

# STUDENT RECEIVES GRANT

Recently it was announced that the Indiana Academy of Science has funded the proposed research work of John Adams senior Matt Booty. The grant was awarded after a review of Matt's project by a team of university instructors and professors of science. The grant will be used to defer the cost of his research work.

Matt's project, titled "The Possible Effects of an Induced Magnetic Field on Staphylococcus epidermis," deals with how a certain species of bacteria is affected by a magnetic field. The studies with bacteria are intended to give possibly greater insight into how man might be affected by magnetic fields.

Magnetic and electric fields have become an increasing topic of concern in health and occupational safety due to the large number of appliances and devices that can create magnetic fields in their near vicinities. Hair dryers, refrigerators, and televisions are all capable of generating moderate strength



Matt Booty inspects bacterial growth as Mr. Przybysz looks on.

magnetic fields. These same fields have been shown to retard growth in mammalian cells, alter the blood composition of mice, and disrupt the reproduction and mutation of molds, fungi, and bacteria.

"Almost anything electrical is

capable of generating a significant magnetic field," said Matt, "and with out increasingly technical society, knowing how magnetic fields affect biological systems will become more important."

Matt's research work last year

studied how bacteria that had been exposed to magnetic fields reacted to antibiotics. It was found that antibiotics are less effective on bacteria grown under a magnetic field. Furthermore, the cell structures of those bacteria were significantly altered.

These results imply that people working in or around magnetic fields may be more likely to have complications with bacterial infections and that prescribed antibiotics may not be as effective as they should be.

Matt's current work, the work that has been funded, also involves exposing the bacteria, staphylococcus epidermis, to magnetic fields. However, this year he is trying to see how the magnetic field is specifically altering the bacteria. By studying the amount of gas the bacteria produced, the function of two different enzymes of the bacteria can also be examined. The bacterial enzymes could be the key to finding out how the magnetic field alters the bacteria on a chemical and molecular level.

Matt is one of five students in their second year of research at Adams, and he hopes to apply his experience in the research biology class toward a future in biomedical engineering.

## Are You Ready?

# How to Prepare for SAT's

Related story on P. 2

by Virginia Petersen

Many seniors are beginning to worry about taking the Scholastic Aptitude Test. They are planning to go to college but don't know how to prepare for the test or what colleges look for.

The SAT is a test that is used as part of the criteria for college entrance. This test is divided into two sections, verbal and math. The verbal section includes analogies, antonyms, sentence completion, and reading comprehension. The math section deals with the ability to reason with numbers and mathematical concepts.

Mrs. Maza, who taught a course on the verbal portion of the SAT, believes that a person that

has done a lot of reading will do well. Mr. Rensberger, a counselor at Adams, says, "It is difficult to study for the verbal part." This portion of the SAT deals with those verbal skills that have been learned through a lifetime of schooling.

Mr. Niemier, who teaches a course on the math section of the SAT, says, "You should review the basic math courses." According to him, the math section is mainly algebra and geometry. If a student has a good math background, little preparation is needed. He suggests that the student review one to two weeks in advance. However, if a person is weak in math, his advice

is to take a course or study a review book on the SAT.

Mr. Rensberger, Mr. Niemier, and Mrs. Maza all agree that taking the PSAT is beneficial. It will familiarize the student with the test procedures and expectations. This will make the student more comfortable when taking the SAT.

Requirements for admission differ from college to college. "The SAT," says Mr. Rensberger, "is used as a cutoff point." When a college receives too many applications, they look at SAT scores to determine who will be accepted. Colleges with a technological emphasis look for high math scores, while others

look for high verbal scores. Mrs. Maza says that class rank, extra curricular activities, and employment are also criteria for college admission.

Seniors, keep in mind that the SAT is only one of many things that colleges look at. Good luck!

The SAT may be taken at the following schools on the dates [registration deadlines are in parenthesis]: December 3rd [October 28th] Adams and St. Joe; January 28th [December 23rd] Adams, Riley, and St. Joe; April 7th [March 2nd] Adams, Riley, and St. Joe; May 5th [March 30th] Adams and Riley; June 2nd [April 27th] Clay.

## Rouse Selected



Michael Rouse has been selected as one of ten finalists in the Indiana for Senate Youth Program. He will be travelling to Indianapolis on Saturday, October 22, for testing and interviewing. If all goes well, he will be one of the two selected from each state. Those two will spend an all-expense paid week in Washington D.C. the first of the year. The Tower extends good wishes to Michael.

Michael Rouse is a member of the wrestling team. He is also in Student Government. In addition, Michael serves as the junior class president.

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## Changing Times

by Jim Halterman

The Scholastic Aptitude Test is here again for college-bound high school students in the U.S. For those who do not know what the S.A.T. is, it is a three hour multiple choice exam that measures the verbal and mathematical abilities that students are supposed to have developed over the years, both in and out of school. Do you know the opposite for the word, impugn? If you said speak well of, which you probably did not, you were right. Example problems like this are in "Taking the SAT", a guide to the SAT that can be found in the guidance office.

The big question, however, is has the SAT scores declined here at John Adams? Statistics show that there has been a decline in scores since 1960 when the average verbal scores were 619 and the average mathematics were 687. In the 1982 SAT scores, the average verbal score was 433 while the math average was 488.

Why the decline? Several person's opinion is that the lack of reading outside school is a prime factor. Business teacher, Dennis Leatherman, feels that, "Television takes away from reading." Reading is very important because of the extent of the two SAT verbal sections. The verbal sections of the SAT contains four types of questions: 25 antonyms, 20 analogies (relationships between words), 15 sentence completions, and 25 questions on reading comprehension. Without a wide range of reading, students may find these sections

to be difficult.

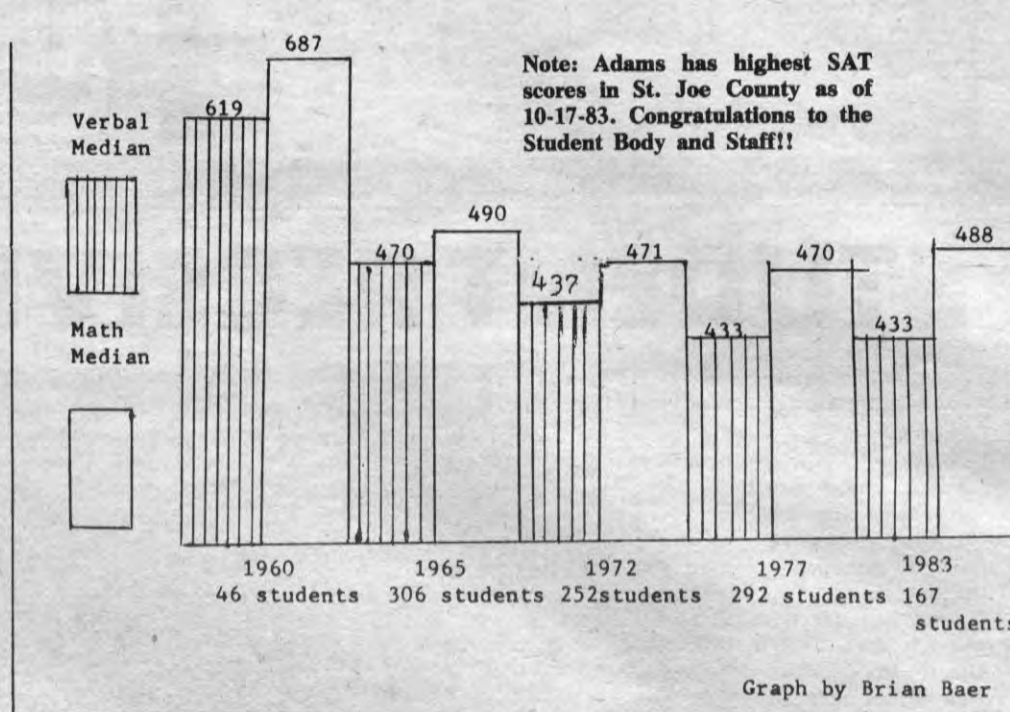
Junior Michelle Herendeen believes that, "Kids today do not care as much about their future as they did twenty years ago."

In the 1963-1964 school year, however, 234 students took the SAT, with the verbal section averaging 467 and the mathematics averaging 493. In the 1982-1983 school year, 167 students took the test with verbal measuring an average of 433 and mathematics averaging 488. This proves that even with only 167 students taking the test, the scores were not down to a great extent. This also may prove junior Dane Selig's comment that, "Students don't try as hard as they should." because of the number of students taking the SAT.

In 1962, 173 students took the SAT's and earned scores of verbal; 517 and math; 529. The verbal scores for 1982 are almost 100 average points below the 1962 score, when there was only a difference of six persons taking the exam.

Is the SAT really necessary to measure a student's intelligence? English teacher Ann Germano does not think so. "The SAT is not a valid indication of knowledge." I personally believe that a student's knowledge cannot be measured by a test but instead by their own personal ability to perform in academics.

In 1983, however, the SAT continues to help students to get into colleges based on the test scores instead of individuality. How many of you are taking the SAT this year?



## Taking their show on the road

by Susan Hobing

The John Adams Concert Choir, headed by Mr. Allen, is planning a trip to the East coast tentatively scheduled for April 8 through April 15. The trip includes a tour of Pittsburg, Philadelphia, and New York, then they continue on to Washington D.S., Wheeling (West Virginia), and Massillon (Ohio).

Besides all efforts to make money-saving shortcuts, the projected cost of the entire trip adds up to 15 thousand dollars. Each student is responsible for earning 300 dollars by any of several ways. Raffles, car

washes, candy sales, or chicken and barbecue sales are but a handful of ways already in use.

Forty students including eleven sopranos and altos, eight tenors, and ten bases will be going. Six or seven parent chaperones and Mr. Allen will accompany the students. Furthermore, in order to cut down on the costs involved with such a large group staying at a motel, Mr. Allen plans to stay at friends' houses along the way.

The programs for each of the concerts are made into three to four sections. The first section pertains to religious songs since

they will be singing in several churches. The second part consists of show tunes, while the third will be more along the lines of contemporary music. And, finally, the fourth being novelty and current songs.

Forty percent of the fifteen thousand has already been earned by students working diligently to achieve their goal; but without everyone's help and support with their sales, it will be impossible for them to go. So show your pride in the John Adams Concert Choir by supporting their sales!

## Getting It Together

by Barb Connolly & Victoria Demaree

Each September, 15,000 National Merit Semifinalists are chosen from all parts of the nation. This year, Adams High School was honored to have seven semifinalists. Where did the selection begin, and on what basis was it made?

The National Merit Scholarship Corporation was established in 1955 to recognize academically talented high school students. Every year, the N.M.S.C. awards 18 million dollars in scholarships to college-bound students. The first step of the competition is the P.S.A.T./N.M.S.Q.T., a test which is administered yearly to over a million high school students, usually juniors. The test, like the S.A.T., measures basic English and mathematical skills. The Selection Index (final score) is arrived at by adding the math score to double the English score.

Each state independently sets a minimum selection Index score to come up with the state's allocation of Semifinalists. This allocation is set to insure representation from all parts of the nation, and includes approximately one-half of one percent of the state's graduating class. Qualifying students are notified in the fall after having taken the P.S.A.T./N.M.S.Q.T. Public announcement of the Semifinalists follows, and a list of their names is sent to U.S. colleges and universities who seek to admit and administer financial aid to these students.

Semifinalists may continue in the competition for scholarships by submitting a scholarship application, which consists of academic records, administrative recommendations, a personal essay, and a Financial Aid Form. They must also demonstrate continued academic excellence by attaining a score on the S.A.T. equivalent to the Selection Index score. About 90 percent of the Semifinalists will then be chosen as Finalists and will be notified of their selection in February. Finally, about 40 percent of the Finalists will be granted scholarships.

## Sophomores Show Supremacy

by Dan Demien

This year Powder Puff Bowl was turned around from years past. perennial powers were upset this year in what has become a traditional "Battle Royale" between the classes.

The first game saw the juniors upset by the freshmen 7-0. The frosh scored in the first half with Kelly Parisey doing the honors. The game was played in two 15-minute halves with a running clock stopping only for penalties and time outs.

The second game, a continuation of last year's fierce battle, saw the sophomores beat the seniors in overtime, although the score was still 0-0. The overtime system allows each team four plays from their own 40 yard line. The team gaining the most yardage wins

the game. The seniors had their chance first and were allowed only a net 3 yards by a stingy sophomore defense. The seniors looked to have stopped the class of 86 with a defense play that caused the sophomores to lose 8 yards, but two penalties for 30 yards let the sophomores beat the seniors with a net yardage of 22 yards.

The Final- The finals pitted the two underdogs, the freshmen vs. the sophomores. The game got off to a fast start with the sophomores sporting a five minute drive from their own 40. Paula Stewart proceeded to score on a 23 yard run. Lisa Billups then ran in the extra point for a quick 7-0 lead. Two plays later shock ran through the stadium. A freshman running back appeared to be stuck with a

loss, but she broke free for a 63 yard touchdown. The conversion failed to make the score 7-6. With a little over two minutes to go in the half, sophomore Diane Grundy scored a touchdown, and with the conversion, the score at halftime was 14-6. The freshmen came out with hope in their eyes in the second half and scored a touchdown with less than five minutes to go in the game. The conversion failed making the score 14-12. Billups then put the game out of reach with a sophomore touchdown. The final score was 20-12.

This year was the year of the underclass as they proved that they are capable of showing up the upperclass.

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# Tennis Team Takes Third

by John Patton

The end of an era has come. Seniors Paul Koscielski, Chris Foley, and Benson Yang have completed their last tennis match for John Adams. During their four-year rule of supremacy they compiled a superb record of eighty wins and a mere seven loses. They captured three NIC crown, four sectional titles, four regional trophies, four semi-state championships, three third in the state titles, and a state runner-up in 1982. The only thing they failed

to capture was a state championship.

Last week-end, the 1983 edition of the tennis team captured third in the state. In the morning semi-final match, Adams lost to the number one ranked and now state champion North Central. They lost 4-1, but the score could well have been 3-2 in Adams favor. Paul Koscielski won the first set of his match 6-0. He had a rougher second set, but still pulled out the victory 6-4. Junior

Chris Nespo played a tough match, but lost 6-2, 6-0. Freshman Guy Hamilton also had a rough go with a North Central opponent. He lost 6-1, 6-1. Both doubles teams had to win if Adams was to win state. It looked good for us in the beginning. Both teams had won the first set of their match. Chris Foley and junior Kurt Roemer took the first with a 7-6 score. Benson Yang and junior John Rohan won the first set 6-0. Both teams seemed

to lose their confidence, and they both fell. Foley and Roemer lost 2-6, 3-6. Yang and Rohan fell 0-6, 2-6. With the loss to North Central, Adams faced Terre Haute South in the consolation match. The guys lacked the intensity of the Central match, but they still won over Terre Haute South 4-1. Koscielski, Nespo, Foley and Roemer, and Yang and Rohan supplied the victories. Hamilton was faced with another tough opponent and lost.

Koscielski, because he has won all of his matches in the number one single slot in the playoffs, advances to the singles tournament this weekend in Indianapolis. He is the number one seed and is favored in the tourney which he has won the past two years in a row. He also won the state's mental attitude award.

The entire school of Adams would like to thank the three seniors on the tennis team for four great years of tennis.

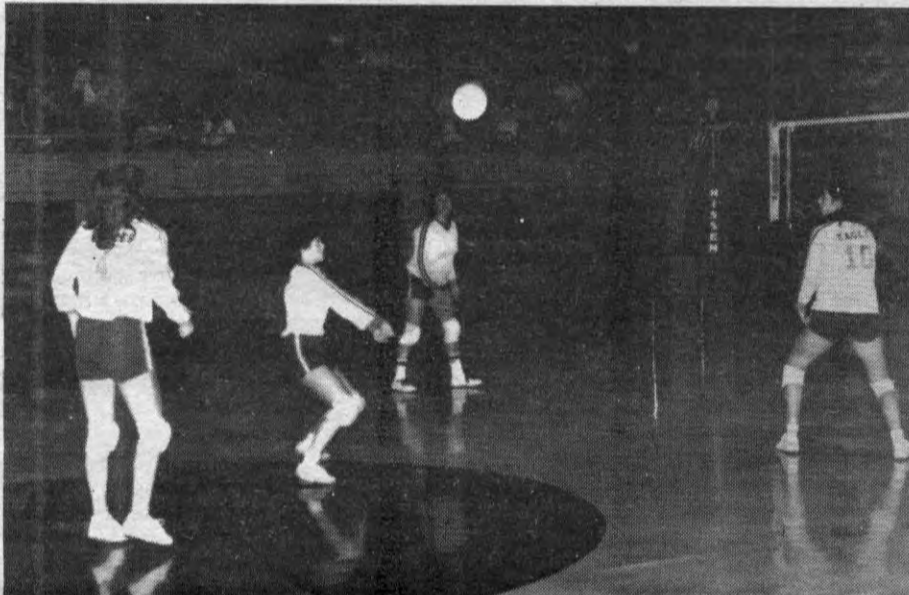


Photo by Mark Orlando

Laura Schilling sets up a play in a recent game. The girls go against St. Joe tonight in sectional play at Adams.

## V-Eagles Still Strong

The John Adams Volleyball team has had an impressive season. The girls have compiled an 18-8 record, losing to powerhouses Mishawaka, St. Joseph, and Muncie Burris.

The girls are coached by Susan Ganser who was recently nominated as Coach of the Year. This year's captains are seniors Margaret Duesterburg and Laura Schilling. Ann Woodhurst, Gina

Nowicki, Mary Slafkosky, Julie Vigue, Kelly McMahon, and Judy Molnar have provided the experience to this veteran team. Lori Borlick, Colleen Lennon, Megan Moriarty, and Kim Wasowski are also great contributors to the success of the team.

Tonight the girls face strong rival St. Joe in sectional play in the Adams' gym. The girls feel

that they can win and would appreciate all the fan support they can get.

Overall the season has been a successful one with an abundance of talent and skill. The team works well together as a team and are exciting to watch. Tonight at 6:00 come out and watch the Eagles go a sectional crown in hopes of following the path of last year's state finalist. You'll be in for a winning surprise.

## Cross Country:

### IMPRESSIVE

by Michele Martino and Kevin Otolski

The 1983 boys cross country, under second year coach Tom Lower, placed 3rd in the NIC this year with an impressive 7-2 mark. They also captured the City Tournament crown over a strong field. Last Friday, the runners took second place in the sectional. They finished behind Mishawaka. Leading the 'Eagles "Pack" are seniors Kevin Otolski, "Fly" Miller, and Mark Orlando; junior Carl Stopper; sophomores Neil Lannuier, Jim Williamson, and our number one runner Jason Yazel who turned in a super effort in leading the team this year; and freshmen Jason Ehlert and Tommy Taylor. With the second place finish in the sectional, the

team was awarded a berth in this week's regional. The meet will be run this afternoon at Erskine Golf Course.

This is the first year that second year coach Tom Lower has had a full girls' cross country team. They ended their regular season with a NIC record of 3-6 and a third place finish in the recent City Meet. The girls have been led by seniors and co-captains Linda Hemphill, who has been their strong front runner, and Michele Martino; juniors Margie Verduin and Gail Wisniewski; and sophomore Dawn Sivak. These girls will be participating in their first sectional meet this afternoon at Erskine Golf Course.

## Broken Dream

by Mary Slafkosky

There was exciting action last Friday night at School Field. The John Adams football team was facing the possibility of entering the state playoffs for the first time. With the new cluster system the Eagles needed only to win one more game to qualify.

The obstacle facing the players were the St. Joe Indians. Both teams came into the cluster game undefeated in their cluster play. The Eagles seemed pretty well matched entering the contest and played impressively.

At the end of the first quarter both teams were scoreless. In the second quarter the Indians scored a touchdown, but they were unable to convert the extra point. That's when things began to happen. With good field position, the offense fumbled the ball away and a St. Joe guy recovered. With just under a minute to go in the half, St. Joe attempted a field goal that failed.

The third quarter didn't go much better for Coach Farrell's troops. Another fumbled ball and poor plays kept the strong defense on the field much of the quarter.

The team had many outstanding players throughout the game. Athlete of the week, Joe Wingo, played an awesome game by breaking up plays and running extremely well. Rodney Hetterson, Matt Bauer, and the brothers, Anthony and Michael Johnson, also played a superb game. The team as a whole should be commended on an outstanding game.

The final minutes of the game were coming and the Eagles were on the move once again. With under a minute to go, from the Indians 10 yard line, quarterback Lynn Shaw attempted to loft a pass into the end zone. The pass was broken up and so was the dream of the state playoffs. The final score, 6-0 in St. Joe's favor, left many fans wondering what the future will bring for the once lowly John Adams football team. If Friday night's game is any indication of the future, then the long awaited transformation of a laughingstock team to a state powerhouse is on its way.



Photo by Frank Walker

The football team charges onto the field before suffering a defeat to St. Joe's Indians.

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# The Future Is Now

by Derek Lannuler

Has anyone ever wondered who designed the "educational system" which decides what courses and how many semesters of each a student must take in order to graduate? Well, maybe not, but I know some people have. I, for one, would be very much surprised if this so-called "system" ever had a designer much less a plan. Looking at it one might be inclined to believe a janitor picked up some pieces of trash after a board meeting and put them in some executive's file. These, then, somehow came to be "The Official" course requirements for graduation from high school in the state of Indiana. I cannot tell you what the requirements are in other states, but as a victim of this state's educational B.S. (Bureaucratic System), I can say that now, not next year, is the time for change. We, as concerned students and citizens, owe it not

only to ourselves but also to our posterity.

Many of us accept these standards as being fair and just and abide by them accordingly. But there are serious flaws which we must not and cannot overlook, yet we do. It is a well known fact that the United States, one of the most highly technological and industrialized nations on the earth, is pitifully far behind in educational standards as compared to other nations of the same status. The National Government issues reports telling us that the quality of education in this country has deteriorated as compared to these other nations. Or could it just be that they have just surpassed us as we flounder in a sea of bureaucracy? It would not be the first time. It's not that we are getting weaker but that others are getting stronger and we are doing nothing to keep pace.

So, one may ask, "What is he talking about?" Well, for example, at the present time a student is required to take 2 semesters of science, 4 semesters of math, 6 semesters of "social sciences", 1 semester of health, and 2 semesters of physical education. In a highly technological nation, maybe not state, very little emphasis is given to math much less science. These standards are among the foremost which are an embarrassment if not mockery of this system. Before we can even be in the race and possibly be considered a competitor these standards must be raised drastically and soon.

The standards for English seem reasonable and probably not much more could be done. But there is no way I can be convinced of the value which the "social sciences" have been granted over science and math. These should

probable be left electives, as math and science are now, once a basic course is completed. Sure it's fine to know about history and have pride in our country; but what about the future? After all, at the present rate, there might not be much to take pride in, possibly in a few generations or maybe years.

The most obvious flaw is the total lack of consideration for the role of foreign languages in our schools. They are not even required in our schools, yet English is required as a second language in almost every other major country. We cannot expect English to be the eternal universal language, yet we live like it is and will be, disregarding the importance of foreign language. I am not saying a specific language should be required but at least 4 semesters of some language should be mandatory.

There are many students who try to take challenging, well-rounded course schedules, which are probably comparable if not above those of other nations. The problem is they are not allowed to realize these programs to their fullest potential, because they are required to take senseless, trivial, irrelevant, courses. The "option" to take these courses or more meaningful courses should be left open to the student and not to some board of directors in smoke-filled rooms behind closed doors.

The change will not be initiated on a national level, it must come from the state. But when the state is too stubborn, cheap, lazy, or whatever the reason, the change must be initiated by us, the students. We must show others that we are willing to change and work, and then maybe others will do the same.

## EDITORIAL: Kicking Up Interest

Soccer was organized as a co-ed club sport a few years ago throughout South Bend high schools. Girls are still playing soccer on the club level while most schools have varsity boys teams. South Bend schools should start girls varsity soccer teams.

Admittedly, many girls enjoy the freedom that results from participating in soccer as a club rather than a varsity sport. Varsity teams would preclude this because of the Michiana Soccer Association and its involvement to soccer.

A varsity sport requires both dedication and commitment from both players and coaches. In return, players gain valuable soccer experience. Their skills will improve with more frequent practices and a higher level of competition. Competing in varsity athletics also increases a sense of pride in one's accomplishments and in representing one's school.

It is true that girls can try out for the boy's team, but this is not encouraged. Even the most skilled female players do not have the same strength and endurance



as their male counterparts. The few girls that were on the team participated during scrimmages and practices but did not play much during games.

South Bend is a sports-oriented community with a growing interest in soccer. Practice and game fields exist, and outfitting and equipping a team is inexpensive when compared to other sports. If a girls varsity program didn't run simultaneously with the boys, equipment could be shared. There is the possibility that the program

would become self-sufficient in the future.

There are at least five schools in the South Bend area that could field full teams. Interest within other schools would grow with a successful program. All other girls varsity sports involve a limited number of participants. Soccer has the potential to involve large numbers across all grade levels. The South Bend Community School Corporation should care enough about equal opportunities to support girls varsity soccer.

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The Tower welcomes responses and contributions from its readers in the form of letters to the editor and student view-points. The Tower reserves the right to edit any letters and/or contributions.

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