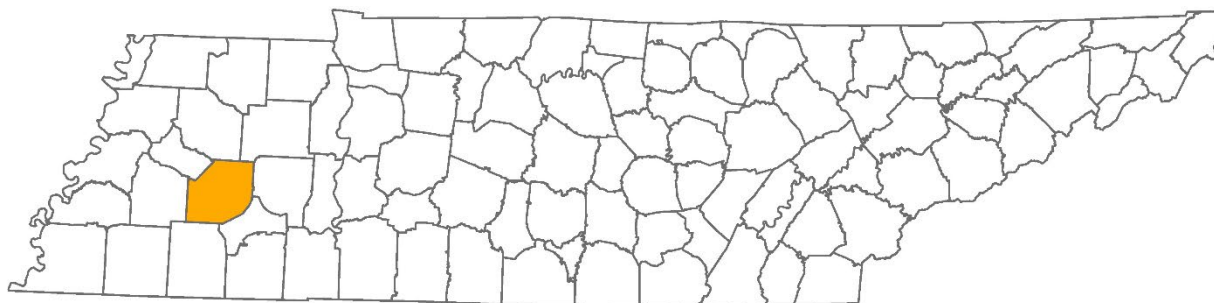Contribution of Agriculture to the Madison County Economy

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This publication provides estimates of the total (multiplier-based) economic impact of agriculture in **Madison County** based on 2021 data.[1] This analysis accounts for the total effect of county agriculture throughout the local economy. Economic impact is measured in terms of 1) output or revenue (the value of sales of all local goods and services) and 2) employment.[2]

DEFINITIONS

> *Agriculture:* Crop and livestock production (i.e., farming); food and fiber processing such as ice cream plants and textile mills; farm inputs such as fertilizer plants and feed mills; and forestry-based products such as sawmills and paper mills.

> *Multiplier Effect:* Impact on the non-agricultural part of the economy. Examples of the multiplier effect include farmers and other agricultural businesses purchasing local inputs (e.g., utilities), and local spending by agricultural workers and owner-operators.

> *Output:* Revenue (value of sales) of all local goods and services.

For Madison County in 2021:

1) Total direct agricultural output is estimated at **$1,973.6 million**. With multiplier effects, agricultural output has a total estimated economic impact of **$2,530.3 million**. These results mean that for every dollar of direct output from agriculture, the total economic impact on the county's economy is **$1.28** (i.e., the **2,530.3** divided by the **1,973.6**) (Figure 1, "Output").

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[1] Additional information regarding county farming can be found in the most recent (2017) Agricultural Census.

[2] See Hughes (2018) for an explanation of the model used.

2) **3,779** workers are employed in county agriculture. With multiplier effects, an estimated **6,843** jobs are generated by county agriculture, or one direct agricultural job leads to **1.81** jobs (i.e., **6,843** divided by **3,779**) in the county (Figure 1, "Employment").
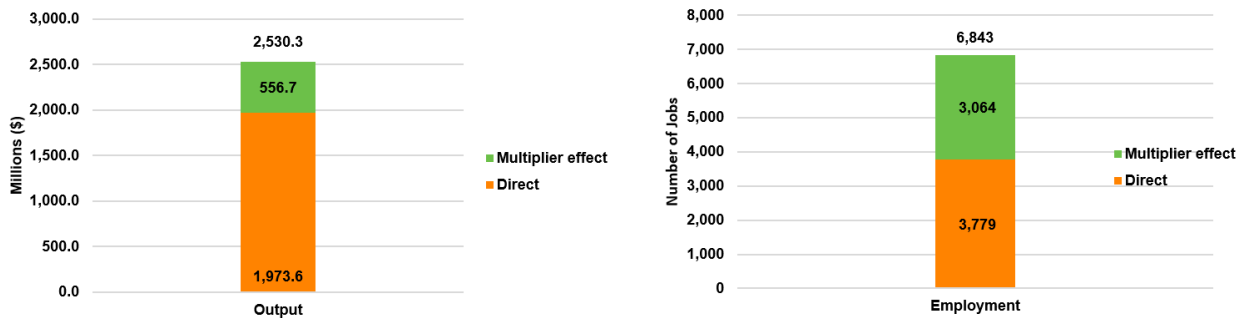
Figure 1. Agriculture's impact on Madison County Output and Employment 2021.

The *output multiplier* is **$1.28**. A dollar of output in agriculture leads to **$1.28** in county-level output (i.e., the dollar plus the **$0.28** multiplier effect).

The *employment multiplier* is **1.81**. A job in agriculture leads to **1.81** in county-level jobs (i.e., the job plus the **0.81** multiplier).

References
Hughes, D. 2018. "A Primer in Economic Multipliers and Impact Analysis Using Input-Output Models." University of Tennessee Extension Bulletin Publication W 664. June.
https://extension.tennessee.edu/publications/Documents/W644.pdf

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