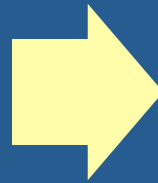


Service-Learning in the Mathematical Sciences

Charlie Hadlock
Bentley University

What is service-learning?

**Service activity
for NGO or public
client**



**Course or
curricular
learning objective**

Why do it?

- **Subject matter**
- **Motivation for subject matter**
- **Complementary education**
 - **Service**
 - **Citizenship**
 - **Interdisciplinary**
 - **Team experience**
 - **Presentation skills**

Frameworks

- **Optional or required component**
- **Optional “4th credit”**
- **Group or individual projects**
- **Mainstream or topics course**
- **Part or all of course**
- **Type of client (school, gov., NGO)**
- **Level of instructor involvement**

What are people doing?

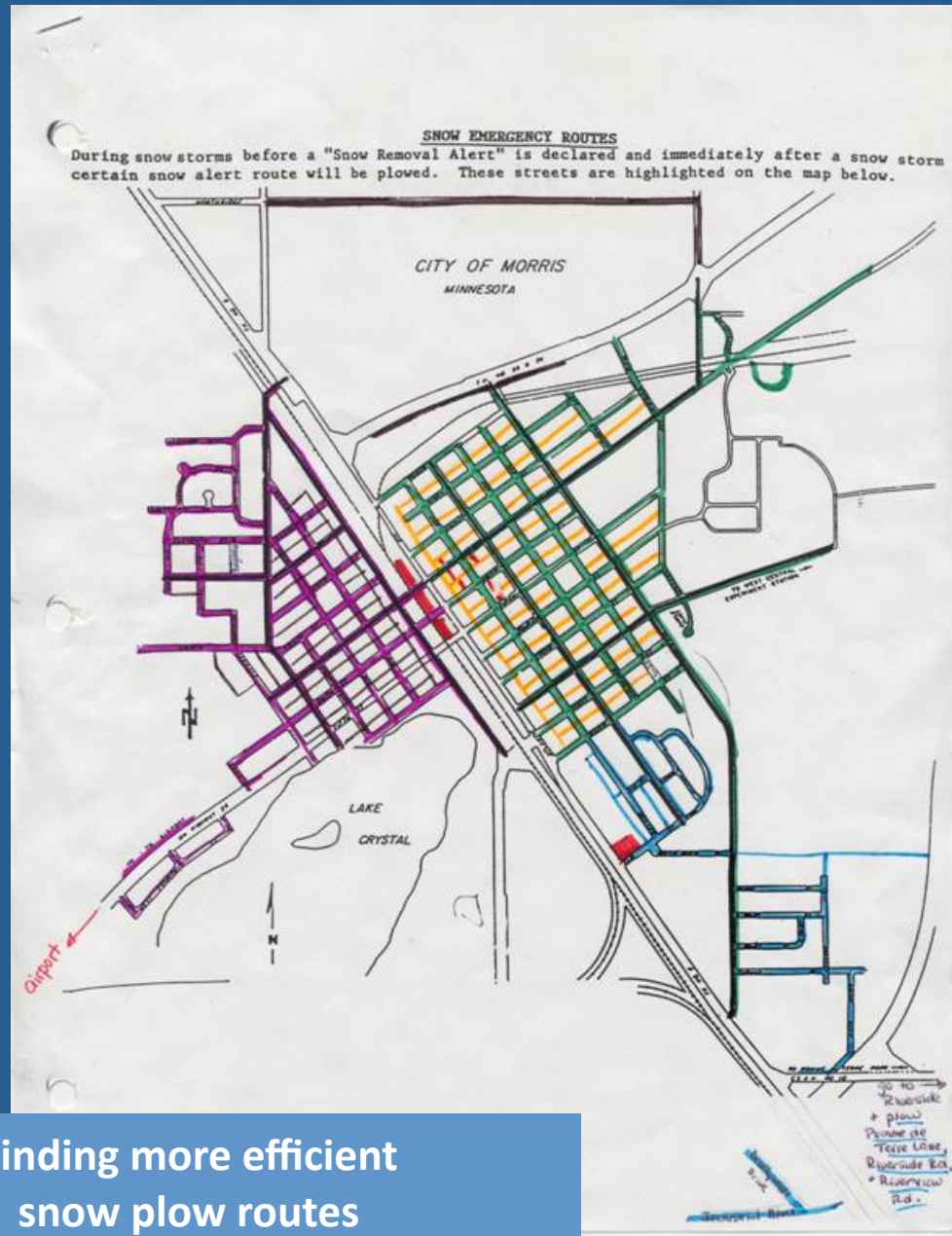
- **Quantitative literacy**
- **Math education**
- **Statistics**
- **Modeling**
- **Other**

Example



Analysis of overtime expenses in Baltimore fire department

Example



Finding more efficient
snow plow routes

Example



Family Math Night

Example



School's tenacious drop-out rate explained

State House Presentation



Planning challenges

- **Finding a client or project**
- **Getting the students going**
- **Overseeing student work with client**
- **Grading system**
- **Organizing reflection process**

Common characteristics of great projects

- **High institutional interest and support**
- **Good teacher/client communication**
- **Involvement of community partner in service-LEARNING mission**
- **Strong student connection with client**
- **Student input in defining project scope**
- **Students taking ownership of project**

