Background on Credit Card Debt

Over the past decade, the problem of credit card debt within U.S. households has dramatically increased. Currently, the average U.S. household has a credit card debt of $6,429. While it is clear that credit card debt is an issue across the United States, households in Vermont have an average debt well above the national average at $17,000.2 There are a number of known factors that contribute to credit card debt including cost of living, income, poverty, unemployment, divorce, family size, home ownership, and education.

One of the most obvious reasons people fall into credit card debt is a significant disparity between their household income and the cost of living in their area.3 Interestingly, a study done by the University of Michigan showed that low-income families with an average debt of $2,900 in 1994 had their debt grow to an average of $18,500 by 1999.4 According to a 1999 study by the Morgan Quitno Corporation, Vermont ranks twelfth in the U.S. in cost of living.5 A similar study done in 2001, listed Vermont as twenty-sixth in per capita income with the average income being $28,594.6

Closely associated with these ideas is the concept of poverty. According to the Vermont Livable Wage Campaign, when people do not make livable wage, when their incomes
cannot sustain their basic everyday needs, they are often forced to use credit cards in
order to survive.\textsuperscript{7} In 2001, 9.8\% of individuals in Vermont were below the poverty level
(roughly 1.8\% lower than the national average).\textsuperscript{8}

Another common reason for credit card debt is unemployment. If an individual has a
credit card and unexpectedly loses their job, or is employed seasonally they may be more
likely to resort to use of their credit cards. Some people carry high balances, but are able
to make the minimum payments when in this situation. If they lose their job while
already in debt, that could lead to further debt.\textsuperscript{9} In 2002, Vermont had an unemployment
rate of 4.0, which was below the national average of 5.4.\textsuperscript{10}

A third factor that is commonly associated with credit card debt is divorce. This is
especially true when the divorce leads to single parents.\textsuperscript{11} This also becomes a larger
factor when the families have an above average number of children.\textsuperscript{12} In 2001,
Vermont’s divorce rate was equal to the national average at 4.0 divorces per 1,000
persons.\textsuperscript{13}

Home ownership is also a common factor when looking at credit card debt. Owning a
home generally leads to less household debt.\textsuperscript{14} In 2001, 69.8\% of Vermonters owned a
home, slightly above the national average of 67.8\%.\textsuperscript{15}

The last factor that acts as a major contributor to credit card debt is higher education. In
2000 the average undergraduate student had $2,748 in debt while graduate students
carried average debts of $4,776.\textsuperscript{16} Furthermore, nearly 10 percent of college students

\textsuperscript{7} \textit{Vermont Livable Wage Campaign}. “Facts and Figures: LW Frequently Asked Questions.”
http://www.vtlivablewage.org/factsfigures.html#anchor180460. Viewed 02/15/05.
\textsuperscript{8} Morgan, Kathleen and Scott Morgan. \textit{State Rankings 2003: A Statistical View of the 50 United
500.
\textsuperscript{10} Hovey, Kendra and Harold Hovey. \textit{CQ's State Fact Finder 2003: Rankings Across America}.
\textsuperscript{11} Brown, Sarah, Gaia, Garino, Karl Taylor, and Stephen Wheatley Price. \textit{Economic Inquiry}.
Vol. 43. Number 1. http://ei.oupjournals.org/cgi/reprint/43/1/100. Viewed 02/17/05.
\textsuperscript{12} Brown, Sarah, Gaia, Garino, Karl Taylor, and Stephen Wheatley Price. \textit{Economic Inquiry}.
Vol. 43. Number 1. http://ei.oupjournals.org/cgi/reprint/43/1/100. Viewed 02/17/05.
\textsuperscript{13} Morgan, Kathleen and Scott Morgan. \textit{State Rankings 2003: A Statistical View of the 50 United
\textsuperscript{14} Brown, Sarah, Gaia, Garino, Karl Taylor, and Stephen Wheatley Price. \textit{Economic Inquiry}.
Vol. 43. Number 1. http://ei.oupjournals.org/cgi/reprint/43/1/100. Viewed 02/17/05.
\textsuperscript{15} Morgan, Kathleen and Scott Morgan. \textit{State Rankings 2003: A Statistical View of the 50 United
States}. “Percent of Population With a Bachelor’s Degree or More in 2001.” Morgan Quitno
\textsuperscript{16} \textit{National Foundation for Credit Counseling (NFCC) News}. “2000 College Credit Card Facts.”
have credit card debts over $7,000.\textsuperscript{17} When students graduate with large credit card debts, it becomes very difficult to pay them off in combination with their student loans. In 2001, Vermont was ranked seventh in the U.S. in percentage of population with a Bachelor’s degree or higher at 29.9\%.\textsuperscript{18} Furthermore, Vermont ranked first in the nation with an average state tuition of $7,134 well over the U.S. average of $3,506.\textsuperscript{19}

Aside from the reasons listed above, some studies have also discovered that optimism towards paying off credit card debt often leads to further debt.\textsuperscript{20} Basically, people who believe that they will make their payments on time and get out of debt are the ones who find themselves in the deepest debt. Unfortunately, we were unable to complete a study on this aspect of debt in relation to Vermont.

**Research and Analysis**

We conducted a multiple regression analysis to further examine the characteristics that predict credit card debt.\textsuperscript{21} Consistent with previous literature, the multiple regression analysis found that state characteristics important in predicting credit card debt were average income per capita, the divorce rate, home ownership rate, poverty rate, percentage of the population with a bachelor degree, and the average cost of state tuition (See Appendix 1 for complete results). The results indicated that there was a significant negative association between credit card debt and average income per capita, home ownership rate, and the rate of poverty. The results about poverty rates counter the claim made by the Vermont Livable Wage Campaign. That is, the higher the average income, home ownership, and poverty rate in the states, the lower the average credit card debt. Vermont ranked 26/50 on average income, 31/50 on home ownership rate, and 32/50 on poverty rate (See Table 1). The results also indicated a positive relationship between credit card debt and the rate of divorce, the percentage of the population with a bachelor’s degree, and the average cost of state tuition. That is, the higher the divorce rate, percentage of the population with a bachelor’s degree, and the average cost of state tuition, the higher the average credit card debt. Vermont ranked 22/50 on divorce rate, 7/50 on the percentage of the population with a bachelor degree, and number 1 on the average cost of state tuition.

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{21} Multiple regression analysis assesses the extent to which each characteristic of the states, such as home ownership, is associated with the states’ average credit card debt while holding constant all of the other state characteristics in the analysis.
\end{itemize}
\end{footnotesize}
Since Vermont rates about average on income, divorce rate, home ownership and poverty, it is unlikely that these factors explain why Vermont’s household credit card debt is as high as it is. Vermont’s relatively high ranking on percent of the population with a college degree and the cost of college tuition suggest that these two factors provide a partial explanation for the high level of credit card debt in Vermont. These factors do not, however, fully explain the level of credit card debt in Vermont.  

Table 1: Vermont vs. The United States in Debt Predicting Statistics

<table>
<thead>
<tr>
<th>Model</th>
<th>Vermont</th>
<th>U.S. Average</th>
<th>VT Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Income Per Capita (2001)</td>
<td>$28,594</td>
<td>$30,472</td>
<td>26</td>
</tr>
<tr>
<td>Divorce Rate (per 1,000 persons in 2001)</td>
<td>4.0</td>
<td>4.0</td>
<td>22</td>
</tr>
<tr>
<td>Home Ownership Rate in 2001</td>
<td>69.8%</td>
<td>67.8%</td>
<td>31</td>
</tr>
<tr>
<td>Poverty Rate for 2001</td>
<td>9.8%</td>
<td>11.6%</td>
<td>32</td>
</tr>
<tr>
<td>Percent of Population with Bachelor Degree in 2001</td>
<td>29.9%</td>
<td>25.5%</td>
<td>7</td>
</tr>
<tr>
<td>Average State Tuition 2000-2001</td>
<td>$7,134</td>
<td>$3,506</td>
<td>1</td>
</tr>
</tbody>
</table>

Current Initiatives to Protect Consumers from Credit Card Companies

In 1978, the credit card companies had perhaps their largest legal victory with the Supreme Court Case *Marquette v. First Omaha Services* (439 US 299 1978). The ruling in the case was that companies only had to obey the laws in the states they operated in, not the states of their customers. For this reason, by the late 1980’s many card companies began moving their operations to states that were more favorable to their business. As of 1998, 26 states did not have a limit on interest rates, largely due to the temptation of states to remain business friendly. Given the ruling in *Marquette v. First Omaha*

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22 The average household credit card debt for Vermont predicted by the model is a little over $11,500; the Cardweb.com estimate of household credit card debt in Vermont was $17,000. Thus there must be other factors that we were not able to identify that explain why Vermonters hold such high levels of credit card debt.

Services, having consumer friendly laws will not necessarily result in lower interest rates for consumers. There is currently no federal cap on interest rates.  

**University Policies Toward Credit Cards**

Credit card companies are always looking for new cardholders on college campuses, and their solicitation is very frequent. Some universities have policies to prohibit excessive student debt such as disallowing or limiting card offers from being sent to the students’ mailboxes or forcing companies to provide educational material. Many universities or alumni associations, however, receive significant income from credit card solicitation. Between 1998 and 2001, 24 states put through legislation to limit solicitation on college campuses or to study the effects of credit cards on students.

The University of Vermont offers little protection to the students from credit card solicitation. An average student in the dorms will receive credit card offers through the mail and telemarketing on a regular basis. Currently UVM does not have a policy that prohibits these types of solicitation. In fact, the University of Vermont’s Alumni Association endorses a credit card through MBNA, which all students receive an offer for in their dorm mailbox. The Alumni Association receives a percentage of the profits from MBNA. Similar cards are offered by MBNA to over 700 colleges and universities. The annual percentage rates for purchases on these cards are usually around 16%.

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**Disclaimer:**
The reports listed on this web site have been prepared by undergraduate students at the University of Vermont under the supervision of Professor Anthony Gierzynski. The material contained in the reports does not reflect official policy of the University of Vermont.

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Appendix

### Table 2: Credit Card Debt Regression Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>16917.062</td>
<td>18536.746</td>
<td>.913</td>
</tr>
<tr>
<td></td>
<td>Cost of Living Index (Avg. 1.0 for 1999)</td>
<td>-338.155</td>
<td>8359.295</td>
<td>-.009</td>
</tr>
<tr>
<td></td>
<td>Avg. Income Per Capita (2001)</td>
<td>-.322</td>
<td>.154</td>
<td>-.491</td>
</tr>
<tr>
<td></td>
<td>Unemployment Rate (Avg. 5.4 for 2002)</td>
<td>42.716</td>
<td>409.675</td>
<td>.015</td>
</tr>
<tr>
<td></td>
<td>Divorce Rate (per 1,000 for 2001)</td>
<td>914.466</td>
<td>428.737</td>
<td>.328</td>
</tr>
<tr>
<td></td>
<td>Avg. Family Size (persons per family for 2000)</td>
<td>1813.586</td>
<td>3570.564</td>
<td>.076</td>
</tr>
<tr>
<td></td>
<td>Home Ownership Rate in 2001</td>
<td>-237.821</td>
<td>104.687</td>
<td>-.514</td>
</tr>
<tr>
<td></td>
<td>Poverty Rate for 2001</td>
<td>-371.040</td>
<td>191.116</td>
<td>-.368</td>
</tr>
<tr>
<td></td>
<td>Percent of Pop with Bachelor Degree 2001</td>
<td>318.434</td>
<td>153.801</td>
<td>.523</td>
</tr>
<tr>
<td></td>
<td>Avg. State Tuition 2000-01</td>
<td>.805</td>
<td>.443</td>
<td>.312</td>
</tr>
</tbody>
</table>

* Dependent Variable: credit card debt per household (2003)

### Table 3: Model Summary (b)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.692(a)</td>
<td>.478</td>
<td>.355</td>
<td>2392.264</td>
</tr>
</tbody>
</table>

* Predictors: (Constant), Avg. State Tuition 2000-01, Home Ownership Rate in 2001, Unemployment Rate (Avg. 5.4 for 2002), Avg. Family Size (persons per family for 2000), Divorce Rate (per 1,000 for 2001), Poverty Rate for 2001, Avg. Income Per Capita (2001), Cost of Living Index (Avg. 1.0 for 1999), Percent of Pop with Bachelor Degree 2001

* Dependent Variable: credit card debt per household(2003)