



REIMAGINING  
SCHOOL SPORTS

# SMALL RURAL PUBLIC HIGH SCHOOLS



boks



**Sport for All, Play for Life**  
A Playbook to Develop Every  
Student Through Sports

A Project Play initiative of the Aspen Institute Sports & Society Program, “Reimagining School Sports” recognizes the essential role that high schools play in preparing young people for life – and the cognitive, educational and health benefits that flow to students whose bodies are in motion. The initiative aims to make quality sport and physical activities accessible to all students by identifying strategies that administrators and other leaders can adopt, aligned with the mission of schools and within the context of a comprehensive education.

In the United States, school decisions are made largely at the local and state levels. Further, the ability to engage students in sports is shaped by a school’s size, mission and resources. So, Project Play launched a national search to find the trailblazers in eight school types. That way, principals, superintendents, athletic directors, coaches, physical education teachers and others can draw inspiration from their best peer fit.

The eight school types:

- [Large urban public high schools](#)
- [Small urban public high schools](#)
- [Large rural public high schools](#)
- [Small rural public high schools](#)
- [Large suburban public high schools](#)
- [Small suburban public high schools](#)
- [Private schools](#)
- [Charter schools](#)

The Aspen Institute invited any school to share their innovations and apply for recognition. A \$20,000 award will be given to one winner in each category, made possible by our project partners – Adidas/BOKS, The Dick’s Sporting Goods Foundation, and Hospital for Special Surgery. Reports on each school type are being released in 2021, followed by a final report in early 2022 that will make systems-level recommendations that can drive progress across all school types.

## About Project Play

Project Play is an initiative of the Aspen Institute’s Sports & Society Program, the mission of which is to convene leaders, facilitate dialogue and inspire solutions that help sport serve the public interest. Since 2013, Project Play has shepherded the national conversation around what good looks like in youth sports. Hundreds of organizations have used Project Play frameworks and ideas to introduce programs, expand grantmaking, shape government policy, advance research, and develop tools to train coaches, empower parents and mobilize leaders.

To learn more about the value of sports and physical activities, please visit [as.pn/sportsfacts](https://as.pn/sportsfacts)



**Learn more about this project and find all reports at:**  
[as.pn/schoolsports](https://as.pn/schoolsports)

## Challenges and Opportunities: Small Rural Public Schools

Nationally, 73% of rural public high schools offer interscholastic sports, more than suburban (70%) and urban (63%) schools, according to an Aspen Institute-commissioned analysis of 2017-18 Civil Rights Data Collection by Resonant Education.<sup>5</sup> The percentage of rural students who play on high school teams is 42%, also more than suburban (41%) and urban (33%).

A study of high school sports in Pennsylvania found that lower rates of students participate in sports within smaller rural schools.<sup>6</sup> Larger rural schools demonstrated similar sports involvement as urban schools. Very small schools face challenges hosting any sports programs, with relatively higher proportions of male students participating in sports when they belong to smaller schools. “Increasing in school size from 200 to 300 students likely has a bigger impact on sports involvement than an increase in size from 900 to 1,000,” wrote Penn State University researcher M. Blair Evans.

Evans’ study concluded that rural schools facing socioeconomic disadvantages are the least likely to integrate policies and practices that may strengthen sports programs, such as late bussing after school. Transportation is a significant challenge. Several administrators and coaches at small rural schools described to the Aspen Institute how difficult it is to schedule games because of their location and the quality of their facilities.

The principal of one small rural school lamented that athletes miss a full day of school many Fridays for games that night. His closest league opponent is 113 miles away, so in some sports, the principal’s teams play multiple opponents on a “road trip” to maximize travel costs and time. Some games can’t be scheduled because there aren’t enough bus drivers. “We need to keep our kids off the buses and have other teams come here, but we would have a much better chance to schedule opponents for far travel if we had nicer facilities,” the principal said.

### Characteristics of Rural Schools

For purposes of this report, the Aspen Institute defines a small rural school as a public school in a rural area with less than 350 students. The Census Bureau defines a rural area as any population, housing or territory not in an urban area (50,000 or more residents) or urban cluster (2,500-50,000 residents).

Land-wise, rural areas cover most of the country. However, only 19% of Americans live in these places – down from 60% at the turn of the 20th century when sports were first introduced in schools.<sup>1</sup> Today, 53% of U.S. school districts are located in a rural community with 17% of state education funds going to rural school districts.<sup>2,3</sup> Jobs continue to shift to the cities. From 2014 to 2018, 43% of rural counties experienced negative employment growth compared with just 17% elsewhere. The poverty rate is nearly three percentage points higher. Rural counties with a manufacturing base do better than those dependent on farms, with those reliant on mining or government jobs at the bottom.<sup>4</sup> Shrinking tax bases have led to decisions to close and consolidate some schools, imposing transportation challenges on families.

In Colorado, tension between rural and urban schools reached the point that rural districts have considered splitting from the Colorado High School Activities Association (CHSAA) to create their own association.<sup>7</sup> Rural schools comprise about 40% of the state’s 363 member schools, but the overall student population in those schools makes up a significantly smaller percentage. About 50 rural districts claim the CHSAA isn’t fulfilling its mission in serving rural districts, according to The Denver Post.

Complaints include issues with communication, financial transparency, grievance procedures, and football playoff locations that impacted attendance. The rural schools’ preliminary plan calls for hiring a commissioner from a small school who would oversee Class 1A and 2A, as well as forming a separate rural Board of Directors and a rural superintendents’ advisory council. The commissioner of the CHSAA, while opposing the creation of a “rural/small school subset” of CHSAA, said the association “is committed to rebuilding relationships, (addressing) perceived or real (concerns) with some groups that have felt disenfranchised for many years but even more so during this pandemic year.”

The good news for rural schools is there’s demand from their students to be physically active. In the Aspen Institute’s national survey of high school students, rural students were more likely to have participated in walking/hiking, pickup games/free play, jogging and swimming than all surveyed students. Rural female students reported higher participation than suburban females in swimming (27% vs. 22%) and pickup games/free play (26% vs. 20%). Rural students were also most likely to enjoy PE class. Some fresh perspective in this report can help update the model so rural students aren’t left behind.



**42%**  
OF RURAL STUDENTS PLAY ON HIGH SCHOOL SPORTS TEAMS, MORE THAN SUBURBAN (41%) AND URBAN (33%) STUDENTS<sup>8</sup>

---

**78%**  
OF SCHOOLS NATIONALLY WITH LOW ATHLETIC TRAINER AVAILABILITY EXIST IN RURAL AND INNER-CITY AREAS<sup>9</sup>

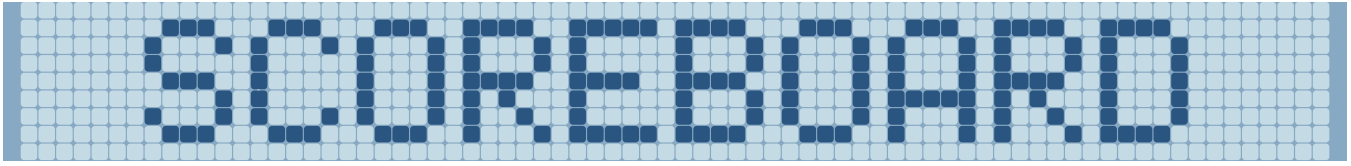
---

ATHLETES IN THESE COMMUNITIES ARE  
**50%**  
MORE LIKELY TO HAVE A CONCUSSION THAT GOES UNIDENTIFIED, UNASSESSED OR MISMANAGED

---

**1 in 20**  
RURAL STUDENTS SPECIALIZE IN ONE SPORT, COMPARED TO 7 IN 20 AT SUBURBAN SCHOOLS<sup>10</sup>

## SMALL RURAL PUBLIC HIGH SCHOOLS



The Aspen Institute conducted a national survey of ninth- to 12th-graders between September 2020 and March 2021. The sample represented students from public, charter and private schools across the country. The survey was conducted via an online platform and results were analyzed by Resonant Education. Here is what rural students told us.

### Top sports rural students plan to play this year

#### At School

- 25% Basketball
- 24% Track and Field
- 19% Soccer
- 17% Volleyball
- 16% Football
- 13% Softball
- 11% Baseball
- 9% Tennis
- 8% Wrestling
- 7% Cross Country

#### Outside School

- 21% Basketball
- 19% Soccer
- 15% Volleyball
- 14% Softball
- 10% Baseball
- 7% Football
- 6% Track and Field
- 6% Weightlifting
- 5% Archery
- 4% Swimming
- 4% Tennis
- 4% Wrestling
- 4% Golf



### Other physical activities rural students participate in outside school

Rural Students	All Students	Rural Males	All Males	Rural Females	All Females
47%	46% Walking/hiking	44%	43% Pickup games/ free play	55%	54% Walking/hiking
33%	32% Pickup games/ free play	39%	44% Workout at gym	33%	32% Riding bike
32%	32% Riding bike	37%	36% Walking/hiking	31%	30% Jogging
31%	30% Jogging	32%	30% Jogging	27%	23% Swimming
30%	36% Workout at gym	31%	32% Riding bike	26%	23% Pickup games/ free play
25%	21% Swimming	21%	19% Swimming	24%	30% Workout at gym

## Non-sport activities rural students participate in at school

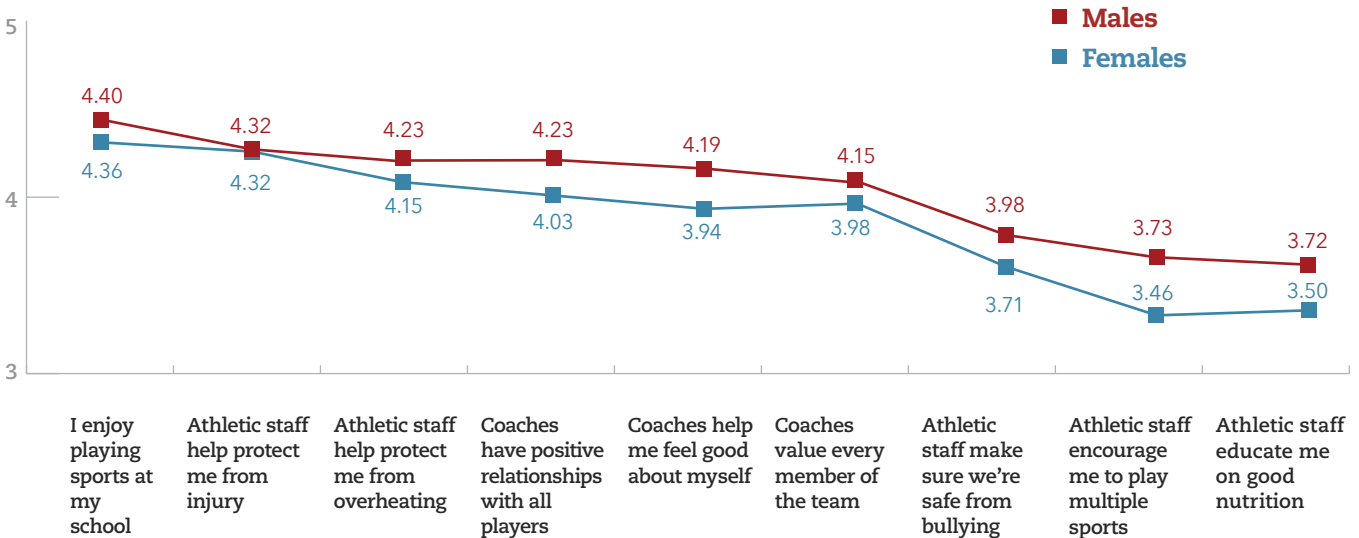
Rural Students	All Students	Rural Males	All Males	Rural Females	All Females
13%	12%	12%	12%	16%	16%
12%	11%	10%	8%	15%	13%
11%	10%	9%	3%	11%	10%
9%	4%	6%	5%	10%	4%
7%	6%	5%	5%	9%	9%
6%	6%	4%	3%	9%	9%
4%	4%	2%	3%	5%	8%
3%	5%	2%	2%	5%	5%
3%	4%	1%	3%	2%	3%
1%	4%	1%	2%	1%	4%

## What rural students say about high school PE

Students	Rural	All
Enjoyed PE	71%	62%
Have not taken high school PE	13%	22%
Did not enjoy PE	12%	12%
PE increased interest to play high school sports	4%	5%



## What rural students say of high school athletic staff (1-5 scale with 5 being most favorable)



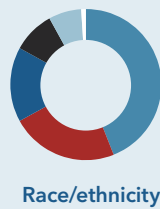
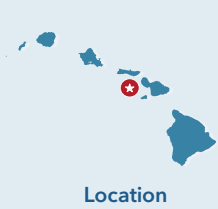
WINNER: SMALL RURAL PUBLIC SCHOOLS

# Lānaʻi High and Elementary School

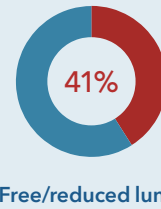
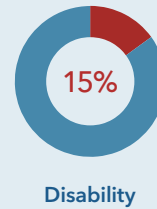
Lānaʻi City, HI



REIMAGINING SCHOOL SPORTS

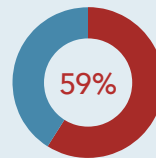


- Asian (44%)
- Hawaiian (23%)
- 2 of More Races (16%)
- Hispanic (9%)
- White (7%)
- Black (1%)



Sports program costs: \$181,000

Total school costs: 4%<sup>11</sup>



Students who play interscholastic/intramural sports or participate in school clubs involving physical activity (out of 173 students)

Interscholastic

- ⚾ Baseball
- ⚽ Football (8-Man)
- 🎾 Tennis
- 🏀 Basketball
- ⌚ Golf
- 🏐 Volleyball
- 🚣 Canoe Paddling
- ⚾ Softball
- 🤼 Wrestling
- 🏂 Cross Country

Intramural

None

Club

None

Website

[lanaihighandelementaryschool.org/](http://lanaihighandelementaryschool.org/)

Contact

Roderick Sumagit, athletic director,  
roderick.sumagit@k12.hi.us



OUR WINNING SCHOOL RECEIVES  
**\$20,000** AWARD



## WINNER'S INNOVATION: LĀNA'I HIGH AND ELEMENTARY SCHOOL

## Reimagine Medical Care for Athletes

In many parts of rural America, the way Lāna'i High and Elementary School cares for its high school athletes would be unthinkable. Lāna'i, a school of 173 high school students located on the smallest of Hawaii's publicly accessible islands, utilizes a full-time athletic trainer.

If this sounds like an unspectacular occurrence, it's not. More than 78% of schools nationally with low athletic trainer availability are in rural and inner-city areas, according to the National Athletic Trainers Association. Athletes in these communities are 50% more likely to have a sports-related concussion that goes unidentified, unassessed, or mismanaged.<sup>12</sup>

Hawaii is the only state with at least one athletic trainer in every high school, earmarking \$4.28 million annually in the public-school budget for 74 athletic trainer positions.<sup>13</sup> That's enough for all but the smallest high schools, such as Lāna'i, to have at least two athletic trainers.

The state's investment in athletic trainers is crucial for Lāna'i, which spends \$70,000 annually in travel costs alone hopping islands to games, accounting for 39% of its athletic budget. Longtime Lāna'i athletic trainer Alicia Bennett provides a valuable service. She offers preventive care, treats ankle sprains and dislocations, manages concussions, teaches proper nutrition, and serves as a trusted confidante for athletes to feel comfortable reporting their injuries and get vaccinated.

She's part of a state-wide system that, while not perfect, tries to standardize care by having every school collect the same sports injury data. This model may not work in larger states since far fewer athletic trainers exist than schools in the U.S. Still, it's promising. For its commitment to health and safety, among other factors, Lāna'i is recognized as the Aspen Institute's Project Play winner in the Small Rural Schools category of our Reimagining School Sports initiative. The value of a



full-time athletic trainer at such a small, rural school is apparent to many coaches and students. "Growing up 40 years ago, I didn't even know there were trainers," says Mary Lou Kaukeano, Lāna'i girls basketball coach. "I had never seen a concussion in my years coaching until about six years ago. One girl banged her head on the ground, got up and said, 'I'm fine.' But because we had the trainer, she said, 'No, she's not fine at all.' Turns out she was out six weeks because the symptoms were so bad. It's so good for safety to have a trainer."

Talia Agliam, a junior who participates in volleyball, wrestling and softball, says she felt really ashamed of her eczema that resulted in bleeding hands but was comfortable talking to Bennett about the problem. Bennett wrapped her hands and provided bandages for Agliam to take home too.

"A lot of people are hesitant giving out wrap because it costs a lot of money. She makes sure we're covered," Agliam says. "I look at her more like a friend who's not just there to care for your injury. Her being that kind of person makes it way easier to go to when you have an injury."





How Lānaʻi even has an athletic trainer could be a case study for other states. In 1993, after 32 years of efforts by high school athletic directors to improve athlete care, Hawaii authorized \$371,000 to hire 10 certified athletic trainers for a pilot program.<sup>14</sup> The law allowed for a gradual increase in funding until, after five years, every public high school in the state had a full-time athletic trainer on staff.

Advocates for state funding turned the topic into a health care issue and came to the state legislature with data. One study showed 82% of athletic health care at the time was being provided by coaches – and 29% of those coaches had no health care training. The other 18% of athletic health care came from emergency medical technicians or non-certified athletic trainers who had no training in sports injuries. Other data showed that major injuries were regularly going untreated.<sup>15</sup>

Advocates also showed state legislators a study of lawsuits involving injured high school students. Hawaii elected to start investing in athletic trainers instead of risking massive potential lawsuits. By 2012, Hawaii created a law requiring the State Department of Education and Hawaii High School Athletic Association to develop a concussion educational program for all public and private high school students.

The law also required that concussed high school athletes get immediately removed from practice or competition and receive written clearance from a licensed health professional before returning to play.

**One study showed 82% of athletic health care at the time was being provided by coaches – and 29% of those coaches had no health care training.**

“But what happened was our kids were getting concussions and then going physician shopping,” Bennett says. “The athletic trainer would say, ‘No, you’re not clear,’ and then the parents would go to another physician, not tell them the history of the kid and say the kid got hurt and is fine, and the physician – not knowing the background – would write a note and clear the kid.”

In 2016, Hawaii passed another law to collect injury data and require cognitive testing of high school athletes. Today, one neurologist for the entire state is available to review whether concussed athletes need to receive additional cognitive testing before returning. The school athletic trainer has the final say on when the athlete returns, but Bennett likes leaning on the neurologist.

“I absolutely like that it’s not up to me and the neurologist has the final say,” Bennett says. “I’m one of those paranoid people where it’s nice to have an arsenal of experts to back you up on the care for somebody’s life. I don’t want to rush a kid back out and jeopardize them 10 years from now.”

Bennett estimates she cared for 15 to 20 concussions per year at Lānaʻi before the COVID-19 pandemic shut down sports at the school for 18 months. Most Lānaʻi athletes with a concussion take at least three weeks to return.



It's a collaborative effort at Lāna'i when a child has a concussion. Parents receive a list of symptoms to look for at home in case an ER visit is needed. Every day, the concussed athlete meets with Bennett to evaluate symptoms and check on the athlete's cognitive level compared to a preseason baseline test.

**“ You can now get into your school's athlete files [on mobile devices] and input injury data or look up if a child has a medical alert to be aware of, or medications they should or shouldn't be taking.**

Alicia Bennett, Athletic Trainer

The principal and other staff are made aware of the concussed athlete. The school's student-care services coordinator emails all of the athlete's teachers so they can apply return-to-learn protocol. Teachers provide updates to administrators if the student is sleeping or acting more irritable in class.

Joint efforts don't stop there. Hawaii uses an injury management system that allows every athletic trainer

and the state athletic trainer coordinator to see each other's injury statistics, minus the names of students. Athletics trainers are required to report the same data, such as:

- Specific injury
- Location of injury on the body
- Days missed from practices/competitions
- How the injury happened
- Information on specific treatment

The state athletic trainer coordinator collects and analyzes the data. If trends emerge, different injury management protocols and procedures are shared across the state. The injury management system recently became available for all athletic trainers to access on their phone, iPad or laptop.

“It's really convenient to access it anywhere instead of needing to go to your work computer,” Bennett says. “When you're at a practice or game, you can now get into your school's athlete files and input injury data or look up if a child has a medical alert to be aware of, or medications they should or shouldn't be taking.”

Bennett says this system has not always been properly used at her school. Athlete care is only as good as what individuals do with the information. For instance, she says, several years ago Lāna'i's wrestling program started showing a rash of head injuries, facial lacerations and cauliflower ear.

“We took the data to coaches and the AD and found out the new coach was not making them wear their protective head gear,” Bennett says. “Even though this data was brought up and preventive measures were advised, the coach did not want to follow it. Our principal at the time didn't want to be the bad guy and tell the coach you need to follow these measures.”

Bennett says the coach resigned after a threat of an outside investigation “Now everything is handled better,” she says.

Lately, the biggest challenge at Lānaʻi is vaccinations. Hawaii now requires all high school athletes, athletic staff and volunteers to be fully vaccinated to participate, or the person could apply for a religious or medical exemption and get tested twice a week.

Many fall athletes at Lānaʻi did not return to sports this season. School administrators are concerned about longterm participation trends as students lose interest in sports.

“I feel sorry for these students, but I personally think the vaccinate mandate makes sense to encourage them to get it,” says volleyball player Keela Montgomery. “One of my best friends was pretty against vaccination and wasn’t going to come back. Some of her family members have medical conditions, and I’m super glad she got it. Her getting it encouraged her whole family to get it.”

As athletic trainer, Bennett shows athletes research about the vaccines, takes them to the CDC website, and refutes rumors she hears in the training room.

“People were posting on Facebook that if you get a vaccination, you’re going to be sterile and you won’t be able to ovulate if you’re female,” Bennett says. “I was able to show them this is what the data is showing, and yeah, it’s pretty early, but they’re not finding anything in that direction yet. I had to remind them they’re adolescents and just starting their menstruation cycle so they’re probably not even on their regular cycle anyway. You have to educate them on what’s a reputable place to look and what’s not.”

This type of education underscores another value of the athletic trainer, even as the position remains underfunded. Bennett has been at Lānaʻi for 16 years and now makes \$68,000. She stays because of the quality of life in a laid-back – but very expensive – state. When she first began, her starting salary was \$39,000 even with two master’s degrees. Teachers with a bachelor’s degree made almost twice as much.

“Being an athletic trainer is a very fun job,” Bennett says. “But when you look at the pay, you wonder how

you can survive. Athletic trainers across the state are all working side jobs and moonlighting. We’re working hours that are like second shifts and don’t get night differential or holiday pay. It’s hard to take vacations because you have Christmas tournaments.”

Imagine more investment into this profession and higher salaries so more students might enter the athletic training field. Bennett says she could spend more time on preventive care, such as limiting concussions before they happen, if a part-timer was hired to help with rehab.

“Not only are we helping the state with legal protections, we’re helping the families as well,” she says. “They don’t have to take that athlete to the clinic for every ankle sprain or finger dislocation. We’re helping them prevent that cost, especially if they don’t have insurance.”



## HONOR ROLL IDEAS

Strategies that Lāna‘i High and Elementary School use that stood out as exemplary to the Aspen Institute and our project advisory board:

### Sleep in gyms to save costs

The costs can be astronomical for Lāna‘i to play road games via airplane or ferry to other islands. To save on extravagant hotel costs, many teams sleep on cots or air mattresses in their opponents’ gym or wrestling room. “It’s very fun when you travel,” says three-sport athlete Talia Agliam. “You get to know everybody a little better, especially if there’s someone on the team you haven’t really talked to.”

### Plan for worst-case travel scenarios

Travel is a financial and logistical headache for many rural schools. It’s even worse if something unexpected happens, such as a bus or van that breaks down. That’s why Lāna‘i Athletic Director Roderick Sumagit has backup plans for road trips, including if the ferry is closed due to weather. He keeps in contact with nearby athletic directors if help is needed and employs several roadside services. “You can’t plan enough,” Sumagit says.

### Identify community partnerships to build capacity

The Lāna‘i High and Elementary School (LHES) Foundation is an important asset. It’s something of a hybrid – partly Parent Teacher Association and partly education-focused nonprofit – that focuses on youth events and programs involving the arts, STEM and athletics in non-school hours. For athletics, examples of LHES support includes paying for insurance, creating flag football and baseball activities, and providing funding for a basketball shooting machine and an online college recruiting service to promote athletes.

## Tool for School Leaders

High school boys basketball players start specializing in their sport two years earlier than girls. That’s one of many findings in the Healthy Sport Index, a data-driven project of the Aspen Institute and Hospital for Special Surgery that analyzes the relative benefits and risks of playing each sport.

Learn more at: [healthysportindex.com](http://healthysportindex.com)



Healthy Sport Index

Powered By



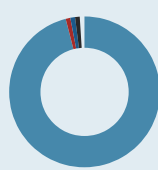
## MORE HONOR ROLL IDEAS

Strategies that our other two finalists use that stood out to us as exemplary:

### Burns High School | Burns, OR

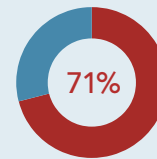


Location



Race/ethnicity

- White (96%)
- Hispanic (1%)
- Asian (1%)
- American Indian/ Native American (1%)
- 2 or More Races (0.6%)
- Other (0.4%)



Students who play interscholastic/ intramural sports or participate in school clubs involving physical activity

#### Interscholastic

- |               |                 |
|---------------|-----------------|
| Baseball      | Golf            |
| Basketball    | Softball        |
| Cross Country | Track and Field |
| Esports       | Volleyball      |
| Football      | Wrestling       |

#### Intramural

None

#### Club

None

#### Rely on community support to fund sports

More than any other school type, rural schools tend to need community help to stay financially afloat. Twenty years ago, Burns High School and the local elementary and middle schools were set to lose \$213,000 from its budget for all extracurricular activities. In a matter of a few days, a group was formed called the 213 Club, with a goal of convincing at least 213 friends and alumni to donate \$1,000 each. The club got over 500 to join and exceeded its financial goal.

“A large portion of the \$1,000 donors all made the same comment: ‘What are the kids supposed to do if they don’t have extracurricular activities?’” says Randy Fulton, the school district’s board chair. “For any small, rural community, you’ve got to have the backing of parents and businesses, and you have to have someone willing to take the projects on. You have to be innovative and can’t just count on school personnel.”

#### Website

[bhs.hcsd3.org/](http://bhs.hcsd3.org/)

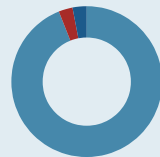
#### Contact

Erin Toelle, vice principal/athletic director, [erintoelle@hcsd3.k12.or.us](mailto:erintoelle@hcsd3.k12.or.us)

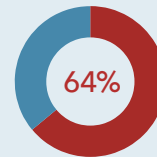
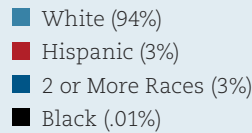
## West Canada Valley Junior/Senior High School | Newport, NY



Location



Race/ethnicity



Students who play interscholastic/intramural sports or participate in school clubs involving physical activity: 64%

### Interscholastic

- Basketball
- Bowling
- Cheerleading
- Cross Country
- Football (8-Man)
- Golf
- Soccer
- Softball
- Swimming
- Track and Field

### Intramural

None

### Club

None

### Try disc golf to engage students who think they're not athletes

With West Canada students unable to participate in PE as usual during COVID-19, they flocked to another activity – throwing frisbees at cones on the soccer field. “At first, I’m a little annoyed, and then I’m like, “They’re 17 years old and look how much fun it is for them,” Athletic Director Ed Dougherty says. “Then I was like, “This is cool. They can play it safely during COVID.”

So, Dougherty started building an 18-hole disc golf course at the school, with \$3,000 in funding from the school and a \$2,000 grant from the Lotos Foundation for the first nine holes. He laid out a course through the cross-country trail. He dug holes to put the baskets in as targets. He envisions one day putting in a QR code on hole signs so players can scan the flight path they want to take to a basket. And he dreams of starting a disc golf club and helping a nearby school create one so they can play matches. “Maybe you can’t dribble a basketball,” Dougherty says, “but if you put in a little time, you can throw a disc.”

### Website

[westcanada.org/](http://westcanada.org/)

### Contact

Ed Dougherty, director of special programs and athletics, [edougherty@westcanada.org](mailto:edougherty@westcanada.org)

## ENDNOTES

1. [Rural America](#), U.S. Census Bureau.
2. [Rural Education in America](#), National Center for Education Statistics.
3. [Why Rural Matters](#), Rural School and Community Trust, November 2019.
4. [Redefining Rural: Towards a Better Understanding of Geography, Demography and Economy in Rural Places](#). Economic Innovation Group, March 2021.
5. Analysis of 2017-18 Civil Rights Data Collection conducted by Resonant Education. The participation rate represents the percentage of roster spots compared to the total population of students that year, rather than the percentage of students who were participating in sports. Some students, of course, participated in more than one sport. For schools which reported single-sex athletics information, there were some omissions of urbanicity and Title I status. However, 81% of urbanicity data and 93% of Title I data were able to be reconciled, and any analysis referring to this information used only complete data entries. Another point of context: In the Aspen Institute's survey of students in 2020-21, 38.5% of ninth- to 12th-graders in rural schools said they had played at least one season of a sport with a school team, at any point during high school.
6. [Exploring Disparities in School Sports Participation in Rural Pennsylvania](#), M. Blair Evans, Penn State University, November 2020.
7. ["Rural School Districts, Frustrated By CHSAA, Mull Starting Their Own Athletic Association."](#) The Denver Post, April 27, 2021.
8. Analysis of 2017-18 Civil Rights Data Collection conducted by Resonant Education.
9. [The Influence of Athletic Trainers on the Incidence and Management of Concussions in High School Athletes](#). Timothy A. McGuine, Adam Y. Pfaller, Eric G. Post, Scott J. Hetzel, Allison Brooks, Steven P. Broglio; National Athletic Trainers' Association, Journal of Athletic Training, 2018. The researchers determined the level of athletic trainer availability at each school based on the number of athletes the athletic trainer was expected to serve per hour he or she was on site. Using that metric, a school categorized as having a high or low level of athletic trainer availability.
10. [Sport Specialization Characteristics Between Rural and Suburban High School Athletes](#). David R. Bell, Eric G. Post, Stephanie M. Trigsted; Orthopaedic Journal of Sports Medicine, 2018.
11. Information was provided by Lāna'i High & Elementary School. Most of the athletic costs came from travel (\$70,000) and coaching stipends/contracts (\$66,000). Additional expenses were for uniforms/equipment (\$18,000), team meals/concessions (\$6,000), athletic camps (\$6,000), referees (\$5,000), awards/banquets (\$4,000), medical care for athletes (\$3,000), and insurance/dues (\$3,000). Lāna'i's total budget for all school costs is approximately \$5.1 million.
12. [The Influence of Athletic Trainers on the Incidence and Management of Concussions in High School Athletes](#). Timothy A. McGuine, Adam Y. Pfaller, Eric G. Post, Scott J. Hetzel, Allison Brooks, Steven P. Broglio; National Athletic Trainers' Association, Journal of Athletic Training, 2018.
13. ["Hawaii Goes All in on Healing Concussions: Athletic Trainers Placed at Every High School."](#) Investigate West, 2019.
14. "A Milestone in Hawaii, NATA News, August 1993.
15. "Legislation Funds Athletic Trainers for All Hawaii Public High Schools," Athletic Business, October 1997.

## CREDITS

Jon Solomon, editorial director of Aspen Sports & Society Program, was principal investigator of this report. Tom Farrey, executive director, edited the report. Staff including Funmi Animashaun, program assistant, provided project management. Members of the Reimagining School Sports Advisory Committee, representing perspectives from education, youth sports, health, academia, government, and philanthropy, contributed to the development of this report. Photos were provided by Lāna'i High and Elementary School and West Canada Valley Junior/Senior High School.

**To learn more visit**  
[as.pn/schoolsports](https://as.pn/schoolsports)

Our gratitude to the funding partners supporting this project:



**boks**

