The Impact of The Luxury Tax on The Boat-Building Industry

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INTRODUCTION

In October of 1990 the United States Congress passed the Omnibus Budget Reconciliation Act of 1990, the result of a budget compromise between the Republican and Democratic Congressional leaders to amend the Internal Revenue Code of 1986. One of the most controversial elements of this new deficit reduction package turned out to be the resurrection of a form of tax that had not been in place in the United States since the mid 1960's, a luxury tax. Buried within this budget agreement in sub-part A of Part 1 of subchapter A of Chapter 31 was the provision to establish excise taxes of 10% on the purchase of certain items over set threshold amounts. On January 1 of the following year these taxes were to take effect and serve as a means for generating much needed revenue to reduce the federal deficit. Although all of the elements of this tax have created controversy, the inclusion of new boats with a purchase price greater than $100,000 has caused the greatest outpouring of protest from the involved industry, the public, and members of Congress.

The luxury tax's impact on the boat-building industry provides an extremely interesting case for an analysis of tax policy for many different reasons. First of all, the country has been without this form of excise tax for over twenty-five years. The inclusion of luxury taxes in the budget is also an example of an attempt to instill more tax-fairness and progressitivity into the U.S. taxation system. The most striking aspect of the luxury tax on boats, however, is the magnitude of analysis and attention it has received in its short life. The focus of this paper will be to look at the development, implementation, reaction and analysis concerning this tax and determine its overall impact on the boat-building industry.

PASSAGE OF THE LUXURY TAX

In the Fall of 1990, the United States Congress faced the extremely difficult task of coming up with a new budget. In addition to the usual problems of gaining bipartisan support and presidential approval, they needed to develop a deficit reduction plan to bring in new revenues in the face of the uncertainty surrounding the crisis in the Gulf and the declining economy. A central part of the debate which surrounded the budget compromise was the issue of tax fairness for the middle class. Congress was under a great deal of pressure to shift more of the overall tax incidence to the upperclass, which was perceived by the public as not carrying its full burden.

Throughout the budget negotiations, different methods to impose a greater tax burden on the rich were discussed. These included the Democratic proposal to impose a 7.5% surtax on all income over $1 million and the Republicans' counter-proposal to impose stiff limits on the deductions these taxpayers could claim (Rosenbaum, 1990). The idea of reviving the luxury tax came out of the discussions because of 'Democratic insistence on skewing any tax increase so that it hits the rich and Republicans' resistance to raising income-tax rates' (Wessel, 1990).

Another important factor leading to the call for luxury taxes was reaction to the increase of other excise taxes in the budget agreement. Congress had already decided to raise the "sin-taxes" on alcohol, cigarettes, and gasoline as part of the Budget Reconciliation Act. In addition to bringing in revenue, the intent of these taxes is to reduce the consumption of these items in order to provide an additional benefit to society. However, these taxes are regressive in nature because expenditures for their purchase clearly make up a larger percentage of household income for working-class individuals than for the rich (Poterba, 1989). Because of this, in the interest of tax-fairness and promoting progressiveness, there was pressure for Congress to impose excise taxes on goods consumed by those at the other end of the income range, the luxuries of the rich. Imposing the luxury tax was Congress' way of showing that they had middle and lower class interests at heart going after the rich.

The most important decisions surrounding the establishment of the luxury excise taxes involved determining exactly what luxuries should be taxed. It is important to consider that luxury taxes had been nonexistent for the previous twenty-five years and were a late arrival to the budget negotiations. Furthermore, the luxury tax package was 'drafted hastily in virtual secrecy. That meant there was no research about its impact and no chance for early comment by the public, accountants, or tax lawyers (Shabecoff, 1991).

The tax that was agreed upon is a 10 percent excise on the purchase price in excess of certain threshold limits. After this was agreed upon, negotiations were necessary to first determine what items should be taxed and then to set the threshold levels for those items. The initial Democratic proposal was $500 for furs, $1,000 for electronics, $5,000 for jewelry, $25,000 for autos, $50,000 for boats, and the entire price for private planes (Wessel, 1990). The items that Congress selected for the tax are all symbols of what the public perceives as the 'toys' of the rich. Large boats were an easy choice for inclusion because of the popular public conception to the millionaire cruising the seas on a multi-million dollar yacht. The biggest problem with this proposal was the inclusion of electronics. Nobody will dispute the fact that a big-screen television or a stereo which costs over $1,000 is a luxury item. However, the fact that the $1,000 level would also affect the purchase of home computers discouraged Congress from including it. The decision to drop electronics was only one of many changes that the luxury tax plan underwent during the two month period of negotiations. Throughout this period the other items all remained, with their threshold levels constantly undergoing changes as proposals were submitted from both parties. The final agreement, which was signed into law on November 5, set the levels as follows: $10,000 for furs and jewelry, $30,000 for autos, $100,000 for boats, and $250,000 for private planes (Newman, 1992). The tax is collected by the IRS on a quarterly basis and is paid in by the provider of the good. These taxes only apply to first-time purchases and on sales within the United States, with some exceptions that mainly apply to jewelry. Thus, the sale of used boats, the export of boats, and the purchase of boats abroad are not subject to the tax. One of the main elements of the tax on boats is the stipulation that boats used for business purposes are not subject to the tax.

Although it appears that Congress had selected sensible items to be considered as luxuries, there has been a great deal of controversy over the inclusion of these items while others have been left out. The industries that have been affected by the tax clearly have concern over why their goods have been targeted as luxuries and others have not. One of the main issues that arose is why boats are taxed as luxuries and yet multi-million dollar vacation homes are not subject to the tax.. This is clearly a question for consideration because large boats are often utilized in the same manner as second homes.

Another major concern the boat-building industry has with the selection of the luxury goods is the fact that they feel they were under-represented in the negotiations because they lacked powerful allies in Washington. Throughout September and October of 1990 when the specifics of the luxury tax were being worked out by Republican and Democratic Congressional leaders, lobbyists from the various industries fought hard to protect themselves as much as possible. Although the point can be made that the boat-building industry did not have the lobbying resources that the some of the others industries had (for instance, their PAC had only made $17,000 in 1990 Congressional campaign contributions), they were able to obtain a major victory in this process by raising of the threshold level for boats to $100,000 (Ramos, 1991). At one point the threshold level for boats was set as low as $30,000, as it is for cars. However, the National Marine Manufacturers Association and the Congressional Boat Caucus persuaded Congress that the $30,000 level would make middle-market boats subject to the tax (Newman, 1992). Their arguments were successful because the incidence of the tax was intended to fall on the highest-income consumers and setting the threshold this low would affect middle-income people, whose demand was also thought to be more price sensitive.

THE BOAT-BUILDING INDUSTRY

It is important to have an understanding of the structure and recent trends of the United States boat-building industry before attempting to examine the initial projections and actual impact of the luxury tax. The first question to answer is what are the products of the boat-building industry that are subject to the luxury excise tax. As it has already been stated, the luxury tax is applied on the purchase of all new boats in excess of $100,000. According to the National Marine Manufacturers Association (NMMA), the industry group which represents eighty percent of America's boat builders (Lloyd, 1990), the two types of boats affected by the tax are "inboard cruisers' and 'auxiliary powered sailboats over thirty feet" (NMMA, 1991).

Inboard cruisers, large powerboats, have experienced tremendous growth in the past decade and presently make up 82% of the sales between these two classes (Zimmerman, 1991). Another important feature of the boat industry is the share of sales and revenue that luxury boats constitute. In 1990, only 1.8% of the 500,000 boats sold fell into the two categories that include luxury boats. However, these sales generated over $1.557 billion in revenue, which represents a 33.8% share of boating of total boating sales which equaled $4.604 billion in 1990 (Zimmerman, 1991). In unit sales terms, luxury boats make up only a fragment of boat purchases, however, the revenue they produce clearly makes them a major segment of the industry.

The 1980's was a remarkable decade for the boat-building industry. The baby boomers' entrance into middle-age has had a tremendous impact on the industry. The most important factor affecting the demand for boats is income, and with this large segment of the American population entering their highest-earning years, sales soared. Much of the growth the industry experienced was in the mid to high-end powerboat sector of the market, part of which falls in the luxury range. Additionally, the 1980's was an era in which the upper-class prospered and the purchase of luxury items came to signify the success of the newly affluent class. Another crucial factor in this boating boom was the easy availability of financing with banks willing to 'routinely lend upward of 80% of the purchase price on new boats, currently as low as 9.5% for a 20-year loan.' (McGough, 1987). Easy financing terms have made it possible for people other than wealthy tycoons to afford the purchase of boats that are in the luxury class through moderate monthly payments (Brown, 1990). The increasing affluence of the baby boomers coupled with terms that made it easy for them to finance a boat purchase led to a period of tremendous growth in the 1980's (McGough, 1987).

All of this growth in the industry led to another major development in the industry, consolidation. Acquisitions of mass-market producers was especially active with Brunswick Corp., Outboard Marine Corp., and Minstar Inc. all acquiring several large producers (McGough, 1987). However, the custom production end of the market, which makes up a large portion of luxury sales, has continued to be dominated by smaller, often family-run, firms.

An important issue to consider when looking at any industry is its position in the world economy, and foreign presence in the domestic market in which it operates. In terms of international trade, boat-building is one of the strongest industries in the United States economy. U.S. boat-builders are highly regarded in terms of quality and compete very effectively in the world market. The U.S. boat-building industry has a major presence in all of the world's markets including Europe and Japan. The boating industry has maintained a favorable trade balance and according to the International Trade Administration and NMMA, $1.0 billion in exports in 1990 led to a $0.6 billion trade surplus. However, a significant foreign presence in the domestic luxury boat market has been maintained because 'the world's best custom-built yachts of more than 100 feet in length continue to be built in Europe' (McGough, 1987). This is an important factor because the extremely wealthy consumers of these boats are clearly the target of the luxury tax legislation, but the tax is not in effect because their purchases are made abroad.

Another factor about the structure of the boat-building industry, which is of critical importance when recent Congressional action concerning the tax is considered, is the location of the builders. Boat-building obviously is located where the demand for boats is greatest, states with access to large bodies of water. However, it is even more concentrated than would initially be expected. There are roughly 2,000 boat-builders in the United States according to the NMMA. The leading boat-building states are Florida, California, Minnesota, Louisiana, Rhode Island, and New Jersey, while there is a sizable presence as well in North Carolina, Maine and Wisconsin. The boat-building industry, at its peak over the last twenty years (1988), employed only 71,400 people nationwide according to the Bureau of Labor Statistics. However, because the industry is so concentrated, it has large effects on local economies and smaller states with a large share of production, such as Rhode Island.

It is also very important to compare boat-building to the overall U.S. economy and look for factors which effect employment within the industry. To start with, boat-building is a very labor-intensive business. Although recent advances have made the use of high-technology, and thus capital, more prevalent, the production of boats, especially high-quality luxury boats,

requires a great deal of skilled craftsmanship. This is one of the reasons behind the fact that many boat-builder's families have been in the industry for generations (Salpukas, 1992). Because boats are a highly discretionary purchase, the boat-building industry is also tends to be very cyclical, a feature which will be demonstrated in later analysis. According to one of the leading boat-building executives, Brunswick's Jack Reichert, 'S (Boat-building] leads the economy before it turns down, but boating sales also lead it on the way up' (Rudnitsky, 1990). This is best explained by the importance of consumer confidence in making a purchase decision for an expensive durable such as a boat. It is also important to note that it takes anywhere from one to twelve months to produce a luxury boat (Hammond, 1991). This substantial lead-production time causes significant problems for producers because of the cyclical nature of the business. One of the results of this situation is the fact that when the orders either don't come in from dealers or custom buyers, most boat-builders may lay-off staff immediately (Hammond, 1991).

Before discussing the luxury tax as it relates to the boat-building industry, it is also important to understand the state of the industry at the time the tax was passed. The recent economic downturn in the U.S. economy has had a tremendous impact on the boat-building industry. True to its form of leading the overall economy, the boat-building industry, especially the luxury end of the market, entered the recession early. The following table shows the decline of luxury boat sales in the years before the implication of the tax.

TABLE #1 Annual Luxury Class Boat Unit Sales

(Dollar Sales Included for Inboard Cruisers)

Year	Sailboats 30ft+	Inboard Cruisers	$Sales Billions
1986	1100	12700	1.421
1987	1100	13100	1.665
1988	2320	13500	1.884
1989	2000	12300	1.908
1990	1600	7500	1.383

source: NMMA

The growth of the luxury boat market in the late 1980's and its decline preceding the economy's recession can clearly be seen in these figures. The sharply lower sales figures combined with large amounts of debt led to many manufacturers being on the brink of bankruptcy even before the tax was imposed. Clearly, it is crucial for all analyses of the impact of the luxury tax to take into account the large effects that the recession has on this industry. One bright spot for the industry during the early period of the present recession was the export business. Boat exports were up 50.9% in 1989 (Lloyd, 1990) providing some relief to the industry. 'The foreign market, however, is not likely to absorb more than a small percentage of the slack in the United States industry' (Lloyd, 1990). Additionally, the conflict in the Persian Gulf, and all of the uncertainty that goes along with impending war, arose in the fall of 1990, further exacerbating the industry's problems, The fact that this major disturbance for the economy coincided with the passage of the tax package creates a special set of problems when examining the impact of the tax. These issues for the boat industry and the all of the factors discussed above will be of critical importance when the luxury tax's impact is considered.

INITIAL PROJECTIONS OF THE LUXURY TAX'S IMPACT

When a new tax policy is implemented there is usually a long period of study to determine what its impact will be on the economy. However, because of the previously-discussed method in which the luxury tax was agreed upon, this tax lacks these intensive studies. Despite this, both the government and the industry made projections about what its long-term impact would be, during the period between passage and imposition.

The most important feature of the tax from the standpoint of the government is how much revenue the tax is expected to generate. The luxury tax makes up part of the five-year $500 billion deficit reduction plan (Wessel, 1991) so it is crucial for the tax to bring in significant revenues. Initially the government hoped that the luxury tax could bring in revenues of $9 billion over the next five years. Their decision to drop the tax on electronics and raise the threshold levels on the other items, to make it more of a true luxury tax, made this an impossible figure to

achieve (Shabecoff, 1991). After the Omnibus Budget Reconciliation Act was passed, the Joint Committee on Taxation predicted the entire package of luxury taxes to bring in $1.5 billion over the next five-years. For boats specifically, the estimate is $148 million over the five-year period. The following table shows the year-by-year breakdown of the revenue estimates:

TABLE #2 Revenue from the Luxury Tax on Boats

Year	Revenue
1991	$3 million
1992	$7 million
1993	$42 million
1994	$46 million
1995	$50 million

source: Joint Committee on Taxation

The most interesting feature of these revenue estimates is six-fold increase in revenue over 1992 levels that occurs in 1993. If the later-year estimates are on the mark, then it is clear that this government estimate is fully considering the effects of the recession on the boat industry. Without this tremendous jump the tax is certain to fall short of the $148 million dollar estimate that the government predicts.

It is also important to note what a small impact the luxury tax on boats has with respect to the overall deficit reduction plan. The tax on boats only makes up one tenth of the total revenues that the luxury tax is expected to bring in. Furthermore, the $1.5 billion that all of the luxury taxes are expected to produce seems insignificant when it is compared to the total deficit reduction plan of $500 billion.

When considering the luxury tax's ability to reduce the deficit, the costs of administration and collection becomes a major concern. This is an important factor to consider because of the fact that the Internal Revenue Service has not had to administer this type of tax for twenty-five years. Because of this, it has been very difficult for the government to come up with estimates for the costs of collection. The tax needs to be collected from retailers on a quarterly basis which leads to costs for both the government and the private-sector. Additionally, as soon as the tax was passed many questions arose over compliance problems, such as the addition of accessories to a taxable product. In an early attempt to defend the tax, Representative Byron L. Dorgan, a member of the House Ways and Means Committee who participated in the budget negotiations, stated that the luxury tax 'was plugged in the middle of the process without hearings, [and] we do not have much information on what the compliance costs will be.' (Shabecoff, 1991) Congress has avoided the need to answer the question of administrative costs by giving the IRS the responsibility for collecting the tax without giving them any more money or staff to collect it. Thus, on paper, it might appear that the cost of the tax to the government in terms of new expenses is zero. However, Fred Goldberg, the commissioner of internal revenue, has stated that, 'he has no estimate of the costs of collecting the new taxes and questions whether the revenues collected are worth the burden to the IRS and the taxpayer" (Taylor, 1991). In addition, Peter K. Scoff, former general counsel to the IRS believes that, "businesses and the IRS will spend two to three times more to comply with and collect it [the luxury tax] than the small amount of revenue it raises" (Taylor, 1991). In light of these statements it seems ridiculous for the government to expect the IRS to collect the luxury tax without significant increases in expenses.

In addition to revenue and administrative expenses, the government was also very concerned with what the impact on jobs within the boating industry would be. Obviously the industry is also very concerned about possible job losses due to the tax and they have also made estimates about the impact. As with revenue and cost projections, the fact that the tax was not studied in detail before passage led to a lack of initial estimates. The government did not make any official estimates on the impact on jobs until the Joint Economic Committee came up with a report for Congress in June of 1991. However, even before the tax was passed the issue of jobs was raised. Representative E. Clay Shaw of Florida stated during the period when the tax was being considered that 'an estimated 12,000 people could lose their jobs" (Shaw, 1990) The industry's initial estimate from the National Marine Manufacturers Association was that 6,000 to

8,000 manufacturing workers will lose their jobs in 1991 (Taylor, 1991). However, making any estimates on any type of employment impact before the tax went into effect are bound to be flawed because of tremendous uncertainty due to the recession and the Gulf conflict, which was at its peak as the new year began. Discussion of the employment estimates will follow so they can be discussed with analysis and reaction to the tax.

The Boat-Building Industry: October 1990 to the Present

Since the Fall of 1990, when the tax was passed, there has been a tremendous drop in sales for both luxury boats and the overall market, a large number of lay-offs in the industry, and a growing number of bankruptcies. There are many explanations for these developments including the overall economic recession, the Persian Gulf conflict, and the luxury tax. Before attempting to assign any portion of the decline to the tax, the changes in the industry since the passage of the tax will be examined without respect to their cause.

The first development in the industry that will be examined is sales, both total and the luxury-segment of the market. As stated earlier, boat sales were already declining from their peak in the late 1980's before the tax took effect. In February, 1992 it was reported that, 'In 1991, sales of luxury boats dropped 70 percent from 1990's level, while overall boat sales fell 18 percent' (Salpukas, 1992). There are two very important features that affect interpretation of these figures. First of all, sales in 1990 were already severely depressed due to the recession (at 9,100 unit sales, down from a 1988 high of 15,820 unit sales), thus a further drop of the luxury market by 70 percent is a tremendous decline (NMMA, 1992). These statistics reveal that a decline of 70 percent from the 1990 level leaves the luxury boat segment with only 17 percent of its 1988 market. Before this point becomes overemphasized, it is important to remember a second feature of the boat-building industry, the share of total boat industry sales that luxury boats make up. As previously stated, in 1990 total boat sales numbered 504,100, with luxury boat sales making up 1.8 percent of the unit sales and 33.8 percent of the dollar sales

(Zimmerman, 1991). Thus, the seventy percent drop in luxury boat sales does not have much of an impact on the number of boats sold, but it clearly does effect boat-builder's revenue.

In addition to declines in sales, there have also been numerous disturbances in sales patterns since the passage of the tax. First of all, luxury boat sales in the first quarter of 1991 were down relative to the full year. 'Sales have tumbled 88%, to $8 million, in South Florida [a center for boat-building] during the first quarter' (Baumohl, 1991) and Representative Olympia Snowe, from Maine, reports that national "luxury-boat sales have fallen an estimated 86 percent from year-earlier levels" (Harrington, 1991). A sharp decline would be expected, however, because of potential buyers moving purchases forward to beat the tax and the effects of the escalation of the Gulf conflict. It is surprising, however, that the expected fourth-quarter surge in purchases did not materialize as much as anticipated. The NMMA reported that wholesale shipments of luxury boats in the fourth quarter of 1990 were actually lower than the preceding three quarters, at less than 2,000 units (Morris, 1991). The early 1991 decline in boat sales was felt even harder by the very top-end of the market. From the year's start to May 15, sales of boats over $300,000 were down 87 percent, to 41 units, from the year before and there was only one sale of a custom yacht over $1.5 million compared to seventeen the year before (Hammond, 1991). One final sales trend that has developed since the passage of the tax package is the resurgence of the used-boat market. This is very difficult to quantify because figures on used boat sales are nearly impossible to obtain. However, Howard McMichael, a yacht broker, states that, 'today, new boat sales account for only 10 percent of our business' whereas they traditionally were 60 percent of the business (Singer, 1991). Information such as this gives some insight into how the tax may be changing patterns in boat sales.

The decline in employment within the boat-building industry is also a major development since the passage of the tax and it is critical when the tax's impact is analyzed. Because this paper is looking at the tax's impact on the boat-building industry, employment effects in related boating industries, such as retailing and boating services, will not be considered. Because of this, many of the employment decline figures that the NMMA has provided, and are subsequently in the news, are not applicable because they include many other groups. However, a study, conducted by an industry publication, has reported that between the start of 1991 and May 15, '4,307 people have been laid-off at American boat manufacturers' plants' (Hammond, 1991). It has also been reported that employment for boat-builders was down 37 percent in the first quarter of 1991 (Morris, 1991). Additionally, there are numerous localized examples of manufacturer's lay-offs since the passage of the tax. For example New Jersey boat-builders Viking Yacht Company and Egg Harbor Yacht Company have made tremendous cutbacks. Viking has laid off 550 of its 800 employees, and Egg Harbor has filed for bankruptcy and let go all but a few of its 250 workers (Salpukas, 1991). In addition to laying-off workers, many of the largest manufacturers have been forced into bankruptcy. Katherine Exner, treasurer for Pearson Yachts, states that of their five biggest competitors in 1987, four "have filed for bankruptcy or ceased operations' (Ravo, 1991). Individual accounts, such as these, have been repeated throughout boat-building regions and have received a great deal of attention in the news and in Congress.

The best measure of the employment decline in the boat-building industry since the tax was passed comes from the Department of Labor's Bureau of Labor Statistics (BLS). The BLS reports on monthly employment for detailed industries in the U.S. economy. In the monthly publication *Employment and Earnings*, they provide both the total and production worker employment figures for 'Boat-building and repairing', SIC code 3732. Although these figures include employment in the boat repairing field, they are the most accurate figures for expressing the decline in jobs that the industry has suffered.

These employment figures show a drop from 54.6 thousand to 48.7 thousand in the one year period between September 1990 and 1991. An interesting aspect of this 5,900 decline in jobs is that most of it occurred before January 1991 when the tax took effect. However, it is important to remember that boat-building involves a large lead-production times on the order of many months, which certainly affects this decline. Employment developments in the industry will be considered in detail with regression analysis later on in the discussion of impact of the tax.

Another important industry development since the passage of the luxury tax concerns the fall of boat prices. Since the imposition of the tax, 'boat prices have dropped as much as 40 to 50 percent, interest rates have fallen and some lenders have begun to offer financing, though on strict terms' (Salpukas, 1991). The fact that prices and other terms for purchasing a boat are very favorable now, and yet sales are still severely depressed, becomes a very important feature when the overall impact of the luxury tax is analyzed. Now that the industry developments since passage of the luxury tax have been outlined, attention can shift to determining how the luxury tax has contributed to these developments and the reaction to the tax.

IMPACT OF THE LUXURY TAX

Since the luxury tax was passed, the government, the industry, and the public have all examined industry developments in an attempt to determine if the tax is to blame for boat-building's decline. The major concern over the impact of the tax is due to the possibility that the tax has failed in accomplishing its purpose as revenue-generating progressive policy and has inadvertently placed excess burden on the working-class within the industry. The industry and governmental analyses and reactions to the tax will now be examined in an attempt to discover the underlying impact of the tax. Additionally, the results of a regression analysis of employment in the boat-building industry will attempt to provide an accurate measure of the effect the tax has had on employment.

The boat-building industry responded very rapidly following the passage of the luxury tax bill with a heavy lobbying effort that is still very active today. The National Marine Manufacturers Association has stated that the tax had an immediate effect on employment in the industry. An impact on employment before the luxury tax has taken effect is justified by the substantial lead production times that are present in the manufacture of luxury boats. Additionally, Jeff Hammond, Publishing Director of *Power And Motoryacht*, states that, "dealers knew that most of their customers weren't going to pay the excise tax and so they didn't order many boats. Most laid-off staff immediately." (Hammond, 1991) The decision of dealers to cut back on orders clearly makes sense due to the market for luxury boats already in a recession, the pending arrival of the tax, and the uncertainty that the Gulf conflict was causing. These explanations are justified by industry reports and Bureau of Labor Statistics Data that show that employment dropped more during the forth quarter of 1990 that it has in any period since the tax was imposed.

A critical aspect of the industry evaluation of boat-building's recent severe downturn has been their attempt to assign a large portion of the blame for the significant drop in boat orders to the imposition of the luxury tax. The industry is not justified in making the claim that the tax is responsible for the loss of jobs if it can not be shown that the tax has an effect on purchasing decisions. This is because the loss of jobs in the boat-building industry, since the passage of the tax measure, could also possibly be due solely to the recession and the economic impact of the Gulf War. The industry has stated from the very beginning that the policy maker's assumption that the market for luxury boats is price inelastic is false. The tax would be most effective if the consumption of luxury boats was unaffected by its imposition. Under this scenario the burden of the tax would fall on the affluent consumer, who would not be discouraged from making a purchase by the addition of the tax, and boat-building industry would be largely unaffected. Because of these assumptions concerning luxury boat purchase decision, one of the chief aims of the industry's lobbying effort has been to show that the tax has a significant effect on purchasing decision.

Greg Protean, the NMMA director of public and financial relations, states that, "People are just out of the consuming model" (Ravo, 1991) due to the recession and the war, which has been a major factor in the drop of demand for luxury boats. However, he adds that the sales drop this recession has been far more pronounced than the 1981-82 recession and is due to the fact that, "there is price sensitivity at these levels [for luxury boats]" (Ravo, 1991). Additionally, James Taylor, chairman of the NMMA, has stated that:

> Pleasure boats are affected by a price elasticity of two, according to industry

> pricing and marketing studies and as illustrated by the experience of two European nations. Lawmakers in Britain and Italy found that boat sales decreased by double the percentage amount of the excise taxes they levied and tax revenues decreased. Britain withdrew the tax and Italy reduced it significantly. (Taylor, 1991).

This statement was made to justify the claim that the 10 percent luxury excise tax will cause a 20 percent reduction in demand for luxury boats. However, several points that are made in this statement about the impact of excise taxes need to be evaluated. First of all, there is the issue of whether the "pleasure boats" he speaks of constitute the same market as the $100,000 and up boat market. If 'pleasure boats' includes boats in smaller price ranges, the price elasticity would certainly be affected. Also, the analysis methods used to come up with the elasticity figure of two need to be evaluated in order for this estimate to be accepted as being accurate. Additionally, the European experience with boat excise taxes can only serve as a true predictor of the impact on the U.S. luxury tax if the markets and purchase decisions are the same. The price elasticity of demand for luxury boats is clearly one of the most important issues when considering the impact of the luxury tax.

The industry has also raised the issue of the psychological impact that the tax has on purchase decisions. This argument centers on the proposal that imposition of the tax adversely affects demand for luxury boats more than a price increase of equal amounts would. The industry claims that consumers of high priced boats become more price sensitive under the luxury tax, because they consider the decision to pay the luxury tax and a possible sales tax mare closely than they would a higher price for the item. For example, a potential buyer of a $200,000 boat in Connecticut needs to consider paying out an additional $26,000 for taxes ($16,000 due to the 8 percent sales tax, and $10,000 due to the 10 percent excise on the second $100,000 in the price) which can, "stop them right in their tracks" (Ravo, 1991). Although this phenomenon is very difficult to fully justify, it does deserve attention because the tax has been so highly publicized that anyone considering a luxury boat is fully aware of the tax's presence.

The industry has also argued that the tax has distorted the economy and not impacted

the rich as it intended because of the substitution of non-taxed luxury goods in placed of boats subject to the tax. Because used boats, as well as boats purchased abroad, are not subject to the tax, the relative price of these goods has dropped compared to the taxable boats. The large supply of quality used boats, due to the boating boom in the 1980's, can thus possibly make the impact of the tax even greater. The ability of the industry to provide some justification for their claims that the luxury tax has turned buyers away from the luxury boat market has been crucial in their attempt to gain public support and Congressional action.

The industry's claim that they have been unfairly targeted by the tax is another way in which their campaign to have the tax repealed has gained support. There are many different factors about boat-building which have been used in attempts to show that boats are a poor choice of product for inclusion in the luxury tax. To start with, boat-building was severely depressed even before the tax was passed. In addition to the luxury tax, the government has imposed a new user fee and higher fuel taxes, which both have negative effects on the overall industry. Although, these measures hurt the overall boat-building industry, they have little effect on luxury boats because neither are large enough to serve as a deterrent to luxury boat purchases. The most effective argument that has been raised over unfair targeting of the boat-building industry is the fact that other industries which support similar luxury goods have not had to face the tax. A more through discussion on the issue of unfair targeting will follow when an analysis of the full impact of the tax is discussed.

The industry's violent protest to the tax and their examinations of its impact have been instrumental in initiating Congressional action working towards a repeal of the tax. Less than a month after the tax took effect, on January 23, 1991, legislation was proposed to repeal the luxury tax on boats. This was just the start of Congressional action that has produced of a number of resolutions, some which will repeal the entire luxury tax package, others which only seek a repeal of the tax on boats. The movement to repeal the tax on boats has received widespread bipartisan support, especially from Congressional members who represent states where boat-building is concentrated. The discussion in Congress on the impact of the tax has mainly involved the industry's claims concerning the number of jobs they predict have been lost due to the tax. The discussion almost always also includes an individual example of the demise of a boat-builder from the Congressman's home state or district along with a description of the overall decline of the industry for their state. Although this information shows how troubled the boat-building industry is throughout the country, it lacks analysis of the true causes behind the decline. Throughout the first half of 1991, Congressional support grew for the repeal. The Boating Industry Jobs Preservation Act of 1991 (H.R. 951) had 123 cosponsors by July 1991 while the Senate companion bill (S. 649) had 14 cosponsors by the end of May, 1991 (*Trade Winds*, 1991). The growth of Congressional support for repeal of the tax led to the enlistment of governmental agencies to evaluate the impact of the tax.

Because of public concern, the government was very interested in determining the impact the tax has on jobs within the industry. The Joint Economic Committee has issued a report which estimates that 'the luxury tax on boats will result in the elimination of at least 7,600 boat manufacturing and retail jobs in 1991 (Lautenberg, 1991). The loss of blue-collar manufacturing jobs raises concern over whether the luxury tax has failed from the standpoint of being a progressive tax policy.

The committee's report goes on to state that 'the combined cost of the revenue lost and the increased outlays from this job loss is $18.2 million, substantially higher than the $3 million revenue increase projected by the Joint Committee on Taxation' (Lautenberg, 1991). This statement makes the claim that the overall effect of the tax will be to increase the deficit. However, when considering the effects on the boat-building industry, it is important to realize that assumptions such as this almost always overstate the impact. The report's job loss figure also includes workers employed as boat retailers. Furthermore, the cost to the government because of job losses is difficult to estimate because it is difficult to determine how long the workers will be unemployed before they find other work. Assertions have been made that the figures on the job loss and its revenue impact are meaningless because the money that is not being spent on consumption of luxury boats is going to other sectors of the economy where it will create

new jobs (Armey, 1991). However, the loss of jobs does cause a disturbance in the economy, which entails certain costs. Although the $18.2 million cost to the government is probably overstated, it does have some merit because "the JEC study narrowly measured frictional unemployment that assumes re-employment after four months, the average duration of unemployment for skilled, blue-collar workers" (Armey, 1991). The JEC report gave proponents of repeal considerable support because it raised the issue that in 1991, the tax may actually increase the deficit while putting blue-collar people out of work.

Much of the governmental analysis of the luxury tax's impact on the boat-building industry was presented in June 1991 in Senate Finance Subcommittee hearings. The industry, represented by the NMMA, the General Accounting Office, the Congressional Research Service, and the Assistant Treasury Secretary for tax policy all presented their interpretations of the impact on the industry.

The General Accounting Office reported on an "ongoing evaluation of the policy and administrative issues concerning the luxury excise taxes" (Stathis, 1991). This evaluation was not complete at the time of the hearings and there have been no other references to it since the hearings. The testimony given at the hearings does reveal the concerns that the government has with the luxury taxes. The study is examining the collection of the tax and the administrative costs associated with the tax as well as problems with ambiguities over which products are covered. More importantly, however, the study hopes to estimate the relative tax incidence on producers and consumers of the luxury products. Because attention in Congress concerns the boating industry in particular, the study is examining the industry in more detail. Although the GAO testimony did not reveal any results concerning the impact of the tax, it does provide a good outline of the concerns of the government.

The testimony of Kenneth Gideon, Assistant Treasury Secretary for tax policy, focused on discounting the claims by the boat industry that the tax is to blame for their demise. He stated that an assessment of the actual impact of the tax is several years away because, "The tax has been in effect for less than six months, a period which coincided with the economic downturn"

(*The Wall Street Journal*, 1991). The fact that the Treasury feels it will be unable to come up with an impact assessment for several years underscores the difficulties that are involved due to the economic events surrounding the imposition of the tax.

The most striking evidence about the impact of the tax was a report submitted by Donald Zimmerman, a public finance specialist for the Congressional Research Service. This study used, "the last twenty year's experience with how boat sales responded to price changes as a guide to assessing the impact of the luxury tax on boat sales" (Zimmerman, 1991). The regression, with luxury-class boat sales as the dependent variable, included real disposable personal income, after-tax real corporate profits, the real interest rate, relative price of boats, and a shift variable which removes the effects of 1990, which is considered an outlier. The relative price coefficient, which expresses the price elasticity for luxury boats, is quite small (-0.25) and is also not significantly different from zero (t=.43). These results imply that a price elasticity estimate of -.25 is probably overestimated, and the price effect is probably zero or in other words, demand is relatively price inelastic (Zimmerman, 1991). It is important to recall that industry estimates stated that 'Pleasure boats' have a price elasticity of -2, which completely contradicts the conclusions reached here. The regression results lead this report to conclude that, 'if the zero relationship exists today, the luxury tax probably is not responsible for the sales reductions being experienced by the boat industry' (Zimmerman, 1991). The report deals with some of the estimation issues that can arise, and also points out that the luxury tax will lead to an average 4.2 percent increase in price, which is well within the range of price variation (Zimmerman, 1991).

When examining the CRS report there are several assumptions that must be made in order to accept the proposal that the luxury tax is not responsible for the sales reductions. First of all, the study uses all pretax data to come up with a price elasticity, so it is important to consider if consumer will treat the addition of a tax the same way they would treat a price increase. Also, using hindsight we are aware that when the sales data are considered for 1991, the status of 1990 as an outlier comes into serious question. The effects that the 1990 data, which showed a large decline in sales, would have had on the regression equation were removed by adding a

dummy shift variable. The fact that sales have declined even further in 1991 (and the report states that it is not due to the tax), probably make it extremely relevant to include the 1990 data in the regression.

It is also important to note that the regression model would do an extremely poor job of predicting post-tax sales of luxury boats. The report states, 'in spite of all the talk about the recession, real disposable personal income has declined very little in the last year and corporate profits are actually forecast to increase' (Zimmerman, 1991). Because the personal income variable is lagged one term, it can be assumed that the small decline in real personal disposable income will not depress sales too much with a coefficient of 1.81. The growth in real after-tax corporate profits, whose variable's coefficient is 0.41, will cause boat sales to move up slightly. The relative price of boats and the real interest rate variables both have negative coefficients and are also have a high probability of being insignificant. Because 'boat prices have dropped as much as 40 to 50 percent, [and] interest rates have fallen' (Salpukas, 1992), if these variable are allowed to have any effect, it would be to increase the projected sales figure. The fact that the regression model used in the CRS report, does not provide a good fit for the data in the period just before and during the imposition of the luxury tax raises serious concerns about its usefulness in predicting the impact of the luxury tax. It is important to consider that the market for luxury boats has been effected by factors other than those which are captured by this regression model.

Clearly, both the government and the industry have focused a great deal of attention towards looking at the impact the tax has had on the industry. The largest concern over the tax has been its impact on employment in the industry. Although estimates have been made as to how much the tax is to blame for the recent declines in employment, there has been a definite lack of systematic analysis of its true impact. In order to fill in this gap, a regression analysis of employment in the boat-building industry needed to be conducted.

In order to determine the effects of the recession and separate them from those of the luxury tax, a time series regression covering periods of both economic prosperity and decline needed to be used. Additionally, because the tax has been in effect for such a short period of time, and some data doesn't even cover its first full year, monthly data have been employed. The regressions conducted use 191 monthly observations which cover the period from January 1976 until November 1991 (the last month which employment data was available).

The regressions that were conducted use the number of employees in 'Boat building and repairing' industry classification, utilized by the Department of Labor, as the dependent variable. Although these figures include employees who repair boats rather than build them, because this is the only monthly data available and the majority of the workers in this industrial group are builders, these figures will have to do. Because much of the focus on the impact of the tax centers around the loss of blue-collar jobs, regressions were also conducted with the number of production workers in the boat building and repairing industry. However, there is a .994 correlation between production workers employment and the total employment for this industry over the 191 observations which were analyzed. Because of this factor, there is little need to look at both measures, so analysis centers on examining the effects of the tax on total employment in the industry.

Gross National Product and one of several different employment measures are utilized to capture the economy's performance and its employment trends. Because GNP is reported quarterly as a seasonally adjusted annualized rate, the data could be treated to two separate ways. The first was to use the same quarterly estimate for all three months within the quarter. With the other method, the quarterly data is transformed by assigning the quarterly figure to the middle month of the quarter, and then using the difference between two quarterly figures to assign figures to the first and last months of each quarter. When regressions were conducted, the transformed data did not provide as good a fit as the first method. Because of this, the transformed data method is not utilized in the regression analyses in this paper.

The employment measures used in the regressions as independent variables were Total Employees on Non-Agricultural Payrolls, Manufacturing Employees, and Durable-Goods Manufacturing Employees. Several measures were used to determine if employment in the

boat-building industry could be better estimated by one measure over the others. Boat-building employment is correlated more closely with the total economy measure than either of the manufacturing measures. Because of this total employment provided the best results of the regressions. A time series trend variable is also used because of the effects of the differing underlying growth rates found in the boat-building industry and the total economy.

In order to provide an estimate for the impact of the luxury tax, two different dummy variables were employed. One covers the period since the tax actually took effect, the eleven months in 1991, while the other also covers post-September 1990, the period after the tax was passed. The second of these two variables provides a better measure of the effects of the tax because long lead production times meant that a number of lay-offs occurred immediately, when orders failed to come in Additionally, the uncertainty that surrounded the crisis in the Persian Gulf and the subsequent hostilities necessitates that a variable be included to remove these effects from those of the tax. This is accomplished with a dummy variable which covers the period of time between September 1990 and March 1991. By including these dummy variables, the regression hopes to separate the effects of the luxury tax from those of the recession and the Persian Gulf conflict.

The model which produced the best estimates regressed the employment in the boat building and repairing industry on the total employment figure, the measure of GNP, the time trend variable, the dummy variable to account for the Gulf conflict, and the dummy variable which covered time since passage of the luxury tax. All of the employment figures used in the regressions are measured in thousands, while the GNP is measured in billions of dollars, on an annualized basis as already stated. The results and summary statistics for this model and several others are given in Exhibit 1 at the end of this paper.

The original estimation with this model explained 63 percent of the variation of employment in the boat-building and repairing industry. This is quite a good figure because of the highly cyclical nature of employment in the industry. All of the estimates for the coefficients in this regression are also statistically significant at a .05 confidence interval. An increase in either of the variables which represent the overall economy, the total employment figure or GNP, leads to an increase in the estimate of employment in the boat-building industry as expected. The trend variable has a negative sign which reveals that the industry has not grown at the same pace as the overall economy, as measured by total employment and GNP. Also as expected, both the Gulf conflict and luxury tax dummy variables have a negative coefficient. The crucial estimate, for the issue under consideration here, is that for the luxury tax dummy variable which measures the effect of the luxury tax on employment. A coefficient of -8.794 reveals that the tax is responsible for an estimated employment decline of about 8,800 within the industry under this model (because the independent variable measures employment in the industry in thousands). The t-statistic for the luxury tax variable also reveals that the probability that the coefficient is not statistically significant in this original regression approaches zero (the Prob value is .00002). The coefficient for the Gulf conflict dummy variable is -5.120, estimating that the uncertainty of the crisis and war led to a separate employment decline of 5,100 jobs in the industry.

Because of the highly cyclical nature of employment in the boat-building and repairing industry, there is a major problem of serial correlation of the residuals. First order serial correlation under this model is an extremely high .933 and the Durbin-Watson statistic, 0.135, well out of the acceptable range. When the under-estimate employment during prosperous times and over-estimate it during recessions. Because the luxury tax was passed and went into effect during a recession, the estimates for the negative impact of the tax and the Gulf crisis have been over-estimated. In order to correct for the biases in the estimated coefficients that serial correlation causes, the Cochrane-Orcuft correction has been used.

When the transformed regression is carried out with the correction, the estimation of the impact of the tax is not nearly as great and the probability that the impact is not statistically different from zero greatly increases. The Durbin-Watson statistic increases to 1.64 as first-order serial correlation drops to .179, showing that the problem has largely been cleared up by the transformation. The signs of the parameter estimates all remain the same while their absolute values all become significantly smaller. The estimate for the impact of the luxury tax (-1.475)

now represents an employment reduction of just under 1,500 jobs. Although this is still a large drop, it is nowhere near the 8,800 reduction estimate the uncorrected regression produced. It is also important to realize that the t-statistic for the luxury tax impact estimate has also dropped considerably to .896. At this level the probability that the effect is not significantly different from zero increases to 37 percent. The estimate of the Gulf conflict's effect of the industry has suffered the same fate, but to even a greater degree. The estimated job impact has been reduced to 440 drop in employment and t-statistic has drop all the way down to .375. This t-statistic translates into greater than a seventy percent probability that the Gulf conflict is not statistically significant for this regression.

The results of this regression certainly cast some doubt on the conclusion that the luxury tax has a large, definite impact on employment. However, it is also impossible to say that there is no effect at all. There are clearly some important points to consider when evaluating the results of this regression. First of all, the fact that the industry group which needed to be used also includes boat repairers creates a problem. The effect of the tax on the boat repair business negatively corresponds to the effect on the boat-building industry. The tax has certainly made used boats more attractive to buyers which means that more and more people are either fixing up their used boats to sell or fixing up used boats the have just bought. However, this shouldn't be overemphasized because the number of repair workers is much smaller than the number of people employed in building boats.

Another interesting point involves the results found when regressions were conducted with another industry, sporting and athletic goods, in place of boat-building and repairing. This was carried out to test the hypothesis that the negative impact estimates for the luxury tax dummy variable were not due to the tax but caused by broader economic trends affecting the economy. The fact that the coefficient for the luxury tax variable was positive in this case adds support to the claim that the tax does have real effects that are difficult to estimate. It is also important to realize that although there is a 37 percent probability that the effects of the tax on employment are not significant, there is still a possibility that there is an effect. Finally, the difficulty of examining the situation needs to be considered. Data for the post-tax period are still very fresh and may not be completely accurate. Additionally, the industry under consideration is highly cyclical (the number of employees in the last fifteen years has ranged from 34,000 to 73,000), which presents special problems when trying to remove the effects of the recession. Although the regressions conducted for this paper cannot confirm nor deny the theory that the tax has considerable effects on the boat-building industry, they do demonstrate that there is a strong possibility that the tax has had some impact.

THE MOVEMENT TOWARD REPEAL

Growing national attention on the plight of the boat-building industry combined with evidence from the industry and some governmental sources that the luxury tax was causing considerable harm led to increased calls and support for repeal. The President's stance on the tax changed following the Senate Subcommittee hearings in June. After originally stating opposition to a repeal of the tax, 'the White House wouldn't stand in the way of repealing certain parts of the luxury tax, such as the levy on yachts' (*The Wall Street Journal*, 1991). Despite considerable support for repeal in Congress and the shift in the Presidential stance, repeal of the tax has proved to be a difficult task. The main reason for this is the luxury tax was part of the delicately balanced tax package, the result of months of negotiations. One of the main purposes of the tax was to make a political statement to show that Congress was concerned with taxing the rich. If the luxury tax on boats was repealed, the other industries would raise the question of why they should be treated any differently. If total repeal was accomplished, Congress would certainly face accusations that it is giving the rich a break, while still hurting the working-classes with the excise taxes on alcohol, cigarettes, and gasoline. The fact that 'Once you allow the [repeal] process to start, you just don't know where it is going to stop' (Baumohl, 1991), clearly creates significant problems for Congress. These difficulties hindered the efforts to repeal the tax, which therefore remained in effect as it entered its second year.

However, as the tax entered its second year of existence, political moves were made that have assured that the excise on luxury boats is destined to be repealed. The first major move was the President's decision to make the repeal of the luxury tax on boats part of his budget proposal. Although Congress did not approve the President's original budget package, they did include a repeal of the tax in the budget they submitted to the President. Because both parties in Congress and the President now support repeal, it is clearly just a matter of time before the tax is lifted.

ANALYSIS OF THE IMPACT OF THE TAX

Although the luxury tax is by no means responsible for all of the boat-building industry's problems, it clearly has had a serious impact on this industry. Many of the industry's estimates of the extent of the tax's impact have stretched certain measures, such as the number of jobs lost, in order to boost their effort for repeal. They have also neglected to fully account for the declining market and the fact that workers and builders can respond to the tax by engaging in other activities. However, the industry is not alone in failing to estimate the overall burden of the tax. The government, in its attempt to structure a progressive tax policy, failed to take into full account the effects the tax would have on the consumption decisions of the wealthy and the subsequent impact on the working-class people within the industry. The reason government estimates, of the impact the tax on the industry, are understated is their failure to account for behavioral responses of the consumers of luxury boats.

The most important impact the tax has had from the standpoint of both the industry and the government has been the loss of blue-collar jobs. Even when the effects of the recession, the Persian Gulf conflict, and the general decline in demand for luxury boats that has existed for several years are considered, evidence supports the claim that the tax has still cost the industry some jobs. However, the industry's claims that the tax is responsible for the loss of most of the jobs over the last year and a half is false. The highly cyclical nature of the boat-building industry combined with the recession and the glut of quality used boats due to the build-up during the late

1980's would certainly make recent times dismal for the industry. While there is no overwhelming evidence that the tax is responsible for the loss of many thousands of jobs, the regression conducted for this paper and other studies do point towards there being some effect. However, severe lay-offs would have occurred anyway, and the tax has merely added to the number of displaced workers.

However, the additional loss of jobs in the industry that the tax has led to is an extremely important issue. The assertions that the loss of the jobs does not represent a true burden to the economy because the displaced workers will find other employment are another false conception. First of all, because boat-building is highly concentrated, workers that were laid-off because of the tax are entering local job markets which have already been flooded with their fellow workers who were let go earlier due to the recession. Many of boat-building's workers have been employed in the industry for decades and lack the skills necessary to compete effectively in today's job market. Thus, the prospects for the workers laid off due to the tax are very poor. Additionally, the loss of any jobs, even if re-employment were to occur, represents a loss to the economy and a cost to government. Frictional unemployment immediately places a burden on the government because income taxes are lost and unemployment claims need to be paid out. Boat-builders are also highly-skilled craftsmen with industry specific knowledge that is a wasted resource if they are forced out of the industry. Because of these factors, even if the number of lost jobs the tax is responsible for is relatively small, the impact is quite significant.

A second very important impact the luxury tax has on the boat-building industry is its effect on the behavior of the consumer. There is evidence that the tax has an effect, in addition to any possible price effect, on the purchase decisions of potential luxury boat buyers. An indication of this arises when the price sensitivity study conducted by the Congressional Research Service is analyzed. Although the study found that the demand for luxury boats should be affected very little, if at all, by the imposition of the tax, the regression cannot account for the sharply reduced demand after the imposition of the tax. Because the prices of boats have dropped sharply since the tax went into effect, the tax's true impact on purchase decisions is not

due to the price increase it causes. The luxury tax serves as a deterrent to purchases because consumers view it differently than the rest of the price of the boat. It is seen as an additional payment, on top of what they have to pay for the boat, for which they get nothing in return. Those who view the tax in this way, look for other options, such as used boats and chartering, which avoid the tax and provide a similar benefit to them.

Another crucial psychological feature of the tax is the effect the calls for repeal have had on the luxury boat market. The fact that resolutions to repeal the tax were proposed just weeks after it went into effect have certainly affected purchase decisions. Those consumers contemplating a luxury boat purchase have a strong incentive to hold out until the luxury tax is removed. Since the tax went into effect, boat prices have dropped, to the point where they are below pretax level even with the tax, and financing terms have improved making it a good time to buy a boat. However, the possibility that the luxury tax will soon be repealed has made consumers feel that an even better time to buy will come along in the short future. The fact that repeal of the tax is now almost certain has probably caused recent sales to drop to almost zero. It is ironic that the successful effort of the industry in lobbying against the tax, in order to protect boat-building's future, probably contributes to slackened demand in the short run.

A third important feature of the impact of the luxury tax is the effects that have occurred because the tax targets the boat-building industry by inclusion of boats as luxury items. An important reason why the tax has harmed the boat-building industry is the availability of a number of other options which can substitute for the purchase of a new luxury boat in the United States. In addition to the option used boats provide, the tax makes foreign boats relatively less expensive. The tax can thus cause an increase in foreign penetration into the U.S. market. At the same time, because the tax has reduced domestic demand, it has lowered the overall productivity of the industry by reducing returns to scale as the boat-builders have laid off workers. A reduction of U.S. productivity has very important consequences because the industry has made recent gains in the export markets. It would truly be a devastating blow if the U.S. were to lose its competitive position in this industry in which it has achieved a trade surplus.

The fact that other items which can also be considered luxury goods are not taxed raises concern over why boats were selected. When the tax is avoided by the movement of consumption away from the boating industry to other sectors of the economy, the loss the boat-building industry suffers is partially picked up by other industries. However, there is still a net loss in the short run due to inefficiencies when the economy is disturbed. Because consumption is flowing to other sectors where it will not face the luxury tax, this shift does not help the government accomplish either of the taxes objectives, deficit reduction and progressitivity. An analysis of substitute spending raises concern over why other sectors of the economy should benefit due to the burden the tax has placed on the already recession plagued boating industry. Furthermore, some of the substitute spending is bound to go into foreign hands, which provides no benefit to the U.S. economy.

The final areas of impact to consider are the revenues the tax brings in and the costs of administering it. If the claims that the tax may cost more to administer than it generates in revenues have any truth, all of the analysis above doesn't even need to be considered; the tax should be repealed at once. Furthermore, because the question of the efficiency of the collection of the tax has been raised, it should be analyzed. If the IRS's resources are being used inefficiently, other types of changes in the administration of the tax need to be carried out.

It is also very important to realize that in spite of all of the attention that the luxury tax on boats has received, this is a tremendously small revenue enhancement program. Although 'every little bit helps', with the size of the federal government's deficit, it seems down-right foolish for Congress to be arguing over a tax that is projected to bring in $7 million in 1992. If the tax brings in all of its estimated revenue for this year, it would reduce the deficit by about a minuscule 1/500 of 1 percent. Although the total package is expected to bring in a substantial $1.5 billion, the tax on boats is never expected to account for more than $50 million. This makes it more and more clear that the luxury tax, especially as it applies to boats, was a 'political statement by politicians who wanted to be able to show middle and lower income groups that they were going after the wealthy' (Pear, 1990).

CONCLUSION

The decision is now almost final that the luxury tax on boats will be repealed in the coming months, and so one of the most controversial, interesting, and short-lived tax policies in recent years will come to an end. The effects of the tax on the industry have been extremely complex, and the overall impact of the tax is a very difficult feature to determine. The luxury tax on boats could not have come at a worse time for the boat-building industry. Its impact has not been as great as the industry has claimed, and the past two years would have been very difficult for boat-building if the tax had never been brought up. However, because of the boat-building industry structure and its present state economically, the tax did not have to have tremendous effects to end up becoming a burden for both the economy and subsequently the government. Looking back, just about everyone who has examined the tax would agree, we would have been better off if the luxury tax on boats had never existed.

EXHIBIT 1

Summary of Regression Results and Statistics

Variable	Model 1 initial	Model 1 w/ C-0	Model 2 w/ C-0	Model 3 w/ C-0
Constant	-137.2 (9.33)	-19.11 (1.14)	-22.74 (1.78)	11.08 (1.14)
Total Employment	.001662 (7.37)	.000636 (3.86)	000607 (4.88)	.000505 (5.02)
GNP	.03058 (4.60)	.008783 (2.32)	.007525 (2.63)	.004930 (2.08)
Time Trend Variable	-.9517 (6.60)	-.2383 (2.31)	-.2198 (2.79)	-.2101 (3.49)
Dummy for Tax (Oct. 1990 Start)	-8797 (4.39)	-1.475 (.896)	-.859 (.691)	1.577 (1.56)
Dummy for the Gulf Conflict	-5,121 (2.03)	-,4476 (.375)	-.3021 (.336)	-.161 (.141)
R-squared	.6353	.0980	.132	.1397
Durbin-Watson	.134	1.63	1.12	1.50
1st order serial correlation	.9327	.1794	.440	.241

Model 1 : Dep. Variable - Employees in boat-building & repairing
Model 2 : Dep. Variable - Boat-building and repairing prod. workers
Model 3 : Dep. Variable - Employees in sporting & athletic Goods

C-O refers to the Cochrane-Orcutt Correction for Serial Correlation

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