# USTA JUNIOR NATIONAL CHAMPIONSHIP ANALYSIS <br> SEPTEMBER 22, 2008 <br> PREPARED BY SCOTT GERBER 

Using data obtained from the USTA National Championships held in August, this document provides a breakdown of the performance of each of the USTA Sections. It compiles the performance of all 1,408 competitors in those eight tournaments (BG 1218). This is the third year for this analysis and it incorporates data from previous years.

For the benefit of new readers, the USTA Sections are as follows:

| Section | States / Regions |
| :--- | :--- |
| Caribbean | Connecticut, New York, New Jersey (portion) |
| Eastern | Florida |
| Florida | Hawaii |
| Hawaii Pacific | Colorado, Idaho, Utah, Nevada, Montana |
| Intermountain | Washington D.C., Maryland, Virginia, West Virginia (portion) |
| Mid-Atlantic | Pennsylvania, New Jersey (portion), Delaware |
| Middle States | Indiana, Illinois, Kentucky (near Cincinnati), Michigan, Ohio, <br> West Virginia (portion), Wisconsin (portion) |
| Midwest | Iowa, Kansas, Missouri, Nebraska, Oklahoma |
| Missouri Valley | Connecticut, Massachusetts, Maine, New Hampshire, Rhode <br> Island |
| New England | Minnesota, North Dakota, South Dakota, Wisconsin (portion) |
| Northern | California |
| Northern California | Alaska, British Columbia, Oregon, Washington, Idaho (portion) |
| Pacific Northwest | Alabama, Arkansas, Georgia, Kentucky (portion), Louisiana, <br> Mississippi, North Carolina, South Carolina, Tennessee, Texas <br> (Texarkana) |
| Southern | California |
| Southern California | Arizona, New Mexico, Texas (EI Paso) |
| Southwest | Texas |
| Texas |  |

If you care to look at the USTA Section map, I have included it at the end of this document.

As a measure of performance, I used the points earned by each participant based on where that participant finished in the tournament. For example, if a participant's last win was in round, "R3", that player earned 150 points. I then averaged all the participants' points.

First, note the number of players from each Section. Southern provided the largest number of participants with 251, followed by the Midwest (183) and Southern California (155).

## USTA JR NATIONAL CHAMPIONSHIPS NUMBER OF PLAYERS BY SECTION



The number of players from each Section has varied each year.

## USTA JR NATIONAL CHAMPIONSHIPS NUMBER OF PLAYERS <br> BY SECTION <br> FOR THE YEARS: 2008, 2007, 2006



Keeping in mind the number of participants, the average points per player in each Section is as follows:

## NATIONAL JR NATIONAL CHAMPIONSHIPS <br> AVERAGE POINT PER PLAYER <br> BY SECTION



Congratulations to Florida (again)! Following Florida (150) was Southern California (139) and Intermountain (137). The differences between first and second continue to decrease. The unlucky losers were Northern (63), Hawaii Pacific (64), and Southwest (68). The average points-per-round was 120 points, so if all Sections were exactly equal, all Sections would have 120 points per player. (I did not include bonus points.)

Comparisons with the last two years follow. Intermountain and Mid-Atlantic were the only Sections that had gains each year. Note that smaller Sections will have more volatility in performance than the larger Sections.

## USTA JR NATIONAL CHAMPIONSHIPS <br> AVERAGE POINTS PER PLAYER <br> FOR 2008, 2007, 2006



- Looking closer at the "Big Six" Sections, which provide more than 100 participants each and $70 \%$ of all of the competitors, the results are as follows. For the last three years, Florida has been first, followed by Southern California.

USTA JR CHAMPIONSHIPS
"THE BIG SIX"
AVERAGE POINTS PER PLAYER
2008, 2007, 2006


Looking more closely at the data, note that some Sections are stronger in one gender.

USTA JR NATIONAL CHAMPIONSHIPS
AVERAGE POINTS PER PLAYER
BY SECTION BY GENDER


The following graphs show the age group breakdowns for the boys and the girls, respectively. The 12's are shaded to make it a bit easier to view the graph.

## USTA JR NATIONAL CHAMPIONSHIPS <br> AVERAGE POINTS FOR BOYS <br> BY SECTION



## USTA JR NATIONAL CHAMPIONSHIPS AVERAGE POINTS FOR GIRLS BY SECTION



The winners for each age group and gender are as follows.

| Event | Winning Section | $\mathbf{2}^{\text {nd }}$ | $\mathbf{3}^{\text {rd }}$ |
| :--- | :--- | :--- | :--- |
| Boys 12 | New England | Pacific Northwest | Mid-Atlantic |
| Boys 14 | Intermountain | Hawaii Pacific | Southern |
| Boys 16 | Texas | Intermountain | Mid-Atlantic |
| Boys 18 | Caribbean | Southern California | Texas |
| Girls 12 | Texas | Missouri Valley | Midwest |
| Girls 14 | Mid-Atlantic | Florida | Intermountain |
| Girls 16 | Midwest | Southern | Florida |
| Girls 18 | Eastern | Florida | Intermountain |

Congratulations to the above Sections.

As for the states, Nevada was the big winner (If you focus on states that sent a reasonable number of players).

## USTA JR NATIONAL CHAMPIONSHIPS AVERAGE POINTS BY STATE



The top performing states are listed below in more detail. Since some states send a rather small number of players to the championships, listed below are the top ten performing states in addition to the number of players sent. Rhode Island and West Virginia did the best, but they only sent a total of four players. For the states that sent more than ten players, Nevada was first, followed by Georgia and then Florida.

USTA NATIONAL CHAMPIONSHIPS AVERAGE POINTS AND NUMBER OF PLAYERS BY STATE


## Tournament Seeding:

The average points derived from each seeding position is as follows. Please note that the graph contains the 2008, 2007, 2006, and "If Perfect" results. For example, if all of the first seeds won, that seeding position would equal 660. The seeding for 2008 was the least accurate of the last three years with the correlation versus the "If Perfect" as follows:

| Year | Correlation to "If Perfect" |
| :--- | :---: |
| 2008 | 0.788 |
| 2007 | 0.816 |
| 2006 | 0.894 |

USTA JR CHAMPIONSHIPS SEEDING COMPARISONS 2008, 2007, 2006


In the chart below is data specific to how the Top Four Seeds performed and the actual order of finish for the last three years. Personally, I like to see draws where more than 50\% of the top four seeds get to the semi-finals. Both 2006 and 2007 averaged greater than 50\%, but 2008 was substantially worse.

Looking at the order of finish, the number one seeds won four out of the eight events in 2006 and 2007. In 2008, only two of the number one seeds won and the number one seeds did not make the semi-finals in three of the events.

| National Championships | \% of Top 4 Seeds in Semi-Finals |  |  | Order of Finish by Seeds ( $\mathbf{1}^{\text {st }}, 2^{\text {nd }}$,$\left.3^{\text {rd }}, 4^{\text {th }}\right)$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2006 | 2007 | 2008 | 2006 | 2007 | 2008 |
| G12 | 50\% | 50\% | 75\% | 42139 | 8731 | 1294 |
| G14 | 75\% | 75\% | 25\% | 2139 | 1235 | 9591 |
| G16 | 25\% | 25\% | 25\% | 111266 | 817131 | 121117 |


| G18 | 25\% | 50\% | 75\% | 53 Un 8 | 21653 | 13413 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B12 | 75\% | 75\% | 0\% | 1942 | 12311 | 871710 |
| B14 | 25\% | 25\% | 25\% | 378 Un | 910114 | 72175 |
| B16 | 50\% | 100\% | 25\% | 12512 | 1432 | 7625 |
| B18 | 100\% | 50\% | 25\% | 1234 | 13306 | 5816 |
| Average | 53\% | 56\% | 34\% |  |  |  |

* Un is an abbreviation for unseeded.


## Points from the August National Championship Points vs. National Points

We have all heard anecdotal comments from parents after they check out the draws for their kid that resembles the following: "My [unseeded] daughter plays the eleventh seed but the seed is from Northern so my daughter is probably ok." Below are a couple of new graphs that you have not seen before that quantifies this sentiment. Hopefully I can explain the graphs so that they make sense.

Using the competitor lists of all players in the National Championships, I retrieved the number of national points that each of the players has earned from his/her numerous national point tournaments. From this I computed the average national points per player and the graph is show below.

AVERAGE NATIONAL POINTS PER PLAYER


From the above graph, the players from the Pacific Northwest have the most National Points. Pacific Northwest is followed by Intermountain, Caribbean, and Southern California. The average National Points per player for all of the players who participated in the National Championship is 1,105 (as shown by the line). That places Eastern, Southern, and Texas below the national average. That is an indication of a problem because these are strong Sections.

If each Section's National Points Average is divided by the overall average of 1,105, you get the graph below. Note how the Midwest's 1,113 average divided by 1,105 is slightly greater than 100\%. Note that I used the same process for the Average Points per Player by dividing them by 120. Again, the Midwest has an Average Points per Player of 124 so it is very close to $100 \%$.

If all Sections had players of equal ability and if all Sections made it equally easy (or difficult) to get National Points, then all of the bars below would be at $100 \%$.

AVERAGE NATIONAL POINTS AND AVERAGE NATIONAL CHAMPIONSHIP POINTS


If you combine the graph above into one bar graph, you get the following graph and hopefully an understanding of which Sections are the haves and which are the have nots in terms of National Points. The following graph shows the difference between the National Points minus the Average Points per Player from the National Championships. Again, looking at the Midwest, you can see where the -3\% is derived (124/120-1,113/1,105). In this case, the Midwest is above average in terms of performance at the National Championships but less than average with National Points. To equal average, the Midwest should have done worse at the National Championships or the players should have received more National Points over the last 12 months. Sections where players should have fewer National Points based on their performance in the National Championships include: Hawaii Pacific, Middle States, Northern, and Southwest.

Sections where the competition for National Points are significantly harder include Florida and Southern. Again, if all Sections had the same quality of players and if the relative difficulty in acquiring National Points were the same, then all of the numbers below would be 0\%.

Please note that the National Championships consist of the top 1-2\% of all tennis players in the nation, especially in the older age groups. My guess is that if you look at the "next twenty" players who didn't make the National Championships from the Southern Section, they would have far fewer national points than the "next twenty" in the Middle States, and that's a big problem for the kids who want to get into the National Opens.
(AVERAGE NATIONAL POINTS) MINUS
(AVERAGE NATIONAL CHAMPIONSHIP TOURNAMENT POINTS)


## Summary:

Is there anything new from this year's analysis that matters? Now that we have three years of data, it is possible to start identifying trends.

- Florida and Southern California dominate junior tennis. The Midwest and Southern are close. It's too early to tell if Intermountain is a one year wonder by blasting into third place but they have had three great years of improving performance. When seeing the success that Las Vegas is having, could Agassi be playing a role in these improvements, especially with the B12's and B14's?
- Seeding was good and now it is bad. Are parents and players getting more adept at gaming the points system?
- More tweaks necessary for a system that needs overhauled. It is easier and less expensive to acquire National Points if you live in smaller Sections (in terms of population and geographic area). This isn't a surprise to anyone, especially if you read my USTA Travel and Point Comparisons by Section document from last year. While everyone knows that the USTA Sections are shaped like the map on the left, the USTA rules (in regards to the number of National Level 5 tournaments permitted in each Section) are written for a United States that looks like the "map" on the right. The Level 5 tournaments are the "meat and potato" tournaments that more (but not all) kids in the larger

Sections can use to acquire national points. The larger Sections simply need more of these Level 5 tournaments.


I saw a recent survey that questioned whether National Points should play a larger role in selecting participants in the National Championships. Based on this analysis, that is not a good idea for the largest Sections. (I don't know how the politics of the USTA works but I would hope that it is more like a House of Representatives where Sections with the largest membership numbers receive far more "votes" than the smaller Sections.)

To end on a good note, congratulations and thanks to the Midwest for making its national Level 5 tournaments "Feed-In-Consolation" tournaments last year. This not only gave the kids more great, competitive matches, but it also gave them more National points.

As in the past, I am not compensated for this analysis. If you use my analysis, please give me proper attribution.

Regards,
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## Midwest Section - Please Read On.

Below is additional information on how each District in the Midwest performed in the various National Championships. Chicago sent 82 players (or 44\%), while the Ohio Valley and Western Michigan sent 30 and 21, respectively.

USTA JR NATIONAL CHAMPIONSHIPS
MIDWEST SECTION ANALYSIS
NUMBER OF PLAYERS BY DISTRICT


The average points-per-player for each District was as follows. Note that some of the Districts with zeros did not send any players to the National Championships.

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USTA JR NATIONAL CHAMPIONSHIPS
    MIDWEST SECTION ANALYSIS
    AVERAGE POINTS PER PLAYER
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Northeastern Ohio (157) took top honors, followed by Central Indiana (152) and S.E. Michigan (145). Central Indiana and Ohio Valley have consistently improved each year.

From the USTA Web site.


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# USTA JUNIOR TENNIS MIDWEST CLOSED ANALYSIS <br> <br> SEPTEMBER 22, 2008 <br> <br> SEPTEMBER 22, 2008 PREPARED BY SCOTT GERBER 

Enclosed are the results from the 2008 Midwest Closed tournaments. As I did with last year's, this document uses the average points per player to determine the performance of each District in the Midwest. It includes the results of 1,024 players (128 players x 2 genders x 4 age groups).

For the benefit of new readers who are not as familiar with the various Districts in the Midwest, they are as follows:

| Districts | Includes such Major Cities (and/or Tennis Mecca's) as... |
| :--- | :--- |
| Central Indiana | Indianapolis, Terre Haute, Greenwood, Carmel, Bloomington |
| Chicago | Chicago, Hinsdale, Lake Forest, Winnetka, Deerfield, Glenview, |
| Wilmette |  |
| Peoria, Springfield, Decatur, Quincy, Champaign |  |
| Middle Illinois | Midland, Grand Blanc, Saginaw, Flint |
| N.E. Michigan | Cleveland, Akron, Shaker Heights, Chagrin Falls, Hudson, Medina |
| Northeastern Ohio | Naperville, Rockford, St. Charles, Batavia |
| Northern Illinois | Fort Wayne, Munster, Granger |
| Northern Indiana | Harbor Springs, Traverse City, Williamsburg, Glen Arbor |
| Northern Michigan | Toledo, Perrysburg, Maumee, Wapakoneta, Findlay, Holland |
| Northwestern Ohio | Columbus, Dayton, Cincinnati, Dublin, Zanesville, Upper Arlington, <br> New Albany, Middletown, Springfield, and West Virginia's Huntington, <br> Parkersburg, and Charleston |
| Ohio Valley | Detroit, Ann Arbor, Bloomfield, Rochester Hills, Gross Pointe, Novi |
| S.E. Michigan | Effingham, Salem |
| Southern Illinois | Kalamazoo, Grand Rapids, Lansing, Battle Creek, Augusta |
| Western Michigan | Milwaukee, Mequon, Green Bay, Brookfield, Whitefish Bay |
| Wisconsin |  |

The map for the various Districts can be viewed by clicking here.

The results are as follows:
AVERAGE POINTS PER PLAYER BY DISTRICT


Once again, Chicago led the way with 187 points. Second and third were the Ohio Valley and Western Michigan with 174 and 157 points, respectively. It is important to note that Chicago lost some ground to the others. Last year, Chicago had 212 points while Ohio Valley trailed with 168 and Northern Michigan with 143. Meanwhile, the lowest performing districts were Southern Illinois with 18 (32 in 2007), Northwestern Ohio with 89 (106 in 2008), and Northern Indiana with 96 (113 in 2007). Note that the average points per player is 144 points. (So, if every district had equal talent, then the preceding bar chart would be straight across at 144 points.)

A three year comparison for all Districts is listed below. Congratulations to N.E. Michigan for having the strongest gains over the last three years. The Ohio Valley also recorded increases for each year.

## AVERAGE POINTS PER PLAYER 2008, 2007, 2006



Looking more closely at the data, note that some districts are stronger in one gender. Chicago leads the boys while Ohio Valley has stronger girls.

## AVERAGE POINTS PER PLAYER <br> BY DISTRICT <br> BY GENDER



Breaking the numbers down even further, you'll see that some age groups are also stronger than others. The boys are shown in the first graph and I have darkened the Boys 12's to make it easier to follow the chart. The winners and runner-ups for each age group are as follows:

| Event | Winner | Runner-up |
| :--- | :--- | :--- |
| B12 | Ohio Valley | Chicago |
| B14 | Chicago | S.E. Michigan |
| B16 | N.E. Michigan | Northeastern Ohio |
| B18 | Ohio Valley | Chicago |
| AVERAGE POINTS FOR BOYS |  |  |
| BY DISTRICT |  |  |



The girls are shown below. The winners and runners-ups are:

| Event | Winner | Runner-up |
| :--- | :--- | :--- |
| G12 | Ohio Valley | Northern Illinois |
| G14 | Chicago | Ohio Valley |
| G16 | S.E. Michigan | Western Michigan |
| G18 | Chicago | Ohio Valley |
| AVERAGE POINTS FOR GIRLS |  |  |
| BY DISTRICT |  |  |



## Number of Players per District

The number of competitors from each District has varied over the years with Chicago having the most participants (194) followed by Ohio Valley (134) and S.E. Michigan (126).

## NUMBER OF MIDWEST CLOSED COMPETITORS BY DISTRICT



## Seeding

The quality of the seeding was better (and worse) than last year. 69\% of the top four seeds made it to the semi-finals and that was the best in four years. There was just one "number 1" seed that won a tournament this year, but seven " 1 " seeds made it to the semi-finals. In 2005, the last year for head-to-head rankings, seven of the eight top seeds won their tournaments and 65\% of the top four seeds finished in the top four.

| Midwest Closed | \% of Top 4 Seeds in SemiFinals |  |  |  | Order of Finish by Seeds ( $1^{\text {st }}, 2^{\text {nd }}, 3^{\text {rd }}, 4^{\text {th }}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2005 | 2006 | 2007 | 2008 | 2005 | 2006 | 2007 | 2008 |
| G12 | 25\% | 75\% | 50\% | 75\% | 16710 | 1734 | 11482 | 21123 |
| G14 | 75\% | 50\% | 75\% | 100\% | 43213 | 21107 | 1643 | 3214 |
| G16 | 50\% | 50\% | 50\% | 75\% | 12107 | 2194 | 5462 | 1245 |


| G18 | 75\% | 25\% | 50\% | 25\% | 1372 | 2821511 | 142129 | 26 Un 26 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B12 | 75\% | 50\% | 100\% | 75\% | 1236 | 3289 | 1234 | 2145 |
| B14 | 50\% | 75\% | 50\% | 75\% | 121529 | 12104 | 341027 | 21314 |
| B16 | 100\% | 50\% | 75\% | 75\% | 1243 | 12 Un 34 | 12274 | 21233 |
| B18 | 75\% | 75\% | 0\% | 50\% | 1437 | 12213 | 2771017 | Un Un 13 |
| Average | 65\% | 56\% | 56\% | 69\% |  |  |  |  |

* Unseeded

Below, the 2008, 2007, 2006, and "If Perfect" results are charted. For example, if all number one seeds won their respective tournaments, the average (660) would have matched the "If Perfect" amount. The graph is getting too busy to be of much value so it would be best to look at the correlations. The correlation of the 2008 seeding results versus "If Perfect" was 0.94. That compares with 0.90 in 2007 and 0.89 in 2006. This is a significant improvement. (I could not compare this with 2005 because 2005 did not have points.)

AVERAGE POINTS FOR EACH SEEDING POSITION


## Comparing Points among Districts

Using a similar approach as I did with the National Championship Analysis, below is a comparison of the average points earned in the Midwest Closed that the various Districts have in relationship to their Midwest and National points. Again, if a District has players with a high Midwest points average, then you would expect them to have performed well at the Midwest Closed.

Chicago performed the best at the Closed with an average of 187 points. It also makes sense that they have the highest number (587) of Midwest Points and the highest number (554) of National points. However, as you look at the relative differences between the various Districts, more questions arise.

## AVERAGE MIDWEST CLOSED PONTS, <br> AVERAGE MIDWEST POINTS, AVERAGE NATIONAL POINTS



Now, I'll start to combine the numbers as I did in the National Championship Analysis. If you look at the average differences between the performances in the Midwest Closed versus the average number of points that players have in the Midwest, you'll see the inequities in the points per round system in the Midwest.

Looking at Chicago again, based on how those players performed in the Midwest Closed, Chicago players would need a 7\% boost in Midwest Points to balance their performance in the Closed versus their Midwest Points. Likewise, Southern Illinois' players have far more Midwest Points than they should have based on their players' performance in the Midwest Closed.
(AVERAGE MIDWEST POINTS )
LESS
(AVERAGE POINTS EARNED FROM MIDWEST CLOSED)


The next graph puzzles me. Chicago appears to have a lock on National Points. As we saw above, Chicago should have more National Points than the other Districts however they are getting far more than they deserve. This might explain why Chicago gets so many players in the National Championships and why Chicago doesn't do as well as it should in the National Championships.
(AVERAGE NATIONAL POINTS )
LESS
(AVERAGE POINTS EARNED FROM MIDWEST CLOSED)


## Summary / Recommendations

- Thanks for the FIC's. Thank you to the Midwest for making its Level 5 national points tournaments feed-in-consolations. This was a great move for the kids by giving them the opportunity to play more high quality, competitive matches and to earn more Midwest / National points. This move may have also led to the improvements in the seedings.
- Seeding is getting better. You can't have a good tournament if the seeding is poorly done. It is in everyone's best interest to have the best possible seeding. You could use the current method to identify who gets into the Midwest Closed, but please consider using TennisRecruiting.net (or head-to-head) to identify how the tournament should be seeded. This could be experimented with the B12 / G12 events or another age group to see how it works.
- Can Southern Illinois be fixed? The reason why a particular District does well is based on the number of quality players they have and the number of players the District is permitted to send to the Midwest Closed. For example, Chicago would probably do poorly if you doubled their number of participants. Likewise, some Districts are simply sending far too many participants - right now. Southern Illinois sent 13 competitors and those 13 players won two (2) matches. That's a problem. The Midwest Section needs to consider combining this District with another (i.e. Middle Illinois) for the Midwest qualifiers. Middle Illinois sent 25 players last year and they averaged 120 points (a bit worse than
the 144 point average). The combination of the two Districts should send approximately 28 players to the Closed. This would free up approximately 10 spots for my next recommendation. (This change would make the Southern Illinois / Middle Illinois combination about the same size as the Wisconsin District as you can see from this chart.)
- Up and down cycles need to be considered. I have heard many times that (fill in the blank) District is down in the Boys 16 but they will be coming on strong in a couple of years when player $x, y$, and $z$ get older. My recommendation is if a particular age group is performing extremely well in a particular District, then boost the number of competitors that they can send to the Midwest Closed for that gender and age group and continue doing this as they age up. Likewise, penalize a District if their players are not performing up to par. Special attention would need to be considered for the "hot" players who are playing up an age group.
- Centralize the National Level 5 tournaments. I know it is not the case but it seems as if every tournament we go to takes us through Chicago at rush hour. Eleven out of the 14 Districts (or roughly 70\% of the players) in the Midwest have to slog through Chicago traffic to get to the northern Chicago and Wisconsin tournaments. A seven and a half hour trip shown on Google becomes at least an eight and a half hour trip when you factor in traffic. The trip back is a bit better since you do not have to deal with rush hour traffic, but you automatically loose an hour from the time change if you live in Ohio, Michigan, West Virginia, Indiana, or Kentucky. The Midwest needs a more centralized approach for its national Level 5 tournaments. The answer is Fort Wayne, IN. It is 49 miles from the center of the Midwest tennis population (as marked with the " A "). (Please do yourself a favor and not ask how I figured this out. You do not want to know. You just don't.) There are other benefits to Fort Wayne - no Chicago toll ways and lower hotel costs. It also makes it easier for more kids to get back in time for school.


This "island" effect that Chicago enjoys may also be a factor why their players have more national points. The other 11 Districts want to avoid the trip through Chicago so Chicago faces less competition for these national points.

Please let me know if you have any comments or questions. As always, I am not being compensated for this so please give me proper attribution if you use any part of my document.

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