

September 21, 1971

### County Auditor's Steps in Base Sharing

(In the example below, for easy explanation, we will use the term "municipality" where we are talking about the assessment district.)

#### Step I

For ease in calculating the total assessed valuation of all the taxing districts in the municipality, the first step should be to determine the percentage of the total commercial-industrial valuation in the municipality which has been excluded and made a part of the areawide tax base. The county auditor can proceed with this step before the administrative auditor reports the municipality's share of the areawide tax base. In effect, in this step we determine the proportion which 40% of the net growth in commercial-industrial bears to the total value of commercial-industrial in the community. For purposes of later identification, let's call this proportion the MCII (Metropolitan Commercial-Industrial Index).

The following formula can be used to calculate the MCII:

$$\frac{\left( \begin{array}{r} \text{Current year} \\ \text{Commercial-} \\ \text{industrial} \\ \text{valuation} \end{array} - \begin{array}{r} \text{1971} \\ \text{Commercial-} \\ \text{industrial} \\ \text{valuation} \end{array} \right) \times .4}{\text{Current year commercial-industrial valuation}} = \text{MCII}$$

Example:

$$\frac{\left( \begin{array}{r} \$10 \text{ million} \\ \text{current} \end{array} - \begin{array}{r} \$9 \text{ million} \\ \text{in 1971} \end{array} \right) \times .4}{\$10 \text{ million}} = 4\%$$

Thus, in this example, the MCII is 4%. Put another way, 4% of each parcel of commercial-industrial valuation has been excluded from the local base and made part of the metropolitan base.

The remainder, of course, is local, which can be called the LCII (Local Commercial-Industrial Index), which in the above example is 96%.

Step I is done at the level of the municipality, not the taxing district. But the same MCII and LCII is used for every taxing district within the municipality.

Special note: If there has been no growth or a decrease in commercial-industrial valuation in the municipality over 1971, then the MCII is zero and the LCII is 100%.

Step 2

This is another preliminary step for calculating the assessed valuation of each taxing district in the municipality. It can also be taken before the county auditor knows what the municipality's share of the new areawide base will be. In this step, the auditor calculates the percentage which the residential valuation in each taxing district bears to the residential valuation of the municipality. This percentage will later be used in calculating each taxing district's share of the areawide base. For purposes of later identification, let's call this proportion the TDRI (Taxing District's Residential Index).

The following formulas can be used to calculate the TDRI

$$\frac{\text{Current Year Residential valuation in the taxing district}}{\text{Current Year Residential valuation in the municipality}} = \text{TDRI}$$

Example:

$$\frac{\$3 \text{ million residential valuation in the taxing district}}{\$9 \text{ million residential valuation in the municipality}} = 1/3$$

Thus, in this example, the taxing district will be entitled to 1/3 of the areawide tax base which is apportioned to that municipality.

Of course, in the case of a taxing district which encompasses 100% of the municipality, its TDRI will be 100%.

Step 3

This step is taken when the administrative auditor has reported each municipality's share of the areawide tax base. For purposes of later identification, let's call this MSATB (Municipality's Share of Areawide Tax Base). Now the county auditor "builds" the assessed valuation for each taxing district in the municipality. He adds the following (a) all residential valuation, plus (b) commercial-industrial valuation less the percentage which has been made part of the areawide tax base, called the MCII, plus (c) the taxing district's proportionate share of the areawide tax base assigned to the municipality.

The formula:

$$\text{Assessed Valuation} = \left( \begin{array}{l} \text{current year} \\ \text{residential} \\ \text{(and all other} \\ \text{property not} \\ \text{identified as} \\ \text{commercial-} \\ \text{industrial)} \end{array} \right) + \left( \begin{array}{l} \text{current year} \\ \text{commercial-} \\ \text{industrial} \\ \text{less} \\ \text{amount excluded} \\ \text{to be made} \\ \text{part of areawide} \\ \text{tax base} \end{array} \right) + \left( \begin{array}{l} \text{taxing dis-} \\ \text{trict share} \\ \text{of areawide} \\ \text{tax base} \end{array} \right)$$

Using the abbreviations we developed in the above steps, the formula reads:

$$\text{Assessed Valuation} = \left( \begin{array}{l} \text{current year} \\ \text{residential} \\ \text{(and all other} \\ \text{property not} \\ \text{identified as} \\ \text{commercial-} \\ \text{industrial)} \end{array} \right) + \left( \begin{array}{l} \text{current year} \\ \text{commercial-} \\ \text{industrial} \end{array} \times \text{LCII} \right) + \left( \text{MSATB} \times \text{TDR1} \right)$$

Here is an example, assuming that there are three overlapping school districts in the municipality and also that a watershed district goes through part of the municipality:

$$\left( \begin{array}{l} \text{Municipality's} \\ \text{Assessed Valuation} \end{array} \right) = \left( \begin{array}{l} \$9 \text{ million} \\ \text{residential} \end{array} \right) + \left( \begin{array}{l} \$10 \text{ million} \\ \text{commercial-} \\ \text{industrial} \end{array} \times 96\% \right) + \left( \$600,000 \times 100\% \right)$$

\* \* \* \* \*

$$\left( \begin{array}{l} \text{School District} \\ \text{"A" Assessed} \\ \text{Valuation} \end{array} \right) = \left( \begin{array}{l} \$1 \text{ million} \\ \text{residential} \end{array} \right) + \left( \begin{array}{l} \$5 \text{ million} \\ \text{commercial-} \\ \text{industrial} \end{array} \times 96\% \right) + \left( \$600,000 \times 1/9 \right)$$

$$\left( \begin{array}{l} \text{School District} \\ \text{"B" Assessed} \\ \text{Valuation} \end{array} \right) = \left( \begin{array}{l} \$3 \text{ million} \\ \text{residential} \end{array} \right) + \left( \begin{array}{l} \$3 \text{ million} \\ \text{commercial-} \\ \text{industrial} \end{array} \times 96\% \right) + \left( \$600,000 \times 3/9 \right)$$

$$\left( \begin{array}{l} \text{School District} \\ \text{"C" Assessed} \\ \text{Valuation} \end{array} \right) = \left( \begin{array}{l} \$5 \text{ million} \\ \text{residential} \end{array} \right) + \left( \begin{array}{l} \$1 \text{ million} \\ \text{commercial-} \\ \text{industrial} \end{array} \times 96\% \right) + \left( \$600,000 \times 5/9 \right)$$

\* \* \* \* \*

$$\left( \begin{array}{l} \text{Watershed} \\ \text{District} \\ \text{Assessed Valuation} \end{array} \right) = \underbrace{\left( \begin{array}{l} \$2 \text{ million} \\ \text{residential} \end{array} \right) + \left( \begin{array}{l} \$4 \text{ million} \\ \text{commercial-} \\ \text{industrial} \end{array} \times 96\% \right)}_{\text{LOCAL}} + \underbrace{\left( \$600,000 \times 2/9 \right)}_{\text{AREAWIDE}}$$

LOCAL

AREAWIDE

Step 4

As soon as the county auditor has calculated the assessed valuation of each taxing district in the municipality, he is ready to assemble the total assessed valuation of those taxing districts which pass through more than one municipality.

The assessed valuation of each taxing district in the municipality appears in two parts, local and areawide, as seen in the above example.

If school district "A" for example, passes through two municipalities, he adds the local valuation in both municipalities and the areawide valuation in both municipalities which is attributable to school district "A" and thereby develops the total valuation of the school district.

Step 5

With the assessed valuation determined for each taxing district, the auditor is ready to spread the levy.

First, he divides the levy in the same proportion as the assessed valuation is divided between local and areawide. For example, if a municipality's valuation of \$10,200,000 is divided \$9,600,000 and \$600,000, which is 94.1% local and 5.9% areawide, he divides the municipality's levy in the same proportion. Thus, if the municipality certifies a levy of \$300,000, he will divide that levy into two parts: \$282,300 local and \$17,700 areawide.

He then certifies the areawide levy to the administrative auditor and awaits word from the administrative auditor as to what the areawide tax rate will be. The areawide tax rate will be determined by adding all the areawide levies by the various taxing districts and dividing by the areawide tax base. The areawide tax rate will then be applied to the portions of each parcel of commercial-industrial property which were excluded from the local base. (see Step 1, the MCH)

While the county auditor is waiting for the areawide tax rate, he can proceed to calculate the local tax rate, which is calculated by spreading the local levy against the local valuation. Thus, in the above example, the local levy of \$282,300 is spread against the \$9,600,000 to come up with a tax rate of 29.4 mills. This rate is applied to all residential valuation and to the portion of the commercial industrial valuation which does not bear the areawide tax rate.