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Wireless Encryption Practices:
Social Capital Factors and Diffusion of Innovation
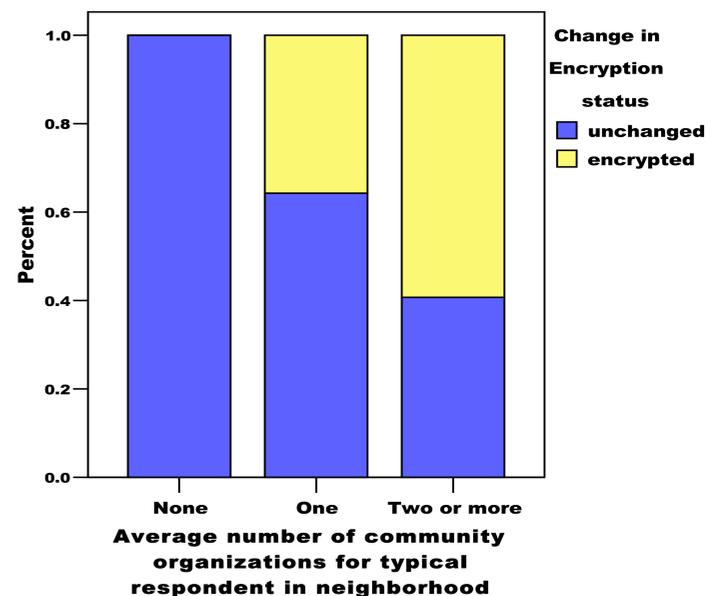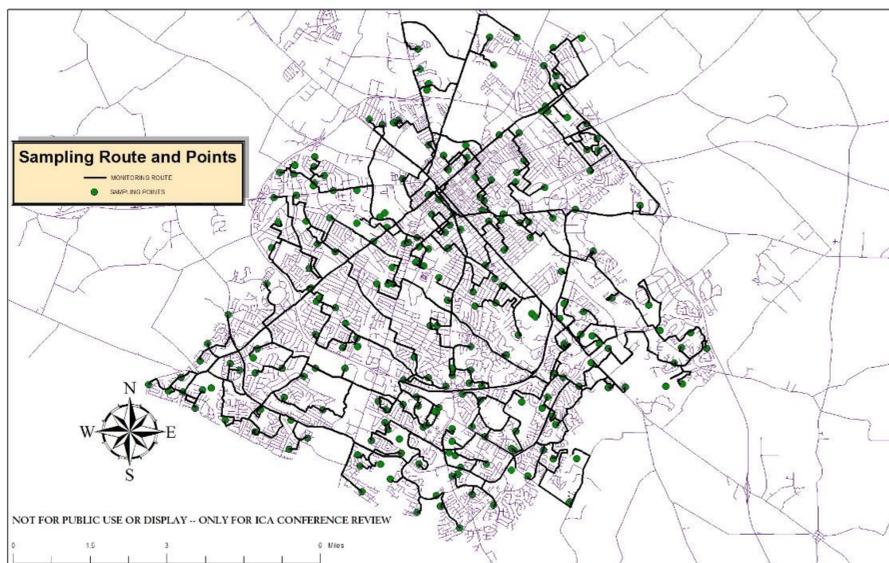
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Project goals

• To examine the relationship between level of social capital and use of encryption practices in residential wireless computer networks

• Compare influence of formal versus informal social capital

Findings

• Strong formal civic capital is an important predictor of adoption of encryption in residential wireless computer networks

• Individual (informal) social ties do not affect diffusion of encryption

Sampling Route and Points
MONITORING ROUTE
SAMPLING POINTS

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Change in Encryption status
— unchanged
— encrypted

Percent

None   One   Two or more

Average number of community organizations for typical respondent in neighborhood

Methodology

• Passive monitoring of wireless networks in Lexington, Kentucky (chosen for its similarity to many key general United States socio-demographic characteristics) in August 2003 and again in May of 2004 using GPS software and zoning maps to determine location and encryption status of residential access points

• Encryption data was aggregated into neighborhood-level variables in order to match our social capital data

Social capital

• A set of characteristics that determine personal and impersonal relationships with others

• Can be manifested in formal and informal ties that can work independently of one another in terms of influencing behaviors

• Measured through questioning residents to determine their level of neighborhood belonging (informal ties) and participation in community organizations (formal ties) and then aggregated to a neighborhood level

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