# Productivity: Perception and Reality

It has long been a perception held by many in the western world that the people of southern Europe (Spain, Portugal, Italy and Greece for the purposes of this article) have a particularly easy-going approach to work, life and financial responsibility. Whether this is a good or bad thing depends on who you ask and even what time of year you ask them, as [Ed Vulliamy](http://www.theguardian.com/commentisfree/2013/aug/17/northern-europe-southern-europe-attitudes) describes.

However, with the onset of the European debt crisis, these perceptions have taken on a new prominence as they are now used to justify the harsh austerity being forced on Southern European nations, with special scorn and head shaking reserved for Greece in particular. At the deepest level, the enforcement of austerity is being spun as a moral tale – the people of Southern Europe are suffering for their laziness and financial irresponsibility. The financial irresponsibility aspect of this is a topic for another article, but here we will look at the evidence supporting the proposition that people in Southern European nations are ‘lazier’ than their northern European neighbors.

The first step in analyzing this proposition is defining how we measure ‘laziness’. In general, laziness refers to a lack of willingness to work or expend energy. Given we have no quantitative way of comparing how much energy people are expending, or their willingness to perform work (what a different world it would be if we could!), a good proxy to determine relative energy expenditure, and therefore laziness, is the number of hours worked. Conveniently, the OECD produces [statistics on average hours worked per person per a year](http://stats.oecd.org/index.aspx?DataSetCode=ANHRS) for most OECD nations, which includes most of the European nations we are interested in.

An argument can be made about the productivity of the respective workers but productivity has its own larger distortions due to the impact of differing levels of capital investment. A German working in a car manufacturing plant controlling a high tech automated assembly line will be much more productive (in terms of the value of his output) than an Italian waiting tables in a coffee shop – but this tells us nothing about the level of effort (or lack thereof) being expended, and also nothing about the time being spent at work.

So looking at the OECD statistics on hours worked, what do we see for the countries we are talking about?

## Table 1 - 2012 Statistics

|  |  |  |
| --- | --- | --- |
| Country | Average Hours Worked  (per person per year) | Average Hours  (per person per week) |
| Netherlands | 1,381 | 26.6 |
| Germany | 1,397 | 26.9 |
| France | 1,479 | 28.4 |
| Denmark | 1,546 | 29.7 |
| United Kingdom | 1,654 | 31.8 |
| Spain | 1,686 | 32.4 |
| Portugal | 1,691 | 32.5 |
| Italy | 1,752 | 33.7 |
| Greece | 2,034 | 39.1 |

What we see is actually the opposite of the commonly assumed situation. The famously hardworking Germans are averaging less than 1,400 hours a year of work or under 27 hours a week averaged over 52 weeks. This is actually the 2nd lowest of all countries in the OECD in 2012. Meanwhile, the Greeks, often held up as the epitome of laziness (at least in Europe) actually work some of the longest hours in the OECD – the third longest in fact, behind only the Koreans and the Mexicans. In 2012 the average Greek clocked up 2,034 hours of work, or the hours of almost 1.5 Germans. So how do we explain this? How can the perception be so different to what we are seeing here?

When we look at the data, some trends begin to emerge that explain some of the differences in hours worked. The first and most obvious trend that emerges when we expand our dataset to the full OECD and for all years covered is a negative correlation between hours worked and GDP (PPP) per capita (a rough proxy for wealth - see Chart 1). The trend is clear, both across countries and across time, and intuitively this makes sense – as people get wealthier, they feel less need to work long hours.

## Chart 1 - GDP per capita (PPP) Vs. Average hours worked per person per year - OECD Countries, 2000-2012

Asides from the negative correlation between GDP (PPP) per capita and average hours worked, there are a few other observations we can make looking at this chart. The first observation is that the minimum hours that people work seems to bottom out at around 1400 hours a year – more or less where Germany and the Netherlands sit currently. Again this conclusion checks out logically. Subject to the social expectations and the demands of a given job, people aim to reach a comfortable balance between work and leisure time. Once this is achieved, they generally let any further increases in income accrue to their wealth rather than further reduce their working hours.

The second observation is that at any given level of GDP (PPP) per capita, there is a still a high level of variability between countries as to how many hours the average person will work. More than anything, this shows there is a range of factors that create variances in hours worked between countries. Labor force restrictions, minimum wage, unemployment benefits, education levels, inequality and the general structure of the economy will all affect the hours worked at a given level of GDP (PPP) per capita.

What else can we determine looking at this information? If we believe wealth to be a major factor in how many hours a person will work, what would it look like if we could remove the impact of wealth? In fact we can remove the wealth effect from this data by building a simple linear model that estimates the average amount of hours a person would work given a certain level of GDP per capita. From there we can then see where countries lie relative to the model prediction, effectively telling us which countries are working more hours than we would expect for their relative level of wealth, and which countries are working less. The 2012 data, with a linear model applied, is shown in Chart 2.

## Chart 2 - Average hours worked per person per year Vs. GDP per Capita (PPP) - OECD Countries, 2012

What this model tells us is that for every extra $1,000 of GDP (PPP) per capita, the average person will work 16.4 hours less per year. When we use this model to predict the number of hours the average person will work per year based on the GDP (PPP) per capita of their country, we come up with an estimated hours worked per person per year for each country, which we can then compare to the actual value for each country. The results of this comparison are shown in Chart 3.

## Chart 3 - Average hours per person per year – Actual vs. Forecast, 2012

What we see is that even if we remove the differences in wealth from average hours worked per person per year, the average citizen in many northern European countries (particularly Germany and Denmark) are still working less hours than we would expect. The verdict for Southern European nations is more mixed. People in Portugal and Spain are also working fewer hours than we would expect, the Italians are more or less in line with expectations, while the Greeks are again well ahead of what would be expected.

So what is the bottom line here? What conclusions can we take away from this? The answer is surprisingly little. There are a huge range of incentives and disincentives that are unique to each country that we are completely ignoring in this analysis. We also have no way of identifying how effective or productive different people are while they are at work, which as I’m sure anyone who has worked with another human being can testify, can vary pretty drastically. So, despite the above evidence, no one should be prepared to believe the people of Germany or Denmark are ‘lazier’ than people in Mexico, the US or Korea. What we can say though is what evidence is missing from the above analysis - and what is clearly missing is any evidence that the people of southern European nations are ‘lazier’ than their northern European counterparts.