NCEE DATABASE SUMMARIES AND SAMPLE RECORDS

Prepared by Alan Carlin and Frank Arnold

for the NCEE Website Review Meeting

Scheduled for March 28, 2001

March 22, 2001

Table of Contents

Executive Summary

- The current NCEE Website and databases as well as this report assume that NCEE's role is largely one of research in environmental economics and support of the Agency's RIA/EA development. If that role has/should change, then significant parts of the Website and some of the databases should probably be rethought.
- A careful attempt has been made to optimize each of the NCEE databases for the particular characteristics of the target information in terms of both data fields and views. Thus, with a few exceptions, most of the databases contain different fields and views because the underlying information in each is dissimilar. This approach is therefore an efficient way for users to access the information housed in each database.
- The cost of continuing to make available to the public most existing databases is minimal, especially if they are not updated, while they provide benefits as long as they are used even by a few users. Hence if a database or feature is not doing harm, but makes even a small contribution to the site, it is economically rational to keep it even if a decision is made not to make any further investments in it besides routine maintenance.
- Attempts to combine different NCEE databases within a Lotus Notes structure likely would be counter-productive in terms of efficiency of use and the expense of reprogramming at a second or third level the same navigational aids that currently exist at the top level. In fact, other than Media and Subject and Title fields, most databases are unique, except for the on-line reports, which have and need similar structures, but have very different content. This implies that attempts to combine such databases will result in few, if any, efficiencies and large costs in terms of unintended technical problems and programming costs. The unintended technical problems ("bugs") arise because in the process of modifying a database design, the programmer may not be able to fully take into account all the unintended effects that the change will have on each database. Working out these "bugs" can sometimes take as long as the changes themselves but the cost should be attributed to the change being made, not the database.
- Probably the greatest benefits in terms of increasing Website usability could come from improving/adding navigational features including the very important search function. Given the large potential benefits, it may be worthwhile to explore the feasibility of further efforts to develop an improved search function despite previous technical problems encountered. Substantially improved navigation as well as any benefits from combining databases can be realized by better using the existing NCEE Databases (Section 24) and NCEE database views (Section 20) Databases at zero cost.
- RIADB2 could be used to provide an important basis for a "RIA review" function should NCEE undertake such, but would probably require a greatly increased level of support than it has received in recent years.

1. Introduction

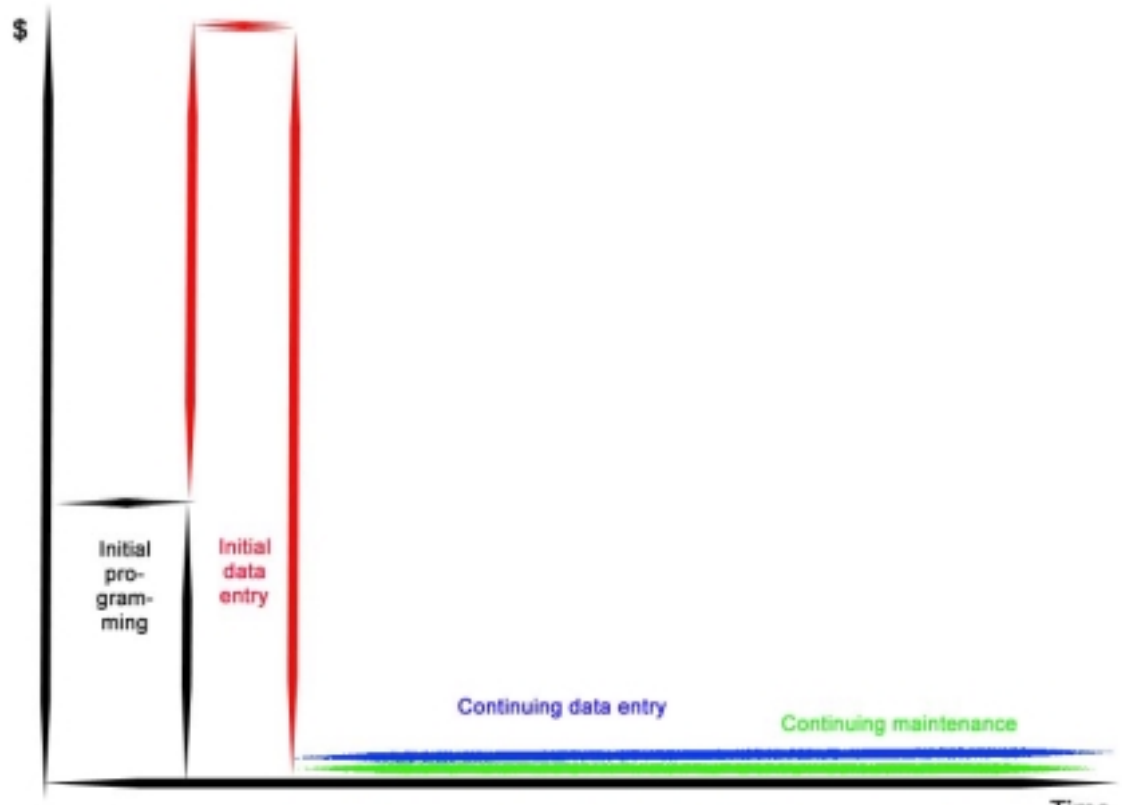
This report is one of two reports prepared by the same authors for the NCEE Website review meeting planned for March 28, 2001 in Washington, DC. The other report, entitled *Why Aggregation of Existing Databases Should Be Evaluated Using Cost-Benefit Analysis and Full Information*, draws on data contained in this report, but reaches separate conclusions.

This report summarizes information on the various Lotus Notes databases that constitute the National Center for Environmental Economics (NCEE) Website or have been prepared or are being prepared for possible use on it, as well as the corresponding physical databases on which some of the Website databases are based. The information is organized by Lotus Notes database, and the databases are arranged according to Website usage during the period of February to June 2000 so as to put the most used databases first. The major exception is that all those databases that had usage below 0.64% of ICF hits during this period are grouped randomly at the end of Part 1 since no precise data is available on their usage other than that is was less than 0.64% (with one possible exception). For each database, a standardized set of information is presented that describes various characteristics and contents of the database. In most cases a sample report record listing all data fields of the database is also provided. The major exceptions are the on-line reports, which consist of as many individualized records as required to house each particular report. In the case of these on-line reports, a record is included only for the first one.

This summary and the current NCEE Website assume that NCEE's function is what it always has been—primarily that of environmental economics research and support of EPA's RIA/EA development process. If NCEE's functions should substantially change under the new Bush Administration, it would appear to be useful to rethink both the messages conveyed by the Website as well as the possibility of adding additional databases or adding new features to existing databases to better serve the new functions.

2. Costs and Benefits of Databases: A Framework for Decision Making

Although each database is unique, the cost of developing and maintaining computer databases are largely capital as opposed to operating costs. Typical database development and maintenance cost characteristics are illustrated in the following figure:



Relative costs of various aspects of a database

The benefits from databases are received only when they are accessed by users, and are thus spread out over the useful life of the database. Although some users may be of greater or lesser importance to the Website owner (NCEE in this case), the only measurable estimate of benefits from a database is usually usage. If the database is routinely updated, users who have accessed it previously may return to see what is new. If the database has technical errors, such as bad links, this could reflect badly on the sponsor and may mitigate some of the benefits that would otherwise accrue to the sponsor.

The implications of these benefit and cost characteristics of databases are clearly important for decision making concerning such databases. The major costs are the initial database creation (programming) and data entry to populate the fields. Once established, the operating costs consist of adding and updating data entry and technical maintenance. Operating costs are normally only a small fraction of the initial costs. Therefore, for existing or contemplated databases, there are essentially seven options regarding their creation, improvement, and maintenance. These are as follows:

(1) Decide to build the database, presumably because the benefits are perceived to exceed the costs;

(2) Invest more in programming or add additional blocks of data to improve an existing database;

(3) Update data to reflect new information and continue technical maintenance;

(4) Continue maintenance only without updating information;

(5) Discontinue site maintenance, but continue use of database;

(6) Discontinue use, but save database for possible future use; or

(7) Destroy the database.

Given the relative costs described above, it would appear that the seven options enumerated should be implemented as follows:

(1) Because of the uncertain nature of the benefits, all of which will be received with a substantial lag, decisions on building databases should be based on conservative estimates of benefits and costs.

(2) Appears worthwhile to consider for heavily used databases that offer significant opportunities for positive net benefits from further investment.

(3) Because data updating and maintenance are such a small proportion of database costs, these costs are normally economically justified as long as the current estimate of benefits is not drastically lower than originally estimated when the database was created. The benefits of choosing (3) instead of (4) are that users may return to the site for new data, so are equal to those derived from this added use.

(4) This level is practically always justified given the relatively small cost. The benefits from (4) relative to (5) derive from the benefits of using the original data free from technical problems.

(5) This level is usually not wise because of the unfavorable opinion of the site that the technical problems may leave with users.

(6) Will generally only be justified if continued database use causes harm.

(7) Almost never justified because any new attempt to build similar databases could benefit from starting with the existing database and the costs of storing a database are almost zero.

In determining the costs of large new databases (1) or additions or changes to large databases (2), one of the primary costs is the professional judgments that necessarily guide changes to the substantive entries to be made for each new or changed field.

Here is an example: If we introduce a new media field in a database with 1000 records, and locating, interpreting, and entering the new information (such as whether a hard copy report is applicable to a specific media) on which media should be shown takes 6 minutes (to keep the math simple), then

populating the new field once created will take 6,000 minutes or 100 hours. If the average hourly loaded cost to do this is $100 (again to keep the math simple), then the cost of adding this one field would be $10,000. The number of records for each existing and prospective database is listed in the corresponding database summary, and can be used to compute the cost of any proposed change.

Databases Part 1: Those Currently Linked to NCEE Website

3. NCEE Website Pages

Database Summary

Database Name: NCEE Website Pages

Contents: Higher level web pages for NCEE Website.

Purpose: Provides a single convenient Lotus Notes database for housing the HLWPs and other HTML-equivalent pages.

Intended users: Appears to be heavily oriented towards academic and other environmental economists. All Website resources intended for use by the general public are not given direct access from the homepage.

Data Structure: Consists of a series of HTML-equivalent pages.

Number of Records: 49

Web Usage Statistics: 26.16% of total ICF hits from February to June 2000 (appears to be higher under the new homepage).

Past cost: Medium: Since these pages require frequent updating and original material, significant costs are incurred.

Future cost assuming no improvements not now planned by the HLWP Subcommittee: Medium

Status: Serves as part of homepage and is linked directly from homepage and from many HLWPs.

Current plans for major improvements under active consideration/implementation by HLWP Subcommittee: None known.

Other possible improvements: Add images to increase attractiveness of pages.

Relation to other databases: Has almost no similarities to other databases

Sample Record

3A. Recent Publications

Database Summary

Database Name: Recent Publications (housed in NCEE Website pages)

Contents: Simple listing by title (but not in any apparent order) and usually with author information of selected recent papers and reports by NCEE staff with links to those that are EPA reports. Precise criteria for inclusion and exclusion are not stated and listing is not complete using reasonable assumptions as to what the criteria are.

Purpose: Unstated, but apparently to better publicize these papers and reports

Intended users: Environmental economists inside and outside EPA

Data structure: Fixed HTML listing; not user interactive

Number of records: 13

Web Usage Statistics: DB not available in the Feb-June period of 2000.

Past cost: Low: Requires frequent updating.

Future cost assuming no improvements not already planned: Low: mainly adding new reports and removing older ones.

Status: Linked from homepage.

Other possible improvements: Specify precise stated criteria for inclusion to avoid confusion. Substitute list of recent EPA NCEE reports for separate listing of EPA reports to avoid duplication (would require added view in EERI but no new fields). Possibly include listings of all copyrighted journal articles in Staff Profiles database and/or separate database.

Relation to other databases: All EPA reports listed are also listed in EERI, which is more comprehensive. Journal article listings generally available or can be added to EERI if they were done as part of an EPA report or report to EPA.

Database

Recent Publications

Researchers in the National Center for Environmental Economics regularly contribute to the body of literature in environmental economics and related fields. Recent publications include:

Guidelines for Preparing Economic Analyses

America's Children and the Environment: A First View of Available Measures

The United States Experience with Economic Incentives in Environmental Pollution Control Policy

"Predicting the Location of Deforestation: The Role of Roads and Protected Areas in North Thailand," Maureen Cropper, Jyotsna Puri, and Charles Griffiths. *Land Economics*, forthcoming.

"Managing Floods through Targeted, Selective Restoration of Landscape Functions: Paying Upland Farmers to Store or Manage Runoff during Threats of Floods," Andrew Manale, *Journal of the Soil and Water Conservation Society*, forthcoming.

"Do as you say, say as you do: evidence on gender differences in actual and stated contributions to public goods," Kelly M. Brown and Laura O. Taylor, *Journal of Economic Behavior and Organization*, vol. 43, pp. 127-139, 2000.

"Scrap Tire Disposal: Three Principles for Policy Choice," Kelly M. Brown, Ronald Cummings, Janusz R. Mrozek, and Peter Terrebonne, *Natural Resources Journal*, forthcoming.

"Entitlements and Fairness: An Experimental Study of Distributive Preferences," E. Elisabet Rutström and Melonie B. Williams, *Journal of Economic Behavior and Organization,* vol. 43, pp. 75-89, 2000.

"Cumulative Exposures to Food Contaminants across the United States," C.P. Dougherty, S.H. Holtz, J.C. Reiner, L. Panyacosit, D.A. Axelrad and T.J. Woodruff, *Environmental Research*, October, 2000.

"An Investigation into the Reasons Why Water Utilities Choose Particular Rate Structures," Julie Hewitt, in *The Political Economy of Water Pricing Reforms*, Ariel Dinar, ed., Oxford University Press, 2000.

"Estimating Cancer Risk from Outdoor Concentrations of Hazardous Air Pollutants in 1990," T.J. Woodruff, J.C. Caldwell, V.J. Cogliano, and D.A. Axelrad, *Environmental Research*, vol. 82, pp. 194-206, 2000.

"Air Toxics and Health Risks in California; The Public Health Implications of Outdoor Concentrations," R.A. Morello-Frosch, T.J. Woodruff, D.A. Axelrad, J.C. Caldwell, *Risk Analysis*, vol. 20, pp. 273-291, 2000.

The Benefits and Costs of the Clean Air Act 1990 to 2010: EPA Report to Congress

3B. Environmental Economics in Plain English

Database Summary

Database Name: Environmental Economics in Plain English

Contents: Links to reports/papers/articles on environmental economics written with little economic jargon and intended for non-professional users.

Purpose: Increase public access to environmental economics material and research.

Intended users: Non-economists who may visit NCEE Website

Data Structure: HTML listing

Number of Records: 6

Web Usage Statistics: 4.16% of total views from February to June 2000.

Past cost: Minimal except for the cost of developing the "White Paper."

Future cost assuming no improvements not already planned: Minimal.

Status: Linked from one HLWP and from homepage.

Other possible improvements: Needs improved material developed especially for those without any training in economics. Developing such material could be expensive in either staff time or extramural funds. Two links are currently dead and need to be removed.

Relation to other databases: Contains links to some material found in other databases.

Database

Environmental Economics in Plain English

Environmental Protection and the Economy

"Environmental regulation in the United States stands accused of causing a broad array of undesirable economic consequences. It is said that environmental regulation is too expensive, reduces economic growth, hurts international competitiveness, and causes widespread layoffs and plant closures. Sometimes, it is said, it even forces businesses to flee to more accommodating countries. The view that environmental regulation seriously harms the U.S. economy is so firmly established that it has become the centerpiece in the series of attempts over the last few years to roll back the very rules that have produced such dramatic improvements in environmental quality."

A new report to EPA, Environmental Protection: Is It Bad for the Economy? A Non-technical Summary of the Literature reviews the evidence that can be brought to bear to verify or refute
these accusations. Specifically it answers the following questions:

- What Do We Spend on Environmental Protection?
- Regardless of the Cost of Environmental Protection, Is It |Still Money Well Spent?
- Does Environmental Protection Cause Unemployment, Plant Closures, and Reduce International Competitiveness?
- Does Environmental Protection Decrease U.S. Economic Growth?
- What Conclusions Can We Draw?

Reducing Regulatory Costs

"Economic incentives, such as emission taxes, effluent trading, deposit refund systems, information reporting requirements, liability for harm caused by pollution, and voluntary programs have the potential to achieve environmental objectives at lower cost than traditional command and control regulations."

A new report to EPA, *Economic Savings from Using Economic Incentives for Environmental Pollution Control* estimates the economic savings from the more significant of existing incentive-based environmental programs and examines the potential for

extending these and other programs to increase the savings.

Regulatory Economic Analysis at the EPA
This report to EPA discusses the history and authority for benefit-cost analysis at the US Environmental Protection Agency, summarizes reviews of the process, and provides an introduction to the Regulatory Economic Analysis Inventory database.

Links to some non-EPA Web pages written in plain English:

News Backgrounders for journalists including several concerning economics and the environment, such as those by Robert Stavins:
- Can Market Forces Be Put in Harness to Protect the Environment?
- Economic Thinking in Environmental Coverage

The Economics of the Environment by Partha Dasgupta (1995)

4. Environmental Economics Report Inventory (EERI)

Database Summary

Database Name: Environmental Economics Report Inventory (EERI)

Contents: Provides unique set of physical and electronic reports and electronic database records prepared for or by NCEE and its predecessor EPA offices (including ORD prior to 1984) concerning environmental economics. Electronic database contains over 550 report records and physical reports as well as over 200 downloadable reports. Physical reports database housed at the Environmental Law Institute, 1616 P Street, Washington, DC.

Purpose: Provides visible evidence of the large number of reports that NCEE or its predecessors are responsible for. Provides immediate electronic access to many of the more useful ones and physical access to full physical library. Provides assistance to EPA and the public in being aware of and accessing such reports, which are very often difficult if not impossible to obtain in any other way.

Intended users: EPA and non-EPA environmental economists

Data Structure: Single Page Record Form; Links to Files located in EERI Attachments DB.

Number of Records: 558 report records and a few less physical reports.

Web Usage Statistics: 17.57% of total ICF hits from February to June 2000.

Past cost: Comparatively high due to complexity of DB and cost of entering so many reports. Scanning has also been relatively expensive, although may have been useful for preservation purposes anyway.

Future cost assuming no improvements not already planned: Low: Primarily cost of scanning a limited number of additional old reports and inputting new reports (many of which are received in electronic form and therefore do not require scanning). Very minimal amount needed for ELI upkeep of files and responses to requests for physical copies.

Status: Linked directly from homepage and from two HLWPs.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: Add additional old physical reports as time and resources may permit (although sources are rapidly disappearing). Scan a limited number of additional reports into EERI Attachments DB that have continuing usefulness and relatively high user interest.

Other possible improvements: Move physical library to EPA Library along with RIA and economics library. Benefit are that they would be more readily available and the minor reduction in costs. Cost is the EPA space they would take up. See Section 3A under this heading for discussion of overlap between Recent Publications and EERI for another possible improvement.

Relation to other databases: Has very few fields in common with any other database except Media, Subject, and Title. There is a very limited overlap of records with RERI in the case of those rare RIAs/EAs actually prepared by NCEE and its predecessors. The information provided on each EERI report is substantially different from those listed in RERI, however, so there is no easy way to consolidate these few records.

Sample Record

Costs and Benefits of Reducing Lead in Gasoline: Final Regulatory Impact Analysis

Inventory Record #: EE-0034

Subject: 1. Benefits Analysis
2. Cost-Benefit and Cost Effectiveness Analysis
4. Economic Incentives and Other Innovative Approaches
1. Benefits Analysis - Quantification without Monetization
1. Benefits Analysis - Valuation - Cost of Damages Avoided
2. Cost-Benefit and Cost Effectiveness Analysis - Specific Sectors and Pollutants
2. Cost-Benefit and Cost Effectiveness Analysis - Incentives and Related Approaches
4. Economic Incentives and Other Innovative Approaches - Trading and Marketable Permits
1. Benefits Analysis - Valuation

Environmental Media/Problems covered: a. Air
a. Air - Mobile Source
a. Air - Tropospheric

Authors: Schwartz, Joel
Pitcher, Hugh
Levin, Ronnie
Ostro, Bart
Nichols, Albert L.

EPA Project Officer/ Manager: Schwartz, Joel

Geographic Area: United States

Study Purpose: Empirical Application, Policy Evaluation

Participating Organizations

Research Organization:
Environmental Protection Agency, Office of Policy, Planning and Evaluation
Address:
City: Washington State: DC ZIP: 20460
Phone: Fax:
E-mail:

Funding Organization:
Environmental Protection Agency
Office of Policy, Planning and Evaluation
Address:
City: Washington State: DC ZIP: 20460
Phone: Fax:
E-mail:

Report Details

Type: ○ Draft ● Final
Date: 02/01/85
Number of Pages: 492
Comment:
Problem Note:
EPA #: EPA-230-05-85-006

Published Output

Summary

This 1985 Regulatory Impact Analysis examines the benefits and costs of alternative rules for reducing lead in gasoline from 1.1 grams per leaded gallon to 0.5 in 1985 and to 0.1 in 1986. The chapters are as follows:

1. Introduction
2. Costs of Reducing Lead in Gasoline
3. Human Exposure to Lead from Gasoline
4. Benefits of Reducing Children's Exposure to Lead
5. Health Benefits of Reducing Lead: Adult Illnesses Related to Blood Pressure
6. Benefits of Reducing Pllutants Other Than Lead

5. Internet Links

Database Summary

Database Name: Internet Links

Contents: Links to numerous EPA and non-EPA Web sites concerning environmental economics in its broadest interpretation.

Purpose: Provide a centralized and classified set of links to EPA and other Internet sources of information on environmental and regulatory economics which can be quickly and efficiently accessed by users.

Intended users: Environmental economists and those interested in learning about it outside of NCEE.

Data Structure: Single Record Form; Links to URLs

Number of Records: 121

Usage Statistics: 9.07% of ICF hits from February to June 2000.

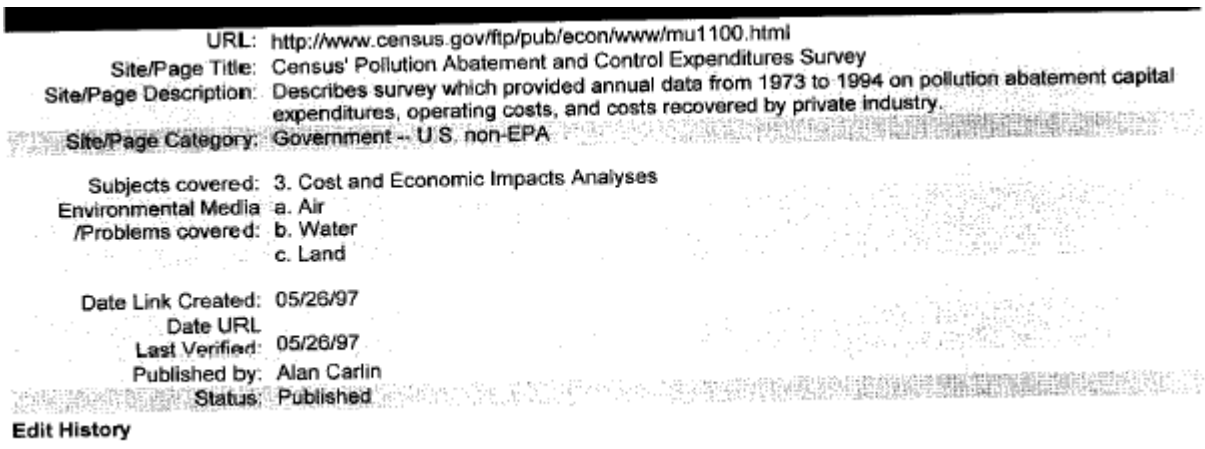
Past costs: Very small

Future costs: Very small: Updating links and maintenance costs.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: None other than updating links.

Possible improvements: Make aggressive effort to expand number of records to utilize newer and less relevant sites for this heavily utilized, but inexpensive DB. Add links of more interest to IECD.

Sample Record



URL:	http://www.census.gov/ftp/pub/econ/www/mu1100.html
Site/Page Title:	Census' Pollution Abatement and Control Expenditures Survey
Site/Page Description:	Describes survey which provided annual data from 1973 to 1994 on pollution abatement capital expenditures, operating costs, and costs recovered by private industry.
Site/Page Category:	Government -- U.S. non-EPA
Subjects covered:	3. Cost and Economic Impacts Analyses
Environmental Media /Problems covered:	a. Air b. Water c. Land
Date Link Created:	05/26/97
Date URL Last Verified:	05/26/97
Published by:	Alan Carlin
Status:	Published

Edit History

6. Regulatory Economic Analysis Inventory (REAI)

Database Summary

Database Name: Regulatory Economic Analysis Inventory (REAI)

Contents: Physical and (for some more recent reports) electronic copies and report records of Economic Analyses, RIAs, and related reports prepared for or by EPA for regulatory purposes.

Purpose: Provides unique electronic summary of the NCEE Economic Analysis physical library including summary information, a classification and grouping system, and other characteristics of the documents. Provides EPA, OMB, other agencies, and outside researchers with access to EAs/RIAs available nowhere else for assistance in developing analytical methodologies, data sources, and empirical results for future EAs. Should be very useful for anyone attempting to review EPA RIAs or compare them.

Intended users: EPA economists and non-EPA researchers interested in EPA RIAs/EAs.

Data Structure: Single Record Form; Links to Files or URLs

Number of Records: 1,564 report records and corresponding physical reports. Contains links to over 50 downloadable reports housed in RERI Attachments DB.

Web Usage Statistics: 6.58% of total ICF site hits from February to June 2000.

Past cost: Comparatively very high due to full time work by Tess and extensive classification system developed and implemented by ICF staff.

Future cost assuming no improvements: Comparatively high due to Tess' salary and large amount of data that must be inputted, checked, and organized. Includes cost of finding and entering new reports.

Status: Linked from homepage and one HLWP.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: Check consistency of existing data. Provide links to some fields in RIADB2 if and when that DB becomes more widely available.

Other possible improvements: Move physical library to EPA Library along with RIA and economics library. Very much depends on where NCEE ends up after the move downtown.

Relation to other databases: Subject matter related to RIADB2, but structure and fields are almost entirely different. Few common fields with any other database except Title. As noted under EERI, however, there are a few RIAs/EAs listed in both databases where they were prepared by NCEE or its predecessors.

Sample Record

ECONOMIC AND ENVIRONMENTAL IMPACT ASSESSMENT OF PROPOSED EFFLUENT LIMITATIONS GUIDELINES AND STANDARDS FOR THE COAL MINING INDUSTRY: REMINING AND WESTERN ALKALINE SUBCATEGORIES.

Date: 2000
Reference #: W.2000.8
Availability: ● Yes ○ No
EPA Office: Office of Water
Office Suboffice: Office of Science and Technology
Office Division: Engineering and Analysis Division

EPA Author: Strellec, Kristen L.
Document Type: Economic Impact Assessment
Environmental Impact Statement
Contractors: NR
Document Status: ○ Final ○ Proposed ● Not Reported
○ Draft ○ Other
Pages: 136
Descriptors:
Abstract: Analysis of the costs, benefits, economic impacts, and environmental impacts attributable to each of the proposed subcategories.
Document file(s):
Report URL:

RERM Fields
RERM ID: TS00001F8A
RERM Date: 03/01/2000
Document Location: K/1/L

Document Sequence:
Number of Copies: 2

EERM Map: ○ Yes ○ Input ○ No
Main Assessment Topic: Water - Effluent Guidelines and Related Regulations
Pollution Control Assessment: Coal Mining - Remining and Western Alkaline Subcategories
Work with Assessment:

Final Review Priority ○ High ● Completed
○ Medium ○ Unnecessary
○ Low

Review Status: Complete
Electronic Document Procurement Priority: ○ High ○ In Process ○ Unnecessary
○ Medium ○ Obtained ○ Web Link
○ Low ○ Not Able to Locate

Recommendation: ● Yes ○ May be ○ No
Relevance:

[redacted]

RIADB Priority: ○ High ○ Medium ○ Low ○ No ○ Entered

Old RIA Fields
Office:
Type: ○ RIA ○ Non-RIA

Keep or Discard

Keep or Discard: Definite Keep
Discard Rationale: Only document on this topic

7. Environmental Policy and Economics Workshops

Database Summary

Database Name: Environmental Policy and Economics Workshops

Contents: Information/notification/registration database on workshops – past, present, and future.

Purpose: Provide information needed for future workshops and links to proceedings for past workshops.

Intended users: Anyone interested in attending a workshop: mostly environmental economists..

Data Structure: Single Record Form; Links to Files or URLs

Number of Records: 743 (including registration data)

Website Usage Statistics: 6.29% of total ICF site hits from February to June 28, 2000.

Past cost: Moderate to low.

Future cost: Low: Primarily staff time to enter each new workshop information and links to proceedings.

Status: Linked from homepage and one HLWP.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: Some updating desirable on disclaimers for old workshops due to new EPA grant regulations.

Other possible improvements: None known.

Relation to other databases: Unrelated except that all proceedings are in EERI and linked to EERI Attachments DB.

Sample Record

Workshop Title:	**Community Based Environmental Decision Making**
Future/Past:	**Past**
Workshop Start Date:	05/09/2000
Workshop Dates:	May 9, 2000
Workshop Place:	NRECA Conference Center, 4301 Wilson Blvd., Arlington, VA
Sponsorship/ Description:	This one-day workshop was cosponsored by US EPA Office of Economy and Environment and National Center for Environmental Research and NSF Decision, Risk, and Management Science Program and explored the issues surrounding "Community Based Environmental Protection." The first session, "Approaches to Valuing the Environment," approached valuation from the viewpoint of both individual and group, or democratic, preferences and implications for current valuation methods. The second session, "Stakeholder Participation and Decision Making," discussed and evaluated approaches to group decision making. The afternoon concluded with "Cooperation in Environmental Decision Making," which examined the effectiveness of voluntary versus command and control regulations in communities.
Contact Person:	Nicole Owens (owens.nicole@epa.gov) or Julie Hewitt (hewitt.julie@epa.gov)
URL for Proceedings:	/EE/Epa/eerm.nsf/a2c59a4b95cc92e4852564d3004e4ee2/d7ffa71871a010a985256912005c9d25?OpenDocument

8. NCEE Site Search

Database Summary

Database Name: NCEE Site Search

Contents: Provides site search capability for NCEE Website

Purpose: Allows Web users to quickly locate any record on the site containing any word or combination of words.

Intended users: All Website users without regard to type

Data Structure: Not known

Number of Records: 1

Usage Statistics: 4.90% of total ICF site hits from February to June 28, 2000.

Past cost: Medium due to several unsuccessful efforts to improve it after move to ICF.

Future cost: Low: Primarily maintenance and trouble-shooting.

Status: Linked from HLWP but not homepage.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: Some updating believed needed on disclaimers for old workshops due to new EPA grant regulations.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: There is a strong desire to improve this function but no means have been found to do so as yet. A comparison of the NCEE site search with that available on the best Web search engines (such as Google) shows what can theoretically be done, at least on other platforms. This database is of sufficient importance that further efforts are worthwhile despite past failures to improve the current search capability.

Other possible improvements: This function is so important to users that it needs to be linked directly from the homepage rather than making users who know what they want detour by way of an HLWP if they do not want to do so.

Relation to other databases: Provides a service function for all the other databases, but has little or no other relation to the other databases.

Record

Search for documents containing

Search

Display:	results per page
Word Options	Find exact word matches only Find word variations as defined by thesaurus
Sort search results by:	Relevance

Search Tips

Use Operators to Refine Search

- AND **-** These find documents containing all the conditions or words linked by AND.
- OR **-** These find documents containing either of the conditions or words
- NOT - These make the query negative. For example, you can put NOT between words: 'cat AND NOT dog' finds documents containing the word cat, but not the word dog. Please remember that NOT takes precedence ove all other logical operators. Because of this you may need to use parantheses to construct your query. For example: (x OR y) AND NOT (a OR b) is different from x OR y AND NOT a OR b. In the first case b is excluded from the search; in the second case b is included!
- * - This is a wildcard. It represents any extension of letters. It does not work with dates or numbers.
- ? - This is a wildcard. It represents any single letter. It does not work with dates or numbers. For example: '?one' finds documents containing bone, cone, done, gone (and any other four-letter words that end with 'one')

Use Word Variants

- This option finds words with the base word + certain prefixes and suffixes. For example, a search for "swim" will also find "swims," "swimming," "swimmer," and even "swimmed." It will not find the variation "swam," however, because the base word has changed, or "swimmet," or "swimsed" because the suffixes are not acceptable with that word.

9. White Paper: Environmental Protection: Is it Bad for the Economy?

Database Summary

Database Name: White Paper: Environmental Protection: Is it Bad for the Economy?

Contents: On-line report.

Purpose: Provides non-technical discussion of these long-standing issues in environmental economics. Use of on-line report format provides assistance to EPA and the public in being able to rapidly access and navigate through the report including provision of internal and external links.

Intended users: Non-economists with a college level education.

Data Structure: Single Page Record Form

Number of Records: 11

Usage Statistics: 4.76% of total ICF hits from February to June 2000.

Past cost: Moderate due to cost (and numerous problems) with writing the report.

Future cost assuming no improvements not already planned: Minimal: Staff time to occasionally update links.

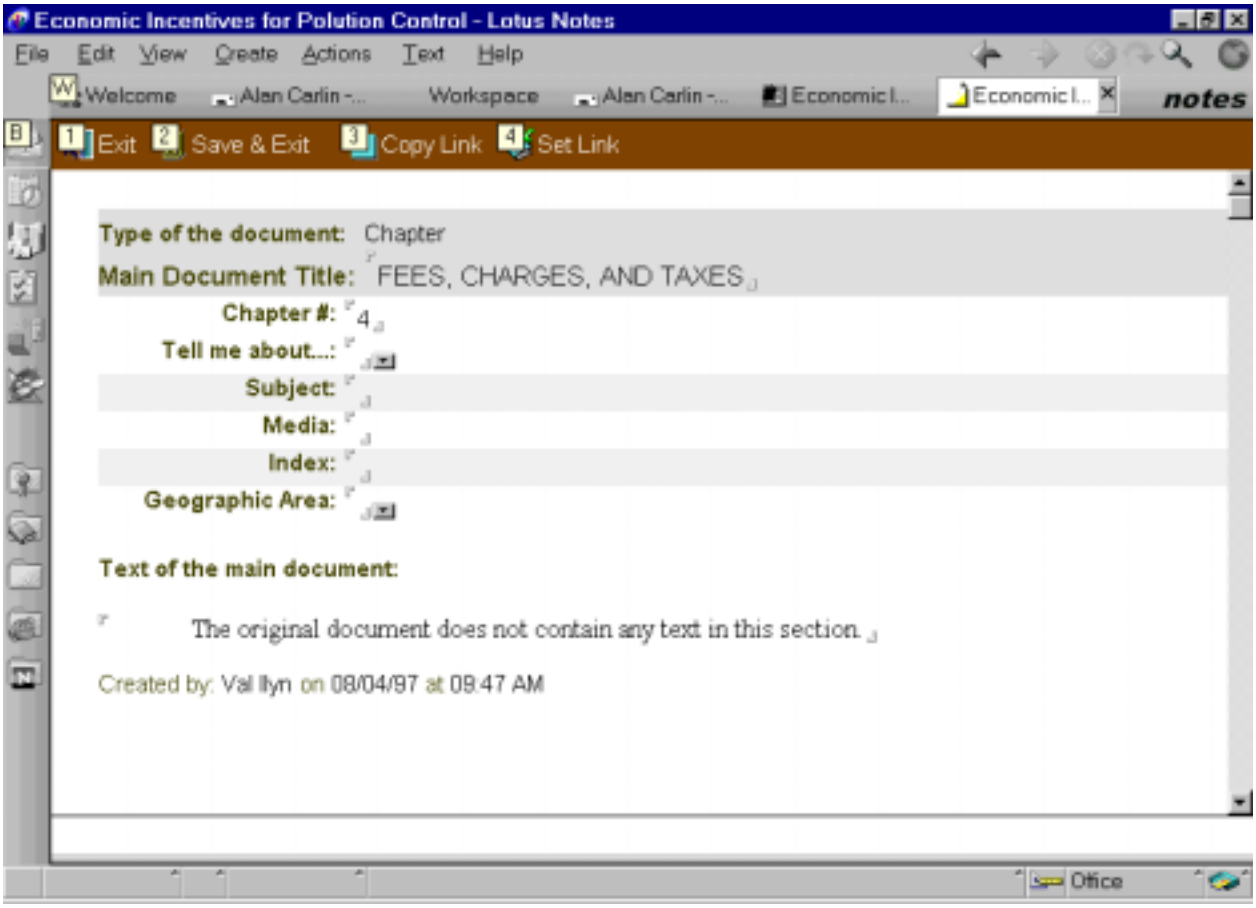
Status: Linked from "other information" HLWP, Plain English HLWP, and from EERI record.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: None

Other possible improvements: Would benefit from much more prominent access for Website users. A number of staff members have expressed a desire to improve the quality and contents of the report; this would require both time and staff/contractor effort, but is quite feasible. Provide access for Website users in a more logical HLWP than "other information" and through an on-line reports link on homepage.

Relation to other databases: Similar in structure, but not contents, to other on-line reports.

Sample Record



10. EPA/NSF Research

Database Summary

Database Name: EPA/NSF Research

Contents: Listing of funded ORD and EPA/NSF Research grant proposals, and progress and final report summaries since 1990.

Purpose: Structured listing of funded projects and their interim and final outputs using a variety of interactive classification systems in order to enable EPA and outside users to rapidly locate any project of interest based on a variety of characteristics.

Intended users: Environmental economists in and outside of EPA interested in using the results of the ORD research.

Data Structure: Single Record Form; Links to Files or URLs

Number of Records: 102

Usage Statistics: 2.87% of total ICF site hits from February to June 2000.

Previous cost: Comparatively very low

Future cost assuming no improvements not already planned: Low: Primarily staff time to enter newly funded grants and reports.

Status: Linked from homepage and one HLWP.

Other possible improvements: Include ORD research funded between 1984 and 1989 if a source for this information can be found somewhere (approximately $3-4 million was spent by ORD over these years).

Relation to other databases: EERI contains economic reports funded by ORD prior to 1984. Fields are largely different, however, except for Title, Media, and Subject.

Sample Record

Continued Development of Methods for Characterizing and Ranking Health, Safety and Environmental Risks

Title: Continued Development of Methods for Characterizing and Ranking Health, Safety and Environmental Risks

Principal Investigators: Morgan, Granger
DeKay, Michael
Fishbeck, Paul

Technical Liaison:

Research Organization: Carnegie Mellon University

Funding Agency/Program: ● EPA/ORD/Valuation ○ EPA/ORD/Exploratory ○ EPA/ORD-NSF/Valuation ○ NSF/Valuation

Grant Year: ○ 1991 ○ 1994 ○ 1997 ○ 1992 ○ 1995 ○ 1998 ○ 1993 ○ 1996 ● 1999

Project Period:

Cost to Funding Agency: $235,504

Project Proposal Summary:
This research continues the development, empirical testing, and refinement of a method for ranking health and safety risks, and extends it to include environmental risks. In this method, experts provide detailed descriptions of the risk and laypersons perform the ranking using "holistic" and "multi-attribute" ranking procedures. An experimental test bed has been developed which involves 22 health and safety risks in a hypothetical middle school. This research refines this test bed and develops a new test bed to address environmental risks.

Project Status Reports:

Project Reports:

11. Savings from Using Economic Incentives

Database Summary

Database Name: Savings from Using Economic Incentives

Contents: On-line report.

Purpose: Provide unique estimates of the economic savings possible through the use of economic incentives for environmental pollution control. Format provides assistance to EPA and the public in being able to rapidly access and navigate through the report including provision of internal and external links.

Data Structure: Single Page Record Form

Number of Records: 53.

Usage Statistics: 2.81% of total ICF hits from February to June 2000.

Past cost: Moderate including the cost of writing the report, but almost zero in terms of translation costs since the report was written in Lotus Notes.

Future cost assuming no improvements not already planned: Minimal: Staff time to occasionally update links.

Status: Linked from “other information” HLWP and from EERI record.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: None.

Other possible improvements: None suggested.

Relation to other databases: Similar in structure, but not contents, to other on-line reports.

12. Working Papers Inventory

Database Summary

Database Name: Working Papers Inventory

Contents: Draft and final working papers concerning environmental economics that are available elsewhere on the World Wide Web or stored in the database.

Purpose: Provides vehicle to make available "gray literature" non-NCEE EPA reports when we wish to do so as well as other reports NCEE commonly refers to. Provide public and EPA environmental economists with links to and/or downloadable copies of environmental economics research papers as well as classification systems for rapidly finding them. Outside researchers can contribute papers, which after review can be added to the database.

Intended users: Environmental economists in and outside EPA.

Data Structure: Single Record Form; Links to Files or URLs

Number of Records: 197

Usage Statistics: 2.75% of total ICF site hits from February to June 28, 2000.

Past cost: Comparatively very low

Future cost assuming no improvements not already planned: Comparatively very low: Mainly time to locate and enter reports and update links.

Status: Linked from homepage and from one HLWP.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: None.

Other possible improvements: Undertake serious effort to make DB more comprehensive. Would require contractor support for selection and entry. Add reports of more interest to IECD staff.

Relation to other databases: Has few fields in common with other databases other than Title, Media, Subject, and Author. Important not to integrate with any databases containing NCEE reports so as to make it clear which ones are "ours" and which ones are not.

Sample Record

Title: Coase and Car Repair: Who Should Be Responsible for Emissions of Vehicles in Use?
Author(s): Harrington, Winston
McConnell, Virginia

Subject: 2. Cost-Benefit and Cost Effectiveness Analysis
3. Cost and Economic Impacts Analysis

Environmental Media/ Problem: Air
Institution Issuing Paper: Resources for the Future
Paper Date: 02/01/99
Status: Final version working paper
Primary Content: ● Empirical ○ Theoretical
Reference URL: http://www.rff.org/disc_papers/abstracts/9922.htm
Text of the Link: Web access page for Adobe PDF file

This paper examines the current assignment of liability for in-use vehicle emissions and suggests some alternative policies that may reduce the cost and increase the effectiveness. The authors first discuss the cost, performance and incentives under current Inspection and Maintenance (I/M) programs, using the recently implemented Arizona "Enhanced I/M" program as an example. These programs were designed to identify and repair vehicles with malfunctioning emission control systems. Since their inception, however, I/M programs have been plagued by transaction costs that have drastically raised the cost of I/M as well as limited its effectiveness. These transaction costs fall into three categories: emission monitoring, repair avoidance, and non-transferability of emission reductions. The authors argue that most of these transaction costs can be attributed to the current assignment of liability for I/M to motorists, and they examine the potential for other liability assignments to reduce transaction costs and improve program efficiency. Among the alternative institutional arrangements discussed are greater imposition of liability on manufacturers, emission repair subsidies, repair liability auctions, and vehicle leasing.

Reviewed By: Alan Carlin
Publishing Event: Published
Date Published: 03/10/99

Date Composed: 03/10/99
Composed By: Alan Carlin
Date Last Updated:
Updated By:

13. NCEE Staff Profiles

Database Summary

Database Name: NCEE Staff Profiles

Contents: Professional and biographical information concerning NCEE staff.

Purpose: Provides the public and other government agencies information on the capabilities and expertise of NCEE staff.

Intended users: Anyone interested in the resumes of NCEE staff

Data Structure: Single Record Form

Number of Records: 34

Usage Statistics: 2.19% of total ICF site hits from February to June 2000.

Past cost: Comparatively very small.

Future cost assuming no improvements not already planned: Low: Primarily staff time to enter new data, currently particularly IECD staff not previously listed.

Status: Linked from homepage and one HLWP.

Other possible improvements: Add Division view showing staff members by Division.

Relation to other databases: No similar fields other than Subject and Media.

Carlin, Alan

Division/Office: National Center for Environmental Economics
Joined Program: 1983
E-mail: [<A HREF="mailto:Carlin.alan@epa.gov">Carlin.alan@epa.gov</A>]
Education: Ph.D., Economics, Massachusetts Institute of Technology, 1964.
Current Research and Policy Analysis Interests: Economic benefits and costs of environmental pollution control
Economic incentives for environmental pollution control
Economic growth and environmental pollution control
World Wide Web to disseminate economic research
Previous Experience: * Economist, The RAND Corporation, Santa Monica CA, 1963-71.
* Environmental Protection Agency Office of Research and Development, 1971-1983.
Selected Publications: * "Measures of Mortality Risks" (with W. Kip Viscusi and John K. Hakes), *Journal of Risk and Uncertainty*, Vol. 14, No. 3, May/June, 1997, pp. 213-33. Earlier report to EPA is available here.
* "Cost Savings from the Use of Market Incentives for Pollution Control" (with Robert C. Anderson, Albert M. McGartland, and Jennifer B. Weinberger), in Richard F. Kosobud and Jennifer M. Zimmerman (editors), *Market-Based Approaches to Environmental Policy: Regulatory Innovations to the Fore*, Van Nostrand Reinhold, New York, 1997, pp. 15-46.
* *Comments on Proposed NOAA/DOI Regulations on Natural Resource Damage Assessment*, U.S. Environmental Protection Agency, Washington, D.C., October, 1994.
* "Environmentally Responsible Energy Pricing" (with W. Kip Viscusi, Wesley A. Magat, and Mark Dreyfus), *Energy Journal*, Vol. 15, No. 2, April, 1994, pp. 23-42. An earlier version of the report is available here. The full report on which both are based can be found here.
**The United States Experience with Economic Incentives to Control Environmental Pollution*, Report No. 230-R-92-001, U.S. Environmental Protection Agency, Washington, D.C., July, 1992.
* "Environmental Investments: The Cost of Cleaning Up" (with Paul F. Scodari and Don H. Garner), *Environment*, Vol. 34, No. 2, March, 1991, pp. 12-45.
* *Environmental Investments: The Cost of a Clean Environment, A Summary* (with the assistance of the Environmental Law Institute), Report No. EPA-230-90-084, U.S. Environmental Protection Agency, Washington, D.C., December, 1990.
* *Environmental Investments: The Cost of a Clean Environment, Report of the Administrator of the Environmental Protection Agency to the Congress of the United States*, November, 1990. Republished with previous entry by Island Press, Washington, D.C. and Covelo, CA, 1991.
* "Introduction," in Thomas D. Crocker (editor), *Economic Perspectives on Acid Rain Control*, Butterworth, Stoneham, MA, 1984.
* "Benefits of Pollution Control," in Philip L. White and Diane Roberts (editors), *Environmental Quality and Food Supply*, Futura Publishing Company, Mt. Kisco, New York, March, 1974, pp. 39-47.
* "The Grand Canyon Controversy; or, How Reclamation Justifies the Unjustifiable," in Alain C. Enthoven and A. Myrick Freeman (editors), *Pollution, Resources, and the Environment*, W. W. Norton, New York, 1973, pp. 263-270.
* *Environmental Problems: Their Causes, Cures and Evolution Using Southern California Smog as an Example* (with George Kocher), Report R-640-CC/RC,The RAND Corporation, Santa Monica, CA, May, 1971.
* "Water Resources Development in an Environmentally-Conscious Era," *Water Resources Bulletin*, Vol. 7, No. 4, April, 1971, pp. 221-223. Reprinted in Charles J. Meyers and A. Dan Tarlock (editors), *Selected Legal and Economic Aspects of Environmental Protection*, Foundation Press, Mineola, New York, 1971, pp. 53-56.
* "Marginal Cost Pricing of Airport Runway Capacity" (with R. E. Park), *American Economic Review*, Vol. LX, No. 3, June, 1970, pp. 310-319. Earlier version available as RAND working paper P-4134.
* "A Model of Long Delays at Busy Airports" (with R. E. Park), *Journal of Transport Economics and Policy*, Vol. IV, No. 1, January, 1970, pp. 37-52. Also available as RAND working paper P 4126.

* *The Efficient Use of Airport Runway Capacity in a Time of Scarcity* (with R. E. Park), Report R-5817-PA, The RAND Corporation, Santa Monica, CA, August, 1969.
* *Alternative Development Strategies for Air Transportation in the New York Region, 1970-1980* (with H. S. Campbell, S. L. Katten, T. F. Kirkwood, D. M. Landi, R. E. Park, L. Rounnau, and A. J. Rolfe), Report RM-5815-PA, The RAND Corporation, August, 1969.
* "The Economics of Transport Development," in United Nations Development Programme, Fund of the United Nations for the Development of West Irian, *A Design for Development in West Irian*, United Nations, New York, 1968, pp. 162-170.
* "The Grand Canyon Controversy: Lessons for Federal Cost-Benefit Practices," *Land Economics*, Volume XLIV, No. 2, May, 1968, pp. 219-227. Reprinted in Charles J. Meyers and A. Dan Tarlock (eds.), *Water Resource Management*, Foundation Press, Mineola, New York, 1971, pp. 459-468. Also available as RAND working paper P-3505-1. Earlier version printed in U.S. Congress, Senate, Committee on Interior and Insular Affairs, *Central Arizona Project*, Hearings before Subcommittee, 90th Congress, 1st Session, May 2-5, 1967, pp. 507-514. Also in House Committee on Interior and Insular Affairs, *Colorado River Basin Project*, Hearings before Subcommittee, 90th Congress, 1st Session, March 13-17, 1967, pp. 611-618.
* *Vehicle Safety: Why the Market Did Not Encourage It and How it Might Be Made To Do So*, Report RM-5634-DOT, The RAND Corporation, Santa Monica, CA, April, 1968.
"Indian Transportation: A Sectoral Approach to Developmental Constraints," *The Journal of Development Studies*, July, 1967, pp. 414-439.
* "Project versus Program Aid: From the Donor's Viewpoint," *The Economic Journal*, March, 1967, pp. 48-58. Reprinted in Stephen Spiegelglas and Charles J. Welsh (ed.), *Economic Development: Challenge and Promise*, Prentice-Hall, Englewood Cliffs, 1970, pp. 350-359. Also in Gustav Ranis (ed.), *The United States and the Developing Economies*, Revised Edition, W. W. Norton, New York, 1973, pp. 158-171. Also available as Rand working paper P-3283.
* "The Grand Canyon Controversy—1967: Further Economic Comparisons of Nuclear Alternatives" (with William E. Hoehn), Senate Hearings, *op. cit.*, pp. 489-497 and House Hearings, 1967, pp. 619-625.
* "Is the Marble Canyon Project Economically Justified?" (with William E. Hoehn), printed in U.S. Congress, House, Committee on Interior and Insular Affairs, *Lower Colorado River Basin Project*, Hearings before Subcommittee, Part II, May 9-18, 1967, pp. 1497-1512.
* "Mr. Udall's 'Analysis': An Unrepentant Rejoinder" (with William E. Hoehn), *ibid.*, pp. 1521-1535.

Subjects covered:
1. Benefits Analysis
3. Cost and Economic Impacts Analyses
4. Economic Incentives and Other Innovative Approaches
6. Other Analyses and Reports
1. Benefits Analysis - Valuation
1. Benefits Analysis - Valuation - Stated Preference

Environmental Media /Problems covered:
a. Air
b. Water
c. Land

14. The United States Experience with Using Economic Incentives for Environmental Pollution Control

Database Summary

Database Name: The United States Experience with Using Economic Incentives for Environmental Pollution Control

Contents: On-line report.

Purpose: Provided the most comprehensive inventory of such programs as of 1997. On-line format provides assistance to EPA and the public in being able to rapidly access and navigate through the report including provision of internal and external links.

Data Structure: Single Page Record Form

Number of Records: 557

Usage Statistics: 2.1% of total ICF hits from February to June 2000.

Past cost: Moderate due to complications of translating from WordPerfect to Lotus Notes.

Future cost assuming no improvements not already planned: Low: Occasional staff time to update links.

Status: Linked from "other information" HLWP and from EERI record.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: New version of this on-line report without international chapter is being prepared (see Section 32) based on new 2001 report.

Other possible improvements: Not clear what should be done with this database after the on-line version of the new incentives report is prepared and linked. It contains an international section that is not in the new report so it should probably be kept until a new international section is written. Usage could be greatly increased by providing access for Website users in a more logical HLWP and by adding on-line reports link on homepage.

Relation to other databases: Similar in structure, but not contents, to other on-line reports.

15. Environmental Economics Course Materials

Database Summary

Database Name: Environmental Economics Course Materials

Contents: Sources for environmental economics educational materials categorized by source, potential use, subject, and location.

Purpose: Provide EPA and other researchers a classified and searchable database of materials available either electronically or in other forms of potential use in developing courses on environmental economics at various degrees of advancement.

Intended users: Teachers of environmental economics

Data Structure: Single Record Form; Links to Files or URLs

Number of Records: 139

Web Usage Statistics: 1.86% of ICF hits during February to June 2000.

Past cost: Comparatively very low.

Future cost assuming no improvements not already planned: Minimal: Cost of occasionally updating links.

Status: Linked from “other information” HLWP but not from homepage.

Other possible improvements: Could easily be expanded and improved if funds should be made available.

Relation to other databases: Almost none.

Sample Record

Environmental Economics: A Survey, Journal of Economic Literature, Vol. 30, No. 2, 1992, pp. 675-740.

Author: Cropper, Maureen L., and Wallace E. Oates
Description: A key summary of the field as of the early 1990s.
Resource Type: Journal article

[redacted]

Location: Archived hard copy

[redacted]

Use Type Basic theory
Advanced theory
Special topics

[redacted]

Topic: Cost-benefit analysis
Valuation/benefits measurement
Natural resources
Methodology
Relevance: High

16. Introduction to Environmental Economics Research at EPA

Database Summary

Database Name: Introduction to Environmental Economics Research at EPA

Contents: On-line report providing introduction to and links to many of the reports in EERI and NSF/EPA Research databases.

Purpose: Provides overview and introduction to many of the reports in these databases. Provides assistance to EPA and the public by enabling them to quickly find research reports of interest to them. Provides an in-depth navigational tool to these databases.

Intended Users: General public and environmental economists not familiar with enviornmental economics research funded by EPA.

Data Structure: Single Page Record Form

Number of Records: 69

Web Usage Statistics: 1.75% of total ICF hits from February to June 2000.

Past cost: Essentially zero to NCEE since the cost of preparing the report in Lotus Notes form was paid by ORD.

Future cost assuming no improvements not already planned: Minimal: Staff time for occasional updates of links.

Status: Linked from “other information” HLWP and from EERI record.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: None

Other possible improvements: At some point it would probably be worthwhile updating this report to reflect more recent research. Provide access for Website users in a more logical HLWP and show link to on-line reports on homepage.

Relation to other databases: Similar in structure, but not contents, to other on-line reports.

17. EPA's Use of Benefit-cost Analysis

Database Summary

Database Name: EPA's Use of Benefit-cost Analysis

Contents: On-line report.

Purpose: Make available the major pre-1990s overview of the subject done by a direct NCEE predecessor in an on-line format. This format provides assistance to EPA and the public in being able to rapidly access and navigate through the report including provision of internal and external links.

Intended Users: General public and environmental economists interested in subject.

Data Structure: Single Page Record Form

Number of Records: 222.

Web Usage Statistics: 1.69% of total ICF hits from February to June 2000.

Past cost: Moderate due to complications of translating from WP to LN.

Future cost assuming no improvements not already planned: Very low.

Status: Linked from "other information" HLWP and from EERI record.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: None

Other possible improvements: Provide access for Website users in a more logical HLWP and show on-line reports link on homepage.

Relation to other databases: Similar in structure, but not contents, to other on-line reports.

18. EERI Report Attachments

Database Summary

Database Name: EERI Report Attachments

Contents: Electronic files available for downloading from the EERI record form.

Purpose: Provides users with electronic downloads of many reports included in EERI.

Intended users: Environmental economists in and out of EPA who wish to download reports prepared by or for NCEE and its predecessors.

Data Structure: Single Record Form; Linked to Associated EERI record.

Number of Records: 927

Usage Statistics: 1.12% of ICF hits from February to June 2000.

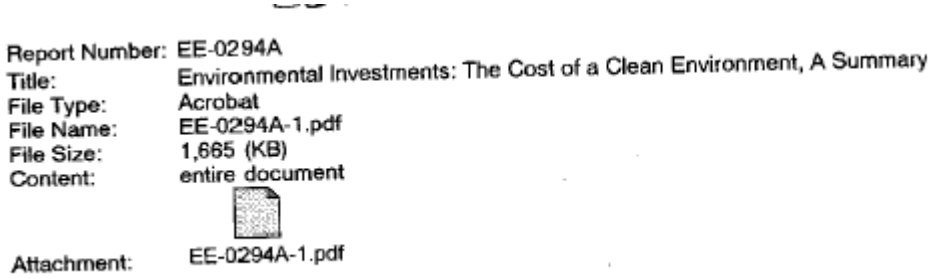
Past costs: Medium (omitting scanning costs, which are substantial)

Future cost assuming no improvements not already planned: Medium assuming that an effort will be made to find, acquire, and upload additional reports. Otherwise, low: Mainly maintenance.

Status: Linked from many EERI records.

Relation to other databases: Unrelated to other databases except EERI but has a similar structure to that of RERI Attachments.

Record Sample


Report Number: EE-0294A
Title: Environmental Investments: The Cost of a Clean Environment, A Summary
File Type: Acrobat
File Name: EE-0294A-1.pdf
File Size: 1,665 (KB)
Content: entire document
Attachment: EE-0294A-1.pdf

19. EPA Datasets

Database Summary

Database Name: EPA Datasets

Contents: Links to EPA Web-based datasets of particular interest to environmental economists organized using various classification systems to make them rapidly and easily accessible to users.

Purpose: Prepared in response to Boston meeting. Provides a structured, sortable, centralized electronic source for EPA and other environmental economists to learn the types, characteristics, and accessibility of EPA's many databases of interest to environmental economists.

Intended users: Non-EPA environmental economists

Data Structure: Single Record Form; Links to Files or URLs

Number of Records: 46

Usage Statistics: 1.1% of total ICF site hits from February to June 28, 2000.

Past cost: Moderate since it involved substantial staff time to compile.

Future cost assuming no improvements not already planned: Low: Mainly professional time to update links.

Status: Linked from homepage and one HLWP.

Other possible improvements: None proposed.

Relation to other databases: Almost none except for Media field.

Sample Record

URL: http://www.epa.gov/airs/airs.html
Site/Page Title: Aerometric Information Retrieval System (AIRS)
Site/Page Description: AIRS provides information about airborne pollution in the US and other countries and is the world's largest air pollution database. While not yet publicly available, a link to AIRSWeb, a subset of AIRS data for the U.S., is provided.

Dataset Profile Details

EPA Main Office: Office of Air and Radiation
EPA Office: Office of Air and Radiation, Office of Air Quality Planning and Standards
Geographic Area: All regions, All states
Site Format:
Data Type: Ambient, Emissions And Releases
Subjects covered:
Environmental Media/Problems covered: a. Air

Date Link Created: 02/11/98
Date URL Last Verified: 02/11/98
Published by: Val Ilyn
Status: Published

Edit History

20. NCEE Database Views

Database Summary

Database Name: NCEE Database Views

Contents: Links to other NCEE databases containing information on environmental economics and its application including a description of the site's content. Has additional navigational features to help users locate database views of interest to them.

Purpose: Provides navigational assistance to all NCEE Website users to rapidly access and navigate through the NCEE Website views. Provides an alternative navigational aid for users that find this approach easier to use.

Intended users: All NCEE Website users.

Data Structure: Single Page Record Form

Number of Records: 100

Usage Statistics: 0.95% of total ICF hits from February to June 2000 even though it was not linked until about May.

Past cost: Minimal: No programming costs, only a little data entry by staff.

Future cost assuming no improvements not already planned: Minimal: Adding new views as they are added to the Website and occasionally updating links.

Status: Linked from NCEE Databases and Internet Links DBs.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: None

Other possible improvements: Would provide very useful navigational aid to Website users if linked from homepage, preferably in a prominent location such as in the green stripe. Even linking from a HLWP would increase usage. Relatively high usage for the short time it was easily available in the spring of 2000 suggests users find it useful.

Relation to other databases: Provides links to the corresponding views in all other linked NCEE databases in order to fulfill its navigational purposes. The structure of the database has some similarities to NCEE Databases and NCEE Internet Links Databases.

Sample Record

URL:	http://www.ulb.ac.be/ceese
Site/Page Title:	Centre for Economic and Social Studies on the Environment (CESSE)
Site/Page Description:	List of internet sites dealing with sustainable development.
Site/Page Category:	Educational
Subjects covered:	7. All Environmental Economics
Environmental Media /Problems covered:	f. Multimedia
Date Link Created:	05/26/97
Date URL Last Verified:	05/26/97
Published by:	Alan Carlin
Status:	Published

Edit History

21. DV&CBN Articles

Database Summary

Database Name: EDV&CBN Articles

Contents: Extract of relevant summaries contained in various issues of the Environmental Damage Valuation and Cost-Benefit News electronic periodical.

Purpose: Supplies EPA and other researchers with a structured, classified extract of articles from the Newsletter related specifically to environmental and regulatory economics that can be rapidly browsed or searched.

Intended users: Environmental economists and others interested in developments in the valuation and cost-benefit analysis field

Data Structure: Single Record Form; Links to Files or URLs

Number of Records: 279

Website Usage Statistics: 0.75% of total ICF site hits from February to June 28, 2000.

Past cost: Low: Mainly cost of entering earlier issues using copy and paste.

Future cost assuming no improvements not already planned: Low: Primarily time to copy and paste new articles for each new issue from electronic versions of newsletter.

Status: Linked from “other information” HLWP.

Other possible improvements: Provide access for Website users in a more logical HLWP and provide link on homepage.

Relation to other databases: Almost none except for Media and Subject fields.

Sample Record

Newsletter: Volume: II # 5 July, 1995
Source Reports: Palmer, Karen, Alan Krupnick, Hadi Dowlatabadi, and Stuart Siegel Social Costing of Electricity in Maryland: The Energy Journal, Volume 16, No. 1, 1995
Subject: 4. Economic Incentives and Other Innovative Approaches
Environmental Media/Problem: a. Air
a. Air - Stationary Source
a. Air - Stratospheric
a. Air - Tropospheric

Newsletter Article Text:

Palmer, Krupnick, Dowlatabadi, and Siegel (1995) claim that to date social costing has been applied exclusively to the evaluation of new sources of electricity. Using existing data on social costs, the authors contrast estimates of external costs for new sources of electricity, for new and existing generating units, and for requiring consumers to pay the full social cost of electric generation. They find that applying social costing at the investment stage only may lead to reduced investment in new resources, and higher emissions of key pollutants.

To estimate impacts, the authors utilized the externality values in the table below and three models--the Single Utility Planning and Dispatch Model with Elastic Demand Model (SUM), the Multi-Region Utility Planning and Dispatch Model (PADRE), and the Substitute Fuel Demand and Emissions Model (SUBDEEM). SUM is a multi-year single utility planning model that uses mixed-integer program techniques to find the best or lowest cost investment and generation mix available to meet expected demand. PADRE permits the analysts to look at power imports between utilities. SUBDEEM provides forecasts of substitute fuel demand and emissions impacts of social costing.

Externality Values Dollars/pound (1992$)

Source

Approach	Abatement Cost	Abatement Cost	Marginal Value
SO2	11.75	0.85	0
NOX	15.72	3.6	0.82
TSP	6.19	2.2	1.19
CO2	0.012	0.0075	0.001

The authors considered the possibility that a utility's customers would switch to cogeneration or dirtier sources of energy such as wood or oil. They found that social costing would result in small increases in demand for natural gas, and that the impacts of this fuel switching on net emissions tends to be low.

Palmer, Karen, Alan Krupnick, Hadi Dowlatabadi, and Stuart Siegel Social Costing of Electricity in Maryland: The Energy Journal, Volume 16, No. 1, 1995

.

22. NCEE Library

Database Summary

Database Name: NCEE Library

Contents: Physical publications housed in the NCEE library and Lotus Notes electronic card catalog of them

Purpose: Physical publications provide reference library materials for NCEE researchers that are generally not available in EPA Library. Electronic database provides convenient card catalog to inventory available at every desk and for anyone located elsewhere who might want to consult publications that NCEE has on-site.

Intended users: Primarily NCEE staff; other EPA economists and outside users may also be interested in particular items not easily available elsewhere.

Data Structure: Single Record Form

Number of Records: 2,279

Usage Statistics: 0.64% of ICF hits between February to June 2000.

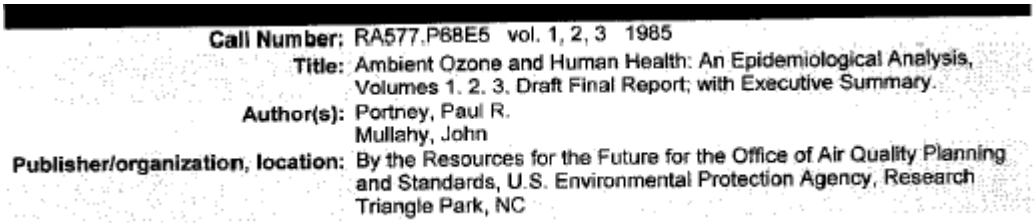
Past costs: High: Mainly cost of Tess' salary, data entry, book purchases, and journal subscriptions. Almost no programming costs since previous LN database was used as the basis for this database.

Future costs: High: Mainly cost of Tess' salary, data entry, book purchases, and journal subscriptions.

Other possible improvements: Add books/reports of more interest to IECD. Add views for Subject and Media. Combine LN database with separate but closely related database kept on OPEI LN server (should be easier if and when local replicas of the Website databases become available).

Relation to other databases: Title and Author are the only fields similar to those found on some other databases.

Sample Record



Call Number: RA577.P68E5 vol. 1, 2, 3 1985
Title: Ambient Ozone and Human Health: An Epidemiological Analysis, Volumes 1. 2. 3. Draft Final Report; with Executive Summary.
Author(s): Portney, Paul R.
Mullahy, John
Publisher/organization, location: By the Resources for the Future for the Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, NC

23. REAI Report Attachments

Database Summary

Database Name: REAI Report Attachments

Contents: Electronic files/URLs available for downloading from REAI record forms.

Purpose: Provides rapid electronic access worldwide to a number of RIAs/EAs. Provides a permanent form of storage for these reports at much lower cost, especially in the form of office space, than continuing to hold physical reports.

Intended users: Those wishing rapid, local use of RIAs/EAs without visiting NCEE REAI physical library.

Data Structure: Single Record Form; Linked to Associated REAI record.

Number of Records: 1,668

Usage Statistics: Less than 0.64% of ICF hits from February to June 2000.

Past costs: Medium: Mainly cost of locating, entering, and uploading files.

Future cost assuming no improvements not already planned: Medium: Mainly the cost of locating and adding additional RIA electronic files.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: Continue effort to add RIA electronic files (very limited so far).

Possible improvements: Aggressive effort to locate/scan additional electronic copies of RIAs/EAs and add to database. Currently limited by funds available to ICF database WA. RIA/EA electronic copies disappear amazing rapidly; the best opportunity to obtain them without scanning is shortly after they first come out. Waiting only increases the costs.

Relation to other databases: Houses files for reports in REAI and is similar in structure to EERI Attachments.

Sample Record

Record ID: SI000033AA

Title: ECONOMIC IMPACT ANALYSIS FOR THE POLYMERS AND RESINS I NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS, DRAFT.

File Name: SI000033AA-01.wpd
File Size: 390.7 (KB)
Content: entire document

Attachment: SI000033AA-01.wpd

24. NCEE Databases

Database Summary

Database Name: NCEE Databases

Contents: Listing of NCEE databases with descriptive information such as contents and target users.

Purpose: Assist NCEE Website users by providing an alternative navigational tool. Provides convenient and rapid interactive access to all the other NCEE databases.

Data Structure: Single Page Record Form

Number of Records: 26

Web Usage Statistics: No information available. This is either because the database is located in a separate directory which may not be included in the Webtrends usage report, or that usage was less than 0.64% of total ICF hits from February to June 2000 (possibly because it was not linked until late in the period).

Past cost: Minimal: No programming costs; only data entry by staff.

Future cost assuming no improvements not already planned: Minimal: Only additions of records for new databases or making changes to existing records if significant changes are made to a database's contents.

Status: Linked from one HLWP, not from homepage.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: None

Other possible improvements: Provide much more prominent access to database to aid navigation by Website users, such as by putting a direct link to it in the green stripe, or at least on the right hand side of the homepage.

Relation to other databases: Similar in structure (not content) to NCEE Internet Links and NCEE Database Views databases.

Sample Record

[redacted]

URL:	/ee/epa/eed.nsf/pages/employ
Database Title:	Employment Opportunities
Database Description:	Current employment opportunities for environmental economists on the E&E staff at EPA
Database Category:	Interest to Students, Interest to Teachers, Employment Opportunities, Interest to Economists
Subjects covered:	7. All Environmental Economics
Environmental Media /Problems covered:	f. Multimedia
Date Link Created:	06/04/2000
Date URL Last Verified:	06/04/2000
Published by:	Alan Carlin
Status:	Published

Edit History

25. Estimating the Benefits of Environmental Regulations for Improved Decision Making at EPA

Database Summary

Database Name: Estimating the Benefits of Environmental Regulations for Improved Decision Making at EPA

Contents: On-line report.

Purpose: Make available an overview of EPA benefits valuation in an on-line format. This format provides assistance to EPA and the public in being able to rapidly access and navigate through the report including provision of internal and external links.

Data Structure: Single Page Record Form

Number of Records: 24

Web Usage Statistics: Less than 0.64% of total ICF hits from February to June 2000.

Past cost: Low: Mainly cost of creating links.

Future cost assuming no improvements not already planned: Minimal: Cost of updating links occasionally.

Status: Linked from “other information” HLWP and from EERI record.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: None

Other possible improvements: Provide access for Website users in a more logical HLWP and show on-line reports link on homepage.

Relation to other databases: Similar in structure, but not contents, to other on-line reports. Also available as downloadable report in EERI.

26. Measuring the Benefits of Clean Air and Water

Database Summary

Database Name: Measuring the Benefits of Clean Air and Water

Contents: On-line report.

Purpose: Provide a semi-popular overview of air and water valuation by one of the "grand old men" of environmental economics in an on-line format. This format provides assistance to EPA and the public in being able to rapidly access and navigate through the report including provision of internal and external links.

Intended Audience: College educated non-economists.

Data Structure: Single Page Record Form

Number of Records: 24

Usage Statistics: Less than 0.64% of total ICF hits from February to June 2000.

Past cost: Low: Mainly cost of creating links using pre-existing report.

Future cost assuming no improvements not already planned: Minimal: Staff time to update links occasionally.

Status: Linked from "other information" HLWP and EERI record.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: None

Other possible improvements: Provide access for Website users in a more logical HLWP and show on-line reports link on homepage.

Relation to other databases: Similar in structure, but not contents, to other on-line reports. Also available as downloadable report in EERI.

27. Methods Development for Assessing Air Pollution Control Benefits

Database Summary

Database Name: Methods Development for Assessing Air Pollution Control Benefits

Contents: On-line report.

Purpose: Report summarizes a large research effort. On-line features assist EPA and the public to rapidly access and navigate through the report including provision of internal and external links.

Data Structure: Single Page Record Form

Intended Audience: Environmental economists.

Number of Records: 24

Usage Statistics: Less than 0.64% of total ICF hits from February to June 2000.

Past cost: Low: Mainly cost of creating links.

Future cost assuming no improvements not already planned: Minimal: Staff time to update links occasionally.

Status: Linked from “other information” HLWP and from EERI record.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: None

Other possible improvements: Provide access for Website users in a more logical HLWP and show on-line reports link on homepage.

Relation to other databases: Similar in structure, but not contents, to other on-line reports. Also available as downloadable report in EERI.

28. Methods Development for Environmental Control Benefits Assessment

Database Summary

Database Name: Methods Development for Environmental Control Benefits Assessment

Contents: On-line report.

Purpose: Report summarizes a very large research effort. On-line report provides assistance to EPA and the public in being able to rapidly access and navigate through the report including provision of internal and external links.

Data Structure: Single Page Record Form

Intended Audience: Environmental economists.

Number of Records: 16

Usage Statistics: Less than 0.64% of total ICF hits from February to June 2000.

Past cost: Low: Mainly cost of creating links in a pre-existing report.

Future cost assuming no improvements not already planned: Minimal: Staff time to update links occasionally.

Status: Linked from “other information” HLWP and from EERI record.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: None

Other possible improvements: Provide access for Website users in a more logical HLWP and show on-line reports link on homepage.

Relation to other databases: Similar in structure, but not contents, to other on-line reports. Also available as downloadable report in EERI.

29. Methods Development in Measuring Benefits of Environmental Improvements

Database Summary

Database Name: Methods Development in Measuring Benefits of Environmental Improvements

Contents: On-line report.

Purpose: Summarizes a major research effort. On-line format provides assistance to EPA and the public in being able to rapidly access and navigate through the report including provision of internal and external links.

Data Structure: Single Page Record Form

Intended Audience: Environmental economists.

Number of Records: 29

Usage Statistics: Less than 0.64% of total ICF hits from February to June 2000.

Past cost: Low: Mainly cost of creating links.

Future cost assuming no improvements not already planned: Minimal: Staff time to update links

Status: Linked from “other information” HLWP and from EERI record.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: None

Other possible improvements: Provide access for Website users in a more logical HLWP and show on-line reports link on homepage.

Relation to other databases: Similar in structure, but not contents, to other on-line reports. Also available as downloadable report in EERI.

30. Valuation of Reductions in Human Health Symptoms and Risks

Database Summary

Database Name: Valuation of Reductions in Human Health Symptoms and Risks

Contents: On-line report.

Purpose: Summarizes a major research effort. On-line format provides assistance to EPA and the public in being able to rapidly access and navigate through the report including provision of internal and external links.

Data Structure: Single Page Record Form

Intended Audience: Environmental economists.

Number of Records: 30

Usage Statistics: Less than 0.64% of total ICF hits from February to June 2000.

Past cost: Low: Mainly cost of creating links.

Future cost assuming no improvements not already planned: Minimal: Staff time to update links.

Status: Linked from “other information” HLWP and from EERI record.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: None

Other possible improvements: Provide access for Website users in a more logical HLWP and show on-line reports link on homepage.

Relation to other databases: Similar in structure, but not contents, to other on-line reports.

31. Regulatory Economic Analyses at the EPA

Database Summary

Database Name: Regulatory Economic Analyses at the EPA

Contents: On-line report.

Purpose: Purpose: Provides overview and introduction to many of the reports in the REAI database. On-line format provides assistance to EPA and the public by enabling them to quickly find RIAs/EAs of interest to them. Provides an in-depth navigational tool to REAI database.

Data Structure: Single Page Record Form

Intended Audience: Environmental economists and general public interested in topic.

Number of Records: 46

Website Usage Statistics: Less than 0.64% of total ICF hits from February to June 2000, but probably would have been much higher if it had been available earlier in the period.

Past cost: Medium if cost of preparing report is included.

Future cost assuming no improvements not already planned: Minimal: Staff time to update links

Status: Linked from “other information” HLWP and from EERI record.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: None

Other possible improvements: Provide access for Website users in a more logical HLWP and show on-line reports link on homepage.

Relation to other databases: Similar in structure, but not contents, to other on-line reports.

Databases Part II: Those for Which a Database Has Been or Is Being Developed with the Intention of Possible Future Linking to the NCEE Website but Which Are Not Currently Linked

32. The United States Experience with Economic Incentives for Protecting the Environment

Database Summary

Database Name: The US Experience with Economic Incentives for Protecting the Environment

Contents: On-line report containing extensive internal and external links.

Purpose: Assistance to EPA and the public in being able to rapidly access and navigate through the report including provision of internal and external links.

Intended audience: General public interested in using the report on-line.

Data Structure: Single Page Record Form

Number of Records: Probably less than 500

Website Usage Statistics: Not linked during measurement period

Past cost: Low: Limited staff time to date in order to copy and paste text.

Future cost assuming no improvements not already planned: Low: Cost of completing the transfer of the text from another electronic format.

Status: Under construction. Not yet linked. Expected to be completed in April 2001.

Current plans for major improvements under active consideration/implementation by Database Subcommittee: Finish report

Other possible improvements: Provide access for Website users in a more logical HLWP than that now provided for other on-line reports and show on-line reports link on homepage.

Relation to other databases: Similar in structure, but not contents, to other on-line reports. Also available for downloading from EERI record and from Recent Publications.

33. NCEE in States

Database Summary

Database Name: NCEE in States

Contents: Compendium of state-initiated pollution control and related actions.

Purpose: Resource for EPA and state environmental authorities and public researchers to learn of state-based approaches and initiatives.

Intended users: State and local environmental economists and officials.

Data Structure: Single Record Form; Links to Files or URLs

Number of Records: 14

Web Usage Statistics: Not linked during period.

Past cost: Very small; mainly programming.

Future cost assuming no improvements not already planned: Zero since there are apparently no present plans to complete this database. It would require a small staff input to complete, but none is currently planned.

Status: Never completed and not linked.

Relation to other databases: Almost none.

34. Large RIA Database (RIADB2.0)

Database Summary

Database Name: Large RIA Database (RIADB2.0)

Contents: Detailed information on pollution problems, receptors at risk, approaches considered, costs, benefits, and economic and other impacts extracted from RIAs. Approximately 85 RIAs have been entered. Provides synopsis of relevant economic data for these RIAs on a comparable basis.

Purpose: Provide a structured central repository of Economic Analyses data that is searchable and can provide information based on queries across all of the entries. Intended primarily for internal-to-the-Government use to provide structured data that allow meaningful comparisons of the economic aspects of major EPA regulations and the EAs/RIAs prepared for them.

Intended users: EPA management and possibly OIRA.

Data Structure: Hierarchical (see under Data Structure below)

Number of Records: 8,119 (many records per RIA)

Web Usage Statistics: Not linked during period. Only available to selected NCEE staff on a need-to-use basis.

Past cost: Comparatively very high. The programming and data entry have been comparatively expensive.

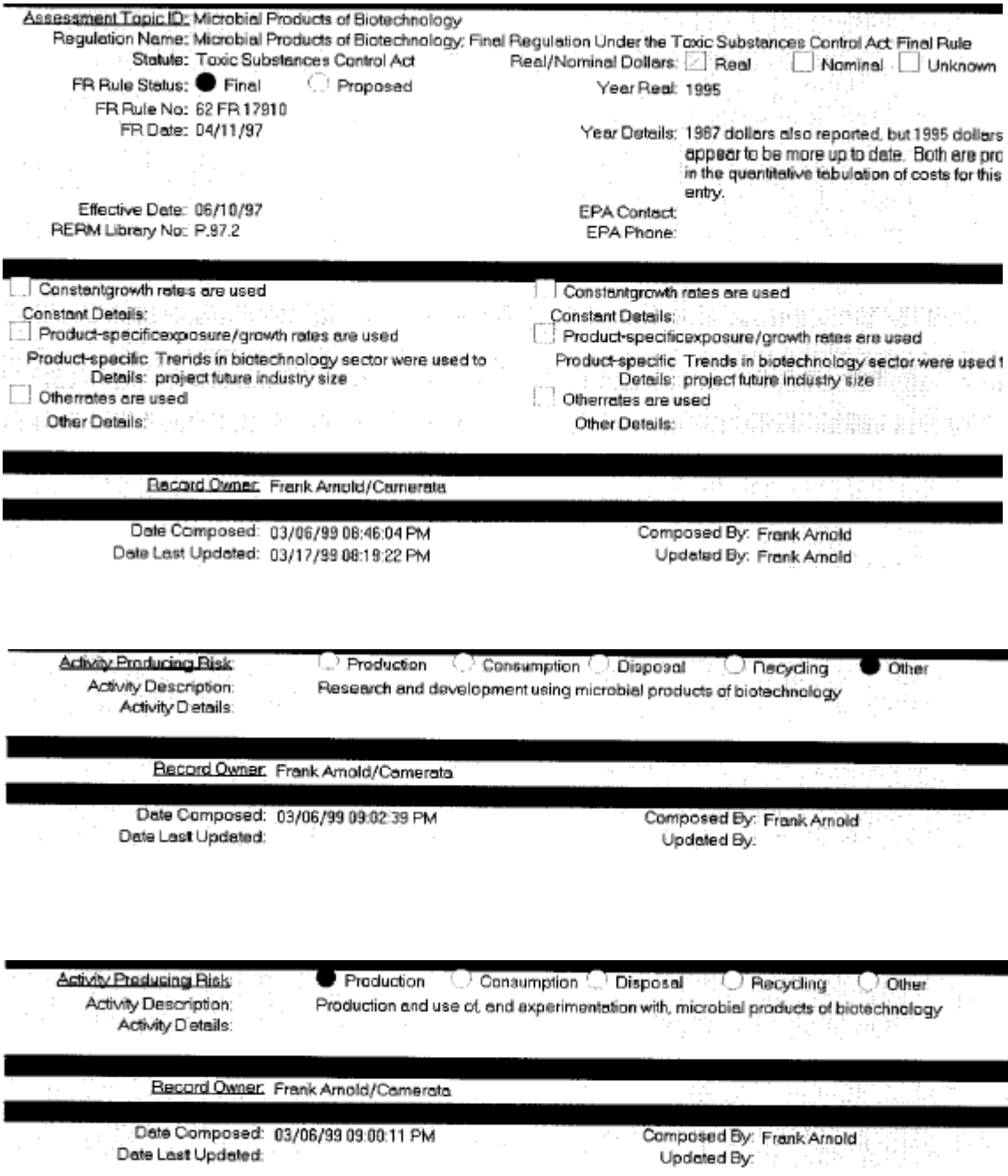
Future cost assuming no improvements not already planned: Comparatively very high due to the time needed to enter and verify each entry and the large number of potential EA/RIAs that could be entered.

Status: Not linked and not accessible over the Web because of possible sensitivity of data. Further effort to vet entries and link to related records in REAI has not taken place for over a year because contractor funds have not been allocated to this project.

Other possible improvements: Could be used as one of the bases for a possible NCEE role as a “peer reviewer” of new EAs. NCEE staff could enter data for each EA reviewed into the database as part of their peer review and use the DB as a “template” for their review and to highlight comparisons with how other EAs/RIAs have been done. If made available on the intranet could provide a basis for comparison of the RIAs/EAs to the Guidelines or other RIAs/EAs

Relation to other databases: Entirely different structure to that of all other databases. Has some information similar to that in REAI which could usefully be linked between the two DBs but is currently not.

Sample Record



Assessment Topic ID: Microbial Products of Biotechnology
Regulation Name: Microbial Products of Biotechnology: Final Regulation Under the Toxic Substances Control Act: Final Rule
Statute: Toxic Substances Control Act
Real/Nominal Dollars: ☑ Real ☐ Nominal ☐ Unknown
FR Rule Status: ● Final ○ Proposed
Year Real: 1995
FR Rule No: 62 FR 17910
FR Date: 04/11/97
Year Details: 1987 dollars also reported, but 1995 dollars appear to be more up to date. Both are pro in the quantitative tabulation of costs for this entry.
Effective Date: 06/10/97
EPA Contact:
RERM Library No: P.97.2
EPA Phone:

☐ Constantgrowth rates are used
Constant Details:
☐ Product-specificexposure/growth rates are used
Product-specific Details: Trends in biotechnology sector were used to project future industry size
☐ Otherrates are used
Other Details:

☐ Constantgrowth rates are used
Constant Details:
☐ Product-specificexposure/growth rates are used
Product-specific Details: Trends in biotechnology sector were used t project future industry size
☐ Otherrates are used
Other Details:

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 08:46:04 PM
Composed By: Frank Arnold
Date Last Updated: 03/17/99 08:19:22 PM
Updated By: Frank Arnold

Activity Producing Risk: ○ Production ○ Consumption ○ Disposal ○ Recycling ● Other
Activity Description: Research and development using microbial products of biotechnology
Activity Details:

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 09:02:39 PM
Composed By: Frank Arnold
Date Last Updated:
Updated By:

Activity Producing Risk: ● Production ○ Consumption ○ Disposal ○ Recycling ○ Other
Activity Description: Production and use of, and experimentation with, microbial products of biotechnology
Activity Details:

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 09:00:11 PM
Composed By: Frank Arnold
Date Last Updated:
Updated By:

Cost/Benefit: ○ Cost ● Benefit
Consideration Topic: Baseline of the 1986 Policy Statement
Consideration Details: Costs are computed relative to the current 1986 EPA Policy Statement requirements - cost savings result in some categories because this rule is less costly but equally protective vis a vis the current rule.

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 09:24:47 PM
Composed By: Frank Arnold
Date Last Updated: 03/06/99 09:25:36 PM
Updated By: Frank Arnold

Cost/Benefit: ● Cost ○ Benefit
Consideration Topic: FR Citation for Verification
Consideration Details: FR 62 17929-17930 exactly match rounded totals recorded here

Record Owner: Frank Arnold/Camerata

Date Composed: 03/07/99 07:50:51 PM
Composed By: Frank Arnold
Date Last Updated: 03/07/99 07:54:20 PM
Updated By: Frank Arnold

Cost/Benefit: ● Cost ○ Benefit
Consideration Topic: Year 1 and Year 5 Costs
Consideration Details: RIA presents costs for the "start-up" phase of the rule and for a future Year 5 when the initial costs are largely irrelevant and only the continuing costs of the rule are applicable.

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 09:20:48 PM
Composed By: Frank Arnold
Date Last Updated:
Updated By:

Cost/Benefit: ● Cost ○ Benefit
Consideration Topic: Baseline of the 1986 Policy Statement
Consideration Details: Costs are computed relative to the current 1986 EPA Policy Statement requirements - cost savings result in some categories because this rule is less costly but equally protective vis a vis the current rule.

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 09:22:31 PM
Composed By: Frank Arnold
Date Last Updated: 03/06/99 09:25:26 PM
Updated By: Frank Arnold

Cost/Benefit: ○ Cost ● Benefit

Issue Type: Issues relating to unquantified benefits

Issue Details: Quantifying the risk-reduction benefits of the rule was not possible due to the extremely uncertain nature of future microbial products of biotechnology.

Record Owner: Frank Arnold/Camerata

Date Composed: 03/07/99 07:55:59 PM Composed By: Frank Arnold

Date Last Updated: Updated By:

Cost/Benefit: ● Cost ○ Benefit
Issue Type: Assumptions/uncertainties/limitations
Issue Details: Data limitations and inherent uncertainties about the future development of the biotechnology industry make it hard to project precise numbers of notifications and their costs.

Record Owner: Frank Arnold/Comerata

Date Composed: 03/07/99 07:54:43 PM
Composed By: Frank Arnold
Date Last Updated:
Updated By:

Cost/Benefit: ● Cost ○ Benefit
Discounting Procedure Type: Not discounted
Social Rate:
Social Rate Details:
Private Rate:
Private Rate Details:
Cost Discounting Details: Costs are for a single year and are reported in 1987 and 1995 dollars. Presumably, with actual rule promulgation in 1997, Year 1 costs are for 1998 and Year 5 costs are for 2003. No discounting is done, so these results might require adjustment if present value results are required for the Year 5 costs.
Benefit Discounting Details:

Record Owner: Frank Arnold/Comerata

Date Composed: 03/06/99 08:56:38 PM
Composed By: Frank Arnold
Date Last Updated:
Updated By:

Exposure Profile: ○ Emission/Disposal ○ Product Use
● Release from Product or Process ○ Other
○ Sudden or Accidental or Probabilistic release

Exposure Profile Description: Potential release from experimental, research, and production uses of altered microorganisms

Exposure Profile Details:

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 09:03:08 PM Composed By: Frank Arnold
Date Last Updated: 03/06/99 09:04:44 PM Updated By: Frank Arnold

Exposure Profile: ○ Emission/Disposal ○ Product Use
○ Release from Product or Process ○ Other
● Sudden or Accidental or Probabilistic release

Exposure Profile Description: Possible release to the environment of contained uses of altered microorganisms

Exposure Profile Details:

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 09:03:47 PM Composed By: Frank Arnold
Date Last Updated: 03/06/99 09:05:11 PM Updated By: Frank Arnold

Geographical Distribution: ○ Global ● National ○ Regional ○ Other

Geographical Distribution Description:

Geographical Distribution Details:

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 09:05:41 PM Composed By: Frank Arnold
Date Last Updated: Updated By:

Justification for Regulation: ○ Benefits exceed costs
○ Statutory or judicial mandate
● Correct or avoid low probability or catastrophic events
○ Pre-existing goverment-induced distortions
○ Other

Justification Description: Microorganisms reproduce and could affect the environment and human health in various herd to predict ways.

Justification Details:

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 09:05:59 PM Composed By: Frank Arnold
Date Last Updated: Updated By:

Nature of Market Failure:

- ○ Causation difficult to establish
- ● Exposure not perceptible
- ○ Long time-lags between exposure and effects
- ○ Common property resources involved
- ○ Property rights unclear
- ○ Free rider problem
- ○ Transaction cost
- ○ Unregulated market outcomes socially suboptimal
- ○ Pre-existing government-induced distortions
- ○ Other

Nature of Market Failure Description: Possible difficulties detecting releases and consequences in a timely fashion.

Nature of Market Failure Details:

Record Owner: Frank Arnold/Comerata

Date Composed: 03/06/99 09:06:57 PM
Composed By: Frank Arnold

Date Last Updated:
Updated By:

Nature of Market Failure:

- ○ Causation difficult to establish
- ○ Exposure not perceptible
- ● Long time-lags between exposure and effects
- ○ Common property resources involved
- ○ Property rights unclear
- ○ Free rider problem
- ○ Transaction cost
- ○ Unregulated market outcomes socially suboptimal
- ○ Pre-existing government-induced distortions
- ○ Other

Nature of Market Failure Description: Reproduction capabilities of microorganisms makes their unintended or unsatisfactorily controlled release to the environment a significant risk that might not be detected for some time.

Nature of Market Failure Details:

Record Owner: Frank Arnold/Comerata

Date Composed: 03/06/99 09:07:56 PM Composed By: Frank Arnold

Date Last Updated: Updated By:

Primary Pollutant Type:

- ○ Air Emission
- ○ Pesticide
- ○ Effluent
- ○ Solid Waste
- ○ Hazardous Waste
- ○ Toxic Substance
- ● Other

Pollutant Description: Genetically altered microorganisms

Pollutant Details:

Record Owner: Frank Arnold/Comerata

Date Composed: 03/06/99 09:09:17 PM Composed By: Frank Arnold

Date Last Updated: Updated By:

Sector Type:

- ● Private Industry
- ○ Federal Government
- ○ State Government
- ○ Local Government

Entry Type: ○ Industry Name ○ Public Sector ● Facility Type ○ Facility Size

Facility Type: Commercial use and R&D - includes Universities

Universe of Facilities: Approximately 130 subject to TSCA regulation

Facility Type Details:

Record Owner: Frank Arnold/Comerata

Date Composed: 03/06/99 09:18:46 PM Composed By: Frank Arnold

Date Last Updated: Updated By:

Sector Type: ● Private Industry ○ Federal Government ○ State Government ○ Local Government

Entry Type: ○ Industry Name ○ Public Sector ○ Facility Type ● Facility Size

Sizes of Facilities: Large and small

Sizes of Facilities Details: Substantial portion of the 130 subject to the rule with sales $40 million or less

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 09:15:40 PM

Composed By: Frank Arnold

Date Last Updated:

Updated By:

Sector Type: ● Private Industry ○ Federal Government ○ State Government ○ Local Government

Entry Type: ● Industry Name ○ Public Sector ○ Facility Type ○ Facility Size

SIC:

Industry Name:

Non-Standard Industry Name: Biotechnology industry - commercial use and R&D

Private Industry Details:

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 09:10:53 PM

Composed By: Frank Arnold

Date Last Updated:

Updated By:

Source of Exposure: ○ Stratospheric Air ○ Surface Water ○ Land ○ Tropospheric Air ○ Groundwater ○ Food Chain ○ Indoor Air ● Drinking Water ○ Other

Source Description:

Source Details:

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 09:10:30 PM

Composed By: Frank Arnold

Date Last Updated:

Updated By:

Source of Exposure: ○ Stratospheric Air ○ Surface Water ○ Land
○ Tropospheric Air ● Groundwater ○ Food Chain
○ Indoor Air ○ Drinking Water ○ Other

Source Description:
Source Details:

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 09:10:22 PM
Date Last Updated:

Composed By: Frank Arnold
Updated By:

Source of Exposure: ○ Stratospheric Air ○ Surface Water ● Land
○ Tropospheric Air ○ Groundwater ○ Food Chain
○ Indoor Air ○ Drinking Water ○ Other

Source Description:
Source Details:

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 09:10:39 PM
Date Last Updated:

Composed By: Frank Arnold
Updated By:

Source of Exposure: ○ Stratospheric Air ● Surface Water ○ Land
○ Tropospheric Air ○ Groundwater ○ Food Chain
○ Indoor Air ○ Drinking Water ○ Other

Source Description:
Source Details:

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 09:10:08 PM
Date Last Updated:

Composed By: Frank Arnold
Updated By:

Source of Exposure: ○ Stratospheric Air ○ Surface Water ○ Land
○ Tropospheric Air ○ Groundwater ● Food Chain
○ Indoor Air ○ Drinking Water ○ Other

Source Description:
Source Details:

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 09:10:46 PM
Date Last Updated:

Composed By: Frank Arnold
Updated By:

Source of Exposure: ○ Stratospheric Air ○ Surface Water ○ Land
● Tropospheric Air ○ Groundwater ○ Food Chain
○ Indoor Air ○ Drinking Water ○ Other

Source Description:
Source Details:

Record Owner: Frank Arnold/Camerata

Date Composed: 03/06/99 09:09:44 PM
Date Last Updated:

Composed By: Frank Arnold
Updated By:

Database Structure

Columns

Name	Type	Size
Approach ID	Number (Long)	4
Approach Option ID	Text	50
Approach Type	Text	50
Component Operation Description	Memo	-
Type of Standard	Text	50
Standard Description	Text	50
Bubbling/Trading Allowed	Text	50
Bubbling/Trading Allowed Description	Text	50
Location/Siting Limitation	Text	50
Imports Vs Domestic	Text	50
Exports Vs Domestic	Text	50
Ban on Uses	Text	50
Restriction on Way Used	Text	50
Protective Measures Required	Text	50
Permit Trading Restrictions	Text	50
Permits Allocated	Text	50
Permits Auctioned/Sold	Text	50
Limitations Constant/Declining	Text	50
Regions Affected	Text	50
Ambient Env Quality Measurement	Text	50
Event/Activity Charged	Text	50
Charge Rate	Text	50
Charge Revenues Disposition	Text	50
Subsidized Event/Activity	Text	50
Subsidy Rate	Text	50
Subsidy Funds Source	Text	50
Activity Generating Credits	Text	50
Credit Trading Restrictions	Text	50
Baseline Measurements	Text	50
Info Provision Target Audience	Text	50
Info Conveyance Mechanism	Text	50
Requirements Purpose	Text	50
Requirements Description	Text	50
Requirements Nature	Text	50
Requirements Mechanism	Text	50

Columns

Name	Type	Size
Topic Short Title	Text	50
Approach Option ID	Number (Long)	4
Approach Option Name	Text	50
Time Frame Type	Text	50
Time Frame Year	Text	50
Time Frame Year From	Text	50
Time Frame Year To	Text	50
Effective Date	Text	50
Phase-in Period	Text	50
Grandfathering Industry	Text	50
Grandfathering Details	Text	50
Exemptions	Text	50
Exemptions Details	Text	50
Private Sec Costs Est Method	Text	50
Private Sec Est Method Details	Text	50
Private Sec Costs Est Type	Text	50
Private Sec Est Type Details	Text	50
Private Sec Costs Time Horizon	Text	50
Public Sec Costs Est Method	Text	50
Public Sec Est Method Details	Text	50
Public Sec Costs Est Type	Text	50
Public Sec Est Type Details	Text	50
Public Sec Costs Time Horizon	Text	50
Public Sec Costs Gov Level	Text	50
Gov Level Details	Text	50
Decision Type	Text	50
Reasons Selected	Text	50
Reasons Rejected	Text	50
Reason Details	Text	50
Other Criteria Used	Text	50
Criteria Used Details	Text	50

Columns

Name	Type	Size
Authority ID	Number (Long)	4
Approach Option ID	Text	50
Implementing Authority Type	Text	50
Other Authority Description	Text	50

Columns

Name	Type	Size
Item Cost ID	Number (Long)	4
Private/Public	Text	50
Approach Option ID	Text	50
Cost Totals/Details	Text	50
Total Flag	Text	50
Cost Item	Text	50
Cost Estimate	Text	50
Cost Low	Text	50
Cost High	Text	50

Columns

Name	Type	Size
Nature Costs Not Quantified	Text	50
ApproachOptionID	Text	50
Reason Costs Not Quantified	Text	50
Reason Details	Text	50
Unquantified Costs Sectors Affected	Text	50
nquantified Costs Considerations	Text	50
Unquantified Costs Significance	Text	50

Columns

Name	Type	Size
Approach Enforcement ID	Number (Long)	4
Approach Option ID	Text	50
Enforcement Mechanism Type	Text	50
Mechanism Description	Text	50

Columns

Name	Type	Size
Other IA ID	Text	50
Approach Option ID	Text	50
Quantified/Unquantified	Text	50
Impact Assessment	Text	50
Impact Assessment Details	Text	50
Impact Measure	Text	50
Impact Measure Details	Text	50
Computation Method	Text	50
Computation Method Details	Text	50
Amount of Impact	Text	50
IA Conclusion	Text	50
IA Conclusion Details	Text	50

Columns

Name	Type	Size
Topic Short Name	Text	80
Topic Name	Memo	-
Topic Category	Text	50
EPA Contact	Text	50
EPA Phone	Text	12
Effective Date	Date/Time	8
Mandate Title	Text	50
FR Date	Date/Time	8
FR Rule #	Text	50
FR Rule Status	Text	50
Baseline Projection - Constant	Text	50
Constant Details	Text	50
Baseline Projection - Specific	Text	50
Specific Details	Text	50
Baseline Projection - Other	Text	50
Other Details	Text	50
Real/Nominal Dollars	Text	50
Year Real	Text	50
Year Nominal	Text	50
Unknown Description	Text	50

Columns

Name	Type	Size
Name	Text	50
E-mail Address	Text	50
RERM ID	Text	50

Columns

Name	Type	Size
Consideration Topic	Text	50
Topic Short Name	Text	50
Cost/Benefit	Text	50
Consideration Details	Memo	-

Columns

Name	Type	Size
Issue ID	Text	50
Topic Short Name	Text	50
Cost/Benefit	Text	50
Issue Type	Text	50
Issue Details	Text	50

Columns

Name	Type	Size
Discounting Procedure ID	Text	50
Topic Short Name	Text	50
Discounting Procedure Type	Text	50
Social Rate	Text	50
Private Rate	Text	50
Shadow Capital Price	Text	50
Weighted Avrg Rate	Text	50
Social Rate Details	Text	50
Private Rate Details	Text	50
Shadow Capital Price Details	Text	50
Weighted Avrg Rate Details	Text	50

Columns

Name	Type	Size
RERM ID	Text	50
Topic Shot Name	Text	50
Title	Text	150
Date Issued	Date/Time	8
Ref No	Text	50
Status	Text	50
Pages	Number (Integer)	2
EPA Office	Text	50
EPA Suboffice	Text	50
Contractor	Text	50
Contract	Text	50

Columns

Name	Type	Size
Type	Text	50
RERM ID	Text	50

Columns

Name	Type	Size
Division ID	Number (Long)	4
Division Name	Text	50
RERM ID	Text	50

Columns

Name	Type	Size
Record ID	Number (Long)	4
Activity Producing Risk	Text	50
Description	Text	50
Topic Short Name	Text	50

Columns

Name	Type	Size
Record ID	Number (Long)	4
Exposure Profile	Text	50
Description	Text	50
Topic Short Name	Text	50

Columns

Name	Type	Size
Record ID	Number (Long)	4
Geographical Distribution	Text	50
Description	Text	50
Topic Short Name	Text	50

Columns

Name	Type	Size
Record ID	Number (Long)	4
Justification for Regulation	Text	50
Description	Text	50
Topic Short Name	Text	50

Columns

Name	Type	Size
Record ID	Number (Long)	4
Nature of Market Failure	Text	50
Description	Text	50
Topic Short Name	Text	50

Columns

Name	Type	Size
Record ID	Number (Long)	4
Primary Pollutant Type	Text	50
Description	Text	50
Topic Short Name	Text	50

Columns

Name	Type	Size
Record ID	Number (Long)	4
Sector Responsible for Risk	Text	50
Industry Name	Text	50
SIC	Text	50
Facility Type	Text	50
Number of Facilities	Text	50
Size of Facilities	Text	50
Activity Type	Text	50
Topic Short Name	Text	50

Columns

Name	Type	Size
Record ID	Number (Long)	4
Source of Exposure	Text	50
Description	Text	50
Topic Short Name	Text	50

Columns

Name	Type	Size
Receptor Group ID	Text	50
Approach Option ID	Text	50
Receptor Group Name	Text	50
Human/Nonhuman	Text	50
Benefit Estimate Type	Text	50
Benefit Estimate Type Details	Text	50
Time Horizon	Text	50
Estimate Basis	Text	50
Estimate Basis Details	Text	50

Columns

Name	Type	Size
Item Benefit ID	Text	50
Receptor Group ID	Text	50
Item Name	Text	50
Benefits Estimate	Text	50
Total Flag	Text	50
Upper 95%	Text	50
Low	Text	50
High	Text	50
Mean	Text	50

Columns

Name	Type	Size
Receptor Group ID	Text	50
Approach Option ID	Text	50
Receptor Group Name	Text	50
Human/Non-Human	Text	50
Benefits Significance	Text	50
Benefit Description	Text	50
Reasons Not Quantified	Text	50
Not Quantified Details	Text	50

Columns

Name	Type	Size
Receptor Group ID	Text	50
Approach Option ID	Text	50
Receptor Group Name	Text	50
Human/Nonhuman	Text	50
Benefit Estimate Type	Text	50
Benefit Estimate Type Details	Text	50
Time Horizon	Text	50
Estimate Basis	Text	50
Estimate Basis Details	Text	50

Columns

Name	Type	Size
Receptor ID	Number (Long)	4
Topic Short Name	Text	50
Human/Other	Text	50
Exposure Status	Text	50
Age Group	Text	50
Health Effect Group	Text	50
Health Effect Type	Text	50
Health Effect Description	Text	50
Exposure Route	Text	50
Other Receptor Type	Text	50
Other Receptor SubType	Text	50
Other Receptor Harm Type	Text	50
Other Receptor Harm Details	Text	50
Units Qnt Estimate Source	Text	50
Units Qut Description	Text	50
Dollars Qnt Estimate Source	Text	50
Dollars Qnt Description	Text	50
Units Group Assignment	Text	50
Dollars Group Assignment	Text	50
Non-Quantified Assignment	Text	50