

# Notes and Brief Reports

## Disability Filing Rates and Denial Rates\*

Disability protection has been an integral part of the old-age, survivors, and disability insurance program of the Social Security Act since 1954, when the "freeze" provisions to protect the benefit rights of disabled workers were enacted. It has been broadened in scope through the institution of monthly benefits for disabled workers and their dependents (and for dependent disabled sons and daughters of insured workers) and improved through changes in eligibility requirements and technical areas by successive amendments to the Social Security Act.<sup>1</sup>

For both freeze and cash benefit purposes, the definition of disability in the law requires that the worker be unable to engage in any substantial gainful activity because of any medically determinable physical or mental impairment. (Statutory blindness automatically constitutes disability with respect to the freeze but not with respect to the cash benefits.) The disabled worker, to be eligible for benefits, must have work credits for at least 5 out of the 10 years before his disability began.

Although the disability benefit program is a Federal program, the States play an important role in its administration. A designated agency in each State (and the District of Columbia and Puerto Rico), working under a written agreement with the Secretary of Health, Education, and Welfare, decides whether applicants for cash disability benefits are disabled. The States operate under national standards, criteria, and procedures established by the Department of Health, Education, and Welfare. All the disability decisions made by the States are reviewed for conformity with established standards and procedures by the Bureau of Old-Age and Survivors Insurance.<sup>2</sup> Since disability decisions are

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<sup>1</sup> For greater detail on the expansion and improvements in the program, see Arthur E. Hess, "Five Years of Disability Insurance Benefits: A Progress Report," pages 3-14, this issue.

<sup>2</sup> A few cases—currently about 5 percent of new claims—are decided directly by the Bureau of Old-Age and Survivors Insurance. These are cases in which (1) the applicant is living in a foreign country or is a career railroad worker, (2) an applicant, in certain circumstances, does not meet the insured-status requirements in the law before or after the date his disability began, and (3) the applicant refuses to submit medical evidence.

made in 52 different jurisdictions, the problem of achieving uniform application of standards and uniform treatment of claimants is much greater than if the decisions were being made by a compact group of evaluators working under a single administrative direction.

### STATE VARIATIONS IN DENIAL RATES

Statistics on operations in a given period invariably show sizable State-to-State differences in disability denial rates—the proportion of claimants for whom a disability has not been allowed. This variation is found even if only cases denied for medical reasons are considered and cases denied for technical reasons, such as failure to meet the work requirements, are excluded. Such differences have persisted during the years since the program's beginning.

For the first quarter of 1962, for example, the denial rate for workers averaged 36 percent nationally. The proportion of denials, State by State, ranged from 25 percent to 48 percent. Such differences have often been interpreted as reflecting a lack of uniform application of evaluation policies and standards among the States.

Routine administrative procedures established by the Bureau of Old-Age and Survivors Insurance have focused on this problem of assuring uniformity among the States in applying evaluation policies and standards. All disability decisions made by the States are reviewed centrally by the Bureau of Old-Age and Survivors Insurance for this purpose. When the Bureau questions the propriety of the disability decision, the case is returned to the State for further consideration. In such cases, the Bureau may suggest that the State agency (a) reverse its finding, (b) change the date of onset of disability, or (c) obtain additional evidence, including the purchase of a consultative medical examination. About 10 percent of the decisions made by the States are returned to them for further consideration as a result of this review process.

There is some evidence that Bureau review of State determinations has operated to reduce the differences in denial rates among individual States. For July-September 1960, the disability denial rate averaged 36 percent for the Nation as a whole. The State-to-State variation in denial rates (as measured by the standard deviation) indicates that, for about two-thirds of the States, the rates differed from the

national average by 5.8 percent or less. For the first quarter of 1962, the comparable difference was 4.2 percent even though nationally the denial rate still averaged 36 percent.

Though differences in denial rates among the States have narrowed, they still persist. This persistence suggests that there is some explanation other than lack of uniformity among the States in applying policies and standards. In fact, studies made by the Bureau have indicated that, to a large

TABLE 1.—Denial rates for OASDI disability claims in 1960 and selected indicators of filing rates, ranked by State<sup>1</sup>

State	Denial rate, OASDI disability claims, 1960 <sup>2</sup>		Per capita personal income, 1959 <sup>3</sup>		APTD recipients, June 1959, per 1,000 population aged 18-64 <sup>4</sup>		Percent of population aged 25 and over with less than 5 years' schooling, 1950 <sup>5</sup>	
	Percent	Rank	Amount	Rank	Number	Rank	Percent	Rank
New Mexico.....	50.8	1	1,833	31	5.4	13	18.0	9
Louisiana.....	45.0	2	1,575	38	9.5	1½	28.7	1
Colorado.....	43.7	3	2,123	18	6.0	11	7.1	30
Texas.....	43.2	4	1,908	29	1.0	41½	15.8	12
Georgia.....	42.6	5	1,553	39	9.5	1½	24.2	4
Kentucky.....	42.5	6½	1,514	42	4.9	15½	16.8	11
West Virginia.....	42.5	6½	1,635	37	6.9	8	13.7	15
Tennessee.....	42.1	8	1,521	41	4.1	18½	18.3	8
Montana.....	41.9	9	1,955	27	3.9	21	6.3	36½
North Dakota.....	41.3	10½	1,526	40	3.1	29	8.8	24
Oklahoma.....	41.3	10½	1,786	34	7.2	7	10.9	16½
Arkansas.....	41.0	12½	1,322	47	8.0	3½	19.8	7
Nebraska.....	41.0	12½	1,981	23	2.0	34½	4.9	43
Minnesota.....	40.8	14	1,962	25	1.2	39½	5.8	38½
North Carolina.....	40.7	15	1,485	43	7.3	6	21.1	6
South Carolina.....	40.6	16	1,332	46	6.5	10	27.4	2
Mississippi.....	40.4	17	1,162	48	8.0	3½	25.2	3
Missouri.....	39.9	19	2,145	17	6.6	9	8.4	25
Oregon.....	39.9	19	2,171	14	5.1	14	4.3	46½
South Dakota.....	39.9	19	1,476	44	3.1	29	5.8	38½
Maryland.....	39.7	21	2,343	9	3.2	26	10.9	16½
Maine.....	39.4	22	1,768	36	3.7	23½	6.7	34
Indiana.....	39.1	23	2,102	20	(6)	-----	6.6	35
Washington.....	38.6	24	2,272	11	4.1	18½	4.7	44½
Alabama.....	38.1	25	1,409	45	7.4	5	22.6	5
Wyoming.....	37.3	26	2,149	16	3.2	26	5.7	40
California.....	37.1	27½	2,661	5	.8	43	6.8	32½
Idaho.....	37.1	27½	1,782	35	2.9	31½	4.7	44½
Kansas.....	36.7	29½	1,994	22	3.8	22	5.0	42
Massachusetts.....	36.7	29½	2,444	8	3.7	23½	7.9	26
Illinois.....	36.6	31	2,610	6	3.1	29	7.8	27
Florida.....	36.3	32	1,980	24	3.2	26	13.8	14
Vermont.....	35.6	33	1,789	33	4.2	17	5.5	41
Iowa.....	34.3	34	1,953	28	(6)	-----	3.9	48
Ohio.....	34.1	35	2,328	10	2.0	34½	6.9	31
Utah.....	33.9	36	1,848	30	4.9	15½	4.3	46½
Virginia.....	33.8	37	1,816	32	2.9	31½	17.5	10
Connecticut.....	33.3	38	2,817	2	1.6	37	8.9	23
Arizona.....	33.2	39	1,959	26	(6)	-----	14.2	13
Delaware.....	32.6	40	2,946	1	1.3	38	9.7	18½
Wisconsin.....	32.5	41	2,116	19	.6	44	7.2	20
New Hampshire.....	32.0	42	2,010	21	1.2	39½	6.3	36½
Rhode Island.....	31.8	43	2,156	15	5.6	12	9.7	18½
Pennsylvania.....	31.7	44	2,222	13	2.5	33	9.4	21
New Jersey.....	31.5	45	2,608	7	1.8	36	9.2	22
Michigan.....	31.3	46	2,253	12	1.0	41½	7.5	28
New York.....	30.5	47	2,736	4	4.0	20	9.5	20
Nevada.....	29.8	48	2,745	3	(6)	-----	6.8	32½

<sup>1</sup> Excludes Alaska, the District of Columbia, Hawaii, and Puerto Rico; comparable data not available.

<sup>2</sup> Based on initial State agency worker-determinations approved by the Bureau during 1960; includes cases denied for technical reasons.

<sup>3</sup> Data from the Department of Commerce, Office of Business Economics.

<sup>4</sup> Data from the Bureau of Family Services.

<sup>5</sup> Data from the 1950 Census of Population.

<sup>6</sup> No program.

extent, the variations reflect economic, social, and demographic differences among the States in applicant characteristics. Populations of the States differ significantly in age and sex distributions, educational levels, types of impairment, incidence of disability, occupational skills, employment opportunities, economic conditions, etc. Such differences must obviously be reflected in interstate differences in the characteristics of persons filing for disability benefits as well as in the relative number filing—that is, in the filing rates.

The Bureau has found, for example, that, among the applicants for disability benefits, less skilled workers are relatively older than workers with higher skills and are therefore likely to be affected by one or more of the chronic illnesses characteristic of later years.<sup>3</sup> Such workers are often employed in mass-production industries with collectively bargained pension plans that provide for early disability retirement and that are occupationally oriented. When ailments of such workers become pronounced, they may therefore be retired for disability under an industrial pension plan. At the same time their ability to transfer to another type of work is limited by lack of education, and so they file for disability benefits under the Social Security Act. Furthermore, such workers are more generally affected than skilled workers by troughs in the business cycle. Consequently, during seasonal slumps or adverse economic conditions relatively more of them may file for benefits. These men and women may be too disabled to carry on their usual jobs, but their impairments are frequently not severe enough to result in "inability to engage in any substantial gainful activity," as required by the definition of disability under the Social Security Act. As a result, their applications are eventually disallowed.

#### INDIRECT INDICATORS OF FILING RATES

Unfortunately, data are not yet available that permit the direct and precise measurement of filing rates—the ratio of the number filing to the number insured—by age and sex for each State. In their absence, this note explores the relationship of denial rates to other indicators that one would expect to be associated with filing rates for the individual States.

<sup>3</sup> See *Occupational Characteristics of Disabled Workers, January-December 1957, Disability Operations Note No. 7, Bureau of Old-Age and Survivors Insurance, September 1961.*

The indicators analyzed are per capita income, education, and the number of persons receiving assistance payments under aid to the permanently and totally disabled per 1,000 population aged 18-64.

Although these three indicators are certainly interrelated, they are analyzed separately to emphasize the relationship between denial rates and filing rates. The data for each of these factors are presented in table 1, with State denial rates on initial determinations for 1960.<sup>4</sup> The figures on per capita personal income pertain to 1959, and the data for aid to the permanently and totally disabled represent the number of recipients per 1,000 population aged 18-64 in June 1959. The data on education are derived from the 1950 Census (the most recent available at the time of writing) and show the percentage of the population aged 25 and over with less than 5 years' schooling. The relation of each of these factors to denial rates is explored by rank correlation analysis.

#### **Level of Individual Economic Resources**

There seems to be little doubt that economic need plays a role in stimulating disability applications. In depressed areas, for example, where this need is greater, a relatively greater number of applications would obviously be expected from persons who are unemployed but whose physical impairment is not severe enough to meet the test of disability under old-age, survivors, and disability insurance and whose applications would therefore be denied. Using 1959 per capita income as a measure of the level of individual economic resources, the relationship between per capita income in each State and the 1960 State denial rates was measured by means of rank correlation. The results showed that States with relatively high per capita incomes had relatively low denial rates (the value of the Spearman rank correlation coefficient is  $-0.61$  and is statistically significant).<sup>5</sup>

<sup>4</sup> The analysis of State denial rates and the indirect indicators of filing rates excludes data for Alaska, the District of Columbia, Hawaii, and Puerto Rico and is concerned only with worker applicants.

<sup>5</sup> The value of the rank correlation coefficient may range from "0" (no correlation) to "+1" or "-1" (perfect correlation). The algebraic sign indicates whether the correlated measures increase together in magnitude or whether one decreases as the other increases. A value of  $-0.61$ , as found above, is fairly high and indicates that the association between denial rates and filing rates (as measured by per capita income) is substantial.

#### **Level of Education**

Another factor likely to stimulate disability filing, perhaps indirectly, from persons whose disability is not severe is limited education. Lack of education is likely to be associated with low income, and—as indicated above—low income is in itself a factor contributing to the filing of disability claims by people with a physical impairment not severe enough to meet the test of disability under old-age, survivors, and disability insurance.

Furthermore, a low level of educational attainment is likely to limit alternative employment opportunities because it is most often associated with the kinds of vocational skills that have little transferability. A low level of education acts, therefore, to strengthen the sensitivity of unskilled workers to economic and social dislocation and to encourage the filing of disability applications. Thus, one would expect a low level of education to be associated with relatively high denial rates.

Here again, rank correlation analysis showed that where a relatively high proportion of the population has a limited education, the States tend to have relatively high denial rates. (The value of the Spearman rank correlation coefficient for the relationship between education level and disability denial rates is  $+0.30$ .)

#### **Recipients of Aid to the Permanently and Totally Disabled**

A third factor studied was the extent to which residents of various States are recipients of aid to the permanently and totally disabled. The relationship of this factor to disability denial rates can be explained in at least two contexts. First, the number of persons receiving aid to the permanently and totally disabled is to some degree an indication of economic hardship resulting from disability. Second, the State assistance programs for the disabled are probably direct sources of applicants for disability insurance benefits since, in the investigation of need to establish a person's eligibility for assistance, it is necessary to include a determination of his benefit status under old-age, survivors, and disability insurance. Thus, the more persons there are applying for aid to the permanently and totally disabled in a State, the more applications for disability insurance benefits the Bureau of Old-Age and Survivors Insurance is likely to receive.

Rank correlation analysis was used to measure for each State the relationship between 1960 disability denial rates and the number of recipients of aid to the permanently and totally disabled per 1,000 population aged 18-64. The relationship found between these two variables was significant. States with relatively high numbers of recipients of aid to the permanently and totally disabled per population unit also had relatively high denial rates. (The value of the Spearman rank correlation coefficient is +0.51.)

A comparison of experience under aid to the permanently and totally disabled with experience under the disability benefit provisions of old-age, survivors, and disability insurance is also instructive, especially since disability determinations are made by different agencies for each of the programs in all but four States. Table 2 gives comparative State denial rates for initial disability cases under old-age, survivors, and disability insurance and for applications for aid to the permanently and totally disabled in April-June 1961. The rankings under the two programs are similar. (The rank order correlation coefficient was found to be +0.52 and is statistically significant.) Thus, the States with high denial rates under the old-age, survivors, and disability insurance program also had high denial rates under aid to the permanently and totally disabled.

The coverage of aid to the permanently and totally disabled differs, of course, from that of the disability benefit program under old-age, survivors, and disability insurance. The former excludes individuals who are institutionalized as a result of tuberculosis or mental disease. Major eligibility requirements for aid to the permanently and totally disabled—the definitions of permanent and total disability and the property and income limitations—also vary greatly among the States. The relative liberality or restrictiveness of these provisions in a State program in turn affects the State's denial rate for this type of assistance. In the light of these factors, the relationship between State denial rates under aid to the permanently and totally disabled and disability denial rates under old-age, survivors, and disability insurance becomes even more meaningful.

## CONCLUSION

When State per capita income, educational levels, and recipient rate for aid to the permanently and

totally disabled are used as indirect indicators of high filing rates, the data show that high denial rates are likely in a State ranking low in per capita income and high in the proportion of poorly educated inhabitants and the number of recipients of aid to the permanently and totally disabled per unit of population. Conversely, a State at the opposite end of the scale on these factors may be expected to have low denial rates. Despite the absence of direct indicators of filing rates, the present data permit at least the tentative adoption of two conclusions: (1) the economic, social, and demographic characteristics of applicants are related to the decision to

TABLE 2.—Rank of denial rates by State, April-June 1961, for OASDI disability claims and applications for aid to the permanently and totally disabled, 45 States<sup>1</sup>

State	OASDI disability claims <sup>2</sup>		Applications for APTD <sup>3</sup>	
	Percent	Rank	Percent	Rank
South Carolina	55.3	1	54.7	15
Tennessee	54.3	2	61.6	8
Georgia	53.9	3	54.0	16
Kentucky	53.8	4	64.3	4
West Virginia	53.0	5	49.9	25
New Mexico	52.8	6	51.4	19
Texas	52.2	7	63.5	6
Louisiana	51.7	8	66.9	2
Alabama	51.0	9	62.2	7
Mississippi	50.7	10	70.4	1
Ohio	50.6	11	35.0	36
Oklahoma	49.6	12	57.7	12
North Carolina	49.1	13½	39.9	31½
Washington	49.1	13½	50.4	21
Arkansas	48.7	15	63.9	5
Illinois	47.5	16	50.2	22
Maryland	46.7	17	34.1	37
Rhode Island	46.5	18	53.3	17
Virginia	45.7	19	54.8	14
California	45.6	20½	45.0	26½
South Dakota	45.6	20½	50.0	24
North Dakota	45.5	22	41.5	29
Oregon	45.3	23	50.1	23
Wyoming	44.0	24	14.3	43
Missouri	43.8	25	61.3	9
Maine	43.4	26½	59.2	10½
Montana	43.4	26½	31.7	39
Florida	43.2	28	65.1	3
Colorado	42.9	29	39.6	33
Utah	42.5	30	12.3	45
Massachusetts	41.3	31	39.9	31½
Kansas	41.2	32	61.0	20
Idaho	40.9	33	20.8	42
Michigan	40.8	34	45.0	26½
Wisconsin	38.9	35	38.2	34
Connecticut	38.1	36	59.2	10½
New Jersey	37.3	38	55.8	13
New York	37.3	38	28.9	41
Pennsylvania	37.3	38	13.8	44
Minnesota	37.2	40	36.3	35
Delaware	35.9	41	32.0	38
Iowa	35.3	42	53.1	18
Nebraska	34.9	43	29.4	40
New Hampshire	34.0	44	41.8	28
Vermont	32.1	45	40.0	30

<sup>1</sup> Excludes the District of Columbia, Hawaii, and Puerto Rico (comparable data not available) and Alaska, Arizona, Indiana, and Nevada (no program of aid to the permanently and totally disabled during the period).

<sup>2</sup> Based on initial State agency worker-determinations approved by the Bureau; excludes cases denied for reasons other than failure to meet the disability test.

<sup>3</sup> Based on data from the Bureau of Family Services. Denial rates represent the proportion that applications not approved were of all applications disposed of during the period. The number of applications not approved may include some disposed of because of voluntary withdrawal or death of the applicant.

file and the likelihood of denial; and (2) to the extent that such characteristics are not uniformly spread throughout geographic regions, State differences in denial rates will persist despite uniform application of standards.

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## Assistance Expenditures Per Inhabitant, 1960-61\*

The per capita cost of public assistance payments went up moderately in the fiscal year 1960-61, largely as a result of that year's recession. Payments under all six categories combined, including the new program of medical assistance for the aged, amounted to \$3,939 million from Federal, State, and local funds; \$589 million was in the form of direct agency payments to suppliers of medical care for recipients. All assistance payments equaled \$21.44 per inhabitant for the country as a whole—an increase of \$1.06 per capita, or 5.2 percent, from costs a year earlier. The per capita expenditures for public assistance in both years represented one cent out of each dollar of per capita income in the United States.

Assistance expenditures per inhabitant are derived by dividing the total outlay for assistance payments from Federal, State, and local funds in a given State or in the Nation by the total population of that State or the Nation. Dividing aggregate amounts equally among all persons in the population is a common statistical device that is perhaps best known for its use in studying per capita income data. It is also useful, however, in analyzing assistance payments, because it facilitates a comparison of expenditures among programs, from year to year and from State to State.

The States vary in their total outlay for assistance payments because of differences in the average amount of assistance paid per recipient, the proportion of the population aided (recipient rates), and the size of their population. By reducing expenditures to an amount per inhabitant the effect of variations in population size is removed, and there remain only differences in the combined effect of variations in recipient rates and average monthly payments.

Underlying the variations among States in

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\* Prepared by Frank J. Hanmer, Division of Program Statistics and Analysis, Bureau of Family Services.

recipient rates and average monthly payments to recipients are differences in social and economic conditions and in the scope of the assistance programs that the States have established to alleviate need. Aggregate assistance payments in 1960-61 for all programs combined, for example, amounted to \$5.9 million in Nevada and to \$47.1 million, or eight times as much, in Indiana. Yet when differences in the population are removed, it can be readily seen that the cost per capita in Nevada (\$20.07) was about twice that in Indiana (\$9.91).

### CHANGES FROM 1960

Two events with great significance for public assistance occurred during 1960-61. Of primary importance in raising per capita expenditures was the economic recession of the winter months, which brought about an increase in the need for assistance. The increase was more marked in aid to dependent children and general assistance—the two programs most keenly affected by economic changes—than in the other assistance programs.

Of secondary importance as far as expenditures for 1960-61 are concerned but of great long-term significance were the 1960 amendments that established a new program of medical assistance for the aged and, in old-age assistance, increased Federal participation in States making direct agency payments to suppliers of medical goods and services (vendor payments). The 1961 legislation amending the program of aid to dependent children did not become effective until May 1961 and therefore did not materially affect payments for 1960-61. These amendments extended the program to children of unemployed parents and provided for the continuation of assistance for selected children placed in foster homes as a result of a court order.

Per capita expenditures in 1960-61 rose noticeably in three of the five categories that were in existence in 1959-60 and remained about the same in the other two. The largest proportionate increase (10.1 percent) occurred in aid to the permanently and totally disabled, but sizable expansion (about 8.5 percent) also took place in aid to dependent children and in general assistance. The largest dollar rise (47 cents) occurred in aid to dependent children, and this increase together with that for general assistance (20 cents) accounted for 63 percent of the total for all programs.

Expenditures under the new program of medical