Home Rule and Environmentalism: The Adoption of Green Initiatives in U.S. Municipalities

Luke Eastin

ljeastin@eiu.edu

Eastern Illinois University

**Introduction**

In recent years there has been a movement in academia from studying environmental policy on the national level to a much narrower examination of local municipalities and their respective green initiatives. The implications of this research reach well beyond the borders of academics and hit squarely municipalities and their corresponding local policy makers. We, as political scientists, must ask what particular characteristics of municipalities play the most significant role in green initiative adoption. Recent urban scholarship has suggested several variables that influence the adoption of environmental policies, but one specific variable, municipality home rule status, has had little to no scholarly consideration.

 I posit that home rule municipalities are more likely to embrace green initiatives than their non-home rule counterparts. Through the design and analysis of my own original dataset, this research will contribute to urban scholarship through the exploration of a relatively new variable in comparison to more commonly used variables in environmental policy analysis at the local level. This study adds an innovative assessment of green initiative adoption from a perspective that is neither widely held nor examined within urban studies. In more practical terms, this research can be used as a guide for local governments to further decipher the remaining mystery that surrounds green initiative adoption. I hope to also reasonably outline the scenarios in which green initiative adoption is feasible as well as effective, and under what conditions it may be difficult to achieve. An overall evaluation of the opportunities for green policy will certainly aid local governments in understanding what green initiatives are, when and where adoption should occur, and the circumstances that make green policy implementation an effective way to positively affect both the local and national environment.

 The essential underpinnings of environmental policy adoption have already been laid out by previous scholars. However, this fundamentally unique research presents a tangible contribution to urban politics, and the broader field of political science, by creating an opportunity for further research focusing on how home rule status impacts green policy initiatives. This research should also develop a renewed interest in green initiatives on the municipal level for scholars and local policy makers alike, as well as promote a comprehensive description of how and when the implementation of green initiatives will be successful.

**Home Rule and Independent Variable Selection**

 As noted previously, there is expansive research addressing environmental policy and sustainability on the local municipal level. The variance among urban scholars regarding green policy adoption pertains most closely to the predicting variable selection. Prior to discussing the variable differences however, a brief introduction to the concept of home rule needs to be provided for contextual purposes.

 Home rule specifications vary depending on the state, but each of the states examined in this study fits a basic definition. The definition of home rule at a rudimentary level is local government autonomy bestowed upon local governments based on particular conditions that vary from state to state. Richardson’s (2011) definition fits this mold as he describes home rule as “actual grants of authority given to local governments...found in local and state statutes, both initiated by the state legislature.” As a general rule home rule municipalities have more policy making independence from the state government than do non-home rule municipalities, who must follow a more stringent set of state constitutional guidelines.

 Home rule is believed to be a critical variable to consider when examining local level policy making by numerous scholars (Bluestein 2006, Krane et al. 2001, Richardson et al. 2003). Whether home rule status correlates with increased local policy autonomy or not has been a strongly debated topic throughout urban scholarship and this research expects to contribute more evidence regarding home rule and local government autonomy.

Variable choice among urban scholars represents the widest discrepancy in current green initiative research. One of the variables considered by urban scholars is the wealth and resources of a municipality that in turn can be applied toward green initiatives. According to many scholars, higher levels of environmentalism within municipalities correlate significantly with the wealth and overall resource availability of a municipality (Kahn 2006, Lubell et al. 2009, Press and Balch 2002). Through Lubell, Feiock and Handy’s (2009) creation and examination of their sustainability index, they discovered that although a municipality’s wealth and available resources are key contributors to eco-friendly policy, multiple variables have a significant impact including population, socioeconomic status, among others.

 A second predicting variable that has been studied extensively is the style of government through which the city is structured. Lubell, Feiock, and Edgar Ramirez de la Cruz (2009) proposed that land use regulations vary depending on the power structure of mayors, city managers, and local interests. On a similar note, Jepson (2004) found that community planners and developers have a substantial impact on local level environmentalism. Each of the above authors found that the local governmental structure plays a critical role in environmental regulation and policy, albeit through different facets of sustainability and governance.

 Multilevel governance has also been found to have a significant impact on environmental initiatives on the local level according to some scholars (Betsill and Rabe 2009, Rabe 2008, Betsill and Bulkeley 2006). Betsill and Bulkeley (2006) performed an analysis of the multilevel governance body entitled Cities for Climate Protection (CCP). The authors used evidence from this case study to explain the variance among local environmental initiatives, and argued that their research shows that multilevel governance explains local environmental policy adoption better than any other variable or model. The authors argued that dividing up the levels of governance prior to research both limits, and predisposes the potential outcomes. For this reason the authors believe an examination of both local and state governance should be considered in order to achieve an accurate and complete understanding of environmental policy adoption.

Increased civic participation has also been shown to have a positive relationship with environmentally sustainable policies on the municipal level (Krause 2012, Portney and Berry 2010, Portney 2005). Portney and Berry (2010) specifically found that those cities that take sustainability more seriously have a positive correlation between high levels of participation and pursuit of environmentally sustainable policies. However, the authors did acknowledge that civic participation alone does not explain the wide variance in local environmental policy adoption. This suggests that urban scholarship must continue to study and search for original variables that are relative to environmental, sustainable, or green policy adoption.

A municipality’s mean education attainment has also been shown to correlatewith the adoption of green policy initiatives (O’Connell 2008, Portney 2008). O’Connell (2008) used OLS regression of survey data to show that a city’s smart growth policy is significantly linked to their corresponding percentage of college level graduates. This finding may indicate that the knowledge attained from higher education directly influences feelings towards environmental policy adoption. So, as O’Connell suggests, “cites with more college graduates may contain more people who support smart growth” (2008).

One variable in particular has obviously been overlooked within recent scholarly literature as it pertains to green policy. Home rule is disregarded almost wholly from scholarly discussion, which in turn prompted me to further examine the influence that it may have on green initiative adoption. The municipality’s status of home rule or non-home rule, as Richardson (2011) suggests, does have at least a minor effect on local government autonomy, and therefore would also affect the possibilities of and opportunities for green policy adoption and implementation. Not only does this research analyze a relatively ignored variable, but it also examines this variable through original data analysis to help provide an additional lens to view municipality green policy adoption through. An original dataset was created and evaluated for this research study, with the specific purpose of defining green policy initiatives in a unique way.

**Methodology and Data**

 I address my hypothesis that home rule municipalities will have higher levels of environmentalism through both quantitative and qualitative analysis. Initially my supposition is tested using binary logistic regression to explain the probability of this premise being due to random error. These quantitative methods will provide conclusions that are empirical and generalizable in nature, providing the most complete and efficient findings possible, which can in turn be functional for both academic scholarship enhancement and local government policy analysis. Quantitative analysis can misrepresent data by not accounting for contextual information that other methodologies could, and because of this a brief qualitative section including case studies of two chosen municipalities from the developed dataset will provide that missing contextual link to the logistic regression analysis.

 The quantitative methodology is only as strong as the data selection however, and since there is no prevailing uniform dataset for this particular research, I developed an original dataset based on the evaluation of city and state governmental websites. The accuracy of this dataset is reliant upon municipality self-reporting which many scholars may deem unpredictable, but even so, this dataset is not meant to be a perfect creation. I attempt only to provide a new perspective to be applied toward the adoption of green initiatives not yet represented in urban scholarship.

 The dataset itself examines 50 municipalities deriving from five states, California, Michigan, Illinois, Texas, and Pennsylvania. These municipalities and their corresponding central characteristics can be found on Table 1. The states were chosen to represent each region of the United States, North, South, East, West, and Midwest with the specific purpose of eliminating regional predispositions toward green policy adoption. As mentioned previously, home rule is defined similarly among each of the five states. One specific commonality is that in each state home rule status can be enacted through voter referendum, offering a generally equal platform for this research.

On another note, each municipality was chosen at random, with the only control, other than region, being the intentional collection of both 25 home rule and 25 non-home rule municipalities in order to provide an equal stage upon which to conduct analysis. The variables indicated and developed include: educational attainment defined as the percent of the population with a bachelor’s degree or higher, population, mean income (all three derived from 2010 Census Bureau data), form of government defined as the most closely linked government structure to the following; (1) mayor/council and (2) council/manager, home rule status, and overall environmentalism.

Overall environmentalism was determined through the combination of three separate variables that originate from the Smarter Cities Project conducted by the Natural Resources Defense Council. The variables include (1) whether or not the municipality offers a recycling program, (2) the amount of green space in acres, and (3) whether or not green building techniques are commonly used within the municipality. Green space was demarcated as park and recreation total acreage, and green building techniques were defined using the standards provided by the Leadership in Energy and Environmental Design (LEED). The combination of these three variables ultimately equated a score from zero to five, with five being the highest amount of environmentalism and zero being the lowest. For the purposes of this study’s implementation of logistic regression, the environmentalism scale of zero to five was reduced into two categories. Those municipalities that scored three or below on the original environmentalism score were coded as one for low environmentalism, and those scoring four and five were coded as two for high environmentalism. This was done not only to create a two category dependent variable for accurate logistic regression, but also because the variable recycling was nearly unanimously adopted by all municipalities, and therefore it was unfeasible to include this variable in the final environmentalism assessment as exceptionally significant.

This dataset provides a new combination of determinants of environmentalism within a municipality, but of course these determinants can be criticized because there are many other indicators of an eco-friendly city. Including every variable would create a dataset too complex, possibly resulting in a loss of parsimony that keeps the findings easy to comprehend for practical purposes. This original dataset also provides an N of 50, providing an excellent foundation for generalizable findings, and eliminating partially the bias of a single case study. Most urban scholarship studies highly populated and prestigious cities, but this dataset, on the contrary, includes municipalities of all populations and sizes further extending the scope of urban studies to smaller normally ignored towns and villages. In sum, my methodology and data should lead to generalizable findings that will further urban scholarship while simultaneously providing practical information necessary for local level policy makers.

**Logit Analysis**

The findings are represented through logistic regression tables displaying the outcome of the hypothesis, as well as the other conditional variables selected from the dataset. The regression equation used multiple independent variables (predictors) evaluating each variables’ statistical significance relative to the dependent variable (overall environmentalism). The Pseudo R Square value, as the endnote under table 2 shows, represents the amount of variance explained by the regression equation, and is equal to .592. Therefore, 59% of the variance in municipality adoption of green initiatives is explained through this regression equation, while leaving open a window for other variables to have significance such as, multilevel governance, community social capital, civic participation, among others. This gap however, is not a wide one, and ultimately this regression equation explains a greater part of the variance. On another note, table 2 also displays the model Chi-Square, measured at 28.992, with a significance of .000. This high Chi-Square value and corresponding significance level allows the rejection of the null hypothesis, and demonstrates that this regression model fits the observed data quite well. The proportional reduction of error (PRE) for this logistic regression equation calculates as .52 translated as a 52% reduction in error when predicting the dependent variable based on the inclusion of the independent variables used in this logistic regression equation. These three critical statistical measures indicate the high level of accuracy and worth of this regression equation in explaining the variance associated with green initiative adoption on the municipal level.

Table 2 also represents each of the independent variables that were included in the logistic regression equation and signifies their correlative significance in relationship to each municipality overall environmentalism. The statistical significance of each predictor shows the impacts that they have on the overall environmentalism dependent variable. Through this regression analysis we can see that three of the five predicting variables do not play significant role in explaining any of the variance. The mean income, education attainment, and form of government variables do not appear to have a significant impact on green initiative adoption with each the corresponding significance levels rising well above the needed .05 significance level. These findings do indeed have implications for both academic scholars and local level policy makers, in that these variables may not need to be valued heavily when considering green initiative adoption. Two of the independent variables, home rule status and population, are both statistically significant with a 95% certainty that their significance is not due to random error.

In sum, the logistic regression analysis supports the original hypothesis. The significance of the home rule status predictor is equal to .029, confirming that municipalities that have enacted home rule are more likely to adopt green initiatives. Even though home rule status does explain a portion of the variance, the population variable appears to play an even larger role. The statistical significance found for the predictor population equates to .001, which is substantially larger than the home rule predictor. Green initiative adoption has a positive correlation with the population predictor meaning that higher populated municipalities are shown to be more likely to adopt green initiatives. So, although my hypothesis was shown to be accurate, municipality population, according to this regression analysis, seems to have a stronger connection to green policy initiative adoption on the local level.

Slightly different outcomes occurred when the overall environmentalism variable was separated out into its three original variable forms, recycling, green space, and green building. Each of these variables is represented through three separate logistic regression equations detailed below on Tables 3, 4, and 5. During this analysis we find that none of the tested independent variables are significant relative to the adoption of a recycling program by municipalities. Nearly all of the municipalities in the study, barring only three, have adopted a recycling program and therefore this result further supports an earlier claim that the recycling variable is relatively useless in explaining green initiative adoption overall.

In the case of green space, both municipality population and home rule status are positively correlated significant predictors. Similar to the original logistic regression equation, population is found to be more significant than home rule status demonstrating the need for the inclusion of municipality population in further green initiative research. More specifically, population may demand more attention by all policy analysts and urban scholars alike to ensure that they are not neglecting a significant predictor of policy adoption.Another variable, form of government, was found to be a partially significant variable relative to green space with its significance level reaching .056, just nearly missing the .05 significance level. Continued research, and the addition of more cases may prove that the form of government variable is significant relative to the establishment of green space.

The more fascinating and thought-provoking discovery, as it pertains to this research, is found through the analysis of the green building technique variable. Home rule status, as expected, plays a significant role in explaining green building techniques, but interestingly, home rule status plays a larger role than municipality population in this regression equation. Rather than population explaining the most variance, as shown in the original logit equation, it is home rule status that explains the greatest variance of green building adoption. Home rule status has a positive relationship with this environmental variable meaning that home rule municipalities are more to likely to adopt green building techniques than non-home rule municipalities. This insight is especially fascinating in that no other independent variable was as significant as home rule status in predicting green building adoption, making this logistic regression equation critical to the home rule variable’s possible future inclusion as an important policy predictor.

**Case Study Analysis**

The following case studies represent two of the municipalities included in the dataset, both measured as highly environmental, but with the one distinct difference being home rule status. Examining these two municipalities more closely should support the previously discovered quantitative results by specifically studying the environmental paths of these two different cities, and searching for both their commonalities and discords regarding green initiative adoption.

*Allen, Texas*

Allen is located in Collin County, Texas on the Northeastern side of the state about 25 miles North of Dallas. The city’s population reached 84,246 in 2010 according to Census Bureau data (2012), and currently the city covers about 27 square miles with a relatively humid climate due in part to the lack of a large water source within the city. Allen was built upon the railroad industry which really began to flourish in the late 1800s, and was incorporated as a city officially in 1953 with only four to five hundred in population. It has since grown dramatically due to the construction of a US highway, an international airport, and being so close in proximity to the constantly developing Dallas, Texas (Allen 2012).

Following the city’s declaration as a home rule chartered city in 1979 under the council/manager form of government, there was a population spike that had not been seen at any time prior. From 1980 to 1990 there was about an eleven thousand population increase, in part of course due to the surrounding growth of the nation, but also possibly in part due to the home rule charter adoption (US Census). As the population increased, so did local businesses culminating in the retail and local business center it is today. The dramatic increases in population, local business, and economic growth Allen has today may also be in part due to the 19 straight years of lowered taxes producing quite the incentive for more commercial and private business growth to continue (Allen 2012).

As the city thrived into the 2000s, an enormous growth in environmental initiatives became obvious as the continued development of recreational parks and hiking trails grew to over 800 acres of park land, and 50 miles of hiking trails. The thriving business community has become critical in employing green building technologies, specifically LEED certified projects of many kinds. These green initiatives have been advanced through numerous environmental groups and clubs including the Allen Garden Club, the Keep Allen Beautiful program, along with many water conservation opportunities for the public (Allen 2013). These group opportunities have encouraged further education of and more public support for green initiatives within the city of Allen. Prior to all of these advancements and green initiatives was the adoption of a city wide recycling program collecting numerous recyclable goods, and for the items Allen does not collect, nearby locations for recycling drop off are offered (Allen 2012).

At what exact point was Allen on its way to green initiative adoption is hard to pin point, and proving even more difficult is what particular variable was the key contributor to such an increase in local environmentalism. It may have been the exponentially growing wealth that allowed for environmental projects to begin taking shape, and of course the wealth derived from the increase in business and industry due to considerable population growth. It appears Allen is a city that fits the multiple variable effect seamlessly, with everything from population, wealth and resources, and local industry playing a role in the adoption of green initiatives. However, what can be said is that home rule enactment in 1979 opened the door to a population increase, as well as new, less constrictive ways to conduct local economic business, and in turn growing so rapidly. The adoption of a home rule charter, in the case of Allen, Texas, does seem to have played a role over the long run, although an arguably indirect role, in their high levels of green initiative adoption.

*Geneva, Illinois*

Geneva is located on the western edge of the Chicago suburbs and as of 2010 had a population of 21,495 (US Census). Geneva has been the county seat of Kane County since its inception in the early 1800s, and therefore has had many prominent county leaders including both lawmakers and businessmen, among others, supervising and encouraging its growth. The city began as a predominantly agricultural village producing such goods as butter and cheese specifically. After officially becoming a city in 1887 and adopting the mayor/council form of government, the railroad industry became a key component of local economic growth and business. The city has benefitted in more recent times from US highways connecting the city to Chicago, along with the relative closeness of international airports bringing in tourist traffic, and many types of private and commercial business (Geneva 2001).

Important though is the fact that Geneva has not enacted a home rule charter since its incorporation as a city in the late 1800s. Home rule has been discussed and considered throughout the 2000s in city wide meetings, but nothing tangible has come from those considerations to believe that home rule adoption will occur any time in the near future (Geneva 2012). Even so, Geneva has been growing in terms of environmental initiative enactment, including about 30 city sponsored parks, a recycling program, and the use of green building techniques. Geneva is measured on the low end of high environmentalism being measured as a four instead of five on the original overall environmentalism scale. It may be that critical difference between those cities coded as four and those coded as five is directly related to the enactment of a home rule charter. Home rule status could open up the possibility for further growth in environmental policy and initiative adoption (Geneva 2012).

Similar to Allen, Texas, Geneva’s population grew due to its proximity to a larger commercial city, and the nearby railroad industry critical for the transportation of both agricultural and manufactured goods. However, Geneva’s population is currently only one third the size of Allen, Texas, and since total population has been found to be a significant predictor of green initiative adoption, this population difference cannot be ignored. It may be that geographical luck played a part in the successfulness of the city, as it indirectly caused an increase in population and wealth, but are those the key contributing factors to Geneva’s green initiative adoption? Again, it appears we have a case in which multiple factors played a role in the development and implementation of green initiatives, but Geneva’s smaller population and lack of a home rule charter may have created a metaphorical glass ceiling for green policy adoption. If the recent discussion of a home rule charter in Geneva becomes a reality, time will tell whether this city may benefit environmentally from the additional local autonomy.

**Implications of the Findings**

With the analysis completed, and the findings presented, it is time to examine the practical inferences that can be drawn from this research in regards to both academic scholarship and local government policy makers. As my hypothesis suggested, disregarding the home rule variable, which urban scholars have for the most part done, whether it be intentional or not, is without a doubt a major error. Ignoring the home rule variable is discounting an important piece to the environmentalism puzzle, and without it, the mystery of green policy initiative adoption will never be fully understood. Further research using the home rule variable will change some of the popular environment policy adoption belief systems within urban studies, and simultaneously alter how urban scholars examine policy adoption in general. More extensive research on the relationship between home rule status and green policy adoption will show an undeniable positive relationship between the two. If this is the case, then many previous urban scholars need to take notice as this would contradict many of their findings.

Local government policy makers should also take notice of the results of this research, as it can be of practical use on many levels. If a non-home rule municipality desires to develop green initiatives, then local officials should certainly study the adoption of a home rule charter, especially if there is local public support for environmental policy initiatives. Although every state has different home rule charter regulations,local level policy makers should definitely consider lobbying their local constituents for the change.

The conditional variable analysis has shown that three particular variables do not show any relative significance to green initiative policy adoption on the municipal level. The mean income, education attainment, and form of government variables may not play as significant of a role as some scholars suggest. Scholars such as Lubell, Feiock, Ramirez de la Cruz, and Jepson, may need to re-evaluate the impacts that form and structure of government have on green policy adoption. The same goes for those scholars that suggest municipality wealth and municipality education are significant predictors of green initiative adoption. All of these scholars must further examine the possible impacts of home rule status along with population in order to get a more complete picture of green initiative adoption.

The predictor, population, was found through this analysis to have a strong significant impact on green initiative adoption. These results illustrate that urban scholarship needs to dig deeper into research examining why a larger population equates higher levels of green initiatives or overall environmentalism as this research suggests. It may be that civic participation is more common in larger populated municipalities, or wealth and resources may be more abundant in larger municipalities. No matter which particular variable is the key contributor to green initiative adoption, more expansive research in these specific areas is the only way to further explain and understand this discovery.

 Unfortunately for the local governmental leaders and policy makers of lower population municipalities this finding may be damaging to their opportunity for green initiative development. It is not feasible for a small municipality with a small population to increase their population in order to attain green initiatives. Since exponentially increasing population is not a realistic goal of smaller municipalities, the significance of population relative to green initiative adoption may only be a conditional relationship dependent upon other variables such as civic participation, municipality wealth, or the mean education attainment of its population.

Another inference that can be drawn exclusive from the actual output that the regression analysis produced lies within the original dataset created for the quantitative research. Included in the N portion of the dataset were 50 cities ranging from villages to cities. The contribution that this dataset analysis provides is an evaluation of overwhelmingly disregarded municipalities that are generally thought of in urban studies as insignificant to the overall scheme of urban politics. Examining smaller, less populated municipalities provides a new view of urban politics that prior to this research has, for the most part, been omitted. Continued research on less considered municipalities will create either contributions to current urban scholarship, or original conclusions that apply to the aforementioned smaller municipalities.

 As for the case study analysis, we see that in two cities separated by population, geography, and home rule status, successful green initiative adoption has occurred, but to different degrees. Allen, Texas was more successful at green initiative adoption than Geneva, Illinois even though they share so many common historical landmarks. Each city was built upon the railroad and transportation industry, resulting in a spike in population, wealth, and resources. The key differences include home rule status, total population, and possibly the environmental programs and clubs offered.

It appears that home rule status and total population are both significant predictors of green initiative adoption in both of these cities. Following the enactment of home rule the city of Allen grew tremendously and in turn developed the nationally recognized environmental initiatives they are known for. Allen’s population has increased dramatically since home rule charter adoption accumulating to 84, 246 in 2010, and as the logit analysis has suggested, the larger the population of a municipality the more likely they are to adopt green initiatives. Geneva has not produced nearly as many green initiatives as Allen, and it appears that their lack of a home rule charter and smaller population, are at least in part, predictors of their lower environmentalism level.

On a another note, the city of Allen offers many environmental groups and programs for the public to join, while Geneva on the other hand has not. This finding may have some validity, however, because the logit analysis did not include civic participation as an independent variable, further analysis may show that civic participation may significantly affect the presence of municipality green initiative adoption.

**Conclusion and Discussion**

In sum, through the creation and development of an original dataset, applying logistic regression, and the inclusion of contextual case study analysis, this research has contributed to urban scholarship in numerous ways. Of course, this research has not been completed without flaw, and continued research using the both similar and dissimilar variables, a new definition of environmentalism, a larger N study, and a different case study selection could prove to contribute even further to urban scholarship.

With the addition of variables such as civic participation, the amount of social capital, and possibly the extent of multilevel governance, a clearer and more complete picture of green initiative adoption at the municipal level might be established. As the case study analysis briefly noted, the environmental programs offered for the public in Allen, Texas may have impacted the overall environmentalism of the city as a whole. Therefore, civic participation would be an excellent addition to further research. Social capital and multilevel governance have not been examined thoroughly enough up to this point, so the inclusion of these two variables is also necessary in further policy research. The accumulation of these variables along with the two statistically significant variables in this research, home rule status and municipality population, may provide a greater R Square value and explain a higher percentage of the variance associated with green policy adoption.

Applying a different definition of environmentalism to this research study could also alter the findings and implications. Adding variables such as air quality or energy production as supplementary variables to the environmentalism calculation would provide a more comprehensive definition of environmentalism as it pertains to municipalities. Green building techniques, measures of green space, and recycling programs are only initial estimates of a sustainable or eco-friendly municipality, and supplementary variables, including the two aforementioned, would measure more wholly environmentalism on the local level.

Another third alteration in the research could be changing the N either in number or in case selection. A larger N study may support the findings of this paper, or provide new significance for a variable or variables that have been overlooked or found to not have an impact in this research. The overall random selection of cases, as for the most part this study implemented, does produce and overall unbiased case selection, but controlling the N for some variables, such as population, would provide a slightly different output of findings.

Lastly, choosing different specific municipalities for the qualitative case study section would provide new and useful insights that the current research does not. Examining home rule municipalities that were not successful in their green initiative endeavors would show under what conditions these municipalities were unsuccessful, and whether certain decisions made by local government negatively affected the possibility of green initiative adoption. If particular business or economic decisions were made differently, would there have been a greater opportunity for green policy? The only way to answer these types of questions completely is to continue the case study analysis including more municipality variation.

The concluding results show that although home rule status is a significant predictor of green initiative adoption, municipality population plays a somewhat stronger role in green policy adoption. This research study confirms my hypothesis, while also suggesting that municipality population plays a critical role in understanding municipality green initiative adoption. In sum, this article has provided contributions to urban scholarship through examining an original dataset and a new definition of municipality environmentalism. On a practical level, this research provides a fractional guideline explaining the factors that need to be assessed by local municipal governments when attempting to initiate green policy. Analysis has shown that even those communities without tremendous economic resources can apply green initiatives, especially when the municipality is home rule or chartered. Urban scholarship can learn from and expand upon this research in many abovementioned ways, but more specifically; this research provides an additional element, upon which improved arguments for municipality green policy adoption can be formulated.

**References**

Allen, Texas. 2012. http://www.cityofallen.org/index.aspx?NID=882

Allen, Texas. 2013. http://www.cityofallen.org/index.aspx?NID=1234

Betsill, Michele and Harriet Bulkeley. 2006. “Cities and Multilevel Governance of Global Climate Change.” *Global Governance* 12 (2): 141-159.

Betsill, Michele, and Barry Rabe. 2009. “Climate Change and Multilevel Governance: The Evolving State and Local Roles.” In *Toward sustainable communities: Transition* *and transformations in environmental policy*, 2nd ed., Ed by Daniel Mazmanian and Michael Kraft, 201–225. Cambridge, MA: MIT Press.

Bluestein, Frayda. 2006. “Do North Carolina local governments need home rule?.” *North Carolina Law Review* 84 (6): 1983-2029.

Geneva, Illinois. 2012. http://www.geneva.il.us/bulletinboard/home\_rule.htm

Geneva, Illinois. 2001. “History of Geneva.” http://www.geneva.il.us/history2.htm

Jepson, Edward J. 2004. “The Adoption of Sustainable Development and Techniques in U.S. Cities: How Wide, How Deep, and What Role for Planners?” *Journal of Planning Education and Research* 23: 229.

Kahn, Matthew E. 2006. *Green cities: Urban growth and the environment.* Washington, DC: Brookings Institution.

Krane, Dale, Platon Rigos and Melvin Hill Jr. 2001. *Home Rule in America: A fifty-state handbook*. Washington D.C: Congressional Quarterly Press.

Krause, R. M. 2012. “An Assessment of the Impact that Participation in Local Climate Networks Has on Cities' Implementation of Climate, Energy, and Transportation Policies.” *Review of Policy Research* 29 (5): 585-604.

Lubell, Mark, Richard Feiock, and Susan Handy. 2009. “City Adoption of Environmentally Sustainable Policies in California’s Central Valley.” *Journal of the American Planning Association* 75 (3): 293-308.

Lubell, Mark, Richard Feiock, and Edgar Ramirez de la Cruz. 2009. “Local Institutions and the Politics of Urban Growth.” *American Journal of Political Science* 53 (3): 649-665.

O’Connell, Lenahan. 2008. “Exploring the Roots of Smart Growth Policy Adoption by Cities.” *Social Science Quarterly* 89 (5): 1356-72.

Portney, Kent E. 2005. “Civic Engagement and Sustainable Cities in the United States.” *Public Administration Review* 65 (5): 577–89.

Portney, Kent E. 2008. “Education and Smart Growth Policies in U.S.: A Response to Lenahan O’Connell.” *Social Science Quarterly* 89 (5): 1378-83.

Portney, Kent E. and Jeffrey M. Berry. 2010. “Participation and Pursuit of Sustainability in U.S. Cites.” *Urban Affairs Review* 46: 119.

Press, Daniel, and Alan Balch. 2002. “Community Environmental Policy Capacity and Effective Environmental Protection.” In *New tools for environmental protection*, Ed. by Thomas Dietz and Paul Stern, 183–200. Washington, DC: National Academies Press.

Rabe, Barry. 2008. “Revisiting Regionalism and the Case of Multi-level Climate Governance.” In *Intergovernmental management for the 21st century*, Ed. by Timothy Conlan and Paul Posner, 176-205. Washington, DC: Brookings Institute.

Richardson, Jesse J., Meghan Zimmerman and Robert Puentes. 2003. *Is home rule the answer? Clarifying the impact of Dillion’s Rule on growth management.* Washington, D.C.: Brookings Institute.

Richardson, Jesse J. 2011. “Dillon’s Rule is From Mars, Home Rule is From Venus: Local Government Autonomy and the Rules of Statutory Construction.” *Publius: The Journal of Federalism* 41 (4): 662-685.

U.S. Census Bureau. 2012. “American Fact Finder. http://factfinder2.census.gov/faces/nav/jsf/pages/community\_facts.xhtml

**Appendices**

**Table 1**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Municipality ID** | **Population** | **Mean Income** | **Home Rule** | **Form of Government** |
| **Ada MI** | 13,142 | 83,357 | No | council/manager |
| **Addison IL** | 36,942 | 76,269 | Yes | mayor/council |
| **Allen TX** | 84,246 | 107,006 | Yes | council/manager |
| **Arvin CA** | 19,304 | 38,212 | No | council/manager |
| **Bedford MI** | 31,085 | 74,651 | No | council/manager |
| **Birch Run MI** | 1,555 | 53,761 | No | mayor/council |
| **Carbondale IL** | 25,902 | 62,357 | Yes | council/manager |
| **Carlisle PA** | 18,682 | 79,913 | No | mayor/council |
| **Chambersburg PA** | 20,268 | 49,632 | No | council/manager |
| **Charleston IL** | 21,838 | 74,889 | No | council/manager |
| **Corona CA** | 152,374 | 92,698 | No | council/manager |
| **Crandall TX** | 2,858 | 81,903 | No | council/manager |
| **Crowley TX** | 12,838 | 72,658 | No | mayor/council |
| **Dubois PA** | 7,794 | 43,945 | No | mayor/council |
| **Easton PA** | 26,800 | 53,310 | Yes | mayor/council |
| **Elk Grove CA** | 153,015 | 96,972 | No | council/manager |
| **Exeter CA** | 10,334 | 57,763 | Yes | council/manager |
| **Galveston TX** | 47,734 | 67,510 | Yes | council/manager |
| **Geneva IL** | 21,495 | 118,672 | No | mayor/council |
| **Greensburg PA** | 14,892 | 68,727 | No | mayor/council |
| **Greenville IL** | 7,000 | 54,551 | No | mayor/council |
| **Groveland MI** | 5,476 | 72,188 | No | council/manager |
| **Hamburg MI** | 21,165 | 97,203 | No | mayor/council |
| **Hanover PA** | 1,571 | 54,490 | Yes | mayor/council |
| **Hutto TX** | 14,698 | 71,814 | No | council/manager |

**Table 1 Continued**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Municipality ID** | **Population** | **Mean Income** | **Home Rule** | **Form of Government** |
| **Johnstown PA** | 20,798 | 32,931 | Yes | mayor/council |
| **Kalamazoo MI** | 74,262 | 45,107 | Yes | council/manager |
| **Kentwood MI** | 48,707 | 58,148 | Yes | council/manager |
| **La Quinta CA** | 37,467 | 112,188 | Yes | council/manager |
| **Lansing MI** | 114,297 | 45,671 | Yes | mayor/council |
| **Lebanon PA** | 25,477 | 42,408 | Yes | council/manager |
| **Lincoln CA** | 42,819 | 83,159 | No | council/manager |
| **Marina CA** | 19,718 | 64,711 | Yes | council/manager |
| **Marquette MI** | 21,355 | 53,479 | Yes | council/manager |
| **Midland MI** | 41,863 | 72,886 | Yes | council/manager |
| **New Castle PA** | 23,273 | 39,791 | No | mayor/council |
| **Palo Alto CA** | 64,403 | 170,096 | Yes | council/manager |
| **Pecos TX** | 8,780 | 47,504 | Yes | council/manager |
| **Peoria IL** | 115,007 | 84,400 | Yes | council/manager |
| **Plymouth PA** | 16,525 | 87,918 | Yes | council/manager |
| **Rantoul IL** | 12,941 | 49,930 | Yes | mayor/council |
| **Richmond CA** | 103,701 | 77,584 | Yes | Council/manager |
| **Rio Grande City TX** | 13,834 | 43,085 | No | council/manager |
| **Rockford IL** | 152,871 | 59,827 | No | mayor/council |
| **Springfield IL** | 116,250 | 64,345 | Yes | mayor/council |
| **Stanton TX** | 2,492 | 49,469 | No | mayor/council |
| **Tulare CA** | 59,278 | 57,155 | No | council/manager |
| **Vandalia IL** | 7,042 | 48,117 | No | mayor/council |
| **Victoria TX** | 62,592 | 67,893 | Yes | council/manager |
| **White Settlement TX** | 16,116 | 51,611 | Yes | council/manager |

**Table 2**

|  |
| --- |
|  **Logit Analysis of Determinants of Overall Municipality Environmentalism** |
| Independent Variables |  B Term S.E. |  Sig |  |
|  | Population\* | 2.335 | .721 | .001 |
| Home Rule Status\*\* | 1.845 | .848 | .029 |
| Form of Government | 1.043 | .917 | .255 |
| Education Attainment | .286 | .728 | .695 |
| Mean Income | -.626 | .828 | .450 |
|  |  |  |  |

Note: The dependent variable is coded “1” for low environmentalism and “2” for high environmentalism. \*p ≤ .01; \*\*p ≤ .05

X²= .000

Pseudo R²= .59

PRE= .52

**Table 3**

|  |
| --- |
| **Logit Analysis of Determinants of Municipality Recycling** |
|  Independent Variables | B Term |  S.E. | Sig. |
|  | Population |  18.450 |  4965.468 | .997 |
| Home Rule Status | -.883 |  1.786 | .621 |
| Form of Government | 1.826 |  2.004 | .830 |
| Education Attainment |  18.120 |  4607.097 | .997 |
| Mean Income |  .991 |  1.410 | .482 |
|  |  |  |  |

Note: The dependent variable is coded “0” for no recycling program and “1” if the

municipality has a recycling program. No significant independent variables.

X²= .068

Pseudo R²= .51

PRE= 0

**Table 4**

|  |
| --- |
| **Logit Analysis of Determinants of Municipality Green Space** |
|  Independent Variables |  B Term |  S.E. |  Sig. |
|  | Population\* |  4.578 | 1.853 | .014 |
| Home Rule Status\* |  3.567 | 1.630 | .029 |
| Form of Government |  3.626 |  1.897 | .056 |
| Education Attainment |  1.728 |  1.346 | .199 |
| Mean Income |  -2.687 | 1.579 | .089 |
|  |  |  |  |

Note: The dependent variable is coded “1” for green space acreage of 1-999 and “2”

for green space acreage 1000 and above. \*p ≤ .05

X²=.000

Pseudo R²=.80

PRE=.60

**Table 5**

|  |
| --- |
| **Logit Analysis of Determinants of Green Building Techniques** |
|  Independent Variables |  B Term |  S.E. |  Sig. |
|  | Population\* | .878 |  .650 |  .025 |
| Home Rule Status\* | 2.136 |  .840 |  .011 |
| Form of Government | .266 |  .820 |  .727 |
| Education Attainment | -.457 | .645 |  .131 |
| Mean Income | .873 | .745 |  .241 |
|  |  |  |  |

Note: The dependent variable is coded “0” for no green building techniques and “1”

for green building techniques being utilized. \*p ≤ .05

X²=.001

Pseudo R²=.49

PRE=.41