



Take Me Fishing™

A Summary of Key Learnings from State Marketing Programs

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Executive Summary

By RBFF Senior Communications Manager Stephanie West

The Recreational Boating & Fishing Foundation's (RBFF) national advertising campaign targets lapsed and occasional anglers and positions recreational boating and fishing as unmatched leisure activities for true connection with family and friends. To accompany the advertising campaign, RBFF developed cooperative marketing materials by leveraging the brand for stakeholders to utilize in their own marketing and outreach activities.

State fish and wildlife agencies face some unique challenges when trying to implement marketing programs. Therefore, over the past six years, RBFF has partnered with a number of state agencies to build marketing programs set to accomplish specific objectives. Each agency program was designed to test the efficacy of various advertising, promotion, educational and participation strategies to address specific needs within the agency.

This Key Learnings Report serves as an information resource focused on key findings, implications, and recommendations from RBFF's pilot state marketing programs and includes sections focusing on terminology/definitions, fishing license database, target markets and marketing tactics. It was developed for RBFF staff and its State Outreach Working Group to help develop a state direct mail marketing program to increase fishing license sales.

Key Findings

The overall results of RBFF's state pilot marketing programs were very positive. Focusing on changes in license sales or awareness of fishing-related advertising, the programs have successfully demonstrated that marketing programs can have a very significant effect on license sales. Key findings include:

The use of the license database is an essential tool for identifying market segments and evaluating the effectiveness of the marketing program; however, the process of identifying market segments should be driven by specific program goals and objectives.

- When building a license database to be used for marketing purposes, we identified a number of data elements and data handling procedures that enhance the use of the database: the record identifier, location of the license purchase, license purchase date, zip

code, gender and date of birth. It is important to preserve all data that is associated with an individual. Additionally, yearly files should be merged to form a single record for an individual over time. One of the benefits of a cumulative license database is that target segments can be tracked from year to year.

- States with electronic license databases have an advantage in identifying target audiences for programs, but the absence of an electronic license database should not discourage states from developing a marketing program since other resources can be used in identifying target audiences. For example, Tapestry™, which is provided by the California based company ESRI and built from U.S. Census Bureau data and other sources, provides detailed demographic and lifestyle information for all neighborhoods in the United States. This data can be used to identify target audiences for both direct mail and advertising.

There are at least three types of benefits associated with marketing programs.

- There are economic benefits of license sales for the agency, awareness benefits in terms of fishing opportunities and visibility for the agency and its programs, and political benefits for the agency regarding increased constituent support for the agency and its programs. Additionally, it is important to recognize that license sales are used in calculating Federal Aid apportionments to the state from the Sport Fish Restoration (SFR) Fund.
- Return on investment (ROI) is also an important component of any marketing program and should be considered within the context of the program. The ROI has been positive when anglers have been targeted with appropriate messages or given meaningful information.

In general, the more recent the fishing license purchase and the longer the purchasing history (number of years buying a license), the greater the response to a marketing program if the messages and information provided are salient to the angler.

- It is evident from the projects conducted to date that targeting lapsed anglers buying licenses within the past two or three years is most productive. The ROI from targeting buyers four or more years after their last purchase is minimal.

- The results show that the more years a lapsed angler has not been fishing, the lower the probability that the angler will become active again.
- The number of fishing licenses an active angler has purchased in previous years is directly related to the probability of buying one in the current year.
- Additionally, the most important angler motivations are relaxation, escaping the daily routine, relationship building (being with family and friends), and having a purposeful, fun activity in which to participate.

The combination of direct mail with multiple marketing activities has been shown to be much more effective than direct mail alone.

- A diverse array of marketing tactics has been used by the state partners since the initial projects began in Ohio and Oklahoma in 2002. These states incorporated some type of direct mail into their programs and most agencies used multiple tactics in their marketing programs. The results show a combination of both direct mail and advertising seems to produce greater benefits than the use of either alone.

The cooperation among agency staff in different divisions and the coordination across divisions also have been positive outcomes from marketing programs.

- In order to be successful, agencies need to make the programs an agency priority and commit the resources annually to maintain them.

Finally, greater benefits will be realized as these projects are expanded in scope.

- RBFF's state pilot programs have for the most part been limited in scope. The benefits from these activities, while successful and productive, have been comparatively small due to the scope of the projects. Greater benefits will be realized as these projects are expanded to include a greater proportion of the anglers in a state.

A Summary of Key Learnings from State Marketing Programs

June 8, 2007

Background

The mission of the Recreational Boating and Fishing Foundation (RBFF) is to increase fishing and boating participation in the United States. Toward this end, RBFF launched a national advertising campaign as *Water Works Wonders*[®] in 2001 to increase awareness of fishing and boating. The campaign was re-branded as *Take Me Fishing*[™] in 2005 and is currently in use. The campaign targets lapsed and occasional anglers and positions recreational fishing and boating as unmatched leisure activities for true connection with family and friends. RBFF developed cooperative marketing materials leveraging the national campaign for stakeholders to utilize in their own marketing and outreach activities. The campaign was designed to be leveraged by industry, agency and organizational programs and customized to meet their particular fishing and boating needs.

In 2002-03, RBFF hosted state marketing workshops to assist state agencies in developing marketing plans that linked to, leveraged and benefited from the equity of the national advertising campaign. Twenty-two states attended the workshops, which required a team of participants from each state agency, and enabled them to build marketing plans. Several states have moved ahead with their own marketing plans since the initial workshop in 2002. Notable among these are Arizona, New Hampshire, Tennessee and Arkansas. However, state agencies face several obstacles in developing and implementing successful marketing programs.

Recognizing the challenges facing state fish and wildlife agencies, RBFF has partnered with a number of state agencies to build marketing programs set to accomplish specific objectives. Each agency program was designed to test the efficacy of various advertising, promotion, educational and participation strategies to address specific needs within the agency. For example, the primary focus of the initial marketing campaigns in Oklahoma, Iowa and Utah was on awareness of fishing opportunities, while Ohio, Michigan, Kentucky and Idaho were concerned more with promoting license sales. Initial marketing efforts in Texas have focused on increasing angling participation among minority populations.

Each state program was initially conducted on a pilot basis. That is, on a relatively small scale with a specific target population and objective. Background research was conducted to provide understanding on the target population in terms of license buying patterns and constraints to fishing participation. Demographic and consumer characteristic information was used to uncover tendencies that would facilitate message development and help evaluate delivery options. An evaluation program was established for each program to assess the effectiveness of various program elements.

Terminology and Definitions

There has been little consistency in angler marketing terminology over the years. Anglers that fish very frequently each year, those that fish occasionally each year, those that fish intermittently over several years and those that fish during one or two years and then discontinue fishing all have been given two, three or more different labels. Most efforts in the past several years have focused on one of two aspects of angler marketing. The first is angler recruitment. As the term implies, recruitment efforts are directed at attracting non-anglers to the sport. In some cases, recruitment has included individuals that have not fished since childhood. Few marketing programs to date have directly addressed angler recruitment; most have focused on the second aspect of angler marketing, angler retention. Angler retention is exactly what it connotes; keeping anglers actively engaged in fishing. The purpose of these programs is to keep existing anglers active from year to year or re-engage anglers who may not have fished in the past year or more.

Within the angler retention rubric, there are two types of anglers to consider: active anglers and lapsed anglers. Active anglers regularly buy a fishing license or fish consistently each year. Our research has shown that the number of licenses an active angler has purchased in previous years is directly related to the probability of buying in the current year. For example, 58.7% of active anglers, those buying a license in 2005, will buy a license the following year (Table 1). For the most active anglers, those buying licenses three years consecutively, the renewal rate often exceeds 82%. However, an active angler buying licenses in 2003 and 2005 has a 20% probability of buying a license in 2006. Thus, marketing programs wanting to improve the

consistency of active anglers buying licenses from year to year may need to provide different information to meet the needs of consistent buyers than those buying intermittently. For example, active anglers may only need a simple reminder postcard to spur their license purchase, whereas a one-time buyer may respond better to information on when, where and how to catch fish at local fishing areas.

A special category of active anglers in this discussion is new recruits. New recruits are anglers that purchase a license or go fishing for the first time in the most recent year over a given period of time. These anglers are not present in a buyer database in past years, although they may have purchased licenses prior to the establishment of the database. In Table 1, the “2005 Only” buyers can be considered as new recruits. Interestingly, only about 40% of the 2005 new recruits (Table 1) will buy a license in 2006.

Table 1: Purchase rates of Idaho anglers with different buying histories.

Angler Type	Males			Females			Total		
	Potential Buyers	2006 Buyers	Percent Renewals	Potential Buyers	2006 Buyers	Percent Renewals	Potential Buyers	2006 Buyers	Percent Renewals
Active Anglers									
2003, 2004 & 2005	133,165	111,438	83.7%	25,657	19,211	74.9%	158,822	130,649	82.3%
2004 & 2005	22,261	11,910	53.5%	7,407	3,437	46.4%	29,668	15,347	51.7%
2005 Only	52,676	22,724	43.1%	25,187	9,132	36.3%	77,863	31,856	40.9%
2003 & 2005	37,892	8,353	22.0%	18,212	3,116	17.1%	56,104	11,469	20.4%
Sub-Total	245,994	154,425	62.8%	76,463	34,896	45.6%	322,457	189,321	58.7%
Lapsed Anglers									
2004 Only	32,094	20,050	62.5%	11,136	6,098	54.8%	43,230	26,148	60.5%
2003 & 2004	37,128	11,792	31.8%	12,315	3,375	27.4%	49,443	15,167	30.7%
2003 Only	57,228	9,529	16.7%	26,963	3,317	12.3%	84,191	12,846	15.3%
Sub-Total	126,450	41,371	32.7%	50,414	12,790	25.4%	176,864	54,161	30.6%
Total	372,444	195,796	52.6%	126,877	47,686	37.6%	499,321	243,482	48.8%

The second component of angler retention is the lapsed angler. Lapsed anglers are those who do not fish or buy licenses consistently from year to year. And, as would be expected, the more years an angler has not been fishing, the lower the probability that the angler will become active

(Table 1). Again, our research shows that an angler that bought a license in 2003 and/or 2004 had about a 30% chance of buying a license in 2006.

As indicated above, there are two primary behavioral means to classify anglers for marketing purposes: license purchasing behavior and fishing participation history. If a database of license buyers is available, whether electronic or coded from paper forms, anglers can be classified as active or lapsed by their purchasing behavior. The number of combinations of buying years is only limited by the number of years represented in the database.

The second behavioral means for categorizing anglers is by their fishing participation history. Marketing to anglers based on their fishing participation history assumes that there is some a priori knowledge about the entire population or part of the population. This information can be obtained from a general population survey or some other means of connecting an individual with their angling involvement. In general, this is not a feasible means for identifying market segments. However, data from these types of surveys can provide the basis for understanding the occurrence of active and lapsed anglers in a population and enough information from which to develop a general marketing program.

Definitions

The following definitions of anglers are presented so that consistent references to various groups of anglers can be made throughout this paper.

- License-based definitions
 - Active angler – An angler that has purchased a fishing license within the past year, and at least once during previous years.
 - Lapsed angler – An angler that has purchased a license in one or more previous years, but not during the immediate past year.
 - New Recruit – An angler that has no history of purchasing a fishing license prior to the current year. (The angler may have purchased a license before the license databases was established.)

Fishing License Databases

A majority of state fish and wildlife agencies currently have automated point of sale (POS) license transaction systems. These systems capture sales from license vendors which are downloaded into a central storage file. These electronic databases can provide a wealth of information on anglers and, when multiple years are combined, can chronicle purchases over time. Our experience in working with these databases for several years has resulted in several observations that should be useful to others working with these databases.

Use of license databases, while quite valuable, does have some limitations. The primary limitation is that not all anglers are captured in the system. In many states, certain groups or types of anglers are exempt from the purchase of a license. In some states, saltwater anglers are not required to buy a license or those fishing from a pier or other structure are exempted. In others, anglers fishing in their home county or in ponds or lakes on their own property are exempt. Senior citizens are exempt in some states or are issued a permanent license that does not have to be renewed annually. Youth are required to purchase a license at age 16 in many states. However, in a few states the age is lower. While electronic license systems capture the vast majority of anglers in each state, they most often do not capture all anglers.

Important Data Elements and Procedures

When building a license database to be used for marketing purposes, we have identified a number of data elements and data handling procedures that enhance the use of the database. These may seem like common sense items, but when dealing with a variety of division and departmental personnel, information technology (IT) personnel, consultants and advisors, some of these elements can be overlooked. The end result may mean having to backtrack and revise the database to include missing information or re-analyze data because of an oversight. In either case, setting the database up correctly in the beginning will save time with the analysis and evaluation aspects of the program.

The most important data element in the database is the record identifier. In some cases, an individual is assigned a new record identifier each time a license is purchased. This makes

linking purchases from year to year more difficult because first other types of information, such as name, address, and age are then needed to match records. In this case, if names or addresses differ by one letter or number most computer programs will not match the records. To overcome this limitation, extensive programming and external databases are needed to standardize names and addresses for matching. In cases where license purchases are recorded from paper transaction forms, having accurate name, address and date of birth fields becomes crucial. Any data entry errors will impede accurate record matching.

Location of the license purchase can also prove to be a valuable piece of information. Comparing the location of the license vendor with the residence location of the buyer can often provide useful insights into fishing behavior. In Ohio, for example, a group of anglers that lived in the Columbus area who bought their licenses at a vendor along the Lake Erie shoreline was identified through this comparison. The Columbus anglers became the targets for a program informing them of the fishing forecasts for Lake Erie.

It is also very important to preserve all data that is associated with an individual. Most license files contain a single record for each transaction an individual makes. In some states, an individual may have dozens of records. For example, one individual in Idaho had a resident fishing license, hunting license, salmon permit, steelhead permit, and several species and area hunting tags. Another angler purchased five short-term licenses and then a resident fishing license in one year. It is very inefficient having separate records for each transaction. Thus, all of this information should be consolidated into one record for the year. The fact that an individual bought several short-term licenses in addition to a resident license may be valuable information when trying to identify target groups for a marketing program.

Similarly, yearly files need to be merged to form a single record for an individual over time. In this manner the buying history, like the one shown in Table 1, for each individual can be compiled and analyzed. Analysis of the longitudinal database can identify anglers that downgraded their licenses from an annual to short-term, or upgraded from short-term to annual in successive years. Downgraders could be an important target for some marketing programs if their incidence warrants attention.

Also of importance are data such as license purchase date (for all licenses and permits bought), gender and date of birth. Knowing the purchase date helps in understanding the timing of licenses purchases throughout the year as well as assist in determining if a license was purchased before or after a marketing program was initiated. Date of birth, rather than age, is also important. In multi-year databases if age of an individual is recorded for a specific year (e.g., the first year they are identified in the database), then the age variable will have to be changed each year to keep age tracking with the database. This becomes awkward to deal with as the number of years in the database increases. Having the specific birth date in the database will allow for accurate calculation of age at any point and may become a valuable element for matching individual records when common yearly identifiers are absent.

Zip codes for marketing have many uses in a marketing program. Ensuring this data is accurate and collected for each individual has many benefits. Zip codes can be used for creating market areas or tying to individual counties. Matching zip codes with Census Bureau or consumer lifestyle and reference data can result in general profiles of anglers that can assist in determining which marketing activities would be most efficient in communicating with anglers.

There is also value in incorporating other databases available to state fish and wildlife agencies into the license marketing database. Ohio, for example, merged their magazine subscribers, park permit buyers and boat registration files into one database. While these inclusions took several months and dedicated cooperation from several agencies to complete, the result was the ability to identify outdoor enthusiasts and provide fishing in the parks information to angler/park users. Thus, the more individual information that is contained in the database will result in a greater ability to identify specific groups of anglers for targeting in the marketing program.

Selecting Targets

The two main functions of a marketing database are to assist in identifying market segments for the program and evaluating program results. Identifying markets segments should not be a

random process. The use of the license database is an essential tool for identifying market segments; however the process should be driven by specific program goals and objectives. Program goals can vary from increasing knowledge about aquatic resource and fisheries issues to increasing license sales and stewardship behaviors. The applications of the license database for improving license sales is obvious, however, its use for stewardship, education and other purposes, while rarer to this point, has merit.

The goal of increasing license sales needs to be tied to specific objectives so a proper evaluation can be developed. Identifying one or more subgroups of anglers as targets for the program is important. Here is where the results of the pilot projects can be of great value. These pilot projects have targeted a variety of active and lapsed anglers. Most have targeted males in the 25 to 54 age range. To a lesser degree they also have targeted females in the same age range. Examining these results can help determine which anglers will respond best to various advertising and direct mail activities. Moreover, they can provide the basis for establishing objectives in terms of the percentage increase in sales desired from the marketing program.

The size of each target group can be determined from analysis of the database. If target sizes are sufficient, then more specific information can be extracted in terms of demographics, lifestyle characteristics, and other variables that may be contained in the database.

Most of the targets in the pilot projects were based on license purchasing history like those shown in Table 1. Other configurations of license buyers can be identified, particularly when several years of license data are available. For example, the targets in the Michigan project were based on a combination of the most recent year of purchasing a license and the total number of licenses bought between 2000 and 2005. This type of classification utilizes more information than that in Table 1. However, it is evident from the projects conducted to date that targeting anglers buying licenses within the past two or three years is most productive. The return on investment from targeting buyers four or more years after their last purchase is minimal.

Two examples illustrate the value of having a license database to assist in selecting market segments for marketing. The first project involved marketing fishing licenses to Hispanics in the

Dallas-Ft. Worth area of Texas in 2004. The Texas Parks and Wildlife Department (TPWD) wanted to determine if direct mail could be used to raise interest in fishing and stimulate license purchases. A list of 30,000 Hispanic names was obtained for the area. The direct mail piece provided information about fishing opportunities in the region and directed the recipient to a special web site where additional information could be found as well as the opportunity to obtain a free fishing license. The response to the direct mail was very low when the individuals were checked against the TPWD license database. In an attempt to understand why the response was so low, an analysis of the Hispanic database was undertaken after the program. The analysis entailed matching consumer lifestyle data from a commercial vendor to each member in the Hispanic database at the zip code level. The consumer lifestyle database, called ACORN from Simmons Market Research Group, was used to provide the additional data for analysis purposes. This database is now called Tapestry and is one of several lifestyle databases available commercially for market research purposes. One of the key variables in the ACORN data was an index of fishing activity for individuals in each zip code. Using this index value, recipients were divided into two groups; those above the national average (index score of 100) and those below. Interestingly, about half of the Hispanic subjects lived in zip codes where the fishing index was 100 or above while the other half was below the national average. Individuals with an index value greater than 100 lived in an area where residents participate in fishing at a rate greater than the national average. Very surprisingly, the license sales analysis showed that 97% of the fishing licenses purchased by this group of Hispanics occurred with those individuals residing in the zip codes with an ACORN fishing participation index score above the average national fishing index value of 100. While this analysis was completed after the direct mail program occurred, it shows the value of combining license sales data and external database information to refine the targets for the marketing study. If this analysis had been done with ACORN data and 2003 license sales data prior to the direct marketing program, 50% of the mailings would not have been necessary and the program's cost would have been halved. This example also points out the value of investing time in advance planning.

The selection of a target market segment in the second example is somewhat more complex than the Texas example above. The Ohio Department of Natural Resources (ODNR) was interested in marketing fishing licenses to African Americans in several regions of the state.

Using its electronic fishing license database, the ODNR appended block group level Census data to each record. This data contained information on race, family size, average household income and several other variables that might be of value from a marketing standpoint. Lapsed anglers living in areas with 80% African American residents were selected as targets for a direct mail campaign. These lapsed anglers were sent information specifically designed for an African American audience. An analysis of the purchase rate by the direct mail recipients was compared to a similar control group not receiving the direct mail. The results showed that the direct mail purchase rate was 11 percentage points greater than the control group. The result of this analysis not only proves the value of direct mail in a marketing program, it also demonstrates the value of Census data for targeting a specific audience.

These examples illustrate two diverse ways of using a license database to identify targets for a marketing program. The ability to use license data by itself or in conjunction with other data sources can provide a rich mosaic of data from which to plan and evaluate a variety of target market segments for inclusion in a marketing program. To take advantage of this opportunity, marketing programs must include agency staff or consultants capable of building and analyzing the marketing database.

Tracking and Evaluation

There are essentially two ways to assess the effects of a marketing program. If a license database is not available, then some type of survey evaluation can be used. This type of evaluation method usually employs some form of experimental design; such as a pre- and post-campaign survey of the population in the target area or post-campaign survey with an equivalent control group outside the target area. While more cumbersome and costly than using sales records from a license database, effects of the marketing program can be tracked with good reliability. This type of evaluation also provides the opportunity to collect additional information from the respondents that may aid in future marketing efforts. This approach was successfully undertaken during one of the first pilot projects in Oklahoma.

Evaluating the effects of a marketing program by assessing license sales yields the benefit of tracking actual behavior. Answering the question, "Did the marketing campaign increase license

sales among the target group?” can be addressed directly with a license database. By selecting an appropriate research design using random selection of subjects, and employing both target and control groups, high confidence can be placed on the results of the evaluation. What this analysis does not provide is an understanding of precisely which types of advertising or direct mail were most productive, unless the effects of each program element can be isolated through localized application of marketing activities and target selection. To improve understanding of the effects of various marketing activities, pilot program in Kentucky, Iowa, Utah, and Idaho all supplemented their database evaluation with a sample survey of target and control group members. These surveys provided useful information on the awareness of the various marketing activities, information needs of anglers, and other information of interest to the agency.

One of the more complex database management tasks is merging new sales data into the cumulative database. Once the new data is formatted for consistency with the cumulative database, all licenses purchased aggregated onto one record and duplicate records for each individual eliminated, the new file needs to be merged with the cumulative database. After merging the data, records in the cumulative database need updating as well. For example, if we are updating the 2000-2006 cumulative license database with a merge of 2007 buyers, new records will be added for those buyers not already in the database. Existing database members that bought a license in 2007 will have a variable added to their record indicating they bought a license. Those cumulative database anglers that did not buy a license in 2007 will not have an entry in the 2007 buying field. Thus, these blank fields will need to be filled with a value representing a non-purchase. Similarly, new recruits added to the cumulative database in 2007 will not have purchase histories for previous years. Values for non-purchases during the 2000-2006 will need to be added to the new recruits’ purchase histories to complete their records. Not updating the purchase histories of all records in the cumulative database will result in errors when grouping individuals based on their purchase histories or accurately determining the percentage of anglers in various groups buying a license in a particular year.

The purchase date of a license becomes very important when trying to determine if marketing activities were successful in stimulating license sales. If effects on sales over the course of a year are of interest, the importance of purchase date is less of a factor, except when eliminating

buyers prior to commencement of the marketing program. However, when identifying the effects of marketing activities within specific time periods, the purchase date becomes critical. More importantly, however, is determining the time period to be evaluated. With different marketing activities often scheduled for different time periods, identifying the ending date of the program may be difficult if a finite period is desired. In programs with a heavy emphasis on awareness of fishing activities and no specific call to action, a period extending beyond the end of the marketing activities may be desired to capture delayed sales. In both instances, the time period should be agreed upon by the marketing team prior to commencing the evaluation.

One of the benefits of a cumulative license database is that target segments can be tracked from year to year. While this analysis has not been undertaken for any of the two-year programs (i.e., Iowa, Idaho, and Ohio), the potential exists to track individuals in target areas with advertising and direct mail over the course of several years. So, it is possible to determine if active and lapsed anglers in target areas, after two years of exposure to marketing programs (if the same areas were used), had greater purchase rates than anglers in control groups. Furthermore, the response rates of direct mail recipients (one or multiple years) can also be compared to their control groups to identify longer-term impacts of marketing programs. This analysis would be a valuable addition to our knowledge about the cumulative effects of angler marketing programs.

Anglers as a Target Market

The RBFF and others have conducted extensive market research studies on anglers for several years. The purpose of these studies was to gain insights into the motivations, constraints and preferences of different angler groups to design messages and strategies for increasing participation. This section looks at what that research has told us and how the information has been used for the RBFF national advertising campaign and state marketing programs. Further, how this information has been used to develop and prioritize target market segments is explored.

Understanding Anglers

Some of the fundamental information needed to plan and execute a marketing program pertains to the characteristics, preferences and behaviors of the targeted group or groups. Many descriptive angler studies have been conducted at the national, state and local levels over the past 30 to 40 years. Most were designed to provide information on resource management issues rather than for marketing purposes. Over the past decade, new studies have built on the management information to characterize different types of anglers based on fishing participation, types of fishing undertaken, centrality of fishing to the lifestyle, media usage and constraints to fishing participation. The RBFF has pioneered the organization and use of this information for marketing purposes over the past five or six years. Fedler, Ditton and Duda (1998) summarized the extant angling literature and distilled the basic information on motivations, social relationships, constraints, characteristics and behaviors. Additional studies by SMC (2003) and Fedler (2000) and others complimented the work by Fedler and Ditton (1994) and Roper Starch (2002) by drilling deeper into angler motivations and preferences.

Viewing these studies collectively results in some very strong commonalities. For example, the most important angler motivations were relaxation, escaping the daily routine, relationship building (being with family and friends), and having a purposeful, fun activity in which to participate. While these motivations were universal to nearly all anglers, other anglers placed importance on other reasons for fishing, such as catching large fish or a limit of fish and experiencing solitude. Some of the national advertising campaign evaluation studies have examined the relationship between motivation and the RBFF angling participation categories of avid, semi-avid, occasional and lapsed. Interestingly, motivations were rated very similarly across each of the groups.

One of the limitations of the analysis of motivations to this date is determining whether there are unique packages of motivations that are characteristic of different categories of anglers. Previous research by Fedler and Ditton (1994) and others has shown that different groups of anglers place differing levels of importance on individual motives and that these differences can characterize relatively homogeneous angling groups. That is, one set of motivations may represent avid angler motivations while an alternate set may better characterize lapsed anglers.

These multidimensional groupings of motivations may be more useful for marketing purposes than when considering motivations individually.

How people view fishing provides some insight into aspects of the activity that differentiate anglers in different participation groups. The results of surveys measuring angler beliefs about fishing confirm what would be expected. For example, avid anglers view fishing as a fun activity and something to do with the family. Similarly, lapsed anglers place a high priority on family activity, but they are less likely to say that fishing is worth the time set aside for it and more likely to say that other family activities have higher priority. Very limited analysis of constraints by different subgroups of anglers has been conducted. This point is amplified by a recent finding in Iowa. Most surveys have shown that the importance of having information about where and how to fish in areas nearby the anglers was rated relatively low. But in the 2005 Iowa pilot project evaluation survey, lapsed anglers indicated the fishing information they received on local fishing areas was of great value. This information was used in the 2006 marketing program with great success.

Summary of Marketing Tactics

A diverse array of marketing tactics has been used by the eight state partners since the initial projects began in Ohio and Oklahoma in 2002. All states incorporated some type of direct mail into their programs (Table 2). Three types of direct mail have been used to stimulate license purchases. The first provided information on local fishing opportunities and included where, when and how to fish at local area lakes and rivers. This tactic was used by Oklahoma, Iowa and Utah.

Michigan was the only state to use the second tactic of offering discounts on fishing and boating products from retailers in their direct mail. These promotions included the use of a discount card at Gander Mountain in 2005 and a coupon book in 2006.

The third type of direct mail was a postcard reminder. In Ohio, Iowa and Idaho postcards encouraged lapsed anglers to buy a license and take a kid fishing. Kentucky's postcards urged recipients to visit their local Wal-Mart for fishing information and to purchase a fishing license.

The direct mail activity in Texas informed a group of Hispanic residents to log on to the Texas Parks and Wildlife web site to receive a free fishing license.

Most agencies used multiple tactics in their marketing programs as seen in Table 2. These tactics ranged from radio and television advertising to utility bill inserts. Some advertising directed viewers to the agency’s web site for further information on specific fishing locations or to purchase a fishing license. Agencies utilized the imagery and text of the *Take Me Fishing* advertising to leverage the national campaign awareness. The action requested in the messages varied by state, however, they all were directed towards the goal of increasing license sales. Some messages focused directly on license sales while others were more ephemeral in their intent by focusing on the benefits of the activity or sources of fishing information.

Table 2: Marketing activities used by pilot states in their marketing programs

	Direct Mail	Radio	TV	Web Site	Retail Signage	News-paper	License Vendor Displays	Movie Theater	Agency Pubs.	Edu. Events	Other
2002 Ohio	XX								XX		
2002 Oklahoma	XX	XX			XX	XX	XX				Utility Bill Insert
2003 Kentucky	XX				XX		XX				
2003 Texas	XX			XX							
2005 Michigan	XX										Discount Card
2006 Michigan	XX										Coupon Book
2005 Idaho	XX	XX	XX	XX	XX	XX	XX		XX	XX	
2006 Idaho	XX	XX	XX	XX		XX	XX		XX	XX	
2005 Iowa	XX	XX		XX	XX	XX	XX	XX	XX	XX	
2006 Iowa	XX	XX		XX		XX	XX		XX	XX	
2003 Utah	XX		XX						XX		

The combination of direct mail with multiple marketing activities has been shown to be much more effective than direct mail alone. Follow-up surveys of direct mail recipients in Oklahoma,

Idaho and Iowa have shown that as the number of types of advertising (including direct mail) recalled increased, the percentage of individuals buying a license increased.

Summary of Results

The overall results of the state pilot marketing programs were very positive. The effects of the programs focused on changes in license sales or awareness of fishing-related advertising. The term “Lift” is used extensively in marketing to refer to the effects of a particular program. While commonly used in market research, Lift is new to most fish and wildlife agencies. In essence, it is the difference between the actual awareness or license purchase rate attributed to the marketing program and the rate that would be expected without the program. In the discussion of the results of the state pilot programs below, Lift is used as the metric for evaluation. Thus, a brief discussion of Lift is included to familiarize the reader with the concept.

The Concept of Lift

The concept of “Lift” is important in the marketing arena. It is a measure of the effectiveness of a marketing program that can be applied to a variety of outcomes ranging from product awareness to sales. It is an important concept in that it places the focus on the most efficient alternative relative to the resources invested in a program. In essence, it helps identify where the greatest gains will be made and thus where the optimal return on investment will occur.

<p><u>The definition of Lift</u> is the difference between the rates of renewal between the Target Group and the Control Group.</p>
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The following example illuminates why the license renewal rates of different groups of anglers are not important in determining which group to choose for marketing purposes. The important consideration is the response to the marketing program. Table 3 illustrates this point very clearly.

THE QUESTION: If two groups of anglers with different license renewal rates are exposed to the same marketing program, which group would yield the greatest benefit?

The casual observer might select Group B in Scenario 1 in Table 3 because it has the highest buying rate. This is an erroneous conclusion, as we see below, which underscores the importance of the “Lift” statistic. In Scenario 1 below, the Lift for Group A is 10% and Group B is also 10%. Group A’s Target Sample Buying Rate is half that of Group B but they still have the same Lift as Group A (10%). Multiplying the respective buying rates by their sample size result is Sales for that group. If Control Sample Sales are subtracted from Target Sample Sales, the result is Net Sales. Net sales can also be calculated by multiplying Lift times Sample Size. In Scenario 1, the Lift is the same for each Group, as are Net Sales.

The importance of Lift is shown in Scenario 2. The highest buying rate is for Group D, but Lift for Group D is only half that of Group C. More importantly, Net Sales for Group D is only half that of Group C. Remember the objective of the marketing program is to increase Net Sales. In Scenario 2, the marketing program is more effective with Group C, even though the Buying Rate is lower, because the Lift is twice that of Group D. Twice as many licenses were sold to Group C, due to the marketing program, than to Group D.

In some evaluations it may not be feasible to establish a control group based on random assignment of individuals to target and control groups. This makes the calculation of Lift problematic. As a result, it may be necessary to estimate Lift using a surrogate measure such as a comparable group from another part of the state.

Table 3: Example of the effects of license renewal rates and Lift on net sales

	Target Sample			Control Sample			Lift	Net Sales
	Sample Size	Buying Rate	Sales	Sample Size	Buying Rate	Sales		
Scenario 1								
Group A	50,000	30%	15,000	50,000	20%	10,000	10%	5,000
Group B	50,000	60%	30,000	50,000	50%	25,000	10%	5,000
Scenario 2								
Group C	50,000	30%	15,000	50,000	20%	10,000	10%	5,000
Group D	50,000	55%	27,500	50,000	50%	25,000	5%	2,500

Effects on License Sales

In five of the eight pilot project states, the primary objective was to increase license sales among lapsed anglers. In Iowa and Idaho additional objectives were established for renewals by active anglers purchasing licenses in the immediate past two or three consecutive years and the previous year's new recruits. In Iowa, Kentucky, Michigan and Ohio, anglers were randomly selected from a group of anglers with specific characteristics to receive direct mail information. The remaining, unselected members of the group became a control group used to establish the baseline renewal rate for the calculation of Lift for the direct mail recipients. In Idaho, lapsed angler groups from specific regions of the state were selected to receive direct mail information. Similar lapsed anglers from regions not receiving direct mail or other forms of advertising were used as a control group to establish the baseline renewal rate for comparisons.

The Lift in license sales for five state marketing programs is shown in Table 4. The target audience for these programs was males in the 25 to 54 age range. As mentioned earlier, all the programs focused on lapsed anglers. However, the 2006 Michigan program also included lapsed female anglers, and Idaho and Iowa included groups of previous year's new recruits and renewals by active anglers. The results of the marketing programs were positive, but varied from year to year and by state. The Ohio program achieved the highest Lift of all programs for lapsed anglers followed by the 2005 Idaho and Michigan programs. The poorest results occurred in the 2003 Kentucky and 2006 Michigan programs.

The diminutive results in Michigan and Kentucky are likely related to the structure of their respective marketing programs. In Kentucky, lapsed anglers were sent a postcard encouraging them to buy their licenses on specific dates at Wal-Mart where information on local fishing opportunities was available. Additionally, Department of Fish and Wildlife Resources personnel would be present to answer fishing-related questions anglers might have. In Michigan, the coupon book may not have contained sufficient incentives in merchandise discounts to motivate recipients to buy a license in order to redeem the coupons. The structure of the 2006 Michigan coupon book program was much different than the discount card program used in 2005. The discount card program offered a 10% discount on selected merchandise at Gander Mountain stores for several months after buying a resident fishing license. The results of the discount card

program were very good by comparison. Interestingly, lapsed female anglers responded much better to the Michigan coupon book promotion than males.

Table 4: Average license sales Lift for pilot state marketing programs by buying group

State	Average Lift in License Sales		
	Renewals by Active Anglers	Renewals by Lapsed Anglers	Renewals by Previous Year New Recruits
2002 Ohio		13.0	
2003 Kentucky		0.8	
2005 Michigan		7.0	
2006 Michigan		3.8 ¹ and 0.5 ²	
2005 Idaho		8.5	
2006 Idaho	6.5	2.4	2.7
2005 Iowa	2.2	2.4	1.1
2006 Iowa	5.4	4.8	3.0

¹Females

²Males

The differences in Lift across the state programs or from one year to the next in a specific state are affected by many factors outside the control of the marketing program or the agency. In some states, water levels associated with drought (too little) or excessive snowfall (too much) can have significant impacts on fishing participation. Likewise, weather, fuel prices, the local economy and many other factors interact with the marketing program and affect overall license sales. These and other exogenous factors can be accounted for to some degree in the design of the marketing program evaluation. However, they also can be highly variable within a state, particularly in the larger western states. Thus, the results of the marketing program evaluation need to be considered within the context of other relevant factors that could affect license sales.

Effects on Awareness

Several state marketing programs were also interested in the awareness different marketing activities. Table 5 summarizes the Lift associated with several marketing activities that were measured through mail or telephone surveys of the target audience. In the case of Utah, telephone surveys prior to and following the marketing program were used to capture advertising

awareness and identify the Lift caused by the marketing program. In Oklahoma, Kentucky, Idaho and Iowa target groups were compared to control groups to determine Lift based on mail survey results of advertising recall.

The limited data in Table 5 shows a varied response in awareness of specific marketing activities. The Oklahoma project received solid recall of most of its marketing activities. The reason for this is related to consistent messaging about where lapsed anglers could obtain fishing and boating directories for their regions. The location of information and signage had a great effect on the low recall rate of Kentucky’s in-store advertising and information recall by targeted anglers. The Kentucky Wal-Mart signage was away from main travel aisles and not visible from the store’s entrance. This contrasts with Oklahoma’s highly visible window cards (red and white bobbers with limited information) identifying the store as containing regional fishing directories.

Because of the lack of data on individual marketing activities, it is difficult to conclude which activities work well and which do not. In the Oklahoma and Utah projects, the advertising focused on two messages: reconnecting with family and friends through fishing and the availability of local fishing information to make the fishing experience easier and more successful. The former message reiterates the RBFF *Take Me Fishing* campaign’s underlying tenet and builds upon the extensive national advertising campaign. The local fishing information appears to be valuable to many lapsed anglers in motivating them to go fishing. In both Oklahoma and Utah, these messages were consistent across all advertising activities.

Table 5: Awareness Lift for pilot state marketing activities

State	Lift in Awareness ¹									
	Direct Mail	Radio	TV	Agency Website	Retail Signage	News-paper	Agency Pubs	Utility Bill	Posters	Overall
2001 Oklahoma	28.8	19.9			20.9	27.2		39.5	33.6	42.6
2002 Kentucky	33.0				1.7					
2006 Idaho	9.7									
2005 Iowa	24.1			8.2	2.4				3.6	16.2
2003 Utah	12.3		15.0				19.5			29.6

¹Awareness Lift is the percentage difference in advertising recall before the program and after the program.

Prioritizing Target Markets

Agencies can select any number of targets for their marketing program. They can focus on men, women, specific age groups, specific demographic characteristics, license purchase history, or a combination of these and other characteristics. The challenge is to identify a unique group and selecting the targeted marketing activities to create the greatest impact with this audience. If license sales are the objective of the marketing program, then identifying groups that will yield the greatest Lift should be targets. Table 6 shows the Lift achieved for seven license buying groups in Iowa. In this case, the best group to market to would be the “Active Angler” category as its overall Lift was the best of the three categories. However, within the Renewal category, buyers in the “2003, 2005” subgroup would not be a priority because other subgroups in the “Lapsed” and “New Recruit” categories have higher Lift percentages. Thus, this type of analysis can help in deciding on and prioritizing targets for a marketing program based on available resources.

Table 6: Lift for seven Iowa license buying groups

Buyer Group	2006 Renewal Percentage		
	Control	Target	Lift
Active Anglers			
2003, 2004, 2005	47.1%	54.8%	7.7%
2004, 2005	33.6%	38.4%	4.8%
2003, 2005	30.1%	33.2%	3.1%
Total	40.2%	46.8%	6.6%
Lapsed Anglers			
2003, 2004	16.8%	23.4%	6.6%
2004 Only	11.5%	16.4%	4.9%
2003 Only	8.5%	13.7%	5.2%
Total	11.3%	17.4%	6.1%
2005 New Recruits			
2005 Only	21.8%	26.4%	4.6%

As mentioned earlier in this paper, there are many ways to identify targets for a marketing program based on license buying patterns or other characteristics. Data like those in Table 6 can help guide the selection of targets. The Lift percentages in Table 6 are fairly typical of what has been found in other pilot states. In general, the more recent the fishing participation and the longer the fishing history (number of years buying a license), the greater the response to a

marketing program if the messages and information provided are salient to the angler. Obviously the messages and information resonated with some subgroups better than others. One of the important unanswered questions is what types of messages and information are most salient to each subgroup? Research to this point has not been extensive enough to answer this question.

Marketing Program Benefits

There are at least three types of benefits associated with marketing programs. There are the obvious economic benefits of license sales for the agency. There are awareness benefits in terms of fishing opportunities and visibility for the agency and its programs. And there are political benefits for the agency regarding increased constituent support for the agency and its programs. While the latter two types of benefits are important, the state pilot programs have focused extensively on the economic benefits derived from marketing programs.

Motivating anglers who probably would not otherwise buy a resident fishing license is important to maintaining and increasing agency revenues. As long as license sales revenues generated by the marketing program exceed the cost of conducting the program, positive benefits will accrue to the agency.

Additionally, it is important to recognize that license sales are used in calculating Federal Aid apportionments to the state from the Sport Fish Restoration (SFR) Fund. These benefits do not automatically accrue during the year of the marketing program, but will be delayed by two years. The reason for this delayed benefit is that 2006 license sales, for example, will become part of the formula for calculating 2008 SFR apportionments to states. This lag results from the reporting of full-year license sales to the U.S. Fish and Wildlife Service and the sales certification process used. Thus, the SFR apportionment benefits received in 2008 should be counted as a benefit for the 2006 program since that was when they were initially generated.

Return on Investment

Return on investment (ROI) is an important component of any marketing program. The revenue generated by a marketing program should be considered within the context of the program. ROI is calculated by dividing benefits by costs and is usually expressed as a ratio. For the 2006 marketing programs, the ROIs were calculated for Iowa (1.28:1), Idaho (1.77:1), Michigan females (1.43:1), and Michigan males (0.18:1). The interpretation of these ratios shows that Iowa returned \$1.28 in revenues for each dollar invested in the marketing program. Similarly, Idaho returned \$1.77 and Michigan females \$1.43 for each dollar invested. The coupon book program for males in Michigan lost money as they only returned 18¢ for each dollar invested.

Accountability for marketing programs should be a standard for any agency. ROI is one method of assessing a program's performance. However, it should be recognized that fish and wildlife agency marketing programs are still in the building process. They have been building successful strategies with little experience to draw upon. Success has been improving based on experience and should continue to improve with more experience and evaluation research to guide future programs. Further, the unquantifiable benefits of agency awareness and political support are not included into the equation for calculating benefits. Both need to be considered in the overall evaluation of a marketing program.

Conclusions

The RBFF's state pilot programs have successfully demonstrated that marketing programs can have a very significant effect on license sales. The return on investment has been positive when anglers have been targeted with appropriate messages or given meaningful information. The cooperation among agency staff in different divisions and the coordination across divisions also have been positive outcomes from marketing programs. To continue these successful programs, agencies need to make these programs an agency priority and commit the resources annually to maintain them. About half of the eight state pilot marketing programs have continued after the RBFF support ended.

The pilot state programs have used a variety of marketing activities to spur license sales. Clearly, both direct mail and other advertising activities have been successful. A combination of both direct mail and advertising seems to produce greater benefits than the use of either alone. The limited data we have does not allow us to fully evaluate each type of activity. As evaluations of the marketing programs continue, the gaps in our understanding will begin to close and programs should become more efficient by selecting activities with the greatest impact for a specific target group while eliminating those activities with low impact.

Agencies will need to continue leveraging the learnings from these eight states. However, new marketing activities need to be identified and tried where appropriate. Greater interaction with marketing professionals may yield additional insights into new strategies that could be successfully employed by fish and wildlife agencies.

States with electronic license databases have an advantage in identifying targets for programs. The absence of an electronic database should not discourage states from developing a marketing program. Census data and various consumer databases can be used to identify target areas for both direct mail and advertising. Evaluation methods are available to monitor the success of these projects as well. An electronic database, while useful, is only one tool used in a marketing program.

A next step for marketing programs with electronic license databases is to develop predictive models for license purchases. Market researchers have developed models of buyer behavior for products and services ranging from credit cards and insurance to televisions and clothing. The principles of these models can be used to build license purchasing models. An outcome of the Ohio DNR marketing program was the development of such a model which predicted angler lapsing with greater than 80% accuracy based on license purchasing history and demographic data. Using these techniques could advance the efficiency and success of programs in the future.

Finally, the state pilot programs have for the most part been limited in scope. The number of direct mail recipients has generally been small and confined to a sample group in a single county or multi-county area. The benefits from these activities, while successful and productive, have

been comparatively small due to the scope of the projects. Greater benefits will be realized as these projects are expanded to include a greater proportion of the anglers in a state.

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