

The American State Litter Scorecard:
A Sociopolitical Inquiry into Littering
And The Response Role of 50 American States

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ABSTRACT

Littering is an American environmental crime, creating a danger to public health and safety. Experts nationwide have done little research on litter's impingement upon state jurisdictional environmental degradation. Unfortunately, the 50 American states do not collect uniform litter data measures, such as volumes of waste collected, total litter eradication expenditures, the number of persons injured or killed by litter/dumping-related incidents. For the first time, a "litter scorecard" is created, measuring each state's environmental quality indicators and litter eradication programs. The research first examines salient social and political mores that influence littering and statewide environmental degradation through a review of relevant literature, noteworthy factors and previous personal inquiries. Second, the scorecard evaluates state litter eradication quality through unique objective and subjective measures. Overall findings indicate national *average* quality eradication programs are found outside the Sunbelt states, lacking anti-litter slogans, and having above average daily personal waste disposals, litter-related vehicle fatalities, and public corruption conviction rates. *Best* quality jurisdictions are non-Sunbelt states with above average livability scores, lowest per person waste disposals, average per capita state/local environmental expenditures, and little or no public corruption convictions; Southern Sunbelt states possessing excessive Traditionalistic political culture, low livability marks, anti-litter slogans, and above average, litter-related fatal crashes performed *worst*.

INTRODUCTION

Littering¹ is a widespread, uncontrolled American ecological problem. From early human history, humans have thrown unwanted rubbish onto properties unpunished (Bormann and Kellert, 1979, p. 101; Rathje—"The History" as cited in *Garbage*, 1999, pp. 32-34). Littering is now an environmental crime, creating a danger to public health, safety and welfare, throughout the fifty American States. Littering's prominent feature is its "ugliness" that damages scenic environments, promotes accidents and fuels a breeding ground for disease-causing insects and rodents.² Highway maintenance personnel often cut their hands while picking up refuse (U. S. Federal Highway as cited in Kentucky, 1975, p. 3). Livestock and wildlife have injured themselves by stepping on or consuming rubbish mistaken for food. Roadway and boating debris cause hundreds of serious injuries and deaths annually nationwide.³ In 2005, 1,122 Americans died nationwide as a result of traffic accidents involving debris or movable, non-vehicular objects (U.S. Department of Transportation-National, p. 143).

Littering can appear to be a substantial problem for many state jurisdictions and regions. "Unenthusiastic" public officials in particular American regions have followed a "path of least resistance" in addressing externalities posing community health threats (Bullard and White as cited in Bullard, 2000, p. 7; Ockels, 2003, p. 11). For decades, states have spent millions to combat littering, yet they have accomplished "relatively little" (Henning, 1974, p. 105). Some are "...increasingly plagued with symptoms produced by their [cultural and] political maladies, leaving their air, water and land conditions ["seriously contaminated ..."]"⁴

Identifying America and Americans

The United States of America⁵, lying in North America, is the third largest country in the world in population, with over 296 million living in area of over three million miles in 2005 (U.S. Census; Sullivan, pp. 98-99, 100). Much of America has a moderate climate; the lower Sunbelt states from California to Texas to Florida experience long hot summers and little snow; the Northeastern, Mid-Atlantic and Midwestern states: cold and snowy winters. In the last half-century the United States has been transformed from a black-and -white, predominately rural and to some extent, urban nation, "to an increasingly cosmopolitan, multi-cultural mix, home to chief concentrations of Latino and Asian populations."⁶ Despite these transformations, some expanses of America have suffered socially and economically from discrimination, experiencing less education, lower incomes, lower voter turnouts, higher infant mortality rates and lower life expectancies than other regions.⁷

Litter and People

Until the 20th century, humans littered the environment with little regard of what made up litter, whom did so, its effects on the environment, and why such behavior by humans. The American Public Works Association standardized the term *litter* in the 1950's to include "garbage...refuse...[and] rubbish..." known later as a form of solid waste (Murphy, 1993, p. 3; National Institute, 1958, pp. 5, 6). Highest litter concentrations tend to be at intersections, stop signs, beer and package stores, farmers markets, shopping centers, beaches, and fast food places (U. S. Federal Highway as cited in Kentucky, 1975, p. 6). Though cigarette butts are the most common litter, beverage containers account for 40 to 60 percent of most total litter volume (Bisbort, 2001, p. 9; Shireman, McFadden, Newdorf and Noga, 1981, pp. v, 25).

McAndrew notes research showing men, youth, rural dwellers and single persons litter more than women, seniors, urbanites and married persons.⁸ Picknickers, hunters, fishermen, campers, motorists, truck drivers and construction workers are prime litter source providers (Bisbort, 2001, p. 8; Kentucky, 1975, p. 1).

Multiple factors contribute to why people choose to litter. First, studies confirm that *litter begets litter*. People appear more self-conscious about littering when in non-littered areas (McAndrew, 1993, p. 274). A "disconnect from reality"—public apathy—is a second factor. Keep America Beautiful research found most

Americans litter, yet even more admit liking a clean environment (Bisbort, 2001, p. 8). Community attitudes of despair and resignation where litter is overwhelming can further exacerbate indifference (Ockels, 2003, pp. 14, 15). Inconvenience is a third dynamic. Littering is "...the easiest way to get rid of unwanted things" (Bisbort, 2001, p. 8). Since some are unwilling to make a trip to a legal landfill due to cost or distance, "...illegal disposal [can and will] occur." (Ockels, 2003, p. 15). A fourth factor is entitlement. Taxpayers may feel their littering is acceptable, assuming someone is paid to eventually clean litter up ("City Image," 2000). Litterers may feel their illegal behaviors asserts personal freedom, sets territory and soothes fears (Bisbort, 2001, p. 8). Class alienation leading to poor personal education is also a dynamic. Ockles (2003, pp. 1, 15) argues littering is an unconsciously learned social activity passed down from generation to generation. Litters have been symbolized as being "raised badly by their parents" and "lack self-pride [as a consequence of,] a lack of education." (Bisbort, 2001, p. 8). Littering can be motivated by a dynamic of greed mixed with ignorance about litter laws and their actual enforcement. A Federal document, *Law Enforcement Response to Environmental Crime*, summarized most suspects arrested for littering or waste disposal intended "...to harm the environment," citing a "...lax[ness of] law enforcement" as a motivator (U. S. Department of Justice, National-Law, 1995, p. 3). Finally, governmental neglect is an influencer behind why some persons choose to litter. Indifference and negligence by some public officials cause persistent litter problems in certain communities (Ockels, 2003, pp. 14, 15). These public sector supported, anti-ecological behaviors emerge as leading, resilient habits of numerous state jurisdictions.

American Environmental Values: A Conquest of Nature

Most early American settlers originated from urban sections of England, Germany and France, habituated to Old-Country regulations against deforestation, where land was to be cared for and respected (Gallup-Journey's, 1998, pp. 6, 8; Grove, 1995, p. 26). Rural-raised Scotch-Irish herdsman colonized much of the South, accustomed to intertribal warfare, cattle raiding, and a "frontier experience" which promoted community neighborliness, patience with formal institutions and familial allegiance.⁹ White argues early American ecological attitudes were deeply conditioned by a Judeo-Christian, white and Western European perspective. "Nature exists to serve human purposes...it is God's will that [nature] will be used however people see fit...only a divine force [could intervene to] set things right if the ecology is wronged." Ancient Hebrew-established migration routines profoundly influenced American settler outlooks and behaviors towards their surroundings (White as cited in McAndrew, 1993, p. 232-234). Colonists, especially those in the South, saw natural resources as having no limits (Mogoc, 2006, p. 7). These, as well as some northern "New Westerners," saw the wilderness as a "threatening, [ungodly] place to be 'reclaimed and redeemed' and bent "... nature to human will..." unlike longtime Native Americans, who lived within nature's limits, expended less energy and survived on fewer resources.¹⁰ Colonies north of Virginia increasingly found conservationism to their tastes and economic advantage, to sustain timber and water supplies and to control "unruly subjects" (Grove, 1995, p. 15). New Englanders designated commons lands not for farming nor real estate use (Magoc, 2006, p.19). Conversely, southern settlers developed a "frontier" mind, with a desire for "an easy expectation of surplus, a casual contempt for caution,...and a crusty, sometimes unhinged anti- intellectualism" (McMurtry as cited in Gunter and Oelschlager, 1997, p. 25). Southern frontier "character" encouraged hard work, violence, agricultural commitment and evangelical religion to flourish during oppressively hot summers and mild winters (Melosi as cited in Wilson C. and Ferris, 1989, p. 315). A southerner's "...stance of willingness to commit mayhem" for self-protection—a *might makes right* mindset, not always based on integrity, determined his "right to precedence." This led to a regional tolerance for violence—a lasting "culture of honor" not seen in the North (Nisbett and Cohen, 1996, pp. xv, xvi, 4, 5, 8). Nineteenth and Twentieth Century writers and intellectuals have observed a legacy of harmful, "...ambivalence, if not antipathy..." by southerners towards ecological conservation (Goldfield as cited in Wilson C. and Ferris, 1989, p. 353; Smallwood as cited in Wilson C. and Ferris, 1989, p. 320). Non-southern, northern-based authors from the mid-1800's, such as Emerson, Marsh and Thoreau, wrote books documenting and challenging the destructive impact on nature from American human activity.¹¹ Hays (*History*, pp. 25-26) notes the persistent, differing support for environmental values by American region and underlying economies. Strongest support for environmental maintenance historically comes from New England, Mid-Atlantic, Great Lakes and Pacific Coast States: states with noteworthy financial systems based on information, service and education. States with low-tech extracting and industrial

economies—from the western Gulf Coast north to the Rocky Mountains and the Dakotas, tend to oppose safeguarding of the environment.

Corporatist Government and America's Ecology

American colonists had land to “waste as we please...,” noted Thomas Jefferson in an assessment of Late Eighteenth Century America: *Notes on the State of America* (Clarke and Cortner, 2002, p. 6). After 1800, Northern colonies experienced massive transfers of people from country and rural areas to cities. Some carried personal practices quite acceptable in more spacious areas into congested areas. Non-conformist ecological behaviors were often looked upon with revulsion and resistance. These conditions gave rise to town and city ordinances, especially in New England, that protected forest land and regulated timber harvesting (Hays-Exploration, 1998, p. 71; Kraft, 1996, p. 67). Many southern settlers of the same period were inculcated with “...a strong belief in the rights of the individual...,” and heartily supported private property ownership (Cochran A., 2001, p. 194; Pillsbury as cited in Wilson C. and Ferris, 1989, p. 535). Instead of codified laws, southern land affairs were increasingly governed by “absent law enforcement” and “market place economics.” Landowners were accorded numerous privileges and could “...do damn anything they wanted on their own land” (Gunter and Oelschlaeger, 1997, p. 17; Jarboe-Russell, 2001). Some Southern and nearby states lacked “...a concept of public land and [had] little or no concept of public good” (Jarboe-Russell, 2001). By the mid-1800’s northern and southern land hungry frontiersman demanded Indians be pushed further into the West (Clarke and Cortner, 2002, p. 11) Northeastern and Far-Western regions, states and cities pushed for environmental-related that preserved forests (New York State), created state and local parks (California and New York City) and distributed millions of acres to be converted into farms via the national Homestead Act (Kraft, 1996, p. 67; Magoc, 2006, p. xvii). Across the South, regional landowner indifference steadily developed into a “bottom-line, unecological mentality” (Bullard, 2000, p. 28; Fritsch, 1980, p. 173). Southern political “bosses” encouraged unregulated landowner deals with “...outsiders to buy the region’s natural resources at bargain prices” (Feagin and Feagin as cited in Bullard, 2000, p. 97). State governments in the South, Midwest and Far West offered rights of way at favorable rates to railroad companies, which then offered speculative developments to attract northern commercial investment and buoyanted settlement and assistance to farmers.¹² By the late 1890’s, extracting jobs in the South and some Western states viewed by public officials in depressed communities as real, enabling economic development. Ecological risks were unknown, unavoidable tradeoffs (Bullard, 2000, p. 27; Sussman, Daynes and West, pp. 1, 9-10). A “colonial” mentality swept the South, allowing both big business and government to “...take advantage of politically and economically impoverished persons,” encouraging development of regional values “with little or no regard for negative ecological effects.”¹³ Un-policed, corporatist power arrangements appear to help coerce southern public administrative decision-making to “mirror” the whims of business and help shape that region’s everlasting, anti-environmental ecology (Bullard, 2000, pp. 28, 97-98). The Progressive Era’s passage of the 1897 Forest Management and 1899 Rivers and Harbors Acts and the 1915 National Park System were fundamental accomplishments at passing uniform, nationwide environmental standards. Existing environmental maintenance policies for all fifty states emerged in the 1960s and 70’s with the implementation of the Water Quality, Solid Waste and Clean Air Acts—owing to mass movements dedicated to ending jurisdictional ecological squalor (Kraft, 1996, p. 66; Mogoc, 2006, p. xxiv) .

State Political Cultures and American Ecology

A unique *political culture*¹⁴ may help to explain political behaviors that crisscrossed America and permitted state public sectors to contribute to an environmental quality vastly differing from other regions. Elazar (1972, pp. 93, 103, 112) classified a state’s particular political culture as generally being *Moralistic*, *Individualistic* or *Traditionalistic*. While Moralistic and Individualist cultures, found mostly in the Northeast, Midwest and Far West, allowed a good deal of public sector intervention to meet civilian interest goals, Traditionalistic culture, permeating all Southern states, allowed for little or no intrusion. Traditionalistic-cultured government was regionally-viewed as a means to maintain continuous, “status quo” political decorum.¹⁵ Local and state entities appeared to denigrate into “...small-group oligarchies...[exercising control for selfish, corrupt purposes] of the lowest level..” Citizens either are “minimally active in politics” or participate politically “depending on whether they are a member of the

right elites” (Elazar, 1972, pp. 99, 125, 135; Neal, 2002, p. 21). Cochran (2001, pp. 26, 157, 159) writes that the “antics of [Traditionalistic culture] has produced “‘have not’...uneducated, illiterate...poor...[and] unhealthy individuals.” Vig and Kraft (2001, p. 41) argue that Traditionalistic political culture has led to “...a history of non-receptivity [by member states] in fostering environmental improvements.”

Current Physical and Legal Source Reduction Activities

Practices for American state *source reduction*⁶ include *physical* (eradicating litter, behavior-controlling slogans, environmental groups efforts, recycling reusable products, and beverage deposits/ litter tax revenues) and *legal* (litter laws, enforcement efforts and court prosecutions).

Physical Source Reduction

State and local litter eradication programs, with national expenditures exceeding \$500 million annually, provide a legislatively authorized, non-regulatory source reduction “solution.” These programs shift the cost penalty toward blameless taxpayers rather than actual litterbugs and dumpers (Bisbort, 2001, p. 9; Kentucky, 1975, p. 31). Identified activities amongst states and localities include cleanups of interstate and state/local roadways, beaches, rivers and streams by mandated correctional crews or community service, hired contractors, work furloughs, juveniles, volunteers and non-profit organizations. Some states limit the number of eradications per year and define specific standards constituting a cleanup. All but two states have an Adopt-A-Highway/Road/Street program in effect.¹⁷ A “...most common behavioral control to resist littering is through positively worded prompts in media ads and campaigns, providing “cues” (i.e. slogans) to boost environmental awareness. Slogans are used primarily in Sunbelt and coastal states.¹⁸ The Sierra Club (founded 1892), Keep America Beautiful, Environmental Defense, Alliance for Environmental Education and Auntie Litter, Incorporated are key environmental organizations that play a conventional yet significant role in national source reduction activities and other regions.¹⁹ Recycling, accomplished voluntarily or by legal mandate, helps to reduce disposed trash volumes and provide energy cost savings to commerce (Murphy, 1993, p. 35). By the Twentieth Century’s end, an estimated seven states and sixteen percent of American municipalities had mandatory or curbside recycling (*Garbage*, January-February 1990, p. 58, November-December 1990, p. 63, December 1992-January 1993, p. 18). States with popularly supported beverage deposit container legislation—all outside the South except for California--have found litter volumes reduced by at least 80 percent and container redemption rates as high as 97 percent.²⁰ The imposition of a small tax in four states on “...certain goods which contribute to solid waste...to finance litter control, solid waste and recycling activities,” has proved popular. Polls show sizeable segments of Americans are willing to pay additional levies to protect local and state natural environments.²¹

Legal Source Reduction

Litter laws, enforcement efforts and court prosecutions are part of a “comprehensive response to environmental violators” used to help curtail littering nationwide (U. S. Department of Justice, *National-Laws*, 1995, p. 1). State laws appear to have taken precedence over municipal ordinances²² in controlling litter, with their existence primarily as non-aesthetic, public safety measures (Kentucky, 1975, p. 2; Ockels, 2003, p. 19). Similar from state to state, statutory language defines whom the laws apply to, the type or “function” of an offender, the “descriptive areas” where violations must occur, and what items must be littered or voluminously *dumped* to constitute an illegality.²³ Human action” is required in committing illegal littering for one to be “held in violation” of an edict (National Center, “Review Laws”-*Description*, 2000, p. 2). Generally, state and local law enforcement officers “...must witness the illegal act to write a citation.”

A “...perception [by law enforcement personnel] that environmental crimes like littering are not real crimes” could plausibly cloud ecological crime preventative efforts (U. S. Department of Justice, *National-Law*, 1995, pp. xi, 20). Anti-litter statutes may appear to be “simply not enforced, or with the lowest priority” (Bisbort, 2001, p. 9). Over 78 percent of those polled in a populous southwestern state lack certainty that anti-litter statutes are or will be enforced (*Environmedia Litter*, 2001, p. ii). Epstein and

Hammett argue that "...[numerous American] communities...have been left with seriously contaminated [lands due to]... a history of underenforcement [by policing officials]" (U. S. Department of Justice, *National-Law*, 1995, p. xi).

Court prosecutions are "an important realm" in state and local decision-making, increasing momentarily after the 1970's. "The handling of these cases [in states] has become more routine," Ockels (2003, pp. iii, iv) maintains. A national prosecutorial survey found "the degree of harm posed by the offense" and the "criminal intent" of an offender as the most important factors whether to prosecute a charge. "The most significant factor to reject [a] prosecution...is insufficient [or appropriate] evidence." The most common offense brought to state and local courtrooms involve hazardous waste disposal (U. S. Department of Justice-*National-Environmental*, 1994, p. 1). Civil and criminal fines remain the "most common strategy governments use to control [illegal] environmental behaviors" (McAndrew, 1993, p. 272). Most wrongdoers choose to settle out of court. Incarceration of criminal offenders is still a rarity (U. S. Department of Justice, *National-Law*, 1995, p. 43).

PREVIOUS PERSONAL INQUIRIES

In my initial papers, *DO MESS WITH IT: A Sociopolitical Study of Littering and the Role of Southern and Nearby States*, and, *Take Pride in Florida*,²⁴ an empirical question was asked: What is the impact of the most salient sociopolitical factors on littering in the fifty states? Up to that point, true comprehensive empirical research on littering and ecological degradation for American states had been scant. However, negative consequences of littering and attributes of the South received generous attention in scholarly literature.

To explain an outcome of statewide environmental degradation through littering, with an emphasis on Southern and surrounding American states, nine study *factors*—independent variables-- found to have exclusive and noteworthy weight, were chosen. Using the nine factors, noteworthy and representative *determinants* in measurable *data* form, drawn from a random sample and deemed valid, were employed. *State Type: Southern or Non-Southern*,²⁵ *Percent Non-White Population by State*,²⁶ *Percentage of State Population Living Below the Poverty Line*,²⁷ *Percent of State Voters Actually Voting*,²⁸ *Percentage of State Budgetary Spending On Environmental Concerns*,²⁹ *Sharkansky's Political Culture Score Scale*,³⁰ *States With or Without Comprehensive Recycling Laws*,³¹ *States With or Without Beverage Container Deposit Laws*,³² *States With or Without Litter Taxation Laws*.³³ With faculty consultation and recommendations from leading academics, variables that would approximate a litter measure using limited but appropriate data sources were created. These variables would become dependent variables—measures that could determine significant environmental quality and/or degradation outcomes for each state. The three created measures used were: *State Livability Scores*; *Waste Disposal Pricings by State and Per Capita Daily Waste Disposal Poundage by State*.³⁴

The association between salient sociopolitical factors and environmental quality indicators that influence littering was studied using existing aggregated data through multiple regression.³⁵ This technique allows for high reliability and easy replication of results (Babbie, 2000, pp. 217, 304). American states, regarded as a "political-geographic" unit, were the unit of analyses, with a population focus placed upon twelve southern and three nearby states (Babbie, 2000, pp. 111, 195, 316). Data source providers came from government entities, reputable academicians, trade organizations and associations.

Nine hypotheses with three sub-hypothesis each were developed to guide the collection of evidence. Results (see Table 1) indicated the regression models disproved a proposal--that livability scores, waste pricings and disposal poundages make ample, state-oriented outcomes approximating a litter measure. The regression analysis revealed that a state possessing southern-style *Traditionalistic* political culture and/or substantial concentrations of impoverished citizens negatively affected its livability/quality of life score. In addition, a state's concentration of impoverished citizens influence a chance to have waste disposal prices below the national market average, yet a state having beverage return deposits sway a heightened waste disposal price for that state.

Table 1: Summary of Research Findings—Do Mess With It; Take Pride in Florida

INDEPENDENT VARIABLES	DEPENDENT VARIABLES		
	<i>State Livability Score (a)</i>	<i>Waste Disposal Pricings By State (b)</i>	<i>Per Capita Waste Disposal Poundage by State (c)</i>
State Types	NO SUPPORT	NO SUPPORT	NO SUPPORT
Percent Non-White Population by State	NO SUPPORT	NO SUPPORT	NO SUPPORT
Percent of State Population Living Below the Poverty Line	SUPPORT	SUPPORT	NO SUPPORT
Percent of State Registered Voters Actually Voting	NO SUPPORT	NO SUPPORT	NO SUPPORT
Percentage of State Budget Expenditures on Environmental Concerns	NO SUPPORT	NO SUPPORT	NO SUPPORT
Sharkansky's Political Culture Score Scale	SUPPORT	NO SUPPORT	NO SUPPORT
States with Comprehensive Recycling Laws	NO SUPPORT	NO SUPPORT	NO SUPPORT
States with Beverage Container Laws	NO SUPPORT	SUPPORT	WEAK SUPPORT
States with Litter Taxes	NO SUPPORT	NO SUPPORT	NO SUPPORT

THE AMERICAN LITTER SCORECARD: RANKING THE STATES

The 50 American states are lacking in efforts to collect uniform litter abatement data for facilitating research comparisons. Such missing or necessitated jurisdictional data includes the volumes of waste collected by mileage and location; operating budget funding sources and expenditures; number of required annual or seasonal waste collections; number of eradication performance standard surveys conducted; number of persons cited and prosecuted for infractions; number of persons injured or killed by litter/dumping-related incidents.

Until this paper, no researcher has attempted to rank the 50 states on litter eradication in advancing overall jurisdictional environmental quality. Hence, an original scorecard has been fashioned from existing, hard-to-find yet suitable data sources to help resolve this dilemma. The scorecard includes *objective* and *subjective* measures: objective, to get a state-by-standing based on existing, limited data; subjective, to get an emotive sense of what is “going on” in the litter eradication arena by a specific state using supplementary public-sector evaluations.

Objective and Subjective Factors

To explain an outcome for each state on litter eradication performance quality, and to meet academic principles stipulating the use of accurate, reliable, up-to-date data, objective and subjective factors found to have exclusive and noteworthy weight were chosen. Eight objective determinants examined included state livability scores, states with litter taxation, states with beverage container laws, states with comprehensive recycling laws, states with anti-litter slogans, per capita state and local environmental spending, per capita state daily waste disposal and percentage of litter-influenced fatal vehicular crashes by

state (see Appendix).

State Livability Scores: Morgan and Morgan's "2004 Most Livable State" (2005) hierarchical score scale takes into account "...a broad range of economic, educational, health-oriented, public safety and environmental statistics," to comprise a state's initial, baseline environmental quality determinant.

States with Litter Taxation: A handful of states impose this typically small tax on contributors to solid waste, "...to finance litter control...and recycling activities." States are split up into "States with Litter Taxes"--those possessing litter taxation powers and "States without Litter Taxes" (Shireman, McFadden, Newdorf and Noga, 1981, pp. viii). This determinant has only two values and is thus dichotomous (Norusis, 2000, p. 328). "States with" will have a score of 1, and "States without" will be assigned a value of 0.

States with Beverage Container Laws: American states paying beverage container deposits to customers have seen huge decreases in total solid waste output (Grassy as cited in *Garbage*, January-February 1992, pp. 44, 46; Shireman, McFadden, Newdorf and Noga, 1981, p. v). This research divides "States with Beverage Container Laws" and "States without Beverage Container Laws." This variable is also dichotomous, with only two values (Norusis, 2000, p. 328). A score of one will be assigned to "States with" and "States without" will have a value of zero.

States with Comprehensive Recycling Laws: These states are required to have detailed recycling plans and/or separation of recyclables containing at least one provision to stimulate this practice statewide (National Solid as cited in Strong, 1997, p. 96). For research purposes, states are divided into "States with Comprehensive Recycling"--those having detailed, required statewide recycling plans, recyclables separation and a stipulation provision, and "States without Comprehensive Recycling"--those without all three combined factors. "States with" will have a score of 1, and "States without" will be assigned a value of 0.

States with Anti-litter Slogans: All 50 state governments were researched and contacted to determine if a statewide, positively-worded prompt campaign to boost environmental awareness existed. States are split up into "States with Anti-litter Slogans" and "States without Anti-litter Slogans." This determinant score has only two values and is thus dichotomous (Norusis, 2000, p. 328). "States with" will have a score of 1, and "States without" will be assigned a value of 0.

Per Capita State/Local Environmental Spending: This 2005 data for state expenditures on overall environmental issues, supplied by *Governing Magazine's State and Local Sourcebook* (Congressional, 2007), shows a shifting of solution costs from problem-makers toward those who must pay for environmental improvements through taxation (Kentucky, 1975, p. 31). States are scored 0, 1, 2, 3, and 4, based on their having below, on- or- above national average disbursements per resident.

Per Capita Daily Waste Disposal Pounding by State: Personal practices for reducing waste source reduction offer alternatives to traditional disposal methods, connoting less trash disposed (Murphy, 1993, pp. 11, 35). Obtained from the *Waste News Market Handbook* (2002, pp. 20-21), "Daily Waste Disposal Tonnage by State" for an entire year provides an important, research-manipulative data source when looked at on a per capita basis [daily waste disposal tonnages multiplied by 2000 divided by a state's total annual population]. States are scored -4, -3,-2,-1, 0, 1, 2, 3, and 4, based on having specific below, on-or-above national average per-person waste disposals.

Percentage of Litter/Debris-Related Fatal Crashes by State: The "2005 *National Traffic Safety Facts*" (U.S. Department of Transportation, 2005, pp.142-143; 148-149) provides a "Fatal Crashes, by State and First Harmful Event: Object Not Fixed Number,"³⁶ divided by "Registered Vehicles by State in Thousands." Every state suffered numerous accidents claiming human lives in this category, and are thus assessed negatively, with each receiving either a -1, -2,-3 or -4 score value.

Four subjective determinants chosen as supplementary assessment criteria include state political

culture scale scores, state public corruption conviction rates, state government performance grades and state highway/transportation performance scores.

State Political Culture Scale Score: Sharkansky essentially operationalized Elazar's state political cultures into spectrum-like scores for research purposes, by assigning numerical state scores based on *Moralistic*, *Individualistic*, and *Traditionalistic* culture (Koven and Mausloff, 2002, p. 73). States with low *Moralistic* scores are seen as most favorable to public sector intervention in meeting citizen interest goals. Conversely, those with high *Traditionalistic* scores allow for little or no public sector intrusion—conditions ripe for corruption and poor service delivery. The author reviewed all state scores and at personal discretion, scorecarded only those in this category possessing lowest *Moralistic* or highest *Traditionalistic* marks, with -4, -2, -1, +1, +2, +3 and +4 indicators.

State Public Corruption Conviction Rate: Washington D.C.-based Corporate Crime Reporter (2004, pp 4, 5, 13-14) calculated a state public corruption rate, based on total convictions per 100,000 residents; then, ranked jurisdictions from “most corrupt to least corrupt,” based on the Justice Department's Office of Public Affairs *2003 Public Integrity Report*, which studied prosecutions and convictions of government officials involved in abuses of the public trust. The author reviewed all rates and at discretion, scorecarded only those states in this class possessing lowest or highest corruption rates, with -5, -4, -3, -2, -1, +1, +2, +3, +4 and +5 values.

State Government Performance Grade: The Government Performance Project (Pew, 2005) evaluates how well state governments perform basic management functions, to used by states to serve citizens better. The Project collected thousands of pieces of data, which paint “a detailed portrait” of how well states manages fiscal resources, employees, physical infrastructure and utilizes information and technology, then assesses each a letter grade. The author reviewed all grades and at discretion, scorecarded only those states in this category possessing overall below average or highest grades, using -2, -1 +1, and +2 marks.

State Highway/Transportation Performance Score: The Reason Foundation's *16th Annual Report on The Performance of State Highway Systems* (Haregen and Karanam, 2007) measures features of state-owned roads and highways from 1984 to 2005 on congestion, pavement and bridge condition, maintenance, administration and cost-effectiveness to determine a state's standing. The author reviewed all rankings and at discretion, scorecarded only the top ten overall best and worst performing states with -2, -1, +1 and +2 indicators.

Methodology

The American states, regarded as a “political-geographic” unit, is the study's unit of analyses (Babbie, 2000, pp. 111, 195, 316). Fifty of these recognized units comprise the nation of the United States, excluding the District of Columbia and Territories. In most instances, data source providers came from government entities and nationally recognized sources used regularly in scholarly research-- reputable academicians, trade organizations, think tanks and associations. A scoring rubric was created for each objective and subjective factor. Scores for each factor were then calculated and aggregated by state. State-specific hierarchy statuses occurred after the completed computations. Table 2 presents and summarizes the scorecard.

Table 2: The American Litter Scorecard

State	1	2	3	4	5	6	7	8	Objective	Subjective	Comments
AL	3.0	0	0	0	+1	0	0	-2	2.0	-3.0	-2PC-2GP-1HP
AK	8.0	0	0	0	0	+4	0	-1	11.0	6.0	-3COR-2HP
AZ	5.5	0	0	0	+1	+1	0	-1	6.5	8.5	+2COR
AR	4.0	0	0	0	+1	0	0	-4	1.0	-2.0	-4PC+1COR
CA	5.5	0	+1	+1	+1	+1	0	-1	8.5	5.5	-2GP-1HP
CO	10.5	0	+1	0	+1	0	0	-3	9.5	15.5	+3PC+3COR
CT	14.0	0	0	+1	0	+1	+4	-1	19.0	19.0	
DE	11.5	0	+1	0	+1	+2	0	-2	13.5	13.5	+1GP-1HP
FL	5.5	0	0	0	+1	+2	0	-1	7.5	5.5	-1COR-1HP
GA	6.5	0	0	0	+1	+1	0	-1	7.5	5.5	-3PC+1HP
HI	7.5	0	+1	0	0	+2	+1	-1	10.5	7.5	-1PC-1GP-1HP
ID	12.0	0	0	0	0	+1	+1	-1	13.0	15.0	+1PC+1HP
IL	9.0	0	0	0	+1	0	0	-1	9.0	7.0	-2COR
IA	14.5	0	+1	0	+1	0	0	-1	15.5	20.5	+2PC+3COR
IN	11.0	0	0	0	0	+1	-1	-2	9.0	9.0	
KS	13.5	0	0	0	+1	+1	0	-1	14.5	15.5	+1HP
KY	4.5	0	0	0	0	0	-1	-1	2.5	1.5	-1COR
LA	2.5	0	0	0	+1	+1	0	-3	1.5	-3.5	-1PC-4COR
ME	12.5	0	+1	0	0	+1	+4	-2	16.5	17.5	+1PC
MD	12.5	0	0	+1	+1	+1	+2	-1	16.5	16.5	
MA	12.0	0	+1	0	+1	+1	+3	-1	17.0	16.0	-1HP
MI	7.5	0	+1	0	0	+1	-2	-1	6.5	8.5	+2PC+1GP-1HP
MN	16.0	0	0	0	+1	+1	+2	-1	19.0	26.0	+4PC+2COR+1GP
MS	1.5	0	0	0	+1	0	0	-4	-1.5	-10.5	-4PC-5COR
MO	11.0	0	0	0	+1	0	0	-2	10.0	10.0	
MT	8.5	0	0	0	0	+2	0	-4	6.5	6.5	-1COR+1HP
NE	14.0	0	0	0	+1	+1	0	-3	13.0	18.0	+5COR
NV	8.0	0	0	0	0	0	-4	-4	0	1.0	+1HP
NH	16.5	0	0	0	+1	0	0	-1	16.5	20.5	+1PC+4COR-1GP
NJ	14.5	0	0	+1	0	+3	+2	-1	19.5	16.5	-3HP
NM	4.5	0	0	0	+1	+1	-4	-1	1.5	2.5	+1HP
NY	7.5	0	+1	0	+1	+1	+3	-1	12.5	10.5	-1COR-1HP
NC	3.5	0	0	0	+1	+1	0	-1	4.5	2.5	-2PC
ND	12.5	0	0	0	+1	+2	-1	-4	10.5	11.5	+2PC-4COR+3HP
OH	8.0	+1	0	0	+1	+1	0	-1	10.5	9.0	-1COR
OK	4.5	0	0	0	+1	0	0	-1	4.5	3.5	-1PC
OR	8.5	0	+1	+1	0	+1	0	-1	10.5	18.5	+2PC+5COR+1HP
PA	10.5	0	0	0	+1	+1	-3	-1	8.5	8.5	
RI	9.5	+1	0	+1	+1	+1	0	-1	12.5	11.5	-1HP
SC	3.0	0	0	0	+1	0	-1	-1	2.0	1.0	-3PC+2HP
SD	13.5	0	0	0	0	+1	0	-1	13.5	12.5	-1COR
TN	3.5	0	0	0	+1	0	0	-1	3.5	1.5	-2PC
TX	5.0	0	0	0	+1	0	0	-1	5.0	5.0	
UT	11.5	0	0	0	+1	+1	0	-1	12.5	18.5	+2PC+2COR+2GP
VT	15.5	0	+1	0	0	+1	+4	-1	20.5	20.5	
VA	14.0	+1	0	0	+1	+1	0	-1	16.0	18.0	+2GP
WA	9.0	+1	0	+1	+1	+2	0	-1	13.0	18.0	+3PC+1COR+1GP
WV	4.0	0	0	0	0	+1	0	-4	1.0	1.0	
WI	12.5	0	0	0	0	+1	-1	-1	11.5	14.5	+2PC+1CPR
WY	14.5	0	0	0	0	+4	0	-1	17.5	17.5	-1GP+1HP

1=Livability Score

2=Litter Taxation

3=Beverage Container Laws

4=Comprehensive Recycling Laws

5=Anti-Litter Slogan

6=Per Capita Environmental Spending

7=Per Capita Waste Disposal Poundages

8=Litter-Related Fatal Vehicle Crashes

Objective=Objective Score Total

Subjective=Subjective Score Total

Objective Mean=10.0 Objective Median=10.75

Subjective Discretion:

PC=Political Culture

COR=Public Corruption

GP=Government Performance

HP=Highway Performance

Subjective Mean=9.67 Median= 11.0

Results

The scorecard analysis reveals that Hawaii, Montana, Connecticut, North Dakota, Ohio, Indiana and Oregon—all outside the Sunbelt—are closest to a national effectiveness average (10.0) for a objectively-ranked state litter eradication program. Common attributes of an average objective system include lacking a statewide anti-litter slogan; having above-average per person environmental spending; slightly above average personal daily waste disposals; slightly above average litter-related vehicular fatality rates. Montana, Ohio, Indiana, Michigan and Pennsylvania and Arizona are closest to a mean (9.67) subjective-ranked national program standard. Common subjective factors of an average state program is that all are outside the Sunbelt except for Arizona; possess a combination Moralistic/Individualistic political culture; are amongst the top ten for public corruption convictions. The ten best objective litter programs are found in Vermont, New Jersey, Connecticut, Minnesota, Wyoming, Maryland, Massachusetts, Maryland, Maine, New Hampshire and Virginia (see Chart 1). All initially have above average livability scores; nine have average litter-related vehicular fatality rates; most have lower than average per person waste disposals and average environmental spending; half had a slogan; four had comprehensive recycling legislation. Best subjective systems keep five of the objective states and substitute Iowa, Oregon, Utah, Nebraska and Washington for New Jersey, Wyoming, Massachusetts, Maryland and Maine. All, except for Virginia, are non-Sunbelt states possessing significant Moralistic cultures; seven were amongst the ten lowest public corruption convictions states; four had above average overall government performance grades.

Chart 1

Ten Best Objective Litter Eradication Programs

Ten Best Subjective Litter Eradication Programs

20.5 Vermont	26.0 Minnesota
19.5 New Jersey	20.5 Iowa
19.0 Connecticut	20.5 New Hampshire
19.0 Minnesota	20.5 Vermont
17.5 Wyoming	19.0 Connecticut
17.0 Massachusetts	18.5 Oregon
16.5 Maryland	18.5 Utah
16.5 Maine	18.0 Nebraska
16.5 New Hampshire	18.0 Virginia
16.0 Virginia	18.0 Washington

The ten worst objective litter eradication systems exist in Mississippi, Nevada, Arkansas, West Virginia, Louisiana, New Mexico, Alabama, South Carolina, Kentucky and Tennessee (see Chart 2). All initially have very low, below average livability scores. Despite seven having anti-litter slogans, half had above normal –to- exceptionally high litter-related vehicle fatality values; four had daily personal waste disposals above average. Worst subjective programs keep nine of these states, substituting North Carolina for its southern border neighbor. All, except for Nevada, are southern Sunbelt states possessing abundant to excessive amounts of Traditionalistic culture; three were amongst the highest public corruption conviction states; two had above average state highway performance standings.

Chart 2

Ten Worst Objective Litter Eradication Programs

Ten Worst Subjective Litter Eradication Programs

-1.5 Mississippi	-10.5 Mississippi
0 Nevada	-3.5 Louisiana
1.0 Arkansas	-3.0 Alabama
1.0 West Virginia	-2.0 Arkansas
1.5 Louisiana	1.0 Nevada
1.5 New Mexico	1.0 West Virginia
2.0 Alabama	1.5 Kentucky
2.0 South Carolina	1.5 Tennessee
2.5 Kentucky	2.5 North Carolina
3.5 Tennessee	2.5 New Mexico

CONCLUSION

Littering remains a danger to public health, safety and welfare throughout the United States. Numerous jurisdictions are still “in the rear” in the effort to provide uniform, categorical litter abatement data for scientific analysis. Polls indicate a majority of Americans believe the public sector “[is] not working enough to protect the environment, and that economic growth should be sacrificed to do so” (Gallup as cited in Leal and Meiners, 2003, pp. 2-3). Obviously, much work remains to be done by state public servants to combat littering leading to environmental degradation. Perhaps this scorecard will provide some initiative in eliminating inattentiveness. Results from this revelation should not be deemed as definitive causation markers. Rather, one should see this examination as another contributing inquiry into a poorly probed matter.

Endnotes

¹Littering is the human throwing of trash in small or moderate portions onto the surface of public or private property.

²Bisbort, 2001, p. 9; “City Image,” 2000; Dodge, 1972, p. 3; Geller, Witmer and Tuso as cited in McAndrew, 1993, p. 274; Kentucky, 1975, pp. 1, 2.

³AAA, 2002; Bisbort, 2001, p. 9; Dodge, 1972, p. 3; National Institute, 1958, p. 14; U. S. Federal Highway Administration, 1974, Williams, 1974 as cited in Kentucky, 1975, pp. 3, 4.

⁴Bullard, 2000, p. 97; Cochran, A., 2001, p. 226; U. S. Department of Justice-*Law*, 1995, p. xi .

⁵The Fifty States of America consist of Alabama (AL), Alaska (AK), Arizona (AZ), Arkansas (AR), California (CA), Colorado (CO), Connecticut (CT), Delaware (DE), Florida (FL) Georgia (GA), Hawaii (HI), Idaho (ID), Illinois (IL), Iowa (IA), Indiana (IN), Kansas (KS), Kentucky (KY), Louisiana (LA), Maine (ME), Maryland (MD), Massachusetts (MA), Michigan (MI), Minnesota (MN), Mississippi (MS), Missouri (MO), Montana (MT), Nebraska (NE), Nevada (NV), New Hampshire (NH), New Jersey (NJ), New Mexico (NM), New York (NY), North Carolina (NC), North Dakota (ND), Ohio (OH), Oklahoma (OK), Oregon (OR), Pennsylvania (PA), Rhode Island (RI), South Carolina (SC), South Dakota (SD), Tennessee (TN), Texas (TX), Utah (UT), Vermont (VT), Virginia (VA), Washington (WA), West Virginia (WV), Wisconsin (WI) and Wyoming (WY). The District of Columbia and Territories/Possessions are not states and thus not included in this research.

⁶Bullard, 2000, p. 22; Cochran A., 2001, p. 17; Lind, 2002; Sullivan, p. 100; U.S. Department of Commerce-Census, 2001, p. 27.

⁷Bullard, 2000, p. 97; Cochran A., 2001, p. 17, Sullivan, p. 100.

⁸Ciadini, Reno and Kallgren, 1990, Osborne and Powers, 1980, Robinson 1976 as cited in McAndrew, 1993, p. 275.

⁹Cochran N. and Chadwick as cited in Nisbett and Cohen, 1996, p. 8; Nisbett and Cohen, 1996, p. xv; Wilson C. and Ferris, 1989, pp. 584, 587.

¹⁰Fritsch, 1980, p. 172; Magoc, 2006, p. 4; Smallwood as cited in Wilson C. and Ferris, 1989, p. 333; Tuan as cited in McAndrew, 1993, p. 237.

¹¹Kraft, 1996, p. 67; Magoc, 2006, p. xvii; Spowers, 2002, p. 51

¹²Clarke and Cortner, 2002, p. 55; Miller J, 1998, pp. 173, 177; Miller V., 2000, p. 98.

¹³Camacho, 1998, p. 214; Feagin and Feagin as cited in Bullard, 2000, p. 97; Will as cited in Bullard, 2000, p. 27.

¹⁴*Political Culture* is the particular orientation pattern with which state political systems are embedded. Aspects of any state’s political culture include the public and their elected officials perception’s of “...what politics is and what can be expected from government...,” the kinds of people active in both politics and government, and the “actual way” government is practiced in light of these perceptions. See Elazar, 1972, pp. 84-85, 90.

¹⁵*Traditionalistic* Political culture characteristics include maintaining a “...prevailing social order,” a “marketplace” outlook, and an “elite” conception of a state’s power “kept in the hands of a few.” American states entrenched with Traditionalistic political culture are known for “elitist” administrative procedures that denigrate their overall environmental qualities. Vig and Kraft maintains Traditionalism has led to “...a history of non-receptivity [by states in fostering] ecological improvements.” See Elazar, 1972, pp. 84, 85, 90, 93, 99, 103, 112; Koven and Mausolff, 2002, p. 69; Vig and Kraft, 2001, p. 41; Wilson C. and Ferris, 1989, p. 635.

¹⁶*Source reduction* is an endeavor in diminishing the amount of litter or garbage generated or thrown away by individuals.

¹⁷Maine and Vermont are the only two without an Adopt—Highway Program. See Washington.

¹⁸For more information see Geller, 1977, Grasmick, Bursik and Kinsey, Reich and Robinson, 1979 as cited in McAndrew, 1993, p. 270. State anti-litter slogans include “Don’t Dump On California,” “Washington: Litter and It Will Hurt,” “Minnesota: Don’t Waste Our State,” “Virginia-It Just Isn’t Natural,” “Rhode Island: Catch The Wave, Ride With Pride” and the famous “Don’t Mess With Texas.”

¹⁹ See Bisbort, 2001, p. 8; Bullard, 2000, p. 12; *Garbage*, September-October 1991, p. 55; Melosi, 1981, p. 213; Poore-“Environmental” as cited in *Garbage*, 1993, pp. 26, 30; Schlossberg, 1999, p. 22.

²⁰ Grassy as cited in *Garbage*, January-February, 1992, p. 46; Kentucky, 1975, p. 57; Miller, G. as cited in McAndrew, 1993, p. 286; Shireman, McFadden, Newdorf and Noga, 1981, p. v.

²¹ Container-“Litter,” 2002, p. 3; *Garbage*, September-October 1993, p. 13; National Center-“Examine”-Consider Control, Option to Tax Litter, 2000, p. 4; Shireman, McFadden, Newdorf and Noga, 1981, pp. vii, viii.

²² The first model anti-litter regulation was a city-ordinance devised in 1958 by the National Institute of Municipal Law Officers. See National Institute, 1958, pp. 1-13.

²³ For more information see National Center, “Review Laws”-*Description*, 2000, p. 3. The words *litter* and *dumping* in state laws are often used interchangeably. *Littering* is considered the throwing of trash in small portions; *dumping* is littering on a larger, capacious scale.

²⁴ The complete DO MESS WITH IT paper can be found online at <http://ecommons.txstate.edu/arp/27>. The Take Pride In Florida paper can be obtained by emailing stevespacek@yahoo.com. Both were presented at regional and state conferences sponsored by the American Society for Public Administration.

²⁵ For research purposes, geographic locations of an American state, a *dichotomous* variable with only two values, are divided into “Southern/Fringe states” and “All Other States.” See Norusis, 2000, p. 328.

²⁶ The U.S. Department of Commerce’s *Statistical Abstract of the United States* (2001, pp. 25, 27) provides this data source.

²⁷ The *Statistical Abstract* (2001, p. 444) provides this information resource.

²⁸ See *Statistical Abstract*, 2001, p. 252.

²⁹ Supplied by the Council of State Governments (2003). Data names state expenditures on overall environmental issues.

³⁰ Sharkansky essentially operationalized Elazar’s state political cultures into spectrum-like scores for research purposes, by assigning numerical state scores of 1 to 9, with 1 to a pure *Moralistic*, 5 to a pure *Individualistic*, and 9 to a pure *Traditionalistic* state. See Koven and Mausloff, 2002, p. 73.

³¹ For research purposes, states are divided into either “States With Comprehensive Recycling”—those having detailed, required statewide recycling plans, recyclables separation and a stipulation provision, or “States Without Comprehensive Recycling”—those without all three combined factors. This dichotomous variable has only two values. See Norusis, 2000, p. 328.

³² This research divides those “States With Beverage Container Laws” and “States Without Beverage Container Laws.” This variable is also dichotomous, with only two values. See Norusis, 2000, p. 328.

³³ For research purposes, states are split up into “States With Litter Taxes”—those possessing litter taxation powers, a substitute to beverage container laws, and “States Without Litter Taxes”—those without such taxation. This independent variable has only two values and is thus dichotomous. See Norusis, 2000, p. 328; Shireman, McFadden, Newdorf and Noga, 1981, pp. viii.

³⁴ State Livability Scores: States with higher livability rating scores due to lower-numbered, environmental quality-of-life rankings ought to be regarded as having lesser levels of ecological degradation than other states (See Morgan and Morgan for this data). Waste Disposal Pricings by State: States with higher waste disposal costs due to waste source reduction practices should be regarded as having lesser levels of environmental degradation than other states. Per Capita Daily Waste Disposal Poundage by State: States with lower per capita poundage disposals ought to be regarded as having lesser levels of environmental degradation than other states (See “Waste Disposal” for this data).

³⁵ The process of multiple regression provides a descriptive mathematical formula for the connection between a dependent variable or factor, “Y” (i.e. state environmental quality indicator) and its influence by two or more “X” independent variables (i.e. state non-white population concentration; voters registered and voting in a state). The formula alleges the presence of a linear relationship between the independent variables affecting the dependent variable, allowing the researcher to infer numerical values of the Y indicator when the numerical X population concentration and X voters registered values are known. See Babbie, *The Practice-9th*, 2000, pp. 414, 442- 444.

³⁶ This data represents 2005 state on-or near the roadway vehicular fatal crashes (One or more persons killed in the crash). Vehicle involved hit a non-fixed, non-human, movable object.

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Appendix-Objective and Subjective State Rankings: Litter Eradication

OBJECTIVE

1 Vermont
2 New Jersey
3 Connecticut
4 Minnesota
5 Wyoming
6 Massachusetts
7 Maine
8 Maryland
9 New Hampshire
10 Virginia
11 Iowa
12 Kansas
13 Delaware
14 South Dakota
15 Nebraska
16 Washington
17 Idaho
18 Rhode Island
19 New York
20 Utah
21 Wisconsin
22 Alaska
23 Hawaii
24 Oregon
25 Ohio
26 North Dakota
27 Missouri
28 Colorado
29 Illinois
30 Indiana
31 California
32 Pennsylvania
33 Florida
34 Georgia
35 Michigan
36 Montana
37 Arizona
38 Texas
39 Oklahoma
40 North Carolina
41 Tennessee
42 Kentucky
43 Alabama
44 South Carolina
45 Louisiana
46 New Mexico
47 Arkansas
48 West Virginia
49 Nevada
50 Mississippi

SUBJECTIVE

1 Minnesota
2 Iowa
3 New Hampshire
4 Vermont
5 Connecticut
6 Oregon
7 Utah
8 Nebraska
9 Washington
10 Virginia
11 Maine
12 Wyoming
13 Maryland
14 New Jersey
15 Massachusetts
16 Colorado
17 Kansas
18 Idaho
19 Wisconsin
20 Delaware
21 South Dakota
22 North Dakota
23 Rhode Island
24 New York
25 Missouri
26 Indiana
27 Ohio
28 Michigan
29 Arizona
30 Pennsylvania
31 Hawaii
32 Illinois
33 Montana
34 Alaska
35 Florida
36 California
37 Georgia
38 Texas
39 Oklahoma
40 New Mexico
41 North Carolina
42 Kentucky
43 Tennessee
44 Nevada
45 West Virginia
46 South Carolina
47 Arkansas
48 Alabama
49 Louisiana
50 Mississippi

1-10=Best; 41-50=Worst

Appendix-Objective Score Data

State Livability Scores

<u>STATE</u>	<u>Score(Converted)</u>
Alabama	3.0
Alaska	8.0
Arizona	5.5
Arkansas	4.0
California	5.5
Colorado	10.5
Connecticut	14.0
Delaware	11.5
Florida	5.5
Georgia	6.5
Hawaii	7.5
Idaho	12.0
Illinois	9.0
Indiana	11.0
Iowa	14.5
Kansas	13.5
Kentucky	4.5
Louisiana	2.5
Maine	12.5
Maryland	12.5
Massachusetts	12.0
Michigan	7.5
Minnesota	16.0
Mississippi	1.5
Missouri	11.0
Montana	8.5
Nebraska	14.0
Nevada	8.0
New Hampshire	16.5
New Jersey	14.5
New Mexico	4.5
New York	7.5
North Carolina	3.5
North Dakota	12.5
Ohio	8.0
Oklahoma	4.5
Oregon	8.5
Pennsylvania	10.5
Rhode Island	9.5
South Carolina	3.0
South Dakota	13.5
Tennessee	3.5
Texas	5.0
Utah	11.5
Vermont	15.5
Virginia	14.0
Washington	9.0
West Virginia	4.0
Wisconsin	12.5
Wyoming	14.5

Average USA: 9.0 Median=9.0 Mode=12

States: Litter Tax

Ohio
Rhode Island
Virginia
Washington

States: Beverage Containers

California
Connecticut
Delaware
Hawaii
Iowa
Maine
Massachusetts
Michigan
New York
Oregon
Vermont

States: Comprehensive Recycling

California
Connecticut
Maryland
New Jersey
Oregon
Rhode Island
Washington

Official/Unofficial Statewide SLOGANS (ALL States Researched; Contacted)

(Note: Adopt-a -Highway is a PROGRAM--not considered a statewide anti-litter slogan)

Don't Drop It on Alabama
Alaska-NO
Don't Trash Arizona
Keep Arkansas Beautiful
Don't Trash California
Spruce Up, Colorado
Connecticut-NO
Keep Delaware Beautiful...Don't Be a Litterbug
Take Pride in Florida
Let's Keep Georgia Peachy Clean
Hawaii-NO
Idaho-NO
Love the Land of Lincoln-Please Don't Litter
Indiana-NO
Keep Iowa Beautiful
Kansas! Don't Spoil It
Kentucky-NO
Don't Trash Louisiana
Maine-NO
Keep Maryland Beautiful
Mass Highway-Project Clean
Michigan-NO
Minnesota: Don't Waste Our State
Keep Mississippi Beautiful-People against Litter
Missouri: No MOre Trash
Montana-NO
Nebraska: Don't Waste It
Nevada-NO!
Litter-Free New Hampshire
New Jersey-NO
New Mexico Clean and Beautiful
Let's pick it Up, New York
Keep North Carolina Clean, Green and Beautiful
Keep North Dakota Clean
Don't Trash Ohio
Oklahoma, Keep Our Land Grand
Oregon: NO
Keep Pennsylvania Beautiful
Rhode Island: Catch The Wave, Ride With Pride
Keep It Beautiful-South Carolina
South Dakota-NO
Keep Tennessee Beautiful
Don't Mess With Texas
Don't Waste Utah
Vermont-NO
Virginia- Litter. It Just Isn't Natural
Washington: Litter and It Will Hurt
West Virginia-No
Wisconsin-NO
Wyoming-NO

Per Capita State/Local Environmental Spending

<u>STATE</u>	<u>Score(Converted)</u>
Alabama	0
Alaska	4
Arizona	1
Arkansas	0
California	1
Colorado	0
Connecticut	1
Delaware	2
Florida	2
Georgia	1
Hawaii	2
Idaho	1
Illinois	0
Indiana	1
Iowa	1
Kansas	1
Kentucky	0
Louisiana	1
Maine	1
Maryland	1
Massachusetts	1
Michigan	1
Minnesota	1
Mississippi	0
Missouri	0
Montana	2
Nebraska	1
Nevada	0
New Hampshire	0
New Jersey	3
New Mexico	1
New York	1
North Carolina	1
North Dakota	2
Ohio	1
Oklahoma	0
Oregon	1
Pennsylvania	1
Rhode Island	1
South Carolina	0
South Dakota	1
Tennessee	0
Texas	0
Utah	1
Vermont	1
Virginia	1
Washington	2
West Virginia	1
Wisconsin	1
Wyoming	4

Mean=\$281.54 (Between Nebraska and New Mexico)

Those spending below \$227 get 0; \$230-\$337, 1; \$374-\$417, 2; 3= \$448; 4+ More than \$580.

Daily Per Capita State Waste Disposal

<u>STATE</u>	<u>Score(Converted)</u>
Alabama	0
Alaska	0
Arizona	0
Arkansas	0
California	0
Colorado	0
Connecticut	4
Delaware	0
Florida	0
Georgia	0
Hawaii	1
Idaho	1
Illinois	0
Indiana	0
Iowa	-1
Kansas	0
Kentucky	-1
Louisiana	0
Maine	4
Maryland	2
Massachusetts	3
Michigan	-2
Minnesota	2
Mississippi	0
Missouri	0
Montana	0
Nebraska	0
Nevada	-4
New Hampshire	0
New Jersey	2
New Mexico	-4
New York	3
North Carolina	0
North Dakota	-1
Ohio	0
Oklahoma	0
Oregon	1
Pennsylvania	-3
Rhode Island	0
South Carolina	-1
South Dakota	0
Tennessee	0
Texas	0
Utah	0
Vermont	4
Virginia	0
Washington	0
West Virginia	0
Wisconsin	-1
Wyoming	0

4=state residents dispose less than 1.04 lbs

3=1.40-2.40 lbs

2=2.41-3.50 lbs

1=3.51-4.6 lbs

0=4.61-9.00lbs

-1=9.01-10.40lbs

-2=10.40-12.9lbs

-3=13.00-14.90lbs

-4=15.00+lbs

Mean=6.89 lbs. (Between Nebraska and Oklahoma) Median=6.888

No Mode.

Percentage Litter/Debris-related (object not fixed) Fatal Vehicular Crashes by State

<u>STATE</u>	<u>Score(Converted)</u>
Alabama	-2
Alaska	-1
Arizona	-1
Arkansas	-4
California	-1
Colorado	-3
Connecticut	-1
Delaware	-2
Florida	-1
Georgia	-1
Hawaii	-1
Idaho	-1
Illinois	-1
Indiana	-1
Iowa	--2
Kansas	-1
Kentucky	--1
Louisiana	-3
Maine	-2
Maryland	-1
Massachusetts	-1
Michigan	-1
Minnesota	-1
Mississippi	-4
Missouri	-2
Montana	-4
Nebraska	-3
Nevada	--4
New Hampshire	-1
New Jersey	-1
New Mexico	-1
New York	-1
North Carolina	-1
North Dakota	-4
Ohio	-1
Oklahoma	-1
Oregon	-1
Pennsylvania	--1
Rhode Island	-1
South Carolina	-1
South Dakota	-1
Tennessee	-1
Texas	-1
Utah	-1
Vermont	-1
Virginia	-1
Washington	-1
West Virginia	-4
Wisconsin	-1
Wyoming	-1

0=No crashes (no state scored this)

-1=.000119-.000540 fatal crashes

-2=.000541-.000750

-3=.000750-.000999

-4=.001+

Mean:0.0005299 (Between South Carolina and Illinois) Median: .0004375 (between Tennessee and Michigan) .

Mode: No mode.