Chapter 1.3
Information Communication Technology and Its Impact on Rural Community Economic Development

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ABSTRACT

Much rhetoric has been expended by researchers and advocates alike regarding the transformational effects of information communication technology (ICT) on economic and social conditions. Most such rhetoric posits very positive outcomes from the impending changes, economic development being just one of several. This research reports the findings of a three-year effort to determine whether such claims are actually being experienced in rural areas where access is often restricted because of public and private policies. The research findings highlight the importance of social conditions on the capacity of rural communities to effectively harness the potential of ICT for beneficial purposes.

INTRODUCTION

Rhetorical enthusiasm aside, the adoption and diffusion of information and communications technology (ICT) via broadband communications—internet, wireless and satellite—in rural

areas of the United States has been remarkably swift. Beginning in the early 1990s with the Clinton Administration's "Information Superhighway" initiative and relying for the most part on private sector investments, nearly all rural residents were able to get access to these services by 2006-07. For example, recent data released by the Federal Communications Commission for 2007 shows

that there is at least one broadband provider in ninety-eight per cent of the zip codes in the U.S. (FCC, 2007). That does not mean that everyone in those areas is actually connected or using these services, but that they are available at market rates.

This lack of accurate data is unfortunate because the general consensus among economists and other observers is that information technology is at the core of future development trajectories in the U.S. and globally. For example, Henton and associates (1997) argue that this technology and its uses is one of four elements representing the characteristics of the future that communities must address. Don Tapscott (1996) discusses this impact on the business sector at length (as well as in education). Echoing these and other related changes, Mitchell (1995) argues that:

...the most crucial task before us is not one of putting in place the digital plumbing of broadband communications links and associated electronic appliances (which we will certainly get anyway), nor even of producing electronically deliverable 'content,' but rather one of imagining and creating digitally mediated environments for the kinds of lives that we will want to lead and the sorts of communities that we will want to have....It matters because the emerging civic structures and spatial arrangements of the digital era will profoundly affect our access to economic opportunities and public services, the character and content of public discourse, the forms of cultural activity, the enaction of power, and the experiences that give shape and texture to our daily routines. (1995: 5)

As might be imagined, the actual nature of the diffusion and utilization of ICT in rural areas presents a very uneven picture (Bell, et al, 2004). Despite reliance of policy makers on the private sector for service provision and infrastructure development, many rural communities have taken it upon themselves to develop their own infrastructure out of fear they were going to be left out when the private sector made its infra-

structure investment decisions (Pigg and Crank, 2005). At best, many rural areas suspected that private investment that would provide broadband ICT services would be delayed until very late in the process. Especially for those communities that already operated their own utilities, this investment decision was straightforward and different systems—fiber optic, copper, wireless, etc.—were all considered for adoption and implementation with communities choosing those that appeared to best meet their needs. In this study we are primarily interested in the adoption and deployment of broadband services that support internet access. As noted by Bell and associates (2004), the nature of internet service provision in rural areas is quite diffuse with few large private providers serving this market. Further, it is substantiated by our study that many rural internet users indicate they only have one provider available to them and, even in 2003, many of these services did not provide access to broadband (80% of those using the internet were still using dial-up services in 2003).

In this study we were able to determine that these investment decisions were made in some rural communities even before the Clinton initiative was announced. Sometimes rural communities were able to leverage private sector plans for infrastructure investments into implementation of service delivery to their communities that might have otherwise been bypassed. The general attitude for rural community leaders was that, for economic development purposes, remaining competitive in the global economy meant having access to ICT for business and residential use. Repeatedly, when community leaders were asked in this study to identify reasons for their decisions to invest in ICT infrastructure, they responded that this technology was central to commercial interests and, as a rural area, they did not want to be left out of consideration for any type of possible development activity. Beyond that, local development strategies were remarkably unchanged from those documented widely in the literature; industrial attraction still dominated the thinking of rural leaders in this study.

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