

WITH Gabriel Alvarez, Associate Professor of Economics, King Juan Carlos University, Spain



Gabriel Calzada Alvarez, Ph.d. has been associate professor of economics at King Juan Carlos University in Spain since 2004. Since 2007 he has been in charge of the applied economics courses at the Environmental Science Faculty. Calzada is also associate professor of economics at IE University and visiting professor at the Universidad Francisco Marroquín in Guatemala. In March 2005 he became founder-president of the classical liberal think tank Instituto Juan de Mariana, winner of the 2008 John Templeton Freedom Award. Calzada is also vicedirector of the Austrian School-oriented scholarly *Procesos de Mercado* and is adjunct scholar at the Ludwig von Mises Institute (Auburn, Alabama). He has published academic articles in dozens of publications and has testified before the U.S. Congress as well as presented results of his research at The Energy Solutions Summit at the U.S. House of Representatives. Dr. Alvarez was a speaker at the Heartland Institute's 4th International Climate Change Conference held in Chicago May 16- 18th, 2010. The

Frontier Centre was one of 64 international co-sponsors of this event which profiled the work of 73 scientists, economists and policy experts from 23 countries. This transcript has been edited for clarity and length.

Frontier Centre: What is the theory behind the concept of green jobs creation? Or in other words, what was the objective of Spain's green job initiative that you evaluated?

Gabriel Alvarez: The initiative we had in Spain was, to create green jobs. The theory was that In a country with high unemployment, like Spain, the green job policy would be a good thing because it would create jobs in expanding sectors and help develop new technologies.

FC: You evaluated this green job strategy. What were the results of your analysis? Was the green job strategy in Spain a success?

GA: The experience in Spain is that after 10 years more or less we have about 50,000 jobs created and some 30 billion Euros committed to the experiment. Which means that more than half a million Euros were needed per worker. Of course if you look at this it gives you an idea of the problem that we have. It is incredibly expensive to create a green job. We are creating jobs that are very inefficient jobs. To create jobs is not a difficult thing, it is quite easy. Wherever you throw billions of Euros you will create jobs. The problem is that we don't just want jobs, we want productive jobs. This is not what this scheme is creating.

FC: Your analysis said that the program did succeed in creating some jobs in those industries. But your analysis also said that the program actually destroyed jobs, more jobs, elsewhere in the economy. How did that happen? How does that work?

GA: We created nearly 50,000 jobs. The problem was that it required so many financial resources that you needed to take them away from other parts of the economy. If you look at the capitalization per worker in this society then you get an idea of how many jobs these financial resources would have created in the rest of the economy and you compare them. You compare the created jobs with the jobs that have not been created because you pulled resources away from the rest of the economy you find out that for every job you were creating at least 2.2 jobs were not created or were destroyed by this policy.

It's also important to mention that if you focus on the creation of green jobs you will always have a problem. Most green jobs are jobs in the renewable energy sector and because most of the jobs there are in installation you need to continuously install. But if the subsidies stop for the production this means that the amount of money you have to give to these programs will keep growing and growing yearly. So it's a never ending bubble that once you start you will have it until it explodes or bursts.

FC: One criticism of your sort of research has been the argument that green jobs spending will help in the creation and development of new industries and lead to long term job growth that might not be captured by our analysis. What's your response to that criticism?

GA: It is true that it has been said that we only take into account the pressing state that we don't take into account future technology. It is true that we don't know what future technology there will be. In fact there is a whole variety of technologies competing to be the future technology. What we say is you cannot determine in advance which one of those technologies is going to be the future technology.

For example, solar photovoltaic energy was considered to be the future energy just 10 years ago by many experts. Politicians, for example our President Zapatero, was totally convinced because of his advisors were telling him that solar was the future technology. Not under the current state 8 – 10 years ago but in the future state of the technology. The problem is that they were wrong. So maybe it's going to be solar but maybe it's going to be wind? The problem is when politicians decide for the rest of society which technology from all of the range of different alternatives is going to be the future technology and puts all their resources there then we are in danger of wasting the resources on an unsuccessful technology. Fortunately there are markets totally specialized on assessing which technologies have some possibilities of becoming future technologies or alternatives to the technologies we have today. We should give those markets, the ones who specialize in this research, the opportunity so we don't risk the public's money.

FC: Your analysis showed that the Spanish green jobs initiative cost a great deal of money for each job created and that it destroyed more jobs than it created. In short it could be said that you described the strategy as a failure. Do you believe your conclusions about the green job strategy are specific to Spain or do you think similar consequences would likely occur in other countries that pursue a green jobs strategy?

GA: I think that the technology is pretty much the same everywhere. It depends on the technology and the way you support green jobs. If you support it in a similar way for example through feeding tariffs then the consequences are going to be similar. Of course there's a huge variety of economies. If you take an economy that is very, very different then there will be a difference. But in similar economies the results will be similar.

FC: Have the results of your study had a direct impact on policy in Spain? Have they led the government to look at their strategy and change course in any way? Or have they continued on the same path?

GA: Rhetorically they have continued on the same path at least until very recently. But in terms of actual policy, they have changed a lot.

This study opened a large debate initially outside of Spain, mainly in the U.S. Then the U.S. came back to Spain four months after studying the debate internationally and slowly the government has been changing. First it was an introduction of the Royal Decree where the government recognized the system we have in order to support renewables was converting the whole electricity system into an unsustainable system both financially and technically. Since then the government has been changing. If you listen to President Zapatero he's saying more or less the same but if you look at what the government and his Minister of Energy and Industry are doing, they are changing the laws.

For example in the last few weeks they have issued a report where they say more or less the same as we were saying one year ago. They are now saying that the rapid increase in electricity prices in Spain is because of this support to renewables. The system makes it almost necessary that the amount of subsidies increase continuously this will have consequences on the industry and consequences on the labour market. This is something that we were saying. In a globalized world, if you want high salaries or wages you need the workers to be working together with other factors that are more or less universally used and that are very cheap to use. This is energy and if you have more

expensive energy thanks to this kind of scheme you are going to end up with workers who are going to have lower wages, not higher.

The government is also recognizing this right now. They are basically recognizing most of the major points we are making. They are not saying that we are destroying jobs, they didn't come to this point but I would say that all the other points that were made they are recognizing them without recognizing that we were right --- but that's ok.

FC: The Spanish economy right now is faring very poorly. There's very high unemployment and tremendous public debt. Is it your opinion that the green jobs strategy is partly responsible for these problems?

GA: Yes, it is partly responsible. We have to be very careful because a statement like this can sound and can be dogmatic in the sense that there are many factors that are contributing to Spain's economic problems. Generally the green job policy has been contributing to the problems. Green job policy has been destroying jobs, not helping to create jobs as they told us was going to happen. The green job policy, this has been recognized by the government, has been creating a big debt for the Spanish economy. These are the two problems we have: we have over 20% unemployment rate and the green job policy is helping this and we have a huge public deficit which is a major problem. Also the policy for the promotion of those energies is also helping to increase, not decrease, the public deficit.

FC: Your study basically said that for every job created two or three were lost in other parts of the economy. How did you come up with that number?

GA: We used a couple of different methodologies and we saw that the results were almost the same throughout them all. The main methodology is the counterfactual or the opportunity cost methodology we used is once you have the amount of jobs that you have created and the amount of money necessary to create those jobs then you look at the economy you say those subsidies were required in order to do those investments and create those jobs otherwise they wouldn't have made those investments. So you take those subsidies back to the original owners or the rest of the economy and you figure out how many jobs would the rest of the economy produce with those resources? In the case of the Spanish economy for every job that was created, 2.2 jobs would have been created because of the capitalization per worker was like \$207,000 Euros compared to \$570,000 per worker in the case of green jobs subsidies.