**When Beneficence Benefits the Benefactor: Altruism and Rent Seeking**

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**Abstract**

The process of rent seeking refers to the use of political processes to capture payments to a resource beyond the opportunity cost of the resource. I describe an example of rent seeking that coexists with the economic problem of explaining altruism. I use data from real property sales to estimate the value of an economic rent that accrued to an individual as the direct result of a local government public expenditure project on donated land. I argue that we may view the donation of the land as the winning bid in a rent seeking contest and therefore not purely altruistic.

**Key Words:** *Public Economics; Rent Seeking; Altruism*

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*“Every individual is continually exerting himself to find out the most advantageous employment for whatever capital he can command. It is his own advantage, indeed, and not that of the society, which he has in view. But the study of his own advantage naturally, or rather necessarily, leads him to prefer that employment which is most advantageous to the society.”*

*― Adam Smith, An Inquiry into the Nature and Causes of the Wealth of Nations*

*“How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it, except the pleasure of seeing it.”*

*― Adam Smith, The Theory of Moral Sentiments*

1. **Introduction**

 Rent seeking, in practice, has likely existed for as long as governments have been around to assist producers through the artificial creation of economic rents. Certainly the notion was present in the protectionist policies of the Mercantilists as argued by Ekelund and Tollison (1981). The modern formalization and labeling of rent seeking behavior has existed for half a century (Tullock 1967, Krueger 1974). Rent seeking generally refers to the use of resources to procure a transfer of wealth through political processes[[1]](#footnote-1). Still, those critical of politicians and government activity seem shocked and dismayed when they come upon rent seeking activity in practice and call it something like “crony capitalism.”

While the general idea of rent seeking involves government activity that makes it possible for a resource or investment to secure a return that exceeds its opportunity cost, the practice is regularly obfuscated by the particulars of the situation. Notably, consumer protection is cited as a driving force behind occupational licensing requirements and regulation of finance and medicine. On the surface the actions by government may seem to be for the welfare of the public while the unseen impact is market power for the incumbent sellers in the regulated market or licensed occupation. The costs associated with rent seeking activity include the use of real resources in an effort to influence government activity that would result in above normal returns.

 Similarly, philosophers, economists and other social scientist have for some time sought explanations for altruistic behavior. Notably, Olson (1965) attributes charitable giving to the esteem it may bring from our fellow citizens while Becker (1974) argues people may give to various causes in order to avoid the contempt of our fellow citizens. Andreoni (1990) offers a thought provoking, albeit somewhat technical, treatment on the intersection between the utility gained from altruistic behavior in the donation of privately produced public goods. He refers to the interdependence of the donors preferences as “Impure Altruism.” He presents a utility function that allows the donor to be both *altruistic* and *egoistic*. The existence of the public good, *G*, and the donor’s contribution to the public good, $g\_{i}$, both enter into the donor’s utility function. In Andreoni’s model the production of the public good comes from *n* individual donations such that

$(1)\sum\_{i=1}^{n}g\_{i}=$ *G*.

Thus the individual donor’s utility function is presented as

(2) $U\_{i}=U\_{i}(x\_{j},G, g\_{i})$

by which the individual donor, *i*, derives utility from the public good, the contribution and $x\_{j}$ other goods.

 I have come upon a particular situation that would seemingly be what has resulted from a rent seeking contest. In the circumstances described herein an individual has performed acts that are seemingly altruistic in nature. It is possible though that the more shrouded result is the creation of rents that would not have existed absent government activity.

There were two parties that were each faced with a decision and their decisions were somewhat intertwined. First, the local government was making the “public” decision about choosing the location for a new public elementary school. Second, an individual was making the “private” decision to donate land for the new elementary school. Taken at face value, the decision to donate the land was motivated by altruism. However in this case, the private decision to donate the land influenced the public decision about the location of the new school. The decision to locate the school in a particular place also likely influenced the use of adjacent property.

Though some may question whether the donation of land constitutes rent seeking, I assert that the donated land represents costs associated with persuading the decision makers to undertake the activity in a specific location then the opportunity cost of the donated land would indeed be costs associated with rent seeking. In this particular context we are able to observe the donation of land, which is altruistic in nature, but would also be consistent with the winning bid in a rent seeking contest. Any costs that were associated with unsuccessful attempts to influence the location of the school would not be observable but would still be costs associated with rent seeking.

Tiebout (1956) put forth a theory of local government expenditures in which there could exist optimal public goods provision given assumptions about the mobility of the citizenry. Accepting that local governments engage in the provision of quasi-public goods such as schools, parks, libraries, golf courses, landfills and the like, there is always the question of where the facilities will be located. Public expenditure projects are probably going to have an externalities, either positive or negative, associated with them. The determination of the location is by its very nature a political question. While there has been a great deal of investigation regarding so-called pork barrel expenditures that are geographically concentrated expenditures by the federal government, there has been much less attention paid by economists to the question on the local level. Expenditures for education have generally been the subject of inquiry as to their general effectiveness with regard to student outcomes. The location of schools has heretofore been investigated more from an urban planning perspective in which the main question is one of distance and population density without regard to political economy considerations.[[2]](#footnote-2)

1. **Motivation and Application**

In Johnson City, Tennessee in 2016-2017 there have been debates about determining the location of two projects. The school system is preparing to build a new primary and middle school and the university is preparing to build a methadone clinic[[3]](#footnote-3). There was a stark contrast in local sentiment as to the locations of the facilities as there are different externalities associated with the projects. Citizens generally prefer schools to be nearby so as to be convenient and for there to be multiple points of entry and exit as to alleviate congestion at drop off and pick up times. The local citizenry are generally favorable of the methadone clinic as a response to the high levels of opioid addiction in the region. However, individuals wish it to be as far away from their homes as there are perceived negative externalities associated with such an endeavor.

 The debate about the location of the school was a bit more complex than that of the clinic. The school locations were debated a bit in terms of their relative pros and cons in terms of topography and proximity to neighborhoods and major roadways. But there was also a great deal of focus on which property owner would be chosen to sell their land to the local government. One of the land owners was a member of a strategic planning task force according to the *Johnson City Press* (2016). The perceived benefit of selling the land was not necessarily limited to the payment for the land. The new school is expected to have an impact on the value of property adjacent to the school. The present day debate caused me to be curious about the previous school construction in the area. What has been the process for selecting the appropriate location for schools in the past?

 In the late 1990s the City of Johnson City, Tennessee was in a circumstance similar to that of the present. The town was expanding northward and schools on the north side of town were reaching capacity. The local school board began the search for property that would be suitable for the new elementary school. While it is unclear what specific properties were being considered for the new school, the school board was pleased to announce that a local businessman had come forth with a suitable tract of land that he was willing to donate for the construction of a new elementary school. The new school would be built on the side of a hill that had been cow pasture but was near Boone Lake. The School would later be named Lake Ridge Elementary School. At the time the school was being built the individual who donated the land for the school began to develop of that property surrounding the school into a neighborhood that would be called Lake Ridge Estates.

 In this particular case the property donation was and still is popularly viewed as an act of altruism. The contribution of land clearly saved the city government money that would have otherwise been used to purchase land for the new school. But could it be that the value of the property is cost or payment in a larger rent seeking strategy? In what follows I will use a standard hedonic pricing model for the homes and property that are adjacent to the new school to estimate a premium that was created by the construction of the school. I argue that acts such as these, which are frequent and widespread, may be both altruistic and rent seeking simultaneously but the altruism is likely a side effect of the rent seeking. To be sure, it is within the realm of possibility that the donation would have been made absent the expected increase in the value of the adjacent property. However, the frequent occurrence of similar activity might suggest the donation is implicitly contingent upon the rents that accrue to the donor. Another possibility is that the homes sell faster. The cost of having resources tied up in inventory would be significantly large and increase with days on the market. Unfortunately, I do not have access to the data that would be required to test the claim that there actual cost savings that accrue to the builder from homes inside the neighborhood selling faster than otherwise.

 The argument then is that Andreoni’s impure altruism model of utility from equation (2) would include the economic rent, *R*, which would positively influence the donor’s utility through an increase in, either or both, future consumption or future contributions. I suppose the impure altruism then becomes even less pure if there is a positive impact on the donor’s wealth. Or perhaps there is even more utility derived from the donation than once supposed. Technically, the increase in utility from the rent would enter through the change in the budget constraint and the resulting increase in consumption.

 It is not always clear whether the positive relationship between school quality and housing prices is initially causal or simply self-perpetuating. Many efforts have been made to explain the relationship and identify the causality of the relationship between housing prices and the quality of the public schools.[[4]](#footnote-4) It is the case, generally, that these neighborhoods are made up of two parent families with children and would have to be at least middle class to purchase the homes.

1. **Analysis**

 The neighborhood called Lake Ridge Estates lies on a three mile stretch of two lane road that connects two of the major thoroughfares of North Johnson City. The neighborhood now consists of 80 homes. The homes range from 2,000 to 3,600 square feet and have three to five bedrooms. The original developer who donated the property for the school built on 50 of the lots and sold the remaining 30 so there is some variation in home design and construction quality. The covenants and restrictions of the neighborhood have been generally enforced so that the homes would be regarded as quite similar, although not homogeneous. There are several other neighborhoods that are included in the same school district and are comprised of the same type housing. I included two other neighborhoods, Steeplechase and Carrol Creek Estates, in my data set that would be considered comparable to the homes in Lake Ridge Estates and are in the same school district. The key point of differentiation between Lake Ridge Estates and the other neighborhoods is that the homes within Lake Ridge Estates are walkable to the elementary school and also to the school playground and walking trail that are on the school campus and are commonly used by the public. Steeplechase and Carrol Creek Estates are both within 1.5 miles of the new Lake Ridge Elementary School. Table 1 shows the general characteristics of the homes in the three neighborhoods.

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| **Table 1. Summary Statistics** |
|   |   | **All Homes**  |  | **Inside Lake Ridge Estates** |  | **Outside Lake Ridge Estates** |
|  |   | *n=143* |  | *n=46* |  | *n=97* |
| ***Price*** | *mean* | 235071.61 |  | 250971.087 |  | 227531.6495 |
|  | *stan. dev.* | 49394.243 |  | 7938.191142 |  | 4621.248801 |
|  |  |  |  |  |  |  |
| ***Price per square foot*** | *mean* | 91.186567 |  | 95.94225145 |  | 89.52309198 |
|  | *stan. dev.* | 14.588446 |  | 2.418212949 |  | 1.293764631 |
|  |  |  |  |  |  |  |
| ***Rooms*** | *mean* | 7.9440559 |  | 8.195652174 |  | 7.863157895 |
|  | *stan. dev.* | 1.2934081 |  | 0.207631142 |  | 0.123960878 |
|  |  |  |  |  |  |  |
| ***Beds*** | *mean* | 3.7622378 |  | 3.869565217 |  | 3.726315789 |
|  | *stan. dev.* | 0.67090481 |  | 0.096352291 |  | 0.069298364 |
|  |  |  |  |  |  |  |
| ***Baths*** | *mean* | 2.8146853 |  | 2.847826087 |  | 2.815789474 |
|  | *stan. dev.* | 0.57738581 |  | 0.07750575 |  | 0.061272724 |
|  |  |  |  |  |  |  |
|  ***Square Feet*** | *mean* | 2634.8112 |  | 2704.782609 |  | 2621.705263 |
|  | *stan. dev.* | 668.78634 |  | 94.82759802 |  | 69.15741635 |
|  |  |  |  |  |  |  |

 I was able to gain access to the history of real estate transactions from the Northeast Tennessee Board of Realtor Database. I have data for 143 newly constructed homes sold on the Multiple Listing Service from 1999 to 2006. With that data, I was able construct a hedonic pricing model to estimate the price differentials of homes within the same school district but in different neighborhoods. The neighborhood pricing differentials allow me to estimate the value of the price premiums created by, or at least associated with, the new school construction.

(3) $Selling Price\_{i}=β\_{0}+β\_{1}Rooms+β\_{2}Bedrooms+β\_{3}Bathrooms+β\_{4}Square Feet+β\_{5}Lake Ridge Estates+ε\_{i}$

The summation of the price premiums may be viewed as an economic rent that was created by the construction of Lake Ridge Elementary school and captured by the individual who donated the property for the school.
 The standard hedonic pricing model for homes defines the price of the home as a function of the characteristics of the home such as: finished square footage, number of rooms, number of bedrooms, and number of bathrooms. Araujo and Cheng (2017) use the method to identify preferences for neighborhood amenities. A second model is estimated with total rooms omitted as total rooms and bedrooms are correlated.

 Indeed, the only significant difference among the neighborhoods is that one of them contains the elementary school. I included a dummy variable in the model to get an estimate of the increase in home prices that are attributable to the presence of the school. I also included analysis of vacant lots that were exchanged over the same time period. The results are reported in Table 2.

 The results suggest that, all else equal, there was a higher value placed on the homes inside Lake Ridge Estates, which contains the elementary school, relative to the two similar neighborhoods in close proximity. The difference in price is on the order of $17,000. If we apply the same general premium to the 50 homes built by the original donor that would translate to a return of roughly $850,000.

We can put aside the magnitude of the price premium and ask whether it is reasonable to believe that the price premiums exist at a level that is of consequence to the original property owner who donated land for the school. Therefore the central question is one of the relationship of the expected price premiums that would appear to be the direct result of the school being in the neighborhood to the value of the land that was ultimately donated. The donor had to forgo the potential revenue that could have been generated by either selling the subdivided lots upon which the school currently stands, building on the land or anything else. Aerial views of the neighborhood along with conversations with a surveyor indicate that the school stands on land which could have been subdivided into approximately 15 lots. The vacant lots outside of the neighborhood but in the same school district had averaged around $24,000. By that estimate the donor gave up approximately $360,000 in revenue that he would have gained had he sold the lots without building on them. However, the opportunity cost of the donation would be considerably lower had the entire property been maintained as grazing land. The vacant lots inside Lake Ridge Estates drew an average of $33,888 while the vacant lots in the other two neighborhoods average $24,763. The vacant lots sold by the donor had a total price premium of about $270,000.

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| **Table 2: Home Pricing Models (OLS Estimates)** |
|  | *coefficient* | *t-statistic* | *p-value* |  | *coefficient* | *t-statistic* | *p-value* |
| ***Intercept*** | 44579.46 | 2.3980464 | 0.0178 |  | 48122.929 | 3.070370 | 0.0026 |
| ***Rooms*** | 983.3224 | 0.35727313 | 0.7214 |  |  |  |  |
| ***Beds*** | 8957.9453 | 1.5830539 | 0.1157 |  | 9712.0097 | 1.855676 | 0.0656 |
| ***Baths*** | 16657.967 | 2.3696245 | 0.0192 |  | 16329.776 | 2.350469 | 0.0202 |
| ***Square Feet*** | 36.664273 | 5.5781597 | <0.0001 |  | 37.537103 | 6.171207 | <0.0001 |
|  |  |  |  |  |  |  |
| ***Inside Lake Ridge Estates*** | 17061.427 | 3.0246712 | 0.003 |  | 17232.838 | 3.075907 | 0.0025 |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|   | ***R-squared*** | 0.6158 | *n=143* |  | ***R-squared*** | 0.6155 | *n=143* |
|  | ***Adj. R-squared*** | 0.6018 |  |  | ***Adj. R-squared*** | 0.6043 |  |
|  | ***F-statistic*** | 43.92 |  |  | ***F-statistic*** | 55.21 |  |
|   | ***P-value*** | <0.0001 |   |   | ***P-value*** | <0.0001 |   |

Recall that all of the property in the analysis was within the district if the new school and surely the property’s proximity to the school influences the prices of the homes. The case might have been different if the school had been built in a different location. Other property owners must have been impacted by the construction but this analysis focuses only on the impact on the property owned by the donor. By my estimates the donor was able to procure approximately $1.12 million by donating about $360,000 worth of land for the construction of the new school. The net benefit to the individual in return for donating land was nearly $1 million in addition to any warm glow from the altruism.

**Conclusion**

 The location of the new elementary school was certainly influenced by the property owner’s decision to donate land. The act of donating the land is certainly altruistic, but an additional result was that the public decision to locate the school helped the donor to secure an extra million dollars on his property development. Rent seeking is the expenditure of resources to procure a transfer that is created artificially, usually through government activity. In this case the practice of rent seeking has intersected with the difficult task of identifying motives to explain altruistic behavior. This particular example provides evidence that situations exist whereby the charitable act of an individual directly results in the creation of an economic rent that he is able to capture. I acknowledge that the analysis is inductive in nature. In conversations with acquaintances who are property developers and municipal officials I have learned that the practice is not unusual. I learned that donations of land for the construction of schools is somewhat common. I have learned of instances in which land was donated for a golf course, and another for a park with a walking trail. In all cases the donors were able to specify the use of the donated land and subsequently engaged in the development of adjacent property.

 I would also concede that the practice is not a net negative as a matter of course. The net benefit to the community or society at large can be either negative or positive depending on the value of the resources used in rent seeking activity. We are able to observe some of the cost associated with rent seeking activity but we are limited to those costs incurred by the winner. The rent seeking costs incurred and not recouped by the losing bidders are unknowable. While it would appear on the face to be a mutually beneficial endeavor, the unseen costs are the resources lost in the process of choosing the beneficiary.

 If this type of cooperation is indeed common, it would warrant further investigation of a more empirical nature to identify the magnitude of economic rents that are created by public expenditure. However, we may never have empirical evidence of the real costs of rent seeking activity since the losing bids are seldom identifiable.

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1. For an extensive examination of the rent seeking literature, see for example, Congleton, Hillman and Konrad (2008). [↑](#footnote-ref-1)
2. See, for example Pizzolato and Silva (1997) and Pizzolato, Barcelos and Lorena (2004). The primary focus is logistical so that population growth and density are the primary explanations for school location in studies focused on urban areas and developing economies. [↑](#footnote-ref-2)
3. The proposed clinic is a joint effort of East Tennessee State University and Mountain States Health Alliance and although not necessarily a project undertaken by a government entity, the project and its location requires approval from the Tennessee state government which has made it a political decision in nature. [↑](#footnote-ref-3)
4. For a thorough discussion see, for example Nguyen-Hoang and Yinger, 2011. “The capitalization of school quality into house values: a review.” [↑](#footnote-ref-4)