



# **Data Management and Analysis Pilot Project**

# Contents

## Main Contents

4	<b>EXECUTIVE SUMMARY</b>
6	<b>STUDY BACKGROUND</b>
5	<b>Data Collection</b>
7	<b>RESULTS</b>
7	<b>Demographics</b>
7	<i>Race/Ethnicity</i>
8	<i>Gender</i>
9	<i>Age</i>
10	<i>Grade</i>
11	<i>Schools</i>
13	<i>Geographic Area</i>
14	<i>ZIP Codes</i>
16	<b>Dosage</b>
16	<i>Sessions Attended</i>
17	<i>Hours Attended</i>
18	<i>Attendance Rate</i>
19	<b>RECOMMENDATIONS</b>
19	<b>Demographics</b>
19	<i>Race/Ethnicity</i>
19	<i>Age</i>
21	<i>Gender</i>
21	<i>School</i>
22	<i>Grade</i>
23	<i>ZIP Codes</i>
24	<b>Dosage</b>
24	<i>Sessions Attended</i>
24	<i>Attendance Rate</i>
25	<i>Hours Attended</i>
26	<b>APPENDIX</b>

## List of Figures

7	Figure 1. Comparison of Race/Ethnicity
8	Figure 2. Comparison of Gender
9	Figure 3. Age Distribution
9	Figure 4. Comparison of Age Groups
10	Figure 5. Grade Distribution
10	Figure 6. Grade Distribution
13	Figure 7. Schools by Governance Type
14	Figure 8. Map of Schools
15	Figure 9. Map of Program Locations
18	Figure 10. ZIP Codes Served
19	Figure 11. ZIP Codes by Poverty Level
19	Figure 12. ZIP Codes by Median Household Income
20	Figure 13. Sessions Attended
22	Figure 14. Sessions Attended
24	Figure 15. Attendance Rate

*The Sport Industry Research Center (SIRC) at Temple University is a leading voice in harnessing the power of sport for the good of communities, providing advanced research services and seeking to engage with all stakeholders in the sport industry to expand the definition of success to include positive and measurable societal impacts.*

SIRC was created in 2008 and is a collaborative research network providing innovative marketing and management strategies to enhance the economic, social, and environmental sustainability of sporting events and programs. The center has provided opportunities for academics, students, and professionals to explore the potential of sport to impact local communities. SIRC conducts and disseminates research, educates and trains executives, and functions as a think tank and informational resource for those involved in the sport industry.

Included among the initiatives that SIRC is involved in are: executive workshops; graduate student training; community based programming; event management and program consulting; and academic dissemination of cutting-edge research and managerial best practices. Areas of expertise include outcome-based measurement systems, social responsibility evaluation, and sport consumer and participant-based research.

Report developed by the Sport Industry Research Center  
Temple University

Please direct questions regarding this report to:

Gareth J. Jones  
*Sport Industry Research Center*  
*School of Sport, Tourism and Hospitality Management (STHM)*  
*Temple University*

gareth.jones@temple.edu  
215-204-3554

# Executive Summary

The purpose of this pilot project was to provide insight into the collective reach of the Philadelphia Youth Sport Collaborative (PYSC). Eight (8) member organizations submitted registration and attendance data, which was analyzed to determine the demographic characteristics of participants and the “dosage” of programming they received. Secondary data from The School District of Philadelphia (SDP), American Community Survey (ACS) 2012-2016 5-year estimates, Pennsylvania Spatial Data Access (PASDA), and Open Data Philly was integrated to further contextualize analysis. The results provide a synthesis of this information, and informed recommendations to help PYSC develop of a comprehensive data management system.

The racial/ethnic distribution of PYSC participants differed from the broader population of youth aged 5-18 in Philadelphia, as reported on the 2012-2016 ACS. Most notably, there was a higher proportion of Black or African American participants (66.6%), and lower proportion of both White or Caucasian (15.1%) and Hispanic/Latino participants (10.7%) compared to the overall city distribution. In addition, there was a higher proportion of female participants compared to the overall city distribution (57.2%). Approximately 58% of participants were between the ages of 10 and 14, which is a critical period of middle/late childhood and early/middle adolescence.

Participants attended 168 different schools, 28 of which were either cyber schools, non-Philadelphia county schools, or homeschools. Of the remaining 140, most were district schools (57.9%) or charter schools (25.7%). In terms of grade level, 44% of participants were in grades traditionally associated with middle school (6th through 8th), and there was an even split between participants in grades typically associated with elementary school (K through 5th) and high school (9th through 12th) (28% each).

Site locations for each organization were mapped and overlaid with spatially referenced data from PASDA, Open Data Philly, and the 2012-2016 ACS. Collectively, program sites were widely dispersed across Philadelphia County. There was an especially high concentration of sites located in areas characterized by low socioeconomic status (i.e., poverty, unemployment) and high crime, particularly in West Philadelphia and North Philadelphia. Similarly, most participants lived in ZIP codes characterized by higher poverty.

Among the eight organizations included in this pilot, there was a diverse mix of seasonal, semester, and year-long programs, which was reflected in both the number of sessions and hours of programming provided. Overall, the eight organizations served a total of 3,224 youth, collectively providing 35,778 sessions and 78,725 hours of programming. The average attendance rate was 86.1%

Several recommendations are provided based on this analysis. First, missing data was an issue, as demographic and dosage questions had missing data rates ranging from 30% to 47%. This leads to incomplete analysis that can limit attempts to tell a robust, collective story. Second, it is recommended that each organization agree upon a common set of fields to guide their data collection process. The way each organization collects registration and attendance data does not have to be the same (e.g., paper and pencil vs. digital), but the question phrasing and answer formats should be consistent. This will ensure the accuracy of data aggregation from the organization-level to the systems-level. Finally, it is recommended that organizations keep daily or session-based attendance records so that temporal trends in attendance can be assessed at the program, organization, and systems level. When this is not feasible, summative counts of sessions attended coupled with the total number of sessions offered provides the next best option.

The following report presents the results of this analysis and more detailed recommendations related to demographic and dosage questions. The table below provides a Glossary of Terms used throughout the report

#### GLOSSARY OF TERMS

Symbol	Term	Definition
n	Sample Size	The number of participants measured
M	Mean	The average value.
SD	Standard Deviation	A measure of variation or dispersion around the mean.
Min	Minimum	The minimum value in a data range.
Max	Maximum	The maximum value in a data range.
Sum	Sum	The sum of values in a data range.

# Study Background

Recent insights from sport based youth development (SBYD) research and practice have highlighted the importance of critically examining the wide range of sport opportunities available to youth. Although a variety of sport activities may contribute to positive youth development (PYD), the most effective approaches present sport as a “hook” to engage youth with other developmentally-focused objectives (e.g., health, education). However, much of the research guiding these SBYD initiatives has focused solely on the outcomes of “sport,” with far less attention to the inputs or outputs that make them unique (Jones et al., 2017). Systematically collecting this data is essential to not only engaging organizations in key conversations regarding best practices (e.g., recruitment, retentions), but also demonstrating the importance and vitality of sport within the broader system of youth development initiatives.

The purpose of this pilot program is to build a comprehensive dataset comprising members of the Philadelphia Youth Sport Collaborative (PYSC). Collectively, this information will improve accountability and promote organizational learning among SBYD organizations, and give PYSC a stronger voice in public policy discussion regarding key resources. Furthermore, a coordinated data management system will allow PYSC and its members to more strategically search and apply for grants that align with their individual and collective goals. This is particularly important for SBYD organizations, as many struggle to document and systematically report key data, such as participant demographics or program “dosage”, which often precludes them from taking advantage of various funding mechanisms.

## DATA COLLECTION

8 PYSC organizations agreed to participate in the pilot study, which focused on attendance and registration data. Each organization collected their own data through a variety of methods, and uploaded raw data files to a site hosted by SIRC. SIRC cleaned, coded, and aggregated the raw data, then built one comprehensive dataset for analysis. In addition to analyzing trends through descriptive statistics and frequencies, the data was also merged with secondary data from four sources to allow for more advanced analysis:

1. *The School District of Philadelphia (SDP)*
2. *American Community Survey (ACS) 2012-2016 5-Year Estimates*
3. *Pennsylvania Spatial Data Access*
4. *Open Data Philly*

The following report presents the results of this analysis, and also provides several recommendations for the future development of a comprehensive data management system.

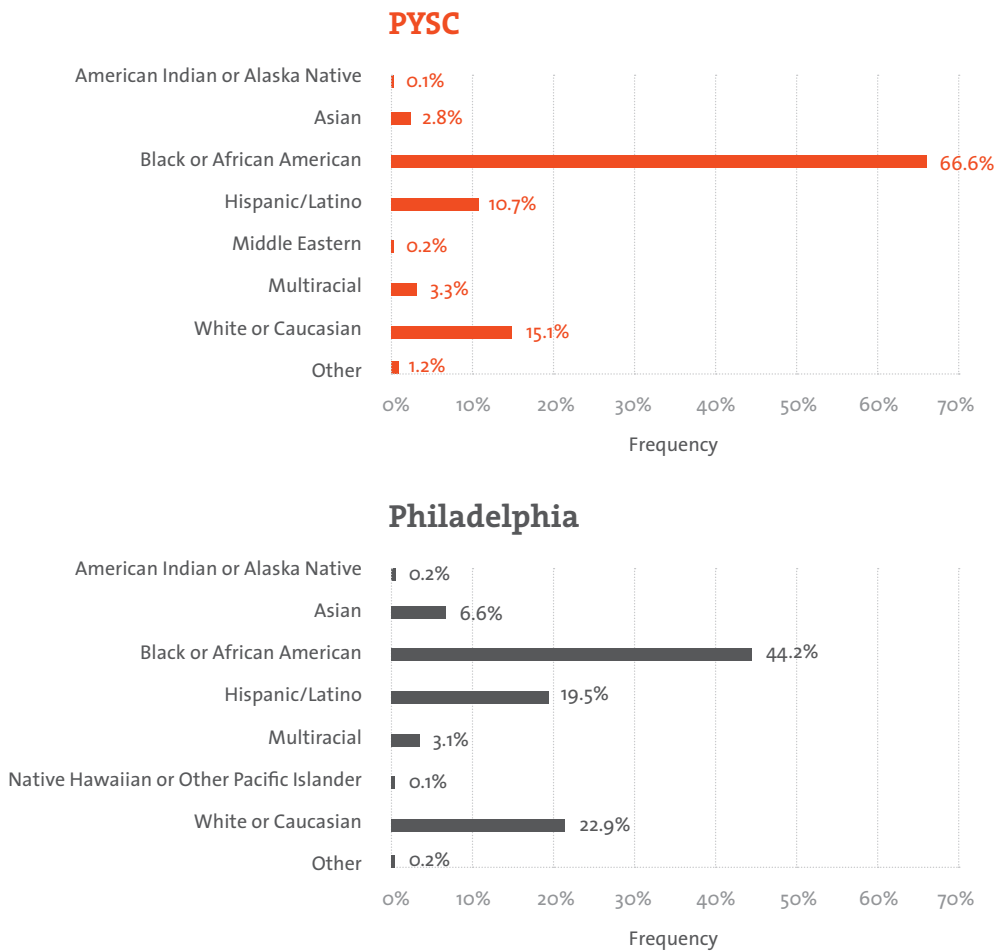
# Results

## DEMOGRAPHICS

### Race/Ethnicity

Almost two-thirds of PYSC participants were Black or African American (66.6%). The next highest proportions were White or Caucasian (15.1%) and Hispanic/Latino (10.7%). All other race/ethnicity categories were under 4%. As shown in Figure 1, this differs from the racial distribution of youth aged 5-19 in Philadelphia, as reported on the 2012-2016 ACS. Specifically, there is a higher proportion of Black or African American participants in PYSC compared to the overall city distribution, and a lower proportion of White and Hispanic/Latino participants.

**Figure 1. Comparison of Race/Ethnicity**



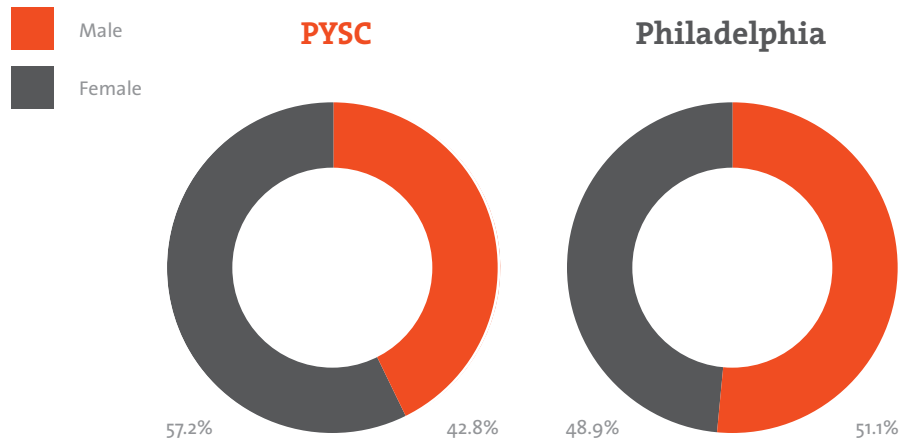
\* Note: Middle Eastern category only in PYSC data; Native Hawaiian or Other Pacific Islander only in ACS data

\*Note: In the ACS, non-Hispanic data was only available for the White alone racial category. Estimates from the total population were used to weight the proportion of each race (age 5-19), that were of Hispanic/Latino origin.

## Gender

There were more female participants (57.2%) than male participants (42.8%) among PYSC organizations. As shown in Figure 2, this differs from the distribution of youth age 5-19 in Philadelphia, as reported on the 2012-2016 ACS, which is relatively even with 51.1% male and 48.9% female.

**Figure 2. Comparison of Gender**



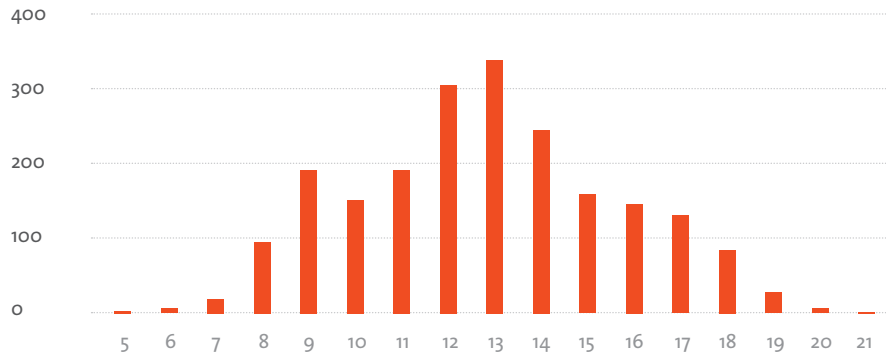
Gender proportions did fluctuate across organizations, as some organizations purposefully target only one gender category (i.e., Girls on the Run).



## Age

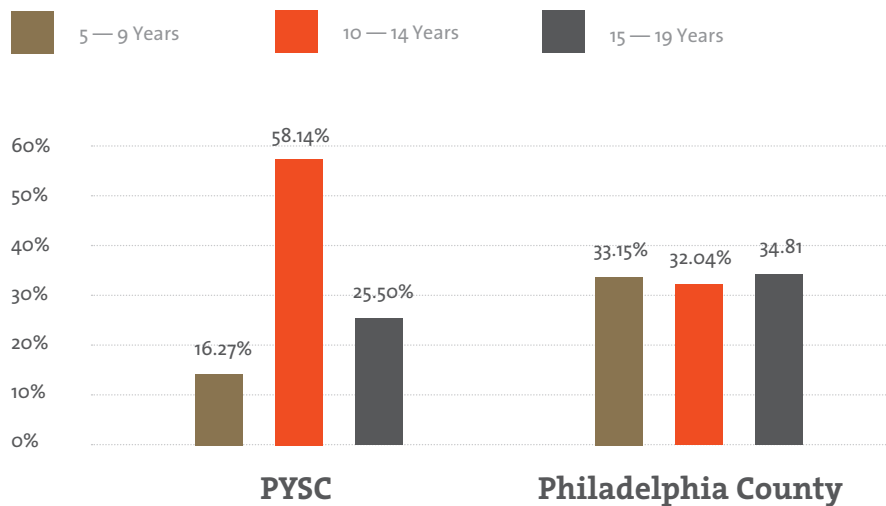
Figure 3 displays the age distribution of participations. The average age was 12.8, and the standard deviation (SD) was 2.8.

**Figure 3. Age Distribution**



As shown in Figure 4, the largest proportion of PYSC participants were between 10 to 14 years old (58.1%), followed by the 15 to 19 age group (25.6%). The smallest proportion of participants were between 5 and 9 years old (16.3%). This differs from the more evenly distributed population of Philadelphia youth, as reported on the 2012-2016 ACS, and indicates the pilot programs primarily serve youth during the critical periods of middle/late childhood and early/middle adolescence.

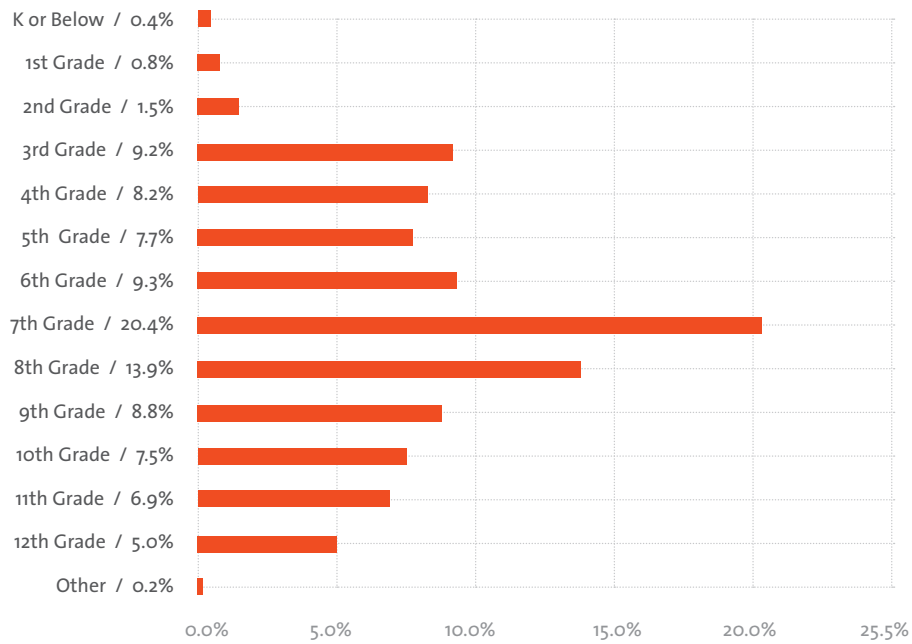
**Figure 4. Comparison of Age Groups**



## Grade

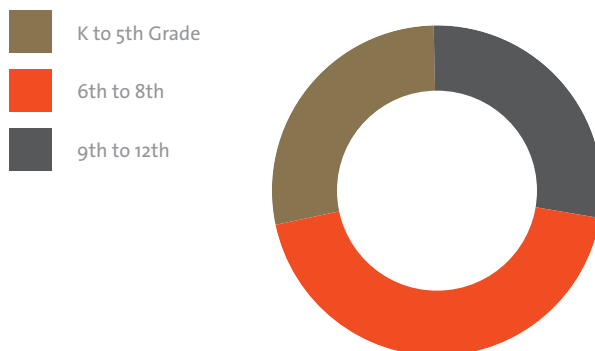
Figure 5 shows the distribution of respondents across different grades. The largest proportion of participants are in 7th grade (20.4%), followed by 8th grade (13.9%) and 6th grade (9.3%).

**Figure 5. Grade Distribution**



As shown in Figure 6, most participants were in the grades traditionally associated with middle school (44%). There was an even split between participants in grades typically associated with elementary school (28%) and high school (28%).

**Figure 6. Grade Distribution**

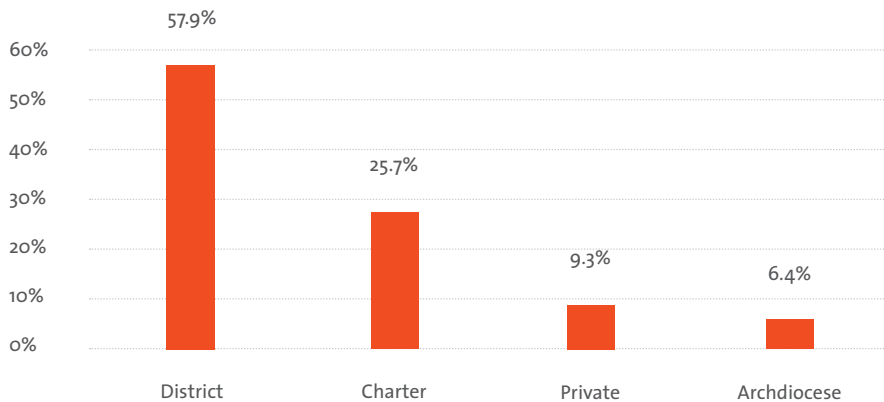


The different target populations among organizations was evident in the data. Some organizations exclusively targeted middle school (i.e., YMP) or high school (i.e., PCR) youth, while others had broader grade ranges.

## Schools

As shown in Figure 7, results indicate the schools attended by participants were mostly district schools (57.9%) or charter schools (25.7%). Private (9.3%) and archdiocese schools (6.4%) represented a smaller proportion.

**Figure 7. Schools by Governance Type**

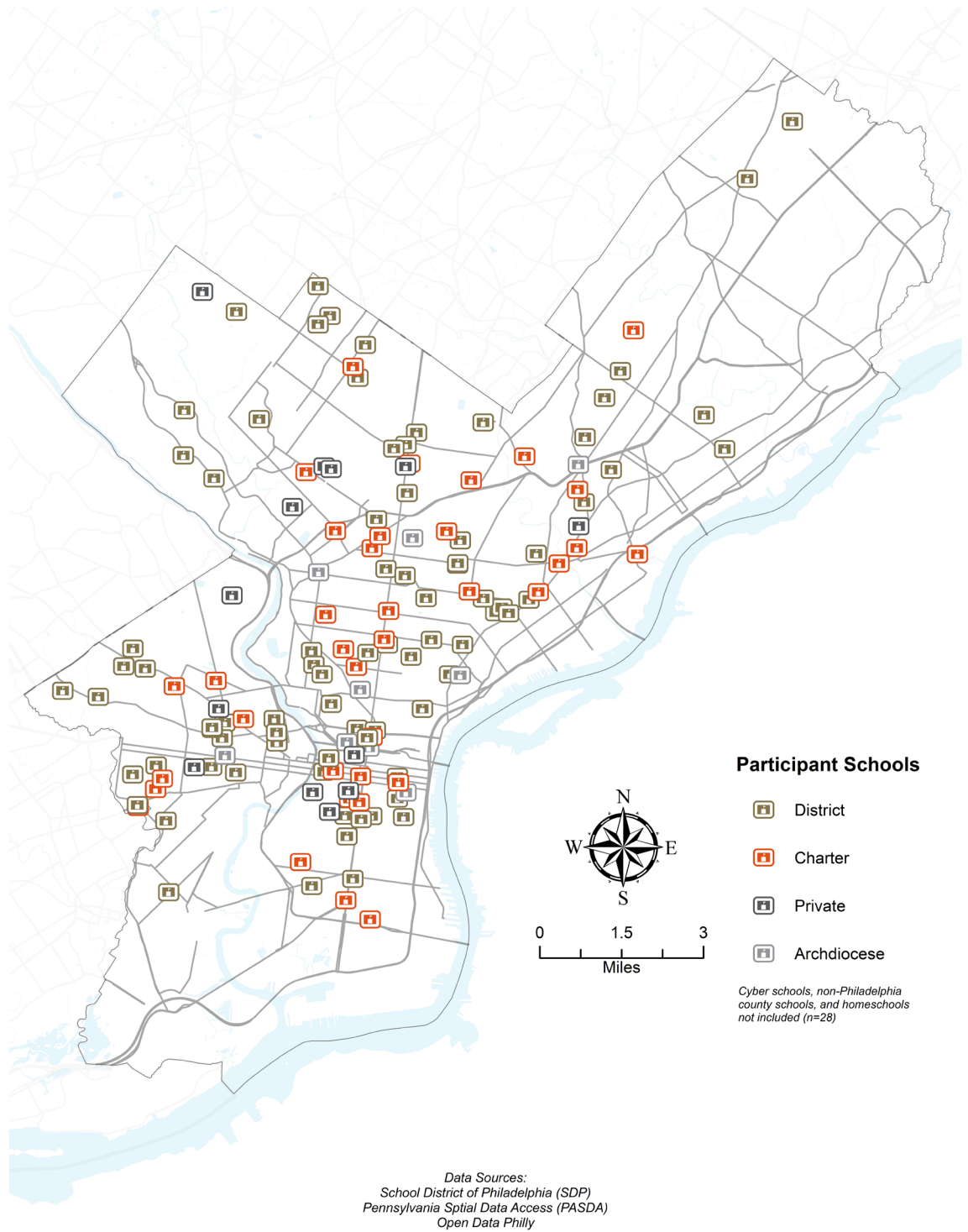


Using data from School District of Philadelphia (SDP), district schools with PYSC participants were compared to district schools without PYSC participants on measures related to English language learning (ELL), individualized education programming (IEP), socioeconomic status, average daily attendance, and indicators of discipline. There were no significant differences on any of these categories, suggesting the district schools PYSC participants attended were fairly representative of the broader district school system. Graphs of these comparisons are provided in Appendix A through M.

A total of 168 unique schools were identified among participants. Of this total, 27 schools were either not located in Philadelphia County or classified as cyber schools. In addition, 9 participants indicated that they were home-schooled. Figure 8 shows a map of the remaining 140 schools served by PYSC pilot programs.

*\*Note: Data reflects the type of schools attended by PYSC participants, not the proportion of PYSC participants attending each school type.*

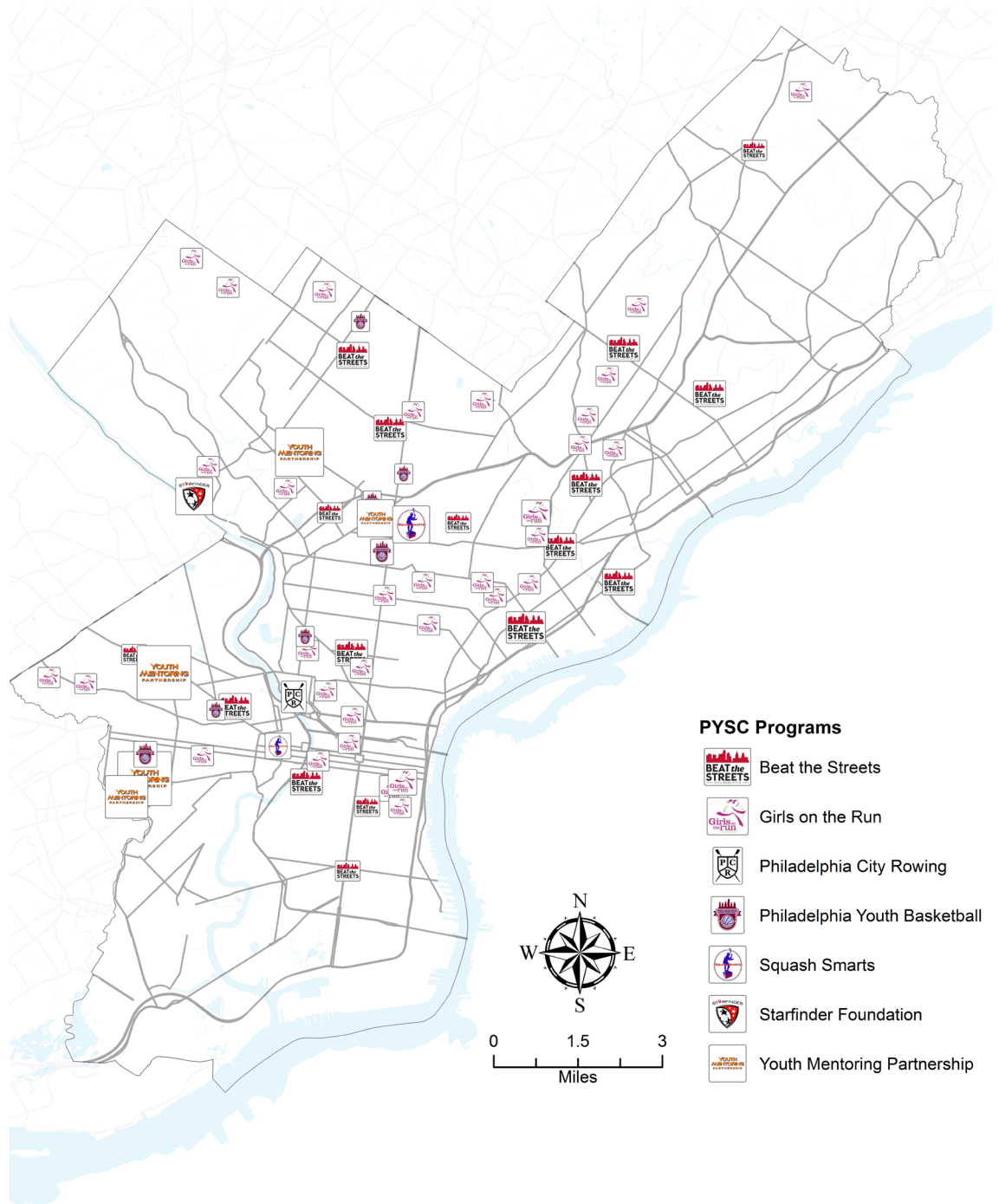
Figure 8. Map of Schools



## Geographic Area

Figure 9 displays the program sites for all 8 PYSC organizations, sized by their enrollment. The service area encompasses most of Philadelphia County, with higher concentrations in North and West Philadelphia. Appendices F–M display this data overlaid with measures related to the underlying context.

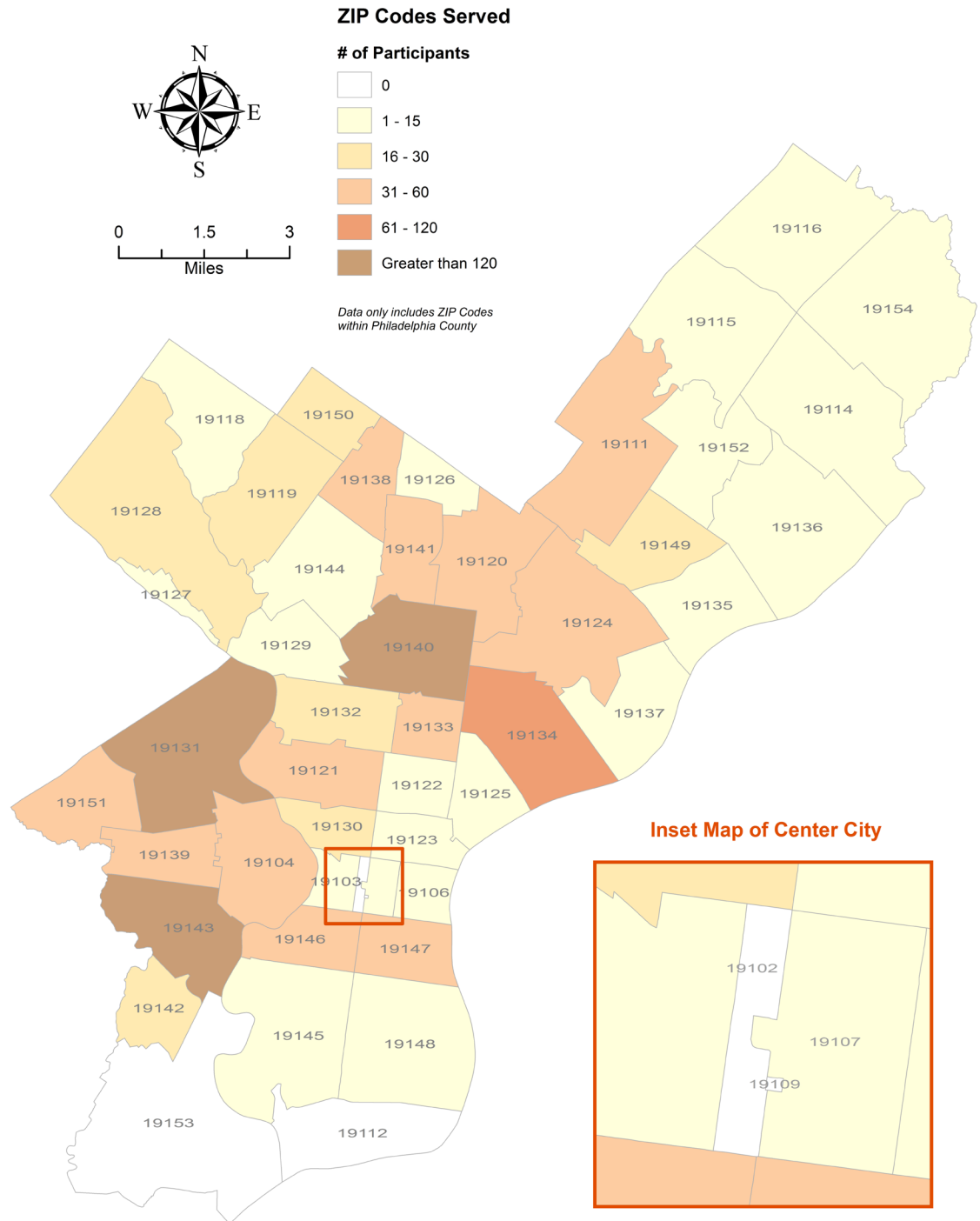
**Figure 9. Map of Program Locations**



## ZIP Codes

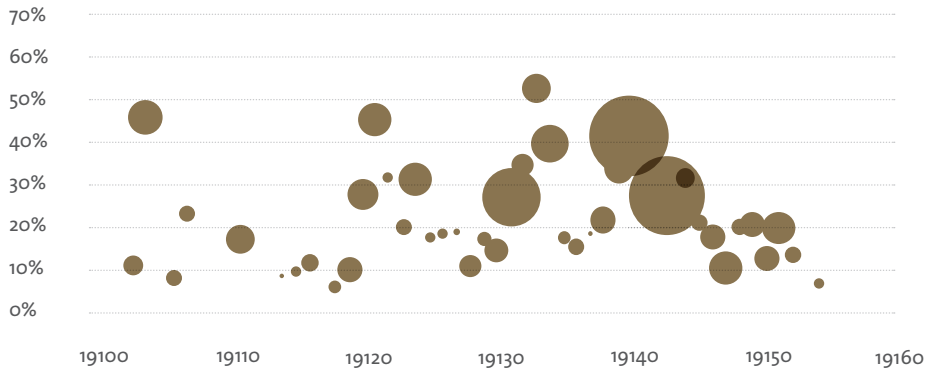
Figure 10 displays the ZIP codes served by the 8 PYSC organizations. Participants lived in all but four ZIP codes in Philadelphia. Once again, ZIP codes in North and West Philadelphia were especially prominent.

**Figure 10. ZIP Codes Served**



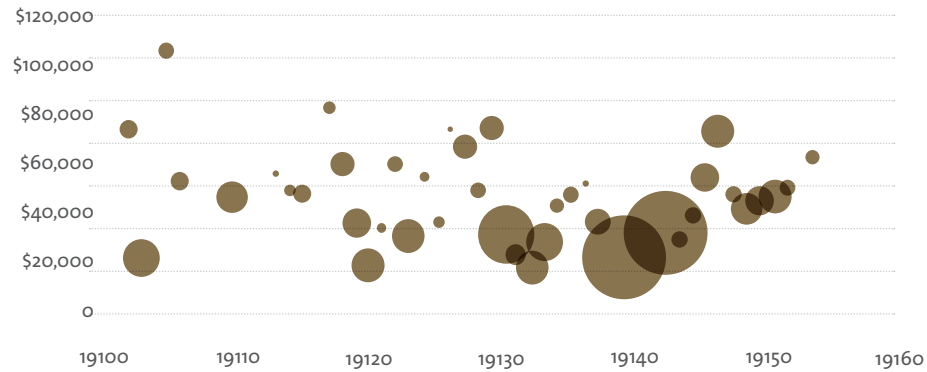
Data indicates ZIP codes with the most PYSC participants also tended to be those characterized by lower socio-economic status. For example, Figure 11 plots each ZIP code as a circle based on poverty level, with the size of each circle representing the number of PYSC participants. This graph shows that ZIP codes with higher poverty levels tend to have more PYSC participants, while ZIP codes with lower poverty levels tend to have less PYSC participants.

**Figure 11. ZIP Codes by Poverty Level**



Similarly, Figure 12 plots each ZIP code as a circle based on median household income, with the size of each circle representing the number of PYSC participants. This graph shows that ZIP codes with lower median household income tend to have more PYSC participants, while ZIP codes with higher median household income tend to have less PYSC participants.

**Figure 12. ZIP Codes by Median Household Income**

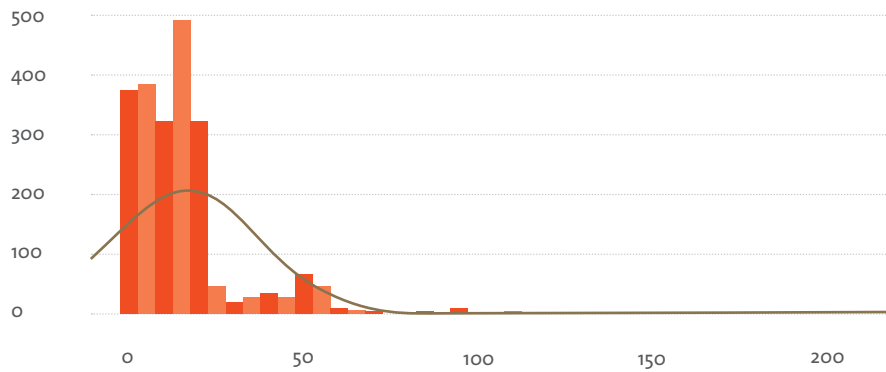


# DOSAGE

## Sessions Attended

Overall, participants attended a total of 35,778 sessions. The lowest number of sessions attended was 0, and the highest was 179. The average number of sessions attended was 16.6, with a standard deviation of 21.1. Figure 13 shows the distribution of this data.

**Figure 13. Sessions Attended**



Generalized linear models (GLMs) were utilized to compare differences in sessions attended among key demographic groups, while controlling for the variance between programs. Data analysis revealed no significant differences in sessions attended among race/ethnicity categories. In addition, there were no significant differences in sessions attended between males and females. There were also no significant differences in sessions attended based on ZIP Code.

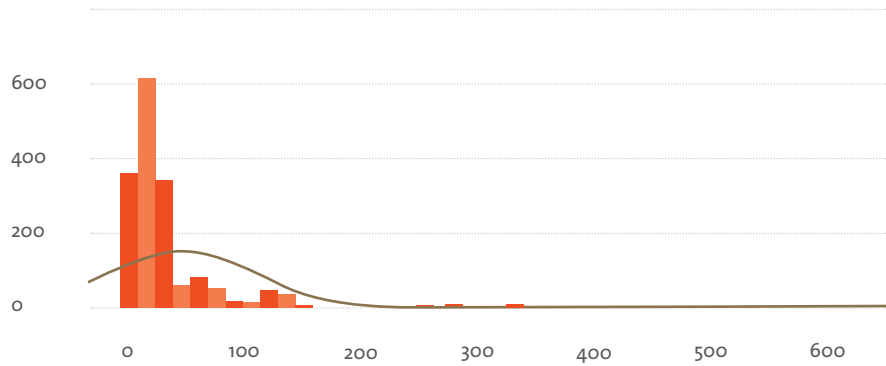


## Hours Attended

Overall, participants attended a total of 78,725 hours of programming. The lowest number of hours attended was 0, and the highest was 537. The average number of programming hours was 45.9, with a standard deviation of 66.4. Figure 14 shows the distribution of this data

**Figure 14. Hours Attended**

---

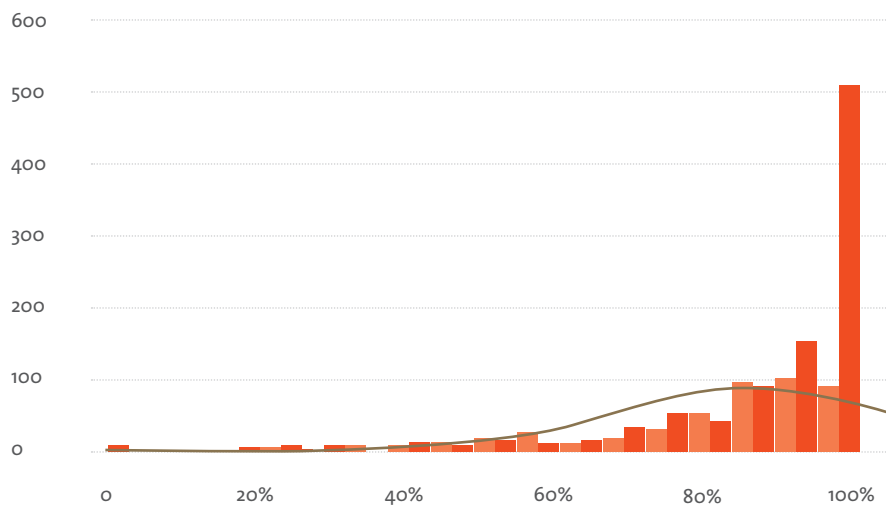


Generalized linear models (GLMs) were utilized to compare differences in programming hours attended among key demographic groups, while controlling for the variance between programs. Preliminary data analysis revealed no significant differences in programming hours among race/ethnicity categories. In addition, there were no significant differences in programming hours based on gender. There were no significant differences in hours attended based on ZIP Code.

## Attendance Rate

Overall, the average attendance rate was 86.1%, with a standard deviation of 18.6%. The lowest attendance rate was 0%, and the highest was 100%. Figure 14 shows the distribution of this data.

**Figure 15. Attendance Rate**



Generalized linear models (GLMs) were utilized to compare differences in programming hours attended among key demographic groups, while controlling for the variance between programs. Preliminary data analysis revealed significant differences in attendance rates among race/ethnicity categories. Specifically, participants identifying as White/Caucasian ( $M= 90.8\%$ ,  $SD= 13.3\%$ ) reported higher attendance rates than all other racial/ethnic categories. Conversely, participants identifying as Hispanic/Latino ( $M= 75.9\%$ ,  $SD= 25.4\%$ ) reported lower attendance rates than White/Caucasian, Black/African American ( $M= 84.4\%$ ,  $SD= 19.5\%$ ), and Multiracial participants ( $M= 84.3\%$ ,  $SD= 19.4\%$ ). There were no significant differences in attendance rates based on gender. In addition, there were also no significant differences in attendance rate based on ZIP code.

# Recommendations

## DEMOGRAPHICS

It is recommended that PYSC organizations align with the data reporting conventions used by CitySpan to allow for full integration into the broader out-of-school time (OST) system. Specific recommendations for each demographic variable are provided below:

### Age

The most accurate measure for age is date of birth (DOB), entered in MM/DD/YYYY format.

#### EXAMPLE

Please enter the [participant]'s date of birth in MM/DD/YYYY format.

--	--	--	--	--	--	--	--

#### NOTES FROM PILOT

- » Missing data (34.8%) was an issue.
- » Anyone under 5 years old or over 21 was removed, as they were probably keyed incorrectly.

### Race/Ethnicity

Ideally, this question would be entered in two separate fields reflecting both ethnicity and race. The example below aligns with the School District of Philadelphia and the American Community Survey, and can be recoded to reflect, at minimum, the following racial/ethnic categorizations:

- » White alone, not Hispanic or Latino
- » Black or African American alone, not Hispanic or Latino
- » American Indian or Alaska Native alone, not Hispanic or Latino
- » Asian alone, not Hispanic or Latino
- » Native Hawaiian or other Pacific Islander alone, not Hispanic or Latino
- » Other alone, not Hispanic or Latino
- » Two or more races alone, not Hispanic or Latino
- » Hispanic or Latino, any race.

## EXAMPLE

**Is [participant] of Hispanic or Latino origin? (select one)**

- Yes
- No

**What is [participant]'s race? (select all that apply)**

- White
- Black or African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or other Pacific Islander
- Other

## NOTES FROM PILOT

- Missing data (34.5%) was an issue.
- Not all organizations asked race and ethnicity as separate questions, which can create issues when aligning with secondary datasets.
- Conventions for racial classifications differed considerably. The recoded values are shown below::

Code	Label	Merged From...
	Missing	Missing Data
1	White/Caucasian	C; Caucasian; Caucasian/White; caucasian; Caucasian; W; WH; white; White; White/Caucasian
2	Black/African American	A-A; AA; African American; African American/Black; African-American; B; black; Black; Black or African American; Black/African American
3	Hispanic/Latino	H; Hisp; hispanic; Hispanic; Hispanic or Latino; Hispanic/Latino; lainx
4	Asian	Asian; asian
5	Native American/Alaska Native	American Indian/Alaska Native
6	Middle Eastern	Middle eastern; Middle Eastern
7	Multiracial	BH; Black/Hispanic; Black/white; Black/White; Mixed; Mult; Multi-racial; Multiracial; NA/H; Two or more races
8	Other	I decline to state; Other

## Gender

This question should not be binary (i.e., Male/Female). The example below provides a text-entry option for participants who identify transgender, gender variant/non-conforming, etc., and an option for participants who would prefer not to disclose their gender identity.

### EXAMPLE

**To which gender do you most identify? (select one)**

- Female
- Male
- Prefer to self-describe \_\_\_\_\_
- Prefer not to say

### NOTES FROM PILOT

- » Missing data (39.4%) was an issue.
- » It was unclear whether organizations used binary response scales for gender or multiple options. For example, the one respondent coded as 'Other' could be due to the fact such options were not consistently available across organizations. The recoded values are shown below:

Code	Label	Merged From...
	Missing	Missing Data
1	Male	M; Male
2	Female	Female
3	Other	Gender queer/gender non-conforming

## School

This information is critical to understanding the broader social context of child and adolescent ecologies. Depending on the school, data from the School District of Philadelphia can be linked with participant records to provide valuable information on their school environment.

If the organization only serves a specific list of schools, this question can be asked in a multiple choice, single-answer format. Otherwise, a text entry format is the most appropriate option, and the answer can be subsequently coded and classified as public, charter, private, parochial, cyber, and/or homeschool.

### EXAMPLE

**What school does [participant] attend? (write-in)**

- School \_\_\_\_\_

## NOTES FROM PILOT

- » Missing data (13.9%) was an issue.
- » Distinguishing between the school participants attend and the schools used as program sites is important. Although only 13.9% of data was missing, for 69.5% of cases it was unclear if the 'school' variable referred to the site of the program or the school attended. For this analysis, it was assumed at least one participant went to the school a site was located, however more detail is needed for in-depth analysis.
- » Non-Philadelphia county schools, cyber schools, and homeschools were not included in the analysis.

## Grade

Given the specific age range targeted by most PYSC organizations, it is recommended to ask this question in a multiple choice, single-answer format. Collecting the exact grade of a participant (e.g., 5th grade), rather than a grade range (e.g., 5th-8th), is preferable since it allows for accurate recoding and categorizing. Similarly, the exact grade level of a participant is preferable to the grade range for their school (e.g., K-8th).

## EXAMPLE

### *What grade is [participant] in at school?*

- Pre-Kindergarten or Kindergarten
- 1st Grade
- 2nd Grade
- 3rd Grade
- 4th Grade
- 5th Grade
- 6th Grade
- 7th Grade
- 8th Grade
- 9th Grade
- 10th Grade
- 11th Grade
- 12th Grade
- Other \_\_\_\_\_

## NOTES FROM PILOT

- » Missing data (30.0%) was an issue.
- » Conventions for grade classifications differed considerably. The recoded values are shown below:

Code	Label	Merged From...
	Missing	Missing Data
1	Pre-K and Kindergarten	K; k
2	1st Grade	1
3	2nd Grade	2
4	3rd Grade	3; 3rd Grade
5	4th Grade	4; 4th; 4th Grade
6	5th Grade	5; 5th; 5th Grade
7	6th Grade	6; 6th; 6th Grade
8	7th Grade	7; 7th; 7th Grade
9	8th Grade	8; 8th; 8th Grade
10	9th Grade	9; 9th
11	10th Grade	10; 10th
12	11th Grade	11; 11th
13	12th Grade	*(LINC) 12; 12; 12th
14	Other	PreK-3; PreK-4

## ZIP Codes

Data on specific addresses or closest cross-streets would be extremely valuable, but likely difficult to share. ZIP code data provides a useful alternative. Since parents/guardians are more likely to know their ZIP code than children and adolescents, it is recommended that this data is merged, with permission, from parent/guardian registration forms.

### EXAMPLE

*...from registration form*

Address 1 \_\_\_\_\_

Address 2 \_\_\_\_\_

City, State, ZIP \_\_\_\_\_

### NOTES FROM PILOT

- » Missing data (33.0%) was an issue.
- » Non-Philadelphia county ZIP codes were not included in analysis.

## DOSAGE

Once again, it is recommended that PYSC organizations align with the data reporting conventions used by CitySpan to allow for full integration into the broader out-of-school time (OST) system. Specific recommendations for dosage variables are provided below:

### Sessions Attended and Attendance Rate

It is recommended that organizations track daily attendance to allow for accurate calculations of attendance rates. This also provides an opportunity to examine trends in attendance patterns. In addition to Yes/No indicators of attendance, organizations may also track additional characteristics such as excused absences and whether or not a participant was late to a session. If an organization has multiple program offerings, it is important to ensure independent attendance records are kept for each program. The example below provides a sample attendance sheet.

#### EXAMPLE

PROGRAM: MIDDLE SCHOOL SPRING SPORT PROGRAM							
	Session Dates						
Participant Names	4.9.18	4.1.18	4.13.18	4.16.18	4.18.18	4.20.18	4.23.18
Participant A	X	E	X	X	E	X	
Participant B	X	X	L-20		X	X	X
Participant C	L-10	X	X	X	X	X	X
Participant D	X	X	L-10	L-30			

X = Attended

L-(minutes = Late, minutes late (e.g., L-20)

E = Excused Absence

Blank = Did Not Attend

#### NOTES FROM PILOT

- » Missing data was an issue for both sessions attended (34.5%) and attendance rate (46.8%).
- » Due to the amount of missing data in both sessions attended and various demographic variables, analysis of group differences was based on smaller datasets. The graph below shows the size of datasets used to analyze differences for each demographic category.

SESSIONS ATTENDED		
Category	n	% of Total
Sessions Attended and Race/Ethnicity	1,451	45.0%
Sessions Attended and Gender	1,506	46.7%
Sessions Attended and Age	1,309	40.6%
Sessions Attended and Grade	1,173	36.4%
Sessions Attended and ZIP Code	1,278	39.6%



ATTENDANCE RATE		
Category	n	% of Total
Attendance Rate and Race/Ethnicity	842	26.1%
Attendance Rate and Gender	842	26.1%
Attendance Rate and Age	755	23.4%
Attendance Rate and Grade	842	26.1%
Attendance Rate and ZIP Code	827	23.4%

## Hours Attended

It is recommended that organizations record the length of their sessions in minutes (this can be an estimate). Since many programs operate on a strict time schedule, the estimate may be the same for each session (e.g., 90 minutes). This information is utilized to determine participant's exposure to the program over the course of a week, season, year, etc.

### NOTES FROM PILOT

- » Missing data (46.8%) was an issue.
- » Due to the amount of missing data in both hours attended and various demographic variables, analysis of group differences was based on smaller datasets. The graph below shows the size of datasets used to analyze differences for each demographic category.

Category	n	% of Total
Hours Attended and Race/Ethnicity	1,148	35.6%
Hours Attended and Gender	1,148	35.6%
Hours Attended and Age	1,050	32.6%
Hours Attended and Grade	985	30.6%
Hours Attended and ZIP Code	1,131	25.7%

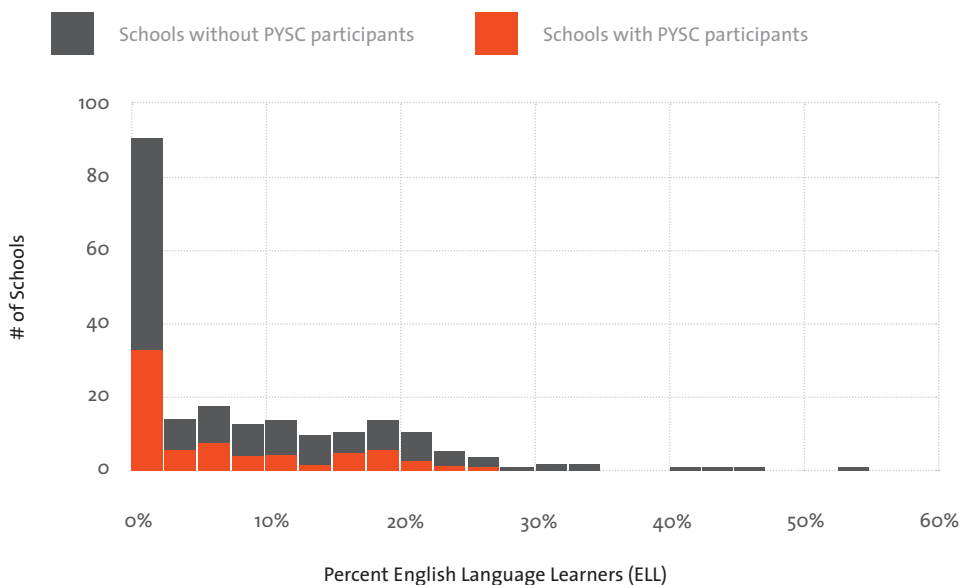
# Appendix

To determine if schools attended by PYSC participants were different from schools not attended by PYSC participants, we assessed distributions based on 2017-2018 Enrollment and Demographic data from the School District of Philadelphia. The categories of comparison were:

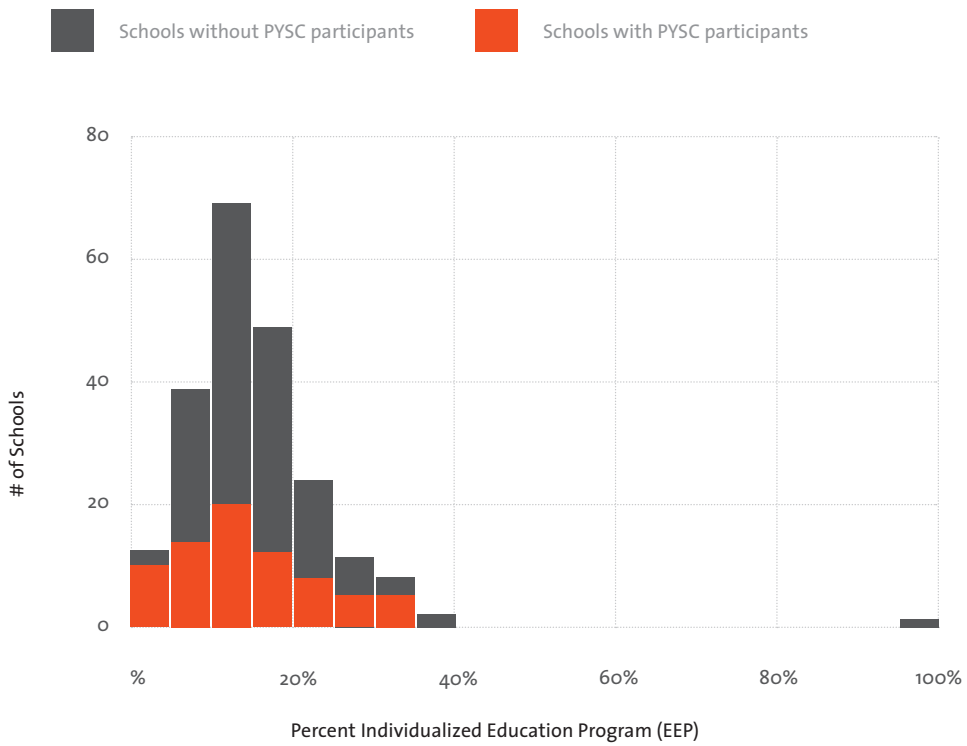
1. Percent of English Language Learners (ELLs)
2. Percent in Individualized Education Programs (IEPs)
3. Community Eligibility Provision (CEP) rates
4. Attendance Rates from 2016-2017.
5. Discipline Indicators
  - a. Suspensions
  - b. Assaults
  - c. Drug & Alcohol Incidents
  - d. Disorderly Conduct
  - e. Harassment
  - f. Threats
  - g. Vandalism
  - h. Threats

In the following histograms, the x-axis represents the range of values for each of these categories, and the y-axis represents the number of schools that fall within each data range. The data is split into schools attended by PYSC participants (orange) and schools not attended by PYSC participants (gray). As shown in the histograms, the distribution of schools attended by PYSC participants mirrors the broader distribution of district schools on each of these categories, indicating PYSC participants are coming from a broad range of district schools.

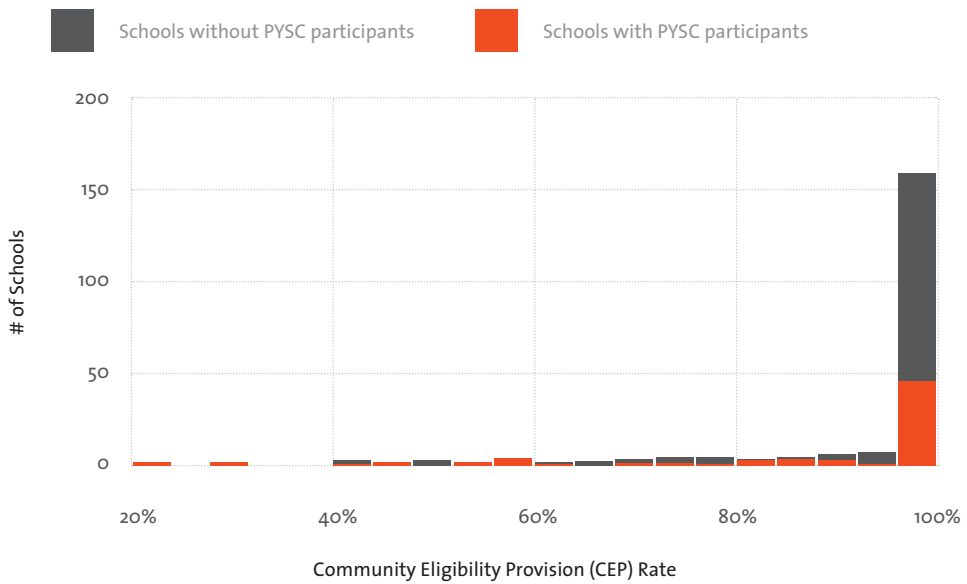
## Appendix A. Comparison of Schools by Percent English Language Learners (ELL)



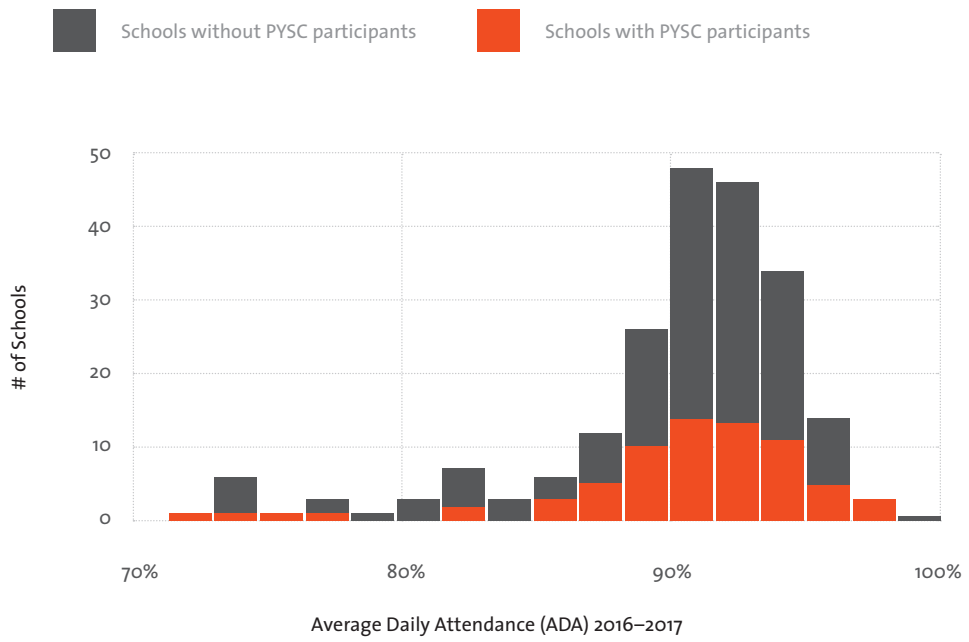
**Appendix B. Comparison of Schools by Percent in Individualized Education Program (IEP)**



**Appendix C. Comparison of Schools by Percent Community Eligibility Provision (CEP)**

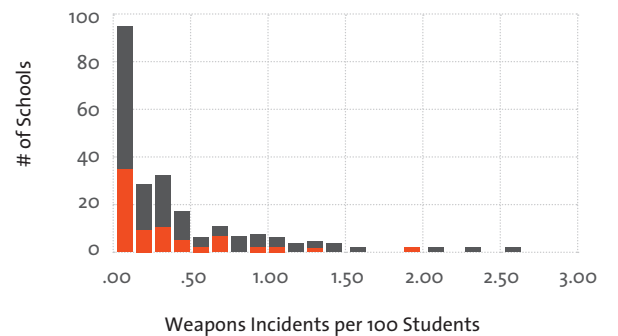
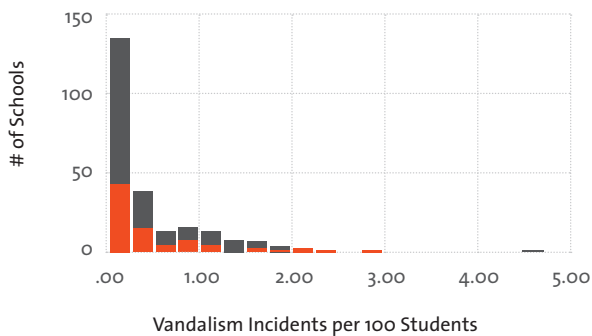
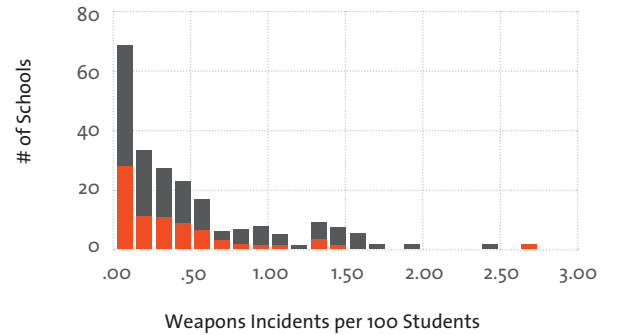
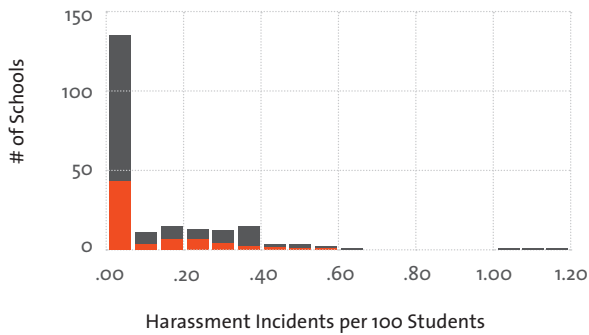
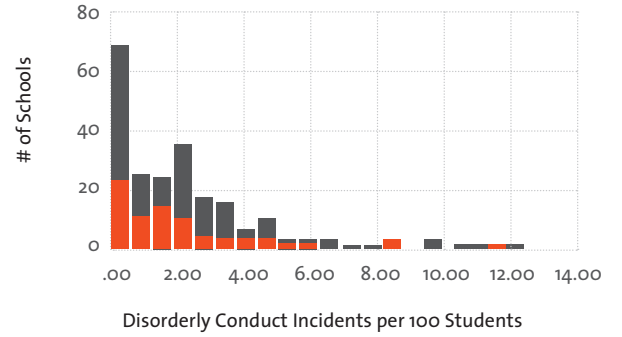
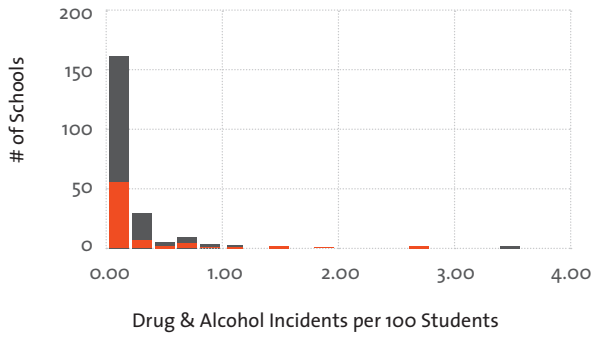
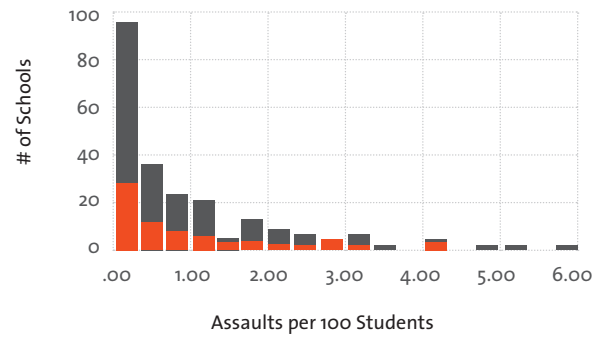
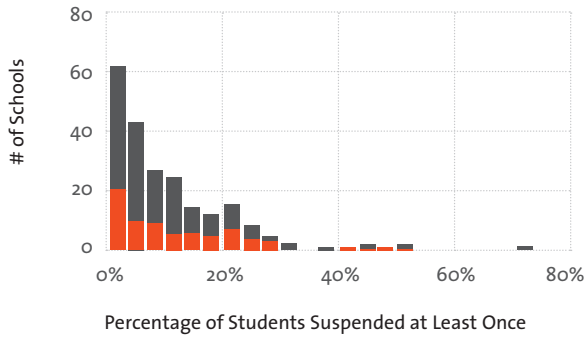


**Appendix D. Comparison of Schools by Average Daily Attendance Rate (2016-2017)**

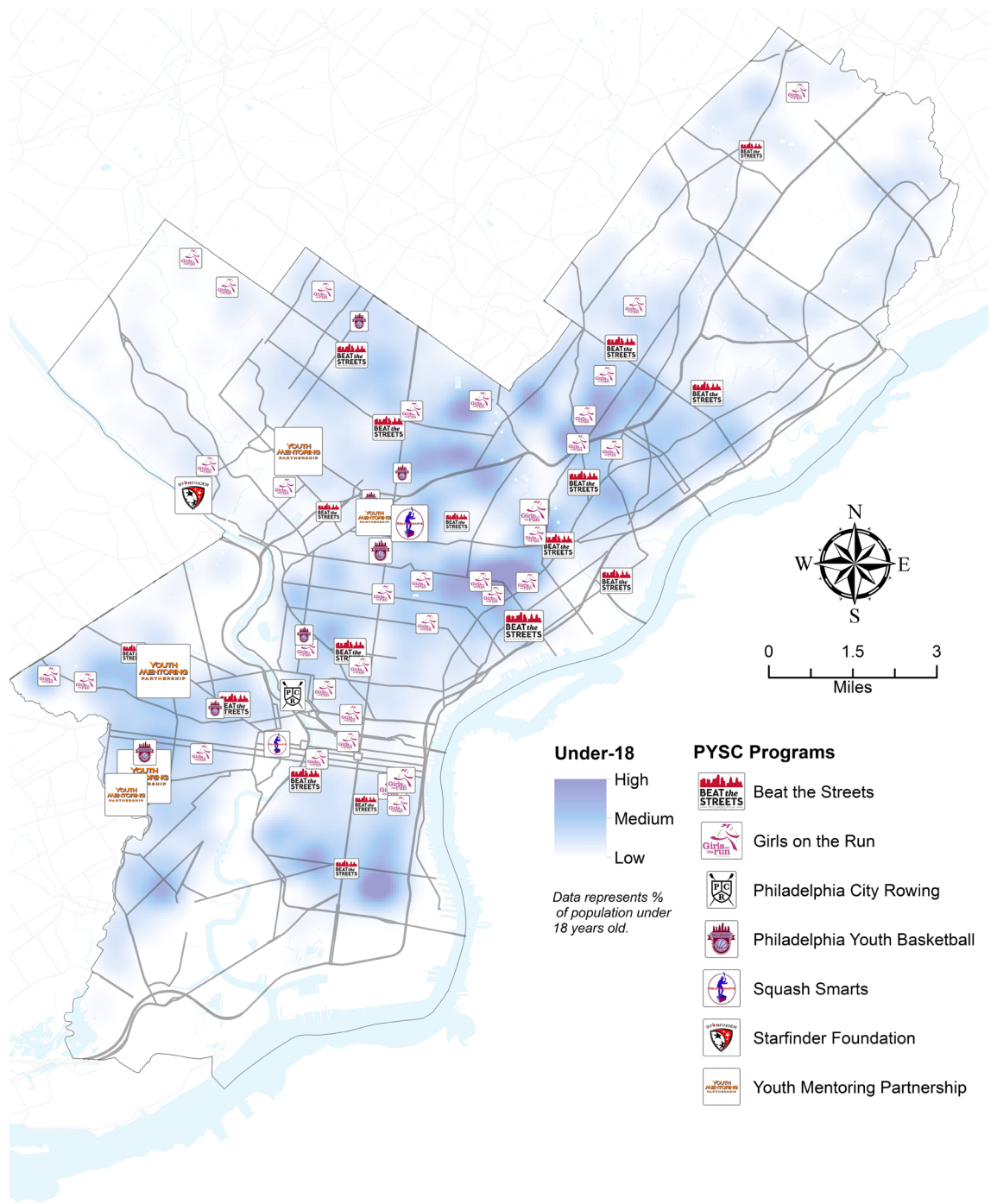


## Appendix E. Comparison of Schools by Discipline Indicators

Schools without PYSC participants
  Schools with PYSC participants

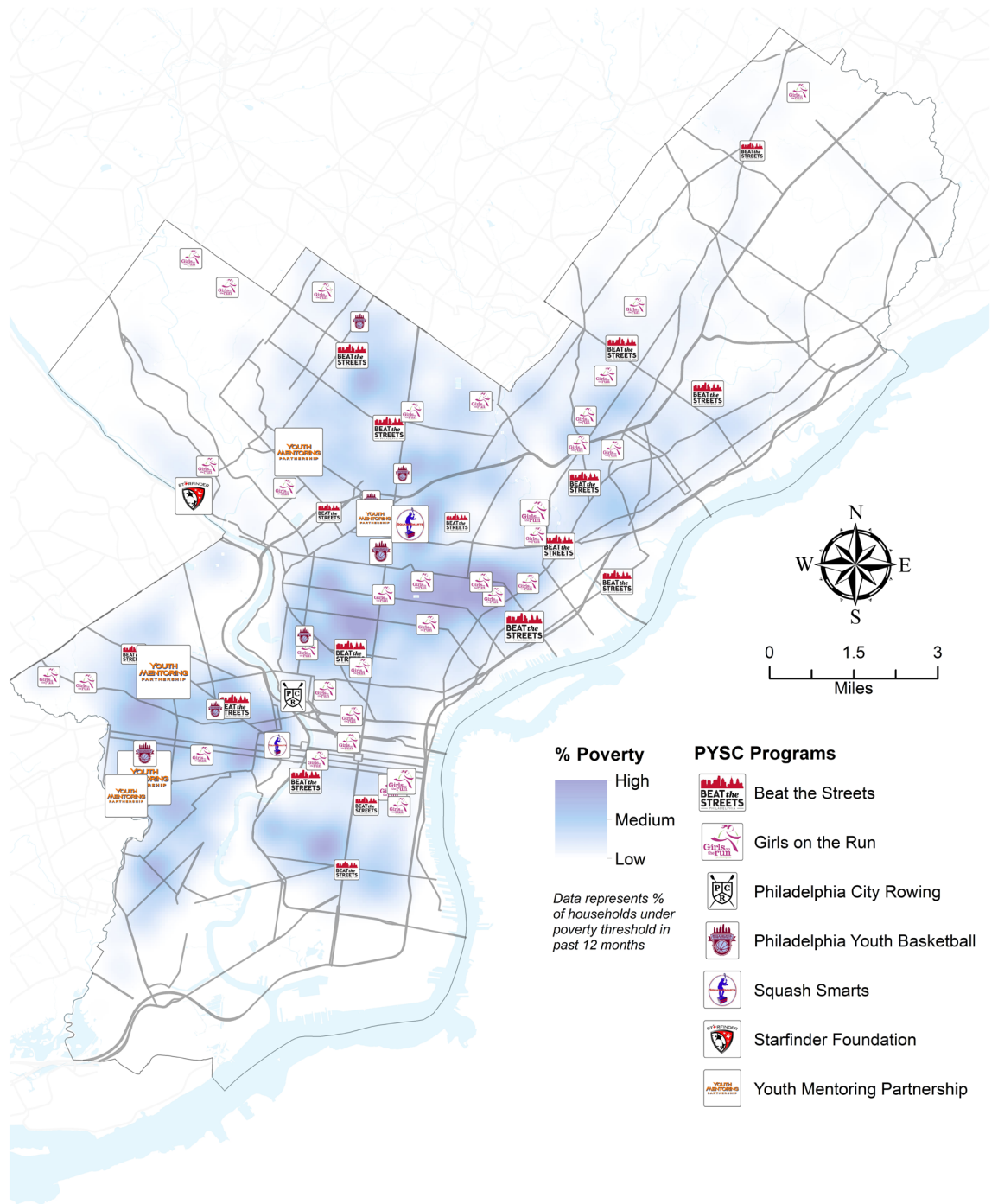


**Appendix F. Percent of Population Under 18 Years Old**



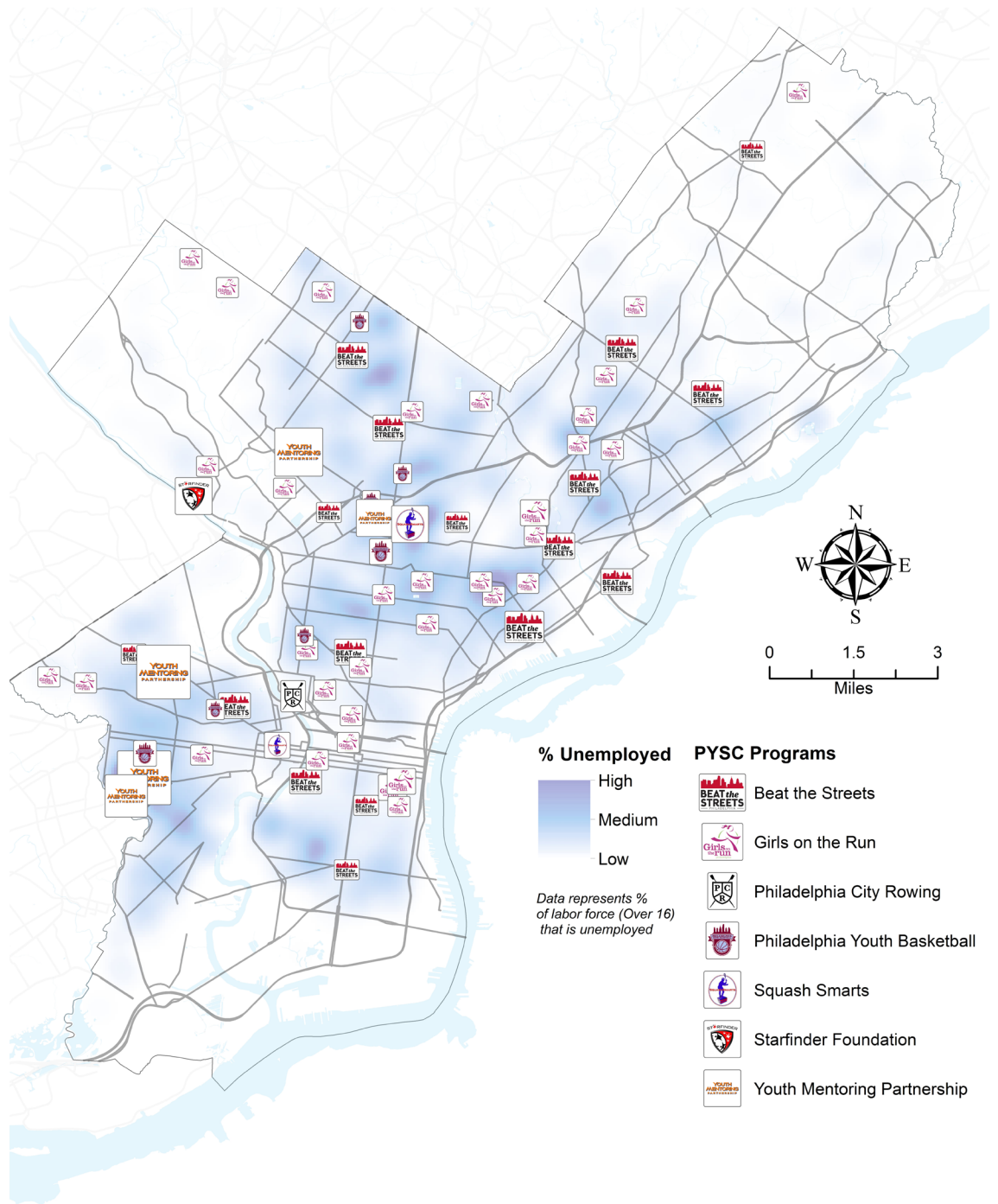
Data Sources:  
 2012-2016 American Community Survey 5-Year Estimates (ACS)  
 Pennsylvania Spatial Data Access (PASDA)  
 Open Data Philly

**Appendix G. Percent of Population with Income Under Poverty Level**



Data Sources:  
 2012-2016 American Community Survey 5-Year Estimates (ACS)  
 Pennsylvania Spatial Data Access (PASDA)  
 Open Data Philly

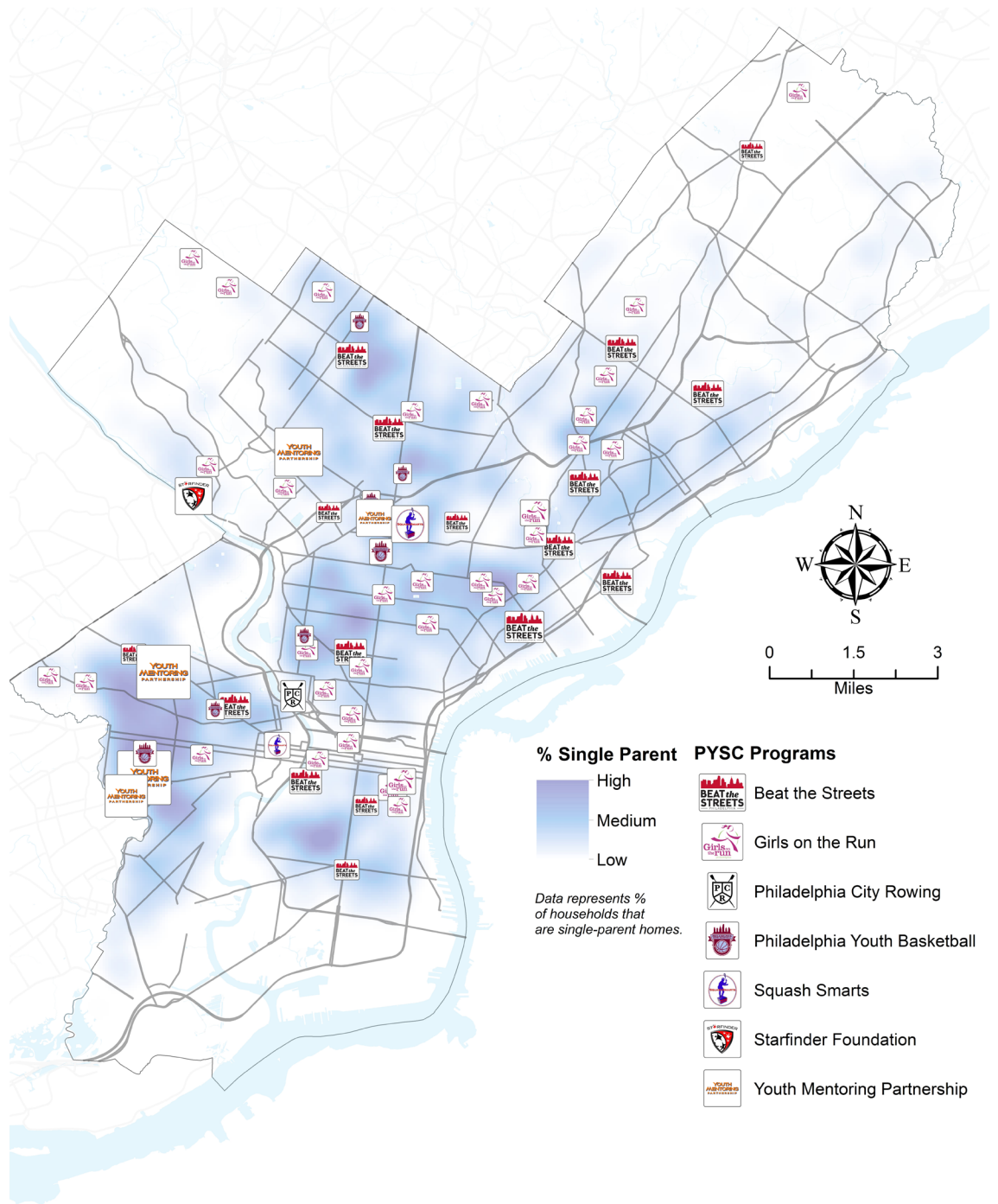
**Appendix H. Percent of Population (Over 16) Unemployed**



Data Sources:  
 2012-2016 American Community Survey 5-Year Estimates (ACS)  
 Pennsylvania Spatial Data Access (PASDA)  
 Open Data Philly

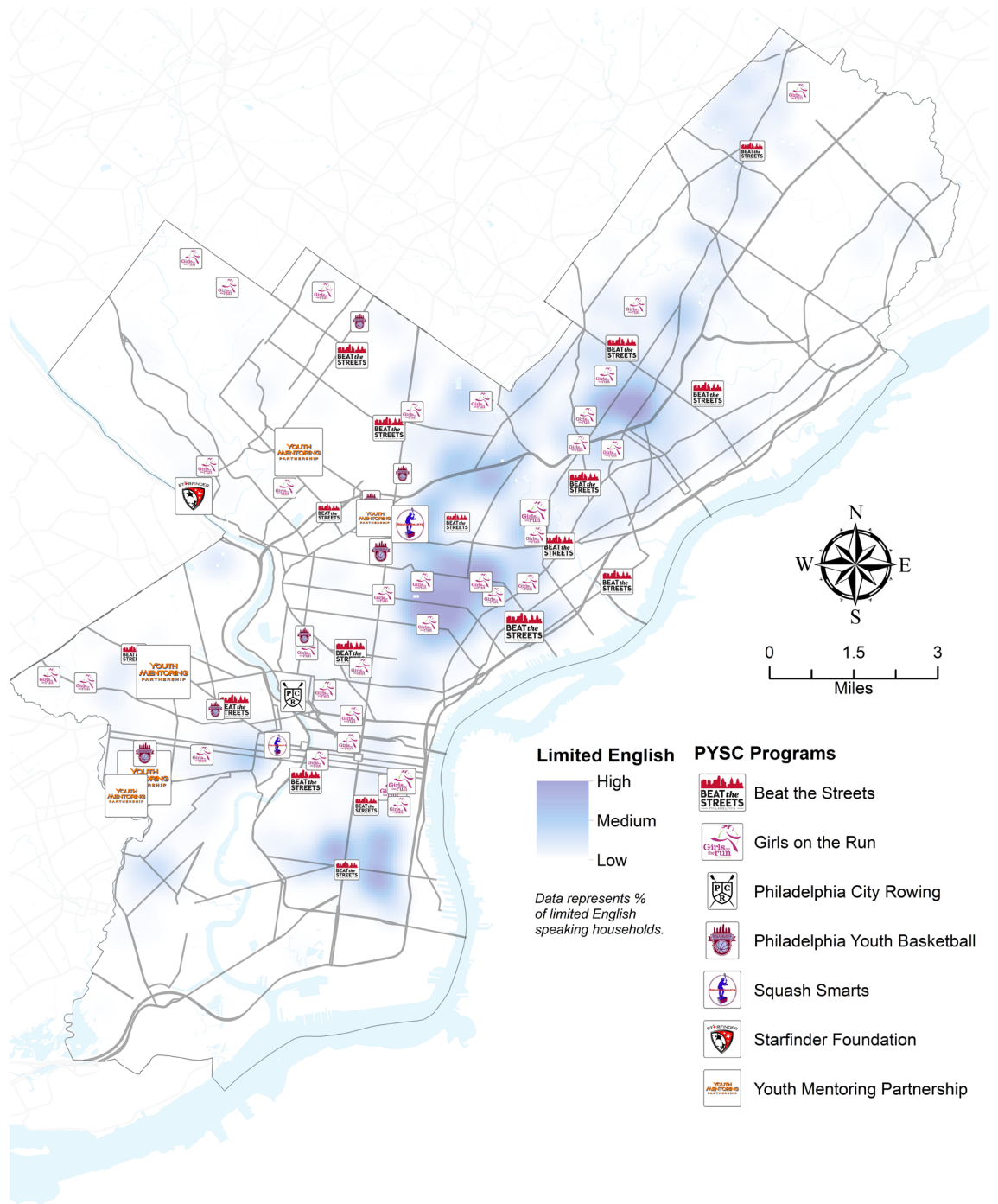


**Appendix I. Percent of Households with Single Parents**



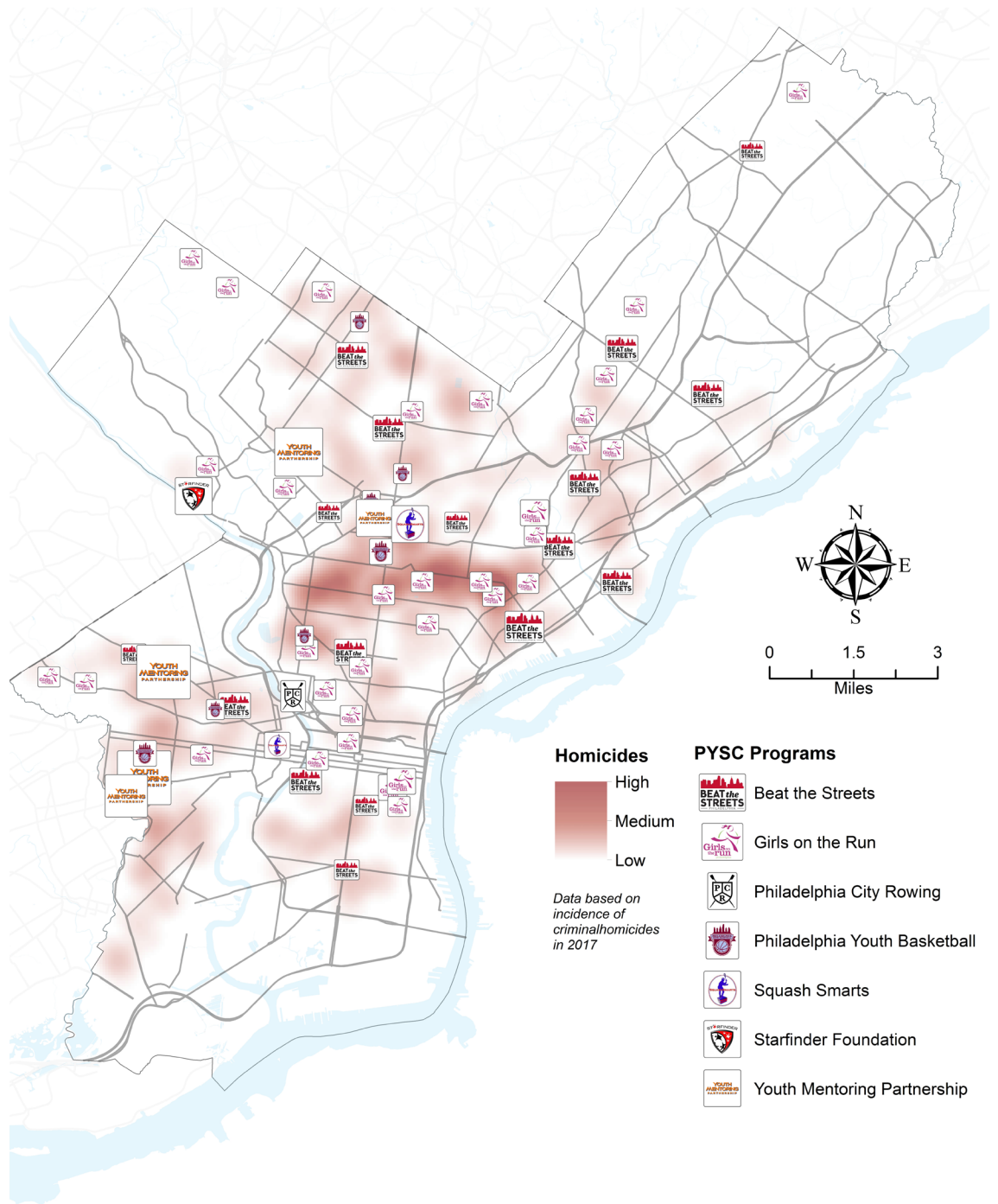
Data Sources:  
 2012-2016 American Community Survey 5-Year Estimates (ACS)  
 Pennsylvania Spatial Data Access (PASDA)  
 Open Data Philly

**Appendix J. Percent of Limited English Speaking Households**



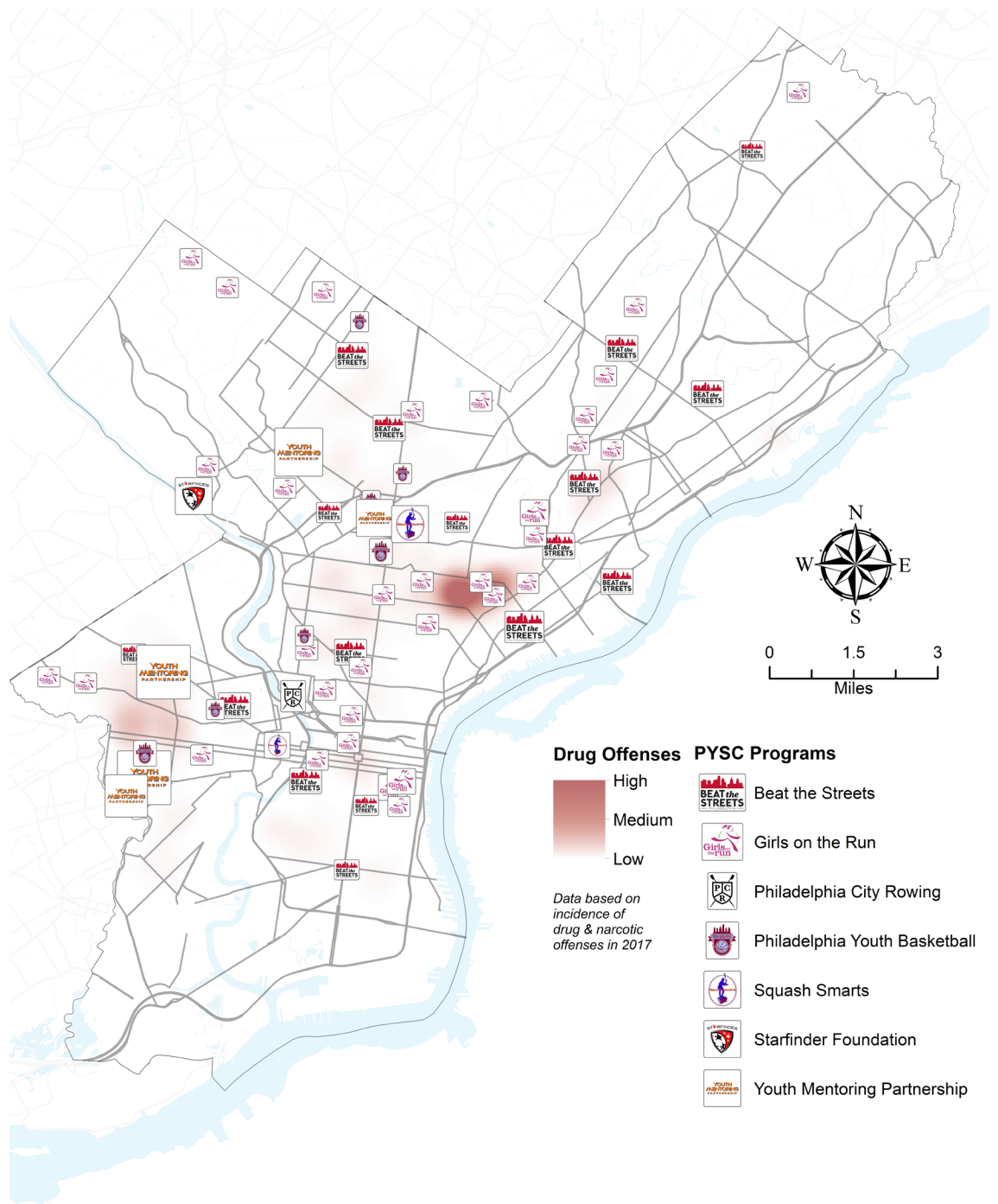
Data Sources:  
 2012-2016 American Community Survey 5-Year Estimates (ACS)  
 Pennsylvania Spatial Data Access (PASDA)  
 Open Data Philly

**Appendix K. Criminal Homicides**



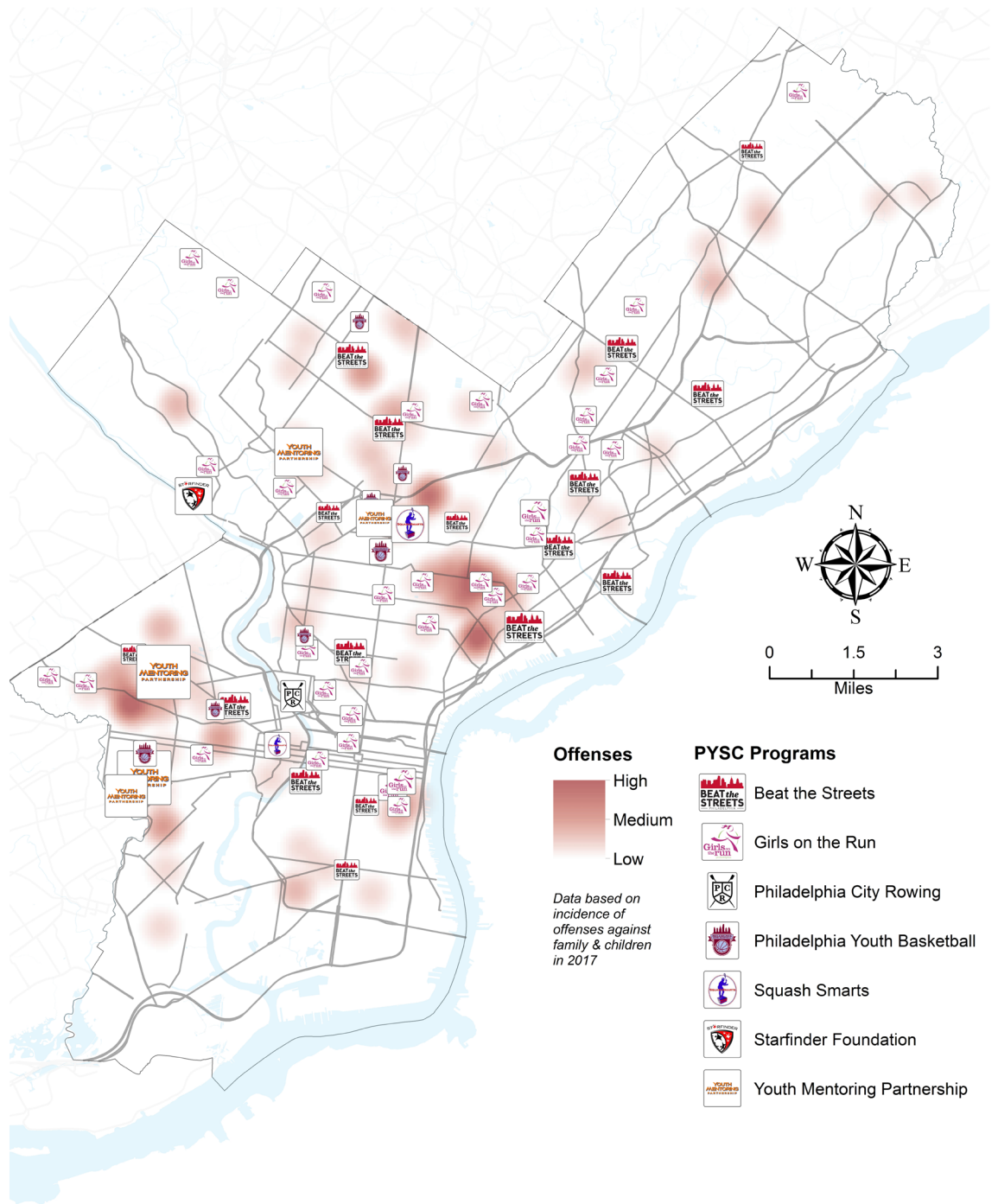
Data Sources:  
 Pennsylvania Spatial Data Access (PASDA)  
 Open Data Philly

Appendix L. Narcotic / Drug Law Violations



Data Sources:  
 Pennsylvania Spatial Data Access (PASDA)  
 Open Data Philly

Appendix M. Offenses Against Family and Children



Data Sources:  
 Pennsylvania Spatial Data Access (PASDA)  
 Open Data Philly