

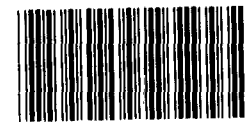
GAO

Report to the Chairman, Subcommittee
on Labor, Health and Human Services,
Education, and Related Agencies,
Committee on Appropriations,
U.S. Senate

November 1990

DRUG TREATMENT

Targeting Aid to States Using Urban Population as Indicator of Drug Use



142778

Human Resources Division

B-240404

November 27, 1990

The Honorable Tom Harkin
Chairman, Subcommittee on Labor,
Health and Human Services, Education,
and Related Agencies
Committee on Appropriations
United States Senate

Dear Mr. Chairman:

A statutory mathematical formula is used to allocate nearly \$1.2 billion under the Alcohol and Drug Abuse and Mental Health Services (ADMS) block grant to the states. These funds help finance state treatment services for substance abusers and the mentally ill. You asked us to assess two issues affecting the current formula's ability to target federal assistance to states with the greatest need:

- Should urban population continue to be used as an indicator of the prevalence of drug abuse?
- Does the 1984 hold-harmless provision help or hinder targeting aid to states with the greatest need?¹

In addition to reflecting the prevalence of drug abuse, urban population also may serve as an indicator of the cost of providing substance abuse and mental health services. We caution that cost considerations could suggest a higher urban weight in the apportionment formula than urban-rural drug abuse differences alone would suggest. Consideration of cost differences was outside the scope of this request. Decisions about the appropriate urban weight should take into consideration differences in cost as well as use.

To answer your questions, we relied on previous studies of the apportionment formula and studies on the incidence of drug abuse. We have accepted their estimates of the incidence of drug abuse and used them as criteria for evaluating the ADMS formula's targeting of aid. We carried out our review from March through June 1990 following generally accepted government auditing standards.

¹This provision required that states receive at least the same funding they received in fiscal year 1984.

Results in Brief

The urban population factor is an appropriate indicator of the prevalence of drug use. However, its influence in the apportionment formula overstates the magnitude of drug use in urban as compared with rural areas.

Under the formula, the number of 18- to 24-year-olds is used to represent the population at high risk of drug abuse. In addition, total urban population is used to reflect a higher urban drug abuse incidence rate in this high-risk group. Using the entire urban population to represent urban-rural differences in the incidence of drug abuse among 18- to 24-year-olds significantly overstates these differences.

The studies we reviewed suggest that urban incidence rates are somewhat less than 3 times higher than nonurban rates. By comparison, the use of total urban population in current law produces a pattern of funding differences appropriate for an incidence rate differential of over 15 to 1 between urban and nonurban residents.²

The hold-harmless provision, enacted in 1984, prevents allocation of ADMS funds according to statutory indicators of state “need” for federal assistance. In 1988, the Congress enacted legislation to phase out the hold-harmless provision. In addition, the legislation introduced two new indicators that compare a state’s need for federal funding to the national average: (1) the number of people in specific age groups as proxies for the at-risk population in the areas of drug abuse, alcohol abuse, and mental health disorders, and (2) state total taxable resources as a proxy for its economic capacity to finance program services from state resources.³

The 1984 hold-harmless provision causes a mismatch between needs based on available indicators and actual funding. This mismatch occurs irrespective of whether the urban factor is retained or eliminated from the apportionment formula. For example, using the urban factor with the same weight used in current law, Indiana’s 1988 funding needs per person at risk are about equal to the national average. But its funding per person at risk was 77 percent above the national average in that year (that is, before the hold-harmless began being phased out). An

²The 15-to-1 ratio is the national average and varies by state depending on how much each state’s share of 18- to 24-year-olds deviates from the national average.

³While direct measures of the incidence of drug and alcohol abuse and mental health disorders would be preferable, reliable data by state is not available at this time. Using age groups as a proxy for the at-risk population is therefore a second-best alternative.

analysis of the data for all 50 states reveals a pattern of providing more aid to states with fewer needs. If funding needs are modified to exclude the urban population factor, virtually no relationship exists between state needs and actual funding (see app. IV).

Background

The 1981 ADMS block grant consolidated 10 special purpose grant programs that funded a variety of state substance abuse and mental health services. The apportionment formula allocated funds to states and territories in proportion to the level of funding they received from these 10 programs that year. In 1984, the Congress changed the apportionment formula to target part of the ADMS funds according to the nation's population at risk of substance abuse and mental health disorders. It did so by directing the Secretary to prescribe a formula using total population as an indicator of people at risk and per capita income as an indicator of a state's ability to finance services from state resources. However, by allocating states the larger of the amount they received in 1984 or the amount allocated by the new formula, the effect was that only increases in appropriations after 1984 were allocated according to these factors. Consequently, the hold-harmless provision was to allocate \$462 million while the new formula allocated \$28 million.

In 1986, the Institute on Health and Aging at the University of California at San Francisco reported that the hold-harmless provision was the major factor preventing a more equitable distribution of ADMS funds, in the sense that more funding is given to states with large at-risk populations and a low capacity to finance services from states' resources. Its report was prepared under contract with the Department of Health and Human Services (HHS). The Institute also reported that drug abuse was more prevalent among the 18- to 24-year-old age group, mental health disorders among 25- to 44-year-olds, and alcohol abuse among 25- to 64-year-olds. In addition, it noted that people in urban areas were more at risk of drug abuse but did not estimate the relative significance that urban population should play in allocating funds under the block grant.

Subsequently, the Congress amended the ADMS formula in the Anti-Drug Abuse Act of 1988 (P.L. 100-690). Twenty percent of each of the three high-risk age cohorts were used to represent each state's share of the population at risk of drug abuse, alcohol abuse, and mental health disorders, and 40 percent of each state's urban population was included to reflect a higher incidence of drug abuse in urban areas among the at-risk group. In addition, the \$462 million hold-harmless provision was to be phased out between fiscal years 1989 and 1993.

The new formula could have resulted in funding cuts for states that had received disproportionately high levels of funding compared with the new need indicators. But substantial funding increases in fiscal years 1989 and 1990 prevented this from occurring. Some states' funding will be cut as the hold-harmless continues to phase out in fiscal years 1991-93, if program funding remains stable at the \$1.2 billion level appropriated in fiscal year 1990.

Urban Population Weight Exceeds Urban-Rural Differences in Prevalence of Drug Abuse

Studies comparing the prevalence of drug abuse in urban and rural areas report that abuse of some illicit drugs is somewhat more prevalent in urban areas. For example, the use of cocaine and its derivative "crack" were 2 and 2.75 times more prevalent in urban than in rural areas, according to one study of high school, college, and young adult populations. However, relatively small urban-rural differences were reported for other categories of illicit drugs such as barbiturates and tranquilizers.⁴

If urban population is used to reflect a higher incidence of drug use in urban areas, the 40-percent weight it receives in current law overstates the greater drug use among the urban high risk 18- to 24-year-old group. In fact, the 40-percent weight would be appropriate for an urban incidence rate 15 times higher than the rate in nonurban areas. This occurs in two ways. First, urban 18- to 24-year-olds are counted twice, once as members of the high-risk age group and again as members of the urban population. Second, because 18- to 24-year-olds make up about 13.8 percent of the urban population, using all urban residents overstates the incidence of drug abuse among urban 18- to 24-year-olds (see pp. 19-20).

While urban-rural differences in drug abuse do not support the high weight given urban population in the current formula, a weight higher than urban-rural drug abuse differences might be justified on the grounds that the unit cost of providing services financed by the block grant is higher in urban states.

⁴Incidence rates represent the number of individuals in a population who have used a drug during a specified time divided by the total number of individuals in the population at that time. Thus, while the incidence of drug abuse in urban areas is less than 3 times that of rural areas, there are many times more urban drug abusers because urban populations are much larger.

Reducing the Influence of Urban Population Redistributes Funding Among States

The 1988 formula uses two factors to estimate differences in state funding needs compared to the national average: (1) population age groups and the degree of urbanization serve as indicators of the at-risk population eligible for services, and (2) an estimate of its total taxable resources serves as an indicator of states' ability to finance program costs. The apportionment formula then allocates more aid to states whose shares of the at-risk population are high compared with their ability to finance program services from state resources.⁵

The 40-percent weight placed on urban population affects the formula's indicators of the at-risk population. This in turn influences how much funding each state will receive, once the hold-harmless provision is phased out. For example, lowering the urban weight from 40 to 20 percent would reduce funding in California and Massachusetts by 5 and 7 percent respectively. Completely eliminating the urban population factor would lower their funding by 16 and 20 percent respectively. Conversely, estimated needs for more rural states like Iowa would rise and they would receive more funding. Iowa's ADMS allotment would be 19 percent higher using a 20-percent urban weight and 52 percent higher if the urban population factor is eliminated.

Hold-Harmless Provision Prevents Equitable Distribution of Funds

The Institute on Health and Aging identified the 1984 hold-harmless provision as the major factor preventing an equitable distribution of ADMS funds based on available indicators of states' at-risk population and financing capabilities. The Institute's estimate of need assumed the prevalence of drug abuse was the same among both urban and nonurban residents. Using this same assumption, we analyzed fiscal year 1988 allotments (before the hold-harmless started to phase out) and confirmed there was virtually no relationship between the funding states received from the block grant and their estimated funding needs.

We redid the analysis using the 40-percent urban weight in current law to see if accounting for higher urban needs reduced the inequities created by the hold-harmless provision. It did not. Instead, we found that low-need states generally received more funding than did high-need states. For example, Vermont's funding needs per person at risk is estimated to be 27 percent below the national average. However, its 1988 ADMS grant per person at risk exceeded its estimated needs by more than 500 percent. In contrast, California's ADMS funding per person at risk was 24 percent below the national average even though its needs were

⁵See app. V for a more detailed description of the apportionment formula.

estimated as average. This leads us to conclude that the hold-harmless provision prevents a more equitable distribution of ADMS funding among states based on available indicators of state needs. This is true regardless of whether the urban population factor is included in the apportionment formula.

We are sending copies of this report to the Senate Committee on Labor and Human Resources, the House Committee on Energy and Commerce, the Secretary of Health and Human Services, state substance abuse agencies, and the National Association of State Alcohol and Drug Abuse Directors. We also will make copies available to other interested parties on request.

If you or your staff have any questions about this report please call me on (202) 275-1655. Other major contributors are listed in appendix X.

Sincerely yours,



Linda G. Morra
Director, Human Services Policy
and Management Issues

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Abbreviations

ADMS	Alcohol, Drug Abuse, and Mental Health Services
GAO	General Accounting Office
FY	fiscal year
HHS	Department of Health and Human Services
NIDA	National Institute on Drug Abuse
TTR	total taxable resources

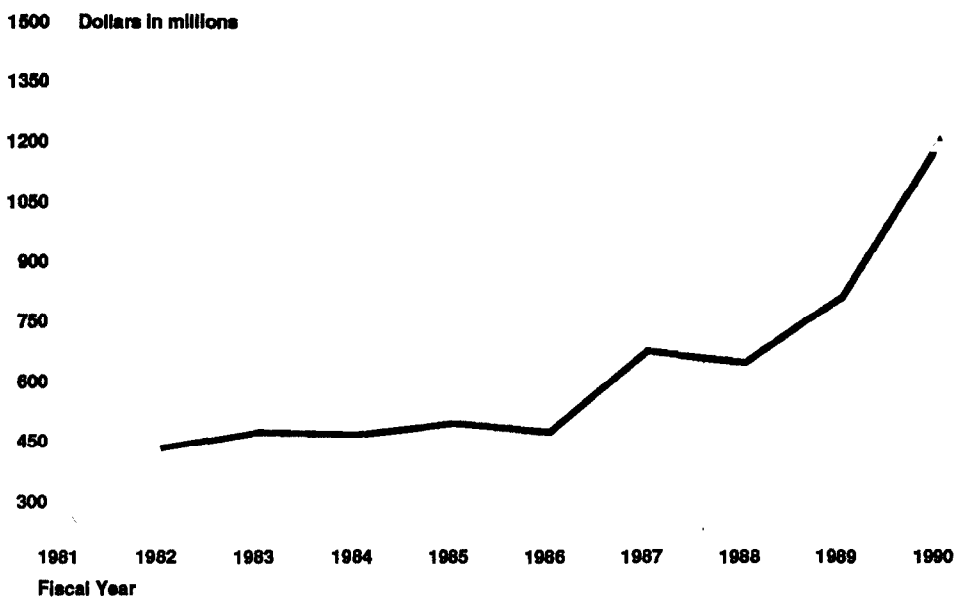
Evolution of the ADMS Apportionment Formula

The Alcohol and Drug Abuse and Mental Health Services (ADMS) block grant was created by the Omnibus Budget Reconciliation Act of 1981 to help states fund services to the nation's population at risk of substance abuse and mental health disorders. The program was created by consolidating 10 separate programs that funded substance abuse and mental health-related services prior to creation of the block grant.

Increased Funding for Drug Abuse: 1982-90

The ADMS block grant program provided \$432 million in federal assistance beginning in fiscal year 1982 and increased to \$468.9 million by 1986 (see fig. I.1). The Anti-Drug Abuse Act of 1986 (P.L. 99-570) provided an additional \$163 million in assistance for substance abuse services in fiscal year 1987. Funds from this program were incorporated into the ADMS block grant beginning in fiscal year 1989, raising funding to \$805.6 million. Funding increased again in fiscal year 1990 as part of the administration's national drug strategy, pushing federal assistance to \$1.2 billion annually.

Figure 1.1: Block Grant Funding
(FY 1982-90)



Evolution to an Equity-Based Formula: 1982-85

When the block grant was passed as part of the Omnibus Budget Reconciliation Act of 1981, funds were allocated among states in proportion to the funding they received under prior categorical programs. While this approach to distributing funds was expedient, the Congress was concerned that it was not equitable. Consequently, the 1981 legislation required the Secretary of HHS to conduct a study to devise an equity-based formula to allocate funds among states. The legislation required the Secretary to take into account (1) the population of the states, (2) their financial resources for funding program needs, and (3) any other factors the Secretary considered appropriate. The Secretary reported his findings in 1982 and presented three alternatives for allocating federal assistance among states.¹ Each option used total state population as a proxy for the population at risk of alcohol abuse, drug abuse, and mental health disorders. In addition, two of the three options used state per capita income as a proxy for a state's capacity to finance program services from state resources. The three formulas differed only in the extent to which funds were targeted to states with low per capita incomes.

In 1984, we identified funding inequities that could be reduced by adopting any of the three formulas described in the HHS study.² Further improvements could be achieved, we noted, if better indicators of the incidence of substance abuse and mental health disorders could be found.

Most Aid Allocation Continued on a Hold- Harmless Basis

The 1984 reauthorization of the block grant (under P.L. 98-509) required the Secretary to prescribe a formula using population and per capita income, first used in fiscal year 1985. However, states were guaranteed to receive the larger of the amount they received in fiscal year 1984 and the amount allocated by the new formula. Funding for fiscal year 1984 was \$462 million. Funding for fiscal year 1985 increased to \$490 million. Consequently, \$462 million was allocated on a hold-harmless basis. Only \$28 million, or 5.7 percent of the funds appropriated in 1985 were allocated by the new formula.

¹HHS, *The Study of Equitable Formulas for the Allocation of Block Grant Funds*, Sept. 1982.

²*Improvements in the Alcohol, Drug Abuse and Mental Health Block Grant Distribution Formula Can Be Made Both Now and in the Future* (GAO/GGD-84-88), June 21, 1984.

Refinements to the Apportionment Formula: 1985-89

To be sure the new formula improved equity, the 1984 reauthorization also required a nongovernmental entity to evaluate the new formula and suggest better proxies for measuring state needs. HHS awarded the contract to the Institute for Health and Aging, a research unit of the University of California at San Francisco. Reporting in 1986,³ the Institute found that

- the hold-harmless provision adopted in 1984 was the major factor preventing a more equitable distribution of ADMS funding,
- substance abuse and mental health disorders were concentrated in specific age groupings, and
- there were better proxies for states' financing capacities than per capita income.

Specifically, the Institute reported that per capita allotments under the hold-harmless were more than 6 times higher in some states than in others and concluded the differences were due more to historical accident than to differences in needs. They also concluded that 18- to 24-year-olds were more likely to abuse drugs than other age groups and that alcohol abuse was more prevalent among 25- to 64-year-olds, and mental health problems among 25- to 44-year-olds. And finally, with regard to the use of per capita income, the Institute concluded that "... The recent report by the Department of the Treasury,⁴ prepared for general revenue sharing, has recommended a new measure of state fiscal capacity, Total Taxable Resources. That measure appears to solve some of the problems that have been raised over the years with the per capita income measure, which excludes revenue sources other than individual income."

The Congress incorporated these findings into the Comprehensive Alcohol Abuse, Drug Abuse and Mental Health Amendments Act of 1988 (P.L. 100-690). That legislation, currently in effect, (1) phases the hold-harmless out by fiscal year 1993; (2) uses specific age groups as a proxy for states' at-risk populations; and (3) uses states' total taxable resources, as reported by the Department of the Treasury, as a proxy for states' financing capacity.

³University of California at San Francisco, Institute for Health and Aging, Review and Evaluation of Alcohol, Drug Abuse, and Mental Health Services Block Grant Allotment Formulas, Final Report, 1986.

⁴Department of the Treasury, Office of State and Local Finance, Federal-State-Local Fiscal Relations: Report to the President and the Congress, Sept. 1985.

In fiscal year 1989, the hold-harmless started to phase out. This was done by allocating \$330 million of the grant according to fiscal year 1984 funding shares, instead of \$462.0 million. This amount is scheduled to decline in successive years to \$250, \$200, and then \$100 million until it is eliminated in fiscal year 1993. The legislation also adopted the Institute's recommended use of the following age groups as proxies for the at-risk population:

- Drug abusers: the population between 18 and 24 years,
- Alcohol abusers: the population between 25 and 64 years, and,
- Mental health disorders: the population between 25 and 44 years.

In addition to the Institute's recommended changes, the legislation made two more changes to the formula. First, it included the number of state residents living in urbanized places. This change reflected concern with a likely urban-rural difference in drug use among the high risk 18- to 24-year-old age group. Second, it guaranteed states a minimum allotment. The minimum guarantee ensures that in future years each state will receive the lesser of \$7.0 million dollars or the amount they received in fiscal year 1988 increased by 5 percent.

Objectives, Scope, and Methodology

We were asked to examine two issues associated with recent changes in the ADMS apportionment formula:

- Should urban population continue to be used as an indicator of the prevalence of drug abuse?
- Does the 1984 provision holding states harmless from funding cuts help or hinder targeting aid to states with the greatest need?

Our specific objectives were to

1. determine if the use of total urban population in the apportionment formula reasonably reflects urban-rural differences in the use of illicit drugs among urban 18- to 24-year olds,
2. if not, determine what effect an urban population factor would have on the apportionment formula's calculation of state funding needs if it were revised to reflect more reasonably urban-rural differences in drug abuse, and

3. examine the effect the hold-harmless has on targeting all aid provided by the ADMS block grant in accordance with any revised indicators of state funding needs.

To determine if the formula's urban population factor reasonably reflects urban-rural differences, we consulted two studies done under contract with the National Institute on Drug Abuse (NIDA) to determine urban-rural differences in drug abuse. We did not critically review the approaches or methodologies of these studies, but researchers at the Institute believed these were the two most authoritative studies on the subject. We then compared reported urban-rural differences in drug abuse with the relative importance of urban population in the current apportionment formula.

To determine the influence urban population has on the apportionment formula's calculation of state funding needs, we focused on the use of urban population as an indicator of urban-rural differences in drug abuse among 18- to 24-year-olds. This means that (1) we accepted the validity of the other need indicators used in the formula,⁵ and (2) we did not consider the use of urban population as an indicator of urban-rural differences in the cost of providing services financed by the block grant.

Finally, to examine the effect of the hold-harmless on targeting federal assistance, we calculated what 1988 state grant allotments would have been without the hold-harmless provision and compared them to actual fiscal year 1988 allotments, the year before the hold-harmless provision began to phase out.

⁵We did not question the indicators used to reflect the populations at risk of alcohol abuse or mental health disorders or factors used to measure states' ability to finance services from state resources.

Current Formula Overcompensates for Urban-Rural Differences in Drug Abuse

Indicators of the size of each state's drug abuse population are represented in the ADMS apportionment formula by two factors: (1) 20 percent of the number of people between ages 18 and 24 and (2) 40 percent of people of all ages living in urban areas, as defined by the U.S. Bureau of the Census. The populations at risk of alcohol abuse and mental health disorders are represented by 20 percent of the 25- to 64-year-old and 20 percent of the 25- to 44-year-old age groups, respectively.

Direct measures of the incidence of alcohol and drug abuse and mental health disorders would be a better reflection of the at-risk population served by the block grant. But after reviewing the epidemiological data and interviewing program experts, the researchers at the Institute on Health and Aging concluded that using population age groups was the best that could be done to reflect state differences in the at-risk population.

Urbanization an Important Factor Associated With Drug Abuse

The importance of urbanization in predicting the need for drug abuse services was reported in studies considered by the Institute on Health and Aging and its panel of state and local government experts. These experts said, "... for alcohol problems, population is a relatively accurate indicator of alcohol-problem magnitude; and, for drugs, studies have shown population density and total population predicted need better than population alone."

A higher incidence of drug abuse in urban areas than rural areas is corroborated for some illicit drugs by two studies.¹ Cocaine, crack, and hallucinogens were all reported in the recent study as being in substantially greater use in urban areas. Cocaine use in very large cities, for example, was reported to be twice that of rural areas and crack use about 2.75 times higher. In no case, however, did urban drug abuse exceed that in rural areas by as much as a 3-to-1 ratio. In contrast, the use of barbiturates in rural areas was in the middle of the range reported for the four

¹HHS, NIDA, Drug Abuse in Rural America, Research Report, HHS Publ. No. (ADM) 81-1050, 1981; and Lloyd D. Johnston, Patrick M. O'Malley, and Jerald G. Bachman, Drug Use, Drinking, and Smoking: National Survey Results from High School, College, and Young Adult Populations, 1975-1988, University of Michigan, Institute for Social Research, for HHS, NIDA, Publ. No. (ADM) 89-1638. In phone conversations with an author of the Michigan study, GAO was told that data for 1989 revealed the same patterns of urban-rural drug abuse as reported here. An official at NIDA verified that similar surveys also validate these results.

**Appendix II
Current Formula Overcompensates for
Urban-Rural Differences in Drug Abuse**

city-size groups listed in table II.1. The uses of stimulants and tranquilizers were also similar in urban and rural areas.²

Table II.1: Prevalence Rate of Selected Illicit Drugs Among Respondents Aged 19-30 Years, by Population Density, 1988

Drug	Number in percentages				
	Site, by density ^a				
	Very rural areas	Small towns	Medium cities	Large cities	Very large cities
Cocaine	8.5	12.9	15.3	13.9	17.1
Crack ^b	1.6	2.9	3.0	3.3	4.4
Inhalants ^c	1.1	1.8	1.7	1.8	1.4
Hallucinogens ^d	2.1	3.9	4.0	3.2	4.0
LSD	1.8	3.3	2.9	2.3	2.5
Heroin	0.1	0.2	0.3	0.2	0.2
Other opiates	2.3	2.5	2.6	2.7	2.8
Stimulants ^e	6.5	7.3	8.5	6.2	5.5
Barbiturates	1.7	2.0	2.3	1.6	1.5
Methaqualone	0.4	0.5	0.6	0.5	0.6
Tranquilizers	4.2	4.2	5.3	3.7	3.8
Sample size	990	2,300	1,800	1,600	1,100

^aA small town is defined as having less than 50,000 inhabitants, a medium city as 50,000-100,000, a large city as 100,000-500,000, and a very large city as having over 500,000 inhabitants. Suburban and urban respondents are combined within each city size group.

^bBecause this drug was asked about in only two of five questionnaire forms, the sample size is two-fifths of that listed at the bottom of the table.

^cUnadjusted for known under-reporting. The drug was asked about in four of five questionnaire forms; the sample size is four-fifths the size indicated.

^dUnadjusted for known under-reporting of certain drugs.

^eBased on data from a revised question, which attempts to exclude the inappropriate reporting of non-prescription stimulants.

Source: Johnston and others from table 27, pp. 181-183.

²The incidence rate is the number of individuals in a population who have used a drug during a specified time divided by the number of individuals in the population at that time. Thus, while the incidence of drug abuse in urban areas is less than 3 times that of rural areas, there are many times more urban drug abusers because urban populations are much larger.

Current Weight on Urban Population Implies Drug Abuse an Urban Phenomenon

Under current law, 40 percent of the entire urban population is added to 20 percent of 18- to 24-year-olds to reflect urban-rural differences in drug use among this age group. This procedure has the effect of indirectly increasing the weight of urban 18- to 24-year-olds more than can be justified by reported incidence rates alone.

If 18- to 24-year-olds are used to represent the high-risk group, then extra weight should be given only to urban 18- to 24-year-olds, to reflect the higher incidence of urban drug abuse. By using all urban residents rather than only urban 18- to 24-year-olds, the current formula assumes drug abuse is over 15 times more prevalent among this age group in urban than in nonurban areas nationwide.³ How this result occurs can be seen as follows:

1. Counting all urban residents instead of only 18- to 24-year-olds has the effect of counting urban 18- to 24-year-olds 7.2 times. This is because they are 13.8 percent of all urban residents, which when counted 7.2 times is the same as counting the entire urban population once (that is, 13.8 percent * 7.2 = 100 percent).
2. Because urban population receives twice the weight given all 18- to 24-year-olds in the apportionment formula (40 versus 20 percent), the urban population factor effectively counts urban 18- to 24-year-olds 14.4 times.

³This is a national average figure, individual state figures can be expected to vary (that is, drug abuse among 18- to 24-year-olds in Utah probably is different from those living in New York). However, according to NIDA officials, state-by-state estimates of drug abuse are not available. Without such data, grant funds must be allocated with the (implicit) assumption that the incidence of drug use is the same in all states. If state-by-state data become available in the future, they can be incorporated into the formula at that time.

3. Both urban and nonurban 18- to 24-year-olds are counted once in the count of all 18- to 24-year-olds, bringing the total count of urban 18- to 24-year-olds to 15.4.^{4,5}

The current formula can be changed to more accurately reflect urban-rural differences among the high-risk 18- to 24-year-old group in one of two ways.⁶ One way simply is to reduce the weight on urban population in the current formula. Table II.2 shows the relationship between different urban population weights and implied differences in urban-rural drug abuse among 18- to 24-year-olds. For example, a 30-percent urban weight implies drug abuse is over 8 times more prevalent among urban

⁴This is the national average. Urban-rural differences will vary from state to state depending on the extent to which each state's share of urban 18- to 24-year-olds deviates from the national average percentage.

⁵The 15.4-to-1 ratio can also be derived algebraically. The population at risk of drug abuse in the ADMS apportionment formula is:

$$(1) .2*(\text{population } 18-24) + .4*(\text{total urban population})$$

The 18- to 24-year-old population can be broken down into its urban and nonurban components:

$$(2) \text{population } 18-24 = (\text{urban } 18-24) + (\text{nonurban } 18-24)$$

Also, since urban 18- to 24-year-olds are 13.8 percent of all urban residents counting them 7.2 times is the same as counting the total urban population once (i.e., 13.8 percent*7.2 = 100 percent). Therefore,

$$(3) \text{total urban population} = 7.2*(\text{urban } 18-24)$$

Substituting (2) and (3) into (1) results in the following expression for the population at risk of drug abuse:

$$(4) .2*(\text{nonurban } 18-24 + \text{urban } 18-24) + .4*(7.2*\text{urban } 18-24)$$

Performing the indicated multiplications yields:

$$(5) .2*(\text{nonurban } 18-24) + .2*(\text{urban } 18-24) + 2.888*(\text{urban } 18-24)$$

Combining like terms:

$$(6) .2*(\text{nonurban } 18-24) + 3.088*(\text{urban } 18-24)$$

Dividing by .2 gives the 15-to-1 ratio:

$$(7) \text{nonurban } 18-24 + 15.4*(\text{urban } 18-24)$$

⁶However, such a change does not obviate the need also to adjust for differences in the cost of providing services.

**Appendix II
Current Formula Overcompensates for
Urban-Rural Differences in Drug Abuse**

residents.⁷ A 7.5-percent weight would imply urban-rural prevalence rates differ by a factor of 2 to 1.⁸

Table II.2: Urban-Nonurban Differences in Drug Abuse Incidence Implied by Alternative Weights on Urban Population

Urban population weight (percent)	Implicit urban-nonurban incidence rate
40.0	15.4 to 1
30.0	8.2 to 1
20.0	4.6 to 1
10.0	2.4 to 1
7.5	2.0 to 1
0.0	1 to 1

Adjusting the urban population weight would be consistent with the current formula. Its major drawback is that it is an indirect way of establishing urban-rural drug use differentials among 18- to 24-year-olds. This makes it difficult to see the connection between the weight placed on urban population and its relationship to differences in urban-rural drug use.

There is a second way to reflect more accurately urban-rural differences in drug abuse that explicitly link these differences to the weight placed on the urban population factor. This can be done by adding nonurban 18- to 24-year-olds to a weighted count of urban 18- to 24-year-olds. To illustrate, the population at high risk of drug abuse would be calculated as follows:

$$[\text{non-urban population 18-24}] + W[\text{urban population 18-24}]$$

where W represents the incidence rate of drug abuse in urban areas (expressed as a percentage of drug abuse in rural areas). If drug abuse is the same in urban and rural areas, W would be set equal to 1.0; if it is assumed to be 50 percent higher, W would be set equal to 1.5; and if twice as high, it would be equal to 2.0. The use of total urban population in current law implicitly assumes the urban weight in the above expression is 15.4.

⁷This assumes the reduced urban weight is transferred to the 18- to 24-year-old age group, keeping the weight on the alcohol and mental health at-risk populations at 20 percent.

⁸The same result could be achieved by replacing the count of all urban residents with an estimate of urban 18- to 24-year-olds and weighing the count of all 18- to 24-year-olds and urban 18- to 24-year-olds 30 percent each. This would count urban 18- to 24-year-olds twice and nonurban 18- to 24-year-olds once.

**Appendix II
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While urban-rural differences in drug abuse do not support the high weight given urban population in the current formula, a weight higher than urban-rural drug abuse differences might be justified on the grounds that the unit cost of providing services financed by the block grant is higher in urban states.

Estimate of State Needs in ADMS Formula Sensitive to Weight Placed on Urban Population

The urban population factor in the formula used to allocate federal alcohol, drug, and mental health funds has a substantial effect on the estimates of state “needs” and thus on their funding. Not surprisingly, the 40-percent urban weight now used to estimate state needs produces greater differences among states than does a 20- or 0-percent urban weight. Consequently, changing this weight will change substantially the amount of funding some states would receive.

The ADMS formula now uses two factors to estimate using available indicators state funding needs relative to the national average. They are estimates of (1) the at-risk population eligible for services and (2) the economic resources states could use to finance program costs. The formula is designed to allocate more aid to states with the highest proportion of at-risk individuals in relation to their ability to finance program services from state resources.¹

Urban Weight Significantly Affects Estimates of State Needs

To show the effect of the urban population factor on states’ estimated funding needs, we compared eight states’ funding needs with the national average. We used weights of 40 percent (current law), 20 percent, and 0 percent on urban population, (see table III.1). These eight states were selected to illustrate the range of effects. For example, using a 40-percent urban weight,² Rhode Island’s funding need (based on its at-risk population and financing capacity) is estimated to be 13 percent above the national average. Without urban population, its need would be just 4 percent above average. A 20-percent weight, however, places its need at 10 percent above average.

¹See app. V for a more detailed description of the formula.

²This implies urban 18- to 24-year-old residents are 15.4 times more likely to abuse drugs than are nonurban residents.

**Appendix III
 Estimate of State Needs in ADMS Formula
 Sensitive to Weight Placed on
 Urban Population**

Table III.1: Effect of Different Urban Weights on Differences in State Funding Needs for Eight States (U.S. Average = 100)

State	State funding need compared with national average, by urban weight		
	40%	20%	0%
Rhode Island	113	110	104
California	102	100	95
Massachusetts	102	99	93
Indiana	100	102	105
Louisiana	98	100	102
Texas	97	98	99
Iowa	87	93	102
Vermont	73	90	107
U.S. average	100	100	100

Note: Data for all 50 states and the District of Columbia appear in app. VI.

The greatest relative change produced by a 40-percent weight over a 20- or 0-percent weight is illustrated in table III.1 by the Rhode Island and Vermont estimates. The need of a highly urban state like Rhode Island is calculated to be 13 percent above the national average, using a 40-percent weight; that of a more rural state like Vermont, 27 percent below. A 20-percent urban weight narrows estimated need differences to 10 percent above and 10 percent below average for the two states, respectively. Finally, eliminating the urban weight results in Rhode Island's need being estimated at 4 percent above the national average and Vermont's 7 percent above average. Thus, depending on the urban weight used to estimate the at-risk population, Vermont shifts from being a low-need state to one whose need is above the national average. In contrast, urban states like California and Massachusetts shift from having needs rated 2 percent above the national average to 5 and 7 percent below, respectively.³

³Their funding needs are below average because both have above-average capacity to finance services from state resources.

ADMS Funding Significantly Affected by Different Urban Weights

Different urban weights, by affecting estimates of state funding needs, directly affect state allocations, as table III.2 shows. For the same eight states, we compared ADMS funding using the 40-percent urban weight in current law to what would occur using weights of 20 and 0 percent.⁴

Table III.2: ADMS Funding for Eight States Using Alternative Weights on Urban Population With No Hold-Harmless

State	State funding, by urban weight				
	40%	20%		0%	
	Amount (millions)	Amount (millions)	Percent (difference)	Amount (millions)	Percent (difference)
Rhode Island	\$6.1	\$5.6	-8.1	\$5.5	-11.1
Louisiana	18.1	19.0	5.4	20.7	14.74
California	147.2	139.3	-5.4	123.7	-16.0
Massachusetts	32.1	29.9	-6.7	25.8	-19.6
Indiana	22.4	23.9	6.7	26.4	18.0
Texas	71.6	73.2	2.2	75.6	5.5
Iowa	8.3	9.9	18.9	12.7	52.2
Vermont	3.9	3.9	0.0	3.9	0.0

Note: Data for all 50 states and the District of Columbia appear in app. VII.

A 20-percent urban weight would reduce funding in urban states like Rhode Island, California, and Massachusetts by about 5 to 8 percent. Significant increases would occur in most rural states, such as Iowa. However, because of the minimum guarantee, funding for some rural states, such as Vermont, would be unaffected by changes in the urban weight.

Changes in state allocations are more dramatic if the urban population factor is eliminated entirely. Funding for Massachusetts would be 19.6 percent less compared to current law, for California 16 percent less, and for Rhode Island 11.1 percent less. Funding in rural states would rise substantially. For example, it would increase more than 52 percent in Iowa.

⁴We have assumed that block grant funding will continue at its fiscal year 1990 level of \$1.2 billion and there is no hold-harmless. Doing the analysis without a hold-harmless shows how state funding will be affected when the hold-harmless is eliminated in fiscal year 1993. Our calculations also reflect the minimum guarantee, adopted in fiscal year 1989, affecting small states like Vermont.

Hold-Harmless Responsible for Poor Targeting of ADMS Funds

The 1984 hold-harmless provision is responsible for the poor targeting of ADMS assistance to states with relatively high concentrations of the nation's at-risk population and fewer state resources from which to finance program services, judging by available indicators of these two factors. It guarantees that states continue to receive the same level of funding they received from categorical programs before they were consolidated into the ADMS block grant in 1981. Hold-harmless funds are not targeted on the basis of states' at-risk populations and financing capacity—the two indicators of state funding need used in the ADMS formula. We therefore conclude that phasing out the hold-harmless provision, as scheduled under current law, would better target ADMS funds according to states' at-risk populations and their ability to finance services from state resources.

Actual Funding Compared With Estimated Need for Eight States

To demonstrate the inequitable targeting of ADMS grants under the hold-harmless provision, we calculated differences in state funding need, using the same eight states as in appendix III and the need indicators in current law. We then compare actual state ADMS funding in fiscal year 1988, the year before the hold-harmless started to phase out, with their estimated funding needs. This shows whether, and to what extent, ADMS funding is allocated in accordance with states' at-risk populations and financing capacities, according to current law. We then repeat the analysis without the urban population factor to assess whether it offsets the inequities of the hold-harmless provision.

Targeting When High Urban Incidence of Drug Abuse Is Assumed

States with low needs estimated with the current 40-percent urban weight tend to receive more funding than states with higher needs (see fig. 4.1). An extreme illustration of this can be seen by comparing Vermont with Louisiana. Vermont's funding need is estimated at 27 percent below the national average, but its actual fiscal year 1988 funding per person at risk was well over 4 times the national average. In contrast, Louisiana, with need near the national average, was funded at a level 22 percent below average.

In addition, states with comparable need received widely differing funding levels. The current ADMS formula estimates California and Massachusetts as having funding needs just 2 percent above the national average. Federal funding for Massachusetts exceeded its estimated need by 23 percent. In contrast, California's funding fell short of its need by 23 percent. This represents a 60-percent difference in funding that cannot be accounted for by either differences in their share of the

**Appendix IV
Hold-Harmless Responsible for Poor
Targeting of ADMS Funds**

nation's at-risk population or their capacity to finance services from state resources.

Table IV.1: Comparison of Per Capita Funding Needs of Eight States, Using a 40-Percent Urban Weight, With Actual ADMS Funding (FY 1988)

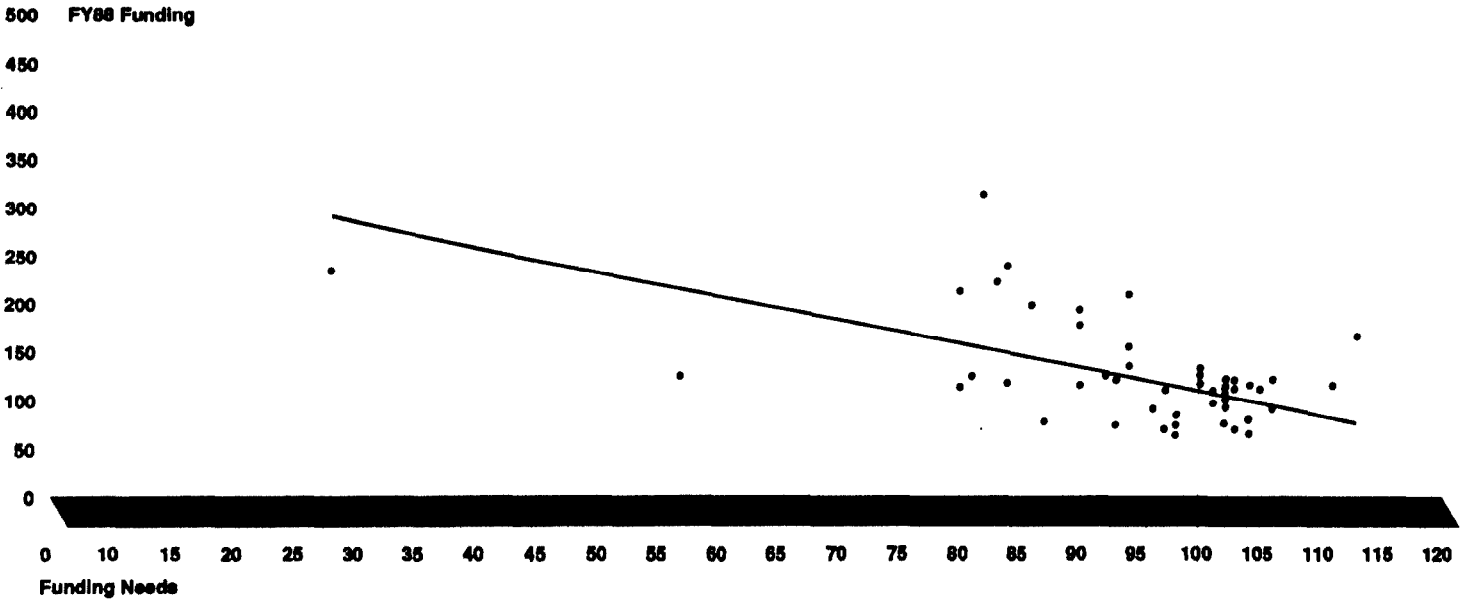
State	State funding, as a percent of the U.S. average		
	Needs	Actual	Percent difference
Vermont	73	441	501
Iowa	87	78	-10
Texas	97	71	-26
Louisiana	98	78	-20
Indiana	100	177	77
Massachusetts	102	125	23
California	102	78	-23
Rhode Island	113	166	47
U.S. average	100	100	0

Note: Data for all 50 states and the District of Columbia appear in app. VIII.

When we analyzed data for all 50 states, we found that states with high estimated needs generally received less funding per person at-risk than states with lesser needs (see fig. IV.1). The solid line in figure IV.1 highlights the general tendency for high-need states to receive less funding.¹

¹The correlation coefficient between needs and actual funding was -0.51, indicating an inverse relationship between funding needs and actual funding. The coefficient of determination is 0.26, indicating that 26 percent of the variation in actual funding can be accounted for by differences in funding needs.

Figure IV.1: Relationship Between Estimated Funding Needs of All States, Using a 40-Percent Urban Weight, and Actual ADMS Funding (FY 1988)



Targeting When No Difference in Urban-Rural Drug Abuse Is Assumed

There is virtually no relationship between actual funding and state funding needs if needs are estimated assuming no difference in the incidence of drug abuse between urban and rural areas (that is, the urban population factor is eliminated from the formula). Using this assumption, Vermont's estimated funding need is 7 percent above the national average but its actual funding was over 2-1/2 times the average. In contrast, Iowa's funding need is estimated to be only 5 percent less than Vermont's (102 compared to 107 percent of the national average), yet its funding was 39 percent below average.

Again, states with similar funding needs would receive widely differing grant amounts. Ignoring urban population, Massachusetts and California become relatively low-need states (5 and 7 percent below the national average respectively). Even so, there is still a 65-percent difference in funding, due largely to the hold-harmless. Similarly, funding for Texas, Iowa, and Louisiana, with average needs, fell between 29 and 40 percent short of their estimated needs.

**Appendix IV
Hold-Harmless Responsible for Poor
Targeting of ADMS Funds**

Table IV.2: Comparison of Per Capita State Funding Needs of Eight States, Using No Urban Weight, With Actual ADMS Funding (FY 1988)

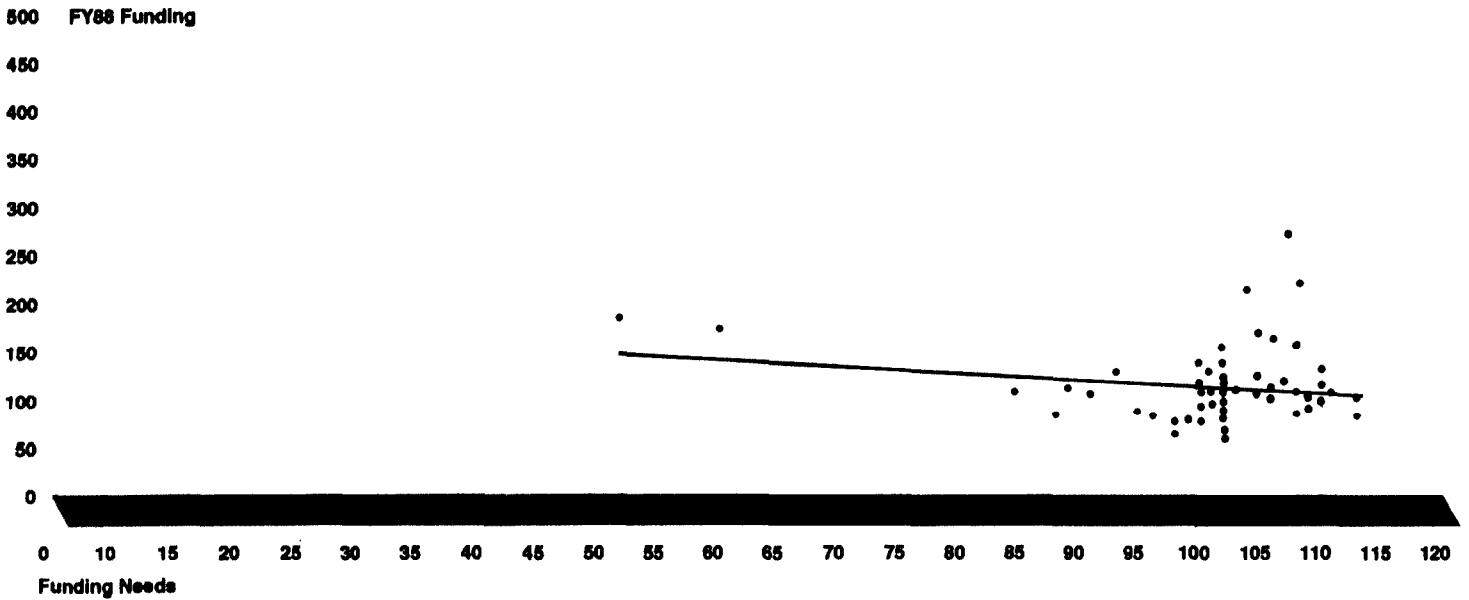
State	State funding, as a percent of the U.S. average		
	Needs	Actual	Percent difference
Massachusetts	93	145	55
California	95	88	-8
Texas	99	70	-30
Iowa	102	61	-40
Louisiana	102	72	-29
Rhode Island	104	202	94
Indiana	105	160	52
Vermont	107	254	137
U.S. average	100	100	0

Note: Data for all 50 states and the District of Columbia appear in app. IX.

Analyzing data for all 50 states, we found virtually no relationship between estimated need and actual funding. When it is assumed there are no differences in drug abuse between urban and rural areas, high-need states are as likely to receive the same funding per person at risk as low-need states (see fig. IV.2).²

²The coefficient of determination between need and actual funding was .04. This can be interpreted as indicating that only 4 percent of the differences in state funding can be accounted for by differences in their estimated need. We therefore conclude there is virtually no relationship between need and actual funding.

Figure IV.2: Relationship Between Estimated Funding Needs of All States Using No Urban Weight and Actual ADMS Funding (FY 1988)



Conclusions

The ADMS apportionment formula allocates federal funding according to estimates of populations at risk of drug abuse, alcohol abuse, and mental health disorders and states' capacity to fund program services from their own resources. The hold-harmless provision adopted in 1984 guaranteed that states would continue to receive the same level of funding they received under the 10 categorical programs consolidated into the ADMS block grant in 1981. However, the hold-harmless provision causes a mismatch between need, based on available indicators, and actual funding. This mismatch occurs irrespective of whether the urban factor is retained or eliminated from the apportionment formula. Thus, judged by available indicators of state need, phasing out the 1984 hold-harmless, as scheduled under current law, will improve the targeting of federal assistance for ADMS services to states with relatively greater need.

Description of the ADMS Apportionment Formula

The 1988 formula for allocating alcohol, drug abuse, and mental health services funds estimates states' funding needs, relative to the national average, using two factors. These are estimates of (1) the at-risk population eligible for ADMS services and (2) the economic resources states could use to finance program costs. The two factors are compared with the average of all states to reflect differences in states' need for federal assistance. The need indicator is calibrated so that states with fewer economic resources per person at risk receive more federal assistance per person at risk than states with more taxable resources per person.

Data Elements Used in the Formula

Measurement of At-Risk Population

For purposes of the apportionment formula, the at-risk population is a weighted sum of three subgroups: (1) people between ages 18 and 24 plus people living in urban places, who represent the population at risk of drug abuse; (2) people between ages 25 and 64, who represent the population at risk of alcohol abuse, and (3) people between ages 25 and 44, who represent the population at risk of mental health disorders.

The population at risk of drug abuse is represented by 40 percent of state residents living in urban areas and 20 percent of residents between 18 and 24 years of age. The populations at risk of alcohol abuse and mental health disorders are represented by 20 percent of the 25- to 64-year-old and 25- to 44-year-old population, respectively.

$$(V.1) P = .4 (\text{urban population}) + .2 (\text{population 18-24}) + .2 (\text{population 25-64}) + .2 (\text{population 25-44})$$

where P = total ADMS at-risk population (drugs, alcohol, and mental health).

Data for the three population age groups are the latest available collected by the Bureau of the Census. Population data for 1988 were used to allocate ADMS funds for fiscal year 1990. Urban population is the population living in urbanized areas as defined by the Bureau of the Census from the decennial census, available once every 10 years. Data from the 1980 census were used for fiscal year 1990 allotments.

Measurement of State Financing Capacity

States' capacity to finance program services from their own resources is the other factor used to estimate state funding needs. It is estimated using total taxable resources (TTR) as reported by the Secretary of the Treasury. The TTR is an equally weighted average of resident per capita personal income and gross state product (a measure of all income produced within each state), published by the Department of Commerce. For purposes of formula allocations, a 3-year average of each state's TTR is used. Fiscal year 1990 allotments were made using income data for calendar years 1986-1988, and data on gross state product was for calendar years 1984-1986. Using a 3-year average smoothes out year-to-year fluctuations so that state allotments do not change dramatically from one year to the next.

State Funding Needs

State funding need is calculated by comparing the taxable resources of each state with its at-risk population. States with few resources per person at risk are deemed to have relatively greater funding need and receive more funding per person. States with more abundant resources are deemed to have a lesser need for federal assistance and receive less funding per person.

A state's taxable resources per person at risk is calculated simply by dividing its TTR by its estimated at-risk population, P. If S represents total taxable resources per person, then by definition $S = \text{TTR}/P$. If N represents the national average resources per person, current law calculates states' funding needs on a per person at-risk basis using the following formula:

$$(V.2) \text{ State need per person}_{\text{at-risk}} = 1.0 - 0.35 (S/N)$$

Indirectly, a value of 0.65 is assigned to the state with average resources per person at risk.¹ The need indicator for states with below average resources per person will have a higher value, which increases its funding per person above the national average. Similarly, the need indicator for states with above-average resources will be below 0.65 and result in funding per person below the national average.

¹ $S/N = 1.0$ for the state with the national average resources per person. Its need indicator is therefore $1.00 - 0.35 = 0.65$.

The ADMS Apportionment Formula

The apportionment formula allocates funds based on each state's share of the nation's at-risk population, weighted by its funding need per person. In current law, this is expressed in the following formula:

$$(V.3) \text{ State grant} = \left[\frac{X}{U} \right] A$$

where X = state population at risk weighted by state funding need per person, U = sum of all states' at-risk populations weighted by funding need, and A = funds appropriated for distribution.

The apportionment formula also can be expressed in terms of the at-risk population and state funding need as:

$$(V.3') \text{ State grant} = \left[\frac{P * [1.0 - .35(S/N)]}{\sum P * [1.0 - .35(S/N)]} \right] A$$

where P = population at risk (see equation V.2), S = taxable resources per person at risk (TTR/P), N = national average of state taxable resources per person at risk, and A = funds appropriated for distribution.

Current law places three restrictions on the state apportionment formula before the actual grant amount is determined: (1) state funding need cannot fall below a minimum level, (2) some of the funds available for distribution are allocated on a hold-harmless basis, and (3) all states are guaranteed a minimum grant amount.

Minimum on State Funding Need

The apportionment formula calculates each state's funding need according to its taxable resources per person at risk, using the formula in equation V.2 above. The need indicator can range from negative values (indicating no need for federal assistance) to 1.0 (need for complete federal financing of eligible program services). The need indicator takes a value of 0.65 for the state with the national average taxable resources per person at risk. Current law places a minimum value of 0.4 on this indicator. This insures that no state's need indicator will be less than 61.5 percent of the average need.²

²From footnote 1, the average value of the need indicator is 0.65. The minimum value of 0.40 is 61.5 percent of the average value (i.e., $(0.4/0.65) = .615$).

Hold-Harmless Allotments

Under current law, part of the block grant is allocated according to the percentage of funds each state received in fiscal year 1984, the year indicators of the at-risk population and financing capacity were incorporated into the formula. The portion of the grant allocated based on past funding practices is called the hold-harmless allotment. For fiscal year 1989, block grant funding was \$806 million. Of this amount, \$330 million was allocated on a hold-harmless basis and the remaining \$476 million (59 percent) was allocated according to the formula in equation V.3 above. The hold-harmless amount was reduced to \$250 million in fiscal year 1990, and the remaining \$942 million (79 percent) was allocated by the new formula. Under current law the amount to be allocated by the hold-harmless is scheduled to fall to \$200 million in fiscal year 1991, \$100 million in fiscal year 1992, and zero in fiscal year 1993.

Minimum Grant Guarantee

The last restriction placed on the formula is a minimum grant guarantee. Under current law, each state receives \$7.0 million or the amount of funding received in fiscal year 1988, increased by 5 percent, whichever is less. This provision protects a number of small states whose funding is disproportionately high compared with the need indicator used by the apportionment formula. States protected by this provision will receive no increase in funding unless appropriations increase to a level high enough that the formula would allocate it more aid than the \$7.0 million, or 5 percent more than their fiscal year 1988 funding level. States not protected by the minimum grant guarantee have their grant allotment reduced proportionately in order to finance the minimum.

Effect of Different Urban Weights on Estimates of All States' Funding Needs

Numbers are a percentage of the U.S. average

	Estimate of need, by urban weight		
	40%	20%	0%
Alabama	105	107	111
Alaska	28	42	60
Arizona	106	105	105
Arkansas	90	99	110
California	102	100	95
Colorado	101	101	100
Connecticut	94	91	85
Delaware	99	99	100
District of Columbia	81	72	52
Florida	106	105	102
Georgia	97	100	106
Hawaii	103	103	101
Idaho	84	96	109
Illinois	103	101	96
Indiana	100	102	105
Iowa	87	93	102
Kansas	84	90	98
Kentucky	96	102	110
Louisiana	98	100	102
Maine	83	95	108
Maryland	104	103	100
Massachusetts	102	99	93
Michigan	104	103	101
Minnesota	93	95	98
Mississippi	94	103	114
Missouri	99	100	101
Montana	86	95	106
Nebraska	90	94	100
Nevada	100	100	100
New Hampshire	80	90	102
New Jersey	102	98	89
New Mexico	94	99	106
New York	101	98	91
North Carolina	92	99	108
North Dakota	80	90	102
Ohio	103	103	101
Oklahoma	93	97	103
Oregon	100	102	105

(continued)

Appendix VI
Effect of Different Urban Weights on
Estimates of All States' Funding Needs

	Estimate of need, by urban weight		
	40%	20%	0%
Pennsylvania	104	103	102
Rhode Island	113	110	104
South Carolina	102	107	114
South Dakota	82	94	108
Tennessee	102	104	109
Texas	97	98	99
Utah	111	110	107
Vermont	73	90	107
Virginia	98	99	102
Washington	102	102	102
West Virginia	90	100	112
Wisconsin	98	99	102
Wyoming	57	71	88
U.S. average	100	100	100

ADMS Funding for All States Using Alternative Urban Weights With No Hold-Harmless

Table VII.1: Total ADMS Funding, by Urban Weight

	Funding by urban weight				
	40%	20%		0%	
	Amount (millions)	Amount (millions)	Percent difference ^a	Amount (millions)	Percent difference
Alabama	\$16.5	\$17.9	8.6	\$20.3	23.4
Alaska	2.7	2.7	0.0	2.7	0.0
Arizona	15.9	16.0	0.4	16.0	0.4
Arkansas	7.0	8.1	15.2	11.3	61.3
California	147.2	139.3	-5.4	123.7	-16.0
Colorado	16.2	16.2	0.1	16.1	-0.6
Connecticut	15.6	14.6	-6.6	12.6	-19.3
Delaware	2.9	2.9	1.7	3.0	3.9
District of Columbia	4.4	3.8	-13.9	3.3	-25.4
Florida	58.9	56.8	-3.7	52.4	-11.0
Georgia	23.3	25.9	11.6	30.6	31.7
Hawaii	5.4	5.4	-1.2	5.2	-4.0
Idaho	2.4	3.2	34.1	4.8	99.7
Illinois	61.5	57.8	-6.0	50.7	-17.7
Indiana	22.4	23.9	6.7	26.4	18.0
Iowa	8.3	9.9	18.9	12.7	52.2
Kansas	7.2	8.5	18.1	10.8	50.1
Kentucky	12.3	14.6	18.4	18.6	51.0
Louisiana	18.1	19.0	5.4	20.7	14.4
Maine	4.7	4.7	0.0	5.8	24.9
Maryland	24.3	23.4	-3.6	21.7	-10.8
Massachusetts	32.1	29.9	-6.7	25.8	-19.6
Michigan	45.4	44.6	-1.8	42.8	-5.8
Minnesota	16.4	17.4	6.1	19.1	16.4
Mississippi	7.1	9.2	30.5	13.0	84.8
Missouri	21.3	21.9	3.1	23.0	8.0
Montana	3.0	3.0	0.0	3.8	28.6
Nebraska	5.3	5.9	12.1	7.0	33.1
Nevada	4.8	4.8	0.3	4.8	0.1
New Hampshire	4.6	4.6	0.0	5.1	10.3
New Jersey	43.8	39.5	-9.9	31.3	-28.4
New Mexico	6.4	6.4	0.0	7.2	12.1
New York	97.5	89.4	-8.3	74.1	-24.0
North Carolina	20.1	24.5	21.8	32.3	60.3
North Dakota	1.7	2.2	29.2	3.0	81.2
Ohio	51.7	50.9	-1.6	49.0	-5.1

(continued)

**Appendix VII
ADMS Funding for All States Using
Alternative Urban Weights With No Hold-
Harmless**

	Funding by urban weight				
	40%	20%		0%	
	Amount (millions)	Amount (millions)	Percent difference ^a	Amount (millions)	Percent difference
Oklahoma	11.1	12.6	12.8	15.0	35.2
Oregon	11.2	11.9	6.2	13.1	16.7
Pennsylvania	57.2	56.3	-1.5	54.3	-5.0
Rhode Island	6.1	5.6	-8.1	5.5	-11.1
South Carolina	12.4	14.4	16.9	18.1	46.6
South Dakota	3.8	3.8	0.0	3.8	0.0
Tennessee	19.3	21.0	9.3	24.1	25.3
Texas	71.6	73.2	2.2	75.6	5.5
Utah	8.5	8.2	-3.3	7.6	-9.9
Vermont	3.9	3.9	0.0	3.9	0.0
Virginia	25.3	26.7	5.8	29.2	15.6
Washington	21.3	21.5	0.7	21.6	1.2
West Virginia	5.6	6.6	16.4	9.4	67.2
Wisconsin	19.3	20.3	5.5	22.1	14.6
Wyoming	1.3	1.3	0.9	2.0	57.8
U.S.	1,116.2	1,116.2	0.0	1,116.2	0.0

^aPercent differences were calculated using more significant digits than are shown in the table

**Appendix VII
ADMS Funding for All States Using
Alternative Urban Weights With No Hold-
Harmless**

**Table VII.2: ADMS Funding Per Capita,
by Urban Weight**

State	Per capita funding by urban weight		
	40%	20%	0%
Alabama	\$4.03	\$4.38	\$4.98
Alaska	5.21	5.21	5.21
Arizona	4.69	4.71	4.71
Arkansas	2.93	3.38	4.73
California	5.32	5.03	4.47
Colorado	4.90	4.91	4.87
Connecticut	4.86	4.54	3.92
Delaware	4.50	4.57	4.67
District of Columbia	7.12	6.13	5.31
Florida	4.90	4.72	4.36
Georgia	3.74	4.17	4.92
Hawaii	5.02	4.96	4.82
Idaho	2.39	3.20	4.77
Illinois	5.31	4.99	4.38
Indiana	4.05	4.32	4.78
Iowa	2.94	3.49	4.47
Kansas	2.92	3.45	4.38
Kentucky	3.30	3.91	4.98
Louisiana	4.05	4.27	4.63
Maine	3.92	3.92	4.90
Maryland	5.36	5.17	4.78
Massachusetts	5.48	5.11	4.40
Michigan	4.94	4.85	4.65
Minnesota	3.87	4.10	4.50
Mississippi	2.69	3.50	4.96
Missouri	4.17	4.30	4.50
Montana	3.66	3.66	4.71
Nebraska	3.32	3.72	4.42
Nevada	4.73	4.75	4.74
New Hampshire	4.38	4.38	4.83
New Jersey	5.71	5.14	4.09
New Mexico	4.29	4.29	4.81
New York	5.47	5.01	4.16
North Carolina	3.14	3.83	5.04
North Dakota	2.50	3.22	4.52
Ohio	4.79	4.72	4.55
Oklahoma	3.40	3.84	4.60
Oregon	4.12	4.38	4.81
Pennsylvania	4.79	4.72	4.55

(continued)

**Appendix VII
ADMS Funding for All States Using
Alternative Urban Weights With No Hold-
Harmless**

State	Per capita funding by urban weight		
	40%	20%	0%
Rhode Island	6.23	5.72	5.53
South Carolina	3.61	4.21	5.29
South Dakota	5.30	5.30	5.30
Tennessee	3.97	4.33	4.97
Texas	4.27	4.36	4.50
Utah	5.06	4.89	4.55
Vermont	7.15	7.15	7.15
Virginia	4.28	4.53	4.95
Washington	4.70	4.74	4.76
West Virginia	2.97	3.46	4.97
Wisconsin	4.01	4.22	4.59
Wyoming	2.62	2.65	4.14
U.S.	4.59	4.59	4.59

Comparison of All States' Funding Needs With Actual ADMS Funding for Fiscal Year 1988: 40 Percent Urban Weight

Numbers are a percentage of the U.S. average

	State funding		Percent difference
	Need	Actual	
Alabama	105	127	21.4
Alaska	28	240	769.3
Arizona	106	130	23.1
Arkansas	90	193	115.7
California	102	78	-23.4
Colorado	101	104	3.2
Connecticut	94	94	0.8
Delaware	99	110	11.7
District of Columbia	81	132	63.7
Florida	106	97	-9.0
Georgia	97	109	13.1
Hawaii	103	113	9.1
Idaho	84	143	70.2
Illinois	103	75	-27.0
Indiana	100	177	77.4
Iowa	87	78	-9.8
Kansas	84	106	27.2
Kentucky	96	89	-6.8
Louisiana	98	78	-20.5
Maine	83	223	167.2
Maryland	104	60	-42.1
Massachusetts	102	125	23.3
Michigan	104	85	-18.2
Minnesota	93	74	-20.5
Mississippi	94	152	61.2
Missouri	99	102	2.8
Montana	86	195	126.2
Nebraska	90	111	23.7
Nevada	100	131	30.9
New Hampshire	80	219	172.1
New Jersey	102	102	0.1
New Mexico	94	202	116.0
New York	101	99	-2.4
North Carolina	92	113	22.7
North Dakota	80	129	61.1
Ohio	103	104	0.7
Oklahoma	93	139	49.6
Oregon	100	123	22.2

(continued)

**Appendix VIII
 Comparison of All States' Funding Needs
 With Actual ADMS Funding for Fiscal Year
 1988: 40 Percent Urban Weight**

	State funding		Percent difference
	Need	Actual	
Pennsylvania	104	104	-0.3
Rhode Island	113	166	47.3
South Carolina	102	127	25.3
South Dakota	82	318	287.2
Tennessee	102	95	-6.4
Texas	97	72	-26.0
Utah	111	111	0.4
Vermont	73	441	501.3
Virginia	98	81	-17.0
Washington	102	101	-0.7
West Virginia	90	170	88.7
Wisconsin	98	75	-23.5
Wyoming	57	137	139.9
U.S. average	100	100	

Comparison of All States' Funding Needs With Actual ADMS Funding for Fiscal Year 1988: 0 Percent Urban Weight

Numbers are a percentage of the U.S. average

State	State funding		Percent difference
	Needs	Actual	
Alabama	111	110	-0.6
Alaska	60	178	194.2
Arizona	105	130	23.7
Arkansas	110	133	20.6
California	95	88	-7.9
Colorado	100	105	4.8
Connecticut	85	108	26.2
Delaware	100	108	8.6
District of Columbia	52	183	250.4
Florida	102	105	3.2
Georgia	106	92	-13.3
Hawaii	101	116	14.7
Idaho	109	92	-16.2
Illinois	96	86	-10.5
Indiana	105	160	51.9
Iowa	102	61	-40.1
Kansas	98	84	-14.5
Kentucky	110	68	-37.7
Louisiana	102	72	-29.8
Maine	108	145	34.1
Maryland	100	66	-34.5
Massachusetts	93	145	54.9
Michigan	101	89	-12.3
Minnesota	98	68	-31.0
Mississippi	114	101	-11.9
Missouri	101	97	-3.9
Montana	106	138	30.2
Nebraska	100	94	-6.1
Nevada	100	132	32.0
New Hampshire	102	155	51.7
New Jersey	89	126	41.1
New Mexico	106	159	49.3
New York	91	118	29.6
North Carolina	108	83	-22.7
North Dakota	102	91	-10.2
Ohio	101	108	7.2
Oklahoma	103	115	11.7
Oregon	105	111	5.8

(continued)

**Appendix IX
 Comparison of All States' Funding Needs
 With Actual ADMS Funding for Fiscal Year
 1988: 0 Percent Urban Weight**

State	State funding		Percent difference
	Needs	Actual	
Pennsylvania	102	108	5.9
Rhode Island	104	202	94.0
South Carolina	114	98	-13.7
South Dakota	108	205	90.1
Tennessee	109	82	-24.5
Texas	99	70	-29.2
Utah	107	121	12.6
Vermont	107	254	136.6
Virginia	102	74	-27.5
Washington	102	101	-0.9
West Virginia	112	112	0.1
Wisconsin	102	69	-32.6
Wyoming	88	93	6.1
U.S. average	100	100	

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