

# Logistic Regression

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INFO 370

# Learning Objectives

Understand the use-cases for **logistic regression**

Implement a logistic regression in Python

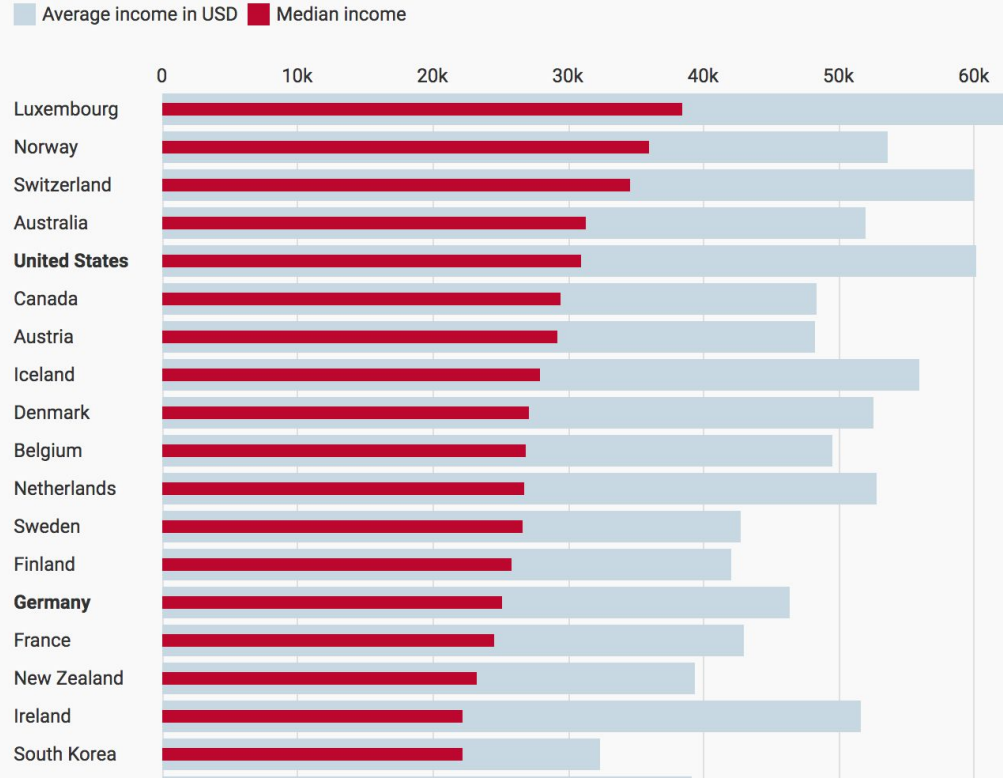
Be able to interpret and communicate your results (**beta values**)

Construct and interpret a **confusion matrix** using your results

Create and interpret an **ROC Curve**

## Average vs median income

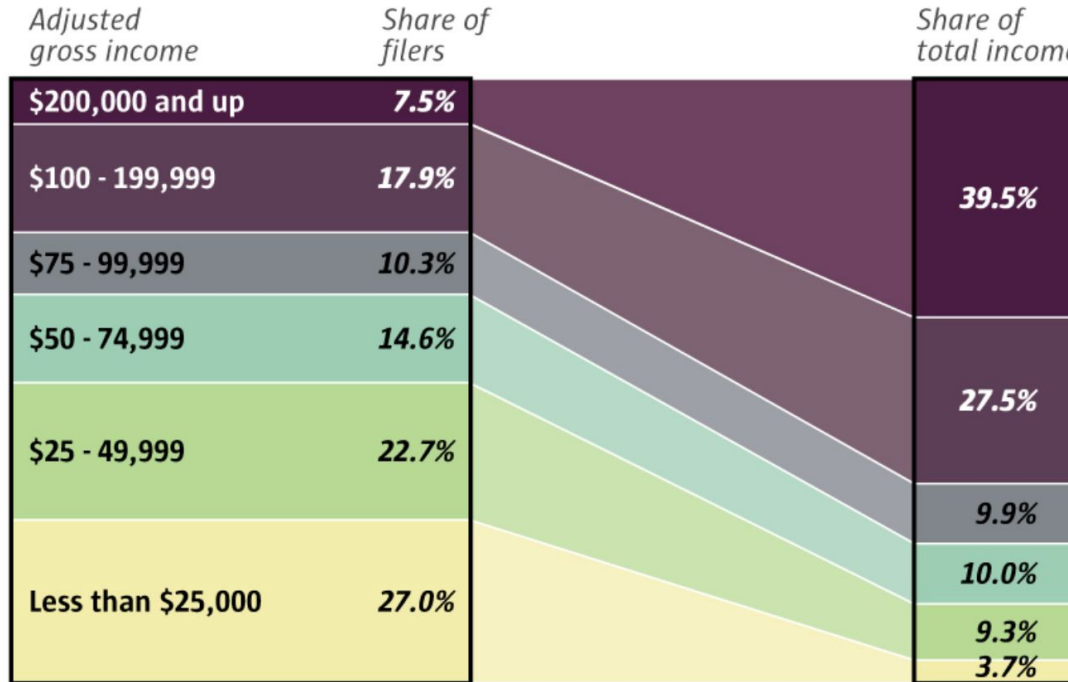
Median and mean income between 2012 and 2014 in selected OECD countries, in USD; weighted by the currencies' respective [purchasing power](#) (PPP).



The importance of the right metrics ([link](#))

## Small number of filers took home big chunk of income

Just 7.5 percent of Seattle-area filers claimed income of \$200,000 or more in 2015, but they earned nearly 40 percent of the total income.



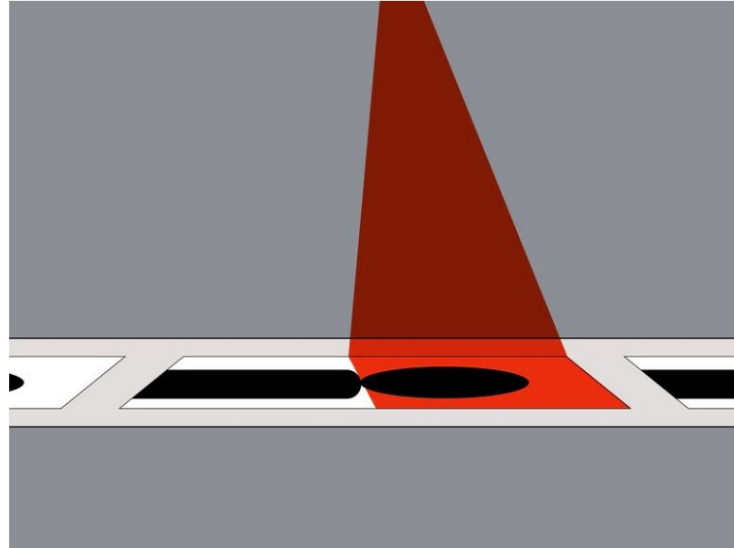
Source: IRS

EMILY M. ENG / THE SEATTLE TIMES

Simple graphics can be as powerful as complex metrics ([link](#))

TOM SIMONITE BUSINESS 02.06.18 06:21 PM

# PHOTO ALGORITHMS ID WHITE MEN FINE—BLACK WOMEN, NOT SO MUCH



 HOTLITTLEPOTATO

Importance of model validation ([link](#))

# Notebook 5

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# Upcoming...

a3-modeling due ***next Tuesday***

Notebook 5 due **Friday night**

## Next Week

- Machine Learning