	66,944	68,104	4.14	94.29	68.80
1997	1,140	79,299	80,439	6.15	88.17	74.16
1998	1,176	79,299	80,475	4.02	96.57	72.25
1999	1,107	79,299	80,406	6.56	88.98	75.85
2000	1,356	108,404	109,760	8.05	90.16	80.07
Huron County SWMD						
1994	4,253	60,142	64,395	14.10	78.57	60.34
1995	4,253	60,142	64,395	12.89	80.42	59.75
1996	5,275	75,873	81,148	14.27	85.57	64.59
1997	3,306	75,553	78,859	8.99	82.26	61.31
1998	1,932	75,580	77,512	5.57	82.83	61.56
1999	15,504	61,819	77,323	32.61	83.56	63.62
2000	20,327	70,788	91,115	31.86	92.56	64.95
Lake County SWMD						
1990	27,804	11,194	38,998	8.48	34.81	10.83
1992	11,314	14,687	26,001	4.40	41.00	8.87
1993	30,970	11,534	42,504	12.35	48.40	15.47
1994	47,889	28,726	76,615	17.02	73.25	23.90
1995	51,964	36,575	88,539	18.34	71.21	26.45
1996	84,218	73,422	157,640	27.38	83.21	39.83
1997	71,838	96,264	168,102	25.88	91.18	43.87
1998	72,619	96,162	168,781	23.90	87.52	40.80
1999	101,014	92,719	193,733	30.31	80.78	43.24
2000	101,591	83,627	185,218	29.81	64.46	39.36
Lawrence-Scioto Joint SWMD						
1990	4,586	21,613	26,199	12.00	77.17	39.55
1993	692	975	1,667	1.12	2.12	1.55
1994	692	975	1,667	1.03	2.68	1.61
1995	38,557	48,385	86,942	34.57	41.97	38.34
1996	21,101	65,574	86,675	20.42	46.57	35.50

* For years 1990-1995, please note that industrial waste reduced or recycled in programs which were initiated prior to 1985 have not been included in this table. For 1996, recycling totals for both residential/commercial and industrial sectors reflect the changes made in the 1995 State Solid Waste Management Plan (e.g. all industrial waste recycled has been included, yard waste recycled has been included for the residential/commercial sector, etc.)

Table 8. Reduction and Recycling by SWMD: 1990 - 2000*

SWMD/ Year	Tons Reduced/Recycled			Reduction/Recycling Rate		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Lawrence-Scioto Joint SWMD						
1997	22,222	58,814	81,036	18.05	38.55	29.40
1998	20,028	88,886	108,914	17.72	60.90	42.06
1999	81,309	49	81,358	45.99	0.08	34.65
2000	81,310	49	81,359	41.13	0.25	37.39
Logan County SWMD						
1990	216	15,753	15,969	0.54	97.45	28.44
1992	781	18,103	18,884	2.23	100.00	35.54
1993	1,419	25,185	26,604	3.91	100.00	43.25
1994	6,557	28,762	35,319	15.82	87.51	47.52
1995	6,903	73,496	80,399	15.80	94.90	66.37
1996	2,862	73,496	76,358	5.79	95.86	60.54
1997	6,737	74,537	81,274	13.11	97.26	63.49
1998	8,607	74,537	83,144	17.49	90.82	63.33
1999	7,477	74,733	82,210	16.62	88.44	63.48
2000	12,124	74,733	86,857	22.15	93.51	64.50
Lorain County SWMD						
1990	2,796	54,987	57,783	0.78	61.54	12.89
1992	5,722	27,221	32,943	2.24	43.01	10.35
1993	8,973	53,853	62,826	3.16	55.58	16.51
1994	10,963	139,309	150,272	4.14	77.31	33.77
1995	8,665	228,311	236,976	3.27	88.22	45.25
1996	37,725	298,918	336,643	13.03	90.89	54.44
1997	28,384	263,758	292,142	10.60	87.16	51.23
1998	36,198	839,547	875,745	12.75	91.86	73.11
1999	29,161	968,898	998,059	10.25	97.13	77.84
2000	29,801	1,269,012	1,298,813	9.56	97.20	80.31
Lucas County SWMD						
1990	34,540	74,986	109,526	5.99	40.60	14.38
1992	74,700	141,283	215,983	12.52	52.97	25.02
1993	95,200	140,972	236,172	15.21	65.18	28.04
1994	40,943	59,419	100,362	7.08	70.78	15.16
1995	63,108	58,151	121,259	10.32	53.86	16.85
1996	94,909	211,627	306,536	15.25	69.11	33.02
1997	98,091	217,668	315,759	15.36	68.65	33.04
1998	71,014	176,339	247,353	10.19	74.61	26.50
1999	68,131	157,892	226,023	10.12	69.28	25.09
2000	65,076	158,577	223,653	9.93	85.65	26.61
Mahoning County SWMD						
1990	31,873	6,020	37,893	13.83	59.26	15.75
1992	36,639	6,020	42,659	13.42	29.95	14.55
1993	27,556	16,284	43,840	9.27	52.08	13.34
1994	33,941	16,284	50,225	9.92	52.23	13.45

* For years 1990-1995, please note that industrial waste reduced or recycled in programs which were initiated prior to 1985 have not been included in this table. For 1996, recycling totals for both residential/commercial and industrial sectors reflect the changes made in the 1995 State Solid Waste Management Plan (e.g. all industrial waste recycled has been included, yard waste recycled has been included for the residential/commercial sector, etc.)

Table 8. Reduction and Recycling by SWMD: 1990 - 2000*

SWMD/ Year	Tons Reduced/Recycled			Reduction/Recycling Rate		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Mahoning County SWMD						
1995	30,620	58,943	89,563	13.27	79.31	29.36
1996	110,254	333,351	443,605	34.07	93.27	65.14
1997	102,400	432,956	535,356	31.29	91.73	66.98
1998	41,914	189,068	230,982	14.79	79.64	44.35
1999	30,552	189,131	219,683	9.98	86.78	41.92
2000	35,270	46,944	82,214	12.40	43.80	20.99
Medina County SWMD						
1990	580	12,800	13,380	0.84	99.02	16.39
1992	4,517	51,154	55,671	5.13	91.49	38.68
1993	16,428	56,246	72,674	19.29	85.73	48.20
1994	31,565	63,967	95,532	29.83	92.17	54.52
1995	23,867	58,511	82,378	21.99	91.09	47.68
1996	24,972	76,932	101,904	20.91	92.51	50.30
1997	26,323	84,428	110,751	21.11	92.60	51.30
1998	26,910	89,370	116,280	19.72	88.31	48.92
1999	37,653	91,756	129,409	24.86	90.84	51.26
2000	34,139	91,044	125,183	22.36	85.81	48.38
Mercer County SWMD						
1990	1,050	610	1,660	9.65	7.42	8.69
1992	5,345	712	6,057	24.15	29.58	24.69
1993	5,345	610	5,955	27.40	9.53	22.99
1994	1,245	610	1,855	15.94	79.63	21.63
1995	1,062	611	1,673	4.42	82.01	6.76
1996	833	23,274	24,107	3.30	95.56	48.59
1997	5,676	25,158	30,834	17.11	95.35	51.76
1998	6,468	26,078	32,546	19.48	93.05	53.16
1999	4,313	24,412	28,725	13.19	85.84	46.99
2000	8,849	26,998	35,847	24.34	89.55	53.90
Miami County SWMD						
1990	793	2,329	3,122	1.00	68.50	3.76
1992	9,409	11,227	20,636	15.07	31.11	20.95
1993	13,821	13,729	27,550	20.21	33.90	25.30
1994	11,370	83,194	94,564	14.90	77.78	51.59
1995	15,387	39,492	54,879	20.26	63.17	39.64
1996	25,481	54,729	80,210	23.38	93.11	47.81
1997	24,646	60,083	84,729	22.11	93.87	48.28
1998	30,172	70,183	100,355	28.86	74.61	50.53
1999	34,036	76,283	110,319	28.69	78.81	51.21
2000	32,252	72,539	104,791	28.63	72.28	49.19
Montgomery County SWMD						
1990	427,739	83,043	510,782	46.70	29.81	42.76
1992	321,083	44,858	365,941	40.12	15.03	33.31

* For years 1990-1995, please note that industrial waste reduced or recycled in programs which were initiated prior to 1985 have not been included in this table. For 1996, recycling totals for both residential/commercial and industrial sectors reflect the changes made in the 1995 State Solid Waste Management Plan (e.g. all industrial waste recycled has been included, yard waste recycled has been included for the residential/commercial sector, etc.)

Table 8. Reduction and Recycling by SWMD: 1990 - 2000*

SWMD/ Year	Tons Reduced/Recycled			Reduction/Recycling Rate		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Montgomery County SWMD						
1993	235,700	95,301	331,001	31.66	26.67	30.04
1994	261,385	95,301	356,686	42.75	27.54	37.25
1995	318,647	212,984	531,631	45.53	48.38	46.63
1996	154,369	233,145	387,514	23.75	48.11	34.15
1997	59,349	247,051	306,400	10.31	45.01	27.24
1998	59,376	153,069	212,445	10.00	41.64	22.10
1999	62,425	163,850	226,275	10.16	36.44	21.27
2000	33,953	208,593	242,546	5.56	46.94	22.99
Ottawa-Sandusky-Seneca Joint SWMD						
1990	2,549	5,762	8,311	1.43	9.69	3.50
1992	3,389	15,895	19,284	2.61	18.15	8.86
1993	3,590	15,895	19,485	2.76	25.82	10.17
1994	6,000	27,650	33,650	4.83	40.21	17.43
1995	11,370	18,300	29,670	8.33	27.78	14.67
1996	8,107	95,661	103,768	5.52	67.34	35.91
1997	3,437	167,845	171,282	2.36	50.74	35.95
1998	28,017	169,143	197,160	16.37	31.71	27.99
1999	14,890	112,175	127,065	10.36	27.02	22.74
2000	28,228	112,271	140,499	16.62	28.57	24.97
Pike County SWMD						
1990	783	0	783	7.83	0.00	6.79
1992	736	254	990	4.82	7.94	5.36
1993	864	1,547	2,411	5.78	19.87	10.60
1994	916	1,571	2,487	5.57	5.79	5.70
1995	966	25,543	26,509	4.77	73.62	48.26
1996	895	83,485	84,380	5.00	92.87	78.29
1997	940	92,150	93,090	5.92	92.74	80.78
1998	940	95,162	96,102	4.34	92.74	77.34
1999	988	169,448	170,436	4.82	92.56	83.73
2000	1,248	172,500	173,748	5.06	88.17	78.86
Portage County SWMD						
1990	24,860	28,119	52,979	18.61	96.38	32.54
1993	6,971	28,119	35,090	5.67	87.86	22.66
1994	6,506	13,348	19,854	5.00	74.71	13.42
1995	7,052	1,330	8,382	7.51	14.92	8.15
1996	53,295	32,539	85,834	39.68	81.08	49.21
1997	20,584	65,250	85,834	21.10	96.10	51.87
1998	19,527	84,792	104,319	15.61	91.03	47.80
1999	19,605	105,949	125,554	15.71	91.03	52.06
2000	19,244	109,127	128,371	15.84	89.90	52.85
Preble County SWMD						
1990	207	235	442	0.90	5.43	1.61

* For years 1990-1995, please note that industrial waste reduced or recycled in programs which were initiated prior to 1985 have not been included in this table. For 1996, recycling totals for both residential/commercial and industrial sectors reflect the changes made in the 1995 State Solid Waste Management Plan (e.g. all industrial waste recycled has been included, yard waste recycled has been included for the residential/commercial sector, etc.)

Table 8. Reduction and Recycling by SWMD: 1990 - 2000*

SWMD/ Year	Tons Reduced/Recycled			Reduction/Recycling Rate		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Preble County SWMD						
1992	2,237	603	2,840	8.63	14.04	9.40
1993	425	282	707	1.61	5.39	2.23
1994	1,540	15,537	17,077	6.07	74.64	36.99
1995	2,669	16,314	18,983	10.04	76.38	39.59
1996	1,117	16,314	17,431	3.78	76.00	34.19
1997	2,624	23,112	25,736	9.70	85.95	47.70
1998	765	24,588	25,353	2.80	85.35	45.17
1999	2,127	32,399	34,526	7.21	88.85	52.33
2000	2,494	32,399	34,893	8.01	89.62	51.85
Putnam County SWMD						
1990	1,066	3,514	4,580	5.86	47.42	17.90
1992	396	6,744	7,140	1.95	80.03	24.84
1993	212	5,879	6,091	1.01	90.15	22.10
1994	367	5,390	5,757	1.82	63.95	20.12
1995	11,418	8,986	20,404	36.40	82.13	48.23
1996	11,949	10,268	22,217	42.53	81.84	54.66
1997	1,470	43,744	45,214	8.71	95.76	72.26
1998	1,577	38,753	40,330	8.11	98.27	68.49
1999	1,548	38,588	40,136	9.73	98.24	72.72
2000	2,198	46,410	48,608	10.03	98.48	70.40
Richland County SWMD						
1990	12,755	5,887	18,642	14.40	41.82	18.17
1993	10,787	11,394	22,181	10.47	59.88	18.18
1994	27,044	5,774	32,818	21.95	43.85	24.06
1995	34,573	16,237	50,810	26.39	68.52	32.84
1996	27,610	72,504	100,114	18.90	90.71	44.30
1997	49,212	72,504	121,716	33.03	60.69	45.34
1998	49,338	298,564	347,902	31.21	95.18	73.74
1999	42,523	310,945	353,468	24.13	97.80	71.53
2000	41,869	364,327	406,196	27.10	92.27	73.94
Stark-Tuscarawas-Wayne Joint SWMD						
1990	54,500	815,095	869,595	11.28	78.82	57.32
1992	6,300	1,078,507	1,084,807	0.98	77.20	53.12
1993	9,295	572,341	581,636	1.41	60.87	36.39
1994	13,984	669,599	683,583	2.28	60.40	39.67
1995	55,608	670,599	726,207	8.16	56.52	38.88
1996	67,645	1,196,541	1,264,186	11.49	75.39	58.10
1997	73,949	1,192,482	1,266,431	11.42	74.45	56.31
1998	71,924	1,192,482	1,264,406	10.47	72.19	54.07
1999	82,806	873,723	956,529	13.96	69.33	51.60
2000	116,318	1,196,542	1,312,860	17.94	69.55	55.43

* For years 1990-1995, please note that industrial waste reduced or recycled in programs which were initiated prior to 1985 have not been included in this table. For 1996, recycling totals for both residential/commercial and industrial sectors reflect the changes made in the 1995 State Solid Waste Management Plan (e.g. all industrial waste recycled has been included, yard waste recycled has been included for the residential/commercial sector, etc.)

Table 8. Reduction and Recycling by SWMD: 1990 - 2000*

SWMD/ Year	Tons Reduced/Recycled			Reduction/Recycling Rate		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Summit County SWMD (Summit-Akron Solid Waste Authority)						
1990	237,508	51,420	288,928	48.84	58.11	50.27
1992	302,466	144,091	446,557	37.70	81.99	45.66
1993	170,375	113,406	283,781	32.01	80.14	42.12
1994	169,568	117,814	287,382	35.41	83.24	46.32
1995	27,302	173,882	201,184	6.26	79.96	30.78
1996	64,649	145,528	210,177	11.65	77.40	28.30
1997	180,976	132,184	313,160	31.34	75.72	41.64
1998	31,195	132,152	163,347	7.04	63.67	25.10
1999	107,039	145,909	252,948	17.08	83.83	31.59
2000	112,917	270,731	383,648	18.58	83.18	41.11
Van Wert County SWMD						
1990	1,045	401	1,446	5.85	26.50	7.46
1992	1,137	2,161	3,298	6.05	22.25	11.57
1993	2,838	4,424	7,262	16.24	38.28	25.02
1994	3,152	5,082	8,234	18.51	41.66	28.17
1995	3,151	5,082	8,233	23.18	61.66	37.71
1996	9,331	6,776	16,107	36.04	92.86	48.53
1997	9,174	6,725	15,899	40.44	68.00	48.80
1998	9,543	8,302	17,845	36.39	82.21	49.13
1999	9,480	8,306	17,786	36.07	82.04	48.86
2000	9,940	8,268	18,208	37.92	75.79	49.05
Warren County SWMD						
1994	8,472	18,214	26,686	7.55	73.60	19.48
1995	4,465	18,158	22,623	4.05	52.01	15.60
1996	6,755	51,724	58,479	5.56	78.73	31.23
1997	10,897	52,162	63,059	7.56	85.15	30.69
1998	8,047	51,724	59,771	5.54	87.91	29.30
1999	16,426	51,724	68,150	10.51	84.83	31.37
2000	19,729	51,724	71,453	11.88	85.18	31.51
Wood County SWMD						
1990	2,510	22,457	24,967	2.56	46.85	17.09
1992	3,352	37,695	41,047	3.07	59.25	23.76
1993	3,939	37,695	41,634	3.04	71.01	22.80
1994	5,440	62,047	67,487	4.29	80.08	33.04
1995	12,038	41,505	53,543	9.85	76.95	30.40
1996	30,733	275,589	306,322	22.33	96.06	72.15
1997	28,812	428,885	457,697	18.92	97.41	77.25
1998	26,423	346,088	372,511	21.66	97.23	77.94
1999	32,869	409,444	442,313	22.83	91.33	74.68
2000	30,005	259,418	289,423	16.31	94.22	63.02
Wyandot County SWMD						
1990	154	9,395	9,549	1.10	31.12	21.64

* For years 1990-1995, please note that industrial waste reduced or recycled in programs which were initiated prior to 1985 have not been included in this table. For 1996, recycling totals for both residential/commercial and industrial sectors reflect the changes made in the 1995 State Solid Waste Management Plan (e.g. all industrial waste recycled has been included, yard waste recycled has been included for the residential/commercial sector, etc.)

Table 8. Reduction and Recycling by SWMD: 1990 - 2000*

SWMD/ Year	Tons Reduced/Recycled			Reduction/Recycling Rate		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Wyandot County SWMD						
1992	650	9,912	10,562	3.31	53.43	27.65
1993	594	18,417	19,011	2.59	96.29	45.19
1994	779	19,171	19,950	3.83	69.10	41.51
1995	923	23,388	24,311	3.39	45.26	30.83
1996	2,980	46,647	49,627	11.15	55.69	44.92
1997	3,635	34,012	37,647	14.38	72.51	52.15
1998	3,730	26,757	30,487	13.40	58.18	41.30
1999	1,260	26,095	27,355	4.54	57.96	37.59
2000	4,101	38,195	42,296	14.03	60.39	45.73

* For years 1990-1995, please note that industrial waste reduced or recycled in programs which were initiated prior to 1985 have not been included in this table. For 1996, recycling totals for both residential/commercial and industrial sectors reflect the changes made in the 1995 State Solid Waste Management Plan (e.g. all industrial waste recycled has been included, yard waste recycled has been included for the residential/commercial sector, etc.)

Table 9. Waste Generation by SWMD: 1990 - 2000
As Determined by Disposal + Reduction/Recycling*

SWMD/ Year	Tons Generated			Generation Rate (pounds/person/day)		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Adams-Clermont Joint SWMD						
1990	134,699	75,330	210,029	4.27	2.39	6.66
1992	147,745	1,679,282	1,827,027	4.54	51.66	56.20
1993	143,937	1,587,453	1,731,390	4.38	48.36	52.75
1994	153,537	1,539,912	1,693,449	4.40	44.13	48.53
1995	147,420	1,590,499	1,737,919	4.41	47.59	52.01
1996	154,356	1,948,666	2,103,022	4.58	57.85	62.43
1997	147,786	1,562,833	1,710,619	4.28	45.30	49.58
1998	146,185	1,844,743	1,990,928	4.19	52.87	57.06
1999	147,188	1,636,708	1,783,896	4.17	46.38	50.55
2000	139,951	1,139,425	1,279,376	3.77	30.68	34.45
Allen-Champaign-Hardin-Madison-Shelby-Union Joint SWMD (North Central SWMD)						
1990	256,992	381,973	638,965	5.01	7.44	12.45
1992	197,708	1,019,887	1,217,595	3.66	18.87	22.52
1993	166,617	1,107,731	1,274,348	3.26	21.65	24.91
1994	221,610	243,866	465,476	4.33	4.77	9.10
1995	211,172	261,985	473,157	4.13	5.13	9.26
1996	239,327	252,631	491,958	4.69	4.95	9.64
1997	267,568	232,638	500,206	5.25	4.56	9.81
1998	272,594	290,376	562,970	5.35	5.70	11.05
1999	269,303	345,072	614,375	4.82	6.18	11.01
2000	266,985	396,979	663,964	4.77	7.10	11.87
Ashland County SWMD						
1990	33,639	14,696	48,335	3.88	1.70	5.57
1992	26,602	52,887	79,489	3.02	6.00	9.02
1993	31,078	71,856	102,934	3.50	8.08	11.58
1994	26,909	108,010	134,919	2.96	11.86	14.82
1995	28,008	112,446	140,454	3.05	12.25	15.30
1996	44,569	106,958	151,527	4.84	11.61	16.45
1997	47,187	159,432	206,619	5.11	17.25	22.35
1998	43,346	83,101	126,447	4.67	8.96	13.63
1999	52,176	26,940	79,116	5.61	2.89	8.50
2000	52,324	26,874	79,198	5.60	2.88	8.48
Ashtabula County SWMD						
1994	91,830	214,621	306,451	4.94	11.54	16.47
1995	74,647	244,608	319,255	3.99	13.08	17.08
1996	83,771	265,977	349,748	4.47	14.20	18.67
1997	94,215	291,201	385,416	5.01	15.49	20.51
1998	84,731	346,311	431,042	4.49	18.36	22.86
1999	85,744	435,022	520,766	4.53	23.00	27.53
2000	85,664	337,026	422,690	4.57	17.98	22.55
Ashtabula-Geauga-Trumbull Joint SWMD						
1990	287,467	592,975	880,442	3.87	7.98	11.85
1992	287,613	224,742	512,355	3.83	2.99	6.82

* For years 1990 through 1995, the amounts in this table shown for industrial and total waste may be larger than the sum of disposal plus reduction/recycling shown in Tables 6 and 8, since industrial waste recycled or reduced through programs initiated prior to 1985 have not been included in Table 8 for these years.

Table 9. Waste Generation by SWMD: 1990 - 2000
As Determined by Disposal + Reduction/Recycling*

SWMD/ Year	Tons Generated			Generation Rate (pounds/person/day)		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Ashtabula-Geauga-Trumbull Joint SWMD						
1993	264,544	1,806,261	2,070,805	3.51	23.96	27.47
Athens-Gallia-Hocking-Jackson-Meigs-Vinton Joint SWMD						
1990	107,376	257,385	364,761	3.23	7.75	10.99
1992	103,886	4,372	108,258	3.12	0.13	3.25
1993	104,435	318,078	422,513	3.14	9.56	12.70
Athens-Hocking Joint SWMD						
1994	48,857	49,912	98,769	3.05	3.11	6.16
1995	40,979	2,439	43,418	2.72	0.16	2.88
1996	47,759	86,398	134,157	2.99	5.41	8.40
1997	46,419	3,633	50,052	2.92	0.23	3.15
1998	49,171	12,253	61,424	3.10	0.77	3.87
1999	53,443	125,239	178,682	3.37	7.89	11.25
2000	59,240	117,546	176,786	3.73	7.40	11.13
Auglaize County SWMD						
1990	26,369	57,204	83,573	3.24	7.03	10.27
1992	34,448	58,716	93,164	4.22	7.19	11.41
1993	31,973	79,303	111,276	3.91	9.70	13.61
1994	23,438	86,606	110,044	2.75	10.18	12.93
1995	24,191	85,032	109,223	2.83	9.96	12.79
1996	29,019	98,831	127,850	3.39	11.55	14.94
1997	26,464	89,491	115,955	3.09	10.43	13.52
1998	32,337	82,580	114,917	3.73	9.53	13.26
1999	39,959	80,616	120,575	4.59	9.27	13.86
2000	32,762	76,744	109,506	3.85	9.02	12.87
Belmont-Jefferson Joint SWMD (Belmont-Jefferson Solid Waste Authority)						
1990	112,180	23,585	135,765	3.76	0.79	4.55
1992	111,267	82,265	193,532	4.05	3.00	7.05
1993	110,969	111,815	222,784	4.06	4.09	8.14
1994	110,529	82,128	192,657	4.06	3.01	7.07
1995	63,901	64,119	128,020	2.36	2.36	4.72
1996	68,416	63,170	131,586	2.40	2.22	4.62
1997	160,342	2,538	162,880	5.68	0.09	5.77
1998	92,542	15,411	107,953	3.28	0.55	3.82
1999	98,058	222,550	320,608	3.71	8.41	12.12
2000	96,649	539,614	636,263	3.67	20.52	24.16
Brown County SWMD (Brown County Solid Waste Authority)						
1990	18,865	1,888	20,753	2.95	0.30	3.25
1992	14,547	9,876	24,423	2.23	1.51	3.74
1993	15,671	8,694	24,365	2.37	1.32	3.69
1994	16,273	10,561	26,834	2.33	1.51	3.84
1995	22,056	1,942	23,998	3.27	0.29	3.56
1996	23,695	4,349	28,044	3.50	0.64	4.15
1997	24,107	3,590	27,697	3.78	0.56	4.34

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Table 9. Waste Generation by SWMD: 1990 - 2000
As Determined by Disposal + Reduction/Recycling*

SWMD/ Year	Tons Generated			Generation Rate (pounds/person/day)		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Brown County SWMD (Brown County Solid Waste Authority)						
1998	24,190	11,723	35,913	3.79	1.84	5.63
1999	25,104	4,656	29,760	3.54	0.66	4.20
2000	27,261	7,370	34,631	3.53	0.96	4.49
Butler County SWMD						
1990	307,153	631,127	938,280	5.82	11.96	17.78
1992	262,810	492,374	755,184	4.94	9.25	14.18
1993	287,357	486,303	773,660	5.16	8.74	13.90
1994	348,499	525,438	873,937	6.14	9.26	15.40
1995	319,269	450,349	769,618	5.57	7.86	13.43
1996	370,530	525,100	895,630	6.38	9.05	15.43
1997	342,853	489,617	832,470	5.74	8.20	13.95
1998	332,646	573,020	905,666	5.52	9.50	15.02
1999	354,084	588,969	943,053	5.86	9.75	15.61
2000	395,111	481,810	876,921	6.51	7.93	14.44
Carroll-Columbiana-Harrison Joint SWMD						
1990	62,970	24,290	87,260	2.29	0.88	3.18
1992	81,827	27,394	109,221	3.01	1.01	4.02
1993	106,975	38,898	145,873	3.95	1.44	5.38
1994	109,474	52,639	162,113	3.86	1.86	5.72
1995	116,631	53,077	169,708	4.33	1.97	6.30
1996	94,543	55,206	149,749	3.44	2.01	5.45
1997	89,028	51,324	140,352	3.24	1.87	5.11
1998	92,848	66,384	159,232	3.38	2.42	5.80
1999	115,090	70,399	185,489	4.19	2.56	6.76
2000	119,301	75,947	195,248	4.08	2.60	6.68
Clark County SWMD						
1990	180,854	21,612	202,466	6.86	0.82	7.68
1992	128,460	48,168	176,628	4.76	1.78	6.54
1993	123,276	61,714	184,990	4.56	2.28	6.84
1994	128,363	66,757	195,120	4.76	2.47	7.23
1995	117,273	65,909	183,182	4.33	2.43	6.76
1996	123,887	65,820	189,707	4.57	2.43	6.99
1997	126,387	66,153	192,540	4.65	2.43	7.09
1998	142,355	77,855	220,210	5.23	2.86	8.09
1999	141,121	71,143	212,264	5.19	2.61	7.80
2000	163,545	88,171	251,716	6.19	3.34	9.53
Clinton County SWMD						
1994	45,553	17,332	62,885	6.63	2.52	9.15
1995	43,967	16,497	60,464	6.75	2.53	9.28
1996	43,567	23,570	67,137	6.66	3.60	10.26
1997	40,717	16,106	56,823	5.80	2.29	8.09
1998	34,133	38,925	73,058	4.83	5.51	10.34
1999	36,234	29,280	65,514	5.13	4.14	9.27

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Table 9. Waste Generation by SWMD: 1990 - 2000
As Determined by Disposal + Reduction/Recycling*

SWMD/ Year	Tons Generated			Generation Rate (pounds/person/day)		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Clinton County SWMD						
2000	32,791	32,793	65,584	4.94	4.94	9.87
Clinton-Warren Joint SWMD						
1990	149,572	29,947	179,519	5.54	1.11	6.64
1992	166,643	51,889	218,532	5.96	1.86	7.82
1993	39,719	65,372	105,091	1.40	2.31	3.71
Coshocton-Fairfield-Licking-Perry Joint SWMD						
1990	212,779	819,646	1,032,425	3.95	15.20	19.15
1992	235,469	1,026,757	1,262,226	4.33	18.89	23.22
1993	197,855	934,526	1,132,381	3.50	16.55	20.06
1994	209,226	1,207,588	1,416,814	3.77	21.74	25.51
1995	225,501	1,048,844	1,274,345	3.79	17.63	21.42
1996	250,560	1,243,340	1,493,900	4.22	20.93	25.14
1997	289,083	1,545,010	1,834,093	4.87	26.00	30.87
1998	297,678	1,909,936	2,207,614	4.95	31.76	36.71
1999	314,907	1,718,561	2,033,468	5.21	28.41	33.62
2000	342,934	1,729,850	2,072,784	5.64	28.43	34.06
Crawford County SWMD						
1990	33,726	22,268	55,994	3.88	2.56	6.44
1992	39,856	44,137	83,993	4.59	5.09	9.68
1993	46,721	51,500	98,221	5.47	6.03	11.49
1994	43,596	75,127	118,723	5.03	8.67	13.70
1995	48,286	87,695	135,981	5.54	10.07	15.61
1996	49,263	86,294	135,557	5.68	9.95	15.63
1997	41,995	154,364	196,359	4.86	17.87	22.73
1998	39,916	169,338	209,254	4.63	19.62	24.25
1999	43,473	62,643	106,116	5.13	7.40	12.53
2000	57,481	71,057	128,538	6.56	8.11	14.67
Cuyahoga County SWMD						
1990	2,097,410	1,093,778	3,191,188	8.14	4.24	12.38
1992	1,916,062	1,449,443	3,365,505	7.47	5.65	13.12
1993	2,090,420	1,540,789	3,631,209	8.15	6.00	14.15
1994	2,002,685	1,879,182	3,881,867	7.82	7.34	15.16
1995	1,829,637	2,225,984	4,055,621	7.17	8.72	15.89
1996	2,050,863	1,868,544	3,919,407	8.22	7.49	15.71
1997	2,076,044	1,732,051	3,808,095	8.20	6.84	15.05
1998	2,049,638	1,579,984	3,629,622	8.12	6.26	14.39
1999	2,002,142	1,696,715	3,698,857	8.00	6.78	14.77
2000	1,995,559	1,682,135	3,677,694	7.84	6.61	14.46
Darke County SWMD						
1990	47,761	5,085	52,846	5.09	0.54	5.64
1992	38,213	54,655	92,868	3.90	5.58	9.48
1993	31,317	55,082	86,399	3.20	5.62	8.82
1994	39,683	50,637	90,320	4.02	5.12	9.14

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Table 9. Waste Generation by SWMD: 1990 - 2000
As Determined by Disposal + Reduction/Recycling*

SWMD/ Year	Tons Generated			Generation Rate (pounds/person/day)		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Darke County SWMD						
1995	33,804	56,492	90,296	3.51	5.86	9.37
1996	41,234	55,918	97,152	4.29	5.81	10.10
1997	44,934	100,584	145,518	4.68	10.47	15.14
1998	60,712	46,863	107,575	6.32	4.88	11.21
1999	50,564	72,521	123,085	5.27	7.56	12.84
2000	63,247	46,241	109,488	6.60	4.83	11.43
Defiance-Fulton-Paulding-Williams Joint SWMD						
1990	89,697	715,431	805,128	3.72	29.64	33.36
1992	105,331	955,575	1,060,906	4.27	38.70	42.97
1993	110,794	1,519,549	1,630,343	4.42	60.66	65.08
1994	113,067	1,476,114	1,589,181	4.49	58.66	63.16
1995	132,779	1,622,386	1,755,165	5.25	64.19	69.44
1996	128,704	1,665,641	1,794,345	5.08	65.78	70.87
1997	132,724	1,593,628	1,726,352	5.22	62.69	67.92
1998	90,974	1,549,366	1,640,340	3.57	60.73	64.29
1999	130,435	1,313,795	1,444,230	5.11	51.49	56.61
2000	125,397	1,115,351	1,240,748	4.92	43.72	48.63
Delaware-Knox-Marion-Morrow Joint SWMD						
1990	139,976	115,608	255,584	3.72	3.07	6.79
1992	141,122	32,287	173,409	3.65	0.84	4.49
1993	150,890	29,350	180,240	3.87	0.75	4.62
1994	180,402	41,034	221,436	4.47	1.02	5.49
1995	166,195	80,444	246,639	4.19	2.03	6.22
1996	184,190	88,963	273,153	4.53	2.19	6.72
1997	208,415	117,251	325,666	5.22	2.94	8.15
1998	190,333	89,385	279,718	4.73	2.22	6.95
1999	202,120	117,106	319,226	4.99	2.89	7.88
2000	237,166	146,155	383,321	5.81	3.58	9.39
Erie County SWMD						
1994	73,145	230,937	304,082	5.52	17.44	22.96
1995	72,818	228,802	301,620	5.48	17.23	22.71
1996	109,553	243,114	352,667	8.24	18.29	26.53
1997	92,274	287,286	379,560	6.88	21.41	28.29
1998	79,162	311,297	390,459	5.88	23.11	28.99
1999	80,415	269,673	350,088	5.95	19.95	25.90
2000	80,429	318,421	398,850	5.87	23.25	29.13
Erie-Huron Joint SWMD						
1990	121,439	183,461	304,900	5.42	8.19	13.62
1992	99,466	235,966	335,432	4.47	10.59	15.06
1993	76,856	470,758	547,614	3.45	21.14	24.60
Fayette-Highland-Pickaway-Ross Joint SWMD						
1990	99,075	192,317	291,392	3.00	5.83	8.83
1992	151,043	786,350	937,393	4.52	23.52	28.04

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Table 9. Waste Generation by SWMD: 1990 - 2000
As Determined by Disposal + Reduction/Recycling*

SWMD/ Year	Tons Generated			Generation Rate (pounds/person/day)		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Fayette-Highland-Pickaway-Ross Joint SWMD						
1993	120,508	680,872	801,380	3.58	20.24	23.82
1994	205,468	690,547	896,015	6.06	20.35	26.41
1995	242,443	755,218	997,661	7.10	22.11	29.20
1996	185,546	662,265	847,811	5.40	19.27	24.66
1997	241,820	854,373	1,096,193	6.77	23.91	30.68
1998	258,680	756,714	1,015,394	7.21	21.09	28.30
1999	203,487	1,098,364	1,301,851	5.65	30.48	36.12
2000	266,140	1,169,169	1,435,309	7.46	32.79	40.25
Franklin County SWMD (Solid Waste Authority of Central Ohio)						
1990	1,232,183	315,693	1,547,876	6.95	1.78	8.73
1992	976,723	495,594	1,472,317	5.47	2.77	8.24
1993	1,276,783	383,505	1,660,288	7.11	2.14	9.24
1994	1,379,425	457,540	1,836,965	7.54	2.50	10.03
1995	1,128,095	553,869	1,681,964	6.21	3.05	9.26
1996	1,330,811	498,414	1,829,225	7.29	2.73	10.02
1997	1,292,542	314,766	1,607,308	6.94	1.69	8.63
1998	1,451,207	348,376	1,799,583	7.48	1.80	9.28
1999	1,501,592	234,667	1,736,259	7.67	1.20	8.87
2000	1,625,574	460,507	2,086,081	8.22	2.33	10.55
Gallia-Jackson-Meigs-Vinton Joint SWMD						
1994	67,609	21,490	89,099	3.71	1.18	4.89
1995	74,454	2,173,735	2,248,189	4.05	118.34	122.40
1996	92,882	2,571,945	2,664,827	5.13	142.16	147.29
1997	88,910	2,545,999	2,634,909	4.83	138.42	143.25
1998	112,126	2,822,861	2,934,987	6.01	151.42	157.44
1999	96,841	2,419,360	2,516,201	5.26	131.35	136.60
2000	101,278	2,941,079	3,042,357	5.57	161.82	167.39
Geauga-Trumbull Joint SWMD						
1994	209,880	1,775,846	1,985,726	3.69	31.21	34.89
1995	266,900	466,819	733,719	4.65	8.14	12.79
1996	279,461	765,613	1,045,074	4.86	13.30	18.16
1997	299,566	766,926	1,066,492	5.21	13.34	18.55
1998	310,519	755,960	1,066,479	5.49	13.37	18.86
1999	284,766	368,874	653,640	4.96	6.43	11.39
2000	333,594	386,648	720,242	5.80	6.72	12.52
Greene County SWMD						
1990	99,995	1,506	101,501	4.14	0.06	4.20
1992	109,617	41,292	150,909	4.50	1.69	6.19
1993	134,893	15,301	150,194	5.29	0.60	5.89
1994	222,166	18,510	240,676	8.70	0.72	9.43
1995	138,906	19,961	158,867	5.37	0.77	6.14
1996	125,244	23,649	148,893	4.81	0.91	5.71
1997	131,107	29,438	160,545	4.99	1.12	6.11

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Table 9. Waste Generation by SWMD: 1990 - 2000
As Determined by Disposal + Reduction/Recycling*

SWMD/ Year	Tons Generated			Generation Rate (pounds/person/day)		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Greene County SWMD						
1998	163,808	28,925	192,733	6.18	1.09	7.27
1999	156,255	29,578	185,833	5.86	1.11	6.97
2000	137,420	35,131	172,551	5.15	1.32	6.47
Guernsey-Monroe-Morgan-Muskingum-Noble-Washington Joint SWMD (Southeast SWMD)						
1990	151,008	151,373	302,381	3.60	3.61	7.21
1992	147,126	51,178	198,304	3.52	1.22	4.74
1993	193,636	168,204	361,840	4.63	4.03	8.66
1994	177,123	372,452	549,575	4.25	8.93	13.18
1995	208,852	354,017	562,869	5.11	8.66	13.77
1996	210,435	344,697	555,132	5.17	8.47	13.63
1997	171,342	380,916	552,258	4.22	9.39	13.61
1998	189,569	384,610	574,179	4.69	9.52	14.21
1999	178,085	372,107	550,192	4.42	9.24	13.67
2000	194,081	397,044	591,125	4.84	9.90	14.74
Hamilton County SWMD						
1990	1,333,662	296,311	1,629,973	8.40	1.87	10.27
1992	1,242,463	295,163	1,537,626	7.84	1.86	9.70
1993	1,209,759	472,686	1,682,445	7.64	2.98	10.62
1994	1,178,035	538,273	1,716,308	7.44	3.40	10.84
1995	1,220,643	451,051	1,671,694	7.72	2.85	10.57
1996	1,371,295	1,694,836	3,066,131	8.68	10.73	19.40
1997	1,307,119	348,116	1,655,235	8.41	2.24	10.65
1998	1,297,532	395,258	1,692,790	8.35	2.54	10.89
1999	1,325,906	445,828	1,771,734	8.64	2.91	11.55
2000	1,488,602	972,478	2,461,080	9.65	6.30	15.95
Hancock County SWMD						
1990	77,798	48,991	126,789	6.89	4.34	11.23
1992	60,019	95,752	155,771	4.94	7.89	12.83
1993	69,391	125,794	195,185	5.67	10.28	15.95
1994	73,529	132,154	205,683	6.26	11.25	17.51
1995	81,835	126,076	207,911	7.23	11.13	18.36
1996	75,771	119,472	195,243	6.39	10.08	16.48
1997	97,791	124,990	222,781	8.24	10.54	18.78
1998	118,672	109,935	228,607	10.00	9.26	19.26
1999	77,863	99,509	177,372	6.55	8.37	14.93
2000	87,688	136,702	224,390	7.25	11.30	18.55
Henry County SWMD						
1990	19,758	91,712	111,470	3.87	17.95	21.82
1992	18,258	93,016	111,274	3.44	17.51	20.95
1993	22,670	113,617	136,287	4.27	21.39	25.66
1994	23,962	68,185	92,147	4.44	12.63	17.07
1995	24,498	58,340	82,838	4.50	10.72	15.22
1996	25,815	65,142	90,957	5.08	12.83	17.92

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Table 9. Waste Generation by SWMD: 1990 - 2000
As Determined by Disposal + Reduction/Recycling*

SWMD/ Year	Tons Generated			Generation Rate (pounds/person/day)		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Henry County SWMD						
1997	32,673	70,724	103,397	6.00	13.00	19.00
1998	28,887	53,827	82,714	5.30	9.87	15.16
1999	30,886	44,667	75,553	5.66	8.18	13.84
2000	27,521	33,089	60,610	5.04	6.06	11.10
Holmes County SWMD						
1990	12,156	30,735	42,891	2.06	5.20	7.26
1992	15,162	19,981	35,143	2.46	3.25	5.71
1993	16,198	26,495	42,693	2.60	4.25	6.84
1994	17,408	82,780	100,188	2.72	12.93	15.65
1995	17,998	75,735	93,733	2.80	11.80	14.60
1996	27,990	71,068	99,058	4.55	11.54	16.09
1997	18,531	90,301	108,832	2.89	14.07	16.96
1998	29,276	82,540	111,816	4.51	12.71	17.22
1999	16,887	89,757	106,644	2.60	13.82	16.43
2000	16,843	121,241	138,084	2.52	18.15	20.67
Huron County SWMD						
1994	30,166	80,312	110,478	3.12	8.31	11.43
1995	32,983	77,215	110,198	3.38	7.91	11.29
1996	36,972	90,925	127,897	3.79	9.33	13.12
1997	36,783	95,271	132,054	3.76	9.74	13.50
1998	34,658	94,761	129,419	3.16	8.65	11.81
1999	47,548	76,721	124,269	4.34	7.00	11.34
2000	63,809	78,464	142,273	6.46	7.94	14.40
Lake County SWMD						
1990	327,921	54,088	382,009	8.36	1.38	9.74
1992	257,376	52,145	309,521	6.51	1.32	7.83
1993	250,868	45,973	296,841	6.33	1.16	7.49
1994	281,410	62,022	343,432	7.08	1.56	8.64
1995	283,400	72,093	355,493	7.10	1.81	8.91
1996	307,574	92,229	399,803	7.70	2.31	10.01
1997	277,613	111,559	389,172	6.91	2.78	9.69
1998	303,785	112,192	415,977	7.44	2.75	10.19
1999	333,276	117,163	450,439	7.92	2.78	10.70
2000	340,845	137,977	478,822	8.21	3.32	11.53
Lawrence-Scioto Joint SWMD						
1990	38,231	70,698	108,929	1.44	2.66	4.10
1992	52,860	45,001	97,861	2.05	1.74	3.79
1993	61,673	139,976	201,649	2.34	5.32	7.66
1994	67,080	55,447	122,527	2.52	2.08	4.61
1995	111,522	130,103	241,625	4.20	4.90	9.09
1996	103,341	148,932	252,273	3.89	5.61	9.50
1997	123,087	162,924	286,011	4.63	6.13	10.77
1998	113,025	157,423	270,448	4.26	5.93	10.18

* For years 1990 through 1995, the amounts in this table shown for industrial and total waste may be larger than the sum of disposal plus reduction/recycling shown in Tables 6 and 8, since industrial waste recycled or reduced through programs initiated prior to 1985 have not been included in Table 8 for these years.

Table 9. Waste Generation by SWMD: 1990 - 2000
As Determined by Disposal + Reduction/Recycling*

SWMD/ Year	Tons Generated			Generation Rate (pounds/person/day)		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Lawrence-Scioto Joint SWMD						
1999	176,796	72,393	249,189	6.69	2.74	9.43
2000	197,696	30,445	228,141	7.62	1.17	8.79
Logan County SWMD						
1990	39,989	16,166	56,155	5.53	2.23	7.76
1992	35,027	20,466	55,493	4.53	2.65	7.17
1993	36,325	25,589	61,914	4.63	3.26	7.89
1994	41,460	32,866	74,326	5.08	4.03	9.11
1995	43,686	77,466	121,152	5.52	9.79	15.31
1996	49,448	77,546	126,994	6.20	9.72	15.92
1997	51,379	79,310	130,689	6.39	9.87	16.26
1998	49,214	83,653	132,867	6.12	10.41	16.53
1999	44,997	87,055	132,052	5.47	10.59	16.06
2000	54,748	82,720	137,468	6.63	10.02	16.66
Lorain County SWMD						
1990	358,806	139,765	498,571	7.11	2.77	9.88
1992	255,046	117,461	372,507	5.07	2.33	7.40
1993	283,732	1,106,555	1,390,287	5.45	21.27	26.72
1994	264,846	907,162	1,172,008	5.19	17.79	22.98
1995	264,896	890,183	1,155,079	5.06	16.99	22.05
1996	289,550	378,593	668,143	5.49	7.17	12.66
1997	267,680	338,666	606,346	5.03	6.37	11.40
1998	283,901	948,254	1,232,155	5.30	17.70	22.99
1999	284,571	1,024,586	1,309,157	5.27	18.98	24.25
2000	311,720	1,329,219	1,640,939	5.90	25.15	31.05
Lucas County SWMD						
1990	576,991	190,009	767,000	6.87	2.26	9.13
1992	596,521	280,043	876,564	7.12	3.34	10.47
1993	625,887	233,438	859,325	7.48	2.79	10.27
1994	578,132	239,575	817,707	6.92	2.87	9.79
1995	611,607	259,630	871,237	7.34	3.11	10.45
1996	622,160	321,960	944,120	7.48	3.87	11.34
1997	638,721	338,844	977,565	7.70	4.09	11.79
1998	697,190	255,804	952,994	8.38	3.07	11.45
1999	672,989	331,244	1,004,233	8.09	3.98	12.07
2000	655,383	286,343	941,726	7.89	3.45	11.34
Mahoning County SWMD						
1990	230,388	33,411	263,799	4.78	0.69	5.47
1992	273,017	43,352	316,369	5.63	0.89	6.53
1993	297,358	54,522	351,880	6.12	1.12	7.24
1994	342,118	32,106	374,224	7.10	0.67	7.77
1995	230,713	79,417	310,130	4.82	1.66	6.48
1996	323,590	364,005	687,595	7.05	7.93	14.98
1997	327,296	476,644	803,940	6.92	10.07	16.99

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Table 9. Waste Generation by SWMD: 1990 - 2000
As Determined by Disposal + Reduction/Recycling*

SWMD/ Year	Tons Generated			Generation Rate (pounds/person/day)		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Mahoning County SWMD						
1998	283,448	241,641	525,089	6.01	5.12	11.13
1999	306,071	218,051	524,122	6.49	4.62	11.11
2000	284,525	113,764	398,289	6.07	2.43	8.49
Medina County SWMD						
1990	68,719	15,754	84,473	2.99	0.69	3.68
1992	88,010	73,192	161,202	3.77	3.13	6.90
1993	85,160	84,413	169,573	3.57	3.54	7.11
1994	105,817	90,256	196,073	4.36	3.72	8.07
1995	108,540	87,308	195,848	4.38	3.52	7.91
1996	119,418	89,229	208,647	4.72	3.53	8.24
1997	124,717	99,010	223,727	4.63	3.68	8.31
1998	136,482	107,976	244,458	4.95	3.91	8.86
1999	151,461	106,196	257,657	5.35	3.75	9.10
2000	152,647	109,938	262,585	5.54	3.99	9.52
Mercer County SWMD						
1990	10,876	16,648	27,524	1.53	2.34	3.87
1992	22,129	9,577	31,706	3.06	1.32	4.38
1993	19,507	12,889	32,396	2.69	1.78	4.47
1994	7,810	6,094	13,904	1.06	0.83	1.88
1995	24,008	6,119	30,127	3.38	0.86	4.24
1996	25,261	24,426	49,687	3.56	3.44	7.00
1997	33,183	27,270	60,453	4.55	3.74	8.30
1998	33,200	29,657	62,857	4.55	4.07	8.62
1999	32,689	29,253	61,942	4.48	4.01	8.49
2000	36,360	30,823	67,183	4.98	4.22	9.21
Miami County SWMD						
1990	79,615	24,130	103,745	4.94	1.50	6.43
1992	62,421	57,736	120,157	3.62	3.35	6.97
1993	68,388	61,324	129,712	3.94	3.53	7.48
1994	76,321	127,686	204,007	4.33	7.25	11.59
1995	75,937	69,324	145,261	4.28	3.91	8.19
1996	108,990	61,007	169,997	6.11	3.42	9.52
1997	111,477	66,916	178,393	6.21	3.73	9.93
1998	104,538	97,593	202,131	5.80	5.42	11.22
1999	118,621	168,603	287,224	6.53	9.28	15.81
2000	112,667	100,973	213,640	6.16	5.52	11.68
Montgomery County SWMD						
1990	916,001	439,334	1,355,335	8.75	4.20	12.94
1992	800,326	482,221	1,282,547	7.64	4.60	12.24
1993	744,482	564,060	1,308,542	7.10	5.38	12.48
1994	611,468	575,908	1,187,376	5.78	5.44	11.22
1995	699,831	580,892	1,280,723	6.67	5.54	12.21
1996	650,007	583,972	1,233,979	6.19	5.56	11.76

* For years 1990 through 1995, the amounts in this table shown for industrial and total waste may be larger than the sum of disposal plus reduction/recycling shown in Tables 6 and 8, since industrial waste recycled or reduced through programs initiated prior to 1985 have not been included in Table 8 for these years.

Table 9. Waste Generation by SWMD: 1990 - 2000
As Determined by Disposal + Reduction/Recycling*

SWMD/ Year	Tons Generated			Generation Rate (pounds/person/day)		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Montgomery County SWMD						
1997	575,921	654,318	1,230,239	5.53	6.28	11.80
1998	593,883	489,709	1,083,592	5.70	4.70	10.40
1999	614,206	491,539	1,105,745	5.90	4.72	10.62
2000	610,732	492,684	1,103,416	5.99	4.83	10.82
Ottawa-Sandusky-Seneca Joint SWMD						
1990	178,109	153,870	331,979	5.79	5.01	10.80
1992	130,044	183,161	313,205	4.39	6.18	10.57
1993	129,959	197,577	327,536	4.38	6.66	11.04
1994	124,269	220,926	345,195	4.17	7.41	11.58
1995	136,435	218,473	354,908	4.56	7.30	11.86
1996	146,872	227,715	374,587	4.94	7.65	12.59
1997	145,638	368,358	513,996	4.90	12.40	17.30
1998	171,178	566,046	737,224	5.71	18.87	24.58
1999	143,696	464,768	608,464	4.79	15.50	20.29
2000	169,831	426,676	596,507	5.76	14.48	20.24
Pike County SWMD						
1990	10,000	1,538	11,538	2.15	0.33	2.48
1992	15,255	3,957	19,212	3.23	0.84	4.07
1993	14,955	7,786	22,741	3.26	1.70	4.96
1994	16,448	41,071	57,519	3.45	8.63	12.08
1995	20,234	48,621	68,855	4.31	10.35	14.65
1996	17,887	90,002	107,889	3.82	19.23	23.05
1997	15,871	99,796	115,667	3.40	21.40	24.80
1998	21,648	103,625	125,273	4.35	20.80	25.14
1999	20,496	186,022	206,518	4.11	37.34	41.45
2000	24,680	196,762	221,442	4.88	38.93	43.81
Portage County SWMD						
1990	133,616	42,525	176,141	5.25	1.67	6.92
1992	106,854	6,881	113,735	4.06	0.26	4.32
1993	122,881	45,499	168,380	4.59	1.70	6.28
1994	130,126	26,723	156,849	4.79	0.98	5.77
1995	93,900	29,167	123,067	3.48	1.08	4.56
1996	134,303	44,145	178,448	4.96	1.63	6.59
1997	97,577	74,341	171,918	3.57	2.72	6.29
1998	125,103	93,853	218,956	4.57	3.43	8.00
1999	124,773	121,604	246,377	4.55	4.43	8.98
2000	121,493	124,308	245,801	4.24	4.33	8.57
Preble County SWMD						
1990	23,080	9,440	32,520	3.19	1.30	4.49
1992	25,931	5,507	31,438	3.48	0.74	4.22
1993	26,425	6,615	33,040	3.52	0.88	4.40
1994	25,351	23,003	48,354	3.35	3.04	6.38
1995	26,590	27,826	54,416	3.51	3.68	7.19

* For years 1990 through 1995, the amounts in this table shown for industrial and total waste may be larger than the sum of disposal plus reduction/recycling shown in Tables 6 and 8, since industrial waste recycled or reduced through programs initiated prior to 1985 have not been included in Table 8 for these years.

Table 9. Waste Generation by SWMD: 1990 - 2000
As Determined by Disposal + Reduction/Recycling*

SWMD/ Year	Tons Generated			Generation Rate (pounds/person/day)		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Preble County SWMD						
1996	29,517	24,198	53,715	3.85	3.16	7.00
1997	27,063	29,864	56,927	3.48	3.84	7.32
1998	27,322	31,965	59,287	3.73	4.37	8.10
1999	29,517	39,336	68,853	4.03	5.37	9.41
2000	31,144	38,922	70,066	4.03	5.04	9.07
Putnam County SWMD						
1990	18,181	9,786	27,967	2.96	1.60	4.56
1992	20,314	10,373	30,687	3.24	1.65	4.89
1993	21,039	8,750	29,789	3.33	1.38	4.71
1994	20,183	9,086	29,269	3.18	1.43	4.61
1995	31,367	13,049	44,416	4.89	2.03	6.92
1996	28,098	12,552	40,650	4.37	1.95	6.32
1997	16,885	45,801	62,686	2.64	7.16	9.80
1998	19,449	40,047	59,496	2.92	6.01	8.93
1999	15,914	41,466	57,380	2.46	6.40	8.86
2000	21,916	47,981	69,897	3.37	7.39	10.76
Richland County SWMD						
1990	88,546	79,808	168,354	3.83	3.45	7.28
1992	84,834	16,930	101,764	3.67	0.73	4.41
1993	102,982	80,262	183,244	4.47	3.48	7.95
1994	123,227	76,571	199,798	5.27	3.28	8.55
1995	131,014	87,493	218,507	5.70	3.81	9.51
1996	146,049	80,270	226,319	6.31	3.47	9.78
1997	149,002	149,249	298,251	6.48	6.49	12.97
1998	158,074	399,789	557,863	6.87	17.39	24.26
1999	176,191	410,962	587,153	7.66	17.87	25.53
2000	154,497	483,401	637,898	6.52	20.39	26.91
Stark-Tuscarawas-Wayne Joint SWMD						
1990	482,950	1,440,601	1,923,551	4.58	13.66	18.23
1992	645,026	1,942,820	2,587,846	6.07	18.28	24.35
1993	658,193	1,498,628	2,156,821	6.17	14.05	20.22
1994	614,629	1,657,378	2,272,007	5.74	15.48	21.23
1995	681,394	1,734,697	2,416,091	6.34	16.15	22.49
1996	588,885	1,619,845	2,208,730	5.47	15.04	20.50
1997	647,371	1,670,718	2,318,089	6.24	16.12	22.36
1998	686,713	1,738,086	2,424,799	6.62	16.75	23.37
1999	593,341	1,308,117	1,901,458	5.71	12.58	18.29
2000	648,225	1,776,581	2,424,806	6.23	17.09	23.32
Summit County SWMD (Summit-Akron Solid Waste Authority)						
1990	486,316	387,861	874,177	5.17	4.13	9.30
1992	802,216	332,698	1,134,914	8.45	3.51	11.96
1993	532,202	141,516	673,718	5.58	1.48	7.06
1994	478,932	203,797	682,729	4.97	2.12	7.09

* For years 1990 through 1995, the amounts in this table shown for industrial and total waste may be larger than the sum of disposal plus reduction/recycling shown in Tables 6 and 8, since industrial waste recycled or reduced through programs initiated prior to 1985 have not been included in Table 8 for these years.

Table 9. Waste Generation by SWMD: 1990 - 2000
As Determined by Disposal + Reduction/Recycling*

SWMD/ Year	Tons Generated			Generation Rate (pounds/person/day)		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Summit County SWMD (Summit-Akron Solid Waste Authority)						
1995	436,214	288,010	724,224	4.53	2.99	7.52
1996	554,763	253,253	808,016	5.74	2.62	8.36
1997	577,459	229,560	807,019	5.97	2.37	8.34
1998	443,129	241,447	684,576	4.52	2.46	6.98
1999	626,798	191,695	818,493	6.45	1.97	8.42
2000	607,753	346,754	954,507	6.25	3.57	9.82
Van Wert County SWMD						
1990	17,858	8,740	26,598	3.76	1.84	5.61
1992	18,789	9,714	28,503	4.02	2.08	6.10
1993	17,473	11,556	29,029	3.76	2.48	6.24
1994	17,028	12,529	29,557	3.16	2.32	5.48
1995	13,591	9,093	22,684	2.95	1.97	4.93
1996	25,893	7,921	33,814	5.30	1.62	6.92
1997	22,688	10,078	32,766	4.12	1.83	5.96
1998	26,222	10,160	36,382	5.35	2.07	7.42
1999	26,281	10,878	37,159	5.36	2.22	7.58
2000	26,212	12,157	38,369	5.34	2.48	7.82
Warren County SWMD						
1994	112,217	54,361	166,578	4.85	2.35	7.21
1995	110,144	63,076	173,220	4.90	2.81	7.71
1996	121,563	75,179	196,742	5.33	3.30	8.63
1997	144,199	68,561	212,760	5.60	2.66	8.26
1998	145,141	67,149	212,290	5.45	2.52	7.97
1999	156,302	71,762	228,064	5.59	2.57	8.15
2000	166,063	71,161	237,224	5.75	2.46	8.21
Wood County SWMD						
1990	98,164	57,457	155,621	4.78	2.80	7.58
1992	109,122	81,588	190,710	5.23	3.91	9.14
1993	129,546	72,811	202,357	6.18	3.47	9.65
1994	126,796	109,627	236,423	5.98	5.17	11.15
1995	122,163	229,177	351,340	5.72	10.74	16.46
1996	137,651	317,749	455,400	6.42	14.81	21.22
1997	152,251	463,805	616,056	7.06	21.50	28.56
1998	121,982	379,589	501,571	5.62	17.50	23.12
1999	143,973	485,053	629,026	6.60	22.24	28.84
2000	183,911	319,894	503,805	8.39	14.59	22.98
Wyandot County SWMD						
1990	13,942	31,502	45,444	3.43	7.74	11.17
1992	19,641	19,796	39,437	4.82	4.86	9.67
1993	22,945	26,766	49,711	5.62	6.56	12.18
1994	20,313	38,207	58,520	4.97	9.35	14.33
1995	27,189	70,726	97,915	6.57	17.09	23.66
1996	26,715	84,670	111,385	6.49	20.57	27.06

* For years 1990 through 1995, the amounts in this table shown for industrial and total waste may be larger than the sum of disposal plus reduction/recycling shown in Tables 6 and 8, since industrial waste recycled or reduced through programs initiated prior to 1985 have not been included in Table 8 for these years.

Table 9. Waste Generation by SWMD: 1990 - 2000
As Determined by Disposal + Reduction/Recycling*

SWMD/ Year	Tons Generated			Generation Rate (pounds/person/day)		
	Resid./Comm.	Industrial	Total	Resid./Comm.	Industrial	Total
Wyandot County SWMD						
1997	25,280	53,580	78,860	6.18	13.09	19.26
1998	27,830	48,119	75,949	6.71	11.61	18.32
1999	27,751	50,291	78,042	6.73	12.19	18.92
2000	29,234	64,898	94,132	6.96	15.45	22.41

* For years 1990 through 1995, the amounts in this table shown for industrial and total waste may be larger than the sum of disposal plus reduction/recycling shown in Tables 6 and 8, since industrial waste recycled or reduced through programs initiated prior to 1985 have not been included in Table 8 for these years.

Table 10. Population by SWMD: 1996 - 2000 *

Solid Waste Management District	1996	1997	1998	1999	2000
Adams-Clermont Joint SWMD	184,580	189,042	191,202	193,362	203,507
Allen-Champaign-Hardin-Madison-Shelby-Union Joint SWMD (North Central	279,755	279,498	279,241	305,887	306,485
Ashland County SWMD	50,467	50,647	50,827	51,007	51,187
Ashtabula County SWMD	102,656	102,992	103,328	103,660	102,728
Athens-Hocking Joint SWMD	87,500	87,000	87,000	87,000	87,000
Auglaize County SWMD	46,900	47,000	47,477	47,677	46,611
Belmont-Jefferson Joint SWMD (Belmont-Jefferson Solid Waste Authority)	155,998	154,793	154,793	144,921	144,120
Brown County SWMD (Brown County Solid Waste Authority)	37,068	34,966	34,966	38,850	42,285
Butler County SWMD	318,100	327,081	330,428	331,065	332,807
Carroll-Columbiana-Harrison Joint SWMD	150,613	150,543	150,446	150,425	160,110
Clark County SWMD	148,668	148,887	149,107	149,107	144,742
Clinton County SWMD	35,840	38,493	38,719	38,719	36,400
Coshocton-Fairfield-Licking-Perry Joint SWMD	325,550	325,550	329,492	331,462	333,436
Crawford County SWMD	47,533	47,333	47,290	46,400	48,000
Cuyahoga County SWMD	1,366,845	1,386,803	1,382,325	1,371,882	1,393,978
Darke County SWMD	52,724	52,664	52,605	52,546	52,500
Defiance-Fulton-Paulding-Williams Joint SWMD	138,740	139,283	139,798	139,798	139,798
Delaware-Knox-Marion-Morrow Joint SWMD	222,862	218,863	220,495	222,113	223,718
Erie County SWMD	72,834	73,527	73,794	74,061	75,034
Fayette-Highland-Pickaway-Ross Joint SWMD	188,360	195,770	196,623	197,476	195,380
Franklin County SWMD (Solid Waste Authority of Central Ohio)	1,000,051	1,020,823	1,062,427	1,073,000	1,083,700
Gallia-Jackson-Meigs-Vinton Joint SWMD	99,133	100,788	102,149	100,929	99,588
Geauga-Trumbull Joint SWMD	315,380	314,982	309,813	314,559	315,278
Greene County SWMD	142,820	143,940	145,187	146,180	146,243
Guernsey-Monroe-Morgan-Muskingum-Noble-Washington Joint SWMD	223,105	222,271	221,438	220,604	219,770
Hamilton County SWMD	865,891	851,599	851,576	840,443	845,303
Hancock County SWMD	64,934	64,991	65,048	65,106	66,278
Henry County SWMD	27,818	29,814	29,893	29,923	29,923
Holmes County SWMD	33,740	35,158	35,576	35,576	36,600
Huron County SWMD	53,405	53,586	60,035	60,035	54,130
Lake County SWMD	218,860	220,095	223,779	230,613	227,511
Lawrence-Scioto Joint SWMD	145,560	145,520	145,520	144,782	142,161
Logan County SWMD	43,706	44,045	44,045	45,062	45,222
Lorain County SWMD	289,257	291,436	293,631	295,843	289,601
Lucas County SWMD	456,040	454,293	455,896	455,896	455,054
Mahoning County SWMD	251,570	259,324	258,541	258,541	256,974
Medina County SWMD	138,688	147,552	151,170	155,190	151,095
Mercer County SWMD	38,901	39,929	39,949	39,969	39,989
Miami County SWMD	97,817	98,402	98,748	99,573	100,200

* SWMDs showing "0" population for a given year were not in existence during that year. Several districts changed composition at the beginning of 1994, creating eight new districts and resulting in the elimination of four joint county districts.

Also, some districts show decreases in population from 1994 to 1995 due to the use of different data sources.

Table 10. Population by SWMD: 1996 - 2000 *

Solid Waste Management District	1996	1997	1998	1999	2000
Montgomery County SWMD	575,188	571,082	570,844	570,606	558,762
Ottawa-Sandusky-Seneca Joint SWMD	163,043	162,821	164,349	164,349	161,460
Pike County SWMD	25,652	25,552	27,300	27,300	27,695
Portage County SWMD	148,352	149,736	149,900	150,300	157,164
Preble County SWMD	42,020	42,614	40,113	40,113	42,337
Putnam County SWMD	35,265	35,066	36,520	35,500	35,600
Richland County SWMD	126,818	126,000	126,000	126,000	129,882
Stark-Tuscarawas-Wayne Joint SWMD	590,314	568,041	568,600	569,771	569,771
Summit County SWMD (Summit-Akron Solid Waste Authority)	529,600	530,000	537,730	532,600	532,600
Van Wert County SWMD	26,766	30,140	26,853	26,853	26,882
Warren County SWMD	124,880	141,080	146,033	153,292	158,383
Wood County SWMD	117,574	118,214	118,854	119,494	120,134
Wyandot County SWMD	22,552	22,432	22,718	22,598	23,013
Statewide Totals:	11,048,293	11,048,293	11,112,061	11,190,191	11,228,018

* SWMDs showing "0" population for a given year were not in existence during that year. Several districts changed composition at the beginning of 1994, creating eight new districts and resulting in the elimination of four joint county districts.

Also, some districts show decreases in population from 1994 to 1995 due to the use of different data sources.

Table 11. Solid Waste Management District (SWMD) Names and Abbreviations as Used in this Report

SWMD Name	Abbreviation
Ashland County SWMD	Ashland
Ashtabula County SWMD	Ashtabula
Auglaize County SWMD	Auglaize
Brown County SWMD (Brown County Solid Waste Authority)	Brown
Butler County SWMD	Butler
Clark County SWMD	Clark
Clinton County SWMD	Clinton
Crawford County SWMD	Crawford
Cuyahoga County SWMD	Cuyahoga
Darke County SWMD	Darke
Erie County SWMD	Erie
Franklin County SWMD (Solid Waste Authority of Central Ohio)	Franklin
Greene County SWMD	Greene
Hamilton County SWMD	Hamilton
Hancock County SWMD	Hancock
Henry County SWMD	Henry
Holmes County SWMD	Holmes
Huron County SWMD	Huron
Lake County SWMD	Lake
Logan County SWMD	Logan
Lorain County SWMD	Lorain
Lucas County SWMD	Lucas
Mahoning County SWMD	Mahoning
Medina County SWMD	Medina
Mercer County SWMD	Mercer
Miami County SWMD	Miami
Montgomery County SWMD	Montgomery
Pike County SWMD	Pike
Portage County SWMD	Portage
Preble County SWMD	Preble
Putnam County SWMD	Putnam
Richland County SWMD	Richland
Summit County SWMD (Summit-Akron Solid Waste Authority)	Summit
Van Wert County SWMD	Van Wert

Table 11. Solid Waste Management District (SWMD) Names and Abbreviations as Used in this Report

SWMD Name	Abbreviation
Warren County SWMD	Warren
Wood County SWMD	Wood
Wyandot County SWMD	Wyandot
Adams-Clermont Joint SWMD	AC
Athens-Hocking Joint SWMD	AH
Belmont-Jefferson Joint SWMD (Belmont-Jefferson Solid Waste Authority)	BJ
Clinton-Warren Joint SWMD	CW
Erie-Huron Joint SWMD	EH
Geauga-Trumbull Joint SWMD	GT
Lawrence-Scioto Joint SWMD	LS
Ashtabula-Geauga-Trumbull Joint SWMD	AGT
Carroll-Columbiana-Harrison Joint SWMD	CCH
Ottawa-Sandusky-Seneca Joint SWMD	OSS
Stark-Tuscarawas-Wayne Joint SWMD	STW
Coshocton-Fairfield-Licking-Perry Joint SWMD	CFLP
Defiance-Fulton-Paulding-Williams Joint SWMD	DFPW
Delaware-Knox-Marion-Morrow Joint SWMD	DKMM
Fayette-Highland-Pickaway-Ross Joint SWMD	FHPR
Gallia-Jackson-Meigs-Vinton Joint SWMD	GJMV
Allen-Champaign-Hardin-Madison-Shelby-Union Joint SWMD (North Central SWMD)	ACHMSU
Athens-Gallia-Hocking-Jackson-Meigs-Vinton Joint SWMD	AGHJMV
Guernsey-Monroe-Morgan-Muskingum-Noble-Washington Joint SWMD (Southeast SWMD)	GMMMNV