Case 2.10 Now you see it, now you don’t: why a subsidy may end up where it wasn’t meant to go

Summary

This case study examines the impact of a subsidy for childcare workers proposed as a policy by one of the main political parties in Australia. It is shown that who ends up with the subsidy depends on:

i the relative elasticities of demand and supply for childcare workers

ii any wage floor imposed in the labour market.

Suggested answers

1 Analyse the incidence of a subsidy paid to childcare workers for a scenario where:

i the demand for childcare workers is relatively elastic with respect to wages

ii the supply of childcare workers is relatively inelastic with respect to wages.

Explain the result you find.

A graphical representation of how the introduction of a subsidy will change the market equilibrium – for the case of elastic demand and inelastic supply for childcare workers – is shown below. denotes the wage paid by employers and denotes the wage received by workers. Most of the subsidy would be received by childcare workers.

What explains this result? When the government introduces the subsidy there is an increase in the quantity demanded of childcare workers. To induce an increase in the quantity supplied of childcare workers, it is necessary for the total wage paid to childcare workers to rise. Because supply of childcare workers is relatively unresponsive to changes in the wage, it is necessary to increase the wage by a relatively large amount in order to hire the extra workers. In other words, the childcare centre owners must pass on most of the subsidy to childcare workers.

S

Wage

Subsidy per unit

w\*

D (Subsidy)

Qty of labour

D

2 Analyse the incidence of a subsidy paid to childcare workers and the impact of the subsidy on the market outcome for a scenario where:

i the demand for childcare workers is relatively inelastic with respect to wages

ii the supply of childcare workers is relatively elastic with respect to wages

iii there is a maximum amount by which childcare centre owners are allowed to decrease the wage they pay following the introduction of the wage subsidy.

Explain the result you find.

The answer to this question follows the method of analysis on page 106. In that analysis it was assumed that the wage of childcare workers could not be set below the initial equilibrium wage that existed when there was no subsidy. Hence, following the introduction of the subsidy that initial wage became the wage paid by the employer and the childcare worker would receive a wage equal to the initial equilibrium wage plus the subsidy.

This question is asking you to think about the more general case where there is a wage floor, but not necessarily equal to the initial equilibrium wage. In this scenario there are two possible outcomes:

i The wage floor is below the wage that would be paid by the employer once the subsidy was introduced if there was no regulation of wages. In this case, the wage floor is not binding and will have no effect on the market outcome. For example, suppose that the initial equilibrium wage is $20, the subsidy is $5, the wage floor is $15; and that following the introduction of the subsidy if there is no regulation of wages the employer would pay $17.50 and the childcare worker receive $22.50. In this example, because the wage floor ($15) is below the wage paid by the employer ($17.50), the wage floor has no impact.

ii The wage floor is above the wage that would be paid by the employer once the wage subsidy was introduced if there was no regulation of wages. In this case, the wage floor is binding, and the employer will need to pay the childcare worker the amount of the wage floor. The wage received by the childcare worker will equal the wage floor plus the amount of the subsidy. For example, suppose that the initial equilibrium wage is $20, the subsidy is $5, the wage floor is $19; and that following the introduction of the subsidy if there was no regulation of wages – the employer would pay $17.50 and the childcare worker receive $22.50. In this example, because the wage floor ($19) is below the wage that would be paid by the employer ($17.50), the wage floor is binding. The employer will need to pay $19; and the childcare worker will receive a total wage of $24 (equal to $19 plus the $5 wage subsidy).