

## Economic Base Study

1. Compute the location quotient for each city industry.
2. For each city industry with a location quotient  $> 1.0$ , calculate the base employment as follows:

$$B_i = \left[ \frac{L_i - 1}{L_i} \right] \cdot t_i$$

where

$B_i$  – Base employment in industry  $i$

$L_i$  – Location quotient for industry  $i$

$T_i$  – Total employment in industry  $i$

3. Compute total base employment for the city by summing step 2, i.e.,  $\sum_{i=1}^n B_i$
4. Divide the city's total employment by total base employment from step 3 to get the base multiplier.
5. Forecast base employment for a future year.
6. Multiply step 4 by step 5 to get the forecast of total city employment.

### Example

Industry	$L_i$	Base Employment
1	1.0	0
2	2.14	1,000
3	0.63	0
4	2.78	1,200
5	0.79	0
6	0.86	0
		2,200

If total employment in the city is 6,000, the multiplier is  $6,000/2,200 = 2.73$

Suppose base employment is forecast to increase 5% between 2007 and 2008. The forecast base employment in 2008 is  $2,200 (1.05) = 2,310$

The forecast of total employment in 2008 is the forecast of base employment in 2008 multiplied by the base multiplier.  $T = 2,310 (2.73) = 6,306$