INVESTIGATING PUBLIC FUNDS DEDICATED TO RECREATION PROGRAMS—A COMPARISON FOCUSED ON ONE LOCALITY

Leigh Mascherin, Longwood University,

lem152@longwood.edu

With S. Gilfillan, M. Flanigan, and A. O'Connor

ABSTRACT

This paper discusses what I have accomplished, researched, and learned during the last 3 years of my Citizen Scholar project. The focus of this project is on the funding of youth athletics in the Farmville, Prince Edward County area. This document explores specifically how localities in the state of Virginia allocate funding to various uses versus recreation. Highlighted is the town of Bedford which has a successful recreation department and how Farmville compares in spending and recreation programs provided.

INTRODUCTION

As a division I athlete I believe in the importance of giving the opportunity of athletics and recreation to everyone, especially underprivileged youth. In fulfillment of my role as a Cormier Citizen Scholar, I have chosen to work on a four-year project that focuses on this belief. The Center for Cormier Citizen Scholars is a scholarship program which provides participating students the opportunity to enrich their undergraduate experience while contributing to the betterment of society. During the last three years I have worked in conjunction with my mentoring faculty member, Mrs. Gilfillan, to plan, organize, and carry out my project. Upon completion of the project I am required to present my project to the Board of Visitors of Longwood University in the final semester of my senior year. This paper is a draft of what I will be presenting in the spring of 2008 to the board.

I chose to study the recreation programs, specifically the youth athletics, offered in the town of Farmville and the surrounding county of Prince Edward. I have experienced first hand the benefits of youth athletics throughout my childhood and feel very strongly that every child should have the opportunity to participate in athletics while growing up. Upon arriving at Longwood University, located in Farmville, VA I began to learn about the youth programs in the surrounding area, or at the time, the lack there of. There is currently no town or county run youth athletics program, but there is a YMCA youth athletics program as well as the Prince Edward Farmville Youth Association (PEFYA) run youth athletics program. Although both of these programs receive some amount of funding from the town of Farmville, they are still private organizations. Within the last year the town of Farmville has hired a recreation director who is implementing various youth programs, such as, dance, double Dutch, arts and crafts, and many other activities. This recreation department is comprised of a sole individual and a small recreation room, with no traditional youth athletics offered.

FIRST SURVEY

In the first two years of the project I chose to study the current youth athletic organizations which are available in the area, the YMCA and PEFYA. After doing preliminary research to find out what exactly each of the programs had to offer, I chose to shift my focus towards the satisfaction level which the citizens of the town and county have with these programs. In order to measure the satisfaction I decided to survey students and/or parents of local public school system, Prince Edward County—the elementary, middle, and high school. Once the process of creating the survey was completed, I had to obtain approval by various authority figures. This included the superintendent of Prince Edward County Schools and Dr. Laws of Longwood University Human and Animal Subjects Research Review Committee. Additionally, I met with the Superintendent and the General Manager of the town of Farmville to receive input on the questions asked.

This resulted in 2700 surveys being distributed to the schools with a request to hand out to the students and have them completed and returned to my school mail box or the principal of the respective school. This initial set of surveys was passed out close to the end of the school year and thus the response rate was extremely low. Subsequently it was decided to re-administer the surveys at the beginning of the next school year and the response rate dramatically increased. Out of the 2700 surveys administered the second time, 232 were returned giving a response rate of 11.6%, providing data that I analyzed. I worked in conjunction with a faculty member, Dr. Flanigan, who had experience in SPSS—an analytical software program to draw some conclusions from the data.

Once the data had been entered, various comparisons were explored and numerous descriptive statistics were determined. The basic conclusions drawn from this data are that the main reasons for dissatisfaction with the current youth athletic programs relate to lack of money, lack of time, and lack of transportation to be able to participate. In addition many respondents desired additional sports not currently available in the area.

SECOND SURVEY

After this exploration of the satisfaction level of the current youth athletic programs I shifted my focus to study other localities and how they run their respective recreation programs. There were two sets of surveys sent out—25 in each set for a total of 50 and 20 in total were completed and returned. A copy of the cover letter and survey can be found in Appendix A and B. I chose the localities to survey primarily based on population size—any locality that is within a 1,000 population range of Farmville; Farmville having a population of 6,845. I chose localities from several states including, Virginia, North Carolina, South Carolina, Georgia, Tennessee, West Virginia, Maine, Delaware, Florida, Rhode Island, Connecticut, and Kentucky.

These states were chosen because they were located in the Eastern United States. Although there are far more than 50 localities that are within the 1,000 population range to that of Farmville, many of the localities did not have recreation departments to send the surveys to or I could not find an address to send the survey to, so I had to include more states in the study then initially planned. In the survey I inquired about several areas relating to how the localities operated their respective recreation programs. The primary topics included: programs available, the facilities, number of employees, after school programs,

funding—independent or joint with the county, program costs, and financial assistance for participants. The returned surveys provided an understanding of how different localities run their recreation programs and demonstrated the ability of small towns and cities to run successful recreation programs.

Upon gaining this insight into other localities and their recreation departments, I became interested in how much localities, specifically in Virginia, are spending on recreation. In addition, I wanted to see how much is spent on recreation in relationship to several other variables. These variables included: local revenue per capita, percentage of families that live in poverty, percentage of individuals that live in poverty, law enforcement and traffic control per capita, correction and detention, percentage of the population under 18, and percentage of the population between 5-17 years of age. In studying these variables, I created questions which were then answered through determining correlations.

QUESTIONS

- 1. If the local revenue per capita increases does the town or city or county increase the amount it spends per capita on parks and recreation?
- 2. If the percentage of families that live in poverty increases does the town or city or county increase the amount it spends per capita on parks and recreation?
- 3. If the percentage of individuals that live in poverty increases does the town or city or county increase the amount it spends per capita on parks and recreation?
- 4. Is there a correlation between how much a town or city or county spends on parks and recreation per capita and how much they spend on law enforcement and traffic control per capita?
- 5. Is there a correlation between how much a county spends on parks and recreation per capita and how much they spend on correction and detention per capita?
- 6. If the percentage of population that is under the age of 18 increases does the town or city or county increase the amount it spends per capita on parks and recreation?
- 7. If the percentage of population that is between the ages of 5-17 increases does the town or city or county increase the amount it spends per capita on parks and recreation?
- 8. Is there a correlation between how much a town or city or county spends on parks and recreation per capita and how much they spend on education per capita?

In addition I also composed lists ranking the localities based on these variables to gain an understanding of how Farmville compared to other locations. The following scale was used to evaluate these correlations:

ш	nowing scale was used to evaluate these correla								
	Correlation	Negative	Positive						
	Small	-0.29 to -0.10	0.10 to 0.29						
	Medium	-0.49 to -0.30	0.30 to 0.49						
	Large	-1.00 to -0.50	0.50 to 1.00						

[2]

ANSWERS AND EXPLANATIONS

Question #1:

If the local revenue per capita increases does the town or city or county increase the amount it spends per capita on parks and recreation?

- When studying the counties there was a positive large correlation of 0.81, correlation coefficient of variation is 0.6546
- When studying the towns there was a small positive correlation of 0.17, correlation coefficient of variation is 0.0282

My hypothesis before analyzing the data was that it was very likely that as revenue per capita increased the amount spent per capita on parks and recreation would as well increase. I formed this notion based on the fact that typically wealthier localities have better recreation programs because better recreation programs in most cases cost more.

The correlation between the variables on the county level is 0.81 which when converted into the coefficient of variation is 0.6546. This shows that 65.46% of the change of dollar amount per capita spent on parks and recreation can be attributed to dollar amount per capita of local revenue. This means that 65% of the time, if the dollar amount of local revenue per capita increases the dollar amount per capita spent on recreation increases.

In contrast, the correlation between the variables on the town level is very weak showing that only 2.82% of the change of dollar amount per capita spent on parks and recreation can be attributed to dollar amount per capita of local revenue. This means that 2.8% of the time, if the dollar amount of local revenue per capita increases the dollar amount per capita spent on recreation increases.

The conclusions that can be made from this data are not definite, because they are solely relationships between variables and not cause and effect. But what we can conclude is that for counties, as local revenue per capita increases so does the amount that is spent per capita on parks and recreation. This does not hold true for towns due to the lack of a relationship.

Question #2

If the percentage of families that live in poverty increases does the town or city or county increase the amount it spends per capita on parks and recreation?

- When studying the counties there was a medium negative correlation of -0.47, correlation coefficient of variation is 0.2253
- When studying the towns there was a medium negative correlation of -0.37, correlation coefficient of variation is 0.1399

My hypothesis before analyzing the data was that it was very likely that as poverty levels increased the amount spent per capita on parks and recreation would decrease. I formed this notion on the basis that higher poverty levels would constitute a lesser local revenue and therefore less funding for recreation. Regardless of what my hypothesis was, it would be more logical for a locality to spend more money on recreation if there were an increased percentage of its families living in poverty. This is because in order to participate in a recreation activity, for example youth athletics, there are fees that have to be paid by the participants. If a family is living below the poverty level they will likely not be able to afford to pay those fees and thus the recreation department will have to do one of two things, either subsidize the fee for the child participating or lower the cost to all participants. Regardless of which method is used the recreation department would have to increase the funding per capita.

The correlation between the variables on the county level is -0.47 which when converted into the coefficient of variation is 0.2253. This shows that 22.53% of the change of dollar amount per capita spent on parks and recreation can be attributed to percentage of families living below the poverty level. This means that 22.53% of the time, if the percentage of families living below the poverty level increases the dollar amount spent per capita on parks and recreation will decrease.

The correlation between the variables on the town level is -0.37 which when converted into the coefficient of variation is 0.1399. This shows that 13.99% of the change of dollar amount per capita spent on parks and recreation can be attributed to percentage of families living below the poverty level. This

means that 13.99% of the time, if the percentage of families living below the poverty level increases the dollar amount spent per capita on parks and recreation will decrease.

The conclusions that can be drawn from this data are not as significant due to weaker relationships between the data sets. This data however does show that it is highly unlikely that as a localities percentage of families living under the poverty level increases the localities dollar amount per capita will increase—on the contrary it will most likely decrease.

Question #3

If the percentage of individuals that live in poverty increases does the town or city or county increase the amount it spends per capita on parks and recreation?

- When studying the counties there was a medium negative correlation of -0.47, correlation coefficient of variation is 0.2236
- When studying the towns there was a small negative correlation of -0.29, correlation coefficient of variation is 0.0836

My hypothesis for these variables is consistent with the hypothesis explained in question number two.

The correlation between the variables on the county level was -0.47 which when converted into the coefficient of variation is 0.2236. This shows that 22.36% of the change in dollar amount per capita spent on parks and recreation can be attributed to percentage of individuals living below the poverty level. This means that 22.36% of the time, if the percentage of individuals living below the poverty level increases the dollar amount spent per capita on parks and recreation will decrease.

The correlation between the variables on the town level is -0.29 which when converted into the coefficient of variation is 0.0836. This shows that 8.36% of the change of dollar amount per capita spent on parks and recreation can be attributed to percentage of individuals living below the poverty level. This means that 8.36% of the time, if the percentage of individuals living below the poverty level increases the dollar amount spent per capita on parks and recreation will decrease.

The conclusion that can be made on the county level, although not definite, there is a strong enough relationship to state that it is very unlikely that if the percentage of individuals living in poverty increases then the amount spent per capita on parks and recreation will increase. On the town level, it is much the same conclusion although the correlation was not as strong it is still significant enough to state that it is very unlikely that as one variable increases the other will increase as well.

Question #4

Is there a correlation between how much a town or city or county spends on parks and recreation per capita and how much they spend on law enforcement and traffic control per capita?

- When studying the counties there was a large positive correlation of 0.658, correlation coefficient of variation is 0.4332
- When studying the towns there was no correlation with a result of 0.09, correlation coefficient of variation is 0.00799

The reasons for exploring this possible correlation was the possibility that if a locality spent more money on parks and recreation that they possibly would have to spend less money on law enforcement and traffic control—thus a negative correlation. This reasoning was based on the fact that youth participating in athletics "can improve behavior and concentration, motivation and attendance and even academic

achievement" [1]. All of these factors would stand to reason to decrease the need for law enforcement, and therefore reduce dollar amount spent per capita, due to less petty crimes and other costly offenses.

The correlation between the variables on the county level is 0.658 which when converted into the coefficient of variation is 0.4332. This shows that 43.32% of the change of dollar amount per capita spent on parks and recreation can be attributed to the dollar amount per capita spent on law enforcement and traffic control. This means that 43.32% of the time, if the dollar amount spent per capita on parks and recreation increases so does the dollar amount spent per capita on law enforcement and traffic control.

The correlation between the variables on the town levels is 0.09 which when converted into the coefficient of variation is 0.00799. This shows that only 0.799% of the change in dollar amount per capita spent on parks and recreation can be attributed to the dollar amount per capita spent on law enforcement and traffic control. This means that 0.799% of the time, if the dollar amount spent per capita on parks and recreation increases so does the dollar amount spent per capita on law enforcement and traffic control.

Once again, the conclusions that can be made from this data are not definite based on the fact that they are solely relationships and not cause and effect. But on the county level, nearly half of the time if the amount spent on parks and recreation increases so does the amount spent on law enforcement and traffic control. This data contradicts what I would have thought to be the outcome based on my logic, because I hypothesized that as dollar amount spent per capita on parks and recreation increased the dollar amount spent per capita on law enforcement and traffic control would decrease (due to the positive impact of increased recreational programs). In contrast, the relationship between these two variables was nonexistent on the town level.

Question #5

Is there a correlation between how much a county spends on parks and recreation per capita and how much they spend on correction and detention per capita?

• When studying the counties there was not a correlation with a result of 0.09, correlation coefficient of variation is 0.0073

The reasoning for exploring this relationship is consistent with the logic stated in question number 4. The hypothesis is the same with an expected negative correlation.

The correlation between the variables on the county level is 0.09 which when converted into the coefficient of variation is 0.0073. This shows that 0.0073 % of the change of dollar amount per capita spent on correction and detention can be attributed to the dollar amount spent on parks and recreation. This constitutes a lack of correlation between the variables and thus no relationship.

The results of this correlation show that there is no significant relationship between the two variables and thus there is no data to say that as parks and recreation per capita increases, correction and detention per capita will decrease.

Question #6

If the percentage of population that is under the age of 18 increases does the town or county increase the amount it spends per capita on parks and recreation?

- When studying the counties there was a small positive correlation of 0.19, correlation coefficient of variation is 0.03689
- When studying the towns there was a no correlation with a result of 0.059, correlation coefficient of variation is 0.0034.

Through my study of recreation departments and the programs which they offer I have observed that the majority of recreation departments' funds are directed to youth based programs. So from this observation I hypothesized that if a locality had a greater percentage of its population under the age of 18 then they would allocated more of its resources to parks and recreation.

The correlation between the variables on the county level is 0.19 which when converted into the coefficient of variation is 0.03689. This shows that 3.689 % of the change of dollar amount per capita spent on parks and recreation can be attributed to the percentage of the population below the age of 18. This constitutes a small correlation between the variables and thus a weak relationship.

The correlation between the variables on the town level is 0.059 which when converted into the coefficient of variation is 0.0034. This shows that 0.34% of the change of dollar amount per capita spent on parks and recreation can be attributed to the percentage of the population below the age of 18. This signifies a lack of correlation between the variables and thus no relationship.

The conclusion that can be made from this data is that there is a small possibility that on the county level there is a relationship between the variables. This is not consistent with my hypothesis, for I would have thought that counties would have greatly considered the percentage of their population which is under 18 when determining how much they would allocate to recreation. On the town level there is no relationship between the two variables at all; completely opposite of what I would have thought.

Question #7

If the percentage of population that is between the ages of 5-17 increases does the town or county increase the amount it spends per capita on parks and recreation?

- When studying the counties there was no correlation of 0.095, correlation coefficient of variation is 0.0091
- When studying the towns there was no correlation with a result of 0.0028, correlation coefficient of variation is 0.000084

My hypothesis for the relationship between these two variables is much the same as my hypothesis in question #6. In addition, I expected that these two variables, parks and recreation and percentage of the population between 5-17, would have a stronger relationship then the previous, under 18 years of age, due to the fact that majority of the children that participate in recreation are in this age range. I formed this notion based on the fact that very few programs are tailored to children who are under five years of age and thus this section of the population would not effect how much a locality spends on youth based programs.

The correlation between the variables on the county level is 0.095 which when converted into the coefficient of variation is 0.0091. This shows that 0.9 % of the change of dollar amount per capita spent on parks and recreation can be attributed to the percentage of the population between the ages of 5-17. This constitutes a lack of correlation between the variables and thus no relationship.

The correlation between the variables on the town level is 0.0028 which when converted into the coefficient of variation is 0.000084. This shows that 0.0084% of the change of dollar amount per capita spent on parks and recreation can be attributed to the percentage of the population between the ages of 5-17. This, as well constitutes a lack of correlation between the variables and thus no relationship.

In conclusion, the results did not support my hypothesis; rather they completely contradicted it on both the county and town level. There is a greater relationship between parks and recreation and the percentage

of the population under 18 than there is between parks and recreation and the percentage of the population between the ages of 5-17.

Question #8

Is there a correlation between how much a county spends on parks and recreation per capita and how much they spend on education per capita?

• When studying the counties there was a large positive correlation of 0.52, correlation coefficient of variation is 0.2736

The reasons for studying these two variables was to see if a county spent more on education per capita would they, then, spend more on parks and recreation per capita. It is possible that if a county spends a high amount on education per capita then they would be likely to spend more on parks and recreation because they already demonstrate that they place a high value on the children in the area. And if this is the case than they would be more likely to support an expenditure, parks and recreation, that provides youth athletics.

The correlation between the variables on the county level is 0.52 which when converted into the coefficient of variation is 0.2736. This shows that 27.36% of the change of dollar amount per capita spent on parks and recreation can be attributed to the dollar amount per capita spent on education. This means that 27.36% of the time, if the dollar amount spent per capita on parks and recreation increases so does the dollar amount spent per capita on education.

The results of this correlation do support my hypothesis in that there is a strong positive relationship between the two variables. But based on the previous two correlations between parks and recreation and percentage of population under the age of 18 and parks and recreation and percentage of population between the ages of 5-17, the reasoning that I based my hypothesis on does not stand true. This is because there would have to be a relationship between parks and recreation and percentage of children between the ages of 5-17, which are school aged children, to support the logic. The results solely show that if a locality increases the amount they spend on education they also increase the amount they spend on parks and recreation.

FARMVILLE

As stated earlier, the focus of my study is the town Farmville where my University is located. During my first year at Longwood I became concerned with the lack of recreational programs. In order to understand where Farmville stands in relationship to other localities that I considered (see above), I included below a chart which shows various variables. In addition I have ranked Farmville in comparison to other towns; the ones which are included in Virginia's 2006 Comparative Report of Local Government Revenues and Expenditures. These ranking tables can be found in Appendix C.

	Local Revenue Per Capita	Population	Parks, Recreation, and Cultural Per Capita	Parks and Recreation Per Capita	Law Enforcement and Traffic Control Per Capita	Percentage of Population under 18 years of age	Percentage of Population between 5- 17 years of age	Percentage of Families living below Poverty Level	Percentag of Individual living below Poverty
--	-----------------------------------	------------	--	---------------------------------------	--	---	--	--	---

Farmville \$955.22 6,845 \$9.22 \$2.73 \$274.83 14.7% 10.3% 19.9% 22%										Level
	Farmville	\$955.22	6,845	\$9.22	\$2.73	\$274.83	14.7%	10.3%	19.9%	22%

• Of the 35 towns with data, Farmville is ranked 13th highest in terms of local revenue per capita at \$955.22.

- Of the 35 towns with data, Farmville is ranked 5th lowest in terms of dollar amount spent per capita in the area of parks, recreation and cultural enrichment at \$9.22.
- Of the 34 towns with data, Farmville is ranked 2nd lowest in terms of dollar amount spent per capita in the area of parks and recreation (cultural enrichment is omitted) at \$2.73.
- Of the 35 towns with data, Farmville is 17th highest in terms of dollar amount spent per capita in the area of law enforcement and traffic control.
- Of the 36 towns with data, Farmville is ranked 2nd lowest in percentage of population that is under the age of 18.
- Of the 36 towns with data, Farmville is ranked 4th highest in percentage of families that are living below the poverty level.
- Of the 36 towns with data, Farmville is ranked 5th highest in percentage of individuals that are living below the poverty level.

In addition I have included in the Appendix D a chart which includes Farmville and several other localities for means of comparison. This chart includes Marion, Ashland, Prince Edward County, Christiansburg, Bedford County, Lexington, and Bedford, the county averages, the town averages, and the United States averages. The reasons for choosing these localities are as follows:

- Marion:
 - Significantly lower local revenue per capita but significantly higher parks, recreation, and cultural per capita and parks and recreation per capita.
 - Higher parks and recreation but lower law enforcement and traffic control.
 - High poverty level; similar to that of Farmville.
- Ashland:
 - Similar population and lower local revenue per capita.
- Prince Edward County:
 - The county in which Farmville is located
- Christiansburg:
 - Closest local revenue per capita to Farmville.
- Bedford County:
 - The county in which Bedford is located
- Lexington:
 - o Extensive information on its effective recreation program from a returned survey.
 - o Similar size to Farmville.
- Bedford:
 - Extensive information on its effective recreation program from a returned survey.
 - Similar size to Farmville.

COMPARISON BETWEEN FARMVILLE AND BEDFORD

The reasons for choosing the city of Bedford as a comparison to Farmville is the proficient recreation program which Bedford offers to its citizens. Bedford has successfully developed a program that provides its citizens with a various programs which include youth programs, adult programs, senior citizen programs, family events, and community events. Bedford has also collaborated with the county to offer these programs to a greater number of citizens as well as utilizing the area school systems' facilities.

The chart below depicts the basic elements of Bedford's recreation program. (As mentioned earlier, the Town of Farmville has a brand new program consisting of a sole employee and no facility.)

BEDFORD'S RECREATION PROGRAM

Bedford, VA

Trips (ex. Snow Tubing), Baseball/Softball/Tee-ball, Teen Dance, Football, Fishing Clinic, Sports Clinics, Youth Tennis, Hook-a-kid on golf, Basketball, **Programs Available** Self-Defense, Girls Volleyball, Youth Cheerleading, Special Events (Easter Egg Hunt, Spooktacular), Mountain Bike Race, Movie Night, Pitch hit run 6 parks, Walking trails, Baseball/Softball Fields, Shelters, Football Fields, **Facilities** Playgrounds, Liberty High School, Bedford Middle School, Bedford Elementary School, Outdoor Basketball Courts, 5 Tennis Courts **Number of Full-Time** 10 Employees Type of Government Collaborate with county for special events Youth Programs-only allowed for those children in the elementary school Who is Allowed to Participate zone; all other activities open to city and county After School Programs Yes Transportation No-only for trips Small grants (NFL Grant), Team Sponsors, Donations; but mostly through the **Programs Funding** city recreation budget **Dollar Amount of Total Fiscal** 903,700 Year Budget to Recreation Total Budget for Fiscal Yr. 44,996,875 **County Funding** Yes, Bedford County provides funding when doing joint programs Percentage of County less than 1% Funding **Funding for Transportation** fees charged for the trip **Difference in Fees Based on** youth athletics- county residents \$10 non resident fee Region Low-income Assistance & Residents fill out an application and decision is based on their household Qualifications income Source for Assistance through fiscal year budget-just absorb the cost Amount of Total Budget to **Fund Low-income** less than 1% Assistance **Promote Low income-**Yes Assistance Promote, by What Means through program brochure that is sent through the schools 3 times a year To Participate in Athletics, pay as on goes Flat Rate or Pay as One Goes Pay as you go, how much city residents \$20, county residents \$30 Difference in fees based on \$10 for county residents

region % of participants receiving some form of financial assistance

less than 1%

	Local Revenue Per Capita	Population	Parks, Recreation, and Cultural Per Capita	Parks and Recreation Per Capita	Law Enforcement and Traffic Control Per Capita	Percentage of Population under 18 years of age	Percentage of Population between 5- 17 years of age	Percentage of Families living below Poverty Level	Percentag of Individua living below Poverty Level
Farmville	\$955.22	6,845	\$9.22	\$2.73	\$274.83	14.7%	10.3%	19.9%	22%
Bedford	\$1,461.96	6,091	\$175.53	\$125.42	\$340.29	21.6%	16%	15.4%	13.3%
Town Average	\$832.77		\$94.36	\$88.04	\$173.50				
United States Average						25.7%	18.9%	9.8%	12.4%

COMPARISON TABLE OF BEDFORD AND FARMVILLE

As seen in the chart above, the town of Farmville is slightly larger, by a margin of 754 people, than that of the city of Bedford; making Bedford an ideal size to study.

- The local revenue per capita in the city of Bedford is significantly higher--\$1,461.96 versus that of Farmville which is \$955.22; giving Bedford a local revenue per capita of 153% of that of Farmville.
- The parks, recreation, and cultural per capita in the city of Bedford is immensely higher--\$175.53 versus that of Farmville which is \$9.22; giving Bedford a local parks, recreation, and cultural that is 19 times that of Farmville
- The parks and recreation per capita in the city of Bedford is also immensely higher--\$125.42 versus that of Farmville which is \$2.73; giving Bedford a local parks and recreation that is nearly 50 times higher than that of Farmville.

DISCUSSION

Although some of the difference in the amount spent on parks, recreation, and cultural and parks and recreation can be attributed to the fact that Bedford has a significantly higher local revenue per capita it does not justify the extent of the difference between the two localities. For comparison, lets adjust the amount of the two variables—parks, recreation, and cultural and parks and recreation—into percentages of local revenue per capita.

- 0.97% of Farmville's local revenue per capita is allocated to parks, recreation and cultural. 12.01% of Bedford's local revenue per capita is allocated to parks, recreation and cultural. Resulting in Bedford still spending over 12 times that of Farmville.
- 0.29% of Farmville's local revenue per capita is allocated to parks and recreation. 8.58% of Bedford's local revenue per capita is allocated to parks and recreation. Resulting in Bedford still spending nearly 30 times that of Farmville

Farmville has a larger percentage of its families living under the poverty level than Bedford does; by a margin of 4.5%. Farmville also has a higher percentage of its individuals living under the poverty level than Bedford does; with 8.7% higher. The reasoning behind comparing these to variables is to show the need for the locality to spend more on recreation due to its participants not having the finances to participate in activities. It is my thinking that if a locality has a higher percentage of its citizens and families living under the poverty line then they would have to spend more on recreation to provide programs at no or a lower cost.

An additional variable to compare is how much each locality is allocating to law enforcement and traffic control. Farmville is spending \$274.83 per capita on law enforcement and traffic control and Bedford is spending \$340.29 per capita. When we adjust these to percentages of local revenue, Farmville is allocating 28.77% of its local revenue per capita to law enforcement and traffic control while Bedford is allocating slightly less with 23.28%. Although this difference does not appear to be that significant if Farmville were to adjust its percentage of local revenue allocated to law enforcement and traffic control of that of Bedford, 23.28%, it would be \$222.38 per capita. The difference between the current amount that Farmville allocated to law enforcement and traffic control, \$274.83 per capita, and the adjusted amount of \$222.38 per capita is a difference of \$52.45 per capita. This amount would make a huge difference in the ability for Farmville to run a successful recreation program. To understand the difference currently Farmville is allocating a total of \$18,686.85 to parks and recreation, if they were to reduce the amount they spend on law enforcement and traffic control and allocated the difference to parks and recreation the adjusted total of parks and recreation would be \$377,707.10.

POTENTENTAIL AREAS OF FURTURE RESEARCH

In trying to analyze and compare recreational spending by Farmville and similar localities, further areas of study that would appear to be interesting are:

- Crime rates vs. Recreation
- Crime rates vs. Law Enforcement and Traffic Control
- Crime rates vs. Correction and Detention

CONCLUSION

I undertook this study because I wanted to gain a better understanding of how localities determine how much to allocate to recreation. I also wanted to see how Farmville compares and ranks to other towns and cities. I've learned that there is no simple equation of how a locality determines how much they will spend on recreation and that the variables which I thought would have effected spending on recreation in fact do not. By studying the ranking tables, I have realized how little Farmville does spend on recreation in comparison to other towns, and in addition, how much more they allocate to other expenditures. It would be very interesting to understand how Farmville decides how much to assign to each expenditure, and the logic behind each one.

APPENDIX A

October 1st, 2006

Dear Recreation Director,

As a division I athlete I believe in the importance of giving the opportunity of athletics and recreation to everyone, especially underprivileged youth. In fulfillment of my role as a Cormier Citizen Scholar, I have chosen to work on a four-year project that focuses on this belief.

Currently, I am working on a project that investigates how a community organizes and provides recreational programs, with an emphasis on the funding and methods enabling low-income individuals to fully participate.

To this end, I am researching and comparing how localities of similar size to that in which my university is located run their recreational programs. In order to do this, I have developed a short survey regarding recreational facilities and programs, which I am asking various localities to complete. Your government is one of the twenty-five that I am investigating.

For your convenience, I have enclosed the 23 question survey, along with a self-addressed stamped envelope. It should take you only about fifteen minutes to complete.

Your locality's information is very critical for the success of my research. For this reason, I hope you are willing to participate and would appreciate your returning your completed survey to me by October 31st. While each locality's information will be strictly confidential, I would be happy to share the overall results of my research with you.

If you have any questions, please contact me via email at <u>lem152@longwood.edu</u> or by phone at (336)392-4992. Thank you again for your time.

Sincerely,

Leigh Mascherin Cormier Citizen Scholar enc.

APPENDIX B

Longwood Citizen Scholars

Topic: Recreation Programs Offered

- 1. Please describe the programs available
- 2. Please describe the recreation facilities
- 3. Is transportation provided by the government for participates?
- 4. Are there full-time recreation employees? If yes, how many?
- 5. Is the recreation program run as a joint program with another government?
- 6. Who is allowed to participate in the recreational activities only the governments' own citizens? Or are the programs available to any citizen outside that specific government area?
- 7. Does the recreation department include after schools programs?

Topic: Financial Support of Recreation

- 8. How are the recreational programs funded?
- 9. What is the total government budget for the fiscal year?
- 10. In the coming year, what dollar amount of the fiscal year's total budget is allocated to recreation?
- 11. Regarding funding for the recreation programs does more than one government provide funds. If so, please explain.
- 12. If the answer to #11 is yes, what percentage of the recreation program budget (funds, not programs) is provided by the sponsoring government?
- 13. If transportation is provided for users, how is this service funded?

Topic: Cost to Participant and Low-Income Support

- 14. If programs are for a region, is there a difference in the fees for the government's own citizens versus citizens of the region? If so, please explain.
- 15. If there is low-income assistance? If so, how does one qualify?
- 16. What percentage of participants are receiving some form of financial assistance towards fees?
- 17. Where does the program get the money to support this assistance?
- 18. What amount of the recreation budget is used to assist low-income residents to participate in recreational programs?
- 19. Do you promote the fact that financial assistance is available or do participants have to inquire?
- 20. If you do promote this fact, by what means do you do so? (television, newspapers, bulletin boards at places of business, etc.)
- 21. In order to participate in athletics is there a flat rate or does the participant pay for each activity individually?

22. If a yearly rate, how much is it?

23. If there is a fee per activity, what is the rate per sport?

Name of government: _____

APPENDIX C

Ranking Tables:

- Table 1: Local Revenue Per Capita
- Table 2: Parks, Recreation, and Cultural Per Capita
- Table 3: Law Enforcement and Traffic Control Per Capita
- Table 4: Percentage of Population under 18
- Table 5: Percentage of Population between 5-17
- Table 6: Percentage of Individuals Living Below Poverty Level
- Table 7: Percentage of Families Living Below Poverty Level

APPENDIX D

Comparison Table of Several Localities

	Local Revenue Per Capita	Population	Parks, Recreation, and Cultural Per Capita	Parks and Recreation Per Capita	Law Enforcement and Traffic Control Per Capita	Percentage of Population under 18 years of age	Percentage of Population between 5- 17 years of age	Percentage of Families living below Poverty Level	Perce 0 Indiv liv bel Pov Le
Marion	\$446.50	6,349	\$87.23	\$81.77	\$188.26	19.4%	14.4%	13.2%	18.
Ashland	\$749.89	6,619	\$27.35	\$27.35	\$263.79	19.9%	15%	6.9%	10.
Prince Edward County	\$801.20	20,846	\$14.25	\$3.81	\$42.17	20.2%	15.2%	14.6%	18.
Farmville	\$955.22	6,845	\$9.22	\$2.73	\$274.83	14.7%	10.3%	19.9%	22
Christiansburg	\$982.42	16,947	\$81.33	\$80.65	\$238.64	23.8%	16.4%	6.4%	8.5
Bedford County	\$1,040.11	65,033	\$40.58	\$17.01	\$76.57	24%	18.2%	5.2%	7.1
Lexington	\$1,451.54	7,230	\$73.57	\$23.83	\$255.94	11%	8%	2.4%	21.
Bedford	\$1,461.96	6,091	\$175.53	\$125.42	\$340.29	21.6%	16%	15.4%	13.
County Average	\$1,818.48		\$79.15	\$47.05	\$137.77				-
Town Average	\$832.77		\$94.36	\$88.04	\$173.50				-
United States Average						25.7%	18.9%	9.8%	12.

APPENDIX E

Graph 1 Town—local revenue per capita vs. dollar amount per capita on parks and	recreation
Graph 2 County—local revenue per capita vs. dollar amount per capita on parks and	recreation
Graph 3 Town—percentage of families living in poverty vs. dollar amount per capita on recreation	parks and
Graph 4 County—percentage of families living in poverty vs. dollar amount per capita on recreation	parks and
Graph 5 Town—percentage of individuals living in poverty vs. dollar amount per capita of and recreation	on parks
Graph 6 County—percentage of individuals living in poverty vs. dollar amount per capita recreation	on parks and
Graph 7 Town—dollar amount per capita on law enforcement and traffic control vs. dolla per capita on parks and recreation	r amount
Graph 8	

County—dollar amount per capita on law enforcement and traffic control vs. dollar amount per capita on parks and recreation

Graph 9

County-dollar amount per capita on correction and detention vs. dollar amount per capita on parks and recreation capita

Graph 10

Town—percentage of the population under the age of 18 vs. dollar amount per capita on parks and recreation

Graph 11

County—percentage of the population under the age of 18 vs. dollar amount per capita on parks and recreation

Graph 12

Town—percentage of the population between the age of 5-17 vs. dollar amount per capita on parks and recreation

Graph 13

County—percentage of the population between the age of 5-17 vs. dollar amount per capita on parks and recreation

Graph 14

County-dollar amount per capita on education vs. dollar amount per capita on parks and recreation

REFRENCES

- Buck, Karen. "Sports Targets Must Be for All Our Kids." <u>Regeneration & Renewal</u> (2006): 16.
 <u>ABI/Inform Global</u>. Pro Quest. Longwood University, Farmville. 08 May 2007. Keyword: Youth Athletics.
- [2] Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.) Hillsdale, NJ: Lawrence Erlbaum Associates. <u>ISBN 0-8058-0283-5</u>.
- [3] Comparative Report of Local Government Revenues and Expenditures Year Ended June 30th, 2006 Commonwealth of Virginia Auditor of Public Accounts
- [4] United States Census Bureau Website www.census.gov