

Rural Internet Connectivity

Telecommunications Policy and
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Significance of Internet Connectivity

- Limited data
- Rhetorical enthusiasm
- Universal service embraced Internet access as socially important
- Problems in rural areas

“Falling through the Net”

- At every income level, rural areas less likely to own computers
- At every income level, households less likely to have Internet access
- Black households in rural areas 1/3 less likely to own a computer and 2/5 less likely to access Internet
- Greater reliance on school-based access in rural areas

Telecommunications Infrastructure

- Unequally distributed in U.S.
- CLECs, improvements, and competition generally present in metro areas
- Cable modems and DSL predominantly in urban areas
- POPs are critical gateways

Rural Telecommunications Services

- Tradition of protections
 - loans
 - high cost fund
 - universal service (widespread availability, equitable costs, services)
- Cooperatives
- State policies (exemptions from regulation)

ISPs

- About 6500 nationally
- Consolidation and heterogeneity:
 - AOL: 18m subscribers
 - 69% of all households use a national provider
 - new entrants with cable modem, DSL
- Evidence that some regions, generally rural, have "costly access"

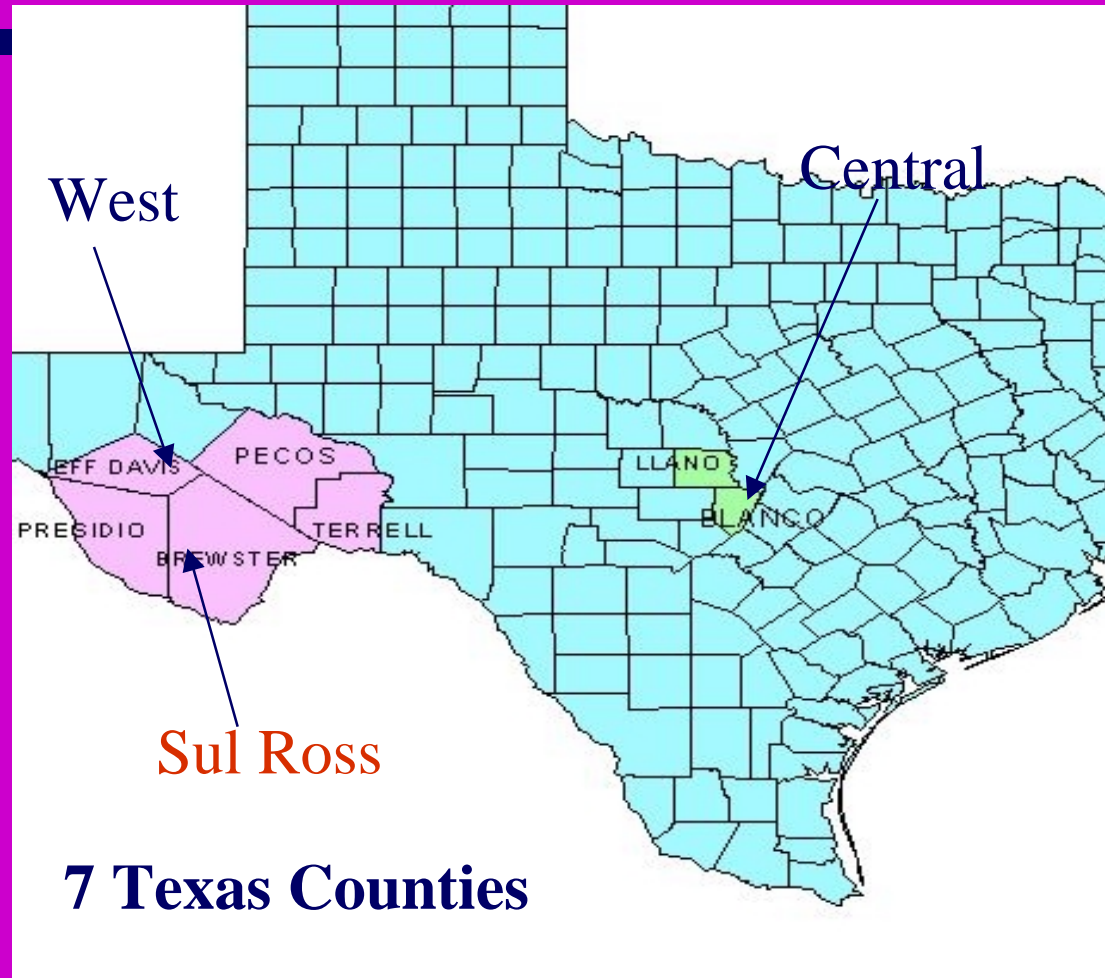
Rural areas and Internet access

- How does deregulation take shape in rural areas?
- How does state or federal policy influence Internet availability in rural regions?

The Research...

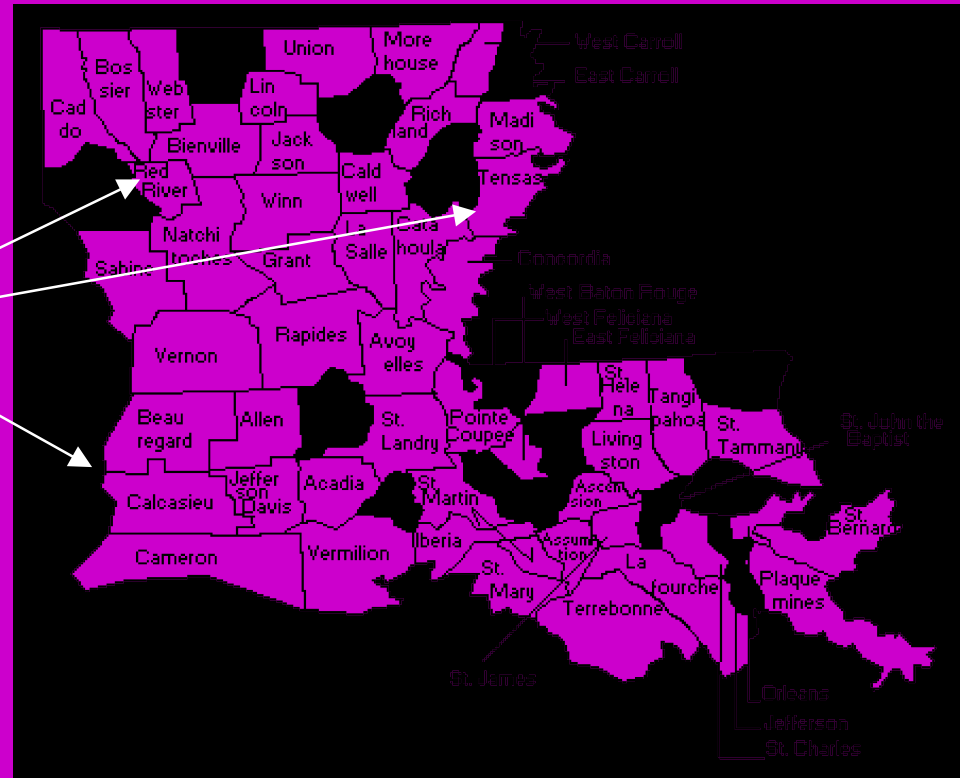
- Who provides Internet services?
- What conditions of availability and service?
- What impediments to service?
- What state policy influences, especially ELC?
- Four states, selected rural counties: TX, Iowa, WV, LA

Texas Sites



Other sites...

- Iowa
- West Virginia
- Louisiana



Data

- Boardwatch, thelist
 - problems...
- ISP interviews
- Regulatory officials
- Telcos
- Secondary data - Iowa

Results snapshots

- Iowa: 811 exchanges
 - 1997 11% of exchanges lack access
 - 1998 8% of exchanges lack access
 - amounts to less than 3% of population

■ Iowa Data

Summary of Data by Exchange

	Iowa exchanges	Percent
With Access	724	89%
Without Access	87	11%
Total Exchanges	811	100%
Local Provider	Without access	Percent
GTE Midwest	79	91%
US West	1	1%
Frontier	1	1%
Other Indep.	6	7%
Total	87	100%

Source: Iowa Utilities Board, 1998. Data from 4th Qtr 1997

Texas

- TX: 180 → 114 → 106 in larger cities;
- 8 providers serving target rural areas, some towns not reached
- Fragile businesses
- Weak infrastructure - no PRI, 28.8, etc.
- Rural exemptions from ELC; 33% statewide success rate

West Virginia and Louisiana

- 502 → 99 local ISPs
 - LA 1 local, 4 regional
 - WV 3 local, 2 regional
- Banded calling plan extends connectivity, but at a cost (\$29.00/mo for Tier 2)
- Difficulties with ILECs: high charges, poor service

Conclusions

- Weak ISP presence in rural regions
 - no choice unless extra charges are paid (toll, banded calling plans)
 - services offered are more limited
- Providers perceive there is a market, but it is difficult to expand
- Rural exemption from unbundling may hurt rural ISPs

Conclusions

- Rural exemptions from ELC (TX) remove it as a tool to aid Internet connectivity
- Extra costs for banded calling add element of inequity (WV, LA)
- Telecommunications infrastructure upgrades slow in reaching rural regions
- Current policies insufficient to close the divide:
 - have/have not or have now/have later?