

An unused facility is a terrible thing to waste.

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Shared use of School Facilities with Community Organizations and Physical Activity Program Participation: A Cost-Benefit Assessment

School **facilities** create opportunities for **physical activity** during and after school

(Durant et al., 2009).

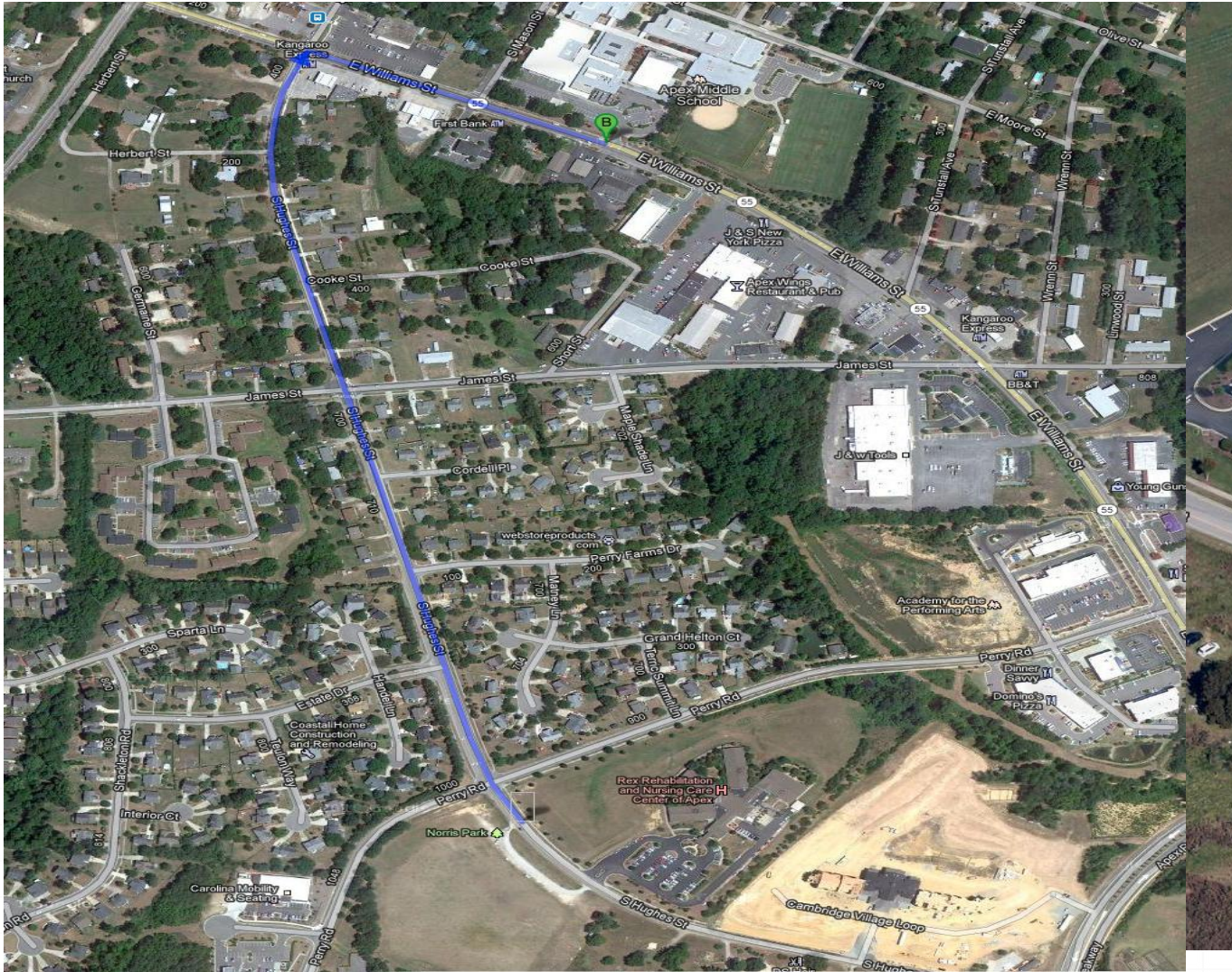


School
athletic
facilities are
often **empty**
after school

*Bocarro, Kanters, Cerin, Floyd, Casper, Suau,
& McKenzie, 2012*



A tale of two Athletic Fields





Middle School Athletic Field: Tuesday, 5:30 p.m.



Middle School Lacrosse Team Practice at Private field: Tuesday, 5:35 p.m.

Shared use of school athletic fields can increase Physical Activity

Health People 2020, Institute of Medicine



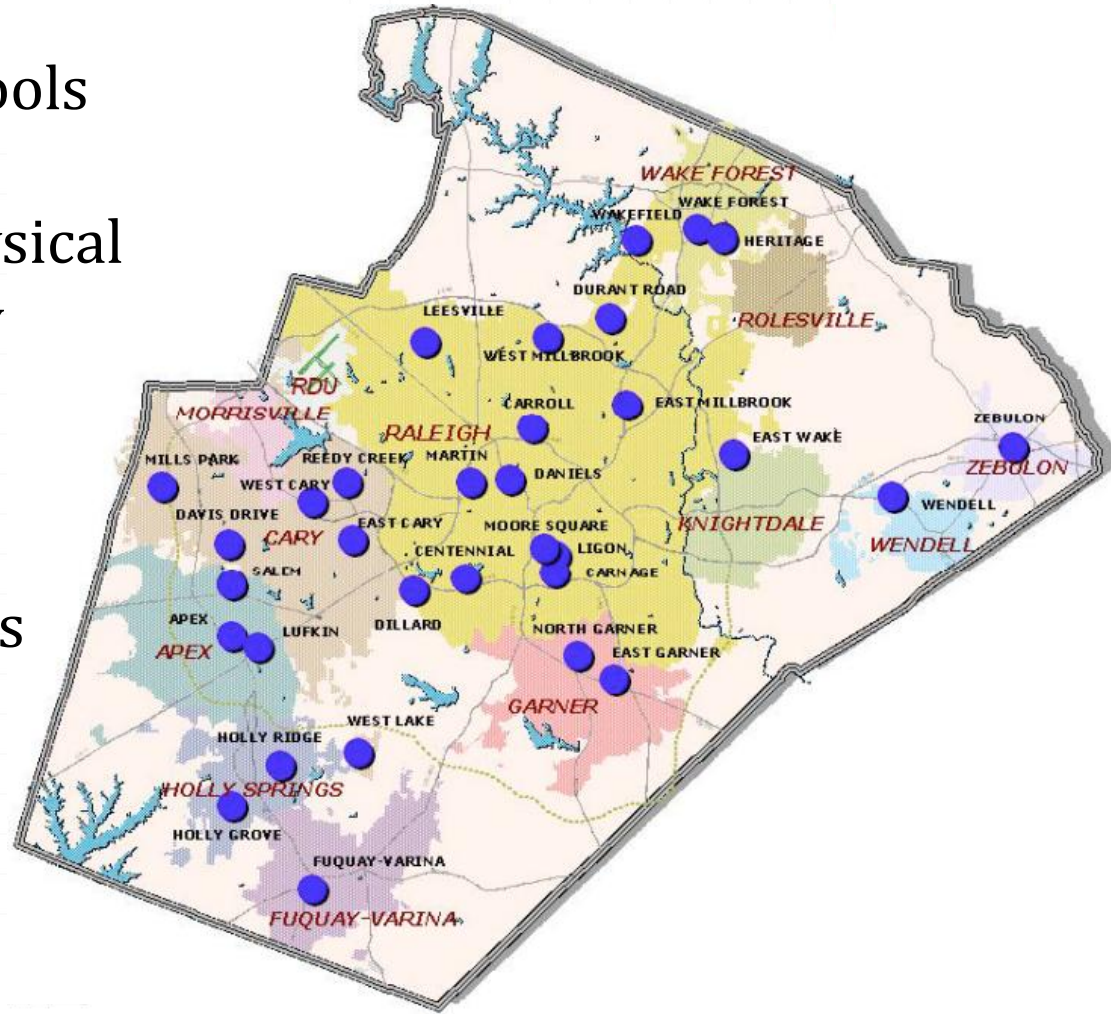
Barriers to Shared Use include increased **Liability**, Scheduling, and **Costs**

Spengler, Connaughton, Maddock, 2011; Filardo, Vincent, Allen, Franklin, 2010



Methods

- 30 Middle Schools
- Structured Physical Activity Survey (SPAS)
- School Facility Operating Costs



Categorizing Level of Shared Use

Level of Shared Use	Community Administered Programs/Year	Participants in Community Administered Programs/Year
1	0-1	<100
2	2-4	100-250
3	>4	>250

Results

Table 1. Correlations between number of community programs and minutes of school-based physical activity (N=30 Schools)

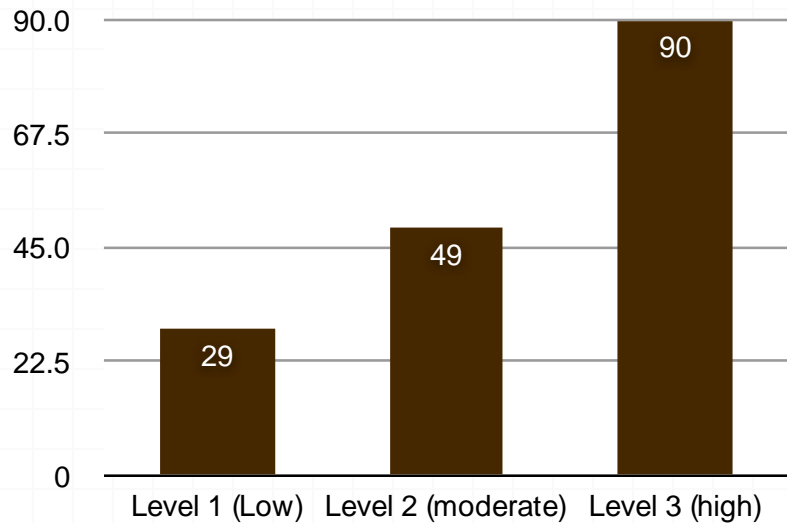
Population	Type of activity	Correlation with minutes of school-based LTPA	Population	Type of activity	Correlation with Cost per ft ² (τ)	Correlation with Cost per student (τ)
Overall school population	Minutes of activity in school-sponsored programs	.127	Overall school population	Minutes of activity in school-sponsored programs	.047	-.058
	Minutes of activity in community-sponsored programs	.788**		Minutes of activity in community-sponsored programs	.073	-.240
	Minutes in all afterschool	.590**		Minutes in all afterschool physical activity programs	.025	-.235
				Minutes of activity in school-sponsored programs	.007	-.217

Table 2. Mann-Whitney U-tests of differences in minutes in physical activity based on level of school shared use.

Comparison	N Schools	Mean rank	Z-score	Comparison	N Schools	Mean rank	Z-score	r	1
Total Student Population									
Shared Use Level 1	11	8.95							
Shared Use Level 2	11	14.							
				Annual Operating Cost per Square Foot					
Shared Use Level 1	11	6.0		Shared Use Level 1	11	11.45			
Shared Use Level 3	8	15.		Shared Use Level 2	11	11.55	-.033	-0.0007	
Shared Use Level 2	11	6.3		Shared Use Level 1	11	9.09			
Shared Use Level 3	8	15.		Shared Use Level 3	8	11.25	-.826	-0.19	
Girls									
Shared Use Level 1	11	7.5		Shared Use Level 2	11	8.64			
Shared Use Level 2	11	15.		Shared Use Level 3	8	11.88	-1.24	-0.28	
Shared Use Level 1	11	6.0		Annual Operating Cost per Enrolled Student					
Shared Use Level 3	8	15.		Shared Use Level 1	11	13.45			
Shared Use Level 2	11	7.1		Shared Use Level 2	11	9.55	-1.41	-0.30	
Shared Use Level 3	8	13.		Shared Use Level 1	11	11.18			
Boys									
Shared Use Level 1	11	8.7		Shared Use Level 3	8	8.38	-1.07	-0.25	
Shared Use Level 2	11	15.		Shared Use Level 2	11	10.45			
Shared Use Level 1	11	6.7		Shared Use Level 3	8	9.38	-.413	-0.09	
Shared Use Level 3	8	14.							
Shared Use Level 2	11	8.0							
Shared Use Level 3	8	12.							

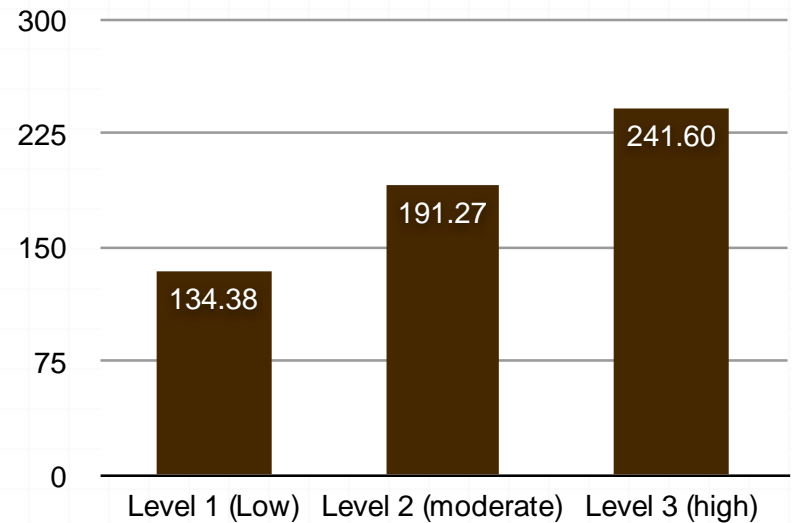
Physical Activity

Participants per week in Afterschool Programs



Level of Shared Use

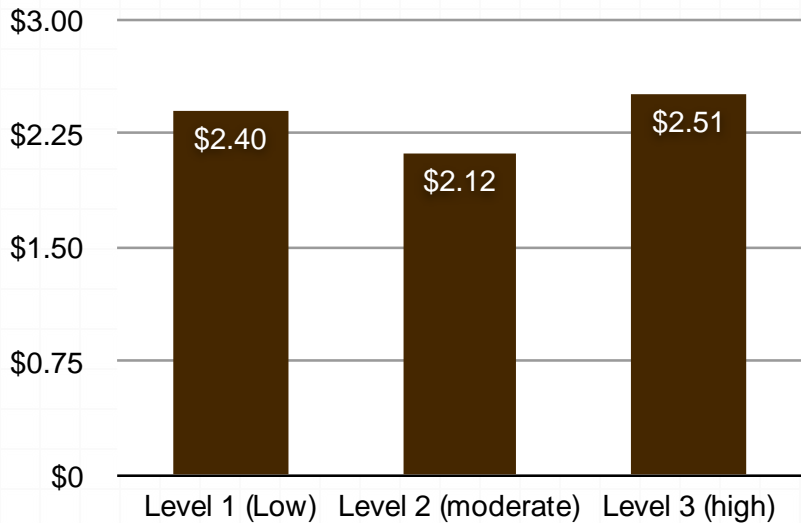
Minutes of PA per week in Afterschool Programs



Level of Shared Use

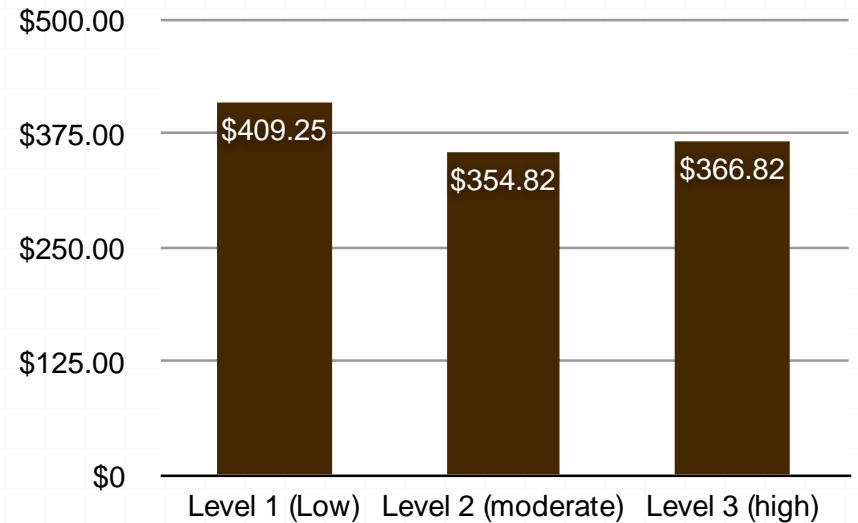
Facility Operating Costs

Facility Operating Cost Per Sq. Ft.



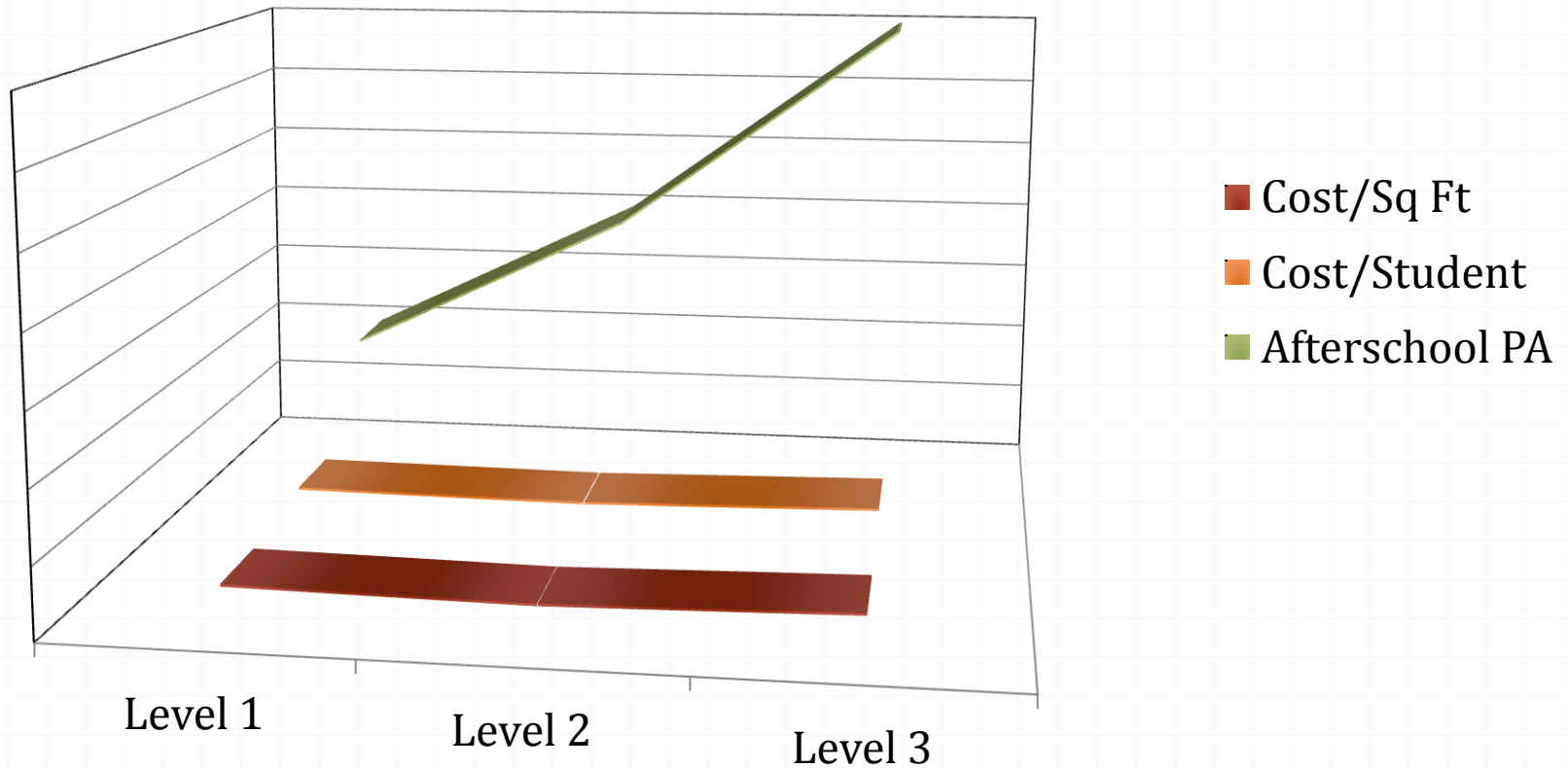
Level of Shared Use

Facility Operating Cost Per Student



Level of Shared Use

Shared use **Increased Physical Activity** **without** increasing **expenses**



Discussion

69% of middle school students would like to play more afterschool sports.

Casper, Bocarro, Kanters & Floyd, 2011



Almost one third of children's recommended 60 minutes MVPA is provided through afterschool programs.

Trost, Rosenkranz & Dzewaltowski, 2008



Shared use with community partners
can **Increase** the number of
Participants in **afterschool physical
activity**

programs and
increase the number
of **Children**
achieving
recommended
amounts **MVPA.**



Joint Use Agreements can **control Liability**, address **Scheduling** issues and generate **Revenues** to offset unanticipated **Expenses**





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