

## IAFWA-ASA Data Mining Project

### Initial Michigan Findings

October 23, 2006

This analysis, funded by a Sport Fish Restoration multi-state conservation grant awarded jointly to the Association of Fish and Wildlife Agencies and the American Sportfishing Association, is designed to help Michigan improve efforts to increase fishing licenses sales and revenues. This report represents the first step, which is an initial review of Michigan's fishing license data by Southwick Associates, Inc., the grant's subcontractor. The results are intended to help Michigan understand basic license sales trends, and help the agency generate questions for additional investigation. The second step will be a second round of data analysis based on questions and issues of interest to Michigan. We encourage Michigan to consider its current or potential future marketing efforts when reviewing this document. The second round of analysis will seek insights supporting those efforts. Southwick Associates, Inc. will be available by phone or email to answer any questions (904-277-9765, [rob@southwickassociates.com](mailto:rob@southwickassociates.com)).

The analysis below is based on two samples. Analysis that includes the years 2001 through 2005 represents a sample of 2.76 million residents and non-resident license purchasers who bought a license.

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## SECTION 1: Basic License Sales Information

Tables 1 through 4 present initial information regarding Michigan's 2005 license sales. This is a basic look at Michigan's license sales, which mirrors the examinations traditionally available prior to the advent of electronic license systems.

*Table 1. 2005 Licenses Sales, By Type of Licenses Sold*

License type description	License type	Percent
Fish Restricted RES	110	39.69%
Fish All Species RES	120	25.24%
Fish 24 Hour	125	16.35%
Fish Restricted NR	112	5.41%
Fish Restricted SR	111	4.40%
Fish All Species SR	121	4.25%
Fish All Species NR	123	2.47%
Fish All Species RES Upgd	115	1.65%
Military All Species Fish RES	500	0.19%
Fish All Species Young Angler	122	0.11%
Fish All Species NR Upgd	117	0.09%
Fish All Species SR Upgd	116	0.08%
Fish 24 SR	126	0.06%

**NR = Non-resident; RES = Resident; SR = senior.**

*Table 2. 2005 Resident and Non-Resident License Distribution*

	Percent
Non-resident	21.45%
Resident	78.55%

*Table 3. Licenses Sold by Gender, 2005*

	Non-resident	Resident
Female	17.61%	19.23%
Male	85.03%	80.77%

***Table 4. Age of License Buyers at Time of Purchase, 2005***

	All buyers	Resident	Non-resident
16 and under	0.39%	0.09%	1.47%
17 to 19	2.08%	2.15%	1.85%
20 to 29	15.57%	16.01%	13.98%
30 to 39	18.76%	18.76%	18.76%
40 to 49	24.03%	23.80%	24.87%
50 to 59	19.67%	19.43%	20.54%
60 to 69	12.25%	12.17%	12.55%
70 and older	7.25%	7.60%	5.98%

Compared to many states, Michigan shows a higher than typical rate of nonresident license sales. Otherwise, Tables 1-4 above give us a general one-year picture of license sales in Michigan, but nothing very detailed, nothing new, and nothing that permits a focused marketing effort. Next, we will go into more detail by looking at multi-year trends.

## SECTION 2: Licenses Sold, 2001-2005

By looking at multiple years of data, we can identify license sales trends.

**Table 5. License Sales Trends, 2000-2005 (Y axis = the percentage within the weighted sample of license buyers for the years 2000-2005)**

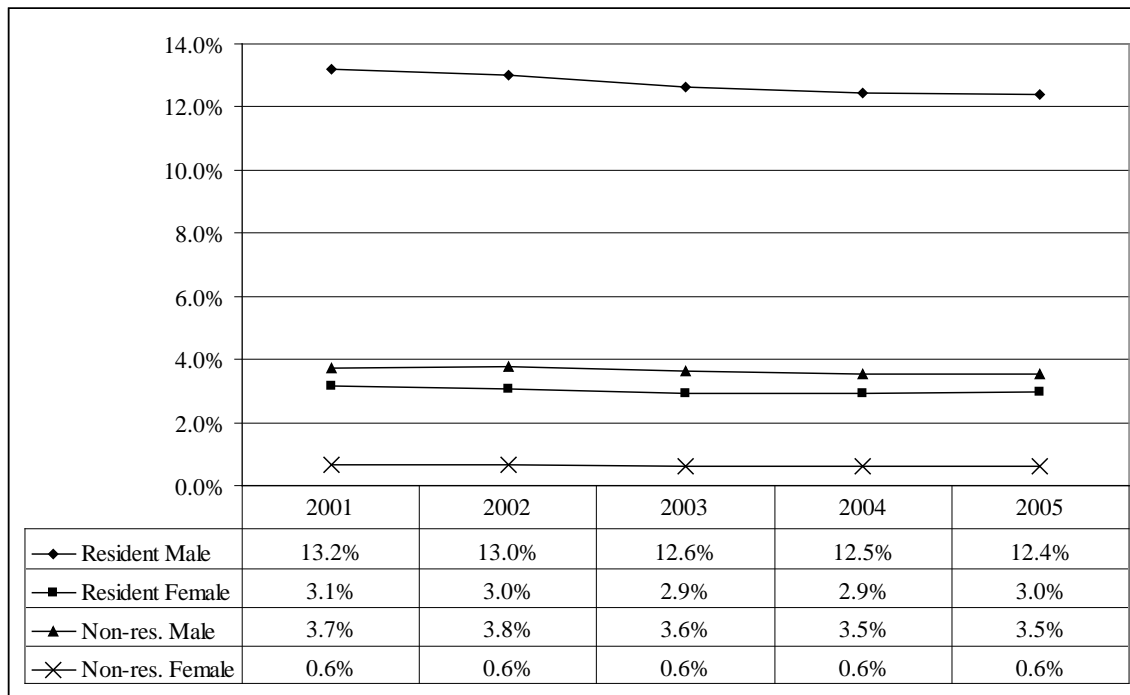


Table 5 suggests that license sales declined over the past five years, with most of the decrease occurring between 2002 and 2004. The long term gradual decline is mirrored in many other states, and may reflect a shift away from fishing and towards others forms of recreation. This is speculative reasoning, and is only provided as an observation based on reviews of other state license sales trends.

Even though overall sales show slight declines, there may be customer segments experiencing increases while others have above-average declines. Which segments are these?

People's preferences are likely to vary based on income, age, urban/rural lifestyle, where they are in life (single, family, empty-nest, retired, etc.) and more. This type of information is not available from the data solely provided by Michigan's electronic license database. To gain a better understanding of who is more likely to buy or not buy a license, we use TAPESTRY® lifestyle data:

ESRI of Arlington, VA provides the TAPESTRY® data service. TAPESTRY® is built from Census Bureau data and other sources. From the ESRI website: "The Community Tapestry segmentation system provides an accurate, detailed description of America's neighborhoods. U.S. residential areas are divided into 65 segments based on demographic variables such as age, income, home value, occupation, household type, education, and other consumer behavior characteristics." Using the ESRI service, we appended the samples of Michigan license purchasers with TAPESTRY® data. The resulting information explains the lifestyle typical to people who live on the same block or local neighborhood as the license purchaser. The appended data allow us to learn more about the lifestyles of people who purchase fishing licenses and gain a better understanding of the type of person who buys or does not buy fishing licenses. The results will allow Michigan to better understand the license buying market and to become more focused and cost-effective in its marketing and recruitment programs.

TAPESTRY® divides the public into 12 major groupings called "LifeModes," each of which has sub-groupings referred herein as "Tapestry segments" or just "segments." In all, there are 65 segments available. We give abbreviated descriptions of each LifeMode and segment when first presented, but encourage the reader to review the accompanying .pdf for more complete descriptions.

### **Who is Likely to Buy a Fishing License?**

Let's take an initial look at the top license-purchasing LifeMode categories in 2005. These are ranked based on the number of licenses purchased by each in 2005. Table 6 ranks the LifeMode groups from the largest group of buyers to the least, and includes residents and non-residents:

**Table 6. Sales by LifeMode Categories, 2005,  
Ranked from Largest Purchasers to Least, Residents and Non-residents**

LifeMode Groups	2005: % of Buyers	Cumulative %	% of State Pop.	Description
Upscale Avenues	17.47%	17.5%	18.8%	Above average income
Traditional Living	15.21%	32.7%	14.7%	Hard working, modest income families, older towns losing kids to newer cities and growth areas
American Quilt	13.29%	46.0%	9.8%	Small towns/rural, modest income, blue-collar or rural nearing retirement, modest or mobile homes
Factories & Farms	12.46%	58.4%	9.2%	Small towns, often in America's breadbasket states, lower income, married, employed in ag. & manufac.
Senior Styles	11.64%	70.1%	11.4%	Retirees, average income, depend on soc. sec. and pensions
High Society	9.48%	79.6%	13.3%	Fastest growing group, highest income, married
Solo Acts	5.41%	85.0%	4.4%	Young, educated, city life
High Hopes	4.6%	89.6%	3.4%	Young, college educated, single or married w/out kids
Family Portrait	4.11%	93.7%	3.5%	Generally younger families, homeowners
Metropolis	2.57%	96.2%	7.3%	City families, row houses and public transportation
Global Roots	2.31%	98.6%	2.7%	Ethnically diverse, recent immigrants, want to improve
Scholars and Patriots	1.46%	100.0%	1.4%	Youthful, lower income, in college or military

In Michigan, the license buying population generally reflects the State's population with some relatively minor differences. Lower income and rural communities are better represented in the license buying population while above average income customers are slightly underrepresented. In Michigan, members of the "Solo Acts" segment are more likely to buy a license compared to the average state resident while the opposite was seen in other states analyzed to date (less likely to buy). As seen in other states, city families and recent immigrants are less likely to buy a license compared to the average state resident.

The LifeMode categories presented in Table 6 provide an initial look at Michigan's anglers, and there are greater details still available. Let's take a look at the top license-purchasers by TAPESTRY® segments from 2000 to 2005. These are ranked for both resident and non-resident based on the number of licenses purchased by each segment for all five years. Table 7 is long and detailed, and summary discussions follow.

**Table 7. 2001-2005 License Sales by Segment, Resident & Non-Resident  
(ranked by market share ('% of 2001-2005 License Sales'))**

<b>Tapestry Group</b>	<b>LifeMode Groups</b>	<b>% of 2001-2005 License Sales</b>	<b>Cumulative %</b>	<b>% of State Pop.</b>	<b>Description</b>
Salt of the Earth	Factories & Farms	7.85%	7.85%	5.50%	Two-thirds are married with kids, blue collar, avg. income, Midwestern, often rural, own single family homes, conservative
Green Acres	Upscale Avenues	6.24%	14.09%	6.70%	Married w/ kids, blue collar baby boomers with college ed., above avg. income, suburban fringe, do-it-yourselfers, outdoors
Rustbelt Traditions	Traditional Living	6.07%	20.17%	6.80%	Older Great lakes industrial cities, avg. age=36, mix of married or single, slightly below avg. income, don't move much, forego fads
Cozy and Comfortable	Upscale Avenues	5.03%	25.20%	6.80%	Older suburban areas, middle aged, married, older kids, use computers, above avg. income, not really do-it-yourselfers
Midlife Junction	Traditional Living	4.83%	30.03%	2.20%	Exiting child-rearing, mix married and single, slightly below avg. income, 33% live in apts., suburban, conservative, budget-conscious
Midland Crowd	American Quilt	3.72%	33.76%	3.10%	Avg. age=36, married, 1/2 with kids, typical income, new housing in rural areas, blue collar, conservative, likes Fords & fishing
In Style	Upscale Avenues	3.47%	37.22%	2.30%	Suburb living/prefers city lifestyles, married/no kids, age=38, higher income, tech savvy, rock music, health oriented
Main Street, USA	Traditional Living	3.42%	40.64%	3.40%	Suburbs of smaller metro areas in older homes, avg. age=36, 1/2 married, slightly above avg. income, service/manufacturing

Crossroads	American Quilt	3.42%	44.07%	2.40%	Married couples/single parents, 32 yrs., below avg. income, smaller towns, mobile homes common, above avg. unemployment
Heartland Communities	Senior Styles	3.14%	47.21%	1.70%	Above avg. age, married, modest income, small Midwest towns, hunt/fish/bowl, country music, do-it-yourselfers
Old and Newcomers	Solo Acts	2.97%	50.17%	2.20%	In transition-starting careers or retiring, renters, more single person and shared households, few families, lower income
Up and Coming Families	Family Portrait	2.90%	53.07%	1.60%	Fast growing segment, avg age=32, married with kids, affluent, own home on suburban fringe, little time, fast food
Rural Resort Dwellers	American Quilt	2.81%	55.88%	2.80%	Rural non-farm, married/kids moved out, typically older, avg. income, boats/hunt/fish
Sophisticated Squires	High Society	2.70%	58.59%	4.10%	Country living on urban fringe, above avg. income, 35-54, SUVs, married w/ kids, golf
Boomburbs	High Society	2.51%	61.10%	1.60%	Younger families with busy upscale lifestyle, two incomes, college ed., homeowners, into computers & tech., CNN, Discovery channel
Great Expectations	High Hopes	2.50%	63.59%	2.20%	Young singles & married couples, lower income & growing, many rent, music taste varies; MTV to country, like outdoor sports
Aspiring Young Families	High Hopes	2.34%	65.93%	1.20%	Young start-up families, married or divorced, typical age=30, 22% with degrees, 1/2 rent, live in growing metro areas, avg. income
Rustbelt Retirees	Senior Styles	2.30%	68.23%	2.80%	Married/no kids, avg. income, Great Lakes and Northeast, own homes, not inclined to move, loyal to community and country, gets involved
Southern Satellites	Factories & Farms	2.28%	70.51%	1.70%	Primarily found in rural South, 37 yrs., most married, some with kids, below avg. income, 1/3 without diploma, fishing, NASCAR
Enterprising Professionals	Upscale Avenues	2.05%	72.56%	1.40%	Young, highly educated single or recently married, above avg. income, rent, mobile, tech savvy, likes to travel
Suburban Splendor	High Society	2.04%	74.60%	2.30%	Maturing families, very affluent, dual incomes avg. age=40, younger neighborhoods (but not new), like to invest



Young and Restless	Solo Acts	2.00%	76.60%	1.70%	Avg. age=29, most are single, educated but income < avg., Renters, women more likely to work, metro areas, tech. savvy
Rural Rooted	American Quilt	1.91%	78.50%	1.50%	Slightly older, rural, empty-nesters, lower income, less likely to have college experience, trucks, do-it-yourselfers
Exurbanites	High Society	1.61%	80.11%	2.70%	Affluent, likes open space on urban edge, married/empty nesters, golf, kayakers, active in volunteer groups and donate to causes
Retirement Communities	Senior Styles	1.55%	81.67%	2.20%	Retired, 1/2 single, below avg. income, 1/2 own single-family homes/others in multi-unit places, live in metro areas, health conscious
Senior Sun Seekers	Senior Styles	1.52%	83.18%	0.80%	Older, growing segment, many are winter snow-birds & go south, education levels are below avg. over half receive social security
Inner City Tenants	Global Roots	1.42%	84.61%	0.90%	Ethnically diverse, urban, avg. age=27, single, lower than average income, college is not a goal, rents, not outdoorsy
Metropolitans	Metropolis	1.34%	85.94%	1.50%	City living, older neighborhoods, single or childless couples, educated, slightly above avg. income, mobile, homeowners
Milk and Cookies	Family Portrait	1.23%	87.17%	0.80%	Young families but affluent for their age, two incomes, prefer single-family homes, focused on families & future, leisure time=kid time
Home Town	Factories & Farms	1.22%	88.39%	1.70%	Young, tend to remain in hometown, low avg. income, some married, 1/3 without diploma, suburban but prefer country lifestyle
Simple Living	Senior Styles	1.22%	89.61%	1.20%	Older, 1/2 single, kids are rare, low income, 1/4 didn't finish high school, community is important
Metro City Edge	Metropolis	1.13%	90.75%	3.10%	Many single parent families (1/3 married households), older children at home, below avg. education & income, high unemployment
College Towns	Scholars and Patriots	1.07%	91.82%	0.80%	Avg. age=24.3, almost 1/2 enrolled in college & others on staff, part-time jobs, low income, renters or some in dormitories
Family Foundations	Traditional Living	0.88%	92.70%	2.30%	Mostly African-American, slightly older families, active in community, avg. income, urban

Metro Renters	Solo Acts	0.74%	93.45%	0.30%	Urban, young, educated & single, slightly above avg. income & rising, internet savvy, have disposable income, ethnically diverse
City Dimensions	Global Roots	0.70%	94.14%	1.30%	Young, 2/3's single, many single parents, low income, urban, lack education, renters, frequent moves, dense neighborhoods
Connoisseurs	High Society	0.65%	94.80%	1.20%	Very high incomes, slightly older & many still with kids, live in dense city centers, liberal, travel, like to spend
Pleasant-ville	Upscale Avenues	0.64%	95.43%	1.00%	Slightly older, families with kids, above average income, urban/suburban, long commutes common, moves infrequently
Prosperous Empty Nesters	Senior Styles	0.59%	96.03%	1.70%	1/2 over 55, kids moved out, above avg. income, still working, suburban, physically active, investors
Silver and Gold	Senior Styles	0.56%	96.59%	0.30%	These are the wealthiest & older seniors, commonly live on the outer edge of suburbs, like to travel, active, seek sunshine
Dorms to Diplomas	Scholars and Patriots	0.37%	96.96%	0.60%	College students, youngest Tapestry segment, 3/4's hold part-time jobs, 1/2 live in dorms
Wealthy Seaboard Suburbs	High Society	0.37%	97.33%	1.10%	Coastal metro areas, age=40's, white, few kids, high income & high wealth, professionals, travels, seldom moves
Prairie Living	Factories & Farms	0.33%	97.67%	0.20%	Midwest small farms mostly, avg. age=40, married, half have kids, typical income, pets, country music, hunts and fishes
Social Security Set	Senior Styles	0.28%	97.95%	0.60%	Mostly elderly, most live alone, ethnically diverse, very low income, apartment renters in high-rise urban locations, few recreation \$'s
Modest Income Homes	Metropolis	0.24%	98.19%	2.70%	Mostly young singles & single parents, many grandparents raising kids, low income, low-valued homes, 1/2 rent
Urban Chic	Upscale Avenues	0.22%	98.40%	0.60%	Professional, urban couples, less than 1/2 with kids, 41 yrs., above avg. income, uptown living (high-rises) common, prefer city life
International Marketplace	Global Roots	0.20%	98.61%	0.00%	Young families, many immigrants, ethnically diverse, common to NY and LA, lower income than urban villages

Urban Villages	Family Portrait	0.20%	98.81%	0.10%	Multicultural areas, young families, in dense urban centers, 40% with no diploma, often Hispanic, older-single family homes
The Elders	Senior Styles	0.18%	98.99%	0.10%	Oldest Tapestry segment (73 yrs.=avg), 96% white, growing in numbers, senior communities, golf, travel, above avg. wealth
Top Rung	High Society	0.18%	99.17%	0.30%	Mature, married, well educated and wealthy. Live in coastal urban areas, travel frequently, home values near \$1 million.
Industrious Urban Fringe	Global Roots	0.14%	99.31%	0.30%	Family is key, largely Hispanic, many foreign born, live on city's edge, avg. income, commonly owns home, thrifty
Rural Bypasses	Factories & Farms	0.14%	99.45%	0.10%	Rural, low income & education, trucks, fishing, NASCAR, mostly white & 1/3 African-American
Laptops and Lattes	Solo Acts	0.12%	99.57%	0.10%	Avg. age=38, mostly single, live in urban centers, affluent, cosmopolitan, educated, rents, traveled and tech savvy
Trendsetters	Solo Acts	0.08%	99.65%	0.10%	Young, single, culturally diverse, above avg. income, educated, most rent, live the urban lifestyle
City Lights	Metropolis	0.06%	99.71%	0.00%	Live in dense urban areas, 38 yrs., generally above avg. income, families/singles and culture types, most in apts, not outdoorsy
NeWest Residents	Global Roots	0.05%	99.76%	0.00%	Over 1/2 foreign born, largely Hispanic, urban, renters in mid-to-high rise apts., low education rates but modest (not low) income
Las Casas	Global Roots	0.04%	99.81%	0.20%	Newest Western immigrants, young, 62% married (above avg.), \$35K income, mostly skilled workers, large household size
Urban Melting Pot	Global Roots	0.04%	99.85%	0.00%	Mostly immigrants, ethnically diverse, urban, income below avg. (\$37K), public transportation, fashion conscious
City Commons	Family Portrait	0.04%	99.89%	0.90%	Young, single or single parents in urban areas, mostly African-American, blue collar, service oriented employment, low income, low rent
Military Proximity	Scholars and Patriots	0.03%	99.92%	0.00%	Young, married, embracing parenthood, second youngest Tapestry segment, 3/4's active duty or work on bases, above avg. edu.

Southwestern Families	Family Portrait	0.03%	99.95%	0.10%	Young Hispanic families, not recent immigrants, low income, high unemployment, prefer low-cost homes (2/3's own home)
City Strivers	Metropolis	0.02%	99.97%	0.00%	Live in dense urban areas, 38 yrs., generally above avg. income, families/singles and culture types, most in apts, not outdoorsy
Pacific Heights	Upscale Avenues	0.02%	99.99%	0.00%	Upscale urban neighborhoods on Pacific coast, 3/4 are families, 38 yrs., one income earner, high annual income
High Rise Renters	Global Roots	0.01%	99.99%	0.00%	Diverse race and ethnic mix, younger (29 yrs), low income, many in NYC, rent in medium to high rises
Urban Rows	Metropolis	0.01%	100.00%	0.00%	

The above table gives us a better picture of Michigan license buyers. Looking at the top 20 segments representing three quarters of all licenses sold, there is a definite split in the profile of typical Michigan license customers. One group can be defined as the traditional angler with average or lower than average income in working-class or rural communities. The other is a generally suburban, above-average income segment. The highlighted segments in the top 20 show a significantly greater-than-average tendency to buy licenses. Of the more-affluent customers, we see that the younger families are more likely to buy fishing licenses than the older, more established families. Whether these families will continue to buy licenses as they grow older, or if they tend to decrease the number of licenses bought as they get older, is not known. "Families" is a common theme in the top 20 segments. The closer one becomes to an urban, single, or immigrant lifestyle, the less likely that person is to buy a fishing license.

### Where Do We Find Residents More or Less Likely to Buy Licenses?

Table 8 below lists all segments recorded as having bought a license in Michigan between 2000 and 2005, for residents only. The rank is therefore different than Table 7 since Table 8 specifically reflects residents. This rank will be reflected in subsequent tables for residents.

The third column presents the larger LifeMode group each belongs to, and the fourth presents the urban-rural areas in which the segments are generally located. The fifth column presents the market share of buyers from 2000 through 2005 combined. Column five is important as it allows the agency to decide if the trends represented by a specific segment are worth the agency's time to focus on strategies to maintain or boost sales to this segment. The next column, column six, was deleted in the editing process as it was confusing and did not add to the base of knowledge. The final two columns reflect relative changes in market share and actual licenses sold relative to the segment's 2000

market position. The rank presented in the first column is based on the total market share reported in column five and is used in later tables.

**Table 8. Resident License Buyers by Segment, as a Percentage of All Licenses Sold Annually**

1) Rank	2) Tapestry Segment	3) LifeMode Group	4) Urban Group	5) Market share of resident licenses sold (2001 to 2005)	6)	7) % change in market share since 2001	8) % change in number of licenses sold since 2001
1	Salt of the Earth	Factories & Farms	Rural I	9.01%		0.6%	-5.3%
2	Green Acres	Upscale Avenues	Rural I	6.74%		1.7%	-4.3%
3	Rustbelt Traditions	Traditional Living	Urban Outskirts I	5.72%		-1.3%	-7.1%
4	Midlife Junction	Traditional Living	Suburban Periphery II	5.43%		-0.2%	-6.1%
5	Cozy and Comfortable	Upscale Avenues	Suburban Periphery II	5.29%		-0.3%	-6.2%
6	Crossroads	American Quilt	Small Towns	4.29%		-0.1%	-6.0%
7	Midland Crowd	American Quilt	Rural I	4.24%		2.8%	-3.3%
8	Heartland Communities	Senior Styles	Small Towns	3.74%		3.4%	-2.6%
9	Rural Resort Dwellers	American Quilt	Rural I	3.61%		-1.9%	-7.7%
10	Main Street, USA	Traditional Living	Urban Outskirts I	3.42%		0.6%	-5.3%
11	Old and Newcomers	Solo Acts	Metro Cities II	2.85%		0.0%	-5.8%
12	In Style	Upscale Avenues	Suburban Periphery I	2.51%		1.6%	-4.4%
13	Rural Rooted	American Quilt	Rural II	2.48%		0.3%	-5.6%
14	Sophisticated Squires	High Society	Suburban Periphery I	2.48%		4.4%	-1.7%
15	Great Expectations	High Hopes	Urban Outskirts I	2.48%		-2.0%	-7.8%
16	Rustbelt Retirees	Senior Styles	Suburban Periphery II	2.45%		-4.4%	-10.0%
17	Up and Coming Families	Family Portrait	Suburban Periphery I	2.41%		2.3%	-3.7%
18	Southern Satellites	Factories & Farms	Rural II	2.40%		2.1%	-3.9%
19	Suburban Splendor	High Society	Suburban Periphery I	2.17%		2.0%	-4.0%
20	Aspiring Young Families	High Hopes	Metro Cities II	2.16%		0.1%	-5.8%
21	Young and Restless	Solo Acts	Metro Cities II	1.98%		0.9%	-5.0%
22	Senior Sun Seekers	Senior Styles	Small Towns	1.86%		-3.4%	-9.0%

23	Boomburbs	High Society	Urban Outskirts I	1.75%		4.7%	-1.4%
24	Enterprising Professionals	Upscale Avenues	Metro Citites I	1.74%		-1.2%	-7.1%
25	Inner City Tenants	Global Roots	Metro Cities II	1.56%		0.6%	-5.3%
26	Retirement Communities	Senior Styles	Metro Citites II	1.52%		-0.4%	-6.2%
27	Exurbanites	High Society	Suburban Periphery I	1.46%		-1.3%	-7.1%
28	Metropolitans	Metropolis	Metro Citites I	1.27%		-3.1%	-8.8%
29	Metro City Edge	Metropolis	Urban Outskirts II	1.25%		-4.7%	-10.3%
30	Simple Living	Senior Styles	Urban Outskirts II	1.20%		-1.5%	-7.3%
31	College Towns	Scholars and Patriots	Urban Outskirts II	1.19%		2.9%	-3.1%
32	Milk and Cookies	Family Portrait	Metro Citites I	1.14%		-5.0%	-10.6%
33	Home Town	Factories & Farms	Suburban Periphery II	1.07%		-3.2%	-8.9%
34	Family Foundations	Traditional Living	Metro Cities II	0.93%		-9.2%	-14.5%
35	City Dimensions	Global Roots	Metro Cities II	0.73%		-5.8%	-11.4%
36	Pleasant-ville	Upscale Avenues	Metro Citites I	0.56%		-1.3%	-7.1%
37	Silver and Gold	Senior Styles	Suburban Periphery I	0.54%		-1.5%	-7.3%
38	Connoisseurs	High Society	Metro Citites I	0.47%		-2.5%	-8.2%
39	Metro Renters	Solo Acts	Principal Urban Centers I	0.37%		-0.5%	-6.3%
40	Dorms to Diplomas	Scholars and Patriots	Metro Cities II	0.32%		0.4%	-5.5%
41	Prairie Living	Factories & Farms	Rural II	0.27%		-7.6%	-13.0%
42	Social Security Set	Senior Styles	Principal Urban Centers II	0.22%		-2.3%	-8.1%
43	Modest Income Homes	Metropolis	Urban Outskirts II	0.21%		-4.7%	-10.3%
44	Prosperous Empty Nesters	Senior Styles	Suburban Periphery I	0.14%		-2.6%	-8.3%
45	Wealthy Seaboard Suburbs	High Society	Metro Citites I	0.14%		-5.9%	-11.4%
46	Urban Villages	Family Portrait	Principal Urban Centers I	0.10%		-3.2%	-8.9%
47	Top Rung	High Society	Metro Citites I	0.05%		-11.6%	-16.8%
48	The Elders	Senior Styles	Suburban Periphery II	0.03%		-12.0%	-17.2%
49	Rural Bypasses	Factories & Farms	Rural II	0.03%		2.1%	-3.9%
50	Urban Chic	Upscale Avenues	Metro Citites I	0.01%		-17.8%	-22.6%
51	International Marketplace	Global Roots	Principal Urban Centers I	0.00%		-73.4%	-75.0%
52	Trendsetters	Solo Acts	Principal Urban Centers I	0.00%		-100.0%	-100.0%



<b>53</b>	Urban Melting Pot	Global Roots	Principal Urban Centers I	0.00%		112.5%	100.0%
<b>54</b>	NeWest Residents	Global Roots	Principal Urban Centers II	0.00%		-100.0%	-100.0%
<b>55</b>	City Commons	Family Portrait	Principal Urban Centers II	0.00%		-100.0%	-100.0%

\* Each urbanization group is divided into two categories, I and II. "I" categories are typically more affluent, with higher incomes, than "II" categories.

The top ten segments represent over half of all resident licenses sold. These top ten segments need extra consideration since they represent a larger part of the State's annual license revenue stream. The top category, Salt of the Earth, provide nearly three times more license customers than the #10 segment, Main Street USA. Both of these segments show the same decline in overall license sales (5.3%), but the impact is much greater for Salt of the Earth.

Column eight tells the most significant story. Every segment of any size shows a decrease in absolute license sales. Segments showing increases in market share simply means those segments lost anglers at a slower rate than the other segments. Segments that lost 5.8% of their license buyers or less since 2001 show an increase in market share. 5.8% can be considered the average loss rate for all segments. With losses occurring in every Tapestry segment statewide, fishing appears to be on a gradual decline in all types of communities and cultures in Michigan. Fishing is increasingly not the recreation of choice among a growing number of Michigan residents. They are finding other ways to spend their free time. Work is needed to find out what other activities is winning their attention, why, and how can fishing opportunities be provided that overcome the benefits provided the competing recreations. This work could be initiated by extracting names of license buyers from various Tapestry segments and querying them why they stopped fishing, what they now do with their recreation time, and why.

In Table 8 above, we added TAPESTRY® Urban Groups. These describe the level of urbanization where the segments, or neighborhoods, are found. In Table 9, we consolidated the resident data to get a better idea of the rural versus urban differences.

***Table 9. License Sales Market Share by Urbanization Group, Residents only***

Urban Group	Market share of resident licenses sold (2001 to 2005)	% change in market share relative to 2001	% change in number of licenses sold relative to 2001
Rural	28.78%	0.88%	-5.06%
Small Towns	9.89%	0.61%	-5.31%
Suburban Periphery	25.99%	0.15%	-5.74%
Principal Urban Centers	0.69%	-1.50%	-7.30%
Urban Outskirts	17.22%	-0.44%	-6.29%
Metro Cities	17.44%	-1.50%	-7.30%

Table 9 shows the importance of rural areas and suburban periphery as the top buyers of Michigan's fishing licenses, buying 55 percent of licenses, combined. The last column shows that the actual, or real, number of licenses sold to rural residents is falling but not as fast as sales to urban and metro areas. As a result, the market shares held by rural and suburban communities is increasing, as is the small town segment. The more urban parts of the state are drifting away from fishing.

Please note the data in this report is based on the purchaser's home residence, not where he or she purchased their license. If a trend exists in Michigan for urban residents to buy their licenses close to their fishing site, that trend cannot be identified in this report.

Let us now take a look at the Tapestry segments with the fastest growing market shares and largest increase in licenses sold. These groups have increased their share of annual license sales from 2000 to 2005. Table 10 presents the top 15 segments sorted by those with the greater growth listed first. The number listed in column #1 is the segment's ranking as the provider of most license sales, as first presented in Table 7.

**Table 10. Top 15 Segments Ranked by Fastest Growth in Market Share, 2001-2005**

Rank	Tapestry Segment	LifeMode Group	Urban Group	Market share of resident licenses sold (2001 to 2005)	% change in market share relative to 2001	% change in number of licenses sold relative to 2001
53	Urban Melting Pot	Global Roots	Principal Urban Centers I	0.00%	112.5%	100.0%
23	Boomburbs	High Society	Urban Outskirts I	1.75%	4.7%	-1.4%
14	Sophisticated Squires	High Society	Suburban Periphery I	2.48%	4.4%	-1.7%
8	Heartland Communities	Senior Styles	Small Towns	3.74%	3.4%	-2.6%
31	College Towns	Scholars and Patriots	Urban Outskirts II	1.19%	2.9%	-3.1%
7	Midland Crowd	American Quilt	Rural I	4.24%	2.8%	-3.3%
17	Up and Coming Families	Family Portrait	Suburban Periphery I	2.41%	2.3%	-3.7%
18	Southern Satellites	Factories & Farms	Rural II	2.40%	2.1%	-3.9%
49	Rural Bypasses	Factories & Farms	Rural II	0.03%	2.1%	-3.9%
19	Suburban Splendor	High Society	Suburban Periphery I	2.17%	2.0%	-4.0%
2	Green Acres	Upscale Avenues	Rural I	6.74%	1.7%	-4.3%
12	In Style	Upscale Avenues	Suburban Periphery I	2.51%	1.6%	-4.4%



<b>21</b>	Young and Restless	Solo Acts	Metro Cities II	1.98%	0.9%	-5.0%
<b>1</b>	Salt of the Earth	Factories & Farms	Rural I	9.01%	0.6%	-5.3%
<b>10</b>	Main Street, USA	Traditional Living	Urban Outskirts I	3.42%	0.6%	-5.3%

While all segments lost customers since 2001, the segments in Table 10 lost customers at a slower rate. People from neighborhoods represented in these segments are finding greater benefits from fishing participation and are deserting at a slower rate. Contrasting these segments with those deserting at faster rates may yield insights into the merits of fishing that can then be used to encourage greater participation, or help stem losses.

Compared to overall rankings seen in Table 8, it appears that segments within the higher income LifeMode groups (High Society and Upscale Avenues) appear slightly more frequently. In Table 8, these higher income groups make up about 24% of the top half of segments buying the most licenses, and 32% of the segments in Table 10 (which also represent about half of all licenses sold). This could indicate several factors worth further investigation: the cost of fishing is increasing (access, equipment, etc.) and driving away people from lower income segments at a faster pace, fishing remains culturally more desirable among higher-income circles and communities, quality fishing opportunities are more convenient to the higher-income communities, etc.

Please note that many of the higher ranked segments in Table 10 have such a small share of the market that a change of just a few licenses from 2000 to 2005 had a major impact on these segments growth rates and ranking. At this time, until more information comes available, we suggest these groups be overlooked as their overall impact is negligible. It is possible their growth rates are reflective of overall state population trends from 2000 to 2005.

At this point, it is worth knowing which segments are shrinking quicker. Table 11 presents the segments suffering the worst declines.

**Table 11. Top 20 Segments Ranked By Shrinking Market Share**

1) Rank	2) Tapestry Segment	3) LifeMode Group	4) Urban Group	5) Market share of resident licenses sold (2001 to 2005)	6) Difference in percent market share	7) % change in market share relative to 2001	8) % change in number of licenses sold relative to 2001
52	Trendsetters	Solo Acts	Principal Urban Centers I	0.00%	0.00%	-100.0%	-100.0%
54	NeWest Residents	Global Roots	Principal Urban Centers II	0.00%	0.00%	-100.0%	-100.0%
55	City Commons	Family Portrait	Principal Urban Centers II	0.00%	0.00%	-100.0%	-100.0%
51	International Marketplace	Global Roots	Principal Urban Centers I	0.00%	0.00%	-73.4%	-75.0%
50	Urban Chic	Upscale Avenues	Metro Citites I	0.01%	0.00%	-17.8%	-22.6%
48	The Elders	Senior Styles	Suburban Periphery II	0.03%	0.00%	-12.0%	-17.2%
47	Top Rung	High Society	Metro Citites I	0.05%	-0.01%	-11.6%	-16.8%
34	Family Foundations	Traditional Living	Metro Cities II	0.93%	-0.09%	-9.2%	-14.5%
41	Prairie Living	Factories & Farms	Rural II	0.27%	-0.02%	-7.6%	-13.0%
45	Wealthy Seaboard Suburbs	High Society	Metro Citites I	0.14%	-0.01%	-5.9%	-11.4%
35	City Dimensions	Global Roots	Metro Cities II	0.73%	-0.04%	-5.8%	-11.4%
32	Milk and Cookies	Family Portrait	Metro Citites I	1.14%	-0.06%	-5.0%	-10.6%
29	Metro City Edge	Metropolis	Urban Outskirts II	1.25%	-0.06%	-4.7%	-10.3%
43	Modest Income Homes	Metropolis	Urban Outskirts II	0.21%	-0.01%	-4.7%	-10.3%
16	Rustbelt Retirees	Senior Styles	Suburban Periphery II	2.45%	-0.11%	-4.4%	-10.0%
22	Senior Sun Seekers	Senior Styles	Small Towns	1.86%	-0.06%	-3.4%	-9.0%
46	Urban Villages	Family Portrait	Principal Urban Centers I	0.10%	0.00%	-3.2%	-8.9%
33	Home Town	Factories & Farms	Suburban Periphery II	1.07%	-0.03%	-3.2%	-8.9%
28	Metropolitans	Metropolis	Metro Citites I	1.27%	-0.04%	-3.1%	-8.8%
44	Prosperous Empty Nesters	Senior Styles	Suburban Periphery I	0.14%	0.00%	-2.6%	-8.3%

Fortunately, most segments ranked in Table 11 as having the worst losses have such small shares of the license market that a change of just a few licenses has a large impact on their ranking. Their losses have minimal effects on the DNR's overall license revenues. Segment #16, Rustbelt Retirees, is the only top 20 segment appearing as a major loser of customers. This is a segment representing seniors, and recognizing the next highest ranked segment, Senior Sun Seekers (#22) also represents seniors, indicates seniors may be finding alternatives to fishing at a greater pace than others, or Michigan's population of seniors is decreasing in proportion to other age groups. Data were not available mapping age trends in Michigan from 2001 to 2005.

In Table 11, we see the worst declines appear more frequently in the urban neighborhoods (metro cities and principal urban centers). Fishing is falling out of favor in these communities.

## Purchasing Frequencies: Gender Differences

During the review of the five-year sales trends, a question was raised if the frequency of fishing license purchases over four years differed between men and women. This analysis was run for resident license holders only and the results are presented below:

# of years bought a license over last five years	Male	Female
1 of 5 years	73.7%	26.3%
2 of 5 years	75.1%	24.9%
3 of 5 years	79.0%	21.0%
4 of 5 years	83.1%	16.9%
5 of 5 years	89.3%	10.7%

The above table tells us, of all license customers who bought a license in X out of 5 years, the percentage who are male and the percentage who are female. Men are much more likely to buy a license in multiple years than women, indicating men are more likely to fish regularly. Multiple reasons could be offered as to why, but the main purpose of this paper is to explore *what* is happening versus *why*. Any promotions encouraging anglers to purchase licenses more frequently, or any new initiatives such as a multi-year license, would likely be more effective if targeted towards males.

## SECTION 4: The “Churn” Issue

Let’s look at the “churn” issue. The “churn” issue refers to the rate of anglers entering and dropping out of the customer base. Considering all Michigan residents who purchased a license at least once over the past five years, Table 12 reports the percentage who bought a license in just one, two, three, four, or five years.

**Table 12. License Purchasing Frequency**

License purchasing frequency	Percent of customers, 2001-2005
1 of 5 years	50.7%
2 of 5 years	16.5%
3 of 5 years	10.2%
4 of 5 years	8.4%
5 of 5 years	14.2%

It could be argued that over two-thirds of Michigan’s license customers are not loyal customers and bought licenses only once or twice in the last five years. Over half only bought a license once in the past five years. These people are finding other ways to spend their free time. Time constraints or competing recreations may be diverting their attention. Encouraging existing anglers to fish more often, helping them derive greater pleasure from fishing, or adding convenience and simplicity to the license buying and renewal process could result in increased license revenues. The next steps are to find out which type of angler is more or less likely to purchase a license frequently or infrequently.

Tables 13 and 14 present purchasing frequencies for specific segments of resident customers.<sup>1</sup>

**Table 13. Top 15 Segments Likely to Buy Frequently, Residents Only**

Rank	Tapestry Segment	Bought 1 or 2 years only, out of five years	Bought 4 or 5 years, out of five years
48	The Elders	45.6%	40.3%
9	Rural Resort Dwellers	49.5%	37.6%
37	Silver and Gold	49.3%	37.6%
8	Heartland Communities	49.6%	37.5%
13	Rural Rooted	49.8%	37.0%

<sup>1</sup> Non-residents are less likely to buy a Nebraska license annually. Their inclusion in this specific analysis could mislead the analysis.

22	Senior Sun Seekers	50.7%	36.2%
7	Midland Crowd	52.7%	34.1%
1	Salt of the Earth	53.7%	33.1%
18	Southern Satellites	53.7%	33.0%
41	Prairie Living	55.0%	32.6%
14	Sophisticated Squires	55.3%	32.0%
2	Green Acres	54.9%	32.0%
30	Simple Living	55.8%	31.8%
4	Midlife Junction	55.8%	31.3%
17	Up and Coming Families	56.3%	31.2%

We see six of the top 10 license buying segments (refer to Table 8), and all of the rural segments in the top 10, listed here. However, of the segments listed in Table 13 as those with the highest percentages of buyers purchasing a license in four or five of the past five years, every single one of them has even larger percentages buying licenses in only one or two of the past five years. Across all segments of Michigan's population, people are more likely to buy licenses infrequently and are finding other ways of recreating in the interim years.

Please note that some of the segments in Table 13 have a very small share of the license market. Be careful drawing inferences about these segments as a change of just one or two licenses in these segments can significantly affect their rankings. This is true for most segments ranked in the thirties and higher.

***Table 14. Top Segments Likely to Buy Licenses Only between 1 and 3 of the Past 5 Years, Residents Only***

<b>Rank</b>	<b>Tapestry Segment</b>	<b>Bought 1 or 2 years only, out of five years</b>	<b>Bought 4 or 5 years, out of five years</b>
52	Trendsetters	100.0%	0.0%
51	International Marketplace	100.0%	0.0%
53	Urban Melting Pot	100.0%	0.0%
54	NeWest Residents	100.0%	0.0%
55	City Commons	100.0%	0.0%
50	Urban Chic	78.4%	12.9%
46	Urban Villages	75.3%	15.5%
40	Dorms to Diplomas	69.9%	19.7%
35	City Dimensions	69.8%	19.2%
45	Wealthy Seaboard Suburbs	69.3%	20.3%

39	Metro Renters	69.1%	20.9%
42	Social Security Set	68.9%	19.6%
43	Modest Income Homes	68.7%	19.5%
29	Metro City Edge	65.0%	23.2%
34	Family Foundations	64.4%	23.5%
28	Metropolitans	64.4%	23.9%
44	Prosperous Empty Nesters	63.7%	23.8%
38	Connoisseurs	63.7%	25.1%
47	Top Rung	63.3%	24.8%

Infrequent license purchasing segments tend to be urban. Except for a few segments in Table 14, most segments are ranked low regarding the total number of licenses purchased in the past five years. This correlation is not surprising as fishing is not a common activity for these segments.

Comparing tables 13 & 14, rural and suburban residents in general are Michigan's more loyal license buyers, even though a majority of people in these segments only bought a license between one and three years of the last five years. Considering that most licenses are sold to rural and suburban anglers, drop-out anglers from these segments will have a much more severe impact on license revenues than drop-outs from metro and urban areas. Efforts to encourage rural and suburban anglers to renew their licenses each year may have more success in boosting revenues versus trying the same with anglers from more-urbanized or ethnic areas. Overall, the frequency rate for purchasing Michigan licenses does not vary significantly across most segments. Differences are slight, suggesting the reasons why people are not likely to buy every year may be similar across Michigan's communities and neighborhoods.

### **Propensity to Buy a License**

Focusing marketing efforts on segments with a greater "propensity" to purchase a license may yield greater returns. "Propensity" is the likelihood of someone from a specific segment or group buying a license compared to the likelihood of the average state resident buying a license. Tables 15a-c use a ratio to determine each segment's propensity. This "Sales to Population" ratio is the segment's market share divided by the 'percentage of the state population' held by that segment. All segments with a "Sales/Pop Ratio" greater than one are more likely to buy a license compared to the average Michigan resident. This ratio is a prime method of identifying who is more likely to buy a license and therefore who is more likely to fish. Efforts to recruit new anglers or to encourage greater purchasing frequencies would likely have greater success if they targeted segments with ratios greater than one.

**Table 15a. Segments with a Greater Propensity to Buy Licenses, Residents Only**

Rank	Tapestry Segment	% of 2005 license sales	% of State Pop.	Propensity
4	Midlife Junction	5.41%	2.20%	2.46
22	Senior Sun Seekers	1.81%	0.80%	2.27
8	Heartland Communities	3.81%	1.70%	2.24
20	Aspiring Young Families	2.17%	1.20%	1.81
6	Crossroads	4.30%	2.40%	1.79
37	Silver and Gold	0.54%	0.30%	1.79
25	Inner City Tenants	1.56%	0.90%	1.73
1	Salt of the Earth	8.98%	5.50%	1.63
13	Rural Rooted	2.44%	1.50%	1.63
17	Up and Coming Families	2.45%	1.60%	1.53
31	College Towns	1.21%	0.80%	1.51
18	Southern Satellites	2.40%	1.70%	1.41
7	Midland Crowd	4.29%	3.10%	1.38
32	Milk and Cookies	1.10%	0.80%	1.37
11	Old and Newcomers	2.86%	2.20%	1.30
9	Rural Resort Dwellers	3.58%	2.80%	1.28
41	Prairie Living	0.25%	0.20%	1.25
24	Enterprising Professionals	1.72%	1.40%	1.23
39	Metro Renters	0.37%	0.30%	1.22
21	Young and Restless	2.00%	1.70%	1.18
23	Boomburbs	1.81%	1.60%	1.13
15	Great Expectations	2.45%	2.20%	1.11
12	In Style	2.53%	2.30%	1.10
46	Urban Villages	0.10%	0.10%	1.04
10	Main Street, USA	3.45%	3.40%	1.02
2	Green Acres	6.77%	6.70%	1.01

Table 15a ranks all segments having a “Sales to Population” ratio greater than 1. The segments are ranked by those segments with the highest ratio to the lowest. These segments, representing 26 of 65 Tapestry segments available, represent 49 percent of Michigan’s population, but buy 70 percent of Michigan’s licenses. An argument can be made to focus any future license and fishing promotions on these segments. Those segments ranked in the top 20 (refer to Table 8) and listed in the table above will likely provide the greatest returns from any future marketing efforts. Compared to many other states, Michigan has a greater number of segments with a propensity greater than one.



While fishing is showing a decline in participation statewide, it still remains very popular compared to many other states.

First, we examine the urbanization levels for all segments possessing a propensity (“sales to population” ratio) greater than one. Statistics on these segments are as follows:

**Table 15b. Urbanization Groups with a Propensity >1**

<i>Urban Group</i>	<i>% of 2005 Buyers with Propensity &gt; 1</i>	<i>% of State Pop.</i>	<i>Avg. Ratio For All Segments that have a Propensity&gt;1</i>	<i>Propensity Ratio for the Urban Group (all segments within the group)</i>
Small Towns	9.93%	4.90%	2.03	2.03
Suburban Periphery	10.94%	6.40%	1.71	0.92
Metro Cities	11.40%	8.20%	1.39	0.85
Rural	28.71%	21.50%	1.34	1.34
Principal Urban Center	0.47%	0.40%	1.17	0.30
Urban Outskirts	8.92%	8.00%	1.11	0.77

Not surprisingly, people from rural and small town communities have a higher likelihood of buying a license compared to other residents. These are the only two segments showing an overall propensity ratio greater than one (last column, Table 15b). But, within each urban group, there are segments showing a propensity to fish. The second-to-last column in Table 15b presents the average ratio for all Tapestry segments in each urban group with a propensity to fish greater than one. Looking at this column, we see there are segments within the Suburban Periphery and Metro Cities showing strong tendencies to fish. Marketing efforts targeting the segments in all urban groups with higher than average propensity ratios will likely have greater success.

Next, we examine the segments more likely to buy a fishing license based on LifeMode designations. LifeMode designations help us gain a general understanding of the lifestyles led by license customers.

**Table 15c. LifeMode Groups with a Propensity >1**

<i>LifeMode Group</i>	<i>% of 2005 Buyers with Propensity &gt; 1</i>	<i>% of State Pop.</i>	<i>Avg. Ratio For All Segments that have a Propensity&gt;1</i>	<i>Propensity Ratio for the LifeMode Group (all segments within the group)</i>
Senior Styles	6.16%	2.80%	2.2	1.02
Global Roots	1.56%	0.90%	1.73	0.86
Traditional Living	8.87%	5.60%	1.58	1.03
Factories & Farms	11.63%	7.40%	1.57	1.35
Scholars and Patriots	1.21%	0.80%	1.51	1.04
American Quilt	14.61%	9.80%	1.49	1.36
Family Portrait	3.66%	2.50%	1.46	1.17
High Hopes	4.62%	3.40%	1.36	1.35
Solo Acts	5.22%	4.20%	1.24	1.23
High Society	1.81%	1.60%	1.13	0.71
Upscale Avenues	11.03%	10.40%	1.06	0.93

Table 15c shows the more affluent LifeMode groups are among the least likely to purchase a license, followed by immigrants and then young, generally single communities.

Whether promoting license sales in rural or more urban environments, efforts will be more successful if they focus on segments showing a higher-than-average propensity of buying licenses. Recognizing the budgets of any future marketing efforts will be limited, focusing on Tapestry segments showing significant propensities to buy licenses and representing larger portions of the state population will generate better returns.

## SECTION 5: “Upgraders” and “Downgraders”

Current customers moving to higher- or lower-priced license options also drive revenue trends. Table 16 looks at residents who actually bought a license in 2000 and/or 2005. License sales in the intervening years were excluded. The table reports the percentage who a) downgraded to a lower priced license (for example, dropping from an annual to a 3-day license), b) dropped out (bought in 2000 but not in 2005), c) are new customers (bought in 2005 but not in 2000 (this does not mean they bought their first-ever license in 2005)), d) are steady customers and bought the same license in each year, or e) upgraded to a higher-priced license.

**Table 16. Upgrading/Downgrading Trends**

Resident Purchasing Behavior, 2001 vs. 2005	Percent
Upgrade	3.2%
Downgrade	3.0%
Steady	24.0%
New	32.5%
Dropped out	37.4%

Over 40 percent of the customers who bought a license in either 2000, 2005 or both downgraded or dropped. Nearly 33 percent were “new” in 2005, meaning they did not buy a license in 2000, but could have bought in earlier or intervening years. About 24 percent maintained their license type or upgraded. An equivalent number of anglers dropped out as became new buyers. Efforts to boost license revenues could include reducing the percentage of customers dropping out, or to encourage regular buyers to upgrade to a higher-cost license. The latter approach could be enhanced by reviewing the state’s license products to ensure the benefits of higher priced licenses are worth the additional cost, and then promoting these enhanced benefits to current license buyers who have not upgraded their purchases but are in Tapestry segments showing higher rates of upgrading.

Using the TAPESTRY<sup>®</sup> data, we can identify the Tapestry segments more likely to upgrade or downgrade. Table 17 ranks the top 20 segments based on their percentage of license buyers who upgraded their license purchases. The percentages of license buyers who downgraded their purchases are also presented. Table 17 is also based on purchases made in 2000 and also in 2005 exclusive of licenses purchased in other years.

**Table 17. Top 20 Segments Upgrading Their License Purchases, Residents**

Rank	Tapestry Segment	LifeMode Group	Urban Group	% Upgrade	% Downgrade	% Steady
1	Salt of the Earth	Factories & Farms	Rural I	9.13%	8.85%	70.87%
2	Green Acres	Upscale Avenues	Rural I	7.07%	6.82%	51.76%
3	Rustbelt Traditions	Traditional Living	Urban Outskirts I	5.63%	5.37%	43.41%
4	Midlife Junction	Traditional Living	Suburban Periphery II	5.52%	5.11%	40.96%
5	Cozy and Comfortable	Upscale Avenues	Suburban Periphery II	5.43%	4.98%	40.24%
7	Midland Crowd	American Quilt	Rural I	4.44%	4.41%	33.85%
6	Crossroads	American Quilt	Small Towns	4.14%	4.01%	29.98%
9	Rural Resort Dwellers	American Quilt	Rural I	3.81%	3.64%	30.13%
8	Heartland Communities	Senior Styles	Small Towns	3.54%	3.63%	32.16%
10	Main Street, USA	Traditional Living	Urban Outskirts I	3.39%	3.05%	24.12%
14	Sophisticated Squires	High Society	Suburban Periphery I	2.84%	2.59%	18.97%
12	In Style	Upscale Avenues	Suburban Periphery I	2.79%	2.43%	19.88%
11	Old and Newcomers	Solo Acts	Metro Cities II	2.75%	2.69%	20.22%
13	Rural Rooted	American Quilt	Rural II	2.70%	2.56%	19.52%
18	Southern Satellites	Factories & Farms	Rural II	2.65%	2.41%	18.66%
17	Up and Coming Families	Family Portrait	Suburban Periphery I	2.62%	2.46%	18.77%
16	Rustbelt Retirees	Senior Styles	Suburban Periphery II	2.38%	2.28%	18.30%
20	Aspiring Young Families	High Hopes	Metro Cities II	2.21%	1.94%	15.25%
19	Suburban Splendor	High Society	Suburban Periphery I	2.19%	1.82%	14.98%
15	Great Expectations	High Hopes	Urban Outskirts I	2.18%	2.20%	17.14%

Table 17 shows that the top license buying segments (based on Table 8) are also the segments contributing the most upgrades. When reminders to renew licenses are sent to people prior to their current license expiring (Michigan does this, right?? Remember Table 12 and the low rate of renewals), people in the top segments listed here should be encouraged to upgrade their license and reminded of the additional value available from higher-priced licenses.

Table 17 also shows us that the top segments holding the largest market shares and contributing large percentages of upgraded sales are also the top segments in downgraded sales. However, this may not be indicative of future trends. Efforts to remind people to upgrade their licenses, when done as part of other marketing efforts and reminder mailings (snail mail and email), are simple and cost little. While such efforts will not result in substantial increases in revenues, the marginal increases should be well worth the costs and efforts. The DNR will want to anticipate costs and requirements before initiating such efforts to ensure this is true.

## Conclusion

In 2005, nearly 79 percent of Michigan's fishing licenses were purchased by residents. Approximately 81 percent of the purchasers were male, indicating females were more likely to favor other forms of recreation. Resident license buyers were more likely to be in the 40-49 year old age bracket. Over the past five years, Michigan's total number of buyers and licenses sold decreased. Licenses are more likely to be purchased by people in rural areas, but sales to rural residents are declining as they are in all parts of the state (Tables 1-5). The overall decline is mirrored in many other states, and may reflect a shift away from fishing and towards others forms of recreation. Other reasons could exist, such as angler's perceptions of fishing conditions, access, and more. Qualitative research may provide more insights regarding why many anglers have discontinued buying licenses.

Michigan's license records were appended with information explaining the lifestyle characteristics of each license buyer. This data, licensed from ESRI's TAPESTRY® data service, is built from U.S. Census bureau data and other sources and describes the lifestyle typical to people living on every city block or immediate area in the U.S. Lifestyle data is matched with each fishing license record using the customer's street address. The lifestyle analysis process is based on the concept of "birds of a feather flock together" whereby people tend to live in proximity to others like themselves. Major corporate marketing efforts have relied on lifestyle analyses for years to identify potential sales growth areas and new business opportunities. The results of such analyses allow us to learn more about the lifestyles of people who purchase fishing licenses and more.

The Tapestry data first groups customers into a dozen major lifestyle categories known as "LifeMode" categories. The LifeMode categories show us that Michigan's license buying population generally reflects the State's population with some differences. Lower income and rural communities are better represented in the license buying population while above average income customers are slightly underrepresented. In Michigan, members of the "Solo Acts" segment are more likely to buy a license compared to the average state resident while the opposite was seen in other states analyzed to date (less likely to buy). This group generally represents young, educated

adults living in urban areas. As seen in other states, city families and recent immigrants are less likely to buy a license compared to the average state resident. (Table 6).

The 12 major LifeMode groups are further divided in 65 segments known as “Tapestry<sup>®</sup>” segments. Using the more detailed Tapestry<sup>®</sup> segmentation data for residents and non-residents (Table 7), we see that the top 20 of 65 segments represent three quarters of all Michigan licenses sold and that there is a definite split in the profile of typical Michigan license customers. One group can be defined as the traditional angler with average or lower than average income in working-class or rural communities. The other is a generally suburban, above-average income segment. Of the more-affluent customers, we see younger families are more likely to buy fishing licenses than older, more established families. Whether the younger families will continue to buy licenses as they grow older and become more established is not known. “Families” is a common theme in the top 20 segments. The closer one becomes to an urban, single, or immigrant lifestyle, the less likely that person is to buy a fishing license.

Table 8 looks at resident license sales as they represent a majority of the State’s fishing license revenues and are generally easier to reach with marketing efforts. The top ten resident segments represent over half of all resident licenses sold. These top ten segments need extra consideration as they represent a larger part of the State’s annual license revenue stream. The top category, Salt of the Earth, provides nearly three times more license customers than the #10 segment, Main Street USA. Both of these segments show the same decline in overall license sales (5.3%), but the impact is much greater for Salt of the Earth.

Every Tapestry segment of significance shows a decrease in the number of licenses sold since 2001. The average segment lost 5.8% of its license buyers since 2001. With losses occurring in every Tapestry segment statewide, fishing appears to be on a gradual decline in all types of communities and cultures in Michigan. Fishing is increasingly not the recreation of choice among a growing number of Michigan residents. Many anglers are finding other ways to spend their free time. Work is needed to find out what other activities are winning their attention, why, and fishing opportunities can be provided that overcome the benefits provided the competing recreations. This work could be initiated by extracting names of license buyers from various Tapestry segments who have not purchased a license in the past four or five years and querying them why they stopped fishing, what they now do with their recreation time, and why.

Table 9 shows the importance of rural areas and suburban periphery as the top buyers of Michigan’s fishing licenses, buying 55 percent of licenses, combined. The last column shows that the actual, or real, number of licenses sold to rural residents is falling but not as fast as sales to urban and metro areas. As a result, the market shares held by rural and suburban communities is increasing, as is the small town segment. The more urban parts of the state population are drifting away from fishing.



Higher income LifeMode groups (High Society and Upscale Avenues) appear to be losing customers at a slower rate than most other LifeMode groups (Table 10). This could indicate several factors worth further investigation: the cost of fishing is increasing (access, equipment, etc.) and driving away people from lower income segments at a faster pace, fishing remains culturally more desirable among higher-income circles and communities, quality fishing opportunities are more convenient to the higher-income communities, etc.

Fortunately, most of the largest segments of license customers seldom appear among the rank of segments showing the greatest losses of customers (in percentage terms, Table 11). Segment #16, Rustbelt Retirees, is the only top 20 segment appearing as a major loser of customers. This is a segment representing seniors, and recognizing the next highest ranked segment, Senior Sun Seekers (#22) also represents seniors, indicates seniors may be finding alternatives to fishing at a greater pace than others, or Michigan's population of seniors is decreasing in relation to other age groups. Data were not available mapping age trends in Michigan from 2001 to 2005.

In Table 11, the segments losing the most customers appear more frequently in the urban neighborhoods (metro cities and principal urban centers). Fishing is falling out of favor in these communities.

Table 12 presented what is likely the most significant finding of this analysis. This table is worth repeating here:

***Table 12. License Purchasing Frequency (out of the past five years, the number of years people bought licenses)***

License purchasing frequency	Percent of customers, 2001-2005
1 of 5 years	50.7%
2 of 5 years	16.5%
3 of 5 years	10.2%
4 of 5 years	8.4%
5 of 5 years	14.2%

It could be argued that over two-thirds of Michigan's license customers are not loyal customers and bought licenses only once or twice in the last five years. Over half only bought a license once in the past five years. Anglers are finding other ways to spend their free time. Time constraints or competing recreations may be diverting their attention. Encouraging existing anglers to fish more often, helping them derive greater pleasure from fishing, or adding convenience and simplicity to the license buying and renewal process could result in increased license revenues. The next steps are to find out which type of angler is more or less likely to purchase a license frequently or infrequently.

Of the segments listed in Table 13 as having the greatest percentages of buyers purchasing a license in four or five of the past five years, every single one of them has even larger percentages buying licenses in only one or two of the past five years. Across all segments of Michigan's population, people are more likely to buy licenses infrequently and are finding other ways of recreating in the interim years. Infrequent license purchasing segments tend to be urban (Table 14).

Comparing tables 13 & 14, rural and suburban residents in general are Michigan's more loyal license buyers, even though a majority of people in these segments only bought a license once or twice in the last five years. Considering that most licenses are sold to rural and suburban anglers, drop-out anglers from these segments will have a much more severe impact on license revenues than drop-outs from metro and urban areas. Efforts to encourage rural and suburban anglers to renew their licenses each year may have more success in boosting revenues versus trying the same with anglers from more-urbanized or ethnic areas. Overall, the frequency rate for purchasing Michigan licenses does not vary significantly across most population segments. Differences are slight, suggesting the reasons why people are not likely to buy every year may be similar across Michigan's communities and neighborhoods.

Table 15a ranks all segments having a "Sales to Population" ratio greater than 1, meaning people within these segments are more likely to buy a license compared to the average Michigan resident. These segments represent 49 percent of Michigan's population, but buy 70 percent of Michigan's licenses. An argument can be made to focus any future license and fishing promotions on these segments. Those segments ranked in the top 20 (refer to Table 8) and also listed in Table 15a will likely provide the greatest returns from any future marketing efforts. Compared to many other states, Michigan has a greater number of population segments showing a greater than average propensity of buying licenses. While fishing is showing a decline in participation statewide, it still remains very popular compared to many other states.

Within the State's urban communities, there are segments showing a greater-than-average propensity to fish (Table 15b). There are segments within the Suburban Periphery and Metro Cities groups showing strong tendencies to fish. Marketing efforts should target segments from any urban/rural groups showing higher-than-average propensities of buying licenses.

Over 40 percent of the customers who bought a license in either 2000, 2005 or both years either downgraded to a lower priced license or dropped out. Only 24 percent maintained their license type or upgraded (Table 16). Efforts to boost license revenues could include reducing the percentage of customers dropping out, or to encourage regular buyers to upgrade to a higher-cost license. The latter approach could be enhanced by reviewing the state's license products to ensure the benefits of higher priced licenses are worth the additional cost, and then promoting these enhanced benefits to current license buyers who have not upgraded their purchases but are in Tapestry segments showing higher rates of upgrading. Efforts to remind people to upgrade



their licenses, when done as part of other marketing efforts and reminder mailings (snail mail and email), are simple and cost very little compared to other forms of marketing. While such efforts will not result in substantial increases in revenues, the marginal increases should be well worth the costs and efforts. The DNR will want to anticipate costs and requirements before initiating such efforts to ensure this is true.

Efforts to increase license revenues could take one of several directions. Such efforts could include:

- A. Recruit new anglers,
- B. Retain existing anglers,
- C. Encourage anglers to buy licenses more frequently, or
- D. Encourage anglers to upgrade their license purchases.

Recognizing that essentially all segments are showing losses in terms of actual licenses sold, boosting license revenues by recruiting new anglers will be tough and may not show a significant return on investment. We are not advocating against angler recruitment programs as fisheries conservation in the long run will depend on the number of active and interested anglers. But, from a perspective of boosting short-term agency revenues, angler recruitment efforts may not be the answer.

Recognizing the low percentage of anglers who buy a license every year, efforts to encourage existing license holders to renew their licenses should show the most significant and immediate return-on-investment. Using the State's electronic license database, efforts to boost revenues can be made by directly contacting people from key segments who are up for renewal and encourage them to renew. To those who previously purchased a lower priced license and belong to Tapestry segments showing greater likelihood of upgrading license purchases, the benefits of upgrading can be explained. Overall, such efforts would likely generate larger margins and provide Michigan with greater revenue stability.

The State's electronic licensing database is a perfect tool to help boost license revenues. Promotional mailings (snail mail or email) could target individuals with licenses that are about to expire encouraging them to renew. Control groups can be established by tracking purchasing behaviors of similar anglers who do not receive the mailer. However, recent license marketing efforts in other states showed lower effectiveness when a simple, directed mailing was the only step taken. Successful efforts include larger public promotions and messaging/advertising efforts combined with direct mailings and similar contacts. Therefore, direct mail/email promotions will likely work better if combined with a larger license marketing effort.

Another approach to possible capture revenues from anglers who otherwise might only buy a license once or twice over a five year period is to sell a multiple year license. Many people may expect to fish more in the future than they actually do, and capturing their funds in advance may help boost overall revenues.

**Closing Notes:**

The purpose of this initial analysis is to identify the trends affecting license sales and revenues and help identify strategies that can boost license revenues. We will assist in developing additional analyses and provide interpretations per Michigan's requests and directions. Additional analyses could include:

1. Breakouts based on the type of license purchased,
2. Greater investigations of lapsed anglers (frequency of license purchases), and
3. Develop GIS maps that visualize where different types of anglers are located across the state.

Please note that this report is an initial, general overview of Michigan's license sales trends. We can run additional analysis requested by Michigan, assuming the necessary data are available. There are many more questions that could be asked, and discussions that should take place to ensure the data are adequately and properly interpreted.

Next step: Until the end of 2006, we will wait for Michigan's questions and requests for additional analysis, and will be available to answer questions about the contents of this report.