

# Illinois Drive-up Wi-Fi Map

Category: Cross Boundary Collaboration & Partnerships

State: Illinois

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Initiation Date: March 2020

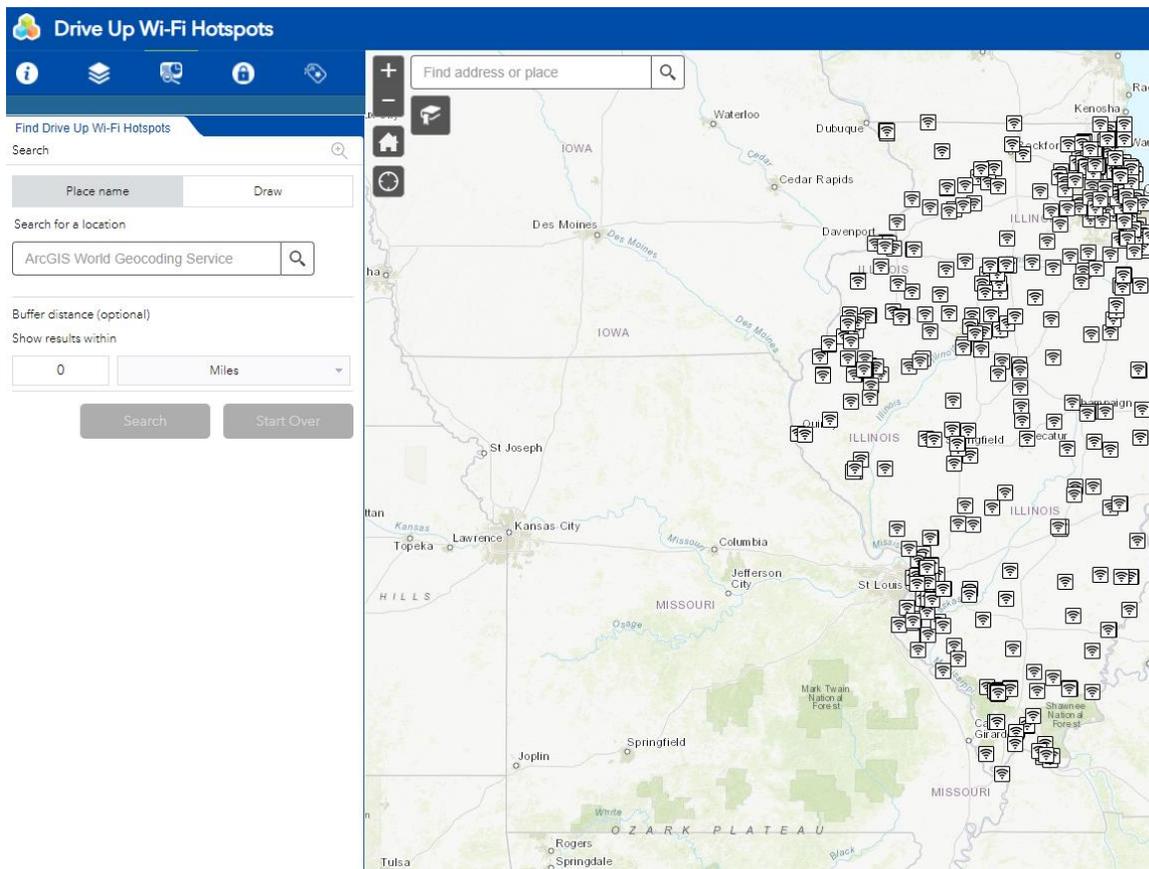
End Date: March 2020



## EXECUTIVE SUMMARY

In March 2020, staff in multiple state agencies in Illinois worked collaboratively with public and non-public organizations to initiate, develop, and launch an interactive Wi-Fi hotspot map to help students and staff find free, drive-up internet access. The “Drive-up Wi-Fi Map” pinpoints geographic locations across Illinois that offer internet connectivity options for students at no charge, along with site-specific log-in and troubleshooting information. The [interactive map](#) is available in English and Spanish highlighting over 350 hotspot locations in parking lots at anchor locations throughout the state.

The purpose of the interactive “Drive-Up Wi-Fi Map” is to provide the geographic locations for public drive-up Wi-Fi hotspots in Illinois. These hotspots are intended for all the activities associated with remote learning during the disruptions caused by the COVID-19 pandemic. The interactive map provides drive-up Wi-Fi hotspots with specific guest log-in instructions by site. Although the intended audience was educators and students engaged with PreK-12 and higher education, the interactive map could also be used by anyone in Illinois in need of free Wi-Fi access. While access is not limited to educational purposes alone, users are asked to be considerate in utilizing excessive bandwidth for other purposes (e.g. downloading or viewing movies).



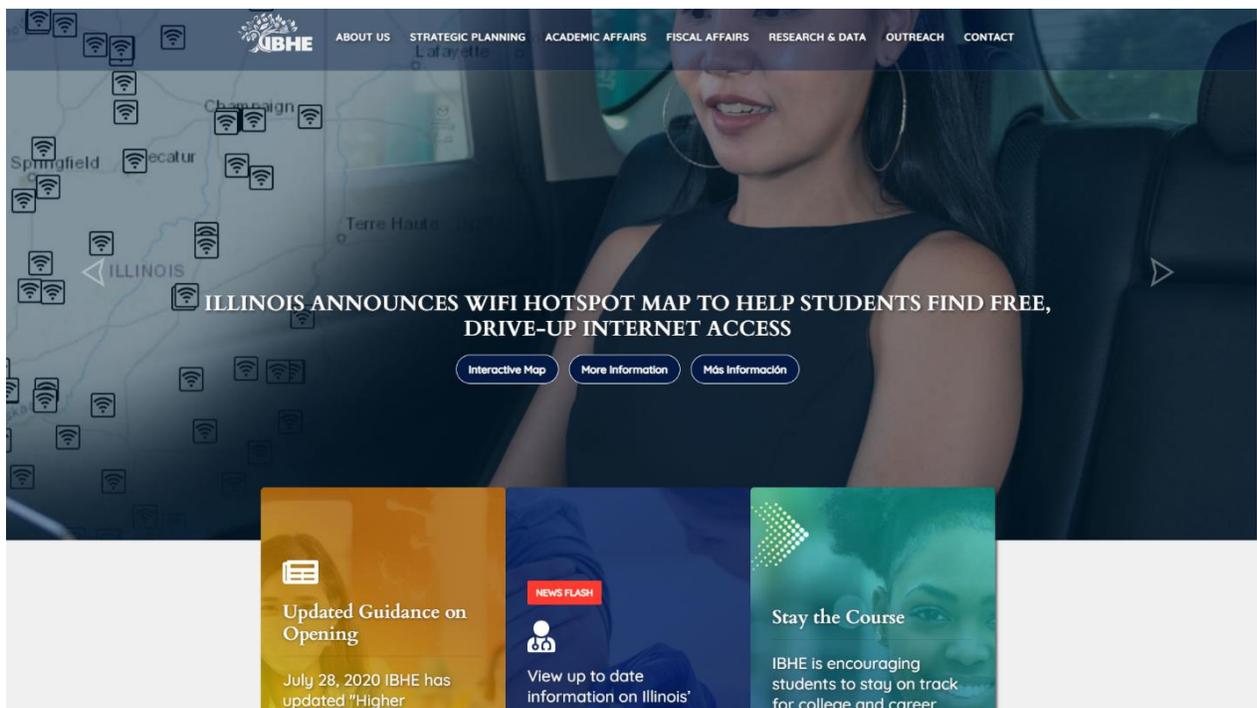
The interactive map is housed at the Illinois Office of Broadband and is the product of a collaborative effort among the Illinois Board of Higher Education (IBHE), Illinois Department of Commerce & Economic Opportunity (DCEO), Illinois Community College Board (ICCB), Illinois Department of Innovation &

Technology (DoIT), Illinois State Board of Education (ISBE), and the Office of the Secretary of State/Illinois State Library.

As replication is the sincerest form of flattery, staff involved in the project consulted with other states and national entities interested in launching similar tools and freely shared project-specific materials (e.g., the survey questions used to capture the hotspot information) as well as ideas for improving the business processes based on their recent experiences moving the tool into production.

[www.ildceo.net/wifi](http://www.ildceo.net/wifi)

<https://www2.illinois.gov/Pages/news-item.aspx?ReleaseID=21415>



## IDEA

**Displacement due to the Pandemic:** As elementary, secondary, and postsecondary students quickly found themselves navigating various on-line learning platforms for the first time in March 2020, the educational space in Illinois was thrown into chaos and there was a fear that many students would be left behind. Access to broadband internet varies widely across the state and many times, such access is necessary to engage in learning through these platforms. The same could be said for educators and staff who were required to teach and provide support to students using these platforms.

To better serve displaced students and staff across Illinois, five state agencies and the Office of the Secretary of State/Illinois State Library quickly launched and developed an interactive map that provides users with detailed information on available drive-up Wi-Fi hotspots at schools, colleges, extension sites, libraries, municipalities, and businesses across the state. The tool also provides detailed guest log-in instructions for each drive-up hotspot. An update to the map was conducted in August 2020 as the new school year began, and the resource continues to be utilized.

**Survey to Feed the Interactive Map:** In order to populate the interactive tool and make it more meaningful for students and staff, the collaborating state agencies requested each entity with publicly available Wi-Fi hotspots to complete the online survey. The survey responses automatically populated the public-facing interactive tool. Also, entities were asked to serve as a resource for other entities that might be considering creating such a Wi-Fi hotspot. Merely administering the survey across the state sparked action on the part of many entities that had not considered making their Wi-Fi available in such a way. Soon, after launch, the list of participating sites quickly multiplied.

The survey, through the ArcGIS online platform, requested the location of each available hotspot, either by keying in the address or pinning the location on an interactive map without requiring longitude/latitude coordinates. The survey results are added directly to a layer in ArcGIS Online displayed in the web app.

**Facilitating Ease of Use:** A link to the log-in instructions as well as helpful hints for accessing a given drive-up Wi-Fi hotspot is also included in the pop-up information on the map. If Wi-Fi coverage encompasses a large area, the exact locations of one or more parking lots within that area that provides the best and most reliable Wi-Fi signals is pinpointed. The survey was developed so entities could identify as many or as few available drive-up hotspots as they wish. The voluntary survey also asked for a few additional attributes for each hotspot, such as whether the given hotspot is temporary or more permanent, and whether web filters are applied. The tool also integrated Google Maps, to provide turn by turn directions to the exact location of the drive-up Wi-Fi hotspot if that location was selected.

Detailed instructions and guidelines are provided in the navigation bar of the map as well as layering options, search functionality, security tips, and free and low-cost Wi-Fi offers to assist users. Layering resources by type of entity enables refinement of searches on the map and includes categories for public university, community college, private college or university, public K-12 school or district, private K-12 school, public library, or other entity.

## IMPLEMENTATION

**Timeframe:** The project moved from the concept phase to full production *in less than three weeks*. This all occurred as agency staff were navigating remote work for the first time and dealing with additional and new job responsibilities due to the pandemic. The germination of the drive-up map concept started with staff at the IBHE and snowballed during brainstorming discussions with staff from other agencies beginning on March 23, 2020. Within three days, an existing contract within DCEO for ArcGIS was utilized and a proof-of-concept map and survey language was initiated. DCEO happened to have an ArcGIS programmer on contract for mapping digital broadband access. The decision to utilize ArcGIS was easy in that we would be able to use ArcGIS to develop and deliver the survey and the survey information would be used to feed the interactive map. This would occur all within the same platform. The draft survey was shared on March 27, 2020 with a small group of pilot sites of colleges, universities, and libraries for testing and feedback. By March 30, 2020, pilot site responses informed updates and language modification. Additional outreach with the survey was shared on April 7, 2020 with the Illinois Municipal League.

**Cost:** The direct cost to the state was minimal, as one of the partnering agencies already had direct access to an ArcGIS programmer. The partnership between the state agencies grew organically and after a few initial planning meetings, most of the work was accomplished and decisions were made

asynchronously via email. The bulk of the work involved developing easy to understand directions for using the tool and customizing the survey items based on the constituency group being surveyed (e.g. school or library). The translation of the directions to Spanish was somewhat time consuming, but was split between experts in three agencies. Also, as feedback was received, it was filtered to the appropriate contact at the partnering agency (e.g., questions from a library were sent to the Director of the Illinois State Library). Once executive-level staff at the participating agencies became aware of the project and its potential for a positive impact, the staff involved in the project were encouraged to see the project to fruition.

**Public Launch:** The map was launched on April 13, 2020 and the Governor's Office issued a press release on April 17, 2020 ([https://www.ibhe.org/Driveup\\_WiFi\\_Press\\_release.html](https://www.ibhe.org/Driveup_WiFi_Press_release.html)). Social media was utilized to share the resource and availability about the resource was shared through announcements during meetings such as the Governor's Rural Affairs Council and through other state agencies and organizations such as the Illinois Department of Agriculture, Illinois Student Assistance Commission, and Illinois Farm Bureau. The tool was regularly highlighted in the Governor's and Lt. Governor's meetings on the statewide response to the pandemic and in meetings specific to the digital divide and access to broadband. Getting buy-in and support from the Governor's office was key in better disseminating information about the tool.

**Access to Survey:** One issue that had to be addressed quickly was how to balance the open-access aspect of the survey with data accuracy and potential security concerns. As the project snowballed to include more entities, it was decided that we would not make the survey freely open to everyone and decided instead to work with larger coordinating entities that in turn could disseminate the survey to their constituencies and serve as the initial point of contact.

**Filling in the Coverage Gaps:** While the outreach efforts by the Office of the Secretary of State/Illinois State Library were extremely beneficial adding locations scattered throughout the state, not all the feedback we initially received about the map was positive. In a few instances, there were concerns that the map was not covering particular geographic areas of the state. In those isolated instances, the staff associated with the project reached out to their constituencies within those geographic areas to attempt to capture additional hotspots. For example, at one point, the Metro East Area of St. Louis (the Illinois portion of the St. Louis MSA) did not have much coverage, so the project team made a concerted effort to get the libraries, colleges, and school districts with available Wi-Fi hotspots within the area to contribute their information.

**Expanded Scope:** An unplanned part of implementation was determining how to best assist other states and regional entities that heard about the project and were interested in replicating the project in different contexts. The project team quickly decided to freely share all project materials with other states, including the wording of the survey that captured the hotspots and the description of the tools.

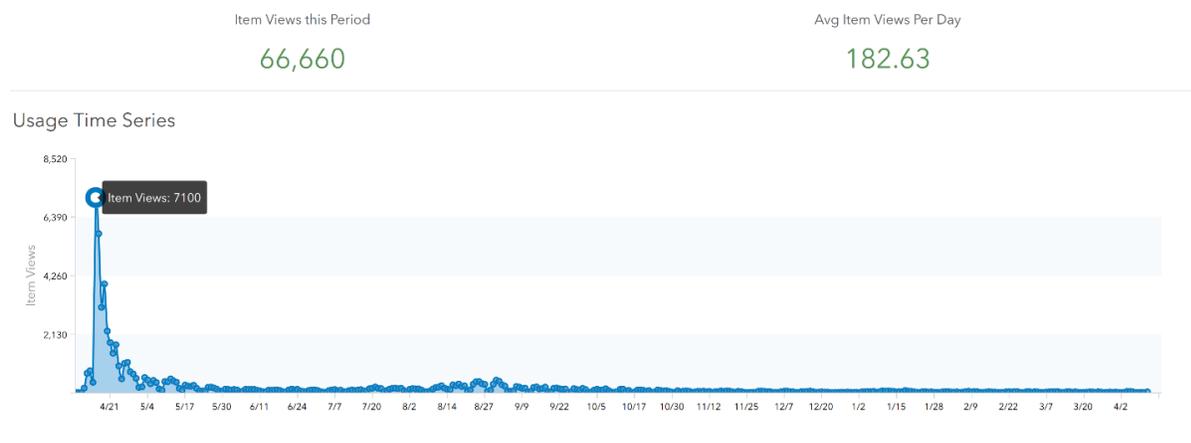
After launch of the initial version, we received feedback that a Spanish language version of the tool would have a lot of utility. By April 23, 2020, a collaborative effort among staff at multiple agencies quickly translated the instructions and the site into Spanish and a second version of the tool was launched ([https://www.ibhe.org/Driveup\\_WiFi\\_Press\\_release-Spanish.html](https://www.ibhe.org/Driveup_WiFi_Press_release-Spanish.html)).

As noted earlier, as the new academic year was set to begin in August/September of 2020, the survey was once again distributed to capture new information and/or to allow existing entities to update some of their information so it would be more current. Over 120 new hotspots were added during this phase.

# IMPACT

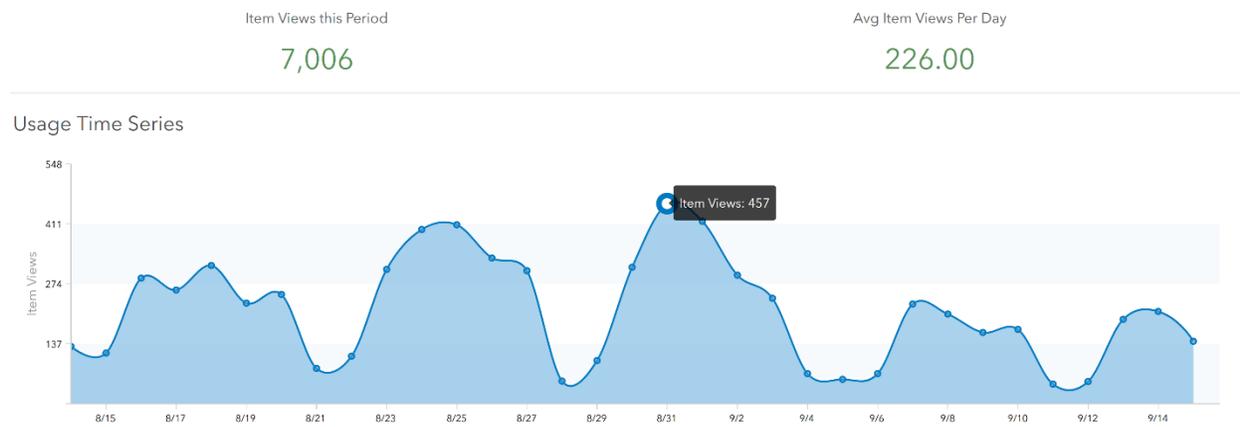
**Usage Statistics:** From April 10, 2020 to April 10, 2021 the usage of the Drive-up Wi-Fi Map included nearly 67,000 total views and averaged 180 daily views. These numbers represent students, educators, and staff who had no other access options to participate in remote learning.

Figure 1: All-Time Usage Statistics



The initial launch and related media exposure in April of 2020 resulted in the highest numbers of daily hits (around 7,000), but what was impressive was the continued use of the tool over the summer and the bump in usage when the new school year began in August/September of 2020. As noted in the figure below, as the 2020-2021 school year began, there were over 7,000 total views and 226 average daily views.

Figure 2: Usage Statics from August 14, 2020 to September 15, 2020



**Expansion of the Scope:** While initially the project focused on anchor institutions associated with the participating state agencies, resources were also added to include places of worship, electrical coops, municipalities, and Farm Bureau offices. To broaden the impact, whenever someone made an inquiry about adding to the tool, we attempted to work with a statewide or regional coordinating body to expand the scope. For example, the project team was initially contacted by a telephone services co-op

about adding a couple of their Wi-Fi hotspots to the map. This led to a meeting with the President of the Illinois Telecommunications Association, who decided to include the link to the survey along with a nice write-up about the tool in their association's newsletter.

**Outside Impact:** As noted earlier, the project also spawned inquiries from other organizations and became a model for other states such as [Mississippi](#), [Texas](#) and [Michigan](#) to name a few. So, not only did the project have an immediate and positive impact on learners within the state of Illinois, through the sharing of related materials and the involved staff's expertise, the project was successfully replicated elsewhere and therefore had a much larger footprint than originally intended.

Like other resources necessitated by the pandemic, the development of the Drive-up Wi-Fi Map has created a resource that continues to be utilized at a low cost to the state. However, utilization was significantly higher as the state attempted to slow down the spread of the virus in March of 2020 and again as the school year launched in August/September of 2020. Ideally, as the state recovers from the pandemic and in-person learning potentially becomes the norm again next academic year, the need for the tool will diminish. Nonetheless, at little or no cost to the state, the tool can be kept in production and updated for any Illinois citizen that needs to know where free drive-up Wi-Fi hotspots are in the state and how to access them.

**Unintended Impact:** Above and beyond usage of the tool, dissemination of the concept and framework of the project through the steps involved in moving it into production also proved to have a tremendous positive impact. Many entities that did not have publicly available drive-up Wi-Fi hotspots quickly pivoted to become part of the project during the initial survey phase. After the full release and the project became more popular, some entities were pressured by internal and external forces and/or a sense to not be left out of the project and worked to quickly open-up access. Some entities that were hesitant to participate due to space and/or security concerns, quickly shifted and provided their locations. To a certain extent, the project in and of itself resulted in an altruistic change of behavior, all bettering the lives of learners in the state during this trying time.