

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

	Region	N	% Yes	% No	S.E.
<b>E1</b> Fished in MI	Overall	1324	82.3	17.7	1.4
	M/S FP	326	85.2	14.8	2.4
	M/S Near FP	264	77.9	22.1	3.3
	M/S Out FP	304	84.8	15.2	2.1
	M/S Plume	71	82.0 <sup>a</sup>	18.0	5.0
	Jackson/Calhoun	359	80.0	20.0	2.0

Note: E1 asked participants whether they had ever gone fishing anywhere in Michigan.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 1

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

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	<b>Region</b>	<b>N</b>	<b>% Yes</b>	<b>% No</b>	<b>S.E.</b>
<b>E2</b> Fished in TR	Overall	1324	11.7	88.3	1.4
	M/S FP	326	35.1	64.9	3.1
	M/S Near FP	264	22.3	77.7	3.1
	M/S Out FP	304	23.0	77.0	3.1
	M/S Plume	71	7.8 <sup>a</sup>	92.2	3.6
	Jackson/Calhoun	359	1.1 <sup>a</sup>	98.9	0.6

Note: E2 asked participants whether they had ever fished in the Tittabawassee River below the Tridge.

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**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># DAYS FISHED IN THE TITTABAWASSEE RIVER: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E2</b> Fished in TR	Overall	254	254.7	61.4	2.0	4.0	17.2	108.0	1706.4
	M/S FP	116	209.8	39.5	2.0	4.0	50.4	187.2	936.0
	M/S Near FP	58	139.4 <sup>a</sup>	38.6	2.0	7.6	36.0	152.0	472.0
	M/S Out FP	68	277.1	68.3	2.0	4.0	17.2	112.8	1785.6
	M/S Plume	8	15.1 <sup>a</sup>	11.5	---	---	2.0	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---

Note: Table shows the total number of days that the participants fished in the Tittabawassee River below the Tridge during their lifetime among participants who had ever done the activity.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is,  $CV(\text{estimate}) > 0.25$

--- Estimate not shown to maintain confidentiality of study participants.

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Procedure: PROC 7

Last Update: XZ 05/15/2008

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**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS FISHED IN THE TITTABAWASSEE RIVER: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E2</b> Fished in TR	Overall	254	9.6	1.4	1.0	2.0	3.0	14.6	37.2
	M/S FP	116	13.2	1.5	1.0	2.0	8.0	18.0	50.4
	M/S Near FP	58	11.1	1.6	1.0	2.8	7.0	17.0	32.0
	M/S Out FP	68	9.8	1.5	1.0	2.0	3.0	15.0	39.6
	M/S Plume	8	3.2	1.6	---	---	1.0	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---
<b># YEARS FISHED IN THE TITTABAWASSEE RIVER: 1910-1939</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E2</b> Fished in TR	Overall	---	---	---	---	---	---	---	---
	M/S FP	---	---	---	---	---	---	---	---
	M/S Near FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Out FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b># YEARS FISHED IN THE TITTABAWASSEE RIVER: 1940-1959</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E2</b> Fished in TR	Overall	19	6.8 <sup>a</sup>	2.6	2.0	2.6	6.0	11.6	19
	M/S FP	12	8.1	1.7	1.0	4.0	7.0	12.8	12
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	5	6.7 <sup>a</sup>	2.7	---	---	6.8	---	---
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	---	---	---	---	---	---	---	---

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS FISHED IN THE TITTABAWASSEE RIVER: 1960-1979</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E2</b> Fished in TR	Overall	91	6.9	1.3	1.0	1.8	5.0	10.6	20.0
	M/S FP	43	7.9	1.2	1.0	2.2	6.0	14.0	20.0
	M/S Near FP	20	5.3	1.2	1.0	2.0	3.6	5.8	17.0
	M/S Out FP	20	7.7	1.7	1.0	2.8	5.2	13.0	20.0
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---
<b># YEARS FISHED IN THE TITTABAWASSEE RIVER: 1980-2005</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E2</b> Fished in TR	Overall	228	8.0	1.0	1.0	1.0	3.0	12.6	26.0
	M/S FP	106	10.8	1.0	1.0	2.0	8.0	18.2	26.0
	M/S Near FP	53	10.0	1.5	1.0	3.0	7.0	18.0	25.0
	M/S Out FP	62	7.9	1.1	1.0	1.0	2.8	12.6	26.0
	M/S Plume	6	3.8 <sup>a</sup>	1.7	---	---	1.0	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---

Note: Table shows the total number of years among participants who had ever fished in the Tittabawassee River below the Tridge and were alive during the years of interest.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is,  $CV(\text{estimate}) > 0.25$

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Procedure: PROC 6

Last Update: XZ 05/20/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

	Region	N	% Yes	% No	S.E.
<b>E3</b> Fished in Saginaw River	Overall	1324	13.9	86.1	1.5
	M/S FP	326	23.4	76.6	2.6
	M/S Near FP	264	25.0	75.0	3.3
	M/S Out FP	304	27.1	72.9	3.3
	M/S Plume	71	9.1 <sup>a</sup>	90.9	6.0
	Jackson/Calhoun	359	2.0 <sup>a</sup>	98.0	0.7

Note: E3 asked participants whether they had ever fished in the Saginaw River.

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Procedure: PROC 1

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**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

# DAYS FISHED IN THE SAGINAW RIVER: TOTAL									
	Region	N	Mean	S.E.	5%ile	25 %ile	Median	75 %ile	95th %ile
E3 Fished in Saginaw River	Overall	240	217.3	98.4	2.0	7.6	28.0	144.0	1161.6
	M/S FP	84	140.4	57.3	2.0	4.0	24.0	64.8	562.8
	M/S Near FP	60	136.6	35.5	2.0	10.0	42.0	144.0	594.0
	M/S Out FP	83	226.5	113.7	2.0	6.0	24.8	144.0	1291.2
	M/S Plume	5	259.6	205.9	---	---	36.8	---	---
	Jackson/Calhoun	8	136.9	78.2	---	---	68.0	---	---

Note: Table shows the total number of days that the participants fished in the Saginaw River during their lifetime among participants who had ever done the activity.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

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Procedure: PROC 7

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**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS FISHED IN THE SAGINAW RIVER: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E3</b> Fished in Saginaw River	Overall	240	10.7	2.1	1.0	2.0	5.0	13.0	40.2
	M/S FP	84	10.5	1.7	1.0	2.0	5.0	13.0	50.0
	M/S Near FP	60	11.9	1.8	1.0	3.0	7.0	16.0	37.0
	M/S Out FP	83	10.5	2.4	1.0	2.0	5.0	12.4	40.2
	M/S Plume	5	6.2 <sup>a</sup>	1.8	---	---	5.6	---	---
	Jackson/Calhoun	8	14.1 <sup>a</sup>	5.6	---	---	8.0	---	---
<b># YEARS FISHED IN THE SAGINAW RIVER: 1910-1939</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E3</b> Fished in Saginaw River	Overall	10	5.7 <sup>a</sup>	5.3	2.0	2.0	4.8	8.6	11.8
	M/S FP	7	5.5	1.3	---	---	5.0	---	---
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b># YEARS FISHED IN THE SAGINAW RIVER: 1940-1959</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E3</b> Fished in Saginaw River	Overall	32	6.3 <sup>a</sup>	2.4	1.0	3.0	5.0	8.0	15.2
	M/S FP	17	5.7	1.4	1.0	2.0	3.0	4.0	20.0
	M/S Near FP	9	6.0	1.2	---	---	5.0	---	---
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS FISHED IN THE SAGINAW RIVER: 1960-1979</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E3</b> Fished in Saginaw River	Overall	88	7.3	1.2	1.0	3.0	5.0	10.4	20.0
	M/S FP	28	8.2	1.4	1.0	3.0	5.4	10.6	20.0
	M/S Near FP	22	7.7	1.4	1.0	5.0	5.0	8.0	20.0
	M/S Out FP	32	7.3	1.3	1.0	3.0	5.0	10.4	20.0
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---
<b># YEARS FISHED IN THE SAGINAW RIVER: 1980-2005</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E3</b> Fished in Saginaw River	Overall	183	9.2	1.6	1.0	1.0	4.2	18.0	26.0
	M/S FP	62	8.5	1.2	1.0	2.0	5.0	15.0	26.0
	M/S Near FP	46	9.9	1.7	1.0	2.0	6.0	16.4	25.0
	M/S Out FP	66	9.0	1.8	1.0	1.0	4.0	18.4	26.0
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	6	13.3 <sup>a</sup>	4.7	---	---	12	---	---

Note: Table shows the total number of years among participants who had ever fished in the Saginaw River and were alive during the years of interest.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

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Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

	<b>Region</b>	<b>N</b>	<b>% Yes</b>	<b>% No</b>	<b>S.E.</b>
<b>E4</b> Fished in Saginaw Bay	Overall	1324	24.9	75.1	1.8
	M/S FP	326	44.7	55.3	3.2
	M/S Near FP	264	48.9	51.1	3.7
	M/S Out FP	304	45.2	54.8	3.4
	M/S Plume	71	34.9	65.1	8.7
	Jackson/Calhoun	359	5.3 <sup>a</sup>	94.7	1.4

Note: E4 asked participants whether they had ever fished in the Saginaw Bay.

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Population: All Participants (n=1324)

Sample type: Questionnaire

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# DAYS FISHED IN THE SAGINAW BAY: TOTAL									
	Region	N	Mean	S.E.	5%ile	25 %ile	Median	75 %ile	95th %ile
E4 Fished in Saginaw Bay	Overall	448	202.2	43.4	2.0	4.0	21.6	107.6	1598.4
	M/S FP	152	167.8	28.8	2.0	5.2	26.8	132.4	828.0
	M/S Near FP	126	296.6 <sup>a</sup>	96.3	2.0	10.0	44.4	207.6	1540.8
	M/S Out FP	133	223.6	53.3	2.0	6.0	22.0	135.2	1634.4
	M/S Plume	21	147.8 <sup>a</sup>	68.0	4.0	11.6	26.0	376.0	376.0
	Jackson/Calhoun	16	52.7 <sup>a</sup>	29.9	2.0	2.0	4.0	44.0	144.0

Note: Table shows the total number of days that the participants fished in the Saginaw Bay during their lifetime among participants who had ever done the activity.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

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<b># YEARS FISHED IN THE SAGINAW BAY: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E4</b> Fished in Saginaw Bay	Overall	448	11.9	1.2	1.0	2.0	5.6	16.8	45.4
	M/S FP	152	14.9	1.6	1.0	2.0	7.0	19.2	61.0
	M/S Near FP	126	16.3	1.6	1.0	4.2	11.0	23.0	51.0
	M/S Out FP	133	12.2	1.3	1.0	2.0	6.0	17.2	45.0
	M/S Plume	21	17.3 <sup>a</sup>	6.9	1.0	5.0	11.4	15.2	48.0
	Jackson/Calhoun	16	6.1 <sup>a</sup>	2.5	1.0	1.0	2.0	6.4	25.6
<b># YEARS FISHED IN THE SAGINAW BAY: 1910-1939</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E4</b> Fished in Saginaw Bay	Overall	12	4.5 <sup>a</sup>	4.4	1.0	1.0	1.0	6.2	14.4
	M/S FP	6	7.9	1.9	---	---	7.0	---	---
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b># YEARS FISHED IN THE SAGINAW BAY: 1940-1959</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E4</b> Fished in Saginaw Bay	Overall	103	5.4 <sup>a</sup>	1.5	1.0	1.8	3.0	5.6	20.0
	M/S FP	47	7.9	1.1	1.0	2.0	5.0	14.2	20.0
	M/S Near FP	27	8.1	1.3	1.0	2.8	5.6	14.0	20.0
	M/S Out FP	23	5.7 <sup>a</sup>	1.8	1.0	1.8	3.6	5.6	20.0
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS FISHED IN THE SAGINAW BAY: 1960-1979</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E4</b> Fished in Saginaw Bay	Overall	238	8.2	0.8	1.0	3.0	5.8	11.0	20.0
	M/S FP	85	9.9	0.8	1.0	3.8	8.6	20.0	20.0
	M/S Near FP	77	10.0	0.8	1.0	5.0	8.2	15.0	20.0
	M/S Out FP	61	8.2	0.9	1.0	3.0	5.8	11.0	20.0
	M/S Plume	8	12.2 <sup>a</sup>	3.7	---	---	8.2	---	---
	Jackson/Calhoun	7	4.3 <sup>a</sup>	1.4	---	---	2.6	---	---
<b># YEARS FISHED IN THE SAGINAW BAY: 1980-2005</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E4</b> Fished in Saginaw Bay	Overall	329	9.6	0.9	1.0	2.0	6.0	16.4	26.0
	M/S FP	103	10.6	1.0	1.0	2.0	6.0	22.6	26.0
	M/S Near FP	98	11.2	1.2	1.0	2.0	7.4	22.0	26.0
	M/S Out FP	100	9.9	1.0	1.0	2.0	6.0	18.2	26.0
	M/S Plume	18	10.9 <sup>a</sup>	3.9	1.0	5.0	7.2	17.0	26.0
	Jackson/Calhoun	10	5.8 <sup>a</sup>	2.9	1.0	1.0	2.0	10.2	17.8

Note: Table shows the total number of years among participants who had ever fished in the Saginaw Bay and were alive during the years of interest.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 6

Last Update: XZ 05/20/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

	Region	N	% Yes	% No	S.E.
E5 Fished in KM River	Overall	1324	3.7	96.3	0.8
	M/S FP	326	0.1 <sup>a</sup>	99.9	0.1
	M/S Near FP	264	0.6 <sup>a</sup>	99.4	0.6
	M/S Out FP	304	0.6 <sup>a</sup>	99.4	0.4
	M/S Plume	71	7.4 <sup>a</sup>	92.6	7.0
	Jackson/Calhoun	359	6.4	93.6	1.6

Note: E5 asked participants whether they had ever fished in the Kalamazoo River between Morrow Pond Dam and Lake Michigan.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 1

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

# DAYS FISHED IN THE KALAMAZOO RIVER: TOTAL									
	Region	N	Mean	S.E.	5%ile	25 %ile	Median	75 %ile	95th %ile
E5 Fished in KM River	Overall	28	227.9 <sup>a</sup>	122.8	2.0	4.0	22.0	208.0	972.0
	M/S FP	---	---	---	---	---	---	---	---
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	23	234.8 <sup>a</sup>	127.6	2.0	4.0	22.0	272.0	738.0

Note: Table shows the total number of days that the participants fished in the Kalamazoo River between Morrow Pond Dam and Lake Michigan during their lifetime among participants who had ever done the activity.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 7

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS FISHED IN THE KALAMAZOO RIVER: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E5</b> Fished in KM River	Overall	28	14.7 <sup>a</sup>	4.1	1.0	2.0	9.4	17.2	55.4
	M/S FP	---	---	---	---	---	---	---	---
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	23	14.4 <sup>a</sup>	3.9	1.0	2.0	7.0	18.0	55.4
<b># YEARS FISHED IN THE KALAMAZOO RIVER: 1910-1939</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E5</b> Fished in KM River	Overall	---	---	---	---	---	---	---	---
	M/S FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Near FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Out FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	---	---	---	---	---	---	---	---
<b># YEARS FISHED IN THE KALAMAZOO RIVER: 1940-1959</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E5</b> Fished in KM River	Overall	---	---	---	---	---	---	---	---
	M/S FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Near FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	---	---	---	---	---	---	---	---

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo  
 Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS FISHED IN THE KALAMAZOO RIVER: 1960-1979</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E5</b> Fished in KM River	Overall	16	7.3 <sup>a</sup>	2.2	1.0	2.0	5.0	12.6	20.0
	M/S FP	---	---	---	---	---	---	---	---
	M/S Near FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	13	7.0 <sup>a</sup>	1.8	1.0	2.0	5.0	9.0	20.0
<b># YEARS FISHED IN THE KALAMAZOO RIVER: 1980-2005</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E5</b> Fished in KM River	Overall	21	13.0	2.7	1.0	2.0	11.0	24.2	26.0
	M/S FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	17	13.3	2.8	1.0	2.0	14.0	26.0	26.0

Note: Table shows the total number of years among participants who had ever fished in the Kalamazoo River between Morrow Pond Dam and Lake Michigan and were alive during the years of interest.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 1

Last Update: XZ 05/20/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

	Region	N	% Yes	% No	S.E.
<b>E6</b> Fished in Other MI Rivers	Overall	1324	75.6	24.4	1.7
	M/S FP	326	74.0	26.0	2.9
	M/S Near FP	264	73.2	26.8	3.4
	M/S Out FP	304	76.1	23.9	2.5
	M/S Plume	71	80.4 <sup>a</sup>	19.6	5.2
	Jackson/Calhoun	359	74.9	25.1	2.6

Note: E6 asked participants whether they had ever fished in any other Michigan rivers or lakes.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\dioxin\_mult.sas7bdat

Procedure: PROC 1

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># DAYS FISHED IN OTHER MICHIGAN RIVERS/LAKES: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E6</b> Fished in Other MI Rivers	Overall	967	376.2	45.0	2.0	8.0	70.0	298.0	1728.0
	M/S FP	243	262.3	42.9	2.0	8.0	56.0	273.6	1116.0
	M/S Near FP	193	277.1	37.6	2.0	10.0	68.8	315.6	1224.0
	M/S Out FP	217	297.2	35.7	2.0	8.0	51.6	228.8	1641.6
	M/S Plume	52	270.9 <sup>a</sup>	138.8	2.0	4.0	40.0	162.0	720.0
	Jackson/Calhoun	262	459.3	83.4	2.0	8.0	88.0	342.0	2700.0

Note: Table shows the total number of days that the participants fished in any other Michigan rivers or lakes during their lifetime among participants who had ever done the activity.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 7

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS FISHED IN OTHER MICHIGAN RIVERS/LAKES: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E6</b> Fished in Other MI Rivers	Overall	967	17.9	0.9	1.0	4.0	10.0	30.0	54.0
	M/S FP	243	17.0	1.2	1.0	3.0	10.4	25.6	53.0
	M/S Near FP	193	18.4	1.4	1.0	4.8	11.8	27.4	56.2
	M/S Out FP	217	16.4	1.1	1.0	4.0	9.0	24.2	50.0
	M/S Plume	52	15.0 <sup>a</sup>	3.8	1.0	2.0	9.0	17.6	48.0
	Jackson/Calhoun	262	19.5	1.4	1.0	3.6	11.0	35.0	54.0
<b># YEARS FISHED IN OTHER MICHIGAN RIVERS/LAKES: 1910-1939</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E6</b> Fished in Other MI Rivers	Overall	34	6.5	1.2	1.0	2.0	5.0	8.0	19.4
	M/S FP	9	5.1 <sup>a</sup>	1.5	---	---	3.6	---	---
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	6	3.6 <sup>a</sup>	1.7	---	---	2.0	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	14	8.4	1.9	2.0	3.0	7.0	12.0	19.0
<b># YEARS FISHED IN OTHER MICHIGAN RIVERS/LAKES: 1940-1959</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E6</b> Fished in Other MI Rivers	Overall	253	8.1	0.7	1.0	3.0	6.0	11.0	20.0
	M/S FP	74	6.6	0.7	1.0	2.0	5.0	9.0	18.0
	M/S Near FP	49	7.6	0.8	2.0	3.8	5.0	10.0	18.4
	M/S Out FP	45	7.9	1.3	1.0	3.0	5.2	11.0	20.0
	M/S Plume	10	3.4 <sup>a</sup>	1.1	1.0	2.0	2.0	2.0	10.0
	Jackson/Calhoun	75	8.5	0.8	1.0	3.0	7.0	11.0	20.0

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS FISHED IN OTHER MICHIGAN RIVERS/LAKES: 1960-1979</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E6</b> Fished in Other MI Rivers	Overall	573	10.2	0.5	1.0	4.0	9.0	18.2	20.0
	M/S FP	131	10.2	0.7	1.0	4.0	9.2	18.2	20.0
	M/S Near FP	137	9.8	0.7	1.0	3.0	8.2	16.0	20.0
	M/S Out FP	116	9.7	0.6	1.0	4.0	8.4	16.0	20.0
	M/S Plume	34	8.6	1.9	1.0	1.0	8.0	13.4	20.0
	Jackson/Calhoun	155	10.7	0.8	1.0	4.0	10.0	20.0	20.0
<b># YEARS FISHED IN OTHER MICHIGAN RIVERS/LAKES: 1980-2005</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E6</b> Fished in Other MI Rivers	Overall	709	13.2	0.5	1.0	3.0	11.0	26.0	26.0
	M/S FP	171	13.6	0.9	1.0	4.0	13.4	25.0	26.0
	M/S Near FP	142	13.0	1.0	1.0	3.0	9.0	25.0	26.0
	M/S Out FP	171	12.5	0.8	1.0	4.0	10.0	24.2	26.0
	M/S Plume	35	11.0	2.7	1.0	1.0	7.8	26.0	26.0
	Jackson/Calhoun	190	14.0	0.7	1.0	3.0	14.0	26.0	26.0

Note: Table shows the total number of years among participants who had ever fished in any other Michigan rivers or lakes and were alive during the years of interest.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is,  $CV(\text{estimate}) > 0.25$

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 6

Last Update: XZ 05/20/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

	Region	N	% Yes	% No	S.E.
E7 Hunted in MI	Overall	1324	36.1	63.9	2.3
	M/S FP	326	40.7	59.3	3.2
	M/S Near FP	264	43.0	57.0	3.6
	M/S Out FP	304	41.3	58.7	2.1
	M/S Plume	71	28.7 <sup>a</sup>	71.3	8.9
	Jackson/Calhoun	359	31.6	68.4	4.1

Note: E7 asked participants whether they had ever gone hunting anywhere in Michigan.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 1

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

	Region	N	% Yes	% No	S.E.
<b>E8</b> Hunted around TR Flood- plain	Overall	1324	4.5	95.5	1.0
	M/S FP	326	12.8	87.2	2.0
	M/S Near FP	264	11.2	88.8	2.1
	M/S Out FP	304	8.3 <sup>a</sup>	91.7	2.2
	M/S Plume	71	3.6 <sup>a</sup>	96.4	2.0
	Jackson/Calhoun	359	0.9 <sup>a</sup>	99.1	0.6

Note: E8 asked participants whether they had ever hunted in the surrounding areas of the Tittabawassee River floodplain below the Tridge.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 1

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

# DAYS HUNTED AROUND THE TITTABAWASSEE RIVER FLOODPLAIN: TOTAL									
	Region	N	Mean	S.E.	5%ile	25 %ile	Median	75 %ile	95th %ile
E8 Hunted around TR Flood- plain	Overall	106	128.7 <sup>a</sup>	48.1	2.0	10.0	46.4	56.8	536.0
	M/S FP	48	227.2	44.2	4.0	32.0	144.0	342.0	702.0
	M/S Near FP	31	149.3 <sup>a</sup>	37.9	2.0	10.0	56.0	176.0	468.0
	M/S Out FP	20	142.3 <sup>a</sup>	58.5	2.0	11.6	48.0	56.8	536.0
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---

Note: Table shows the total number of days that the participants hunted in the surrounding areas of the Tittabawassee River floodplain below the Tridge during their lifetime among participants who had ever done the activity.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 7

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS HUNTED AROUND THE TITTABAWASSEE RIVER FLOODPLAIN: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E8</b> Hunted around TR Flood- Plain	Overall	106	11.8 <sup>a</sup>	3.9	1.0	3.0	6.0	13.2	67.0
	M/S FP	48	17.1	2.1	2.0	5.0	11.0	27.0	39.0
	M/S Near FP	31	13.2	2.3	1.0	3.2	11.0	18.0	43.0
	M/S Out FP	20	12.3 <sup>a</sup>	4.6	1.0	3.6	6.0	15.0	67.0
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---
<b># YEARS HUNTED AROUND THE TITTABAWASSEE RIVER FLOODPLAIN: 1910-1939</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E8</b> Hunted around TR Flood- Plain	Overall	---	---	---	---	---	---	---	---
	M/S FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Near FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b># YEARS HUNTED AROUND THE TITTABAWASSEE RIVER FLOODPLAIN: 1940-1959</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E8</b> Hunted around TR Flood- plain	Overall	27	11.4 <sup>a</sup>	4.1	1.0	3.0	15.0	20.0	20.0
	M/S FP	14	6.9	0.8	1.0	5.0	6.0	10.0	10.0
	M/S Near FP	5	5.9 <sup>a</sup>	1.5	---	---	7.0	---	---
	M/S Out FP	6	11.9 <sup>a</sup>	4.5	---	---	15.8	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS HUNTED AROUND THE TITTABAWASSEE RIVER FLOODPLAIN: 1960-1979</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E8</b> Hunted around TR Flood- Plain	Overall	65	7.6 <sup>a</sup>	2.1	1.0	3.6	6.0	9.2	20.0
	M/S FP	32	8.5	1.1	1.0	3.0	8.0	13.0	20.0
	M/S Near FP	20	8.6	1.5	1.0	3.0	8.0	14.0	20.0
	M/S Out FP	11	7.5 <sup>a</sup>	2.3	1.0	5.0	6.0	8.0	20.0
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---
<b># YEARS HUNTED AROUND THE TITTABAWASSEE RIVER FLOODPLAIN: 1980-2005</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E8</b> Hunted around TR Flood- plain	Overall	69	8.9	2.2	1.0	3.0	5.8	13.6	25.0
	M/S FP	31	14.2	1.9	1.0	6.0	11.0	25.0	26.0
	M/S Near FP	23	9.3	1.8	1.0	2.6	5.0	15.0	26.0
	M/S Out FP	11	9.7 <sup>a</sup>	2.8	1.0	4.4	6.0	14.2	25.0
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---

Note: Table shows the total number of years among participants who had ever hunted in the surrounding areas of the Tittabawassee River floodplain below the Tridge and were alive during the years of interest.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 6

Last Update: XZ 05/20/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

	Region	N	% Yes	% No	S.E.
<b>E9</b> Hunted around Saginaw River	Overall	1324	3.2 <sup>a</sup>	96.8	0.9
	M/S FP	326	5.1	94.9	1.3
	M/S Near FP	264	10.3	89.7	2.5
	M/S Out FP	304	5.6 <sup>a</sup>	94.4	1.8
	M/S Plume	71	5.6 <sup>a</sup>	94.4	4.1
	Jackson/Calhoun	359	0.8 <sup>a</sup>	99.2	0.5

Note: E9 asked participants whether they had hunted in the surrounding areas of the Saginaw River floodplain.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\dioxin\_mult.sas7bdat

Procedure: PROC 1

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># DAYS HUNTED AROUND THE SAGINAW RIVER FLOODPLAIN: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E9</b> Hunted around Saginaw River	Overall	64	117.4	24.4	6.0	26.0	72.0	116.0	360.0
	M/S FP	19	300.0 <sup>a</sup>	231.4	2.0	6.0	96.4	312.0	741.6
	M/S Near FP	24	168.4 <sup>a</sup>	44.3	6.0	32.0	128.0	280.0	378.0
	M/S Out FP	16	133.6	28.5	8.0	32.0	88.0	144.0	360.0
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---

Note: Table shows the total number of days that the participants hunted in the surrounding areas of the Saginaw River floodplain during their lifetime among participants who had ever done the activity.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 7

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS HUNTED AROUND THE SAGINAW RIVER FLOODPLAIN: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E9</b> Hunted around Saginaw River	Overall	64	17.8	4.4	2.0	6.0	11.0	21.0	58.0
	M/S FP	19	19.5	4.0	1.0	3.0	19.0	34.0	46.8
	M/S Near FP	24	16.4	2.2	2.0	11.0	16.0	21.0	35.0
	M/S Out FP	16	19.8 <sup>a</sup>	5.4	2.0	7.0	11.0	33.0	58.0
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---
<b># YEARS HUNTED AROUND THE SAGINAW RIVER FLOODPLAIN: 1910-1939</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E9</b> Hunted around Saginaw River	Overall	---	---	---	---	---	---	---	---
	M/S FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b># YEARS HUNTED AROUND THE SAGINAW RIVER FLOODPLAIN: 1940-1959</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E9</b> Hunted around Saginaw River	Overall	12	10.8 <sup>a</sup>	4.5	1.0	6.0	8.0	20.0	20.0
	M/S FP	5	7.5	0.6	---	---	7.0	---	---
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	---	---	---	---	---	---	---	---

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS HUNTED AROUND THE SAGINAW RIVER FLOODPLAIN: 1960-1979</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E9</b> Hunted around Saginaw River	Overall	43	10.3 <sup>a</sup>	3.1	1.0	2.0	7.0	20.0	20.0
	M/S FP	13	8.1	2.0	1.0	2.0	5.2	14.0	20.0
	M/S Near FP	20	7.6	1.4	1.0	4.0	7.0	11.0	18.0
	M/S Out FP	8	12.0 <sup>a</sup>	3.5	---	---	10.0	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---
<b># YEARS HUNTED AROUND THE SAGINAW RIVER FLOODPLAIN: 1980-2005</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E9</b> Hunted around Saginaw River	Overall	47	12.4	1.5	3.0	4.0	11.0	17.0	26.0
	M/S FP	12	18.1	2.5	1.0	14.2	21.0	25.6	26.0
	M/S Near FP	19	11.4	2.2	1.0	2.0	11.0	17.0	25.0
	M/S Out FP	13	12.8	1.6	3.0	7.0	11.0	16.0	26.0
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---

Note: Table shows the total number of years among participants who had ever hunted in the surrounding areas of the Saginaw River floodplain and were alive during the years of interest.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is,  $CV(\text{estimate}) > 0.25$

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 6

Last Update: XZ 05/20/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

	Region	N	% Yes	% No	S.E.
<b>E10</b> Hunted around Saginaw Bay	Overall	1324	3.3	96.7	0.8
	M/S FP	326	6.3	93.7	1.4
	M/S Near FP	264	10.1	89.9	2.1
	M/S Out FP	304	5.7 <sup>a</sup>	94.3	1.6
	M/S Plume	71	9.6 <sup>a</sup>	90.4	7.1
	Jackson/Calhoun	359	0.6 <sup>a</sup>	99.4	0.4

Note: E10 asked participants whether they had hunted in the surrounding areas of the Saginaw Bay.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\dioxin\_mult.sas7bdat

Procedure: PROC 1

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

# DAYS HUNTED AROUND SAGINAW BAY: TOTAL									
	Region	N	Mean	S.E.	5%ile	25 %ile	Median	75 %ile	95th %ile
E10 Hunted around Saginaw Bay	Overall	72	267.3 <sup>a</sup>	159.2	2.0	8.0	46.0	162.0	3456.0
	M/S FP	24	184.6	44.8	2.0	48.0	88.0	306.0	590.4
	M/S Near FP	26	109.1 <sup>a</sup>	32.0	2.0	8.0	20.0	198.0	288.0
	M/S Out FP	17	303.4 <sup>a</sup>	201.2	2.0	14.0	46.0	116.0	3456.0
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---

Note: Table shows the total number of days that the participants hunted in the surrounding areas of the Saginaw Bay during their lifetime among participants who had ever done the activity.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 7

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS HUNTED AROUND SAGINAW BAY: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E10</b> Hunted around Saginaw Bay	Overall	72	18.1 <sup>a</sup>	4.7	1.0	2.0	8.0	29.0	58.0
	M/S FP	24	19.3	3.7	1.0	6.0	14.0	27.0	63.0
	M/S Near FP	26	8.4	1.4	1.0	3.0	7.0	13.0	22.0
	M/S Out FP	17	17.6 <sup>a</sup>	5.4	1.0	2.0	7.0	25.0	58.0
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---
<b># YEARS HUNTED AROUND SAGINAW BAY: 1910-1939</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E10</b> Hunted around Saginaw Bay	Overall	---	---	---	---	---	---	---	---
	M/S FP	---	---	---	---	---	---	---	---
	M/S Near FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b># YEARS HUNTED AROUND SAGINAW BAY: 1940-1959</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E10</b> Hunted around Saginaw Bay	Overall	22	8.9 <sup>a</sup>	3.3	1.0	2.0	3.0	20.0	20.0
	M/S FP	11	7.3 <sup>a</sup>	2.3	1.0	3.0	3.0	13.0	19.2
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	5	11.0 <sup>a</sup>	4.7	---	---	3.0	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo  
 Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS HUNTED AROUND SAGINAW BAY: 1960-1979</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E10</b> Hunted around Saginaw Bay	Overall	47	10.9	2.4	1.0	2.0	10.0	20.0	20.0
	M/S FP	18	9.3	1.4	1.0	3.0	9.4	13.0	20.0
	M/S Near FP	18	5.4	1.2	1.0	1.0	4.0	11.0	15.0
	M/S Out FP	9	9.9 <sup>a</sup>	2.7	---	---	9.0	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b># YEARS HUNTED AROUND SAGINAW BAY: 1980-2005</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E10</b> Hunted around Saginaw Bay	Overall	42	12.9	2.5	1.0	4.0	16.0	21.0	26.0
	M/S FP	14	14.4	3.3	1.0	1.0	17.0	26.0	26.0
	M/S Near FP	14	7.4	1.7	1.0	3.0	4.0	13.0	21.0
	M/S Out FP	10	12.6	2.6	1.0	4.0	16.0	19.0	26.0
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---

Note: Table shows the total number of years among participants who had ever hunted in the surrounding areas of the Saginaw Bay and were alive during the years of interest.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

\*\*\* Nonzero reports from imputed data. Estimate is not shown.

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 6

Last Update: XZ 05/20/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

	Region	N	% Yes	% No	S.E.
<b>E11</b> Hunted around KM River	Overall	1324	1.5 <sup>a</sup>	98.5	0.6
	M/S FP	326	0.0	100.0	0.0
	M/S Near FP	264	0.7 <sup>a</sup>	99.3	0.6
	M/S Out FP	304	0.4 <sup>a</sup>	99.6	0.4
	M/S Plume	71	7.4 <sup>a</sup>	92.6	7.0
	Jackson/Calhoun	359	2.1 <sup>a</sup>	97.9	1.0

Note: E11 asked participants whether they had hunted in the surrounding areas of the Kalamazoo River between Morrow Pond Dam and Lake Michigan.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\dioxin\_mult.sas7bdat

Procedure: PROC 1

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

# DAYS HUNTED AROUND THE KALAMAZOO RIVER: TOTAL									
	Region	N	Mean	S.E.	5%ile	25 %ile	Median	75 %ile	95th %ile
E11 Hunted around KM River	Overall	9	143.2	129.7	---	---	10.0	---	---
	M/S FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	5	182.7	188.7	---	---	10.0	---	---

Note: Table shows the total number of days that the participants hunted in the surrounding areas of the Kalamazoo River between Morrow Pond Dam and Lake Michigan during their lifetime among participants who had ever done the activity.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 7

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS HUNTED AROUND THE KALAMAZOO RIVER: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E11</b> Hunted around KM River	Overall	9	6.4 <sup>a</sup>	1.8	---	---	5.0	---	---
	M/S FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	5	6.3 <sup>a</sup>	2.5	---	---	5.0	---	---
<b># YEARS HUNTED AROUND THE KALAMAZOO RIVER: 1910-1939</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E11</b> Hunted around KM River	Overall	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Near FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Out FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b># YEARS HUNTED AROUND THE KALAMAZOO RIVER: 1940-1959</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E11</b> Hunted around KM River	Overall	---	---	---	---	---	---	---	---
	M/S FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS HUNTED AROUND THE KALAMAZOO RIVER: 1960-1979</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E11</b> Hunted around KM River	Overall	---	---	---	---	---	---	---	---
	M/S FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	---	---	---	---	---	---	---	---
<b># YEARS HUNTED AROUND THE KALAMAZOO RIVER: 1980-2005</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E11</b> Hunted around KM River	Overall	7	5.4	1.2	---	---	4.0	---	---
	M/S FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---

Note: Table shows the total number of years among participants who had ever hunted in the surrounding areas of the Kalamazoo River between Morrow Pond Dam and Lake Michigan and were alive during the years of interest.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 6

Last Update: XZ 05/20/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

	Region	N	% Yes	% No	S.E.
<b>E12</b> Hunted around Other MI rivers	Overall	1324	21.3	78.7	1.8
	M/S FP	326	20.7	79.3	2.8
	M/S Near FP	264	27.1	72.9	3.4
	M/S Out FP	304	26.2	73.8	2.1
	M/S Plume	71	17.6 <sup>a</sup>	82.4	8.7
	Jackson/Calhoun	359	17.1	82.9	2.9

Note: E12 asked participants whether they had hunted in the surrounding areas of any other Michigan rivers or lakes.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 1

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

# DAYS HUNTED AROUND OTHER MI RIVERS/LAKES: TOTAL									
	Region	N	Mean	S.E.	5%ile	25 %ile	Median	75 %ile	95th %ile
E12 Hunted around Other MI rivers	Overall	260	468.9	101.7	2.0	32.0	162.0	486.0	1512.0
	M/S FP	66	189.3	30.9	2.0	24.0	97.6	272.0	702.0
	M/S Near FP	61	276.9 <sup>a</sup>	82.0	2.0	22.0	100.0	248.0	594.0
	M/S Out FP	72	381.7	81.7	4.0	44.8	146.8	372.8	1512.0
	M/S Plume	7	215.0 <sup>a</sup>	87.5	---	---	102.0	---	---
	Jackson/Calhoun	54	617.6 <sup>a</sup>	232.5	2.0	8.0	244.8	648.0	2448.0

Note: Table shows the total number of days that the participants hunted in the surrounding areas of any other Michigan rivers or lakes during their lifetime among participants who had ever done the activity.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 7

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS HUNTED AROUND OTHER MI RIVERS/LAKES: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E12</b> Hunted around Other MI rivers	Overall	260	22.1	1.6	1.0	5.8	19.2	34.0	55.8
	M/S FP	66	19.4	2.2	1.0	6.0	13.2	34.0	52.0
	M/S Near FP	61	21.8	2.2	1.0	6.0	22.0	31.0	54.0
	M/S Out FP	72	22.9	2.2	1.0	7.8	19.0	38.2	58.4
	M/S Plume	7	43.2	4.8	---	---	48.0	---	---
	Jackson/Calhoun	54	19.7	1.9	1.0	3.0	20.0	31.2	51.6
<b># YEARS HUNTED AROUND OTHER MI RIVERS/LAKES: 1910-1939</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E12</b> Hunted around Other MI rivers	Overall	5	4.3 <sup>a</sup>	2.1	---	---	3.2	---	---
	M/S FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	---	---	---	---	---	---	---	---
<b># YEARS HUNTED AROUND OTHER MI RIVERS/LAKES: 1940-1959</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E12</b> Hunted around Other MI rivers	Overall	68	7.4	1.0	1.0	2.4	5.2	10.8	20.0
	M/S FP	20	6.8	1.3	1.0	3.0	5.8	8.8	18.0
	M/S Near FP	15	6.8	1.6	1.0	2.0	4.0	9.0	20.0
	M/S Out FP	17	9.4	1.2	2.0	3.0	10.0	12.8	20.0
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	13	5.5 <sup>a</sup>	1.9	1.0	1.0	4.0	7.2	18.2

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS HUNTED AROUND OTHER MI RIVERS/LAKES: 1960-1979</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E12</b> Hunted around Other MI rivers	Overall	168	10.8	1.0	1.0	4.0	10.0	20.0	20.0
	M/S FP	40	10.9	1.2	1.8	5.0	9.8	18.0	20.0
	M/S Near FP	45	9.0	1.0	2.0	4.0	7.0	12.0	20.0
	M/S Out FP	41	11.4	1.2	1.0	5.0	11.0	20.0	20.0
	M/S Plume	6	17.5	2.2	---	---	20.0	---	---
	Jackson/Calhoun	36	9.2	1.7	1.0	2.8	7.6	15.6	20.0
<b># YEARS HUNTED AROUND OTHER MI RIVERS/LAKES: 1980-2005</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E12</b> Hunted around Other MI rivers	Overall	204	16.3	1.1	1.0	6.0	19.4	26.0	26.0
	M/S FP	50	15.2	1.4	1.0	7.0	15.2	25.0	26.0
	M/S Near FP	48	17.1	1.5	1.0	10.0	21.0	25.0	26.0
	M/S Out FP	59	16.3	1.2	1.0	9.0	18.4	25.0	26.0
	M/S Plume	5	24.1	2.0	---	---	26.0	---	---
	Jackson/Calhoun	42	15.7	2.0	1.0	3.0	20.6	26.0	26.0

Note: Table shows the total number of years among participants who had ever hunted in the surrounding areas of any other Michigan rivers or lakes and were alive during the years of interest.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is,  $CV(\text{estimate}) > 0.25$

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 6

Last Update: XZ 05/20/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

	Region	N	% Yes	% No	S.E.
<b>E13</b> Rec. Activities in MI	Overall	1324	92.7	7.3	1.3
	M/S FP	326	96.9	3.1 <sup>a</sup>	1.2
	M/S Near FP	264	94.7	5.3 <sup>a</sup>	2.2
	M/S Out FP	304	91.5	8.5	2.0
	M/S Plume	71	98.0	2.0 <sup>a</sup>	1.7
	Jackson/Calhoun	359	93.3	6.7 <sup>a</sup>	1.9

Note: Rec. refers to recreational. E13 asked participants whether they had ever done any recreational activities, such as swimming, boating, hiking, or picnicking, in or around any rivers or lakes anywhere in Michigan.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\dioxin\_mult.sas7bdat

Procedure: PROC 1

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

	Region	N	% Yes	% No	S.E.
<b>E14</b> Rec. Activities in/around TR	Overall	1324	11.5	88.5	1.2
	M/S FP	326	45.1	54.9	3.3
	M/S Near FP	264	31.2	68.8	3.4
	M/S Out FP	304	20.6	79.4	2.5
	M/S Plume	71	21.3 <sup>a</sup>	78.7	5.8
	Jackson/Calhoun	359	1.7 <sup>a</sup>	98.3	0.8

Note: Rec. refers to recreational. E14 asked participants whether they had ever done any recreational activities such as swimming, boating, hiking, or picnicking, in or around the Tittabawassee River below the Tridge.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\dioxin\_mult.sas7bdat

Procedure: PROC 1

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># DAYS DID RECREATIONAL ACTIVITIES IN/AROUND THE TITTABAWASSEE RIVER: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E14</b> Rec. Activities in/around TR	Overall	312	214.7 <sup>a</sup>	70.5	2.0	4.0	32.0	107.2	1050.0
	M/S FP	141	558.9	97.1	2.0	26.0	165.6	446.4	3300.0
	M/S Near FP	83	168.8	36.8	2.0	10.0	48.0	184.0	700.0
	M/S Out FP	63	225.6 <sup>a</sup>	88.0	2.0	2.0	32.0	105.6	1260.0
	M/S Plume	17	84.4 <sup>a</sup>	25.8	2.0	6.0	61.6	129.6	378.0
	Jackson/Calhoun	8	31.7 <sup>a</sup>	27.6	---	---	12.0	---	---

Note: Table shows the total number of days that the participants did any recreational activities such as swimming, boating, hiking, or picnicking, in or around the Tittabawassee River below the Tridge during their lifetime among participants who had ever done the activity.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

--- Estimate not shown to maintain confidentiality of study participants.

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DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 7

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND THE TITTABAWASSEE RIVER: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E14</b> Rec. Activities in/around TR	Overall	312	12.4	1.9	1.0	1.0	5.4	18.6	43.2
	M/S FP	141	15.8	1.5	1.0	5.0	11.0	22.0	54.0
	M/S Near FP	83	13.9	1.5	1.0	4.0	10.2	21.0	37.0
	M/S Out FP	63	13.0	2.3	1.0	1.0	5.0	21.4	44.0
	M/S Plume	17	8.8	1.8	1.0	3.0	8.0	11.6	21.4
	Jackson/Calhoun	8	6.5 <sup>a</sup>	3.0	---	---	5.6	---	---
<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND THE TITTABAWASSEE RIVER: 1910-1939</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E14</b> Rec. Activities in/around TR	Overall	7	4.5 <sup>a</sup>	2.9	---	---	4.0	---	---
	M/S FP	---	---	---	---	---	---	---	---
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND THE TITTABAWASSEE RIVER: 1940-1959</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E14</b> Rec. Activities in/around TR	Overall	24	7.9 <sup>a</sup>	2.4	2.0	3.6	8.0	12.0	14.0
	M/S FP	15	11.2	1.5	3.0	6.0	14.0	14.0	18.0
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	5	7.7 <sup>a</sup>	2.9	---	---	8.0	---	---
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	---	---	---	---	---	---	---	---

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND THE TITTABAWASSEE RIVER: 1960-1979</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E14</b> Rec. Activities in/around TR	Overall	111	8.4	1.2	1.0	3.0	6.2	12.8	20.0
	M/S FP	53	9.8	1.1	1.0	5.0	8.0	16.0	20.0
	M/S Near FP	29	7.8	0.9	2.0	4.0	7.0	10.2	17.0
	M/S Out FP	22	9.3	1.5	1.2	3.0	7.2	16.0	20.0
	M/S Plume	5	4.3 <sup>a</sup>	1.3	---	---	3.0	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---
<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND THE TITTABAWASSEE RIVER: 1980-2005</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E14</b> Rec. Activities in/around TR	Overall	279	10.2	1.3	1.0	1.0	5.6	20.2	26.0
	M/S FP	129	12.4	0.9	1.0	5.0	11.0	21.0	26.0
	M/S Near FP	73	12.3	1.3	1.0	3.0	11.0	21.2	26.0
	M/S Out FP	57	10.3	1.5	1.0	1.0	5.0	21.4	26.0
	M/S Plume	15	8.5	1.9	1.0	2.0	9.0	10.4	21.0
	Jackson/Calhoun	5	6.1 <sup>a</sup>	4.7	---	---	6.6	---	---

Note: Table shows the total number of years among participants who had ever done any recreational activities such as swimming, boating, hiking, or picnicking, in or around the Tittabawassee River below the Tridge and were alive during the years of interest.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 6

Last Update: XZ 05/20/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

	Region	N	% Yes	% No	S.E.
<b>E15</b> Rec. Activities in/around Saginaw River	Overall	1324	17.3	82.7	1.5
	M/S FP	326	43.8	56.2	3.3
	M/S Near FP	264	46.9	53.1	3.7
	M/S Out FP	304	33.5	66.5	3.2
	M/S Plume	71	16.6 <sup>a</sup>	83.4	5.6
	Jackson/Calhoun	359	1.8 <sup>a</sup>	98.2	1.1

Note: Rec. refers to recreational. E15 asked participants whether they had ever done any recreational activities such as swimming, boating, hiking, or picnicking, in or around the Saginaw River.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\dioxin\_mult.sas7bdat

Procedure: PROC 1

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

# DAYS DID RECREATIONAL ACTIVITIES IN/AROUND THE SAGINAW RIVER: TOTAL									
	Region	N	Mean	S.E.	5%ile	25 %ile	Median	75 %ile	95th %ile
<b>E15</b> Rec. Activities in/around Saginaw River	Overall	378	409.2 <sup>a</sup>	131.0	2.0	10.0	47.2	162.0	2476.8
	M/S FP	138	218.8	42.2	2.0	14.0	54.0	169.6	1062.0
	M/S Near FP	121	172.8	34.9	2.0	8.0	36.0	168.0	756.0
	M/S Out FP	101	448.0 <sup>a</sup>	150.7	2.0	8.0	51.6	162.0	3456.0
	M/S Plume	12	172.4 <sup>a</sup>	119.0	2.0	4.0	10.0	72.0	1368.0
	Jackson/Calhoun	6	113.6 <sup>a</sup>	109.9	---	---	14.8	---	---

Note: Table shows the total number of days that the participants did any recreational activities such as swimming, boating, hiking, or picnicking, in or around the Saginaw River during their lifetime among participants who had ever done the activity.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 7

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND THE SAGINAW RIVER: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E15</b> Rec. Activities in/around Saginaw River	Overall	378	12.6	1.3	1.0	3.0	7.6	14.0	46.0
	M/S FP	138	15.6	1.8	1.0	3.8	8.0	23.0	60.0
	M/S Near FP	121	12.7	1.3	1.0	3.0	7.8	18.0	44.0
	M/S Out FP	101	13.0	1.5	1.0	3.0	8.0	15.0	48.0
	M/S Plume	12	6.9 <sup>a</sup>	1.9	1.0	2.0	5.0	10.8	19.0
	Jackson/Calhoun	6	7.1 <sup>a</sup>	2.1	---	---	7.4	---	---
<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND THE SAGINAW RIVER: 1910-1939</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E15</b> Rec. Activities in/around Saginaw River	Overall	10	3.3	0.2	3.0	3.0	3.0	3.0	4.0
	M/S FP	5	10.3 <sup>a</sup>	3.1	---	---	7.0	---	---
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND THE SAGINAW RIVER: 1940-1959</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E15</b> Rec. Activities in/around Saginaw River	Overall	61	5.0	1.1	1.0	1.8	3.0	7.2	15.0
	M/S FP	29	7.8	1.2	2.0	3.0	5.2	14.0	18.0
	M/S Near FP	20	7.0	1.1	1.0	3.0	5.0	10.2	19.6
	M/S Out FP	11	4.9	1.2	1.0	2.0	3.0	6.0	12.0
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	---	---	---	---	---	---	---	---

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND THE SAGINAW RIVER: 1960-1979</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E15</b> Rec. Activities in/around Saginaw River	Overall	161	8.3	0.9	1.0	3.0	6.8	12.6	20.0
	M/S FP	54	11.8	1.2	1.0	5.0	12.4	20.0	20.0
	M/S Near FP	55	7.8	0.8	1.0	3.0	6.6	12.0	20.0
	M/S Out FP	44	8.3	1.0	1.0	3.0	6.8	12.4	20.0
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---
<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND THE SAGINAW RIVER: 1980-2005</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E15</b> Rec. Activities in/around Saginaw River	Overall	303	10.0	1.1	1.0	2.4	6.4	15.0	26.0
	M/S FP	108	11.8	1.1	1.0	4.0	9.8	21.2	26.0
	M/S Near FP	95	10.4	1.1	1.0	2.0	6.0	19.2	26.0
	M/S Out FP	84	10.5	1.2	1.0	2.4	6.8	15.0	26.0
	M/S Plume	12	3.9 <sup>a</sup>	1.5	1.0	1.0	1.6	6.2	15.0
	Jackson/Calhoun	---	---	---	---	---	---	---	---

Note: Table shows the total number of years among participants who had ever done any recreational activities such as swimming, boating, hiking, or picnicking, in or around the Saginaw River and were alive during the years of interest.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 6

Last Update: XZ 05/20/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

	Region	N	% Yes	% No	S.E.
<b>E16</b> Rec. Activities in/around Saginaw Bay	Overall	1324	26.1	73.9	2.1
	M/S FP	326	60.2	39.8	3.2
	M/S Near FP	264	59.9	40.1	3.7
	M/S Out FP	304	46.2	53.8	4.1
	M/S Plume	71	45.0	55.0	8.7
	Jackson/Calhoun	359	5.7	94.3	1.4

Note: Rec. refers to recreational. E16 asked participants whether they had ever done any recreational activities such as swimming, boating, hiking, or picnicking, in or around Saginaw Bay.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 1

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

# DAYS DID RECREATIONAL ACTIVITIES IN/AROUND SAGINAW BAY: TOTAL									
	Region	N	Mean	S.E.	5%ile	25 %ile	Median	75 %ile	95th %ile
<b>E16</b> Rec. Activities in/around Saginaw Bay	Overall	544	244.2	47.6	2.0	10.0	36.0	163.6	1440.0
	M/S FP	198	257.0	50.6	2.0	8.0	48.0	238.4	1134.0
	M/S Near FP	161	175.4	29.0	2.0	7.6	40.0	175.6	777.6
	M/S Out FP	141	268.3	59.4	2.0	14.0	41.2	176.0	1620.0
	M/S Plume	28	216.3 <sup>a</sup>	80.9	2.0	12.0	72.0	342.0	1368.0
	Jackson/Calhoun	16	95.3 <sup>a</sup>	38.1	2.0	2.0	2.0	18.4	324.0

Note: Table shows the total number of days that the participants did any recreational activities such as swimming, boating, hiking, or picnicking, in or around Saginaw Bay during their lifetime among participants who had ever done the activity.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 7

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND SAGINAW BAY: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E16</b> Rec. Activities in/around Saginaw Bay	Overall	544	13.9	1.2	1.0	3.0	8.0	21.0	46.0
	M/S FP	198	16.3	1.6	1.0	3.0	9.0	22.0	60.0
	M/S Near FP	161	13.1	1.2	1.0	2.2	7.2	20.0	43.0
	M/S Out FP	141	14.8	1.3	1.0	4.0	8.6	22.0	45.2
	M/S Plume	28	14.7 <sup>a</sup>	5.8	1.0	5.0	9.0	15.8	48.0
	Jackson/Calhoun	16	6.5 <sup>a</sup>	1.9	1.0	1.0	1.0	9.2	21.0
<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND SAGINAW BAY: 1910-1939</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E16</b> Rec. Activities in/around Saginaw Bay	Overall	16	4.6	0.9	1.0	3.0	4.2	5.8	9.4
	M/S FP	7	9.1 <sup>a</sup>	2.5	---	---	5.0	---	---
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---
<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND SAGINAW BAY: 1940-1959</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E16</b> Rec. Activities in/around Saginaw Bay	Overall	101	4.7	0.7	1.0	1.0	3.0	7.2	13.0
	M/S FP	47	8.7	0.9	1.0	3.0	9.0	14.0	18.0
	M/S Near FP	25	7.7	1.0	2.6	4.0	6.0	11.0	18.4
	M/S Out FP	21	4.2	0.8	1.0	1.0	3.0	6.8	9.0
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	---	---	---	---	---	---	---	---

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND SAGINAW BAY: 1960-1979</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E16</b> Rec. Activities in/around Saginaw Bay	Overall	245	9.0	0.9	1.0	3.0	7.4	13.6	20.0
	M/S FP	90	10.7	0.9	1.0	5.0	10.0	20.0	20.0
	M/S Near FP	74	8.5	0.9	1.0	3.0	6.0	15.0	20.0
	M/S Out FP	66	9.0	0.9	1.0	3.0	7.4	13.6	20.0
	M/S Plume	9	11.7 <sup>a</sup>	3.5	---	---	8.0	---	---
	Jackson/Calhoun	6	7.0 <sup>a</sup>	2.6	---	---	5.8	---	---
<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND SAGINAW BAY: 1980-2005</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E16</b> Rec. Activities in/around Saginaw Bay	Overall	422	11.3	0.9	1.0	2.6	7.6	21.0	26.0
	M/S FP	154	11.6	0.9	1.0	3.0	7.8	25.0	26.0
	M/S Near FP	123	10.3	0.9	1.0	2.0	6.0	21.0	26.0
	M/S Out FP	110	12.3	1.1	1.0	3.6	9.2	22.6	26.0
	M/S Plume	24	8.8 <sup>a</sup>	3.4	1.0	2.0	6.0	10.0	26.0
	Jackson/Calhoun	11	4.9 <sup>a</sup>	1.9	1.0	1.0	1.0	6.6	12.2

Note: Table shows the total number of years among participants who had ever done any recreational activities such as swimming, boating, hiking, or picnicking, in or around Saginaw Bay and were alive during the years of interest.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 6

Last Update: XZ 05/20/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

	Region	N	% Yes	% No	S.E.
<b>E17</b> Rec. Activities in/around KM River	Overall	1324	6.2	93.8	1.0
	M/S FP	326	0.1 <sup>a</sup>	99.9	0.2
	M/S Near FP	264	1.8 <sup>a</sup>	98.2	0.9
	M/S Out FP	304	1.3 <sup>a</sup>	98.7	1.0
	M/S Plume	71	7.4 <sup>a</sup>	92.6	7.0
	Jackson/Calhoun	359	10.6	89.4	1.8

Note: Rec. refers to recreational. E17 asked participants whether they had ever done any recreational activities such as swimming, boating, hiking, or picnicking, in or around the Kalamazoo River between Morrow Pond Dam and Lake Michigan.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 1

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

# DAYS DID RECREATIONAL ACTIVITIES IN/AROUND THE KALAMAZOO RIVER: TOTAL									
	Region	N	Mean	S.E.	5%ile	25 %ile	Median	75 %ile	95th %ile
E17 Rec. Activities in/around KM River	Overall	47	336.3 <sup>a</sup>	191.5	2.0	4.0	23.6	108.8	1396.8
	M/S FP	---	---	---	---	---	---	---	---
	M/S Near FP	5	175.5 <sup>a</sup>	92.5	---	---	108.0	---	---
	M/S Out FP	5	54.9 <sup>a</sup>	27.0	---	---	10.0	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	35	379.2 <sup>a</sup>	220.4	2.0	4.0	21.2	111.2	2160.0

Note: Table shows the total number of days that the participants did any recreational activities such as swimming, boating, hiking, or picnicking, in or around the Kalamazoo River between Morrow Pond Dam and Lake Michigan during their lifetime among participants who had ever done the activity.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

--- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 7

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND THE KALAMAZOO RIVER: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E17</b> Rec. Activities in/around KM River	Overall	47	10.4	2.5	1.0	1.0	3.8	11.8	39.4
	M/S FP	---	---	---	---	---	---	---	---
	M/S Near FP	5	10.1 <sup>a</sup>	5.0	---	---	6.0	---	---
	M/S Out FP	5	17.5 <sup>a</sup>	6.3	---	---	2.0	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	35	9.6 <sup>a</sup>	2.6	1.0	1.0	3.6	9.8	40.0
<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND THE KALAMAZOO RIVER: 1910-1939</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E17</b> Rec. Activities in/around KM River	Overall	---	---	---	---	---	---	---	---
	M/S FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Near FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	---	---	---	---	---	---	---	---
<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND THE KALAMAZOO RIVER: 1940-1959</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E17</b> Rec. Activities in/around KM River	Overall	---	---	---	---	---	---	---	---
	M/S FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	17	0.9 <sup>a</sup>	0.5	0.0	0.0	0.0	0.0	0.0

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo  
Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND THE KALAMAZOO RIVER: 1960-1979</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E17</b> Rec. Activities in/around KM River	Overall	17	8.1	1.5	1.0	4.0	6.0	10.8	20.0
	M/S FP	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	M/S Near FP	---	---	---	---	---	---	---	---
	M/S Out FP	---	---	---	---	---	---	---	---
	M/S Plume	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Jackson/Calhoun	13	8.3	1.5	1.0	5.0	6.0	10.0	20.0
<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND THE KALAMAZOO RIVER: 1980-2005</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E17</b> Rec. Activities in/around KM River	Overall	44	7.4	1.5	1.0	1.0	3.0	9.8	26.0
	M/S FP	---	---	---	---	---	---	---	---
	M/S Near FP	5	7.5 <sup>a</sup>	3.0	---	---	6.0	---	---
	M/S Out FP	5	8.5	1.9	---	---	1.0	---	---
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	32	7.1	1.7	1.0	1.0	3.0	7.6	26.0

Note: Table shows the total number of years among participants who had ever done any recreational activities such as swimming, boating, hiking, or picnicking, in or around the Kalamazoo River between Morrow Pond Dam and Lake Michigan and were alive during the years of interest.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

-- Estimate not shown to maintain confidentiality of study participants.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 6

Last Update: XZ 05/20/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

	Region	N	% Yes	% No	S.E.
<b>E18</b> Rec. Activities in/around Other MI rivers	Overall	1324	83.9	16.1	1.7
	M/S FP	326	83.0	17.0	2.4
	M/S Near FP	264	83.1	16.9	3.2
	M/S Out FP	304	81.0	19.0	2.8
	M/S Plume	71	90.3	9.7 <sup>a</sup>	4.0
	Jackson/Calhoun	359	86.2	13.8	2.2

Note: Rec. refers to recreational. E18 asked participants whether they had ever done any recreational activities such as swimming, boating, hiking, or picnicking, in or around any other Michigan rivers or lakes.

SAS program: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ Multi\_Table\_May2008.sas

DATA directory: N:\Secure\UMDES\Data\_Statistics\Questionnaire tables 2008\ dioxin\_mult.sas7bdat

Procedure: PROC 1

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># DAYS DID RECREATIONAL ACTIVITIES IN/AROUND OTHER MI RIVERS/LAKES: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E18</b> Rec. Activities in/around Other MI rivers	Overall	1101	567.0	44.0	2.0	31.6	175.2	658.8	2340.0
	M/S FP	263	591.0	66.1	2.0	54.0	270.4	769.2	2281.2
	M/S Near FP	224	525.1	59.4	2.0	41.6	214.4	604.8	1944.0
	M/S Out FP	245	471.5	78.2	3.6	28.8	120.0	452.8	1851.6
	M/S Plume	63	621.9 <sup>a</sup>	213.1	8.0	56.0	256.0	540.0	3309.6
	Jackson/Calhoun	306	643.6	51.7	2.0	32.0	248.8	788.0	2628.0

Note: Table shows the total number of days that the participant did any recreational activities such as swimming, boating, hiking, or picnicking, in or around any other Michigan rivers or lakes during their lifetime among participants who had ever done the activity.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

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Procedure: PROC 7

Last Update: XZ 05/15/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND OTHER MI RIVERS/LAKES: TOTAL</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E18</b> Rec. Activities in/around Other MI rivers	Overall	1101	23.6	0.9	1.0	6.0	20.0	38.2	57.2
	M/S FP	263	26.5	1.5	1.0	7.0	22.8	45.0	61.0
	M/S Near FP	224	24.2	1.3	1.0	8.0	21.0	39.4	58.0
	M/S Out FP	245	20.4	1.3	1.0	6.8	16.0	31.6	54.0
	M/S Plume	63	26.8	3.9	1.0	9.0	26.6	43.4	52.4
	Jackson/Calhoun	306	26.1	1.4	1.0	5.0	21.4	43.2	62.2
<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND OTHER MI RIVERS/LAKES: 1910-1939</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E18</b> Rec. Activities in/around Other MI rivers	Overall	50	6.9	0.9	1.0	2.0	5.2	8.6	18.4
	M/S FP	11	7.5	1.6	2.6	4.2	5.0	12.0	17.0
	M/S Near FP	8	4.3 <sup>a</sup>	1.1	---	---	4.0	---	---
	M/S Out FP	10	4.7	1.0	2.0	2.0	4.2	6.0	10.8
	M/S Plume	---	---	---	---	---	---	---	---
	Jackson/Calhoun	17	8.2	1.1	1.0	2.0	8.0	10.4	20.0
<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND OTHER MI RIVERS/LAKES: 1940-1959</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E18</b> Rec. Activities in/around Other MI rivers	Overall	315	9.0	0.5	2.0	4.0	7.0	13.8	20.0
	M/S FP	90	9.5	0.7	1.0	4.0	8.0	14.0	20.0
	M/S Near FP	60	8.3	0.8	1.0	3.0	8.0	11.0	20.0
	M/S Out FP	47	8.6	1.0	1.0	3.8	7.2	10.8	20.0
	M/S Plume	19	6.1	1.4	2.0	2.0	6.0	7.0	19.4
	Jackson/Calhoun	99	9.3	0.7	2.0	5.0	7.0	14.2	20.0

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values

**QUESTIONNAIRE ANALYSES: Descriptive statistics for each question by region**

Population: All Participants (n=1324)

Sample type: Questionnaire

Sample weight: wt\_final\_iw

<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND OTHER MI RIVERS/LAKES: 1960-1979</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E18</b> Rec. Activities in/around Other MI rivers	Overall	690	12.3	0.5	2.0	6.0	12.0	20.0	20.0
	M/S FP	166	13.7	0.6	1.0	7.2	17.0	20.0	20.0
	M/S Near FP	145	12.6	0.6	2.0	7.0	14.0	20.0	20.0
	M/S Out FP	134	11.0	0.7	1.0	5.0	10.0	17.8	20.0
	M/S Plume	49	12.4	1.5	2.0	7.0	10.6	20.0	20.0
	Jackson/Calhoun	196	13.3	0.7	2.0	8.0	14.4	20.0	20.0
<b># YEARS DID RECREATIONAL ACTIVITIES IN/AROUND OTHER MI RIVERS/LAKES: 1980-2005</b>									
	<b>Region</b>	<b>N</b>	<b>Mean</b>	<b>S.E.</b>	<b>5%ile</b>	<b>25 %ile</b>	<b>Median</b>	<b>75 %ile</b>	<b>95th %ile</b>
<b>E18</b> Rec. Activities in/around Other MI rivers	Overall	944	15.9	0.4	1.0	5.8	19.4	26.0	26.0
	M/S FP	229	17.0	0.7	1.0	7.0	22.0	25.0	26.0
	M/S Near FP	186	16.8	0.8	1.0	6.4	21.0	25.0	26.0
	M/S Out FP	210	14.8	0.7	1.0	5.4	15.2	25.0	26.0
	M/S Plume	51	17.8	2.3	1.0	6.0	25.4	26.0	26.0
	Jackson/Calhoun	268	16.7	0.5	1.0	6.0	21.2	26.0	26.0

Note: Table shows the total number of years among participants who had ever done any recreational activities such as swimming, boating, hiking, or picnicking, in or around any other Michigan rivers or lakes and were alive during the years of interest.

<sup>a</sup> Estimate should be interpreted with caution. The standard error for this estimate is large relative to the size of the estimate, that is, CV(estimate) > 0.25

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Procedure: PROC 6

Last Update: XZ 05/20/2008

M/S= Midland/Saginaw, FP=Floodplain, TR=Tittabawassee River, KM=Kalamazoo

Data analyses include imputed values