

among families by employee contributions, by benefits, or by some other series. The property rights of individuals in these trust funds are often quite uncertain; thus, the allocation of these fund increases among families becomes extremely difficult both conceptually and empirically.

In this paper, the tax rate is the ratio of an economic status class' tax to its adjusted before tax-before transfer income (or AGI); benefit rate is the ratio of a class' transfer payment or tax benefit to its adjusted before tax-before transfer income (or AGI); net benefit rate is the ratio of a class' benefit minus tax to its adjusted before tax-before transfer income (or AGI). A tax is progressive, proportional, or regressive when the tax rate increases, remains constant, or decreases, respectively, as the welfare ratio (or AGI) increases; a benefit is progressive, proportional, or regressive when the benefit rate decreases, remains constant, or increases, respectively, as the welfare ratio (or AGI) increases; the net benefit is progressive, proportional, or regressive when the net benefit rate decreases, remains constant, or increases, respectively, as the welfare ratio (or AGI) increases.

TABLE 2.—AMOUNTS OF BENEFITS, TAXES OR CONTRIBUTIONS, AND NET BENEFITS, BY PROGRAM AND AGE OF HEAD, 1960-61 AVERAGES

[In millions of dollars]

| Program and age of head                    | Benefit | Unadjusted<br>tax or con-<br>tribution | Adjusted<br>tax or con-<br>tribution | Unadjusted<br>net benefit | Adjusted<br>net benefit |
|--------------------------------------------|---------|----------------------------------------|--------------------------------------|---------------------------|-------------------------|
| Public assistance:                         |         |                                        |                                      |                           |                         |
| All families.....                          | 3,318   | 3,318                                  | 3,318                                | 0                         | 0                       |
| Head under age 65.....                     | 2,343   | 2,854                                  | 2,854                                | -511                      | -511                    |
| Head aged 65 or over.....                  | 975     | 464                                    | 464                                  | 511                       | 511                     |
| Veteran and military programs:             |         |                                        |                                      |                           |                         |
| All families.....                          | 4,610   | 4,610                                  | 4,610                                | 0                         | 0                       |
| Head under age 65.....                     | 3,126   | 3,932                                  | 3,932                                | -806                      | -806                    |
| Head aged 65 or over.....                  | 1,484   | 678                                    | 678                                  | 806                       | 806                     |
| Social security:                           |         |                                        |                                      |                           |                         |
| All families.....                          | 11,873  | 12,126                                 | 11,873                               | -253                      | 0                       |
| Head under age 65.....                     | 2,897   | 11,328                                 | 11,050                               | -8,431                    | -8,153                  |
| Head aged 65 or over.....                  | 8,976   | 798                                    | 823                                  | 8,178                     | 8,153                   |
| Government civilian and railroad pensions: |         |                                        |                                      |                           |                         |
| All families.....                          | 2,981   | 4,911                                  | 2,981                                | -1,930                    | 0                       |
| Head under age 65.....                     | 873     | 4,631                                  | 2,904                                | -3,758                    | -2,031                  |
| Head aged 65 or over.....                  | 2,108   | 280                                    | 77                                   | 1,828                     | 2,031                   |
| Private pensions:                          |         |                                        |                                      |                           |                         |
| All families.....                          | 1,762   | 5,437                                  | 1,762                                | -3,675                    | 0                       |
| Head under age 65.....                     | 449     | 5,036                                  | 1,785                                | -4,587                    | -1,336                  |
| Head aged 65 or over.....                  | 1,313   | 401                                    | -23                                  | 912                       | 1,336                   |
| Combined programs:                         |         |                                        |                                      |                           |                         |
| All families.....                          | 24,544  | 30,402                                 | 24,544                               | -5,858                    | 0                       |
| Head under age 65.....                     | 9,688   | 27,781                                 | 22,525                               | -18,093                   | -12,837                 |
| Head aged 65 or over.....                  | 14,856  | 2,621                                  | 2,019                                | 12,235                    | 12,837                  |

There are various ways of comparing the progressivity of different taxes or benefits. By looking at cumulative percentage distributions by welfare classes, one can easily determine whether benefit or tax A is on the average (1) more progressive than B; (2) less progressive than B, or (3) not clearly either more or less progressive than B. For example, let us examine the upward cumulative percentage distributions of tax A and tax B. If for every welfare interval (under 0.50, under 0.75, etc.) A's cumulative percentage is greater than (is less than) B's cumulative percentage, then tax A is less (more) progressive than tax B. If A's cumulative percentage is greater than B's for some welfare interval and less than B's for others, then tax A on the average is not clearly either more or less progressive than tax B.