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ABSTRACT

The geography of U.S. higher education changed dramatically with the enactment of the Serviceman's Readjustment Act of 1944, popularly known as the G.I. Bill of Rights (Public Law 346). This discussion shows how the G.I. Bill paved the way for marked changes in terms of where colleges and universities were located and who benefited from higher education after World War II. Between 1861 and 1943, the mean founding rate for colleges was 18 colleges a year, but after the G.I. Bill, the founding rate rose to 32 per year. The G.I. Bill resulted in an influx of veterans to college, as a combination of data sources shows. Expanded access for veterans led to increasing numbers of nonveterans because college space was available. The increase in colleges resulted in increased spatial dispersion of institutions, altering the geographic placement of centers of higher education. (Contains 30 references.) (SLD)

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The G.I. Bill and the changing place of U.S. higher education after World War II

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ABSTRACT

The geography of U.S. higher education changed dramatically with the enactment of the G.I. Bill of Rights. I examine how the G.I. Bill paved the way for marked changes in terms of where colleges and universities were located and who benefitted from higher education services after World War II.

Keywords: higher education, geography of education, G.I. Bill

INTRODUCTION

As spatial analysts, geographers have long been interested in the changing patterns of institutions and industries across space and through time. Geographic inquiry into the development of economic activity includes studies of the evolution of institutions and industries, changes in the size and scope of establishments, increasing economic integration, and the potential effects of such phenomena. Higher education institutions¹ form a major industrial sector and provide a fundamental service, yet their analysis from a spatial perspective has been limited. Consequently, surprisingly little is known about *where* particular types of higher education institutions are located across the nation or within regions, states, counties, and locales (Adams, 1998).

The dearth of geographic research into American higher education institutions² is surprising given the spatial, political, and economic scope of the American higher education system. First, American higher education is a geographically dispersed industry and service. In 1994, more than 3,500 two- and four-year accredited colleges and universities were reported across the nation in each of the 50 states and the District of Columbia. The supply of colleges and universities varies widely across states, regions, and by institutional type, yet conceptual and geographic research in these areas is lacking.

Second, higher education institutions form an industrial sector which is impressive, both in terms of the number of its employees and the size of its annual payroll. In 1994, U.S. colleges and universities employed more than 1.2 million

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I define the U.S. system of higher education as comprising all accredited institutions offering a minimum of two years of postsecondary instruction. Generally, therefore, the scope of my research includes all accredited two-year and four-year colleges and universities in the United States. Those elements outside of this definition of the U.S. higher education system— and, thus, not examined here— include vocational technical institutions and those institutions not accredited and, therefore, not recognized by the U.S. Department of Education.

2

I use the terms *institutions*, *colleges*, and *universities* to refer to the universe of post-secondary higher education establishments defined above.

persons (U.S. Bureau of the Census, 1996). In the same year, the combined annual payroll for U.S. colleges and universities was \$25 billion, which accounted for 1 percent of the annual payroll for all industry groups combined (U.S. Bureau of the Census, 1996). Further, more than 65 percent of the annual payroll for education *at all levels* goes to colleges and universities (U.S. Bureau of the Census, 1996). While higher education constitutes a large industrial sector, spatial inquiry into the distribution of employees and payrolls is lacking.

Third, higher education institutions constitute an important, and growing, service provider. Since the late 1940s, enrollment in colleges and universities has increased markedly (Figure 1). For example, in 1949, 2.6 million students attended U.S. colleges and universities, by 1969, enrollment had grown to 8 million students, and, by 1994, enrollment had risen to 13.5 million students (DoE, 1995). Although all types of colleges have experienced rising enrollments, enrollment growth in junior colleges³ has shown the most marked changes. Between 1967 and 1991, the number of students enrolled in junior colleges increased 287 percent (National Science Board, 1993). Despite the dramatic increases in the use of higher education services (here, measured as total enrollment), the spatial dispersion of students— both in general and by institution type— remains a research lacuna.

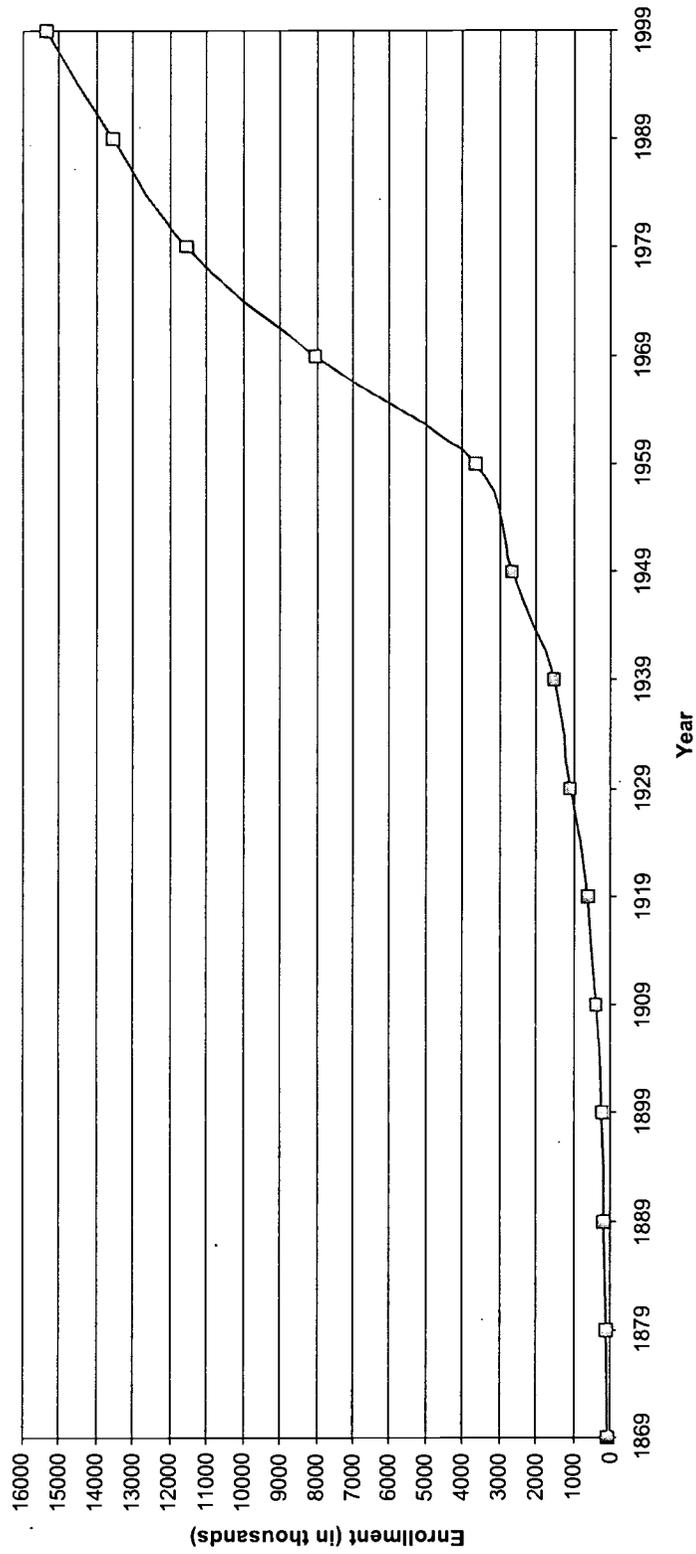
Fourth, the provision of education in the United States is controlled at state and local levels. Higher education, therefore, is decentralized, so that each of the fifty states and the District of Columbia have independent, separate systems governing, regulating, and maintaining their colleges and universities. However, federal action has fundamentally shaped the supply of and demand for higher education services over time. The unique linkages between federal policies and state oversight of higher education merit more analysis, particularly with regard to the supply of colleges and universities across varying geographic scales.

Finally, economic change and industrial restructuring in the U.S. have played an important role in encouraging the expansion of American higher education, in terms of increases in enrollment, growth in the number of institutions, spreading spatial coverage, and diversification of services. Specifically, changing labor market demands following World War II and continuing to today, have impelled growth and change in the higher education industry, and vice versa. Geographers have examined the role of industrial restructuring and the rise of a service economy, yet higher education has been mentioned only peripherally in this research.

³

Two-year colleges are alternatively called *junior colleges*, *community colleges*, and *associate-level colleges* in the literature. For consistency, I will refer to these institutions as *junior colleges*.

Figure 1: College enrollment by decade, 1869-1999



Source: DoE, 1995.



EDUCATION AND THE STATE

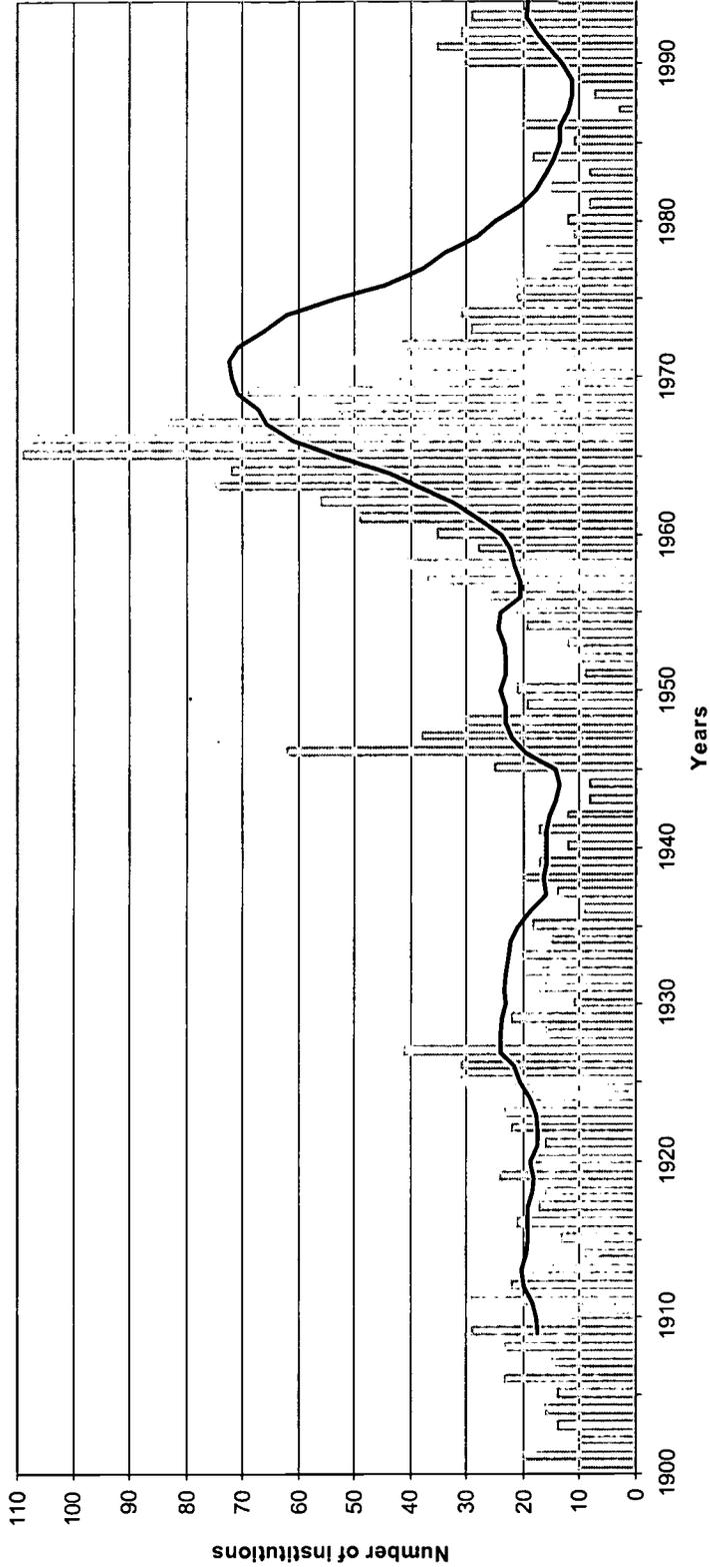
Geographers have long been interested in the provision of services and in the distribution of those services across social and physical space. As previously noted, geographic inquiry into educational provision is limited, despite the fact that public education is one of the largest local state services in many countries (Johnston, 1982). Government spending on education can be viewed both as an investment in human capital specifically and in society more broadly. Because education is a major public expense, government expenditures on education constrain both capacity and resources and, thus, define the parameters of educational expansion and reform (Hall, 1981). Fluctuations in educational expenditures, therefore, impact human capital (i.e., social issues and socialization processes) and economic growth (i.e., research and technology linkages).

The U.S. higher education system is unique in that educational services are both publically and privately provided. In general, it can be said that the federal government exerts minimal control over the operation of public or private colleges and universities. However, the single most important piece of legislation to affect higher education in the twentieth century—the Servicemen’s Readjustment Act of 1944, popularly known as the G.I. Bill of Rights or Public Law 346—was a federal initiative. The Bill forever altered both the public and private provision of higher education in the United States after World War II. Under the Bill, federal subsidies enabled war veterans to attend the college of their choice. Public and private institutions alike faced dramatic and immediate challenges to accommodate the veterans.

Any analysis of the impact of federal policies on non-federal functions raises interesting geographic questions about federalism versus states’ rights. Federal intervention in education, however, historically has been viewed as a positive measure (Allen, 1950). I contend that federal policies which affect education typically have not been met with resistance because of the strong association between education and economic growth. The dissemination of educational opportunity, therefore, can be linked with both democracy and economic growth. Using Veysey’s (1965: 64) words, “. . . ‘democracy’ could refer to the desire for a wider diffusion of knowledge throughout the society.” Geographers previously have noted the linkages between diffusion and education as well (Hägerstrand, 1965; Meyer, 1975). The diffusion of higher education institutions in the United States is best characterized as expansion diffusion, since the total number of adopters (here, the number of higher education institutions) has become larger and larger over time (Figure 2).

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Figure 2: Colleges founded by year, 1900-1994



Total number of colleges established, 1900-1994=2455
 Trendline reflects running mean using 10-year intervals.
 Sources: Hurt, 1940; U.S. Department of Health, Education, and Welfare, 1952, 1962; DoE, 1968, 1970, 1976, 1981, 1984; DoE, 1998.

COLLEGES, VETERANS, AND COMMUNITIES

Although my research emphasizes the provision of higher education after World War II, providing an overview of American higher education since its origination is a critical precursor to my analysis. Therefore, in this section, I highlight the structures⁴ of American higher education during the following historical periods:

- pre-1861
- 1861-1943
- 1944-1994

These periods were selected because they epitomize eras in which significant variations in the functional and spatial provision of higher education occurred. In addition to functional and spatial variations among eras, there also are key differences in the number of institutions founded during each time period (Table 1).⁵ For instance, before the Civil War began in 1861, the mean rate of college founding was less than two colleges per year. Between 1861 and 1943, the mean founding rate had risen to 18 colleges per year. After the G.I. Bill was enacted in 1944, the mean founding rate rose to 32 foundings per year, with the highest annual mean occurring between 1960 and 1979. For each time period, I examine and explain variations in the founding, function, characteristics, and spatial representation of American higher education.

Table 1: Colleges established, by era, 1636-1994

Era	Dates	Colleges established	Number of years	Mean number established per year
pre-1861	1636-1774	14	139	0.1
	1775-1819	56	45	1.2
	1820-1860	319	41	7.8
1861-1943	1861-1929	1281	69	18.6
	1930-1943	209	14	14.9
1944-1994	1944-1959	407	16	25.4
	1960-1979	994	20	49.7
	1980-1994	251	15	16.7
	<i>total</i>	3531	359	9.8

Sources: Hurt, 1940; U.S. Department of Health, Education, and Welfare, 1952, 1962; DoE, 1968, 1970, 1976, 1981, 1984; DoE, 1998.

⁴

By *structures*, I refer to the people, places, and interest groups at work in shaping and changing U.S. higher education over space and through time.

⁵

The data I discuss only includes those colleges which have survived to 1994.

American higher education has undergone a series of transformations and reformulations since the founding of Harvard College in 1636. In addition to Harvard, 13 other colleges were established during the Colonial era— including William and Mary (1693), Yale (1701), Princeton (1746), the University of Pennsylvania (1753), Columbia (1754), Brown (1764), Rutgers (1766), and Dartmouth (1769). These early American colleges emulated Harvard, whose structure followed the English traditions of Oxford and Cambridge (Brubacher and Rudy, 1958; Torbenson, 1992). However, in contrast to the classical focus of English colleges, the Colonial colleges were established as centers for ministerial training. Through to the early nineteenth century, religion remained an important cultural influence on American society which affected both American higher education in particular and the dissemination of knowledge in general. American religious pluralism of the time paved the way for the small, religious college movement; the sectarian proliferation of colleges was wide-spread, while civic idealism encouraged the idea of a “university in every town,” even though demand for educational services was low (Boorstin, 1966; Handlin and Handlin, 1970). Thus, nineteenth century religious pluralism contributed to the geographic dispersion of small, local institutions across the ever-expanding nation.

After the passage of the Morrill Land-Grant Act in 1862, the mission of American higher education diversified. The land-grant college movement after 1862 effectively broadened the mission of higher education. Further, between 1862 and 1943, education began to play a more crucial economic role in American society in terms of technological innovation and worker training. Professionalization was on the rise, and education was seen as a vehicle for social mobility. Following World War II, American society entered a new era characterized by dramatic economic and social restructuring. In particular, there were significant changes in the structure and geography of the U.S. economy. The G.I. Bill was an unintentional instigator for key social and economic changes which occurred in the U.S. following World War II. Specifically, the guarantee of federal funding for veterans gave rise to marked increases in home ownership, small business start-ups, and college enrollments. In this research, I examine one facet of the G.I. Bill— the provision enabling war veterans to secure funding to attend college.

The G.I. Bill provided educational opportunities for veterans as part of a World War II demobilization policy that continues to today. The federal mandate of the G.I. Bill led to an influx of veterans to colleges and universities, which created immediate and long-term implications for states and localities across the nation. In all, it has been estimated that approximately 2.2 million veterans— roughly one-third of all veterans returning from World War II— entered U.S. colleges and universities under the G.I. Bill between 1944 and 1960 (Rudolph, 1962; Kiester, 1994). The

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challenge facing higher education in the late 1940s into the 1960s was to accommodate World War II and Korean War veterans in the approximately 1,800 existing colleges and universities and to build new institutions in response to the rapidly growing demand for higher education services. This challenge was not a minor hurdle. In this research, I examine how the G.I. Bill impacted communities across the nation by broadening access to higher education services and changing the spatial structure of higher education.

METHODOLOGY

Data sources

The population of colleges and universities in this study was compiled using Department of Education data. A combination of four data sources was used to collect institutional information: the *Integrated Postsecondary Data Survey (IPEDS)* (DoE, 1998), the *Higher Education General Information Survey (HEGIS)* (DoE, 1968, 1970, 1976, 1981, 1984), the *Education directory* (U.S. Department of Health, Education, and Welfare, 1952, 1962), and the *College blue book* (Hurt, 1940).

Selection of institutions

The study examines the universe of U.S. institutions of higher education offering (1) at least two, but less than four, years or (2) four or more years of postsecondary instruction. According to the Department of Education (1998), there were 5,476 institutions which fell under this definition of higher education during the 1994-1995 academic year. From the initial population of 5,476 institutions, I omitted 136 institutions with no 1994 enrollment listed in *IPEDS* (DoE, 1998). Further, I excluded 1,709 institutions which were not accredited by an association or agency recognized by the Department of Education.⁶ In addition to restricting my study to accredited institutions, I also limited my data set to those institutions located within the 50 U.S. states and the District of Columbia. One hundred institutions in outlying territories of the U.S. were excluded from the initial data set, leaving a total population of 3,531 institutions.

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I restricted my analyses to accredited institutions. Accreditation is an important screening process in ensuring accountability and quality in the provision of higher education. Moreover, accreditation by a recognized association or agency is a requirement for an institution to receive federal funding. Since the G.I. Bill provided veterans with federal assistance to attend college, veterans could only use G.I. Bill funds at accredited institutions.

Description of geographic scales

Four geographic variables were used in the empirical analyses. Institutions were first located within a state and county. Institutions also were located within Census regions and Veterans' Administration regions. The use of multiple geographic coding enables me to map and analyze individual institutions and groups of institutions across a variety of spatial scales and contexts.

Objectives

The central thesis of this research is that the G.I. Bill forever altered the geographic supply and provision of American higher education. Specifically, I suggest that the G.I. Bill was a stimulus for social and economic restructuring in two primary ways, facilitating access and fostering growth. First, the Bill was pivotal in expanding access to higher education services. The Bill increased the likelihood that World War II veterans would be able to attend college. As thousands of veterans took advantage of G.I. Bill education benefits, many new colleges and universities were founded, and new types of institutions—such as the junior college—emerged. The expanded supply of higher educational institutions across the nation gave rise to increasing numbers of non-veteran enrollees in the 1950s and 1960s. By expanding veterans' access to higher education services via federal funding, access to higher education was broadened for all American citizens. Thus, the G.I. Bill promoted increased equity in college attendance and led to the democratization of the opportunity for higher education.

Second, the growth of higher education institutions—both in terms of enrollment size and in terms of the number of new institutions established—has had marked effects on the spatial structure of higher education. In other words, there was a greater dispersion of colleges and universities across the nation after the G.I. Bill was enacted. Increased spatial dispersion in the provision of higher education has had profound implications for the nation, for states, for regions, and for communities. My literature-based and empirical analyses follow from this two-tiered framework. In other words, my analyses are divided into those which support the “access” argument and those which follow the “structure” argument.

Analysis

In the first part of my analysis, I address the following question: *How did the G.I. Bill affect access to higher education services?* In order to answer this question, I explore how the G.I. Bill was pivotal in expanding access to higher education

in terms of *who* benefitted from higher education services and *how* higher education was provided and controlled. First, the G.I. Bill had a lasting impact on *who* attended colleges and universities. In essence, the Bill symbolized a new era for American higher education— an era in which access to a higher education was significantly broadened (Hyman, 1986; Kempner and Kinnick, 1990; Kiester, 1994). In order to accommodate the new demand for higher education fueled by the G.I. Bill, existing colleges and universities expanded their enrollments (Jencks and Riesman, 1968), and nearly 1,700 new institutions were founded between 1944 and 1994. The founding of new colleges and universities further opened the door to broadened access to higher education by increasing the diversity of institutional types. Second, therefore, in addition to changes in who benefitted from higher education services, the decades after 1944 also were marked by dramatic changes in *how* higher education was provided and controlled in American society. Prior to 1944 when the G.I. Bill was enacted, private, four-year colleges and universities dominated the higher education system. Since 1944, however, the majority of new colleges and universities established have been public, junior colleges. I examine how and why the G.I. Bill instigated these types of changes in the control and level of colleges and universities across the nation.

The second part of my analysis focuses on the spatial structure of higher education. The interpretation and analyses here address the question: *How did the G.I. Bill alter where higher education services were provided?* Specifically, I am concerned with the spatial provision of higher education services and with changes in *where* higher education services were provided after World War II. Just as there have been marked changes in who attended higher education institutions and in the types of institutions established, so too have there been important changes in the locations of higher education institutions since 1944. The siting of junior colleges in diverse geographic locales— ranging from large cities and urban fringe areas to small towns and rural places— has been particularly influential in making higher education services more accessible to a wider variety of students. The increase in geographic accessibility to colleges and universities has been particularly dramatic in certain geographic contexts (i.e., the south, the west, and urban areas) which had been under-served markets for higher education services prior to 1944.

CONCLUSIONS AND SIGNIFICANCE OF STUDY

An analysis of the changing spatial structure of higher education in the United States makes at least three contributions to both educational and interdisciplinary research. First, this research augments existing analyses of institutional founding by adding an essential spatial dimension. The potential importance of spatial perspectives in higher

education research has been recognized both within geography (Fonseca and Andrews, 1993) and in higher education (Riddle, 1989). However, inquiry into the supply of higher education services across space has not been a research emphasis. This study fills both a theoretical and empirical gap in higher education research by addressing the linkages between the role of the state and the spatial diffusion of American higher education. Specifically, I address the linkages among industrial restructuring, the role of the state, and the geographic diffusion of American higher education.

Second, inquiry into the role of the G.I. Bill in shaping the supply of and demand for higher education raises interesting questions about federalism versus states' rights. Specifically, the research addresses the unique linkages between federal policies and state oversight of higher education— issues which merit more analysis, particularly with regard to the changing spatial and social access to higher education services after World War II.

Finally, geographic inquiry into the economic, political, and spatial influences of federal actions on institutions at a variety of spatial scales is an established research direction (c.f., Erickson, 1977; Ó hUallacháin, 1987, Cox and Mair, 1988; Markusen, 1994). This study adds a new dimension to existing research by being the first spatial inquiry into how the G.I. Bill fundamentally shaped higher education— and, therefore, American society— in the middle and latter part of the twentieth century.

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