
Final Draft Report

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Summary Report:
Interim Findings and Preliminary Recommendations
Facility-based and Post-rule Assessment

Prepared for

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Section I. Introduction

Introduction

Background

In December 2000, South Coast Air Quality Management District (AQMD) retained BBC Research & Consulting (BBC) to evaluate potential enhancements to AQMD's process for examining and reporting the socioeconomic impacts of AQMD regulations. In particular, BBC was asked to focus on two specific types of socioeconomic analysis:

- facility based assessment; and
- post-rule assessment.

Purposes of this report

This report summarizes key findings from the first two tasks in BBC's evaluation, which were to:

- examine available literature and existing methodologies that have been used in these types of analyses; and
- interview regulated businesses and other stakeholders throughout the LA Basin concerning AQMD's impact assessment process.

BBC also presents potential directions for enhancing AQMD's socioeconomic impact assessment process, based upon the first two tasks.

In the second phase of this evaluation, to be conducted in the summer and fall of 2001, BBC will take this foundation and apply it to specific AQMD rules or processes. This exercise will lead to the development of specific assessment protocol(s) recommendations about when and how AQMD should conduct such analyses and the related resource requirements.

Further

Extensive detail regarding the research conducted and the findings in the first two tasks can be found in separate Task 1 and Task 2 working papers provided to AQMD staff.

Section II. Key Findings and Preliminary Recommendations

Key Findings—Literature and Methodology Review

Challenges and benefits

If AQMD decides to systematically pursue facility-based assessment and/or post-rule assessment, the District is embarking on a challenging, but potentially rewarding path.

- There is no single, ideal data source to address many of AQMD's key questions. It is likely that AQMD will have to rely on a combination of both primary and varied secondary data sources.
- There appear, however, to be considerable benefits from facility-based assessment (in particular) and, potentially, from post-rule assessment.

State of the practice

In terms of the state of the socioeconomic impact assessment practice, AQMD is far ahead of most other state and regional regulatory agencies and is viewed as the leader by them.

- Differing approaches used by some other state and regional agencies, particularly the U.S. Environmental Protection Agency and the California Air Resources Board, offer some information for AQMD consideration.

Facility-based assessment

There is growing interest in facility-based assessment among both more academic/theoretical economists and other regulatory agencies.

- There is no consistent view of what a facility-based assessment should encompass.
- Facility-based assessment can be a very valuable tool to involve stakeholders in the process and to better understand firm-level issues such as affordability and impacts on small businesses.

Post-rule assessment

Post-rule assessments focus on one of two distinct objectives: analyzing actual costs of compliance or estimating actual impacts of regulations.

- The choice of objective drives different data and analytical requirements. Analyzing actual compliance costs may be the more difficult objective.
- Post-rule assessments are rarely conducted.

Key Findings—Business Stakeholder Interviews

Relationship between business and AQMD

Many LA Basin businesses have concerns regarding their relationship with AQMD, though some stakeholders mentioned recent improvements. In general, concerns appear to be greater:

- among smaller businesses; and
- among businesses that have had less direct involvement with AQMD during the rulemaking process.

Why does it matter?

There are at least two reasons why improving relations with local businesses may be important to AQMD:

- Enhancements to AQMD’s socioeconomic assessment practices—such as facility-based assessments and post-rule assessments—are likely to require more cooperation and information sharing from local businesses; and
- A strained relationship might hamper efforts to work together with businesses to identify the best ways to implement compliance requirements.

Challenges and opportunities

The interview process revealed a fundamental challenge. Many businesses interviewed by the study team identified improving communications and mutual understanding as one of the keys to a better relationship between AQMD and local business. However, many of these same businesses expressed concerns about sharing information with AQMD. In the context of this study, this apparent conflict may indicate that:

- Obtaining information from local businesses to conduct facility-based assessments, and perhaps to conduct post-rule assessments, may be quite challenging for AQMD; and
- Conversely, the benefits of establishing communication links in the course of such assessments may go beyond simply improving information regarding the socioeconomic impacts of upcoming rules.

Key Findings—Business Stakeholder Interviews

Information Needs

Though many business owners are relatively unfamiliar with the socioeconomic process, they have ideas about what should be a part of the process or what information should be developed. The business community appears more concerned with operational and financial impacts as opposed to the aggregate employment and income measures produced by traditional socioeconomic analyses.

The broad scope of concern amongst the regulated community implies that efforts to respond may require enhanced collaboration between the socioeconomic staff and other AQMD departments.

Preliminary Recommendations—Facility-based Assessment

Seek to involve stakeholders

Based upon the Task 1 and Task 2 research, BBC suggests AQMD consider several preliminary recommendations for testing in the next phase of our assignment.

Use facility-based assessments as a means of increasing stakeholder participation and interaction. This might include:

- Focus groups with all stages of the sector to be regulated (from input manufacturers to retailers) to refine cost estimates, assess feasibility and develop a clear understanding of how the sector functions and key issues; and
- Surveys or case studies as part of developing representative firm profiles and assessing affordability, firm response and impacts on competitiveness.

Present industry and firm profiles

Develop and present a clear sector, industry and representative firm profile. This would reflect both input from stakeholders and secondary data. This might include data and discussion on:

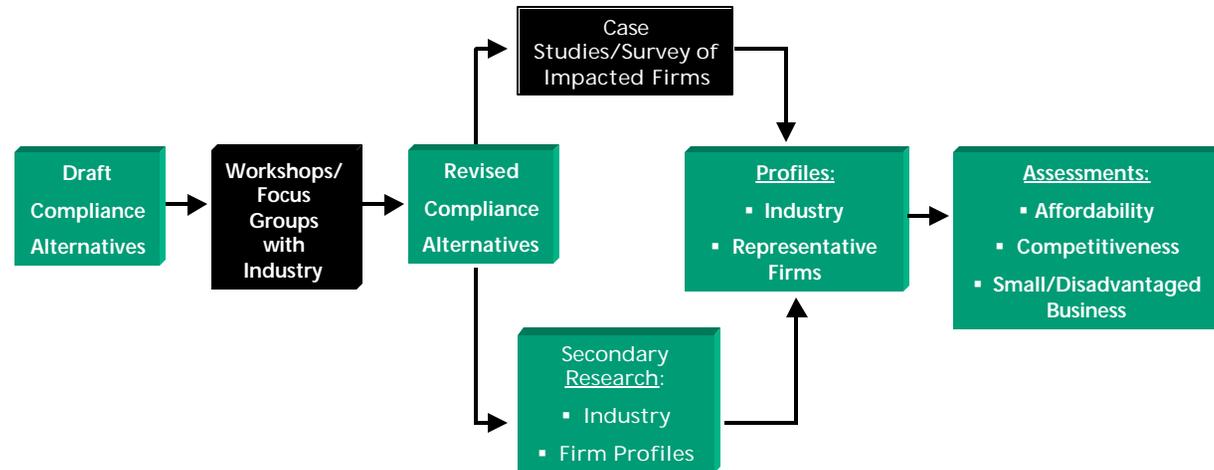
- How the industry works;
- Trends in the industry;
- Comparisons of the LA Basin with other areas;
- Structure of the industry; and
- Financial and operating characteristics of representative firms within the industry (by size class, product niche, process or other key variables).

Recognize data limitations

Recognize that the data will be imperfect. It may be useful to separately present data derived from participating stakeholders and from secondary data sources. This may lead to ranges of characteristics and potential impacts.

Preliminary Recommendations—Facility-based Assessment

The following flowchart provides a graphic depiction of the potential process for conducting facility-based assessments, with at least two opportunities for stakeholder interaction during the process.



Preliminary Recommendations—Post-rule Assessments

Different types of post-rule assessment

If AQMD wishes to pursue post-rule assessments, it must recognize that different types of analysis are required to: 1) understand actual compliance costs, and 2) estimate actual impacts of regulation.

- To analyze costs:
 - Identify rules that are candidates for post-rule assessment as the regulation is implemented; and
 - Consider seeking to establish data tracking and reporting procedures at the outset—perhaps based on a willing subset of the regulated firms.
- In analyzing impacts, recognize that such assessments may not be able to isolate the effects of individual rules.

Should post-rule assessments be standard procedure?

Post-rule assessments should likely be an infrequent exercise, rather than being standard operating practice, for at least two reasons:

1. Post-rule assessments require resources that could otherwise be used for prospective assessments or other purposes that may have more impact on the rule-making process.
2. The ability of post-rule assessments to substantially improve prospective impact analysis is a tantalizing prospect, but largely unproven in the real world.

Preliminary Recommendations—Facility-based Versus Post-rule Assessment

Comparative Benefits

Facility-based assessment appears to offer more tangible and immediate benefits from both a policy and stakeholder perspective. Such assessments, conducted prior to rule adoption, offer the possibility that significant findings may lead to modifications to the proposed rule to avoid or mitigate adverse impacts on the regulated community.

Post-rule assessment, in contrast, potentially offers the opportunity to improve the accuracy of future prospective assessments (either facility-based or more traditional socioeconomic in nature). However, this potential benefit may be more highly prized by the economic analyst than by either the regulated community or the decision-making board.

These combined considerations, together with the fact that most regulatory agencies must make choices about how to use limited analytical resources, may account for the relative scarcity of post-rule assessments by other regulatory agencies.

Rule-making Considerations

The foregoing conclusions about the relative merits of facility-based versus post-rule assessments may, however, be tempered by the nature of future air quality rules.

Facility-based assessments are generally most feasible when the proposed rule targets specific, identifiable sources. Traditional point source regulations, or industry specific rules, are prime candidates.

Rules focused on area sources and mobile sources, or rules using market-based approaches applicable across a wide range of industries, may not be amenable to facility-based assessment. In such instances, and particularly when the response of the regulated community to the proposed rule is relatively unpredictable, post-rule assessment may be the more viable enhancement to AQMD's more traditional socioeconomic assessment process.

Section III. Literature and Methodology Review Summary

Literature and Methodology Review—Process

Introduction

The purpose of this section of the summary report is to provide a brief overview of the literature and methodology review conducted by BBC. Our review was organized around several key questions; those questions and answers are described on the following pages. More detail can be found in the Task 1 Working Paper submitted to AQMD staff.

The information summarized here will serve as an input into the work BBC will undertake next, namely developing specific recommendations about how and when AQMD should conduct facilities-based analysis and/or post-rule assessments.

4-Step Process

To conduct the literature and methodology review, BBC used a 4-step process:

1. Key questions regarding facility-based assessment and post-rule assessment were developed from kickoff meetings with AQMD staff and stakeholders.
2. Each key question was divided into theory—encompassing more academic research and impact assessment guidance documents—versus state of the practice—encompassing socioeconomic assessments performed by or for other regulatory agencies.
3. Research regarding current theory for each of the key questions was then conducted by first undertaking telephone interviews with leading researchers and then collecting and reviewing relevant documents.
4. A similar approach was employed for the state of the practice research. Interviews were conducted with economic staff of federal regulatory agencies, state regulatory agencies and larger regional air quality management agencies in other non-attainment areas. Sample reports were collected and analyzed.

In total, BBC conducted 16 telephone interviews with theoretical/empirical economists and economic impact analysts at other regulatory agencies and reviewed almost sixty documents totaling more than 2,500 pages to complete the Task 1 research.

Summary of Research on Facility-based Assessment

Why do facility-based assessments?

There is increasing recognition in the theoretical literature that there is great diversity among firms within almost any particular industry and that differences in firm characteristics can lead to very different responses and effects from economic changes—such as new air quality regulations.

Among practitioners, facility-based assessment is viewed as an excellent way of engaging the regulated industry, examining how impacts may vary among different types of firms and improving understanding of the feasibility of the new regulation.

When to conduct such assessments?

While the theoretical literature focuses on facility-based assessment in instances where secondary data is readily available, practitioners base this decision more on the nature of the regulation and the regulated industry. In particular, such assessments may be most warranted and/or most feasible when:

- There is a well-defined industry and set of firms that would be impacted by the regulation;
- The proposed regulatory strategy or technology is not well proven from prior experience elsewhere; and
- The regulation appears to be significant enough that the potential benefit of the analysis may outweigh the cost.

How to identify and characterize who will be affected?

Most regulators rely on a combination of internal databases (such as AQMD's permit database), secondary sources and contact with trade and industry representatives to identify and profile affected industries and firms. The literature and methodology review identified a number of potentially helpful secondary data sources, and we list a few examples here. However, BBC has not yet fully evaluated which of these sources AQMD might find most feasible for use in facility-based assessments:

- Public sector sources from the U.S. Department of Commerce, EPA and other agencies; and
- Private sector sources, including investment research reports, business directories and other research.

Summary of Research on Facility-based Assessment

How do we get the necessary firm-level data?

Facility-based assessment requires fairly detailed, micro-level data on the affected industry and firms. Essentially there are two approaches to obtaining the necessary data—relying on a mix of secondary data sources and obtaining information directly from affected firms. Much of the theoretical research on impacts to and behavior of facilities has relied on micro-data files from the Census Bureau that may, or may not, be available to AQMD. Most practitioners have relied on a variety of private databases that can provide national level profiles of typical firms (sometimes of varied sizes) within given industries, as well as direct information obtained from firms and associations willing to participate in the process.

There is no single, perfect information source that will consistently provide all of the information needed for facility-based assessment. Obtaining and assembling the necessary information may involve nearly as much art as science. In the next phase of this study, BBC plans to identify and evaluate the most accessible and applicable data sources for facility-based assessment. Such an evaluation has not been conducted at this time. Developing a better understanding of whether or not proposed regulations are affordable for affected businesses is one of the key potential benefits of facility-based assessment. Affordability is a complex question, with several important considerations.

How should we evaluate affordability?

- The ability to pass cost increases along to customers is an obvious consideration, though sometimes only the “worst” case (no cost pass through) is evaluated in order to simplify the analysis.
- Affordability is sometimes considered in both a short-term and long-term context. In the short-term, impact on cash flow is the key consideration. In the long-term, impact on profitability is the key issue.
- Like AQMD, many regulatory agencies have historically focused on cost as a percentage of sales revenue. However, given growing recognition that margins vary greatly from industry to industry (and sometimes by size of firm within an industry), EPA and others are also now moving to view costs in the context of both representative sales and representative profit margins in assessing affordability.
- Another measure that can be proxied using industry and segment averages is return on equity.

Summary of Research on Facility-based Assessment

How to estimate facility level responses to costs?

While affordability places the costs of regulation in the context of the firm's overall financial condition, estimating how firms will respond to the cost increase can help identify the economic impacts of the regulation. If very detailed financial information is available on the individual firms that will be impacted by the regulation, it can be possible to determine which firms face a real risk of closure. In the absence of such specific data, analysts can look at:

- Industry market conditions (which may determine the extent to which costs can be passed along and/or the degree of external competition from outside the region);
- Overall trends in the industry (faster growing industries tend to be less at risk of closures than stagnant or declining industries); and
- Profiles of representative firms with typical financial characteristics of segments of the industry.

How to estimate impacts on regional competitiveness?

Facility-based assessment, and perhaps to a greater extent post-rule assessment, can be used to help evaluate the effects of regulations on local industries' and firms' competitiveness relative to firms and industries outside the district. The California Air Resources Board is now required by state law to evaluate this issue for upcoming regulations. There are three types of approaches taken by CARB and/or others in evaluating impacts on competitiveness:

- Estimating changes in productivity—which is linked to profitability and assumed to be linked to the ability of firms to survive;
- Estimating whether price changes due to regulation will change the competitive balance between local firms and outside firms exporting to the regulated region; and
- Evaluating the impact of regulations on the establishment of "new" firms in the region—this may be qualitatively analyzed in prospective assessments, but typically can only be quantified in post-rule evaluations.

Summary of Research on Facility-based Assessment

Must we analyze every affected firm individually?

The two basic approaches to conducting and presenting the results from facility-based assessments are to focus on every individual firm or to focus on carefully developed "representative firms" that are proxies for different segments of the industry (e.g., small, medium and large or varied in terms of production processes or other key aspects). While the former approach offers more specific information and might be especially helpful in evaluating the potential for closures, it suffers from two principal drawbacks:

- Much more intensive data requirements—the "every firm" approach can realistically only be taken in cases where there are very few affected operations and most or all are willing to be cooperative in providing data.
- Confidentiality issues—although the names of the firms can be suppressed, in industries with relatively few operations, concerns about competitors remaining able to discern who is who in the results of the analysis may make it more difficult to obtain the necessary internal firm information.

In consideration of these issues, the representative firm approach is much more common, although AQMD and others have occasionally employed the "every firm" approach with success.

How can we specifically address small business and/or minority owned business concerns?

Facility-based assessment is the logical tool for addressing concerns about disproportionate impacts on small or minority-owned businesses and much of the interest in this type of economic assessment stems from these concerns. Federal agencies are now specifically required to consider the effect of proposed rules on small businesses. These agencies typically employ a two-step process of first screening for the potential for significant impacts and, second, conducting facility-based assessments of potential impacts (if the screen indicated potentially significant impacts might occur).

The screening procedures may be useful to AQMD in determining more generally when to conduct facility-based assessments, while the approaches to these assessments outlined in this report are suitable for examining concerns about impacts on small and minority-owned businesses. The literature review also identified a number of data sources specific to small businesses that may be helpful in this endeavor.

Summary of Research on Facility-based Assessment

How to present results in a clear and useful fashion?

The theoretical studies and the studies obtained from other regulatory agencies illustrate a variety of presentation approaches and styles that range from reasonably clear to fairly obscure. EPA's economic analysis guidance document provides a number of pointers regarding communication and presentation—but most of these are commonly accepted guidelines for clear business communication. Perhaps more useful are two suggestions that emerged from the study team's interviews with staff at a range of regulatory agencies.

- Issue technical reports, which provide the detail, separately from policy-level summaries, which should effectively stand alone and be clearly tailored to information the audience needs to know.
- Especially in technical reports, adopt a standard format and outline for the presentation, though not necessarily common language.

What resources are required?

Unfortunately, the literature and methodology review did not provide much guidance in this regard. Interviews with EPA staff indicated that costs vary widely depending on the regulation and the affected industry, with time requirements ranging from under 500 hours to more than a 1,000 hours.

Both this and the preceding question will receive more careful scrutiny during the second phase of BBC's work for AQMD.

Summary of Research on Post-rule Assessment

Why do post-rule assessments?

More theoretical researchers are principally interested in conducting post-rule assessments to determine how accurate prospective assessments have been in projecting the costs and impacts of regulations and in learning how such prospective assessments might be made more accurate.

Conversely, on the rare occasions that post-rule assessments are conducted by practitioners at regulatory agencies, their focus tends to be more on answering larger policy questions such as whether the benefits of the rule have exceeded the costs, and whether the regulation has had a significant impact on the performance of the regulated industry or the economy as a whole.

The two major potential benefits of post-rule assessment—understanding actual costs of regulations and estimating the actual impacts of regulations—may appear similar but are actually quite different. Depending on which of these objectives is the goal, a particular assessment may have both different data requirements and different analytical approaches.

When to conduct such assessments?

While post-rule assessments can be valuable, they obviously require resources that could otherwise be dedicated to assessing upcoming regulations or to other purposes. Interviews with both more theoretical economists and regulatory staff economists that have been involved in such assessments suggest a number of factors that may drive post-rule assessments:

- "Targets of opportunity"—since necessary actual cost data can be very difficult to obtain, when it is available it facilitates post-rule assessment;
- Regulations believed to have had large costs or impacts;
- Controversial regulations; and
- Innovative or untested regulations and regulatory strategies.

Summary of Research on Post-rule Assessment

How can we get data on actual costs of compliance?

One of the most challenging aspects of post-rule assessment can be obtaining data on actual compliance expenditures over time and isolating the true costs of compliance from expenditures that may jointly contribute to compliance and to firm productivity. Essentially there are three approaches, each of which has its own shortcomings.

- Use data collected by the Census Bureau in their Pollution Abatement Costs and Expenditures Survey (PACE). When available and applicable, this is probably the best option—but PACE does not cover some industries and there is a considerable time lag. In the next phase of this study, BBC may evaluate the utility and accessibility of PACE data for post-rule assessment, but such an evaluation has not been conducted at this time.
- Attempt to survey firms retrospectively—this approach has met with mixed success, at best, among other regulatory agencies. Principal problems are that firms may have even less incentive to cooperate than in connection with a prospective assessment (where there's still the possibility of regulatory relief) and that firm accounting procedures may not be set up to track necessary information.
- Establish procedures at the outset of the regulation to track and obtain cost data over time. Requiring all firms to track and report this data may well be regarded as an undue administrative burden, unless the regulatory agency can offer some incentive or quid pro quo for the information. Alternatively, it may be possible to obtain cooperation from a willing subset of the regulated firms.

How to identify and isolate what the impacts were?

Given appropriate data, changes in the performance of regulated industries and firms can be readily measured in a post-rule analysis. The challenge is to isolate the effects of the rule from the myriad of other market forces affecting businesses and industries. Accomplishing this objective requires developing a hypothetical baseline of industry and firm performance, assuming the regulation had not been implemented. In practice, such baselines are often developed by comparison with pre-rule trends and trends in other, less regulated regions while controlling for differences in other business climate factors.

Summary of Research on Post-rule Assessment

How can we examine impacts on regional competitiveness?

Ironically, although actual impacts cannot generally be directly measured in a post-rule setting (in contrast to actual costs of compliance, which can theoretically be measured), estimating post-rule impacts may often be easier than estimating post-rule compliance costs—because of better data availability.

Post-rule assessment of impacts on regional competitiveness can take three different approaches:

- Comparisons of post-rule industry performance with other regions—this approach is analogous to the approach for isolating economic impacts in a post-rule setting, described previously;
- Analysis of changes in productivity and comparison of productivity measures with other regions; and
- Analysis of impacts on firm "births" or location decisions.

Can we examine intra-industry effects in a post-rule analysis?

Given the emphasis placed on evaluating firm level effects within an industry in facility-based assessment, it may also be important to identify micro-level effects in a post-rule assessment. If the focus of the post-rule assessment is on estimating actual costs of compliance, the analysis will likely begin with firm-level data—facilitating analysis of intra-industry effects. If the focus is on estimating actual economic impacts, the analysis will likely begin at the industry level, but changes in the structure of the industry (e.g., the number of small firms versus large firms) can help to identify intra-industry impacts.

How do we compare post-rule assessments with prospective impact estimates?

Post-rule assessments are relatively infrequent and no other regulatory agency appears to consistently undertake comparisons between prospective and post-rule assessments. However, such comparisons have been made, on an ad-hoc basis, for a number of federal regulations. In general, these comparisons have focused on the cost estimates, rather than the economic impact estimates. The common finding has been that prospective analyses most often, but not always, overestimate compliance costs.

Summary of Research on Post-rule Assessment

How to present results in a clear and useful fashion?

Because post-rule assessments are generally done less often than facility-based assessments, there are fewer choices in the literature of exemplary presentation approaches and styles. Certainly the same guidelines apply as noted previously in the corresponding discussion for facility-based assessment. Two guidelines worth reemphasizing are keeping the detailed technical reports separate from policy-level summaries and using standardized formats and outlines wherever possible.

Section IV. Business Stakeholder Interview Summary

How Interviewees Were Selected

Introduction

The purpose of this section of the summary report is to provide a brief overview of the input received from stakeholders in the 36 interviews conducted by BBC in March of 2001. As with the literature and methodology review, the information summarized here will serve as an input to the second phase of BBC's work which will involve the development of specific recommendations regarding when and how to use facility-based analysis and/or post-rule assessments.

Goal of interviews

The goal of these interviews was to obtain feedback on the socioeconomic analysis process and identify potential data sources. Interviewees often expanded the scope beyond socioeconomic matters and discussed a wide variety of concerns regarding AQMD. Many of the statements made by interviewees, both positive and negative, were not specifically related to the socioeconomic impact process, but rather to a general perception about the agency.

How Interviewees Were Selected

Rule Selection

BBC worked closely with AQMD staff in developing a logical framework for choosing which type of businesses and associations we would interview. Together BBC and staff identified six recently adopted or upcoming rules.

1. Rule 1132 impacting spray booth facilities;
2. Rule 1136 impacting wood product coatings;
3. Rule 1146 impacting industrial, institutional and commercial boilers, steam generators and heaters;
4. Rule 1151 impacting motor vehicle coating operations;
5. Rule 1421 impacting dry cleaners; and
6. Rule 1425 impacting film cleaning and printing operations.

Interviewee Selection

For each of the six selected rules, BBC worked with AQMD staff to identify a pool of potential interviewees. We conducted interviews with trade associations, businesses that had been active in the rule-making process and businesses that had not been active. We also interviewed representatives of:

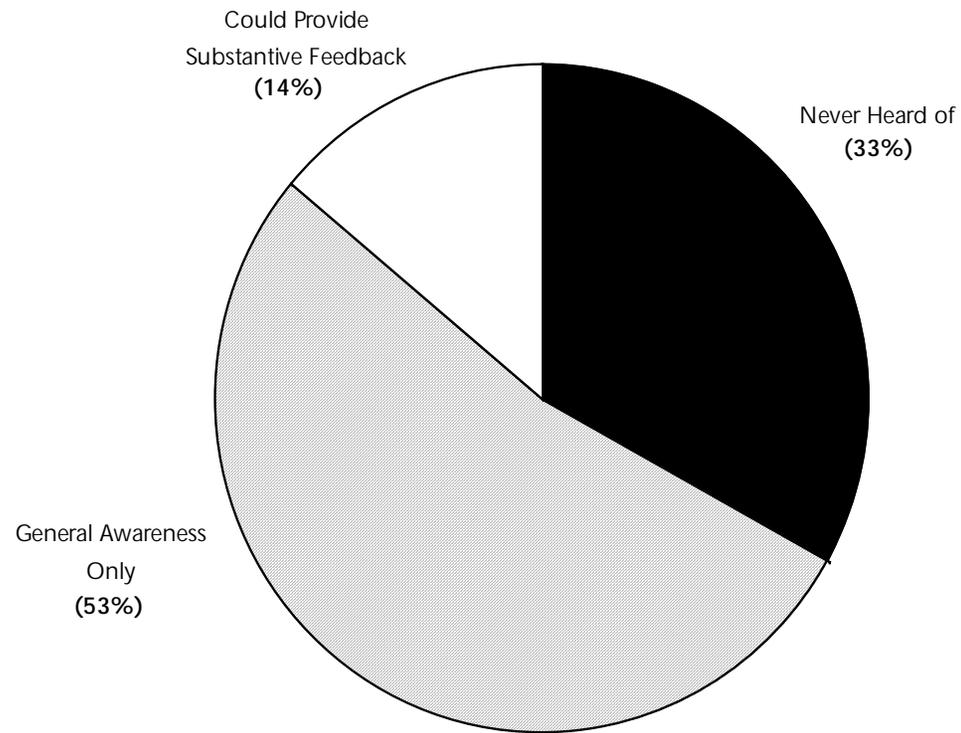
- Small and large businesses;
- Businesses located in Los Angeles, Orange, Riverside and San Bernardino counties;
- Businesses with local markets and competition only and businesses facing markets and competition beyond the Los Angeles Basin; and
- Businesses owned by minorities and/or women.

Business Stakeholder Input on Socioeconomic Process

Level of Awareness

Only 14 percent of the stakeholders interviewed were familiar enough with the existing socioeconomic impact process to provide substantive feedback. However, as described later, many stakeholders (familiar or not with the existing process) were able to provide suggestions regarding the types of information they would like AQMD to examine.

Awareness of Existing Socioeconomic Process



Business Stakeholder Input on Socioeconomic Process

Criticisms of socioeconomic analyses

Those that were familiar with the socioeconomic impact process, generally people who had been relatively active with AQMD, criticized inputs into the REMI model, outputs from the REMI model and the way that results are presented. Specific examples include:

- “The socioeconomic impact analyses are just boilerplate. The numbers may change but the language always stays the same. I don’t know how they can get at correct numbers if they’re just using a boilerplate analysis.”
- “The REMI model favors large businesses and doesn’t measure the impact on small businesses. Furthermore, the assumptions used are just wrong—wages are too low, etc.”
- In an industry with small and large businesses, “[M]odeling can fit one or the other end, but not both.”
- “Nobody in small business can understand the output of the REMI model. This increases the level of distrust between AQMD and the business community.”

Information that Business and the Board Need

Information needs

Businesses perceive two uses for the socioeconomic and other information produced by AQMD when adopting a new rule: informing them about the likely impacts and helping the Board make a good decision. Active and inactive business would like to see the following.

- More comprehensive and better information about the cost of rules for businesses.
- More information about the differential impacts of a rule within an industry.
- More information about industry context (e.g., competitiveness, demand, price flexibility).
- More awareness of the other regulations and government mandated costs impacting businesses.
- More “real world” stories directly from industry or through field visits by staff and Board members.
- Better knowledge about the industry on the part of AQMD staff and Board members.

Though many business owners are relatively unfamiliar with the socioeconomic process, they have ideas about what should be a part of the process or what information should be developed. The business community appears more concerned with operational and financial impacts as opposed to the aggregate employment and income measures produced by traditional socioeconomic analyses.

The broad scope of concern amongst the regulated community implies that efforts to respond may require enhanced collaboration between the socioeconomic staff and other AQMD departments.

Information that Business and the Board Need

Information needs (cont.)

The following quotations allow stakeholders to “speak for themselves” about the information they believe AQMD should be developing through the socioeconomic or other analyses.

- “I want to know what the costs are—all of the costs, including those that will come down the line.”
- “AQMD must acquire industry experience” and “we need an industry expert within AQMD.”
- “AQMD has to recognize that firms do not all have the same costs, there is variation in the firms, their assets, whether or not they pay benefits....”
- “The board needs unbiased information from the staff ... it should meet with industry representatives one-on-one, not in hearing rooms. It needs to understand that we deal with cumulative effects of regulation from fire, health, sanitation....”

Techniques for Fulfilling Information Needs

How to collect data

Given the context of BBC's assignment to study facility-based and post-rule analyses, interviewees were asked several questions about potential data sources and their willingness to provide information.

For the most part, interviewees agreed that in-person contacts were essential to collect the type of financial data needed for facility-based or post-rule assessments. This was true for both active and inactive businesses. Some trade associations were willing to serve as an intermediary between AQMD and regulated businesses in data collection, but some were not. Successful data collection strategies would most likely have to vary from industry to industry taking into account the past history of the industry with AQMD, the degree of industry organization and other factors.

Willingness or ability to provide data

Although many interviewees suggested that AQMD needs more "real world" input and familiarity, for the most part, business owners were not enthusiastic about the possibility of sharing financial information with AQMD. Some interviewees did indicate they would consider information sharing on a case-by-case basis. Specific concerns were as follows.

- "Helping AQMD look at the exact costs of abatement may be sensitive."
- "I'm not amenable to AQMD coming out and spending a week in the factory in order to understand the industry, because AQMD does not guarantee immunity from compliance enforcement measures."
- "We are hesitant to share information during the rule-making process because we don't know what AQMD will do with it. They may give it to environmental groups."
- "The last thing on a business owner's mind is to help AQMD, unless there is some willingness to help in return."
- "There would have to be some ironclad confidentiality agreement in place and no publication of disaggregated data for my businesses to feel comfortable sharing data."
- "Many businesses can't give you specific financials because they don't know themselves."

Business Participation in the Rulemaking Process

AQMD
consideration of
business concerns

For stakeholders representing smaller businesses, there was a sense that rules are adopted by the Board regardless of the arguments made by business. Interviewees asserted that staff makes up their mind before they ever talk to business. These concerns were expressed among both individuals who had been active in the AQMD process and those who had not. To remedy these problems, many small businesses want to see more outreach from AQMD very early in the rule-making process. Larger businesses and trade associations were much less likely to describe a feeling of powerlessness about impacting upcoming rules, though they too were critical of the level of consideration given to business concerns.

- “AQMD never comes to the industry and says here’s what we have to do, how can we work together to get there?”
- “AQMD meetings are just a drill to justify forgone conclusions. There is no real negotiating room for adjustment of standards.... AQMD hasn’t given credence in the past to industry information, which discourages participation and information sharing.”
- “AQMD may listen, but they don’t do anything about it. Average business people cannot get to the decision makers.”
- One big business described their proactive involvement in the rule-making process and indicated that AQMD worked well with them to make the final rule acceptable. The representative of this business went on to say that “AQMD is willing to listen. They distinguish between venting and sometimes they accept documented input.”

Perceptions of
unfair treatment

Several small businesses complained about a perceived double standard in rule-making and enforcement by AQMD. These interviewees believe that AQMD is tougher on small businesses and allows large businesses much more latitude. There was also resentment, especially in the auto body and wood coating industries that AQMD is not doing a better job ensuring that all businesses within an industry are permitted.

- “The little guys get slammed.”
- “It’s a sore point that the District doesn’t do a better job of going after the unpermitted businesses.”

Business Stakeholder Perceptions about AQMD and Technology

Technical assumptions and viability

Though BBC was hired to specifically examine the socioeconomic impact process, interviewees repeatedly brought up concerns about technical assumptions made during the rule making process. Opinions about technology issues were expressed so strongly and so frequently that it would be remiss to exclude them.

Some in the business community believe that some AQMD standards are becoming so strict that they will be unenforceable. The technology-forcing aspect of many AQMD rules reportedly puts businesses, particularly small businesses, in a difficult position. Inactive businesses were more likely to express concerns about technical viability.

- “We can’t change overnight. AQMD has tunnel vision when looking at alternative technologies and is moving toward unenforceable rules, but they must be obeyable!”
- “Rule 1151 was slated to go into effect in six months, but there was no compliance technology yet. A couple of the big players had adequate technology, but the little players didn’t.”
- “If there was a true solution for \$500,000 that would make AQMD go away, we’d do it. But we just can’t rely on what’s out there now.”

Gathering technical information

Interviewees want AQMD to consult with a broad range of parties when devising technical assumptions, but there were many accusations of AQMD listening to just one manufacturing source.

- “AQMD’s technique is to identify someone somewhere who says the pollution reduction can be done, and then they make the rule around that.”
- “AQMD should pull together workgroups of people from all phases of advancement in the industry to review compliance technologies. The board could better assess feasible technologies in this way, especially because most compliance technologies are merely an added cost and do not enhance productivity.”

Impact of AQMD Rules According to Business Stakeholders

Impact on profitability

BBC asked interviewees to describe actions taken in response to the imposition of new rules.

Though responses varied based on the rule and the industry, almost all businesses told us that new rules impact their profits. It was common for businesses to report that they could not raise prices to customers or end-users whether they were a business facing only local competition (dry cleaners) or a business facing regional, national or international competition such as furniture manufacturers. Typically, interviewees did not link decisions about staff hiring or firing to new rules, which helps to explain why businesses often do not consider output from the REMI model to be a satisfactory way of portraying impacts. The differential impacts of a given rule on firms within an industry were also highlighted.

- “The amount that new rules cost me is diverted from bonuses, raises and my profit margin. I can only raise prices so much because I am competing with companies from around the country and the world.”
- “I would like to raise prices every time my costs go up, but next door charges one-third of what I do, so I can’t. I haven’t raised prices in years.”
- “Within our industry there may be 100 different companies with 50 different problems in complying with AQMD regulations. Some businesses can easily comply and some cannot, with those that can do it easily gaining a competitive advantage.”

Impact on location decisions

Most interviewees indicated that AQMD rules alone do not cause businesses to leave the LA Basin. The decision to close or relocate a business is based on many criteria, though the cumulative impact of AQMD regulations and/or regulations from other entities can be a major factor. Some heavily impacted industries including spray booth operators and wood finishing facilities report stories of re-location related primarily to AQMD rules. Some interviewees indicated permitting requirements hamper opening new facilities.

Section V. Next Steps

Next Steps

Second Phase

This summary report, along with the Task I and Task II Working Papers, represent the culmination of the first phase of BBC's work. The goal has been to gather information about facility-based analyses and post-rule assessments from stakeholders, economic theorists and real-world practitioners so that the socioeconomic evaluation process within AQMD can be strengthened.

In the second phase of this evaluation, to be conducted in the summer and fall of 2001, BBC will take this foundation and apply it to specific AQMD rules or processes. This exercise will lead to the development of protocols, and specific recommendations about when and how AQMD should conduct such analyses and the related resource requirements.

Remaining tasks

BBC has four remaining contractual tasks in our work to help enhance AQMD's socioeconomic assessment processes.

- **Develop guidelines and methodology.** This task will move towards more specific description of recommended approaches for facility-based assessment and post-rule assessment to supplement the existing *AQMD Socioeconomic Assessment Protocol*.
- **Testing of guidelines and methodology.** Performed concurrently with Task 4, this task will serve to refine and test the feasibility of the guidelines and methodology. Case studies based on upcoming rule(s) will be used to test the methodological areas that appear most uncertain.
- **Criteria for application of facility-based and post-rule assessment approaches.** Guidance will be developed on when specific analytical approaches should be used. Criteria may include the nature of the rule, the structure of the industry, the anticipated magnitude of compliance costs and/or other factors.
- **Identify required resources.** BBC will estimate the staff and other resource requirements associated with these analytical approaches.

Three more reports covering these tasks will be produced over the next several months.