

An Examination of the Effects of Personal Characteristics on Farm Productivity

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Introduction and Background

Under Food Harvest 2020, ambitious targets were developed to grow Ireland's exports of food and beverages, increase the value of primary production by farmers and fishermen and value added in processing. If land is not farmed to its full potential it puts pressure on the achievement of these targets. The issue for the government is that these targets will only be achieved if production efficiency is maximised. At primary producer level this requires reduced costs, higher productivity and higher value output.

Irish farm structures have been deficient for some time however in terms of age profile, skill set and gender balance. A better understanding of the profile of Irish farmers will help enable the development of policy measures to underpin growth and sustainability in the sector. The objective of this paper was first to examine the effects of personal characteristics on farm productivity, and secondly to review these effects in the context of Irish farming.

Statistics indicate that the age profile of Irish farmers is steadily increasing with more than half of all farm holders aged 55 years or over, leading to concerns regarding the rate of generational renewal in the sector. On average, older farmers have lower production outputs than young farmers, are less likely to invest on their farms and adopt new technologies thus leading to many concerns about the sustainability of the sector going forward. With regard to skill set, international studies show that farm efficiency increases with operator education and extended participation in farm management programmes. Recent surveys indicate that while 31% of farm holders overall have undertaken some type of education and training, approximately 75% of the over 55s, or half of all farm holders have practical experience only.

In terms of gender, whilst there has been an increase of almost 15% in the number of family farms owned by women between 2000 and 2010, women still only own 12% of family farms. A study from the United States showed that farms which were co-owned and managed by women were 23% more profitable than those managed by men on their own. Thus considerable scope exists through measures such as farm partnerships to capitalise on women's contribution to farming and farm output levels, and to help negate the effect of a declining population in agriculture on productivity levels.

Methodology

The research was derivative in nature in that it drew together data from a number of sources. A literature review was undertaken to understand the association between key personal characteristics and farm productivity from studies undertaken at Irish, European and International levels. Secondary data was sourced from Teagasc's National Farm Survey and the Central Statistics Office's Census of Agriculture. A number of proxy measures were selected to measure productivity depending on the data source i.e. Gross Output and Gross Margin (NFS) and Standard Output (CSO).

Analysis / Key findings

Despite the obvious association between the increase in age and the consequential drop in productivity, it is evident that there are also linkages between age and farm system, region and soil type. From an analysis of data by education and training levels, productivity is higher for those who have undertaken full-time third level agricultural courses or a farm apprenticeship scheme compared to those who had not and is higher for members of discussion groups compared to non-members. Thus investment in education and training may be one way to mitigate against the age drop in productivity. Analysis of productivity by gender indicated patterns in output by age, marital status, farm system and region. However given that female farm holders are more likely to acquire farms at a later age than males i.e. on inheritance as widows, their output levels will naturally be lower. A regression analysis would be required to establish the exact relationship between the all variables involved in the study.

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