

We can see that 'B' is the point of equilibrium before immigration where 'OL' amount of labour is employed at 'OW' real wage.

∴ Total labour cost incurred to the producer before immigration

$$= OL \times OW$$

$$= ar(OWBL)$$

Now, after immigration, we see that the point of equilibrium is changed to 'D' where 'OL' amount of labour is employed at 'OW'' real wage.

We find that after immigration, the amount of labour employed increases and the real wage decreases.

Therefore, if we compare the present situation with previous then we find that before immigration 'OL' amount of labour is employed at higher real wage ($\because OW > OW'$)

Hence, After immigration, the cost of employing 'OL' amount of labour

$$= OL \times OW' = ar(OW'FL) \text{ and}$$

before immigration, the cost of employing 'OL' amount of labour

$$= OL \times OW = ar(OWBL)$$

$$= ar(OW'FL) + ar(WBFW')$$

Clearly, after immigration the cost of employing 'OL' amount of labour is lowered and the difference

$$= ar(OW'FL) + ar(WBFW') - ar(OW'FL)$$

$$= ar(WBFW')$$

Hence, the areas $WBFW'$ and $FDL'L$ together is the gain in profit.