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Impact of Drought in Farm Level Income in the United States

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Abstract: Farm level incomes fluctuate significantly due to extreme weather events such as drought. In the light of recent extreme weather events it is important to understand the implications of extreme weather events, flood and drought, on farm level incomes. This study examines the variation in farm level incomes for the United States in drought and no-drought years. Factoring heterogeneity in different enterprises (crop, livestock) and geography this paper analyzes the impact of drought in farm level incomes at state and national level. Livestock industry seems to be affected more by the lag in production of input feed for production, crops, as preliminary results show. Furthermore, preliminary results also show that while crop producers are not affected much due to drought, as price and quantity effect worked on opposite direction with same magnitude, that was not the case for livestock and horticulture enterprises. Results also showed that even when price effect was not as high the crop insurance component helped absorb much of shock for crop producers. Finally, the effect was heterogeneous for different states more on the coastal states compared Midwest region. This study should generate a lot of interest from policy makers across the world as some countries are actively seeking to increase subsidies in their agriculture sector. This study shows how subsidies absorb the shocks for one enterprise more than others. Finally, this paper should also be able to give an insight to economists to design/recommend policies such that it is optimal given the production level of different enterprises in different countries.

Keywords: farm level income, United States, crop, livestock

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