



Scenario Planning for Future Transportation Strategies

Scenario A – Weather Events

Southeast Conference Mid-Session Summit, Transportation Symposium

Thursday, February 12, 2026, 1:00 – 3:00 p.m., Elizabeth Peratrovich Hall

Context:

Increasing frequency and intensity of atmospheric rivers and heavy rainfall events are resulting in more landslides, avalanches, and flooding across Southeast Alaska. These hazards affect transportation corridors and facilities, disrupt connectivity between communities, and influence the region's economic activity and overall resilience.

The Alaska State Hazard Mitigation plan assesses risks from various natural hazards. Hazards identified include earthquakes, erosion, flood, ground failure/landslide/avalanche, tsunami, and severe weather.

Recent weather events highlight the vulnerability of the transportation system in Southeast Alaska:

- In November 2023, a landslide killed 6 people and covered Zimovia Highway in Wrangell. The landslide was caused by excessive amounts of rainfall in a short time period. In a 24 hour period, 2.23 inches of rain were recorded with over an inch occurring in the six hours before the landslide event. There were also landslide events on Prince of Wales Island during this same event.¹ These events resulted in debris blocking the roadway and causing closure, inability to travel.
- In August 2025, flooding from a release of water and snowmelt at Mendenhall Glacier covered several roads and threatened homes along the Mendenhall river in Juneau, Alaska. This is a recurring event, increasingly threatening transportation infrastructure and homes.
- In December 2025, a series of winter storms across Southeast Alaska resulted in record breaking snowfall, extreme cold, and rain. A disaster declaration was issued. Local and state snow management resources were overwhelmed and travel was impacted.²

Framework for Table Discussions:

- **Uncertainty:** Discuss how changing and unpredictable weather patterns influence transportation infrastructure and services (roads, ferries, airports) and affect planning and decision-making.
- **Variability:** Discuss how seasonal or annual differences in precipitation, storm cycles, and freeze-thaw patterns affect transportation performance and operations.
- **Threats:** Identify transportation facilities, corridors, or communities that face the greatest weather-related risks.

¹ Czarnecki, C. (2024, March 5). Final report filed on cause of Wrangell's deadly landslide. Alaska Public Media. <https://alaskapublic.org/news/2024-03-05/final-report-filed-on-cause-of-wrangells-deadly-landslide>

² Zidek, J. (2026, January 10). Governor Dunleavy declares 2026 Jan Southeast Winter Storm a disaster [Press release]. Alaska Division of Homeland Security and Emergency Management. https://ready.alaska.gov/Documents/PIO/PressReleases/2026.01.10_Press%20Release%20-%20Governor%20Dunleavy%20Declares%202026%20Jan%20Southeast%20Winter%20Storm.pdf





- **Opportunities:** Identify positive outcomes, innovations, or collaborative opportunities that may help address weather-related hazards.
- **Solutions/Priorities:** Identify actions DOT&PF and partners can take to reduce risk and maintain system reliability.

FHWA Vulnerability Concepts

To support discussion of threats and solutions, the FHWA Vulnerability Assessment and Adaptation Framework outlines three key elements of vulnerability:

- **Exposure:** How exposed the asset is to the hazard.
- **Sensitivity:** How susceptible the asset is to the hazard. Consider physical condition, design, and operational importance.
- **Adaptive Capacity:** How well the system or asset can continue functioning if affected. Consider alternate routes, emergency access, and ability to maintain essential connectivity.

Prompts — Questions:

- **Threats**
 1. Which transportation facilities, corridors, or communities are most affected during heavy rainfall, flooding, landslides, or avalanche events?
 2. How do weather-related hazards influence access to communities, response times, and essential services such as medical care, freight delivery, and school operations?
 3. What recent weather events provide insight into vulnerabilities or past system failures?
- **Uncertainty and Variability**
 4. How does year-to-year or seasonal variability in storm patterns influence maintenance, operations, and planning decisions?
 5. How might increasing uncertainty in rainfall intensity or storm timing change priorities for infrastructure investment?
- **Opportunities**
 6. What existing resources, partnerships, or programs support hazard monitoring, preparedness, or emergency response in the region?
 7. Are there opportunities to integrate new technologies, community partnerships, or local knowledge into weather-related preparedness?
- **Solutions and Priorities**
 8. What strategies should be prioritized to reduce risk and maintain mobility during severe weather events? Examples: slope stabilization, drainage improvements, route redundancy, early warning systems, emergency response planning, climate-resilient design approaches.
 9. Which transportation investments would provide the greatest long-term benefit for maintaining reliable access during future storm events?
 10. What near-term actions could reduce risk quickly while longer-term projects are developed?





Scenario Planning for Future Transportation Strategies

Scenario B – Funding

Southeast Conference Mid-Session Summit, Transportation Symposium

Thursday, February 12, 2026, 1:00 – 3:00 p.m., Elizabeth Peratrovich Hall

Context:

Future transportation funding for Southeast Alaska may shift significantly due to statewide budget pressures, national economic conditions, federal reauthorization cycles, and changing policy priorities. Both decreases and increases in funding will affect infrastructure maintenance, ferry and aviation services, and long-term system investments across all modes.

Alaska relies heavily on federal transportation funding.

- The Infrastructure Investment and Jobs Act (IIJA) expires on September 30, 2026.
- The FAA Reauthorization Act of 2024 runs through September 30, 2028.

Reauthorization outcomes may increase or decrease available funding for highways, airports, and public transportation.

The IIJA included many grant programs which have provided opportunities for increased funding, but there is uncertainty as to whether these programs will continue and some have already faced delays.

- Many Southeast Alaska communities (Juneau, Ketchikan, Sitka, Gustavus, Angoon, Craig, Hoonah, Thorne Bay, Haines, Metlakatla) have recently received Safe Streets For All (SS4A) grants for Safety Action Plans. These plans provide opportunities to apply for implementation grants and there is uncertainty as to whether the program will be continued in surface reauthorization.
- The AMHS has planned to use a new federal grant program, Ferry Service for Rural Communities Program, to help fund ferry operations. The grant was expected to be issued last year, but has not been released leaving a \$78 million gap in the \$170 million budget for the current calendar year.¹

Framework for Table Discussions

- **Uncertainty:** Discuss how unpredictable changes in funding levels affect transportation infrastructure and services (roads, ferries, airports, transit) and influence long-term planning or decision-making.
- **Variability:** Discuss how annual shifts in federal or state revenues impact operations, maintenance, and capital project delivery.
- **Threats:** Identify system elements or communities that may be most impacted by reduced or inconsistent funding.

¹ Samuels, I. (2026, February 2). Alaska ferry system faces \$78M budget hole after Trump administration delays federal grant. Anchorage Daily News. <https://www.adn.com/politics/alaska-legislature/2026/02/02/alaska-ferry-system-faces-78m-budget-hole-after-trump-administration-delays-federal-grant/>





- **Opportunities:** Identify potential benefits, innovations, or new funding pathways that may emerge under improved or stable funding conditions.
- **Solutions/Priorities:** Identify actions DOT&PF and partners can take to manage funding variability and maintain essential services.

Prompts - Questions

- **Threats:**
 1. If funding declines, what services or programs face the greatest risk (roads, ferries, airports, transit)?
 2. Which communities or corridors would experience the most significant impacts from reduced funding?
- **Uncertainty and Variability**
 3. How do changing funding levels influence planning for major capital projects, vessel replacement, airport upgrades, or maintenance programs?
 4. How might short-term funding variability affect long-term resilience or system reliability?
- **Opportunities**
 5. If funding increases, what should be the top priorities for investment? Consider resilience, modernization, technology, safety, or service expansion.
 6. What opportunities exist for regional collaboration to attract competitive grants or strengthen the region's position in federal funding programs?
 7. For SS4A-funded planning efforts:
 - If SS4A funding continues, will Safety Action Plans position communities for successful implementation grant applications?
 - If SS4A funding ends, what alternative funding sources could support high-priority safety projects?
- **Solutions and Priorities**
 8. What strategies can help manage funding uncertainty, such as phased project delivery, diversified revenue streams, or new partnerships?
 9. What prioritization criteria should guide investment decisions during periods of limited funding?
 10. How can DOT&PF and partners increase readiness to pursue rapidly emerging or short-duration federal grant opportunities?





Scenario Planning for Future Transportation Strategies

Scenario C – Population

Southeast Conference Mid-Session Summit, Transportation Symposium

Thursday, February 12, 2026, 1:00 – 3:00 p.m., Elizabeth Peratrovich Hall

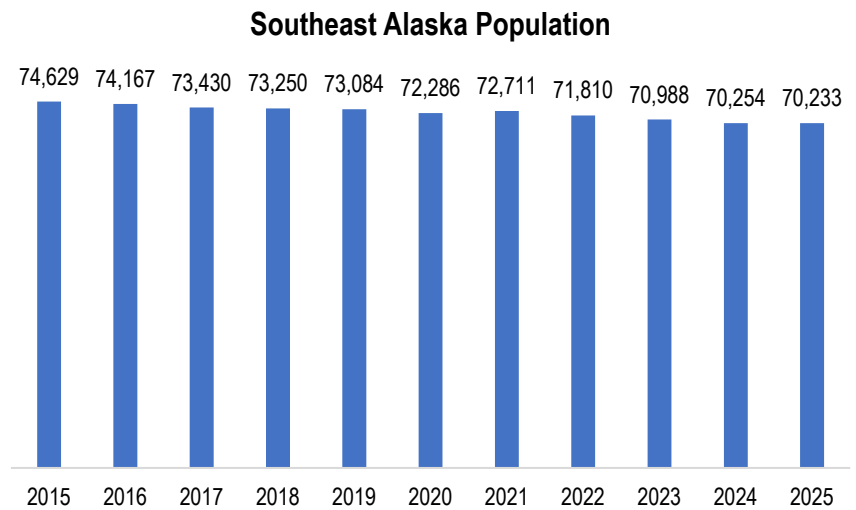
Context:

Demographic projections suggest that Southeast Alaska may experience population decline in the coming decades. This trend could reduce demand for transportation services, impact revenue streams, and challenge the long-term sustainability of infrastructure investments. Smaller or remote communities may face additional challenges maintaining essential connectivity, raising equity and resilience considerations.

At the same time, population increases are still possible in certain communities due to economic development, new industries, resource activity, or shifts in regional workforce trends. Understanding both potential decline and growth is key for planning a resilient transportation system that can adapt to varying community futures.

Where Are We? History of Population in Southeast

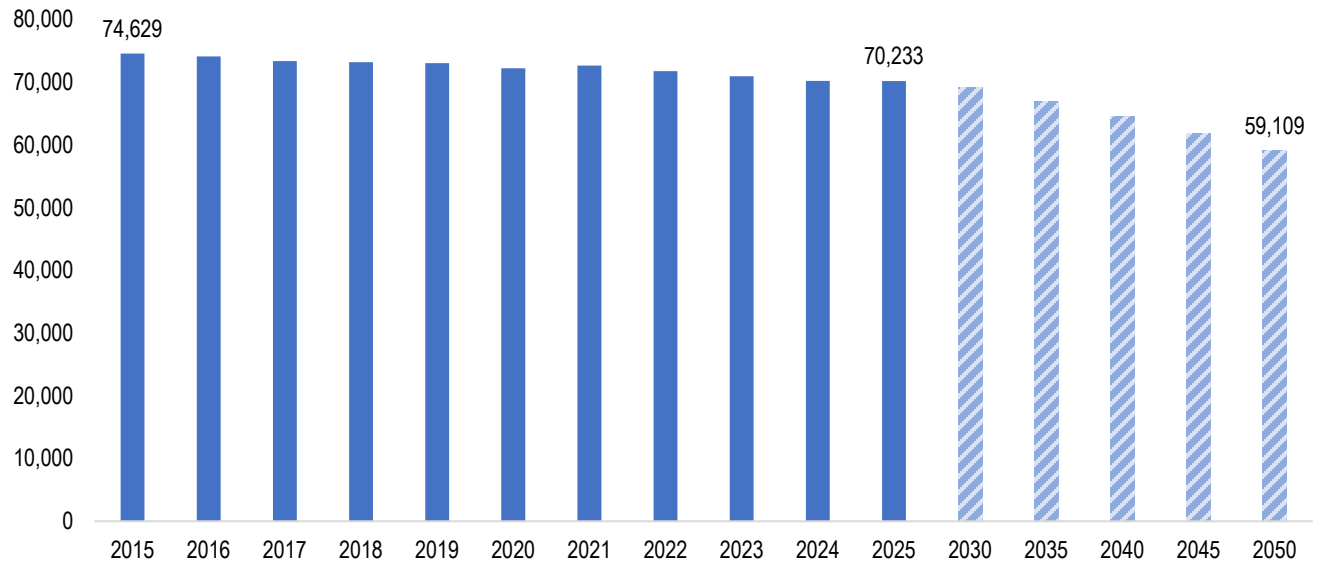
2015 Population	74,629
Births	+6,981
+ Deaths	-5,476
“Natural Increase”	+1,505
+ Net Migration	-5,901
2025 Population	70,233
Decade-Long Change	-4,396





Where are we going? Current Projections for Southeast Alaska

In the long-term, Southeast Alaska’s population is projected to return to the same level as it was in the early 1980s. The general aging of Southeast’s population is expected to significantly influence the next 25 years. The number of annual deaths is expected to outweigh births, leading to “natural decrease” rather than increase. This is unusual for most states in the Lower 48, as well as regions in Alaska.



Framework for Table Discussions

- **Uncertainty:** Discuss how future demographic changes influence transportation needs across all modes (roads, ferries, airports, transit) and affect long-term planning and decision-making.
- **Variability:** Discuss seasonal, annual, or community-level shifts in population, and how these fluctuations affect service demand, operations, and infrastructure needs.
- **Threats:** Identify communities, corridors, or services at risk if demand decreases or if population shifts strain existing capacity.
- **Opportunities:** Identify where population changes may create new service needs, economic opportunities, or innovative approaches.
- **Solutions/Priorities:** Identify actions DOT&PF and partners can take to support resilient transportation systems under different population futures.





Prompts - Questions:

- **Uncertainty**
 1. What major employers, industries, or economic sectors may grow in Southeast Alaska, and how might this influence regional population trends?
 2. What employers or industries may decline or relocate, and how could these changes affect population and transportation needs?
 3. What long-term demographic uncertainties (aging population, migration patterns, cost of living) could alter demand for transportation services?
- **Variability**
 4. What factors are currently contributing to population increases or decreases, and are these factors likely to change?
 5. How do seasonal shifts in population (tourism, fisheries, temporary workforce) affect demand for ferry, airport, and road system services?
- **Threats**
 6. How would population decline affect the ability to maintain and operate transportation infrastructure across all modes?
 7. Which communities, corridors, or services would be most affected by reduced demand or declining revenue?
 8. How might workforce shortages affect operations, maintenance capacity, or emergency response?
- **Opportunities**
 9. How could population growth support new transportation investments, expanded services, or innovative mobility options?
 10. Where might demographic changes create opportunities to align transportation services with emerging industries or community needs?
- **Solutions and Priorities**
 11. What strategies can support resilient transportation services under both growth and decline scenarios?
 12. How should DOT&PF prioritize investments when population trends differ across communities?
 13. What partnerships or planning tools can strengthen transportation decision-making under changing demographic conditions?

