



# **A model for health geoinformatics workforce development: the LLUSPH – Dine' experience**

**Daniel Handysides**

**Seth Wiafe**

**Charles Hewitt**

**Loma Linda University School of Public Health**



# Outline

## ■ Introduction

- Loma Linda University and Diné College Overview
- The need for health GIS workforce development for 21<sup>st</sup> century

## ■ Methodology/Materials

- Model for geoinformatics workforce development

## ■ Results

## ■ Discussion

## ■ Conclusion



# Loma Linda University and Dine' College Partnership

- Loma Linda University (LLU) Overview
  - Establishment - > 100 years
  - Seventh-day Adventist Academic Health sciences institution
  - Number of Schools & Programs
- Diné College Overview
  - Public institution of higher education chartered by the Navajo Nation
  - Programs
- LLU-Dine' Collaboration - MOU



# Loma Linda University and Dine' College Partnership

- Technical Assistance
- Transfer Agreement Development
- Research
- Sharing of Personnel (Faculty, Staff, Students)
- Financial Obligations

**Memorandum of Understanding**  
*between*  
**Loma Linda University School of Public Health**  
*and*  
**Diné College**

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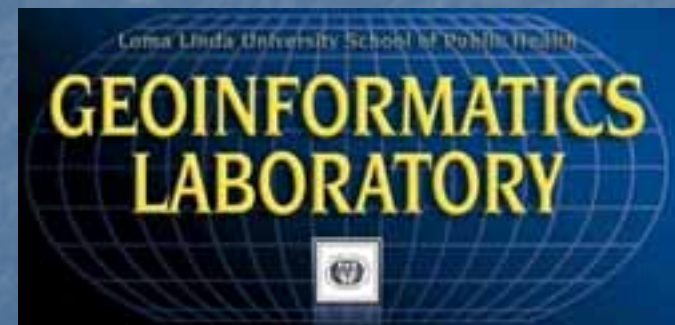
*Loma Linda University School of Public Health and Diné College* propose to continue the development of their relationship through collaboration in the implementation of Public Health academic and research programs, with a particular focus on advancement of Geographic Information Systems (GIS) capacity in resources, faculty, staff and students at both institutions. This is seen to leverage the efforts by each institution to build capacity that will advance the Public Health programs of both institutions through the following agreements, contingent on financial and personnel availability:

- I. Sharing of Personnel: Faculty, Staff, and Students  
Understanding that each institution has different levels of Faculty Staff, Student, and other personnel resources, exchanges of Faculty, Staff and Students between the above



# LLU Health Geoinformatics Programs

- Undergraduate Level
  - Bachelor of Science in Public Health (BSPH), Health Geographics & Biomedical Data Management
- Graduate Level Tracts & Certificate
  - MBA in Health Administration & GIS Certificate
  - GIS for Global Health and Development
  - Spatial Epidemiology
  - GIS for Environmental Health
  - Certificate in health geoinformatics





# Health GIS Workforce Needs Assessment

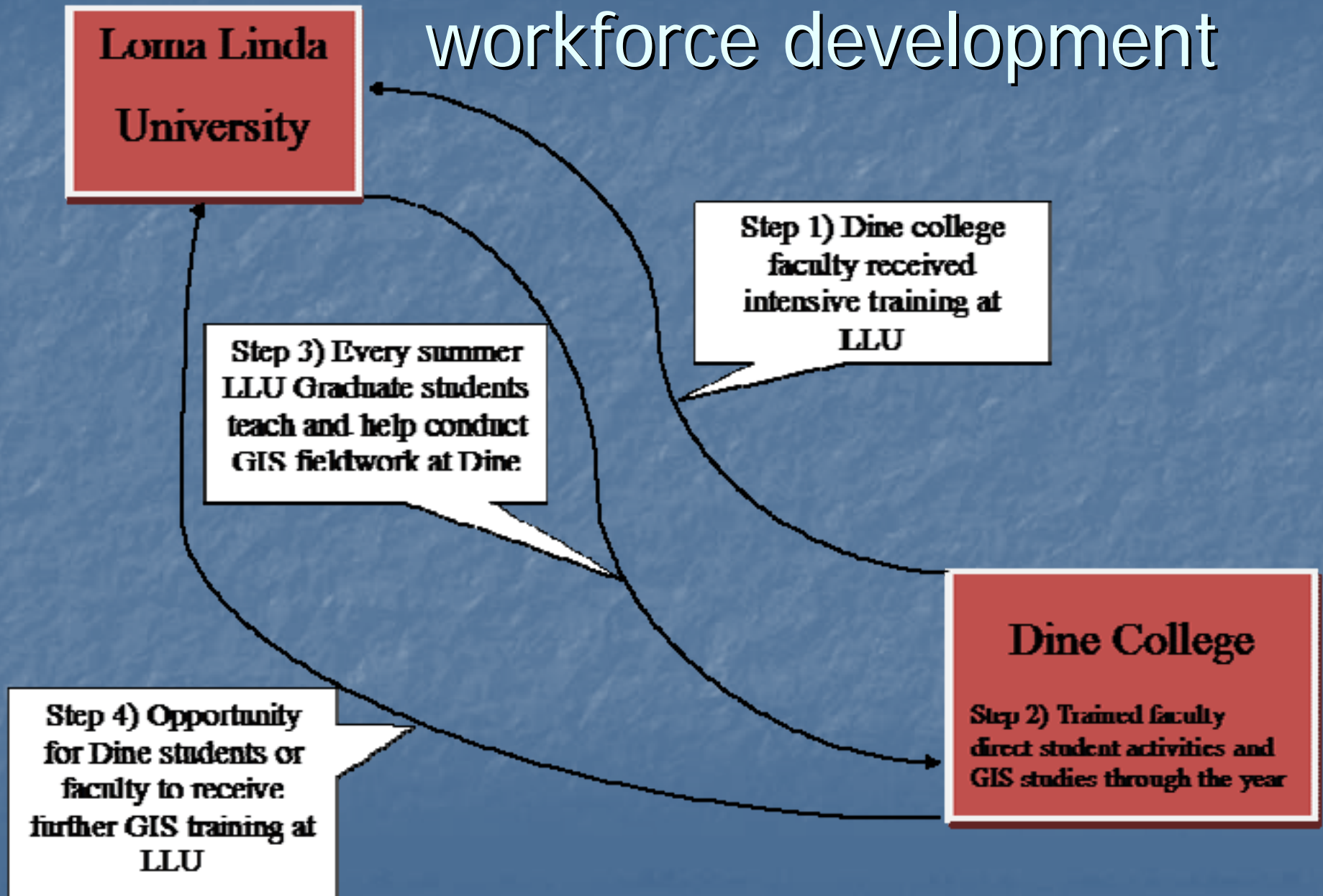
- Escalating demand for health professionals trained in GIS
- Many reports have articulated the need for training
  - Healthy People 2010
    - Goal 23: Public Health Infrastructure
  - Institute of Medicine November 2002 Report
    - “Who will keep the public Healthy: Education Public Health Professionals for the 21<sup>st</sup> Century”
- Recent Global Public Health Threats
  - SARS

# Methodology/Materials

- Academics
  - GIS curriculum appropriate for Dine' needs
    - Field Activities
- Research
  - Environmental Assessment of Uranium exposure
- Practice
  - Community health intervention programs
- Adequately equipped GIS lab and classroom at Dine'



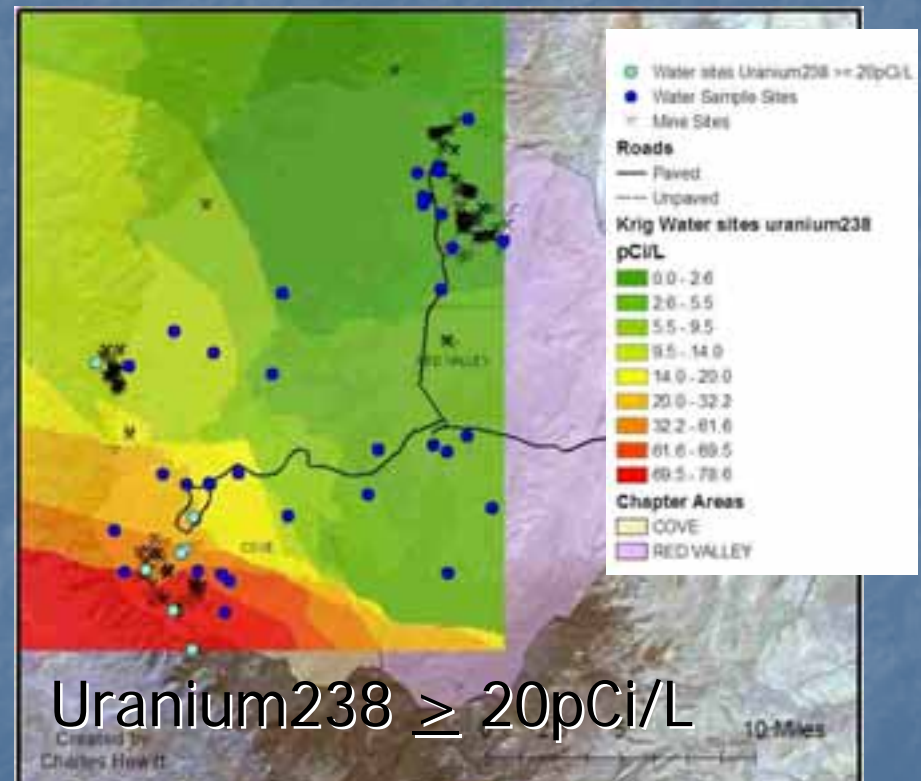
# LLU model for geoinformatics workforce development





# Results

- GIS data repository
- Utilization of GIS data in research
  - Environmental assessment
- Increased incorporation GIS into field of work





# Discussion

- Cultural Awareness
- Partnership
- Dine' College GIS program Maintenance
  - Staffing
  - Hardware and Software
  - Data
- Future plans



# Conclusion

- The LLUSPH – Dine' experience is an example of workforce development model
  - Both schools have been enhanced
  - Model leads to a well trained Native American workforce