



Comparing Machinery Values on Illinois Grain Farms

Bradley Zwilling

Illinois FBFM Association and Department of Agricultural and Consumer Economics
University of Illinois

April 18, 2025

farmdoc daily (15): 73

Recommended citation format: Zwilling, B. “[Comparing Machinery Values on Illinois Grain Farms.](#)” *farmdoc daily* (15): 73, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, April 18, 2025.

Permalink: <https://farmdocdaily.illinois.edu/2025/04/comparing-machinery-values-on-illinois-grain-farms-2.html>

Over the past decade, not only have machinery values on Illinois grain farms increased, but the average size of farms has also grown. This analysis compares machinery values for Illinois grain farms enrolled in Illinois Farm Business Farm Management Association (FBFM) in the years 2013 and 2023. In addition to total machinery value, machinery value per acre is also examined for the same periods.

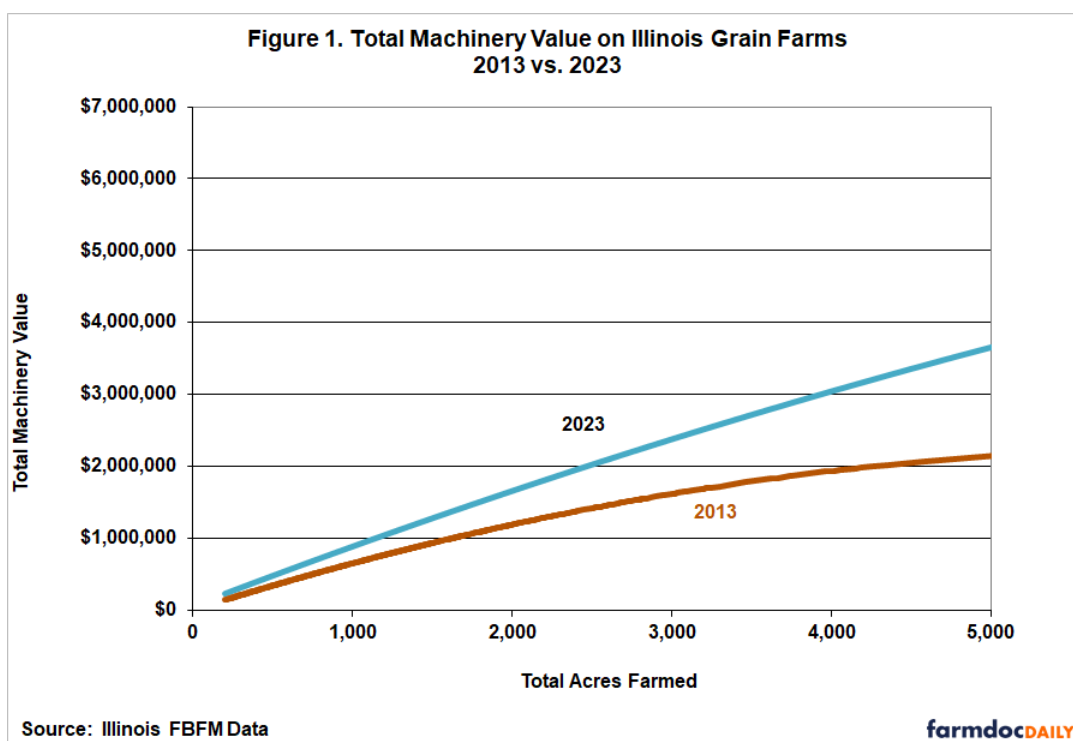
Total Machinery Value by Farm Size

Figure 1 displays the total machinery value at various acreage levels for grain farms in Illinois in 2013 and 2023. In both years, total machinery value increases as total acres farmed increased. However, values in 2023 are consistently higher across all farm sizes.

For instance, in 2013, a farm operating 1,000 acres had an average machinery value of approximately \$660,000. By 2023, the value had increased to about \$900,000 for a farm of the same size – an increase of around 36%. Notably, the difference in machinery values between the two years becomes more pronounced at larger farm sizes, reaching nearly 72% for farms operating 5,000 acres.

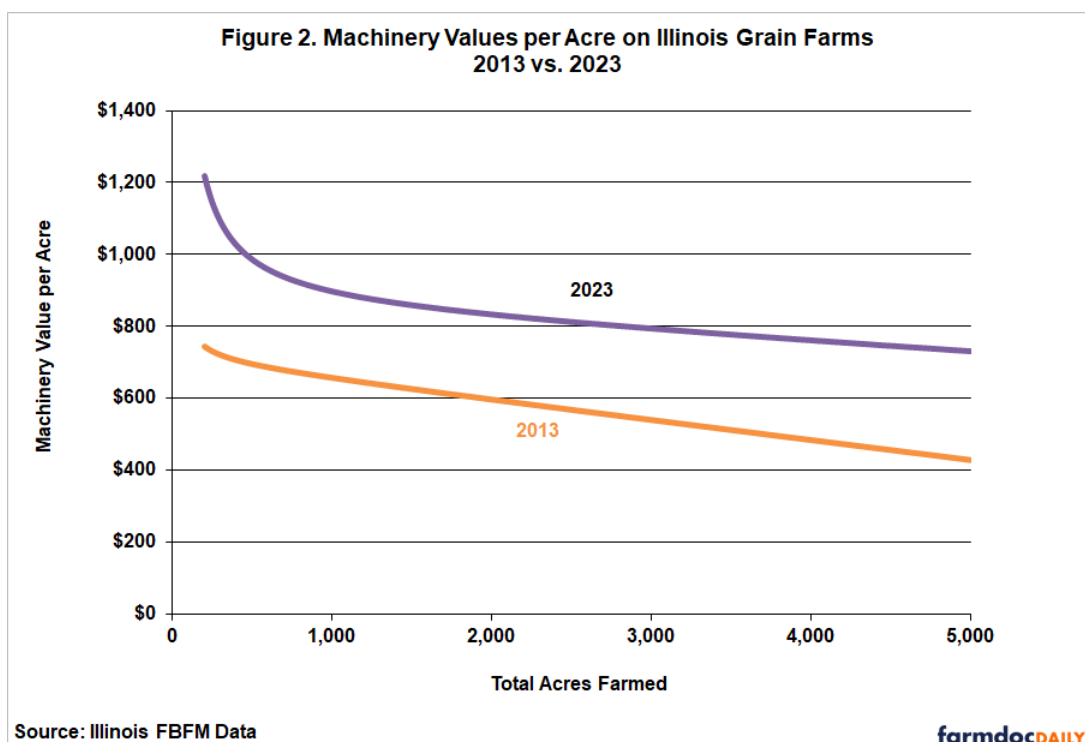
It is also important to note that while total machinery value increases with farm size, it does so at a decreasing marginal rate. In 2023, the increase in machinery value from 1,000 to 2,000 acres was approximately \$770,000, whereas the increase in machinery value from 4,000 to 5,000 acres was about \$630,000 – roughly 82 percent of the lower acre increase. This difference is even more evident in 2013, where the increase from 4,000 to 5,000 acres represented only 35% of the value increase from 1,000 to 2,000 acres.

We request all readers, electronic media and others follow our citation guidelines when re-posting articles from *farmdoc daily*. Guidelines are available [here](#). The *farmdoc daily* website falls under University of Illinois copyright and intellectual property rights. For a detailed statement, please see the University of Illinois Copyright Information and Policies [here](#).



Machinery Value Per Acre by Farm Size

Figure 2 presents machinery value per tillable acre for both 2013 and 2023. In both years, per-acre machinery value declines as farm acreage increases. However, the rate of decline is less steep in 2023 than in 2013, indicating a more efficient allocation of machinery investment on larger farms.



For example, in 2013, a 1,000-acre farm had an average machinery value of about \$660 per acre. This declined to approximately \$420 per acre on a 5,000-acre farm – a difference of \$240 per acre. In contrast, in 2023, the per-acre machinery value decreased from about \$900 on a 1,000-acre farm to \$730 on a

5,000-acre farm – a decline of only \$170 per acre. These trends suggest that larger farms in 2023 were able to spread higher-value machinery investments over more acres.

Conclusion

The total machinery investment required increases with the number of acres farmed, though at a decreasing rate as scale expands. Comparing data from 2013 to 2023 reveals a significant rise in both total and per-acre machinery values, particularly at smaller acreage levels. This increase reflects not only higher equipment costs but also changes in farm machinery characteristics – including the adoption of larger and more technologically advanced equipment.

Additionally, the expansion of the federal Section 179 expense election – from \$500,000 in 2013 to \$1,160,000 in 2023 – likely contributed to greater machinery investments due to higher accrual incomes the prior year. This provision enabled qualifying operations to deduct larger capital expenditures in the year of purchase.

The author would like to acknowledge that data used in this study comes from the local Farm Business Farm Management (FBFM) Associations across the State of Illinois. Without their cooperation, information as comprehensive and accurate as this would not be available for educational purposes. FBFM, which consists of 5,000 plus farmers and 68 professional field staff, is a not-for-profit organization available to all farm operators in Illinois. FBFM field staff provide on-farm counsel with computerized recordkeeping, farm financial management, business entity planning and income tax management. For more information, please contact the State FBFM Office located at the University of Illinois Department of Agricultural and Consumer Economics at 217-333-8346 or visit the FBFM website at www.fbfm.org.