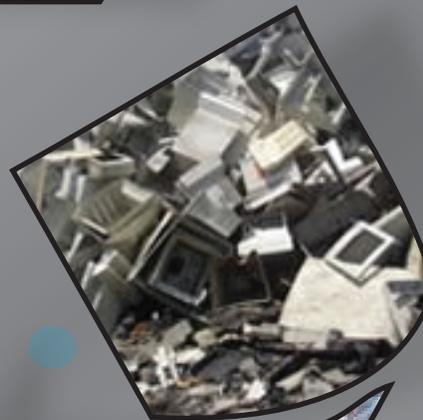
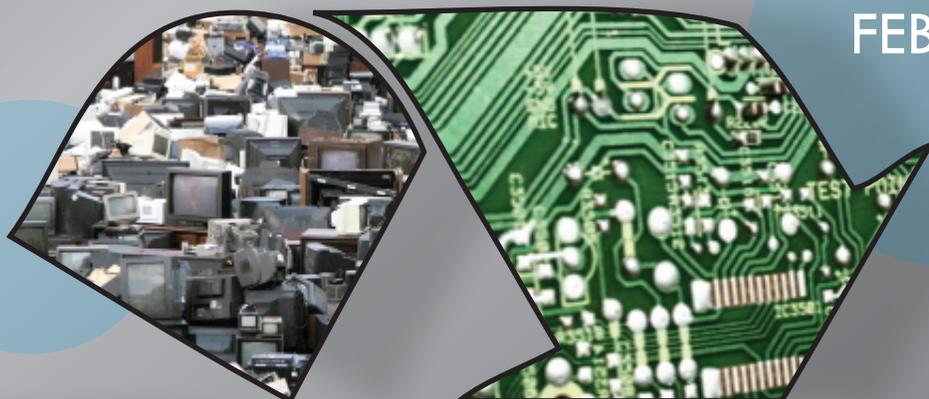


MAKING TAKE⇌BACK WORK IN TEXAS

SECOND-YEAR RESULTS

FEBRUARY 2011



TEXAS CAMPAIGN FOR THE ENVIRONMENT FUND

Making TakeBack Work Better in Texas:

Second year results of the Computer TakeBack Law and how Texas can do better

February
2011

prepared by



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Executive Summary

On September 1, 2008 the Texas Computer TakeBack Law went into effect. The law requires computer manufacturers doing business in Texas to provide individuals and home businesses with recycling options for used desktops, laptops, and monitors. Under the state e-waste law, recycling options must be free, “reasonably convenient” and “designed to meet the collection needs of consumers in this state.”

In 2009, the Environmental Protection Agency (EPA) estimated that 3,190,000 tons of consumer electronics entered the waste stream in the U.S.; of this only 600,000 tons were recycled.¹ The continued growth of electronic waste (e-waste) combined with the fact that electronics contain an assortment of toxic materials such as lead, mercury, and cadmium² makes the collection and recycling of e-waste a necessity.

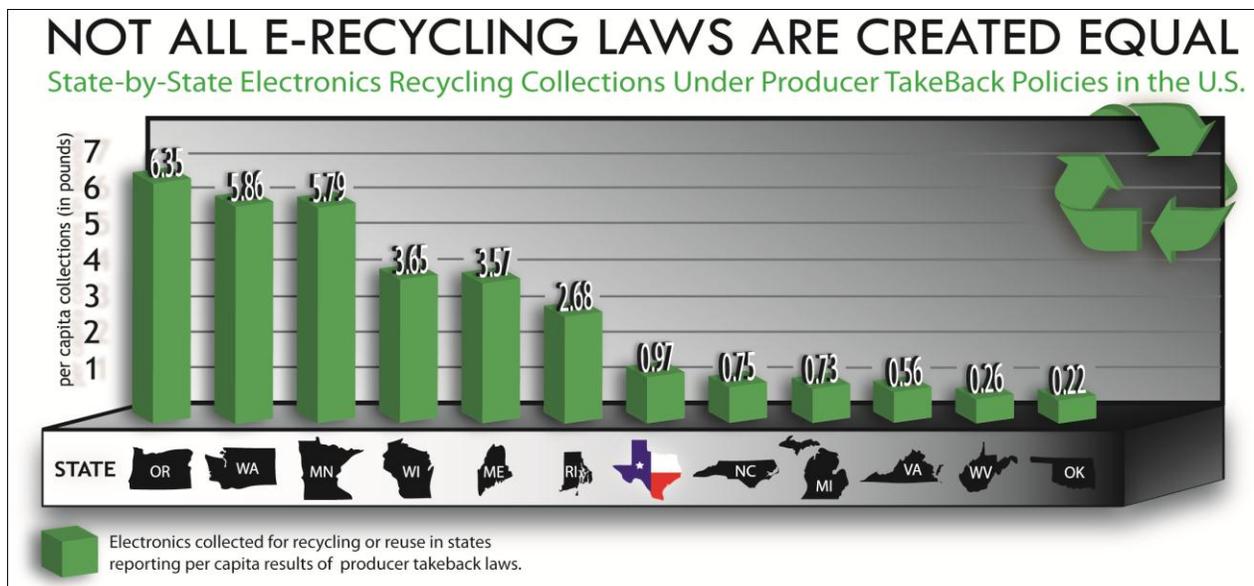
In addition, to the toxins found in electronics many also contain rare earth minerals such as Gadolinium.³ It is estimated that 97% of these minerals are controlled by China—which, since 2007, has begun limiting their export.⁴ This attempt by China to stockpile their resources combined with their rarity has caused prices to skyrocket. This further makes electronics recycling (e-cycling) a necessity.

Key Results

The good news is that the e-waste collection amounts reported by the computer manufacturers in 2010 were 60% higher than in 2009. However, four of the 78 companies selling computers in Texas collected 92% of the total showing that the law has not created a level playing field. Also, second year results show that Texas and the other states with similar laws continues to measure-up poorly to other states. This is attributed to the Texas Law’s lack of three key provisions: 1) collection goals and recycling targets, 2) convenience and access standards, and 3) a disposal prohibition.

Manufacturers have proven their ability to meet the e-cycling needs of consumers in states across the country by reaching and exceeding recycling targets, especially in Minnesota, Washington and Oregon. When a manufacturer able to collect such large amounts of e-waste in other states, but considerably less in Texas, it becomes obvious that collection goals (including expanding covered electronics such as televisions), convenience standards, disposal prohibition, public education and outreach along with strong enforcement provisions result in manufacturers setting up more effective e-cycling programs. Texas and the states with laws like it—Oklahoma, Virginia and Michigan—all have lower per capita collections.

Figure 1: State-by-State Electronics TakeBack Recycling Results



¹ United States Environmental Protection Agency. (2010). “Municipal Solid Waste in the United States: 2009 Facts and Figures”. <http://www.epa.gov>. 72-73. Accessed: 01.31.11

² Gable et al. (2001) “Computers, E-Waste, and Product Stewardship: Is California Ready for the Challenge? A Menu of Policy Options for Computer Extended Product Responsibility”. Global Futures Foundation. <http://www.globalfutures.org>. 3. Accessed: 01.22.11

³ Scandium, Yttrium, Lanthanum, Cerium, Praseodymium, Neodymium, Promethium, Samarium, Europium, Gadolinium, Terbium, Dysprosium, Holmium, Erbium, Thulium, Ytterbium, and Lutetium

⁴ Ford, Peter (20 Oct. 2010). “China denies any rare earth mineral export embargo”. The Christian Science Monitor. <http://www.csmonitor.com>.

In Texas, manufacturer recovery plans consist largely of mail-back programs and/or single or multiple drop-off collection sites. Manufacturers that *only* provided a mail-back option, the mail-back model, almost invariably recycled less than manufacturers that implemented permanent drop-off locations. Texas, Virginia, Michigan and Oklahoma all have similar mail-back model laws so it is no surprise that these three have performed the worst even when compared to other states first year programs.

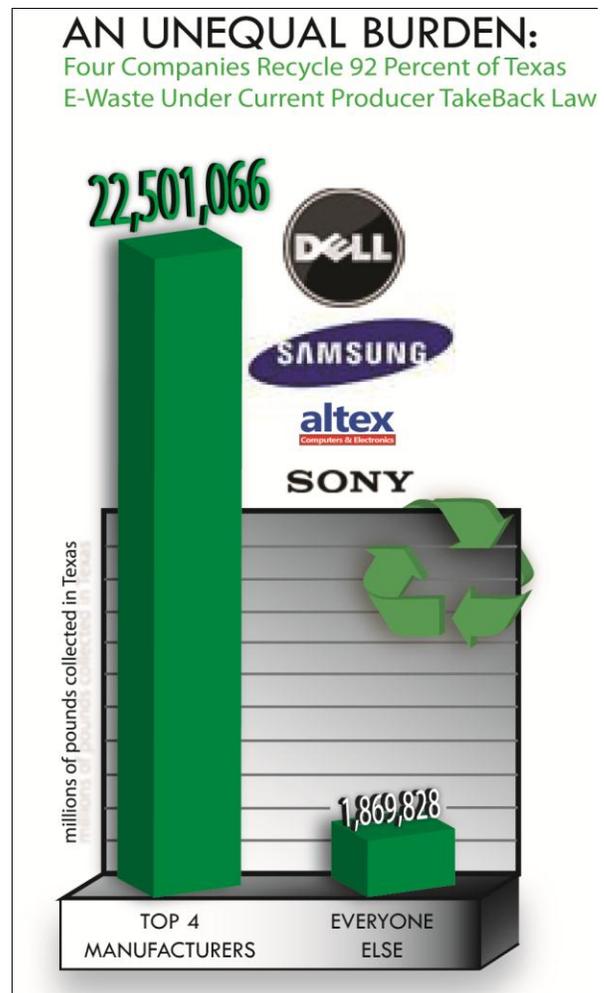
Additionally, 92% of the 24,370,894 pounds of electronic waste collected in 2010 was collected by only four manufacturers: Dell, Samsung, Altex Electronics, a small San Antonio, Texas based company, and Sony. The remaining 8% was collected by 38 manufacturers while 36 manufacturers collected zero pounds. It is obvious that the mail-back model creates a vastly disproportionate system that allows many companies to be free riders and not pull their own weight. In particular, the leading seller of computers in the U.S., HP saw their Texas collections drop 93% compared to 2009, which accounted for a paltry 0.19% of manufacturer collections statewide. HP staff told a TCE Fund staff person that they were having a hard time convincing responsible recyclers to set up facilities in Texas when they were focused on states that had strong requirements for performance in their takeback laws.

Figure 2: Top 4 Performers vs. Everyone Else

Key Recommendations:

With very few exceptions, all of the major manufacturers already comply with the stronger requirements of e-cycling statutes in other states. Adding similar provisions to the Texas law will bring it in line with the more successful programs and provide Texans with the same e-cycling opportunities presently afforded residents of other states.

- **Televisions must be covered by a takeback recycling law:** It is estimated that over 302 million Americans own at least one television with the average household owning 2.7 televisions and nearly 25% owning 4 or more televisions.⁵ Because televisions are even more ubiquitous than computers preventing them from entering U.S. landfills should be a necessary part of the Texas Takeback Program. Currently, 19 states have free producer takeback for televisions.
- **Collection goals and recycling targets:** Texas did not institute collection and recycling targets. Instituting concrete, well-defined collection goals based on a company’s market share or return share would help ensure these manufacturers make a stronger effort to implement effective recycling programs in order to meet their state recycling obligation.
- **Convenience and access standards:** Texas needs to replace what has become the default mail-back model for many major companies with convenience requirements that will truly meet Texans’ collection needs.
- **Disposal prohibitions:** The State of Texas allows consumers to dispose of used electronics in landfills and incinerators. By contrast, 19 states already have passed e-waste disposal prohibitions.



Texas placed the mandate for public education on the Texas Commission for Environmental Quality (TCEQ), which has not yet implemented a meaningful public outreach campaign to educate consumers or local government officials about takeback recycling programs. The states with the highest collection results had strong

⁵ DuBravac, Shawn G. (2009). “Beyond HD: The Future of TV”. 5 Technology Trends to Watch. Consumer Electronics Association. <http://www.ce.org>. Accessed: 02.21.11.

public education efforts and/or enforceable goals that placed responsibilities on manufacturers to get the word out to obtain their share.

- **Texas should require a manufacturer registration fee:** Texas is one of only four states that did not include a manufacturer registration fee in its takeback legislation. This fee should be directed toward producing and disseminating public education materials.
- **Texas should require electronics retailers to provide information about e-cycling to consumers:** States with successful e-cycling programs require electronics retailers to provide information at the point of sale about how and where to recycle covered products. The Texas Retailers Association accepted this provision in the 2009 TV TakeBack Bill.
- **The takeback program should involve local governments to help them to educate the public about e-cycling⁶:** Currently local governments are not engaged in public education. Local government entities often function as the “recycler of first resort” for their residents particularly for information about hard-to-recycle products like electronics. Therefore, it is important that they are active in educating the public.

The retail sales prohibition has been effective at ensuring that manufacturers file recovery plans with TCEQ; however, filing a recovery plan is not the same as implementing an effective recovery program. Similar to program year one, more than half of registered manufacturers collected nothing in program year two. TCEQ may take enforcement action only in cases when a manufacturer fails to label its branded products or when manufacturers or retailers sell branded products that are not part of a compliant recovery plan.

- **Legislation should grant TCEQ authority to reject a recovery plan or remove non-compliant manufacturers from the state list:** Currently, the state environmental agency does not have explicit authority to reject recovery plans or to remove previously listed plans that fail to meet the basic criteria outlined in the legislation.

⁶ A 2010 TCE Fund survey of 194 Texas cities showed that less than one in four mentioned the TakeBack Law on its municipal website and only one in 25 city officials contacted via phone referred callers to the TakeBack Law.

Detailed Results

Consumer electronics (electronics) are the fastest growing segment of the global waste stream. The Consumer Electronics Association (CEA) estimated in 2010 that the average U.S. household owns 25 consumer electronics.⁷ This means that there are over 7.7 billion electronics that will eventually enter the waste stream. In 2009 the EPA estimated that only 18.8% of electronics that entered the waste stream were actually recycled⁸, leaving 2.59 million tons of electronics to end up in landfills and incinerators across the country.

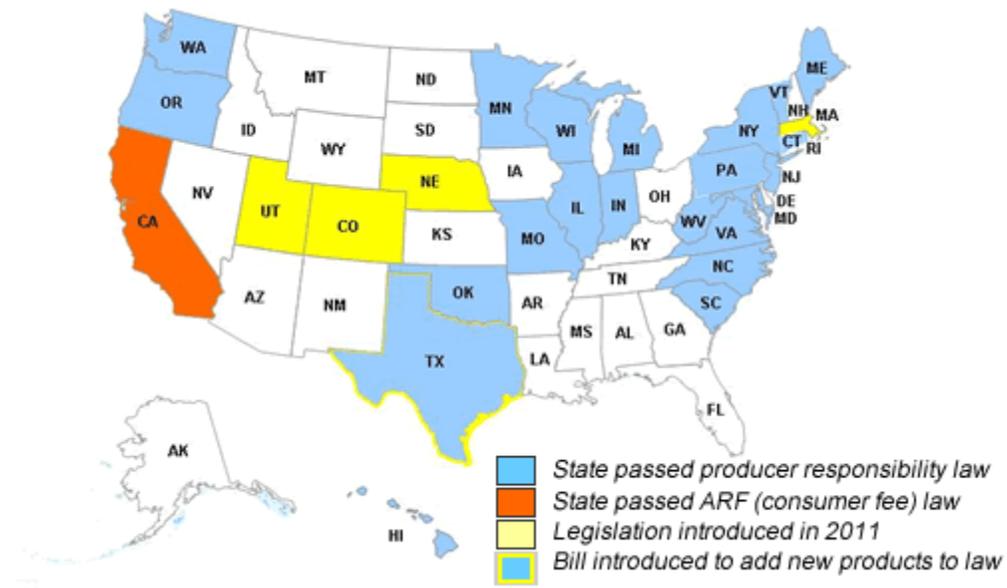
Electronics currently make up an estimated 70% of the heavy metals found in landfills, including mercury and cadmium.⁹ The average old-style television or computer monitor contains four to eight pounds of lead, which harms virtually all systems of the human body.¹⁰ It is estimated that over 302 million Americans own at least one television with the average household owning 2.7 televisions and nearly 25% owning 4 or more televisions.¹¹ In addition, it is estimated that 203 million Americans own a desktop computer.

To date, twenty-three states, including Texas, have passed takeback recycling legislation for used electronics.¹² Most of these laws cover computers, monitors and televisions at least. The current Texas law only covers desktop computers, laptops and monitors.

There are two major advantages to effective producer takeback laws:

- 1)
 These laws take the burden off of local governments and taxpayers to provide recycling, especially for hard-to-recycle items.
- 2)
 These laws use the market to improve recycling because manufacturers are competing on the basis of how efficiently products can be recycled - in addition to how efficiently their products can be manufactured and marketed. This provides a free market incentive to design their products to be more easily recycled. Companies have confirmed that these policies are spurring companies to incorporate information from their recyclers when designing new products.

Figure 3: Map of States with TakeBack Laws



⁷ Consumer Electronics Association. (May 6, 2010). "Americans Spending More on Consumer Electronics, New CEA Study Finds". <http://www.ce.org>. Accessed: 02.21.11.

⁸ United States Environmental Protection Agency. (2010). "Municipal Solid Waste in the United States: 2009 Facts and Figures". <http://www.epa.gov>. 72-73. Accessed: 01.31.11.

⁹ Gable et al. (2001). "Computers, E-Waste, and Product Stewardship: Is California Ready for the Challenge? A Menu of Policy Options for Computer Extended Product Responsibility". Global Futures Foundation. <http://www.globalfutures.org>. 3. Accessed: 01.22.11.

¹⁰ United States Environmental Protection Agency. (2010). "An Introduction to Indoor Air Quality (IAQ): Lead (Pb)". <http://www.epa.gov>. Accessed: 01.22.11.

¹¹ DuBravac, Shawn G. (2009). "Beyond HD: The Future of TV". 5 Technology Trends to Watch. Consumer Electronics Association. <http://www.ce.org>. Accessed: 02.21.11.

¹² Comparisons of state e-waste laws and this map are available from the Electronics TakeBack Coalition. <http://www.electronicstakeback.org>.

Texas

In 2010, total electronics collected in Texas was 24,370,894 pounds. This is a 60% increase in electronic waste collection from 2009 collections. The per capita collections increased from .62 pounds per Texan to .97 pounds per person. However, Texas electronics collection per capita continues to lag far behind other state’s second year performances. In fact, Texas lags behind two states that are in their first year of takeback program implementation, Wisconsin and Rhode Island, demonstrating that the electronics manufacturers, as a group, are providing much more robust services to residents of other states than they are in Texas.

Figure 4: State-By-State Comparison

STATE	PROGRAM YEAR*	TOTAL LBS. COLLECTED	POPULATION	PER CAPITA	RANK
Oregon	2 (2010)	24,331,178	3,831,074	6.35	1 st
Washington	2 (2010)	39,467,798	6,724,540	5.86	2 nd
Minnesota	2 (2009)	30,293,194	5,230,567	5.79	3 rd
Wisconsin	1 (2010 est.)	20,784,810	5,686,986	3.65	4 th
Maine	2 (2007)	4,688,552	1,314,963	3.57	5 th
Rhode Island	1 (2009)	2,823,369	1,053,209	2.68	6 th
Texas	2 (2010)	24,370,894	25,145,561	0.97	7th
North Carolina	1 (2010 est.)	7,160,000 (TV not incl.)	9,535,483	0.75	8 th
Michigan	1 (2010 est.)	7,171,951	9,883,640	0.73	9 th
Virginia	2 (2010)	4,441,680	8,001,024	0.56	10 th
West Virginia	1 (2010)	482,956	1,852,994	0.26	11 th
Oklahoma	1 (2009)	817,277	3,687,050	0.22	12 th

*Program year 2 is not available uniformly and 2010 was some states’ first program year.

When TCE Fund issued its first report in May 2010, Texas ranked last in per capita collections.¹³ Now Texas is one of the six worst performers for electronic waste. A commonality exists among the six worst: they all have similar electronic waste legislation referred here as the “Mail-Back Model.” It is the difference between this “Mail-Back Model” for electronic waste recycling and the other, better performing states that explains why Texas, Virginia, Michigan, Oklahoma, North Carolina and West Virginia vastly underperform. More specifically, these states’ legislation fails to include collection goals and recycling targets, convenience and access standards.

Manufacturers

Unfortunately, most of the increase in collections in 2010 can be attributed to three companies that significantly improved their efforts. These three companies - Samsung, Altex and Sony - with Dell accounted for 92% of the pounds collected in 2010. Without these companies’ efforts, collections would have only totaled 1,869,828 pounds in Texas in 2010 - a paltry 0.07 pounds per person.

State laws should create a level playing field for businesses. The language of Texas electronics takeback law - and the other states with very similar language - has failed to accomplish this basic goal. A small number of companies are living up to the spirit, as well as the letter, of the law. However, the vast majority of companies are not collecting their fair share.

Top Performers

Figure 5: The Top Four Performers

MANUFACTURER NAME	POUNDS COLLECTED IN TEXAS	PER CAPITA	LBS. RECYCLED	LBS. FOR RE-USE	% TOTAL	NATIONAL RETURN SHARE*
Dell	10,148,474	0.40	10,148,474	0	41.64%	15.27%
Samsung	8,076,627	0.32	8,076,627	0	33.14%	3.18%
Altex Electronics	2,679,924	0.11	2,395,722	284,202	11.00%	<0.01%
Sony Electronics	1,596,041	0.06	1,596,041	0	6.55%	2.44%
ALL OTHER MANUFACTURERS	1,869,828	0.07	1,765,782	103,899	8.00%	54%

*National return share is the percentage of each brand that is collected in recycling programs. This report relies on the calculation of the National Center for Electronics Recycling’s Brand Data Management System. Percentages do not equal 100% because not all brands sold in the U.S. are sold in Texas and vice versa.

¹³ Data later came in from Oklahoma that showed even lower per capita collections in that state’s first year of operation.

Dell

Starting in 2004, Dell began its partnership with Goodwill of Central Texas. It slowly spread to other regions of the state, but became statewide shortly after the legal deadline for takeback programs. Dell also offered other collection opportunities. In 2009, total electronics collection in Texas was over 15 million pounds with Dell’s collection efforts vastly outperforming any other manufacturer, collecting 85% of electronic waste in Texas. In 2010, although Dell had a collection decrease of 21% it continues to remain the top collector in the state.



Dell’s takeback program consists mainly of fixed collection sites for consumer drop-off. Through its Reconnect™ program, Dell partnered with Goodwill to provide free drop-off and recycling for used computers, monitors, laptops and peripherals at any Goodwill location throughout the state. Additionally, a number of local governments either partner directly with Reconnect™ or refer residents to the program, further increasing total collections. To publicize the recycling program, Goodwill also conducts outreach campaigns through public radio and other media. Reconnect™ accepts all brands of computer equipment.¹⁴ Finally, consumers who use the Reconnect™ program to recycle their unwanted electronics receive a tax receipt for a charitable donation.

Dell also partnered with Staples, the national office supplies and electronics retailer, to provide free consumer drop-off sites at over forty locations in Texas. Unlike the Reconnect™ program, Staples accepts only Dell branded products for free recycling, charging consumers a fee for other brands.

Dell will also provide home pick-up of a Dell or of another brand if one purchases a new Dell. Dell staff has informed TCE Fund that this program does not result in a large volume of collections.

Samsung

Samsung, with the second highest collection results for 2010, collected 33% of all electronic waste reported by manufacturers. This represents a 6758% increase over Samsung’s 2009 collection results. It must be noted that these numbers also reflect Samsung’s voluntary takeback of televisions.

Samsung’s success is attributed to its contract with Universal Recycling Technologies and its collection facility in Fort Worth, its partnership with Goodwill for its television collection, and its many collection events throughout the year in Dallas.

Altex Electronics

Starting in 2008, Altex Electronics, a small, San Antonio-based computer manufacturer, partnered with Goodwill to create community drop-off locations at three Altex Electronics San Antonio stores. Goodwill supplies a trailer at each location and picks it up once it is full, leaving another empty trailer in its stead. Similar to Dell’s system, Altex collects all computer products and brands, but only in the San Antonio area. Throughout the rest of the state, Altex only takes back their brand and they can be dropped off at any Altex location. Free mail-back is also provided.

Altex outperformed every other manufacturer in the State of Texas except Dell and Samsung. In 2010, Altex saw a 2824% increase over year one in electronic waste collected. They also reused the most total poundage of electronic waste of any other manufacturer (284,202 pounds).

Key to Altex’s success is its community awareness campaign combined with its multiple drop-off locations. To raise awareness in San Antonio, Altex hands out “Goodwill Recycle” partner stickers at their stores, they give Goodwill donation receipts so people can claim their dropped off computers on their taxes, and, for a limited time, Goodwill handed out coupons for a free Schlotzsky’s sandwich when they recycled. For other Texas customers, Altex has their recycling options posted on their website, their staff works to educate their customers, and they believe that their customers help “spread the word.”

How did a **small Texas company outperform HP** and other major brands?

- ✓ **Multiple Drop-Off Locations**
- ✓ **Community Awareness**
 - Goodwill Recycle stickers
 - Coupon for Free Sandwich when Recycle
 - Provided Recycling Information on Website
 - Educated Staff

¹⁴ Goodwill collects Xbox mobile game consoles through a program paid for by Microsoft. The Goodwills in Central Texas, Tarrant, and Denton Counties also have an agreement with a number of manufacturers to collect televisions.

Sony

Sony also had tremendous growth in electronic waste collection. Their collection totals grew by 4130%, collecting 6.65% of all electronic waste collected in Texas and ranking fourth out of all 78 manufacturers. Sony told TCE Fund staff that its totals do not include televisions collected in Texas.

The Other 74

Of the remaining 8% of collected electronic waste, Apple and Best Buy combined collected 5.6%.¹⁵ Best Buy collects e-waste of all brands at all of its 90+ Texas retail stores. However, it requires consumers to remove their hard drives and charges \$10 for \$10 Best Buy gift cards in return.¹⁶ noticeable increases in their collections manufacturers, including Hewlett-584,901 pounds of electronic waste. In collected nothing at all. Obviously, the

The clear message from HP's comment is that a better e-waste recycling law will create e-recycling jobs in Texas.

Some companies did demonstrate such as Acer and Apple. However, 72 Packard, only collected 2.4% or a paltry addition, 36 of those manufacturers free-ride problem persists.

HP, in particular, had a very poor 45,931 pounds or 0.19%. This is a 93% electronic waste collected. Such a poor performance from such the largest seller of computers in the U.S. suggests glaring inadequacies in the "Mail-Back Model" and proves that corporations are not doing their fair share to the needs of Texans. In conversation with HP staff, TCE Fund staff was told that they had a problem finding responsible recycling partners because of the demands of providing services in states that have substantive requirements for manufacturer to collect e-waste. The clear message from HP's comment is that a better e-waste recycling law will create e-recycling jobs in Texas.

second-year performance collecting only reduction from last year in pounds of

Figure 6: Large Manufacturers Collecting Less Than 100,000 Lbs. In Texas

MANUFACTURER NAME	POUNDS COLLECTED IN TEXAS IN 2010	PER CAPITA	LBS. RECYCLED	LBS. FOR RE-USE	% TOTAL	NATIONAL RETURN SHARE*
Hewlett-Packard	45,931	0.00183	44501	1430	0.19%	9.09%
LG	41,833	0.00166	41833	0	0.17%	0.67%
Panasonic	19,153	0.00076	19153	0	0.08%	0.43%
Toshiba America	11,580	0.00046	11580	0	0.05%	0.17%
IBM	1,159	0.00005	1159	0	<0.01%	2.96%
ViewSonic	811	0.00003	811	0	<0.01%	4.49%
NEC Display Solutions	164	0.00001	164	0	<0.01%	8.71%
Lenovo	10	<0.00001	10	0	<0.01%	<0.01%
ASUS Computer International	2	<0.00001	2	0	<0.01%	<0.01%
Fujitsu America	0	0.00000	0	0	0.00%	<0.01%
Hyundai IT America	0	0.00000	0	0	0.00%	0.08%
Nokia	0	0.00000	0	0	0.00%	0.27%
Sun Microsystems	0	0.00000	0	0	0.00%	0.32%

*National return share is the percentage of each brand that is collected in recycling programs. This report relies on the calculation of the National Center for Electronics Recycling's Brand Data Management System. Percentages do not equal 100% because not all brands sold in the U.S. are sold in Texas and vice versa.

Almost half of the manufacturers in Texas (33), for both program years, have failed to collect any electronic waste. Although many of these are small manufacturers they should at least be collecting something. The fact these manufacturers have not collected a single pound of electronic waste in two years demonstrates that manufacturers can continue to sell their products in the State of Texas without actually adhering to the spirit and goals of the law.

These low-performing 74 companies represent 54% of the national return share but they only collected 8% of electronic waste in Texas. This means that the vast majority of their products are being collected and recycled by other manufacturers in Texas or going to landfills.

¹⁵ Best Buy's numbers do include televisions.

¹⁶ TCE Fund has received some complaints about Best Buy stores in North Texas that are charging for recycling and not providing gift cards.

Law - Recommendations

Takeback programs for televisions and other electronics

Other states recycled three times more computer equipment per capita than Texas. However, when televisions are included, these same states recycled seven times more per capita. Televisions account for approximately 56% by weight of all obsolete electronics, and CRT televisions contain four to eight pounds of lead. In 2009, a television takeback bill - HB 821 - made it through most of the hoops. There was no opposition expressed in either the House or Senate Committee hearing. It passed with a handful of no votes in the House and unanimously in the State Senate. Governor Perry unexpectedly vetoed the bill citing a preference for a law that was more like the Texas Computer TakeBack Law. However, at the time of the veto, there were no results from the law and the lack of a level playing field was not yet evident.

Collection goals and targets

The most effective state e-cycling programs establish collection goals and targets for individual manufacturers, typically calculated on the basis of market share or return share. Minnesota, for instance, requires manufacturers to recover an amount equal to 80% by weight of products sold in the state during the previous year—their market share. Other states combine elements of both market and return share approaches to calculate goals and targets. Oregon set a per capita collection goal of 5.49 pounds in 2010, with each manufacturer responsible for a certain percentage of the total returned for recycling. Although these approaches differ in calculation methods, the fundamental idea is the same: when a manufacturer has a predetermined collection goal or target, it provides adequate recycling services in order to hit the target. If a manufacturer comes up short, they can often “buy” credit from pounds from manufacturers that exceed their responsibilities. When that manufacturer fails to fulfill its responsibility, these states bill the manufacturer on a per-pound basis for the shortfall.

Texas and the other mail-back model states, on the other hand, did not institute such goals or targets. Consequently, many of the largest manufacturers with the highest national return share failed to recycle substantial amounts of unwanted electronics, relying instead on ineffective mail-back options. Instituting concrete, well-defined collection goals based on market share or return share (or a combination of both) would help ensure these manufacturers make a stronger effort to implement effective recycling programs in order to meet their recycling obligation.

Convenience and access standards

Convenience and access standards also help drive some of the successful state e-cycling programs. In both Oregon and Washington, approved recycling programs must provide at least one permanent drop-off collection site in every county and in every city with a population of 10,000 or greater. Manufacturers can contract with private, public or non-profit organizations of their choosing to manage these sites. Maine places the onus on municipalities, requiring cities to provide permanent drop-off locations, one-day collection events or access to state-approved consolidation points. TCE Fund does not support placing the burden for providing collection sites on any political subdivision; however, modifying the Maine model to encourage *producer-funded* initiatives that utilize existing local government collection infrastructure such as transfer stations, recycling locations or other publicly-owned facilities could prove workable in Texas.

Under the Texas law, manufacturers must provide “reasonably convenient” recycling options as part of a compliant recovery plan. However, the statute does not adequately define the term “convenient,” instead providing a list of examples that nominally satisfy the convenience requirement without delineating specific criteria such as geographic placement of collection sites based on population or political boundaries. In essence, this section of the statute allowed for a path of least resistance—the default mail-back option, which proved least effective of the various collection methods in Texas. In 2009, one in three recovery plans in Texas relied completely on the mail-back default. Texas lawmakers should require real convenience and access standards as part of all compliant manufacturer recovery plans.

Considering that, in Texas, the best performing manufacturers have electronic waste drop off locations, TCE Fund believes that such a model is the most effective and convenient option for the proper disposal of e-waste. Such a system will not only increase electronic waste collection rates, but will also ensure that the responsibility for electronic waste collection does not unduly fall upon a handful of manufacturers.

Disposal prohibitions

The State of Texas allows disposal of used electronics in landfills and incinerators. At least one local jurisdiction - the City of Dallas has instituted a *de facto* disposal ban by refusing to pick up unwanted e-waste placed at the curb or in the alley.

By contrast, Oregon, California, Minnesota, Wisconsin, Indiana, West Virginia, New Jersey, Connecticut, Rhode Island, Massachusetts, New Hampshire, Vermont, Maine, Arkansas, Illinois, South Carolina, North Carolina, New York, and Pennsylvania all have disposal prohibitions. With adequate public education, disposal prohibitions drive consumers to seek alternative options and bolster existing recycling or recovery infrastructure. Texas should join these states in prohibiting land disposal and incineration of electronic equipment covered by the TakeBack law, assuming consumers have access to e-cycling.

TCE Fund recommends the adoption of a disposal ban for individuals and businesses, with disposal operators responsible for informing customers that covered electronics are not accepted for disposal through utility bill inserts, signage at disposal facilities, or other means. Disposal operators would not be liable for unknowingly accepting prohibited electronics.¹⁷

Extend the TakeBack Law to cover additional consumers

Currently, the TakeBack Law applies only to individuals and home businesses. In order to divert more toxic electronics and relieve taxpayers of the financial burden for e-waste recycling and disposal, the TakeBack Law should include small businesses, small non-profits with fewer than fifty employees, public and private schools and local governments.

Give TCEQ authority to remove non-compliant manufacturers from the list of compliant recovery plans

Currently, TCEQ must list plans when they become compliant, but has no authority to remove plans when they become non-compliant.

Give TCEQ authority to approve or reject manufacturer recovery plans

Collection goals or recycling targets will somewhat mitigate the need for an approval process; however, TCEQ should have the power to reject manufacturer plans that fail to meet the basic criteria of the TakeBack Law—free, convenient and environmentally sound.

Update the responsible recycling provisions

Manufacturers should be responsible for utilizing recyclers that meet or are certified to “Responsible Recycling Practices for Use in Accredited Certification Programs” or “e-Stewards Standard for Responsible Recycling and Reuse of Electronics,” or that meet the environmental performance and accountability standards that the commission may adopt.¹⁸

Require state agencies to consider end-of-life disposition in all IT procurements

The State of Texas should use its purchasing power to encourage responsible end-of-life recycling.

Provide a mechanism for public input on the efficacy of takeback programs

Presently, TCEQ provides an annual report to the Texas Legislature on previous year collections. Public participation is not part of this process. The takeback program should include a mechanism for the public—as well as political subdivisions, Councils of Governments, or others on the consumers’ behalf—to provide input on the program’s effectiveness. Such feedback mechanisms are necessary for accurate evaluation of the program’s achievements by Texas State Legislators and others.

¹⁷ However, if companies do not provide truly convenient producer takeback recycling opportunities, the onus cannot be on consumers if there are not good alternatives. Disposal prohibitions can be tied to the convenient presence of producer takeback recycling options. Alternatively, these could be a local government option. See more details in Appendix X.

¹⁸ Two accredited certification programs that involve third-party audits are available now, but were not when the computer and TV legislation was last considered. Given the degree of fraud in this area, it is critical to have third-party audits.

Public Education

In the 2011 Local Government Survey, TCE found that the vast majority of localities were unaware of the Texas Computer TakeBack Law. In addition, only six, out of 194 cities, referred both callers and internet users to the www.TexasRecyclesComputers.org. Also, many municipalities failed to maintain a link on their website to www.TexasRecyclesComputers.org. Thus, the survey found, for a second year, a dearth of information related to proper disposal and recycling of electronic waste which translates into an improperly educated public with regard to e-cycling. To rectify this information gap, TCE recommends:

Fund public education and outreach efforts beginning with manufacturer registration fees

Most states require a manufacturer registration fee to fund public outreach and program administration. Texas lawmakers passed HB 821 which contained a relatively modest \$2500 registration fee for television manufacturers, which the industry trade association and individual electronics companies supported. While this is a small amount for a state as big as Texas, when combined with the efforts of producers, retailers and local governments, it can help germinate more widespread public awareness.

Enlist electronics retailers to assist in public education efforts

Every state with an effective e-cycling program requires electronics retailers to provide information about available recycling options at the point of sale. This information should include at a minimum a public website and toll-free phone number listing each manufacturer's takeback program and can be printed on the sales receipt or included as a decal on product packaging. The Texas Retailers Association accepted this provision in HB 821 that passed the Legislature in 2009.

Appendix A: Definition and Texas Law

Definition

Extended Producer Responsibility, or “Producer Takeback” shifts more of the responsibility for recycling from governments and taxpayers to manufacturers (or brand owners) because they exert the greatest influence over the design decisions that largely determine a product’s recyclability and its impact on public health and the environment and because governments cannot afford to recycle electronic waste.

The National League of Cities, National Association of Counties, Solid Waste Association of North America, Texas Product Stewardship Council (an organization of local government officials), as well as forty cities and counties across Texas have endorsed the producer takeback concept.

Law

The Manufacturer Responsibility and Consumer Convenience Computer Equipment Collection and Recovery Act of 2007, commonly known as the Texas Computer TakeBack Law, enjoyed broad support. It passed unanimously in the Texas Legislature and was signed by the Governor on June 15, 2007. Following implementation of the legislation on September 1, 2008, computer-makers doing business in Texas had to begin providing consumers with free recycling options for used computer equipment. By January 31 of every year, manufacturers have to submit reports to the state environmental regulatory agency listing the amount of equipment collected, recycled and re-used for the previous year.

Under the Computer TakeBack Law, an electronics manufacturer must “adopt and implement a recovery plan” for its own branded products in order to sell computer equipment (directly, via retail stores or online) to Texas consumers. Recycling options must be “reasonably convenient” and “designed to meet the collection needs of consumers in this state.” Consumers cannot be charged at the point of recycling. The takeback program is available only to individuals and home-based businesses. Devices covered by the law include computers, monitors and laptops as well as one keyboard and one mouse per unit.¹⁹ The law also requires manufacturers to affix a label bearing its brand on all covered devices. Upon adoption and implementation of its recovery plan, the manufacturer is required to submit a statement to the Texas Commission on Environmental Quality (TCEQ) declaring that a recovery plan is available for its products and provide a web address where consumers may find instructions on how to recycle covered devices bearing the manufacturer’s brand label. In turn, TCEQ facilitates a single website that provides links to each manufacturer’s recovery plan.

Because the law provides flexibility regarding the logistics of each manufacturer’s recycling program, there is no standard system or uniform set of criteria that governs the specifics of each individual plan; however, the legislation does explicitly state that all recycling options shall be free for Texas consumers and that no fees for recycling may be charged at any time. The statute does not define “reasonably convenient and available” nor delineate how recycling plans should be “designed to meet the collection needs of consumers;” instead, it outlines three examples of recycling options that satisfy the convenience requirement: 1) mail-back programs, 2) physical collection sites, and 3) collection events. No further guidance regarding the geographic placement of collection sites or location and frequency of collection events is present in the legislation or subsequent TCEQ rules.



The takeback program is based on individual manufacturer responsibility coupled with shared responsibility among consumers, retailers and TCEQ. Manufacturers are financially responsible for recycling their own branded products. A manufacturer can utilize existing recycling infrastructure or set up a unique collection and recovery system; in either case, the manufacturer pays its own way. Manufacturers are also responsible for reporting the amount by weight of covered devices collected, recycled and reused in the previous calendar year; however, they are not responsible for collecting any specific amount of covered devices. In the shared responsibility model, consumers in Texas are responsible for any and all data on electronic equipment returned for recycling. Consumers are also responsible for educating themselves about takeback options by visiting the TCEQ and manufacturer websites. Retailers (including online merchants) may not sell products that do not possess a brand label and may not sell brands made by companies that do not appear on the TCEQ’s list of compliant manufacturers. Finally, TCEQ is responsible for maintaining the public website

¹⁹ Keyboards and mice added during the TCEQ rulemaking process following passage of the law.

linking to manufacturer recovery plans, ensuring compliance and educating the general public and electronics consumers about takeback programs (though no funding was designated for this purpose).

The TakeBack Law also contains rudimentary provisions for environmentally sound management of computer equipment collected through manufacturer recovery programs. Collectors must follow local, state and federal law in the disposition of obsolete equipment; however, few laws exist at any level to prevent the harmful disposal of electronic waste in Texas. The legislation directs TCEQ to adopt the “Electronics Recycling Operating Practices,” a set of voluntary standards approved by the Institute for Scrap Recycling Industries (ISRI) in 2006, or a comparable nationally recognized standard. (TCEQ adopted a more permissive version of the ISRI standards during subsequent rulemaking despite the objections of environmental advocates and more than a dozen state lawmakers.) The presence of various loopholes as well as the voluntary nature of the ISRI guidelines render this recycling standard largely ineffective in protecting the environment both locally and globally. The ISRI guidelines explicit allowances for landfill disposal, which, beyond mere wastefulness, is a potential source of water and air pollution. Furthermore, the broad allowance for export often results in severe pollution in developing countries.

The State of Texas provides incentives for manufacturer compliance and performance through procurement guidelines outlined in the TakeBack Law. In the statute, all state agencies must give preference to manufacturers that provide recycling programs for brands associated with other manufacturers when considering bids for contracts. The language in the legislation does not, however, direct state agencies to give preference to manufacturers that *actually* recycle branded products other than their own; rather, it merely directs the procurement preference to the *presence* of a recycling program. TCE Fund has attempted on a number of occasions to contact the Department of Information Resources to confirm the efficacy of these incentives, but to date has received no response.

Penalties for non-compliant manufacturers that fail to label computer equipment or adopt and implement recovery plans (not actual programs) are up to \$10,000 for the second violation and up to \$25,000 for subsequent violations. Retailers that sell equipment from non-compliant manufacturers are subject to penalties of up to \$1,000 for the second violation and up to \$2,000 for subsequent violations. In both cases, TCEQ issues a warning notice to non-compliant manufacturers and retailers upon the first violation, after which a sixty-day grace period is provided in order to achieve compliance. TCEQ may contact the Office of the Attorney General to take enforcement action against violators of this statute; to date, no penalties have been assessed.

The Texas TakeBack Law contains a preemption clause that dissolves the program if a federal law is enacted that meets or exceeds the provisions of the Texas statute.

Appendix B: Manufacturer-by-Manufacturer Recycling and Reuse Data, Sorted by Amount Collected in 2010

MANUFACTURER NAME	POUNDS COLLECTED IN TEXAS	PER CAPITA	LBS. RECYCLED	LBS. FOR RE-USE	% TOTAL	PROGRAM TYPE(S)	NATIONAL RETURN SHARE*
Dell	10148474	0.40359	10148474	0	41.64%	G/RP/MB/P	15.27%
Samsung	8076627	0.32119	8076627	0	33.14%	MB/G/E/LG	3.18%
Altex Electronics	2679924	0.10658	2395722	284202	11.00%	DO/MB/G	<0.01%
Sony Electronics	1596041	0.06347	1596041	0	6.55%	MB/DO	2.44%
Apple	749257	0.02980	749257	0	3.07%	MB/LG	4.61%
Best Buy	616911	0.02453	567558	49353	2.53%	DO/MB	0.04%
Acer America (includes Gateway)	195456	0.00777	195287	169	0.80%	MB/RP	13.54%
Office Depot	113877	0.00453	113877	0	0.47%	DO	<0.01%
Hewlett-Packard	45931	0.00183	44501	1430	0.19%	MB	9.09%
LG	41833	0.00166	41833	0	0.17%	MB/DO/E	0.67%
M & A Technology	35000	0.00139	0	35000	0.14%	DO	<0.01%
Panasonic	19153	0.00076	19153	0	0.08%	MB/DO	0.43%
Toshiba America	11580	0.00046	11580	0	0.05%	MB/DO	0.17%
International Products Sourcing Group	8633	0.00034	0	8633	0.04%	RP	<0.01%
Komputer+ Peripherals	7500	0.00030	1500	6000	0.03%	MB/DO	<0.01%
Microage	4299	0.00017	4299	0	0.02%	DO	<0.01%
Wallingford Computer Services	3000	0.00012	2000	1000	0.01%	MB/DO	<0.01%
Wakstar	2301	0.00009	1855	446	0.01%	MB/DO	<0.01%
Bass Computers	2195	0.00009	2195	0	0.01%	DO	<0.01%
Advanced PC Products	2000	0.00008	2000	0	0.01%	DO/MB	<0.01%
Motion Computing	1859	0.00007	1859	0	0.01%	MB	<0.01%
Zydeco Computer Technologies	1556	0.00006	1090	466	0.01%	DO	<0.01%
The Computer Link	1500	0.00006	1500	5	0.01%	DO	<0.01%
IBM	1159	0.00005	1159	0	<0.01%	MB	2.96%
ViewSonic	811	0.00003	811	0	<0.01%	MB/DO	4.49%
DoubleSight Displays	685	0.00003	685	0	<0.01%	MB	<0.01%
Workhorse Computers	600	0.00002	0	600	<0.01%	MB/DO	<0.01%
David Anderson Consulting	557	0.00002	553	0	<0.01%	DO/P/MB	<0.01%
University Computer Stores	480	0.00002	120	360	<0.01%	DO	<0.01%
RCS Technologies	306	0.00001	306	0	<0.01%	DO	<0.01%
Computer Shak	300	0.00001	100	0	<0.01%	DO/P	<0.01%
Bits Technical	288	0.00001	288	0	<0.01%	DO/P	<0.01%
That Computer Store	200	0.00001	0	200	<0.01%	DO	<0.01%
Westgate Computers	165	0.00001	0	165	<0.01%	DO/P/MB	<0.01%
NEC Display Solutions	164	0.00001	164	0	<0.01%	RP/E/DO	8.71%
Bright Ideas Computing	150	0.00001	150	0	<0.01%	DO	<0.01%
PC & Cable	52	<0.00001	52	52	<0.01%	DO	<0.01%
Magic Box Solutions	30	<0.00001	30	0	<0.01%	DO	<0.01%
Maverick Computer Services	20	<0.00001	0	20	<0.01%	DO	<0.01%
Lenovo	10	<0.00001	10	0	<0.01%	MB	<0.01%
Planar Systems	8	<0.00001	8	0	<0.01%	MB	0.02%
ASUS Computer International	2	<0.00001	2	0	<0.01%	MB	<0.01%
@Xi Computer	0	0.00000	0	0	0.00%	MB	<0.01%
Ag Neovo	0	0.00000	0	0	0.00%	MB	<0.01%
AMAX Engineering	0	0.00000	0	0	0.00%	NO INFO	<0.01%
ARM Electronics	0	0.00000	0	0	0.00%	DO/MB/E	<0.01%
Austin Computing	0	0.00000	0	0	0.00%	DO/P/MB	<0.01%
BenQ America	0	0.00000	0	0	0.00%	MB	0.08%
Cypher's Computing	0	0.00000	0	0	0.00%	DO	<0.01%
Double Eagle	0	0.00000	0	0	0.00%	DO/P	<0.01%
DRS Tactical Systems	0	0.00000	0	0	0.00%	MB	<0.01%
Envision Peripherals	0	0.00000	0	0	0.00%	MB	2.43%
Equus Computer Systems	0	0.00000	0	0	0.00%	MB/DO	0.03%
Fourstar Group	0	0.00000	0	0	0.00%	MB/DO	0.03%
Fujitsu America	0	0.00000	0	0	0.00%	MB	<0.01%
Gammatech Computer Corp.	0	0.00000	0	0	0.00%	MB	<0.01%
General Dynamics - Itronix	0	0.00000	0	0	0.00%	MB	<0.01%
Hanspree North America	0	0.00000	0	0	0.00%	MB	<0.01%
Howard Technology Solutions	0	0.00000	0	0	0.00%	MB	<0.01%
Hyundai IT America	0	0.00000	0	0	0.00%	MB/DO	0.08%
Ingram Micro Private Label - V7	0	0.00000	0	0	0.00%	MB	<0.01%
Medion AG	0	0.00000	0	0	0.00%	MB	<0.01%
MSI Computer	0	0.00000	0	0	0.00%	DO/MB	<0.01%
NCR	0	0.00000	0	0	0.00%	MB	0.06%
Nokia	0	0.00000	0	0	0.00%	MB	0.27%
Paxson Enterprises	0	0.00000	0	0	0.00%	DO	<0.01%
Premio	0	0.00000	0	0	0.00%	MB	0.20%
Sceptre	0	0.00000	0	0	0.00%	MB	0.21%
Seneca Data Distributors	0	0.00000	0	0	0.00%	MB	<0.01%
Shuttle Computer Group	0	0.00000	0	0	0.00%	MB	<0.01%
Sigma IT	0	0.00000	0	0	0.00%	MB/P	<0.01%
Sun Microsystems***	0	0.00000	0	0	0.00%	P	0.32%
Systemax	0	0.00000	0	0	0.00%	MB	0.20%
Trigem USA	0	0.00000	0	0	0.00%	MB/DO	<0.01%
Videotex Systems	0	0.00000	0	0	0.00%	MB/DO	<0.01%
Wacom	0	0.00000	0	0	0.00%	MB	<0.01%
Wyse Technology	0	0.00000	0	0	0.00%	MB	1.09%
ZT Systems	0	0.00000	0	0	0.00%	DO	<0.01%
TOTAL	24,370,894		23,982,646	388,101		PROGRAM TYPE LEGEND	
	PER CAPITA (LBS.)	0.97	0.954	0.015		MB - Mail-back program DO - Drop-off locations	
TOTAL WITHOUT TOP FOUR	1,869,828		1,765,782	103,899		LG - Local Government Partner	
	PER CAPITA (LBS.)	0.07	0.070	0.004		G - Goodwill partner RP - Retailer partner	
Companies collecting nothing in 2009:		36	46% of all companies reporting			P - Home pickup E - Collection events	

*National return share is the percentage of each brand that is collected in recycling programs. This report relies on the calculation of the National Center for Electronics Recycling's Brand Data Management System. Percentages do not equal 100% because not all brands sold in the U.S. are sold in Texas and vice versa.

Appendix C: Manufacturer-by-Manufacturer Recycling and Reuse Data, Sorted by Name

MANUFACTURER NAME	POUNDS COLLECTED IN TEXAS	PER CAPITA	LBS. RECYCLED	LBS. FOR RE-USE	% TOTAL	PROGRAM TYPE(S)	NATIONAL RETURN SHARE*
@Xi Computer	0	0.00000	0	0	0.00%	MB	<0.01%
Acer America (includes Gateway)	195456	0.00777	195287	169	0.80%	MB/RP	13.54%
Advanced PC Products	2000	0.00008	2000	0	0.01%	DO/MB	<0.01%
Ag Neovo	0	0.00000	0	0	0.00%	MB	<0.01%
Alhex Electronics	2679924	0.10658	2395722	284202	11.00%	DO/MB/G	<0.01%
AMAX Engineering	0	0.00000	0	0	0.00%	NO INFO	<0.01%
Apple	749257	0.02980	749257	0	3.07%	MB/LG	4.61%
ARM Electronics	0	0.00000	0	0	0.00%	DO/MB/E	<0.01%
ASUS Computer International	2	<0.00001	2	0	<0.01%	MB	<0.01%
Austin Computing	0	0.00000	0	0	0.00%	DO/P/MB	<0.01%
Bass Computers	2195	0.00009	2195	0	0.01%	DO	<0.01%
BenQ America	0	0.00000	0	0	0.00%	MB	0.08%
Best Buy	616911	0.02453	567558	49353	2.53%	DO/MB	0.04%
Bits Technical	288	0.00001	288	0	<0.01%	DO/P	<0.01%
Bright Ideas Computing	150	0.00001	150	0	<0.01%	DO	<0.01%
Computer Shak	300	0.00001	100	0	<0.01%	DO/P	<0.01%
Cypher's Computing	0	0.00000	0	0	0.00%	DO	<0.01%
David Anderson Consulting	557	0.00002	553	0	<0.01%	DO/P/MB	<0.01%
Dell	10148474	0.40359	10148474	0	41.64%	G/RP/MB/P	15.27%
Double Eagle	0	0.00000	0	0	0.00%	DO/P	<0.01%
DoubleSight Displays	685	0.00003	685	0	<0.01%	MB	<0.01%
DRS Tactical Systems	0	0.00000	0	0	0.00%	MB	<0.01%
Envision Peripherals	0	0.00000	0	0	0.00%	MB	2.43%
Equus Computer Systems	0	0.00000	0	0	0.00%	MB/DO	0.03%
Fourstar Group	0	0.00000	0	0	0.00%	MB/DO	0.03%
Fujitsu America	0	0.00000	0	0	0.00%	MB	<0.01%
Gammatech Computer Corp.	0	0.00000	0	0	0.00%	MB	<0.01%
General Dynamics - Itronix	0	0.00000	0	0	0.00%	MB	<0.01%
Hanspree North America	0	0.00000	0	0	0.00%	MB	<0.01%
Hewlett-Packard	45931	0.00183	44501	1430	0.19%	MB	9.09%
Howard Technology Solutions	0	0.00000	0	0	0.00%	MB	<0.01%
Hyundai IT America	0	0.00000	0	0	0.00%	MB/DO	0.08%
IBM	1159	0.00005	1159	0	<0.01%	MB	2.96%
Ingram Micro Private Label - V7	0	0.00000	0	0	0.00%	MB	<0.01%
International Products Sourcing Group	8633	0.00034	0	8633	0.04%	RP	<0.01%
Komputer+ Peripherals	7500	0.00030	1500	6000	0.03%	MB/DO	<0.01%
Lenovo	10	<0.00001	10	0	<0.01%	MB	<0.01%
LG	41833	0.00166	41833	0	0.17%	MB/DO/E	0.67%
M & A Technology	35000	0.00139	0	35000	0.14%	DO	<0.01%
Magic Box Solutions	30	<0.00001	30	0	<0.01%	DO	<0.01%
Maverick Computer Services	20	<0.00001	0	20	<0.01%	DO	<0.01%
Medion AG	0	0.00000	0	0	0.00%	MB	<0.01%
Microage	4299	0.00017	4299	0	0.02%	DO	<0.01%
Motion Computing	1859	0.00007	1859	0	0.01%	MB	<0.01%
MSI Computer	0	0.00000	0	0	0.00%	DO/MB	<0.01%
NCR	0	0.00000	0	0	0.00%	MB	0.06%
NEC Display Solutions	164	0.00001	164	0	<0.01%	RP/E/DO	8.71%
Nokia	0	0.00000	0	0	0.00%	MB	0.27%
Office Depot	113877	0.00453	113877	0	0.47%	DO	<0.01%
Panasonic	19153	0.00076	19153	0	0.08%	MB/DO	0.43%
Paxson Enterprises	0	0.00000	0	0	0.00%	DO	<0.01%
PC & Cable	52	<0.00001	52	52	<0.01%	DO	<0.01%
Planar Systems	8	<0.00001	8	0	<0.01%	MB	0.02%
Premio	0	0.00000	0	0	0.00%	MB	0.20%
RCS Technologies	306	0.00001	306	0	<0.01%	DO	<0.01%
Samsung	8076627	0.32119	8076627	0	33.14%	MB/G/E/LG	3.18%
Sceptre	0	0.00000	0	0	0.00%	MB	0.21%
Seneca Data Distributors	0	0.00000	0	0	0.00%	MB	<0.01%
Shuttle Computer Group	0	0.00000	0	0	0.00%	MB	<0.01%
Sigma IT	0	0.00000	0	0	0.00%	MB/P	<0.01%
Sony Electronics	1596041	0.06347	1596041	0	6.55%	MB/DO	2.44%
Sun Microsystems***	0	0.00000	0	0	0.00%	P	0.32%
Systemax	0	0.00000	0	0	0.00%	MB	0.20%
That Computer Store	200	0.00001	0	200	<0.01%	DO	<0.01%
The Computer Link	1500	0.00006	1500	5	0.01%	DO	<0.01%
Toshiba America	11580	0.00046	11580	0	0.05%	MB/DO	0.17%
Trigem USA	0	0.00000	0	0	0.00%	MB/DO	<0.01%
University Computer Stores	480	0.00002	120	360	<0.01%	DO	<0.01%
Videotex Systems	0	0.00000	0	0	0.00%	MB/DO	<0.01%
ViewSonic	811	0.00003	811	0	<0.01%	MB/DO	4.49%
Wacom	0	0.00000	0	0	0.00%	MB	<0.01%
Wakstar	2301	0.00009	1855	446	0.01%	MB/DO	<0.01%
Wallingford Computer Services	3000	0.00012	2000	1000	0.01%	MB/DO	<0.01%
Westgate Computers	165	0.00001	0	165	<0.01%	DO/P/MB	<0.01%
Workhorse Computers	600	0.00002	0	600	<0.01%	MB/DO	<0.01%
Wyse Technology	0	0.00000	0	0	0.00%	MB	0.10%
ZT Systems	0	0.00000	0	0	0.00%	DO	<0.01%
Zydec Computer Technologies	1556	0.00006	1090	466	0.01%	DO	<0.01%
TOTAL	24,370,894		23,982,646	388,101		PROGRAM TYPE LEGEND	
	<i>PER CAPITA (LBS.)</i>	0.97	<i>0.954</i>	<i>0.015</i>		MB - Mail-back program DO - Drop-off locations	
TOTAL WITHOUT TOP FOUR	1,869,828		1,765,782	103,899		LG - Local Government Partner	
	<i>PER CAPITA (LBS.)</i>	0.07	<i>0.070</i>	<i>0.004</i>		G - Goodwill partner RP - Retailer partner	
<i>Companies collecting nothing in 2009:</i>	36		<i>46% of all companies reporting</i>			P - Home pickup E - Collection events	

*National return share is the percentage of each brand that is collected in recycling programs. This report relies on the calculation of the National Center for Electronics Recycling's Brand Data Management System. Percentages do not equal 100% because not all brands sold in the U.S. are sold in Texas and vice versa.

Appendix D: Panhandle Partnership Has New Opportunity to Recycle E-Waste

The Panhandle Environmental Partnership (PEP) provides cooperative recycling opportunities across the vast area served by Panhandle Regional Planning Commission, the regional council of government. In the Fall of 2010, PEP coordinated an area-wide electronics recycling drive which collected 67,000 lbs. pounds of obsolete equipment – by far the largest e-cycling effort in the Panhandle ever.

The curious aspect of the e-cycling drive was who paid for the recycling. The Panhandle COG name was approached about organizing the event by ECS, a responsible recycler based in Terrell, TX. ECS said that an anonymous corporate sponsor would underwrite the project.

The push for electronics manufacturers to take back and recycle e-waste has led to a variety of partnerships. In Palacios, Apple paid for three recycling events. Samsung has partnered with the City of Dallas. Which company is behind the Panhandle project is still a mystery, but Panhandle residents who were able to take advantage of the opportunity were the winners in the end.