



A Follow Up on the Persistence of Management Returns: Yields and Prices

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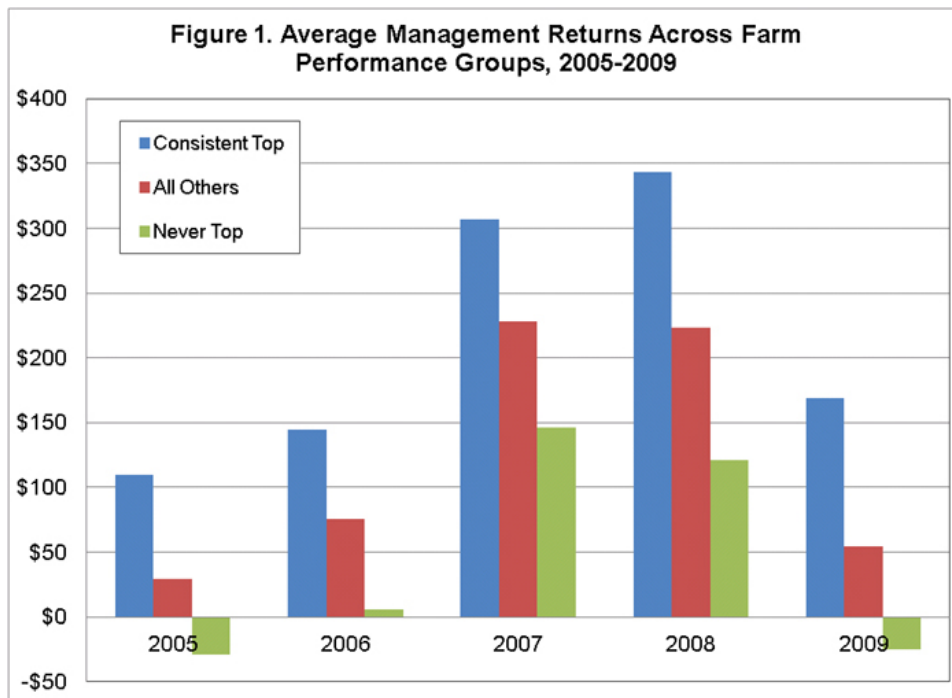
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Back on [December 8th](#), we looked at the persistence of management returns among Illinois grain farms from 2005 to 2009. Today's post follows up on a few of the questions we received from readers via email. Specifically, we look at the contribution of crop and price levels to the observed variation in revenues earned across farm performance groups.

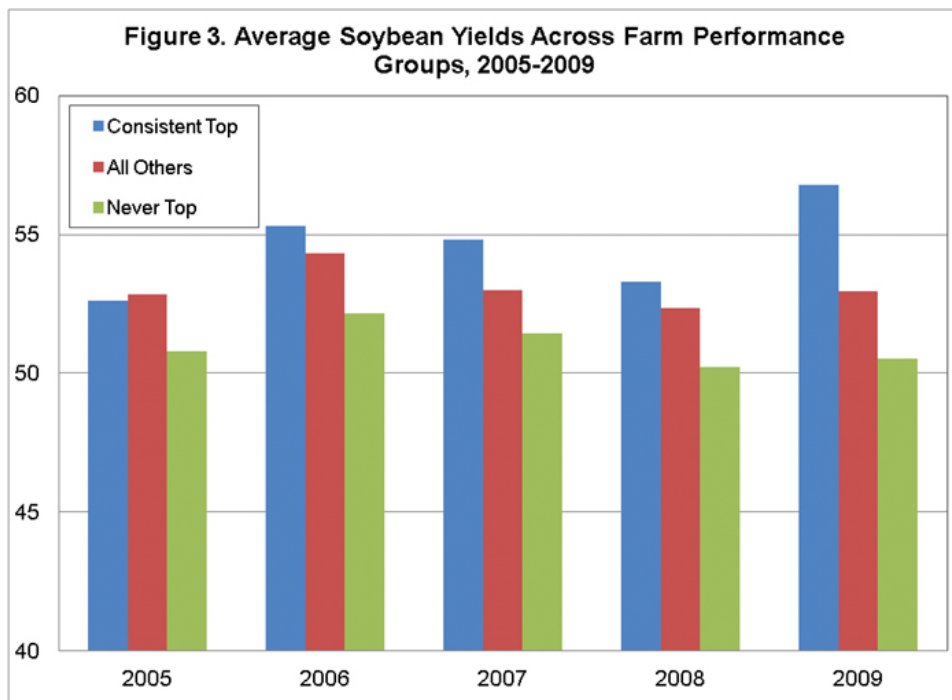
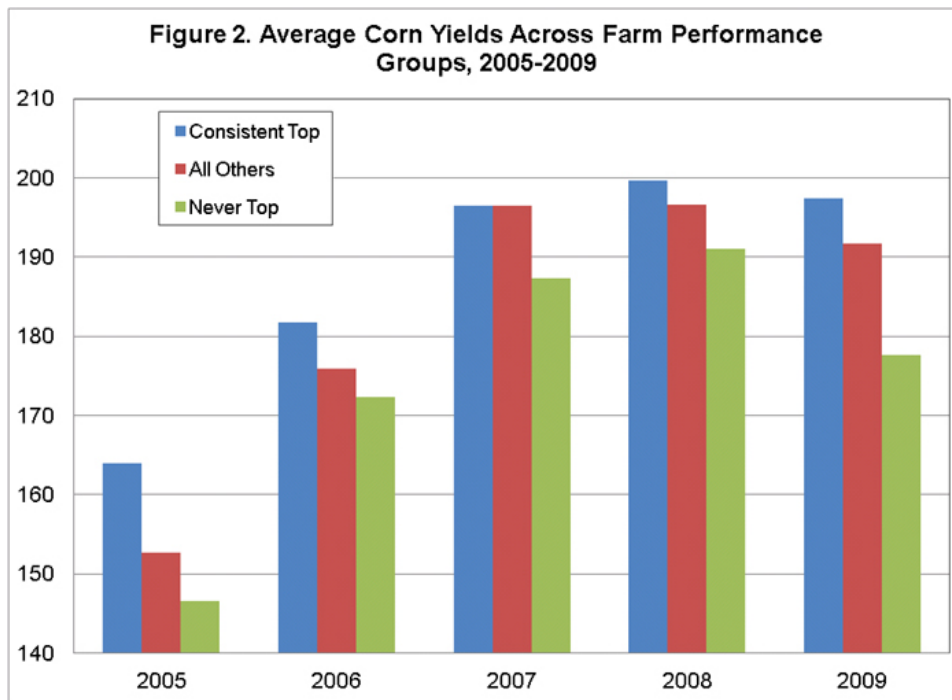
The information presented today is based on the same farm-level data set from the Illinois Farm Bureau Farm Business Management (FBFM) association that was used for the [original post](#). Annual relative performance was measured by categorizing farms which earned management returns in the top quartile (25%) of all farms in each year. Farms were then classified into three distinct groups: 1) consistent performers include farms which were in the top quartile for all 5 years ('Consistent Top'), 2) farms which were in the top quartile for 1 to 4 years ('All Others'), and 3) farms which never fell in the top performance quartile ('Never Top').

Figure 1 illustrates the significant difference in management returns that exists across performance groups. In our original post, we showed that the biggest component of this difference was explained by variation gross revenue, indicating the importance of productivity and marketing in consistent performance over time. Here we look at differences in crop yield levels and prices received across the performance groups for corn and soybeans.



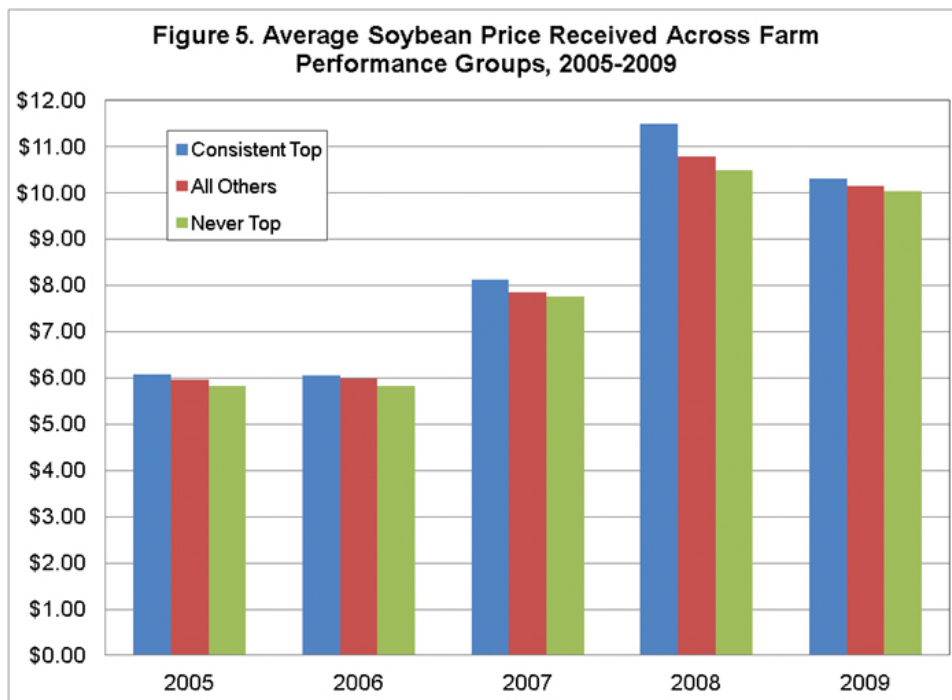
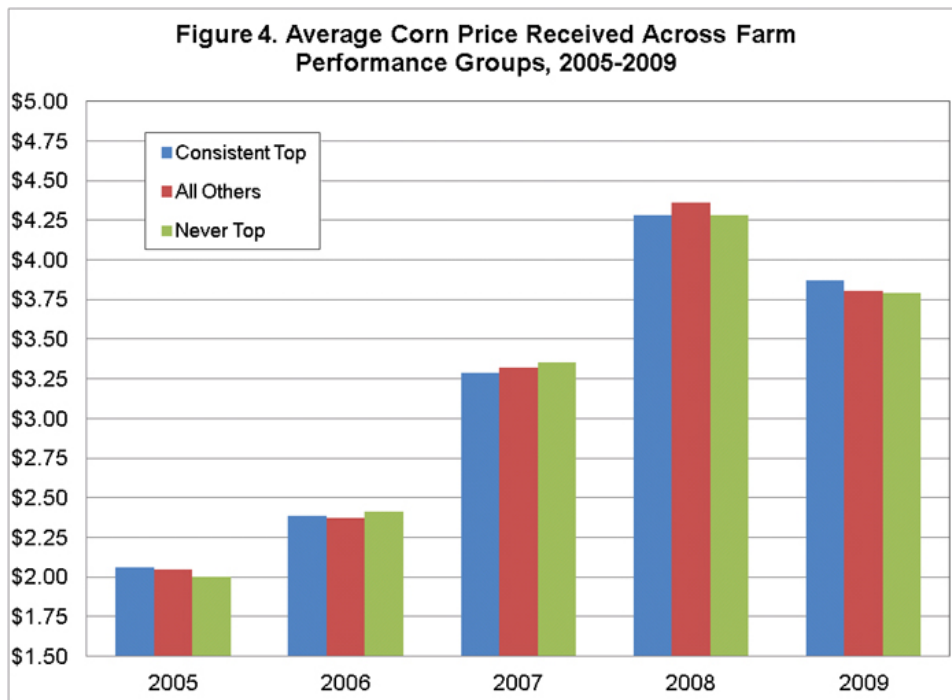
Crop Yield

Figures 2 and 3 show the average corn and soybean yields on farms in each performance group, respectively. Top performing farms consistently achieve higher yield levels than those farms which never earned top quartile returns during the time period analyzed. The yield differences between the top and bottom performance groups range from about 9 bushels per acre (2008) to almost 20 bushels per acre (2009). These differences represent anywhere from 5% to 10% of average yield across all farms in the data. Soybean yield differences across the top and bottom performance groups range from less than 2 bushels per acre in 2005 to more than 6 bushels per acre in 2009. In percentage terms, these yield differences range from 3% to 12% of average Illinois soybean yields in these years.



Price Received

Figures 4 and 5 show the average price received by farms in each performance group from 2005 to 2009 for corn and soybeans, respectively. The difference in corn prices received by the top and bottom performance groups is relatively inconsistent. The top performance group received an average of \$0.06 and \$0.08 more per bushel in 2005 and 2009. However, average prices across the groups were virtually the same in 2006 and 2008, and the low performance group actually averaged a \$0.07 per bushel higher price than the top performers in 2007.



Differences in average soybean prices across performance groups are more consistent over the 5-year period. The average soybean price received on top performing farms was about \$0.25 per bushel higher than the low performance group in 2005, 2006, and 2009. This difference was \$0.36 per bushel in 2007, and just over \$1.00 per bushel in 2008. In percentage terms, these differences ranged from 3% to 9% of the average soybean price received across all farms in Illinois for these years.

Summary

This post followed up on our [previous analysis](#) of the persistence of management returns on grain farms in Illinois. The contribution of yield differences across performance groups was shown to be consistent for

both corn and soybeans, with the difference in yield levels achieved by the high and low performance farm groups ranging from 5% to 10% of average yield for corn and 3% to 12% of average yield for soybeans. The difference in corn prices received across performance groups was not consistent, while the difference in average soybean price received between the high and low performance groups ranged from 3% to 9% of the average soybean price received across all farms each year.

While a portion of the yield differences seen across performance groups is likely due to differences in production management abilities, it is also highly tied to regional factors such as soil productivity. While the differences in average corn price received was not significant or consistent across time, the fairly large and consistent difference in average soybean price across performance groups does indicate that marketing abilities play an important role in achieving consistently high returns.