Ejercicio 3.

* + 1. *Age-wage profile*. A great deal of evidence in Labor economics suggests that the typical worker’s age-wage profile has a predictable path: *“Wages tend to be low when the worker is young; they rise as the worker ages, peaking at about age 50; and the wage rate tends to remain stable or decline slightly after age 50”*.

In this subsection we are going to estimate the *Age-wage profile* for the individuals in this sample:

(2)

When presenting and discussing your results, include:

* A regression table.
* An interpretation of the coefficients and it’s significance.
* A discussion of the model’s in sample fit.
* A plot of the estimated age-earnings profile implied by the above equation. Including a discussion of the “peak age” with it’s respective confidence intervals. (Note: Use bootstrap to construct the confidence intervals.)
  + 1. *The gender earnings GAP*. Policymakers have long been concerned with the gender wage gap, and is going to be our focus in this subsection.

1. Begin by estimating and discussing the unconditional wage gap:

where *Female* is an indicator that takes one if the individual in the sample is identified as female.

1. *Equal Pay for Equal Work?* A common slogan is “equal pay for equal work”. One way to interpret this is that for employees with similar worker and job characteristics, no gender wage gap should exist. Estimate a conditional earnings gap incorporating control variables such as similar worker and job characteristics. In this section, estimate the conditional wage gap:
2. First, using FWL
3. Second, using FWL with boostrap. Compare the estimates and the standard errors.
4. Next, plot the predicted age-wage profile and estimate the implied “peak ages” with the respective confidence intervals by gender.

Para obtener la edad máxima, optimizamos derivando respecto a la Edad:

Dado que la variable dummy es: mujer = 1 y hombre =0; por tanto, se pueden obtener las siguientes edades máximas, según género:

De acuerdo con datos de la Gran Encuesta Integrada de Honduras – GIEH, Colombia, 2018, los resultados para la Ecuación 4 son los siguientes: