

# Mapping the needs for Alaska's future geospatial workforce

**Problem statement – Small communities have been unable to develop GIS to support critical datasets and job positions**

**Alaska needs to develop creative alternative organizational solutions to overcome this issue.**

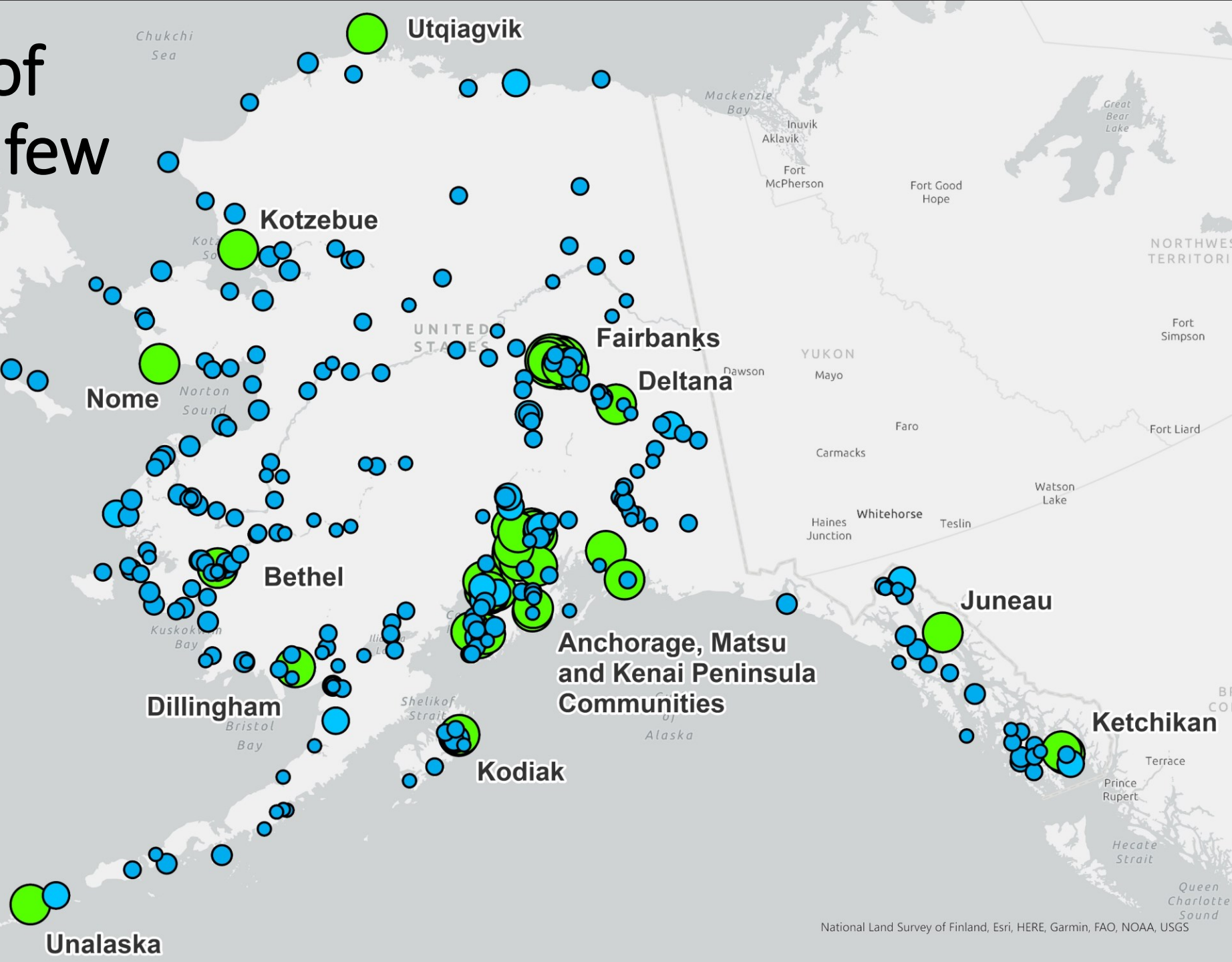
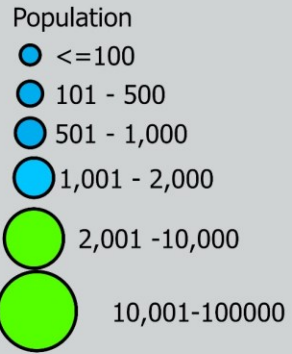
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GISP, MBA, Alaska Map Company, LLC.  
Based in Kenai  
2 decades of experience developing GIS for Small and Remote Alaskan Communities



# Alaska has lots of Geography and few people

380 Communities (Cities and Census Places) with less than 2,000 People  
Average community size 300 people



Source Data: Alaska Division of Commerce

# GIS Industry Staffing Models

Even a minimally Staffed GIS department are expensive to develop

Software: \$12,000 – Small Community Enterprise GIS

Hardware: \$6,000

GIS Manager: \$70,000

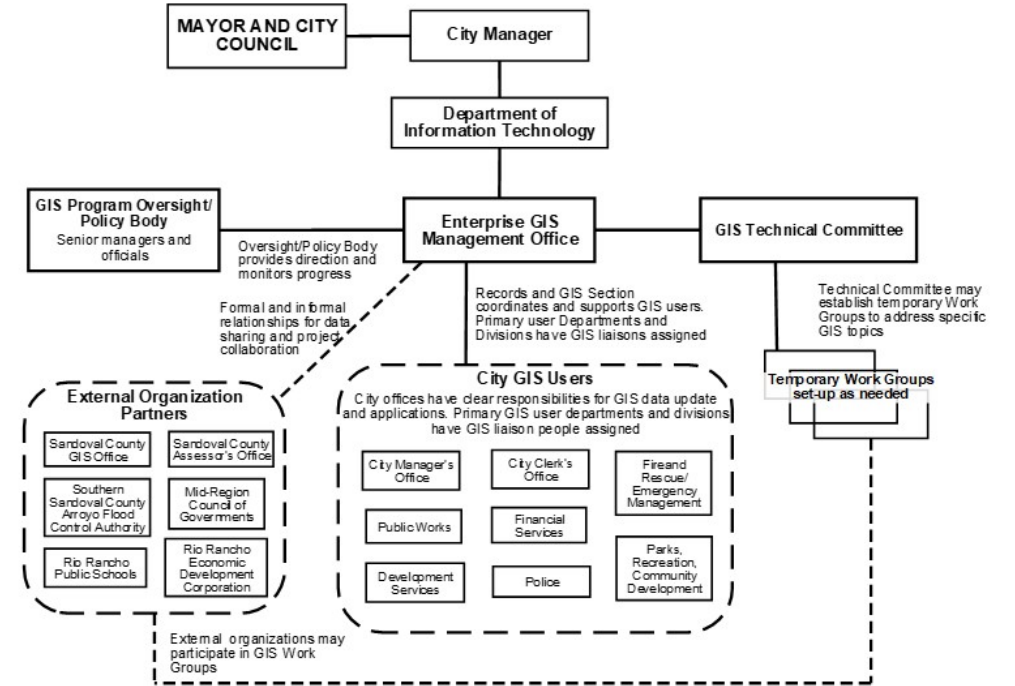
Data Specialist: \$50,000

**Total: \$138,000**

Per capita cost for a community of 300 = **\$460**

A larger community with a population of 100,000 can budget \$1,000,000 for GIS and the per capita cost is **\$10**

**GIS costs 46 times more expensive for a small community!**



*Enterprise GIS Organizational Structure for a Municipality.*  
<https://gistbok.ucgis.org/bok-topics/organizational-models-gis-management>

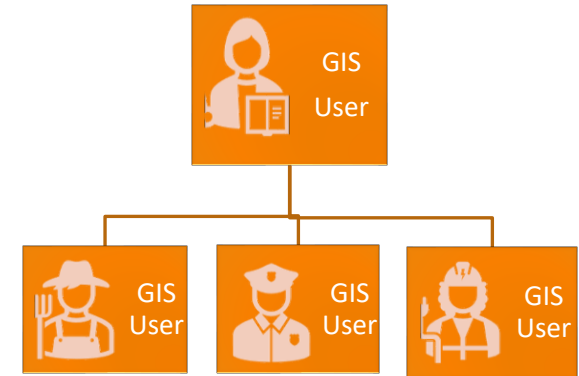


# Most Common Organizational Models for Local Alaska GIS

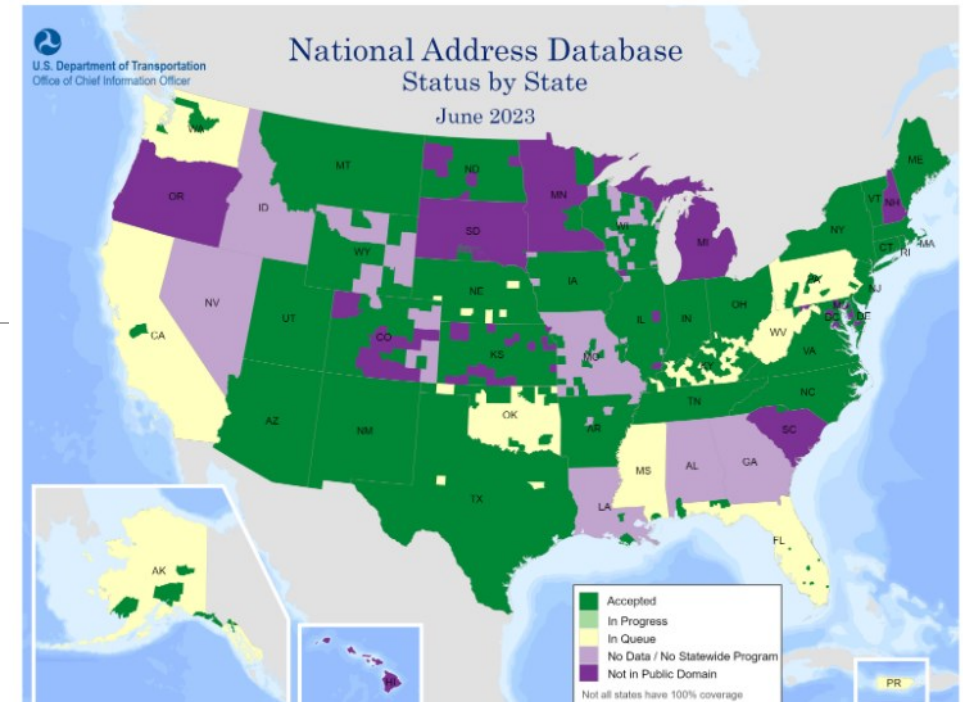
## Many Organizations in Alaska don't have dedicated GIS Staff

GIS management is assigned as side task to a GIS user that has another profession

- Limited GIS Experience
- Limited time to dedicate to GIS
- Critical data doesn't get created
- Critical job positions don't get created
- High turnover causes constantly changing standards



Result jobs and critical data are not created



# Alternative Models for GIS Management

## Alternative GIS Program Management Options

- Independent Public Entity
- Outsourced
- Multi Organizational

<https://gistbok.ucgis.org/bok-topics/organizational-models-gis-management>

[GIS Consortium – Local Governments That Work Collectively](#)

## Multi Organizational shared resource Pilot Project CVRF economies of scale though collaboration and standards

Coastal villages region fund has created a shared resource model by leveraging the support of it's member communities.

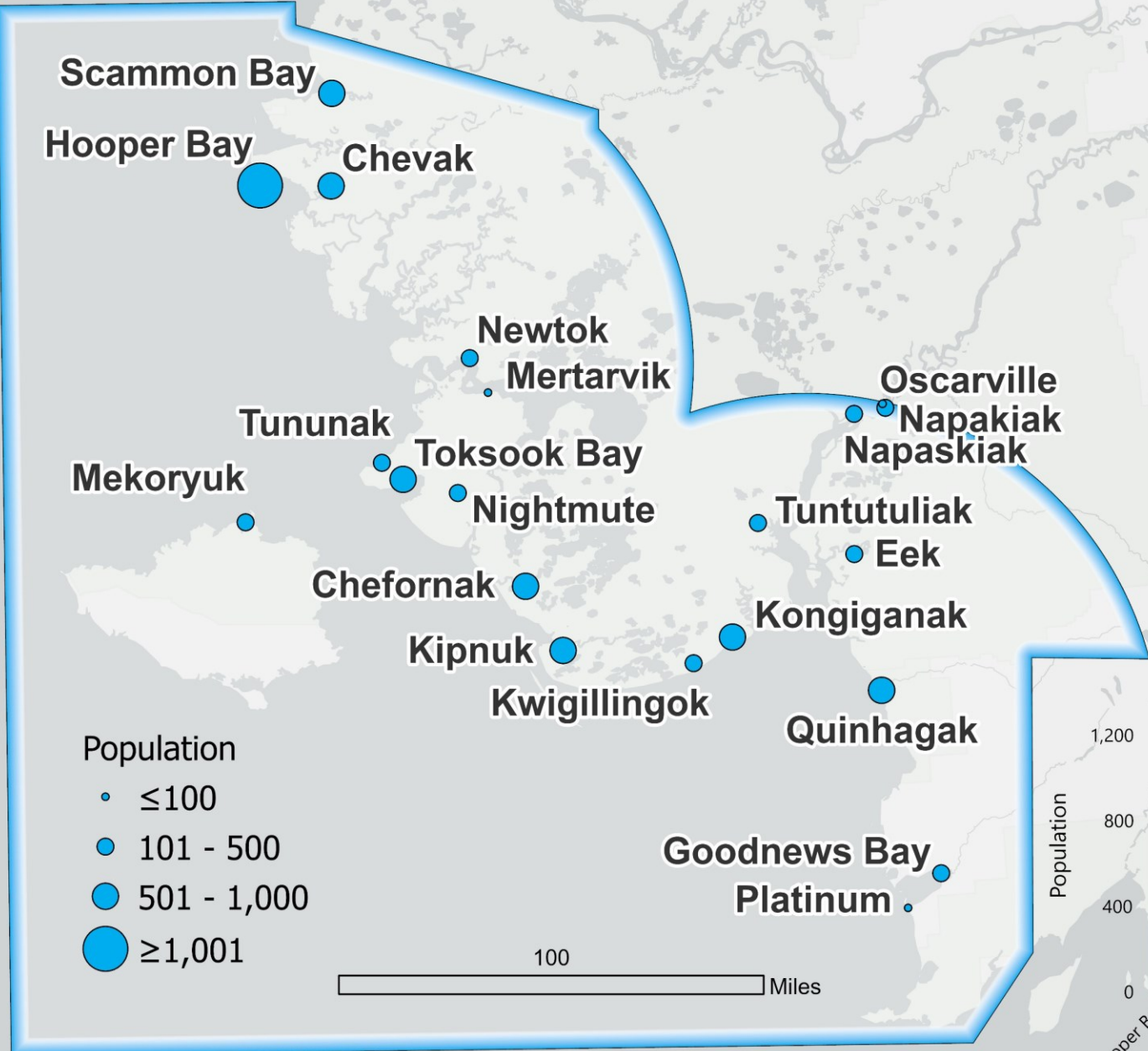
Because of this we have been able to develop the foundation for a modern GIS that will supports all the critical functions in a community that require GIS. If the same model and processes were adopted by the rest of the state more work will gets done and more jobs get created.

## GIS CONSORTIUM MEMBERS

The GIS Consortium consists of a diverse group of communities. They all share the same values of cooperation, commitment, quality, and efficiency. New members are considered based on their alignment with these values.

[View Members in a Map](#)

| MEMBER NAME                             | COUNTY    | MEMBER SINCE | POPULATION | AREA (SQ. MILES) |
|---|-----------|--------------|------------|------------------|
| <a href="#">City of Highland Park</a>   | Lake      | 2000         | 31,614     | 12.20            |
| <a href="#">Village of Glencoe</a>      | Cook      | 2000         | 8,762      | 3.79             |
| <a href="#">City of Park Ridge</a>      | Cook      | 2000         | 37,775     | 7.12             |
| <a href="#">Village of Lincolnshire</a> | Lake      | 2000         | 7,039      | 4.60             |
| <a href="#">City of Des Plaines</a>     | Cook      | 2002         | 57,062     | 14.38            |
| <a href="#">Village of Deerfield</a>    | Cook/Lake | 2002         | 18,420     | 5.56             |
| <a href="#">Village of Morton Grove</a> | Cook      | 2003         | 22,451     | 5.09             |
| <a href="#">City of Glenview</a>        | Cook      | 2003         | 18,107     | 5.00             |



**Contract GIS Coordinator**  
Akmapco

**Part time GIS Technician**  
Roderick  
Toksook Bay

Per capita investment for all communities  
Based on simple organizational Structure  
 $\$138,000 / 9,000 \text{ population} = \$15$

**Jobs Created!**  
**Critical Datasets Created!**

