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Federal and State Affairs Committee
Room 346-S
Kansas House of Representatives
300 SW 10th Street
Topeka, Kansas 66612

RE: Proposed Legalization of Marijuana in Kansas

Dear Representatives,

I am an Economist and Economics Professor here in the Johnson County, Kansas area. I have learned that this committee is discussing the issue of legalizing medical cannabis. I wanted to offer calculations and analysis about how this relates to the typical Kansas small farm who might be the supplier of this cannabis. The data and numbers are stunning to say the least. Those figures are in the two pages attached to this letter.

I am not a paid consultant and am writing this paper as a concerned citizen and grandson of a Kansas farmer. I did not do an entire breakdown of the additional financial benefits and costs to the state. Rather, I focused on the farmer's perspective and looked at this topic as a potential lifeline for struggling small farms.

Thank You,

Timothy Hamilton,
Economist, J.D., M.A.

Background Data

Kansas agriculture maintains 250,058 jobs statewide which is 13% of our state's workforce.¹

Kansas ranks 1st in Wheat production, 1st in Sorghum production, 7th in Corn (for grain), 10th in Soybeans, 3rd in cattle (from feed) and 3rd in commercial red meat production.²

The average Kansas farm is 781 acres.³ However, the majority of Kansas farms (statisticians call this the mode or most frequent value) are in the 50 to 179 acre size.⁴

\$49,291 is the average income per Kansas farm.⁵

Unfortunately there are some gloomy statistics also. According to a January study by the CDC, compared to other occupations, Farmers are among the most likely to die by suicide; in fact, suicides by farmers has increased by 40% in the last two decades.⁶

The cause of this is obvious: financial despair. According to the American Farm Bureau Federation, in March, 2020, farm bankruptcy filings had increased by 23% from the previous year; that marked five consecutive years of Chapter 12 bankruptcy increases.⁷ And this was pre-pandemic!

The current trend in farming is for conventional grain prices to fluctuate wildly depending on export markets and erratic demand. Because small farms are price takers for their products, the trend for small farm struggles and bankruptcies will continue. In other words, there has been no structural change to the costs/revenue environment for small farms.

Farming Grain vs. Cannabis/Hemp (CBD)

While the estimation of costs and revenues for Wheat, Soy and Corn are stable and reliable, there is a wide spectrum of cost and revenue estimates for Cannabis and Hemp (CBD). This is primarily because Cannabis and Hemp (CBD) are evolving industries and there is no government standardization of production formulas. The yields per acre that are the basis of these figures represent outdoor cannabis cultivation of approximate 2,500 pounds. The figures used in these calculations are a compiled average from various sources. Hemp in this paper refers to CBD and not the Hemp crop that is used for fiber (clothing, rope, etc.). It is worth noting that at one time in our history, Kansas was 1st in Hemp production. According to the USDA, the current size of a small family farm is an average of 231 acres.⁸ For the sake of the following calculations in this handout, a small Kansas farm is assumed to be 250 acres.

¹ https://agriculture.ks.gov/docs/default-source/ag-marketing/ag-contribution-2020.pdf?sfvrsn=10dc92c1_4

² https://agriculture.ks.gov/docs/default-source/ag-marketing/kansas-farm-facts-2019.pdf?sfvrsn=32b689c1_4

³ https://agriculture.ks.gov/docs/default-source/ag-marketing/ag-contribution-2020.pdf?sfvrsn=10dc92c1_4

⁴ Ibid.

⁵ Ibid.

⁶ <https://www.flatlandkc.org/news-issues/seeds-of-despair-hundreds-of-farmers-are-dying-by-suicide/>

⁷ <https://www.beefmagazine.com/management/farm-bankruptcies-rise-23>

⁸ <https://www.nass.usda.gov/AgCensus/>

The following calculations compares the potential profits and costs for small farmers who may currently want to transition to Hemp (CBD) or Cannabis.

Costs

The average costs for farming wheat is \$170 per acre.

For a small farm, this would require a \$42,000 investment or loan to plant wheat.

The average costs for farming Cannabis (CBD) is \$10,000 per acre.⁹

The average costs for farming Hemp (CBD) is \$10,000 per acre.

For a small farm, this would require a \$2,500,000 investment or loan to plant Hemp (CBD) or Cannabis.

Profit Per Acre Profit = Revenue - Costs

The average profit per acre for wheat is \$68.50¹⁰

The average profit per acre for Cannabis is \$50,895.¹¹

The average profit per acre for Hemp is \$16,775.¹²

Profit Per Crop

Small farm producing Wheat: \$17,125 per crop

Small farm producing Cannabis: \$12,723,750 per crop

Small farm producing Hemp: \$4,193,750 per crop

Conclusion

Because of the high expenses, most small farmers need access to capital to be able to plant and harvest Cannabis or Hemp. Only if legal can farmers seek this type of financing. The current trend is increased production of Cannabis and Hemp in Colorado, Oregon, Washington and California. This is in part because those operations are legal in those states and those farmers have developed efficiencies. Also, as those farmers expand, they achieve more economies of scale. As those supplies increase, the

⁹ https://www.rand.org/content/dam/rand/pubs/working_papers/2010/RAND_WR764.pdf

¹⁰ Based on a price of \$5.30 per bushel.

¹¹ <https://mjbizdaily.com/why-a-saturated-marijuana-market-is-leading-some-oregon-growers-to-pivot-to-hemp/>

¹² <https://www.bonafideseeds.com/how-much-can-i-make-hemp-farming-profit-per-acre/> and <https://www.fortunahemp.com/how-much-cbd-per-acre-of-hemp/>

equilibrium price should be expected to decline. So the profit per crop as postulated in this paper will decline, although they will still comfortably remain 200 to 400 times more profitable than wheat.