Keep your taxpayers close and your deficits lower: The effects of connectedness on taxpayer relocation decisions between states

Charles W. Bame-Aldred
Northeastern University

Michaele L. Morrow
Northeastern University

ABSTRACT

State and local tax policymakers often rely on economic incentives to attract and retain taxpayers. However, during recessionary periods many states are forced to increase taxes and/or remove the previously offered economic incentives in order to balance budgets. Unfortunately, policymakers face the risk that raising tax rates or removing economic incentives may result in a reduced tax base, as taxpayers relocate to lower tax jurisdictions. However, our research suggests that, in addition to economic incentives, tax policymakers should also consider the degree of connectedness or identification the taxpayer has to the taxing jurisdiction and its effect on retention. Using social control theory from the criminology literature, the study examines the influence of organizational connectedness on taxpayer retention when taxes are increased. The findings indicate that a high level of taxpayer connectedness with the current tax jurisdiction moderates the likelihood of relocation to another state when tax rates are increased. This moderation occurs despite economic incentives and lower tax rates offered by an alternative jurisdiction. Judging the level of connectedness of taxpayers to the tax jurisdiction and enhancing connectedness by increasing attachment and commitment to the jurisdiction could be the missing piece policymakers are searching for in implementing successful long-term tax policy.

Keywords: Social Control Theory, Decision-Making, Tax Policy, Social Norms
INTRODUCTION

Prior research and anecdotal evidence suggest that tax burdens play an important role in business decisions (Hundsdoerfer and Sichtmann 2009). Recently, tax increases implemented by states struggling to raise revenue necessary to comply with balanced budget requirements have faced strong opposition from taxpayers, especially small business owners (Levitz 2011). For example, the defeat of Initiative 1098 on November 2, 2010, by the voters of Washington State was reflective of a backlash against taxation happening across the United States. This initiative, which would have imposed a state income tax on 1.2 percent of Washington citizens, was strongly supported by Bill Gates and enjoyed majority support in the polls as late as mid-October 2010. However, an intense ad campaign by opponents of the initiative was convincing enough to result in a 65 percent to 35 percent defeat of the measure. Opponents of Initiative 1098, many of whom were small business owners, threatened to relocate from the State of Washington to lower or no tax states if the initiative passed. They maintained that the additional tax would reduce disposable income for future investment necessary to grow their businesses, hire more employees, and generate an economic push for future prosperity in the state.

If tax increases are often a necessary evil to comply with constitutionally mandated balanced budget requirements, how do state and local policymakers implement them without alienating taxpayers? This is of great concern to policymakers as alienation could threaten long-term retention of taxpayers and shrink the tax base, thus defeating the objective of the tax increase. Our research suggests that a missing consideration in tax policymaking is the degree of connectedness or identification the taxpayer has to the taxing jurisdiction and its effect on retention.

Individuals often choose to join groups of like-minded people due to a shared interest in similar business endeavors (Baumeister and Leary 1995), and this desire to forms groups of organizations can also occur based on geographical proximity. For example, agglomeration economies – defined as the concentration of a large number of organizations in a similar market in a small area – are shown by several studies to have large and statistically significant effects on firm location choice (Wasylenko 1997). The city of Cambridge, Massachusetts has been very successful at luring and retaining many biotechnology firms to its vicinity because of research and development and other tax credits offered by the state of Massachusetts, creating an agglomeration economy. The intention of state and local policymakers in offering the tax credits was to expand the tax base by attracting new businesses, as well as retain existing taxpayers who rely on the incentives as part of their business strategies – connecting them with Massachusetts over time.2

1 It could also be argued that Cambridge, MA has been successful at luring and retaining biotechnology firms because of its proximity to several top-tier research universities. This strengthens our case, as the universities are also supported by state and local initiatives, such as property tax exemptions. A recent push to force universities to pay property taxes has been met with some argument that this might negatively affect future expansion of the universities in this area. (Rezendes 2011).

2 One example of this is the Life Sciences Tax Incentive Program, which authorizes the Massachusetts Life Science Center to award up to $25 million in tax incentives each year. Companies agree to create a certain number of jobs in the area within a certain time or can be forced to repay all of part of the credit, thus initially binding them to the community through the newly established workforce. See www.masslifesciences.com
The strategy in Massachusetts has been successful\(^3\), and the theory argues it is partly due to the fact that the stronger the attachment and commitment to become part of and stay with the group, the stronger level of connectedness to that group (Sauerland and Hammerl 2010) and the lower likelihood of leaving the group. Strong connectedness to a group forces the decision maker to consider the social norms for the group when deciding whether or not to relocate to another jurisdiction and, as a result, the impact on the group members left behind.

In fact, social norms have been found to influence behaviors in a number of different areas. Research in accounting and taxation find that social norms held by taxpayers influenced tax compliance behavior (Bobek and Hatfield 2003; Wenzel 2005b). In these studies, the presumption is that social norms are developed based on prior experience within their group or groups. Tayler and Bloomfield (2011) experimentally created social norms in the laboratory and find that social norms influence resource allocation decisions, but needed a triggering mechanism to make the social norm salient (i.e., the participant’s personal norm).

The trigger mechanism for consideration of social norms is found to occur when an individual is strongly attached and committed to the group. Research in criminology tests social control theory, which posits that as attachment and commitment to a societal group increase, decision-makers consider the implications of their decisions on others in the society rather than solely focusing on their own motivations (Hirschi 2002). Individuals that strongly identify with the group are also more likely to adopt the social norms of the group and use them to direct their subsequent behaviors (Wenzel 2004a). As a result, the strongly connected decision-maker’s actions potentially increase the overall welfare of the group or, at a minimum, decrease the negative consequences for the group.

As mentioned above, both attachment and commitment can combine to increase the level of connectedness an individual has with the group (Hirschi 2002). Individuals who are attached to others internalize the norms of the group, and a clear violation of those norms is to behave in a way opposite of the wishes and demands of other group members. Thus, level of attachment allows predictions to be made about the likelihood of certain behaviors. When the attachment to the group is weak or non-existent, the individual is free to decide what is normal for his own purposes and ignore the influence of others’ opinions, leading to self-interested decisions. However, the more socially involved an individual is with a group, the higher the attachment and the lower the likelihood is of deviation from the social norms of the group (Hirschi 2002).

Another important part of connectedness is commitment, which refers to an individual’s investment of time and energy in a particular activity, such as starting a business in a particular city or state (Hirschi 2002). If an individual does this and then decides to relocate business activities to another jurisdiction, there is a risk of losing the accumulated investment in that city or state. In fact, the more committed an individual is, the lower the likelihood they will give up on an activity even when there are compelling economic reasons to do so.

The actions of both supporters and opponents of Washington State’s Initiative 1098 are a good illustration of the effect of connectedness on behavior. The news

\(^3\) The Life Sciences Initiative will create up to 1,000 jobs in 2011 alone, 451 of those in Cambridge. http://www.bluebirdbio.com/pdfs/Tax-Incentives%201_3_11%20cambridge.pdf
magazine television program, 60 Minutes, broadcast a feature story, “Deficits: The Battle over Taxing the Rich,” highlighting two opponents of Washington State’s Initiative 1098. Both were small business owners with locations in Washington State who were strongly opposed to the tax and suggested that relocation was an option if it passed. Interestingly, one of the business owners had locations in four other states, while the other recently relocated from Oregon to take advantage of no individual or corporate income tax in Washington State. Taken together, these details suggest that their level of connectedness to the State of Washington is very low, while Bill Gates (long-time resident and business owner in the State of Washington and a strong supporter of Initiative 1098) arguably has a high level of connectedness to Washington State.

From the perspective of the taxing authority, understanding the level of connectedness of the tax base to the jurisdiction can be beneficial in taxpayer retention, providing a more predictable revenue stream and the accrual of long-term economic benefits. Taxpayers who feel a high degree of connectedness toward their current tax jurisdiction may be less likely to relocate when incentives expire, tax rates are increased or a greener tax pasture is offered as an option. The study manipulates connectedness by describing elements of organizational attachment and commitment with the taxing jurisdiction. There is an expectation that higher levels of connectedness influence decisions and actually moderate the likelihood of relocating to a different tax jurisdiction even when there are other indicators suggesting relocation is in the best interest of the taxpayer.

The optimal method to examine the effects of connectedness on relocation decisions involves surveying CEOs or CFOs confronted with an actual increase in taxation from the current tax jurisdiction. Measurements could be gathered related to their level of connectedness to the tax jurisdiction and their likelihood of relocating their business to another tax jurisdiction. While CEOs may be willing to participate in this type of survey, they might also provide socially desirable answers with respect to their connectedness to the city or state and the likelihood of relocating away from that location (i.e., high level of connectedness to the state and low likelihood of relocation). To avoid this, the study examined the influence of connectedness using another group of decision makers.

In this study, MBA students evaluated a scenario where a company is faced with increasing taxes from their current tax jurisdiction. The MBA students have no incentive to provide socially desirable responses regarding their connectedness to the current tax jurisdiction or the likelihood of moving (Cohen et al. 2001; 1998). They were asked them to play the role of the CEO and respond to likelihood of relocating to a neighboring state to avoid the increase in taxes, manipulating the level of connectedness of the company. Consistent with economic theory, lower costs and lower uncertainty significantly influenced the likelihood of participants to choose to relocate to a neighboring state.

More importantly, connectedness was a factor considered in the decision to relocate to another tax jurisdiction. When either one of the two economic indicators suggested relocation was a better option, CEOs with low connectedness to the current state were more likely to relocate to another state. However, when CEOs with high connectedness to the current state were faced with the same scenario, they were less likely to relocate to another state.
Our results have important policy implications. The ability of state and local tax policymakers to influence how an organization views itself (e.g., as a Cambridge Biotech Company) and ensure strong organizational connectedness to the group may insulate their jurisdictions from other predatory taxing jurisdictions intent on stealing away a lucrative tax base. This is especially important when economic cycles force policymakers to allow tax incentives to expire or even raise tax rates and our research indicates that less connected taxpayers are more likely to relocate to another tax jurisdiction than those individuals with a high degree of connectedness to the current tax jurisdiction. Judging the level of attachment and commitment to a tax jurisdiction and then fostering that feeling of connectedness could be the missing piece policymakers are searching for in implementing successful long-term tax policy.

The next section discusses the rationale underlying the hypotheses and the methodology and details of the study. This is followed with a presentation of the results, and close with a summary of the implications of these results for policy makers and a brief identification of additional questions raised by these results.

MOTIVATION AND THEORY

Importance of Tax Incentives

For the past several years, state tax policymakers have implemented various economic incentives to entice taxpayers to relocate operations and headquarters to their jurisdictions. These policies were designed to stimulate the economy in the form of new jobs for residents, new capital investments or a combination of both. In his 1997 review of the taxation and economic development literature, Wasylenko wrote:

“Policymakers’ keen interest in the elasticity of economic activity with respect to taxes suggests that states and regions are indeed interested in manipulating their tax systems in an attempt to attract business or to foster growth. In effect, many states engage in a form of industrial policy using taxes as their primary instrument.”

For example, Oklahoma offered a variety of credits to offset the cost of qualified investments in small businesses, with both capital investments and jobs created considered in the calculation of the total credit. Since 1995, South Carolina has offered an economic impact zone credit of varying percentages which allows an offset against income tax based on the type of equipment placed into service. The aforementioned incentives and those offered in other states are frequently adjusted as states’ revenue and budget objectives change. However, these frequent adjustments create uncertainty about the long-term implementation and availability of most economic incentives. In addition, states like Washington, with no corporate or individual income tax, do not have the option to manipulate tax incentives and must rely primarily on other economic incentives and lack of income taxes to attract and retain new taxpayers.

Despite the widespread use of these incentives, it is unclear whether they are successful in attracting and retaining new taxpayers that provide economic growth. Buss

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4 There is a vast literature in international tax policy which has examined the effects of tax and economic incentives on the location and relocation decisions of U.S. multinational corporations. This literature is not directly relevant to our study, as the focus is on local decisions – e.g. relocation from one state to another – which are fundamentally different than international relocation.

5 A search of state tax alerts in RIA Checkpoint yielded over a dozen alerts related to changes – both additions and subtractions – for just one month in 2010.
(2001) provided a thorough examination and integration of prior research examining firm location decisions, economic growth in relation to tax structure and the effectiveness of tax incentives. The first concern for a state wishing to attract new taxpayers is the process by which firms choose a location. Prior research is mixed on whether state and local taxes figure heavily into this decision because of the variety of other factors considered by firms. Citing Plaut and Pluta (1983), Buss concludes:

"Most studies employ a least cost of operation approach: Find a state with the lowest taxes, lowest wages, right-to-work laws, least regulation, lowest utility costs, and highest subsidies for capital and that will be the best state in which to do business."

However, in the context of corporate strategic planning, Buss lays out a ten step process of new location selection, beginning with the determination of future capacity requirements and the decision to build a new facility and ending with a feasibility study once all economic and noneconomic factors have been considered. In many corporate strategic planning decisions, taxes are input into the decision equation only at the very last step. However, whether or not incentives are successful in attracting firms to relocate to their jurisdictions, state tax policymakers argue that they feel compelled to offer these incentives to compete with other states.

Prior research on the effect of taxes on economic growth is also mixed. Results fluctuate greatly based on model specification and time period of data analyzed, making it hard to draw conclusions about causation. In addition, policymakers are often reluctant to perform in-depth studies of the effectiveness of these incentives in creating jobs or otherwise providing economic growth, instead choosing to take credit for any growth that might be attributed to the incentives, while ignoring any detrimental or negative effects of the policies they implemented. The only conclusion to be drawn is that research has found some incentives to be effective while many others are not (Buss 2001).

Regardless of actual or perceived effectiveness, most incentives offered by states eventually expire. Currently, some states are facing significant revenue shortfalls and the worst budget crisis in decades. Many are being forced to raise tax rates and reduce or restrict economic incentives. Tinkering with incentives has varied widely based on the severity of the economic crisis in each state – from raising rates and cutting out economic incentives to restructuring current incentives or even creating new ones with the objective of creating new growth. When faced with a 28 percent budget gap and 20.8 percent decrease in tax revenues, Oklahoma imposed a two-year moratorium on a wide range of investment credits, including those mentioned above. On the other hand, South Carolina, faced with a 7.4 percent budget gap and 7.4 percent decrease in tax revenues, chose to create new business credits designed to increase jobs, while at the same time getting rid of the aforementioned economic impact zone investment credit. For Washington State, tax incentives were nonexistent and services had already been drastically reduced, so Initiative 1098 was introduced to raise revenues.

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6 See Buss (2001) for a more in-depth discussion of this research.
7 See Ady (1997) and Buss (1990)
8 See Buss (2001) for a more in-depth discussion of research on the reasons incentives are offered. This study specifically focuses on only a few steps in this process rather than the entire process.
9 See Wasylenko (1997) and Buss (2001) for summaries of these studies.
10 Over the next two years, deficits across all fifty states are expected to top $108 billion. http://www.ncsl.org/?tabid=21975

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This constant manipulation of incentives based on economic conditions may seem counterintuitive and unnecessary, but states are in a unique budgetary position compared to the federal government. All but one state, Vermont, has a form of a balanced budget requirement. If states are unable to close a budget deficit with current tax receipts or receipt of federal funds, they are forced to cut costs or raise additional tax revenues to balance the budget. Both options are politically unpalatable, so state legislators often choose to reduce existing tax incentives for corporations to raise additional revenues. However, if these incentives are being used as a tool to attract and retain taxpayers, reducing them in the short-term could have negative effects on long-term economic growth. An alternative factor may be needed to formulate and implement effective long-term tax policy. This research suggests that this factor is much more complex than just economic incentives studied by prior research.

Organizational Connectedness

As mentioned previously, agglomeration economies are significant factor in firm location choice (Wasylenko 1997). This indicates that economic incentives are important to taxpayers when choosing a location, but it is argued that organizational connectedness forged through attachment and commitment after location choice may be a key to long-term taxpayer retention. After becoming a member of the taxing jurisdiction, as the taxpayer increases interaction with other group members over time, they are investing significant more time and energy (commitment) and creating meaningful relationships (attachments), resulting in increased overall connectedness to the group.

Investigations into social control theory and social norms support the previous statements. Social control theory posits that individuals with high levels of attachment to society and strong prior commitments are less likely to violate the social norms of the group (Hirschi 2002). An attached and committed – i.e. connected – individual must consider not only their own motivations, but also the group’s motivations, and internalize the group norms – also referred to as social norms – into their decisions. Social norms for the group are learned by interacting with other group members and acting contrary to the expectations of members within the group is considered a violation of social norms (Hirschi 2002). For individuals with a strong connection to a group, the social norm becomes relevant when deciding to engage in behaviors that deviate from the group norms. Importantly, social control theory suggests that without a high level of attachment and commitment to the societal group, individuals will still deviate from the wishes of groups with strong social norms. However, group members with high levels of attachment and commitment exhibit a lower likelihood of deviation from the social norms of the group (Hirschi 2002).

Prior research in accounting has examined the influence of social norms (Bobek and Hatfield 2003; Taylor & Bloomfield 2011; Wenzel 2004a, 2005a) and finds that in most cases societal norms influence behavior. Further, in a series of papers examining Australian taxpayer compliance, Wenzel (2004a, b; 2005 a, b) investigates the influence of social identification strength as a triggering mechanism to conform or deviate from social norms. In one study, citizens were informed that the tax compliance levels of their fellow taxpayers were in fact higher than they originally estimated. Provision of this social norm by the experimenter and the internalization by the participants resulted in an...
increase in tax compliance attitudes as they altered their behavior to mirror the group (Wenzel 2005a).

More directly related to our research, the strength of the identification to society was found to be a significant predictor of behavior, depending on the strength of the social norm. In Wenzel’s study, when the social norm was manipulated to be pro-compliance, taxpayers who were strongly identified with the state exhibited higher levels of tax compliance than weakly identified taxpayers. In fact, taxpayers that were weakly identified with a strong social norm state were the most likely to evade taxes (Wenzel 2004a). This finding is consistent with the prediction of social control theory, which predicts that individuals with weak attachment to groups with strong social norms will exhibit more deviant behavior than their counterparts who are more strongly attached.

A high level of connectedness for organizations and individuals within a taxing jurisdiction reduces the likelihood of firm relocation to another jurisdiction (i.e. an action that violates the social norms) when tax incentives expire or tax rates are increased. Those entities and individuals with a high level of connectedness to their city or state are likely to consider the implications of their decision to the group. This study also suggests that connectedness will continue to have an influence even in the presence of a lower cost/lower uncertainty alternative. The following hypothesis is proposed:

**H1:** High connectedness to a current group lowers the likelihood of an entity or individual separating from the group to join another group which offers lower levels of cost and/or uncertainty.

If connectedness exists within tax jurisdictions, it is an important consideration for tax policymakers. Those entities and individuals with a high level of connectedness to their current tax jurisdiction – whether it is a city or a state – will be less likely to sever ties with the group by relocating to another tax jurisdiction, even in the face of higher tax rates or reduced economic incentives in the current tax jurisdiction. In addition, policymakers need to realize that those individuals and entities with a low level of connectedness to the tax jurisdiction might be more likely to sever ties with the group and consider the consequences for the taxpayer base.

**METHODOLOGY**

An ideal study of the influence of connectedness on decision makers would be to survey CEOs and CFOs about decision making behavior related to choosing a new tax jurisdiction; however, this was not a feasible option. CEO and CFO responses would increase the external validity of our results, but there was a strong likelihood that these participants would provide socially desirable responses even if assured anonymity (i.e., strong connectedness and a low likelihood of moving to another city or state). To mitigate this bias, data was gathered from MBA students, a group of future business leaders with presumably no strong business ties to any taxing jurisdiction. These participants are a “blank slate” and have little to no prior interaction or connectedness with a taxing authority from a business perspective. As a result, our connectedness

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11 These MBA students are also those most likely in the future to own and/or run small businesses, which are often a high priority for retention for states.
manipulation should be based solely on the description in the experimental materials and not on prior experience.

Participants

Ninety-four students in a master of business administration program at a university in the Northeast participated in the study for course credit. Demographic information collected from the participants indicated an age range from 22 to 49 and an average of three years business experience. In addition, over half of the participants earned between $30,000 and $120,000. Because this study asks participants to respond to a specific tax scenario, information was also collected related to their experience with income taxation. Over half of the participants reported preparing their own tax return at least once in the past five years, with around 50 percent also reporting experience in tax preparation or planning for others. As a result, there is a level of comfort that a majority of our participants have some exposure to the United States tax system. In addition, these professionals have no incentive to provide socially desirable responses related to their connectedness to the current tax jurisdiction or the likelihood of relocation (Cohen et al. 2001; 1998).

Experimental Design

Participants were asked to assume the role of CEO of a small metal products and components manufacturer with 100 employees and current year sales of $24.1 million. They were provided financial information for their company and told that its headquarters is located in State A. They were also informed that State A taxes all company income even if the income is not earned in that state. Participants were then randomly assigned to one of two connectedness conditions (high or low).

In both connectedness conditions, participants were given details to induce the desired level of connectedness. The study incorporated both attachment and commitment components from social control theory to increase experimental variation. For the high connectedness condition, participants were told that more than 50 percent of the company’s customers are located in State A, along with most of its operations. In the past, the company benefited greatly from various income tax reducing credits and deductions offered by State A and the company is an active participant in the community through sponsorship of local sports teams and the annual community festival. In addition, the customers of the company are loyal, despite significant competition from other companies in the area.

In the low connectedness condition, participants were told that less than 50 percent of the company’s customers and few of its operations are located in State A. In

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12 A total of 110 participants completed the experimental materials. Sixteen of these participants failed the main manipulation check question related to the tax structure of the home tax jurisdiction. These participants were excluded from the remainder of the analysis. Inclusion of these participants in the analysis did not yield qualitatively different conclusions.

13 Only one participant reported not ever filing a U.S. tax return.

14 The case materials and manipulations were pre-tested with several different groups of undergraduate business students prior to gathering data from our final sample of MBA students.
the past, their company has not received any income tax reducing credits or deductions from State A. The company is described as focusing on maintaining relationships with out of state customers and limiting its activities within the community. Finally, the customer base is considered transient, largely due to the significant competition in the area. Participants in both conditions were then given the following information about the latest tax policy developments in State A:

**Effective for the next tax year, State A is raising the corporate income tax rate by 15%**. As the CEO, you have two choices. The first choice is to keep headquarters located in State A and be subject to a higher income tax rate on all income earned by the company. The second choice is to relocate the company headquarters from State A to State B and avoid the 15% increase in income taxes.

The participants were then provided with information about State B with respect to cost and uncertainty of relocating headquarters to that state. As with connectedness, both cost and uncertainty were manipulated as either high and low, for a 2X2X2 between-subjects experimental design. For high (low) cost, participants were presented with the following information:

- There is an overall high (low) cost to move to State B, due to the distance from State A to State B.
- State B has typically been very expensive (inexpensive) state in which to do business. Employees tend to earn substantially more (less) than the national average wages, and property is more (less) expensive.
- After relocating to State B, it will be more (less) difficult to reach your primary customers.

For high (low) uncertainty, participants were presented with the following information:

- State B currently has a budget deficit (surplus).
- State B’s corporate income tax rates have fluctuated (been the same) for 15 years.
- Few (Many) of your current customers are located in State B, and it has a low (high) number of potential new customers.
- State B has a low (high) unemployment rate, suggesting it will be difficult (easy) to hire new employees.

After reading the case, participants were asked to respond as the CEO and assess the likelihood they would consider relocating the company’s headquarters to State B. This assessment of likelihood is the main variable of interest and measured responses using a 7-point Likert scale, ranging from *very unlikely* (1) to *very likely* (7). As a result, lower values of the dependent measure represent a lower likelihood of relocation.

Participants were then asked to answer three questions to ensure that the instrument successfully manipulated cost, uncertainty and connectedness. First, participants were asked how expensive it would be to relocate headquarters to State B. Using a 7-point Likert scale ranging from *very inexpensive* (1) to *very expensive* (7), participants rated the low cost State B significantly lower than the high cost alternative (3.96 versus 5.20, p < 0.001). Participants were then asked about the uncertainty surrounding future opportunities for the company if they chose to relocate headquarters to State B. Once again, registering responses on a 7-point Likert scale ranging from *very certain* (1) to *very uncertain* (7), participants rated the low uncertainty scenario as
significantly more certain (3.66 versus 4.74, p = 0.001). Finally, participants in the high connectedness condition believed the company to be more connected to State A (2.07) than the participants in the low connectedness condition (4.94, p < 0.001). Overall, our manipulations were effective.

RESULTS

The results of our full factorial ANOVA model which examined the likelihood of relocation from State A to State B in relation to the independent variables - connectedness to current tax jurisdiction, cost of the alternative tax jurisdiction, and uncertainty of the alternative tax jurisdiction – are presented in Table 1. Both our cost (p = 0.025) and uncertainty variables (p < 0.001) are significant at conventional levels, confirming that taxpayers will likely consider relocating to a low cost/low uncertainty jurisdiction when it is available. However, connectedness is also a significant factor in the evaluation of relocating from one tax jurisdiction to another (p = 0.061). In other words, individuals in the high connectedness condition rated an average likelihood of 3.74 to relocate to State B, which is significantly less likely than those in the low connectedness condition – average likelihood of 4.31. See Table 1 (Appendix).

Our hypothesis predicts that even under conditions where there is a strong economic incentive for relocation (low cost and/or low uncertainty); high levels of connectedness will moderate the likelihood of relocating to a different tax jurisdiction. A marginally significant interaction exists between cost and connectedness (p = 0.096). The nature of this interaction is illustrated in Figure 1, and Table 2 provides mean response values for likelihood of change. Under the low connectedness condition and when presented with a low cost alternative, participants believed the CEO was more likely to consider relocating company headquarters to State B. However, this effect was moderated in the high connectedness condition, with no significant difference in likelihood of relocation when presented with a low cost alternative. See Table 2 and Figure 1 (Appendix).

An examination of the three way interaction demonstrates more moderation in relocation behavior due to connectedness with the current tax jurisdiction (p = 0.022). Figure 2 illustrates this three way interaction. For scenarios where cost and uncertainty of the alternative are manipulated as either low or high, connectedness has little affect on likelihood of relocation to State B (Low Cost/Low Uncertainty – Low Connectedness: 5.43 versus High Connectedness: 5.27, p > 0.10; High Cost/High Uncertainty – Low Connectedness: 2.67 versus High Connectedness: 3.08, p > 0.10). See Figure 2 (Appendix).

However, the study finds strong support for our hypothesis in the scenario where cost of relocating to State B is low and uncertainty is high. In this case, connectedness has a significant effect on likelihood of relocation to State B (Low Connectedness: 4.38 versus High Connectedness: 2.40, p < 0.05). When presented with a lower cost alternative in State B, participants that are highly connected with State A are significantly less likely to relocate to State B than those who are not highly connected with State A.
DICUSSION AND CONCLUSION

Tax policymakers at all levels are challenged to formulate successful tax policy, a challenge that is most difficult at the state and local level, where balanced budget requirements, demands by citizens for goods and services and demands by taxpayers for low tax rates and economic incentives must all be reconciled. The defeat of Initiative 1098 in Washington State is a perfect example of the continuing struggle for long-term sustainable state and local tax policy. The goal of this study is the identification of an additional factor to aid in the formulation of successful state and local tax policy.

Our research examined the strength of connectedness in the context of tax policymaking. This study used an experimental methodology to measure the effect of taxpayer connectedness to a tax jurisdiction on decision making. MBA students evaluated a scenario where a company is faced with a tax increase from its current tax jurisdiction. The study finds that the economic variables reliably predict relocation to another jurisdiction when it is the optimal decision. More importantly, strong connectedness to a tax jurisdiction moderates the likelihood of relocating to a different tax jurisdiction, despite its offering of either lower cost or lower uncertainty. Consistent with social control theory, it appears that individuals may incorporate the social norms held by society members when formulating their decisions. In this case, the pro-group behavior is to remain in the state versus relocating to another state.

These findings have implications for state and local tax policy makers. As mentioned before, state legislators juggle the opposing objectives of retaining taxpayers while ensuring balanced budgets from one year to the next. In the past, low tax rates and economic incentives were viewed as the best option for taxpayer retention, which is at odds with a balanced budget. And unfortunately for states, in a global and increasingly electronic business environment, companies are no longer required to be domiciled in any certain jurisdiction to achieve their organizational goals. This suggests that the more transient and unconnected companies become, the more likely it is they will relocate to jurisdictions where economic incentives are available. Therefore, it is vital for state and local policymakers to find more sustainable methods of taxpayer retention.

Our finding that connectedness is a key to tax retention was illustrated in the interviews with both the opponents and supporters of Initiative 1098 during the 60 Minutes broadcast. As discussed before, both opponents exhibited low levels of connectedness to their tax jurisdiction, Washington State. Neither thought of Washington as their home base or as a place that was significant in the history of their business operations. On the other side of the debate, long-time Washington residents Bill Gates, Sr. and Bill Gates, Jr. campaigned heavily for the tax, exhibiting a high level of connectedness and little concern for the high personal cost to them. Taken together with our findings, it appears that shifting policymaking strategy away from offering only economic incentives and toward motivating companies and organizations to become more involved and identify with the tax jurisdiction could improve the likelihood of retaining taxpayers when there is a need to raise taxes and reduce economic incentives in order to balance the budget.

To develop a higher level of connectedness to the city or state, policymakers should communicate the implications of tax payments to the state. Listing out the significant initiatives enacted in the current period and the impact on each individual

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business owner could improve the feeling of attachment to the jurisdiction. Thank you letters to business taxpayers, including the economic impact that each business provides to the group can increase the level of commitment, especially if those impact have a reciprocating effect back to the business. Economic development funds should not solely be used to market the city or state to new businesses, but to make sure the existing businesses realize their decision to locate there years before was and still is a very good decision. Making the business owner an integral part of society increases the likelihood of staying and potentially expanding.

This research has some limitations with respect to the task environment and the subject pool. In our study, MBA students are asked to take the role of a CEO making a significant organizational decision. The average work experience of our MBA students was less than 3 years, making it unlikely they have made this type of decision in the past. However, they were susceptible to the economic variables (cost and uncertainty) similar to our expectations of a CEO or CFO making this type of decision. There is no evidence to suggest that executives at a moderately sized business described here would be unaffected by the level of interconnectedness with their current state.

REFERENCES


APPENDIX

FIGURE 1
Likelihood of Change - Interaction between Connectedness and Cost

FIGURE 2
Likelihood of Change - Interaction between Connectedness, Cost and Uncertainty
### TABLE 1
Results of ANOVA on Likelihood of Change

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<thead>
<tr>
<th>Source of Variation</th>
<th>Df</th>
<th>MS</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connectedness</td>
<td>1</td>
<td>7.073</td>
<td>3.616</td>
<td>0.061</td>
</tr>
<tr>
<td>Cost</td>
<td>1</td>
<td>10.246</td>
<td>5.238</td>
<td>0.025</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>1</td>
<td>70.577</td>
<td>36.076</td>
<td>0.000</td>
</tr>
<tr>
<td>Connectedness*Cost</td>
<td>1</td>
<td>5.540</td>
<td>2.832</td>
<td>0.096</td>
</tr>
<tr>
<td>Connectedness*Uncertainty</td>
<td>1</td>
<td>0.993</td>
<td>0.507</td>
<td>0.478</td>
</tr>
<tr>
<td>Cost*Uncertainty</td>
<td>1</td>
<td>0.634</td>
<td>0.324</td>
<td>0.571</td>
</tr>
<tr>
<td>Connectedness<em>Cost</em>Uncertainty</td>
<td>1</td>
<td>10.610</td>
<td>5.423</td>
<td>0.022</td>
</tr>
<tr>
<td>Error</td>
<td>86</td>
<td>1.956</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Likelihood of change = Participants responded to the likelihood of change using a 7-point Likert scale ranging from very unlikely (1) to very likely (7)

**Connectedness** = Manipulated as either low or high, see examples in experimental design section

**Cost** = Manipulated as either low or high, see examples in experimental design section

**Uncertainty** = Manipulated as either low or high, see examples in experimental design section

### TABLE 2
Mean (Standard Deviation) Response Values for Likelihood of Change

<table>
<thead>
<tr>
<th>Low Connectedness</th>
<th>High Connectedness</th>
<th>Low Connectedness</th>
<th>High Connectedness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Cost</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Low Uncertainty</td>
<td>5.43 (1.27)</td>
<td>4.77 (1.30)</td>
<td>5.00 (1.30)</td>
</tr>
<tr>
<td>High Uncertainty</td>
<td>4.38 (1.31)</td>
<td>2.67 (1.72)</td>
<td>3.64 (1.70)</td>
</tr>
<tr>
<td></td>
<td>4.70 (1.36)</td>
<td>3.76 (1.83)</td>
<td>4.21 (1.68)</td>
</tr>
</tbody>
</table>

Likelihood of change = Participants responded to the likelihood of change using a 7-point Likert scale ranging from very unlikely (1) to very likely (7)

**Connectedness** = Manipulated as either low or high, see examples in experimental design section

**Cost** = Manipulated as either low or high, see examples in experimental design section

**Uncertainty** = Manipulated as either low or high, see examples in experimental design section