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Publication Date

1972-08-01

THE ALLOCATION OF REHABILITATION FUNDS AMONG
STATES AND DISTRICTS: AN EVALUATION

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August 1972

Working Paper No. 183/RS010

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Project for Cost Benefit Analysis and Evaluation of Rehabilitation Services

The research reported here is being supported by a grant from the
Rehabilitation Services Administration of the Social and Rehabilitation
Service, U.S. Department of Health, Education and Welfare.

PREFACE

In this paper, Ms. Ridge evaluates the formulae and practices of Federal and state programs in allocating funds for rehabilitation services. She shows that existing formulae inaccurately measure need for services within state populations and recommends alternative formulae which would correct what she perceives as inequity. Her study builds upon other research reviewing national prevalence studies and developing models for estimating need for services within geographical areas and organizational jurisdictions. This research is reported in Working Paper No. 182 issued by the Institute, entitled "Estimating Need for Rehabilitation Services."

We believe that Ms. Ridge's paper is timely and an excellent example of the kind of policy analysis that has often been missing in the field of rehabilitation. We hope that the paper will enrich the debate that has been going on in the U.S. Congress on the appropriateness of the use of the Hill-Burton formula for allocating basic program funds in the national rehabilitation legislation. We also hope that the paper will prove useful to state agencies concerned with improving the allocation of program funds across areas within their states, in order better to respond to local need for services.

This paper has been adapted from a Master's Thesis which Ms. Ridge submitted to the Department of City and Regional Planning at the University of California, Berkeley. The research represented by the paper was supported in part by a grant from the Rehabilitation Services Administration, D/HEW.

Frederick C. Collignon
Michael B. Teitz

ACKNOWLEDGMENTS

I owe a great debt to the chairman of my thesis committee, Frederick C. Collignon, for his constant availability during the course of my work on this paper. His advice and comments were invaluable. I thank also the other members of my committee, Douglass B. Lee and Michael B. Teitz, for their time and suggestions. Donald L. Foley, although not a member of my committee, gave freely of his time and provided extremely helpful advice and suggestions. Marta Fisch, the programmer who worked some long hours to help me meet a deadline, was indispensable. And I thank Norma Montgomery who suffered through a very last minute typing job.

I would also like to express my appreciation to the staffs of the National Health Survey, the Social Security Survey, and the State of California Department of Rehabilitation (especially Mary Brubaker) who gave me so much cooperation in discussing their respective work, and in providing very useful unpublished materials.

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INTRODUCTION

In an earlier paper,¹ I discussed the prevalence of disability, and the special character of its incidence whereby certain groups suffer significantly greater prevalence than others. These groups -- the aged, the poor, the non-white, the rural -- were identified along with their respective prevalence rates. With this information, a method was developed for estimating the number of disabled persons in any state or other geographic area, as long as demographic data on the area were available.

These new estimates of the number of disabled in each state, represent relative need for rehabilitation services in the states. While prevalence of disability is not directly equivalent to need for rehabilitation services (since some disabled persons do not require such services), relative prevalence estimates can be used to assess relative needs of different states. This led to a questioning of the method by which federal funds are allocated to the states. Do the individual state shares of funds balance with individual state needs? This is the focus of the present paper. A brief history of the rationale for the use of the Hill-Burton formula is presented, and the formula is then evaluated in terms of its responsiveness to need for services.

The allocation of rehabilitation funds within states is also discussed. California is used as a case example to illustrate the difference between an allocation to districts based on population alone, and an allocation based on more accurate estimates of need.

¹See Susan Shea Ridge, "Estimating Need for Rehabilitation Services," Working Paper No. 182, Institute of Urban and Regional Development, University of California, Berkeley.

CHAPTER I

THE FEDERAL ALLOCATION PROCESS

Over the history of the federal-state vocational rehabilitation program, there have been three different financing arrangements between the federal level and the state agencies. Prior to 1943, the arrangement was for a 50-50 split between federal and state expenditures. From 1943 until the 1954 Vocational Rehabilitation Act, there was an "open-ended" financing system. Under this system, there was 100% federal reimbursement to states for administrative, guidance, and placement expenditures, and 50% reimbursement for other case service expenditures.

Since 1954, federal rehabilitation dollars have been distributed according to the Hill-Burton formula. This formula, as presented in the latest amended version of the Vocational Rehabilitation Act is as follows:

For each fiscal year, each State shall be entitled to an allotment of an amount bearing the same ratio to the amount authorized to be appropriated...for meeting the cost of vocational rehabilitation services, as the product of (1) the population of the state and (2) the square of its allotment percentage...bears the sum of the corresponding products for all the States....²

The allotment percentage referred to is defined to be

100% less than percentage which bears the same ratio to 50% as the per capita income of such state bears to the per capita income

² A Bill to Amend the Vocational Rehabilitation Act, HR 8395, Section 103(a), 92nd Congress, 2nd Session. There were some modifications of this formula in the beginning years to ease the transition from the "open-ended" financing arrangements. Likewise, there is a minimum allotment set so that no state or territory will receive such a small amount that its vocational rehabilitation program would be jeopardized by the new allocation method.

of the U.S., except that no allotment percentage shall be greater than 75% or less than 33-1/3%.³

The Hill-Burton formula can be expressed algebraically as follows:

$$A_i = \left(\frac{P_i a_i^2}{\sum_{i=1}^n P_i a_i^2} \right) T$$

where A_i = the allotment for state i

P_i = the population of state i

a_i = the allotment percentage for state i

T = the total appropriation to be allocated among the states

$$a_i = 1.00 - .5 \frac{Y_{Pi}}{Y_{PUS}}$$

where Y_{Pi} = the per capita income of state i

Y_{PUS} = the per capita income of the U.S.

Thus,

$$A_i = \left(\frac{P_i \left(1.00 - .5 \frac{Y_{Pi}}{Y_{PUS}} \right)^2}{\sum_{i=1}^n P_i \left(1.00 - .5 \frac{Y_{Pi}}{Y_{PUS}} \right)^2} \right) T$$

The committee reports accompanying the 1954 bill, with the changed financial provisions, indicate that there were a number of

³Ibid., section (6). For the purposes of computing the allotments, "population" is to be determined by the latest figures available from the Department of Commerce by October 1 of the year preceding the fiscal year for which funds are appropriated, and "per capita income" shall be the average of the per capita incomes of the states and the U.S. for the three most recent consecutive years for which satisfactory data are available from the Department of Commerce.

reasons for the switch from open-ended financing. It was felt that the open-ended arrangement did not allow for the varying financial needs of individual states. Further, the open-ended arrangement was felt to have administrative defects: the Congress had not always appropriated enough funds to fully reimburse the states, thus making planning and administration difficult for the states; also, the dual rates (100% for some types of expenditures, 50% for others) complicated financial procedures in the states. The new provision was intended to remedy these defects, while avoiding any diminution in the existing level of operations in any state (through the transition provisions and the minimum allotment).⁴ There was also the feeling that sufficient federal funds were not being made available to encourage state expansion and improvement of rehabilitation services, and that this development and expansion must take place.⁵

The new formula was to be based on "objective criteria of need: per capita income and population." It was described as taking account

(1) "of the relative populations of the States (which experience shows provide a reasonable measure of the relative numbers of physically handicapped persons in each state)" -- emphasis added

(2) "and the relative financial capacities of the states as measured by per capita income data."⁶

It is the contention that the relative populations of the states are a good index to the relative numbers of disabled persons in the States that we have attempted to test.

Essentially, the Hill-Burton formula distributes funds on the basis of population heavily weighted by per capita income. It is an

⁴Committee on Labor and Public Welfare, "Report to accompany S.2759," Report #1626, 83rd Congress, 2nd Session, p. 8.

⁵Committee on Education and Labor, "Report to accompany HR9640," Report #1941, 83rd Congress, 2nd Session, p. 5.

⁶Ibid., p. 6.

equalizer, distributing relatively greater shares of funds to the poorer states, on the theory that these states have lesser fiscal capacity and thus less ability to pay, on their own, for necessary programs.⁷

The following table illustrates this redistributive effect of the Hill-Burton formula.

TABLE I

GRANT AMOUNTS ALLOCATED TO SELECTED STATES BY TWO ALTERNATIVE METHODS OF DISTRIBUTING \$1 BILLION (in millions of dollars)

State	Population	Hill-Burton Formula
California	93.2	52.0
Mississippi	12.1	25.6
New York	93.8	50.0
Rhode Island	4.7	4.6
South Dakota	3.9	5.6
Wisconsin	21.5	22.2

Source: Break, Intergovernmental Fiscal Relations in the United States, Table A-2, p. 258.

The table shows that while some states are hardly affected at all by the income weighting (e.g., Rhode Island; Oregon and Indiana are other examples), others would have their allocations doubled (Mississippi), or halved (New York, California).

The Hill-Burton formula, then, has two aspects. The population term in the formula is supposed to represent the need of the

⁷ For a further discussion of the Hill-Burton formula, including a comparison with other allocation methods, see George F. Break, Intergovernmental Fiscal Relations in the United States (Washington, D.C.: The Brookings Institution), 1967, especially Chapter 4; also Advisory Commission on Intergovernmental Relations, The Role of Equalization in Federal Grants, January, 1964.

states in terms of need for services of the state's disabled citizens. The income weighting is designed to represent the state's need in terms of financial capacity to provide services and need for federal support.

Our interest is in the adequacy of the population term in the formula, as a measure of the relative numbers of disabled persons in the states. Our previous study of the prevalence of disability has shown that disability varies with age, sex, race, and place of residence. It was illustrated that two states with equal populations could have varying numbers of disabled, depending on the proportions of these high disability groups in each state. Estimates based on population alone were shown to be significantly different from estimates based on demographic data about the populations.⁸

Thus, in comparing the shares of federal funds which each state will receive, it is appropriate to compare the allotments under our disability estimate with a straight population allotment. We will also compare our projected allotments with the allotments generated by the full Hill-Burton formula, but it should be noted that the income weighting might be seen as worthy of retention as a fiscal capacity equalizer, regardless of how it compares with an allotment based on the number of disabled in each state. This aspect of the formula could be retained, and only the first term changed. Or, the entire formula could be changed. Our analysis will indicate the consequences to the states, in terms of the change in federal dollars to be received, in two ways, so that the relative effect of either type of change can be seen.

⁸Susan S. Ridge, "Estimating Need for Rehabilitation Services," Working Paper No. 182, Institute of Urban and Regional Development, University of California, Berkeley. See, especially, p. 42.

Table II compares the share of federal funds which would be allotted to each of selected states by three different methods. The first column shows the share of federal funds allotted on the basis of our estimate of the number of disabled persons in each state,⁹ or the Disability share. This has been demonstrated in our previous paper, to be a more accurate way of measuring the relative need of each state than the population share used in the federal formula.

TABLE II
PERCENTAGE OF FEDERAL AUTHORIZATION ALLOTTED TO SELECTED STATES BY THREE ALTERNATIVE METHODS

State	Disability Share	Population Share $\left(\frac{P_s}{P_{us}}\right)$	Actual 1970 Share
California	9.8%	9.8%	6.6%
District of Columbia ¹⁰	.4	.4	.8
Florida	3.6	3.3	3.7
Massachusetts	2.6	2.8	2.0
Mississippi	1.2	1.1	2.0
New York	9.0	8.9	5.5
North Carolina	2.7	2.5	3.6
Rhode Island	.5	.5	.4
South Dakota	.3	.3	.4
Wisconsin	2.0	2.2	2.2

This population share $\left(\frac{P_s}{P_{us}}\right)$ is shown in column 2. The third column shows the actual share allotted to the states in fiscal 1970 by the Hill-Burton formula.¹¹

⁹ See Appendix for these estimates.

¹⁰ The District of Columbia receives special treatment in that its allotment percentage is set at 75%. Thus, its allocation is higher than it would be without this special treatment.

¹¹ These fiscal year 1970 shares are based on data provided by the Rehabilitation Services Administration. We have used "unadjusted allotment" figures. Recall from footnote 2 that there is a minimum allotment, below which no state's grant may go. The "unadjusted allotment" figures have not accounted for the provision of these minimums. It is the more appropriate set of figures for our purposes, since our estimates do not adjust for any minimum.

With a 1970 total authorization of \$562,536,703.00,¹² even a .1% change in share means over \$562,000. Comparing the first two columns, states with both relatively higher (lower) income and relatively lower (higher) representation of demographic groups most susceptible to disability, will receive smaller (greater) allocations by the Disability estimate than by the population allocation. States which have high (low) incomes but also have high (low) representation of the heavy disability demographic groups will have forces pulling their Disability allocation in opposite directions.

Two forces are at work in creating the differences between the Disability allotments and the actual Hill-Burton shares. First, the age-sex-race information is used, improving on the simple -- and we have seen, incorrect -- hypothesis that relative population is a good measure of relative disabled population in states. Second, while income information is utilized in both, it is given heavy weight in the Hill-Burton formula, but is unweighted in the age-sex-race-income estimate. The Disability share takes into account the greater need of the relatively low-income states, but it does not penalize the higher income state so strongly, nor compensate the lower-income state so greatly. For instance, California's income share is only 9.7% as compared with its 10.0% age-sex-race share; Mississippi's income share is 18% greater than its age-sex-race share. This unweighted use of income leads to adjustments not nearly so great as the near doubling of Mississippi's share that occurs when population is weighted by income in the Hill-Burton formula, or the one-third reduction in California's allotment.

¹²The actual total authorization was \$580,000,000. For our purposes, we have subtracted the portion that went to Guam, Puerto Rico, and the Virgin Islands. These territories were left out of our analysis, because of lack of data necessary to perform some of our own estimates.

Table III shows the 1970 allocation, in dollars, to each state, and the dollar change and percent change that would occur to each state (1) when the Disability share is used, rather than the Hill-Burton formula, and (2) when the Disability share is weighted by the same allotment percentage used in Hill-Burton. This is the fiscal capacity measure.

Table III illustrates two possible changes in the current federal allocation pattern, both based on the Disability estimate of need for federal funds. Columns 2 and 3 show the change that would take place in each state's budget if the Hill-Burton formula were eliminated and the new age-sex-race-income estimates of the number of disabled in each state were used to allocate federal funds.

To recap the make-up of this Disability formula, it is based on the concept that federal allocation of rehabilitation funds should reflect the need for services in each state, as measured by the number of disabled in each state. Thus, each state's share of the vocational rehabilitation authorization should be

$$\frac{\text{Disabled}_s}{\text{Disabled}_{us}} \times T$$

where T is the total authorization, and Disabled_s is the number of disabled in each state as estimated by the age-sex-race-income estimate. The age-sex-race estimate is

$$D_k = \sum_{asr=1}^{12} r_{asr} \cdot n_{asr_k}$$

The actual formula simply requires plugging in data on each of the twelve age-sex-race groups to the following equation:

TABLE III

CURRENT ALLOCATIONS AND CHANGE IN ALLOCATION BY DISABILITY
SHARE METHOD, WITH AND WITHOUT HILL-BURTON FISCAL CAPACITY
EQUALIZER, FOR EACH STATE

State	FY 1970 Alloca- tion (\$000)	Disability Allocation			
		Without Equalizer		With Equalizer	
		Δ .All. (\$000)	%Δ.Alloca- tion	Δ.All. (\$000)	%Δ. Allo- cation
Maine	\$3691.1	\$-1019.0	-27.6%	\$-142.7	-3.9%
New Hampshire	2176.6	-229.2	-10.5	-114.8	-5.3
Vermont	1486.7	-315.5	-21.2	-89.2	-6.0
Massachusetts	11625.9	3094.8	26.6	-931.3	-8.0
Rhode Island	2267.8	355.5	15.7	1417.7	.1
Connecticut	4505.6	3380.4	75.0	-318.9	-7.1
New York	30984.5	19700.3	63.6	-301.4	-1.0
New Jersey	13763.0	5543.2	40.3	-570.7	-4.1
Pennsylvania	32212.0	982.4	3.0	8.1	**
Ohio	27969.1	193.2	.7	-1701.0	-6.1
Indiana	14072.2	-302.3	-2.1	-814.8	-5.8
Illinois	20725.3	8912.8	43.0	-1029.2	-5.0
Michigan	20333.5	2484.7	12.2	-1742.3	-8.6
Wisconsin	12283.1	-855.5	-7.0	-984.1	-8.0
Minnesota	10721.9	-1012.6	-9.4	-1000.0	-9.3
Iowa	8164.7	-654.2	-8.0	-419.5	-5.1
Missouri	13985.6	-595.7	-4.3	253.3	1.8
North Dakota	2413.1	-745.1	-30.9	-101.5	-4.2
South Dakota	2496.5	-705.8	-28.3	-104.3	-4.2
Nebraska	4334.5	-337.5	-7.8	-177.7	-4.1
Kansas	6645.8	-411.5	-6.2	-85.8	-1.3
Delaware	1149.2	368.0	32.0	-18.7	-1.6
Maryland	8607.6	1969.7	22.9	-340.7	-4.0
Washington, D.C.	4587.2	-2135.6	-46.6	-3384.7	-73.8
Virginia	15186.8	-1554.4	-10.2	842.8	5.5
West Virginia	7674.8	-2406.1	-31.4	679.6	8.9
North Carolina	20305.9	-5010.0	-24.7	1681.5	8.3
South Carolina	11666.6	-3805.7	-32.6	1105.6	9.5
Georgia	17064.0	-3505.5	-20.5	1048.3	6.1
Florida	20688.8	-488.0	-2.4	1344.1	6.5
Kentucky	13120.5	-3712.8	-28.3	609.7	4.6
Tennessee	16262.0	-4201.6	-25.8	1699.8	10.5
Alabama	15766.6	-5031.1	-31.9	1864.3	11.8
Mississippi	11531.6	-4578.7	-39.7	1514.8	13.1
Arkansas	9032.3	-3006.5	-33.3	1112.5	12.3
Louisiana	14793.2	-4125.7	-27.9	768.4	5.2
Oklahoma	9347.3	-1647.5	-17.6	781.5	8.4
Texas	37715.0	-5805.5	-15.4	760.8	2.0
Montana	2446.1	-514.9	-21.0	-10.9	-.4
Idaho	2769.8	-786.8	-28.4	-4.3	-.2
Wyoming	1068.2	-260.8	-24.4	-146.1	-13.7
Colorado	6307.0	-291.6	-4.6	-180.2	-2.9
New Mexico	4060.6	-1304.3	-32.1	-119.2	-2.9

State	FY 1970	Δ .A. (\$000)	Δ % .A.	Δ .A. (\$000)	% Δ .A.
Arizona	\$5872.1	-1058.8	-18.0	-197.5	-3.4
Utah	4015.8	-1383.7	-34.5	-484.0	-12.1
Nevada	898.9	476.3	53.0	4.1	.5
Washington	8016.2	1239.2	15.5	-229.9	-2.9
Oregon	5924.5	-25.9	-.4	52.8	.9
California	37413.8	17921.6	47.9	-433.9	-1.2
Alaska	519.8	216.6	41.7	-62.8	-12.1
Hawaii	1866.0	387.6	20.8	108.6	5.8

*See footnote 10.

**Less than .1%.

$$D_k = .099(MW18-44_k) + .244(MW45-54) + .346(MW55-64) + \\ .119(MNW18-44) + .312(MNW45-54) + .51(MNW55-64) + \\ .093(FW18-44) + .213(FW45-54) + .312(FW55-64) + \\ .175(FNW18-44) + .213(FNW45-54) + .56(FNW55-64)$$

The income estimate is

$$D_k = \sum_{y=1}^3 r_y \cdot n_{y_k}$$

The actual formula for this estimate is

$$D_k = .381(18-64 \text{ under } \$5000) + .133(18-64 \text{ } \$5000-9999) + \\ .087(18-64 \text{ } \$10000 \text{ plus}).$$

The age-sex-race-income composite estimate is simply

$$D_{asry} = \frac{D_{asr} + D_y}{2}$$

Columns 4 and 5 show the changes in allocation if only the population term in the Hill-Burton formula were eliminated. In this case the Disability estimate would be used, but would be weighted by per capita income (in the form of the allotment percentage), just as population is weighted by per capita income in the Hill-Burton formula. Thus, each state's share of the vocational rehabilitation authorization would be

$$\left(\frac{\text{Disabled}_s \cdot a_i^2}{\sum_{s=1}^{51} \text{Disabled}_s \cdot a_i^2} \right) T$$

Table III illustrates that substantial changes would occur with either use of the Disability estimate to reallocate funds. Table III also makes very clear the effect that the "fiscal capacity

equalizer" has on the allocation formula. The application of this weight to the Disability share not only reduces the change that would occur in most state budgets, but also reverses the direction of that change for more than half of the states.

The objective of this per capita income weight is to take account of differences in fiscal capacities of states. Our previous discussion showed that the Disability allocation also takes account of the income structure of states. Thus, Mississippi gets a larger share of federal funds by the Disability allocation than by a straight population allocation, and Massachusetts, a high per capita income state, receives a smaller allocation. The difference between this formula and the Hill-Burton formula, in terms of fiscal capacity, is the very strong weight given to per capita income by Hill-Burton.

The Disability share method allocates more accurately than the federal formula in terms of relative numbers of disabled persons in each state. Its allowance for demographic and income differences across states provides a better measure of need than the Hill-Burton population index. It also has the advantage of incorporating income information, which reflects the fiscal capacity of the states. In fact, the use of income distribution information, rather than the simple per capita income figure, gives a more accurate picture of the income structure in the states.

Thus, the Disability share method of allocation meets both the criteria described as important by the committee which chose the Hill-Burton formula in 1954. It provides "a reasonable measure of the relative numbers of physically handicapped persons in each state," and reflects "the relative financial capacities of the states." It

is an improvement over the Hill-Burton formula, on the first count, since population has been clearly shown by our study of prevalence not to be a good measure of the number of disabled in each state. On the second count, the decision between the two depends on how much weight is desired to be given to fiscal capacity and which measure of income is preferred. As Table III indicates, the fiscal capacity weighting can be applied to the Disability estimate and will still necessitate substantial changes from current federal allocations.

The Disability share formula is one that can be used for allocation both at the federal level and the state level. In this chapter, its operation as a replacement of the Hill-Burton formula has been demonstrated. In the next chapter, this formula will be applied to the problem of allocating case service funds within states.

CHAPTER II

ALLOCATION WITHIN STATES: THE CALIFORNIA EXAMPLE

Within states, the allocation of case service funds to district offices presents a parallel problem to the federal allocation problem. If the prevalence of disability varies with demographic factors, each district within a state will not necessarily have equal need for case service funds. Again, even an allocation formula based on the population within each district may fail to allocate funds in a way that reflects the differing needs among districts.

How do state agencies solve the allocation problem? A recent survey of ten representative states, by Abt Associates, gives some information on how Section 2 funds are distributed to district offices. Four states used the size of the population served by a district as the criterion. But only one state used it as the sole criterion. Another state, for example, distributed half the funds on the basis of population, and half according to some other criteria. Eight of the states said that their allocations were made for "other" reasons than the Abt survey specified (the Abt questionnaire provided the following choices, in addition to population and service type provided by the district: equal amounts distributed to each office; distribution by client type served; by the number of closures achieved by an office; by some other performance measure of the offices). Exploration into what these "other" bases were¹³ indicated that some

¹³Information made available by Abt Associates, Inc. (Cambridge, Mass.)

agencies do not distribute funds to district offices; some simply give block amounts to each district, following no specified criteria; and some use a combination of criteria such as the ones listed above.

Since we have chosen California as a case study for the state allocation problem, it is appropriate to specify in somewhat more detail what the allocation procedure is for that state.

Put most simply, counselors are assigned to a district, and then case service funds are "assigned" to a counselor (this "assignment" is an allocation procedure: the funds go to the district, not to the counselor). Counselors are assigned each year on the basis of the population of the district, on a per 1000 or per 100,000 basis. The total case service funds available in the state are then allocated among counselors. As a hypothetical example, let us consider a district, with a population in 1970 of 1,300,000. If the counselor assignment ratio were 2 per 100,000 population, this district would be assigned 26 counselors. Then, if the ratio of total state case service funds/counselor were \$39,000, this hypothetical district would receive \$1,014,000.

Thus, California reported itself in the Abt survey as basing its allocations to districts on the population of a district.

Of course, the system does not work quite this simply. Not all counselors are assigned on the basis of population, only about half are assigned in this way. Some counselors are assigned to special programs. Allocations made to these special programs are "skimmed off the top" of the case service funds, and then the remainder is allocated

in the form of computer print-outs and other unpublished material from the results of the Survey of State Directors of vocational rehabilitation agencies, performed as part of a contract from RSA.

on the population basis described above. In fiscal 1971-72, for instance, some \$8,000,000 of a \$16,000,000 case service budget was allocated on the population basis. The rest went to special projects and programs.

In fact, even this \$8,000,000 cannot be completely said to be allocated on the basis of population. This is the principle on which allocations are made. However, some districts place high in terms of 1970 population which do not show correspondingly high shares of fiscal 1971 case service funds. A typical example of this is the Anaheim district, which has had very great population growth in recent years. Because of a reluctance to take funds away from other, not-so-fast-growing districts, the allocations have not been able to keep pace with this growth. There is, then, a "stickiness" built into the process, where original allocations were, indeed, made on a population basis, but changes in population are not always able to be taken into account.

There are further complications, after the allocation is made, as to management of the funds and shifting among regions, but the basic allocation is as described above.

We have tried to elucidate some of the complications of the allocation procedure so as not to seem to be forcing an oversimplified description. The underlying basis, though, remains that case service funds are distributed according to the population of the districts, and it is this underlying basis that is being evaluated.

The process of allocating rehabilitation funds within states, then, is often not based on any concept of balancing resources with need on a geographic basis. Where there is such a concept, as in four of the ten survey states, population is used, as at the federal-state level, as a measure of the relative need of each district. In this chapter, the distribution of funds to three California districts is compared by alternative methods.

The three districts chosen are Oakland, Fresno, and Anaheim. The Oakland district consists of Alameda County (in the San Francisco Bay Area) and was chosen because it contains a large central city with a relatively high proportion of minority population. The Fresno district consists of a number of counties inclusive of large rural areas, and was chosen for this rural character. The Anaheim district consists of Orange County, in southern California, and was chosen as representative of a "suburban" district.¹⁴

Table IV shows the number of disabled adults in each district, and the corresponding prevalence rates of disability, as predicted by the Disability estimate, compared with the "population" (or 17.2% of the adults) method.

TABLE IV
COMPARISON OF ESTIMATES OF NUMBERS OF DISABLED (000) AND
PREVALENCE RATES OF DISABILITY (%) FOR ADULT POPULATION IN
SELECTED DISTRICTS

District \ Method	Disability estimate	17.2
Anaheim	118.1 (14.8%)	137.3 (17.2%)
Fresno	110.6 (17.4)	109.0 (17.2)
Oakland	105.3 (16.5)	109.8 (17.2)

It can be seen that accounting for differences in demographic composition of the districts causes substantial changes in the estimates

¹⁴ Ideally, a more homogeneous district than the Oakland district might have been chosen to represent a core city, low-income, minority area. The Watts district in Los Angeles was the obvious choice, but, unfortunately, 1970 Census data was not yet available for this area.

of disability: the Anaheim district, for example, shows about a 15% reduction in the number of disabled when demographic structure and income are taken into account; the Oakland district shows a lesser reduction; and the Fresno district shows a slight increase in the number of disabled. The pattern of allocations will also change, when demographic and income characteristics of districts are taken into account.

Table V compares the percent of California case service funds each district would receive under the Disability share allocation, as compared with a straight population allotment

$$\left(\frac{P_{\text{district}}}{P_{\text{Cal}}} \right)$$

TABLE V

PERCENTAGE OF CALIFORNIA CASE SERVICE FUNDS¹⁵ ALLOTTED TO
SELECTED DISTRICTS BY DISABILITY SHARE AND BY POPULATION SHARE

District	Method	Disability share	Population share
Anaheim		6.3%	7.1%
Fresno		5.9	5.9
Oakland		5.6	5.4

If allocations were made more closely in line with the number of disabled in each district, rather than on the basis of the general population of the districts, the share of funds going to the Anaheim district would decline, Oakland's share would increase, and there would be no effect on Fresno.

¹⁵Recall that this is the portion of the case service funds distributed on the basis of population by California, rather than the entire case service budget. See p. 17, above, for discussion of this distinction.

Table VI shows the actual budget effect to the three districts of allocating case service funds on the basis of the Disability share. Since the basis of the California allocation is population, but in fact this has not been adhered to, Table VI shows the change both from a population allotment, and from the actual fiscal 1971 allotment.

TABLE VI
POPULATION AND CURRENT ALLOCATIONS,¹⁶ AND CHANGE IN ALLOCATION
FOR SELECTED DISTRICTS BY DISABILITY SHARE ALLOCATION

	Population Share (\$)	Disability Share		FY1971 Share	Disability Share	
		Δ Share (\$)	Share (Δ%)		Share (\$)Δ	Share (Δ%)
Anaheim	\$564,628	-\$63,620	-11.3%	\$414,500	+\$87,478	+21.1%
Fresno	469,198	-	-	551,750	- 79,565	-14.4
Oakland	429,435	+15,905	+ 3.7	633,500	-187,679	-29.6

As with the federal-state allocation case, substantial budget changes will take place if the change is made from a population allocation. Such an allocation method is not a good indicator of relative need for funds in a district, when the concern is the size of the disabled population. In this example, Anaheim, a relatively higher-income, low minority area, would experience an 11.3% budget decrease. Oakland would increase its share. The redistribution necessitated from the actual 1971 allotments is even greater, reflecting the tendency of California district budgets to be tied to past allocations.

This process can be carried out for any state, and the resulting allocation pattern will reflect the relative need of each district for

¹⁶See footnote 15.

case service funds, based on the relative size of the disabled population in each district. The formula is exactly parallel to the one used for federal-state allocations, and incorporates the criteria of relative need and relative financial capacity. It is also a formula easily used in any state because of the ready availability of the data necessary for its computation.

APPENDIX

NUMBER OF DISABLED, AGED 18-64, AND PREVALENCE OF
DISABILITY FOR EACH STATE (1970 POPULATION)

State	Number of Disabled (000)	Prevalence of Disability (%)
Maine	90.35	16.93
New Hampshire	65.85	16.27
Vermont	39.60	16.49
Massachusetts	497.75	15.67
Rhode Island	88.70	16.35
Connecticut	266.65	15.49
New York	1713.80	16.47
New Jersey	652.80	15.98
Pennsylvania	1122.40	16.82
Ohio	952.25	16.32
Indiana	465.60	16.28
Illinois	1002.15	16.10
Michigan	771.55	15.84
Wisconsin	386.40	16.37
Minnesota	328.30	16.30
Iowa	253.95	16.94
Missouri	452.75	17.67
North Dakota	56.40	17.35
South Dakota	60.55	17.65
Nebraska	135.15	17.95
Kansas	210.80	17.09
Delaware	51.30	16.71
Maryland	357.65	16.25
Washington, D.C.	82.90	17.96
Virginia	460.95	17.12
West Virginia	178.15	18.39
North Carolina	517.20	17.79
South Carolina	265.80	18.40
Georgia	458.45	17.79
Florida	683.05	18.50
Kentucky	318.10	18.00
Tennessee	407.80	18.43
Alabama	363.00	19.27
Mississippi	235.10	20.42
Arkansas	203.75	19.78
Louisiana	360.70	18.53
Oklahoma	260.35	18.31
Texas	1078.95	17.39
Montana	65.30	17.52

APPENDIX (Cont.)

State	Number of Disabled (000)	Prevalence of Disability (%)
Idaho	67.05	17.58
Wyoming	27.30	18.93
Colorado	203.40	16.33
New Mexico	93.20	17.27
Arizona	162.75	16.86
Utah	89.00	15.96
Nevada	46.50	16.36
Washington	312.95	16.24
Oregon	199.45	17.09
California	1871.05	16.25
Alaska	24.90	14.37
Hawaii	76.20	16.93

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