**Policy Report**

**UNCC Public Policy Ph.D. program**

**Topic:** Regulatory Sandbox of North Carolina

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**1.- Introduction:**

The North Carolina Regulatory Sandbox is an essential tool for developing and testing financial technology (FinTech) and insurance technology products within the State. However, the mere existence of the regulatory sandbox does not promote innovation or generate new sources of employment by itself. For this reason, it is necessary to delve into the research on how the regulatory Sandbox should be applied within the State and how companies can access it as a resource that facilitates their innovation and does not imply new additional production or opportunity costs. For this reason, the work of Academia is essential to act as a bridge that conducts research for the best practices of the regulatory Sandbox and collaborates with the North Carolina Innovation Council in the search for strategies and recommendations to insert new Blockchain entrepreneurs into the markets.

The role of Academia is to recommend the formulation of best practices for the applicability of the regulatory SandBox in North Carolina. The research carried out by the University of North Carolina at Charlotte provides the North Carolina Innovation Council tools and resources to prevent making the same mistakes that have been made in other states and will enable it to anticipate future crises that have already been experienced in other regulatory sandboxes.

This policy brief aims to be a first approach to the North Carolina Innovation Council through recommendations and conclusions that are the result of extensive research work that compares the financial sandbox regulations of the United States and the study of some international experiences. This document offers comparisons of areas of focus to either employ or avoid. It will then identify best practices from other sandboxes and provides recommendations for implementation within the North Carolina Innovation Council. Undoubtedly, these results will allow the North Carolina Innovation Council to make better decisions, contribute to the generation of more jobs in the state, and become the leader of financial innovation on the Southeast coast of the United States.

**2.- The only existence of the SandBox is not enough:**

According to Shrier and Pentland (2022), there are several goals that Sandboxes should have.

1. *Collaborative approach and Education:*

The collaborative environment of a SandBox will allow both the government and the private sector to learn from each other's practices. The SandBox must be not only a regulatory body where waivers are granted, and the experiments of certain companies are controlled, but it must also be a space where the government learns the real needs of the FinTech sector for future regulations that promote innovation. The public sector must understand, within the SandBox, how companies require more significant acceleration incentives in their businesses to generate new jobs that adapt to new technologies.

1. *A Sandbox not only for suppliers but also for consumers:*

The SandBox should be designed to accelerate private sector innovation in FinTech and InsurTech, but it should also be prepared to make life easier for consumers. In other words, the Sandbox should have the active participation of consumers (for example, a FinTech consumer association from North Carolina) so that they can give their feedback and their point of view on the services that the companies accepted within the Sandbox are offering.

1. *Financial Inclusion*

Generally, companies accepted into other Sandboxes develop financial innovation services that are unevenly distributed within society. The regulatory SandBox should be a tool to create services that can integrate more vulnerable people into the financial system and boost consumer and investment credit to groups historically underprivileged by the capital markets. Likewise, the SandBox must be a space for new entrepreneurs who cannot compete with large companies that offer financial services.

*4) Bringing innovation out of the dark*

If the barriers to entry to the North Carolina SandBox are high, the pool of companies seeking waivers will not only be small but lack diversity which in turn leads to not enough accessibility for smaller companies to participate. Therefore, innovators may be tempted to "seek forgiveness and not permission" (Pentland, 2022). For that reason, SandBox must push innovation that is being developed in large companies, but still, seek participation from innovation in small groups of entrepreneurs.

*5) Give way to experimentation and have control over possible errors*

The SandBox must be like a perfectly cared-for and guarded laboratory. The acceleration of innovation must be within the appropriate regulatory framework, which also allows the identification of regulations that make innovation impossible within North Carolina and serves as a "crop" of information for reformulating and transforming some existing laws. The SandBox is that laboratory that operates as an "accumulator" of information that will serve future state legislators.

*6) Improve the relationship of the regulatory State with the innovative private sector*

It is crucial that the SandBox also serves as the information and conflict resolution bridge between the innovative private sector and the government. Often the private sector does not trust the government, and the government does not authorize the freedom of the private sector. Being controlled by the innovation council, the regulatory SandBox should be the meeting point for communication between industries to strengthen their relationship. This, in the end, will bring more significant social benefits and better innovation practices. In addition, it has been shown that companies that want to innovate within the United States look for places where the public sector has a good relationship and communication with the private sector.

**3.- Successful Sandboxes in the United States**

This section will include information about the most successful Sandboxes within the US. These Sandboxes have been selected under the comparability criteria with the North Carolina SandBox. For this reason, some of the Insurtech Sandboxes detailed in the attached spreadsheet will be excluded.

**Arizona:** <https://www.azleg.gov/legtext/55leg/2r/bills/hb2731h.pdf>

The Arizona Sandbox was the first regulated within the United States in 2018. The case of this SandBox is that it is controlled only by one state agent (Attorney General). Arizona has a specific methodology that other states do not have. Within the Arizona SandBox, general waivers are only established for some applicants. The Attorney General studies each company that enters the SandBox, and releases are granted depending on their need to adapt to the market and generate more innovation. This is positive because the SandBox does not generalize to all private companies or experimentation within the SandBox but instead assesses the risks and capabilities of each of the companies that enter the SandBox. The most prominent companies that have entered the Arizona SandBox are those related to technology for car credit refinancing, loan re-payments, and payment systems for the cannabis industry. What is particular about Arizona is that only the Attorney General is the one who decides which companies enter the Sandbox. There is a significant restriction on the private sector. Despite that, several companies have benefited from the waivers in the last four years (30 approx.).

Examples of firms and news:

<https://www.helloalign.com/>

<https://www.clutch.ca/>

<https://arizonaprogressgazette.com/revolutionary-financial-service-for-marijuana-industry-is-officially-launched/>

**Wyoming:** <https://drive.google.com/file/d/1XaL0PWSzfSIXUyNeiOTg9ukLflBosO1g/view>

Wyoming became the second state in the US to create a Fintech regulatory Sandbox. What is unique about this space for innovation is that it is focused on the financial sector, and it is the banking commissioner, together with the secretary of state, who oversees accepting the waivers for the applying companies. The case of the Wyoming SandBox is that it admits individuals and companies that do not necessarily have licenses within Wyoming. This requirement makes it possible to attract new innovative companies from other states, which consider it very difficult to innovate within where they obtained their licenses.

**Utah:** <https://le.utah.gov/~2022/bills/hbillenr/HB0243.pdf>

Utah became the third state to create a financial SandBox in the United States. The Utah SandBox assumes an additional risk that other Sandboxes around the United States do not, and strictly limits applicability. Unlike Arizona and Wyoming, the Utah SandBox is precise in the regulations that can be waived, only including free sharing agreements; the state has also expressed interestin innovative “Smart contracts” - companies that make life easier for consumers and that they do not require a lawyer in each of their private negotiations. The Utah Sandbox's main objective is to give its citizens more access to LegalTech and allow companies to participate in the markets without the need for procedures that require a physical lawyer. They have prioritized acceptance and waivers to companies that provide this service. The idea is that people who cannot afford lawyers, or companies that do not contemplate the payment of legal fees within their budgets, can access to comply with legal procedures through blockchain and artificial intelligence that replaces the work of lawyers.

Examples of firms within the Sandbox:

<https://www.rasa-legal.com/>

**Hawaii:** <https://files.hawaii.gov/dcca/dfi/Laws_html/HRS0489D/HRS_0489D-.htm>

The Hawaii Sandbox is unique because it does not have the general waivers offered by the Arizona Sandbox, nor does it focus on certain waivers like Utah or Wyoming. This SandBox allows cryptocurrency industries to operate freely guided by some general rules within the regulatory sandbox through no-action letters. Another peculiarity of this sandbox is that it has a term of duration. Initially, it was established to function only for a particular time, which would have have ended in 2022, however, the timeline has been extended due to the success of the program. The operation of this structure is different from that of a regulatory Sandbox since it does not give waivers to companies; instead, it gives them a "free pass," allowing them to act within a kind of parallel regulation. Finally, this controlled regulation space only applies to companies dedicated to innovation in the field of cryptocurrencies and does not include companies that innovate with FinTech or Insurtech technology. The sandbox has benefited 35 companies in the last two years.

Examples of firms within the sandbox:

<https://river.com/>

**4.- International Experiences:**

**United Kingdom:**

The United Kingdom SandBox was presented in 2015 and approved for operation in 2016. Since then, it has accepted several businesses that have tested innovative products within the financial market of that country. The United Kingdom Sandbox works similarly to those proposed in the United States through waivers for companies that wish to innovate under Blockchain technology. In the UK, the sandbox allows companies to analyze the performance of companies that belong to the sandbox versus those that do not belong and compare to see how they grow within the market. According to a study by the Pelican Policy Organization (https://files.pelicanpolicy.org/wp-content/uploads/2022/03/Regulatory-Sandboxes-Where-Innovation-Happens-March2022-WEB.pdf), 80% of the companies that accessed the financial SandBox in 2016 still offer their services and remain active in the market. This percentage is infinitely higher than that of the companies that did not apply for the financial SandBox and did not obtain the benefit. The example of the United Kingdom is interesting for the world since, by being the pioneer in this type of regulation, it will always have more experience that it can share with the North Carolina Innovation Council.

**Spain:**

The Spain Sandbox works similarly to those described above. However, it has an exciting feature that can be very useful in North Carolina. Spain has a rigorous admission process to the Sandbox. Only some of the companies can enter it, and only some are the ones that have the benefit of testing innovative financial products with waivers. However, the same regulatory council of Sandbox has an exciting procedure for companies that fail to enter Sandbox. If a company fails to enter, the regulatory council facilitates a training process through a private innovation incubator recognized by the State, where certain facilities and minimum costs are given so that the company can improve its services and be able to enter. This process generates sustainability among market agents and maintains a long-term structure for innovation. It is, without a doubt, an example that can be of great use to North Carolina.

**Singapore:**

The Singapore Sandbox was thought of in 2018 as a need for that country to lead innovation on the Asian continent. The operation is similar to the Sandbox in the United Kingdom and Spain. However, it has a particular tool identified as attractive for the North Carolina Sandbox: expanding financial businesses outside the country. The interest of the Singapore Sandbox, having a small population, is that companies that successfully test innovative products can offer the same services outside the country, all over the world. Several companies that have benefited from the Singapore Sandbox have expanded their coverage outside the country and spread across the globe. This would be interesting for North Carolina companies so that they can develop their products in other regions with new and potentially significant markets, such as Latin America, Central America, or Africa.

**5.- Description and definition of US Sandboxes: (Annex 1, Excel file)**

**6.- Recommendations:**

1. As seen, the different Sandboxes have different objectives. Some seek to lead innovation in general and grant broad waivers (Arizona), others that serve under conditional and specific waivers (Utah and Wyoming), and others that focus on a particular type of business (Hawaii with Cryptocurrencies). If North Carolina's goal is to lead the East Coast in innovation and increase the demand for jobs in financial services technology (FinTech), it should focus its waivers on general and open conditions for all types of sectors within innovation.
2. The security measures taken in other Sandboxes must be considered. Establishing how the services provided will be protected through strict regulation to which the companies participating within the SandBox submit is essential.
3. It is recommended that to generate the conditions for the participation of consumer organizations, an evaluation and feedback on the services must be provided by consumers. The information may be biased if the communication is only between the regulators and the innovative companies. The word of the consumers is essential to improve the services.
4. Formal exit strategies must be included. This is a weakness of other Sandboxes, which only demand a final report from each company whose time runs out within the SandBox. It is vital to generate a successful exit and an orderly transition from that company to the market so its innovation continues.
5. Keeping an odd number of North Carolina innovation committee members is recommended.
6. Making a short report of each of the (annual) cohorts that enter the North Carolina Sandbox is recommended. This practice is not carried out in the United States, but is an initiative practiced in the United Kingdom Sandbox to improve the operation of waivers for the cohorts of companies that enter the Sandbox. The final report must include the experience that each of the participating companies had.
7. It is essential to manage the marketing of the North Carolina Sandbox. There are several ways to teach what is done inside the Sandbox to the rest of the population of North Carolina and the world. For this, the professional management of a web page, social networks, and the continuous publication of news and launches of FinTech products in the market, innovated by the companies within the Sandbox, is essential.
8. It is recommended to open the waivers to sectors of Real estate, InsurTech, SmartSecurities, Cryptocurrencies, Tokenization in non-currency areas, intellectual property, data protection and privacy, agriculture in food supply chains, healthcare data, and alternative energies.
9. When accepting firms into the Sandbox, the council should ensure that companies can develop the proposed test or innovation product.
10. Since the generation of employment is one of the main objectives of the SandBox, each of the tests presented must be analyzed by macroeconomics and labor market experts to examine the impact the project will have on the generation of employment. Each company should be asked for a detailed report about their innovation's effects on the age of jobs in North Carolina.
11. It is important to establish a rigorous and straightforward application process. Preferably, it is recommended to use online application software so that companies feel comfortable starting their applications.
12. It is highly recommended to have two or three stages in the application process. Some filters are needed that companies must go through to be able to enter the SandBox. This will allow companies to cluster and even recommend their possible annexation within the same service or product. In the same way, it will enable the innovation council to have an idea of ​​the number of applicants they will have during each period.
13. It is recommended to prioritize companies that present tests of innovative products accompanied by the endorsement or support of an educational institution or a university in North Carolina. It is vital to encourage research within SandBox. Private companies, accompanied by universities, have generally developed successful innovative products.
14. The companies accepted in the Sandbox must work together rather than separately. The Innovation Council should organize workspaces and facilitate the necessary training, so everyone has the same opportunities within the Sandbox.
15. It is important to maintain constant evaluations of the Sandbox, which allow errors to be corrected and to have feedback from consumers and suppliers of innovative products within the tests.
16. The Innovation Council should have a census of companies that access waiver benefits to compare them with their previous operation and with other companies that do not have this benefit. Through a census, it is possible to generate comparison criteria between companies within the Sandbox and those outside it and have efficiency values ​​in each of the cohorts of companies that pass through the North Carolina Sandbox.
17. It is recommended that the innovation council seek meetings with regulatory agents of financial Sandboxes in other countries and other States in the United States. In this way, the best experiences through inter-institutional cooperation can be considered, and errors that those institutions have already committed can be prevented.