Reexamining Tiebout Model: Exploring the Micro Behavioral Assumptions of the Tiebout Hypothesis

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ABSTRACT

For nearly 60 years, the theoretical implications of the Tiebout hypothesis of 1956 have driven the field's understanding of public goods markets. For all of its predictive strengths, the Tiebout hypothesis in 1956 is built on suspect micro behavioral assumptions. This paper uses citizen mobility, citizen service evaluation, and willingness-to-pay empirical studies to reinforce and inform the Tiebout hypothesis in 1956 from a micro behavioral perspective. A series of hypotheses regarding the public goods market are generated and directions for future study are recommended.

Keywords: Tiebout; Behavioral assumptions; Macroeconomic; Macro theory

INTRODUCTION

Macroeconomic theories are built on assumptions regarding the behavior of individuals. What happens when the micro behavioral assumptions of a macroeconomic theory do not reflect reality?. Is the macroeconomic theory no longer valid, even when considerable evidence has corroborated the macroeconomic theory? There are many ways to handle a discontinuity between the micro behavioral assumptions of a macroeconomic theory and actual micro behaviors found in reality. One common practice is to dismiss micro behavioral critiques as long as the macro theory adequately predicts macroeconomic behavior [1]. While this perspective has precedence (e.g. Milton Friedman), science, as a whole, is better when macro and micro theories are reconciled.

This paper will explore the micro assumptions of a prominent macro theory-the Tiebout [2] hypothesis. But, rather than looking for evidence to support or dispute Tiebout's [2] micro behavioral assumptions, this paper will use the micro behavioral findings to inform the workings of the macro theory. Specifically, how does the empirical literature regarding individual behavior in a public goods market place explain the actual workings of the public goods market?

After a brief introduction to Tiebout's [2] hypothesis, the information and mobility assumptions of the Tiebout [2] hypothesis are investigated. Then, the willingness-to-pay (WTP) literature is used to shape the micro foundations of a public goods marketplace through a better understanding of the public good preferences of citizens.

LITERATURE REVIEW

Tiebout's Hypothesis

In 1954, Samuelson articulated the central problem preventing a socially optimal provision of public goods. Samuelson [3] argues that the indivisibility of pure public goods prohibits governments from providing varying quantities to accurately meet consumer demand. Indivisibility of a pure public good is the result of a good's non-excludablity (i.e., it is difficult to prevent individuals from consuming the good or service) and non-rivalrousness (i.e., one person's consumption of the good or service).

These characteristics of pure public goods prevent accurate preference revelation because citizens are incentivized to hide their true preferences and attempt to freeride on other taxpayers in order to enjoy the benefits of a public good without paying the costs (Olson). Thus, public good markets are "doomed" to be inefficient because no mechanism for accurate preference revelation exists in a public good market.

In response to Tiebout [2], Samuelson [3] argued that, as long as citizens can move freely between local municipalities and have accurate information, citizens will move to a municipality that best approximates their desired mix of public services offered and taxes paid-otherwise referred to as a service-tax package. The idea is simple: no price mechanism is needed to achieve an efficient local public good market because citizens reveal their preferences by "voting with their feet." if a citizen is dissatisfied with the level or type of services being offered, they can simply

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relocate to a different municipality-a municipality that offers a service-tax package that parallels that citizen's unique preferences. When citizens have many choices of tax-service packages to choose, and local governments provide various tax-service packages a local public good market forms. The Tiebout [2] hypothesis allows for an efficient public goods market.

Exit and Entry

Tiebout's [2] hypothesis is founded on some basic assumptions. First, Tiebout's [2] hypothesis is predicated on citizens being able to freely enter and exit different municipalities. In other words, moving should be a frictionless activity-a costless activity. However, entry and exit are not costless endeavors because they are transaction costs and thus, by definition, not costless. Specifically, moving involves considerable time costs associated with the physical process (i.e., packing, transporting, etc.) and the decisionmaking process (i.e., where does one relocate to, when to relocate, how to do it, etc.), in addition to direct monetary costs (i.e., the hiring of a moving truck, movers, a new place to live, storage), and social capital costs [4]. The lesson is simple-exit is costly [1,5-8].

However, by comparison, entry is relatively costless [1,6,7]. Most of the costs associated with moving are considered barriers to exit, but, once the decision to exit is made, entry into a community is essentially free. Entry is the natural and necessary consequence of exiting a different community. Subsequently, entry is more likely to accurately reveal citizen preferences than exit because it is a relatively costless once the decision to exit has been made [1].

Another essential micro behavioral assumption is that individuals "vote with their feet." Put another way, individuals leave a community when they are dissatisfied with its service-tax package and then enter a community that matches their service-tax package preferences. A common theoretical presumption is that exit is unlikely to be a means of service-tax package preference revelation due to the high costs associated with actually exiting a community; however, the empirical evidence is mixed on the subject.

Some argue that exit is rarely motivated by Tiebout [2] rational behavior [5-7]. There are various constraints like the cost of moving, employment, and social capital that must be weighed against the benefits of leaving a municipality with an unfavorable service-tax package, which make exit motivated by service-tax package dissatisfaction unlikely [5,6]. Motivations rooted in socioeconomic and social capital theory are more likely to a affect a citizen's intentions to move; motivations like dwelling characteristics, changes in employment, purchasing a first home [9], and length of time that a citizen has resided in a given community [4].

Dissatisfaction with a municipality's service-tax package does not always result in a citizen exiting. Using survey data from 5 Kentucky cities, Lowery & Lyons [6] find that citizens are more likely to respond to dissatisfaction with municipal services and taxes by using voice and contracting mechanisms than by showing intentions to exit. If alternatives to exit exist-like contracting out and voice-then a Tiebout [2] equilibrium will be difficult to reach because the main preference revelation mechanism can be circumvented. Considering the high costs and alternative explanations for a citizen's exit from a community, it is likely that *if* citizens leave a community because they are dissatisfied with their service-tax package, then they do so only when they are extremely dissatisfied.

However, there is empirical evidence that supports exiting behavior

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similar to that described by Tiebout [2]. A citizen's intentions to move are explained better by satisfaction with community provided services than by competing explanations [4]. Using survey data from 1604 residents in four different MSA's, Bickers et al., [4] find that a positive change in the evaluation of local government services (e.g. fire protection, personal safety, and neighborhood satisfaction) resulted in a negative change in a resident's intention to move. Dowding & John [10] find more corroborating evidence that geographical exit increases as dissatisfaction increases using data from an United Kingdom internet survey.

In addition, Percy & Hawkins [11] using survey data from a sample of recent movers in the Milwaukee, Wisconsin metropolitan statistical area [MSA], find that recent movers citied public schools (53.6%), crime (65.8%), and high property taxes (57.4%) as reasons for moving and 23% citied public schools as the most important reason for moving, which gives support to the Tiebout [2] hypothesis micro behavioral assumption regarding exit.

However, these finding are limited because alternative explanations for moving (i.e., employment opportunities, personal reasons, etc.) were not adequately given to survey respondents. The findings will be inherently biased toward corroborating Tiebout [2] rational exiting behavior if alternative explanations are not selectable survey options. Despite this limitation, 23% of recent movers citied concern about public schools, 18% citied concern over city crime (arguably a result of the service-tax package a city offers), and 12% of recent movers cited high taxes as their most important reason for moving accordingly. Even if adequate alternatives for exit were factored into the survey, a citizen's main reason for moving should not change; Thus, Percy & Hawkins' [11] study provides evidence corroborating the micro behavioral assumption that dissatisfied citizens exit because they are dissatisfied with the service-tax package presented to them.

Dowding & John [10] argued that looking at the motivations for intra-jurisdictional moves as well as cross-jurisdictional moves could provide insight into the moving motivations of citizens. Using logit models from a sample of 4 London Boroughs, Dowdings & John [10] find that cross jurisdictional moves are motivated by dissatisfaction with the former municipality more than with the attractiveness of the new municipality's service-tax package. This finding implies that exit occurs for reasons described in the Tiebout [2] hypothesis and that exiting behavior is a better preference revelation mechanism than entry behaviors. However, municipalities with the best service-tax packages were more likely to influence movers in a Tiebout [2] rational way both in terms of exit and entry. In other words, moves to high service-low tax municipalities were influenced by dissatisfaction with the citizen's previous community and attractiveness of the current municipality. But, when the type of municipality was not accounted for, entry motivations were statistically insignificant implying that those who moved into the better boroughs were more likely to act Tiebout [2] rationally when entering and exiting a community.

Despite the evidence corroborating the micro behavioral exiting assumptions of the Tiebout [2] hypothesis, there continues to be disbelief that the exit assumption is empirically supported. It also appears to be widely accepted that, if the Tiebout-hypothesis is true, it is driven by entry motivations rather than exit motivations [12,13]. But, there is strong empirical evidence supporting the micro behavioral assumption that exit decisions are made because of dissatisfaction with community service-tax packages [10,11,14] and findings against exit are either conflicting or actually testing

something else [13]. The evidence against the micro behavioral exiting assumption does not justify the dismissal of the empirical evidence that supports Tiebout [2] rational exiting behavior.

Average versus marginal consumers

One of the fundamental micro behavioral assumptions in the Tiebout [2] hypothesis is that citizens have accurate knowledge of their current municipality's service-tax package, and also have accurate information on alternative municipalities' service-tax packages [13]. In order for movers to make accurate location decisions that match their service-tax package preferences, two broad types of information need to be known: what citizens will be getting by moving into the municipality (i.e., services offered) and how much citizens will have to pay by moving into the municipality (i.e., taxes paid). Intuitively, it seems unlikely that citizens will pay the costs associated with gathering, processing, and using knowledge regarding their current service-tax package and alternative service-tax packages given the small benefits they receive from doing so [13].

If citizens are not knowledgeable regarding their municipality's service-tax package, how can exit and entry be accurate preference revelation mechanisms?. It is impractical to expect the average consumer to pay the necessary costs to be completely informed. However, prices in the market place are not determined by the average consumer; instead, prices are determined by the marginal consumer. Teske et al. [1] argue that the average consumer does not need to be informed in order for Tiebout's [2] hypothesis to be true. Instead, only the marginal consumer (i.e., a small group of highly informed, mobile, movers) needs to be informed because the marginal consumer sets the market price. Teske et al. [1] show that high-income residents that had recently moved into Suffolk County were more likely to have correct information about their local schools, local municipal services offered, and various information regarding tax rates. In addition, Schneider et al. [15] find that those parents who were actively involved in choosing the specific school their kids eventually enrolled in were positively associated with accurate knowledge of the school in question. These active parents act as marginal consumers in a public service market.

Teske et al.'s [1] findings have been challenged on two grounds: the actual number of informed consumers present in a public good market place, and the number of informed consumers needed to create a competitive public good market [16]. Lowery et al. [16] argue that the initial findings of Teske et al. [1] are biased due to the empirical focus on citizen knowledge about schools. Schools are best-case scenario-citizens are more likely to be well informed about school performance than any other local public service. Moreover, the school district from which the survey sample was taken has school spending referendums where citizens directly vote budgets into law. These referendums force citizens to become knowledgeable about school spending; thus, biasing the results. This criticism was dismissed because education spending is considered one of the most important public goods, and because education expenditures are very large compared to other local expenditures; therefore, the focus on public education is justified and appropriate [17].

The price of information

Gathering information is a costly process and thus, citizens have an incentive to be rationally ignorant [13,18]. Citizens are unlikely

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to have encyclopedic knowledge of a municipality's service-tax package due to the costs associated with information. Schneider, Teske, Marschall, & Roch [15] find that average consumers (and particularly low income families) are not well informed about objective school performance. Teske et al. [1] agrees that information associated with exiting behaviors is rather costly, but information for entry decisions is relatively costless and easily accessible due to various services aimed at enticing movers to certain communities. This rationalization does not explain away a mover's incentive to be rationally ignorant-it only argues that information is more likely to be used when making entry decision rather than exit decision.

Instead of detailed factual knowledge, citizens use "heuristics" to store and process information and through these heuristics, citizens can accurately assess a municipality's service-tax package and make locational decisions that are Tiebout [2] rational [14]. There is empirical evidence corroborating this theory. Using a regression analysis on a survey of Harris County, Texas citizens; Bickers & Stein [14] find statistically significant evidence that the interaction between home ownership and recent moving is positively associated with school test scores while controlling for factual knowledge of test scores. Schneider, Marschall, Roch, & Teske [12] find empirical evidence corroborating citizen use of heuristics instead of "encyclopedic knowledge" when making judgments about public services. Visual cues correlate with a school's relative safety and reading scores, which indicates that visual cues serve as heuristics that citizens can use to make accurate judgments about a school's performance.

In sum, average citizens and marginal consumers do not need encyclopedic knowledge to make accurate locational decisions [12,14]; instead, the marginal consumer can use informational heuristics to make location decisions that match their municipal service-tax package preferences [15].

Overall, the micro behavioral evidence suggests that for the Tiebout [2] hypothesis is accurate at a macro level [4,10,11], and that the average consumer does not need to possess accurate encyclopedic information about their current municipality's service-tax package and their neighbor's service tax package [14,15]. Instead, only the marginal consumer needs to be informed for a competitive public goods market to exist [1,12]. Yet, the marginal consumer does not need encyclopedic information to make accurate locational decisions; instead, the marginal consumer only needs to be able to use heuristics to make accurate locational decisions [12,14,15].

Willingness to pay

While the mobility and information micro behavioral assumptions of the Tiebout [2] model have been explored directly in previous studies. The micro behaviors explaining what, how, when, and why citizens purchase public goods has not directly been tied to the Tiebout [2] hypothesis. A citizen's WTP can give key insights into the type of public good market that exists. Throughout the next section of this paper, the WTP literature will be used to generate hypotheses about the nature of the local public goods market.

The literature exploring a citizen's WTP for public goods uses WTP as a mechanism for revealing citizen preferences for public goods. But, WTP is not a perfect way to measure citizen preferences because many services in the public arena-like safety, health, and life itself-are difficult to value [19]. Some public goods are so frivolous compared to the risk they impose on the public (i.e., texting and driving) that a market model is not always an accurate

way to predict citizen preferences for public goods [20]. Moreover, some citizens are WTP for public goods they feel are beneficial even if they receive no direct benefit from it [21].

Despite these weaknesses, WTP has been used to indicate citizen preferences for public goods in a variety of settings [22-25] and has been argued to be a valid and reliable indicator of quasipublic goods [26]. In addition, hypothetical WTP does appear to parallel actual WTP. In a test comparing hypothetical WTP and actual WTP, [27] found that there was no difference between the hypothetical WTP groups and the actual WTP groups when asked about preferences for environmental projects. Despite the criticism surrounding WTP in a public goods market, it appears that the WTP literature can provide accurate insight into a citizen's WTP for public goods.

Citizen satisfaction

Empirical evidence suggests that citizen satisfaction with current services affects how much a citizen is WTP. Glaser & Hildreth [28] found that a citizen's satisfaction with government services is tied to that citizen's WTP for services. Citizens that were satisfied with their government's performance and responsiveness were WTP more. Yet, if citizens perceive their government as unresponsive and were unsatisfied with the services they received, then those citizens were generally not WTP more.

Using an ordered logit model of 1008 surveyed citizens in Waterford, CT; Simonsen & Robinnson [29] found citizens that rated public services as excellent were WTP more. Additionally, using data from a survey of Phoenix residents, Alozie & Mcnamara [30] find that higher ratings of city services were found to be positively associated with a citizen's likelihood of increased WTP for a service. Together these studies indicate that citizen satisfaction plays an important role in a citizen's WTP for that public good.

The studies [28,30] suggest that citizen satisfaction plays a moderating role in a citizen's potential decision to exit. What these studies suggest (albeit subtly and perhaps unknowingly) is that a citizen's judgment of the whole service-tax package is likely to matter less as satisfaction in local services increases. A citizen satisfied with their current level of services is less likely to be sensitive to changes in taxation (i.e., citizen satisfaction leads to inelastic tax preferences). Conversely, a citizen dissatisfied with the current level of services will be more sensitive to changes in level of taxation (i.e., citizen dissatisfaction in the level of services offered by a community will result in tax preference elasticity). In short, citizen satisfaction either intensifies (when dissatisfied) or mollifies (when satisfied) a citizen's sensitivity to the service-tax ratio of a given municipality, which affects exit decisions. The more satisfied a citizen is, the less likely an exit decision will be made based on a municipality's productive efficiency (i.e., average cost of services).

H1: Citizen satisfaction has a moderating effect on the relationship between service-tax package preferences and exit decisions.

Income

One unstated argument in the WTP literature is between a citizen's income and their WTP. On one hand, residents with higher incomes could be WTP more because they have more disposable income. This theory is predicated on Wagner's law, which states the growth in public expenditures is due to the demand elasticity of public goods. In other words, citizens are WTP more for public

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goods as their income increases. Empirically, Donahue & Miller [31] find using a survey of Connecticut taxpayers that higher income residents were WTP more than lower income residents. Also, Liebe, Preisendorfer, & Meyerhoff [32] results indicate that someone's WTP is more is made regardless of income levels while how much someone is WTP is increased as income levels rise.

On the other hand, many services of a welfare state are received by the lower class. The argument follows that residents with lower incomes want more services and thus, would be WTP more if they got more in return. Individuals in a state of poverty were WTP more than higher income individuals for improvements to certain city services (i.e., garbage collection, ambulance services, and internet service) [30].

These studies present competing theoretical rationale for the true drivers of local public good markets. Is the market driven by those who pay (i.e., higher income residents) or by those that use the majority of services (lower income residents)? Thus, two competing hypotheses are derived.

H2a: As family income increases, so does WTP for increased quality of services.

H2b: As family income decreases, so does WTP for increased amount of services.

Product differentiation

One of the understudied elements of the Tiebout [2] hypothesis, is the degree to which cities offer similar tax-service packages. *Product differentiation theory* explains how and when firms compete for a market share, and when applied to local government, it can explain how and when local governments offer similar or dissimilar taxservice packages.

Product differentiation is a production strategy used by private firms in order to maximize profits. Firms produce products that have varying degrees of similarity and dissimilarity to the products produced by their competitors. The degree to which differentiated products act as perfect substitutes determines the amount of differentiation [33]. The closer the products are to becoming perfect substitutes, the more undifferentiated the products. Intense price competition is a hallmark of highly undifferentiated products, because similarities in characteristics and quality allow an informed consumer to easily substitute one undifferentiated good for another. Thus, in an undifferentiated product market, customers make their purchase based on the lowest price.

However, as a firm produces a product that is increasingly different from that produced by competing firms, they are producing a differentiated product. Differentiated products are not perfect substitutes for each other. Highly differentiated product markets result in imperfect price competition because firms are no longer competing with other firms over a single consumer preference; thus, firms in undifferentiated product market take on monopolistic tendencies. The more differentiated a product, the less sensitive a firm is to price changes in competing firms, and conversely the less impact one's own firm has on competing firms. By differentiating their product, a firm lowers the amount of price competition they must face and can increase their prices.

Products can be differentiated by quality (i.e., vertical differentiation) or by other non-quality characteristics (i.e., horizontal differentiation). If all vertically differentiated products were offered at the same price, then all consumers would choose

the same product-the product of highest quality. However, if all horizontally differentiated products were offered at the same price, then consumers would choose the product they purchased based on individual preference, and thus there would be little uniformity in purchases across individuals in a horizontal product market.

A market where firms can choose whether or not to differentiate themselves operates in a very specific way. Specifically, firms enter a market looking for the most market share, and thus will produce the same, undifferentiated products because, through innovation and price undercutting, they can take market share away from their undifferentiated product competitors [33]. Yet, undifferentiated products must be sold at lower prices in order to gain market share over competitors. Differentiated products will be sold at higher prices because differentiated products have fewer substitutes and subsequently, have less price competition. Firms have incentives to offer both differentiated goods (so they can less of their product at a higher price) and undifferentiated goods (so they can sell more of their product at a lower price.

The biggest insight that the WTP literature can provide is what kind of marketplace exists for mobile citizens. Is it a marketplace of differentiated public goods or is it a marketplace of undifferentiated public goods?

First, there is a consistent finding that attitude towards government determines a citizen's WTP. In other words, when citizens are inclined to not trust government they are less WTP for increased services and vice versa. In a survey of Connecticut taxpayers, Donahue & Miller [31] find that a taxpayer's WTP for increased public safety is positively associated with how important the taxpayer considers public safety, and the subjective judgment of the character of public safety employees.

Kahneman, Ritov, Jacowitz, & Grant argued that an individual's WTP is just a manifestation of that individual's attitude regarding a specific policy area because attitudes were strongly associated with an increase in a respondents WTP, and because of high correlations between a respondents WTP, support for political action in a policy area, and rating of the importance of the problem. Similarly, Simonsen & Robinnson [29] found that a citizen's predetermined attitude toward government affected that citizen's WTP in the intuitive direction. These findings suggest that citizens do have varying service-tax package preferences-some citizen's want more government and some want less. While on the surface this finding seems obvious, the results suggest that individuals do desire some form of horizontal product differentiation. In other words, all citizens do not desire the same service-tax packages.

H3a: The degree to which citizens' attitudes toward government differ determines the horizontal differentiation in a local public goods market.

Collins & Kim [34] find that willingness-to-pay is positively associated with service quantity, but not service quality indicating that citizens will pay for more public services, but not necessarily higher quality services. Donahue & Miller [31] corroborated this finding when they found that perceived quality of a service had a statistically insignificant relationship with a taxpayer's WTP for increased public safety.

These studies suggest that, despite the presence vertical differentiation in the public goods product market, citizens do not consider vertical differentiation in the public goods product market. However, the finding those citizens are WTP more if the

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get more quantity suggests that the local public good market, when holding attitudes constant is an undifferentiated market. A WTP for quantity and not quality implies that citizens are shopping for the same local public goods-not different public goods.

H3b: When attitudes are accounted for, the local public good market is an undifferentiated product market.

Risk

The emergency management WTP literature adds an additional dimension to the nature of a public goods market. Empirical evidence suggests that citizens are WTP more to enhance emergency management services when they feel the local government is under prepared [35] and when they have children [36]. Shaw & Baker [37] found that an individual who has experienced a hurricane is WTP more for hurricane preparedness right after a hurricane than a year later. These findings indicate that WTP increases as perceived need for that service or inherent risk increases. In other words, as individuals were less affected by the consequences of a hurricane, they were less WTP for hurricane protection expenditures. As a citizen's self-perceived risk increases, that citizen is WTP more to mitigate that perceived risk.

In addition, there appears to be an upward bias towards a citizen's WTP more for emergency management services. Kahneman et al. show that respondents were WTP more if a problem was intentionally caused by another human (rather than unintentionally) or if a natural problem had been a surprise.

As it pertains to the local public goods market, after a natural disaster, citizens are more likely to be influenced by one policy area (i.e., emergency preparedness) and less likely to be influenced by a holistic service-tax package. This single-issue public goods market can be either undifferentiated or horizontally differentiated depending on how the issue is approached. The public goods market will be undifferentiated if the citizen is simply looking for more disaster relief (i.e., an increase in quantity of public good provided). Note that citizens are not WTP more for better standards; instead they are WTP more for more disaster preparedness. Therefore, it is an undifferentiated product market not a vertically differentiated product market.

Conversely, the product market could be horizontally differentiated if the citizen decided that they wanted a community not prone to similar disasters.

H4a: As a citizen's self-perceived risk increases, they will become more concerned with one particular service area that mitigates that risk and less concerned with the overall service-tax package.

H4b: As self-perceived risk increases, an undifferentiated product market will result for that particular service.

It should be noted that this horizontal differentiation is exogenous to the local government. Some locations are more prone to certain natural disasters than other locations despite the level of emergency preparedness offered by the local government. Thus, citizens shopping for cities not prone to mudslides are actually shopping for environmental factors that cannot be adjusted by the cities themselves.

DISCUSSION

Overall, an exploration of the micro behavioral assumptions of the Tiebout [2] hypothesis gives insight into the actual nature of the local

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public goods market place. Preliminary analysis of these findings indicate that citizens shop not to satisfy their unique service-tax packaged preferences, but instead they look for communities that have a service-tax package that minimizes the average cost of goods.

This analysis seemingly conflicts with some of the realities of the local public goods marketplace. First, any in-depth investigation into the services that cities offer will show that cities offer very unique services to their citizens compared to other cities. Second, different cities offer better quality services than other cities. Some schools are better than others, some cities have fewer potholes per capita, and some cities have lower crime rates. Despite these apparent vertically and horizontally differentiated service-tax packages, it makes no difference what cities offer. *Citizen purchasing habits drive the market*. Thus, an investigation of the WTP literature will inform the local public goods marketplace.

CONCLUSION

This paper explored citizen mobility, information processing, and WTP in a public goods market. However, this is hardly the end of the story. There are streams of literature that have not been touched (e.g. fiscal illusion, information processing, performance management, etc.) that could provide a great deal of insight into the workings of the local public goods market place. It is important to remember that this is just a first step in shedding new light on the nature of the local public goods market as it is informed by the micro behaviors of citizens.

Future research should continue to use micro behavioral findings to inform macro theory. While this paper investigated Tiebout's [2] hypothesis, other macro theories exist that can and should be informed by the micro behaviors of citizens. When scientists connect their macro and micro theories, our understanding of the world becomes more accurate.

REFERENCES

- Teske P, Schneider M, Mintrom M, Best S. Establishing the micro foundations of a macro theory: Information, movers, and the competitive local market for public goods. Ame Polit Sci Rev. 1993;87:702-713.
- 2. Tiebout CM. A pure theory of local expenditures. J Polit Econ. 1956;64:416-424.
- 3. Paul SA. The pure theory of public expenditure. Rev Econ Stat. 1954;36:387-389.
- Kenneth BN, Salucci L, Stein RM. Assessing the micro-foundations of the Tiebout model. Urban Aff Rev. 2006 42:57-80.
- John OM. Uno T. A theory of neighborhood problem solving: Political action vs. residential mobility. Ame Polit Sci Rev. 1972;66:471-489.
- 6. Lyons L. Compared exiting behaviors in fragmented and consolidated institutional arrangements, 1995.
- 7. Robert SM. Tiebout's sorting hypothesis. Urban Aff Rev. 1987;23:140-160.
- Peter J, Dowding K, Biggs S. Residential mobility in London: A microlevel test of the behavioural assumptions of the Tiebout model. Brit J Polit Sci. 1995;25:379-397.
- 9. John A. Argued that there were alternative explanations, but cited dissatisfaction over poll taxes as a reason for moving, which is a Tiebout (1956) rational exiting behavior.
- 10.Keith D, John P. Exiting behavior under Tiebout conditions: Towards a predictive model. Publ Choi. 1996;88:393-406.

- 11. Stephen PL, Hawkins BW. Further tests of individual-level propositions from the Tiebout model. J Polit. 1992;54:1149-1157.
- Mark S, Marschall M, Roch C, Teske P. Heuristics, low information rationality, and choosing public goods broken windows as shortcuts to information about school performance. Urban Aff Rev. 1999;34:729-741.
- David L, Lyons WE. The impact of jurisdictional boundaries: An individual-level test of the Tiebout model. J Polit. 1989;51:73-97.
- Kenneth BN, Stein RM. The microfoundations of the Tiebout model. Urban Aff Rev. 1998;34:76-93.
- 15.Mark S, Teske P, Marshall M, Roch C. Shopping for schools: In the land of the blind, the one-eyed parent may be enough. Ame J Polit Sci. 1998;31:769-793.
- 16. David L, Lyons WE, DeHoog RH. The empirical evidence for citizen information and a local market for public goods. Ame Polit Sci Rev. 1995;89:705-707.
- Paul T, Schneider M, Mintrom M, Best S. The empirical evidence for citizen information and a local market for public goods. Ame Polit Sci Rev. 1995;89:707-709.
- 18. George SJ. The economics of information. J Polit Econ. 1961;69:213-225.
- Ted MR. Willingness to pay: Pandora's box or palliative for liability problems. J Pol Anal Manage. 1988;7:363-367.
- 20.Paul T. Cheap talk?. Taking seriously market benefits expressed by consumer willingness-to-pay. J Poli Anal Manage. 2002;2:507-513.
- 21. John LB. How large is the extent of the market for public goods: Evidence from a nationwide contingent valuation survey. Appl Econ. 1996;28:779-782.
- 22. Christopher G, Thayer MA. An experiment in valuing senior companion program services. J Hum Resour. 1983;18:147-153.
- 23.David TC, Withers GA. Strategic bias and demand for public goods: Theory and an application to the arts. J Publ Econ. 1986;31:307-327.
- 24.Paul CJ, Kirkpatrick RC, Shogren JF, Herriges JA. Matching grants and public goods: A closed-ended contingent valuation experiment. Publ Financ Rev. 1993;21:178-195.
- 25.Pascal G, Soguel NC. Valuing damage to historic buildings using a contingent market: A case study of road traffic externalities. J Environ Plann Manage. 1994;37:279-287.
- 26.Catherine CM, Chambers PE, Whitehead JC. Contingent valuation of quasi-public goods: Validity, reliability, and application to valuing a historic site. Publ Financ Rev. 1998;26:137-154.
- 27. Fredrik, C, Martinsson P. Do hypothetical and actual marginal willingness to pay differ in choice experiments?: Application to the valuation of the environment. J Environ Econ Manage. 2001;41:179-192.
- 28.Mark GA, Bartley WH. Service delivery satisfaction and willingness to pay taxes: Citizen recognition of local government performance. Publ Prod Manage Rev. 1999;23:48-67.
- 29.Bill S, Robbins MD. Reasonableness, satisfaction, and willingness to pay property taxes. Urban Aff Rev. 2003; 38:831-854.
- 30.Nicholas AO, McNamara C. Poverty status and willingness to pay for local public services. Pub Admin Q. 2009;33:520-551.
- 31. Amy DK, Miller JM. Experience, attitudes, and willingness to pay for public safety. Ame Rev Publ Admin. 2006;36:395-418.
- 32.Ulf L, Preisendörfer P, Meyerhoff J. To pay or not to pay: Competing theories to explain individuals' willingness to pay for public environmental goods. Environ Behav. 2011;43:106-130.
- John B, Katsoulacos Y. The economic theory of product differentiation. Cambridge, MA: University Press, USA, 1991.

Review Pub Administration Manag, Vol. 7 Iss. 1 No: 263

OPEN OACCESS Freely available online

- 34.Brian CK, Kim HJ. Are satisfied citizens willing to pay more? Public sector consumerism as equitable social exchange. Publ Mon Manage. 2009;29:109-116.
- 35.Ali A, Mehdi SM, Mehregan N. Willingness to pay for enhancing local emergency preparedness programmes: Evidences from Canada. Int J Emerg Manage. 2012;8:168-181.
- 36.Ali A, Levy JK, Mehregan N. Estimating willingness to pay for a hypothetical earthquake early warning systems. Environ Hazards. 2007;7:312-320.
- 37. Douglass SW, Baker J. Models of location choice and willingness to pay to avoid hurricane risks for hurricane Katrina evacuees. Int J Mass Emergen Disasters. 2010;28:87-114.