

Lessons from a Public Policy Failure: EPA and Noise Abatement

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INTRODUCTION

In early 1981, Charles Elkins, who headed the Office of Noise Abatement and Control (ONAC) at the United States Environmental Protection Agency (EPA), received a surprise telephone call from EPA's Deputy Assistant Administrator, Ed Turk. Turk informed Elkins that the White House Office of Management and Budget (the OMB) had decided to end funding of ONAC and that the matter was nonnegotiable.¹

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1. Interview with Charles Elkins, Assistant to the General Counsel, EPA, in Washington, D.C. (Nov. 19, 1990).

Congress' eventual acquiescence in the OMB decision was, and remains, unique. Of the twenty-eight environmental and health and safety statutes passed between 1958 and 1989,² the Noise Control Act of 1972³ (the NCA or the Noise Act) stands alone in having been stripped of budgetary support.⁴ Congress, however, did not repeal the Noise Act when it eliminated ONAC's funding, so EPA continues to have a statutory responsibility to implement it.

Before the elimination of ONAC funding, EPA engaged in a wide variety of noise pollution abatement activities under the Noise Act and, after 1978, under the Quiet Communities Act.⁵ These included identifying sources of noise for regulation, promulgating noise emission standards, coordinating federal noise research and noise abatement, working with industry to develop consensus standards, disseminating information and educational materials, and sponsoring research concerning the effects of noise and abatement techniques.⁶ Under the Quiet Communities Act, EPA provided grants to state and local governments for noise abatement.⁷

EPA ceased most noise abatement activities after ONAC's funding was eliminated.⁸ Existing federal noise emission and labeling standards have not been evaluated in the intervening decade, despite the evolution of relevant science and technology and a better understanding of the effects of noise pollution on the public.⁹ State and local governments, however, are preempted from adopting noise emission and labeling standards that differ from EPA standards for sources or products that the Agency has regulated.¹⁰ Moreover, EPA's inability to provide technical or financial assistance to state and local noise control programs¹¹ has brought about a significant decline in their number.¹²

A critical examination of the current status of noise control abatement in the United States is warranted for two reasons. First, since Congress ended the funding of an ongoing noise program without eliminating EPA's statutory obligation to abate noise, the Agency's position on noise control presents a unique public policy dilemma. EPA's regulations have an ongoing preemptive effect that prevents state and local governments

2. See CASS R. SUNSTEIN, *AFTER THE RIGHTS REVOLUTION: RECONCEIVING THE REGULATORY STATE* 27 (1990) (listing the statutes).

3. Noise Control Act of 1972, Pub. L. No. 92-574, 86 Stat. 1234 (codified as amended at 42 U.S.C. §§ 4901-4918 (1988)).

4. SUNSTEIN, *supra* note 2, at 27.

5. 42 U.S.C. § 4913 (1988).

6. See *infra* part I.B.2.

7. See *infra* notes 116-23 and accompanying text.

8. See *infra* part I.B.3.

9. See *infra* part I.B.3.d.

10. See *infra* part II.A.1.d.

11. See *infra* part I.B.3.e.

12. See *infra* part I.B.3.f.

from adopting more adequate emission standards, yet EPA is unable to amend or rescind the regulations where necessary. Second, it appears that the problem of environmental noise is just as great, or possibly greater, than a decade ago.¹³

This article considers the future of noise abatement in the United States and assesses the role EPA should play in that future. Part I details both the problems posed by noise pollution and the history of noise abatement efforts in the United States during three periods: before ONAC's creation, during its tenure, and after its funding was cut. Section A of part II evaluates the role of local and state governments in noise reduction and the importance of federal support in enhancing these efforts. Section B of part II assesses the role played by the federal government and EPA in noise reduction and evaluates policy options.

This article concludes that EPA's justifications for the elimination of the noise control program have been proven to be invalid. EPA's assertion that a federal noise abatement program was unnecessary has turned out to be wrong on two grounds. First, EPA's support of an infrastructure for state and local noise programs lowered the costs of such programs and made them more attractive to those jurisdictions. A federal infrastructure is more economical because it provides economies of scale that no state or combination of states can obtain. Second, it has become clear that some national regulatory activities are necessary to prevent conflicting local regulations from increasing the cost of doing business for companies operating in many jurisdictions. Federal activities are desirable to facilitate coordination among national and international agencies engaged in noise abatement activities. This article recommends that Congress reestablish a noise control program within EPA that would support a federal infrastructure to assist state and local noise control efforts and engage in abatement activities that are inappropriate for state and local governments to undertake.

I

NOISE ABATEMENT IN THE UNITED STATES

An incongruity exists in the United States with respect to noise pollution. Although noise levels are increasing,¹⁴ governmental abatement activities are at their lowest levels since 1972,¹⁵ despite scientific evidence that strongly suggests that excessive noise levels create health risks affecting public welfare.¹⁶ This section documents the extent of noise pollution in the United States and its accompanying risks. It then recounts

13. See *infra* notes 21-22 and accompanying text.

14. *Id.*

15. See *infra* part I.B.3.

16. See *infra* notes 23-32 and accompanying text.

the history of noise abatement in the United States in an effort to explain the current situation.

A. Noise Levels and Health and Welfare Consequences

The United States is a noisy place.¹⁷ In 1974, EPA estimated that nearly 100 million persons lived in areas where the daily average noise levels exceeded fifty-five decibels (dB).¹⁸ In 1981, an EPA consultant estimated that 92.4 million persons were exposed to noise levels above an annual day-night average of fifty-eight dB.¹⁹ According to the same study, almost 97 million persons were exposed to annual traffic noise above fifty-five dB, and about 21.5 million persons were exposed to annual construction noise above the same level.²⁰ Although there have been no governmental estimates since 1981, some commentators feel that noise levels have increased.²¹ A report to the Administrative Conference of the United States (ACUS) explains:

Noise levels are directly related to population density, and the urban population is increasing at twice the pace of the nonurban population. In addition, the last decade has seen rapid growth in air transportation, trucking, and the construction industries, indicating that noise levels from these sources [have] most likely increased. The fact that some of these sources have been and continue to be quieted (especially new generations of trucks and aircraft) should mitigate this increase, but the extent of this mitigation will remain unknown until some sort of national survey is performed. Noise from construction continues to be a problem, and it appears that noise inside buildings as well as noise from recreational activities and consumer products is on the rise.²²

Existing research indicates that excessive noise constitutes a significant public health and welfare problem. Proof of noise induced hearing

17. Three noise units are used in this article. Decibels or dB is a sound pressure level measured on a logarithmic scale (an increase of 20 dB is 10 times the noise). For example, rustling leaves are 20 dB, a two-person conversation generates 50 dB, average street noise is 70 dB, and a riveter creates 110 dB. U.S. GYPSUM, SOUND CONTROL CONSTRUCTION 13 (1972). The dBA scale is adjusted to account for the sensitivity of the human ear to different frequencies. *Id.* at 50. Ldn is the equivalent 24-hour sound level, with a 10 dBA "annoyance" penalty added to night noise. 39 Fed. Reg. 22,297 (1974).

18. ENVIRONMENTAL PROTECTION AGENCY, INFORMATION ON LEVELS OF ENVIRONMENTAL NOISE REQUISITE TO PROTECT PUBLIC HEALTH AND WELFARE WITH AN ADEQUATE MARGIN OF SAFETY 16 (1974) [hereinafter LEVELS DOCUMENT]. EPA identified 55 dB as the requisite level to protect against interference with outdoor activities. *Id.* at 22, 28-31. Interference with indoor activities occurs at levels above 45 dB. *Id.* at 22, 29. To protect against hearing loss, EPA advised levels below 70 dB. *Id.* at 20, 28-31.

19. Bolt, Beranek and Newman, Inc., Noise in America: The Extent of the Problem 15 (July 1981) [hereinafter Noise in America] (unpublished report prepared for ONAC).

20. *Id.* at 10.

21. See, e.g., Alice H. Suter, Noise and Its Effects 5-12 (Nov. 1991) (report prepared for the Administrative Conference of the United States) (summarizing the different sources of noise in the United States and the relationship of noise to population density).

22. *Id.* at 12.

loss comes primarily from the industrial context,²³ but there is growing evidence of hearing loss associated with leisure time activities, loud music, and other sources of nonoccupational noise.²⁴ Noise also has been implicated in the development or exacerbation of a variety of other health problems ranging from hypertension to psychosis.²⁵ As a biological stressor, noise can influence the entire physiological system in at least a transitory manner; continued exposure may be associated with chronic effects.²⁶ While persuasive proof of extra-auditory effects is lacking, the ACUS report concludes that available evidence "should give public policymakers as well as noise producers some reason for concern."²⁷

Apart from its health risks, noise degrades the quality of life, interrupts communications, interferes with sleep, decreases performance, and increases anxiety and antisocial behavior.²⁸ Interrupted communications sometimes pose a safety hazard by making warnings of imminent danger difficult to hear.²⁹ Noise, if it results in chronic loss of sleep, can diminish health and well-being.³⁰ Extensive evidence supports the view that noise can adversely affect task performance.³¹ Lastly, even moderate levels of noise can heighten anxiety, decrease the incidence of cooperative behavior, and increase the risk of hostile behavior in experimental subjects. Such effects "may, to some extent, help explain the 'dehumanization' of today's urban environment."³²

B. *The History of Noise Abatement*

The response of the federal government to the health risks and other problems posed by noise can only be described as a public policy failure. For one thing, over the past few decades, noise abatement efforts have come almost full circle. Prior to the 1970's, very little governmental activity addressed noise pollution.³³ During the 1970's, federal, state, and local governments actively engaged in noise abatement activities.³⁴ Since ONAC lost its funding in 1981, all three levels of government have reduced their efforts significantly in this area.³⁵ This section describes the roller-coaster history of noise abatement in the United States, detailing

23. *Id.* at 15.

24. *Id.*

25. *Id.* at 25-28.

26. *Id.* at 28.

27. *Id.*

28. *Id.* at 19-25.

29. *Id.* at 19.

30. *Id.* at 21-23.

31. *Id.* at 23-25.

32. *Id.* at 25.

33. *See infra* part I.B.1.

34. *See infra* part I.B.2.

35. *See infra* part I.B.3.

noise abatement activities ongoing before, during, and after ONAC's tenure.

1. *Noise Abatement Prior to ONAC*

In the 1960's, prior to the enactment of the NCA, noise pollution was a distant cousin in the family of environmental issues. It has remained outside the mainstream of the environmental movement ever since. Despite a massive public opinion survey conducted in the early 1970's, which revealed that the public considered noise pollution a serious problem,³⁶ noise control advocates were unable to develop the same type of organized constituency that formed to support clean air and water.³⁷

One reason for this failure to develop a constituency was that, although "air and water pollution . . . [were] shown actually to kill people," the supporters of noise control could not demonstrate a direct causal relationship between excessive noise and death.³⁸ Another reason was that advocates had neither dramatic illustrations of noise pollution nor eloquent writers like Rachel Carson or Barry Commoner to popularize the cause. Moreover, because noise pollution is produced by hundreds of types of sources, noise control proponents were unable to arouse public indignation against convenient corporate targets in the way other environmentalists could by attacking the automobile or chemical industries.³⁹

The localized effects of noise pollution also contributed to the trouble experienced by advocates in generating widespread support for

36. In a 1973 national survey of housing and neighborhood conditions by the Department of Housing and Urban Development, 34 percent of the 60,000 respondents cited street noise as a "condition" in their neighborhoods, 60 percent of those reporting the condition felt it was "disturbing, harmful, or dangerous," and 18 percent felt that it was so "objectionable" that they would "like to move." Kenneth Eldred, *Noise at the Year 2000*, Address Before the Fifth International Congress on Noise as an International Problem 9 (1988).

37. See generally ROBERT PAEHLKE, *ENVIRONMENTALISM AND THE FUTURE OF PROGRESSIVE POLITICS* 13-110 (1989) (describing origins of the environmental movement); CHRISTOPHER J. BOSSO, *PESTICIDES AND POLITICS: THE LIFE CYCLE OF A PUBLIC ISSUE* (1987) (same). There does appear to be interest in noise abatement on a grassroots level, as suggested by the number of calls received since ONAC's demise by EPA and noise consultants from people seeking information on noise abatement activities. Interview with Kenneth Feith, Senior Scientist/Advisor, EPA Office of Air and Radiation, in Washington, D.C. (Nov. 19, 1990) [hereinafter Feith Interview] (former ONAC official) (received over 500 calls requesting information on noise); Telephone Interview with Clifford Bragdon, Professor of City Planning, Georgia Institute of Technology (Oct. 10, 1990) [hereinafter Bragdon Interview] (receives numerous calls from state and local officials about regulatory methods).

38. James L. Hildebrand, *Noise Pollution: An Introduction to the Problem and an Outline for Future Legal Research*, 70 COLUM. L. REV. 652, 655 (1970).

39. See James Q. Wilson, *The Politics of Regulation*, in *THE POLITICS OF REGULATION* 357, 370-71 (James Q. Wilson ed., 1980) (arguing that the environmental movement succeeded by capitalizing on a crisis, putting opponents on the defensive by accusing them of bad acts, and associating legislation with widely held values like the importance of clean air).

noise abatement. Whereas air and water pollution normally affect large areas, only a small proportion of the people in a city or state may be burdened by particular sources of noise, and that burden may have been imposed on them by other residents wishing to obtain the benefit of a highway, airport, or industry.⁴⁰

Despite these handicaps, noise control advocates made some headway starting in the late 1960's. Prior to that time, local noise regulation was based on legislation or ordinances prohibiting "excessive or unusual" noise, ordinances which were difficult to enforce because of their subjective character.⁴¹ Once portable noise measuring equipment became available,⁴² local and state governments began promulgating objective emissions limitations, expressed as a maximum number of decibels.⁴³ At about the same time, Congress authorized the Federal Aviation Administration (FAA) to regulate aircraft noise emissions;⁴⁴ enacted the National Environmental Policy Act (NEPA),⁴⁵ which required agencies to assess noise impacts as part of environmental impact statements;⁴⁶ and also directed EPA to establish the Office of Noise Abatement and Control.⁴⁷ ONAC's initial task was to prepare, within a year, recommendations to Congress for further legislation.⁴⁸ Congress passed the NCA in 1972, after receiving ONAC's report.⁴⁹

Congress passed the NCA despite the lack of significant organized public support for two reasons. First, the railroads, interstate motor carriers, and motor vehicle manufacturers, concerned about complying with conflicting state and local regulations, supported the NCA to obtain the

40. Letter from Noral Stewart, Stewart Acoustical Consultants, to David Pritzker, Administrative Conference of the United States 3 (Mar. 12, 1991) [hereinafter Noral Stewart Letter]. Large metropolitan areas are more likely to have noise abatement programs because noise in these areas tends to affect a majority of the population. In areas where noise affects only a minority of the residents, local governments are reluctant to regulate, as they fear being disadvantaged in the competition for industry. *Id.*

41. Roger W. Findley & Sheldon J. Plager, *State Regulation of Nontransportation Noise: Law and Technology*, 48 S. CAL. L. REV. 209, 254 (1974).

42. Telephone Interview with Frank Gomez, President, National Association of Noise Control Officials (NANCO) (Dec. 5, 1990) [hereinafter Gomez Interview].

43. Findley & Plager, *supra* note 41, at 255-58. Noise legislation was passed in Illinois and New York in 1970, in Florida, New Jersey, and North Dakota in 1971, in Hawaii in 1972, and in California in 1973. *Id.* at 256-57.

44. Pub. L. No. 90-411, 82 Stat. 395 (1968) (codified at 49 U.S.C. § 1431(b) (1988)).

45. Pub. L. No. 91-190, 83 Stat. 852 (1970) (codified at 42 U.S.C.A. §§ 4321-4370 (West 1977 & Supp. 1991)).

46. *See, e.g.*, I-291 Why? Ass'n v. Burns, 517 F.2d 1077 (2d Cir. 1975) (assessing noise impact as part of an environmental impact statement for a highway).

47. Noise Pollution and Abatement Act of 1970, Pub. L. No. 91-604, 84 Stat. 1709 (codified as amended at 42 U.S.C. § 7641 (1988)).

48. *Id.*

49. ENVIRONMENTAL PROTECTION AGENCY, REPORT TO THE PRESIDENT AND CONGRESS ON NOISE (1971).

benefit of its preemption provisions.⁵⁰ Second, EPA convinced Congress that noise pollution was a serious problem. The Agency claimed that 40 million persons were exposed to noise capable of inducing hearing loss, 44 million persons had the value of their dwellings reduced by transportation and aircraft noise, and 21 million persons had the value of their dwellings reduced by construction noise.⁵¹

The NCA, which was designed to protect all Americans from "noise that jeopardizes their health or welfare,"⁵² requires EPA to regulate noise emissions from certain new products distributed in interstate commerce,⁵³ to coordinate the noise abatement efforts of other agencies,⁵⁴ and to provide information on product noise emissions to the public through product labeling.⁵⁵ Under the NCA scheme, federal action in commerce is deemed "essential to deal with major noise sources, . . . control of which require[s] national uniformity of treatment," but states and cities retain the "primary responsibility for control of noise."⁵⁶ Thus, while the Noise Act preempts states and political subdivisions from imposing their own emission standards on new products already regulated by EPA,⁵⁷ it does not preempt them from controlling noise by means of "licensing, regulation, or restriction of the use, operation, or movement of any product or combination of products."⁵⁸

Two aspects of this statutory scheme have particularly important ramifications for the development of noise abatement. First, the NCA, unlike other environmental statutes such as the Clean Air Act,⁵⁹ does not

50. See Interview with Marshall Miller, former EPA General Counsel, in Washington, D.C. (Nov. 20, 1990) (railroad and trucking industry supported NCA); Telephone Interview with Ralph Hillquist, former General Motors employee (Jan. 7, 1991) (auto industry supported NCA).

51. SENATE COMM. ON PUBLIC WORKS, ENVIRONMENTAL NOISE CONTROL ACT OF 1972, S. REP. NO. 1160, 92d Cong., 2d Sess. 2 (1972), reprinted in 1972 U.S.C.C.A.N. 4655-98 [hereinafter SENATE REPORT]; HOUSE COMM. ON INTERSTATE AND FOREIGN COMMERCE, NOISE CONTROL ACT OF 1972, H. REP. NO. 842, 92d Cong., 2d Sess. 6 (1972) [hereinafter HOUSE REPORT].

52. 42 U.S.C. § 4901(b) (1988).

53. *Id.* § 4905.

54. *Id.* § 4903(c).

55. *Id.* § 4907.

56. *Id.* § 4901(3).

57. *Id.* § 4905(e)(1)(A). State and local governments, however, may enforce the EPA regulations by adopting local laws or ordinances identical to EPA regulations. *Id.*

58. *Id.* § 4905(2). Nevertheless, states and localities are preempted from regulating the railroad or motor carrier noise emissions regulated by EPA unless EPA grants a "special local conditions" exemption. *Id.* § 4916(c)(2) (railroads); *id.* § 4917(c)(2) (motor carriers).

59. Under the Clean Air Act, EPA sets national ambient air quality standards that the states must meet by controlling nonmobile sources of air pollution. 42 U.S.C.A. §§ 7409-7410 (West 1983 & Supp. 1991). Congress rejected a similar scheme for noise because it would "put the federal government in the position of establishing land use zoning requirements on the basis of noise, . . . [a] function . . . more properly that of the States and their political subdivisions." HOUSE REPORT, *supra* note 51, at 9. This reasoning, with the implicit distinction it draws between air pollution and noise pollution, is defensible only to the extent that noise

charge EPA with responsibility for setting abatement goals for the states. Initially, therefore, ONAC tended to think of its mission as exclusively federal.⁶⁰ As the next section shows, this orientation inhibited state and local efforts at noise abatement during the 1970's. Further, the absence of mandatory state goals for the reduction of noise meant that states and local subdivisions had no legal responsibility to address noise pollution and that noise pollution had a difficult time achieving political visibility. After all, the ambient air pollution limitations set by EPA are a continual public reminder of the harms of air pollution and of the nation's progress in reducing them. The lack of similar goals for noise pollution may have had a detrimental effect on public perceptions of the problem.

The second significant aspect of the NCA statutory scheme was Congress' initial choice not to support state and local noise abatement efforts with federal program grants for personnel and equipment. At least one version of the proposed legislation provided for such support.⁶¹ EPA responded, however, that while technical assistance was "desirable," it was neither "necessary or appropriate" to provide categorical program assistance to the states.⁶² Like ONAC's federal orientation, this decision hindered state and local initiative in this area.⁶³

2. Noise Abatement During ONAC

The Noise Control Act assigns EPA responsibility for (1) promulgating emissions standards, (2) requiring product labeling, (3) facilitating the development of low noise emission products, (4) coordinating federal noise reduction programs, (5) assisting local and state abatement efforts, and (6) promoting noise education and research.⁶⁴ Implementation of governmental programs is difficult,⁶⁵ measured against this standard,

abatement is a response to aesthetic or nonhealth concerns. In this event, local aesthetic tastes properly may dictate the level of regulation. Congress, however, at the time it passed the Noise Act, considered noise to be at least in part a health problem. *See supra* note 51 and accompanying text.

The politics of the NCA may offer a more persuasive explanation of why Congress did not model the Noise Act on the Clean Air Act. Industries seeking the benefits of federal preemption provided the strongest support for the NCA. *See supra* note 50 and accompanying text. Such businesses had no reason to support legislation that would have forced state and local governments to regulate nonmobile sources of noise. At the same time, some environmentalists, for instance Senator Edmund Muskie, were afraid to expand EPA's role, concerned that the Agency would enact weaker abatement requirements than would states and local governments. SENATE REPORT, *supra* note 51, at 21-22. This worry may have split support for a more comprehensive effort.

60. *See infra* notes 113-14 and accompanying text.

61. EPA had asked Congress to establish a categorical grants program similar to that established under the Federal Water Pollution Act, which provides grants to localities for equipment purchases and personnel. *See* H.R. 6002, 92d Cong., 1st Sess. § 102 (1971).

62. HOUSE REPORT, *supra* note 51, at 24.

63. *See infra* note 115 and accompanying text.

64. *See* 42 U.S.C. §§ 4905-4917 (1988).

65. *See generally* JAMES Q. WILSON, BUREAUCRACY: WHAT AGENCIES DO AND WHY

ONAC accomplished a great deal. Yet like other health and safety programs,⁶⁶ ONAC had its failures. Some of the failures could have been avoided, but others were beyond ONAC's control. The following section evaluates ONAC's record of fulfilling its statutory duties under the NCA.

a. Promulgation of Emission Standards

The NCA requires EPA to regulate noise emissions from products distributed in commerce,⁶⁷ interstate railroads,⁶⁸ and motor carriers.⁶⁹ Pursuant to this responsibility, ONAC promulgated several regulations and identified additional sources of noise that it intended to regulate.⁷⁰ ONAC's regulatory output was not high, but it was reasonable in light of the constraints under which the department operated, as this section will show.

TABLE 1
PRODUCT STANDARDS⁷¹

| | Identified | Notice of Proposed Regulation | Standard | De- identified | Standard Revoked | Reporting Revoked |
|--------------------------------------|------------|-------------------------------------|----------|-------------------|---------------------|----------------------|
| Air Compressors (portable) | 6/21/74 | 10/29/74 | 1/14/76 | | | 12/28/82 |
| Buses | 5/28/75 | 9/12/77 | | 12/1/82 | | |
| Motorcycles | 5/28/75 | 3/15/78 | 12/31/80 | | | 12/28/82 |
| Pavement Breakers | 2/3/77 | | | 12/1/82 | | |
| Power Lawn Mowers | 1/12/77 | | | 12/1/82 | | |
| Rock Drills | 2/3/77 | | | 12/1/82 | | |
| Tractors (wheel & crawler) | 5/28/75 | 7/11/77 | | 12/1/82 | | |
| Trucks (medium & heavy duty) | 6/21/74 | 10/30/74 | 4/13/76 | | | 12/28/82 |
| Truck Mounted Waste Compactors | 5/28/75 | 8/26/77 | 10/1/79 | | 7/15/83 | |
| Truck Mounted Refrigeration Units | 5/28/75 | | | 12/1/82 | | |

THEY DO IT (1990) (discussing the problems faced by government agencies).

66. See Sidney A. Shapiro & Thomas O. McGarity, *Reorienting OSHA: Regulatory Alternatives and Legislative Reform*, 6 YALE J. ON REG. 1, 3 (1989) (observing that health and safety agencies have had limited productivity).

67. 42 U.S.C. § 4905 (1988).

68. *Id.* § 4916.

69. *Id.* § 4917.

70. See *infra* tbl. 1 (summarizing ONAC's promulgation of product standards).

71. Product standard actions taken on the dates specified in the table are described in the Federal Register. June 21, 1974: 39 Fed. Reg. 22,298 (1974); Oct. 29, 1974: 39 Fed. Reg. 38,186 (1974); Oct. 30, 1974: 39 Fed. Reg. 38,338 (1974); May 28, 1975: 40 Fed. Reg. 23,107 (1975); Jan. 14, 1976: 41 Fed. Reg. 2172 (1976); Apr. 13, 1976: 41 Fed. Reg. 15,538 (1976); Jan. 12, 1977: 42 Fed. Reg. 2525 (1977); Feb. 3, 1977: 42 Fed. Reg. 6722 (1977); July 11, 1977: 42 Fed. Reg. 35,803 (1977); Aug. 26, 1977: 42 Fed. Reg. 43,226 (1977); Sept. 12 1977: 42 Fed. Reg. 45,775 (1977); Mar. 15, 1978: 43 Fed. Reg. 10,822 (1978); Oct. 1, 1979: 44 Fed. Reg. 56,524 (1979); Dec. 31, 1980: 45 Fed. Reg. 86,718 (1980); Dec. 1, 1982: 47 Fed. Reg. 54,108 (1982); Dec. 28, 1982: 47 Fed. Reg. 57,709 (1982); July 15, 1983: 48 Fed. Reg. 32,502 (1983).

Congress mandated a four-step process for EPA to follow in regulating product noise. EPA completed the first three steps, which consisted of assessing noise impacts, evaluating noise risks, and identifying significant noise sources, within short time deadlines.⁷² As a fourth step, Congress required EPA to propose regulations for each major noise source for which an emissions standard was "feasible" within eighteen months of its identification, and to promulgate a final regulation for such source no earlier than six months after the proposed regulation's issuance, but no later than twenty-four months after the NCA's enactment.⁷³ During its tenure, ONAC identified ten products for regulation, promulgated four regulations (for air compressors, motorcycles, trucks, and truck-mounted waste compactors) and proposed two other regulations (for buses and wheel and crawler tractors).⁷⁴ ONAC proposed no emissions standards, however, for four of the products identified as major noise sources (pavement breakers, power lawn mowers, rock drills, and truck-mounted refrigeration units).⁷⁵

The deadlines set by Congress for the regulation of significant noise sources were unrealistic, and, consequently, ONAC habitually missed them, often by several years.⁷⁶ The regulation of motor carrier and railroad noise emissions similarly fell behind schedule. Congress required EPA to propose emission standards for these noise sources within nine months after the NCA's enactment and to issue final standards within ninety days of the issuance of the proposed standards.⁷⁷

72. See 42 U.S.C. § 4904(a)-(b) (1988). Within nine months of the NCA's passage, EPA completed the first step by assessing the effects of noise on the public health and welfare. ENVIRONMENTAL PROTECTION AGENCY, PUBLIC HEALTH AND WELFARE CRITERIA FOR NOISE (1973). Within twelve months, EPA completed the second step, evaluating in a written report the levels of abatement "requisite" to protecting public health and welfare. LEVELS DOCUMENT, *supra* note 18. Called a "landmark treatise" by Alice Suter, a leading noise expert, this report concluded that an adequate margin of safety required that persons be exposed to no more than 70 dB to prevent hearing loss, and no more than 55 dB (outdoor level) or 45 dB (indoor level) to protect against activity interference. *Id.* at 4; see also Alice H. Suter, *Noise Wars*, TECH. REV., Nov.-Dec. 1989, at 42, 47 (calling the LEVELS DOCUMENT a "landmark treatise describing potentially hazardous levels of environmental noise"). In completing the third step, EPA identified, within 18 months, "major" noise sources and "techniques for reducing noise from those sources." Identification of Products as Major Sources of Noise, 39 Fed. Reg. 22,297 (1974).

73. 42 U.S.C. § 4905(a) (1988). The deadlines, however, only applied to major noise sources in three categories: construction and transportation equipment, motors and engines, and electrical and electronic equipment. *Id.* In promulgating emissions standards, EPA was required to consider the harm posed by a source, the level of reduction in harm achievable through the best available technology, and the costs of compliance. *Id.* § 4905(c)(1).

74. See *supra* tbl. 1.

75. See *id.*

76. See *id.*

77. 42 U.S.C. § 4916(a)(1)-(2) (1988) (railroads); *id.* § 4917(a)(1)-(2) (motor carriers). In both cases, EPA was to select limits based on application of the best available technology, taking into account the costs of compliance. *Id.* §§ 4916(a)(1), 4917(a)(1).

ONAC promulgated only one motor carrier standard, a year late.⁷⁸ EPA proposed seven railroad emission standards and eventually promulgated final regulations for five of them.⁷⁹ The Association of American Railroads sued EPA after it was two years late in promulgating the first standard.⁸⁰ Although the D.C. Circuit ordered EPA to promulgate a final regulation for other areas of railroad operations by August, 1978,⁸¹ EPA missed the court's deadline by almost a year and a half.⁸²

TABLE 2
RAILROAD AND MOTOR CARRIER STANDARDS⁸³

| | Notice of Proposed Regulation | Standard | NPR Withdrawn |
|--|-------------------------------------|----------|------------------|
| Interstate Motor Carriers | 7/27/73 | 10/29/74 | |
| Motor Carriers Special Local Determination | 11/29/76 | | 12/2/82 |
| Interstate Rail Carriers | | | |
| Locomotives & Railcars | 7/3/74 | 1/14/76 | |
| Switcher Locomotives | 4/17/79 | 1/4/80 | |
| Retarders | 4/17/79 | 1/4/80 | |
| Load Cell Test Stands | 4/17/79 | 1/4/80 | |
| Car Coupling | 4/17/79 | 1/4/80 | |
| Railroad Property Line | 4/17/79 | | 12/1/82 |
| Special Local Determination | 11/29/76 | | 12/2/82 |

The statutory deadlines were unrealistic for several reasons.⁸⁴ Most importantly, ONAC faced significant technical problems in developing a regulatory program.⁸⁵ ONAC's efforts were also hampered by

78. See *infra* tbl. 2.

79. EPA promulgated standards for locomotives and railcars, switcher locomotives, retarders, locomotive load cell test stands, and car coupling. See *infra* tbl. 2. EPA proposed, but did not promulgate, standards for permitting local regulation of rail yards and standards for railroad property emissions restrictions. *Id.*

80. *Id.*; see also *Association of Am. R.R. v. Costle*, 562 F.2d 1310 (D.C. Cir. 1977) (requiring EPA to regulate all sources of railroad noise, not just rail cars and locomotives).

81. *Costle*, 562 F.2d at 1322.

82. See *infra* tbl. 2.

83. Railroad and motor carrier standard actions taken on the dates specified in the table are described in the Federal Register. July 27, 1973: 38 Fed. Reg. 20,102 (1973); July 3, 1974: 39 Fed. Reg. 24,580 (1974); Oct. 29, 1974: 39 Fed. Reg. 38,207 (1974); Jan. 14, 1976: 41 Fed. Reg. 2183 (1976); Nov. 29, 1976 (motor carriers special local determination): 41 Fed. Reg. 52,230, 52,317 (1976); Nov. 29, 1976 (special local determination): 41 Fed. Reg. 52,320 (1976); Apr. 17, 1979: 44 Fed. Reg. 22,960 (1979); Jan. 4, 1980 (switcher locomotives, retarders, and load cell test stands): 45 Fed. Reg. 1263 (1980) (amendments at 47 Fed. Reg. 14,709 (1982)); Jan. 4, 1980 (car coupling): 45 Fed. Reg. 1252 (1980); Dec. 1, 1982: 47 Fed. Reg. 54,107 (1982); Dec. 2, 1982: 47 Fed. Reg. 54,313 (1982).

84. See Sidney A. Shapiro & Robert L. Glicksman, *Congress, the Supreme Court, and the Quiet Revolution In Administrative Law*, 1988 DUKE L.J. 819, 833 (citing technical complexity and scarcity of resources as reasons why agencies have difficulty meeting short deadlines).

85. GENERAL ACCOUNTING OFFICE, NOISE POLLUTION—FEDERAL PROGRAM TO CONTROL HAS BEEN SLOW AND INEFFECTIVE 43 (1977) [hereinafter NOISE POLLUTION]. Regulation of railroad emissions was hampered, for example, by the complexity of the rail industry and by the fact that no comprehensive studies of railroad noise existed. Stephen G.

insufficient funding and staffing in its early and later years,⁸⁶ and by a lack of cooperation from EPA administrators, who were sometimes slow to sign off on clearances needed by the program.⁸⁷ While EPA managers in general did not disregard the noise program, and some were supportive of it, several appeared to regard noise abatement as less important than the Agency's other missions.⁸⁸ This last sentiment also was present elsewhere in the Agency.⁸⁹ Given such constraints, ONAC's output, while limited, was reasonable.

b. Product Labeling

EPA's second statutory duty under the NCA is to mandate labeling for products that emit or reduce noise.⁹⁰ The only labeling regulation ONAC promulgated, however, was for hearing protection devices.⁹¹ The

Wood, *Traffic Noise Regulation: A Comparative Case Study*, 1979 B.Y.U. L. REV. 461, 495 n.8. Another source of delay was the fact that ONAC was forced to rely on contractors to obtain the technical information required for regulation. The contracting process at EPA was slow and it sometimes took up to a year to hire a contractor. Interview with Kenneth Feith, Senior Scientist/Advisor, EPA Office of Air and Radiation, in Washington, D.C. (June 20, 1991) [hereinafter Second Feith Interview] (former ONAC official). Other significant problems for the development of railroad and other regulations related to identifying "the best available technology," calculating the costs of compliance, defining the scope of each standard, and establishing rules for testing the level of noise emissions. See Wood, *supra*, at 510-61 (discussing EPA's promulgation of noise emission standards for motor carriers).

86. Letter from Alvin Meyer, Jr., initial ONAC director, to David Pritzker, Administrative Conference of the United States 2 (Mar. 26, 1991) [hereinafter Meyer Letter]; Feith Interview, *supra* note 37. In EPA's 1975 budget request, the Agency's Administrator indicated that "we are holding the Noise Program to a low level of growth and consciously stretching out the full implementation of the 1972 Act." *Noise Control Act Extension: Hearings on H.R. 5272 Before the Subcomm. on Transportation and Commerce of the House Comm. on Interstate and Foreign Commerce*, 94th Cong., 1st Sess. 43 (1975) [hereinafter *Extension Hearings*] (letter from Russell E. Train, EPA Administrator, to Ray Ash, Director, OMB). Funding for ONAC's standard-setting activity improved during the mid-1970's, but at the end of the decade there was a cutback in funding designed to provide technical support for state and local governments. Feith Interview, *supra* note 37 (noting that budget for standard setting declined from \$9 million to \$2 million).

87. Feith Interview, *supra* note 37. For example, ONAC's standard for interstate buses sat in the office of Douglas Costle, EPA Administrator during the Carter administration, for over eight months and eventually became a victim of Costle's failure to sign off on any agency regulations during his waning days as Administrator. With the advent of the Reagan administration, the bus standard went unattended by the EPA Administrator for another year. Interview with Kenneth Feith, Senior Scientist/Advisor, EPA Office of Air and Radiation, in Washington, D. C. (Feb. 28, 1991) (former ONAC official). The proposed standard subsequently was withdrawn after ONAC lost its funding. See *supra* tbl. 1.

88. See Feith Interview, *supra* note 37; Telephone Interview with Fred Mintz, Office of Federal Activities, EPA (Jan. 14, 1991) [hereinafter Mintz Interview].

89. Interview with Jeff Cerrar, formerly Office of the General Counsel, EPA, in Washington, D.C. (Nov. 19, 1990).

90. 42 U.S.C. § 4907(a)-(b) (1988). States and local governments can establish their own labeling requirements only to the extent such requirements do not conflict with EPA's regulations. *Id.* § 4907(c).

91. 40 C.F.R. § 211 (1991). In 1974, for labelling purposes, ONAC invited comments on what criteria should be used to select hearing protection products. 39 Fed. Reg. 42,380 (1974).

principal reason for inactivity in this area was that EPA's noise regulation agenda focused on attempting to meet the restrictive deadlines established by Congress for the promulgation of noise emission regulations.⁹² Another reason some have proposed relates to the relative lack of experience of the leadership in the labeling area.⁹³ Whatever the cause, EPA's failure to promulgate labeling for noise sources was a serious weakness in the Agency's approach to noise abatement.⁹⁴

c. *Low Noise Emission Products*

The NCA orders federal agencies to purchase low noise emission products (LNEP's), products that emit "significantly" less noise than permitted by the applicable emissions standard.⁹⁵ Effectuating this aspect of the NCA required that ONAC certify certain products as LNEP's. However, the statute authorizes EPA to define an LNEP only after EPA has promulgated an emissions standard for a product.⁹⁶ Since ONAC had promulgated emission limits for only four products at the time it lost its funding,⁹⁷ it made little progress in stimulating LNEP purchases by the federal government. ONAC did, however, actively encourage states and local governments to purchase quieter products through its "buy-quiet" program.⁹⁸

Those criteria were proposed in 1977 and finally promulgated in 1979. 42 Fed. Reg. 31,722 (1977) (proposed June 22, 1977); 44 Fed. Reg. 56,120 (1979) (codified at 40 C.F.R. pt. 211). At the time ONAC was disbanded, however, it had not yet chosen any products to be labeled, although it planned to require labels for vacuum cleaners, air conditioners, shop tools, dishwashers, and lawn mowers. *EPA Putting Lid on Noise*, WASH. POST, June 24, 1977, at E-10.

92. See *supra* note 73 and accompanying text (discussing deadlines).

93. Telephone Interview with Kenneth Eldred, Standards Director, Acoustical Society of America (Dec. 5, 1990) [hereinafter Eldred Interview].

94. See *infra* notes 293-304 and accompanying text.

95. 42 U.S.C. § 4914(c)-(d) (1988). An agency must give preference to any LNEP that the General Services Administration has established costs no more than 25% more than the least cost substitute, does not require extensive maintenance to retain its low-noise attributes, and does not involve operating costs significantly in excess of those of substitute products. *Id.*

96. The Noise Act mandates a two-step certification process. Within ninety days of receiving an application for certification, EPA must determine whether a product qualifies as an LNEP, and, if so, within one hundred and eighty days, EPA must decide whether the product is a "suitable" substitute for products currently being used by the federal government. *Id.* § 4914(b)(5)(F). Although ONAC promulgated procedures for administering the LNEP program in February, 1974, it did not quantify what level of reduction in noise would qualify a product as an LNEP or what criteria it would use to determine whether a product was a "suitable substitute." 39 Fed. Reg. 6670, 6671 (1974) (codified at 40 C.F.R. § 203.5 (1991)). In 1977, EPA proposed to define an LNEP as any product that emitted 5 dBA less than the emissions limit EPA had set for that product. 42 Fed. Reg. 27,442 (proposed May 27, 1977). EPA's plan was to establish an LNEP level for each product at the time it promulgated an emissions standard for that product. *Id.* Since it had already promulgated a standard for medium and heavy trucks and portable air compressors, EPA proposed an LNEP level for these products at this time. *Id.* at 27,443. ONAC also established an LNEP definition as part of its motorcycle standard. 40 C.F.R. § 205.152(c)(3) (1991).

97. See *supra* tbl. 1; *supra* text accompanying note 74.

98. See *infra* note 123 and accompanying text.

d. *Coordination of Noise Reduction Activities*

EPA's fourth function under the NCA is to coordinate other federal agency programs relating to noise research and noise control.⁹⁹ ONAC engaged in a range of activities pursuant to this mandate. In apparent response to the generally low marks the General Accounting Office (GAO) had given EPA for its interagency coordination efforts,¹⁰⁰ ONAC expended substantial effort in this area.

ONAC engaged in various types of activities related to the noise programs of other federal agencies and private institutions. It criticized the Occupational Safety and Health Administration's (OSHA) proposed noise protection rule,¹⁰¹ chaired the interagency task force responsible for implementing President Carter's "Urban Noise Initiative,"¹⁰² and published reports on noise and noise research.¹⁰³ ONAC also engaged in coordination efforts addressed to private industry and international regulators.¹⁰⁴

99. 42 U.S.C. § 4903(c). Congress assigned EPA three duties. First, EPA was to "coordinate" all federal government programs relating to noise control and research. *Id.* § 4903(c)(1). Agencies were required to furnish "such information as [EPA] . . . may reasonably require" to carry out this function. *Id.* Second, Congress required federal agencies to "consult" with EPA concerning proposed noise regulations and, if EPA requested, to specify reasons why a proposed regulation should not be revised. *Id.* § 4903(c)(2). Finally, EPA was required to publish a periodic report on the status and progress of federal activities relating to noise. *Id.* § 4903(c)(3).

100. NOISE POLLUTION, *supra* note 85, at 31.

101. 5 Env't Rep. (BNA) 1884 (Mar. 28, 1975).

102. ENVIRONMENTAL PROTECTION AGENCY, NOISE CONTROL PROGRAM: PROGRESS TO DATE—1980, at 9 (1980) [hereinafter PROGRESS TO DATE]. Initiatives included soundproofing and weatherproofing of hospitals and schools, developing noise specifications and reduction incentives in government procurement as part of the "buy-quiet" program, writing guidelines for land planning to reduce noise, retrofitting buses to reduce noise, and supporting neighborhood self-help programs. *Id.* at 9-10. Other federal agencies involved included the Department of Commerce, Department of Defense, Department of Energy, Department of Housing and Urban Development, Department of Transportation, General Services Administration, National Bureau of Standards, and Veterans Administration. *Id.* at 10.

103. *Id.* at 28. One of the most important of these reports established guidelines for considering noise in land use planning and control. *Id.* at 10.

104. Towards the end of its tenure, ONAC worked with professional groups and regulated industries on the development of consensus standards that both the private sector and the government could use. For example, EPA sponsored a workshop at Florida Atlantic University, in Deerfield Beach, Florida, in December, 1977, to identify standards needed and a plan for meeting them. Acoustical Society of America, Plan for the Development of Voluntary Standards on Environmental Sound in Response to Federal Agencies' Needs 1-2 (1978). Those attending included representatives from the Acoustical Society of America (ASA), the American National Standards Institute (ANSI), the American Society for Testing and Materials (ASTM), the Society of Automotive Engineers, and several federal agencies. *Id.* at 2. ONAC personnel helped make up part of the United States delegation at international meetings concerning noise abatement and worked on harmonizing domestic and international regulations. PROGRESS TO DATE, *supra* note 102, at 30-31; see also, e.g., ENVIRONMENTAL PROTECTION AGENCY, A COMPARISON OF SOUND POWER LEVELS FROM PORTABLE AIR COMPRESSORS BASED UPON TEST METHODOLOGIES ADOPTED BY U.S. EPA AND THE CEC (1980). ONAC's work in this area included extensive coordination with the European Eco-

An important EPA effort at interagency coordination concerned Federal Aviation Administration (FAA) regulation of airport noise.¹⁰⁵ From December 1974 to October 1976, EPA submitted eleven proposals to the FAA concerning aircraft noise.¹⁰⁶ Although the FAA rejected most of these recommendations,¹⁰⁷ EPA had an impact on FAA regulation. EPA provided the scientific and technical data on which the FAA based its regulations,¹⁰⁸ and EPA's advocacy of more stringent emissions limits than those proposed by the FAA focused public scrutiny on the FAA's efforts.¹⁰⁹

Despite these activities, some commentators feel ONAC could have done a better job of domestic and international coordination. One scientist claims that, although there was effective communication between the technical community and ONAC during its early years, ONAC subsequently refused to participate in developing consensus standards and disregarded some or all of the consensus standards after they were devised.¹¹⁰ Others complain that the behavior of an EPA official at an international meeting offended representatives from other countries and damaged EPA's credibility.¹¹¹

conomic Community (EEC) and its Commission (CEC). Second Feith Interview, *supra* note 85.

105. Congress has required EPA to propose noise regulations to the FAA, which is responsible for regulating aircraft and airport noise. 49 U.S.C. § 1431(b)(1), (c)(1) (1988). Congress also requires the FAA to adopt EPA's recommendations, in whole or in part, after holding a public hearing, or explain its reasons for not doing so. *Id.* If EPA believes that the FAA's action does not protect the public, it may request the FAA to reconsider its conclusions and to explain to EPA why EPA's original recommendations were not adopted. *Id.* § 1431(c)(2).

106. GENERAL ACCOUNTING OFFICE, TRANSPORTATION NOISE: FEDERAL CONTROL AND ABATEMENT RESPONSIBILITIES MAY NEED TO BE REVISED 27 (1989) [hereinafter TRANSPORTATION NOISE].

107. The FAA accepted only one of EPA's 11 proposals and parts of two others. *Id.*

108. *Id.*; Letter from Edward DiPolvere, Chief, Office of Noise Control, New Jersey Department of Environmental Protection, to David Pritzker, Administrative Conference of the United States 2 (May 1, 1991) [hereinafter DiPolvere Letter].

109. See Letter from Craig Cantoni, President, New Jersey Coalition Against Aircraft Noise, to David Pritzker, Administrative Conference of the United States 1 (Mar. 16, 1991) [hereinafter Cantoni Letter] (airport noise increased after FAA took over from EPA).

110. Telephone Interview with Henning Von Gierke, Retired Director, Biodynamics and Biomechanics Division, Aerospace Medical Research Laboratory, United States Air Force (Apr. 19, 1991) [hereinafter Von Gierke Interview]. An industry official maintains that at an ONAC sponsored workshop, although regulated industry spokespeople were unanimous about the need for ONAC to work more closely with them in developing goals and incentives for noise abatement, ONAC failed to include this sentiment in its report of the proceedings. Interview with James DuBois, Chairperson, Noise Task Force, Edison Electric Institute, in Chapel Hill, N.C. (Apr. 18, 1991) [hereinafter DuBois Interview].

111. Von Gierke Interview, *supra* note 110; Eldred Interview, *supra* note 93. The United States allegedly lost the opportunity to influence the automobile noise emissions standards being discussed at the meeting. Von Gierke Interview, *supra* note 110. Furthermore, the EPA official involved is said to have poisoned the atmosphere with European agencies for a long time afterward. Eldred Interview, *supra* note 93.

Opinions differ on this subject, however, and it is difficult to know which assessment of EPA's coordination activities is more accurate. An EPA official discounts such criticisms as common from persons in regulated industries and others who are unhappy when an agency fails to accept their recommendations. In disputing the assertion that EPA has been disabled from effectively representing the United States, he notes that EPA continues to serve as the representative of the State Department at international conferences and receives invitations to contribute to such conferences in Asia as well as Europe.¹¹²

e. Assistance of State and Local Noise Control

As discussed above, the NCA originally assigned EPA only limited responsibilities in the area of nonfederal noise abatement.¹¹³ As a result, EPA provided only limited support to state and local noise control efforts prior to 1978.¹¹⁴ After congressional oversight hearings revealed that EPA's original mandate was inadequate to foster state and local initiatives,¹¹⁵ Congress passed the Quiet Communities Act of 1978.¹¹⁶ The Act authorized ONAC to create a grants program and offer technical assistance to stimulate state and local noise abatement.¹¹⁷

After receiving its new authority, ONAC embarked on an ambitious and innovative program of support for local and state governments. ONAC offered a limited amount of direct financial assistance to a small number of states and cities,¹¹⁸ but most of its efforts consisted of provid-

112. Second Feith Interview, *supra* note 85.

113. These responsibilities included advising state and local governments on training personnel, selecting enforcement equipment, and preparing model state or local legislation. 42 U.S.C. § 4913(c) (1988); NOISE POLLUTION, *supra* note 85, at 19.

114. NOISE POLLUTION, *supra* note 85, at 19.

115. *Noise Control Act Oversight: Hearings Before the Subcomm. on Resource Protection of the Senate Comm. on Environment and Public Works, 95th Cong., 2d Sess. (Apr. 4-5, 1978 (part 2))* [hereinafter *NCA Oversight Hearings*]; see also SENATE COMM. ON ENVIRONMENT AND PUBLIC WORKS, QUIET COMMUNITIES ACT OF 1978, S. REP. NO. 875, 95th Cong., 2d Sess. (1978).

116. Pub. L. No. 95-609, 92 Stat. 3079 (1978) (codified at 42 U.S.C. § 4913 (1988)).

117. 42 U.S.C. § 4913 (1988). EPA was authorized to give grants to pay for surveying the extent of local noise problems, planning and developing noise control capacity, developing abatement plans around major transportation facilities, and evaluating techniques for controlling noise. *Id.* § 4913(c)(1). Further, EPA was required to develop a program to assess the extent of noise pollution and abatement, to establish regional technical assistance centers, and to provide direct technical assistance. *Id.* § 4913(d)-(f).

118. During 1979, for example, ONAC gave grants ranging from \$31,000 to \$65,000 to 15 states. Interview with Casey Caccavari, former Director, State and Local Noise Assistance Program, EPA, in Washington, D.C. (Feb. 28, 1991) [hereinafter Feb. 1991 Caccavari Interview]; see also PROGRESS TO DATE, *supra* note 102, at 1 (10 EPA regional offices provide technical and financial assistance to states and localities). Three communities received grants for demonstration projects designed to test methods of noise abatement that could be used by other communities. *Id.* at 3. See generally Center for Public Management, Final Report: Quiet Communities Program Demonstration (March, 1982) (assessing effectiveness of the demonstration projects).

ing technical support through regional technical centers,¹¹⁹ creating the ECHO (Each Community Helping Others) program,¹²⁰ and hosting over 100 training programs attended by 4000 noise officials.¹²¹ ONAC also wrote and distributed model state and local noise ordinances.¹²² Lastly, ONAC established a "buy-quiet" program that offered communities model contract specifications for the purchase of low noise emission products.¹²³

The demise of state and local programs after 1981, when ONAC's funding was eliminated, strongly suggests that ONAC's support activities were crucial to local noise abatement efforts.¹²⁴ Yet the full potential of ONAC's efforts is unknown; ONAC had only three years to develop programs, and loss of funding ended several initiatives that had not yet been implemented.¹²⁵

f. Noise Education and Research

The NCA requires EPA to develop and disseminate information and educational materials on noise, and to sponsor research on the effects

119. PROGRESS TO DATE, *supra* note 102, at 1, 4.

120. The ECHO program sent local noise abatement personnel to other cities to share their expertise and insights. *Id.* at 3-4.

121. *Id.* at 2. Besides holding training sessions, ONAC developed training materials for states and localities, including materials on noise measurement, and loaned state and local officials sound level meters and other equipment. *Id.* Essentially, ONAC served as a clearing-house for noise control information. Suter, *supra* note 72, at 47.

122. Twenty states have incorporated the model state ordinance. PROGRESS TO DATE, *supra* note 102, at 2. Over 1200 communities have now received the model local ordinance. Interview with Casey Caccavari, former Director, State and Local Noise Assistance Program, EPA, in Washington, D.C. (Nov. 19, 1990) [hereinafter 1990 Caccavari Interview]. These ordinances have received both compliments and criticism. *See, e.g.,* Letter from Paul Schomer, Team Leader, Environmental Acoustics Team, Construction Engineering Research Laboratory, Corps of Engineers, Department of the Army, to David Pritzker, Administrative Conference of the United States 2 (Mar. 13, 1991) [hereinafter Schomer Letter] ("among the most useful products"); Letter from David Lipscomb, Consultant, Correct Service, Inc., to Michael Bowers, Deputy Research Director, Administrative Conference of the United States 2 (Mar. 19, 1991) [hereinafter Lipscomb Letter] ("has been used repeatedly"); Letter from Edwin Toothman, Director, Occupational Health, Health and Safety Services, Bethlehem Steel Corp., to David Pritzker, Administrative Conference of the United States 1 (Apr. 1, 1991) [hereinafter Toothman Letter] ("too detailed and somewhat impractical"); Letter from Frederick Kessler, FMK Technology, Inc., to David Pritzker, Administrative Conference of the United States (Mar. 19, 1991) [hereinafter Kessler Letter] ("technically flawed" but "did provide . . . starting point"); DiPolvere Letter, *supra* note 108, at 1 ("legal side of EPA . . . made the final version so noncommittal that its value was diminished"). In an effort to address some of the complaints, ONAC prepared a 300-page workbook to explain the model ordinance and how it could be tailored to suit the needs of particular cities. Interview with Casey Caccavari, former Director, State and Local Noise Assistance Program, EPA, in Washington, D.C. (June 20, 1991) [hereinafter June 1991 Caccavari Interview].

123. PROGRESS TO DATE, *supra* note 102, at 10.

124. *See infra* notes 191-92 and accompanying text.

125. *See infra* note 186.

of noise and methods of noise abatement.¹²⁶ Beginning in 1976, ONAC's educational efforts included establishing a National Information Center for Quiet, producing public service television announcements, designing and distributing teaching materials to schools and unions,¹²⁷ and publishing 260 technical reports on noise abatement.¹²⁸ While at least one critic claims that these reports were uneven in quality and technical content,¹²⁹ a number of health and engineering professionals have found them useful.¹³⁰ EPA's efforts in the research area included sponsorship of research projects to investigate both the potential health risks of noise and techniques to abate noise more effectively.¹³¹

3. *Noise Abatement After ONAC*

By 1981, when it lost congressional funding, ONAC had made reasonable progress toward fulfilling its mandate to abate noise. Not surprisingly, since the funding cut, EPA has maintained almost none of its activities in this area. At the same time, local and state efforts have declined dramatically. As a result, there is less governmental noise abatement activity in the United States today than at any time since passage of the NCA in 1972. This section explains why ONAC lost its funding and the consequences of that decision for federal and nonfederal noise abatement activity. It also documents the decline in state and local regulation that occurred after ONAC's demise.

a. *Why ONAC Lost Its Funding*

Although ONAC's efforts were more successful in some areas than others, ONAC did have several achievements to its credit after the first decade of NCA implementation. While ONAC had promulgated only

126. 42 U.S.C. §§ 4903(c), 4904(b) (1988).

127. PROGRESS TO DATE, *supra* note 102, at 7-8.

128. Suter, *supra* note 72, at 47; *see also* ENVIRONMENTAL PROTECTION AGENCY, BIBLIOGRAPHY OF NOISE PUBLICATIONS 1972-1982 (undated) [hereinafter BIBLIOGRAPHY].

129. *E.g.*, Schomer Letter, *supra* note 122, at 1 ("technical content was mixed and never of the highest level").

130. *E.g.*, George Luz, Program Director for Environmental Noise, Bio-Acoustics Division, Environmental Hygiene Agency, U.S. Army, Comments On The EPA's Office of Noise Abatement and Control, *in* Letter from Nelson Lewis, Acoustical Engineer, Bio-Acoustics Division, Environmental Hygiene Agency, U.S. Army, to Alice Suter, Consultant (Mar. 22, 1991) [hereinafter Luz Comments] ("we continue to consult some of these reports even though they are 15 years old"); Letter from Patrick Carney, President, American Speech-Language-Hearing Association, to David Pritzker, Administrative Conference of the United States 5 (Apr. 4, 1991) [hereinafter Carney Letter] ("still find [EPA publications] valuable in providing technical assistance"); Letter from Rena Glaser, former President, National Health Conservation Association, to David Pritzker, Administrative Conference of the United States 1 (Mar. 29, 1991) [hereinafter Glaser Letter] (publications were "extremely valuable"); Letter from Andrew Stewart, President, National Hearing Conservation Association, to David Pritzker, Administrative Conference of the United States 1 (Apr. 3, 1991) [hereinafter Andrew Stewart Letter] ("several publications of ONAC were extremely useful and influential").

131. PROGRESS TO DATE, *supra* note 102, at 11-13.

four product and six transportation noise standards and made little progress toward implementing product labeling or the LNEP program,¹³² it had played an active role in coordination, research, education, and support of local and state efforts.¹³³ Since other health and safety programs have had mixed records,¹³⁴ ONAC's modest record does not satisfactorily account for its loss of funding.

Congress eliminated funding for the program for three different reasons. First, EPA encouraged the funding cut and bears much of the responsibility. EPA officials told Congress that, in light of the budget crunch, ONAC should be disbanded; they claimed that the benefits of noise control were highly localized, and that state and local governments could engage in noise control even in the absence of a federal program.¹³⁵ The reason EPA's management testified to this effect, acquiescing in the prior OMB decision, is unknown (although the decision to do so was consistent with the general deregulatory approach of Ann Gorsuch, EPA's Administrator, and others appointed to run the Agency under the Reagan administration).¹³⁶ What is known is that after the OMB's initial decision to end funding for ONAC, OMB officials agreed, after meeting with lower EPA officials, to fund ONAC at a greatly reduced level (around \$1 million) to maintain the enforcement of existing regulations.¹³⁷ EPA's management, however, rejected the compromise, deciding instead to eliminate ONAC entirely.¹³⁸

The second reason for ONAC's loss of funding was that it lacked strong political allies. As noted earlier,¹³⁹ there never has been a well organized constituency for noise control similar to that supporting other types of environmental actions.¹⁴⁰ Moreover, those industries that originally supported the NCA in order to obtain federal preemption of conflicting local regulations had accomplished their goal; they had no objections to disbanding ONAC as long as Congress maintained the NCA's preemption provisions.¹⁴¹

132. See *supra* parts I.B.2.b-I.B.2.c.

133. See *supra* parts I.B.2.d-I.B.2.f.

134. See Shapiro & McGarity, *supra* note 66, at 2-3.

135. *Hearing Before the Subcomm. on Toxic Substances and Environmental Oversight of the Senate Comm. on Environment and Public Works, 97th Cong., 1st Sess. 59 (1981)* [hereinafter *Oversight Hearing*] (statement of Charles Elkins, Deputy Assistant for Noise Control Programs, EPA).

136. See JONATHAN LASH ET AL., *A SEASON OF SPOILS: THE REAGAN ADMINISTRATION'S ATTACK ON THE ENVIRONMENT* 28-29 (1984).

137. Feith Interview, *supra* note 37. A further condition was that ONAC make no new regulations. *Id.*

138. *Id.*

139. See *supra* notes 36-40 and accompanying text.

140. Barbara Ruben, *On Deaf Ears*, ENVTL. ACTION, Mar.-Apr. 1991, at 16, 17 ("Public apathy about noise made it all the easier for EPA's office to quickly fall under Reagan's budget axe, says [David] Hawkins of the Natural Resources Defense Fund.").

141. *Oversight Hearing, supra* note 135, at 2 (testimony of William H. Dempsey, President,

Finally, ONAC might have survived if it had not lost credibility in the garbage truck standard debate. In 1979, EPA promulgated a regulation limiting noise emissions from truck-mounted waste compactors.¹⁴² The noise reduction was to be achieved primarily by requiring garbage trucks to run their engines more slowly when they compacted garbage, which ONAC considered a reasonable response to the problem.¹⁴³ The standard was opposed not only by the regulated industry, but by local noise administrators¹⁴⁴ and White House staff.¹⁴⁵ The regulated industry argued that time and place restrictions had already solved the problem, and that the new standard was both costly and unnecessary.¹⁴⁶ Others, including nationally syndicated columnist James Kilpatrick, saw the standard as yet another example of governmental overkill.¹⁴⁷ While

American Association of Railroads) (taking no position on whether ONAC should continue, but favoring federal preemption of state and local noise regulation); *id.* at 124 (statement of Motor Vehicle Manufacturers Association of the U.S., Inc.) (stating that eliminating federal preemption would increase manufacturers' regulatory burden); *id.* at 128 (letter from Bennett C. Whitlock, Jr., American Trucking Association, to Senator Slade Gorton, noting that the trucking industry "adamantly opposes" repeal of federal preemption). The railroads and motor carriers gained credibility for this position from the fact that EPA emission standards for these industries are enforced by the Department of Transportation, which was not put out of business. 42 U.S.C. §§ 4916(b), 4917(b) (1988). These industries, however, received some regulatory relief as a result of ONAC's demise. *See infra* note 214.

142. 44 Fed. Reg. 56,524 (1979) (revoked by 48 Fed. Reg. 32,502 (1983)).

143. *Id.* at 56,526-27. The Agency estimated that the standard would decrease refuse vehicle noise 74 percent by 1991 and that about 19.7 million persons in cities and densely populated suburbs would benefit. *Id.* at 56,532. An EPA official admits that the Agency's original testing plan would have been expensive for the industry, but he maintains that ONAC was working with the industry to solve that problem. Feith Interview, *supra* note 37.

144. Jesse O. Borthwick, the Executive Director of the National Association of Noise Control Officials, told Congress:

The problem with refuse collection noise can best be dealt with through local in-use and administrative controls. Reducing compactor noise emission levels 5 or 6 dB will virtually have no effect on reducing the impact of refuse collection in a noise sensitive area during early morning hours when background noise levels are low.

Reauthorization of the Noise Control Act of 1972: Hearing Before the Subcomm. on Commerce, Transportation, and Tourism of the House Comm. on Energy and Commerce, 97th Cong., 1st Sess. 27 (1981) [hereinafter Reauthorization Hearing].

145. The Regulatory Analysis Group, located in the Carter White House, received more letters from Congress on the standard than on any other issue in its first three years. Timothy B. Clark, *Regulating Garbage Truck Noise — A Quiet Debate Is Getting Louder*, 12 NAT'L J. 1843, 1843 (1980). A Regulatory Analysis Group study initiated in response to these complaints concluded that a national standard was inappropriate for noise generated by garbage pickups. *Id.* at 1844. The study reasoned that garbage collection noise was primarily a local problem because "[t]he desired level of product noise regulation depends on the ability to regulate a truck's pattern of use, which varies tremendously among communities." *Id.*

146. *See, e.g., Oversight Hearing, supra* note 135, at 4-6 (statement of Richard L. Hanne-man, Director, Government and Public Affairs, National Solid Waste Management Association). The industry objected to the standard because not all noise generated by refuse collection is made by the compactor mechanism (the standard did not regulate other parts of the vehicle such as brakes and tires), and locally imposed curfews have effectively limited citizen complaints about garbage truck noise. *Id.*

147. *Reauthorization Hearing, supra* note 144, at 63 (reprint of Kilpatrick article appearing in the Memphis Press-Scimitar on Nov. 18, 1980). Specifically, Kilpatrick opined, "Cost

ONAC fought back, contending that “[i]f we were talking about a chemical substance with similar effects, . . . EPA would have regulated with much more dispatch and vigor,”¹⁴⁸ ONAC eventually lost the battle and was discredited in the process.

b. Revocation of Pending Standards

Once Congress eliminated ONAC's funding, EPA had to decide what to do about products it had identified as significant noise sources, because the NCA obligated it to regulate any products so identified.¹⁴⁹ In December, 1982, EPA withdrew its outstanding product identifications¹⁵⁰ and, in July, 1983, revoked the emissions standard for garbage trucks.¹⁵¹ An EPA attorney had warned that the Agency could not merely withdraw the prior designations without some justification, because, as he explained, “there is apparently no evidence to suggest that the products in question no longer have the same effects on the public health and welfare” recognized when the products were identified as requiring regulation.¹⁵² The Agency had to find a justification for its actions. Declining to rely on the assertion (in part because it was untenable) that state and local governments had demonstrated their ability to regulate these identified noise sources,¹⁵³ EPA finally decided to fall back on the claim that the decline in federal tax revenues required that ONAC's funding be cut and noise regulation temporarily abandoned.¹⁵⁴

and benefits to one side, this petty, stupid, nit-picking regulation based almost entirely upon gauzy conjecture as to ‘sleep and activity interference’ — offers one more instance of a bureaucracy gone berserk.” *Id.* Kilpatrick pointed to successful local efforts to control garbage collection noise and decided, based on this case, that the entire NCA was superfluous. *Id.* Kilpatrick later endorsed the “buy-quiet” program as an appropriate governmental response to noise without acknowledging ONAC's role in establishing the program. *Id.* at 62 (reprint of Kilpatrick article appearing in the Memphis Press-Scimitar on Jan. 8, 1981).

148. Clark, *supra* note 145, at 1844.

149. 42 U.S.C. § 4905(a) (1988).

150. 47 Fed. Reg. 54,108 (1982).

151. 48 Fed. Reg. 32,502 (1983).

152. Memorandum from Samuel Gutter, Attorney, Air, Noise, and Radiation Division, ONAC, to Robert Perry, General Counsel, EPA 4 (Dec. 1, 1981).

153. Memorandum from Robert Perry, General Counsel, EPA, to Kathleen Bennett, Assistant Administrator for Air, Noise, and Radiation Division, ONAC 1 (Dec. 10, 1981). EPA's General Counsel warned that there were “serious risks to this approach, in part because it relies on factors that the Act does not explicitly permit the Administrator to consider in determining what constitutes a ‘major’ source of noise, and in part because the . . . [justifications might] be difficult to document.” *Id.* He might have added that if local and state governments established emission standards for the products identified by EPA as major noise sources, the affected manufacturers would likely need federal preemption to protect them from inconsistent and conflicting regulations.

154. *See id.* at 2 (noting that the decline-in-federal-revenues approach involves less legal risk because this approach relies on the Administrator's discretion to set priorities in the face of budget cuts); 47 Fed. Reg. 57,709 (1982) (revoking product testing requirements and recordkeeping for various industries due to lack of funding).

A more credible rationale for EPA's decision to withdraw standards might have been found in the Anti-Deficiency Act.¹⁵⁵ The Act prohibits governmental officials from making or authorizing an expenditure or obligation in excess of a congressional apportionment.¹⁵⁶ Although the Anti-Deficiency Act might be interpreted to prohibit EPA officials from spending money appropriated for other purposes on implementation of the NCA, EPA apparently has not accepted that interpretation, since it has continued to carry out some of its duties under the Noise Act.¹⁵⁷ In 1986, for example, EPA amended its regulations regarding noise standards for trucks and motor carriers.¹⁵⁸ EPA has continued to consult on and coordinate noise control activities with other federal agencies and has continued its own enforcement activities, albeit at a limited level.¹⁵⁹ EPA continues to disseminate information and education materials regarding noise control activities.¹⁶⁰

While EPA may not be prohibited as a legal matter from promulgating standards for the significant noise sources it previously identified, the lack of any budget for that purpose effectively prohibits it from doing so. To promulgate new standards, or even to amend existing ones, EPA would have to divert agency personnel from other tasks, hire contractors, and absorb other expenses. There is no indication that EPA has sufficient budgetary flexibility to take these steps.

c. *Enforcement of Existing Regulations*

Since the revocation of the pending standards, EPA's regulatory activity has been limited to enforcement of existing standards. ONAC's disappearance has hampered such enforcement efforts in two ways. First, lack of staff forced the Agency to drop industry compliance reporting requirements for its product and labeling standards.¹⁶¹ Without this compliance data, EPA cannot determine whether product manufacturers

155. Pub. L. No. 58-217, 33 Stat. 1214, 1257 (1905) (codified as amended at 31 U.S.C. § 1517 (1988)).

156. 31 U.S.C. § 1517(a) (1988).

157. TRANSPORTATION NOISE, *supra* note 106, at 17. Even if a court did not agree that EPA could expend other funds to implement the NCA, it could still hold that until Congress repeals the NCA, EPA is legally obligated to enforce it and must seek funding for that purpose. *Cf.* TVA v. Hill, 437 U.S. 153 (1977) (holding that appropriations decisions do not repeal substantive statutory requirements in absence of clear legislative intent that a repeal was intended). Such a decision would have the virtue of forcing Congress either to repeal the NCA or give EPA funds to enforce it.

158. 40 C.F.R. § 202.11-21 (1991) (stating that regulations were amended on Jan. 8, 1986).

159. TRANSPORTATION NOISE, *supra* note 106, at 17; *see also infra* part I.B.3.c.

160. TRANSPORTATION NOISE, *supra* note 106, at 17; *see also infra* part I.B.3.e.

161. 47 Fed. Reg. 57,709 (1982). When the existing regulations were originally promulgated, EPA required companies to test at random a certain number of products to ensure that they were in compliance with emission standards, and to report the results to EPA. *Id.* (description of testing and reporting requirements).

are abiding by its regulations.¹⁶² Second, staffing and other problems have made EPA slow to investigate potential violations and enforce existing regulations.¹⁶³ Overall, EPA enforcement activities have been minimal.

EPA's limited capacity to enforce its regulations is mitigated by the fact that the Department of Transportation (the DOT) is responsible for enforcing the transportation noise standards promulgated by EPA, and, unlike EPA, DOT has ongoing enforcement programs.¹⁶⁴ Reliance on DOT enforcement, however, has its drawbacks. The Federal Railroad Administration (the FRA), for example, located in DOT, is responsible for enforcing EPA's railroad noise standards,¹⁶⁵ yet the FRA has discontinued routine noise inspections because it claims the rate of compliance has been "extremely" high.¹⁶⁶ It makes this contention despite a General Accounting Office (GAO) finding that the high compliance rates were partially explained by the FRA's practice of not citing any railroad making a good faith, albeit ineffective, effort to correct a violation.¹⁶⁷

The Federal Highway Administration (the FHWA), likewise located in DOT, is also responsible for enforcing EPA's transportation noise standards.¹⁶⁸ It too has deemphasized enforcement of these standards, claiming high compliance rates and the burden of other inspection duties.¹⁶⁹ The GAO reports, however, that inadequate maintenance may be making older trucks excessively noisy.¹⁷⁰ Moreover, pressure from Washington to undertake different tasks reduces the ability of local FHWA personnel to respond effectively to noise complaints.¹⁷¹

162. One EPA official believes industry compliance remains high in industries where manufacturers complied with noise emission standards by retooling production processes rather than undergoing the expense of changing manufacturing methods. Feith Interview, *supra* note 37 (identifying the trucking and railroad industries as unlikely to backslide).

163. For example, since 1987, EPA has been investigating approximately 18 hearing protection device labelers for a range of violations. *Id.* The investigation has been stalled because EPA has had to take staff from other duties and because it has had to develop procedures to assess civil penalties for violations of noise regulations. *Id.*

164. 49 C.F.R. § 210 (1990) (railroads); *id.* § 325 (motor carriers).

165. *Id.* § 210.

166. TRANSPORTATION NOISE, *supra* note 106, at 53.

167. The FRA takes the position that if a mechanical problem causing noise emissions in excess of a standard is fixed, and a train nevertheless exceeds the standard, there is no violation because the railroad made a good faith effort to comply. *Id.* at 53-54.

168. 49 C.F.R. § 325 (1990); TRANSPORTATION NOISE, *supra* note 106, at 63.

169. TRANSPORTATION NOISE, *supra* note 106, at 63-64.

170. *Id.* at 68. The American Trucking Association concedes that a few motor carriers may not be maintaining their trucks up to EPA standards, but it claims that additional enforcement, if needed, should be undertaken by state and local governments. *Id.* at 68-69. State and local governments, however, are preempted from undertaking enforcement activity unless they adopt EPA regulations as the local standard. See *supra* notes 57-58 and accompanying text.

171. Telephone Interview with Ed DiPolvere, Director, New Jersey Office of Noise Control (Dec. 4, 1990) [hereinafter DiPolvere Interview]. One new task is truck safety. TRANSPORTATION NOISE, *supra* note 106, at 64.

Weaknesses in DOT enforcement are difficult to measure. Yet even if DOT enforcement were completely reliable, ONAC's loss of funding would continue to impact the regulation of transportation noise in two ways. First, as the next section discusses, EPA's railroad and motor carrier standards may need updating to provide the public adequate protection, a task EPA lacks the resources to undertake. Second, DOT enforcement alone may not be cost-effective. FHWA officials have told the GAO that source controls are "probably the most cost-effective" way to address traffic noise.¹⁷² In the absence of new EPA regulations, however, the DOT will continue to spend millions of dollars erecting noise barriers along federal highways.¹⁷³ In sum, the public may receive adequate protection only from those noise sources for which ONAC has promulgated regulations that remain up-to-date and effective.

d. Update of Existing Regulations

As suggested above, ONAC's loss of funding has prevented the Agency from updating regulations that have become inadequate or obsolete. This is a critical problem because EPA's existing labeling, railroad, motor carrier, and product standards all may require revision at this time.

EPA's noise protection labeling standard, for example, has become highly misleading. Scientific studies have demonstrated that persons wearing earplugs receive only eight to fifty-six percent of the protection indicated by the Noise Reduction Rating (NRR) required by EPA, and that persons wearing earmuffs receive only thirty-five to sixty-seven percent of the protection indicated by the NRR.¹⁷⁴ Recognizing these discrepancies, OSHA was forced to instruct its inspectors to assume that

172. TRANSPORTATION NOISE, *supra* note 106, at 67.

173. *Id.* at 67. The American Trucking Association has indicated to the GAO that future reductions in vehicle noise could be achieved by redesign of tires. *Id.* at 69.

174. Letter from Frank Wilcher, President, Industrial Safety Equipment Association, to Prof. Sidney Shapiro, Univ. of Kansas Law School 2 (Apr. 1, 1991) [hereinafter Wilcher Letter]; Andrew Stewart Letter, *supra* note 130, at 2 ("NRR is a misleading and essentially useless number for estimating hearing protector effectiveness."); see also Letter from Elliott Berger, Manager, Acoustical Engineering, Cabot Safety Corp., to David Pritzker, Administrative Conference of the United States 3 (Apr. 1, 1991) (listing studies). The discrepancies arise because the testing methods required by EPA do not accurately reflect the conditions under which hearing protection equipment is used. *Id.*

The NRR is inaccurate in two other ways. First, because the NRR gives a single value, the rating encourages consumers to compare NRR values in making a purchase. Even though small differences in NRR values are not statistically significant, consumers believe that they are, in part because the labeling mandated by EPA does not make it clear that this is an erroneous conclusion. See Wilcher Letter, *supra* at 3. Second, the labeling fails to warn consumers that they may receive less protection than indicated by the NRR in certain types of workplace situations. *Id.*

workers receive fifty percent less noise attenuation than indicated by an NRR.¹⁷⁵

EPA's railroad standards also need work. First, there are a number of situations for which there exists either no applicable emissions standard¹⁷⁶ or a standard that is unenforceable¹⁷⁷ or has been circumvented successfully by the railroads.¹⁷⁸ The FRA is powerless to do anything about railroad noise in these situations. Second, even where regulations exist and are enforceable, they may be inadequate. An EPA official explains that when the railroad standards were developed, ONAC took into account the industry's economic difficulties; now that the industry's economic situation has improved, the standards may need to be reexamined.¹⁷⁹ Third, even those regulations that are not inadequate tend to be written in a manner that makes them difficult to meet.¹⁸⁰ For example, one FRA official claims that the FRA could be more effective if EPA rewrote its standards to take advantage of the new noise measurement equipment that is now on the market.¹⁸¹

Similar problems have cropped up in the evaluation of EPA's motor carrier emission standards. In particular, the lack of funding for researching new testing methods greatly inhibits the effectiveness of existing efforts. Inspectors frequently cannot perform stationary tests on heavily traveled highways because high background noise levels make it difficult to obtain accurate noise readings from individual trucks.¹⁸²

175. [Reference File] O.S.H. Rep. 4 (BNA) 77:8101, 77:8106-07 (Oct. 24, 1990). Ironically, it took EPA several years to force hearing protection manufacturers to comply even with existing labeling requirements. See *supra* notes 161-63 and accompanying text (describing EPA's enforcement difficulties).

176. For example, although EPA has a standard for car coupling, which addresses the noise created when one car bangs into another, it does not have one for slack actions, the noise created when a train is moved forward to tighten connections between the cars. Interview with Robert Greer, Industrial Hygienist, FRA, in Washington, D.C. (Feb. 27, 1991) [hereinafter Greer Interview].

177. In some locations, FRA inspectors cannot find terrain that matches the conditions established in the regulations for testing noise emissions. *Id.*

178. An example is found in Boston, where the FRA has been unable to prevent commuter railroads from running extremely loud engines (87 to 90 dB) all night in order to keep heaters running in commuter passenger cars. The railroads avoid the standard applicable to switching engines, which would prohibit the emissions, by using other types of engines that have higher emissions limits. EPA had assumed these other engines would be used in the open countryside rather than in the confines of a rail yard. *Id.*

179. TRANSPORTATION NOISE, *supra* note 106, at 54.

180. Greer Interview, *supra* note 176.

181. *Id.*

182. TRANSPORTATION NOISE, *supra* note 106, at 64. An EPA official responds that because DOT has three other methods to enforce the truck emissions standard, this problem is not disabling. Second Feith Interview, *supra* note 85. It is not clear whether EPA could create noise tests that are less time-consuming and less difficult to perform, but until the Agency receives funding to implement the NCA it is unable to explore such avenues.

Finally, EPA's product standards could benefit from a switch to a sound power standard for measuring noise emissions.¹⁸³ This change would make it possible to conform U.S. standards to standards adopted by the European Economic Community (EEC), which rely on sound power measurements.¹⁸⁴ According to at least one EPA official, however, current procedures may be more cost effective.¹⁸⁵

e. Coordination, Education, and Research

ONAC's loss of funding terminated all but three of its previous coordination, education, and research functions.¹⁸⁶ EPA's remaining functions in this area involve commenting on environmental impact statements (EIS's),¹⁸⁷ participating in the Federal Interagency Commit-

183. A scientist currently doing research in this field asserts that adoption of this method would improve the accuracy of the standards:

It is now possible to conduct indoor tests to measure the sound power of manufactured items such as automobiles. Sound-power tests measure the total noise output of a source, instead of sampling it at a point in space. Manufacturers prefer indoor tests because they are not subject to variations in the weather. Indoor sound-power tests have less variability in test data, making it possible to study noise due to variability in manufacturing, and the underlying mechanisms of noise generation.

Letter from Robert Hickling, Associate Director for Applied Research, Research Professor of Engineering, National Center for Physical Acoustics, University of Mississippi, to David Pritzker, Administrative Conference of the United States 2 (Mar. 18, 1991) [hereinafter Hickling Letter].

184. See Letter from George Maling, Jr., Editor, NOISE/NEWS, to David Pritzker, Administrative Conference of the United States 2 (Mar. 30, 1990) [hereinafter Maling Letter] (Product regulations do not have "lasting value" because EPA "never recognized sound power as a measure of noise emission, and was unwilling to consider international efforts in specification of noise emission."); *infra* note 346 and accompanying text (discussing need for EPA to coordinate domestic and international regulation).

185. Second Feith Interview, *supra* note 85.

186. For example, ONAC was unable to distribute the model building and mechanical codes for noise abatement it had completed. 1990 Caccavari Interview, *supra* note 122. Lack of funds also prevented ONAC from distributing technical reports it had completed on grain dryers and minibikes, and from completing a model land planning code for land development surrounding airports. June 1991 Caccavari Interview, *supra* note 122.

187. EPA comments not just on EIS's but on proposed FAA regulations. TRANSPORTATION NOISE, *supra* note 106, at 33. EPA claims some success in persuading the FAA to do a better job of disclosing noise impacts. Mintz Interview, *supra* note 88. For example, EPA rated an EIS concerning expansion of air cargo activity at the Toledo airport as unacceptable because it did not adequately disclose that increased noise activity could cause sleep disturbances for persons in the area of the airport. *Id.* After EPA threatened to appeal the adequacy of the EIS to the Council on Environmental Quality, the FAA agreed to revise the document. *Id.*

An FAA official, however, disputes the usefulness of the EPA input. Interview with Jim Dinsmore, Director, Office of Environment and Energy, FAA, in Washington, D.C. (Mar. 1, 1991). Dinsmore explains that EIS disclosures are based on the measure of a day-night average noise level (DNL) and that EPA's objections concern intermittent noises which, when averaged with other noises, would not be reflected in the DNL. He notes that the DNL is widely used and that the FAA has never lost a court case concerning the adequacy of an EIS when the FAA has relied on the DNL. *Id.* The FAA could, however, add a supplemental measure of noise to reflect intermittent noise in the interest of fuller disclosure. See *infra* notes 355-58 and accompanying text. Either way, EPA's efforts in this area are constrained by a

tee on Noise (FICON),¹⁸⁸ and responding to requests for noise information and for clarification of existing regulations.¹⁸⁹ Even acting in this limited capacity, EPA is constrained in its effectiveness by its lack of resources.

f. State and Local Regulation

Regulators and consultants agree that there was a significant decline in the number of active state and local noise programs after the abolition of ONAC.¹⁹⁰ While there is no reliable information on the extent of the decline in local activity, EPA officials believe that only a handful of states

severe shortage of staffing. Mintz Interview, *supra* note 88; Feith Interview, *supra* note 37.

188. FICON's duties include considering whether agencies like the FAA should change the methods by which they measure noise impacts for EIS purposes. Telephone Interview with Fred Mintz, Office of Federal Activities, EPA (June 19, 1991); *see infra* note 358 and accompanying text (discussion of possible change in the way that FAA measures noise impacts). It is not clear whether EPA's committee participation is hampered by its lack of noise personnel.

189. The elimination of ONAC funding has made this information disseminating function difficult for the Agency to perform. Only one part-time employee is available to respond to requests for information, there are no extra copies of documents for distribution, and copying is problematic because of budget constraints. Mintz Interview, *supra* note 88. Further, while some ONAC reports are publicly available from the National Technology Information Service, local noise control officials and noise control consultants maintain that key ONAC documents are unavailable. *See* BIBLIOGRAPHY, *supra* note 128; Maling Letter, *supra* note 184, at 2 ("At one time NBS (now NIST) had a list of EPA publications [but it] is no longer available."); Carney Letter, *supra* note 130, at 5 ("Since 1982, it has been difficult to track down many of the EPA publications and perhaps they are out of print."). Part of the problem may be that a number of ONAC reports and documents were transferred to National Association of Noise Control Officials and are in the possession of one of its former officers. DiPolvere Interview, *supra* note 171; *see also* Ruben, *supra* note 140, at 18 ("Today, the archival information of [ONAC] is stored in a shed in DiPolvere's backyard in Trenton."). But an EPA official claims that the documents transferred to NANCO were duplicates of ONAC files retained by the government or files that the government was not required to retain. Second Feith Interview, *supra* note 85.

In addition, some of the information that is available has become obsolete. For example, ONAC's widely distributed model code is not written to take advantage of the new generation of less expensive, more accurate noise monitoring equipment which has come onto the market. Maling Letter, *supra* note 184, at 5; Gomez Interview, *supra* note 42. Some technical information is also out of date because new types of noise problems have arisen since the information was generated. Feith Interview, *supra* note 37. For example, communities are finding that without technical assistance it is difficult to know how to write ordinances to protect home owners from noise that travels along the interior common walls of townhouses and condominiums. 1990 Caccavari Interview, *supra* note 122.

Clarification of existing regulations, another aspect of EPA's informational function, has become similarly problematic with ONAC's dormancy. Persons subject to regulation and local regulators still have questions about existing regulations, and EPA is able to respond to inquiries in this area only because it still has a few people left over from the noise program. As these key people leave, the Agency will lose what little noise expertise it has left. Second Feith Interview, *supra* note 85; *see also* Luz Comments, *supra* note 130, at 1 ("Without a central ONAC to which to appeal, we are vulnerable to the vagaries of opinions from persons [in the EPA regions] who do not have professional expertise in noise assessment.")

190. *E.g.*, Bragdon Interview, *supra* note 37; Feith Interview, *supra* note 37; Gomez Interview, *supra* note 42.

have ongoing noise abatement programs.¹⁹¹ Available data indicate a decrease from three hundred to four hundred ongoing local programs in 1981 to between fifty and seventy-five programs today.¹⁹²

There were several reasons, discussed more fully in part II, for this decline. First, ONAC's demise eliminated economies of scale that made noise abatement more affordable for local governments.¹⁹³ Second, by stimulating local noise abatement activity across the country, ONAC lessened the concerns of cities and states that they would be disadvantaged in the competition for industrial development if they addressed their noise problems.¹⁹⁴ The loss of ONAC may have reawakened these fears. Finally, concerns over preemption issues, exacerbated after termination of the federal program, may have discouraged local governments from engaging in noise regulation.¹⁹⁵

Although the number of communities with noise abatement programs has decreased, in those communities with ongoing programs the scope of abatement activity has broadened. Whereas early local efforts focused on emissions limitations, noise abatement tools now include land use planning (including zoning, subdivision regulation, and site design review), environmental impact assessment, real estate disclosure requirements (related to noise levels on the property), and impact fees based on the levels of noise emissions.¹⁹⁶

191. TRANSPORTATION NOISE, *supra* note 106, at 18.

192. There are two problems involved in estimating the decline. First, it is not clear how many programs were in existence at the time ONAC was disbanded. In 1981, EPA told Congress that over 1000 municipalities and 27 states had noise control legislation, but that only 13 states and 160 local communities had "ongoing active noise control programs which are enforced today." *Reauthorization Hearing, supra* note 144, at 35 (statement of Walter C. Barber, Jr., Deputy Administrator, EPA). There is some evidence, however, that the number of ongoing programs may have been higher. In 1981, over 300 communities each sent a representative to a conference sponsored by ONAC to plan the transfer of regulatory responsibility to local governments. Unified Industries Inc., *A Case Study of the Closing of a Federal Activity: A Report Prepared for ONAC 3-5* (1982).

Estimating the number of current, ongoing programs presents the second measurement problem. A governmental unit is considered to have an ongoing effort if one or more employees have noise abatement as a continuing part of their responsibilities. *Reauthorization Hearing, supra* note 144, at 35 (statement of Walter C. Barber, Jr., Deputy Administrator, EPA). A report done for EPA in 1990 concluded that of 93 communities responding to a survey, 76 had some type of ongoing program. J. Soporowski, III, *The Status of Key State and Local Noise Control Programs that Served as a Basis for Discontinuing A Federal Program 41* (Jan. 22, 1990). The study reasonably inferred that many, if not most, of the 112 municipalities that did not respond to the survey probably no longer had ongoing programs. *Id.*

Finally, the experience of the National Association of Noise Control Officials provides indirect evidence of the decline in local and state efforts. NANCO membership has fallen from a high of approximately 400 persons to its current membership level of 50 persons. DiPolvere Interview, *supra* note 171.

193. See *infra* part II.A.1.b.

194. See *infra* part II.A.1.c.

195. See *infra* part II.A.1.d.

196. Bragdon Interview, *supra* note 37. In California, which probably has the most noise abatement activity in the country, cities use land use planning (for example, requiring noise-

Notwithstanding this positive development, for the most part local regulation of noise is, in at least one view, "close to chaos."¹⁹⁷ Cities apply widely varying approaches to noise abatement, often encompassing unrealistic emissions limitations. Such a fragmented noise policy not only poses a problem for companies subject to more than one set of regulations (such as electric utilities which operate in two or more cities), but makes planning generally difficult for the business community.¹⁹⁸ Further, to the extent that states and local governments create conflicting regulations, regulated firms are unable to obtain relief from EPA, which has the authority (though not the funding) to preempt local regulation by promulgating a federal emissions standard. Serious problems have not yet developed, since, as section II.A. explains, EPA's lack of funding has made it difficult for local governments to actively engage in noise abatement.

C. *The Current Status of Noise Abatement*

As we have seen, with the elimination of ONAC funding, EPA's regulatory and coordination activities slowed to a trickle. Available information indicates that there has been a decline in the number of ongoing state and local noise control programs, although the magnitude of the decline is hard to measure. Taking these two trends together, there can be little doubt that there is less governmental activity devoted to abating noise than there was ten years ago.

At the same time, levels of noise in society are probably increasing.¹⁹⁹ While the last noise pollution study was conducted in 1980,²⁰⁰ noise is directly related to population growth, and the urban population in this country is increasing at twice the rate of the nonurban population.²⁰¹ Moreover, growth in the airline, trucking, and construction industries probably has increased the levels of noise from these sources. Regulation may have mitigated the extent of these noise increases, but, as already discussed, budget constraints have disabled EPA from effectively enforcing its standards.²⁰² The adequacy of Department of Transporta-

sensitive land uses such as hospitals and schools to be located and designed to reduce noise), development of loop roads to reroute traffic away from neighborhoods, and building codes (requiring, for example, that new structures must use soundproofing material approved by a city before a building permit is issued) to achieve their goals in this area. TRANSPORTATION NOISE, *supra* note 106, at 66.

197. DuBois Interview, *supra* note 110.

198. *Id.*

199. Suter, *supra* note 21, at 12.

200. Noise in America, *supra* note 19.

201. Suter, *supra* note 21, at 12; see also Letter from Howard Stone, Jr., Executive Director, Self-Help For Hard of Hearing People, Inc. (SHHH), to David Pritzker, Administrative Conference of the United States (Apr. 19, 1991) ("Without a concentrated effort to prevent it, noise levels will increase.").

202. See *supra* part I.B.3.c.

tion enforcement is also in doubt.²⁰³ There are no federal standards for other noise sources, including most types of construction noise,²⁰⁴ and state and local regulation has declined significantly.²⁰⁵ Further, industry research geared towards the development of quieter products has slowed dramatically, in part because of the removal of any meaningful threat of regulation.²⁰⁶

While the extent of the need for additional noise abatement is uncertain, health professionals, at least, believe that additional regulatory activity is warranted. A consensus development conference held at the National Institutes of Health (NIH) in 1990 found that "[h]earing loss from nonoccupational sources is common" and "public awareness of the hazard is low."²⁰⁷ The conference concluded that "[i]nconsistent compliance and spotty enforcement of existing government regulations have been the underlying cause [of] their relative ineffectiveness in preventing [noise induced hearing loss]," and that a "particular[ly] unfortunate occurrence was the elimination of [funds for ONAC] in 1982."²⁰⁸ The American Academy of Audiology,²⁰⁹ the American Speech-Language-Hearing Association,²¹⁰ and the National Hearing Conservation Association²¹¹ all agree with the NIH conclusions. A "Proposed National Strategy for the Prevention of Hearing Loss," published by the National Institute of Occupational Safety and Health (NIOSH) in 1988, calls on Congress to reestablish the type of educational, research, and coordination activities undertaken by ONAC as important elements in a long-term strategy to reduce noise induced hearing loss.²¹²

203. See *supra* notes 164-71 and accompanying text (discussion of standards enforced by DOT).

204. See *supra* tbl. 1. State and local efforts abate some of the noise generated by these sources, although the adequacy of local regulation in many jurisdictions is doubtful.

205. See *supra* note 190 and accompanying text.

206. Kessler Letter, *supra* note 122, at 2.

207. NATIONAL INSTS. OF HEALTH, CONSENSUS STATEMENT: NOISE AND HEARING LOSS 16 (1990) [hereinafter CONSENSUS STATEMENT] (report by the NIH Consensus Development Conference, convened Jan. 22-24, 1990). A nonadvocate, nonfederal panel of experts prepared the statement based on panel discussions and presentations by investigators working in the noise area.

208. *Id.*

209. Letter from William Melnick, Noise Advisor to the Executive Committee, American Academy of Audiology, to David Pritzker, Administrative Conference of the United States 1 (Mar. 27, 1991) [hereinafter Melnick Letter] ("The noise problem is still with us and continues to affect the hearing and the living conditions of citizens of the United States.").

210. Carney Letter, *supra* note 130, at 1 ("Based on current national health promotion and prevention agendas, reviving the ONAC is not only desirable but necessary.").

211. Andrew Stewart Letter, *supra* note 130, at 1 ("Renewed activity [with respect to the NCA] would provide tremendous benefits for the health and welfare of all Americans.").

212. NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH, PROPOSED NATIONAL STRATEGIES FOR THE PREVENTION OF LEADING WORK-RELATED DISEASES AND INJURIES: PART 2, at 56, 60 (1988) [hereinafter NIOSH STRATEGIES].

When Congress promulgated the NCA, it intended to protect all Americans from noise that jeopardizes their health and welfare.²¹³ That goal has not been met. The ten years since ONAC lost its funding have seen a *de facto* deregulation of noise pollution, despite the fact that noise pollution continues to be a significant public health and social welfare problem.

The failure of public policy in the noise area had several root causes. First, Congress passed the NCA despite low levels of popular lobbying for the bill, because the railroads, motor carriers, and other industries wanted federal preemption of conflicting local and state regulations. These industries had no reason to object to the elimination of funding for ONAC once they had obtained the preemption they sought.²¹⁴ The same factors that limited citizen lobbying for the creation of ONAC limited citizen opposition to its demise.²¹⁵ Second, Congress failed to establish mandatory state abatement goals when it passed the NCA. This failure meant that Congress' original determination that noise pollution required effective governmental regulation later could be undermined by the inattention, or ideological opposition, of regulators and of Congress itself. Congress' failure to mandate state abatement goals probably reflected the lack of visible popular support for the NCA at the time it was passed.

Third, EPA itself never strongly supported ONAC. This was probably both because agency administrators regarded noise pollution as less dangerous to the public health than other forms of pollution regulated by the Agency, and because some of the dangers of noise pollution are not related to health.²¹⁶ Further, ONAC's weak position within the Agency made it vulnerable to the deregulatory enthusiasm of the Reagan administration.²¹⁷

Fourth, during the 1980's, EPA administrators ignored the anomaly created by Congress' termination of ONAC's funding. Although the Agency had legal responsibilities that it could not fulfill, EPA made no move during that period either to obtain new funding or ask Congress to rescind the NCA. While this failure might be attributable to opposition to NCA enforcement, it also could have been the product of institutional factors. Since EPA no longer has an office to address noise issues, no one in the Agency had the responsibility to bring the impossibility of the situ-

213. See *supra* note 52 and accompanying text.

214. Indeed, they now have the best of all possible worlds: federal enforcement is limited and regulatory standards may be out of date, yet state and local initiatives are limited by federal preemption.

215. See *supra* notes 38-40 and accompanying text.

216. See *supra* notes 87-89 and accompanying text.

217. See *supra* notes 136-38 and accompanying text.

ation to the attention of EPA administrators during their budget sessions.

Finally, decisions made by ONAC contributed at least partially to the collapse of federal noise efforts. Although noise is principally a local problem, ONAC initially treated federal emission standards as the solution. Had ONAC been allowed to support state and local efforts earlier than 1978, additional state and local abatement programs might have developed that would have provided a constituency to support ONAC when its funding was being challenged. Further, ONAC's failure to develop labeling standards, and its limited support of educational efforts before 1978, left many citizens uninformed both about the risks posed by noise and the government's ability to reduce noise. The lack of a citizenry properly informed in this regard may have contributed to the ease with which Congress discontinued funding for noise abatement.

The failure of noise policy in the United States may have been unavoidable. Weak political support for the NCA meant that Congress created a weak law. EPA administrators may have deemphasized noise issues in the good faith belief that other problems were more important. And a busy ONAC did not have the time and resources to act on labeling and education until after the Quiet Communities Act was passed.

None of this, however, justifies the current state of affairs. It is time for EPA and Congress to pick up the pieces and construct an effective noise abatement program. The next section examines what that program might look like in light of the lessons learned from the failure of policy to this point.

II

THE FUTURE OF NOISE ABATEMENT IN THE UNITED STATES

Congress and EPA have a unique opportunity to take action at this juncture, now that the passage of time has clarified the advantages and disadvantages of ONAC's approach to noise abatement. This part considers the future of noise abatement in this country and proposes ways to shape future abatement efforts in light of ONAC's experiences. Section A evaluates the role of state and local involvement and section B evaluates the role of federal involvement in this scheme.

A. The Role of State and Local Involvement

Local noise abatement has not prospered in the years since ONAC was disbanded. This section discusses the importance of state and local involvement, examines the connection between federal support and local effort, and concludes that cities and states would become more active in noise abatement if the federal government recreated an appropriate infrastructure.

1. *Why State and Local Regulation Declined*

This section explores four alternative explanations for the decline in local regulation after the disappearance of ONAC. The first explanation is citizen lack of interest. The second is loss of infrastructure support: federal involvement created economies of scale for the localities and allayed local governments' fears of competitive disadvantage. The third explanation relates the dearth of local efforts to local disincentives to regulation, and the fourth relates it to concerns over preemption and related factors. Although citizen lack of interest in noise abatement may partially explain the decline in local activities, it will be suggested that the alternative explanations are more persuasive.

a. *Citizen Lack of Interest*

Requiring local governments to fund their own noise abatement efforts, which was what happened after ONAC's demise, means that local governments will have to decide whether noise abatement is more or less important than other budgetary and regulatory priorities. The failure to fund noise abatement activities locally, according to one view, can be attributed to the low priority given these activities by local governments,²¹⁸ reflecting underlying citizen lack of interest.

This argument, while possessing some validity, presumes that local citizens are informed about the risks and effects of noise. In fact, the public is generally uninformed about noise impacts.²¹⁹ Moreover, as the next section explains, local voters might have a different view of noise abatement if there were a federal infrastructure to lower the cost of local efforts.

b. *Lack of Infrastructure Support*

Professors Mashaw and Rose-Ackerman suggest why the elimination of EPA support was an important factor in the decline in local activity.²²⁰ This view is endorsed by local noise control officials and others. For example, Terry Obtshka of the Oregon Department of Environmental Quality wrote to the Administrative Conference:

218. The Reagan administration, for instance, believed that federal subsidies stimulated local governments to undertake activities that they would not have pursued without federal intervention. John L. Palmer & Isabel V. Sawhill, *Overview*, in *THE REAGAN RECORD: AN ASSESSMENT OF AMERICA'S CHANGING DOMESTIC PRIORITIES* 1, 16 (John L. Palmer & Isabel V. Sawhill eds., 1984). It therefore preferred a system of "dual federalism," which assigns each level of government independent and different responsibilities and, to the maximum extent possible, requires each level to find its own sources of funding to meet those responsibilities. George E. Peterson, *The State and Local Sector*, in *THE REAGAN EXPERIMENT: AN EXAMINATION OF ECONOMIC AND SOCIAL POLICIES UNDER THE REAGAN ADMINISTRATION* 157, 166-67 (John L. Palmer & Isabel V. Sawhill eds., 1982).

219. See *supra* note 207 and accompanying text.

220. See *infra* notes 226-31 and accompanying text.

The demise of the federal program in 1981 has been a disastrous experiment, resulting in the wholesale death of state and local programs. . . . Dismantlement of the national noise control effort produced predictable results. Without a federal program, the linchpin of the network, it became politically expedient to classify noise pollution as a 'nuisance' and cancel out programs under the pretext that it was a cost savings measure. Paradoxically, the costs borne by those exposed [to] the airports, highway, railway, and other egregious noise producers, if calculated . . . are by no means insignificant.²²¹

Mr. Obtshka reports that he expects Oregon to eliminate its noise control program in the near future in response to declining state resources and lack of federal support.²²²

Edward DiPolvere, Chief of the Office of Noise Control of the New Jersey Department of Environmental Protection, agrees that the lack of a federal program is a key factor in the decision by states to eliminate their own noise control efforts. He states:

It was clear to me back ten years ago that once EPA disbanded its ONAC program that the weak State and local programs would soon die. Unfortunately, that was the case; even [worse,] most strong programs also died within the next few years. The New Jersey program was cut in half in 1981 and has just been bumping along since then. The proposed New Jersey budget for 1992 fiscal year which starts in a few months (July 1, 1991) does not include any funding for Noise Control. So one of the longest ongoing and strongest programs will also die. And it's easier for a state to kill a program that has no form of matching subsidy federal funding or stronger link to public risk. In New Jersey we are in a severe budget crisis and many programs are being pinched or curtailed but only [the] Noise Control Program of 25 program classifications is being eliminated altogether.²²³

North Dakota's noise program has had a similar fate, which, according to a letter from Dana Mount, Director of the Division of Environmental Engineering, North Dakota State Department of Health, also can be attributed to the lack of federal support:

North Dakota has had an active noise control program since 1971. . . . Since the phase-out of the EPA program, the State has only been able to provide an extremely limited budget for noise control. . . . Due to the State's current financial concerns and shifts in priorities, the State's noise control law was repealed by the Legislature this year and will effectively phase out completely on July 1, 1991. . . . We believe there is a need for a

221. Letter from Terry L. Obtshka, Manager, Noise Control Program, Oregon Department of Environmental Quality, to David M. Pritzker, Administrative Conference of the United States (May 8, 1991).

222. *Id.*

223. DiPolvere Letter, *supra* note 108, at 8.

strong noise control program within EPA, that includes extensive support for State noise control programs.²²⁴

Ellwyn G. Brickson of the Orange County, California Environmental Health Division tells a similar story: "When the EPA reduced their personnel from 175 to 0, the State of California ONAC also reduced the staff from 5 to 0. The biggest cause of decline in noise abatement programs is simply a lack of funding. The noise problems are still being discovered."²²⁵

The principal reason for the connection between federal support and local regulation is that since information relevant to the entire country can be generated most efficiently by the federal government, federal participation can create economies of scale, lowering the cost of local activity.²²⁶ ONAC created economies of scale in two ways. First, because most communities lacked expertise in noise abatement techniques,²²⁷ ONAC's sponsorship of training programs, its intercity information exchange, its creation of model ordinances, and so on, offered local governments an inexpensive means to obtain the information and expertise necessary to create and maintain noise programs.²²⁸ Second, ONAC's

224. Letter from Dana K. Mount, Director, Division of Environmental Engineering, North Dakota State Department of Health and Consolidated Laboratories, to David M. Pritzker, Administrative Conference of the United States (June 3, 1991).

225. Letter from Ellwyn G. Brickson, Noise Control Specialist, Environmental Health Division, Orange County, Cal., to David Pritzker, Administrative Conference of the United States (May 20, 1991).

226. Jerry L. Mashaw & Susan Rose-Ackerman, *Federalism and Regulation, in THE REAGAN REGULATORY STRATEGY: AN ASSESSMENT* 111, 112, 118 (George Eads & Michael Fix eds., 1984). For example, national institutes can conduct research, develop regulatory technologies, and test the safety of products. *Id.* When no federal program exists to provide such information, each locality must generate it on its own. This not only makes local programs more expensive, it also increases their total cost because of the duplication of effort. Such costs can lead to underregulation by local and state governments.

227. Luz Comments, *supra* note 130, at 2; Gomez Interview, *supra* note 42; DiPolvere Interview, *supra* note 171. A government noise researcher explains:

There were no resources for helping [local regulators] purchase state-of-the-art automated noise monitoring equipment to serve as a labor-multiplier, no experts which they could consult as to whether they were technically correct in their conclusions, and no opportunities for career development. At the same time, noise assessment is too arcane a subject to be left to non-technical legislators. It is not clear that legislators understood the reasoning behind various aspects of the EPA's model community noise ordinance.

Luz Comments, *supra* note 130, at 3. A local noise official adds that most communities are afraid of the technical complexity involved in noise abatement. See Gomez Interview, *supra* 42.

228. See Andrew Stewart Letter, *supra* note 130, at 3 ("Without federal technical support and funding, [state and local agencies] are unlikely to operate actively again."); Schomer Letter, *supra* note 122, at 2 (The demise of technical support "probably contributed more to the loss of state and local programs than did any other factor."); Noral Stewart Letter, *supra* note 40, at 2 ("History has shown that, except for the largest states and cities, these local and state programs cannot survive without support from a central resource.").

With the elimination of ONAC, cities have few inexpensive options for training their employees or otherwise obtaining the necessary expertise. In addition, it is difficult for cities to

sponsorship of research created a scientific and technical information base for local and state noise control efforts which has not yet been replaced.²²⁹

The elimination of this federal infrastructure has raised the cost of local noise control to the point where today it is no longer affordable for most jurisdictions. Moreover, Congress eliminated the federal infrastructure at a time when other areas of federal aid to state and local governments were being significantly cut back.²³⁰ Noise abatement is thus one more victim of the massive shift in the financing of government from the federal government to the states.²³¹

c. *Local Disincentives to Regulation*

Even under ordinary circumstances, in the absence of federal involvement, local regulation is often handicapped by the existence of local disincentives to stringent regulation. The case of noise regulation illustrates these disincentives. First, as noted earlier, noise often affects only a portion of the population in a city or state,²³² making support for local

find out what training resources and expertise exist because there is no longer any organization making such information available. ONAC had funded programs run by the National League of Cities that provided information and updates to its members. Various issues of the League's magazine, *Environmental Report*, for example, covered noise abatement and control. See, e.g., NATIONAL LEAGUE OF CITIES, ENVIRONMENTAL REPORT (Oct. 1, 1979); *id.* (Nov. 27, 1978); *id.* (July 29, 1978); *id.* (July 3, 1978). ONAC also published materials on how to write federal grant applications for funding from other agencies. See Environmental Protection Agency, Staff Resources For Noise Control (Mar. 1978).

229. For example, ONAC's Levels Document offered local officials authoritative guidance on cumulative noise that posed a danger to local citizens. See *supra* note 18 and accompanying text.

230. Some active noise control programs do exist. See, e.g., Jim Carlton, *When Californians Use Leaf Blowers, Life Is Less Mellow*, WALL ST. J., Dec. 4, 1990, at A1 (eastern ed.) (discussing Los Angeles County, California's program). The existence of active programs is not inconsistent with this analysis. Active programs tend to exist either where noise is an especially pressing problem or where programs were ongoing at the time ONAC was abolished. Although the cost of maintaining a program is now higher than it was previously, the benefits of a program are similarly great where noise is a pressing problem. Gomez Interview, *supra* note 42. In localities that had trained personnel prior to ONAC's demise, the costs of program maintenance are lower than program startup costs would be. In most of these locations, however, the size of the noise control program has been cut back. DiPolvere Interview, *supra* note 171. Moreover, in many places where a noise program has been retained, it has been folded into some other department, such as the public health department or the environmental protection department. This approach preserves the program, but has its disadvantages. One is that noise control usually receives significantly less attention than it had previously because it is no longer the primary focus of the department in which it is located. Bragdon Interview, *supra* note 37.

231. See RICHARD P. NATHAN & FRED C. DOOLITTLE, THE CONSEQUENCES OF CUTS: THE EFFECTS OF THE REAGAN DOMESTIC PROGRAM ON STATE AND LOCAL GOVERNMENTS (1983); Michael deCoury Hinds, *Strapped, Big Cities Take Painful Steps*, N.Y. TIMES, Jan. 6, 1991, at L14; Michael deCoury Hinds & Erik Eckholm, *80's Leave States and Cities in Need*, N.Y. TIMES, Dec. 30, 1990, at A1.

232. See *supra* note 40 and accompanying text.

regulation uneven.²³³ Second, state regulation can present a "prisoner's dilemma,"²³⁴ states "may all try to attract businesses to their jurisdictions through tax breaks and regulatory laxness."²³⁵

Congress' decision not to fund ONAC has strengthened disincentives to local regulation in two ways. First, Congress' decision sent a signal to citizens and their elected leaders that noise abatement was unimportant. Second, ONAC's infrastructure activities had stimulated noise abatement activity across the country by minimizing fears that cities or states would be economically disadvantaged by imposing noise abatement requirements. The elimination of ONAC activities may have caused such fears to resurface.

d. Federal Preemption Concerns

The decline in local noise abatement activity also may be attributed to federal preemption uncertainties, which have been exacerbated by ONAC's demise. In general, cities may not find it cost effective to start or maintain noise abatement programs when they effectively are prevented from addressing some significant local sources of noise. For example, local governments are prohibited from regulating, even by means other than emissions standards, railroad and motor carrier noise sources for which there exist EPA standards.²³⁶ A city may, however, pass an ordinance that establishes limitations identical to those imposed by EPA.²³⁷ While this approach solves the problem of lax federal enforcement, it is ineffective when EPA standards are inadequate to protect the public, as is currently the case for certain standards.²³⁸

While cities are not preempted from using abatement methods other than emissions standards with respect to the four product noise sources regulated by EPA, such alternative methods may not work. For example, a city may lack effective mechanisms to abate the noise from delivery trucks. Time and place restrictions are impractical if they cut off access to local businesses during business hours. Zoning and land planning restrictions generally have no effect on mobile noise sources. Even if such restrictions could be used, the city might not be able to regulate the warehouse area where the trucks are located. A land owner could be exempt from any change in zoning if the prior use of the land qualifies as a non-

233. Noral Stewart Letter, *supra* note 40, at 3.

234. A "prisoner's dilemma" is a situation in which, lacking a mechanism to cooperate, players end up worse off by competing with each other. See DENNIS MUELLER, PUBLIC CHOICE II, at 9-10 (1989).

235. Mashaw & Rose-Ackerman, *supra* note 226, at 117. Since political jurisdictions have little incentive to produce regulatory benefits that do not accrue to that jurisdiction, they will underregulate problems affecting more than one jurisdiction. *Id.* at 116.

236. See *supra* notes 57-58 and accompanying text.

237. 42 U.S.C. § 4916(c)(1) (1988).

238. See, e.g., *supra* notes 176-79 and accompanying text.

conforming use exempt from ex post facto zoning changes.²³⁹ The extent to which federal preemption issues actually have discouraged governments from starting or maintaining local programs is unknown. Preemption may not be of significant concern since the scope of EPA regulation is fairly narrow and many important noise sources remain unregulated. Industry claims of preemption, however, may discourage some cities from regulating, even where such claims are dubious or erroneous.²⁴⁰

2. *The Importance of State and Local Involvement*

EPA's arguments to Congress in favor of eliminating ONAC, in particular its suggestion that noise control could be carried out by state and local governments in the absence of a federal program,²⁴¹ reflected the "rebuttable presumption" in favor of local regulatory programs that guided the Reagan administration.²⁴² Whenever possible, the administration sought to return control over "local lifestyles to local decisionmakers."²⁴³ According to this philosophy, local regulation is appropriate for regulatory problems that do not affect other jurisdictions.²⁴⁴ Noise pollution is a local problem because noise itself dissipates quickly and thus does not travel very far.²⁴⁵ In this view, local regulation is more efficient since local government can more easily respond to different types of local conditions.²⁴⁶

Much of this analysis is sound. Noise is a local problem and more efficiently handled locally. Local regulation does allow citizens to make

239. DONALD G. HAGMAN, *URBAN PLANNING AND LAND DEVELOPMENT CONTROL LAW* 146-48 (1971).

240. Feith Interview, *supra* note 37. One such case was *Baltimore & O.R.R. v. Oberly*, 837 F.2d 108 (3d Cir. 1988) (holding Delaware's noise control statute facially preempted by federal law).

241. *Oversight Hearing*, *supra* note 135, at 59.

242. C. Boyden Grey, *Regulation and Federalism*, 1 *YALE J. ON REG.* 93, 93 (1983). Local programs were favored on the grounds that they were more responsive to voters and more efficient in solving local regulatory problems because of the smaller size of the programs, and because reliance on local government "fosters diversity and experimentation." *Id.* at 94-95. The presumption was rebuttable if local administration conflicted with other important goals, such as when the combined effect of disparate programs created intolerable burdens on interstate commerce. *Id.* at 96.

243. *Id.* at 98.

244. *Cf.* Mashaw & Rose-Ackerman, *supra* note 226, at 116 ("Political jurisdictions have little incentive to economize on regulatory costs or to produce regulatory benefits that do not accrue to that jurisdiction.").

245. Gomez Interview, *supra* note 42.

246. *Cf.* Mashaw & Rose-Ackerman, *supra* note 226, at 118 (describing federal regulation's diseconomies of scale when regulation requires local information). This was the argument made by critics of EPA's garbage truck regulation. *See supra* note 144 and accompanying text (discussion of garbage truck regulation). Moreover, local governments have a wider variety of regulatory tools with which to address noise problems. *See supra* note 196 and accompanying text (describing local regulatory tools).

choices about the degree of tradeoff they wish to make between economic development and noise abatement. What the analysis overlooks is the problem of preemption and the fact that a federal infrastructure is critical to the ability of localities to regulate. Federal support, far from usurping local initiative, is necessary to empower communities to act against noise pollution. Some form of federal involvement is therefore necessary. The best approach to such involvement is to maximize federal support but minimize federal regulation, employing it only where local regulation is ineffective or subject to preemption problems. This approach has the added advantage of allowing EPA to conserve its resources for problems that can be addressed only on the federal level.

3. *Implications for Federal Policy*

The future of state and local noise regulation will be uncertain if the federal government does not reestablish the type of scientific, technical, training, educational, and other "infrastructure" activities that EPA supported in the late 1970's. While it is less clear what actions EPA or Congress should take regarding federal preemption, at a minimum, the scope of federal preemption should be clarified.

a. *Infrastructure Support*

If the cost of starting and maintaining noise control programs were lower, cities and states would be more likely to increase their noise abatement efforts.²⁴⁷ Federal involvement would lower the national cost of abatement. Moreover, EPA's experience in the 1970's suggests that a worthwhile program could be established at a fairly low cost to the federal government.²⁴⁸

A panel of experts convened by NIH²⁴⁹ and a NIOSH report²⁵⁰ both call for reestablishing the type of infrastructure activities that EPA promoted during ONAC's operation. Supporters of this position include noise consultants,²⁵¹ health professionals,²⁵² and local regulators,²⁵³

247. The experiences of local noise control officials are suggestive in this regard. Officials from dozens of California municipalities have signed up for inexpensive training sessions offered by an association of California noise control officials. Gomez Interview, *supra* note 42. There has been similar interest in a program run by the National Association of Noise Control Officials that certifies government employees as technically capable of running noise control equipment. *Id.* NANO hopes to offer these services nationally, but it has been stymied by a lack of resources. *Id.*

248. See *supra* note 118 and accompanying text (grants ranging from \$31,000 to \$65,000).

249. CONSENSUS STATEMENT, *supra* note 207, at 20-21.

250. NIOSH STRATEGIES, *supra* note 212, at 56-58.

251. Letter from Edward Clark, Principal, Ostergaard Acoustical Associates, to David Pritzker, Administrative Conference of the United States (Mar. 18, 1991) (arguing that EPA should underwrite research for quieting noise sources and help develop community noise control criteria or guidelines); Letter from Walter Eversman, Chairman, Noise Control and Acoustics Division, American Society of Mechanical Engineers, to David Pritzker, Adminis-

although there is some disagreement as to the type of activities that would be most helpful.²⁵⁴ The NIH and NIOSH reports also recommend a comprehensive public education program on noise, with special attention directed towards school-age children.²⁵⁵ EPA's Scientific Advisory Board (SAB), a standing federal advisory committee whose function is to give scientific advice to EPA, has noted that EPA should improve

trative Conference of the United States 1 (Mar. 27, 1991) ("ONAC should provide a technical infrastructure which supports governments."); Maling Letter, *supra* note 184, at 5 (proposing that EPA rewrite its model noise ordinance and its "Levels Document," and support university teaching, research, and the publication of technical information); Noral Stewart Letter, *supra* note 40, at 6 (describing as a "disgrace" that technical experts must depend "so heavily" on testing and research done by National Research Council of Canada); Letter from Nancy Timmerman, President, Institute of Noise Control Engineering, to David Pritzker, Administrative Conference of the United States (Mar. 29, 1991) [hereinafter Timmerman Letter] ("A clearinghouse of information on noise control can be useful.").

252. Melnick Letter, *supra* note 209, at 1-2 (noting that noise research is now "almost non-existent" and "needs to be done"); Andrew Stewart Letter, *supra* note 130, at 2 (arguing that research programs on the general health effects of noise are "invaluable" and "need to be initiated again").

253. *E.g.*, DiPolvere Letter, *supra* note 108, at 3.

254. For example, some professionals support establishing an easily accessible computerized database of technical information. *See, e.g.*, Letter from Martin Hirschorn, President, Industrial Acoustics Co., Inc., to David Pritzker, Administrative Conference of the United States (Mar. 8, 1991) [hereinafter Hirschorn Letter] (computerized data "could be of great value"); Glaser Letter, *supra* note 130, at 2 (computerized data base would be a "boon" to professionals); Kessler Letter, *supra* note 122, at 5 ("If EPA does nothing else, it should assemble and have available data bases.")

Others, however, believe this would not be a useful step. *See, e.g.*, Memorandum from David Stephens, Chief of the Acoustics Division, NASA Langley Research Center, to Harvey Hubbard, (Mar. 8, 1991), *in* Letter from Harvey Hubbard to David Pritzker, Administrative Conference of the United States (Mar. 12, 1991) (computerized data base would "not be a productive exercise" for ONAC); Luz Comments, *supra* note 130, at 3 (no need to duplicate excellent computerized data bases developed through Air Force funding); Toothman Letter, *supra* note 122, at 2 (computerized data base could be "useful" but should be privately developed).

255. The NIH group concluded that "[h]igh visibility media campaigns are needed to develop public awareness of the effects of noise on hearing and the means for self-protection." CONSENSUS STATEMENT, *supra* note 207, at 18. It recommended:

Educational programs should be targeted toward children, parents, hobby groups, public role models, and professionals in influential positions, such as teachers, physicians, audiologists, and other health care professionals, engineers, architects, and legislators. In particular, primary health care physicians and educators who deal with young people should be targeted through their professional organizations.

Id. at 16-17.

The NIOSH study recommended that long-term objectives for information dissemination should include efforts to:

Inform the public of the need to protect hearing to avoid the biological and social consequences of exposure to noise. All forms of media should be used. In addition, information shall be distributed to large public gatherings, such as state and local fairs, health conventions, etc. Develop education programs and promote existing programs in primary and secondary schools and in universities for teaching the basic science of sound, including its hazards, and methods of self-protection.

NIOSH STRATEGIES, *supra* note 212, at 58.

public understanding of environmental risks as one of its strategies for risk reduction.²⁵⁶

If Congress does not fund a federal infrastructure to support state and local abatement efforts, such efforts are unlikely to be made. Without a federal infrastructure, state and local governments face the prospect of having to both create the technical and scientific information necessary for abatement and engage in educational activities on their own. To the extent that such efforts can occur without a federal presence, state and local governments must seek ways to avoid duplication and to share their information, for instance, by involving national organizations such as the Council of State Governments in their efforts.

Establishing a new federal infrastructure does not guarantee, however, that financially hard-pressed cities and states will begin noise abatement efforts. If the current lack of activity is based on the judgment of voters that other state and local responsibilities must have higher priority, few new actions can be expected. There are three reasons, however, to believe that reestablishing a federal infrastructure will lead to a renewal of state and local noise abatement efforts. First, as mentioned above, federal activities would make local efforts more affordable. Second, new local and state efforts could use existing personnel after training them in noise abatement techniques. Third, if the current low priority that citizens apparently accord to noise abatement results from lack of knowledge, a federal infrastructure could correct this problem through education.

Whether state and local governments will respond to a federal infrastructure is crucial. As discussed earlier, since noise is a local problem, with different impacts on different areas, local and state governments are in the best position to assess what mix of noise abatement activities is most appropriate. Active state and local participation is essential to an effective national abatement effort. This section therefore recommends that EPA seek funding from Congress for the type of support activities the Agency previously provided. Congress, however, may wish to phase in its support to account for state and local government response. In this way, the legislature can determine whether any lack of local activity is attributable to voters' lack of interest in noise abatement or to other factors.

b. Preemption

In addition to reestablishing federal infrastructure support, Congress should clarify the extent of federal preemption and minimize its scope. Clarification may help local governments to resist industry's

256. EPA Science Advisory Board, *Reducing Risk: Setting Priorities and Strategies for Environmental Protection* 24 (1990) [hereinafter SAB Report].

claims that cities or states are not empowered to act and to understand EPA's criteria for approving local regulation necessitated by special local circumstances,²⁵⁷ which would otherwise be preempted.²⁵⁸ Minimizing the scope of preemption would enable local governments to act more directly to solve local problems.

Federal regulation provides cost savings for businesses operating in interstate commerce in cases where a uniform federal standard replaces conflicting state and local regulation.²⁵⁹ The preemption provisions of the NCA are designed to achieve this goal.²⁶⁰ The disadvantage of preemption is that federal standards replace the more stringent standards often preferred by local governments.²⁶¹ Companies that operate in interstate commerce, such as product²⁶² and vehicle manufacturers²⁶³ and railroads,²⁶⁴ insist they could not operate efficiently without extensive federal preemption. Nonetheless, some forms of local regulation, such as the erection of noise barriers, appear to have little or no effect on transportation costs.²⁶⁵ While some degree of preemption is desirable because

257. EPA is authorized to permit local regulation if necessitated by special local conditions and if local regulation would not conflict with EPA's regulation. See *supra* note 58.

258. EPA could make determinations concerning local exemptions without a standard. See 42 U.S.C. §§ 4916(c), 4917(c) (1988); *supra* note 58 (discussion of EPA's power to grant local exemptions). For example, EPA could assist local governments by developing specific criteria for granting special local circumstances exemptions for railroad and truck noise regulation.

259. Mashaw & Rose-Ackerman, *supra* note 226, at 118 ("Uniform national regulation frequently produces economies of scale for private firms in interstate commerce.")

260. SENATE REPORT, *supra* note 51, at 7, 19. Moreover, the drafters understood that more extensive preemption was necessary for railroads and motor carriers. EPA's approval is required to use local controls such as zoning and licensing for railroad and motor carrier noise. See *supra* note 58. The NCA drafters required EPA approval because of "the need for active regulation of moving noise sources and the burdens placed on interstate carriers of differing State and local controls." SENATE REPORT, *supra* note 51, at 19.

261. Preemption of local laws governing product and aircraft noise was adopted over Senator Muskie's objection that the NCA was a "classic example" of how federal preemption weakens regulation by substituting less stringent federal standards for more stringent state and local regulations. SENATE REPORT, *supra* note 51, at 21-22. The National Association of Noise Control Officials asserts that, as Muskie predicted, EPA standards have replaced or prevented stricter regulation of noise sources such as new trucks and motorcycles. *Reauthorization Hearing, supra* note 144, at 24, 28 (testimony of Jesse Borthwick, Executive Director, NANCO). An EPA official replies that the regulations adopted by ONAC were as stringent as the NCA permitted. Second Feith Interview, *supra* note 85.

262. E.g., *Noise Control Act Oversight: Hearing before the Subcomm. on Resource Protection of the Senate Comm. on Environment and Public Works*, 95th cong., 2d Sess. 93-94 (Mar. 18, 1978) (statement of James Arndt, Deere & Co.).

263. E.g., *Oversight Hearing, supra* note 135, at 124-27 (statement of Motor Vehicle Manufacturers Assoc. of the U.S., Inc.).

264. *Reauthorization Hearing, supra* note 144, at 95-99 (statement of William Dempsey, President, American Association of Railroads).

265. *NCA Oversight Hearings, supra* note 115, at 69 (testimony of Larry Blackwood, Illinois Assistant Attorney General). Blackwood contends that some noise control problems created by railroad yards do not require "national uniformity of treatment" because they can be "solved by changes in equipment or practices, or by installation of noise control barriers

it protects industries from the costs of complying with inconsistent local regulation, federal preemption under the NCA may be broader than necessary.

B. *The Role of Federal Involvement*

Congress has three choices with respect to the future of the NCA: (1) preserve the status quo, (2) repeal the NCA, or (3) preserve some or all of the NCA's provisions and fund EPA or some other agency to implement it. This section evaluates more broadly what abatement responsibility the federal government, both Congress and EPA, should undertake. The section concludes that, while Congress should fund EPA to implement the NCA, the Agency, to be more successful, should adopt a different regulatory strategy than the one it previously employed.

1. *Congressional Options*

The first choice available to Congress is the maintenance of the status quo. Under this arrangement EPA is expected to carry out its responsibilities under the NCA without allocation of adequate resources to do so. While preserving the status quo saves money, it leaves EPA in an untenable position. Budget constraints prevent EPA from either effectively enforcing existing standards or amending them to address identified deficiencies.²⁶⁶ Moreover, preserving the status quo prevents state and local governments from adequately filling the regulatory void that lack of funding has created. This is not a satisfactory option.

Congress's second option is to repeal the NCA, or at least its preemption provisions, and free state and local governments to regulate more strictly if they wish. But pursuit of this option would recreate the conditions that led to passage of the NCA in the first place. As noted previously, preemption can provide important cost savings for firms that operate in interstate commerce.²⁶⁷ Unless Congress is prepared to forgo these industry cost savings (or forgo noise abatement altogether), a federal agency must be funded to enforce and update current regulations. Repealing the NCA is therefore not a viable option.

The best option open to Congress is again to fund EPA (or some other agency) to implement the NCA. In this event, as we have seen, Congress would be well advised to assist state and local noise abatement efforts by narrowing the scope of federal preemption and by reestablishing a support infrastructure.²⁶⁸ However, neither such an infrastructure, if reestablished, nor overall responsibility for federal noise regulation

designed for a particular location." *Id.*

266. See *supra* part I.B.3.c.-d.

267. See *supra* note 259 and accompanying text.

268. See *supra* part II.A.1.d. (discussing preemption); *supra* part II.A.3.a. (discussing infrastructure support).

need be located within EPA. If it were to choose this third course, Congress would have to decide whether EPA or some other agency would be responsible for these activities.

In determining responsibilities, Congress also would have to decide what type of restrictions, if any, to impose on the scope of the Agency's jurisdiction. Congress could fund EPA (or some other agency) to update and enforce current regulations but could limit federal jurisdiction in some other manner, for instance by allowing the federal government to regulate only transportation noise.²⁶⁹ In addition to saving money, this subject matter approach has the advantage of maximizing state and local governments' freedom to regulate. Ultimately, however, this approach would prove inadequate. Additional targets for regulation exist,²⁷⁰ and if state and local governments receive the informational and technical support recommended in the previous section, they are more likely to regulate. Demands by industry for federal preemption would quickly follow, and Congress would have accomplished little by failing to address these noise sources in the first place.

a. Location of Regulatory Infrastructure

Two arguments can be made for placing federal abatement activities outside of EPA. First, some of EPA's previous management has not been enthusiastic about noise abatement.²⁷¹ Second, since EPA's primary mission is standard setting, the research and educational goals of noise programs would be better served if delegated to agencies that had research and education as primary objectives.

There are, however, good reasons for reestablishing EPA as the home of infrastructure efforts. While some infrastructure activities can be moved to other locations, other activities are not easily relocated. Congress could give the National Institutes of Environmental Health Sciences responsibility for health-related noise research and some other agency in the Department of Health and Human Services the responsibility for public education. The Department of Education might play a role in the design of school education programs. There is, however, no obvious alternative home for infrastructure activities such as producing model ordinances, establishing universal measurement standards, and training enforcement personnel.²⁷² In addition, if some infrastructure ac-

269. See TRANSPORTATION NOISE, *supra* note 106, at 74 (proposing that EPA be funded to regulate transportation noise sources).

270. See *supra* notes 207-12 and accompanying text (discussing need for additional regulation).

271. See *supra* text accompanying notes 87-89.

272. A former ONAC director recommends that infrastructure activities that could not be assigned to the National Institutes of Environmental Health Sciences be delegated to the National Academy of Engineering/National Research Council or that a National Advisory Commission on noise standards and control be established. Meyer Letter, *supra* note 86, at 2-3. He

tivities remain at EPA, locating others elsewhere would create coordination difficulties.²⁷³ While Congress could establish a new agency, modeled on NIOSH (which performs similar functions with respect to occupational safety and health), the small scale of federal activity in this area might not justify the existence of a separate agency. Moreover, there would be coordination difficulties if EPA were to retain any regulatory functions.²⁷⁴

b. Location of Regulatory Activities

With respect to the location of regulatory activities, Congress could choose to transfer EPA's current regulatory responsibilities to other agencies, in particular those with mandates related to the regulation of transportation services and consumer products. Locating NCA standard setting in such agencies would have some advantages. Specifically, giving the Department of Transportation the authority to establish noise emissions standards for transportation²⁷⁵ would eliminate the coordination problems that have arisen from splitting the responsibility to abate traffic noise between EPA and DOT. It would also permit DOT to combine more easily the use of highway noise abatement techniques such as noise barriers with reliance on emissions controls.

In addition, Congress could assign to the Consumer Product Safety Commission (the CPSC) the regulation of nontransportation products and to OSHA the labeling of hearing protection equipment. Since the CPSC's mandate is to protect consumers from dangerous products,²⁷⁶ the regulation of product noise emissions would fall within its purview. Delegating to OSHA the responsibility to regulate hearing protection

also supports assigning responsibility for maintaining a data base to the National Bureau of Standards. *Id.* at 3. The former director prefers these arrangements because he doubts that EPA will be friendly to infrastructure activities. *Id.* at 1. On the other hand, parceling out the infrastructure activities would create coordination problems. *See infra* note 273 and accompanying text. Since EPA may have a new attitude concerning infrastructure activities, *see infra* note 280 and accompanying text, it would be better to determine whether EPA will support such activities before transferring them elsewhere.

273. For example, when the NCA was passed, Congress expected that EPA would be able to rely on noise research conducted by other agencies. EPA found, however, that because the other agencies followed their own research agendas, they produced very little research relevant to EPA's purposes. *NCA Oversight Hearings, supra* note 115, at 18 (testimony of David Hawkins, Assistant Administrator for Air and Waste Management, EPA).

274. For example, if EPA were to retain its product labeling function, it would have to coordinate its activities with the educational efforts of another agency. OSHA's experience illustrates these types of difficulties. OSHA and NIOSH have had continuous trouble with coordination because the former is located in the Department of Labor and the latter in Health and Human Services. One serious problem is that NIOSH's research activities have sometimes been of little or no use to OSHA in determining what health or safety standard to adopt. Shapiro & McGarity, *supra* note 66, at 58-59.

275. *See* TRANSPORTATION NOISE, *supra* note 106, at 75 (discussing moving responsibility for transportation standard setting to DOT).

276. 15 U.S.C. § 2051(b)(1) (1988).

equipment would make sense. Most consumers of protection equipment are employers, and OSHA's hearing conservation standard depends on the accuracy of the labels used on hearing protection equipment.²⁷⁷

There are also, however, good reasons for leaving standard setting at EPA. The first is the potential synergism that would be lost if the majority of noise abatement activities were not kept in EPA. Dividing up the federal government's abatement activities would create substantial coordination difficulties among the agencies involved. Second, parceling out responsibilities to four different agencies (the CPSC, DOT, OSHA, and EPA) would result in at least some staffing duplication. Third, reassigning EPA's regulatory responsibilities would not necessarily result in more effective regulation, since both DOT and the CPSC have some regulatory handicaps that EPA does not share. Since DOT is responsible for promoting transportation as well as regulating it, DOT lacks EPA's credibility and may lack the motivation to regulate noise.²⁷⁸ As for the CPSC, its effectiveness as a regulator has been questioned over the years.²⁷⁹

Finally, EPA may be ready to change its attitude towards noise abatement activities. The Scientific Advisory Board (SAB) recently called on EPA to recast its mission to include not only a wider variety of environmental hazards, but also a greater variety of regulatory tools.²⁸⁰ The SAB also told EPA that the "most promising strategies for risk reduction encompass a wide range of policy approaches," including scientific and technical measures, provision of information, and cooperation with other agencies.²⁸¹

277. 29 C.F.R. § 1910.95 (1990).

278. TRANSPORTATION NOISE, *supra* note 106, at 75; see also Letter from Sanford Fidell, Lead Scientist, BBN Systems and Technology, to David Pritzker, Administrative Conference of the United States 2 (Apr. 1, 1991) (No other agency besides EPA "has provided a consistent interpretation of noise effects research uncolored by institutional interests."); Noral Stewart Letter, *supra* note 40, at 3 ("[An agency] that does not have a conflict of interest is very much needed.").

279. See Carl Tobias, *Revitalizing the Consumer Product Safety Commission*, 50 MONT. L. REV. 237 (1989); Robert S. Adler, *From "Model Agency" To Basket Case—Can the Consumer Product Safety Commission be Redeemed?*, 41 ADMIN. L. REV. 61 (1989); Teresa M. Schwartz, *The Consumer Product Safety Commission: A Flawed Product of the Consumer Decade*, 51 GEO. WASH. L. REV. 32 (1982).

280. SAB Report, *supra* note 256, at 6. In particular, the SAB recommended that EPA use a welfare risk paradigm that recognizes "social nuisances" such as "odors, noise, and reduced visibility that may or may not affect human health." *Id.* app. A, at 34 (Report of the Ecology and Welfare Subcommittee). The SAB never took the position that noise does not pose a health hazard; it merely argued that EPA should not ignore its nonhealth effects. See *id.* app. B, at 11 (Report of the Human Health Committee) (proposing that comparative risks be judged according to their risks of contributing to cancer, other adverse health effects, ecological damage, and societal welfare).

281. EPA Science Advisory Board, *Reducing Risk: Setting Priorities and Strategies for Environmental Protection*, app. C, at 33 (1990) (Report of the Strategic Options Subcommittee) [hereinafter Strategic Options].

This analysis reveals a potential dilemma. EPA remains the best home for noise abatement activities under the NCA, but if EPA's managers fail to be more supportive of noise abatement activities than their predecessors, EPA is unlikely to be a strong force in noise abatement.²⁸² While the SAB Report encourages EPA to support noise abatement activities, EPA has not yet considered the SAB recommendations. On the other hand, there is no reason to believe that any other agency would be more effective than EPA at abating noise. Moreover, if Congress reestablished EPA's noise program, the Agency's efforts would be closely watched, at least initially. Over the longer term, effective congressional oversight would ensure that EPA remained active in noise abatement.

2. *EPA Options*

At this juncture, the best solution to the problem of noise pollution is for Congress to allow EPA to retain responsibility for implementing the NCA. In the event Congress chooses this course, EPA may have some flexibility in determining how it will carry out its mandate. This will make it critically important that the Agency carefully assess its varied regulatory options, taking advantage of hindsight in the process. This section evaluates EPA's options for implementing its proposed responsibilities and suggests procedures to strengthen a new program. The section concludes that, to be effective, EPA should engage actively in risk assessment and management, coordination, and oversight.

a. Risk Assessment and Management

Risk assessment is a two-part process involving hazard assessment and exposure assessment.²⁸³ EPA already has identified emissions levels that are harmful to health or are disruptive,²⁸⁴ and its last noise survey, completed in 1981, was an exposure assessment.²⁸⁵ In light of the potential seriousness of noise pollution, however, EPA should commission a new study to determine the current extent of noise pollution in the United States.²⁸⁶ Commissioning a study that would take actual measurements of ambient noise levels and noise sources not only would pro-

282. In fact, a former director of ONAC cautions that "EPA and Administrations (regardless of party) simply will not provide the resources to EPA to implement a Federal noise control program within EPA." Meyer Letter, *supra* note 86, at 1.

283. Sidney A. Shapiro, *Biotechnology and the Design of Regulation*, 17 *ECOLOGY L.Q.* 1, 6-7 (1990). Hazard assessment for noise involves determining the degree of harm posed by specific noise sources, whereas exposure assessment involves estimating the number of persons who will be exposed to harmful or annoying levels of emissions.

284. LEVELS DOCUMENT, *supra* note 18.

285. Noise in America, *supra* note 19.

286. See Melnick Letter, *supra* note 209, at 2 ("Relying on data obtained a decade or even two decades ago can be misleading.").

vide a more accurate baseline for future abatement efforts, but would provide support for reviving the NCA.

At the same time, EPA should update its risk assessment data to reflect what has been learned since 1981 about the health consequences and other effects of noise pollution.²⁸⁷ As part of this risk assessment, EPA should rank significant sources of noise according to their relative risks.²⁸⁸ This is especially important since EPA does not have funding to pursue more than a few abatement projects.²⁸⁹

Risk management requires an agency to select the most appropriate regulatory strategy to enable it to fulfill a particular mandate.²⁹⁰ During its tenure, ONAC did not undertake the type of comprehensive assessment of risk management options recommended here.²⁹¹ EPA should in the future engage in risk management, which would involve determining whether market forces, local or state regulation, or other tools can be utilized first, prior to federal standard setting, to reduce product or transportation noise.²⁹² The viability of such alternative tools is discussed below.

i. Market Forces

Market forces have an important, though somewhat circumscribed, role to play in noise abatement. This section explains how EPA can expand the use of product labeling and can enhance the role of market forces, and it describes the limitations of the market approach.

The extent of noise pollution in society may be seen as a function of consumer demand for quieter products, because properly functioning markets should supply the degree of noise abatement demanded by consumers.²⁹³ A market will not function properly, however, if product noise information is expensive to acquire.²⁹⁴ EPA can lower consumer

287. See Lipscomb Letter, *supra* note 122, at 5 (Production of a "revised and updated Criteria Document should be one of the first charges to a revived ONAC program."); Maling Letter, *supra* note 184, at 5 (EPA should "review and rewrite 'Levels Document.'").

288. See SAB Report, *supra* note 256, at 19 (recommending that EPA should reflect "risk-based priorities" in its strategic planning process). Under the relative risk approach recommended by the SAB, EPA would compare the risk reduction that could be achieved through noise abatement with risk reduction in other areas. See *id.* at 16. Since there is no up-to-date data concerning the extent of noise risks, it is not clear how the risks associated with noise might compare to other opportunities for risk reduction.

289. See *supra* part I.B.3 (describing EPA's noise activities after elimination of ONAC funding).

290. Shapiro, *supra* note 283, at 37.

291. NOISE POLLUTION, *supra* note 85, at 33.

292. See SAB Report, *supra* note 256, at 21 (EPA should make greater use of all the tools available to reduce risk.); Strategic Options, *supra* note 281, at 33 (same).

293. PETER ASCH, CONSUMER SAFETY REGULATION: PUTTING A PRICE ON LIFE AND LIMB 33-35 (1988) (arguing that properly functioning markets will supply the amount of safety demanded by consumers).

294. A rational consumer will seek information about a product until the costs of the

search costs by educating the public about the potentially harmful effects of noise and by promoting noise labeling. Consumers could benefit from labeling revealing the level of noise emissions for appliances and other products that emit noise, and the level of noise suppression for windows and other products that attenuate noise.²⁹⁵ An industry spokesman disputes the value of labeling, however, claiming it would be "misleading and ineffective for the average person."²⁹⁶ This problem could be addressed by linking consumer education programs to product labeling. Moreover, EPA could work with industry to design labeling understandable to the average consumer. Even if it did not, at least some consumers would be able to understand and benefit from the labeling.

While greater emphasis on noise labeling would not necessarily require EPA regulation, such regulation most likely would be desirable. As EPA educates consumers on the value of quieter products, some sellers will respond by providing noise information. Nevertheless, because other sellers may limit or lie about the noise information they provide,²⁹⁷ regulation may be necessary to ensure adequate disclosure. Moreover, EPA could make even the voluntary disclosure of information more effective by working with industry to promote measurement accuracy and to ensure that noise information is provided in a manner that consumers can understand and use to compare products. Uniformity in labeling is crucial because consumers will have difficulty using noise labels effectively if product labels employ different methods of disclosure.

person's search exceed the expected benefits at the margin. *Id.* at 49. When search costs are high, consumers will demand less safety than when search costs are lower. Mary L. Lyndon, *Information Economics and Chemical Toxicity: Designing Laws to Produce and Use Data*, 87 MICH. L. REV. 1795, 1815 (1989). A market also will not function properly if the purchasing decisions of individual consumers affect the health of third persons. *See infra* text accompanying note 308.

295. *See* Letter from M.G. Prasad, Professor of Mechanical Engineering, Vice-President for External Affairs, Stevens Institute of Technology, to David Pritzker, Administrative Conference of the United States (Mar. 29, 1991) (Labeling will have a "positive impact on quality and marketing of products."); Melnick Letter, *supra* note 209, at 1 ("Labeling [products] . . . would also provide the public with information which would assist them in making purchasing judgments and serve as a mechanism for an acceptable level of awareness.").

296. Toothman Letter, *supra* note 122, at 2.

297. A seller would have an incentive to limit or skew information when its products were louder than those of its competitors. For instance, a seller might skew such limited information he chose to disclose by presenting it in a manner that made it difficult to compare the firm's products to those of its competitors. Howard Beales et al., *The Efficient Regulation of Consumer Information*, 24 J.L. & ECON. 491 (1981) (discussing the legal system's efforts to improve consumer information); Phillip Nelson, *Information and Consumer Behavior*, 78 J. POL. ECON. 311 (1970) (discussing how limitations on consumer information profoundly impact the market for consumer goods); Michael Rothschild, *Models of Market Organization with Imperfect Information: A Survey*, 81 J. POL. ECON. 1283 (1973). A company also might lie or mislead consumers about the level of noise created by its product. EPA's experience confirms this last possibility. Feith Interview, *supra* note 37 (noting manufacturers of hearing protection equipment made false claims).

ONAC's experiences with lawn mower noise emissions illustrate both the potential of the market approach and some of its pitfalls. Although ONAC declared lawn mowers to be a significant noise source,²⁹⁸ it agreed to postpone issuing an emissions standard if the industry would engage in voluntary labeling.²⁹⁹ The labeling program remains in effect today, but consumers have shown little interest.³⁰⁰ The industry claims that this tepid response indicates that consumers understand that lawn mowers do not pose significant risks.³⁰¹

An alternative explanation is that consumers are not interested in the labels because the industry implemented the disclosure program at the same time EPA stopped its efforts to educate consumers about the risks of noise. If consumers were better educated about these risks, and about the fact that consumer products like air conditioners have noise ratings that can be used for purposes of comparison shopping,³⁰² the labeling program might be more effective. Yet even without broad dissemination of information, the program has its uses. Although some consumers currently may ignore the labels, others, particularly commercial purchasers³⁰³ and consumers who are sensitive to environmental issues,³⁰⁴ may use them.

Market forces can be used to abate noise emissions in ways that do not involve product labeling. The LNEP program is one such case. The usefulness of that program, however, is limited by the fact that it cannot be used for products for which EPA has not promulgated emissions standards.³⁰⁵ A better approach would be for Congress to authorize EPA to designate low noise products suitable for government purchase without imposing the requirement that an emissions standard exist for such products.³⁰⁶ Another way in which market forces could be useful would be if

298. 42 Fed. Reg. 2525 (1977).

299. Feith Interview, *supra* note 37.

300. Interview with John Liskey, Director of Statistical and Technical Services, Outdoor Power Equip. Inst., in Alexandria, Va. (Dec. 5, 1990) [hereinafter Liskey Interview]. Other industries also have found little consumer interest in purchasing quieter products. For example, there has been little consumer demand for quieter household products such as vacuum cleaners, dishwashers, and garbage disposals. Eldred Interview, *supra* note 93. By comparison, refrigerator manufacturers have made their products quieter in response to consumer demands. *Id.* The difference might be explained by how consumers view occasional versus continuous noise. *Id.*

301. Liskey Interview, *supra* note 300.

302. Feith Interview, *supra* note 37.

303. See Noral Stewart Letter, *supra* note 40, at 4 ("Buyers of machinery in some industries are having difficulty obtaining needed information and cooperation from machinery builders.")

304. Glaser Letter, *supra* note 130, at 2 ("[N]ew breed of educated consumer" who "wants to know about environmental hazards" is likely to use noise information.)

305. See *supra* note 96 and accompanying text (describing legal constraints on use of LNEP program).

306. EPA can rely on market forces in this manner even if Congress does not amend the Noise Act. One of ONAC's successes was helping communities purchase quieter products by

Congress and/or state legislatures were to establish tax or other incentives to encourage companies to reduce noise emissions.³⁰⁷

Although market forces have a role to play in noise abatement, not every noise problem is amenable to market solutions. While consumer education and labeling empower a consumer to decide for herself the level of noise protection she wishes to purchase, if the consumer's choice has an adverse impact on third parties, some form of government regulation may be necessary. For example, since buyers have no incentive to take into account the effect of noise on other persons when they purchase a noise emitting product, any protection that others receive is a function of the purchaser's desire to reduce noise. In many cases, third parties will be exposed to loud noises because buyers have little or no interest in reducing the noise emitted by the products they purchase. Individuals who wear hearing protection equipment while running a chain saw, for example, have no incentive to purchase a quieter product unless that option would be less expensive (which is unlikely). The person who purchases a noisy product may be willing to take the risk of possible hearing loss, may simply like noise, or may not hear the noise the product creates. Those persons who manage the nation's railroads typically do not live next to railroad switching yards.

While persons affected by noise theoretically could reach an agreement with noise producers over the amount of noise they will emit,³⁰⁸ in most cases such negotiations would be infeasible. Citizens, for example, cannot contract with the thousands of truck drivers who pass through their communities to reduce noise emissions. In addition, market transactions lead to an economically appropriate amount of pollution only when the victims of such pollution have good information concerning its effects on human health.³⁰⁹ Since some of the health effects of noise are not well understood,³¹⁰ reliance on market transactions to eliminate third party effects may be inappropriate.

Yet even where third party effects exist, it still may be possible to rely on certain types of market incentives to reduce noise. Instead of promulgating an emissions standard, for example, Congress could authorize EPA to assess a tax on products that exceed certain noise

writing model contract specifications they could use. See *supra* note 123 and accompanying text. There are no legal constraints that would prevent EPA from adopting this approach again.

307. See, e.g., CONSENSUS STATEMENT, *supra* note 207, at 18 (noting that incentives for manufacturers to design quieter industrial and consumer goods are needed to reduce nonoccupational noise-induced hearing loss).

308. See Ronald Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960) (developing the "Coase Theorem," in which, in the absence of transaction costs, private parties bargain for the optimal level of pollution or other harmful byproducts of one party's activities).

309. Elinor P. Schroeder & Sidney A. Shapiro, *Responses To Occupational Disease: The Role of Markets, Regulation, and Information*, 72 GEO. L.J. 1231, 1241 (1984).

310. See *supra* part I.A. (discussing health effects of noise).

levels.³¹¹ In general, this approach has received attention as an efficient approach to reducing pollution.³¹²

ii. State and Local Regulation

Even when noise reduction regulation is required, as in cases where market forces are ineffective or in cases involving third party impacts, EPA regulation is not always necessary or desirable. As discussed earlier, states and local governments have at their disposal under current laws a wide range of regulatory tools, such as land use planning, noise barriers, and time and place restrictions,³¹³ enabling them to play an important role in noise regulation. As previously suggested, EPA should conserve its resources and promulgate emissions standards only if local regulation will be ineffective or subject to federal preemption.³¹⁴

Reliance on local regulation would have two advantages for EPA besides conservation of its resources. The first is efficiency. The necessity for EPA to work closely with local noise officials would reduce the likelihood that EPA would promulgate standards that these officials would oppose.³¹⁵ Second, such reliance would permit EPA to integrate its support of an infrastructure for state and local regulation with its priority-setting process. For instance, once EPA decided to rely on local regulatory efforts, it could design support activities to assist local governments in achieving the desired noise abatement.

State and local governments can be helpful in another way. When a federal emission standard is necessary in order to avoid conflicting state

311. Congress has already used a similar approach. In 1990, Congress curtailed local airports' ability to impose noise restrictions while authorizing airports to collect airport facility taxes or "head taxes" to pay for expansion programs. Alice H. Suter, *Wendell Ford's Edsel—Or How to Delight the Lobbyists and Enrage the Citizens*, SOUND & VIBRATION, Jan. 1991, at 5.

312. *E.g.*, Cass R. Sunstein, *Administrative Substance*, 1991 DUKE L.J. 607, 637-39 (discussing taxation as applied to pesticides and auto emissions).

313. A noise problem might be addressed through a combination of market incentives and local control. Garbage truck noise illustrates this possibility. Many communities have the option of prohibiting garbage pickup while most residents are sleeping. Where this is infeasible, as in urban areas, EPA could write a model contract specification that cities could use to purchase quieter trucks.

314. As discussed previously, although some persons informed about noise will purchase quieter products, others will not. If the impact of residual noise on third parties is significant, additional noise reduction will require government action. Whether local regulation will be adequate depends on the nature of the problem. A city can implement time and place restrictions to eliminate annoying levels of noise. On the other hand, noise sufficiently loud to have significant adverse health effects probably demands some form of emissions regulation. Only in this last case would EPA regulation arguably be necessary to protect the public and guarantee uniform national treatment of manufacturers.

Note that an emissions standard would not necessarily eliminate the usefulness of labeling. Although the standard would establish a minimum level of protection, labeling would assist consumers to purchase machines that exceeded the minimum standard.

315. *See supra* note 144 and accompanying text (garbage truck emissions standard opposed by local noise officials as unhelpful).

and local regulations, the responsibility for enforcing the federal standard could be delegated to state and local governments. This could lead to more effective enforcement since local officials would be responsible to local voters for ensuring that the EPA standards are met. The NCA currently authorizes state and local governments to enforce EPA product emissions standards, but only if these governments first adopt the standards as their own laws or ordinances.³¹⁶ This requirement is unnecessary and makes local enforcement less likely.³¹⁷

iii. Statutory Constraints

Although considerations of time and regulatory efficiency favor making emissions standards the regulatory tool of last resort, the NCA makes this approach difficult to implement. The NCA appears to require EPA to regulate any product identified as a "major" noise source, even if state and local regulation are adequate to protect the public. As we have seen, under the NCA, once EPA identifies a product as a "major" noise source, it must promulgate emissions standards within the short time deadlines specified in the Noise Act.³¹⁸ EPA might avoid this result by defining "major" noise source to mean any source that requires a federal emissions standard for successful abatement or for preempting state law.³¹⁹ This interpretation would give EPA the flexibility to pursue noise abatement through alternative methods, while reserving the possibility

316. 42 U.S.C. §§ 4905(e)(1)(A), 4916(c)(1), 4917(c)(1) (1988).

317. *Id.* § 4911. Congress has also authorized citizens to obtain injunctive relief in federal court for the violation of emissions standards. *Id.*

318. *See supra* note 73 and accompanying text.

319. The NCA does not define what constitutes a "major" source of noise. *See* 42 U.S.C. §§ 4902, 4904(b)(1) (1988). The House Report likewise contains no definition. *See* HOUSE REPORT, *supra* note 51, at 12-13. The Senate Report notes that the concept of "environmental noise" refers to the "overall level of noise in a given area to which individuals are exposed, including the intensity, duration, and character of sounds from all sources." SENATE REPORT, *supra* note 51, at 6. It also acknowledges that "[i]dentification as a major noise source is the first step in the development of noise emissions standards for particular products." *Id.* This last statement offers some support for the conclusion that a "major" noise source is one that requires a federal emissions standard for successful abatement.

Moreover, since Congress also authorized EPA to designate a product for labeling if it "emits a noise capable of adversely affecting the public health or welfare," it must have anticipated that at least some noise problems could be addressed through the use of labels. *See* 42 U.S.C. § 4907(a)(1) (1988). This implies that EPA was to have flexibility in choosing its approach.

Determining Congress' intent is important because if Congress did not resolve definitively the issue of whether EPA can rely on other forms of abatement in lieu of emissions standards, EPA can write its own definition of "major" noise source as long as it is consistent with the goals and purposes of the Noise Act. *Chevron v. Natural Resources Defense Council*, 467 U.S. 837, 843 (1984) (permitting federal agencies to make reasonable policy choices in interpreting statutes that are vague or silent on a particular issue). This construction is consistent with the Noise Act since it both reduces noise and preserves EPA's resources to address problems not amenable to other types of solutions (or which require federal regulation for purposes of preemption).

that the Agency would use an emissions standard if other techniques were unsuccessful.³²⁰ If the NCA cannot be interpreted plausibly in this manner, Congress should amend it to give EPA this flexibility.

The NCA has hindered EPA's implementation of the noise program more generally through the restrictive deadlines it set, most of which ONAC missed.³²¹ The wisdom of statutory deadlines is debatable. Deadlines can improve legislative oversight,³²² enable courts to determine more easily when agency action is unreasonably delayed in violation of the Administrative Procedure Act,³²³ and provide incentive to accelerate agency action.³²⁴ But, as in the case of the NCA, these advantages are lost when Congress sets unrealistically short deadlines. A better approach would have been to require EPA to set its own rulemaking deadlines and then to make these deadlines judicially enforceable.³²⁵ This would have permitted EPA to set realistic deadlines³²⁶ while still holding the Agency accountable.³²⁷

iv. *Decisionmaking Procedures*

EPA should use consensus-building procedures, such as advisory committees, workshops, and negotiated rulemaking, to implement the risk assessment and risk management approaches recommended above.

320. This interpretation would not, however, justify an indefinite delay in establishing federal standards. Since the goal of the NCA is noise abatement, once EPA recognized that other abatement techniques were not working it would be obligated to identify a problem as a "major" noise source and proceed to regulate it. 42 U.S.C. § 4901(b) (1988).

321. See *supra* notes 84-89 and accompanying text (discussing the constraints that made it difficult for ONAC to meet its deadlines).

322. Shapiro & McGarity, *supra* note 66, at 54. A statutory deadline provides a clear, articulate standard easily used by oversight committees to review agency actions. *Id.* at 53 n.292. Missed deadlines cause public concern and focus congressional attention on the deadlines. *Id.*

323. See 5 U.S.C. § 706(1) (1988) (authorizing agencies to "compel agency action . . . [when] unreasonably delayed").

324. Shapiro & McGarity, *supra* note 66, at 56.

325. Congress could have assured further accountability by providing that deadlines set by the Agency could be extended only for good cause and only for congressionally determined intervals. Finally, Congress could have provided for judicial review of deadlines set by the Agency to prevent EPA from setting unreasonably long deadlines.

326. The Administrative Conference suggests that the problem of unreasonable deadlines and adverse effects on agency decisionmaking can be mitigated if the agency sets its own deadlines, because the deadlines then reflect the agency's understanding of its own resources. See *Time Limits on Agency Actions*, 1 C.F.R. § 305.78-3(e) (1991); Shapiro & McGarity, *supra* note 66, at 56-57 (discussing proposal to allow OSHA to set its own deadlines).

327. If EPA implements the NCA, there is a danger that EPA administrators will once again ignore the Noise Act as they did previously. While there are reasons for believing this will not happen, self-imposed deadlines would protect against history repeating itself. See *supra* note 280 and accompanying text (suggesting that EPA may be changing its attitude toward noise abatement). When ONAC was operating, it had difficulty obtaining the cooperation of EPA administrators in signing off clearances required for promulgating emissions standards in a timely manner. See *supra* note 87 and accompanying text. Binding deadlines would offer protection against the recurrence of this situation.

Because advisory committees can explain complex technical issues, provide peer review for tentative decisions, identify areas of consensus among scientists and engineers, and expand the participation of interested experts and affected citizens in agency decisionmaking,³²⁸ they often improve the credibility of the agency and acceptance of its decisions.³²⁹ Credibility would be particularly important to EPA, since the Agency would be reinitiating a program that received substantial criticism from the professional community when it last operated.³³⁰ Credibility and acceptance of agency decisions also could be enhanced in a less formal and structured manner through workshops in which professionals, members of the regulated industry, public interest groups, and others were invited to participate, like the meetings of local noise officials and noise professionals held late in ONAC's tenure.³³¹

Another consensus-building procedure EPA could use effectively in certain situations is negotiated rulemaking.³³² EPA has used this procedure to implement other statutory responsibilities, such as nonconformance penalties for major truck manufacturers, emergency pesticide exemption regulations, farmworker protection standards, and regulations for wood burning stoves.³³³ While negotiated rulemaking works best in limited types of situations, some of the issues that might come up in future noise regulation (such as a standard exemption process for local community regulation of railroad yard noise³³⁴) appear suitable for this

328. Shapiro & McGarity, *supra* note 66, at 35.

329. Sidney A. Shapiro, *Scientific Issues and the Function of Hearing Procedures: Evaluating FDA's Public Board of Inquiry*, 1986 DUKE L.J. 288, 306 n.123 (discussing study of FDA advisory committees). *But see* Sidney A. Shapiro, *Public Accountability of Advisory Committees*, 1 RISK: ISSUES IN HEALTH & SAFETY 189, 190-92 (1990) (describing potential of advisory committees to make administrative process less accountable). EPA has the services of a Science Advisory Board that advises the agency as a whole, but SAB members are unlikely to have expertise concerning noise issues. *See* Nicholas A. Ashford, *Advisory Committees in OSHA and EPA: Their Use In Regulatory Decisionmaking*, 9 SCI., TECH. & HUM. VALUES 72 (1984) (describing the SAB).

330. Von Gierke Interview, *supra* note 110.

331. *See supra* note 104 and accompanying text. However, some persons in the noise policy area feel that such ad hoc arrangements may not generate as much credibility as a permanent advisory committee providing continuous peer review. *E.g.*, Von Gierke Interview, *supra* note 110.

332. *See* Procedures for Negotiating Proposed Regulations, 1 C.F.R. §§ 305.82-4, 305.85-5 (1991). Negotiated rulemaking is a structured discussion among all interested parties, often with the aid of a mediator or facilitator, designed to arrive at a consensus concerning a proposed rule. When the process is successful, an agency can promulgate the proposed rule with substantial savings in time and costs. *See* ADMINISTRATIVE CONFERENCE OF THE UNITED STATES, NEGOTIATED RULEMAKING SOURCEBOOK 1-3 (1990) [hereinafter SOURCEBOOK]; Philip J. Harter, *Negotiating Regulations: A Case of Malaise*, 71 GEO. L.J. 1 (1982).

333. Lee M. Thomas, *The Successful Use of Regulatory Negotiation by EPA*, 13 ADMIN. L. NEWS, Fall 1987, at 1, *reprinted in* SOURCEBOOK, *supra* note 332, at 20.

334. *See supra* note 265 (discussing need for such an exemption).

process because they involve a limited number of parties and a limited number of issues.³³⁵

b. Coordination and Oversight Functions

In retaining responsibility for implementing the NCA, EPA should resume its coordination and oversight functions. Specifically, it should coordinate the noise abatement activities of other government agencies, facilitate private and international standard-setting activities, and reexamine the regulatory basis for airport noise abatement.

The importance of coordinating the federal government's noise abatement activities is difficult to judge, since the extent of the activity has not been measured since ONAC funding was abolished. Nevertheless, even if the federal government's activities are fairly limited, coordination could extend limited resources by eliminating duplication and promoting information sharing. The SAB has recommended that EPA do more to foster cooperation among the government entities responsible for reducing pollution.³³⁶ Similarly, the NIH panel mentioned earlier concluded that "reestablishment of a Federal agency coordinating committee with central responsibility for practical solutions to noise issues is essential."³³⁷

EPA also has a role to play in national and international standardization activities.³³⁸ The Acoustical Society of America and similar professional groups have been working with the American National Standards Institute (ANSI) for many years to develop consensus standards for noise and vibration control.³³⁹ Although ONAC has been criticized for ignoring private standardization activity,³⁴⁰ there is opposition to government involvement in standardization activity³⁴¹ beyond cover-

335. Procedures for Negotiating Proposed Regulations, 1 C.F.R. § 305.82-4 (1991); see also Harter, *supra* note 332, at 42-52 (listing conditions required for successful negotiation).

336. SAB Report, *supra* note 256, at 23; see also Strategic Options, *supra* note 281, at 43 ("Due to EPA's limited jurisdiction, cooperation with other agencies . . . often presents the best opportunities to reduce environmental risks.").

337. CONSENSUS STATEMENT, *supra* note 207, at 18.

338. See Federal Agency Interaction with Private Standard Setting Organizations in Health and Safety Regulation, 1 C.F.R. § 305.78-4 (1991) (health and safety regulatory agencies should take advantage of private standard setting activities); NIOSH Strategies, *supra* note 212, at 57-58 (listing strategies to reduce noise, including promotion of national standards for noise control, hearing conservation practices, and product noise control through such organizations as American National Standards Institute and Acoustical Society of America).

339. Timmerman Letter, *supra* note 251, at 3.

340. See *supra* note 110 and accompanying text (discussing criticism of ONAC). Near the end of its tenure, ONAC embarked on a project to work with professional groups and other government agencies to develop common technical methods, but the project ended when ONAC lost its funding. See NOISE POLLUTION, *supra* note 85, at 31 (discussing ONAC's efforts to work with industry to develop measurement efforts).

341. See, e.g., Maling Letter, *supra* note 184, at 4 (suggesting that federal involvement will end up as federal "control"); Toothman Letter, *supra* note 122, at 2 ("Consensus standards activities are being adequately handled in this country; therefore, there is no need for federal

ing the expenses of individuals who attend national and international standard-setting conferences.³⁴² The opponents of federal involvement would like the government to use the results but not attempt to influence the outcome.³⁴³

The problem with limiting EPA's role in standardization activities is that the membership of most private groups interested in developing consensus standards is largely composed of representatives of noise producers, including governmental noise producers such as the Air Force and Navy.³⁴⁴ If persons without a vested interest are represented at all, they are represented by a few university professors and consultants.³⁴⁵ EPA's participation in such efforts would bring additional balance and be more likely to produce a result useful to the Agency.

Another important aspect of EPA's coordination function involves conforming EPA regulations with international regulatory standards wherever possible. Conformance spares domestic manufacturers from having to meet different regulatory standards in the United States and abroad. It also would place EPA in a position to work with other regulatory authorities, such as the European Economic Community, in adopting regulatory standards that protect the public yet do not serve as trade barriers.³⁴⁶ ONAC's previous experience with some of these activities³⁴⁷ suggests that EPA can be effective in this role.

One final coordination issue concerns what role, if any, EPA should play in airport noise abatement. This is an issue of central importance because airport noise contributes significantly to noise pollution. Since ONAC activities ceased, changes in the FAA's regulatory powers have complicated the relationship between the agencies. In the waning moments of the 1990 session, Congress enacted the Airport Noise and Capacity Act of 1990 (ANCA), which forbids airport operators from

activity.").

342. *E.g.*, Kessler Letter, *supra* note 122, at 5 (encouraging payment of travel expenses); Timmerman Letter, *supra* note 251, at 3 ("[O]nly effective use for federal support" would be for travel expenses.).

343. *E.g.*, Kessler Letter, *supra* note 122, at 5 (suggesting that EPA "encourage" but not "influence" consensus noise standard activities.); Luz Comments, *supra* note 130, at 3 (proposing that standards be developed by supporting ANSI.).

344. Noral Stewart Letter, *supra* note 40, at 5.

345. *Id.* Participation is limited because such individuals must usually bear their own expenses. *Id.*

346. Hirschorn Letter, *supra* note 254 ("highly desirable" to have uniform international standards); Hickling Letter, *supra* note 183, at 2 (identifying a primary need to reconcile noise control in United States with Europe and Japan); Luz Comments, *supra* note 130, at 9 (EPA should work with private standard-setting groups "to ensure that U.S. products will be competitive in the European market."); Melnick Letter, *supra* note 209, at 1 ("Federal assistance could promote a stronger U.S. presence in the international standards community" and "facilitate" trade.).

347. *See supra* note 104 and accompanying text (discussion of EPA's attempts to harmonize domestic and international standards).

enacting, without FAA approval, noise abatement measures to govern the newest generation of airplanes.³⁴⁸ The airlines and air cargo industry sought legislation to counteract a proliferation of local noise restrictions which included evening and nighttime curfews and a requirement that aircraft operators pay taxes for emitting noise above specified levels.³⁴⁹

Citizens' groups and local elected officials, upset over ANCA's passage,³⁵⁰ have expressed interest in having EPA superintend the FAA's implementation of its new powers.³⁵¹ While the new legislation does not envisage a role for EPA, EPA's authority under the NCA to coordinate federal noise abatement activities arguably authorizes it to work with the FAA in implementing these new powers.³⁵² Yet if EPA is to improve aircraft noise abatement, it will not be by attempting to supervise the implementation process. As the original director of ONAC points out, "It is difficult if not impossible for one Federal agency to coordinate another Federal agency's programs and actions."³⁵³ EPA and FAA officials disagree on the effect EPA oversight has had on noise abatement, but one undisputed legacy is the FAA's continuing hostility toward

348. Pub. L. No. 101-508, 104 Stat. 1388-378, (codified at 49 App. U.S.C.A. § 2153(b) (West Supp. 1991)). Congress prohibited airport operators from adopting any airport noise or access restriction for "Stage 3" aircraft unless the Secretary of Transportation found that the restriction met a list of criteria specified by Congress. *Id.* The criteria include a requirement that the restriction not pose an "undue burden" on interstate and foreign commerce or on the national aviation system. *Id.* A "Stage 3" aircraft is one that meets the strictest FAA regulations limiting aircraft noise emissions. See 14 C.F.R. 36, § 36.1(f)(5), (6) (1991) (defining "Stage 3 noise level" and "Stage 3 airplane")

349. Suter, *supra* note 311, at 5.

350. They assert that the sponsors of the legislation were able to sneak it through Congress during the chaos that accompanied the final days of the session. No public hearings were held, and although committee staffers consulted industry lobbyists during the bill's markup, representatives of airport operators were not consulted. *Id.* Citizens' groups also claim that the legislation gives the FAA unlimited discretion to strike down local noise abatement efforts on the nebulous ground that such efforts impose an "undue burden" on interstate or foreign commerce or on the national aviation system. *Congress Approves Landmark Bill Setting Framework For Noise Policy*, 2 AIRPORT NOISE REP. 171, 176 (1990). The FAA, however, has proposed criteria to be used to determine whether to approve local programs. 56 Fed. Reg. 8668 (1991).

351. Telephone Interview with Steve Kramer, President, National Organization to Insure a Sound-Controlled Environment (NOISE) (Jan. 8, 1991); see also Kessler Letter, *supra* note 122, at 3 (suggesting that EPA be a "strong advocate" for community residents affected by aircraft noise).

352. The NCA authorizes EPA to request information from the FAA concerning the nature, scope, and results of noise control programs, and to publish a report concerning the status of efforts by other agencies, including the FAA, to reduce noise. 42 U.S.C. § 4903(c)(1), (3) (1988). EPA could use the first of these powers to require the FAA to notify it of applications by airport operators for approval of noise restrictions, and it could use the second to evaluate the adequacy of the FAA's response to the applications. EPA also is authorized to recommend noise control standards to the FAA. *Id.* § 4903(c)(2). It is not clear how this authority relates to the FAA's new powers, though it may have no connection since the FAA will implement its approval or disapproval of local noise regulations by adjudication.

353. Meyer Letter, *supra* note 86, at 2.

EPA's supervisory efforts.³⁵⁴ An EPA approach to aircraft noise abatement that avoids direct confrontation with the FAA is therefore more likely to be successful.

EPA has such an approach available, one that involves reevaluating its earlier recommendations to the FAA. FAA regulatory decisions are based on scientific and policy conclusions ONAC reached before losing its funding. As ONAC originally recommended,³⁵⁵ the FAA defines areas affected by aircraft noise as areas with noise levels of sixty-five Ldn or greater.³⁵⁶ Citizens living outside such areas, however, are often among the most vocal opponents of aircraft noise,³⁵⁷ perhaps because of the FAA's failure to take into account the low residual sound levels in suburban or semirural areas, or the intrusive nature of single events, such as early morning takeoffs while residents are sleeping.³⁵⁸

In light of this problem, EPA should evaluate the adequacy of current measurement methods and determine whether additional or new measures would do a better job than the sixty-five Ldn metric. Such a reevaluation would be useful. First, EPA's results are more likely to receive general acceptance since EPA does not share the FAA's institutional conflict of interest.³⁵⁹ Second, if EPA demonstrates that the scientific and policy basis on which the FAA is proceeding is no longer valid, the FAA would presumably conform its approach to the new metric or risk having its approach overturned in court.

CONCLUSION

The NCA is by any yardstick a public policy failure. In the NCA's first decade, EPA made a reasonable start in implementing the Act, but

354. ONAC's efforts may have pushed the FAA to regulate more stringently; however, FAA officials claim that EPA's efforts were largely unimportant or disruptive. *See supra* note 187.

355. DiPolvere Letter, *supra* note 108, at 2. ONAC's original work concerning the day-night noise limit (Ldn) emphasized the limitations of this standard of measurement and the potential need to supplement it in appropriate cases. Noral Stewart Letter, *supra* note 40, at 2. After ONAC was disbanded, however, the 65 Ldn became a universal measure, and ONAC's cautionary warnings were disregarded. *Id.*

356. TRANSPORTATION NOISE, *supra* note 106, at 21. For the definition of Ldn see *supra* note 17.

357. *See, e.g.,* Letter from Loren Simer, President, National Airport Watch Group, to David Pritzker, Administrative Conference of the United States 2 (Mar. 26, 1991) (noting that the majority of noise complaints concerning Minneapolis-St. Paul airport are outside of the 65 Ldn contour.).

358. Cantoni Letter, *supra* note 109, at 1-2.

359. Letter from Charles Price, Executive Director, National Organization to Insure a Sound-Controlled Environment, to David Pritzker, Administrative Conference of the United States (Mar. 5, 1991) (citizen group suggesting EPA devise new metric); *see also* Cantoni Letter, *supra* note 109, at 2 (citizen group complaining that the FAA is one of the most "blatant" examples of the Washington "revolving door"); Timmerman Letter, *supra* note 251, at 2 (EPA in a position to adopt "balanced approach" that weighs effects on people against economics and efficiencies).

was a long way from completing its agenda when Congress eliminated ONAC's funding. ONAC did promulgate some emissions standards but not for all the significant noise sources EPA identified as requiring regulation. Further, ONAC accomplished very little in the areas of labeling and purchase by the federal government of low noise products. While ONAC did make significant strides in scientific and technical research, coordination, support of local and state noise abatement, and noise education, Congress eliminated funding just as the initial fruits of these labors became apparent.

The second decade of the NCA's existence has been characterized by almost no federal noise abatement activity and by a marked decline in state and local activity. EPA is barely able to enforce its regulations, and fiscal limitations prevent it from updating them, although several are either inadequate to protect the public or out of date. Despite this desolate picture, there has been little public outcry. This is explained both by the fact that EPA itself acquiesced in the funding cut and by the fact that noise pollution lacks the type of strong, organized public constituency that protests other types of pollution. In the meantime, noise pollution remains a significant problem.

The ten-year hiatus in implementing the NCA gives EPA the time and distance necessary to identify and avoid the mistakes ONAC made. EPA's new approach should treat emissions standards as a last resort, to be used only if market approaches and state and local regulation are likely to fail. This approach will require EPA to focus on nonregulatory activities that minimize the need for federal regulation, such as the creation of an infrastructure to support local abatement efforts and the establishment of liaisons with private standard setting organizations.

The NCA's goal of a quieter country does not deserve the irresponsible treatment that Congress and the Reagan EPA gave it. EPA can redeem itself by showing how a program employing thoughtful public policy can improve the health and welfare of the country's citizens. Such a step not only would reduce noise pollution but would speak loudly of EPA's dedication to environmental protection.

