Chapter 6. System Performance

6.1. Introduction

A foundational element of the statewide aviation planning process involves evaluating how well aviation facilities are meeting the performance measures (PMs) and performance indicators (PIs) of the study. As detailed in **Chapter 2. Study Framework**, PMs reflect aspects of the aviation system that can be influenced through planning or investment and PIs serve as contextual metrics that offer insight into broader trends and system activity, without being directly actionable. The PMs and PIs for the 2025 ND State Aviation System Plan (NDSASP) were thoughtfully developed through a comprehensive review of the 2014 NDSASP, close collaboration with the North Dakota Aeronautics Commission (NDAC), and valuable input from the Technical Advisory Committee (TAC).

To align the results of the system performance analysis with the strategic direction of the 2025 NDSASP, PMs and PIs were developed for each of the six 2025 NDSASP goals. This structure ensures that the results of the system performance analysis can be traced to a specific goal and be used to inform future policy and project recommendations. The data presented in **Chapter 4. System Inventory** was used to evaluate the PMs and PIs.

6.2. Existing System Performance Analysis

This chapter presents the results of the system performance analysis by goal category, with PMs included where available and PIs provided for all goals as presented in **Chapter 2. Study Framework**. The same order of presentation is utilized for easy reference. As available, comparisons are made between the results of the PMs that were used in both the 2025 and 2014 studies to show the change in performance. There are 16 PMs and PIs in the 2025 study that were carried over from the 2014 NDSASP, however slight modifications to the analysis for 10 of these PMs and PIs occurred in the study update and a direct comparison between the 2014 and 2025 study is not possible. An example of a change is the current analysis uses a 90-minute drive time threshold for commercial service accessibility, whereas the 2014 study applied a 60-minute threshold. The remaining six PMs and PIs carried over from the 2014 study remain unchanged and a comparison of results is possible and presented alongside the 2025 performance throughout this chapter, as appropriate.

The analysis is presented by goal category as follows:

- 6.2.1. Maintain a Safe Aviation System
- 6.2.2. Promote Aviation System Coverage
- 6.2.3. Provide Air Access to Airports
- 6.2.4. Enhance Quality of Life
- 6.2.5. Preserve Airport Infrastructure
- 6.2.6. Support Aviation Education and Industry Advancement

6.2.1. Maintain a Safe Aviation System

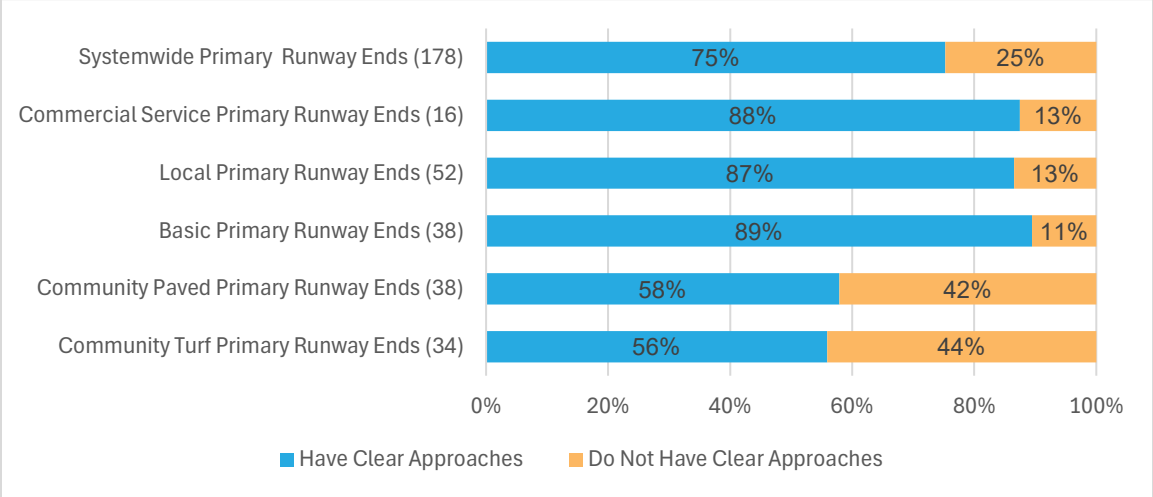
Maintaining a safe aviation system is a core priority for North Dakota's statewide aviation network. This goal centers on evaluating safety by assessing approach surfaces to all runway ends and identifying obstructions within Runway Protection Zones (RPZs). The initial focus of this metric is on primary runway ends at all airports, which typically serve as the most operationally significant and frequently used runways in the system. Across the 89 system airports, each with two primary runway ends, there are a total of 178 primary runway ends included in this evaluation. To provide a complete picture of system-wide safety performance, the analysis also incorporates a separate evaluation of the 70 non-primary runway ends (35 runways), which include secondary, tertiary, and quaternary runways and associated ends. The following subsections present findings based on three PMs and one PI aligned with the **Maintain a Safe Aviation System** goal. This is the only goal for which runway ends are analyzed as opposed to total airport performance.

6.2.1.1. PM: Percent of Airports with Clear Approaches to all Runway Ends

A key element of maintaining a safe aviation system is ensuring that aircraft have unobstructed approach paths to all runway ends. The Federal Aviation Administration (FAA) outlines standards for these approach surfaces under Part 77 of the Code of Federal Regulations (CFR) which states that approach surfaces must remain free of obstacles to protect arriving and departing aircraft.

As shown in **Figure 6-1**, 75 percent of the primary runway ends across the system meet the performance metric for maintaining obstruction-free approach paths. Commercial Service, Local, and Basic airports demonstrate the highest levels of obstruction-free approach compliance for their primary runway ends, with 88 percent, 87 percent and 89 percent respectively. Community Turf and Community Paved airports show lower compliance rates at 58 percent and 56 percent for their primary runway ends, respectively.

Figure 6-1. PM: Percent of Primary Runway Ends with Clear Approaches

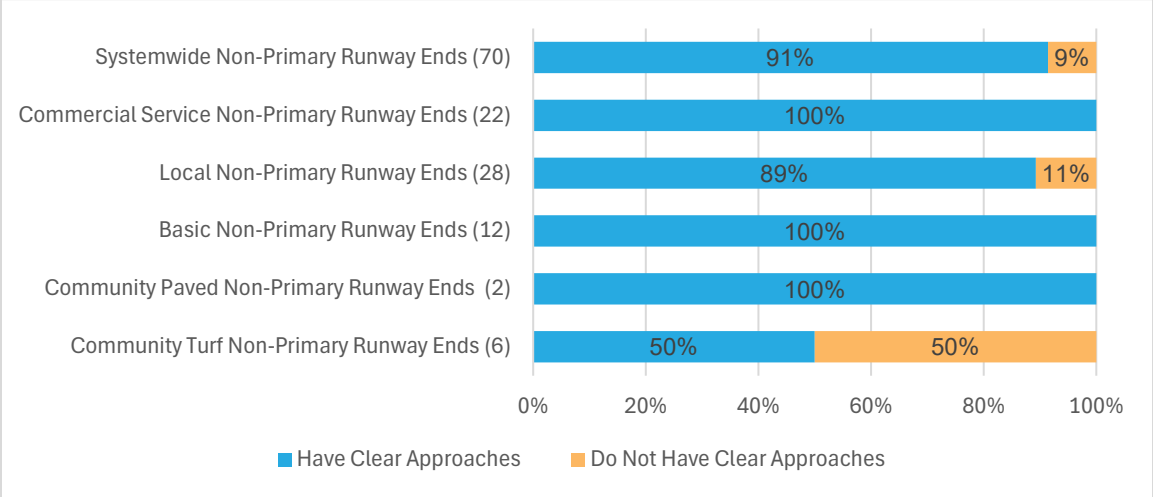


Sources: Federal Aviation Administration – Airport Data and Information Portal (FAA ADIP), 2025; Google Earth, 2025; NDAC General Aviation (GA) Inspection Reports, 2025; Airport Layout Plans (ALPs), 2025; Kimley-Horn, 2025.

While the previous study also included an assessment of clear approaches, it focused solely on a 20:1 slope to identify potential obstructions. The 2025 NDSASP analysis incorporates a broader range of slope ratios, including 20:1, 34:1, and 50:1, based on the FAA Part 77 category identified in the airport's master record. These slope ratios reflect the varying requirements for different types of runway approaches where 20:1 is typically used for visual approaches and utility runways, 34:1 applies to non-precision instrument approaches, and 50:1 is reserved for precision instrument approaches that demand the highest level of obstacle clearance. Because the 2025 NDSASP methodology accounts for these distinctions, this PM is not directly comparable to the previous analysis. However, a high-level comparison of performance between the two studies can be made. According to the 2014 NDSASP, 52 airports (58 percent) had clear 20:1 approaches to both primary runway ends. Even with the more demanding analysis in the 2025 NDSASP there is a marked improvement, with 55 airports (62 percent) having clear runway approaches on both runway ends. Although a direct comparison is not possible, this increase demonstrates ongoing progress in addressing obstructions and enhancing compliance with FAA standards.

As shown in **Figure 6-2**, an analysis of the system's non-primary runway ends reveals that approximately 91 percent of these runway ends have clear approach conditions. All nonprimary runways end at Commercial Service, Basic, and Community Paved airports have clear approaches. Nonprimary runway ends at Local airports are not far behind, with 89 percent compliance. Community Turf airports demonstrate more moderate performance, with 50 percent of their non-primary runway ends meeting the clear approach criteria. The 2014 NDSASP did not evaluate clear approaches for non-primary runways so a comparison in performance is not available.

Figure 6-2. PM: Percent of Non-primary Runway Ends with Clear Approaches



Sources: Federal Aviation Administration – Airport Data and Information Portal (FAA ADIP), 2025; Google Earth, 2025; NDAC General Aviation (GA) Inspection Reports, 2025; Airport Layout Plans (ALPs), 2025; Kimley-Horn, 2025.

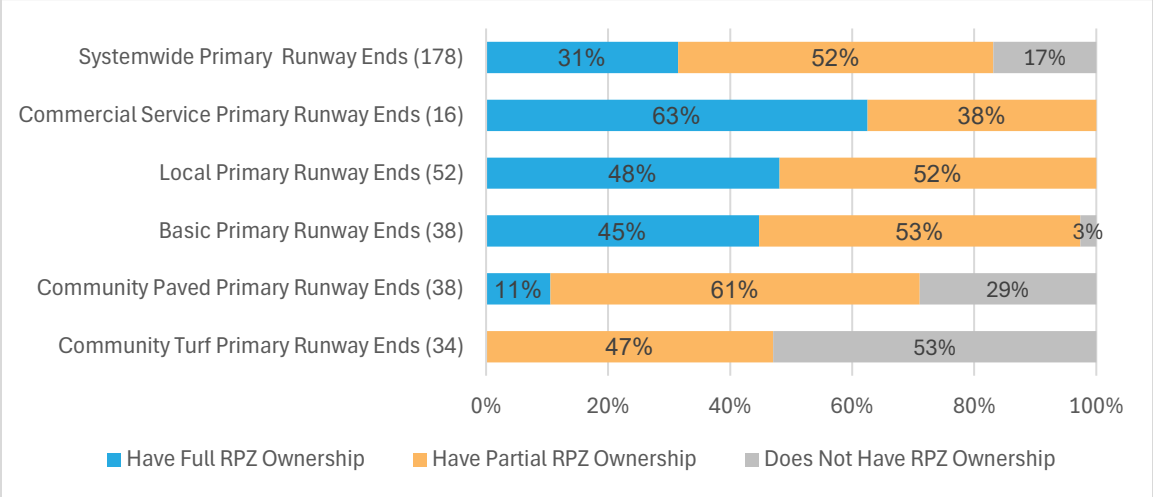
6.2.1.2. PM: Percent of Airports that Control RPZs through Fee Simple Ownership or Easement for all Runway Ends

Controlling Runway Protection Zones (RPZs) through fee simple ownership or easements is essential for ensuring airport safety and effective land use management—particularly for primary runways. Like the previous PM, the analysis has been separated to look at primary and non-primary runway ends, not the number of airports meeting this PM.

Figure 6-3 presents RPZ ownership data categorized into three levels: full ownership, partial ownership, and no control associated with each runway end. Across the system, 83 percent of RPZs on all primary runway ends are either full or partially controlled. One hundred percent of RPZs on primary runway ends at Commercial Service and Local airports are controlled either fully or partially. In contrast, Community Paved and Community Turf airports show the lowest levels of RPZ control.

It's important to note that non-NPIAS airports within the Community Paved and Community Turf classifications are not required to meet FAA RPZ standards, which contributes to the variation in control levels.

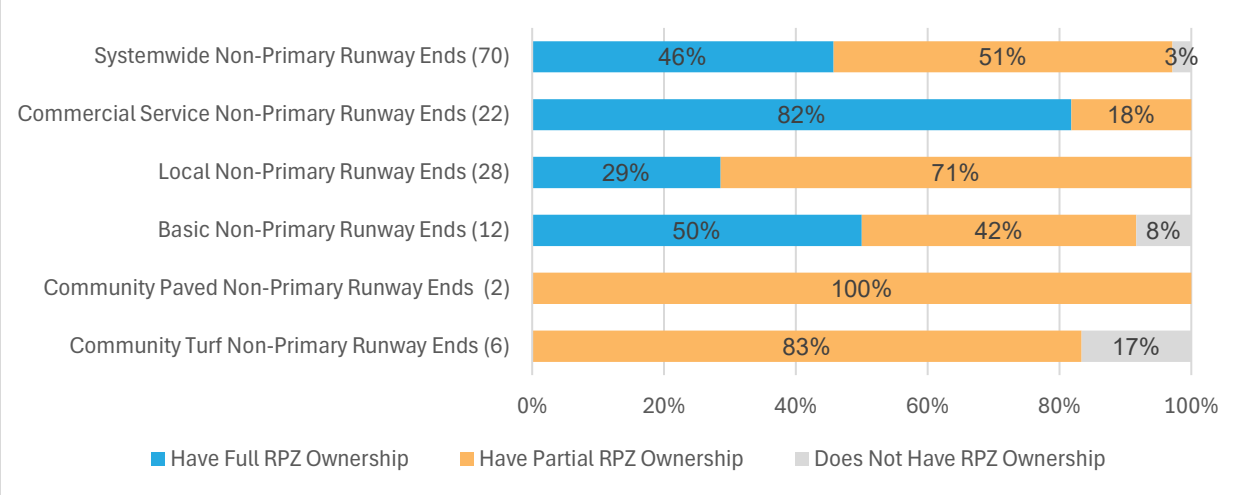
Figure 6-3. PM: Percent of Primary Runway Ends RPZ Control



Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

Figure 6-4 illustrates the ownership status of non-primary runway RPZs across the system. Overall, 46 percent of the non-primary runway ends have full control of their associated RPZs, 51 percent have partial ownership, and three percent have no control. Broken down by classification, most nonprimary runway ends maintain either full or partial control of their RPZ land. Commercial Service airports demonstrate the highest level of ownership, with 82 percent of RPZs on nonprimary runway ends at Commercial Service airports having full control and 18 percent having partial control.

Figure 6-4. Percent of Non-primary Runway Ends' RPZ Control



Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

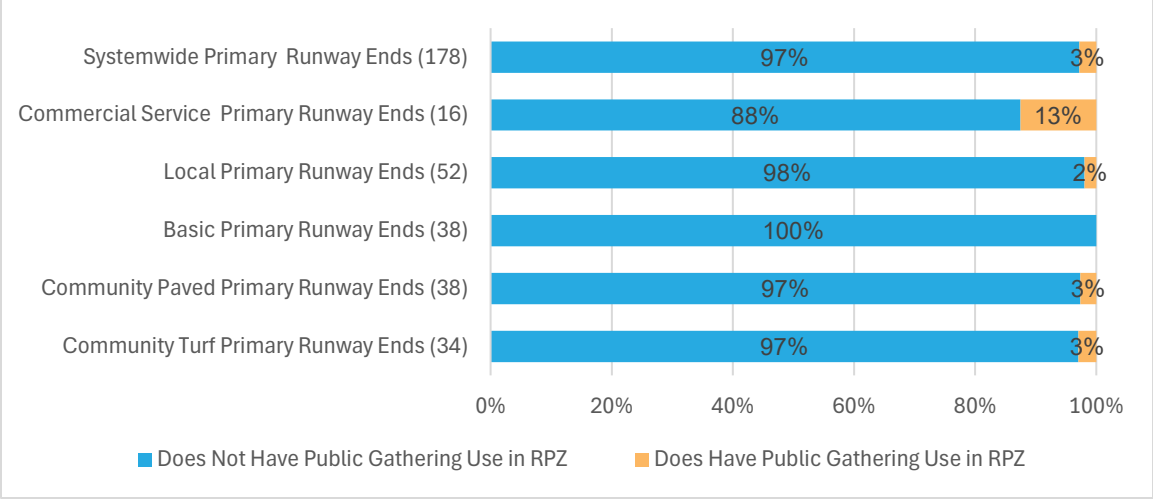
The previous study evaluated whether an airport controlled its RPZs through fee simple ownership or easements but did not evaluate the percentage of control achieved through either strategy. In contrast, the current study takes a more nuanced approach by focusing specifically on the percentage of control on primary and non-primary runway ends achieved through fee simple ownership or easement. This breakdown provides a more realistic view of RPZ control across system airports. As a result, the methodology and assumptions used in the previous study were not directly comparable to those in the current analysis.

6.2.1.3. PM: Percent of Airports with Public Gathering in the RPZs

The presence of public gathering uses within RPZs was evaluated in this PM. Like the two prior PMs, each runway end was analyzed for the primary and non-primary runways. According to FAA Advisory Circular (AC) 15/5300-13B, RPZs are intended to enhance the safety of people and property on the ground by restricting incompatible land uses, particularly those that attract congregations of people. For this analysis, NDAC's GA inspection reports were reviewed to identify public gathering structures and land uses within RPZs at GA airports, while ALPs and Google Earth imagery were analyzed to identify public use gathering in RPZs at Commercial Service airports.

As shown in **Figure 6-5**, systemwide, 97 percent of primary runway ends across the system do not have public gathering uses within any RPZs. All airport classifications demonstrate high performance in this metric ranging from 88 percent to 100 percent of primary runway ends being clear of public gathering uses. Commercial Service airports showing the lowest compliance at 88 percent. This is primarily due to these airports typically having the largest RPZs as they are designed for larger aircraft to operate on the primary runway and have the most demanding approaches which determine the size of the RPZs.

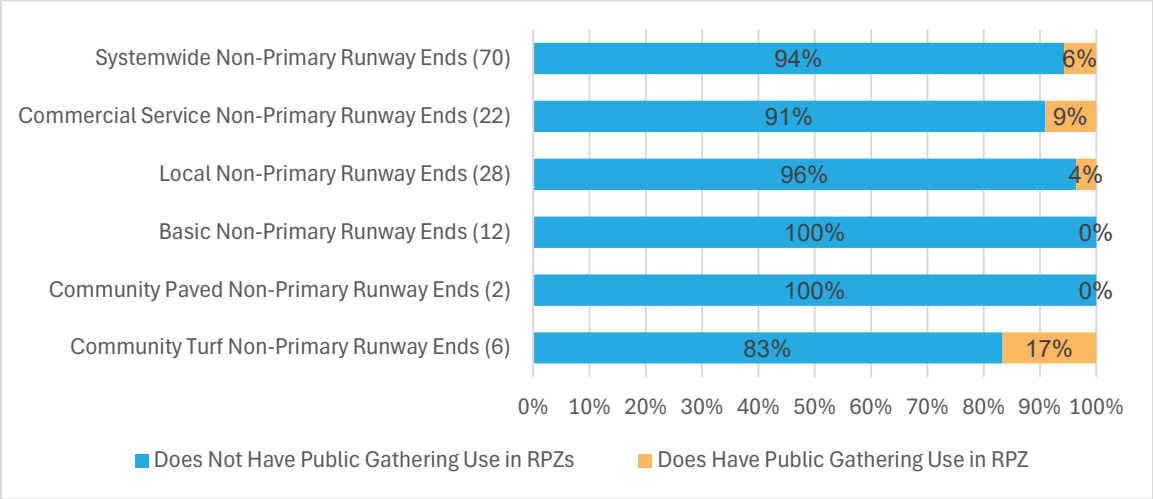
Figure 6-5. PM: Percent of Primary Runway Ends with Public Gathering in the RPZs



Sources: FAA ADIP, 2025; Google Earth, 2025; NDAC GA Inspection Reports, 2025, Commercial Service ALPs, 2025; Kimley-Horn, 2025.

Figure 6-6 shows the results of the RPZ analysis for all non-primary runway ends, indicating that 94 percent of non-primary runway ends across the system meet this metric. Basic and Community Paved airports' non-primary runways fully meet the standard at 100 percent. Commercial Service airports also perform well, while Community Turf airports' non-primary runway ends have a reduced compliance at 83 percent.

Figure 6-6. PM: Percent of Non-primary Runway Ends with Public Gathering in the RPZs



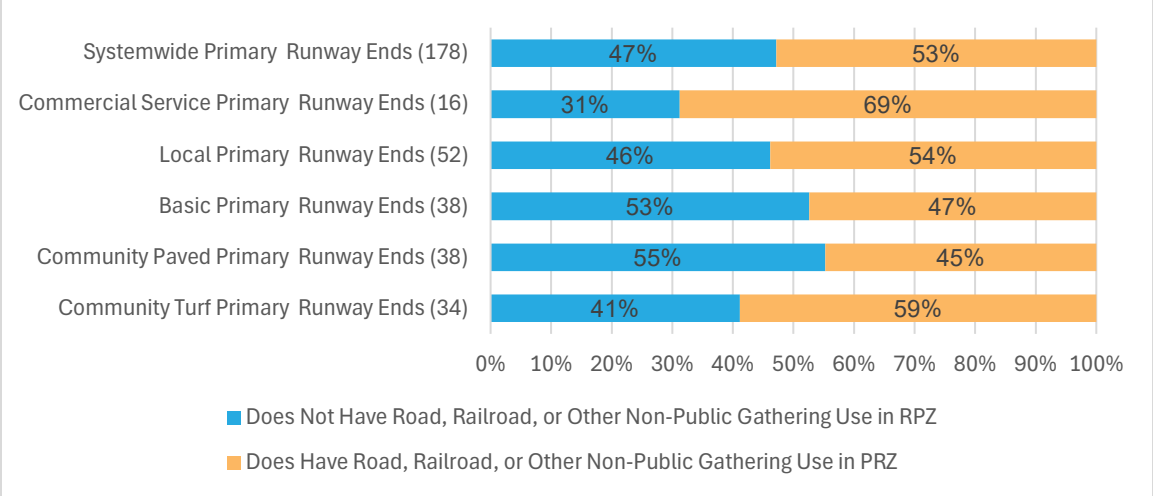
Sources: FAA ADIP, 2025; Google Earth, 2025; NDAC GA Inspection Reports, 2025, Commercial Service ALPs, 2025; Kimley-Horn, 2025.

6.2.1.4. PI: Percent of Airports with Roads, Railroads, or Structures Not Utilized for Public Gatherings in the RPZs for all Runway Ends

The presence of roads, railroads, and other structures not intended for public gatherings within runway end RPZs was also assessed. While these facilities and uses are not explicitly prohibited by the FAA, their presence within RPZs can still pose potential safety and operational concerns. To align with FAA AC 150/5300-13B, RPZs should ideally remain free of all fixed objects to the extent practicable.

As shown in **Figure 6-7**, 47 percent of primary runway ends at North Dakota airports have RPZs that are free of roads, railways, and other non-public structures. This rate of compliance varies by airport classification. Slightly more than half of the primary runway RPZs at Basic and Community Paved airports meet this standard, whereas less than half of the primary runway RPZs at Commercial Service, Local, and other Community Paved airports are similarly free of such encroachments.

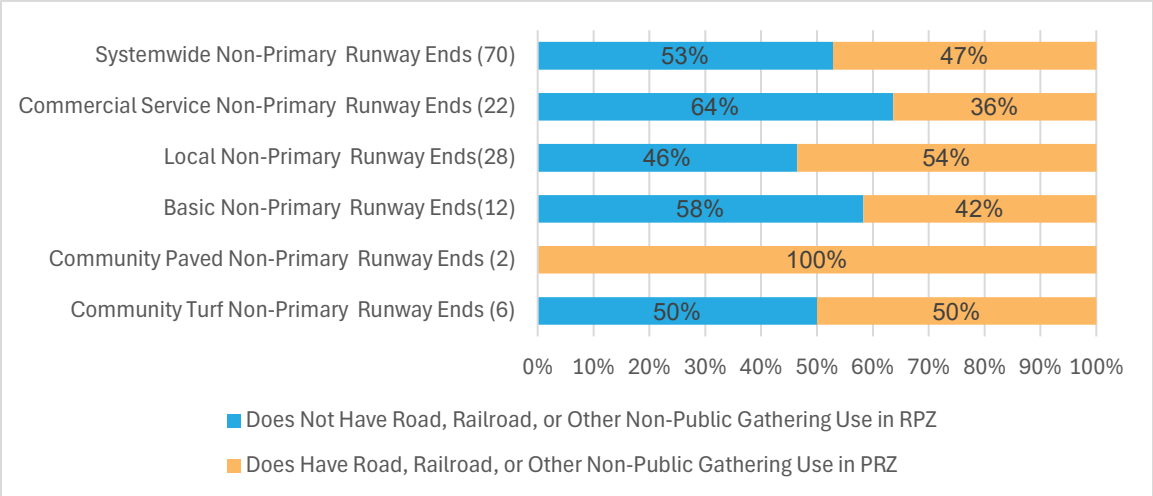
Figure 6-7. PI: Percent of Primary Runway Ends with Roads, Railroads, or Structures Not Utilized for Public Gatherings in the RPZs



Sources: FAA ADIP, 2025; Google Earth, 2025; NDAC GA Inspection Reports, 2025, Commercial Service ALPs, 2025; Kimley-Horn, 2025.

As illustrated in **Figure 6-8**, this analysis examines non-primary runway ends within the system. Statewide in North Dakota, 53 percent of RPZs at non-primary runway ends are free from roads, railways, and other non-public structures. Commercial Service airports exhibit the highest compliance at 64 percent, followed by Basic airports at 58 percent, Community Turf airports at 50 percent, and Local airports at 46 percent. Notably, there is only one Community Paved airport with a non-primary runway, and both runway ends at this facility include a road, railroad, or other non-public gathering structure.

Figure 6-8. PI: Percent of Non-primary Runway Ends with Roads, Railroads, or Structures Not Utilized for Public Gatherings in the RPZs



Sources: FAA ADIP, 2025; Google Earth, 2025; NDAC GA Inspection Reports, 2025, Commercial Service ALPs, 2025; Kimley-Horn, 2025.

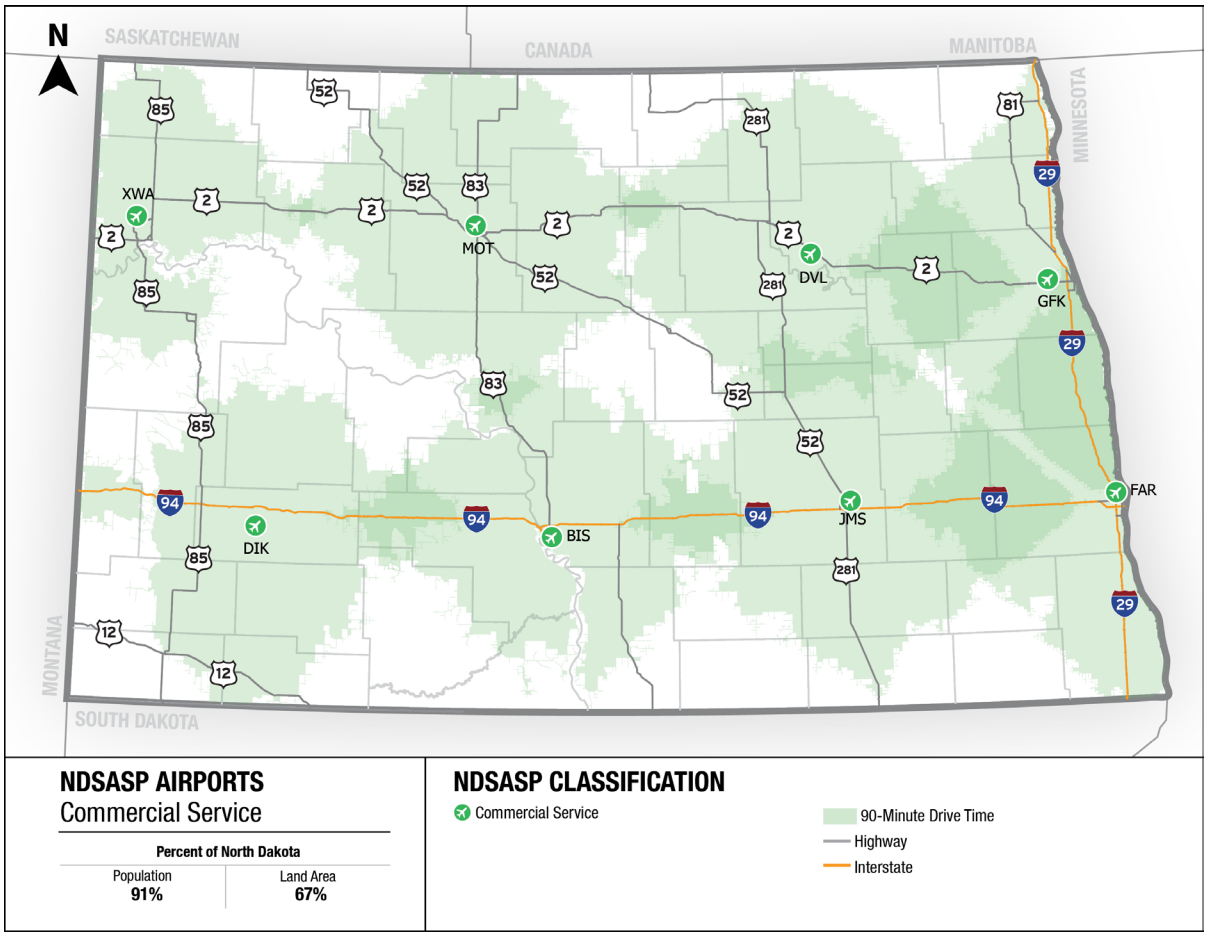
6.2.2. Promote Aviation System Coverage

This goal seeks to promote aviation system coverage in terms of accessibility within the state. This goal has four PIs (and no PMs) that seek to measure the population and land area coverage within specific drive-times of system facilities to evaluate overall system coverage. The system coverage performance offers insight into where aviation service may be lacking. The following five subsections detail the system performance for the four PIs used to evaluate the **Promote Aviation System Coverage** goal.

6.2.2.1. PI: Percent of Area and Population within 90 Minutes from a Commercial Service Airport

Equitable access to commercial air service is a vital component of a well-connected aviation system. Commercial service airports in North Dakota serve as critical gateways for residents, businesses, and visitors, linking communities to national and global markets. To evaluate the reach of these facilities, a 90-minute drive-time analysis was conducted to determine the percentage of the state's population and land area with reasonable access to scheduled airline service. As shown in **Figure 6-9**, 91 percent of North Dakota's population and 67 percent of the land area are within a 90-minute drive of a commercial service airport.

Figure 6-9. PI: Percent of Area and Population within 90 Minutes from a Commercial Service Airport



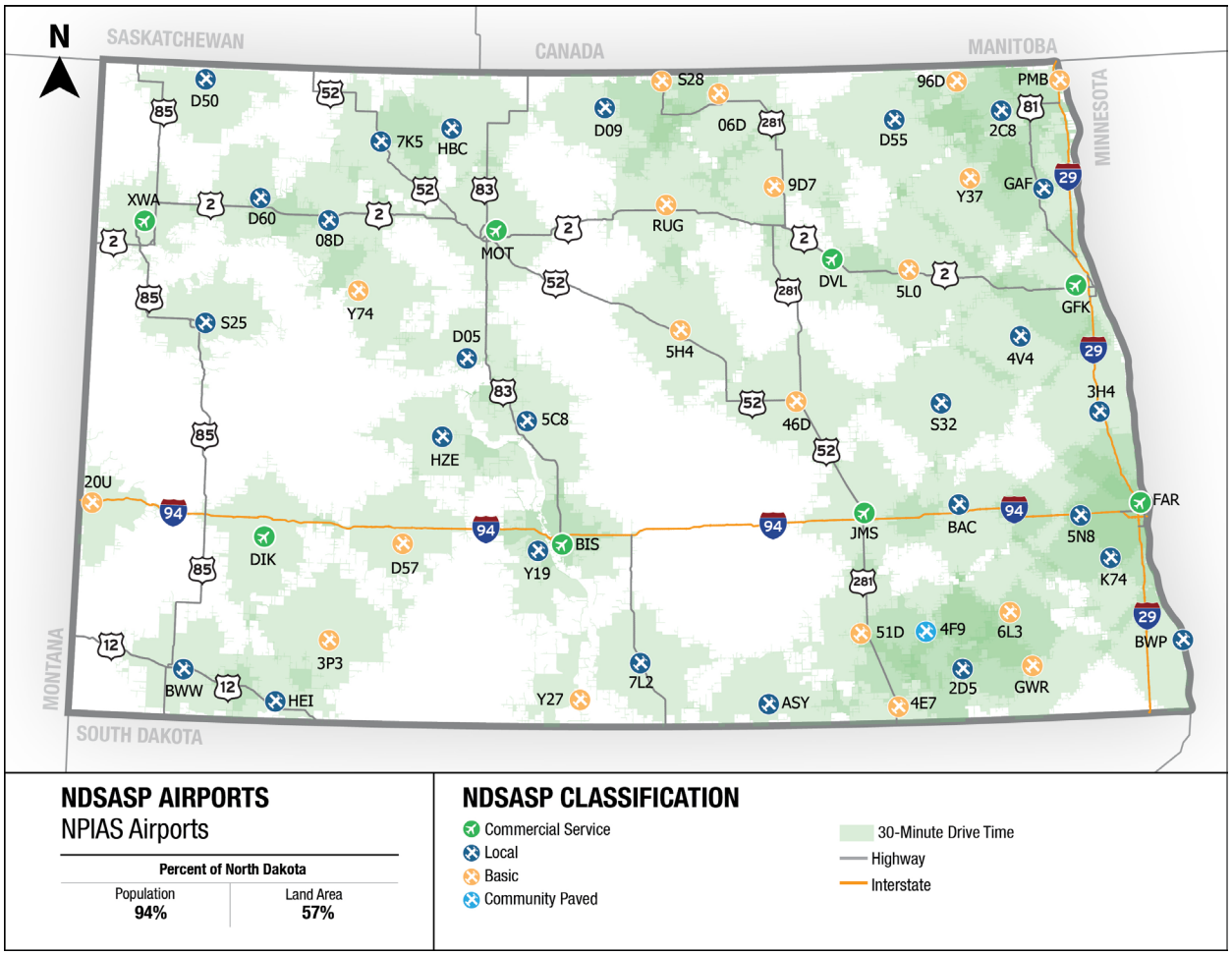
Sources: ArcGIS Pro, 2025; ESRI Business Analyst, 2025; Kimley-Horn, 2025.

In 2014, the analysis of commercial service airports coverage used a 60-minute drive time buffer and found that 80 percent of the population and 40 percent of the land area were within that distance of a commercial service airport. For the current analysis, the drive-time buffer was expanded to 90 minutes to reflect the willingness of more travelers to drive longer distances to access more varied flight options. Due to the expanded service area, as well as other factors such as improved roadway network and population increases or shifts, population and land coverage within a commercial service airport's service area has increased since 2014 from 80 percent of the population to 91 percent and land area coverage has increased from 40 percent to 67 percent (see **Figure 6-9**). While the change in drive time means the result are not directly comparable, this shift provides a broader view of accessibility and highlights the increased reach of commercial air service across the state.

6.2.2.2. PI: Percent of Area and Population within 30 Minutes from a NPIAS Airport

NPIAS airports in North Dakota serve a wide range of aviation needs, from recreational general aviation and business travel to emergency response and agricultural operations. These airports are essential to the nation's system of aviation facilities and are eligible for federal funding to support ongoing development and maintenance. Ensuring that the state's residents and visitors have reasonable access to these facilities is a key component of system performance. As shown in **Figure 6-10**, approximately 94 percent of North Dakota's population and 57 percent of its land area fall within the service areas of NPIAS airports.

Figure 6-10. PI: Percent of Area and Population within 30 Minutes from a NPIAS Airport



Sources: ArcGIS Pro, 2025; ESRI Business Analyst, 2025; Kimley-Horn, 2025.

Table 6-1 presents the changes in accessibility to NPIAS airports between 2014 and 2025 studies. Since 2014, the percentage of both land area and population located within a 30-minute drive of a NPIAS airport has increased, with approximately six percent increase in population coverage, and 19 percent rise in land coverage. Changes in population are affected by the coverage area within drive times and the associated increases or decreases in the number of

people within those areas. The population coverage increase is attributed to the inclusion of Ashley Municipal Airport (ASY) which was adopted into the NPIAS in 2016. It is also important to note for this and all subsequent drive-time coverage map comparisons that an increase in land area between the analyses from 2014 and 2025 may be attributable to factors such as advancements in GIS technology, which have enabled more accurate modeling of travel times, changes to the source of the spatial roadway data used in the analysis, or even infrastructure improvements to the roadway network.

Table 6-1. Change in Area and Population Within 30 Minutes from a NPIAS Airport: 2014 vs. 2025

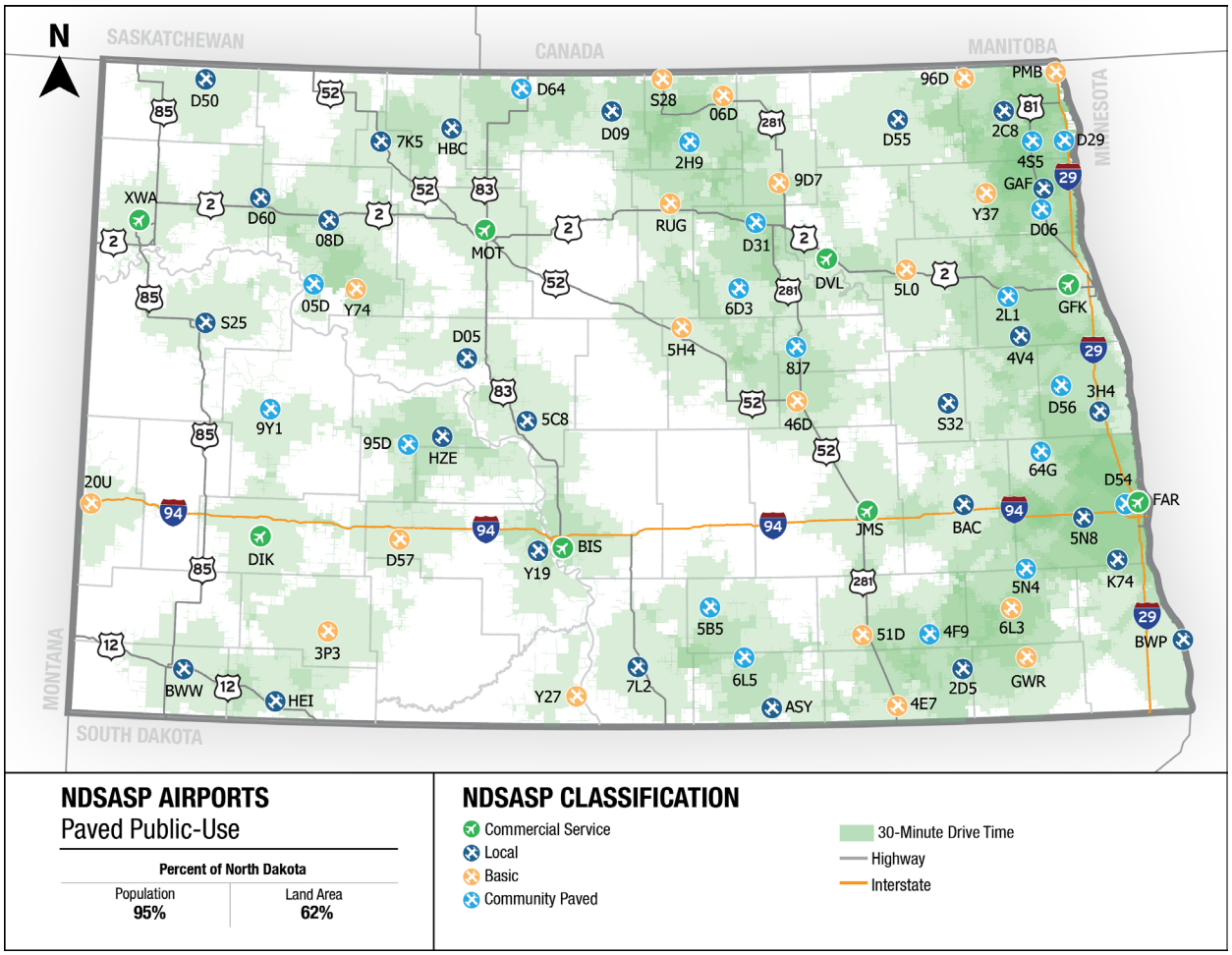
Study Year	Systemwide Performance – Population	Systemwide Performance – Land Area
2014	89%	43%
2025	95%	62%
Percent Change	+6%	+19%

Sources: ESRI Business Analyst, 2025; 2014 NDSASP, 2014; Kimley-Horn, 2025.

6.2.2.3. PI: Percent Of Area and Population within 30 Minutes from All Paved Public-Use Airports (NPIAS And Non-NPIAS)

Paved public-use airports, whether part of the NPIAS or not, play a vital role in supporting North Dakota's aviation needs. These facilities accommodate a variety of operations throughout the state including business travel, recreational flying, medical transport, and agricultural support. Airports with paved runways are often more accessible year-round and during a wider span of weather conditions and can support a broader mix of operations and aircraft. To evaluate the coverage of these airports' service areas, a 30-minute drive time analysis was conducted. As shown in **Figure 6-11**, 95 percent of North Dakota's total population is within a 30-minute drive from a paved public use airport, with 62 percent of the total land area within the identified buffer areas.

Figure 6-11. PI: Percent Of Area and Population within 30 Minutes from All Paved Public-Use Airports (NPIAS And Non-NPIAS)

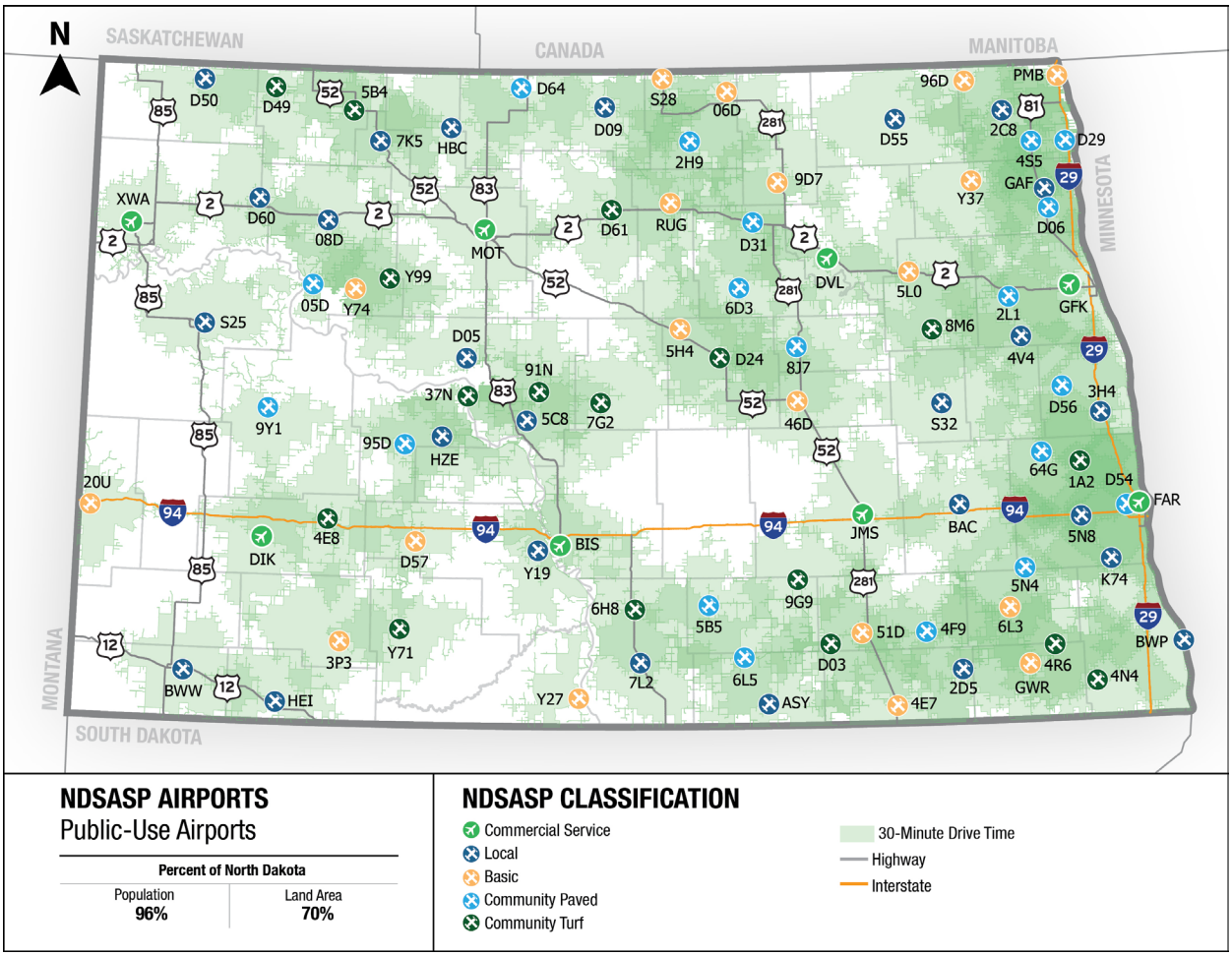


Sources: ArcGIS Pro, 2025; ESRI Business Analyst, 2025; Kimley-Horn, 2025.

6.2.2.4. PI: Percent Of Area and Population within 30 Minutes from All Public-Use Airports (NPIAS And Non-NPIAS)

Every airport in North Dakota's public-use system, whether large or small, paved or turf, NPIAS or non-NPIAS—plays a role in supporting the users of the state's aviation system. Collectively, these facilities enable operations of all types and sizes, from emergency medical flights and agricultural spraying to commercial airline service, business travel, flight training, and recreational flying. The presence of a public-use airport ensures that communities across the state remain connected to essential services, economic opportunities, and the national airspace system. To assess the reach of this public-use airport network, a 30-minute drive-time analysis was conducted. The results, shown in **Figure 6-12**, indicate that 96 percent of the state's population and 70 percent of its land area are located within a 30-minute drive of a public-use airport.

Figure 6-12. PI: Percent Of Area and Population within 30 Minutes from All Public-Use Airports (NPIAS And Non-NPIAS)



Sources: ArcGIS Pro, 2025; ESRI Business Analyst, 2025; Kimley-Horn, 2025.

Table 6-2 provides a comparison between the 2014 and 2025 NDSASP analyses, showing the percentage of area and population within 30 minutes of all public-use airports. Since the 2014 study, population coverage has increased by three percent, and land area coverage has grown by 12 percent.

Table 6-2. Change in Area and Population Within 30 Minutes from All Public-Use Airports (NPIAS and Non-NPIAS): 2014 vs. 2025

Study Year	Systemwide Performance – Population	Systemwide Performance – Land Area
2014	93%	58%
2025	96%	70%
Percent Change	+3%	+12%

Sources: ESRI Business Analyst, 2025; 2014 NDSASP, 2014; Kimley-Horn, 2025.

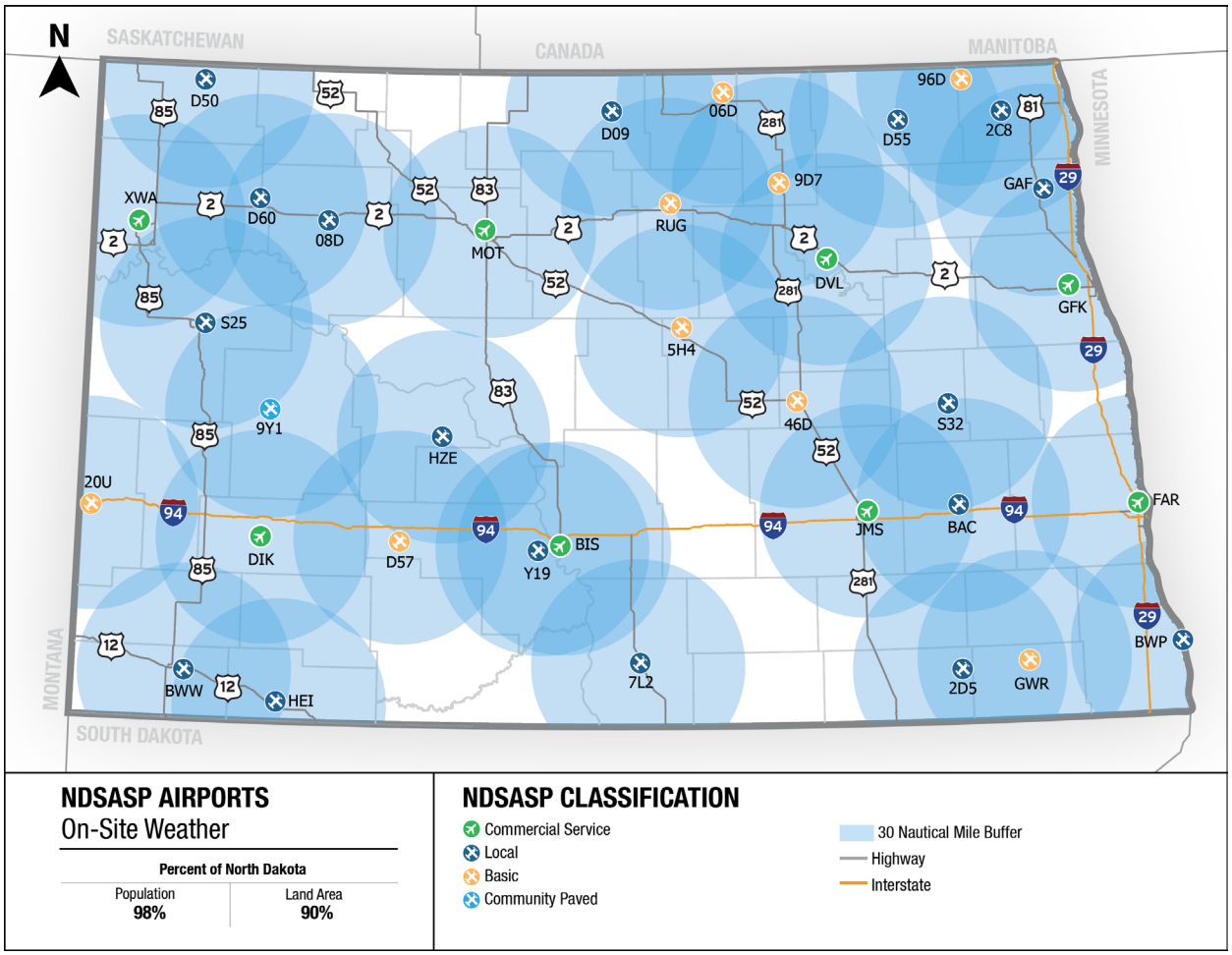
6.2.3. Provide Air Access to Airports

This goal emphasizes the importance of supporting reliable and equitable air access to airports across the state's aviation system. The five PMs and four PIs in this goal asses the percentage of population and land area within the service area of airports with certain facilities, such as weather and fuel, that promote access to airports from a variety of aircraft. The following nine subsections detail the system performance for the PMs and PIs used to evaluate the goal to **Provide Air Access to Airports**.

6.2.3.1. PM: Percent of Area and Population within 30 Nautical Miles of an Airport with On-Site Weather Reporting

Reliable, real-time weather data is a foundational element of aviation safety and operational efficiency. In North Dakota, 98 percent of the population and 90 percent of the land area are located within 30 nautical miles (NM) of an airport equipped with on-site weather reporting systems, (see **Figure 6-13**), ensuring broad access to critical weather data across the state.

Figure 6-13. PM: Percent of Area and Population within 30 Nautical Miles of an Airport with On-Site Weather Reporting



Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025; FAA Surface Weather Observation Stations, 2025; ArcGIS Pro, 2025; ESRI Business Analyst, 2025; Kimley-Horn, 2025.

Table 6-3 presents a comparison of the percentage of area and population within 30 nautical miles of airports equipped with on-site weather reporting from the 2014 and 2025 studies. Since 2014, population coverage has increased by one percent, and land area coverage has grown by three percent. This change is primarily due to the addition of certified weather reporting at Dunn County—Weydahl Field Airport (9Y1) and Bottineau Municipal Airport (D09).

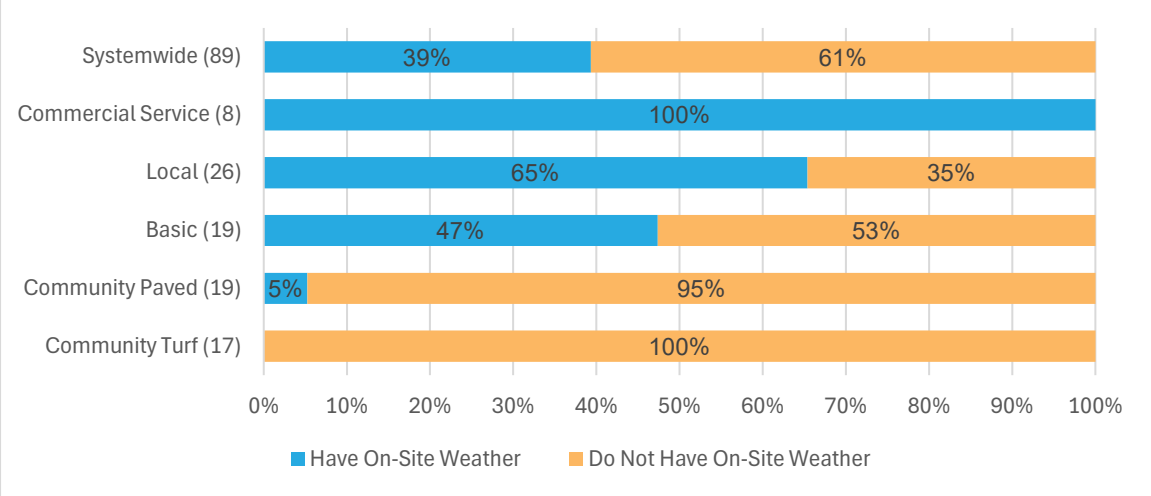
Table 6-3. Change in Area and Population Within 30 Nautical Miles of an Airport with On-Site Weather Reporting: 2014 vs. 2025

Study Year	Systemwide Performance – Population	Systemwide Performance – Land Area
2014	97%	87%
2025	98%	90%
Percent Change	+1%	+3%

Sources: 2025 NDSASP Airport Manager Survey, 2025; FAA Surface Weather Observation Stations, 2025; 2014 NDSASP, 2014; Kimley-Horn, 2025.

Figure 6-14 presents the results in terms of performance of the system overall and by airport classification. As shown, 39 percent of the airports in the system have on-site weather reporting, with all Commercial Service airports, 65 percent of Local, 47 percent of Basic, and five percent of Community Paved airports all having these important facilities.

Figure 6-14. PM: Percent of Airports with On-Site Weather Reporting



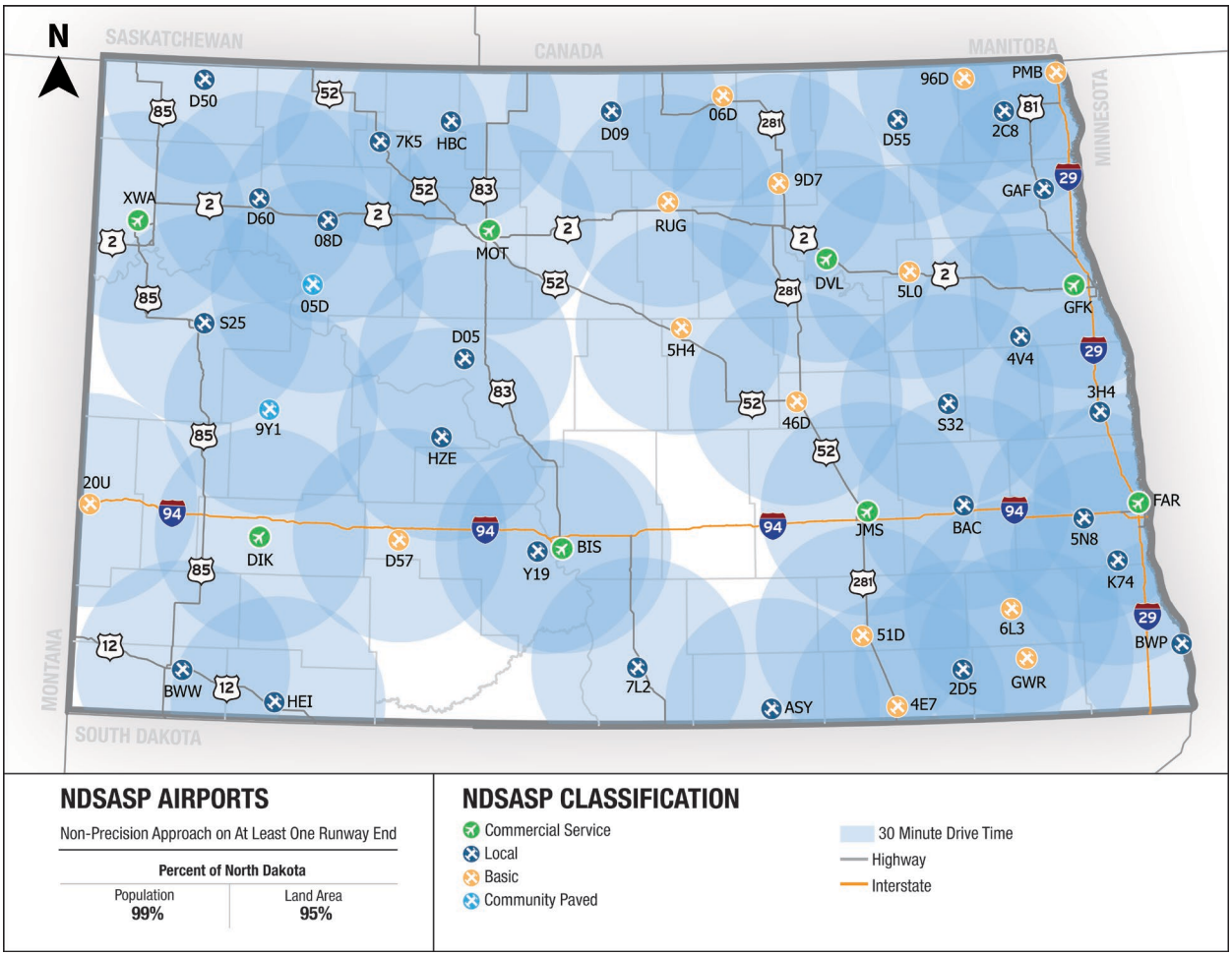
Sources: 2025 NDSASP Airport Manager Survey, 2025; FAA Surface Weather Observation Stations, 2025; Kimley-Horn, 2025.

6.2.3.2. PM: Percent of Area and Population within 30 Nautical Miles of an Airport with a Non-Precision Approach

Non-precision approaches to runways can be achieved using Very High Frequency Omnidirectional Range (VOR), Non-Directional Beacon (NDB), or Global Positioning System (GPS)-based Area Navigation (RNAV). These approaches provide lateral guidance, allowing pilots to safely descend and align with a runway even in low-visibility or adverse weather conditions.

This metric evaluates how much of the state's population and land area lies within 30 NM of an airport equipped with a non-precision approach on at least one runway end. As shown in **Figure 6-15**, 99 percent of the population and 95 percent of the land area are within the service area of an airport equipped with a non-precision approach.

Figure 6-15. PM: Percent of Area and Population within 30 Nautical Miles of an Airport with a Non-Precision Approach



Sources: FAA Instrument Flight Procedures Information Gateway, 2025; ArcGIS Pro, 2025; ESRI Business Analyst, 2025; Kimley-Horn, 2025.

Table 6-4 highlights improvements in statewide access to airports with non-precision approaches by comparing the percentage of land area and population within 30 nautical miles of such airports in the 2014 and 2025 studies. The analysis reveals a one percent increase in population coverage and a seven percent increase in land area coverage over the past decade.

Table 6-4. Change in Area and Population Within 30 Nautical Miles of an Airport with a Non-Precision Approach: 2014 vs. 2025

Study Year	Systemwide Performance – Population	Systemwide Performance – Land Area
2014	98%	88%
2025	99%	95%
Percent Change	+1%	+7%

Sources: FAA Instrument Flight Procedures Information Gateway, 2025; 2014 NDSASP, 20; ESRI Business Analyst, 2025; Kimley-Horn, 2025.

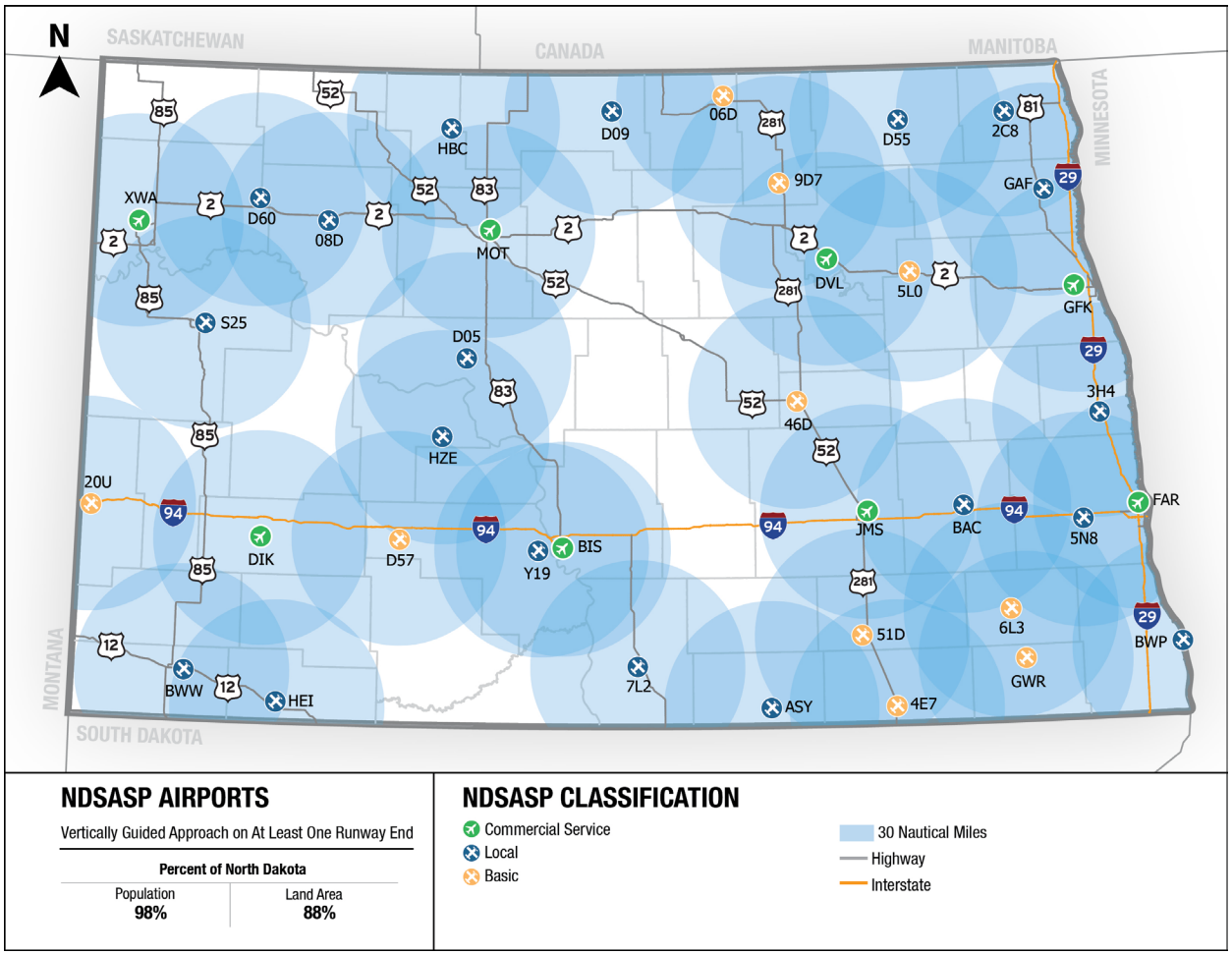
While percent of population and land coverage has only increased slightly due to overlaps in service areas, it's important to note that since the 2014 NDSASP, 10 additional airports across North Dakota have been equipped with non-precision approaches. These ten airports are listed below:

Ashley Municipal Airport (ASY)
Beach Airport (20U)
Cando Municipal Airport (9D7)
Edgeley Municipal Airport (51D)
Ellendale Municipal Airport (4E7)
Glen Ullin Regional Airport (D57)
Dunn County – Weydahl Field (9Y1)
Lakota Municipal Airport (5L0)
Lisbon Municipal Airport (6L3)
New Town Municipal Airport (05D)

6.2.3.3. PM: Percent of Area and Population within 30 Nautical Miles of an Airport with a Vertically Guided Approach

Vertically guided approaches represent the most sophisticated tier of instrument landing capability, offering both lateral and vertical guidance to pilots during decent. These procedures are supported by ILS, LPV, and LNAV/VNAV and enable safer, more stable landings in low-visibility conditions. Vertically guided approaches are especially valuable for high-demand airports and critical operations, such as air ambulance operations. As shown in **Figure 6-16**, 98 percent of the population and 88 percent of the land area are located within a 30-nautical-mile radius of an airport equipped with a vertically guided approach.

Figure 6-16. PM: Percent of Area and Population within 30 Nautical Miles of an Airport with a Vertically Guided Approach



Sources: FAA Instrument Flight Procedures Information Gateway, 2025; ArcGIS Pro, 2025; ESRI Business Analyst, 2025; Kimley-Horn, 2025.

Table 6-5 provides a comparative analysis of the percentage of land area and population located within 30 nautical miles of airports equipped with vertically guided approaches based on data from the 2014 and 2025 studies. Population coverage has increased by six percent and land area coverage by 18 percent.

Table 6-5. Change in Area and Population within 30 Nautical Miles of an Airport with a Vertically Guided Approach: 2014 vs. 2025

Study Year	Systemwide Performance – Population	Systemwide Performance – Land Area
2014	92%	70%
2025	98%	88%
Percent Change	+6%	+18%

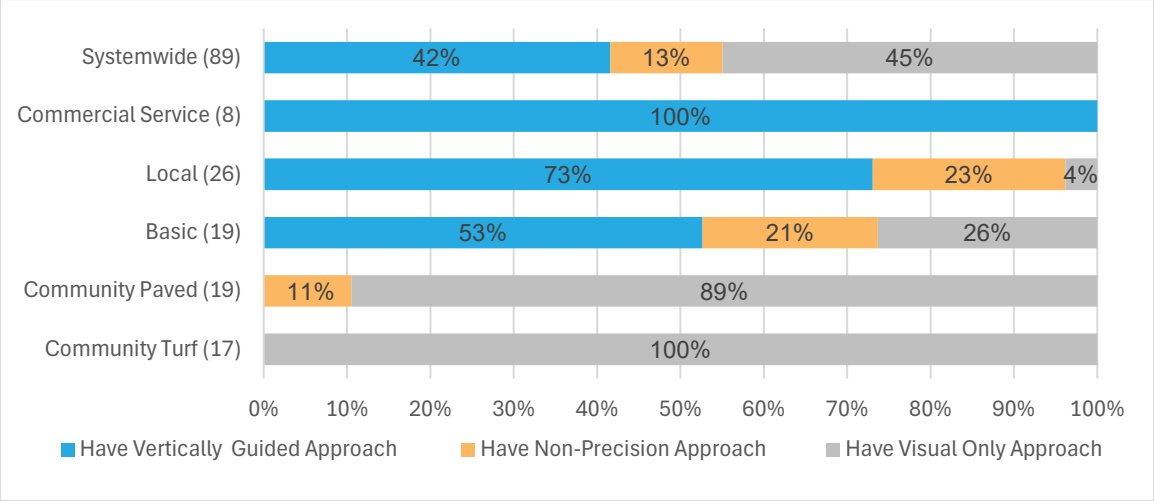
Sources: FAA Instrument Flight Procedures Information Gateway, 2025; 2014 NDSASP, 2014; ESRI Business Analyst, 2025; Kimley-Horn, 2025.

The increase in population and land area shown in **Table 6-5** corresponds to 15 additional airports becoming equipped with vertically guided approach capabilities since the 2014 study. These 15 airports are listed below.

Ashley Municipal (ASY)
Beach Municipal Airport (20U)
Bowman Regional Airport (BWW)
Cando Municipal Airport (9D7)
Edgeley Municipal Airport (4E7)
Ellendale Municipal Airport (47E)
Garrison Municipal (D05)
Ashley Municipal (ASY)
Glen Ullin Regional Airport (D57)
Hettinger Municipal Airport (HEI)
Hillsboro Municipal Airport (3H4)
Lakota Municipal Airport (5H4)
Lisbon Municipal Airport (6L3)
Mandan Municipal Airport (Y19)
Mohall Municipal Airport (4E7)
Stanley Municipal Airport (08D)

Figure 6-17 presents the percent of system airports, by classification, that are supported by either a non-precision approach or vertically guided approach on at least runway end, with the remaining have only visual approaches to the runway(s). As shown, 55 percent of all airports can support a non-precision or vertically guided approach, with 42 percent of system airports having a vertically guided approach on at least one runway end and 13 percent having a non-precision approach on at least one runway end. The remaining 45 percent of system airports are only able to support visual approaches.

Figure 6-17. PM: Percent of Airports with Vertically Guided, Non-Precision, and Visual Approaches



Sources: FAA Instrument Flight Procedures Information Gateway, 2025; Kimley-Horn, 2025.

Comprehending the entire system and the approaches associated with each runway end enables a more cohesive presentation of the data. **Table 6-6** shows the approach type by runway end for all runways, organized by airport to provide additional context.

Table 6-6. Airport Runway Approaches – Data Table

Associated City	Airport Name	FAA ID	Primary Runway		Secondary Runway		Tertiary Runway		Quaternary Runway	
			Orientation	Approach	Orientation	Approach	Orientation	Approach	Orientation	Approach
Commercial Service										
Bismarck	Bismarck Municipal Airport	BIS	13/31	ILS / ILS	03/21	RNAV (GPS) / RNAV (GPS)	N/A	N/A	N/A	N/A
Devils Lake	Devils Lake Regional Airport	DVL	13/31	RNAV (GPS)/ILS	03/21	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A
Dickinson	Dickinson – Roosevelt Regional Airport	DIK	14/32	RNAV (GPS)/ILS	07/25	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A
Fargo	Hector International Airport	FAR	18/36	ILS/ILS	09/27	RNAV (GPS)/RNAV (GPS)	13/31	VIS/VIS	N/A	N/A
Grand Forks	Grand Forks International Airport	GFK	17R/35L	RNAV (GPS)/ILS	09L/27R	RNAV (GPS)/RNAV (GPS)	17L/35R	RNAV (GPS)/RNAV (GPS)	09R/27L	VIS/VIS
Jamestown	Jamestown Regional Airport	JMS	13/31	RNAV (GPS)/ILS	04/22	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A
Minot	Minot International Airport	MOT	13/31	RNAV (GPS)/ILS	08/26	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A
Williston	Williston Basin International Airport	XWA	14/32	RNAV (GPS)/ILS	04/22	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A
General Aviation										
Arthur	Arthur Airport	1A2	17/35	VIS / VIS	N/A	N/A	N/A	N/A	N/A	N/A
Ashley	Ashley Municipal Airport	ASY	15/33	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Beach	Beach Airport	20U	12/30	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Beulah	Beulah Municipal Airport	95D	10/28	VIS / VIS	N/A	N/A	N/A	N/A	N/A	N/A

Associated City	Airport Name	FAA ID	Primary Runway		Secondary Runway		Tertiary Runway		Quaternary Runway	
			Orientation	Approach	Orientation	Approach	Orientation	Approach	Orientation	Approach
Bottineau	Bottineau Municipal Airport	D09	13/31	RNAV (GPS)/RNAV (GPS)	03/21	VIS / VIS	N/A	N/A	N/A	N/A
Bowbells	Bowbells Municipal Airport	5B4	08/26	VIS / VIS	N/A	N/A	N/A	N/A	N/A	N/A
Bowman	Bowman Regional Airport	BWW	13/31	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Cando	Cando Municipal Airport	9D7	16/34	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Carrington	Carrington Municipal Airport	46D	13/31	VIS/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Casselton	Casselton Robert Miller Regional Airport	5N8	13/31	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Cavalier	Cavalier Municipal Airport	2C8	16/34	VIS/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Columbus	Columbus Municipal Airport	D49	07/25	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Cooperstown	Cooperstown Municipal Airport	S32	13/31	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Crosby	Crosby Municipal Airport	D50	13/31	RNAV (GPS)-A /RNAV (GPS)	03/21	VIS/VIS	N/A	N/A	N/A	N/A
Drayton	Drayton Municipal Airport	D29	17/35	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Dunseith	International Peace Garden Airport	S28	11/29	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Edgeley	Edgeley Municipal Airport	51D	14/32	RNAV (GPS)/RNAV (GPS)	09/27	VIS/VIS	N/A	N/A	N/A	N/A
Elgin	Elgin Municipal Airport	Y71	12/30	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Ellendale	Ellendale Municipal Airport	4E7	13/31	VIS/RNAV (GPS)	17/35	VIS/VIS	N/A	N/A	N/A	N/A
Enderlin	Sky Haven Airport	5N4	12/30	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A

Associated City	Airport Name	FAA ID	Primary Runway		Secondary Runway		Tertiary Runway		Quaternary Runway	
			Orientation	Approach	Orientation	Approach	Orientation	Approach	Orientation	Approach
Fessenden	Fessenden – Streibel Municipal Airport	D24	08/26	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Fort Yates	Standing Rock Airport	Y27	14/32	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Gackle	Gackle Municipal Airport	9G9	08/26	VIS/VIS	17/35	VIS/VIS	N/A	N/A	N/A	N/A
Garrison	Garrison Municipal Airport	D05	13/31	RNAV (GPS)/RNAV (GPS)	03/21	VIS/VIS	N/A	N/A	N/A	N/A
Glen Ullin	Glen Ullin Regional Airport	D57	11/29	VIS/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Grafton	Hutson Field	GAF	17/35	RNAV (GPS)/RNAV (GPS)	08/26	VIS/VIS	N/A	N/A	N/A	N/A
Gwinner	Gwinner – Roger Melroe Field	GWR	16/34	RNAV (GPS)/RNAV (GPS)	06/24	VIS/VIS	N/A	N/A	N/A	N/A
Harvey	Harvey Municipal Airport	5H4	11/29	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Hazelton	Hazelton Municipal Airport	6H8	17/35	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Hazen	Mercer County Regional Airport	HZE	15/33	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Hettinger	Hettinger Municipal Airport	HEI	12/30	RNAV (GPS)/RNAV (GPS)	17/35	VIS/VIS	N/A	N/A	N/A	N/A
Hillsboro	Hillsboro Municipal Airport	3H4	16/34	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Kenmare	Kenmare Municipal Airport	7K5	08/26	VIS/RNAV(GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Killdeer	Dunn County – Weydahl Field	9Y1	13/31	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Kindred	Robert Odegaard Field	K74	11/29	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Kulm	Kulm Municipal Airport	D03	12/30	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A

Associated City	Airport Name	FAA ID	Primary Runway		Secondary Runway		Tertiary Runway		Quaternary Runway	
			Orientation	Approach	Orientation	Approach	Orientation	Approach	Orientation	Approach
La Moure	La Moure Rott Municipal Airport	4F9	16/34	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Lakota	Lakota Municipal Airport	5L0	15/33	VIS/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Langdon	Robertson Field	D55	14/32	RNAV (GPS)/RNAV (GPS)	08/26	VIS/VIS	N/A	N/A	N/A	N/A
Larimore	Larimore Municipal Airport	2L1	12/30	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Leeds	Leeds Municipal Airport	D31	09/27	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Lidgerwood	Lidgerwood Municipal Airport	4N4	18/36	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Linton	Linton Municipal Airport	7L2	09/27	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Lisbon	Lisbon Municipal Airport	6L3	14/32	RNAV (GPS)/RNAV (GPS)	03/21	VIS/VIS	N/A	N/A	N/A	N/A
Maddock	Maddock Municipal Airport	6D3	12/30	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Mandan	Mandan Regional – Lawler Field	Y19	13/31	RNAV (GPS)/RNAV (GPS)	04/22	VIS/VIS	N/A	N/A	N/A	N/A
Mayville	Mayville Municipal Airport	D56	18/36	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
McClusky	McClusky Municipal Airport	7G2	13/31	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
McVille	McVille Municipal Airport	8M6	13/31	VIS/VIS	18/36	VIS/VIS	N/A	N/A	N/A	N/A
Milnor	Milnor Municipal Airport	4R6	08/26	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Minto	Minto Municipal Airport	D06	17/35	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Mohall	Mohall Municipal Airport	HBC	13/31	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A

Associated City	Airport Name	FAA ID	Primary Runway		Secondary Runway		Tertiary Runway		Quaternary Runway	
			Orientation	Approach	Orientation	Approach	Orientation	Approach	Orientation	Approach
Mott	Mott Municipal Airport	3P3	10/28	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Napoleon	Napoleon Municipal Airport	5B5	12/30	VIS/VIS	08/26	VIS/VIS	N/A	N/A	N/A	N/A
New Rockford	Tomlinson Field	8J7	13/31	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
New Town	New Town Municipal Airport	05D	12/30	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Northwood	Northwood Municipal – Vince Field	4V4	08/26	VIS/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Oakes	Oakes Municipal Airport	2D5	12/30	VIS/RNAV (GPS)	17/35	VIS/VIS	N/A	N/A	N/A	N/A
Page	Page Regional Airport	64G	17/35	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Park River	Park River – W C Skjerven Field	Y37	13/31	VIS/VIS	04/22	VIS/VIS	N/A	N/A	N/A	N/A
Parshall	Parshall – Hankins Airport	Y74	12/30	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Pembina	Pembina Municipal Airport	PMB	15/33	VIS/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Plaza	Trulson Field	Y99	08/26	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Richardton	Richardton Municipal Airport	4E8	11/29	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Riverdale	Garrison Dam Recreational Airpark	37N	11/29	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Rolette	Rolette Airport	2H9	15/33	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Rolla	Rolla Municipal Airport	06D	14/32	VIS/RNAV (GPS)	07/25	VIS/VIS	N/A	N/A	N/A	N/A
Rugby	Rugby Municipal Airport	RUG	12/30	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A

Associated City	Airport Name	FAA ID	Primary Runway		Secondary Runway		Tertiary Runway		Quaternary Runway	
			Orientation	Approach	Orientation	Approach	Orientation	Approach	Orientation	Approach
St Thomas	St. Thomas Municipal Airport	4S5	17/35	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Stanley	Stanley Municipal Airport	08D	10/28	RNAV (GPS)/RNAV (GPS)	02/22	VIS/VIS	N/A	N/A	N/A	N/A
Tioga	Tioga Municipal Airport	D60	12/30	RNAV (GPS)/RNAV (GPS)	03/21	VIS/VIS	N/A	N/A	N/A	N/A
Towner	Towner Municipal Airport	D61	16/34	VIS/VIS	03/21	VIS/VIS	N/A	N/A	N/A	N/A
Turtle Lake	Turtle Lake Municipal Airport	91N	08/26	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Valley City	Barnes County Municipal Airport	BAC	13/31	RNAV (GPS)/RNAV (GPS)	17/35	VIS/VIS	05/23	VIS/VIS	08/26	VIS/VIS
Wahpeton	Harry Stern Airport	BWP	15/33	RNAV (GPS)/RNAV (GPS)	03/21	VIS/VIS	N/A	N/A	N/A	N/A
Walhalla	Walhalla Municipal Airport	96D	15/33	VIS/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
Washburn	Washburn Municipal Airport	5C8	08/26	VIS/VIS	17/35	VIS/VIS	N/A	N/A	N/A	N/A
Watford City	Watford City Municipal Airport	S25	12/30	RNAV (GPS)/RNAV (GPS)	N/A	N/A	N/A	N/A	N/A	N/A
West Fargo	West Fargo Municipal Airport	D54	18/36	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Westhope	Westhope Municipal Airport	D64	14/32	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A
Wishek	Wishek Municipal Airport	6L5	14/32	VIS/VIS	N/A	N/A	N/A	N/A	N/A	N/A

Sources: FAA Instrument Flight Procedures Information Gateway, 2025; Kimley-Horn, 2025.

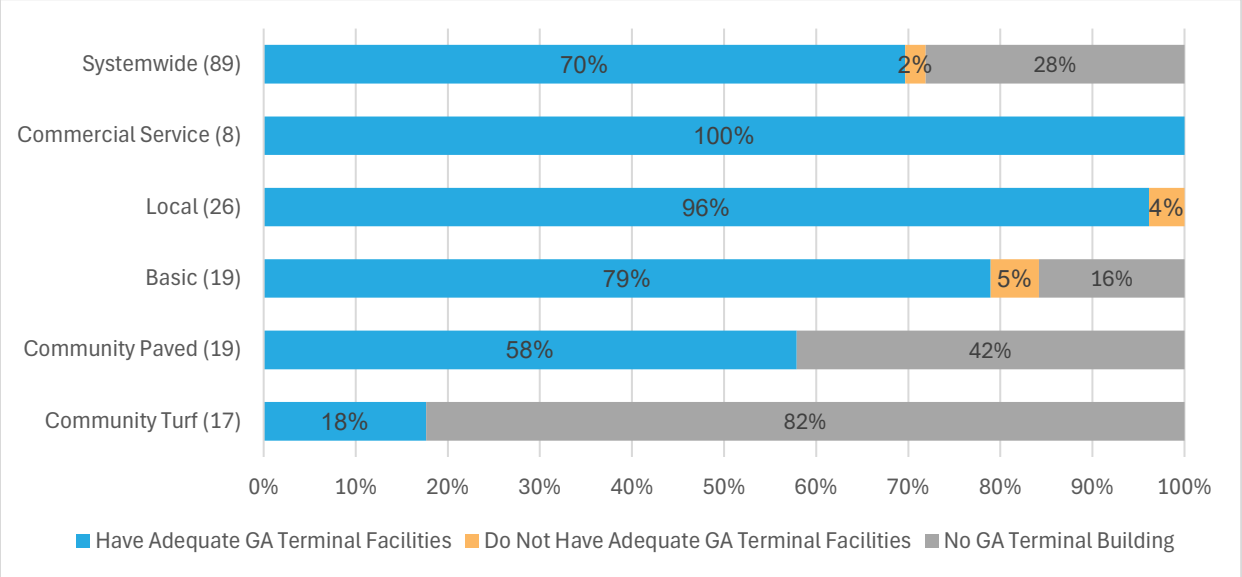
6.2.3.4. PM: Percent of Airports with Adequate Terminal Facilities to Support Passenger Demand

In this analysis, airport managers were asked to self-assess whether their terminal facilities were adequate to meet operational needs. Each airport responded reflecting their opinion of the terminal facilities used by passengers, whether commercial service or general aviation. This approach relied on the managers' own judgment rather than objective measures such as terminal square footage, age of the building, or other physical criteria. Adequate terminal infrastructure is critical for airports to accommodate passenger demand and ensure efficient operations. While the specific requirements vary by airport type, terminal facilities remain a fundamental component of system-wide airport infrastructure. For GA airports, a terminal building may consist of a Fixed Base Operator (FBO) facility or a structure operated by the airport sponsor that provides essential amenities such as a pilot lounge, restrooms, and other accommodations.

As shown in **Figure 6-18**, 70 percent of system airports are equipped with a GA terminal building that is considered adequate to support passenger demand, wo percent of system airports have a GA terminal but considered it inadequate , and the remaining 28 percent of system airports do not have a GA terminal building on site.

The 2014 NDSASP also asked airports to report whether their GA terminal facilities were adequate. At that time, 48 system airports (54 percent) reported adequacy. Since then, the number has increased to 62 airports (69 percent), indicating a notable improvement in GA terminal facilities.

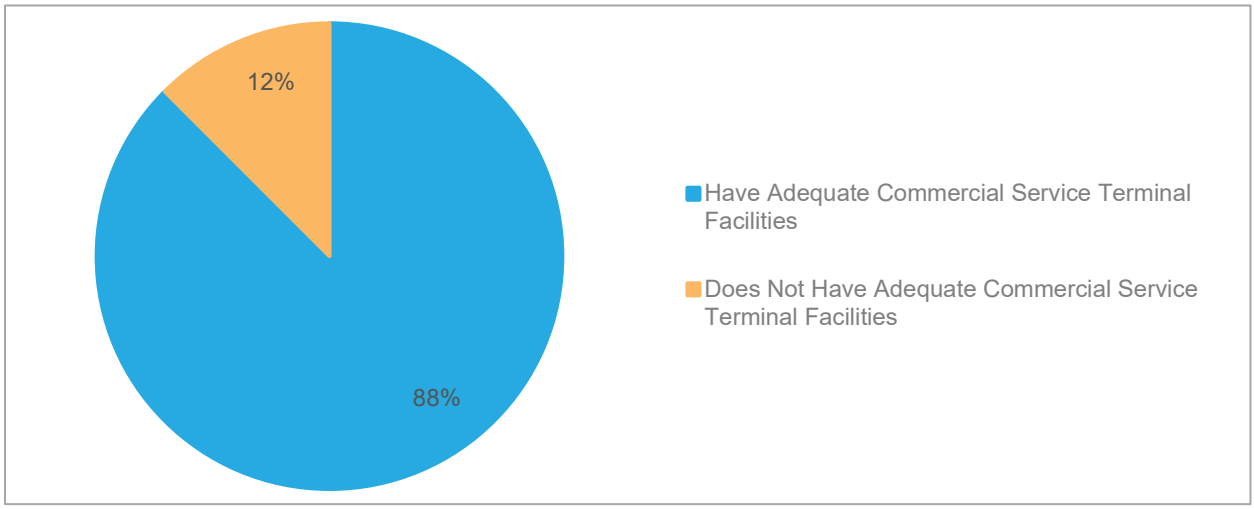
Figure 6-18. PM: Percent of Airports with Adequate GA Terminal Facilities to Support Passenger Demand



Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

Figure 6-19 shows the percentage of commercial service airports that consider their terminal facilities adequate. Seven commercial service airports reported adequate terminals, representing 88% of all commercial service airports.[1] Compared to the 2014 NDSASP, when only six airports reported adequate facilities, the 2025 results indicate an improvement, with one additional airport reporting an adequate commercial service terminal.

Figure 6-19. PM: Percent of Airports with Adequate Commercial Service Terminal Facilities to Support Passenger Demand



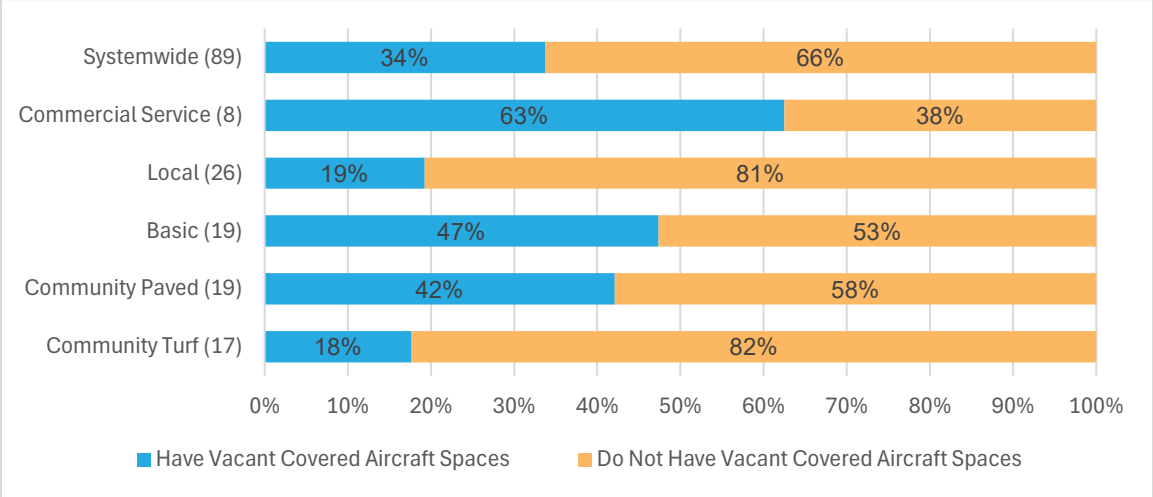
Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

6.2.3.5. PM: Percent of Airports with Available Covered Aircraft Storage

Covered aircraft storage is a critical component of airport infrastructure in North Dakota, where harsh weather conditions make enclosed storage essential for protecting aircraft and maintaining operational readiness. As shown in **Figure 6-20**, 34 percent of airports systemwide report having vacant covered aircraft storage, meaning these airports have empty aircraft storage spaces and are ready to accept new aircraft tenants at the time of this study's inventory effort. Sixty-three percent of Commercial Service airports report having some vacant aircraft storage. For the Local and Community Turf airports, less than 20 percent of the airports have vacant covered storage. Approximately 47 and 42 percent of Basic and Community Paved airports, respectively, have available covered aircraft storage facilities.

[1] Two of the seven commercial service airports with adequate terminal facilities are currently undergoing expansion projects.

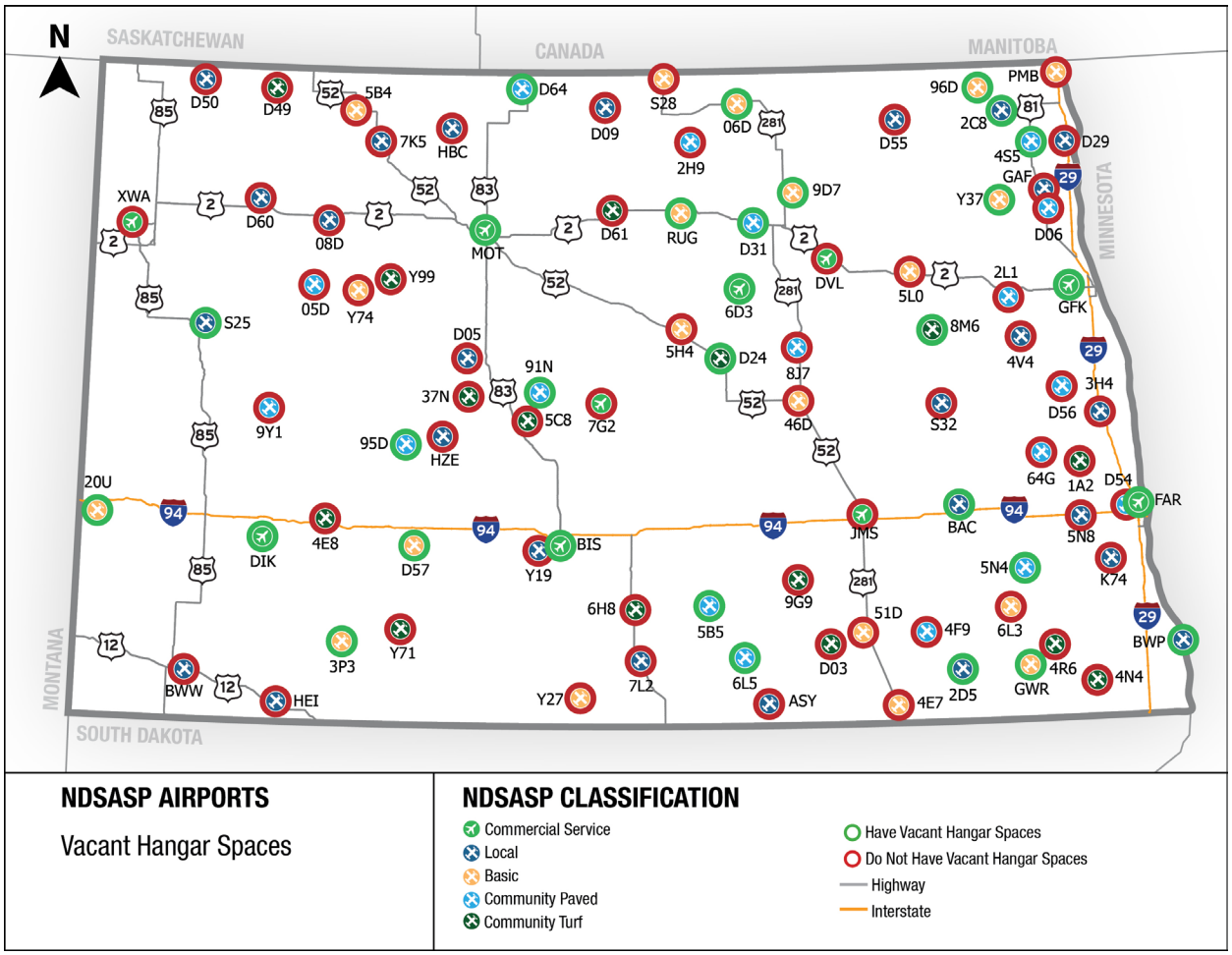
Figure 6-20. PM: Percent of Airports with Available Covered Aircraft Storage



Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

Figure 6-21 presents a statewide map of covered aircraft storage availability, offering a visual representation of where these facilities are located. The map reveals notable regional patterns, including pockets of availability in the northeastern part of the state, while coverage appears more limited in the southwest.

Figure 6-21. PM: Covered Aircraft Storage Availability



Sources: 2025 NDSASP Airport Manager Survey, 2025; ESRI Business Analyst, 2025; Kimley-Horn, 2025.

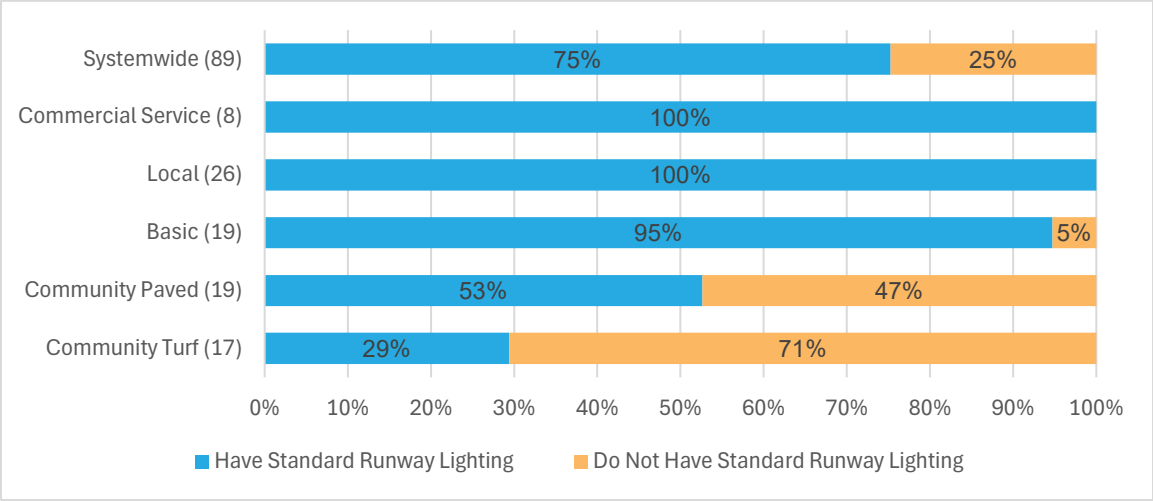
6.2.3.6. PI: Percent of Airports with Standard Runway Lighting

Runway lighting is a critical safety feature that enables airports to support operations during nighttime and periods of reduced visibility. The FAA classifies standard runway lighting into three categories: High, Medium, and Low Intensity Runway Lights (HIRL, MIRL, and LIRL), all of which are essential for maintaining safe and efficient flight operations. If an airport was equipped with a HIRL, MIRL, or LIRL then they were considered as having standard runway lighting. It's important to acknowledge that a limited number of non-NPIAS airports utilize non-standard lighting systems, often consisting of outdated, improvised, or solar powered equipment. Although these alternatives offer limited visual guidance, they fall short of FAA specifications and are therefore excluded from this analysis.

As shown in **Figure 6-22**, systemwide, 75 percent of airports meet this metric. Performance varies significantly by airport classification with 100 percent of Commercial Service and Local

airports equipped with standard lighting, and Basic airports trailing closely at 95 percent. Only 53 percent of Community Paved and 29 percent of Community Turf airports meet the standard.

Figure 6-22. PI: Percent of Airports with Standard Runway Lighting

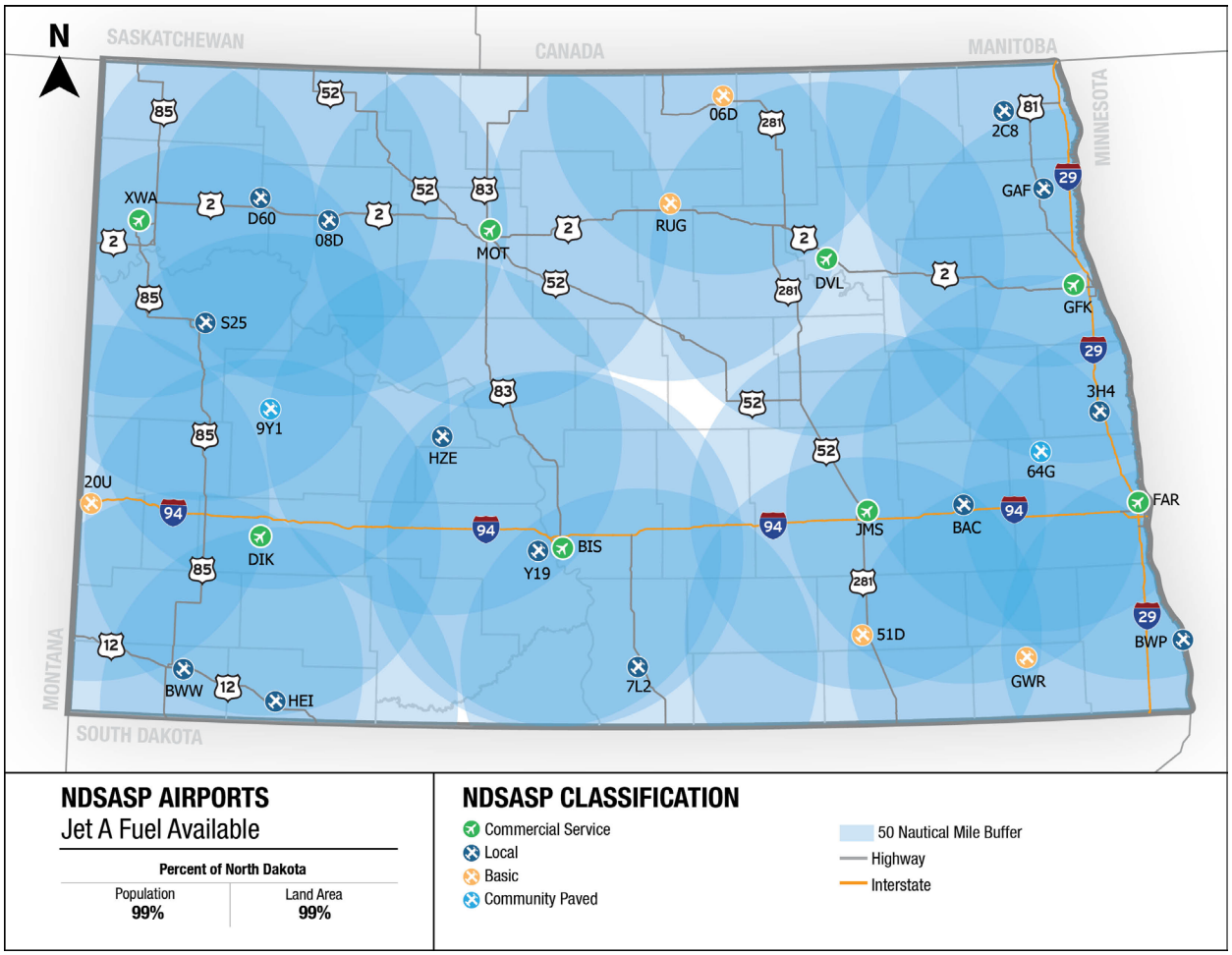


Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

6.2.3.7. PI: Percent of Area and Population within 50 Nautical Miles of an Airport with Jet A Fuel

Jet A fuel availability is a vital component of North Dakota's aviation infrastructure, supporting turbine-powered aircraft used in business, emergency response, and agricultural operations. As shown in **Figure 6-23**, nearly all of North Dakota's population resides within a 50-nautical-mile buffer of an airport offering Jet A fuel, ensuring broad accessibility for most residents. Additionally, nearly all the state's land area falls within these areas.

Figure 6-23. PI: Percent of Area and Population within 50 Nautical Miles of an Airport with Jet A Fuel

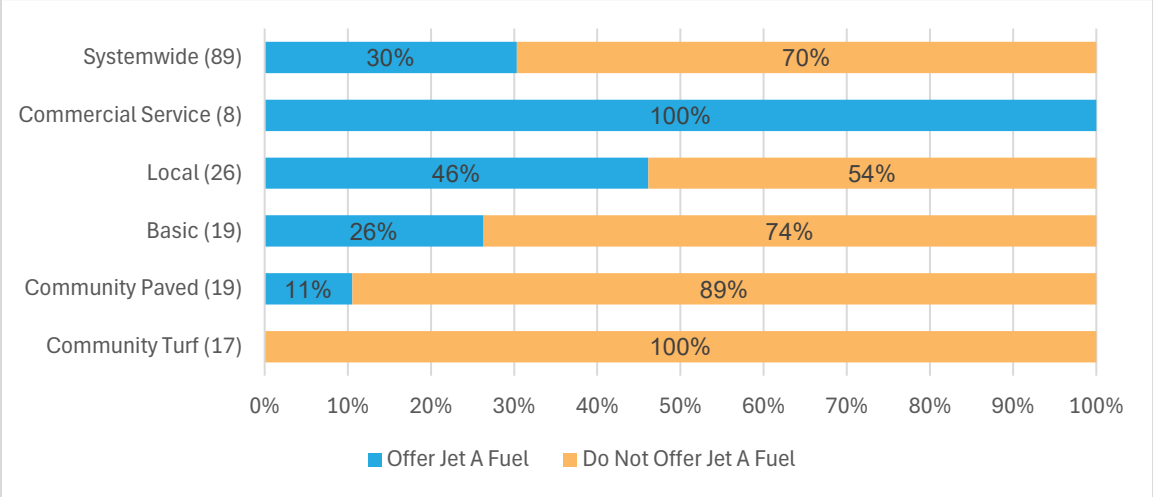


Sources: ArcGIS Pro, 2025; ESRI Business Analyst, 2025; Kimley-Horn, 2025.

While the 2014 study included a comparable performance measure, it relied on a 30-minute drive-time analysis, whereas the current study uses 50-nautical-mile buffers. Due to this methodological shift, direct comparisons of population and land area coverage for this performance indicator are not feasible between the two studies.

The population and land are coverage provided by 50 nautical mile buffers of airports with Jet A fuel is associated with only 30 percent of airports systemwide, as shown in **Figure 6-24**. As expected, this includes all Commercial Service airports, as well as almost half of the Local airports and some Basic and Community Paved airports. While every Commercial Service airport offers Jet A fuel, availability naturally declines as airport classifications become more rural and less operationally intensive.

Figure 6-24. Percent of Airports with Jet A Fuel

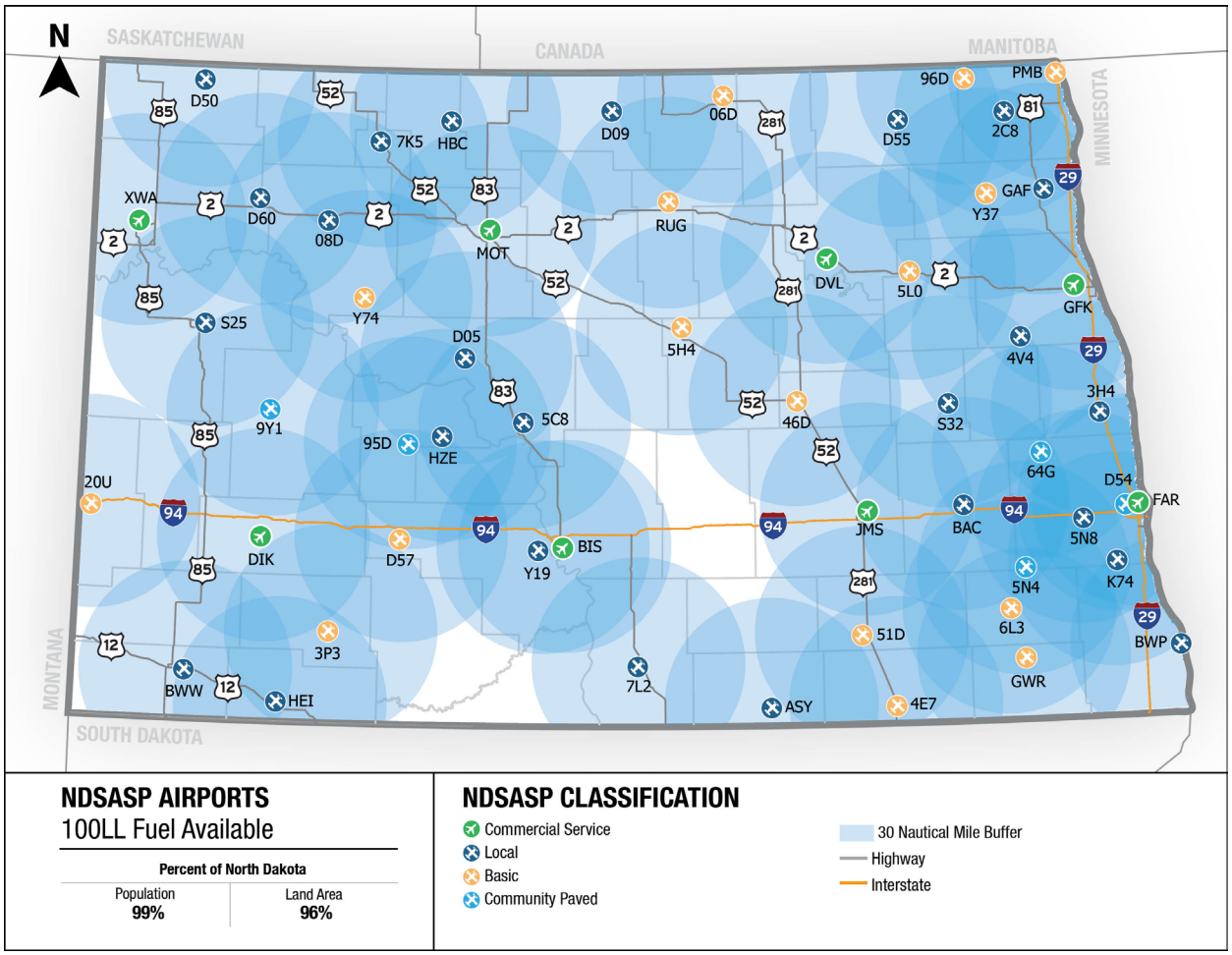


Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

6.2.3.8. PI: Percent of Area and Population within 30 Nautical Miles of an Airport with 100LL Fuel

100LL fuel is an essential resource for single-engine piston aircraft, which constitutes a substantial segment of North Dakota's general aviation fleet. Given that the majority of airports have at least one based aircraft, providing 100LL fuel ensures those aircraft have convenient access to the fuel they need. Beyond that, maintaining 100LL availability is essential for supporting a wide range of general aviation activities, such as flight training, agricultural operations, recreational flying, and emergency response. As illustrated in **Figure 6-25**, nearly all of North Dakota's population and 96 percent of its land area are situated within 30 nautical miles of an airport supplying 100LL fuel.

Figure 6-25. PI: Percent of Area and Population within 30 Nautical Miles of an Airport with 100LL Fuel

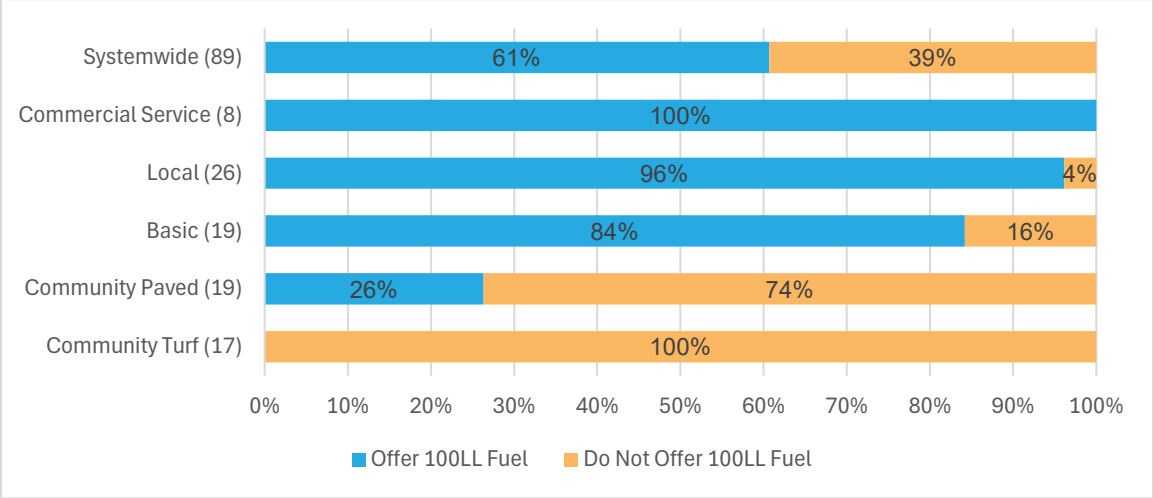


Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

The 2014 NDSASP approached accessibility using a 30-minute drive-time model, which reflects how people travel by car. In contrast, this current study adopts a 30-nautical-mile buffer, a method more attuned to aviation operations where the distance an aircraft must fly to reach fuel or services is a more relevant metric. Because of this shift in analytical approach, the population and land area coverage results from the two studies are not directly comparable.

The population and land coverage associated with the 30-nautical-mile buffers around system airports corresponds to 61 percent of airports systemwide offering 100LL fuel, as shown in **Figure 6-26**. Airports serving larger populations and broader geographic areas, such as Commercial Service, Local, and Basic facilities, show high percentages of 100LL fuel availability. However, coverage drops in the less demanding classifications, such as the Community Paved and Community Turf airports.

Figure 6-26. PI: Percent of Airports with 100LL Fuel

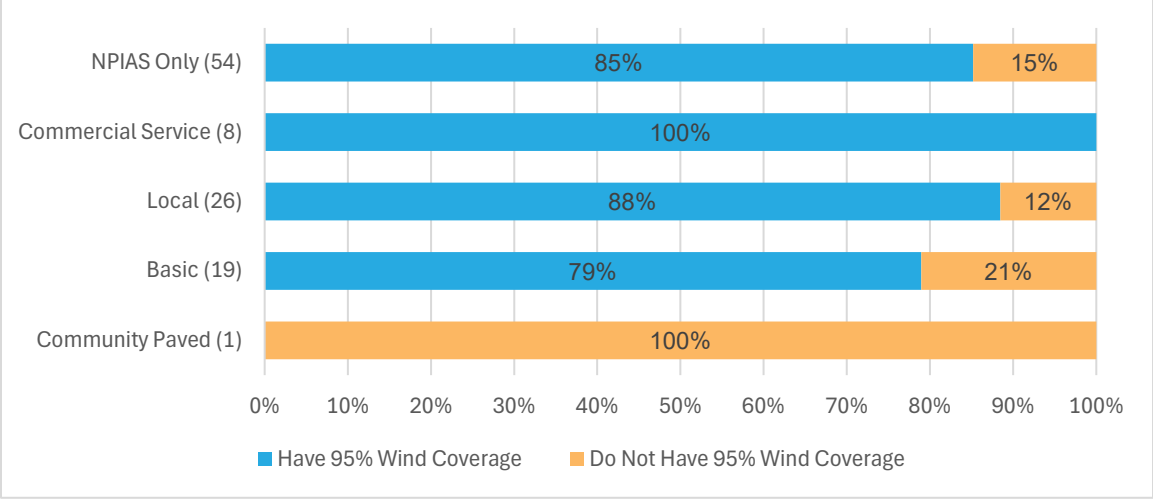


Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

6.2.3.9. PI: Percent of NPIAS Airports that Have at Least 95 Percent Wind Coverage for all Runways

Runway wind coverage is a critical safety and operational metric for airports, particularly in North Dakota where wind conditions can vary significantly across seasons and terrain. The FAA recommends that public-use airports in the NPIAS achieve at least 95 percent wind coverage, ensuring aircraft can safely operate under prevailing wind conditions most of the time. As shown in **Figure 6-27**, 85 percent of NPIAS airports meet this metric. Performance is strongest among Commercial Service airports, where 100 percent meet the threshold, followed by Local and Basic airports. While Community Paved airports are included in the broader system, La Moure Rott Municipal Airport (4F9) is the only airport in this classification that is included in the NPIAS.

Figure 6-27. PI: Percent of NPIAS Airports that Have at Least 95 percent Wind Coverage for all Runways



Sources: ALPs, 2025; Kimley-Horn, 2025.

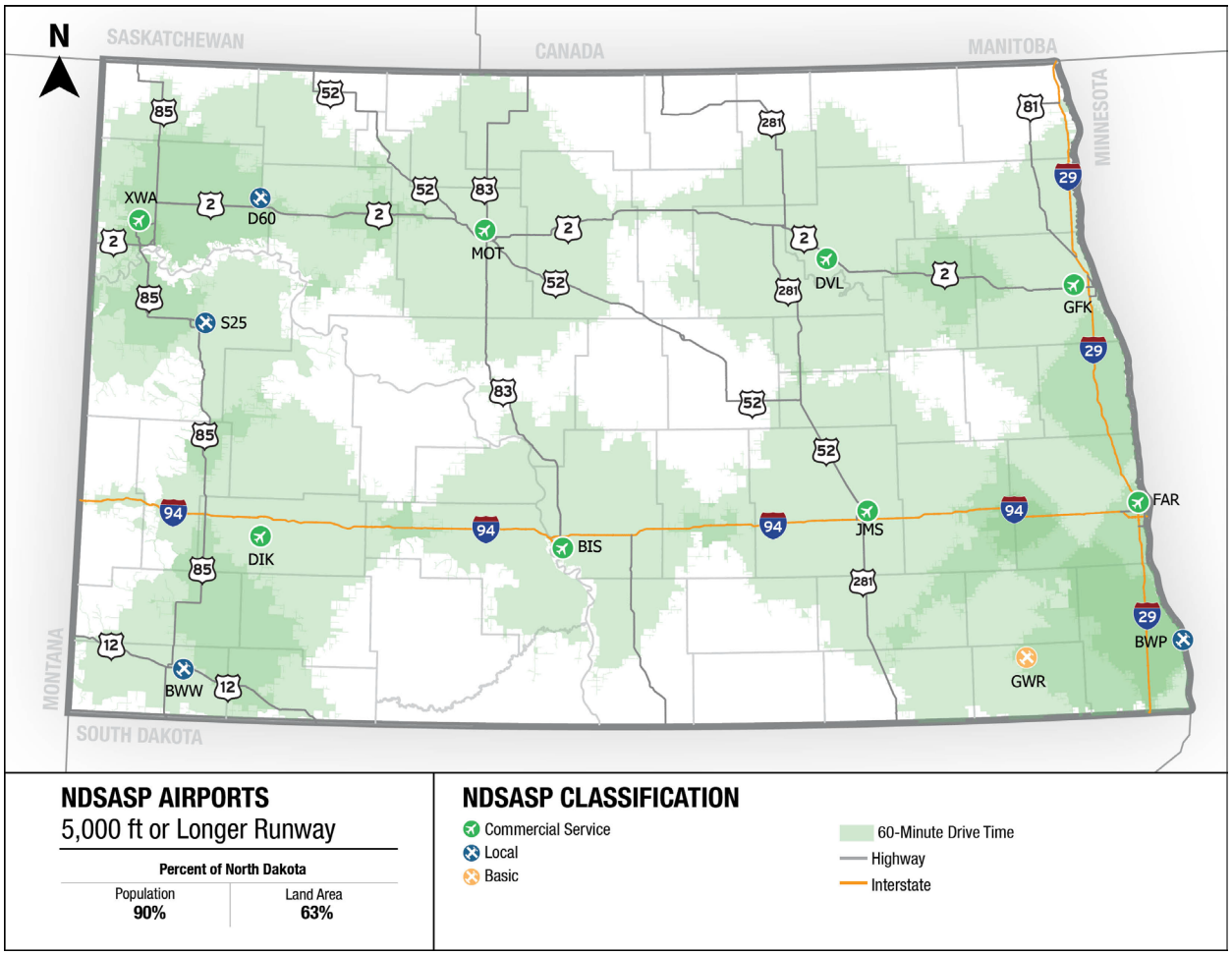
6.2.4. Enhance Quality of Life

This goal focuses on the broader impacts of aviation on communities, emphasizing sustainability, safety, and economic opportunity. By improving environmental stewardship, fostering innovation, and supporting workforce development, a more inclusive and resilient aviation ecosystem would be available to enhance the overall quality of life in North Dakota. The following subsections detail the system performance for the nine PIs (there are no PMs) used to evaluate the **Enhance Quality of Life** goal.

6.2.4.1. PI: Percent of Area and Population within 60 Minutes of a 5,000 ft or Longer Runway

Runway length plays a critical role in determining the range of aircraft operations that can be accommodated at an airport, particularly larger aircraft that require extended takeoff and landing distances. In North Dakota, access to runways that are 5,000 feet or longer is essential for enabling commercial service, air cargo, medical evacuation, and other high-performance aviation activities. Within the state, as shown in **Figure 6-28**, a substantial portion of North Dakota is well-served by these facilities, with 90 percent of the population and 63 percent of the land area falling within the coverage buffer of airports with at least a 5,000-foot-long runway.

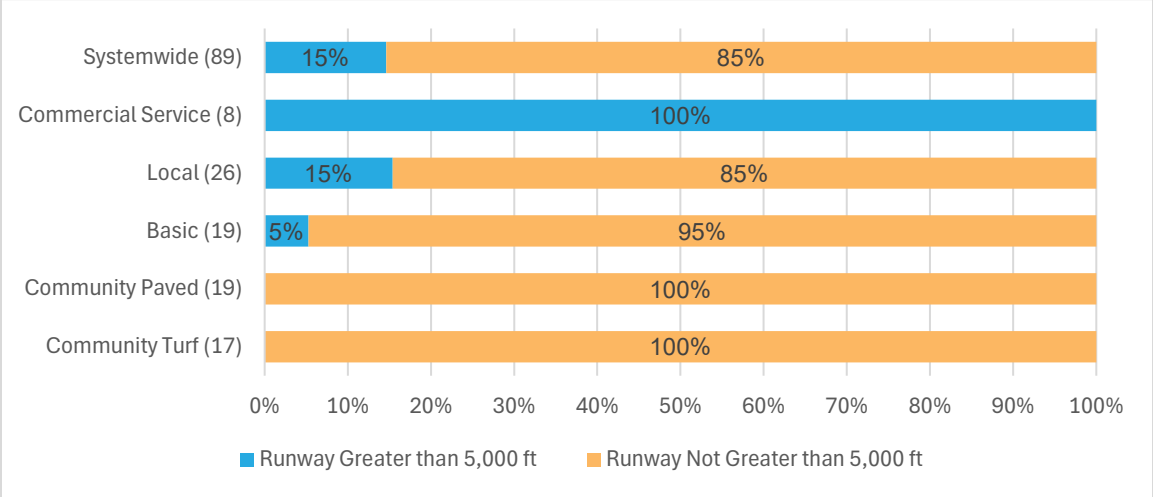
Figure 6-28. PI: Percent of Area and Population within 60 Minutes of a 5,000 ft or Longer Runway



Sources: ADIP, 2025; ALPs, 2025; ESRI Business Analyst, 2025; Kimley-Horn, 2025.

The population and land coverage for this PI is associated with 15 percent of system airports having runways that are 5,000 feet or longer, as illustrated in **Figure 6-29**. All Commercial Service airports have runways of at least 5,000 feet, while only a few of the general aviation airports are equipped with runways of this length. In many cases a 5,000-foot-long runway would not be necessary at general aviation airports that do not support the aircraft type that demand that runway length for typical operations.

Figure 6-29. Percent of Airports with a 5,000 ft or Longer Runway



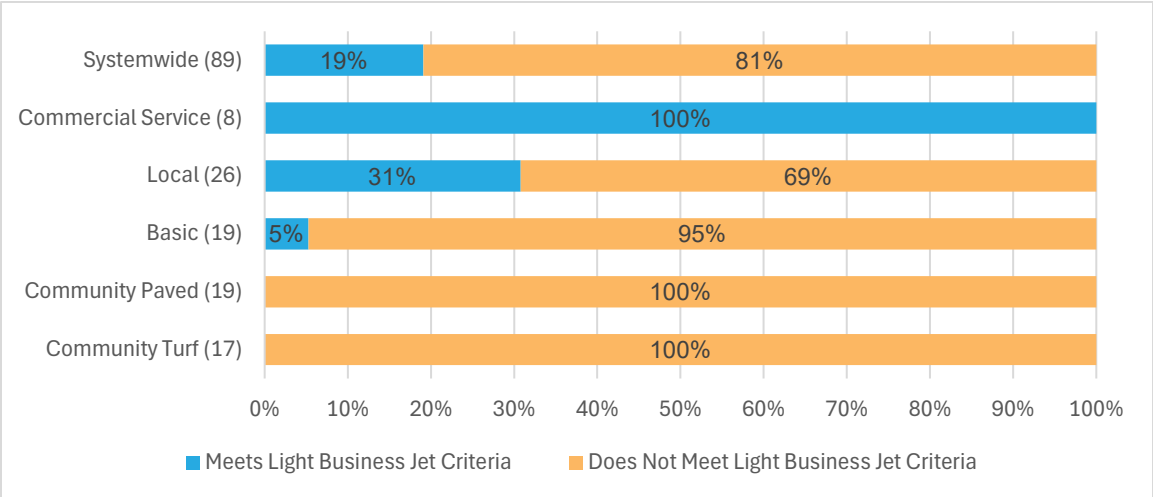
Sources: ADIP, 2025; ALPs, 2025; Kimley-Horn, 2025.

6.2.4.2. PI: Percent of Airports that Meet the Light Business Jet Capability Criteria

As mentioned in **Chapter 4. System Inventory**, light business jets require a specific set of infrastructure and services to operate effectively, including a runway of at least 4,000 feet by 75 feet, instrument approach capability, visual glide slope indicators (VGSI), runway lighting, on-site weather reporting, fixed based operator (FBO) services, and access to Jet A fuel.

Systemwide, 19 percent of airports meet these criteria, as shown in **Figure 6-30**, which includes all Commercial Service airports, 31 percent of Local airports and five percent of Basic airports. Community Paved, and Community Turf airports do not meet all the criteria.

Figure 6-30. PI: Percent of Airports that Meet the Light Business Jet Capability Criteria



Sources: 2025 NDSASP Airport Manager Survey, 2025; ADIP, 2025; ALPs, 2025; Kimley-Horn, 2025.

To provide a clearer understanding of where light business jet operations can be accommodated, **Table 6-7** lists the airports across the state that meet all required criteria and their respective data. This summary highlights the actual facilities available for jet-capable aircraft and sets the stage for a detailed look at their distribution and capabilities.

Table 6-7. NDSASP Airports that Meet the Light Business Jet Capability Criteria

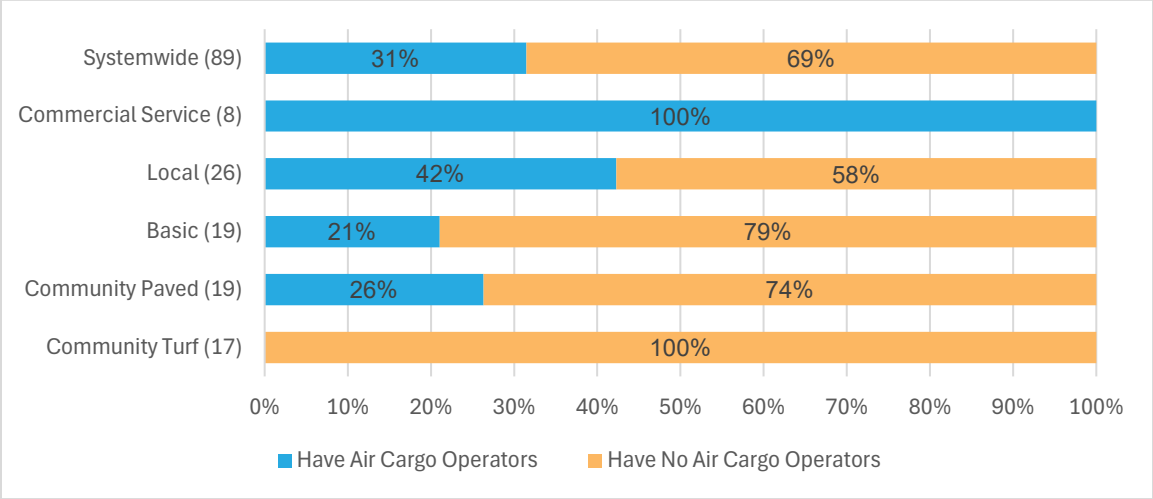
Associated City	Airport Name	FAA ID	Runway Length (ft)	Runway Width (ft)	VGSI	Runway Lighting	On-Site weather	FBO Services	Jet A	Approach	Light Business Jet Criteria
Commercial Service											
Bismarck	Bismarck Municipal Airport	BIS	8,794	150	P4L / P4L	HIRL	ASOS	Yes	Yes	Vertical Guidance	Yes
Devils Lake	Devils Lake Regional Airport	DIK	7,301	150	P4L / P4L	HIRL	ASOS	Yes	Yes	Vertical Guidance	Yes
Dickinson	Dickinson – Roosevelt Regional Airport	DVL	6,400	100	P4L / P4L	HIRL	AWOS-3PT	Yes	Yes	Vertical Guidance	Yes
Fargo	Hector International Airport	FAR	9,001	150	P4L / P4R	HIRL	ASOS	Yes	Yes	Vertical Guidance	Yes
Grand Forks	Grand Forks International Airport	GFK	7,351	150	P4L / P4L	HIRL	ASOS	Yes	Yes	Vertical Guidance	Yes
Jamestown	Jamestown Regional Airport	JMS	6,502	100	P4L / P4L	HIRL	ASOS	Yes	Yes	Vertical Guidance	Yes
Minot	Minot International Airport	MOT	7,700	150	P4L / None	HIRL	ASOS	Yes	Yes	Vertical Guidance	Yes
Williston	Williston Basin International Airport	XWA	7,503	150	P4L / P4L	HIRL	ASOS	Yes	Yes	Vertical Guidance	Yes
General Aviation											
Hettinger	Hettinger Municipal Airport	HEI	4,652	75	P2L / P2L	MIRL	ASOS	Yes	Yes	Vertical Guidance	Yes
Valley City	Barnes County Municipal Airport	BAC	4,201	75	P2L / P2L	MIRL	AWOS-3	No*	Yes	Vertical Guidance	Yes
Wahpeton	Harry Stern Airport	BWP	5,100	75	P2L / P2L	MIRL	AWOS-3	No*	Yes	Vertical Guidance	Yes
Bowman	Bowman Regional Airport	BWW	5,701	75	P4L / P4L	MIRL	AWOS-3PT	No*	Yes	Vertical Guidance	Yes
Tioga	Tioga Municipal Airport	D60	5,102	75	P2L / P2L	MIRL	AWOS-3	No*	Yes	Vertical Guidance	Yes
Hazen	Mercer County Regional Airport	HZE	4,999	75	P2L / P2L	MIRL	AWOS-3PT	No*	Yes	Vertical Guidance	Yes
Gwinner	Gwinner – Roger Melroe Field	GWR	5,000	75	P2L / P2L	MIRL	AWOS-3	No*	Yes	Vertical Guidance	Yes
Watford City	Watford City Municipal Airport	S25	6,550	75	P2L / P2L	MIRL	AWOS-3PT	No*	Yes	Vertical Guidance	Yes
Mandan	Mandan Regional – Lawler Field	Y19	4,399	75	P2L / P2L	MIRL	AWOS-3	No*	Yes	Vertical Guidance	Yes

Note: The airports listed as not having an FBO on site are equipped to provide required jet services. Sources: ADIP, 2025; FAA Instrument Flight Procedures Information Gateway, 2025; ALPs, 2025; Kimley-Horn, 2025.

6.2.4.3. PI: Percent of Airports Utilized by Air Cargo Operators

The extent to which airports are utilized by air cargo operators reflects not only the system's logistical capacity but also its economic connectivity and regional accessibility. As shown in **Figure 6-31**, 31 percent of system airports reported having active air cargo operations, indicating a moderate level of integration across the network. All Commercial Service airports support air cargo operations, which is expected given their infrastructure and operational capacity. Local airports follow with 42 percent, while Basic and Community Paved airports show lower engagement at 21 percent and 26 percent, respectively. None of the Community Turf airports reported an air cargo presence.

Figure 6-31. Percent of Airports Utilized by Air Cargo Operators

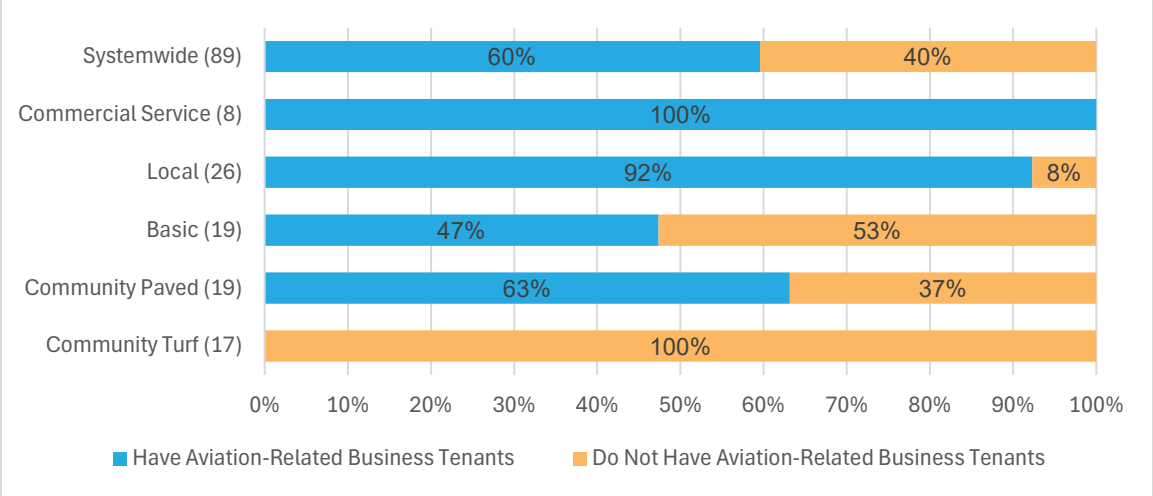


Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

6.2.4.4. PI: Percent of Airports with Aviation Related Business Tenants on Airport Property

Aviation-related businesses play an important role in the state's aviation system and are key economic drivers across communities. As shown in **Figure** 6-32, 60 percent of airports across the system report hosting aviation-related business tenants, reflecting a modest but meaningful presence of aviation-related business activity across the state. At the top of the scale, all Commercial Service airports and almost all Local airports reported having aviation-related tenants on site, while Basic and Community Paved airports show more limited tenant activity. Community Turf airports, on the other hand, report no tenant presence.

Figure 6-32. PI: Percent of Airports with Aviation Related Business Tenants on Airport Property

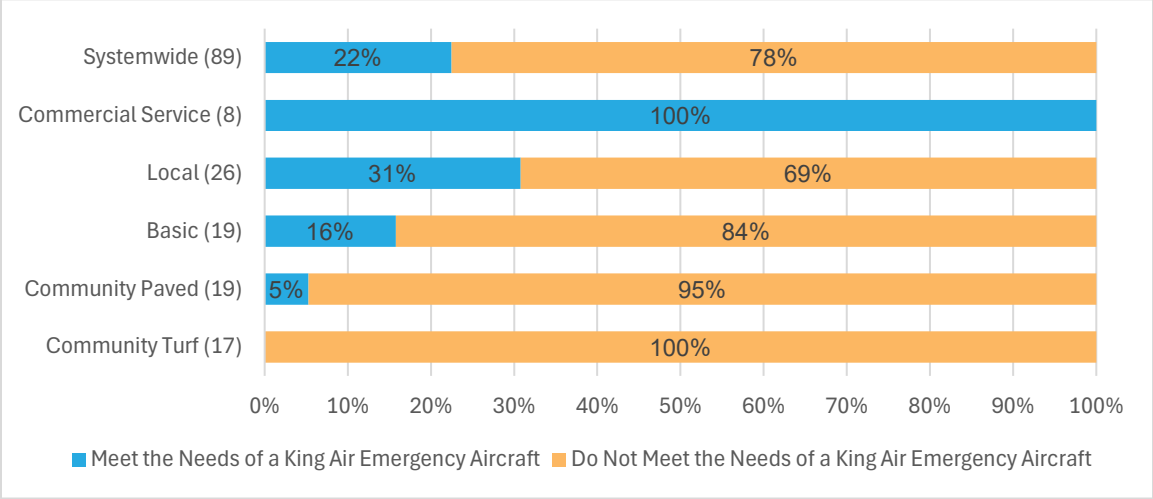


Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

6.2.4.5. PI: Percent of Airports that Can Meet the Needs of the King Air Emergency Aircraft

Having infrastructure capable of supporting King Air emergency aircraft is critically important, especially in rural areas across the state where access to advanced medical care or emergency services may be limited. As shown in **Figure 6-33**, 22 percent of airports systemwide meet the operational requirements for King Air emergency aircraft meeting the standard of a minimum runway length of 3,800 feet, lighted runway for night operations, certified weather reporting, and a Runway Design Code (RDC) of at least B-II or higher. While Commercial Service airports are fully equipped (100 percent meet the needs), the numbers decline as the airport classifications become less demanding. 31 percent of Local airports, 16 percent of Basic, and five percent of Community Paved airports can meet the needs of a King Air aircraft used for emergency transportation or similar aircraft.

Figure 6-33. PI: Percent of Airports that Can Meet the Needs of the King Air Emergency Aircraft

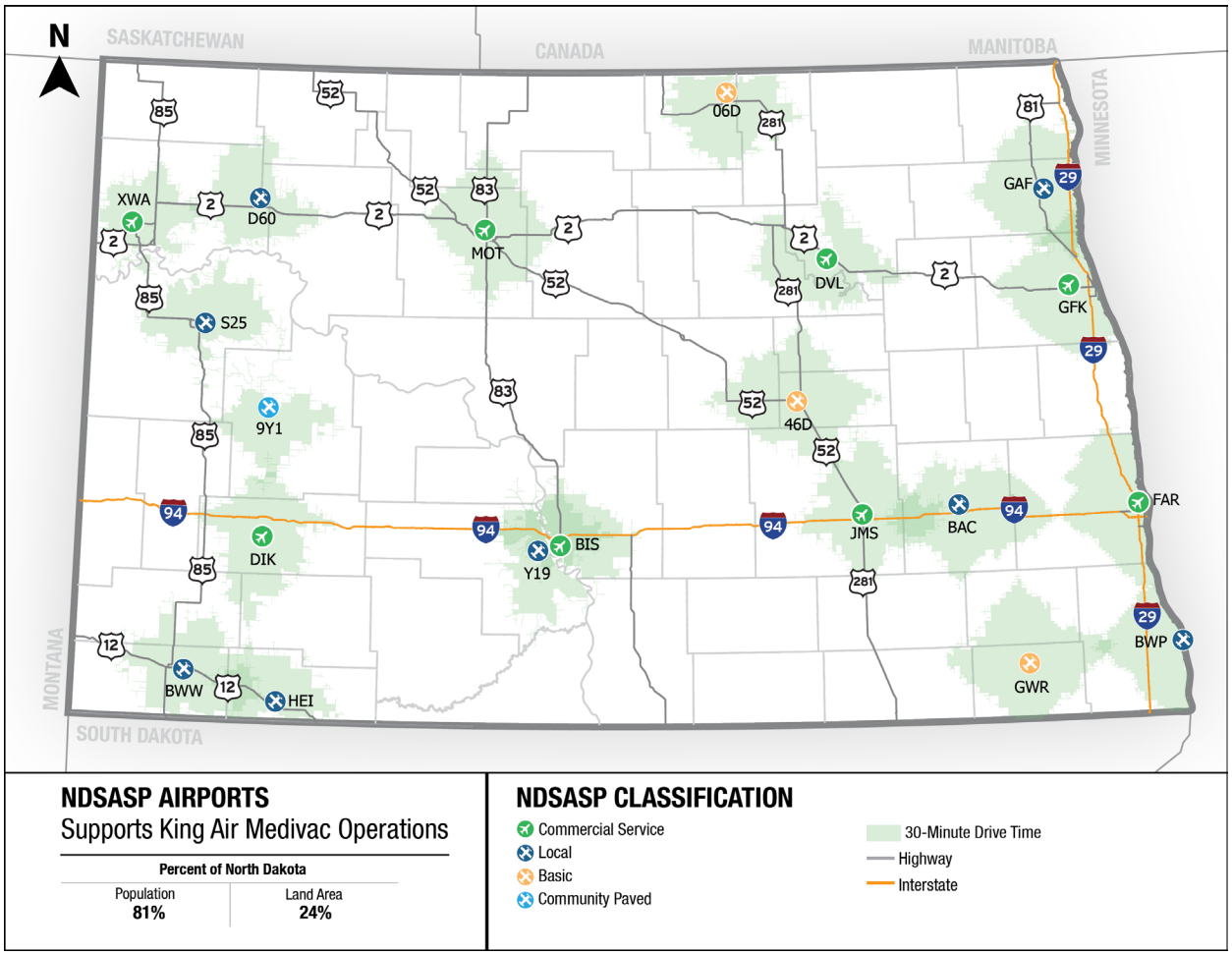


Sources: ADIP, 2025; Kimley-Horn, 2025.

6.2.4.1. PI: Percent of Area and Population within 30 Minutes of an Airport that Can Meet the Needs of the King Air Emergency Aircraft

The percentage of airports capable of supporting King Air operations was also examined in terms of 30-minute drive-time analysis. As shown in **Figure 6-34**, this analysis reveals that 81 percent of North Dakota's population resides within the buffer zone surrounding these airports, while only 24 percent of the state's land area falls within the same range.

Figure 6-34. PI: Percent of Area and Population within 30 Minutes of an Airport that Can Meet the Needs of the King Air Emergency Aircraft



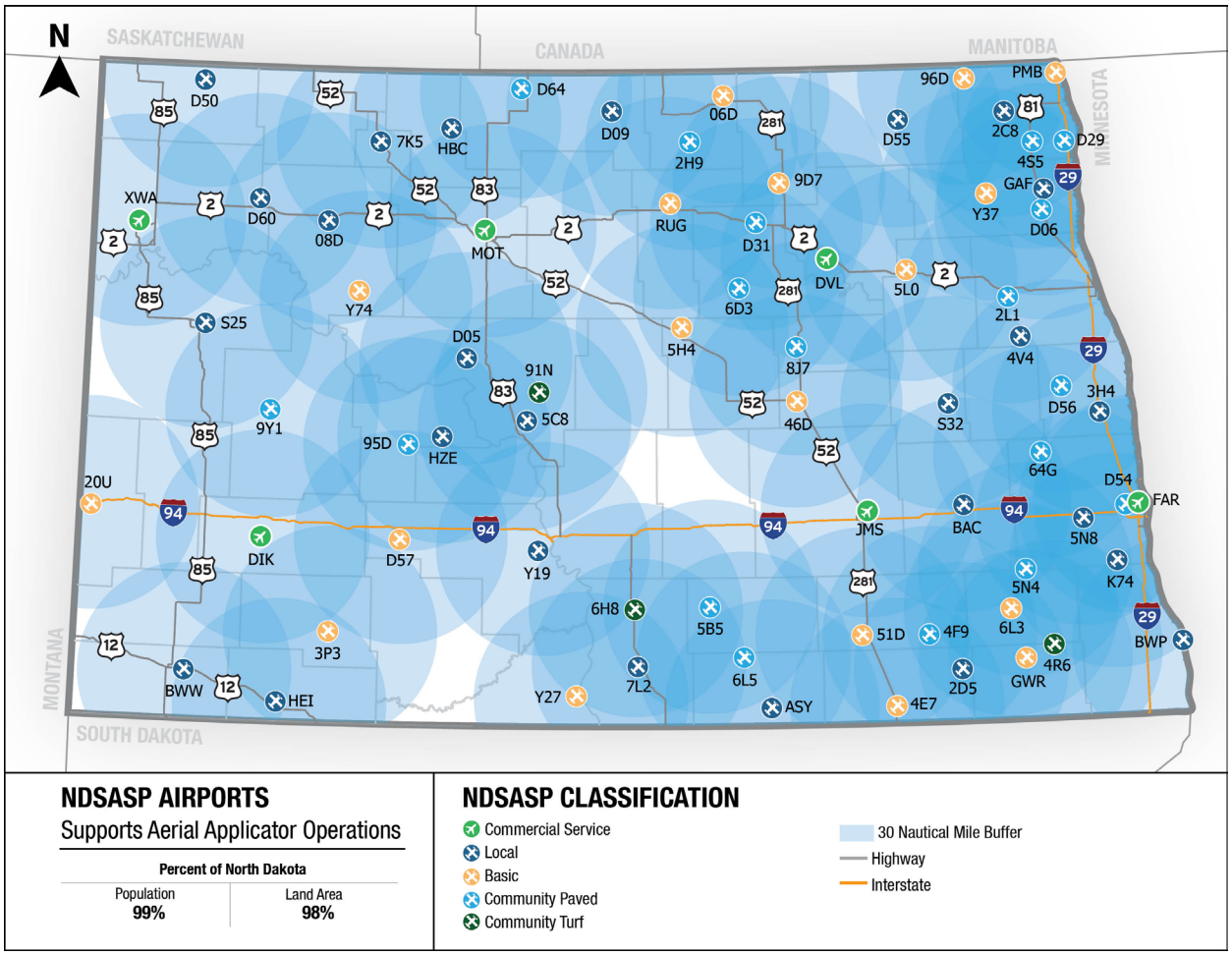
Sources: ADIP, 2025; ArcGIS Pro, 2025; ESRI Business Analyst, 2025; Kimley-Horn, 2025.

In the previous study, the same PI was utilized; however, the 2025 study examines four criteria as outlined, whereas the 2014 study considered only two (3,500+ft runway length and a non-precision approach) so a comparison between study years is not applicable.

6.2.4.2. PI: Percent of Area and Population within 30 Nautical Miles of an Airport that Supports Based or Transient Aerial Applicator Operations

Aerial agricultural operations play a vital role in supporting the agricultural backbone of the state. Whether based or transient, these operations rely on accessible airports to deliver timely and effective applicator service to farming communities. In **Figure 6-35**, a spatial analysis shows that nearly all of the state's population and 98 percent of its land area fall within 30 nautical miles of an airport that supports based or transient aerial applicator operations.

Figure 6-35. PI: Percent of Area and Population within 30 Nautical Miles of an Airport that Supports Based or Transient Aerial Applicator Operations

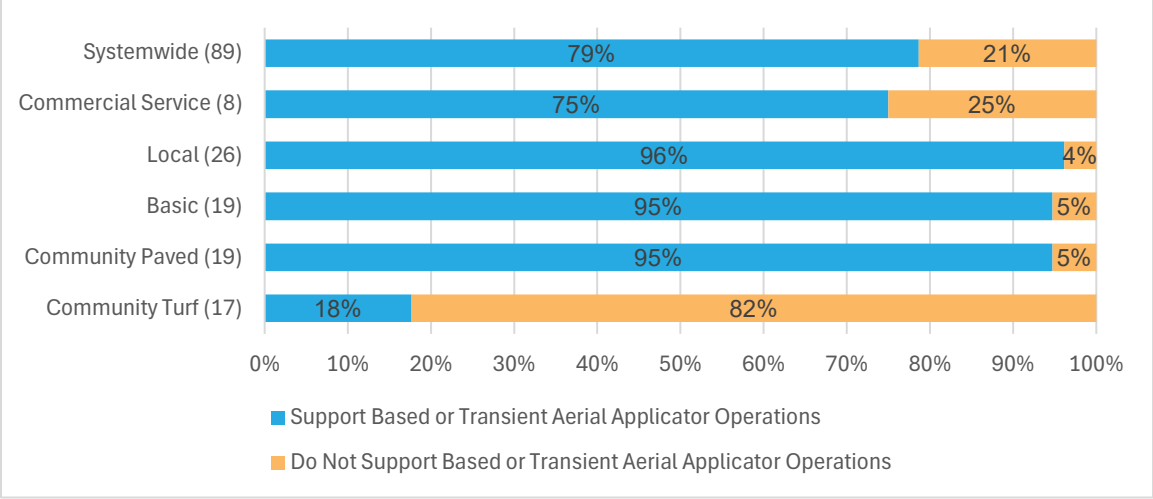


Sources: 2025 NDSASP Airport Manager Survey, 2025; ArcGIS Pro, 2025; ESRI Business Analyst, 2025; Kimley-Horn, 2025.

The 2014 NDSASP approached aerial applicator operation accessibility using a 30-minute drive-time model, which reflects how people travel by car. In contrast, this study adopted a 30-nautical-mile buffer, a method more attuned to aviation operations where the distance an aircraft must fly to reach an airport that supports aerial applicator operations fuel a more relevant metric. Because of this shift in analytical approach, the population and land area coverage results from the two studies are not directly comparable.

The population and land area coverage associated with this PI corresponds with 79 percent of system airports reporting they support based or transient aerial applicator operations, as shown in **Figure 6-36**. This coverage is especially strong among Local, Basic, and Community Paved airports, which are often located near agricultural zones. Commercial Service airports show 75 percent support, while Community Turf airports are at 18 percent.

Figure 6-36. PI: Percent of Airports that Supports Based or Transient Aerial Applicator Operations

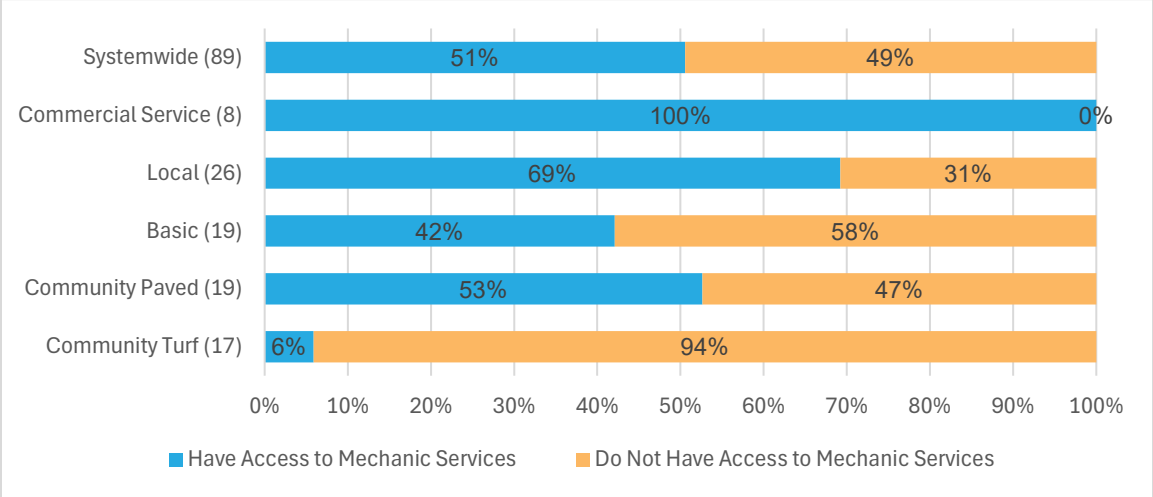


Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

6.2.4.3. PI: Percent of Airports that Provide Access to Mechanic Services

Reliable access to mechanic services is a cornerstone of safe and efficient airport operations and support economic activity across the state. Whether for routine maintenance or unexpected repairs, having qualified aviation mechanics available ensures aircraft remain airworthy and operations stay on schedule. This capability is especially vital in rural and remote areas. As shown in **Figure 6-37**, 51 percent of system airports offer access to mechanic services. All Commercial Service airports meet this metric, while Local airports follow with 69 percent. In addition, 42 percent of Basic airports, 53 percent of Community Paved, and six percent of Community Turf airports reported offering mechanic services. This can include based, transient, or on-call services.

Figure 6-37. PI: Percent of Airports that Provide Access to Mechanic Services

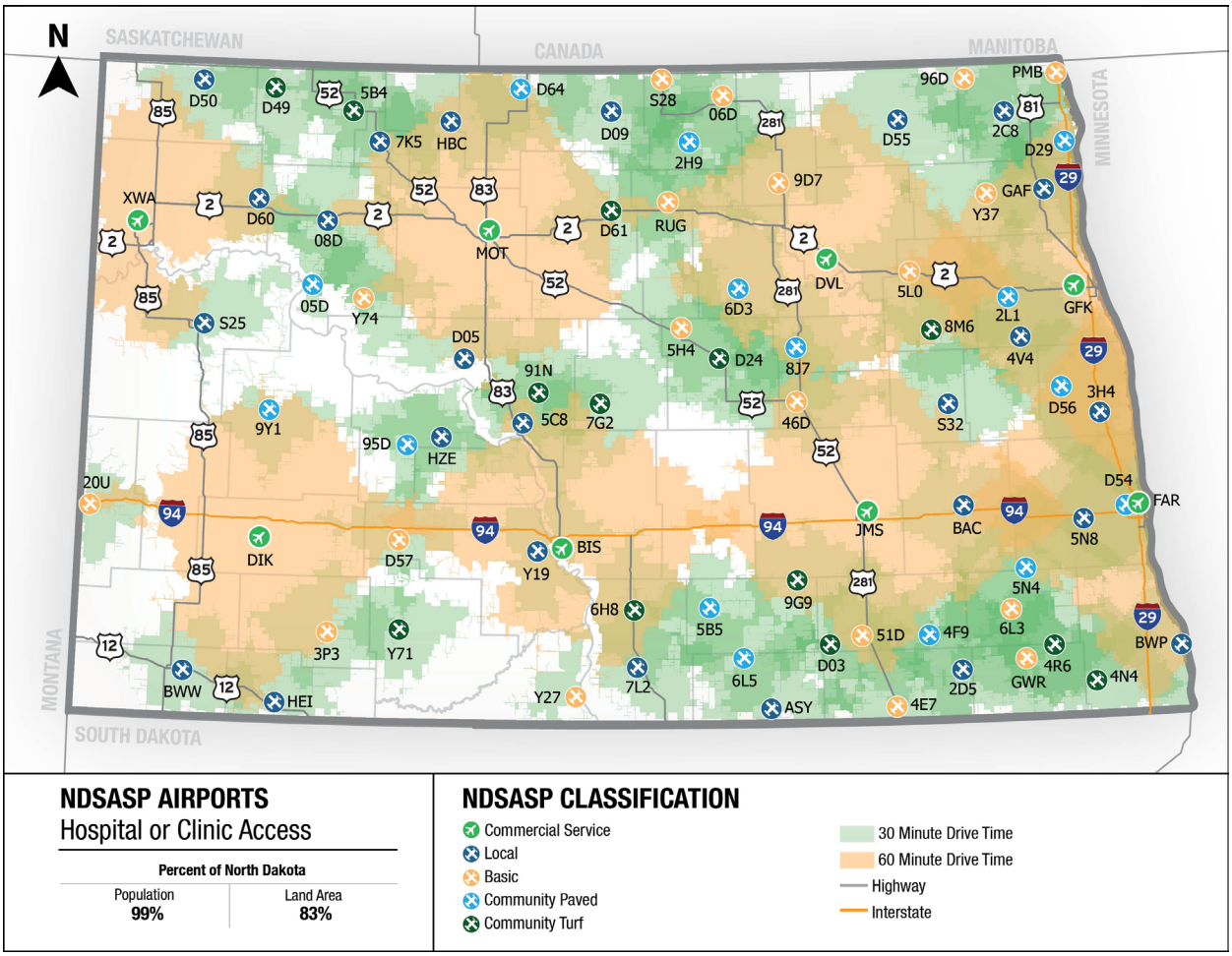


Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

6.2.4.4. PI: Percent of Area and Population with a Hospital and/or Clinic Served by an Airport

The location of hospitals and clinics within an airport's service area is a key indicator of how well the aviation system supports public health, emergency response, and community resilience. Airports are used by medical professionals not only for emergency transport but also by numerous healthcare professionals that travel from larger communities to rural areas to provide the full spectrum of services such as cardiac or others that are not available at all hospitals or clinics. A 60-minute drive time was deemed sufficient to analyze this metric for Commercial Service airports, while a 30-minute interval was used for GA airports. **Figure 6-38** shows nearly all of North Dakota's population and 83 percent of its land area are located within either a 30-minute drive of a GA airport or a 60-minute drive of a Commercial Service airport.

Figure 6-38. Percent of Airports and Population with a Hospital and/or Clinic Served by an Airport

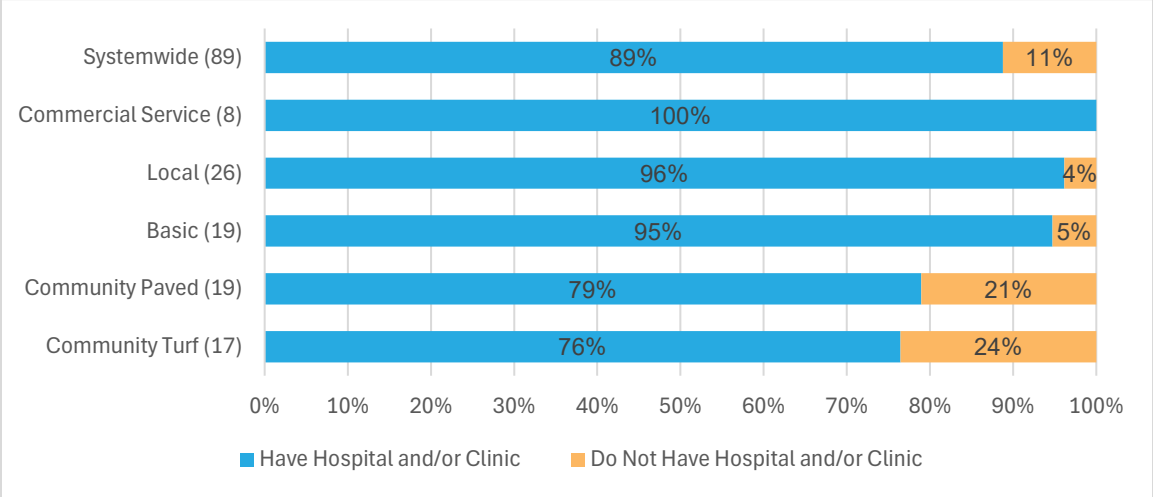


Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

The previous 2014 study measured the percentage of communities with a hospital or clinic, while the current study examines the percentage of population and land area within an airport's service area that have these facilities. Therefore, the comparison results are not directly comparable.

As shown in **Figure 6-39**, 89 percent of system airports have a hospital or clinic within their service area. This includes full coverage at Commercial Service airports, and high accessibility at Local, Basic, Community Paved, and Community Turf airports. These measures reflect a strong alignment between aviation infrastructure and healthcare provider access across the state.

Figure 6-39. PI: Percent of Airports with a Hospital and/or Clinic Within its Service Area



Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

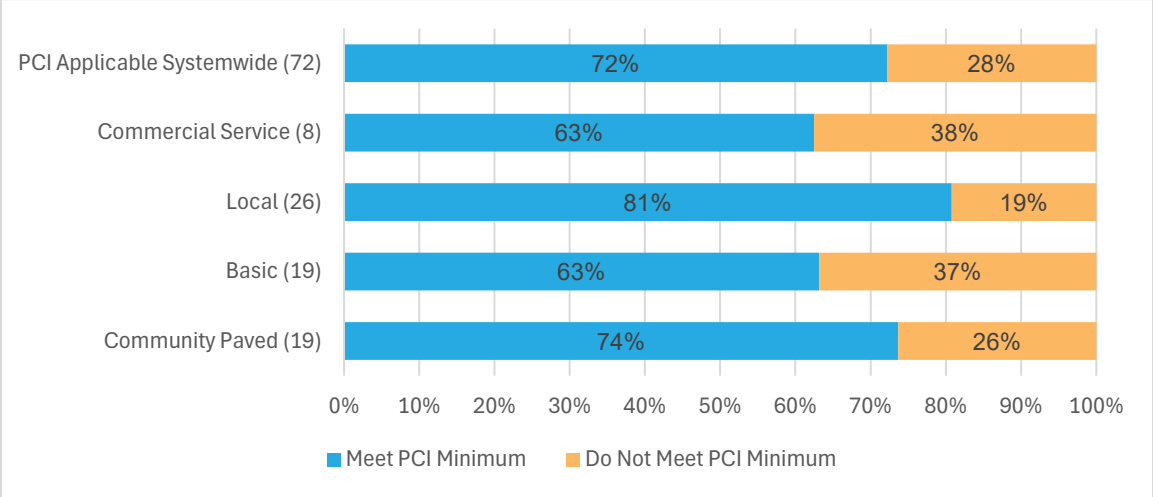
6.2.5. Preserve Airport Infrastructure

This goal focuses on long-term preservation and responsible management of airport infrastructure throughout the system. Airports rely on a wide array of physical assets and regulatory frameworks, from pavement and planning documents to protected airspace and funding mechanisms, that require ongoing attention and investment. These elements are foundational to safe, efficient, and future-ready operations. The following subsections detail the system performance for the two PMs and three PIs used to evaluate **Preserve Airport Infrastructure**. While many of the PMs and PIs were examined in the 2014 study, much of the analysis is not directly comparable due to the differences in methodologies employed for the analysis. Where applicable, comparable data are provided.

6.2.5.1. PM: Percent of Airports Meeting State Pavement Condition Index (PCI) Thresholds on Primary Runways

The PCI serves as a critical benchmark for assessing pavement health. Thresholds are established to identify an average PCI that is considered to represent “good pavement” where maintenance can be used to help manage the PCI without major rehabilitation efforts being needed. A threshold of 70 was established for general aviation runways and 75 for Commercial Service runways. Airports that meet or exceed this threshold are better positioned to support consistent service, reduce maintenance disruptions, and ensure safe landings and takeoffs. As shown in **Figure 6-40**, 74 percent of community paved airports meet the state PCI threshold on their primary runways. Performance varies across airport classifications, with Local airports leading with 81 percent compliance, followed by Community Paved at 74 percent, and both Commercial Service and Basic airports at 63 percent.

Figure 6-40. PM: Percent of Airports Meeting State PCI Thresholds on Primary Runways



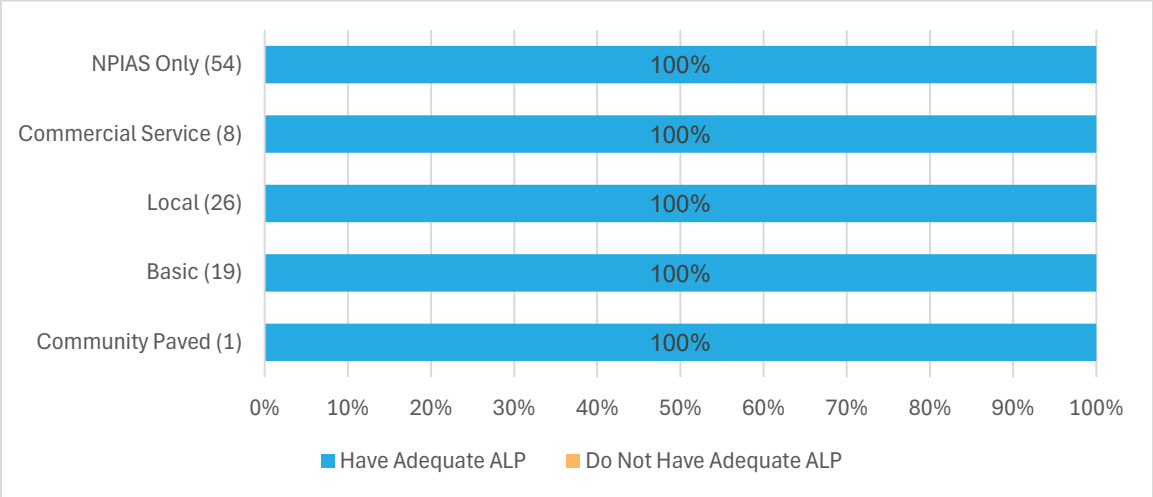
Sources: 2025 NDSASP Airport Manager Survey, 2025; ND Pavement Management System Update, 2025; Kimley-Horn, 2025.

The previous study used a PCI threshold of 60 for paved general aviation airports and 65 for commercial service airports. As a result, comparisons with previous performance figures are not applicable.

6.2.5.2. PM: Percent of NPIAS Airports with an Adequate Airport Layout Plan (ALP)

An ALP is a critical planning document that outlines current facilities and future development, serving as a roadmap for safe, efficient, and strategic airport growth. For airports included in the NPIAS, maintaining an adequate ALP is required to secure federal funding. As shown in **Figure 6-41**, all NPIAS airports systemwide have an adequate ALP.

Figure 6-41. PM: Percent of NPIAS Airports with an Adequate ALP



Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

Table 6-8 compares the percentage of NPIAS airports with an adequate ALP between the 2014 and 2025 studies. In 2014, 91% of airports met the state standard. By 2025, that figure increased to 100 percent, indicating full compliance across the system.

Since the 2014 NDSASP, the following airports are reporting an adequate ALP and contributing to the increase in performance.

Ashley Municipal Airport (ASY)

Cando Municipal Airport (9D7)

Hutson Field (GAF)

Jamestown Regional Airport (JMS)

Rolla Municipal Airport (06D)

Walhalla Municipal Airport (96D)

Table 6-8. Percent of NPIAS Airports with an ALP: 2014 vs. 2025

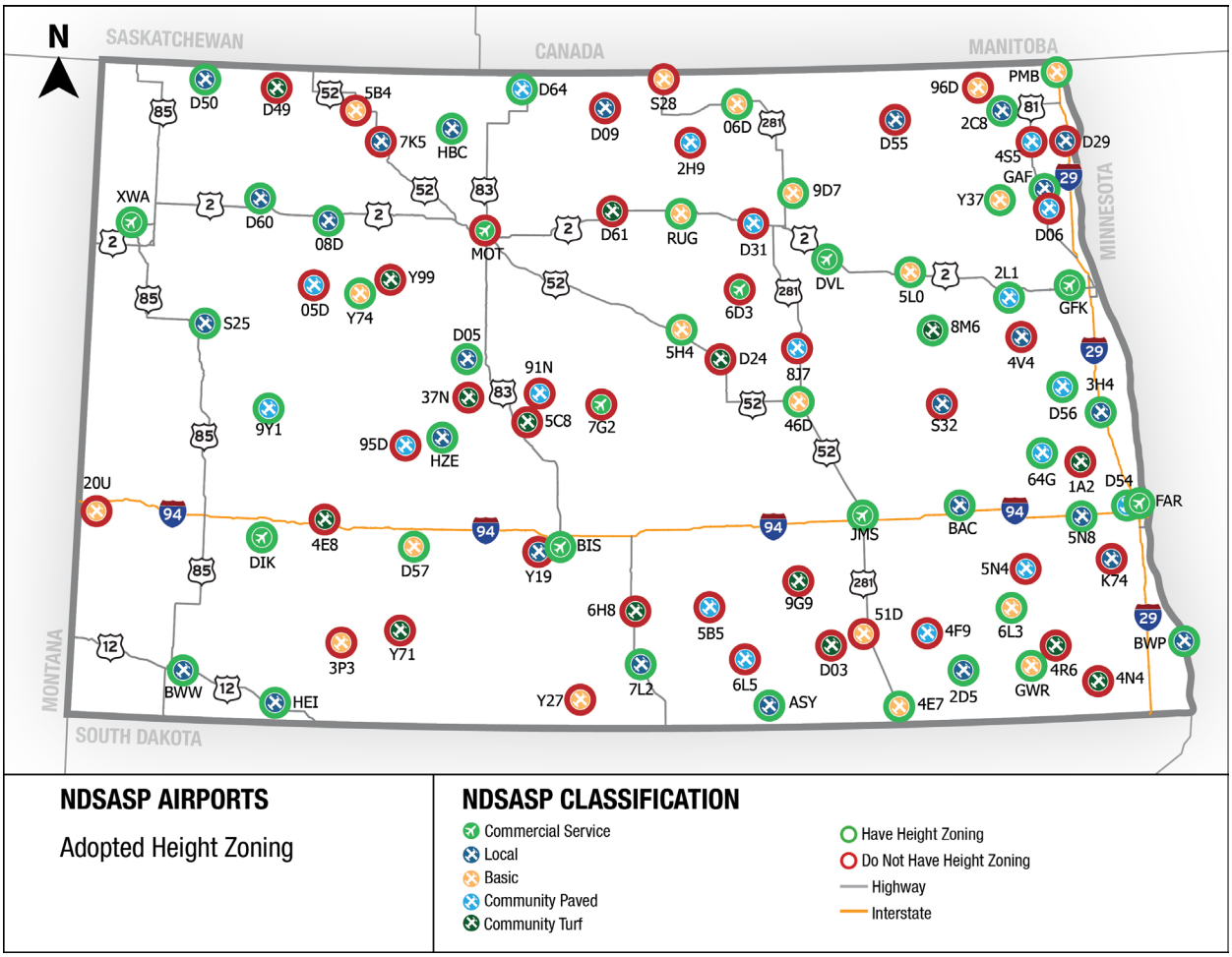
Study Year	Systemwide Performance
2014	91%
2025	100%
Percent Change	+9%

Sources: 2025 NDSASP Airport Manager Survey, 2025; 2014 NDSASP, 2014; ESRI Business Analyst, 2025; Kimley-Horn, 2025.

6.2.5.3. PI: Percent of Airports that Have Height Zoning Following Part 77 Guidelines Adopted by a Local Zoning Board

Height zoning regulations, as outlined in FAA Part 77, are essential for safeguarding navigable airspace and ensuring safe operations near airports. When adopted by local zoning boards, these guidelines help prevent obstructions that could compromise flight paths, approach procedures, and overall airport safety. In the previous 2014 study, the focus of the analysis of this metric was solely on paved airports, revealing that only 24 percent were compliant with FAA FAR Part 77 guidelines, while 51 percent of airports were uncertain about their compliance status. In contrast, the 2025 study takes a comprehensive look at the entire airport system. Depicted, in **Figure 6-42**, this is an illustration of airports both with and without height zoning.

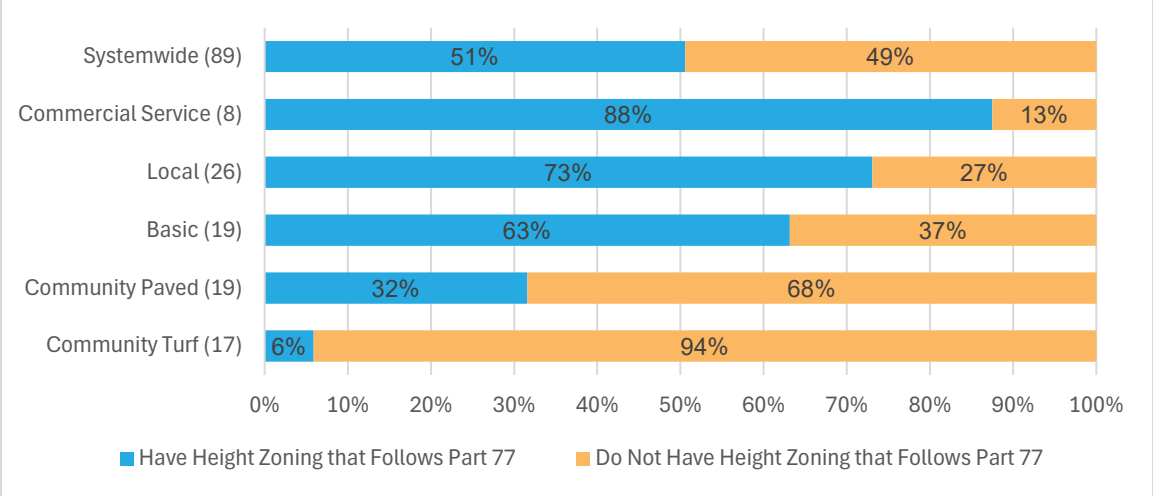
Figure 6-42. Percent of Airports that Have Height Zoning Following Part 77 Guidelines Adopted by a Local Zoning Board



Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

As shown in **Figure 6-43**, 51 percent of system airports have height zoning regulations in place that follow Part 77 guidelines. Compliance is strongest among Commercial Service airports at 88 percent, Local airports at 73 percent, and Basic airports at 63 percent. However, Community Paved and Community Turf airports show much lower adoption rates, likely because these communities are not experiencing rapid development that may encroach upon the airport environment.

Figure 6-43. PI: Percent of Airports that Have Height Zoning Following Part 77 Guidelines Adopted by a Local Zoning Board

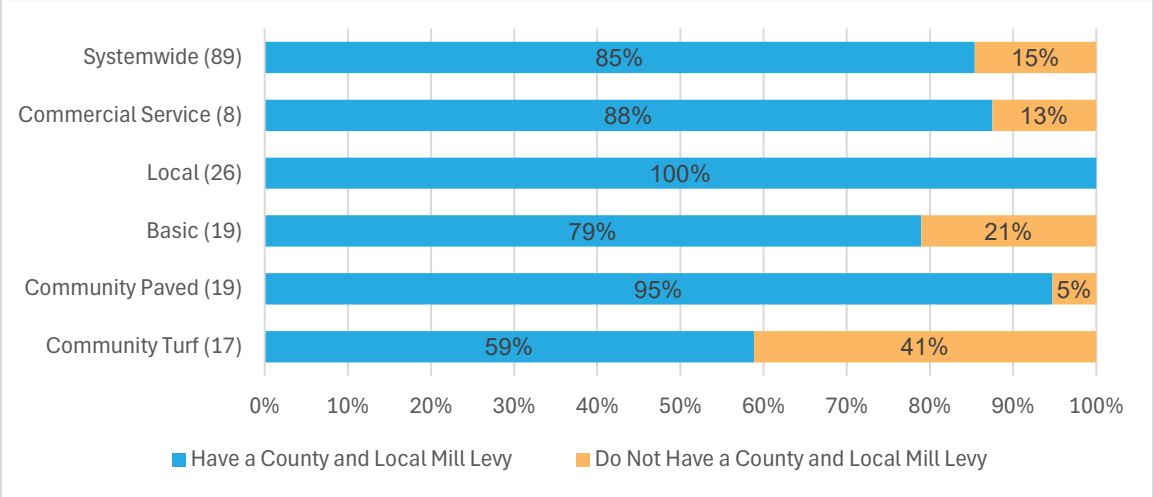


Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

6.2.5.4. PI: Percent of Airports with a Local or County-Wide Mill Levy

Mill levies are a tangible expression of local commitment to aviation infrastructure. Whether enacted at the county or municipal level, these levies provide airports with a dedicated funding stream for operations, maintenance, and capital improvements. Airports supported by mill levies are better positioned to meet community needs, respond to growth, and maintain safe, reliable services due to this funding stream. As shown in **Figure 6-44**, in 2025, 85 percent of airports across the state benefit from a local or county-wide mill levy, indicating strong financial support for aviation infrastructure. This funding mechanism is widely adopted across airport classifications with Commercial Service, Local, Basic, and Community Paved airports all showing high levels of mill levy coverage. Even Community Turf airports, often located in more rural areas, demonstrate a notable 59 percent.

Figure 6-44. PI: Percent of Airports with a Local or County-Wide Mill Levy



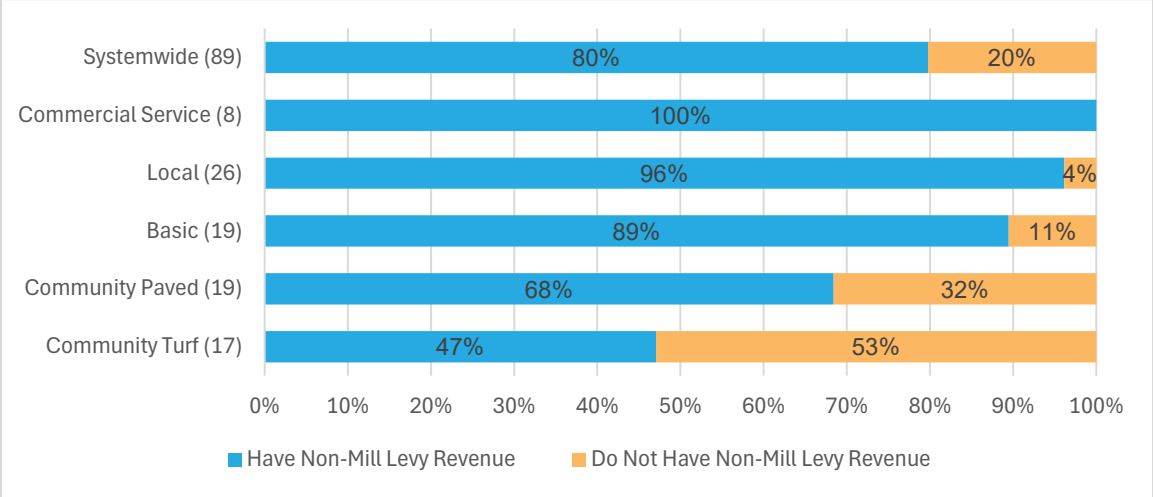
Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

In the 2014 NDSASP, the percentage of airports with a local mill levy and those with a county-wide mill levy were evaluated as two distinct metrics. In contrast, the 2025 NDSASP consolidated these into a single PI, offering a more streamlined assessment of mill levy presence—whether local or county-wide—across system airports. As a result of this methodological change, direct comparisons between the two study years are not valid.

6.2.5.5. PI: Percent of Airports with Non-Mill Levy Revenue

While mill levies provide a critical foundation for airport funding, non-mill levy revenue sources such as fuel sales, hangar leases, user fees, passenger fees, and more offer airports greater financial flexibility and resilience. These diversified revenue streams help airports reduce reliance on local tax support and better respond to operational and capital needs. As shown in **Figure 6-45**, 80 percent of airports systemwide report having non-mill levy revenue sources in place. All Commercial Service airports and nearly all Local and Basic airports benefit from these additional funding sources. Community Paved airports show 68 percent, while Community Turf airports trail at 47 percent that indicated they have non-mill levy revenue.

Figure 6-45. PI: Percent of Airports with Non-Mill Levy Revenue



Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

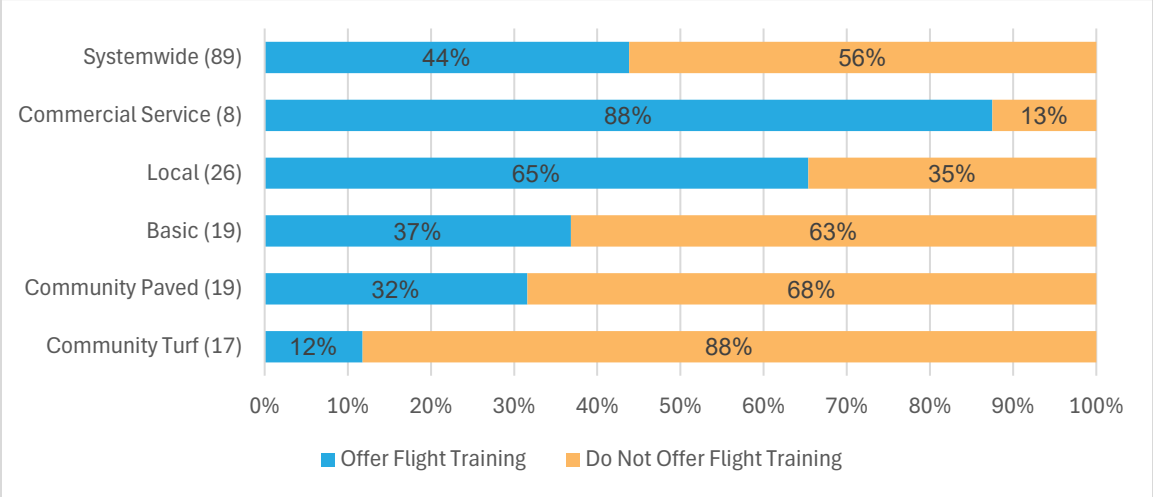
6.2.6. Support Aviation Education and Industry Advancement

Education plays a pivotal role in advancing the aviation industry by fostering growth, cultivating interest, and strengthening stakeholder engagement. The analyses presented in the following subsections highlight current system performance based on the five PIs (there are no PMs) related to **Support Aviation Education and Industry Advancement**.

6.2.6.1. PI: Percent of Airports that Offer Flight Training

Flight training is more than a service—it's a gateway to careers, a catalyst for workforce development, and a cornerstone of aviation sustainability. Airports that offer flight training help cultivate the next generation of pilots, mechanics, and aviation professionals, ensuring that the skies remain accessible, safe, and well-served. As shown in **Figure 6-46**, 44 percent of system airports offer flight training opportunities. Commercial Service airports lead the way due to having more population density, followed by Local airports, which often serve as regional hubs for aspiring aviators. Basic, Community Paved, and Community Turf airports show more modest representation of the availability of flight training across the system.

Figure 6-46. PI: Percent of Airports that Offer Flight Training

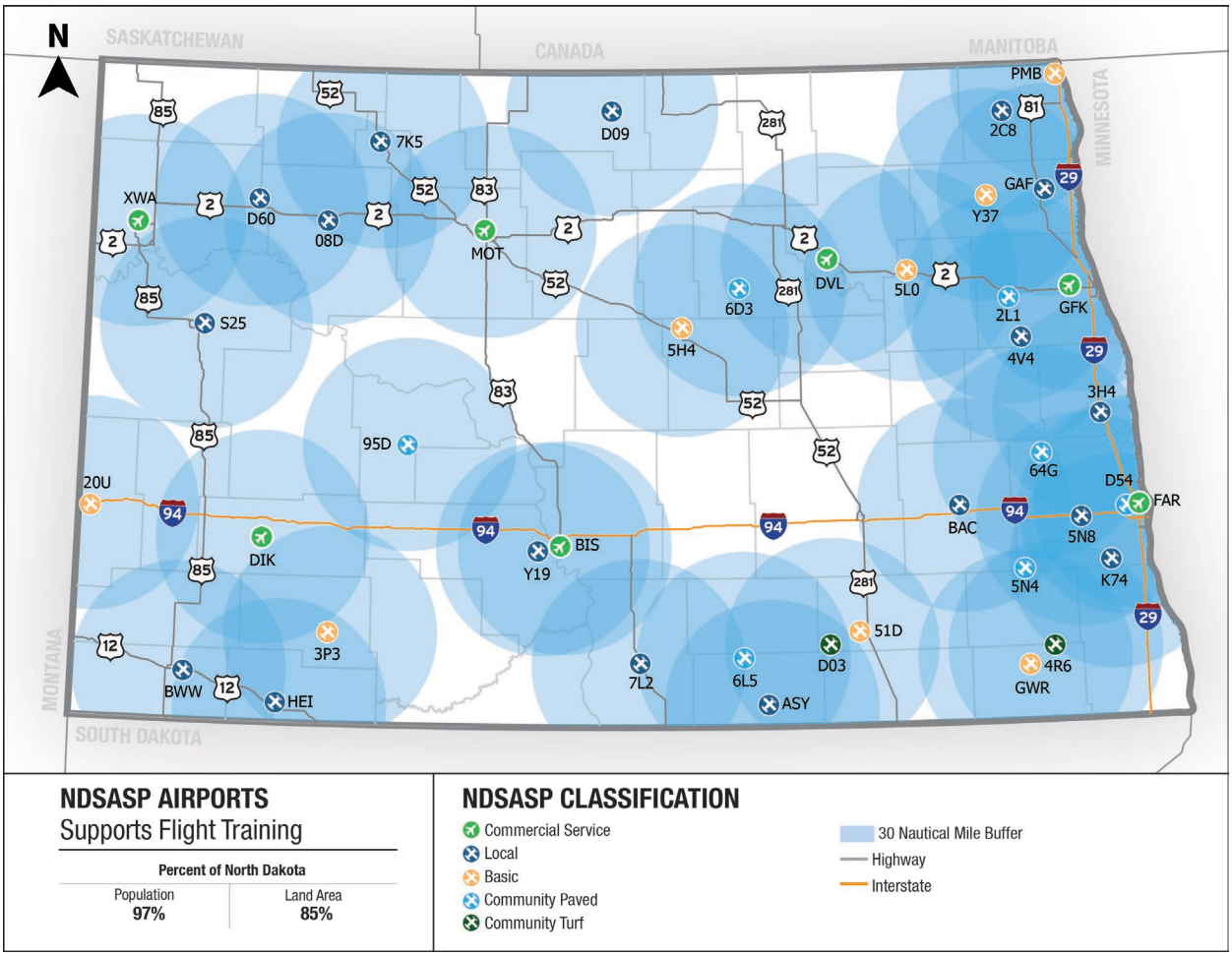


Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

6.2.6.2. PI: Percent of Area and Population within 30 Nautical Miles of an Airport that Offers Flight Training

When looking at the whole state of North Dakota, access to flight training is more than just a convenience, it's a strategic asset. As shown in **Figure 6-47**, 97 percent of the population and 85 percent of the land area fall within a 30 nautical mile buffer of an airport that offers flight training. This coverage reflects strong accessibility for most residents, particularly in more populated regions.

Figure 6-47. PI: Percent of Area and Population within 30 Nautical Miles of An Airport that Offers Flight Training

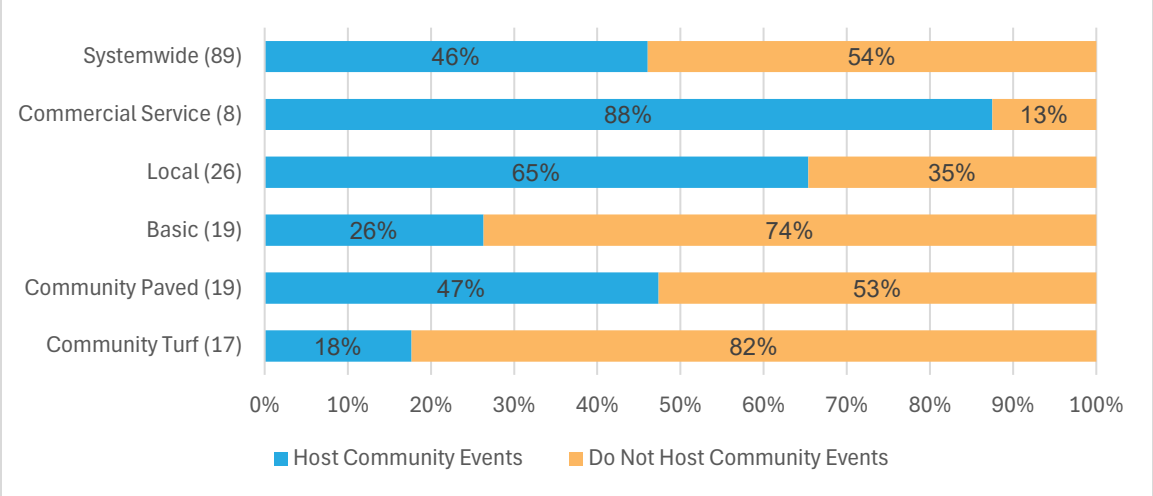


Sources: 2025 NDSASP Airport Manager Survey, 2025; ESRI Business Analyst, 2025; Kimley-Horn, 2025.

6.2.6.3. PI: Percent of Airports that Host Annual Fly-Ins or Other Community Engagement Events

Annual fly-ins, open houses, and other engagement events help foster public interest in aviation, build local support, and create memorable experiences that connect people to their regional airports. As shown in **Figure 6-48**, 46 percent of system airports host community events. Participation is strongest among Commercial Service airports at 88 percent and Local airports at 65 percent, which may reflect more staff availability to participate in these activities or communities who are more aware of and more open to engaging with the airport. Forty-seven percent of Community Paved, 26 percent of Basic, and 18 percent of Community Turf airports show engagement, suggesting opportunities to expand outreach and strengthen community ties at many airports in these classifications.

Figure 6-48. PI: Percent of Airports that Host Annual Fly-Ins or Other Community Engagement Events

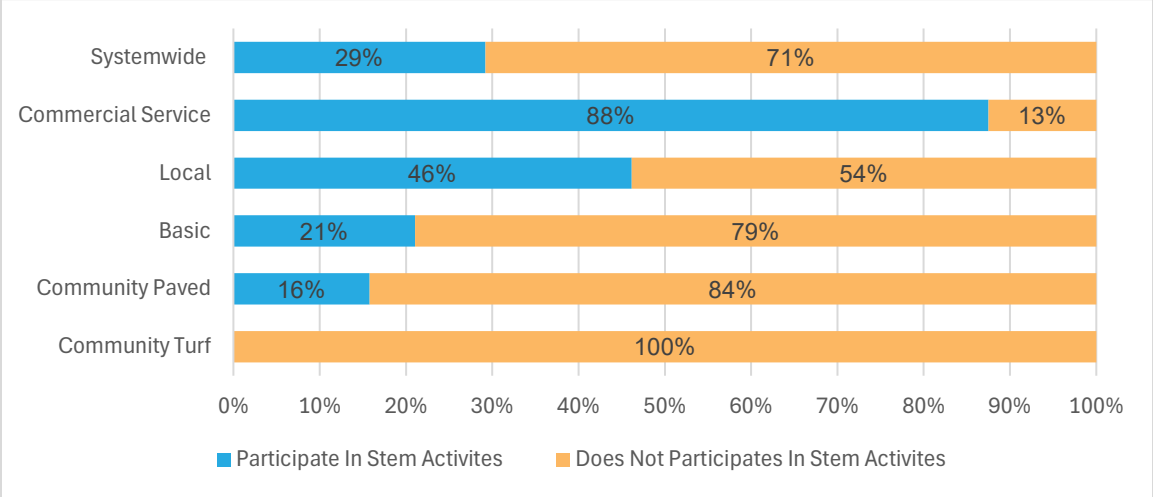


Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

6.2.6.4. PI: Percent of Airports that Participate in STEM (Science, Technology, Engineering, and Math) Activities

Airports have the unique potential to serve as gateways not only to destinations, but to discovery. By participating in STEM activities, airports can spark curiosity, inspire future careers, and strengthen the connection between aviation and education. These programs, whether through school partnerships, aviation camps, or hands-on demonstrations, help build a pipeline of talent ready to shape the future of flight. As shown in **Figure 6-49**, 29 percent of system airports engage in STEM-related activities. Commercial Service airports lead with 88 percent participation, followed by Local airports at 46 percent. The percentages of participation drop among Basic, Community Paved, and Community Turf airports.

Figure 6-49. PI: Percent of Airports that Participate in STEM Activities

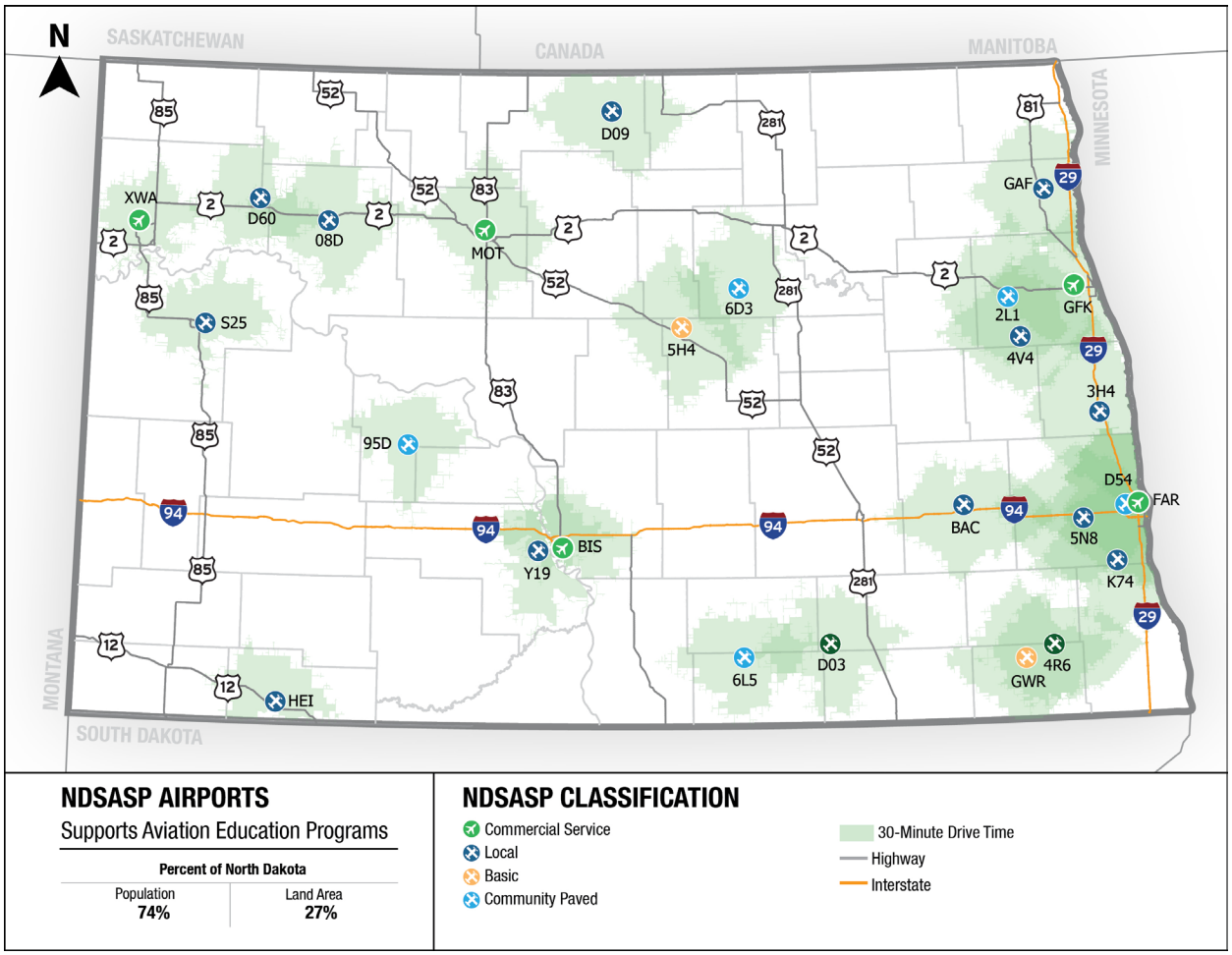


Sources: 2025 NDSASP Airport Manager Survey, 2025; Kimley-Horn, 2025.

6.2.6.5. PI: Percent of Area and Population that Have Aviation Educational Opportunities Available in the Community

Access to aviation-related educational opportunities, whether flight training, airframe and powerplant (A&P) programs, or STEM outreach, is essential in shaping the future of the industry. These opportunities not only foster local talent but also strengthen community ties to aviation. As shown in **Figure 6-50**, 74 percent of the state's population lives within reach of an airport offering aviation education opportunities, while 27 percent of the land area is covered. This highlights strong access in more populated regions but also reveals geographic gaps where expanding educational outreach could help ensure broader, more equitable access across the state.

Figure 6-50. PI: Percent of Area and Population that Have Educational Opportunities Available in the Community



Sources: 2025 NDSASP Airport Manager Survey, 2025; ESRI Business Analyst, 2025; Kimley-Horn, 2025.

6.3. Summary

North Dakota's aviation system is a vital driver of statewide connectivity, economic growth, and community resilience. This chapter has provided a comprehensive assessment of system performance through goals and their associated PMs and PIs, revealing both areas of strength and opportunities for strategic improvement. From emergency access and infrastructure readiness to educational outreach and financial sustainability, the data reflects a system that is largely responsive to current needs. However, gaps in service availability particularly in rural regions highlight the importance of continued investment and targeted planning. The analysis also underscores the value of community engagement, local funding mechanisms, and aviation education in shaping a resilient and future-ready network. To support ongoing progress, **Chapter 7. System Recommendations and Cost Estimates** will introduce future performance targets and inform recommendations for statewide aviation development based on the results of the analyses presented in this chapter.