

MDEQ question posed on May 10, 2007:

The Michigan Department of Environmental Quality asked whether the UMDES data could tell

- how many people who lived in the Tittabawassee River flood plain lived on working farms at the time of interview.
- how many people who lived in the Tittabawassee River flood plain lived on working farms in 2000-2005.

University of Michigan Dioxin Exposure Study response

The data from survey question C8 can be used to answer this question.

Question C8 was:

Did you ever live on a farm or on a property where any type of crops, livestock or poultry was raised?

If yes, please tell me which years.

The UMDES data indicates, for each participant, which years they lived on a working farm. In addition, since subjects' addresses were known, and since they all had lived in their current residence for at least 5 years, it is possible to determine how many participants in each population we studied (Tittabawassee River floodplain – M/S FP, near the Tittabawassee River floodplain – M/S Near FP, other areas of Midland and Saginaw – M/S OutFP, the plume downwind of the Dow plant – M/S Plume, and Jackson/Calhoun counties) lived on a working farm at the time of interview and during 2000-2005. These responses are tabulated below (Tables 1 and 2).

Table 1: The percentage of all participants who lived, at the time of interview in fall 2004 – summer 2005, on a farm or on a property where any type of crops, livestock or poultry was raised at the time of interview.

Region	N*	% Yes	% No	S.E.
Overall	1324	6.9	93.1	1.1
M/S FP	314	4.5	95.5	1.6
M/S NearFP	276	1.1	98.9	0.5
M/S OutFP	309	8.7	91.3	1.7
M/S Plume	66	0.0	100.0	0.0
Jackson/Calhoun	359	6.0	94.0	1.4

Table 2: The percentage of all participants who lived, at any time in 2000-2005, on a farm or a property where any type of crops, livestock or poultry was raised in 2000-2005.

Region	N*	% Yes	% No	S.E.
Overall	1324	7.8	92.2	1.1
M/S FP	314	5.3	94.7	1.7
M/S NearFP	276	1.1	98.9	0.5
M/S OutFP	309	9.1	90.9	1.8
M/S Plume	66	0.0	100.0	0.0
Jackson/Calhoun	359	7.2	92.8	1.5

In addition, for each subject who said they lived on a farm, we have calculated the 5th, 25th, 50th (median), mean, 75th, and 95th percentiles of the number of years they lived on a farm during 2000-2005 (Table 3). (Note that 2000-2005 includes 6 years, not 5)

Table 3: The number of years lived on a farm or on a property where any type of crops, livestock or poultry was raised in 2000-2005.

Region	N*	Mean	S.E.	5%ile	25%ile	Median	75%ile	95%ile
Overall	70	5.5	0.2	3	5	6	6	6
M/S FP	14	4.5	0.7	2	2	5	6	6
M/S NearFP	<5							
M/S OutFP	29	5.5	0.1	3	5	6	6	6
M/S Plume	0							
Jackson/Calhoun	23	5.5	0.3	2	5	6	6	6

<5 – Estimate not shown to maintain confidentiality of study participants.

* Sample weights were used to calculate the percent yes/no, standard errors, and percentiles. Because of sample weights, the number of subjects who responded ‘yes’ and the percent who responded ‘yes’ are not the same. The number of subjects in a table is the number who gave the response during the interview, whereas the percentage who said yes indicates the weighted estimate of the population percentage.