

Cyber Security Infrastructure in Wisconsin

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The state of Wisconsin, not only known for its cheese, but also its beer being home to the Miller brewing company in Milwaukee which create an interesting combo. The state is considered one of the largest manufacturers and producers of dairy products in the country, earning the name “America's Dairyland”. Not only are they famous for their dairy and alcohol, but notoriously infamous for their incredibly cold temperatures being northerly located right along both Lake Superior and Lake Michigan, home of the Green Bay.

The land of Wisconsin was originally inhabited by Indigenous people some 14,000 years ago, as the French native, Jean Nicolet was the first European to reach the state in the early 1600's (Wisconsin Blue Book). Having harsh cold weather it was not long before fur trading became popular for the area as its first industrial stronghold producing pelts that were made to be sold and keep the inhabitants warm. It took some years for religion to reach the area and it wasn't before 1661 that the father known as Father Rene Medard became the first missionary in the state.

The state was calm until war broke out between both the French and the Fox Natives that took place some 15 years. The Meskwaki people were the only tribe to truly oppose the French during their colonial era, and felt truly offended by the treatment they had received from the Europeans. Their relations worsened when the Meskwaki were dissatisfied with the high prices for goods and services, as well as the French attempting to make allies with the Sioux, who were the Meskwaki enemy at the time. The Meskwaki made efforts to trade with the English which was not taken lightly by the French and only served to make tensions tighter until fighting broke out between the two groups. Not able to defend an attack on two fronts, the Meskwaki were

attacked head on by the french Capt. Pierre Marin, and flanked by indiginous allies who served to wipe out the rest of the Meswaki population.

With the threat of the Meswaki people nearly demolsihed, the reign of the French came back ot the state of Wisconsin but that was not for long. The two, European and indiginous joined forces under Charles Langlade to fight against the British rule that threatened both of their livlihoods, defeating the British General Braddock during the French and Indian War. Some years later the tray of Paris was signed allowing Wisconsin to become apart of the British colonies in which the natives heavily pushed back and revolted against the more hostile British regime to no avail (Wisconsin Blue Book). Under the British regime, not much had changed but the influx of Europeans in the area being the farthest west that early settlers had made it yet. The trade of expensive furs was very valuable for export, but the amount of those who settled in the area did not increase. The British continued to conntrol this area up until the war of 1812 Where the newly founded American Army gained control in 1815 which the discovery of lead, led many to the area in search of riches which ended the dominance of the fur trading industry in which the economy previously relied on.

The early statehood of Wisconsin saw the first appointed territorial governor of the state, Henry Dodge. Henry was the first Governor of the state, associating with the then Democratic Republicans, adhering to the former Presidents liking and setting the stage for the political party majority within that state that still holds true to today.

The state of Wisconsin has remained almost split when it comes to the majority of legislature in the state, but slightly favoring more towards republican when examined closer. The state often swings voting for republican candidates 25 time, and democrats 18, while only voting progressive once. The Governors in Wisconsin over the years have been primarily

republican with 31 of the 44 governors the state has had being republican. Known as the birthplace of the republican party, in 1854 a convention was held to organize a new party which was founded upon the the members resolve, “That we accept this issue, forced upon us by the slave power and in the defense of freedom will cooperate and be known as Republicans” (Wisconsin Historical Society). After the 1854 election results were examined, Wisconsin Republicans had secured themselves one senate seat, and 2 of the House of Representatives seats as well. This lead to them acquiring a mority of other local offices as well as majority of the state assembly, to then elect a republican governor the very next year.

Being governor in Wisconsin does not get you very much power, while being more than other local office spots, the total GIP score is 3.5. Wisconsin pulls in a whopping 21 points on the GIP chart, with the nationwide average being 20.9, the state sits comfortably at being average all around. This list is compiled with separate powers being added on as well, having them be divided so the user accessing can see information such as tenure potential and veto power separately and how they compare to other states.

The current Governor of Wisconsin, Tony Evers, was elected in 2018 and ran against Scott Walker being a neck and neck race. Evers The Governor of Wisconsin has served in a few other political postions but non as large as going straight into becoming a Governor. His prior postions of power were in the school systems where he was a deputy super intendent and later made acting superintendent for 10 years before he ran in 2018 and won. Since then, Tony Evers’ approval rating had dipped around August and currently sits around 47% with a disapproval of his work being around 45% (Marquette University).

Wisconsin Governors hold a decent amount of power, having split control as stated before makes for the easy signing off of legislature more difficult. Much more push back is experienced having being split, though not all bad as if there was a majority in the non favoring party, the veto power held is among the highest that is offered. This Veto power can only get you so far though as it can be easily over ruled if voted $\frac{2}{3}$ against. For Governor, there is no current term limit, and has been that way since 1970 where previously there was a 3 year term in place. This could serve to be dangerous if not properly watched as an incumbent who already has a higher chance of winning could potentially hold the seat and wait for majority to rise back up to be in control of legislature.

The Wisconsin state senate is made of primarily republicans seating 21 (R) and 12 (D), and the state assembly comprised of 57 (R) and 38 (D) with 4 vacant seats as well. Together these two make up the entire state legislature seating a total of 132 representatives (Ballotpedia). These legislatures are paid on average \$55,000+ per diem whenever travel is required. These legislators are held to a 4 year term in the senate and a 2 year in the assembly, allowing for the ability to have new faces circulate the legislature as well as offering opportunities for majority to even possibly be flipped while not likely.

In Wisconsin there are 230 Municipal courts with 232 municipal judges, and 257 Circuit judges in 72 different counties, Milwaukee having the largest jurisdiction with 47 judges. 26 other counties have only one judge, with some of the smaller counties sharing judges with border counties. The court of appeals in the appellate court being composed of 16 judges from 4 different districts which are located in Milwaukee. Within Wisconsin the Supreme court appoints the chief judge of the court of appeals. Each of the 4 districts are managed by a presiding judge, appointed by the chief judges. Lastly the Supreme court consists of 7 state judges which are

elected statewide. This is the last court of resort, typically receiving around 1,000 petitions a year, only accepting around a tenth of those. In the state there is no limit on the number of terms or age a justice may serve. For officials who are sitting, they may be granted additional 10 year terms through participation in a nonpartisan election in which many different candidates may also run. When a seat becomes available at the end of a term, an election is held and from there a selectable candidate is then proposed for office. In Wisconsin, the average salary ranges from 147,000 to 165,000 in average, ranking quite low on the country's average ranking in on 45 out of 50. This is appropriate due to the cost of living in this state not being as expensive as something like New York or California. Both of these states are well over \$200,000 for yearly salary which corresponds to more expensive cost of living in the state. For the state of Wisconsin the average is lower than the country average while still being quite high.

Selecting judges in this manner can create easy ways to promote prejudice and inequality. Mainly majority individuals are the only ones holding these seats and the ones being elected, leading to misrepresentation within the community. These individuals are usually better funded and backed allowing them easier access to campaigning and advertising. I do believe that there is good in being a non-partisan election. I think that having a judge to represent on the behalf of the community would work on keeping sentencing low and working to put individuals into rehabilitation and not incarceration.

I think a major problem that Wisconsin faces is the term limit on Governors as with no term limit, it becomes difficult to promote diversity as the position becomes almost exclusive. As mentioned before, the incumbent always has a much higher chance in winning the Gubernatorial election when it comes down to it. This means that whoever was favored in the last is not favored in the next, and so on and so on. To me this creates a bias that is hard to get

over, as well as even harder to choose a candidate having the ability to mindlessly vote for someone you know has been there and done that before. Many voters do that without looking delving deeper into the the thick of the Governors ideals and beliefs for not many are involved in state and local government to know much about it. While this is not always the case, for a majority it is. While many have good attributes going for them in terms of what they believe and promote, its hard to see in between the lines and understand the need for such changes for some individuals it may or may not affect.

The main problem facing Wisconsin currently is legacy security on the outdated machines which lack the new software and defense systems capable with keeping up with cyber warfare. During the 2021 Colonial pipeline attack in Texas, legacy security puts many crucial infrastructure systems at risk which can serve to destabilize the economy both local and national. David Cagigal, the current CIO (Chief Information Officer) stated that in order to meet the needs of cyber security with todays needs, many states, Wisconsin included, have outdated security which can lead to possible compromises in not only IT systems, but also Operational Technology. Down time for a compromised IT (Informatinoal Technology) system is considerably easier to address, versus a breach to OT (Operation Technology) which could have reseulted in actual physical damage to be done. The main concern is that many of the countries cyber infrastructure needs to be tested thoroughly to ensure that it can remain unbreachable for hackers and cyber terrorists. Many of the current framework of the state has poor security which is easily breached and pose a serious problem for the safety of data and information. A lot of the currently in place security and legislature is very old, and with how fast the cyber industry innovates at, has left them far behind when it comes to staying up to date with the new systems. As the cyber world continues to innovate, the requirements for information

security positions and support are growing and changing with them requiring more qualified individuals to occupy those positions. The lack of cyber infrastructure plagues many States and localities in America, proving that this is a larger scale problem, one that is not getting the attention it truly needs.

As stated by David Cagigal, the best way to work on combating such problems is to work on merging the systems to be under one which better and stronger defenses. Legacy security is comparable on today's standards as a castle with a moat and draw bridge. As these individuals who work within the castle leaving allows for breaches. This proves the security to be lousy and no longer needed as the needs for security have increased. Zero trust policies are one way Wisconsin plans to implement better security for all infrastructure. These zero trust policies are able to identify a user via looking at applications and assets on a user device to help limit the amount of traffic on the network that have access. Cagigal believes that making cyber security a single vendor solution "...Could further strengthen the security as a whole" (CEO Revolutionaries).

Wisconsin today is now home to almost 6 million people ranking to be the 20th most populated state in America. As mentioned before, they are well known for their beer and dairy being the number one dairy producers in the country, which bring in a combined \$25 Billion dollars that directly impact the economy. This in turn has created over 100,000 jobs in these two industries alone in 2016, as the number continues to grow annually (Volumeone). The consumption of both are incredibly high with beer sitting around 24.7 Gallons per resident, and 561 lb of cheese per resident, which does not include interstate commerce with close and neighboring states, as well as those far alike. With an attack like the one that happened in Texas some years ago, the economic damage on the economy could be devastating. A compromise to

the Informational technology could put many corporations at risk with their infrastructure being exposed could make them lose multitudes of money, as well as even put peoples jobs in jeopardy. The breach of a large business can result in massive monetary loss as investors look to keep their investments safe, which is hard to do if they are exposed. A breach in the operational side of technology could be much more unforgiving when it comes down to general safety as this would give the attacker full control over the physical machines within these business. This type of breach takes much more time to clean up after and poses a much larger threat due to the dangers it poses for if not properly used, the machines could cause serious physical damage to the surrounding area endangering the people who are around and operate the machines or even those who don't still.

My reform would be an improvement to the current infrastructure in place under Wisconsin State Legislature. WI statutes S947.0125 "Unlawful use of computerized communication systems" is one that lacks the mention of security, and more specifically only mentions cyber and ransom attack geared towards individuals with minor infractions such as intimidating and harassing. This was last amended in 1995 which leaves almost a 30 year gap in un-updated policy, allowing the cyber space to be freely operated by today's standards. I would plan to include corporations to allow protection of better infrastructure to be added, as well as I would make the requirements under this statute to include annual updates security. This would make sure that all public and private infrastructure is up to date with today's needs and less chance of an information breach as seen on Wisconsin's data breach in k-12 school systems that was conducted on Kenosha school district in October of 2022.

Having annual security and data breach tests do require money, and should be funded by the state to ensure that its economic powerhouses remain safe, and those who operate them as well. Ideally in order to fund this venture I would take some of the states generated revenue from the lottery to spare some expense on the vulnerability testing of these said institutions, allowing us to have comprehensive reports that could later be discussed in session. Currently the state requires that at least 50% of the lottery ticket sale money is to be used as the prize payment to said players, coming in at a total around \$560 million. Half of that is said to be going to the players in which around actually 60% ends up going leaving 40 or so to be used by the states. This gives the state a good \$220 million to work with to improve general infrastructure, which would allow them to help fund the needed vulnerability scans and assessments on business. While not all the money is bel to be used in this venture, a lump sum could help alleviate some of those costs for smaller business who maybe cannot afford these vulnerability tests. Most business have more than 100 IP's, as these vulnerability scans are measured that way offering differing prices on the services as the number of IP's increases. I believe that the state would have enough money to help these business fund these vulnerability tests as the complete cost for such a thing for majority of business would hurt them significantly. While they offer quarterly assessments, these are only slightly less expensive than annually and could almost serve to beat a dead horse, especially if no new infoamtion is being found in that frequency. Annual test range from \$2,500 to \$10,000 depending on the amount of IP's the business has, which could help be offset by state funded helf, though the business shoul;d stillhave to help pay a considerable amount as this is an effort on both private and state to better eachother.

I do not think that the pushback from a change like this would be considerable as many dont play or participate in the lottery, and those who do if they win will still get a considerable

amount of money. This only serves to better the public and private as a more secure cyber infrastructure ensures that attacks that happened in Texas do not occur in Wisconsin only looking to better those who live in the area. In the long run, more and more money is going to be poured into the system to ensure that people stay safe regardless. With the growing number of cyber attacks around the country, the accountability for said attacks can not be placed on one single person. Many times these attacks are anonymous and very difficult to track meaning the legitimacy of scathing said attacker is slim to none. Preventative measures need to be taken so that not only the economy is secure, but also the constituents.

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