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HONORS THESIS

Tax Reform in Rhode Island: Developing a High Quality Revenue Stream

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ABSTRACT

The present study explores the current state of taxation in Rhode Island in relation to its sales tax. An analysis of the literature will examine how the current sales tax system compares with other alternatives and if it hurts the state's economic competitiveness as shown in tax burden studies. Using Rhode Island tax data from the Annual State Audit and Consumer Expenditure Survey, this study will analyze the current sales tax system in the state and determine whether an alternative model would lead to a higher-quality revenue stream. Data from the State of Rhode Island General Audit Report and the Department of Taxation will be used to compute these figures. The top alternative will then be analyzed to determine its affect on Rhode Island's tax ranking in the annual Tax Foundation survey.

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“The nation should have a tax system that looks like someone designed it on purpose.”

~William E. Simon

Secretary of the Treasury (1974-1977)

INTRODUCTION

The State of Rhode Island has an economy that is in shambles and ranks as the hardest-hit among New England states during the recent economic recession (Gittell, 2010). Rhode Island has experienced the steepest decline in employment and highest unemployment in the region. Housing prices have fallen drastically and foreclosure rates have skyrocketed. State spending has ballooned 50% in inflation-adjusted dollars over the last decade and tax rates have followed suit (Morse, 2010). Rhode Island currently has the 10th highest state and local tax burden nationally and ranks 44th for its business tax climate (The Facts on RI, 2010). The state faces estimated budget deficits on a budget that is required to be balanced by law. These deficits are projected to be \$362.2 million in FY 2012 and \$535.7 million by FY 2015, accounting for up to 20% of the state’s budget (Tax Policy Analysis, 2010). Rhode Island and its cities and towns have cumulative unfunded pension liabilities of \$9.4 billion, or \$9,400 for every Rhode Islander (Edgar, 2010). The state has some of the lowest levels of high tech intensity in the nation and ranks low on its share of fastest growing firms (Gittell, 2010). Rhode Island ranks among the worst in the nation in terms of funding for academic research & development, technology in schools, and per capita higher education (Gittell, 2010). Municipalities have also been hard-hit by the recession due to falling property values and large reductions in state aid, leading to a cut in municipal services. While many of the state’s problems can be traced to the overall economic environment, over which it has little control, many can also be traced to its policies in regards to taxation, public expenditure, and debt. After a detailed analysis of Rhode Island’s current economic condition, tax structure, state spending, municipal government, analysis of tax issues, recent reforms, and tax theory, this study will evaluate Rhode Island’s options moving forward and provide a recommendation for policy makers in the state.

The present study will examine Rhode Island’s revenue system and specifically focus on its sales and use tax. The Rhode Island state sales tax is currently 7%, yet out of a potential \$21 billion of eligible transactions in 2008, the state exempted nearly half of those transactions (RI

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Department of Revenue, 2008). Using the “best practice” criteria of a tax system, four proposals for sales tax systems will be evaluated, based on the Derrick/Scott framework, to determine which is the most effective. The best alternative will then be evaluated as to how it would impact Rhode Island’s placement in the annual Tax Foundation rankings. A recommendation will follow with an analysis of how the chosen alternative will address the issues to follow.

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“There's no question that this is in the process of outstripping anything I've seen, and it is still not resolved. This is a once-in-a-century crisis.”

~Alan Greenspan

Chairman of the Federal Reserve (1987-2006)

September 14, 2008

LITERATURE REVIEW

The Economic Climate

National Climate

The United States is an incredibly dynamic and innovative country with the largest economy in the world; however, since the housing bubble burst in 2007 and global credit markets contracted, the country has been in an economic recession. Housing prices peaked in 2006 due to years of easy credit by the U.S. Federal Reserve, profligate subprime lending, and a large use of financial leverage. When the bubble finally burst, the values of securities tied to real estate pricing plummeted, causing a liquidity crisis in large interwoven financial institutions. Uncertainty surrounding bank solvency, the drying up of credit, and weakened investor confidence launched global equity markets into freefall, where securities incurred huge losses during late 2008 and early 2009. The worldwide economy slowed as credit tightened and international trade declined. Governments and central banks responded with unprecedented Keynesian fiscal stimulus, expansionary monetary policy, and bailouts of those institutions deemed “too big to fail” (How RI Compares, 2008). The recent economic downturn is considered by many economists to be the worst financial crisis since the Great Depression (Single Year Audit Report, 2009).

In response to the economic crisis, the United States passed a \$168 billion income tax rebate stimulus in 2008 and the \$787 billion American Recovery and Reinvestment Act (ARRA) in 2009 in order to pump public money into a system that had seen huge cutbacks in consumer and business spending (Single Year Audit Report, 2009). ARRA included provisions that included a homebuyer tax credit, infrastructure appropriations, renewable energy investment, tax relief, health care and science funding, unemployment benefit extensions, and aid to states and municipalities to help them plug their budget holes. In an unprecedented move, the Federal Reserve cut the federal funds rate to near-zero levels and has aggressively increased

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its purchase of government paper, pursuing the most expansive “quantitative easing,” or loose monetary policy in decades. The Fed has gone from the “lender of last resort” to the “lender of only resort” in this current economic climate (Gittell, 2010). Fearing systemic risk and an economic depression, the U.S. bailed out many large financial institutions through the \$700 billion Troubled Asset Relief Program (TARP) including Citigroup, Bank of America, insurance giant AIG, JP Morgan Chase, Wells Fargo, GMAC, and Goldman Sachs as well as automakers Chrysler and General Motors (Baily & Elliott, 2009). These funds have been largely repaid and it is estimated that this program will cost the taxpayer upwards of \$30 billion. The bailout of Government Sponsored Enterprises (GSEs) Fanny Mae and Freddy Mac that underwrote the majority of these subprime mortgages is estimated to cost upwards of \$363 billion. The bailout of AIG, in which the U.S. government now holds a 79.9% equity stake could cost taxpayers upwards of \$250 billion (Baily & Elliott, 2009). These are the most extensive government-backed bailouts in U.S. history, rivaling the U.S. Savings and Loans Crisis in 1989 and the Wall Street bailout of Long Term Capital Management (LTCM) in 1998. During the crisis, the banking and financial sectors changed dramatically as well with massive consolidation. Bear Sterns and Washington Mutual were acquired by JP Morgan Chase; Merrill Lynch is now a part of Bank of America; IndyMac, Fanny Mae, and Freddy Mac were all placed into conservatorship; and Lehman Brothers went bankrupt (Baily & Elliott, 2009). Clearly, recent events in the U.S. economy have had an effect on the national economic climate.

Economic indicators paint a picture of the health and trends in an economy. Since the financial crisis and recession began, these indicators have been poor including the national debt, Americans’ net worth, and unemployment. Due to the programs implemented to stave off economic depression, huge sums have been added to the national debt. Deficits of \$1 trillion in FY2008, \$1.9 trillion in FY2009, and \$1.7 trillion in FY2010 have caused the national debt to balloon to \$13.67 trillion, or 94% of GDP, a level that many experts believe is unsustainable (Gittell, 2010). Projections from the nonpartisan Congressional Budget Office forecast that America is on a trajectory to double the national debt by the end of the decade. When interest rates inevitably rise, payments to service this debt will take up a much larger amount of total federal spending. With the stock market crash and fall in housing prices,

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Americans have lost asset bases in stocks, housing, and retirement and pension plans. The housing market has also suffered in much of the country, resulting in evictions, foreclosures and vacancies. At the peak of the housing bubble in 2006 Americans had \$13 trillion in equity in their residential real estate. At the market's peak, total residential mortgage debt stood at \$9.8 trillion. Today, American households have \$6.2 trillion in equity while mortgage debt has grown to \$10.3 trillion. This means that American households have faced a real financial loss of \$6.8 trillion over the last three years (Baily & Elliott, 2009). Real GDP decreased at an annual rate of approximately 6% in the fourth quarter of 2008 and first quarter of 2009, which stands in contrast to its historical growth by an average of 2-3% per year (Tax Policy Analysis, 2010). Perhaps the most telling statistic is unemployment. The national unemployment rate has doubled since the recession began, peaking at 10.1% in October 2009 and is actually considered to be much worse since government estimates do not include discouraged workers who have stopped looking for work (Gittell, 2010). The U.S. unemployment rate increased to 10.1% by October 2009, the highest rate since 1983 and roughly twice the pre-crisis rate. The average hours per work week declined to 33, the lowest level since the government began collecting the data in 1964 (Tax Policy Analysis, 2010). Clearly, the problems in housing, finance, and employment pose major challenges to the U.S. moving forward.

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"And we will never return to the old boom and bust."
~Gordon Brown
Prime Minister of the United Kingdom (2007-2010)
March 21, 2007

Global Economic Climate

If one thing is certain, “boom and bust” is here to stay. From the Dutch Tulip Mania of the 1600s to the housing bubble of the early 2000s, human nature encourages these phenomena to exist. Whether one calls it mankind’s animal instinct, “following the crowd,” irrational exuberance or blames it on liquidity, leverage, or psychology, bubbles have and will continue to occur (Baily & Elliott, 2009). The difference is that in today’s globalized and interconnected world, many nations’ finances are interdependent on both other nations and the private sector more than ever before. This is evident from the recent financial crisis.

The “PIGS” of Europe sparked a sovereign debt crisis in 2010. These five countries (Portugal, Italy, Ireland, Greece, and Spain) all regularly run massive budget deficits. When Greece’s budget woes and colossal debt (115% of GDP) called its credit into question, member countries of the European Union began to worry that there was a significant risk that the country could default on its sovereign debt (Micklethwait, 2010). EU members believed that if Greece defaulted then lenders would stop loaning money to the other four PIGS. With no cash flow to pay the bills, Portugal, Spain, Ireland, and Italy would all default on their debt, triggering such staggering bank losses that Europe’s banks would all become insolvent. Moreover, since the Eurozone has a single currency, member countries could suffer from the collapse of the Euro. To prevent this doomsday scenario from occurring, a bailout from the EU, led by Germany, extended a line of credit to Greece in exchange for concessions made to cut its debt and budget deficit (Micklethwait, 2010).

The United Kingdom was also particularly hard-hit by the economic downturn. Northern Rock is a British bank that has the dubious distinction of being the first bank run in England in the last 150 years. The bank was nationalized shortly after (Micklethwait, 2010). Another bank failure occurred at the Royal Bank of Scotland, resulting in the most expensive bailout of a bank worldwide at \$75 billion. The UK government now owns an 85% equity position (Micklethwait, 2010). Like many other countries, there has been great strain on the UK’s

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budget due to the economic downturn (especially due to an economic reliance on the financial sector). An austerity package has been introduced by the Conservative Party that will cut most government departments by 25%, representing a growing global trend (Monaghan, 2010). Many other countries are cutting government spending to shore up their financial positions due to falling tax revenue and the increased costs of government assistance for the out of work (Monaghan, 2010).

There are also concerns that the country of Iceland will go bankrupt. Its three largest banks collapsed and their combined debt was six times the country's economy. The government has raised interest rates to 18% to arrange a loan from the IMF, its currency has fallen by two-thirds its value, and the coalition government collapsed in early 2009. There has been a large degree of concern in the international press that Iceland's failure could trigger another financial panic (Micklethwait, 2010).

Rhode Island Economic Climate

The Ocean State is the smallest state by size in the nation and has the 45th largest economy out of the 50 states (The Facts on RI, 2010). Consequently, the state is sensitive to nationwide and global economic forces. Many of the economic forces buffeting the U.S. have been more severe in Rhode Island.

The declines in housing coupled with a weakening manufacturing sector has led to a sizeable decline in revenue. The Ocean State had the highest number of foreclosures in New England due to homeowners' reliance on subprime mortgages (30% higher than neighboring Massachusetts and Connecticut) (How RI Compares, 2008). In FY 2009, Rhode Island faced a budget shortfall of 13.1% which is in the top five of states nationally, expected to reach 20% by FY 2015. The state's cash flow deteriorated to the point that it had to borrow funds from the Temporary Disability Insurance Fund in October 2008 (Gregg, GOP, Dems slam Chafee's proposed sales tax change, 2010).

The state has been hit hard by the downturn in the financial services sector. Rhode Island contains the headquarters of Citizens Financial Group and Amica Insurance as well as a large presence by Fidelity Investments. Rhode Island has 36,000 people working in finance and the

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taxes levied on financial services firms, the jobs they provide, along with the decreases in tax revenue from investors, and the loss of consumer confidence have all taken their toll on the state (How RI Compares, 2008). The finance and insurance industries made up 12.1% of Gross State Product in 2007 compared to the national average of 8.1%, putting Rhode Island 6th highest in the nation (How RI Compares, 2008).

There are large funding requirements in the state for mandatory state matching funds for Medicare, unfunded pensions, and the need to repair an antiquated infrastructure whose bridges have been ranked in some surveys as the worst in the country (Arsenault, 2007). The unemployment rate which stood at 12.7% in April 2010 was third highest in the country behind only Nevada and Michigan (Needham, 2010). This high unemployment rate has only added to budgetary pressures, leading to additional costs for the state unemployment and Medicaid funds that will only exacerbate a precarious fiscal position (How RI Compares, 2008).

Dr. Ross Gittell, Vice President of the New England Economic Partnership and economist at the University of New Hampshire demonstrated that Rhode Island was the first state to enter the recession in New England and predicts that it will be the last to exit it (Gittell, 2010). Employment in the state has been in decline since 2006 and the state is expected to shed 44,000 jobs during the downturn (in a state of 1 million residents) marking the worst decline since the Savings & Loan Crisis in 1989 (Needham, 2010). Dr. Gittell notes that Rhode Island needs to harness its strengths—the ocean, top universities, and proximity to Massachusetts and Connecticut to develop and implement policies to make the state more business friendly and economically competitive in order to add the service economy jobs of the future (Gittell, 2010).

Rhode Island continues to face tough choices in both the revenue and expenditure cycle. Budgetary pressure will remain due to decreasing tax revenues and increasing needs from the public. The state must make thoughtful and prudent decisions going forward to provide for future prosperity. One place to start is the tax structure.

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Rhode Island Tax Structure

“We need to reclaim our birthright as a hotbed for business revolution. Just as it did over a century ago -- when Rhode Island had the highest per capita wealth of any state -- our economy once again will rise on the tide of an entrepreneurial revolution.”

~Governor Donald Carcieri
2010 State of the State Address

Evolution of the Rhode Island Tax System, A Historical Perspective

The Era of Transition in Rhode Island occurred during the post World War II years to the early 1980s (1946-1983) (RI Official History, 2010). This period was one of continually changing economic conditions. The official Rhode Island state history describes this as follows:

The state's ever-growing need for revenue saw the sales tax -- introduced in 1947 at a 1 percent rate -- rise to 6 percent. The income tax was first introduced in February, 1971, as a temporary tax by Governor Frank Licht (1969-1973); by July of the same year, it became a permanent tax at a rate of 15 percent of each taxpayer's federal income tax. Stabilized within eleven years, the income-tax rate rose over 78 percent to 26.75 for 1983. In the same eleven year period, state expenditures increased approximately 16.4 percent: from \$286 million to \$756 million. The corporate tax rate for 1983 was set at 9 percent, scheduled to be reduced to 8 percent for 1984. In 1982, state-tax revenues totaled approximately \$665 million. At the municipal level, \$531 million was levied in taxes in 1983 by the thirty-nine communities. In 1982, Rhode Island was ranked the ninth highest in per capita property-tax collections in the country; measured according to personal income, Rhode Island's property taxes ranked sixth highest nationally at \$50.23 per \$1,000 of income (*RI Official History, 2010*).

The trend towards tax hikes and the subsequent loss of the state's once robust manufacturing base, created a high level of uncertainty and apprehension about the Ocean State's future during this period. In response to this crisis of confidence, then-Governor J. Joseph Garrahy (1977-85; lieutenant governor 1969-1976) announced his creation of a Strategic Development Commission (SDC) in 1982 to develop an “economic strategy for the future” (Feldman, 1984). After a strategic review of the state's economy, the SDC concluded that “Rhode Island's economy has been in a holding pattern” for the past twenty years, “scraping together enough jobs to stave off disaster, but suffering a steady decline in relative income” (Feldman, 1984).

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Some of the causes that they found for the state's economic woes included high energy costs high taxes, an unfriendly business climate, and low wages for the blue-collar factory workers that ranked among the lowest in the United States. A 1983 national study ranked Rhode Island next to last in "attractiveness of business climate" in the country (RI Official History, 2010).

To fix Rhode Island's economy, the Strategic Development Commission proposed the "Greenhouse Compact," an economic-development initiative that they boasted would create sixty thousand new jobs through government grants, loans, job-training programs, and the creation of four research "greenhouses" designed to stimulate new industrial growth (RI Official History, 2010). The price tag for the plan was \$250 million, and would be paid for by payroll taxes, income taxes, public employee pension funds, and two bond issues. While endorsed by nearly every politician in the state, every university president in Rhode Island, organized labor, the Chamber of Commerce, and the state's two largest corporations, at a 1984 ballot initiative, Rhode Islanders voted down this state-sponsored industrial-policy by a margin of 4 to 1 (Feldman, 1984).

The period from 1984 through 2000 has been dubbed by historians as the Era of Reform (RI Official History, 2010). Political scandals had finally caused wide scale reforms in the state. Wide-scale public corruption had finally made Rhode Islanders have their Howard Beale moment. They were mad as hell and weren't going to take it anymore. The 1985 misdirection of funds from the Rhode Island Housing and Mortgage Finance Corporation, the 1986 resignation of Supreme Court Chief Justice Joseph Bevilacqua for misuse of public funds and employees, the 1991 conviction of a Superior Court judge for soliciting bribes, the 1993 resignation of Supreme Court Chief Justice Thomas Fay under threat of impeachment, the conviction of the Mayor Brian Sarault of Pawtucket for soliciting bribes, the collapse of the credit unions, questions of manipulation in the state pension fund, the conviction of former Governor Ed DiPrete in 1991 for accepting bribes from state contractors, Watergate, and the shenanigans in Providence under Mayor Vincent "Buddy" Cianci all set off a reform movement in the state to improve good government (RI Official History, 2010). Public records laws were passed and a Constitutional Convention was held in 1986 that eventually

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led (over the next decade) to the strongest Ethics Commission in the country, a new judicial selection process, the abolition of legislative pensions, changes to the terms of office, the reduction of the legislature, and separation of powers provisions (RI Official History, 2010). Because of the Savings & Loan Crisis, the temporary sales tax of 7% was not reduced as planned and the tightening of the state budget led to state spending cuts on education, welfare, and aid to cities and towns (Gregg, Caprio Sales Tax, 2010). This in turn caused many municipalities to raise their property taxes to make up the difference, a trend that has continued to present day. In 2010, Rhode Island had the 7th highest state and local property tax burden per capita nationally (The Facts on RI, 2010). Another development of note from the 1990s was the increase in gambling revenue for the state both through the RI Lottery (once exclusively for education but now dumped into the General Fund) and the emergence of slot machines at Twin River and Newport Grand (Single Year Audit Report, 2009). The state now relies on the lottery for 16 percent of its revenues (Single Year Audit Report, 2009).

While Rhode Island has a history of high taxes and high spending, there has been a great deal of progress recently to turn the tide on this trend. There has been general consensus among Governor Don Carcieri and General Assembly that major broad-based taxes cannot increase (A System at Capacity, 2008). Rhode Island has not seen a significant tax hike on the state level for a number of years. Incumbent Governor Don Carcieri has successfully pushed for a number of tax reforms since he took office. Chief among these is the optional flat tax available for income tax which is a policy that has been praised in the national media (RIEDC, 2010). This tax reform package, which was developed by the Governor's 2009 Working Group, cut the state's top personal income tax rate from 9.90 percent to 5.99 percent, reduced the number of tax brackets from five to three, raised the standard deduction, and reduced the number of special interest tax breaks (Edwards, 2010). A Cato Institute Report recently ranked Governor Carcieri as the 6th best governor nationally for spending and tax policies, 1st nationally for his tax policies, and the best governor in the Northeast (RIEDC, 2010). The report quoted Carcieri talking about some of the changes to the state in recent years:

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“When I took office nearly eight years ago, I outlined a very aggressive agenda to set Rhode Island on a clear course to reduce state spending, reform our tax system, and make Rhode Island more competitive,” said Governor Carcieri.

“We have made great strides. We have reduced the size of state government by over 2000 employees since 2003, implemented significant pension reform and instituted higher health insurance co-shares for state employees, we rooted out government waste, consolidated state functions and instituted new purchasing standards. All told, these policies have saved the taxpayers hundreds of millions annually.”

“Without question, we have made state government more affordable and accountable across the board. The sound fiscal management that we have exercised for nearly eight years is working. In the midst of the national recession, we have closed fiscal year 2010 with a general fund surplus of \$17.7 million and the Rainy Day Fund is fully funded, positioning the state to come out of the national recession stronger and more competitive,” continued Carcieri.

“Rhode Island is being recognized for the steps we have taken to make our state more competitive. Spending discipline and tax reform is the right policy for long term sustainable economic development,” concluded Carcieri.

The report reads, “Governor Carcieri has been an impressive tax reformer. In 2006, he signed into law a plan that created an optional flat income tax. Rhode Islanders could pay tax under the regular system with a top rate of 9.9 percent, or take fewer deductions and pay at a flat rate, which was 6 percent in 2010. Carcieri took the reform further in 2010 and approved a major overhaul that dropped the regular top income tax rate from 9.9 percent to 5.99 percent, reduced the number of tax brackets from five to three, raised the standard deduction, reduced tax credits, and eliminated the optional flat tax. The overhaul was revenue neutral (*Edwards, 2010*).

The recent progress made in reforming Rhode Island’s tax structure adds to our understanding of its current form which relies primarily on income, business, property, and sales taxes.

Personal Income Tax

- Rhode Island’s personal income tax system closely mimics the federal income tax
- The top rate in 2009 was 9.9%, the 4th highest nationally
- 2008 tax collections were \$1,036 per person, ranking 17th highest nationally (*The Facts on RI, 2010*)
- Effective Jan. 1, 2011 a new law eliminates the optional flat-tax method (Carcieri reform) of preparing individual income taxes, reduces the number of tax brackets from five to three and lowers the highest marginal tax rate to 5.99 percent from 9.9 percent

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- The law eliminates the option to itemize deductions and increases the standard deduction for single adults (\$5,700 to \$7,500) and for married couples (\$9,500 to \$15,000)
- Brackets for 2011 are as follows:

0- \$55,000	3.75%
\$55,000-\$125,000	4.75%
\$125,000-	5.99%

- This will result in a net tax cut for 60% of RI residents and an additional 21% will see no change in what they pay. An estimated 19% will see a tax increase due to the loss of itemized deductions and the flat-tax option (Tax Policy Analysis, 2010)

Business Taxes

- Rhode Island's corporate tax structure consists of a flat rate of 9% on all corporate income, the 5th highest nationally
- 2008 tax collections were \$138 per capita, 24th highest nationally (The Facts on RI, 2010)

Property Taxes

- Rhode Island is one of 37 states that collect property taxes on the state and local levels
- Municipalities collected \$1,772.61 per capita in FY 2006 and \$1.39 per capita at the state level, making its combined \$1,774.00 the 7th highest nationally (The Facts on RI, 2010)
- In response to the high property tax burden, the General Assembly passed a bill capping property tax increases. In FY 2010 property tax increases cannot exceed 4.75% (Tax Policy Analysis, 2010)

Sales and Use Tax

- Rhode Island's 2007 sales tax collections were \$1,295 per person, ranking 29th highest nationally (The Facts on RI, 2010)
- The sales tax is levied at 7% which is above the national median of 5.85%, and is the second highest rate in the country, however, RI exemptions in 2008 totaled \$625.6 million in foregone revenue (RI Department of Revenue, 2008)
- See Appendix D for the list of exempt items and foregone revenue

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Pothinus: "Is it possible that Caesar, the conqueror of the world, has time to occupy himself with such a trifle as our taxes?"

Caesar: "My friend, taxes are the chief business of a conqueror of the world."

~George Bernard Shaw

"Caesar and Cleopatra"

Tax Theory

Sales and Use Tax Defined

A sales tax is a "transactional tax on some services and the exchange of personal property.

Use tax is a levy on the storage, use, or consumption of any items that have escaped sales tax"

(Nelson, 1991). A sales tax is levied within a jurisdiction, usually a state, county, or municipality on a transaction when nexus (often defined as a link, connection, or "physical presence") exists. Simply, a sales tax is a consumption tax charged at the point of purchase for certain goods and services. Typically, the cost is added to the purchase price; however, some laws require a tax-inclusive sales tax where the cost is included in the price. The tax can be calculated by multiplying the percentage tax rate to the taxable price of a sale. Most jurisdictions exempt (do not tax) certain items by statute.

Determining what is taxable is often a challenge and still has not been completely resolved to this day. The first step in judging whether a transaction is subject to sales tax (assuming nexus) is determining the type of property. As Bruce Nelson described in the *Journal of Accountancy*:

In general, taxes commonly apply to exchanges of tangible personal property; specific services such as room rentals, meals, telephone and telegraph services; and sales of utility services such as gas and electricity. Usually the term "tangible personal property" is unhelpfully defined as anything other than real property. Excluding real property such as buildings and intangible property such as contracts, stocks and bonds, personal property includes almost all other tangible, movable objects, including cars, trucks, furniture, clothes, computers, books, magazines, food drink, supplies and machinery and equipment (Nelson, 1991).

Nelson shows that the biggest difficulty in determining whether a sale is taxable is figuring out the type of property. One method to distinguish between services and property is the "true object test." "If the true object of the transaction is the tangible personal property rather than the service per se, the transaction is taxable" (Nelson, 1991). The true object test asks what

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the true nature and use of the purchase is for. For example, if a consumer buys a car, then it is for the tangible product, not the labor that went into making it, a taxable sale. On the other hand, preparation of a tax return or the drafting of a will is an example of a consumer paying for a service, even though there is a tangible deliverable, meaning that transaction would not be subject to tax. The will is the means by which the service is conveyed (Nelson, 1991). The true object test does not cover every mixed-sale transaction (transactions that include combined goods and services) and, as a result, many states are now taxing services to eliminate this distinction all together.

Most sales taxes are collected from the buyer by the seller, who remits the tax to a government agency. A well-designed sales tax would have a high compliance rate, be unavoidable, and be simple to calculate and collect. A national movement known as the Streamlined Sales Tax Project (SSTP) caught on in the late 1990s and has been adopted by 23 states to date, including Rhode Island (Streamlining Tax, 2003). This agreement has the following advantages

- Minimizes costs and administrative burdens for states and retailers operating in several states
- Equalizes internet and “brick and mortar” treatment
- Provides uniform tax definitions, exemptions, administration
- Makes collection and compliance easier (SSTP and Impact on RI, 2006)

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“The art of taxation consists in so plucking the goose as to get the most feathers with the least hissing.”

~Jean Baptist Colbert

French Controller-General of Finances (1665-1683)

Tax Base and Exemptions

The tax base consists of the eligible items that can be taxed, or the amount subject to tax.

Exempt items are nontaxable and include internal and external transactions. External exemptions, shown in Appendix D, include business/public benefit, voluntary services, humane, periodic literature, and occasional sales exemptions. Internally derived exemptions include resale and direct pay exemptions (Fletcher & Murray, 2006).

Attributes of a High-Quality Revenue Stream

There has been a great deal written regarding what makes a quality revenue system. In terms of a system to fund state government, there are numerous answers to this problem as every state does things a little bit differently. Some states rely on certain industries or a different tax product mix than others; however, as a general rule there are core principles that can be expounded upon to develop a quality system. A quality revenue system for a state should be relatively diversified, stable, and business-friendly (A System at Capacity, 2008). In order to achieve a quality revenue system, a state must have individual taxes that are evaluated with a proper cost-benefit analysis.

Determining Criteria for Sound Tax Policy

In 1992, Steven Gold developed a framework that has become the “gold standard” in his development of criteria to evaluate a tax. Gold posited the following five criteria for sound tax policy:

1. Efficiency – the tax should not impact consumption decisions between alternative products
2. Vertical equity – consumers with greater economic ability should pay a greater percentage of their income
3. Horizontal equity – those with similar economic ability should pay the same tax
4. Administrative ease – the tax must be easy to administer and comply with
5. Revenue adequacy – sufficient revenue must be generated over the business cycle

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Gold argued that an increase in poverty meant that legislators needed to pay attention to regressivity (vertical equity) against the need for revenue generation (Gold, 1992). One of the most important challenges relating to sales tax in particular is that it is an inherently regressive source of revenue. As a result, legislators must balance expanding the sales tax base with not increasing inequality in the system. Simply put, if people cannot afford a tax, it is probably a bad tax (Derrick & Scott, 1995).

The RI Public Expenditure Council also developed their criteria for a quality state revenue system. RIPEC's criteria consisted of:

1. Comprise elements that are complimentary, including both the finances of state and local government
2. Produce revenue in a reliable manner
3. Rely on balanced and diversified revenue sources
4. Treat individuals equitably and minimize regressivity
5. Facilitate taxpayer compliance
6. Promote fair, efficient, and effective administration
7. Respond to interstate and international economic competition
8. Have minimal involvement in spending decisions and any such involvement should be made explicit, and
9. Be accountable to taxpayers (A System at Capacity, 2008)

These criteria add to Gold's criteria for sound tax policy and largely hit on the same themes that he does in regards to regressivity, administration, revenue reliability, and efficiency.

The general consensus in the tax literature all revolves around these key criteria. Ronald John Hy, for example, in *Public Administration Quarterly* emphasizes the need for a fair, understandable, and growth friendly tax structure in his analysis of Arkansas tax system (John Hy, 2000). Benjamin Russo defines his key metrics as efficiency, equity, and simplicity in his efficiency analysis of the sales tax (Russo, 2005). In Jason Fletcher and Matthew Murray's analysis of sales tax base choice, they looked at revenue performance, tax equity and efficiency, regressivity, and the cost of administration (Fletcher & Murray, 2006). Robert Gleason defined his criteria as tax equity, effective management, revenue generation, and fairness in his evaluation of the effectiveness of California's state sales tax system (Gleason,

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1996). Clearly, while each study may define its criteria in slightly different terms, there are a number of key concepts to keep in mind when developing a revenue stream. For the purposes of this project, Gold's framework will be used to test the viability of Rhode Island's current system against potential alternatives. Gold's framework is the standard in the field and provides excellent criteria that draw from all of the other research out in the literature.

Derrick/Scott Study

In a 1995 economic study, Frederick Derrick and Charles Scott set out to find an answer to the age-old question of sales tax regressivity. The two researchers proposed two new alternatives over the traditional credit and exemption models: the use of a debit card to deliver tax credits and a negative tax credit that is tied in with the state income tax. They believed that this would improve revenue collection and lessen administrative burdens. Using the Consumer Expenditure Survey and the Maryland tax code, they performed empirical tests to prove that the state "can reduce regressivity and raise substantial revenue using either alternative. The proposed gains can be made with enhanced revenue stability, little administrative cost, and little impact on horizontal equity or efficiency" (Derrick & Scott, 1995).

Derrick and Scott believed that to this point, states have tried to deal with regressivity through a false choice of making items exempt (and losing revenue) and offering credits to people who qualify by an income test (requiring them to wait and having the administrative burden of not reaching the poor). They proposed two solutions that they went on to test as potential solutions. First, the researchers suggested giving aid to the poor through a debit card. Secondly, they explored the implementation of a negative tax credit that would "offer a theoretical and practical mechanism for reducing the regressivity while increasing revenue" (Derrick & Scott, 1995). The negative tax credit provides an exemption throughout the year to all consumers and then collects tax revenues via the income tax at year end for the nonpoor. This changes the burden from reimbursement of the poor towards collection from the nonpoor. This credit can be operated in a similar way to which the sales tax credit was conducted federally until the Tax Reform Act of 1986 was implemented (Derrick & Scott, 1995).

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Derrick and Scott then tested the empirical question “What is the impact of debit card credits and negative credits on regressivity, especially when compared to credit or exemptions?”

They tested this question by comparing revenue generation, the tax distribution, and effective tax rates using income and spending data from the 1987 Consumer Expenditure Survey. They compared that data to the Maryland sales tax code and income distribution for that year to determine the effects (Derrick & Scott, 1995).

They compared equity and revenue in four scenarios using Gold’s framework as a benchmark to judge their results:

1. Food that is taxed
2. Food that is exempt
3. Food that is taxed with a credit (debit card)
4. Food that is exempt with a phased-in negative credit

Their results were as follows:

- Scenario 1: Including food was by far the most regressive option and was twice as regressive for high earners compared to low wage earners as a percent of their income
- Scenario 2: Exempting food resulted in a tremendous amount of lost revenue (\$174 million or 13% of current sales tax revenue) which would require a nominal tax rate of 5% rather than 4.41% to raise the same amount of revenue
- Scenario 3: Tax Credit (Debit Card) saw a net increase of \$133 million in revenue when accounting for additional inflows from tax and outflows from credits. This option reduces regressivity if there is greater than 70% participation by those who qualify.
- Scenario 4: Negative Tax Credit yields an additional \$109 million for the state and if revenue neutral would allow the state to lower its nominal tax rate from 5% to 4.61%. “Middle-income groups bear relatively more of the increased burden under credits, while upper income groups relatively more under the negative tax credit...[Also], the collection mechanism makes the negative credit politically preferable in not taking the poor’s money for later reimbursement” (Derrick & Scott, 1995).

Overall, Derrick and Scott recommend the negative tax credit as the optimal system from a public policy perspective because it best meets Gold’s criteria for a sound tax.

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RESEARCH METHODOLOGY

In the present study, Derrick and Scott's methodology will be used with up-to-date data from the 2008 U.S. Department of Labor Consumer Expenditure Survey and revenue comparisons from Rhode Island's tax system. The Expenditure Data will be adjusted to the Northeast income distribution and sales tax base. All Rhode Island revenue values are from the 2008 Audited Financial Statements. Rhode Island is an excellent choice to model this study upon due to its similar size and tax system as Maryland (Consumer Expenditures in 2008, 2008).

Each of the four different sales tax systems (tax all, blanket exemption, tax credit, negative tax credit) will be empirically measured against the Gold's five criteria: efficiency, vertical equity, horizontal equity, administrative ease, and revenue adequacy after being empirically tested. See Appendix C for the Excel calculations and relevant assumptions.

The empirical question is how the four different scenarios compare in terms of these five criteria. Their impacts will be evaluated by comparing revenue generation, the tax distribution, and effective tax rates using expenditure and income data from the 2008 Consumer Expenditure Survey. The Rhode Island sales tax code and income distribution will be used for these purposes. Like the Maryland calculations, the present study will examine how food being exempt affects the stated criteria. See Appendix B for a blank copy of the framework.

Later, tax competitiveness will be assessed. The formula used by The Tax Foundation will be manipulated to see how the proposal will affect Rhode Island's standing in national tax rankings. We will re-rank Rhode Island by its sales tax and then determine if the state's overall tax competitiveness improves. Please see Appendix A for all relevant definitions.

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Hypothesis 1

Based on Rhode Island's unique economic climate, which of the following sales tax systems would create the highest-quality revenue stream:

1. Tax all transactions
2. Have a system of blanket exemptions
3. Introduce a Household Tax Credit
4. Introduce a Negative Tax Credit

Hypothesis 2

How will the best of these proposed changes impact Rhode Island's ranking in the 2008 Tax Foundation's rankings?

The Tax Foundation ranks each state by five categories in an index. Then it weights each to get a composite score. The weights are as follows:

- 29.64% —Individual Income Tax Index
- 25.16% —Sales Tax Index
- 19.35% —Corporate Tax Index
- 14.57% —Property Tax Index
- 11.28% —Unemployment Insurance Tax

The Tax Foundation weights sales tax by “two equally weighted sub-indexes devoted to the sales tax rate and the tax base. The rate sub-index is calculated using two criteria: the state-level rate and the combined state-local rate. States will score well if they either do without a sales tax or if the combined state and local sales tax rate is low. The ideal base for sales taxation is all goods and services at the point of sale to the end user” (The Facts on RI, 2010).

Based on the new negative tax credit with a rate of 4.49 percent, we can attempt to project what the change to Rhode Island’s sales tax ranking will be, and, by extension an estimate of

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its overall tax ranking (see Appendix I, calculations for the 4.49 percent figure will be discussed in Recommendation section).

The sales tax index is calculated in two ways, the tax rate and the tax base. By expanding the base, Rhode Island will be able to lower its rate to 4.49% while still utilizing a negative credit. The tax base will remain the same for business to business transactions in regards to the criteria the Tax Foundation tracks. There will be new taxes on consumer transactions. If Rhode Island lowered its sales tax to 4.49%, it would be the 7th lowest nominal state sales tax (including local options) in the country while previously being the 2nd highest. This would put Rhode Island ahead of Virginia in the Sales Tax portion of the Tax Foundation Rankings, moving the state from a score of 30 to an estimated score of 8. This study will attempt to calculate Rhode Island's new tax ranking based on this data.

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RESULTS

Hypothesis 1 – Sales Tax Analysis

TABLE 1										
Equity and Revenue Comparison										
		Summary Measures								
		Change in Revenue				Comparable				
		\$	(%)			Rate				
Food Taxed	(Scenario 1)	125,200,000	14.82%			5.96%				
Food Exempt	(Scenario 2)	0	0.00%			7.00%				
Food Credit	(Scenario 3)	105,666,800	12.51%			6.12%				
Neg. Credit	(Scenario 4)	94,527,957	11.19%			6.22%				
Tax Burdens by Income Class										
	0	5,000	10,000	15,000	20,000	30,000	40,000	50,000	70,000	Nominal
	to	to	to	to	to	to	to	to	and	Tax
	5,000	9,999	14,999	19,999	29,999	39,999	49,999	69,999	more	Rate
Total Sales Tax										
Food Taxed	294	376	491	612	845	1,095	1,315	1,772	2,480	7.00%
Food Exempt	106	213	319	426	638	851	1,064	1,490	2,085	7.00%
Food Credit	94	176	291	412	745	1,095	1,315	1,772	2,480	7.00%
Neg. Credit	106	213	319	463	721	997	1,265	1,772	2,480	7.00%
Effective Tax Rate										
Food Taxed	5.88%	3.76%	3.27%	3.06%	2.82%	2.74%	2.63%	2.53%	2.48%	
Food Exempt	2.13%	2.13%	2.13%	2.13%	2.13%	2.13%	2.13%	2.13%	2.09%	
Food Credit	1.88%	1.76%	1.94%	2.06%	2.48%	2.74%	2.63%	2.53%	2.48%	
Neg. Credit	2.13%	2.13%	2.13%	2.31%	2.40%	2.49%	2.53%	2.53%	2.48%	
Total Tax Payments Under Revenue Neutrality										
Food Taxed	171	253	369	489	723	973	1,193	1,650	2,358	
Food Exempt	106	213	319	426	638	851	1,064	1,490	2,085	
Food Credit	-9	72	188	308	642	992	1,212	1,669	2,377	
Neg. Credit	14	120	227	370	629	905	1,172	1,680	2,388	
Effective Tax Rates Under Revenue Neutrality										
Food Taxed	3.43%	2.53%	2.46%	2.45%	2.41%	2.43%	2.39%	2.36%	2.36%	
Food Exempt	2.13%	2.13%	2.13%	2.13%	2.13%	2.13%	2.13%	2.13%	2.09%	
Food Credit	-0.19%	0.72%	1.25%	1.54%	2.14%	2.48%	2.42%	2.38%	2.38%	
Neg. Credit	0.28%	1.20%	1.51%	1.85%	2.10%	2.26%	2.34%	2.40%	2.39%	

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Overall, our results mirrored those of the Derrick/Scott study. As a result, it is a reasonable assumption that Gini coefficients would rank in a similar fashion since this study employed the same methodology. In that study, the Gini coefficient was most regressive in Scenario 1 and became less regressive through each Scenario, being lowest in Scenario 4 (as reproduced below).

		Gini	Revenue Neutral Gini
Food Taxed	Scenario 1	-0.084	-0.084
Food Exempt	Scenario 2	-0.062	-0.062
Food Credit	Scenario 3	-0.052	-0.049
Negative Credit	Scenario 4	-0.046	-0.046

Scenario 1 – Food Taxed

The sales tax with food included in the base is regressive based on the 1995 study Gini coefficient. This option is, in fact, the most regressive (vertical inequity) out of the four scenarios. The closer to zero the Gini number is the less regressive the tax, with a “zero” reading indicating that the tax is not regressive at all. By implementing a food credit or the negative credit, regressivity predictably decrease dramatically.

The total sales tax increases with income; however, tax collections do not rise as fast as income. Households in the second lowest income bracket have a mean income of \$7,500 and taxes of \$376. For the \$50,000-69,999 bracket, the mean income would be \$60,000 with sales taxes of 1,772. Income is 8 times higher and the tax burden is around 4.7 times higher. The extent of the regressivity can also be seen in the decline of the effective tax rate of sales tax to income from 3.76 percent to 2.53 percent. These results show why most states adjust their tax system to eliminate the taxation of food.

Taxing food would be more of an administrative problem than not taxing it because of the fact that it would have to be collected and monitored. The effort to implement a system would not be difficult as existing infrastructure could be modified. Taxing food does not materially affect horizontal equity and certainly would improve revenue adequacy assuming the change

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was not based upon revenue neutrality. Due to the inelasticity of demand for food, efficiency would not be a major concern.

Scenario 2 – Food Exempt

Exempting food expenditures from sales tax improves regressivity (vertical equity) but lessens the horizontal equity, revenue stability, tax efficiency, and administrative simplicity of the tax system. Again referencing the 1995 study, vertical equity in this example with a lower Gini coefficient. As Derrick and Scott notes in their study, a Gini coefficient that is still not “zero” shows that even with an exemption in place, the sales tax is still an inherently regressive tax.

The tradeoff between regressivity and lost revenue are extremely costly. Rhode Island’s opportunity cost is \$125.2 million in revenue when compared to taxing food. The Ocean State is voluntarily foregoing what would make up 14.82 percent of its potential tax base. By exempting food, Rhode Island clearly is forced to have a much higher nominal tax rate. Just by taxing food alone, Rhode Island could generate the same amount of revenue with a sales tax a full point lower at 5.96 percent.

Scenario 3 – Food Credit

A sales tax with a credit would be less regressive than both a full tax and an exemption. This occurs because high income people pay the tax while lower income people will get a tax rebate to reimburse them for these costs. Another place to see the decrease in regressivity is in the tables that show effective tax rates for lower income groups. The effective rates and regressivity would decline further if the change was revenue neutral because the amount of the credit is fixed.

By instituting a credit, Rhode Island would generate an additional \$105.67 million in revenue (\$125.2 million less the \$19.53 million in credit payments). This credit assumed a \$200 credit for households under \$15,000 and a \$100 credit for households earning between \$15,000 and \$29,999. The poorest families under the poverty line (\$200 credit) would receive net subsidies (income redistributions) of \$112, \$141, and \$131. The next poorest families who would be eligible for the \$100 credit would receive net subsidies of \$118 and -\$4. While a

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traditional credit does provide a net subsidy to the poor, this method would cause these people to lose that money for the year and they would only receive their money back once it is refunded through a government program or through the income tax system, making the administrative issue of reaching the low-income taxpayers a significant issue.

With the structure of a tax credit, there are varying response rates meaning the subsidy may not reach the targeted household. If the credit does not reach the intended recipient, regressivity increases. Without full participation, the credit also causes horizontal inequities since filers and nonfilers receive different benefits. This system would still improve revenue projections and would not increase inefficiencies dramatically. The administrative ease is the challenge with a credit.

Scenario 4 – Negative Tax Credit

The negative tax credit would provide the state of Rhode Island with an additional \$94.5 million in revenue when compared to a blanket exemption. It also is the least regressive option as there is a built-in phase-out of the credit as a taxpayer reaches high income levels. The tax burden in this scenario shifts from low to high income taxpayers which is exemplified by the smallest increase in the effective tax rates among all four scenarios. If the changes in tax structure were revenue neutral, the nominal tax rate could be reduced to 6.22 percent.

Under the revenue neutral option, both a credit and negative credit would result in lower effective tax rates for lower income taxpayers. The middle class would bear a higher burden of the tax under a pure credit while upper income taxpayers would bear the higher burden under the negative credit due to the phase in. As a result, the negative credit allows the regressivity to be reduced in the tax system without requiring any effort from the poor.

While a credit and negative credit may appear to be very similar, there is one significant difference, administrative ease. A credit requires reimbursement to the poor through some government agency or through the tax system, placing the responsibility on low income taxpayers. A negative credit, on the other hand, collects additional revenue from an upper income taxpayer, placing the responsibility with those who earn more. A negative credit can easily be administered by taking an average person's expenditures at each income level and

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tacking on the tax on those purchases onto the state income tax return of middle to upper income taxpayers as a surcharge. The collection mechanism makes the negative credit a more politically popular option.

Hypothesis 2 – Tax Foundation Rankings

A move from the 30th best sales tax climate to the 8th best (estimated based on Virginia’s ranking with a similar sales tax structure) would improve Rhode Island by twenty-two spots.

After analyzing the data in Excel, the following table was created:

State of Rhode Island 2008 Tax Foundation Ranking, State Business Tax Climate								
Original Rankings								
Corporate Tax	Income	Sales	Unemployment	Property	Calculated Index	Actual Index	Average	Actual Ranking
40	42	30	50	43			41	
19.35%	29.64%	25.16%	11.28%	14.57%				
7.74	12.4488	7.548	5.64	6.2651	*Insufficient data	4.2		46
Corporate Tax	Income	Sales	Unemployment	Property	Calculated Index	Actual Index	Average	Actual Ranking
40	42	8	50	43			36.6	
19.35%	29.64%	25.16%	11.28%	14.57%				
7.74	12.4488	2.0128	5.64	6.2651	*Insufficient data	*Insufficient data		*Insufficient Data

Unfortunately, the Tax Foundation’s criteria and calculations are proprietary and we can only make a best guess based on publicly available information. “The State Business Tax Climate Index places 112 variables into five component indexes that each measure a different sector of a state’s business tax climate (State Business Tax Climate Index, 2006-2010, 2010). Due to the lack of publicly available data, there is insufficient data to calculate the true Tax Foundation ranking based upon the proposed changes in the tax rate to 4.49% including a negative tax credit. There are some components used to scale the Tax Foundations sample that was not available for this study. These limitations hindered the ability to accurately calculate these figures.

Alternatively, an average was taken of the five different taxes to get a rough estimation of where the ranking would have moved to if the Tax Foundation used a 20% average for each tax. In that example, Rhode Island’s original tax climate would have been 41st in the nation. After the sales tax changes, the state would have improved (rounding) to the 37th best tax climate in the nation, a net gain of four places.

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CONCLUSION

Hypothesis 1 – Sales Tax Analysis

The results from Scenarios 1 through 4 show that taxing food is the most regressive alternative and also generates the most revenue. As a result, a tradeoff emerges where revenue is sacrificed to reduce regressivity (vertical inequity) because an extremely regressive tax is not the hallmark of a high quality revenue system. Regressivity measures improve by instituting an exemption or credit structure. These two alternatives are problematic, however. An exemption either leads to huge revenue losses for Rhode Island or, alternatively, in a revenue neutral environment, leads to much higher nominal tax rates on all other taxable goods and services. The challenge with credits is that there is often low participation and low income taxpayers temporarily do not have access to their money. Even assuming full participation, the credit still is a tradeoff between regressivity and lost revenue. Administratively, a credit is a nightmare to implement and is politically unpalatable as a result.

The negative tax credit can improve vertical equity, increase revenue, and provide for simple tax administration. A negative tax offers the best facets of a credit and a tax, Rhode Island can increase revenue and lower regressivity. In the case of revenue neutrality, the state can lower nominal tax rates and lower regressivity. When considering all of Gold's criteria for a high quality revenue system, the negative tax credit is the optimal choice for Rhode Island.

Hypothesis 2 – Tax Foundation Rankings

The results from recreating the Tax Foundation survey are inconclusive due to insufficient available public data to determine exactly how the Tax Foundation calculated their index. However, a rough estimation shows that Rhode Island would have jumped four spots to improve to 37th best tax climate in the country using a modified version of the tax rankings based upon a simple average of the five criteria.

This change shows that an implementation of a lower tax rate would improve the outside world's perspective of Rhode Island's business tax climate. One can at least conclude that these changes would improve Rhode Island's standing. The degree to which these changes would impact the state's ranking is unknown at this time.

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RECOMMENDATIONS

Based upon the conclusions found in this report, my recommendation to the Rhode Island General Assembly is to institute a revenue neutral negative tax credit and eliminate the current system of blanket exemptions in the state which currently exempts \$8,936,785,714 in a tax base of \$21 billion each year. As a result, the state sales tax could be cut to 4.49 percent. Implementing a negative tax credit would improve municipal governance, control property taxes, and improve economic competitiveness in the state.

Currently, Rhode Island's revenue system has inherent structural flaws that have caused problems on the state and local level. On the municipal level, there are caps on property tax increases imposed by the General Assembly, leading to a ceiling on revenue that a town can collect. On the other end, the Caruolo Act forces puts a floor on school spending which makes up 65 percent of municipal budgets on average. The requirements of "maintenance of effort" forces municipalities to even fund schools from year to year. As a result, when revenues decrease, the only place to cut spending to balance the budget is on the municipal side of government (Kent & Sowards, 2009). This often leads to frontline services such as police, fire, garbage collection, and administrative town services being cut. It also leads to towns opting to skip pension fund contributions and delay infrastructure investment (Taxpayer Guide to School Finance Reform, 2004).

During the recent economic downturn, the state saw its revenues decline substantially. To balance its books, the state cut aid to cities and towns, leading to property tax increases and municipal spending cuts. With some of the highest property taxes in the country, this trend does not bode well for Rhode Island. Municipalities need to know from year to year that this state aid will be available in order to get their fiscal house in order. Cities and towns are currently at the whim of the General Assembly's annual budget process (Municipal Tax Force, 2010).

Implementation of a revenue neutral negative tax credit will accomplish a number of objectives. First, this reform will broaden the tax base and reduce exemptions, the hallmark of any quality tax policy and the essence behind the landmark Tax Reform Act of 1986 on a federal level. Second, a reduction in the nominal rate from second highest to the seventh

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lowest would show that the state is getting serious about improving the business climate. As tax rankings are often the first place a business looks toward to get an idea of the climate in an area, this trend would reflect well upon Rhode Island and could be used as an economic development incentive. Moreover, lowering retail taxes could have a side benefit of helping the fledgling manufacturing sector by increasing demand for consumer goods due to lower prices.

Rhode Island recently elected a new governor, Lincoln Chafee (Independent - RI), who campaigned on the idea of instituting a 1% sales tax on exempted items to close the state's budget deficit. Based on the analysis of the tax, regulatory, and spending environment in the state found in the literature review of this paper, I would submit that Rhode Island does not have a revenue problem, it has a spending problem. Governor-Elect Chafee's proposal would result in an additional regressive tax among the portfolio of high taxes. His proposal aims to raise more revenue in order to protect aid to cities and towns. In turn, he argues that this will allow cities and towns to avoid raising property taxes, a more regressive tax (Bruce, 2006). While I believe the goals of this proposal are in alignment with the characteristics of a high-quality revenue stream, a different structure could be more effective in achieving those goals.

In addition to the new 4.49 percent sales tax with a negative tax credit that I proposed, I also believe that the state aid issue must be addressed. While state aid was outside the scope of analysis for this paper, the conclusions made bring us to the next question. Is there a better way to structure a sales tax that could fix the state aid issue? Most states with a sales tax have a country or local sales tax option (Dye & Reschovsky, 2008). An alternative to the Chafee plan could be an additional 1% ride-on to all currently taxable transactions which would automatically bypass the General Assembly and go directly to cities and towns. By supplanting the appropriation process for state aid, this proposal would give municipalities the comfort of knowing that this money would be there every year. In order to continue with the gains made in the business environment, this change should be made with offsetting tax cuts in either property, corporate, and/or income taxes. As Rhode Island has a relatively light sales tax burden (ranked 14th best in the country in 2010), it makes sense to shift some of the burden towards sales tax and away from the areas where Rhode Islanders are overtaxed

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(Holcombe & Sobel, 1995). In summary, my recommendation to Rhode Island policy-makers is to move towards eliminating sales tax exemptions, implementing a negative tax credit, considering supplanting state aid through the sales tax, and making all of these reforms in a revenue neutral way. Through these reforms, Rhode Island will improve municipal governance, redistribute the tax burden, and improve economic competitiveness in the state by modifying the structure and collection mechanisms in the state sales tax system.

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APPENDIX A – (TERMS DEFINED)

Administrative ease – a measure of whether a tax is easy to administer and comply with

Comparable tax rate – tax rate under revenue neutrality

Credit – a direct reduction in tax liability

Effective tax rate – actual tax rate paid, calculated as a ratio of tax paid to income

Efficiency – a measure of whether a tax impacts consumption decisions between alternative products

Exclusion – adjustments to taxable income

Exemption – the purchasers, types of transactions, or properties upon which tax is not imposed or does not apply (nontaxable)

Gini coefficient - a measure of statistical dispersion, used here to show regressivity of a tax

Horizontal equity - a measure of whether those with similar economic ability pay the same tax

Negative tax credit – a phased-out sales tax credit administered through the state income tax

Nominal tax rate – the stated tax rate by statute

Regressivity – see, vertical equity

Revenue adequacy – a measure of whether sufficient revenue is generated over business cycle

Revenue neutrality – leaving tax revenue unchanged despite changes in tax laws

Sales tax – a transactional tax on some services and the exchange of personal property

SSTP – Streamlined Sales Tax Project, effort to standardize sales tax definitions across states

Tax base – eligible items that can be taxed, or the amount subject to tax

Taxable income – portion of income/transaction subject to taxation

Use tax – a levy on the storage, use, or consumption of any items that escape sales tax

Vertical Equity – a measure of whether consumers with greater economic ability pay a greater percentage of income (also known as regressivity)

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APPENDIX B – (TEMPLATE FOR HYPOTHESIS 1)

		Summary Measures		
		Change in Revenue	(%)	Comparable
		(\$1,000s)		Rate
Food Taxed	Scenario 1			
Food Exempt	Scenario 2			
Food Credit	Scenario 3			
Negative Credit	Scenario 4			

Tax Burdens by Income Class

Less than	5,000 to	10,000 to	15,000 to	20,000 to	30,000 to	40,000 to	50,000 to	Nominal Tax Rate
5,000	9,999	14,999	19,999	29,999	39,999	49,999	And over	

Total Sales Tax

Food Taxed	\$							
Food Exempt								
Food Credit								
Neg. Credit								

Effective Tax Rate

Food Taxed	%							
Food Exempt								
Food Credit								
Neg. Credit								

Total Tax Payments Under Revenue Neutrality

Food Taxed	\$							
Food Exempt								
Food Credit								
Neg. Credit								

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APPENDIX C – (CALCULATIONS FOR HYPOTHESIS 1)

TABLE 1					
Equity and Revenue Comparison					
Summary Measures					Comparable Rate
Change in Revenue					
		\$	(%)		
Food Taxed	(Scenario 1)	125200000	=(C9)/\$B\$58		=7%*(1-D9)
Food Exempt	(Scenario 2)	0	=(C10)/\$B\$58		=7%*(1-D10)
Food Credit	(Scenario 3)	=(C9-((Addendum!C17+	=(C11)/\$B\$58		=7%*(1-D11)
Neg. Credit	(Scenario 4)	=(C9-(Addendum!C17*	=(C12)/\$B\$58		=7%*(1-D12)
Tax Burdens by Income Class					
	0	5000	10000	15000	20000
	to	to	to	to	to
	5000	9999	14999	19999	29999
Total Sales Tax					
Food Taxed	=(B50*0.07)+B23	=(C50*0.07)+C23	=(D50*0.07)+D23	=(E50*0.07)+E23	=(F50*0.07)+F23
Food Exempt	=B52	=C52	=D52	=E52	=F52
Food Credit	=B\$22-200	=C\$22-200	=D\$22-200	=E\$22-200	=F22-100
Neg. Credit	=B23	=C23	=D23	=(E22-E23)*0.2)+E23	=(F22-F23)*0.4)+F23
Effective Tax Rate					
Food Taxed	=B22/(B\$19)	=C22/(C\$19)	=D22/(D\$19)	=E22/(E\$19)	=F22/(F\$19)
Food Exempt	=B23/(B\$19)	=C23/(C\$19)	=D23/(D\$19)	=E23/(E\$19)	=F23/(F\$19)
Food Credit	=B24/(B\$19)	=C24/(C\$19)	=D24/(D\$19)	=E24/(E\$19)	=F24/(F\$19)
Neg. Credit	=B25/(B\$19)	=C25/(C\$19)	=D25/(D\$19)	=E25/(E\$19)	=F25/(F\$19)
Total Tax Payments Un					
Food Taxed	=(B22-(C\$9/\$B\$56))	=(C22-(C\$9/\$B\$56))	=(D22-(C\$9/\$B\$56))	=(E22-(C\$9/\$B\$56))	=(F22-(C\$9/\$B\$56))
Food Exempt	=(B23-(C\$10/\$B\$56))	=(C23-(C\$10/\$B\$56))	=(D23-(C\$10/\$B\$56))	=(E23-(C\$10/\$B\$56))	=(F23-(C\$10/\$B\$56))
Food Credit	=(B24-(C\$11/\$B\$56))	=(C24-(C\$11/\$B\$56))	=(D24-(C\$11/\$B\$56))	=(E24-(C\$11/\$B\$56))	=(F24-(C\$11/\$B\$56))
Neg. Credit	=(B25-(C\$12/\$B\$56))	=(C25-(C\$12/\$B\$56))	=(D25-(C\$12/\$B\$56))	=(E25-(C\$12/\$B\$56))	=(F25-(C\$12/\$B\$56))
Effective Tax Rates Un					
Food Taxed	=B34/B\$19	=C34/C\$19	=D34/D\$19	=E34/E\$19	=F34/F\$19
Food Exempt	=B35/B\$19	=C35/C\$19	=D35/D\$19	=E35/E\$19	=F35/F\$19
Food Credit	=B36/B\$19	=C36/C\$19	=D36/D\$19	=E36/E\$19	=F36/F\$19
Neg. Credit	=B37/B\$19	=C37/C\$19	=D37/D\$19	=E37/E\$19	=F37/F\$19

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APPENDIX D – (LIST OF EXEMPT ITEMS IN RHODE ISLAND)



Foregone sales tax revenue in Rhode Island in 2008

The amount of foregone revenue from the sales and use tax exemptions that were in place in 2008 total \$625.6 million. The figures are based on a 7 percent sales and use tax. (This table does not list categories for which the state had no reliable data.)

The categories are defined in [the state law that lists which items are exempt from taxation](#).

Category	Foregone tax revenue	Reliability*
Nursing homes / hospitals rental charges	\$137,000,000	4
Food products and food ingredients	\$125,200,000	4
Clothing and footwear	\$86,000,000	4
Gasoline	\$79,900,000	1
Electricity and gas for domestic use	\$42,400,000	4
Heating fuel for residences	\$39,000,000	2
Medicines, drugs and durable medical equipment	\$23,300,000	4
Educational institutions rental charges	\$21,000,000	2
Containers	\$19,200,000	4
Motor vehicle trade-in	\$15,800,000	3
Manufacturer's machinery and equipment	\$8,900,000	4
Motor vehicles to nonresidents	\$6,600,000	2
Water for residential use	\$6,400,000	4
Newspapers	\$5,500,000	2
Coffins, caskets and burial garments	\$2,100,000	3
Textbooks	\$1,900,000	2
Trucks, buses in interstate commerce	\$1,900,000	3
Aircraft and aircraft parts	\$1,043,000	4
Air / water pollution control facilities	\$856,000	4
120 days total loss or destruction	\$539,000	2
Farm equipment	\$446,000	4
Mobile and manufactured homes	\$224,000	2
Sales by the visually impaired	\$127,000	3
Motor vehicles and adaptive equipment for persons with disabilities	\$107,000	2
School meals	\$76,000	2
Literature for boat manufacturers	\$21,000	4
Renewable energy products	\$20,000	3
Amputee veterans' motor vehicle / equipment	\$16,000	2
TOTAL	\$625,575,000	

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Note: Reliability: 1 is the most reliable, while 5 is for items for which no reliable data exists

Source: Rhode Island Department of Revenue
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APPENDIX E – (2008 STATE BUSINESS TAX CLIMATE INDEX)

Table 2
Major Components of the State Business Tax Climate Index, FY 2008

State	Overall Rank	Corporate Tax Index Rank	Individual Income Tax Index Rank	Sales Tax Index Rank	Unemployment Insurance Tax Index Rank	Property Tax Index Rank
Alabama	21	21	19	25	12	12
Alaska	4	26	1	5	47	22
Arizona	25	24	26	45	3	10
Arkansas	35	35	29	37	18	16
California	47	40	50	42	15	5
Colorado	13	15	13	11	20	15
Connecticut	38	17	18	30	19	50
Delaware	9	48	32	2	7	7
Florida	5	14	1	19	2	18
Georgia	20	6	24	16	22	33
Hawaii	22	9	43	17	23	4
Idaho	31	19	34	34	44	2
Illinois	28	29	12	32	42	40
Indiana	12	22	10	12	10	17
Iowa	45	45	45	20	37	31
Kansas	33	38	25	24	9	38
Kentucky	36	39	31	10	48	20
Louisiana	32	18	28	47	8	21
Maine	41	43	38	13	40	41
Maryland	24	7	37	7	30	39
Massachusetts	34	46	15	8	49	45
Michigan	29	49	14	14	45	25
Minnesota	42	44	39	40	39	19
Mississippi	18	8	16	35	5	32
Missouri	15	10	23	22	4	9
Montana	6	16	20	3	21	8
Nebraska	43	33	33	46	17	42
Nevada	3	1	1	43	41	13
New Hampshire	7	50	9	1	38	36
New Jersey	49	41	49	44	24	49
New Mexico	23	36	17	41	13	1
New York	48	23	41	49	46	43
North Carolina	40	25	44	39	6	34
North Dakota	30	27	36	29	26	6
Ohio	46	37	48	36	11	44
Oklahoma	19	13	22	31	1	24
Oregon	10	20	35	4	32	14
Pennsylvania	27	42	11	26	25	47
Rhode Island	50	34	47	33	50	48
South Carolina	26	11	27	18	43	29
South Dakota	2	1	1	38	33	11
Tennessee	16	12	8	48	31	35
Texas	8	47	7	28	14	27
Utah	17	5	30	27	28	3
Vermont	44	32	46	15	16	46
Virginia	14	4	21	6	29	23
Washington	11	31	1	50	36	28
West Virginia	37	28	40	21	35	26
Wisconsin	39	30	42	23	27	37
Wyoming	1	1	1	9	34	30

Note: States without a particular tax rank equally as number 1.

Source: Tax Foundation

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APPENDIX F – (CALCULATIONS TO DETERMINE RHODE ISLAND TAX BASE)

Food at home	0	5,000	10,000	15,000	20,000	30,000	40,000	50,000	70,000	
	to	to	to	to	to	to	to	to	and	
	5,000	9,999	14,999	19,999	29,999	39,999	49,999	69,999	more	
Northeast		2,677	2,326	2,455	2,657	2,955	3,483	3,585	4,040	5,642
Sales Tax (RI)										
\$21.28 per 1000		106	213	319	426	638	851	1,064	1,490	2,085

Food at home	0	5000	10000	15000
	to	to	to	to
	5000	9999	14999	19999
Northeast	2677	2326	2455	2657
Sales Tax (RI)				
\$21.28 per 1000	=21.28*(B49/1000)	=21.28*(C49/1000)	=21.28*(D49/1000)	=21.28*(E49/1000)

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APPENDIX G – (INDEXATION OF FOOD AT HOME PRICES TO NORTHEAST)

Indexation of Food to Northeast Pricing									
Food at home	USA	Northeast							
	3,744	4,021	1.07399	7.40%					
	0	5,000	10,000	15,000	20,000	30,000	40,000	50,000	70,000
	to	to	to	to	to	to	to	to	and
	5,000	9,999	14,999	19,999	29,999	39,999	49,999	69,999	more
USA	2,493	2,166	2,286	2,474	2,751	3,243	3,338	3,762	5,253
Northeast	2,677	2,326	2,455	2,657	2,955	3,483	3,585	4,040	5,642

Indexation of Food to Northeast Pricing						
Food at home	USA	Northeast				
	3744	4021	=C4/B4	=D4-1		
	0	5000	10000	15000	20000	30000
	to	to	to	to	to	to
	5000	9999	14999	19999	29999	39999
USA	2493	2166	2286	2474	2751	3243
Northeast	=ROUND((B9*\$D\$4),0)	=ROUND((C9*\$D\$4),0)	=ROUND((D9*\$D\$4),0)	=ROUND((E9*\$D\$4),0)	=ROUND((F9*\$D\$4),0)	=ROUND((G9*\$D\$4),0)

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APPENDIX H – (CENSUS DATA USED TO CALCULATE NEGATIVE CREDIT FOR REVENUE PROJECTIONS)

2000 Census Data	
Income	
Households	408412
Less than 10,000	43800
10,000 to 14,999	28604
15,000 to 24,999	50524
25,000 to 34,999	48426
35,000 to 49,999	64068
50,000 to 74,999	82350
75,000 to 99,999	43623
100,000 to 149,000	31162
150,000 to 199,999	7914
200,000 or more	7939
Median Household Income	42090

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REFERENCES

- Arsenault, M. (2007, August 3). R.I. bridge conditions rank worst in nation. *Providence Journal*.
- Baily, M. N., & Elliott, D. J. (2009, June). The US Financial and Economic Crisis: Where Does It Stand and Where Do We Go From Here? *The Initiative on Business and Public Policy*, 1-26.
- Bruce, D. (2006). Tax Base Elasticities: A Multi-State Analysis of Long-Run and Short-Run Dynamics. *Southern Economic Journal*, 73 (2), 315-342.
- (2008). *Consumer Expenditures in 2008*. Consumer Spending, U.S. Bureau of Labor Statistics.
- Derrick, F., & Scott, C. (1995). Sales Tax Exemptions and Credits: Time to Reevaluate. *Atlantic Economic Journal*, 23 (4), 267-277.
- Dye, R. F., & Reschovsky, A. (2008, Summer). Property Tax Responses to State Aid Cuts in the Recent Fiscal Crisis. *Public Budgeting & Finance*, 87-111.
- Edgar, R. (2010, March 17). Public pensions underfunded by \$9.4 billion. *Providence Journal*
- Edwards, C. (2010). Fiscal Policy Report Card on America's Governors:2010. *Policy Analysis* 1-32.
- (2008). *Executive Summary: A System at Capacity: Rhode Island's State and Local Tax System*. RIPEC. Providence: RIPEC.
- Feldman, A. (1984). Sunset for Industrial Policy. *Policy Review*, pp. 84-86.
- Fletcher, J., & Murray, M. (2006). Competition over the Tax Base in the State Sales Tax. *Public Finance Review*, 34 (258), 258-281.
- Gittell, R. (2010). Economic Outlook for Rhode Island and New England. *RI Economy: What's Next? Beyond the Problems to the Solutions Summit*. Smithfield.
- Gleason, R. (1996, Fall). Reevaluating the California Sales Tax: Exemptions, Equity Effectiveness, and the Need for a Broader Base. *San Diego Law Review*.
- Gold, S. D. (1992). Simplifying the Sales Tax: Credits or Exemption. *Sales Taxation: Critical Issues in Policy and Administration*, 156-168.
- Gregg, K. (2010, January 4). GOP, Dems slam Chafee's proposed sales tax change. *The Providence Journal*.
- Gregg, K. (2010, October 7). R.I. GOP says Caprio debate statements defy his record. *Providence Journal*.
- Holcombe, R., & Sobel, R. (1995). The Relative Variability of State Income and Sales Taxes Over the Revenue Cycle. *Atlantic Economic Journal*, 23 (2), 97-112.
- (2008). *How Rhode Island Compares: National and State Fiscal Economic Trends*. RIPEC. Providence: RIPEC.
- John Hy, R. (2000). The future of the state personal income tax. *Public Administration Quarterly*, 24 (1), 5-16.
- Kent, C., & Sowards, K. (2009). Property Taxation and Equity in Public School Finance. *Journal of Property Tax Assessment & Administration*, 6 (1), 25-43.
- Micklethwait, J. (2010). Fear Returns. *The Economist*, 44-48.

Tax Reform in Rhode Island: Developing a High Quality Revenue Stream
Senior Capstone Project for Nicholas A. Denice

- Monaghan, A. (2010, June 23). Budget 2010: Axe falls on Whitehall, the public sector and pensions. *The Telegraph* .
- Morse, C. A. (2010, October 9). A Billion-Dollar Cold Turkey Dinner for Rhode Island? . *Anchor Rising* , p. 1.
- Needham, C. (2010, March 30). R.I. unemployment rate could be leveling off. *Providence Journal* .
- Nelson, B. (1991). The Fundamentals of Sales and Use Taxes. *Journal of Accountancy* , 172 (6), 60-65.
- (2010). *Report to Measure the Fiscal Stress and Financial Condition of Rhode Island Cities and Towns*. Finance, Municipal Fiscal Stress Task Force, Providence.
- RI Department of Revenue. (2008). *Foregone sales tax revenue in Rhode Island in 2008*. Sales Tax, Rhode Island Department of Revenue, Providence.
- RIEDC. (2010, September 30). Cato Institute Gives Governor Carcieri High Marks for Tax Reform and Controlling Spending. *Rhode Island Economic Development Corporation*
- Russo, B. (2005). An Efficiency Analysis of Proposed State and Local Sales Tax Reforms. *Southern Economic Journal* , 72 (2), 443.
- (2008). *Single Year Audit Report*. State of Rhode Island and Providence Plantations, Office of the Auditor General, Providence.
- (2009). *Single Year Audit Report*. State of Rhode Island and Providence Plantations, Office of the Auditor General, Providence.
- (2007). *State and Local General and Selective Sales Tax Collections Per Capita, Fiscal Year 2007*. Sales Tax, U.S. Census Bureau, Tax Foundation.
- (2010). *State Business Tax Climate Index, 2006-2010*. Tax, Tax Foundation.
- (2010). *Tax Policy Analysis*. RIPEC. Providence: Rhode Island Public Expenditure Council.
- (2004). *Taxpayer Guide to School Finance Reform*. Education & Finance, RIPEC, Providence.
- The Facts on Rhode Island's Tax Climate. (2010). *The Tax Foundation* . Washington DC.
- The State of Rhode Island General Assembly*. (2010). Retrieved 2010, from Rhode Island History: <http://www.rilin.state.ri.us/rhodeislandhistory/rodehist.html>
- (2006). *The Streamlined Sales Tax Project- It's Impact on Rhode Island*. Sales Tax, RIPEC, Providence.
- What streamlining US sales and use taxes will mean. (2003, June). *International Tax Review*