The State of Recycling in Texas

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Foreword

Even though the mantra of "Reduce, Reuse, Recycle" has been around since the 1970s, most people in the United States still don't live by it.[1] The United States makes up only 4 percent of the global population, yet we generate more than 30 percent of the planet's waste.[2] This shocking reality stems from an economy that encourages disposable consumption: half of American plastic products are designed for single use.[3] Not only have we failed to reduce, but our attempts to recycle are also lacking -- 65 percent of goods in the U.S. are landfilled or incinerated.[4] We need to work towards bringing that number down to zero. We can improve in all aspects of waste reduction. For items that cannot be reduced or reused, recycling remains a crucial component of how we deal with waste.

Waste systems are typically organized and funded at the municipal or county level. It's important to measure success to know where we must focus our energy. Inefficiencies in waste management can come from anywhere in the process: disposal, collection, sorting, or the after-market. The following report focuses on disposal and collection for the top nine most populous cities in Texas based on their residential recycling rates.

The recycling rate is calculated as follows: $\frac{Waste\ diverted\ (via\ compost, recycling, and\ reuse)}{Total\ waste\ (landfill + diverted)}$

The State of Recycling for Texas

Recycling rates in Texas reveal one of the more wasteful states in the nation. At 23 percent, the statewide rate falls almost twelve points below the national average 34.7 percent.[5] Based on the most recent available data, only two of Texas's major cities, Austin and Plano, exceed the national average. The table below shows how the top nine most populous cities stack up:

Jurisdiction	Recycling Rate
State of Texas	**23% (2015)**
Austin	42% (2015)
Plano	35% (2017)
San Antonio	33% (2017)
Arlington	21% (2017)
Fort Worth	20% (2017-18)
Dallas	20% (2016)
Houston	19% (2014)
El Paso	14% (2018)
Laredo	5% (2017)

See sources for recycling rate data at bottom of report.

It's time for Texas to catch up with the rest of the nation in waste reduction. In 1991, the state legislature set a goal to achieve a 40 percent rate, but never specified a timeline and failed to outline a clear plan. Thankfully, there are several actions that can help Texas achieve its original goal, outlined in this report.

Recent international trade disputes have opened a new window of opportunity for recycling and economic development. For decades, cities throughout the United States sent millions of tons of scrap material to China to be recycled. This past year, China effectively stopped accepting our refuse, claiming it was too contaminated and unsellable for recycling.[6] With nowhere to go, recyclables have been piling up in sorting facilities throughout Texas and many

other states.[7] This disruption has increased service costs, decreased revenue, and in some cases led recycling collectors to stop their services.[8]

As the saying goes, change brings opportunity. Recycling has proven to bring economic benefits in Texas through the creation of 17,000 jobs and adding more than $3 billion to the state economy in a year.[9] In the wake of China's policy changes, Texas has an opportunity to further develop its recycling economy through expanded collection, sorting, and end-market solutions.

Success Stories

To improve recycling rates and reduce waste, Texas can build off of successful ongoing efforts already taking place across the state. Some recent initiatives provide a foundation for future recycling development. The city of Houston recently signed a contract to build a new recycling facility capable of sorting new and greater volumes of material. The sorted material will be sold primarily to local markets, lessening reliance on export markets.[10] Additionally, the State of Texas Alliance for Recycling (known as STAR) has changed their mission to focus on economic development for Texas, with an aim to "develop and support the domestic recycling industry in light of the recent "National Sword" import bans."[11]

Many cities have focused on reducing contamination in the recycling stream to produce cleaner, more marketable recyclables. The city of Plano conducted a survey to better understand recycling behaviors and attitudes in order to develop better messaging to their residents.[12] El Paso has worked with the Recycling Partnership and sent out educational mailers to all residents. They also have a team of eight code compliance officers who inspect bins for contamination. If a bin is found to be contaminated, it is tagged to notify the resident of what can't go in the bin, and it is not collected until the resident removes contaminants.[13] Fort Worth has a similar system, but also includes a fine of $10 per bag of contaminated recycling, and if there are three contamination violations within 90 days their recycling cart may be removed for 6 months, and the resident must pay for an additional trash bin.[14]

Recommendations

Expand Residential Compost

About 30 percent of household waste is compostable.[15] This includes food waste, yard waste, and contaminated paper products such as pizza boxes and paper towels. Like recycling, compost allows waste to become useable again. Compost can also be a nutrient-rich resource for gardens, parks, and agriculture. Introducing municipal compost programs as a public service to Texas residents could double even the highest recycling rates. Doing so would also support

local compost facilities and curb the greenhouse gas impact of landfills.[16] There have been developments of residential compost in Austin, and there are commercial compost operations in other cities, including Fort Worth and Plano.

Restore local control for plastics laws

One of the best ways to reduce waste is to remove harmful and non-recyclable plastics from the waste stream. Unfortunately, Texas prevents municipalities from regulating items such as plastic bags and polystyrene foam containers, both of which can be replaced with safer, less wasteful materials. The state of Texas should repeal Sec. 361.0961 of the Solid Waste Disposal Act[17] and allow local governments to make decisions regarding plastics in their communities.

Expand Recycling Access for Multi-Unit Apartments and Businesses

Recycling for multi-unit apartments and businesses is often referred to as "commercial recycling" and handled by private haulers. It's hard for many people to access recycling unless their building owner chooses to pay to provide it. Two options to ensure access are to automatically provide service, or require apartments and commercial buildings to provide service, such as in Fort Worth.[18] Increased participation inevitably leads to higher recycling rates.

Be S.M.A.R.T. (Save Money And Reduce Trash)

SMART systems (also called "Pay as You Throw") make a lot of sense. People who request smaller trash bins (thus throwing less away) pay less for trash service. In turn, trash fees provide revenue for curbside recycling and compost collection. A nationwide study showed that the adoption of the SMART system can bring major savings, reduce waste by 14 percent, and increase recycling by over 32 percent.[19]

Increase landfill tipping fees

Waste collectors pay "tipping fees" by the ton when they dump material into landfills. Because tipping fees are so low, it is often cheaper for waste management companies to send bins of recyclable and compostable materials to landfill rather than ensuring they are diverted (this is becoming more common due to market conditions causing recyclables to pile up at sorting operations[20]). Increasing the cost of dumping at landfills, therefore, can encourage trash collectors to ensure these materials are handled properly. Furthermore, the revenue from a tipping fee raise can go towards improving or introducing recycling and compost infrastructure.

Foster Municipal Collaboration

Large projects such as constructing facilities and introducing compost collection have high upfront costs. Neighboring municipalities can pool their resources for such initiatives.

Provide State-Level Support for Recycling Programs and Facilities

In addition to local investment, the state can aid in raising recycling rates with grants and tax incentives. The Texas Commission on Environmental Quality has the authority to provide grants in order to help local recycling programs[21], and the state should consider this priority in their budget. The state can also provide subsidies or property tax exemptions for recycling and composting facilities and end-use manufacturers. This could incentivize business development and improve the market for recycled materials.

References

RECYCLING RATE DATA

State of Texas: Texas Commission on Environmental Quality. *Study on the Economic Impacts of Recycling (July 2017)*. Accessed at: www.txrecyclingstudy.org

Austin: CB&I Environmental & Infrastructure Inc.; Austin Resource Recovery. *Austin's 2015 Community Diversion Study (April 2016)*. Accessed at: https://www.austintexas.gov/2015DiversionStudy

Plano: Nicole Warhoftig. Phone conversation, October 15th, 2018.

San Antonio: SA2020 Environmental Sustainability. *Recycling Rates*. Accessed at: http://dashboard.sa2020.org/progress_type/environmental-sustainability/92

Arlington: Jennifer Shaver. Email communication, October 25th, 2018.

Dallas: City of Dallas. *Waste Diversion Update (January 26th 2015)*. Accessed at: http://dallascityhall.com/government/Council%20Meeting%20Documents/2015/QOL_Waste_Diversion_Update_01262015.pdf

Houston: City of Houston. *One Bin For All Progress Report.* Accessed at: http://www.houstontx.gov/onebinforall/OBFA_Progress_Report-20151231.pdf

Laredo: Sylva Garza. Email communication, October 16th, 2018.

Fort Worth: Robert Smouse. Email communication, October 31st, 2018.

El Paso: Raeann Ortega. Email communication, November 9th, 2018.

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[1] Sustain, the blog. *The story behind "Reduce, Reuse, Recycle"*. Retrieved from http://pantheonchemical.com/reduce-reuse-recycle/

[2] Edgerly, J., Borrelli, D. (2007). *Moving Toward Zero: From Waste Management to Resource Recovery* Retrieved from https://toxicsaction.org/wp-content/uploads/moving-towards-zero.pdf

[3] Earth Day Network. *Fact Sheet: Single Use Plastics.* (2018). Retrieved from https://www.earthday.org/2018/03/29/fact-sheet-single-use-plastics/#_ftn2

[4] Bradford, A., Broude, S., Truelove, A. *Trash in America*. (February 2018) Retrieved from https://uspirg.org/sites/pirg/files/reports/US%20-%20Trash%20in%20America%20-%20Final.pdf

[5] United States Environmental Protection Agency (July 2018). *Advancing Sustainable Materials: 2015 Fact Sheet.* Retrieved from https://www.epa.gov/sites/production/files/2018-07/documents/2015_smm_msw_factsheet_07242018_fnl_508_002.pdf

[6] Margolis, J. (January 1, 2018). *Mountains of US recycling pile up as China restricts imports*. Retrieved from https://www.pri.org/stories/2018-01-01/mountains-us-recycling-pile-china-restricts-imports

[7] Waste Dive (November 2, 2018). *What Chinese import policies mean for all 50 states.* Retrieved from https://www.wastedive.com/news/what-chinese-import-policies-mean-for-all-50-states/510751/

[8] See note 7.

[9] Texas Commission on Environmental Quality. *Study on the Economic Impacts of Recycling (July 2017)*. Accessed at: www.txrecyclingstudy.org

[10] Paben, J. Resource Recycling. *An inside look at Houston's MRF contract.* (January 2018). Retrieved from https://resource-recycling.com/recycling/2018/01/23/inside-look-houstons-mrf-contract/

[11] See note 7.

[12] Nicole Warhoftig. Sustainability and Environmental Education Supervisor, City of Plano. Phone conversation, October 15th, 2018.

[13] Raeann Ortega. Recycling Manager, City of El Paso Email communication, November 9th, 2018.

[14] Robert Smouse. Assistant Director, Fort Worth Solid Waste. Email communication, October 31st, 2018.

[15] United States Environmental Protection Agency. *Composting At Home.* Retrieved from: https://www.epa.gov/recycle/composting-home

[16] See note 4.

[17] Health and Safety Code. *Solid Waste Disposal Act.* Retrieved from https://statutes.capitol.texas.gov/Docs/HS/htm/HS.361.htm

[18] Robert Smouse. Assistant Director, Fort Worth Solid Waste. Email communication, October 31st, 2018.

[19] United States Environmental Protection Agency. *Pay-As-You-Throw: Paying for Waste Disposal* https://archive.epa.gov/wastes/conserve/tools/payt/web/pdf/benefits.pdf

[20] See note 7.

[21] David Greer, Recycling Specialist. Texas Commission on Environmental Quality. Email communication, October 5th, 2018.