Economic & Community Development: Public Interest Mission of Regional Research Universities

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Northern Illinois University

Total Enrollment ~23,000
• Undergraduate ~17,400
• Graduate/Professional ~5600
• Illinois Residents >90%
• URM ~30%
Transfer students
• ~3000/acad yr
• 75% from IL CC
>200,000 Alumni in Chicagoland

Regional Impact Projects

- Broadband Networks - ifiber (Illinois Fiber Resources Group) - $117 million in federal, state, and local partnership grants
  • Construction of broadband networks throughout rural and suburban areas of Illinois
  • Healthcare delivery and other services
  • Research on current and potential users
- Rockford Aerospace Cluster - $2.4 million
  • Innovation for aerospace industries in a “Rust-Belt” City
  • R&D, global networking, workforce development

NIU Broadband Initiatives

- In three years NIU will have strategically planned and assisted in the build-out of over 2,200 miles of fiber optics in Illinois.
- Over 750 Community Anchor Institutions (CAI's) will have high speed broadband access capabilities.
- In Northern Illinois, a 10 county region will have high speed broadband access capabilities directly into NIU.
**NIU Broadband Initiatives**

NIU Broadband Initiatives:
- **NIU Broadband**
- **Northern Illinois University Research and Education Network**
- **IMBCA** - Illinois Municipal Broadband Communications Association for Economic Development
- **NITT** - Northern Illinois Technology Triangle for Economic Development
- **TriLightNet** - A medical network for HIE development and healthcare
- **NMBA** - Northwest Municipal Broadband Authority - A municipal and education network
- **DATA** - DeKalb Administration of Technology Authority - A BTOP funded grant for DeKalb County
- **IBOF-NW** - The Illinois Broadband Opportunities Partnership - A nine county BTOP funded grant to NIU

**IL Rural HealthNet**

Connecting over 85 Health Care Facilities in Illinois

$22M Grant awarded to create the IRHN modeling NIUNet.

Used primarily for Health Information Exchange (HIE), Telemedicine and Telehealth.

**Time to Download a Average Movie in Hours**

<table>
<thead>
<tr>
<th>Speed</th>
<th>Time to Download a Average Movie in Hours</th>
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<tbody>
<tr>
<td>56 Kbps</td>
<td>60.7142</td>
</tr>
<tr>
<td>128 Kbps</td>
<td>26.5625</td>
</tr>
<tr>
<td>256 Kbps</td>
<td>13.2811</td>
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<tr>
<td>512 Kbps</td>
<td>6.6406</td>
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<tr>
<td>1.544 Mbps (DS1, T1)</td>
<td>2.2019</td>
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<tr>
<td>2.048 Mbps (DSL)</td>
<td>1.6600</td>
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<tr>
<td>10 Mbps (10Base-T)</td>
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<tr>
<td>45 Mbps (DS3, T3)</td>
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<td>100 Mbps (100Base-T)</td>
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<td>1 Gbps (1000Base-T)</td>
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<tr>
<td>10 Gbps</td>
<td>0.0003</td>
</tr>
</tbody>
</table>

**Community Anchor Institutions**

- Colleges (10)
- K-12 Buildings (230)
- Libraries (50)
- Health Care Organizations (225)
- Public Safety (90)
- State, County Local Gov. Offices (130)

Numbers may be approximate.
Strategy for Broadband Development

- Collaboration
- Communications
- Publicity
- Evaluation & Metrics
- Mapping
- Networking
- Security/Legal/Ethics
- Administrative Support
- Technical Design & Development
- Data Collection & Reports

Technical Advisors
Support Staff

Impacts: Healthcare, HIE

- Greater access to specialists and home health care
- Expanded use of technology for lab & specialty uses
- Ability to participate in statewide and nationwide exchange of health information
- Ability to participate in federal incentive programs tied to use of electronic medical records.
- Improved access to training and education for healthcare providers

Small Business Online Applications

- Purchasing 75%
- Banking 63%
- Shipping and tracking 54%
- Selling/Accepting Orders 40%
- Customer Support 34%
- Training/Education 27%
- Inventory Tracking 21%

JIAC: Strengthening the Region’s Aerospace Industry

- $2.4 million grant provided by the U.S. Departments of Commerce and Labor and the U.S. SBA
- Building on Project ROCK and ICDM Consortia
- Local partners
  - NIU (Principal investigators: NIU Engineering Faculty)
  - Rock Valley Community College & High Schools
  - Rockford Area Economic Development Council
  - EIGERlab (small business incubator) - specialty mfg.
  - Aerospace companies
**Rockford Area Aerospace Network**

- **Goals**
  - Market the Rockford regional aerospace cluster
  - Advance technical capabilities and global markets
  - Train new and current workers with skills needed for current and projected growth of this industry (Accelerated high school-community college-university aeronautical engineering program)

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**Impact of Regional Development on NIU**

- New curricula, certificates, degree programs
- Increased interdisciplinary activities
- Engaged learning opportunities for students
- Direct involvement of faculty with regional partners
- Reward and Regard: Presidential Engagement Professors & BoT Professors

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**Challenges**

**Institutional conditions:**
- Commitment to regional action & innovation
- Culture of reciprocity (engagement vs. extension)
- Strategic investment of time and talent – (build on previous successes/partnerships)
- Communications
- Outreach/engagement support structure

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**Challenges**

**Partnership development and management:**
- Multiple and diverse partners – 750 local partners for broadband networks and 20+ agencies for JIAC
  - Differing priorities, perspectives, and sense of roles
  - Differing contractual requirements/timelines
- Partnership management skills; e.g. diplomacy, negotiations, facilitation, communication
- Established, long-term, effective partnerships
**CHALLENGES**

**Funding Agency Expectations:**
- Well-established partnerships
- Proof of concept
- Increased detail and frequency in reporting

**Regulatory Environment:**
- Procurement laws
- State and federal audit guidelines

**QUESTIONS?**