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THE ATTRACTION OF ADJUNCT FACULTY TO RURAL COMMUNITY
COLLEGES

by

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B.A. May 1991, Cornell University
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A Dissertation Submitted to the Faculty of
Old Dominion University in Partial Fulfillment of the
Requirement for the Degree of


DOCTOR OF PHILOSOPHY


COMMUNITY COLLEGE LEADERSHIP

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May 2010

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ABSTRACT

THE ATTRACTION OF ADJUNCT FACULTY TO RURAL COMMUNITY COLLEGES

Hara Dracon Charlier
Old Dominion University, 2010
Director: Dr. Mitchell R. Williams

As rural community colleges face mounting fiscal pressure, the ability to attract adjunct faculty members to support the institutional mission becomes increasingly important. Although the professional literature documents differences between rural, suburban, and urban community colleges, the effect of this institutional diversity on the role and attraction of adjunct faculty has not been explored. The purpose of this cross-sectional, national study of chief academic officers (CAOs) was to examine the impact of institutional type on the reliance on and demand for adjunct faculty across teaching disciplines and explore the applicability of the applicant attraction model (Rynes & Barber, 1990) to meet that demand.

An instrument was developed and validated to assess the level of reliance on and unmet demand for adjunct faculty, and the extent to which applicant attraction strategies are being used in the areas of recruitment, employment inducement, and the consideration of alternate applicant pools. The survey was electronically distributed to 887 CAOs of publicly-supported American Association of Community College member institutions.

Rural institutions rely less on adjunct faculty than non-rural institutions, while both rural and urban institutions have high levels of unmet demand for adjunct faculty. This demand is evident in traditional high-demand disciplines of Natural and Physical Sciences, Engineering and Industrial Technologies, Health Technologies, and Nursing.

Additionally, rural institutions have greater unmet need than suburban institutions in Arts and Humanities, Social Sciences, Mathematics, Business, and Computer Technologies. Limited applicant pools and difficulty competing for candidates are contributing factors. To meet the demand for adjuncts, institutions are using strategies consistent with the applicant attraction model in the areas of recruitment, employment inducement, and the consideration of alternate applicant pools, with rural institutions using strategies more frequently than non-rural institutions.

The study suggests methods for understanding the role of adjunct faculty and highlights attraction strategies being used in rural, suburban, and urban community colleges. Practitioners are advised to develop a strategic plan, based on the applicant attraction model, in which regional factors and institutional needs drive decisions about attraction strategies. Academic leaders are urged to recognize investment in adjunct faculty as an investment in the institution.

This dissertation is dedicated to
my husband, Russ, and daughters, Devon and Lili.

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I have been so fortunate to have had my life influenced by a series of wonderful mentors, many more than any one person deserves. My most sincere gratitude to the late Dr. Don Cox, who taught me to love what I do – teach; to Dr. Jim Hickey, who taught me how to teach; to Drs. Anne Morris-Hooke and Mary Woodworth, who showed me what strong women can accomplish; to Dr. Jim Perkins, whose leadership has been a guiding light; to Dr. John Downey, who allowed me to grow and learn from my mistakes; and to Dr. Bud Levin, who continues to teach me that pot-stirring is a good thing. Thank you to Hans Zeigler, who taught me how to think; Dr. Anne Payne, who taught me how to

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Most of all, however, my most heartfelt thanks to my husband, Russ, and my daughters, Devon and Lili who are, quite simply, my heroes. Russ is my hero of support and patience, Devon my eco-hero of knowing oneself and kindness, and Lili my sunny hero of living life to the fullest. Words cannot express my appreciation for their love and support, even when I could not to give them all they deserved. They have taught me so much about life, and I want to be just like them when I grow up!

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CHAPTER 1

INTRODUCTION

Approximately 60% of all community college campuses in the United States serve rural areas (Carnegie Foundation for the Advancement of Teaching, 2006b; Hardy & Katsinas, 2007). These institutions face unique challenges associated with serving communities of vast geographies, comprehensive needs, and weakened economies (Hardy & Katsinas). One particular challenge is the struggle to attract faculty members to teach in rural settings (Murray, 2007; Pennington, Williams, & Karvonen, 2006). Furthermore, during fiscal shortfalls, rural institutions are often more significantly impacted than their non-rural counterparts (Katsinas, 2007). Therefore, a strong pool of qualified adjunct faculty can be a vital tool for sustaining curricula while being fiscally prudent (Christensen, 2008).

It is widely accepted that the successful recruitment of qualified adjunct faculty members is critical to the community college mission (Green, 2007; Levin, 2007; Wallin, 2004, 2005). According to Levin, "...part-time faculty are central, not peripheral, to the community college enterprise" (p.16). Adjuncts provide institutions with the expertise and flexibility to meet rapidly changing needs while maintaining fiscal solvency (Christensen, 2008). As enrollments have grown, faculty retirements have escalated (Evelyn, 2001; McCormack, 2008), and budgets have been tightened (Christensen), community colleges have become increasingly dependent on adjunct faculty (Cataldi, Fahimi, & Bradburn, 2005).

Despite the difficulty attracting faculty to rural institutions (Murray, 2007; Pennington, Williams, & Karvonen, 2006), the contention that adjunct faculty become

increasingly important during fiscal shortfalls (Christensen, 2008), and evidence suggesting adjunct vacancies often go unfilled (Fagen-Wilen, Springer, Ambrosino, & White, 2006), few studies have addressed part-time faculty in rural institutions. While these studies tend to focus on mechanisms of integrating adjuncts into the institutional culture, they also confirm the importance of adjuncts across disciplines (Stout, 2008) and suggest recruiting part-time faculty continues to be challenging (Maestas, 2005; Stout; Yackee, 2000). Additionally, as case studies focused on individual rural institutions (Maestas) or regions (Stout; Yackee), these studies do not provide a mechanism for comparing the reliance on and demand for adjuncts in rural and non-rural community colleges at the national level. Additionally, researchers have yet to quantitatively investigate strategies for the successful attraction of qualified part-time faculty members in rural, suburban, and urban institutions.

The Rynes and Barber (1990) applicant-attraction model provides a framework for understanding how institutional decisions impact the attractiveness of position vacancies. According to the model, applicants are attracted to positions by variations in (a) recruitment practices, (b) employment inducements, and (c) the consideration of non-traditional applicant pools. As rural community colleges are often faced with a limited labor market (Maestas, 2005; Pennington, Williams, & Karvonen, 2006) and unique organizational characteristics (Cejda & Leist, 2006; Eddy & Murray, 2007), this model may be particularly applicable to rural institutions seeking adjunct faculty members. Although the model has been studied in the human resources literature related to the private sector (Collins & Han, 2004; Heneman & Berkley, 1999) and public schools (Harris, 2006; Winter, 1996b), only a few studies have assessed its applicability in higher

education (Murrell & Hughey, 2003; Winter, 1996a). The current study contributes to the understanding of the demand for adjunct faculty in rural, suburban, and urban institutions and assesses the applicability of the applicant-attraction model for the attraction of adjunct faculty members to teach in rural community colleges.

Background

The American Association for Community Colleges recognizes 1,195 institutions across the United States (American Association of Community Colleges, 2009). While Cohen and Brawer's (2003) five-point mission unifies the majority of the nation's two-year colleges, the context in which institutions strive to achieve this mission varies considerably. Factors such as geographic area, population served, funding sources, and governance system necessarily result in institutional diversity (Katsinas, 1993).

This diversity is especially prominent when considering the influence of geographic service area. Serving dense populations, urban institutions enroll a high proportion of students who are low-income and more likely to require remediation. Additionally, as the two-year institutions most significantly impacted by immigration, urban institutions serve a diverse student body. To meet the needs of this student body, urban two-year community colleges tend to emphasize vocational programming leading directly to employment (Katsinas, 1993). Suburban community colleges, on the other hand, often emphasize liberal arts and transfer programming and focus vocational training on high-technology occupations. Typically located in areas with strong tax bases and high property values, suburban institutions can often depend on a steady funding stream from local sources. As a result, suburban institutions tend to have more resources than their urban and rural counterparts (Katsinas). Conversely, rural community colleges

struggle to operate in weak economies and contracting tax bases (Hall, 2003; Rubin, 2001). They often adopt, however, a comprehensive approach to the mission by striving to balance curricula dedicated to both vocation and transfer (Cavan, 1995; Katsinas) while promoting regional economic development (Dellinger, 2002; Garza & Eller, 1998; Hardy & Katsinas, 2007; Holub, 1996; Jensen & McEldowney, 2003). These institutions serve the greatest proportion of first-generation students (Hardy & Katsinas; Katsinas) as well as those least likely to transfer (Castandea, 2002).

Despite the distinct heterogeneity of the nation's institutions, much of the scholarly research on community colleges has been limited by the Carnegie Foundation for the Advancement of Teaching's classification system, which historically aggregated all two-year institutions into a single category (McCormick & Zhao, 2005). Katsinas (1993) argued "...lumping all two-year colleges together has inhibited our understanding of the diversity among and between community colleges, their missions, functions, curricula, students, and faculty" (p.1). In 2005, a new classification system was developed that disaggregated two-year institutions on the basis of geographic service area and institutional size. The classification scheme recognized community colleges are ultimately defined by the populations they serve. As shown in Figure 1, the new system added the term *serving* to the descriptions of rural, urban, and suburban institutions (Carnegie Foundation for the Advancement of Teaching, 2006a).

The new classification system (Carnegie Foundation for the Advancement of Teaching, 2006b) categorizes institutions as rural, suburban, or urban, based on the U.S. Census Bureau Office of Management and Budget definitions (U.S. Census Bureau, n.d.). According to these definitions, Metropolitan Statistical Areas (MSA) have a population

of at least 100,000 and contain a core large population nucleus of at least 50,000 and surrounding areas that are highly economically and socially integrated with the core area. Primary Metropolitan Statistical Areas (PMSA) are MSAs that have significant commuting interchange with another MSA. Therefore, the new Carnegie classification system (2006b) defined urban-serving and suburban-serving institutions as those located within PMSAs or MSAs with populations of at least 500,000, respectively. Rural institutions were defined as those outside PMSAs or MSAs or within PMSAs or MSAs with populations of less than 500,000. This definition is far more inclusive than that previously used by Vineyard (1978), which defined rural institutions as those within centers of less than 100,000, serving a wide geographic area and with a comprehensive institutional mission. The resultant 922 community college campuses now defined as rural provide opportunity to enhance efforts to understand these unique institutions through comparison with their suburban and urban counterparts (Hardy & Katsinas, 2007).

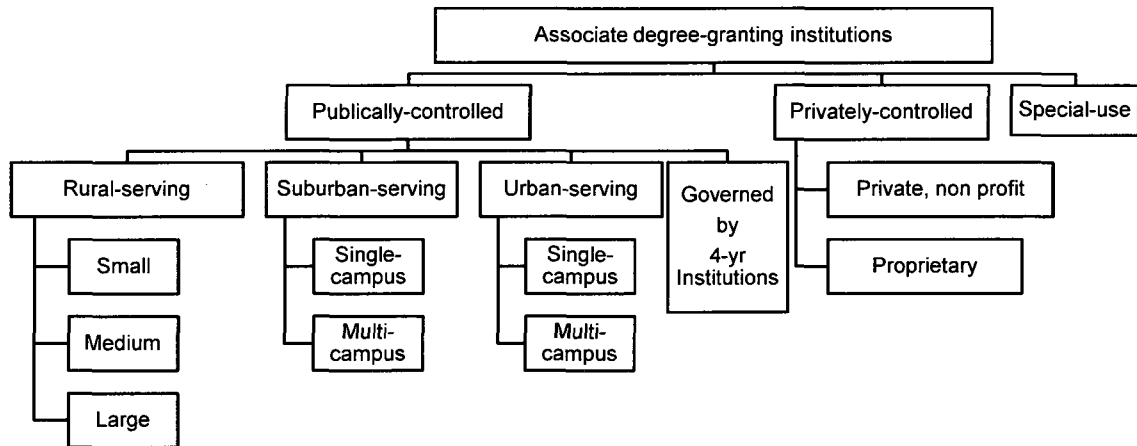


Figure 1. 2005 Carnegie basic classification system disaggregation of associate degree-granting institutions (Hardy & Katsinas, 2007).

Consistent with Vineyard's (1978) contention that institutional size, as defined by unduplicated headcount, is a key variable, researchers agree small, rural institutions face different challenges from their medium and large counterparts (Hardy & Katsinas, 2007). Therefore, the new Carnegie (2006b) system disaggregated rural institutions on the basis of unduplicated headcounts of small (less than 2,500), medium (2,500 through 7,500), and large (greater than 7,500). According to Hardy and Katsinas (2007), the nation's 140 small, rural community colleges are likely to have fewer resources, and faculty members are more likely to perform multiple functions. Because economies of size do not exist for these institutions, they are less likely to offer comprehensive curricula. The new Carnegie classification system will further researchers' understanding of the challenges faced by these unique institutions.

Rural Community Colleges

According to the Carnegie Foundation for the Advancement of Teaching (2006b), the rural community college campuses in the United States enroll over three million students. Serving 34% of all community college students, rural community colleges play a critical role in American higher education. These institutions are challenged to catalyze rural development within the context of weakened economies, sustained poverty (Hall, 2003; Rubin, 2001), high unemployment (Miller & Kissinger, 2007; Miller & Tuttle, 2007), and limited academic preparation (Hardy & Katsinas, 2007).

Given the challenges associated with serving rural communities, it is not surprising rural community colleges face unique issues. Leaders of these institutions expressed concern about the changing mission emphasizing the community college as a catalyst for development (McJunkin, 2005; Pennington, Williams, & Karvonen, 2006). They also expressed concern about both the promises and challenges of technological advancement (Katsinas & Moeck, 2002; Pennington, Williams, & Karvonen; Vineyard). Additionally, leaders cited financial inequities (Katsinas, Alexander, & Opp, 2003; Pennington, Williams, & Karvonen) as ongoing challenges. Finally, researchers agreed teaching in a rural setting is not universally appealing. For many potential faculty members, the benefits of the pastoral setting and rural lifestyle are offset by a limited tax base, fewer culture amenities, and lower education levels of the population (Eddy, 2007; Murray, 2005; Pennington, Williams, & Karvonen). As a result, recruiting qualified faculty to teach in rural areas continues to be one of the top challenges facing rural institutions (Maestas, 2005; Murray, 2005; Pennington, Williams, & Karvonen).

Although Murray (2007) suggested creative approaches to attracting faculty, there have been no empirical studies focused on specific recruitment strategies for rural institutions.

Adjunct Faculty

Gappa and Leslie (1993) defined adjuncts as "...those individuals who are temporary, non-tenure track faculty employed less than full-time" (p. 3). According to the American Federation of Teachers (2009), in 2007, 68% of community college faculty were employed part-time. Despite concerns about the increasing dependency on part-time instruction (Banachowski, 1996; Benjamin, 2000, 2002; Christensen, 2008; Eagan & Jaeger, 2008), the benefits of adjunct faculty are undeniable (Christensen; Levin, 2007; Wallin, 2007). They bring a wealth of practical expertise, enriching the college culture and allowing institutions to offer courses requiring practical specialization (Wagoner, 2007; Wagoner, Metcalfe, & Olaore, 2005). Adjuncts also provide institutions with the flexibility to respond to rapid enrollment changes (Umbach, 2007). Additionally, employment of part-time instructors is a critical part of the plan to meet enrollment demands in a climate of ever-tightening budgets (Christensen). As a result "...part-time faculty are central, not peripheral, to the community college enterprise" (Levin, 2007, p. 16).

Although rural community colleges employ fewer adjunct faculty than their non-rural counterparts (Eddy, 2007), part-time faculty continue to be important to the rural institutional mission (Levin, 2007; Stout, 2008; Wallin, 2004, 2005). Additionally, it is widely accepted that adjunct faculty become even more important during times of fiscal challenge (Christensen, 2008). This, taken with the contention that rural colleges are especially impacted during difficult fiscal times (Hardy & Katsinas, 2007), suggests a

strong pool of qualified, adjunct faculty may be an important resource for rural community colleges (Stout). Despite this contention, efforts to understand the unmet need for adjunct faculty across institutional type have been limited to studies focused on particular regions of the country (Stout; Yackee, 2000). Additionally, although researchers have discussed the importance of strengthening adjunct ranks (Twombly, 2005) and underscored the importance of a systematic method for recruitment of adjunct faculty (Wallin, 2004, 2005), few empirical studies have addressed strategies or models to attract qualified applicants for adjunct positions (Roueche, Roueche, & Milliron, 1998).

Purpose

The purpose of this cross-sectional study was to examine the effect of community college institutional type (rural, suburban, and urban) on the reliance on and unmet demand for adjunct faculty members across teaching disciplines and to explore the applicability of the applicant attraction model (Rynes & Barber, 1990) to meet that demand. A survey was administered to chief academic officers (CAOs) of community colleges to examine their perceptions of the reliance on and unmet demand for adjunct faculty, controlling for institutional size. The independent variable was institutional type (rural, suburban, urban). The degree of reliance on adjunct faculty was examined using two dependent variables: CAOs' perceptions of the percentage of faculty employed on a part-time basis and the percentage of credit hours taught by adjunct faculty. The unmet demand for adjunct faculty was assessed using two dependent variables: overall unmet demand and discipline-specific unmet demand. These variables were based on respondents' perceptions of the degree to which attracting adjuncts is an institutional

challenge, the availability of qualified adjunct faculty, and the degree to which the availability of adjunct faculty limits course offerings for each of the following 12 discipline clusters:

- English
- Natural and Physical Sciences
- Arts and Humanities
- Social Sciences
- Mathematics
- Business
- Computer Technologies
- Education
- Engineering and Industrial Technologies
- Health Technologies (other than Nursing)
- Nursing
- Public Service Technologies

The survey also explored strategies used by community colleges to attract adjunct faculty within the applicant attraction framework by identifying institutional practices addressing recruitment, employment inducements, and alternate applicant pools (Rynes & Barber, 1990). This information contributes to the understanding of the role of adjunct faculty in rural community colleges and provides institutions with a clear attraction model to enhance their ability to meet the demand for adjunct faculty in the future.

Research Questions

The following research questions guided the study:

1. Are there statistically significant differences in the perceptions of rural, suburban, and urban community college CAOs regarding the reliance on adjunct faculty as defined by the percentage of faculty employed on a part-time basis and the percentage of credit hours taught by adjunct faculty? This question explored the reliance on adjunct faculty in rural, suburban, and urban institutions. While researchers have previously demonstrated the dependency on part-time instructors in community colleges, the data were not disaggregated based on institutional type (Christensen, 2008). This information furthered the understanding of the need for adjuncts in rural institutions and allowed subsequent data regarding unmet adjunct need to be assessed within the context of overall adjunct dependency.
2. Are there statistically significant differences in the perceptions of rural, suburban, and urban community college CAOs regarding the overall unmet demand for adjunct faculty? Research indicates rural institutions struggle to attract full-time faculty (Murray, 2007; Reeves & Galant, 1986) and suggests institutions in rural regions have difficulty filling adjunct positions (Stout, 2008; Yackee, 2000). However, previous studies had not investigated the unmet need for part-time faculty at the national level. To answer the question, the instrument collected data about CAOs' perceptions of the availability of qualified adjunct faculty, the influence of adjunct availability on course offerings, and the degree to which attracting adjuncts is an institutional challenge for each of 12 discipline clusters.

An additive, composite score was calculated to serve as the dependent variable, overall unmet adjunct demand.

3. Are there statistically significant differences in the perceptions of rural, suburban, and urban community college CAOs regarding the discipline-specific unmet demand for adjunct faculty? This question explored the impact of teaching discipline on the unmet demand for adjunct faculty. Researchers have suggested unmet need for full-time (Reeves & Galant, 1986) and adjunct faculty (Stout, 2008) varies with teaching discipline, but no previous studies have examined adjunct need according to teaching discipline and institutional type on a national level. To answer this question, unmet adjunct demand scores for each of 12 disciplines were disaggregated and analyzed as separate dependent variables. This information provides institutions with information about how to focus attraction efforts.
4. To what extent are rural, suburban, and urban community colleges using applicant attraction strategies in the areas of recruitment, employment inducements, and consideration of alternate applicant pools to enhance the attraction of adjunct faculty? This question explored the strategies used by community colleges to attract adjunct faculty. Survey respondents were asked to report their institution's use of attraction strategies in the areas of recruitment, employment inducement, and the consideration of alternate applicant pools, as suggested by the applicant attraction model (Rynes & Barber, 1990). This information allowed the researcher to determine the applicability of the applicant attraction model for the recruitment

of adjunct faculty and provided community colleges with a framework to guide future efforts to meet their need for part-time faculty.

Professional Significance

Higher education's reliance on part-time faculty has continually escalated, with the number of adjunct faculty increasing by over 100% between 1975 and 2007 (American Federation of Teachers, 2009; Umbach, 2007). This trend is especially profound in the community college environment where an estimated 68% of all faculty were employed on a part-time basis in 2007 (American Federation of Teachers). Neither researchers nor community college leaders expect the trend to abate (Feldman & Turnley, 2004; Gappa, Austin, & Trice, 2005). This escalation is inversely correlated with the availability of funding to community colleges (Christensen, 2008). During the same period, state and local support for institutions have dwindled, and tuition revenues have become increasingly important to the institutional operating budgets (Cejda & Leist, 2006). Christensen contended institutions depend more heavily on adjunct faculty as budgets become more limiting. As a result, it is widely accepted that enrollment demands could not be met without the contribution of adjunct faculty (Levin, 2007; Sophos, 2003; Wallin, 2004). Moreover, community college leaders have been encouraged to cultivate and support the adjunct constituency in the interests of promoting the community college mission (Wallin, 2005).

While the employment of adjunct faculty has been widely studied (Benjamin, 1998; Cataldi, Fahimi, & Bradburn, 2005; Christensen, 2008), researchers have struggled to understand this important group. This is partly due to the fact that adjuncts are a heterogeneous constituency. Leslie and Gappa (2002) explained adjuncts are diverse with

respect to motivations and goals. Researchers have approached this diversity by investigating various aspects of adjunct employment (Benjamin, 2002), characteristics (Leslie & Gappa, 2002; Tillyer, 2005), satisfaction (Antony & Valadez, 2002; Feldman & Turnley, 2001; Isaac & Boyer, 2007; Jacoby, 2005; Maynard & Joseph, 2008), integration (Feldman & Turnley, 2001; Gordon, 2002; Roueche, 1996; Roueche, Roueche, & Milliron, 1998; Stout, 2008), and inequities (Benjamin, 2002; Gappa, 1984).

One variable that has, however, been given little consideration is the impact of institutional diversity on the role and attraction of adjunct faculty (Roueche, Roueche, & Milliron, 1998; Stout, 2008; Yackee, 2000). In an analysis of faculty across academe, Clark (1997) asserted "institutional differentiation interacts with disciplinary differentiation in a bewildering fashion that steadily widens and deepens the matrix of differences that separate American academics from each other" (p.30). Researchers posit institutional diversity becomes especially obvious and problematic when comparing institutions serving diverse populations. Hardy and Katsinas (2007) argued small, rural institutions face very different challenges than those serving urban and suburban areas. Scholarly work on community colleges has, however, been inhibited by the practice of aggregating community college data into a single category (Hardy & Katsinas, 2006, 2007; Katsinas, 1993).

The new Carnegie classification system (Carnegie Foundation for the Advancement of Teaching, 2006b) emphasizes community college diversity in the context of geographic service area, recognizing rural, suburban, and urban community colleges face different challenges (Hardy & Katsinas, 2007; Katsinas, 2007).

“Demonstrating the diversity that is well known by practitioners but perhaps overlooked

by researchers is a way to bring greater intellectual substance and currency to graduate and continuing education programs in the preparation of community college leaders” (Katsinas, 1996, p. 24). The current study furthers the understanding of adjunct faculty by comparing the role and unmet demand for adjuncts across both geographic service area and teaching discipline.

Researchers have also suggested the attraction of adjuncts is not a simple task (Fagen-Wilen, et al., 2006; Stout, 2008; Wallin, 2005). To date, however, few studies have explored strategies for the attraction of adjunct faculty. By examining the applicability of the applicant attraction model (Rynes & Barber, 1990) through the lens of CAOs, this study provides practitioners with pragmatic guidance about how to develop a robust adjunct constituency. This information is especially valuable to rural community colleges, in which finding qualified personnel has been shown to be a long-standing institutional challenge (Maestas, 2005; Pennington, Williams, & Karvonen, 2006; Stout, 2008; Vineyard, 1978). Ultimately, this study benefits community colleges and practitioners as they struggle to meet curricular needs during challenging fiscal times.

Overview of Methodology

Participants

The target population consisted of CAOs of institutions who were members of the American Association of Community Colleges (AACC) as of December 2009. The rationale for surveying the entire population was based on prior reports of low response rates from CAOs (Berry, Hammons, & Denny, 2001) and the importance of receiving responses from a heterogeneous sample. The study was conducted in five phases:

designing the instrument, assessment by a panel of experts, piloting the instrument, administering the survey to CAOs, and analyzing the data.

Measures and Analysis

The survey instrument was designed to gain an understanding of the reliance on and unmet demand for adjunct faculty in fall 2009, as well as the strategies being used to attract adjuncts to the institution within the applicant attraction framework (Rynes & Barber, 1990). The survey was developed in conjunction with a panel of experts and piloted by community college deans. Subsequently, respondents were asked to complete an online assessment of the survey instrument to ensure content validity and identify areas needing improvement. Instrument reliability was assessed by asking the pilot group to complete the survey for a second time two weeks later. Pearson's correlation coefficient was calculated for each item to assess test-retest reliability of the instrument.

To understand the overall and unmet demand for adjunct faculty, the instrument included demographic and Likert-type items. Demographic questions included CAOs self-reporting the institutional size, based on unduplicated headcount (Carnegie Foundation for the Advancement of Teaching, 2006b; Hardy & Katsinas, 2007) and proximity to four-year institutions (Roueche, Roueche, & Milliron, 1998). Descriptive statistical analysis was performed to understand of the characteristics of the respondents.

Reliance on Adjunct Faculty

Data regarding the overall demand for adjunct faculty was collected by asking respondents to report the number of faculty employed on a part-time and full-time basis and the percentage of student credit hours taught by adjunct faculty in fall 2009.

Subsequently, employment data were converted to percentages. Two one-way analyses of

covariance (ANCOVA) were conducted to relate institutional type to the overall demand for adjunct faculty, as determined by the percentage of faculty employed part-time and the percentage of credit hours taught by adjunct faculty while holding institutional size, based on unduplicated headcount, constant.

Unmet Demand for Adjunct Faculty

Data regarding the unmet demand for adjunct faculty were collected through subscales consisting of Likert-type items related to the unmet demand for adjunct faculty in 12 discipline clusters (Stout, 2008). For each discipline, the instrument assessed the respondent's perception of the degree to which attracting adjuncts is an institutional challenge, the availability of qualified adjunct faculty, and the degree to which adjunct availability limits course offerings. The sum of the scores on the discipline-specific subscales formed an additive composite rating to serve as the dependent variable, overall unmet demand for adjunct faculty. An ANCOVA was conducted to relate institutional type to unmet demand for adjunct faculty, as determined by the composite rating, holding institutional size constant.

To understand the relationship between institutional type and discipline, the discipline-specific subscales were also analyzed separately. To this end, a multivariate analysis of covariance (MANCOVA) was conducted to relate institutional type to discipline-specific unmet demand for adjunct faculty, holding institutional size constant.

Applicability of the Applicant Attraction Model

The instrument included specific items to determine whether the adjunct faculty attractions strategies being used were consistent with the applicant attraction framework (Rynes & Barber, 1990). CAOs were asked to identify strategies used by their institutions

in the areas of recruitment, employment inducements, and the consideration of alternate applicant pools. Recruitment strategies and employment inducements identified on the instrument were based on previous studies (Reeves & Galant, 1986; Rynes & Barber; Winter, 1998; Winter & Kjorlien, 2000a, 2000b; Winter, Petrosko, & Rodriguez, 2007). Descriptive statistical analyses allowed determination of the applicability of the applicant attraction model to adjunct faculty in rural, suburban, and urban community colleges.

Delimitations

This study was confined to investigating the role and attraction of adjunct faculty in community colleges. The analysis of the role of adjunct faculty was confined to assessing the percentage of faculty employed on a part-time basis and the percentage of credits taught by adjunct faculty. Attraction strategies investigated were limited to those framed by the applicant attraction model (Rynes & Barber, 1990), including strategies for recruitment, employment inducements, and the consideration of alternate applicant pools, as suggested in the literature. The study sought to describe strategies used by rural, suburban, and urban institutions but made no attempt to assess the effectiveness of strategies.

The study focused on perceptions of community college CAOs in an effort to understand institutional-level needs and policies related to adjunct faculty employment and attraction. Survey distribution was limited to CAOs of institutions that were members of AACC as of December 2009. Data were collected by a web-based survey instrument, with responses dependent on the participant's motivation and ability to respond during the data collection period.

Definitions

The following key terms were used during this study:

1. Adjunct faculty: temporary, non-tenure track instructional faculty employed less than full-time (Leslie & Gappa, 2002). For the purposes of this study, the terms *adjunct faculty* and *part-time faculty* will be used interchangeably.
2. Community college: a publicly-supported institution regionally accredited to award the associate degree as its highest degree (Cohen & Brawer, 2003).
3. Chief academic officer: the administrative officer with responsibility for all academic affairs at the institution (Murray, Murray, & Summar, 2000) . For the purposes of this study, positions such as Vice President of Instruction and Dean of Instruction will be considered Chief Academic Officers.
4. Applicant attraction: the combined impact of institutional activities, including recruitment, modification of employment inducements, and the consideration of alternate applicant pools, designed to increase the number or change the character of individuals applying for or accepting positions. (Rynes & Barber, 1990).
5. Recruitment strategy: one means of attracting applicants; a practice or material used communicate a position vacancy to potential applicants. (Rynes & Barber, 1990)
6. Employment inducement: a job or organizational attribute that has been deliberately modified in order to enhance the attractiveness of a position vacancy to potential applicants (Rynes & Barber, 1990).

7. Urban institution: an institution located in a primary metropolitan statistical area with a population of at least 500,000 (Carnegie Foundation for the Advancement of Teaching, 2006b).
8. Suburban institution: an institution located in a metropolitan statistical area with a population of at least 500,000 (Carnegie Foundation for the Advancement of Teaching, 2006b).
9. Metropolitan statistical area: a geographical area identified by the U.S. Office of Management and Budget as having an overall population of at least 100,000 and containing a core large population nucleus of at least 50,000 with surrounding areas being highly economically and socially integrated with the core area (U.S. Census Bureau, n.d.).
10. Primary metropolitan statistical area: a geographical area identified by the U.S. Office of Management and Budget as a metropolitan statistical area with significant commuting interchange with another metropolitan statistical area (U.S. Census Bureau, n.d.).
11. Rural institution: an institution located outside a metropolitan area or within a metropolitan area with a population of less than 500,000 (Carnegie Foundation for the Advancement of Teaching, 2006b).
12. Institutional size: unduplicated headcount (Carnegie Foundation for the Advancement of Teaching, 2006b).

CHAPTER 2

REVIEW OF THE LITERATURE

Attracting Adjunct Faculty to Teach in America's Rural Community Colleges

The confluence of two topics guided this study. First, the fact that community colleges are diverse institutions is reflected by heterogeneity of mission, administrative structure, students, and faculty. For example, rural institutions are both dramatically impacted by budgetary shortfalls and challenged to attract qualified faculty. Second, adjunct faculty have long been recognized as an important resource to community colleges striving to achieve their missions while remaining fiscally solvent. Despite the differences between rural, suburban, and urban institutions, studies have not examined the impact of this diversity on the role and attraction of adjunct faculty. As a result, adjunct faculty continue to be portrayed as a homogeneous group, hindering higher education's understanding of the role, demand for, and attraction of these important members of the nation's rural, suburban, and urban institutions.

This chapter synthesizes relevant literature addressing institutional diversity, rural community colleges research and challenges, faculty hiring, and implications for adjunct faculty in rural institutions, and reviews relevant recruitment models. The chapter begins with the evolution of a classification system reflecting institutional diversity and underscores the importance of data disaggregation to further research about rural community colleges. Issues facing rural institutions are discussed, highlighting the persistent challenge of finding qualified personnel to teach in rural areas. Subsequently, the literature addressing faculty hiring is reviewed with an emphasis on the lack of research addressing hiring in the rural institution. Recognizing the importance of adjunct

faculty across community colleges, the role, employment, and attraction of adjunct faculty are explored, emphasizing the gap in the literature with respect to adjunct faculty in rural institutions. Finally, the chapter concludes with a discussion of relevant recruitment and attraction models.

Method of Reviewing the Literature

This literature review was developed through a systematic review of scholarly studies found in databases available through Old Dominion University and the Virtual Library of Virginia. Databases included, but were not limited to, Academic Search Complete, Dissertations and Theses Full Text, ERIC, Education Research Complete, Mental Measurements Yearbook, and psycINFO. The review focused on gathering empirical evidence of topics addressing institutional diversity and rural community colleges, faculty hiring issues and strategies, adjunct faculty roles and recruitment, and recruitment and attraction models. To this end, Boolean searches were performed using key words such as rural, community colleges, faculty hiring, adjunct, part-time, recruitment, and attraction connected by appropriate operators. In an effort to ensure a comprehensive and current review of the literature, the Web of Science was used to identify citation of key articles and subsequent studies.

Institutional Diversity

Historically, two-year institutions have been viewed as a single, homogenous group, failing to address variations among institutions and limiting the ability of researchers to understand regional challenges and solutions (Eddy & Murray, 2007). For example, in 1978, Vineyard referred to the lack of literature specifically addressing the unique issues of rural community colleges and issued a call for scholarly research. Three

decades later, the body of research addressing these unique institutions remains limited. One source of this limitation has been the pre-2005 Carnegie classification system's (2006a) practice of reporting data for all community colleges in aggregate.

Diversity among rural, suburban, and urban institutions is evidenced by differences in governance and administrative structures, finance and physical plant, economic development, and student issues (Katsinas, 1996). While making the case for an institutional typology, Katsinas asserted that such a system would avail researchers the opportunity to empirically study these differences. The fact that rural institutions tend to be governed by a single board and are more likely to have a single campus than their suburban and urban counterparts has implications for the administrative and governance structures. Katsinas explained rural chief executive officers must be generalists, keeping abreast of all aspects of the institution, ranging from accreditation to workforce development. On the contrary, the multi-campus, multi-board nature of some urban institutions necessitates decentralization of administration and favors specialization among administration.

Significant funding differences exist among the institutional types, with the depressed economies of many rural areas (Katsinas, Alexander, & Opp, 2003; Rubin & Autry, 1998) standing in stark contrast with the preponderance of large manufacturing plants in suburban areas (Katsinas, 1996). One reflection of the fiscal differences among institutional types is access to a strong local tax base. In an analysis of 1990 Integrated Postsecondary Education System data, Milam (1995) found suburban institutions had strong local support, receiving approximately 22% of revenue from local sources. Urban and rural institutions relied on local support to a lesser extent, receiving 17% and as little

as 10% of revenue from local sources, respectively. While the age of this study is limiting, the data suggest the long-term existence of institutional diversity in terms of funding sources.

Katsinas (1996) also suggested differences in student populations among the institutional types. He contended urban institutions serve the highest proportion of low-income students who are likely to require remediation. Additionally, as the two-year institutions most significantly impacted by immigration, urban institutions serve a diverse student body. To meet the needs of these students, urban two-year community colleges tend to emphasize vocational programming leading directly to employment (Katsinas, 1993). Suburban community colleges, on the other hand, often emphasize liberal arts and transfer programming and focus vocational training on high technology occupations. Rural areas are often associated with struggling regional economies due to reliance on declining extraction industries (Hall, 2003; Rubin & Autry, 1998). As a result, rural institutions must serve the needs of many first-generation students (Hardy & Katsinas; Katsinas, 1993) as well as those least likely to transfer (Castandea, 2002).

The development of the new Carnegie Classification (Carnegie Foundation for the Advancement of Teaching, 2006b), which disaggregates two-year institutions on the basis of funding, geographic service area, and enrollment, set the stage for understanding the diversity of two-year institutions. Katsinas (1996) proposed that the new system would further community college scholarly research by enabling the empirical investigation of several “testable hypotheses,” shown in Table 1. To this end, the new classification system identified approximately 600 two-year institutions and 900 campuses as rural-serving, providing an opportunity to empirically study these unique

institutions through comparison with their suburban and urban counterparts (Carnegie Foundation for the Advancement of Teaching, 2006b; Hardy & Katsinas, 2007). Despite this advancement, many of Katsinas' (1996) "testable hypotheses," have yet to be investigated.

Table 1

Testable hypotheses regarding diversity among public community colleges (adapted with permission from Katsinas, 1996)

	Rural	Suburban	Urban
Governance	Single campus	Single, multi-campus	Multi-campus
Skills needed by CEO	Generalist	Focused	Focused
Access to taxes ^a	Low (9-15 %)	Highest (21-22 %)	High (14-17 %)
Physical plant	Refurbish	Build new/expand	Refurbish
Specialized staff	Low/nonexistent	Highly available	Highly available
Students			
Sex	Majority female	Majority female	Majority female
Race (%white)	80-90	75-90	Under 70 ^b
Family history	Mainly first generation	Many first generation	Majority first generation
Developmental	Great need	Significant need	Greatest need
Curriculum	Comprehensive	Comprehensive	Comprehensive ^c
Access to adjuncts	Low/nonexistent	Very high	Very high
Workforce	Small manufacturers, entrepreneurship	Large manufacturers, firms	Large, small manufacturers

^a Milam (1995)

^b Often majority minority

^c Except in small community colleges

Among Katsinas' (1996) hypotheses was the contention that institutional diversity impacts access to adjunct instructors. He posited that because small, rural institutions have "... severely limited or nonexistent access to adjunct faculty" (p. 23), these colleges are limited in their ability to offer comprehensive curricula. Additionally, he suggested small, rural institutions cannot engage in the common practice of staffing fledgling programs with adjunct faculty before investing in full-time positions. While Katsinas discussed the difference in access to adjunct instructors, he neither defined "access" nor tested this hypothesis empirically. Subsequent studies have shown recruiting qualified adjunct faculty in some rural areas to be particularly challenging (Roueche, Roueche, & Milliron, 1998; Stout, 2008; Yackee, 2000). The current study applied the new Carnegie classification system to further the understanding of the reliance on, demand for, and attraction of adjunct faculty in the nation's rural community colleges, as compared to their urban and suburban counterparts.

Rural Community Colleges

According to the Carnegie Foundation for the Advancement of Teaching (2006a, 2006b), rural community colleges in the United States enroll over three million students. Given that these institutions serve 34% of all community college students, rural community colleges play a critical role in American higher education. Cohen and Brawer (2003) asserted that "[f]or most students in two-year institutions, the choice is not between the community college and a senior residential institutions; it is between the community college and nothing" (p. 53). Katsinas (2007) noted that this is particularly true in rural areas, where the community college is often the primary driver for social and economic development (Miller & Tuttle, 2007; Rubin, 2001). Rural institutions are

challenged to catalyze economic development within the context of weakened economies, sustained poverty (Hall, 2003), high unemployment (Miller & Kissinger, 2007), limited academic preparation, and a cultural perspective that tends to devalue educational attainment (Hardy & Katsinas, 2007).

Rural Community College Challenges

For the past three decades, educational researchers have studied the unique challenges associated with serving the needs of rural America. According to Vineyard (1979), community colleges must confront issues such as sustained economic hardship, cultural deprivation, and unemployment. Vineyard also posited many rural institutions are small, further compounding the problem by limiting enrollment, challenging the institution's ability to offer comprehensive programming, and limiting the availability of human and financial resources. Despite the increased focus on access in higher education, research indicates administrators in rural institutions continue to face unique issues (Shannon & Smith, 2006). Among the most persistent challenges cited by rural community college leaders are financial inequities (Katsinas, Alexander, & Opp, 2003) and the recruitment of qualified personnel (Maestas, 2005; Murray, 2005; Pennington, Williams, & Karvonen, 2006).

Funding

The concept that rural community colleges operate on an uneven fiscal playing field is not novel. This "rural differential" has been a common component of studies since the 1970s (Eddy & Murray, 2007). For over 30 years, studies have shown that per unit funding formulas were considered inequitable, as rural institutions enroll significantly fewer students than their urban and suburban counterparts (Hardy &

Katsinas, 2007; Vineyard, 1979). Vineyard urged policy makers to consider funding formulas that allow for a higher cost per unit for small, rural institutions due to the need to sustain comprehensive programming despite the requisite low enrollment. Because rural colleges typically have fewer employees, they often perform many functions and cannot take on additional responsibilities. This results in limited flexibility to respond to fiscal cuts. In fact, there is widespread agreement that rural colleges are most significantly impacted by budgetary shortfalls (Katsinas, 2007; Katsinas, Tollefson, & Reamey, 2008). Viewing rural colleges as a whole, Vineyard emphatically stated, “They really have but one problem – survival” (p. 14).

Personnel

Faculty members are regarded as one of an institution’s greatest resources. Flannigan, Jones, and Moore (2004) reported institutions invest approximately three million dollars during the career of a single full-time faculty member. Additionally, one of the most common strategies for responding to fiscal shortfall is to increase the employment of part-time faculty (Christensen, 2008). Therefore, because personnel typically comprises over 75% of a community college’s general operating budget, no discussion of institutional fiscal status is complete without including personnel (Goldstein, 2005).

The challenge of recruiting faculty, staff, and administrators to work in America’s rural community colleges is widely supported in the literature (Murray, 2005, 2007; Vineyard, 1978). The combination of personnel exodus due to retirements (Berry, Hammons, & Denny, 2001) and institutional “fit” being particularly important in rural institutions (Murray, 2005) results in a difficult situation for rural community colleges

seeking to replace faculty and staff (Murray, 2007). Pennington, Williams, and Karvonen (2006) interviewed administrators of ten randomly-selected small, rural community colleges in Kansas to gain their perspectives about institutional accomplishments and challenges. Leaders cited technology, changing student population and mission, funding inequities, and finding qualified personnel as institutional challenges. Interestingly, “[t]he most consistent problem voiced by interviewees was the inability to find qualified people to work at a small, rural community college” (Pennington, Williams, & Karvonen, 2006, p. 650).

Faculty Hiring

“Every institution recognizes that its faculty creates the learning environment and determines the academic standards for its students” (Reeves & Galant, 1986, p. 1). Despite this understanding, the literature includes few empirical studies to further higher education’s understanding of faculty hiring. Studies have focused on escalating faculty turnover (Berry, Hammons, & Denny, 2001; Evelyn, 2001; McCormack, 2008), the community college academic labor market (Finnegan, 1993), and general aspects of the hiring process (Flannigan, Jones, & Moore, 2004).

Faculty Turnover

Over the past two decades, much has been written about the impending shortage of community college instructors as faculty retire and enrollments continue to increase (Berry, Hammons, & Denny, 2001; Evelyn, 2001; Katsinas, Tollefson, & Reamey, 2008; McCormack, 2008). Across the nation, faculty members who were hired during the 1960s and 1970s, when many community colleges were established, are now approaching

retirement (Berry, Hammons, & Denny). According to McCormack, in 2003, 66.1% of all community college faculty members were between the ages of 45 and 64.

This trend is consistent across the nation's community colleges as researchers have estimated large-scale faculty turnover in states such as Arizona, Texas, Illinois, North Dakota, New York (McCormack, 2008), and Ohio (Catanzaro & Savage, 1986). For example, McCormack estimated 67.2% of Arizona's community college faculty members would be eligible for retirement by 2010. Berry, Hammons, and Denny (2001) contributed to the understanding of the challenge by considering faculty members' perceptions of retirement decisions and institutional preparation for faculty turnover by surveying both community college faculty members and CAOs. Financial resources, early retirement options, and access to health insurance impacted faculty members' retirement decisions. Findings indicated approximately 25,000 to 30,000 faculty members are expected to retire between 2001 and 2011. Additionally, 51% percent of CAOs reported they expected to have difficult filling vacancies with qualified faculty.

Although it is widely accepted that institutions will be challenged to replace senior faculty members, little evidence exists that institutions are preparing for this transition. A 1986 survey of 355 community college administrators in the North Central Community /Junior College region revealed that while administrators agreed filling faculty lines would be challenging, only one third of the colleges had recruitment plans (Reeves & Galant, 1986). Over a decade later, CAOs responding to Berry, Hammons, and Denny's (2001) study indicated minimal institutional planning for faculty placement. "If these institutions [community colleges] are to continue in their dynamic role as the 'people's colleges,' a significant increase in preparation is needed to ensure that there are

adequate numbers of new faculty members available to provide leadership for the future” (p. 133).

Community College Labor Market

While researchers have not reached consensus about the relationship between the academic labor market and community college faculty, evidence suggests a segmented and open labor market reflecting the diversity of institutions. According to the prevailing viewpoint, institutions draw from a single academic workforce with faculty positions arranged along a continuum, based on prestige and research (Burke, 1988; Finnegan, 1993). In this model, community colleges rank at the bottom, and four-year institutions rank at the top (Burke). On the contrary, Finnegan found evidence for an academic workforce segmented on the basis of institutional type and career goals. Several studies investigating faculty employment choices are consistent with a segmented labor market based on institutional mission and reflective of institutional diversity. In a case study of faculty cohorts hired over the past 30 years, Twombly (2005) found faculty chose to work in comprehensive universities based on the emphasis on teaching and comprehensive mission of the institutions. Similarly, Murray’s (2005) case study of new faculty employed in seven rural institutions indicated the most satisfied faculty were those who enjoyed working with students at various levels of college-readiness, a hallmark of rural institutions. Collectively, these findings support the contention that labor pools are segmented based on institutional diversity (Eddy, 2007).

The open quality of the community college labor market also reflects differences among institutions as they emphasize various components of the comprehensive community college mission. Although community colleges value candidates who have

teaching experience in two-year institutions, they also draw faculty from both the four-year and business sectors (Gahn & Twombly, 2001). In Gahn and Twombly's ex-post facto study based on National Survey of Post-secondary Faculty data, approximately one third of newly hired faculty had previous community college experience. However, faculty members in transfer disciplines were often previously employed by four-year institutions, while those in occupational-technical programs tended to have experience in the business sector.

Hiring Practices

Community college hiring practices reflect institutional values (Murray, 1999; Twombly, 2005). Twombly (2005) interviewed the president, personnel director, deans, hiring committee chairs, and recently hired full-time arts and sciences faculty members in rural, suburban, and urban institutions. Participants reported their colleges valued quality teaching, a student-centered environment, and responsibility to the community. Further, Twombly found hiring policies reflected these values, as opposed to academic credentials or prestige of the degree-granting institution. To this end, most institutions required a teaching demonstration as part of the selection process and preferred candidates with teaching experience. Participants also reported the degree of "fit" between the candidate and the institution was a consideration in the hiring process, with philosophical and geographical fit considered to be most important by small, rural institutions. With the exception of institutional "fit," while Twombly purposefully selected participants from a rural, suburban, and urban community college, she did not attempt to correlate themes with institutional type.

Community college hiring practices are relatively consistent and, as a result, do not seem to mirror institutional diversity. In a qualitative study of community college hiring processes, Flannigan, Jones, and Moore (2004) integrated a documents review of human resources web pages, personal experiences as administrators and faculty, and correspondence with key community college personnel to understand historical and current full-time faculty hiring practices. They found evidence of a consistent process composed of national advertisement, applicant screening, and selection via interviews with little institutional variation. Following their review of past and current community college hiring practices, Flannigan, Jones, and Moore concluded “Faculty hiring practices have changed little since the majority of community colleges opened their doors in 1960. Evolving from the university system, the processes are often not suited for the unique culture of a community college” (p. 834).

Recruitment

Despite the consensus that hiring qualified and committed faculty is critical to the community college mission, little data from empirical studies exist regarding how institutions can recruit qualified applicants (Flannigan, Jones, & Moore, 2004; Murray, 2007; Rafe & Warren, 2001). In their study of hiring policies and practices in rural community colleges, Flannigan, Jones, and Moore (2004) noted the recruiting stage received only perfunctory attention.

Many institutions do not employ specific plans to ensure a vital supply of applicants to fill faculty vacancies. Through a survey of 355 administrators in the North Central Community/Junior College Region, Reeves and Galant (1986) found only 35.4% of the responding colleges employed a specific recruitment plan. The authors contended

that while the majority of respondents did not have an established plan, this should not be construed as devaluation of faculty. Rather, responding colleges did not have a consistent sense of urgency with regard to faculty recruitment. Additionally, community colleges with well-developed strategies were expected to be better poised to respond to future needs. This study provides a reference point for colleges' perspectives about faculty recruitment, but offers little information about the colleges' current approaches to recruitment.

The fact that historical hiring practices have included, but not emphasized, recruitment suggests the academe has not viewed this as a critical issue. More recently, researchers have issued a call to revitalize the focus on recruitment efforts (Berry, Hammons, & Denny, 2001; Murray, 2007; Olson, 2007). Olson espoused that the traditional method of simply announcing vacancies will be insufficient to attract a strong pool of qualified applicants in the future.

Hiring in the Rural Community College

Attracting faculty to teach is even more challenging for rural institutions. In Twombly's (2005) investigation of hiring full-time arts and sciences faculty members, one rural community college administrator illustrated the tenuous link between attracting faculty and institutional "fit," by stating, "[i]t's hard to attract people who don't want to live in a small town, but we don't particularly want people who don't want to live in a small town" (p. 437). There is no question the rural setting has much to offer in terms of natural beauty, family atmosphere, and short commutes (VanderStaay, 2005). The rural milieu is, however, not universally appealing. For many potential faculty members, the benefits of the pastoral setting and rural lifestyle are offset by the potential for a limited

tax base, fewer cultural amenities, and lower education levels (Eddy, 2007; Murray, 2005; Pennington, Williams, & Karvonen, 2006). Despite the widespread contention that hiring qualified individuals in rural institutions is a persistent challenge, only a few researchers have investigated strategies to address the issue.

Murray and Cunningham (2004) examined factors attracting full-time faculty to rural community colleges. The qualitative case study of 45 new faculty members at seven rural community colleges in four western states revealed most faculty did not specifically choose a rural environment. Participants discussed family relocation and unanticipated circumstances that brought them to the rural institution. Only a single participant purposefully relocated to the area. The finding that many faculty members had been introduced to the college by an individual at the rural institution prompted Murray and Cunningham to suggest administrators involve existing faculty members in efforts to attract new faculty. Additionally, because several participants began as adjunct faculty members, the authors suggested the adjunct pool may be a source for new full-time faculty.

Murray (2007) contended that rural institutions must employ creative philosophies to attract faculty. In addition to involving current faculty in the recruitment process, he suggested seeking dual-career couples to teach, promoting the benefits of the rural setting to distant institutions, hiring recent graduates who may not have experience, and cultivating relationships with the college's own graduates. Eddy (2007) suggested institutions consider partnerships to share faculty and staff and improve efficiency. Both Murray and Eddy considered professional development opportunities to be particularly

important for the development and retention of faculty in rural community colleges due to the insular nature of teaching in small, isolated institutions.

Rural administrators view adjunct faculty as a source for full-time positions (Pennington, Williams, & Karvonen, 2006; Twombly, 2005). In Pennington, Williams and Karvonen's study, several rural community college leaders in Kansas referred to adjunct faculty as an important source in the quest to fill full-time vacancies and underscored the challenge of recruiting this group.

We are sure that the adjunct faculty we have now can step up and fill the gap. We will have to look harder for part-timers in the future and make sure they are the type of person we can offer a full-time job to when needed (p. 651).

Despite these suggestions, to date, there have been few empirical studies focused on specific attraction strategies for rural institutions seeking faculty members and none focused on adjunct faculty.

Adjunct Faculty

Adjunct faculty members are a vital resource to the nation's community colleges. They provide institutions with the flexibility to respond to rapid enrollment changes (Christensen, 2008; Umbach, 2007) and bring a wealth of practical expertise, enriching the college culture and allowing institutions to offer courses requiring practical specialization (Umbach; Wagoner, Metcalfe, & Olaore, 2005). Additionally, the employment of adjunct faculty is a critical part of the plan to meet enrollment demands in a climate of ever-tightening budgets.

As a result, over the past three decades, American higher education has increased its dependency on part-time, non-tenure track instruction. Umbach (2007) reported

between 1975 and 1995, the number of adjunct faculty increased by over 100%. Current estimates indicate this trend is continuing with the ratio of part-time to full-time faculty still on the rise (American Federation of Teachers, 2009; Cataldi, Fahimi, & Bradburn, 2005). According to The American Federation of Teachers, 68.6% of the faculty members at community colleges were employed on a part-time basis in 2007. The phenomenon has been the subject of studies focusing on topics such as characterizing adjuncts (Christensen, 2008; Leslie & Gappa, 2002), satisfaction (Jacoby, 2005; Wagoner, Metcalfe, & Olaore, 2005), teaching quality (Eagan & Jaeger, 2008; Glenn, 2008; Schibik & Harrington, 2002), and inequitable support (Gappa, Austin, & Trice, 2005; Gappa & Leslie, 1993).

Characterizing Adjunct Faculty

Characterizing adjunct faculty has proven to be difficult. This stems from the fact that the group is highly diverse with respect to motivations and goals (McLaughlin, 2005; Monks, 2009). Leslie and Gappa (2002) categorized adjunct faculty into three groups based on motivation. Those who are “specialists, experts, or professionals” accept adjunct positions to enrich existing careers. Many discussions about adjunct instructors refer to the “freelancers” who hold adjunct positions at several institutions, piecing together full-time employment. Members of this group have also been referred to as “roads scholars,” based on the requirement to travel between institutions (Tillyer, 2005). Finally, Leslie and Gappa noted the “career enders” are those who are transitioning from a successful career in an alternate field to retirement. These individuals choose adjunct instruction for the benefits that it affords and show a high degree of job satisfaction (Feldman & Turnley, 2001, 2004).

Despite both the recognition of the diversity of adjunct instructors (Conley & Leslie, 2002; Leslie & Gappa, 2002) and documented differences among institutional types (Katsinas, 1993, 1996), the body of literature tends to group adjunct faculty into a single homogeneous constituency. To date, few studies have investigated the relationship between institutional type and the role of and demand for adjunct faculty. The current study examined this resource with respect to measurements of employment, institutional size, and teaching discipline.

Measures of Adjunct Utilization

No consensus has been reached about the most appropriate measure to evaluate the employment of adjunct faculty. While the most commonly used measure is the percentage of faculty employed on a part-time basis (Benjamin, 2002; Cataldi, Fahimi, & Bradburn, 2005; Umbach, 2007), credit hours taught by adjuncts is also critical to understanding reliance on part-time faculty (Roueche, Roueche, & Milliron, 1998).

Employment Status

Historically, reporting adjunct faculty utilization has been based strictly on employment status (American Federation of Teachers, 2009; Benjamin, 2002; Cataldi, Fahimi, & Bradburn, 2005; Christensen, 2008). Discussions of higher education's increasing dependency on adjuncts are illustrative, indicating the number of faculty employed part-time doubled between 1975 and 1995 (Umbach, 2007) and continued to increase between 1997 and 2007 (American Federation of Teachers, 2009). Similarly, while data from the 1994 National Study of Postsecondary Faculty (NSOPF) indicated 64% of faculty at associate degree granting institutions were employed on a part-time basis (Cataldi, Fahimi, & Bradburn, 2005), a more recent report indicated this number

increased to over 68% in 2007 (American Federation of Teachers). Additionally, measures based on employment status have been used to correlate adjunct reliance with student outcomes, indicating an inverse relationship between the proportion of community college faculty employed on a part-time basis and completion rates (Calcagno, Bailey, Jenkins, Kienzl, & Leinbah, 2008; Jacoby, 2006) and retention (Eagan & Jaeger, 2008).

The emphasis on employment status is echoed by the requirements of several regional accrediting bodies. This is significant to the current study, which assessed the issue from the perspective of the community college leaders. The Southern Association of Colleges and Schools (SACS) Commission on Colleges (2005), the New England Association for Colleges and Schools ([NEACS], 2009), the Western Association of Colleges and Schools (Accrediting Commission for Community and Junior Colleges of the Western Association of Colleges and Schools, 2008), and the North Central Association of Colleges and Schools (2003) require institutions to demonstrate the number of faculty members is sufficient to support the institutional mission. To this end, SACS core requirement 2.8 refers specifically to enumeration of faculty employed on full-time and part-time bases and suggests colleges consider the ratio of full-time to part-time faculty. Standard 5 of the NEACS Accreditation Standards refers to the number of full-time and part-time faculty members. Additionally, the agency directs institutions to avoid "...undue dependence on part-time faculty, adjuncts, and graduate assistants to conduct classroom instruction" (NEACS, 2009, para. 8). Similarly, standard III.A.2 of higher education accreditation standards of the Western Association of Colleges and Schools (2008) specifies institutions must demonstrate "...a sufficient number of

qualified faculty with full-time responsibility to the institution” (p. 26). Other accrediting agencies, such as the Northwest Commission on Colleges and Universities (2009) and the Middle States Commission on Higher Education view the faculty as a collective whole. As such, they do not require disaggregation of faculty on the basis of employment status. Although accrediting agencies vary in their approach to faculty resources, those requiring institutions to address the utilization of adjunct faculty use employment status as the sole measure of adjunct reliance. Therefore, CAOs focused on accreditation requirements may be especially cognizant of this measure of faculty resource allocation.

Credit Hours Taught

Although the assessment of adjunct utilization has relied on reporting the percentage of faculty employed on a part-time basis, this practice fails to consider factors such as faculty workload (Roueche, Roueche, & Milliron, 1998) and student exposure to adjuncts. As result, this measure alone is insufficient to accurately reflect a college’s dependency on its part-time faculty or estimate the extent of student exposure to adjunct instruction. Eagan (2007) illustrated the complexity of the issue by analyzing 1988, 1993, 1999, and 2004 administrations of the NSOPF. Findings indicated increases in the average number of credit hours taught per week as well as the overall number of a faculty employed on a part-time basis. In 1988, adjunct faculty members were reported to teach an average of 7.5 credit hours per week, while this number increased to 8.5 in 2004. This underscores the importance of recognizing the dynamic nature of both employment status and workload, and employing a measure indicative of the teaching impact of part-time faculty.

The percentage of credit hours taught by adjunct faculty reflects both institutional dependency on and instructional impact of adjunct instruction. Roueche, Roueche, and Milliron (1998) found although 54.85% of faculty members in average sized community colleges were employed part-time, these faculty taught only 30.17% of instructional credit hours. Large institutions employed an average of 68.25% of their faculty on a part-time basis, and these faculty members taught an even larger proportion of the courses, carrying 42.54% of the instructional load. Mrozinski (2008) assessed adjunct usage from a departmental perspective by calculating the percentage of credits taught by adjunct faculty. Findings indicated factors such as off-campus instruction, need for program coordination, and need for student contact were predictive of the degree of reliance on adjunct instruction.

Measures based on credit hours taught have also been used to investigate instructional impact at both the institution and individual levels. Jaeger and Eagan (2009) evaluated adjunct reliance at the institutional level, using the percentage of credit hours taught by adjuncts to demonstrate a moderate negative correlation between this measure of adjunct exposure and degree completion. For every 10% increase in the percentage of credit hours taught by part-time faculty, students were found to be 1% less likely to complete the associate degree. Additionally the proportion of an individual student's credit hours taught by adjunct faculty has been used to correlate individual exposure to adjuncts to student outcomes. The data are, however, inconclusive. While Eagan and Jaeger (2008) found a negative correlation between the percentage of a student's credit hours taught by adjuncts and student outcomes, Ronco (2004) found no relationship existed after controlling for student characteristics.

Institutional Size

Institutional size has long been considered an important variable that impacts resources available to institutions. Consistent with Vineyard's (1978) contention that institutional size is a key variable, researchers agree small, rural institutions face different challenges from their medium and large counterparts (Hardy & Katsinas, 2007). This is reflected in the new Carnegie classification system, which disaggregates rural community colleges on the basis of headcount, as shown in Figure 1. According to Hardy and Katsinas (2007), small, rural community colleges are likely to have fewer resources, and faculty members are more likely to perform multiple functions. Additionally, economies of size, the concept that instructional cost per student decreases as programs expand, often do not exist for these institutions due to their limited service populations. As a result, small, rural institutions must initiate new programs cautiously and may be unable to offer comprehensive curricula.

Institutional size is also a significant variable in the employment of adjunct faculty (Roueche, Roueche, & Milliron, 1998). In a survey of community colleges to assess the utilization of part-time instruction, Roueche, Roueche and Milliron found large community colleges, with greater than 8,000 students, employed a larger percentage of faculty on a part-time basis than did average-sized institutions, with less than 8,000 students. Similarly, the number of credit hours taught by part-time faculty varied with institutional size. For all institutions, part-time instructors delivered between 30% and 42% of the credit hours. Students enrolled in large community colleges were more likely to take classes from adjunct faculty than those in average institutions. While this study underscored institutional size as an important variable in adjunct utilization, it neither

disaggregated data to evaluate small institutions nor did it attempt to investigate utilization in the context of geographic service area.

Teaching Discipline

The degree of reliance on adjunct varies with academic discipline. Conclusions and trends are, however, elusive because studies have analyzed variation across diverse categories of disciplines, departments, programs, and discipline clusters. In an ex-post facto analysis of 1992 NSOPF data, Benjamin (1998) analyzed 150 disciplines and found significant differences in the utilization of part-time faculty according to clusters of vocational and liberal arts courses. In the vocational cluster, Business and Health fields were most reliant on adjuncts, while English, Fine Arts, and Mathematics employed the largest proportion of part-time instructors in the liberal arts cluster. Benjamin also found that two-year institutions relied more heavily on adjuncts in the areas of Philosophy, Religion, and Mathematics than four-year institutions. The distribution pattern suggested adjunct faculty members were employed to bring expertise in a vocational area or to replace full-time faculty in core subjects.

Viewing the same data set from a different perspective, Conley and Leslie (2002) conducted a similar study using the 1992 NSOPF data. In their efforts to describe the characteristics of part-time and full-time faculty, they included data pertaining to discipline. In this case, however, the data were aggregated into six program areas, as opposed to Benjamin's (1998) two clusters. Conley and Leslie found Natural Sciences and Engineering relied most heavily on adjunct instruction, while vocational training programs employed the fewest number of adjunct instructors. The implications of this study are, however, limited by the grouping of disciplines into broad program categories,

such as grouping Business, Law, and Communications together. Additionally, the data included 27.9% of the part-time faculty in an “all other program areas” category resulting from participants who did not designate a program area in the original data set. In the 1994 study of post-secondary faculty, Cataldi, Fahimi, and Bradburn (2005) found, of nine discipline clusters, business, education, and fine arts employed the most part-time faculty. However, because the data for all institutional types were aggregated, they provided no guidance specific to community colleges.

Two recent doctoral dissertations address adjunct employment in the community college setting from differing perspectives. In a single-institution case study of adjunct faculty usage by a mid-sized Pennsylvania community college, Mrozinski (2008) investigated the degree of reliance on adjunct instruction across the college’s 15 departments. The Health Sciences and Automotive departments were least reliant on adjunct instruction, while the English, Computer, and Fine Arts departments were most dependent. Multiple regression analysis indicated class size, off-campus instruction, and online instruction were predictive of increased departmental reliance on adjunct instruction. While this study provided administrators with guidance about the impact of curricular decisions on instruction, both the case-study nature of the study and its dependence on a college-specific departments, rather than standard teaching disciplines, prevents generalization and makes comparison to other studies challenging.

Stout (2008) explored the employment of adjunct faculty in community colleges in Appalachia from the perspective of CAOs and program heads. Administrators in 23 community colleges were asked to respond to the importance of and demand for adjunct instructors in each of 12 discipline clusters. Findings indicated participants considered

adjunct employment to be either “important” or “somewhat important” in all clusters. Additionally, participants considered it most difficult to attract part-time faculty to teach in the natural and physical sciences, health sciences, and engineering. This study contributed to the literature by offering an alternate grouping of discipline clusters appropriate to the community college and suggested differential demand for part-time faculty among the disciplines in rural Appalachian institutions. The case study design of this investigation prevents generalization to rural institutions in general and does not provide a means to compare adjunct need in rural, as compared to suburban and urban institutions.

Collectively, these studies reinforce the utilization of teaching discipline as an important factor in understanding the demand for adjunct faculty. Although researchers continue to be interested in this variable, a variety of discipline categories have been used, often without providing rationale for the selected grouping. Therefore, categories appear to be chosen as a matter of convenience, reflecting the diversity among institutions and existing data sets. Although the studies suggest significant differences in adjunct reliance among the disciplines, the lack of consistency precludes drawing conclusions about the most appropriate approach or a clear pattern of need. In a manner similar to Stout’s (2008) study, the current study proposes to focus on rural community colleges and the perception of CAOs. Therefore, the current study adopted a variation of Stout’s 12-discipline approach to facilitate comparison of findings and integration into the current literature.

In summary, neither primary research nor accrediting body standards suggest a consistent measure of adjunct utilization. While the most commonly employed measure is

based on employment status, by enumerating full-time and part-time faculty members, this assessment does not adequately reflect degree of dependency on adjunct faculty. Therefore, it is necessary to combine a traditional employment status measure with alternatives such as percentage of credits taught by adjuncts (Mrozinski, 2008; Roueche, Roueche, & Milliron, 1998) or student exposure to adjuncts (Eagan & Jaeger, 2008; Ronco, 2004) to gain a more complete understanding of adjunct faculty utilization. The proposed study assessed both the percentage of faculty employed on a part-time basis and the percentage of course credits taught by this group. Additionally, both institutional size and teaching discipline are important variables in understanding the dependency on adjunct instruction. Therefore, the current study evaluated adjunct faculty in the context of a recently cited list of 12 discipline clusters (Stout, 2008) while controlling for institutional size.

Attracting Adjunct Faculty

Despite agreement that institutions must cultivate a strong adjunct constituency in order to achieve the goal of effectively meeting the needs of students, researchers have given little attention to understanding how to attract qualified part-time faculty to community colleges. Although they have promulgated the philosophy that adjunct recruitment should be both rigorous and systematic, they have provided little guidance with respect to a specific model or strategy to guide institutions (Reid, 1996; Wallin, 2005).

Finding qualified adjuncts to fill positions is considered to be challenging across higher education. Fagen-Wilen, Springer, Ambrosino and White (2006) reported in the fall semester of 2003, 250-300 part-time faculty vacancies went unfilled in the United

States. This is also reflected in the community college sector. In a survey of over 500 CAOs, Rankin (2008) found 61% indicated "...qualified part-time faculty in many academic areas are not available in this area." Despite the critical role of adjunct faculty members in the community college, recruitment of this group has received little attention. While researchers discuss the importance of strengthening adjunct ranks (Twombly, 2005) and underscore the importance of a systematic method for recruitment of adjunct faculty (Wallin, 2004, 2005), few empirical studies have addressed specific recruitment challenges and strategies.

Attracting Adjuncts to Rural Community Colleges

Part-time faculty are critical to the community college mission (Green, 2007; Levin, 2007; Wallin, 2004, 2005) and become even more important during times of fiscal challenge (Christensen, 2008). Given the limited labor pool, rural community colleges struggle to fill adjunct positions. Rankin (2008) compared the results of historical surveys and noted CAOs of rural institutions perceived the limited adjunct pool to be more of a problem than their non-rural counterparts. This, taken with the contention that rural colleges are especially impacted during difficult fiscal times (Hardy & Katsinas, 2007), suggests a strong pool of qualified, adjunct faculty is a critical resource for rural community colleges.

While the literature suggests rural institutions have difficulty attracting adjunct faculty members, evidence is largely anecdotal with few empirical studies. Katsinas (1996) surmised rural institutions have reduced access to qualified faculty and staff and underscored the need for research in this area. Later, in a qualitative study of AACC member colleges, Roueche, Roueche, and Milliron (1998) investigated strategies being

used by colleges to recruit adjunct faculty. They found location to be an important consideration, reporting that colleges in metropolitan areas were less than concerned with recruitment than their rural counterparts due to the existence of large applicant pools. One rural respondent noted “it [finding adjunct faculty] is not as easy for us as it is for our urban cousins” (p.48). Another expressed concern that the shortage of qualified candidates in the region resulted in hiring faculty candidates with less than the required master’s degree. In a study of community colleges in the North Central accrediting region, Yackee (2000) found CAOs of rural institutions had difficulty meeting accreditation requirements with respect to the credentialing of part-time faculty. While the study underscored the recruitment challenge facing rural community colleges, it was limited to a single region and assessed CAO perception from the sole lens of accreditation. Consistent with the finding that rural community colleges struggle to fill adjunct positions, administrators in Appalachian community colleges considered it challenging to attract adjunct faculty in some disciplines, although the study made no comparison to suburban and urban counterparts (Stout, 2008).

In summary, adjunct faculty are increasingly important as community colleges strive to meet enrollment demands in fiscally-challenging environments (Christensen, 2008). While the challenge of recruiting faculty in general has been widely purported in the literature, little attention has been given to attracting adjunct faculty to these institutions. To understand the relationship between the demand for adjunct faculty and institutional type, variables such as measuring adjunct utilization, institutional size, and teaching discipline impact must be considered.

Recruitment Models

Barber (1998) defined recruitment as "...those practices and activities carried out by the organization with the primary purpose of identifying and attracting employees" (p. 5). The extant models addressing recruitment in education approach the topic from either the perspective of the institution or the applicant. Both the Structured Recruiting Model (Morin & Kehoe, 1982) and Waggaman's (1983) model discuss the impact of institutional-level decision making on the hiring process. Conversely, Winter's (1996b) model approaches recruitment from the perspective of the applicant by assessing the job and organizational qualities most attractive to potential candidates. These models tend, however, to deemphasize recruitment as a mechanism to increase the pool of qualified applicants. The applicant attraction (Rynes & Barber, 1990) model uniquely addresses recruitment as a means of attracting applicants to positions.

Structured Recruiting Model

The Structured Recruiting Model, proposed by Morin and Kehoe (1982) viewed recruitment from the perspective of institutional need and took a broad approach to the process, beginning with the decision to hire and ending with post-recruiting activities in nine sequential stages: (a) establishing position objectives, (b) initial contact, (c) initial interview, (d) reference contact, (e) evaluation, (f) campus visit, (g) decision to extend an offer, (h) employment offer, and (i) post-recruiting activities. Recruitment activities to expand the pool of qualified applicants were addressed only in the initial contact. The model posited that selection committee chairpersons identify potential candidates through applicants responding to the vacancy advertisement, unsolicited correspondence from potential candidates, and referral from colleagues at other institutions. The fact that these

activities constitute a minor portion of the model suggests the model is most appropriate for situations in which an adequate pool of applicants exists, negating the need for rigorous recruiting efforts. The applicability of the model to situations in which applicants are in short supply or in which teaching is the primary role is unclear.

Additionally, the model's reference to research and conference proceedings suggests the authors specifically viewed the process through the lens of a four-year institution. Consistent with this assumption is the fact that the model has been applied in very few cases, all of which have been specific to comprehensive and graduate level colleges and universities. For example, the model has been used to assess the characteristics considered to be important when recruiting social work faculty (Harrison, Sowershoag, & Postley, 1989), the extent to which library resources were considered attractive to graduate faculty (Cluff & Murrah, 1987), and how new pharmacy faculty became aware of and made decisions to accept positions (Broedel-Zaugg, Henderson, & Ohvall, 1997).

Waggaman's Model of Faculty Recruitment, Retention and Fair Employment

Waggaman's model of faculty recruitment, retention, and fair employment took a similarly broad approach, dividing the process into a series of sequential stages. The six stages of Waggaman's model included only one dedicated to recruitment activities: (a) availability of positions and vacancies, (b) preliminary planning, (c) organizing recruitment, (d) screening applicants' files, (e) campus visit and final decisions, and (f) retaining new faculty. Waggaman's model expanded the role of recruitment in the process to include involvement of the search committee in identifying qualified candidates. He also recognized the importance of geographical origin of applicants and

suggested search committees become aware of the geographical origin of current faculty as a means to understanding the likely pool from which they will draw candidates.

Waggaman contended this profile of the current college community provides information about where targeted recruitment mailings could be sent. In an effort to expand the diversity of the applicant pool, he also suggested posting announcements through state-wide agencies, among peer groups in the discipline, national advertisement, and correspondence with universities with graduate programs known to enroll large populations of historically underrepresented groups. While this model emphasized recruitment to a greater extent than the previously discussed Structured Recruiting model (Morin & Kehoe, 1982), efforts were primarily directed at increasing representation of nondominant groups. The model did not, however, address recruitment efforts to expand the general pool of applicants.

Little evidence of Waggaman's (1983) model being applied exists in the literature. Reeves and Galant (1986) claim to have used the model to design their study to explore recruitment planning in North Central Community/Junior colleges. While the study did not test the applicability of the model, Reeves and Galant offer that Waggaman's theories were important to the design of the survey instrument to be administered to 355 community college administrators. The connection between the study and Waggaman's model is, however, tenuous as there is little evidence of the model's influence on the survey instrument.

Winter Recruitment Model

The Winter (1996b) recruitment model, framed by applicant-attraction theory (Rynes & Barber, 1990), viewed recruitment from the perspective of the applicant by

focusing on the impact of the recruiting source and applicant characteristics. Winter posited recruitment efforts should be approached from the job-marketing perspective (Levitt, 1960; Maurer, Howe, & Lee, 1992; Murrell & Hughey, 2003). In this way, organizations market position vacancies by choosing recruitment strategies to meet the needs of defined target applicant populations. The model includes establishing recruitment objectives and profiling the target applicant population to devise recruitment practices based on marketing theory. According to Winter, objectives are met by using strategies and employment inducements to meet the needs of the applicants.

A series of studies have extended the Winter model to the recruitment of community college faculty (Winter, 1996a). Using a recruitment simulation technique, participants were asked to respond to printed recruitment sources reflecting a variety of employment inducements as independent variables. The dependent variable was the participant Likert-type rating of the vacancy announcement reflecting their likelihood of applying, likelihood of accepting an invitation to interview, and likelihood of accepting the positions. Researchers demonstrated that employment inducements such as job attributes, program type (Winter, 1998), location, recruiter characteristics, spousal contribution to family income (Winter & Kjorlien, 2000b), employment status (Kjorlien, 2001; Winter & Kjorlien, 2001), and compensation (Winter, Petrosko, & Rodriguez, 2007) influenced participants' attraction to vacancies to teach business at a community college. Winter, Petrosko, and Rodriguez (2007) also suggested future research should include geographic location as a potential inducement variable. While the implications of these studies are limited by the focus on a single teaching discipline and a homogeneous pool of applicants, they do suggest community colleges may impact the success of faculty

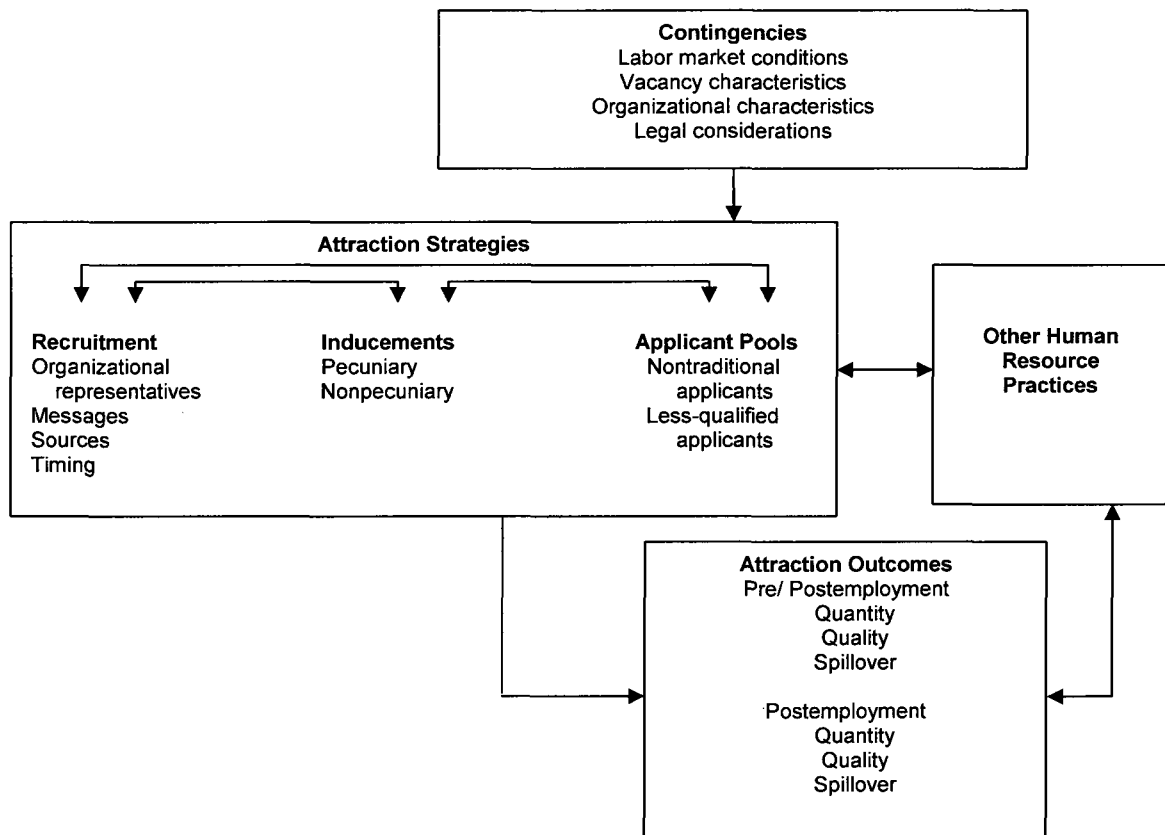
searches by deliberately manipulating employment inducements. However, the model's narrow focus on recruitment and matching target applicants with job attributes may limit its applicability to rural institutions with restricted employment pools.

Applicant Attraction Model

While many researchers view recruitment and attraction as synonymous, Rynes and Barber (1990) consider these to be related but distinct constructs with recruitment being but one method of enhancing applicant attraction to a position. They view "...recruitment as a *means* of attracting the applicant. Thus, improved recruitment is regarded as one potential strategy for enhancing attraction, but so are decisions to modify employment inducements or to target different kinds of applicants" (Rynes & Barber, 1990, p. 287).

Rynes and Barber's (1990) applicant attraction model provides a broad, theoretical framework for understanding how institutional decisions impact the attractiveness of position vacancies. As shown in Figure 2, the model posits applicants are attracted to positions by variations in (a) recruitment practices, (b) employment inducements, and (c) consideration of non-traditional applicant pools. Additionally, Rynes and Barber recognize the myriad of external conditions influencing applicant attraction to positions. Therefore, the model suggests labor market conditions, vacancy characteristics, and organizational characteristics be considered when making decisions about how to approach applicant attraction. Because rural community colleges are often faced with a limited labor market (Maestas, 2005; Pennington, Williams, & Karvonen, 2006) and have unique organizational characteristics (Cejda & Leist, 2006; Eddy & Murray, 2007), this model may be particularly applicable to rural institutions seeking

adjunct faculty members. The current study assessed whether community colleges in rural, suburban, and urban areas employ elements of the applicant attraction model by evaluating strategies being used in the areas of recruitment, employment inducements, and the consideration of alternate applicant pools as institutions struggle to fill adjunct vacancies.



*Figure 2. Applicant attraction model. From “Applicant Attraction Strategies: An Organizational Perspective,” by S.L. Rynes and A.E. Barber, 1990, *Academy of Management Review*, 15(2), p. 289. Reprinted with permission (Appendix A).*

Recruitment Strategies

Community colleges typically employ passive recruitment strategies, although studies encourage administrators to consider more active and innovative practices to recruit qualified faculty (Flannigan, Jones, & Moore, 2004; Reeves & Galant, 1986). While most studies specifically addressed full-time faculty, the literature emphasizes adjunct faculty policies should mirror those for full time faculty (Academic Senate for California Community Colleges, 2000; Wallin, 2004, 2005). Therefore, these studies have relevance to adjunct faculty recruitment. Additionally, findings are consistent with the single study giving specific attention to the recruitment of part-time faculty members (Roueche, Roueche, & Milliron, 1998).

Vacancy announcements. Community colleges rely heavily on posting announcements in local newspapers, national publications, such as the *Chronicle of Higher Education*, employing professional placement services, and word-of-mouth advertisement (Academic Senate for California Community Colleges, 2000; Flannigan, Jones, & Moore, 2004; Fowler-Hill, 2002; Reeves & Galant, 1986). These methods reach active job seekers, such as those individuals recently completing graduate study and seeking faculty positions. Local television and radio were viewed as much less important advertising venues (Reeves & Galant).

Face-to-face recruiting. Several studies also refer to the benefits of face-to-face recruiting opportunities. California's hiring policies encouraged current faculty to become involved in job fairs to recruit new faculty members (Academic Senate for California Community Colleges, 2000). Similarly, administrators responding to Reeves and Galant's survey ranked "on site recruitment" as sixth out of ten recruitment sources.

In Roueche, Roueche, and Milliron's (1998) study of adjunct faculty recruitment, local job fairs to attract adjunct faculty were highlighted as being important to the vitality of the adjunct pool in several community colleges.

Business and industry. External relationships with business and industry have also been cited as important recruitment sources (Parsons, 1978; Roueche, Roueche, & Milliron, 1998). While it may be tempting to assume these relationships are most important in the recruitment of faculty in the occupational/technical fields, this contention is not supported in the literature. Community college CAOs recommended recruiting from the corporate sector as a general strategy to fill full-time faculty vacancies due to retirements. Additionally, the importance of business and industry is recognized by administrators in colleges both with and without established recruitment plans. In Reeves and Galant's (1986) study, administrators in colleges in both categories viewed relationships with private business and industry as equally important to recruiting efforts, with an overall rating of fifth out of ten.

Networking. Some of the most innovative suggestions resulted from discussions of faculty needs in rural institutions. Murray and Cunningham (2004) found a surprisingly high number of new faculty members had been lured to the rural community college by a colleague. Subsequently, Murray (2007) suggested rural institutions involve current faculty in the recruitment process to identify potential candidates. This is consistent with Parson's (1978) model of adjunct faculty development, which while not emphasizing recruitment, posited full-time faculty should be involved in the recruitment process. Eddy (2007) expanded the concept of networking to recruit beyond a single

institution by suggesting institutions consider partnerships to share faculty to both maximize recruitment efforts and improve efficiency.

Part-time faculty pools. Adjunct faculty members are an important source of applicants for full-time vacancies. This is evidenced in Fowler-Hill's (2002) evaluation of recruitment and hiring practices in learning-centered community colleges. Based on interviews and survey responses from chief instructional officers, Fowler-Hill recommended learner-centered colleges look first to their part-time faculty to fill full-time positions. She suggested colleges reach beyond traditional recruitment strategies and consider developing part-time faculty, "grow-your-own" efforts and partnering with industry to ensure a strong pool of learner-centered faculty. The sentiment of drawing from the existing part-time faculty constituency was also echoed in Reeves and Galant's (1986) study in which administrators from colleges with an established recruitment plan ranked part-time faculty pools as the second most important source for full-time faculty.

While adjunct faculty pools have been cited as important sources for full-time faculty, to date, only one study has addressed the recruitment of adjunct faculty in particular. Roueche, Roueche and Milliron (1998) asked chief executive officers to provide contact information for colleges with exceptional policies and practices for utilizing adjunct faculty. Telephone interviews were conducted with the 30 community college contacts generated by this referential sampling approach. Consistent with previous findings, job fairs, ties with business and industry, and word of mouth were identified as important recruitment strategies. Participants also suggested additional sources such as advisory committee recommendations, advertisement through local media, such as television and radio stations, and sharing faculty with neighboring

colleges. While the study identified unique recruitment strategies for community colleges in general, it made no attempt to correlate strategies with institutional type.

Employment Inducements

Job and organizational attributes that are deliberately manipulated to increase the attractiveness of position are considered employment inducements (Rynes & Barber, 1990). As is the case with recruitment literature, studies regarding employment inducements have often been limited to full-time faculty. While inducements for part-time faculty are likely to be quite different, reviewing the literature for full-time faculty inducements is informative and relevant.

Offering employment inducements is an uncommon practice in community colleges. Reeves and Galant (1986) found that only 7% of responding colleges in the 19-state North Central Community/Junior College region offered full-time position candidates inducements such as housing, fringe benefits, or professional development support. While the commonality of this practice may have changed since the study was conducted, researchers have not investigated the practice in recent years.

Applicant attraction theory recognizes both pecuniary inducements, those with a monetary basis, and nonpecuniary inducements, as opportunities to strategically influence applicants' attraction to positions.

Pecuniary inducements. Monetary inducements are increasingly being recognized as important considerations in faculty recruitment. In a survey of CAOs of AACC member institutions, enhanced salary and benefits packages were found to be important to successful recruiting (Berry, Hammons, & Denny, 2001). While the impact of monetary inducements on applicant attraction may seem obvious, there has been little

research to guide institutions about which inducements colleges are using and which have the most impact on attraction. Administrators responding to Reeves and Galant's (1986) survey indicated they employed pecuniary inducements including pay differentials for high-demand fields, housing allowances, fringe benefits, and paying relocation expenses. In recruitment simulation experiments, individuals completing graduate study in business were found to be more attracted to community college teaching positions advertised as having higher starting salaries and employer-paid family health care benefits (Winter, Petrosko, & Rodriguez, 2007). Similarly, medical coding professionals indicated a higher likelihood of applying for community college medical information faculty positions that were advertised at a higher hourly compensation rate and those positions offering a signing bonus (Logsdon, 2003; Winter & Logsdon, 2004). These studies illustrate the importance of communicating job characteristics in printed advertisement. However, the research design's dependence on both full-time faculty positions and a large pool of qualified applicants limits the applicability to the attraction of adjunct faculty.

There have been no empirical investigations of pecuniary inducements to attract adjunct faculty. This undoubtedly reflects that institutions often lack the resources to enhance compensation. Additionally, providing monetary incentive for part-time faculty would at least partially negate the fiscal benefits of employing adjuncts (Christensen, 2008). Regardless of these limitations, however, inadequate compensation has been frequently cited as impacting the satisfaction of adjunct faculty (Ellison, 2002; Feldman & Turnley, 2004; Leslie & Gappa, 2002). A recent study investigated the impact of dental, health, disability, and life insurance on the satisfaction of part-time faculty (Schmidt, 2009). Adjunct faculty members at 293 two-year colleges whose compensation

included some form of insurance indicated greater job satisfaction. Additionally, they expressed increased satisfaction with their salaries as compared to adjuncts who received the same salary without benefits.

Nonpecuniary inducements. Employment inducements impacting job attractiveness are not limited to monetary incentives. Given the fiscal limitations of many community colleges, nonpecuniary inducements may provide community colleges with cost-effective opportunities to enhance recruitment efforts. Manipulating job or organizational attributes as inducements requires understanding which characteristics match the needs of applicants (Winter, 1996b). According to several studies, business professionals were more attracted to community college teaching positions with job attributes of being part-time (Winter & Kjorlien, 2001), not requiring relocation (Winter & Kjorlien, 2000a), and focused on transfer, as opposed to occupational/technical or remedial, programs (Winter, 1998; Winter & Munoz, 2001). Other job attributes that can be promoted in the vacancy advertisement are expanded professional development opportunities (Eddy, 2007; Reeves & Galant, 1986) and promoting the benefits of the lifestyle offered by the community (Murray, 2007). These may be particularly useful to rural institutions. Murray suggested administrators promote the benefits of the rural setting to distant graduate programs, highlighting local benefits such as low cost-of-living and access to amenities such as state parks and historical sites.

Alternate Applicant Pools

Little attention has been given to the extent to which community colleges consider alternate applicant pools. Historically, the traditional candidate for a community college teaching position holds a master's degree with the appropriate combination of teaching

experience, often at the community college level, and related occupational experience (Cohen & Brawer, 2003; Gahn & Twombly, 2001). When a sufficient pool of qualified candidates exists, there may be no need to deviate from this formula. The literature is, however, rife with suggestions that this is not always the case.

Applicant pools are often limited based on program type or geographic location. High-demand fields such as health sciences (Rojas-Guyler, King, & Cottrell, 2004), natural and physical sciences, and math (Berry, Hammons, & Denny, 2001; Reeves & Galant, 1986; Stout, 2008) often have limited numbers of qualified candidates. For example, in an investigation of faculty searches in the health sciences, Rojas-Guyler, King, and Cottrell (2004) found searches resulted in an average of only five qualified applicants. This limitation was cited as contributing to 29% of all searches failing. Additionally, participants in Roueche, Roueche, and Milliron's (1998) study confirmed rural institutions "...must be satisfied with candidates who hold less than a master's degree, even in transfer education" (p.48). Despite recognition that traditional applicant pools may not be sufficient to meet the needs of community colleges, especially in rural areas, the relevance of alternate applicant pools for filling faculty vacancies has yet to be investigated.

Exploring alternate pools need not result in reduced quality or productivity. Rynes and Barber (1990) contended organizational preferences related to traditional applicants may be driven by habit or stereotype, rather than productivity. Therefore, rural institutions have been encouraged to think creatively to meet staffing needs. Murray (2007) suggested institutions explore nontraditional applicants such as spouses of faculty and graduate students without teaching experience. In the latter case, he suggested

partnership programs involving mentoring to develop and retain the mentee after graduation. Variations of grow-your-own programs advocate developing individuals from within the institution (Eddy & Murray, 2007; Harper-Marinick & Solley, 2004). Murray (2007) applied this to community college graduates, suggesting institutions maintain connections with graduates pursuing advanced degrees to cultivate the possibility of returning to their home community to teach. Institutional collaborations have also been suggested to allow institutions to share faculty if colleges are located within reasonable driving distance from one another. This approach exemplifies the institution considering a pool of potential applicants which, while nontraditional, is rich in qualification and experience. Finally, hiring faculty who teach strictly online has been suggested as a strategy to expand the faculty pool to distant areas while expanding student access through distance learning (Eddy & Murray, 2007; Schnitzer & Crosby, June, 2003). While it is clear that researchers have contemplated strategies to enhance the pool of faculty applicants, there have been no empirical studies investigating the extent to which the approaches are being used nor their effectiveness. Additionally, most discussions focus on full-time faculty, giving scant attention to institutional needs for adjunct faculty.

The applicant attraction model's (Rynes & Barber, 1990) comprehensive approach to filling vacancies may be a useful resource for community colleges striving to meet personnel needs. As the current faculty shortage has gained attention, there has been a clear movement toward supplementing traditional recruitment strategies with more aggressive efforts. Similarly, although offering employment inducements has not been part of the traditional hiring process, some institutions are finding this strategy to be effective as the need for both full-time and part-time faculty escalates. Finally, while

researchers and practitioners have recognized that limited pools of qualified applicants exist for high-demand disciplines and in rural areas, institutions have not typically explored alternate applicant pools. The literature encourages administrators to consider all three areas to enhance applicant attraction, but few studies have approached attraction from an empirical perspective. The current study will explore the extent to which the applicant attraction framework is being used by rural, suburban, and urban community colleges to attract adjunct faculty.

Chief Academic Officers

CAOs are considered to be the authority on college-wide instructional and faculty issues. As the highest ranking academic officer, Erwin (2000) noted the CAO has “...primary responsibility for coordinating curriculum development and maintaining the college's instructional integrity” (p. 17). Anderson, Murray, and Olivarez (2002) underscored the fact that the CAO oversees all instructional faculty and focuses on college-wide instructional issues.

Studies have gleaned insight from CAOs on a variety of institutional and faculty-related issues. For example, Cejda and Leist (2006) surveyed 202 CAOs in nine states to understand internal and external challenges facing community colleges. CAOs provided data on diverse issues such as funding, accountability, community relationships, student outcomes, and faculty development and recruitment. Berry, Hammons, and Denny (2001) surveyed CAOs to understand the factors impacting faculty retirements in community colleges. In a study focused on challenges facing community colleges, Rankin (2008) turned to CAOs to assess the availability of part-time faculty members in the service area. Yankee (2000) also surveyed CAOs of community colleges in the North Central region to

assess challenges meeting accreditation criteria with respect to part-time instruction. Similarly, Stout's (2008) work on adjunct faculty in rural Appalachia compared the perceptions of CAOs to department heads. While findings indicated CAOs were less aware of departmental-level practices, no significant differences existed in the perceptions of CAOs and department heads with respect to the importance of employing and ability to employ adjunct faculty in the teaching various disciplines. This suggests the CAO lens, although broader in scope, is consistent with mid-level administrators regarding adjunct faculty employment. Therefore, the current study will focus on the perceptions of CAOs of rural, suburban, and urban community colleges to assess institution-level demand for and attraction of adjunct faculty.

Chapter Summary

This chapter presented a review of the relevant literature addressing institutional diversity, rural community colleges, faculty hiring, and adjunct faculty. Special attention was given to the funding and personnel challenges facing rural community colleges and the role of adjunct faculty in meeting curricular needs. A review of faculty hiring practices did not reflect institutional diversity as they predictably consisted of applicant screening and interviews. Despite wide-spread recognition of faculty shortages, the recruitment stage of the process received little attention for both full-time and adjunct positions.

Although the body of literature addressing adjunct faculty is robust, scant attention has been given to the role of part-time faculty members across diverse institutional types. Key findings from the literature that inform the current study included the following: (a) appropriate measures of adjunct utilization include those based on both

employment status and credit hours taught; (b) institutional size, based on unduplicated headcount, impacts resources available to institutions; (c) although institutions struggle to find adjunct faculty in some disciplines, data are inconclusive.

Theoretical recruitment models were presented, emphasizing the potential applicability of the applicant attraction model with respect to adjunct faculty in rural institutions. Consistent with this model, the literature suggests community colleges have considered various recruitment strategies, pecuniary and nonpecuniary employment inducements, and alternate applicant pools to meet faculty needs. The model has yet to be applied to the attraction of adjunct faculty.

CHAPTER 3

METHOD

This study contributes to the understanding of the demand for and attraction of adjunct faculty in rural, suburban, and urban community colleges. This information fills a significant void in literature related to the impact of institutional diversity on the need for part-time faculty in various discipline clusters. Additionally, by examining the applicability of the applicant attraction model (Rynes & Barber, 1990) to adjunct faculty, the study provides practitioners with guidance and resources to facilitate filling part-time faculty vacancies.

In order to understand adjunct faculty employment and attraction from a broad institutional perspective, the study examined the issue from the lens of the highest ranking officer responsible for academic affairs. Therefore, a survey was administered to CAOs of community colleges to assess the relationship between their perception of the reliance on and unmet demand for adjunct faculty across 12 discipline clusters, while controlling for institutional size. The survey also explored strategies used by community colleges to attract adjunct faculty within the applicant attraction framework by identifying institutional practices addressing recruitment, employment inducements, and alternate applicant pools (Rynes & Barber, 1990). This information furthers the understanding of the role of adjunct faculty in rural community colleges and provides institutions with an attraction model to enhance their ability to meet the demand for adjunct faculty in the future.

This chapter outlines the research design, research questions, and study participants. Subsequently, development and administration of the instrument and

methods of data analysis are described. The chapter concludes with a discussion of the study's limitations and ethical considerations.

Research Design

Choice of research design is based on the nature of the problem being investigated, as defined by the research questions (Creswell, 2003). To address the research questions guiding this study, a cross-sectional, survey design was used to assess CAOs' perceptions of the reliance on, demand for, and attraction of adjunct faculty. Survey research is a widely accepted method to collect quantitative data about attitudes, opinions, or perceptions (Creswell). In the present study, an instrument was developed to collect data reflecting CAOs' perceptions of institutional reliance on adjunct faculty, unmet demand for adjunct faculty, and strategies employed for the attraction of adjunct faculty members.

Electronic survey administration was chosen for several reasons. First, some previous studies involving surveys mailed to CAOs resulted in low response rates (Berry, Hammons, & Denny, 2001). Electronic administration has the potential to decrease non-coverage response error and increase the response rate (Dillman, 2007). Second, to achieve a heterogeneous sample with representation from the diversity of institutions, the study surveyed the entire population of CAOs of AACC member institutions. Electronic administration provided a means to survey a large population and provide follow-up in a timely, logistically-realistic, and cost-effective manner. Finally, electronic integration of the survey instrument and data collection spreadsheets reduced the risk of data-entry error.

The study was conducted in five phases: instrument design, assessment by an expert panel, piloting the instrument, survey administration, and data analysis.

Research Questions

The study was guided by the following research questions:

1. Are there statistically significant differences in the perceptions of rural, suburban, and urban community college CAOs regarding the reliance on adjunct faculty as defined by the percentage of faculty employed on a part-time basis and the percentage of credit hours taught by adjunct faculty?
2. Are there statistically significant differences in the perceptions of rural, suburban, and urban community college CAOs regarding the overall unmet demand for adjunct faculty?
3. Are there statistically significant differences in the perceptions of rural, suburban, and urban community college CAOs regarding the discipline-specific unmet demand for adjunct faculty?
4. To what extent are rural, suburban, and urban community colleges using applicant attraction strategies in the areas of recruitment, employment inducements, and consideration of alternate applicant pools to enhance the attraction of adjunct faculty?

Participants

The study employed census sampling by identifying and attempting to collect information from all members of a population (Lodico, Spaulding, & Voegtler, 2006).

This method was selected due to the manageable size of the target population of CAOs of AACC member institutions and the importance of receiving responses from

heterogeneous respondents. Institutions were categorized as rural, suburban, or urban based on the Carnegie Classification system (Carnegie Foundation for the Advancement of Teaching, 2006a). A review of the AACC member listing and institutional websites was used to construct a database CAOs of comprehensive, publicly-supported, AACC member institutions regionally accredited to award the associate degree as their highest degree. Institutions designated as special-use or affiliated with four-year institutions were excluded from the study. The survey was electronically administered to CAOs of 887 institutions. Based on Carnegie Foundation for the Advancement of Teaching definitions, 56.8% of the institutions were rural, 22.9% suburban, and 30.3% urban. The invitation included wide representation from 50 states, the District of Columbia, and US territories. Tables 2 and 3 show survey distribution according to institutional type and regional accrediting body.

Table 2

Survey distribution by institutional type (N = 887)

Institution Type	N	Percent
Rural	504	56.8
Suburban	203	22.9
Urban	180	20.3

Table 3

Survey distribution by regional accrediting body (N = 887)

Regional Accrediting Body	N	Percent
Middle States Association of Colleges and Schools	89	10.0
New England Association of Colleges and Schools	42	4.7
North Central Association of Colleges and Schools	297	33.5
Northwest Commission on Colleges and Universities	63	7.1
Southern Association of Colleges and Schools	287	32.4
Western Association of Schools and Colleges	109	12.3

Variables

The independent variable was institutional type (rural, suburban, urban). Two dependent variables assessed the degree of reliance on adjunct faculty: CAOs' perceptions of the percentage of faculty employed on a part-time basis and the percentage of credit hours taught by adjunct faculty. Unmet demand for adjunct faculty was addressed from two perspectives: discipline-specific and overall. For each of 12 discipline clusters, respondents used a Likert-type scale (0-5) to rate their perceptions on three subscales addressing (a) the degree to which attracting adjuncts was an institutional challenge, (b) the availability of qualified adjunct faculty, and (c) the degree to which the availability of adjunct faculty was a limiting factor in the design of the course schedule. For each discipline, scores on the three subscales were summed to generate a discipline-

specific score ranging from 0-15. Subsequently, the overall unmet demand for adjunct faculty was calculated as an additive composite score, ranging from 0-180, based on the ratings (0-5) of all 12 disciplines across the three subscales. The variables involved in the study are shown in Table 4. The survey also explored strategies used by community colleges to attract adjunct faculty within the applicant attraction framework by identifying institutional practices addressing recruitment, employment inducements, and alternate applicant pools (Rynes & Barber, 1990).

Instrument Development

The survey instrument was designed to gain an understanding of CAOs' perceptions of reliance on adjunct faculty, unmet demand for adjunct faculty, and strategies being used to attract adjunct faculty to institutions within the applicant attraction framework (Rynes & Barber, 1990). Because no instrument existed to assess these constructs, the initial instrument was developed based on a review of the professional literature to include Likert-type and continuous items (Appendix B). The design followed the principles for web-based survey design outlined by Dillman (2007), including (a) integration of a welcome screen, (b) clear instructions, (c) simple layout, (d) minimal use of color, and (e) the presentation of questions in logical groupings. The instrument included continuous, Likert-type, and categorical items to assess unduplicated headcount, reliance on and unmet demand for adjunct faculty, as well as the applicability of the applicant attraction model .

Table 4

Description and coding of variables

Variable Type	Variable	Description
Independent	Institutional type	Nominal, Rural = 1, Suburban = 2, Urban =3
Dependent	Percent faculty employed on a part-time basis	Discrete, 0-100
	Percent credit hours taught by adjunct faculty	Discrete, 0-100
	Overall unmet demand	Scale, 0-180
	Discipline-specific unmet demand	Scale, 0-15
Covariate	Institutional Size	Discrete, Unduplicated headcount

Reliance on Adjunct Faculty

To evaluate the extent to which rural, suburban, and urban community colleges rely on adjunct faculty, the instrument included four continuous items addressing adjunct employment and teaching load. Respondents were asked to provide both the number of full-time and part-time faculty employed by the institution, as well as the percent of student credit hours taught by both groups of faculty members (Roueche, Roueche, &

Milliron, 1998). Anticipating that some CAOs may choose to collaborate with other college personnel to provide these data, these items were located at the conclusion of the survey to facilitate forwarding to the appropriate party and encourage survey completion.

Unmet Demand for Adjunct Faculty

The unmet demand for adjunct faculty was assessed using three perception subscales consisting of Likert-type items addressing the unmet demand for adjunct faculty in 12 discipline clusters (Stout, 2008). For each discipline, the instrument assessed respondents' perceptions of (a) the degree to which attracting adjuncts was an institutional challenge, (b) the availability of qualified adjunct faculty, and (c) the extent to which adjunct availability limited the design of the course schedule. These subscales were used to assess two levels of unmet demand: overall and discipline-specific.

Overall unmet demand for adjunct faculty

To assess the overall unmet demand for adjunct faculty across institutional type, scores on the three subscales were summed for all 12 discipline clusters to form an additive composite rating ranging from 0-180. This rating served as the dependent variable, overall unmet adjunct demand, as shown in Table 2.

Discipline-specific unmet demand for adjunct faculty

To investigate the relationship between institutional type and teaching discipline, discipline-specific scores were analyzed separately. For each discipline, scores on each subscale were summed to provide 12 discipline-specific scores, ranging from 0-15. As shown in Table 2, these scores comprised discipline-specific variables addressing unmet demand for adjunct faculty.

Applicability of the Applicant Attraction Model

The instrument included categorical items to assess whether community colleges use adjunct faculty attraction strategies congruent with the applicant attraction framework (Rynes & Barber, 1990). CAOs were asked to identify strategies used by their institutions in the areas of recruitment, employment inducements, and the consideration of alternate applicant pools. Recruitment strategies, employment inducements, and alternate pools identified on the instrument were based on previous studies (Reeves & Galant, 1986; Rynes & Barber; Winter, 1998; Winter & Kjorlien, 2000a, 2000b; Winter, Petrosko, & Rodriguez, 2007). To prevent exclusion of novel strategies, respondents were also given the opportunity to select an “other” response and provide details.

Instrument Validity

Face validity was established by ensuring clear linkages between the instrument items and the study’s research questions (Kumar, 2005) . To this end, the instrument sections were clearly identified under headings such as “About Your Institution,” “Filling Adjunct Positions,” “Attracting Adjunct Faculty,” and “About Your Faculty.” For example, “About Your Institution” contained demographic variables, while the section entitled “Filling Adjunct Positions” asked respondents to consider the level of unmet need for adjunct faculty across the disciplines. The section “Attracting Adjunct Faculty” included a series of categorical items addressing strategies for recruitment, employment inducement, and the consideration of alternate applicant pools. Finally, in the section entitled “About Your Faculty,” respondents were asked to provide data to determine the degree of reliance on adjunct faculty by inquiring about both the number of faculty

employed on a part-time basis and the percent of credit hours taught by these faculty members.

According to Kumar (2005), content validity addresses whether "... the items and questions cover the full range of the issue or attitude being measured" (p.154). In the current study, content validity was established by developing the instrument in conjunction with a panel of subject-matter experts. The panel of experts included the following practitioners and scholars who have extensive experience in academic and faculty issues:

- Dr. Desna L. Wallin, Associate Professor in the Department of Lifelong Education, Administration, and Policy at the University of Georgia. Dr. Wallin has authored many scholarly articles addressing adjunct faculty and leadership development in community and technical colleges, as well as the book *Adjunct Faculty in Community Colleges: An Academic Administrator's Guide to Recruiting, Supporting, and Retaining Great Teachers* (Wallin, 2005).
- Dr. Elizabeth H. Crowther, President of Rappahannock Community College. Dr. Crowther has 16 years of administrative experience in instruction and student services in the Virginia Community College System.
- Dr. Monty Sullivan, Executive Vice President of the Louisiana Community and Technical College System. Dr. Sullivan's experience includes academic administration in the Louisiana and Virginia Community College Systems, as well as serving as the Director for the Center for Rural Development at Louisiana Technical University and the Interim President of Eastern Shore Community College in Virginia.

- Dr. Susan Wood, Vice Chancellor for Academic Affairs of the Virginia Community College System. Dr. Wood has extensive experience in institutional research, academic administration, and instruction, having served as a Professor of Mathematics for 16 years before moving into administration.

Panel members were sent an email message thanking them for participation, explaining the nature of their role in the study and defining the study purpose (Appendix C). This correspondence included an attachment containing the study purpose statement, research questions (Appendix D), and a link to an evaluation instrument (Appendix E). The evaluation instrument consisted of the proposed survey with embedded questions addressing the content validity of the items. For each item, panel members were asked to rate the item with respect to the importance, degree of representation of the study content, and clarity. Using a 3-point Likert-type scale, where 1=agree, 2=neutral, and 3=disagree, panelists indicated their level of agreement with each of the following statements: (a) This item should be included in the survey instrument, (b) This item is representative of the research questions, and (c) This item is clear and unambiguous. At the conclusion of the instrument, panelists were asked whether the instrument excluded any important topics related to the study and were given an opportunity to provide general comments. The collective input of the expert panel was considered when revising the instrument with the minimum criterion for instrument revision being comments from two panelists regarding a particular item.

The feedback from the panel of experts was positive with the majority of the respondents indicating that items were appropriate for inclusion in the survey and

congruent with the research questions. At the suggestion of the panel, the wording of two items was modified to improve clarity. These included clarifications to item #1 to specify the phrase "headcount" referred to enrollment and item #8 to indicate focus on "employing" rather than "finding" adjunct faculty. The revised instrument was subsequently distributed to the pilot group.

Content validity of the revised instrument was further established through a pilot study designed to ensure items were clearly related to the research goals, identify areas of confusion, and to estimate the amount of time necessary to complete the survey. For the pilot study, the survey was administered to ten community college deans from three states (VA, NC, and WA). As the administrators most directly involved with adjunct faculty, deans are well-suited to reflect upon the research topic (Stout, 2008). Initial correspondence with the pilot group occurred approximately one week prior to the pilot study with an introductory email inviting members to participate in the study, describing the study's purpose, the role of the pilot group, and estimated time commitment for participation (Appendix F). To conduct the pilot study, the group received an email describing the pilot study in the context of the research study and a link to the survey instrument (Appendix G). In an effort to emulate the conditions to be used when administering the survey to the entire population, the pilot group received instructions for survey completion identical to those to be used during administration of the final survey. Subsequently, respondents were asked to complete an online evaluation of the survey instrument to ensure content validity and identify areas needing improvement (Appendix H).

As shown in Table 5, all pilot participants indicated the questions were clear and unambiguous with no potentially offensive content. Based on the participant feedback, two modifications were made to the instrument. To improve clarity and facilitate completion of the survey, input fields were modified to accept all forms of data. Additionally, during the pilot study, it was noted that none of the discipline clusters included Mathematics. Therefore, the discipline of Mathematics was added to items #3, #4, and #5. Pilot participants reported wide variation in the time to complete the survey, ranging from 5 to 45 minutes. The mean completion time was 20.5 minutes ($SD = 14.99$), with the 4 of the 10 participants reporting the mode of 10 minutes.

Table 5

Pilot study participant responses to content validity items (N=10)

Item	Yes	No
Were the instructions clear?	9	1
Were the questions clear and unambiguous?	10	0
Were there any components that might be construed as offensive?	0	10

Instrument Reliability

Internal Reliability

Discipline-Specific Unmet Demand for Adjunct Faculty

To establish internal reliability, Cronbach's alpha was calculated for each discipline-specific unmet demand subscale, each comprised of three items. Alpha values, as shown in Table 6 ranged from .77 to .97, with 10 of the 12 exceeding .8, indicating satisfactory internal reliability of the subscales (Field, 2005; George & Mallery, 2003).

Overall Unmet Demand for Adjunct Faculty

Cronbach's alpha for the composite scale overall unmet demand for adjunct faculty, resulting from summing the 12 subscales, was .90. To assess the validity of the overall unmet demand score, the extent to which each subscale correlated with the total scale was calculated. As shown in Table 7, with one exception, all items showed a strong, positive correlation with the total as indicated by Pearson's $r > .4$ (Green & Salkind, 2005). The Agriculture and Natural Resource Technologies subscale was only weakly correlated with the total ($r = .234$).

Further analysis evaluated the contribution of each subscale to the reliability of the overall unmet demand scale by assessing whether deletion of any one of the subscales would increase the reliability of the total (Gliem & Gliem, 2003). With the exception of Agriculture and Natural Resource Technologies, deletion of individual scales either did not impact or decreased the Cronbach's alpha of the composite scale, indicating inclusion of each item positively contributed to the reliability of the overall unmet demand scale. Deletion of the Agriculture and Natural Resource Technologies scale increased the

reliability of the overall unmet demand scale from .90 to .92, suggesting inclusion of this subscale decreased the internal reliability.

Table 6

Internal reliability of discipline-specific subscales (n=10)

Subscale	Number of Items	Cronbach's α
English	3	.95
Natural and physical sciences	3	.95
Arts and humanities	3	.86
Social sciences	3	.83
Agriculture and natural resources	3	.98
Business	3	.93
Computer technologies	3	.95
Education	3	.95
Engineering and industrial technologies	3	.97
Health technology (other than nursing)	3	.91
Nursing	3	.77
Public service technologies	3	.98

Table 7

Contribution of subscales to the overall unmet demand for adjunct faculty scale, $\alpha = .90$, ($n=10$)

Subscale	Item-Total Correlation	Cronbach's α if Deleted
English	.51	.90
Natural and physical sciences	.62	.89
Arts and humanities	.55	.90
Social sciences	.50	.90
Agriculture and natural resources	.23	.92
Business	.86	.88
Computer technologies	.90	.88
Education	.89	.88
Engineering and industrial technologies	.82	.88
Health technology (other than nursing)	.61	.89
Nursing	.69	.89
Public service technologies	.62	.90

Because the Agriculture and Natural Resource Technologies subscale was only weakly positively correlated with the total ($r = .234$), and deletion of the subscale resulted in increasing the overall reliability of the scale from .90 to .92, the subscale was omitted

from the instrument. Correlations between each subscale and the total as well as the effect of deleting subscales are indicated in Table 7.

External Reliability

To evaluate the stability of the instrument, pilot test participants were asked to complete the instrument a second time, two weeks following the pilot study (Appendix I). Correlation coefficients were computed between responses on the first administration of the instrument and second administration of the instrument. As shown in Table 8, the correlation between test administrations for the discipline-specific subscales, the overall unmet demand scale, and related items exceeded .4, with 16 of the 19 being greater than or equal to .80, indicating a strong, positive relationship and satisfactory reliability (Field, 2005).

Table 8

Correlations between test and retest survey administrations (n=9)

Item/Scale	Pearson's <i>r</i>
Unduplicated fall 2009 headcount	.80**
Proximity to four-year institutions	.86**
Discipline-specific unmet demand subscales	
English	.71*
Natural and physical sciences	.93**
Arts and humanities	.55

Table 8 Continued

Item/Scale	Pearson's <i>r</i>
Social sciences	.78**
Agriculture and natural resources	.92**
Business	.82**
Computer technologies	.81**
Education	.90*
Engineering and industrial technologies	.90*
Health technology (other than nursing)	.51
Nursing	.92**
Public service technologies	.45
Overall unmet demand for Adjunct Faculty	.87*
Number of faculty	
Full-time	.99**
Part-time	1.00**
Percentage of credit hours taught	
Full-time	.97**
Part-time	.91**

* $p < .05$; ** $p < .01$

Data Collection

Survey administration was guided by the tailored design method (Dillman, 2007). Hallmarks of the method include (a) multiple electronic contacts, (b) personalized communication, and (c) brevity in communication. Although Dillman suggested a minimum of three points of contact with the sample: announcement, administration of the survey, and a reminder to nonrespondents to include a replacement survey link, the pilot study suggested some email servers were blocking the second message. To maximize delivery, the current study limited contact to an invitation and a reminder to nonrespondents, both of which included the survey link. Dillman reported electronic surveys preceded with paper announcements had a lower response rate than those using electronic announcements. Therefore, for the current study, all communication was conducted electronically. All data were collected using SurveyMonkey (Finley, n.d.).

To distribute the survey, an electronic invitation to participate in the study was sent to CAOs (Appendix J). This personalized message was designed to explain the relevance of the research, build social trust, and emphasize the brevity and nature of the survey instrument. The invitation included a link to the online instrument and emphasized the importance and voluntary nature of participation and confidentiality of data. Participants were also given an opportunity to contact the researcher with questions, concerns, and to request a summary of the study results. Participants were asked to complete the survey within two weeks. At this time, a follow-up message (Appendix K) was sent to nonrespondents to encourage participation. One week later, the data were downloaded for analysis.

Data Analysis

To obtain an understanding of the characteristics of respondents, descriptive statistical analysis were performed on variables such as institutional type and size. To assess the extent to which nonresponse error threatened external validity, early and late responses were compared via independent samples *t*-test (Lindner, Murphy, & Briers, 2001). According to Dillman (2007), late respondents are considered similar to nonrespondents. Therefore, finding a significant difference between early and late respondents indicates that nonresponse error threatens external validity. Because “late respondents” may be defined as those responding to the last stimulus (Lindner, Murphy, & Briers, 2001), respondents submitting surveys after the follow-up communication were considered late respondents. All statistical analyses were conducted using SPSS for Windows Graduate Student Version 15.0.0.

Reliance on Adjunct Faculty

One-way analyses of covariance (ANCOVA) were conducted to relate institutional type (rural, suburban, and rural) to the reliance on adjunct faculty, as determined by both the percentage of faculty employed on a part-time basis and the percentage of credit hours taught by adjunct faculty. Institutional size, based on unduplicated headcount, will be held constant.

An ANCOVA is based on several assumptions (Green & Salkind, 2005). As a parametric test, ANCOVA assumes the dependent variable is normally distributed for each group. To examine this assumption, a normal curve was superimposed on a histogram of collected data to visually assess the normality of the distribution.

Additionally, the analysis assumes the variances of the dependent variable are equal

across the groups. To assess the extent to which variances were equal, the variance ratios were examined to guide subsequent post-hoc analyses. Where equal variances could not be assumed, post hoc multiple comparison analyses that do not assume equal variances among the populations, such as Dunnett's T3, were conducted. Finally, ANCOVA assumes the differences among the dependent variables are not a function of the covariate. Therefore, tests of the homogeneity-of-slopes assumption were performed to examine the interaction between the dependent variable and the covariate.

Unmet Demand for Adjunct Faculty

Two levels of unmet demand for adjunct faculty were analyzed: overall and discipline-specific. Prior to analysis, responses to the subscale addressing the availability of qualified adjunct faculty were reverse-scored. The sum of the scores on the discipline-specific subscales formed an additive composite rating to serve as the dependent variable, overall unmet adjunct demand. A one-way ANCOVA was conducted to relate institutional type to overall unmet demand for adjunct faculty, holding institutional size constant.

To investigate the relationship between institutional type and teaching discipline, discipline-specific scores were also analyzed separately. To this end, discipline-specific scores on each subscale were summed to provide 12 discipline-specific scores. A multivariate analysis of covariance (MANCOVA) was conducted to relate institutional type and discipline specific unmet adjunct demand, holding institutional size constant.

Applicability of the Applicant Attraction Model

To explore the applicability of the applicant attraction model for adjunct faculty in rural, suburban, and urban community colleges, descriptive statistics were calculated on

the responses to items addressing strategies for recruitment, attraction, and the consideration of alternate pools. The analysis included the most frequently reported strategies in each category. Additionally, the percentage of rural, suburban, and urban respondents using strategies in each category, as well as those using strategies in all three categories was reported. Data provided in response to the “other” prompt in each category were also reported.

Limitations

The census sampling design of the study poses several threats to statistical conclusion validity (Kumar, 2005). While efforts were made to collect data from the entire population of CAOs in the AACC member directory, the study was limited by both the size of this population and that previous studies have received a low response rate from this group (Berry, Hammons, & Denny, 2001). Despite the incorporation of follow-up correspondence with nonrespondents, the possibility of low response rate and the resultant increase in nonresponse error remained. To determine the extent to which nonresponse error threatened external validity, an analysis of the difference between early and late response was conducted (Lindner, Murphy, & Briers, 2001). Additionally, the census sampling approach may have introduced sampling error by overrepresentation of certain groups. Finally, although this approach is most comprehensive and necessary to optimize sample size, the nonrandom nature of the approach reduced the reliability of the statistical analyses.

The survey design of the study, while providing a mechanism to collect data from a large and heterogeneous population, posed several threats to internal validity. Due to the nature of survey research, it was not possible to determine if the invited participant

was the individual completing the survey. Additionally, while CAOs are best suited to provide institution-level academic information, reliance on perceptions of CAOs omits several factors from consideration. For example, the study did not attempt to quantify variations in CAOs' levels of familiarity with adjunct instruction and degrees of involvement in filling adjunct positions. The study also did not address potentially confounding variables such as local economies, regional variations in cost-of-living and other institutions or industries that might compete for applicants.

Ethical Protection of Participants

Precautions were taken to protect the study participants with respect to study participation, data collection, and data storage. First, correspondence with the population emphasized that participation was voluntary and that data were held in the strictest confidence and reported only in aggregate. In the data collection process, neither institutional names nor other identifying information were collected. Anonymity was preserved by selecting software settings to ensure addresses could not be correlated with responses. Electronic survey data were protected by password, and the researcher had sole access; printed data were stored in a locked file cabinet.

Conclusion

The current study contributed to the understanding of the relationship between institutional type (rural, suburban, and urban) and both the reliance on and unmet demand for adjunct faculty in America's community colleges. Further, the study assessed the applicability of the applicant attraction model (Rynes & Barber, 1990) by investigating the extent to which institutions employ strategies for recruitment, employment inducement, and exploration of alternate applicant pools to fill adjunct positions.

This study employed a cross-sectional, quantitative analysis of the perceptions of CAO's of all AACC-member institutions. In all cases, data from rural, suburban, and urban institutions were compared to ascertain the relationship between institutional type and the dependent variables, while holding institutional size constant. First, an appropriate instrument to collect these data was developed in conjunction with a panel of subject-matter experts and a pilot group. The degree of reliance on adjunct faculty was examined using two dependent variables: the percentage of faculty employed on a part-time basis and the percentage of credit hours taught by part-time faculty. A series of ANCOVAs were conducted to determine whether statistically significant differences existed in the degree of reliance on adjunct faculty, between rural, suburban, and urban institutions. Second, the instrument assessed respondents' perceptions of the unmet demand for adjunct faculty across 12-discipline clusters, resulting in both overall unmet demand and discipline-specific unmet demand scores. These data were analyzed by ANCOVA and MANCOVA, respectively, to evaluate the differences across rural, suburban, and urban institutions. Finally, CAOs were asked to identify strategies for attracting adjunct faculty within the applicant attraction framework. Descriptive statistics were calculated to report the extent to which the model is applicable to the attraction of adjunct faculty in rural, suburban, and urban institutions.

CHAPTER 4

RESULTS

As rural community colleges face mounting fiscal pressure, the ability to attract and employ qualified adjunct faculty members has become increasingly important. The purpose of this cross-sectional study was to examine the effect of community college institutional type (rural, suburban, and urban) on the reliance on and unmet demand for adjunct faculty members across teaching disciplines and to explore the applicability of the applicant attraction model (Rynes & Barber, 1990) to meet that demand. A survey was administered to CAOs of community colleges to examine their perceptions of the reliance on adjunct faculty based on the percent of credits taught by adjunct faculty and the percent faculty employed on a part-time basis. The unmet demand for adjunct faculty was assessed based on responses to a series of Likert-type items providing scores for both discipline-specific and overall unmet demand for adjunct faculty. The survey also explored the extent to which colleges employ components of the applicant attraction model (Rynes & Barber, 1990) to fill adjunct positions in the categories of recruitment, employment inducement, and the consideration of alternate pools. The study was guided by the following research questions:

1. Are there statistically significant differences in the perceptions of rural, suburban, and urban community college CAOs regarding the reliance on adjunct faculty as defined by the percentage of faculty employed on a part-time basis and the percentage of credit hours taught by adjunct faculty?

2. Are there statistically significant differences in the perceptions of rural, suburban, and urban community college CAOs regarding the overall unmet demand for adjunct faculty?
3. Are there statistically significant differences in the perceptions of rural, suburban, and urban community college CAOs regarding the discipline-specific unmet demand for adjunct faculty?
4. To what extent are rural, suburban, and urban community colleges using applicant attraction strategies in the areas of recruitment, employment inducements, and consideration of alternate applicant pools to enhance the attraction of adjunct faculty?

Participants

Of the 887 surveys distributed, 402 responded for an overall response rate of 45%, with 64% being from rural community colleges, and 18% each from suburban and urban institutions. Survey distribution and return rates are shown in Table 9. Examination of histograms and box plots revealed two outliers that were deleted from the analysis. The first case was deleted based on the fact that the college did not employ adjunct faculty, and therefore, did not provide responses to the questions. The second case included inconsistent values for the percent of faculty employed and the percent of credit hours taught. In several instances, values were replaced with blanks. This was appropriate for (a) cases in which the item addressing the percentage of faculty employed on a part-time basis indicated zero, while other data indicating adjunct faculty were employed, (b) the calculated score for overall unmet demand for adjunct faculty was zero, and (c) the

percentage of faculty employed on full-time and part-time basis did not approximate 100%. As a result, 14% of respondents provided incomplete data, as shown in Table 10.

Table 9

Survey distribution and response rates by institutional type prior to deletion of cases

Institution Type	Distributed		Returned	
	<i>N</i>	Percent	<i>N</i>	Percent
Rural	504	57	257	64
Suburban	203	23	73	18
Urban	180	20	72	18
Total	887	100	402	100

These cases appeared to be unrelated to the independent variable, as the percentage of incomplete cases were similar across all institutional types. Because these missing values were considered to be missing at random, they were deleted, and the analyses were conducted using the remaining 347 responses. As shown in Table 11, following deletion of cases with missing variables, the distribution of the 347 responses included in the study also reflected the study population, with 63% of the participants from rural, 19% suburban, and 18% urban institutions.

Table 10

Incomplete responses deleted according to institutional type (n=55)

Institutional Type	Rural	Suburban	Urban	Total
Responses	257	73	72	402
Deleted	37	8	10	55
Remainder	220	65	62	347
Deletion rate	14%	11%	14%	14%

Table 11

Survey distribution and response rates of retained responses by institutional type following the deletion of cases with missing data

Institution Type	Distributed		Retained responses	
	<i>N</i>	Percent	<i>N</i>	Percent
Rural	504	57	220	63
Suburban	203	23	65	19
Urban	180	20	62	18
Total	887	100	347	100

As shown in Tables 12 and 13, the mean unduplicated enrollment headcounts for the fall 2009 semester were 5,326, 14,907, and 17,725 for rural, suburban, and urban institutions, respectively. Rural community colleges reported proximity to the fewest four-year institutions, with 31% having no universities within a 30-mile radius. In contrast, 63% of suburban institutions and 77% of urban institutions reported at least five four-year institutions in proximity to the main campus.

Table 12

*Unduplicated fall 2009 enrollment headcount for rural, suburban, and urban respondents
(n=347)*

	<i>M</i>	<i>SD</i>
Rural	5,326	7,980
Suburban	14,908	16,094
Urban	17,726	17,32

Table 13

Percent of rural, suburban, and urban respondents reporting 0, 1-2, 3-4 or 5 or more four-year institutions located within a 30-mile radius (n=346)

	0	1-2	3-4	5 or more
Rural	31%	41%	22%	6%
Suburban	3%	19%	15%	63%
Urban	0%	10%	13%	77%

Normality and Variance of Data

As a parametric test, ANCOVA assumes the dependent variable is normally distributed for each group and the variances of the dependent variable are equal across groups. Examination of the distribution of the data and assessment of the variance ratio of each group was used to determine the extent to which the data conformed to the assumptions.

Percent Credit Hours Taught by Adjunct Faculty

As indicated in Figure 3, data for the variable percent credit hours taught by adjunct faculty were normally distributed for rural, suburban, and urban with z-scores for skewness and kurtosis within the range expected in a normal distribution. The data in Figure 4 indicate the distribution of the data was approximately normal. Because the variance ratio of 1.77 did not exceed the suggested ratio of 3.0, equal variances were assumed (Field, 2005). Descriptive statistics for this variable are shown in Table 14.

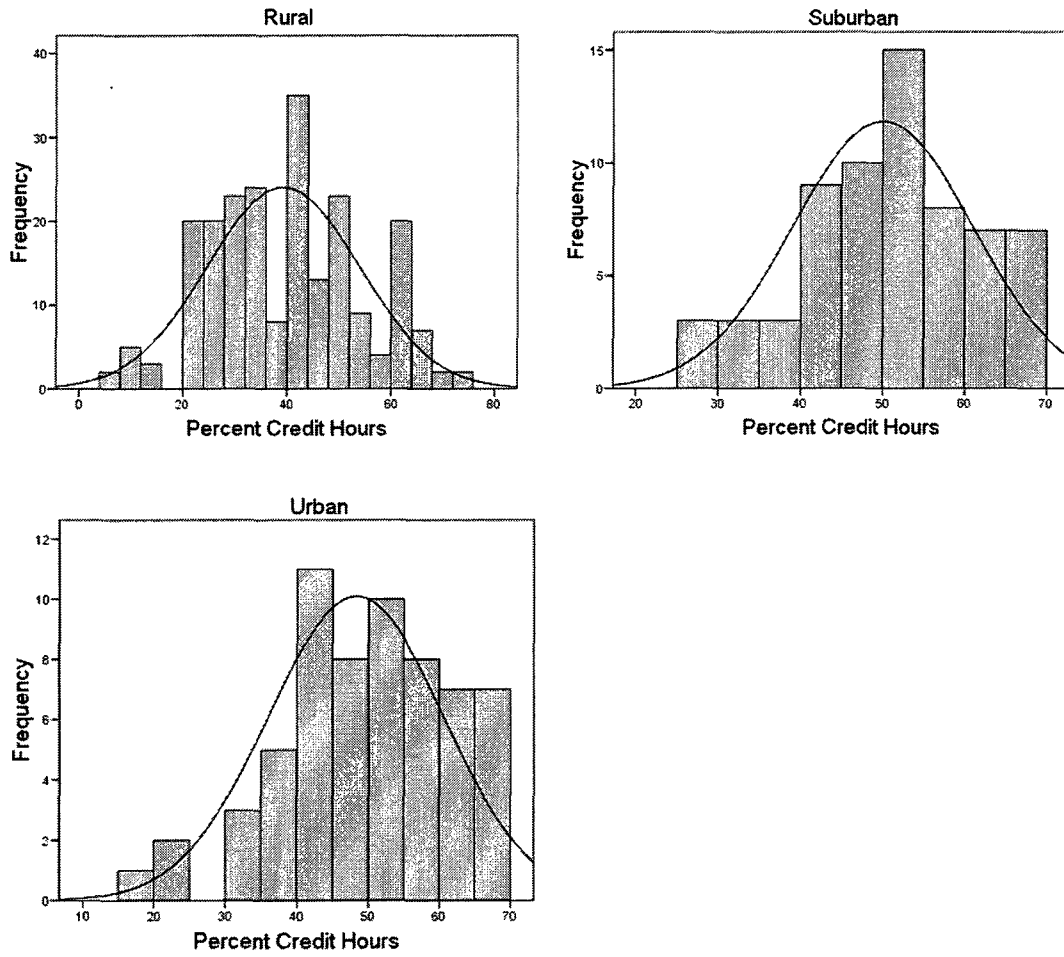


Figure 3. Frequency distribution of percent credit hours taught by part-time faculty in rural, suburban, and urban institutions.

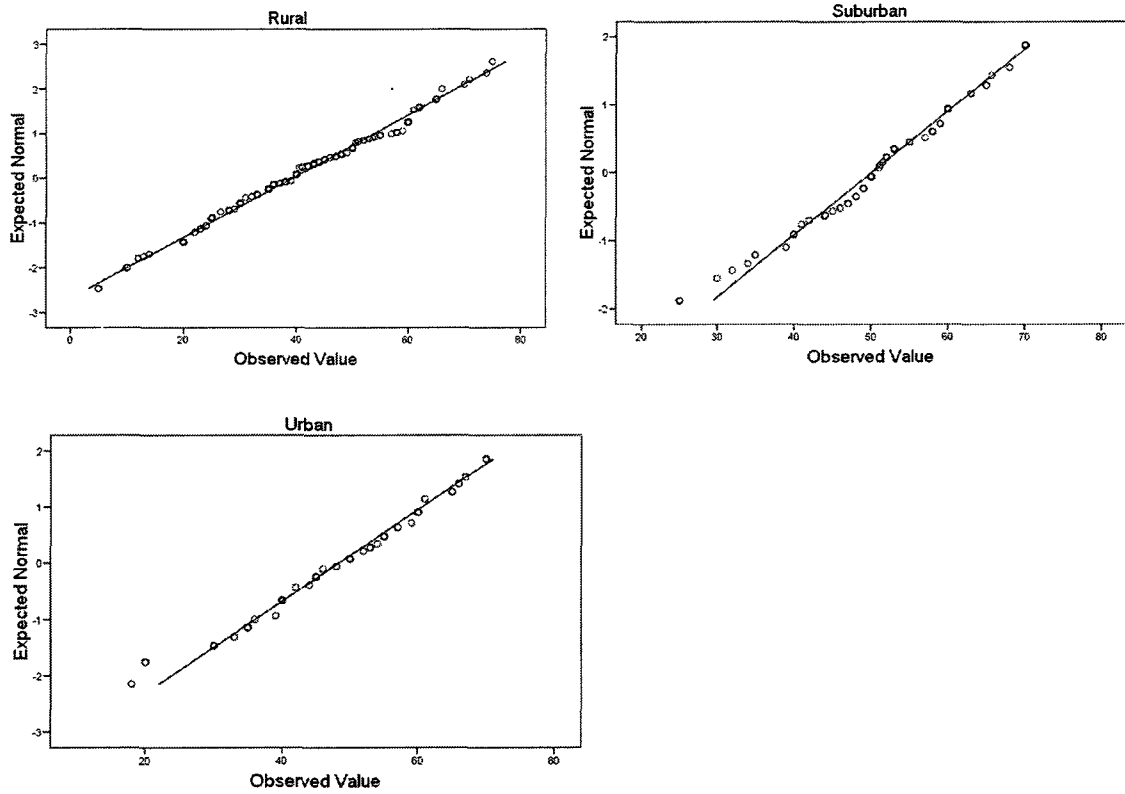


Figure 4. Normal Q-Q plots of percent credit hours taught by part-time faculty in rural, suburban, and urban institutions.

Table 14

Descriptive statistics on percent credit hours taught by part-time faculty for rural, suburban, and urban institutions

	<i>N</i>	<i>M</i>	<i>SD</i>	Variance	Skewness	<i>Z</i> _{Skewness}	Kurtosis	<i>Z</i> _{Kurtosis}
Rural	220	39.28	14.61	213.30	0.10	0.62	-0.51	-1.57
Suburban	65	50.02	10.97	120.36	-0.34	-1.13	-0.13	-0.22
Urban	62	48.31	12.25	150.09	-0.34	-1.13	-0.11	-0.18

Percent Faculty Employed on a Part-time Basis

Frequency histograms, shown in Figure 5, and normal Q-Q plots, shown in Figure 6, of the percent faculty employed on a part-time basis indicated both negative skewness and a leptokurtic distribution. Additionally, the variance ratio of 3.21 exceeded the accepted ratio of 3.0, suggesting equal variances could not be assumed. The non-normal distribution of these data was expected due to the fact that community colleges typically employ significant numbers of adjunct faculty (Christensen, 2008). Because this variable was one of two measures of reliance on adjunct faculty, it was retained while noting that analyses using these data should be interpreted with caution (Tabachnick & Fidell, 1996). Descriptive statistics for percent faculty employed on a part-time basis are shown in Table 15.

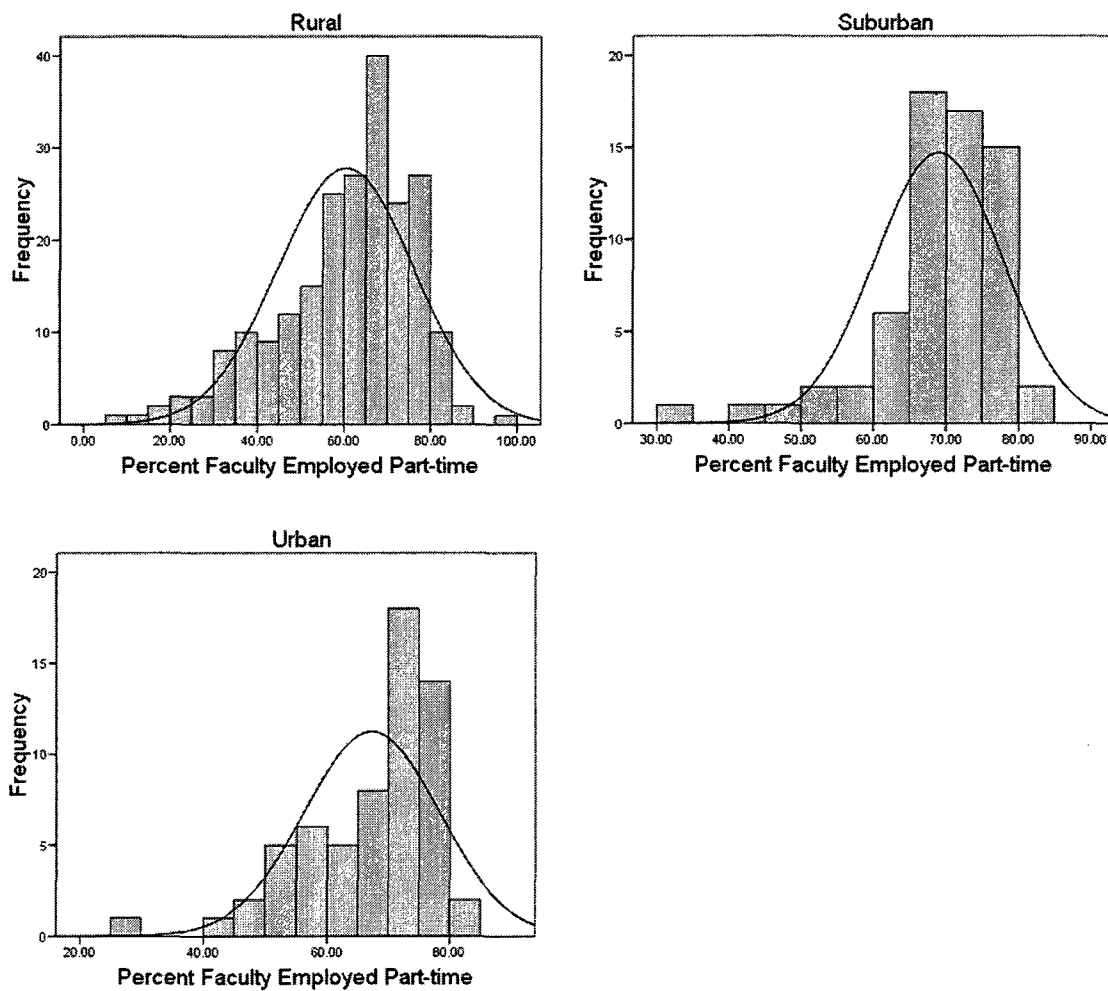


Figure 5. Frequency distribution of percent credit faculty employed on a part-time basis in rural, suburban, and urban institutions.

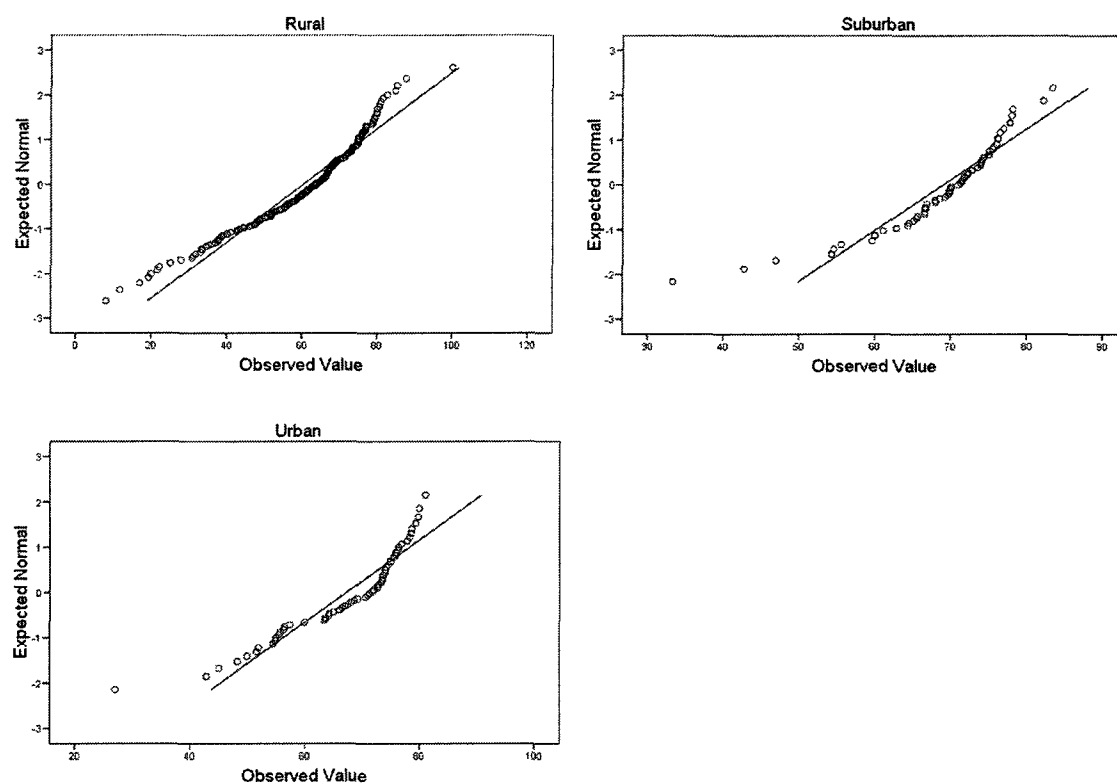


Figure 6. Normal Q-Q plots of percent credit faculty employed on a part-time basis in rural, suburban, and urban institutions.

Table 15

Descriptive statistics on percent faculty employed on a part-time basis in rural, suburban, and urban institutions

	N	M	SD	Variance	Skewness	Z_{skewness}	Kurtosis	Z_{Kurtosis}
Rural	220	60.39	15.8	249.71	-0.84	-5.25	0.56	1.70
Suburban	65	68.96	8.15	77.71	-1.72	-5.73	4.23	7.22
Urban	62	67.26	11	121.1	-1.28	-4.27	1.73	2.88

Overall Unmet Demand for Adjunct Faculty

Examination of frequency distributions and Q-Q plots in Figures 7 and 8 for the overall unmet demand for adjunct faculty suggested the data were roughly normally distributed with some deviations from normality for the urban group. However, z-scores for skewness and kurtosis values were less than 1.96, suggesting the data did not significantly deviate from a normal distribution at an alpha level of .05 (Field, 2005). Because the variance ratio of 1.32 was well below the accepted ratio of 3.0, equal variance across groups was assumed. Descriptive statistics are presented in Table 16.

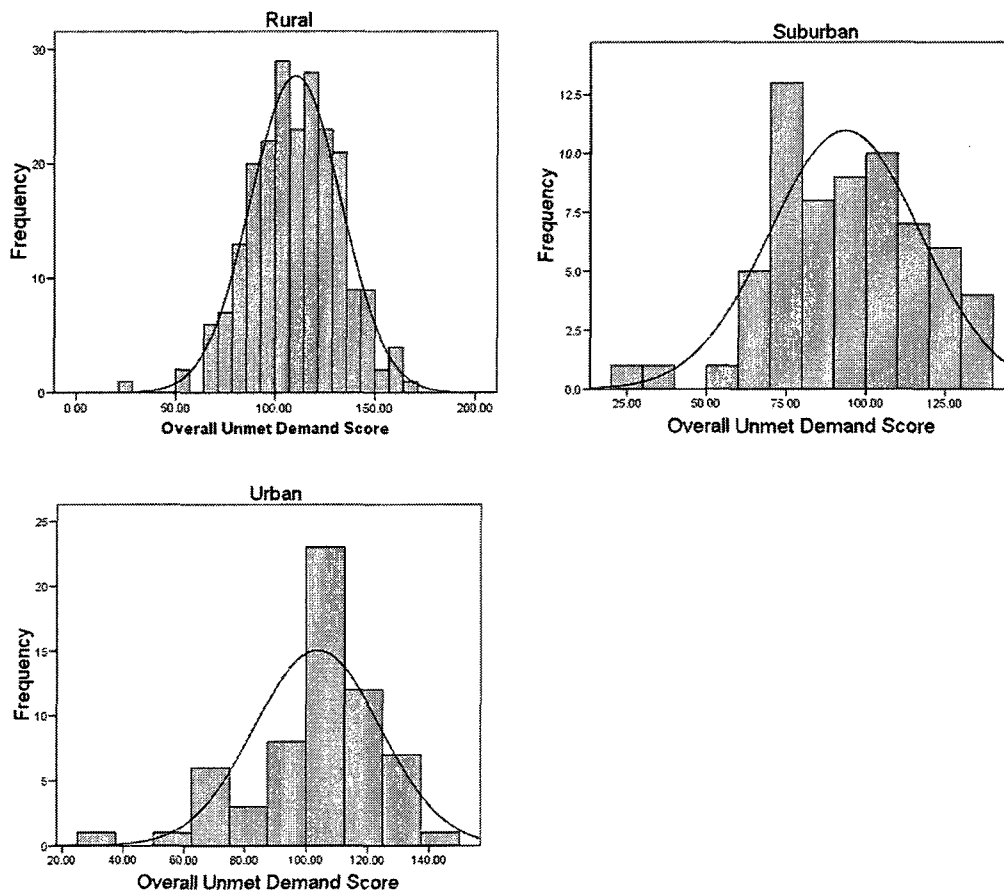


Figure 7. Frequency distribution of overall unmet demand for adjunct faculty composite score for rural, suburban, and urban institutions.

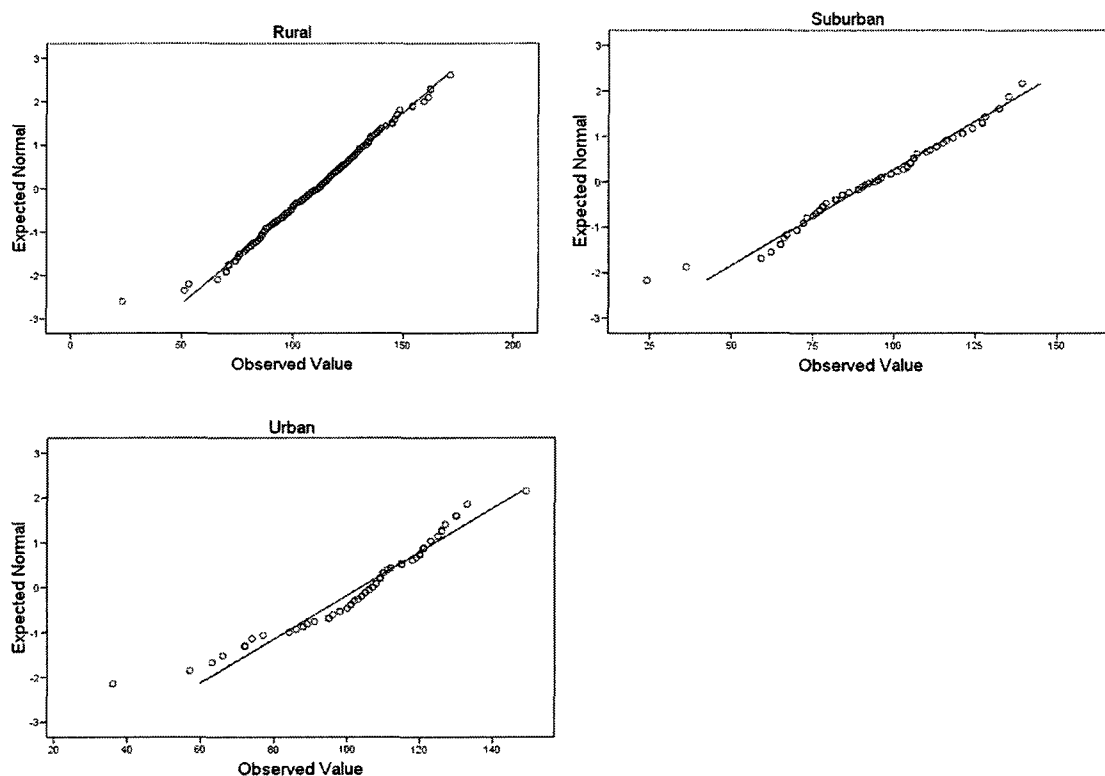


Figure 8. Normal Q-Q plots of overall unmet demand for adjunct faculty composite score for rural, suburban, and urban institutions.

Table 16

Descriptive statistics on overall unmet demand for adjunct faculty composite score in rural, suburban, and urban institutions

	<i>N</i>	<i>M</i>	<i>SD</i>	Variance	Skewness	Z_{Skewness}	Kurtosis	Z_{Kurtosis}
Rural	220	110.19	22.65	512.8	-0.18	-1.13	0.47	1.44
Suburban	65	93.42	23.65	559.25	-0.29	-0.97	0.15	0.25
Urban	62	103.66	20.55	422.2	-0.87	-2.90	1.2	2.00

Nonresponse Error

To assess the extent to which nonresponse error threatened external validity, early and late responses were compared via independent samples *t*-test (Lindner, Murphy, & Briers, 2001). According to Dillman (2007), because late respondents are similar to nonrespondents, finding a significant difference between early and late respondents suggests nonresponse error threatens external validity. In the current study, “late respondents” were defined as those CAOs who responded after the reminder communication (Lindner, Murphy, & Briers, 2001). As presented in Table 17, independent samples *t*-tests were conducted to compare the mean unduplicated headcount, number of full-time faculty, number of part-time faculty, percent of credits taught by full-time faculty, percent of credits taught by part-time faculty, and the overall unmet demand composite score for early and late respondents. All tests were non-significant, indicating no significant differences existed between mean responses of early and late participants. This suggests non-response error did not significantly threaten external validity.

Table 17

Independent sample t-test data to evaluate differences among responses between early (n=248) and late respondents (n=99)

	Early Responders		Late Responders		t-tests for Equality of Means		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	Difference	<i>t</i>	<i>df</i> <i>p</i>
Mean							
Unduplicated Headcount	8945.12	10695.1	10317.3	17605.03	-1372.18	0.73	127.9 0.47
Number Full-time Faculty	135.78	111.61	130.4	153.13	5.38	0.362	345 0.72
Number Part-time Faculty	277	297.74	326.26	539.05	-49.23	0.86	122.6 0.39
Percent Credit Hours Taught by Full-time Faculty	57.7	14.89	55.67	13.34	2.03	1.18	345 0.24
Percent Credit Hours Taught by Part-time faculty	42.29	14.87	44.43	13.03	-2.14	-1.25	345 0.21
Overall Unmet Demand Score	104.72	23.97	108.8	21.5	-4.08	-1.47	345 0.14

Note. *t* value does not assume equal variances.

Research Question #1: Reliance on Adjunct Faculty

The first research question addressed whether statistically significant differences existed in the perceptions of CAOs of rural, suburban, and urban community college regarding the reliance on adjunct faculty. One-way analyses of covariance (ANCOVA) were conducted to relate institutional type (rural, suburban, and rural) to the reliance on adjunct faculty, as determined by both the percentage of faculty employed on a part-time basis and the percentage of credit hours taught by adjunct faculty. Institutional size, based on unduplicated headcount, was held constant. The independent variable, institutional type, included three categories: rural, suburban, and urban institutions. Two separate analyses were conducted to evaluate reliance on adjunct faculty based on the percent credit hours taught by adjunct faculty and the percent faculty employed on a part-time basis.

The initial inquiry investigated whether significant differences existed between CAOs' perceptions of the percent of credit hours taught by adjunct faculty. Before conducting the ANOVA, the homogeneity of slopes assumption was tested to determine whether a significant interaction existed between the covariate, headcount, and the factor, institutional type, in the prediction of the dependent variable, percent credit hours taught by part-time faculty. The test was non-significant, $F(2,341) = 2.44$, $MSE = 181.68$, $p = .09$, partial $\eta^2 = .01$, indicating the relationship between the covariate and the dependent variable did not differ significantly as a function of the independent variable. The subsequent ANCOVA was significant, $F(2,343) = 13.97$, $MSE = 183.21$, $p < .01$. The partial η^2 indicated the strength of the relationship between institutional type and the dependent variable was weak, with institutional type accounting for 8% of the variance in

the percent credits taught by adjunct faculty, holding constant institutional size. The mean percent credits taught by adjunct faculty, adjusted for headcount, was lower for rural institutions ($M = 39.77$) than for suburban ($M = 49.34$) and urban ($M = 47.28$) institutions. Follow-up tests were conducted to evaluate pairwise differences among these adjusted means. To control for type I error across the pairwise comparisons, the Bonferroni procedure was used by setting alpha at .017 (.05/3 = .017). Rural institutions had statistically significantly lower percent credits taught by adjunct faculty, as compared to suburban, $F(1,343) = 22.93, p < .01$, and urban institutions, $F(1,343) = 12.93, p < .01$. There was, however, no significant differences between the percent credits taught by adjunct faculty in suburban as compared to urban institutions, $F(1,343) = .73, p = .39$. Means and a summary of the ANCOVA results are presented in Tables 18 and 19 respectively.

Table 18

Mean percent credit hours taught by adjunct faculty in rural, suburban, and urban institutions

	<i>N</i>	<i>M</i>	<i>SD</i>	Adjusted <i>M</i> ^a	<i>SE</i>
Rural	220	39.28	14.61	39.77	.94
Suburban	65	50.02	10.97	49.34	1.71
Urban	62	48.31	12.25	47.28	1.79

^a Adjusted for unduplicated fall 2009 headcount at 9336.61.

Table 19

Summary of analysis of covariance for percent credit hours taught by adjunct faculty by institutional type, holding unduplicated fall headcount constant

Source	<i>df</i>	<i>F</i>	η^2	<i>p</i>
Headcount	1	3.99*	.05	.01
Institutional type	2	13.97**	.08	.00
Error	343	(183.21)		

Note. Values enclosed in parentheses represent mean square errors; * $p < .05$, ** $p < .01$.

To investigate whether significant differences existed in the second measure of reliance on adjunct faculty, the percent faculty employed on a part-time basis, a second ANCOVA was conducted. Once again, the homogeneity of slopes analysis was non-significant, $F(2,341) = 315.28$, $MSE = 192.10$, $p = .20$, partial $\eta^2 = .01$, indicating no significant interaction between the covariate, headcount, and the factor, institutional type, in the prediction of the dependent variable, percent faculty employed on a part-time basis. The subsequent ANCOVA was significant, $F(2,343) = 7.25$, $MSE = 192.82$, $p < .01$. The partial η^2 of .04 indicated the strength of the relationship between institutional type and the dependent variable was weak, with institutional type accounting for 4% of the variance of the percent faculty employed on a part-time basis, holding constant institutional size. Consistent with the previous ANCOVAs findings, the mean percent faculty employed on a part-time basis, adjusted for headcount, was lower for rural

institutions ($M = 60.94$) than for suburban ($M = 68.20$) and urban ($M = 66.12$) institutions. Follow-up tests were conducted to evaluate pairwise differences among these adjusted means. To control for type I error across the pairwise comparisons, the Bonferroni procedure was used by setting alpha at .017 (.05/3=.017). CAOs of rural institutions reported a significantly lower percentage of faculty employed on a part-time basis, than both suburban, $F(1,343) = 12.54, p = .01$, and urban institutions, $F(1,343) = 8.85, p = .016$. No significant differences existed in the percent faculty employed on a part-time basis between suburban and urban institutions, $F(1,343) = .71, p = .40$. Means and a summary of the ANCOVA results are presented in Tables 20 and 21, respectively.

Table 20

Mean percent faculty employed on a part-time basis in rural, suburban, and urban institutions

	<i>N</i>	<i>M</i>	<i>SD</i>	Adjusted <i>M</i> ^a	<i>SE</i>
Rural	220	60.39	15.80	60.94	.97
Suburban	65	68.96	8.12	68.20	1.76
Urban	62	67.26	14.42	66.12	1.84

^a Adjusted for unduplicated fall 2009 headcount at 9336.61

Table 21

Summary of analysis of covariance for percent faculty employed on a part-time basis by institutional type, holding unduplicated fall headcount constant

Source	<i>df</i>	<i>F</i>	η^2	<i>p</i>
Headcount	1	4.72*	.01	.03
Institutional type	2	7.25**	.04	.00
Error	343	(192.82)		

Note. Values enclosed in parentheses represent mean square errors; * $p < .05$, ** $p < .01$.

Research Question #2: Overall Unmet Demand for Adjunct Faculty

The second research question addressed whether statistically significant differences exist in CAOs' perceptions of the overall unmet demand for adjunct faculty across rural, suburban, and urban community colleges. A one-way analysis of covariance (ANCOVA) was conducted to relate institutional type (rural, suburban, and rural) to the overall unmet demand score obtained by summing the discipline-specific scores.

Institutional size, based on unduplicated headcount, was held constant.

The homogeneity of slopes analysis was non-significant, $F(2,341) = 246.01$, $MSE = 508.34$, $p = .48$, partial $\eta^2 = .00$, indicating no significant interaction between the covariate, headcount, and the factor, institutional type, in the prediction of the dependent variable, percent faculty employed on a part-time basis. The subsequent ANCOVA was significant, $F(2,343) = 12.54$, $MSE = 506.81$, $p < .01$. The partial η^2 of .07 indicated

institutional type account for 7% of the variance of the overall unmet demand for adjunct faculty, holding constant institutional size. The mean overall unmet demand, adjusted for headcount, was higher for rural institutions ($M = 110.13$) than for urban ($M = 103.80$) and suburban ($M = 93.51$) institutions. Follow-up tests were conducted to evaluate pairwise differences among these adjusted means. To control for type I error across the pairwise comparisons, the Bonferroni procedure was used by setting alpha at .017 (.05/3=.017). CAOs of rural institutions reported significantly higher overall unmet demand for adjunct faculty than suburban institutions, $F(1,343) = 24.99, p = .00$, and suburban institutions had a significantly lower unmet demand than urban institutions, $F(1,343) = .6.60, p = .01$. However, no significant differences existed between rural and urban institutions, $F(1,343) = 3.32, p = .069$. Means and a summary of the ANCOVA results are presented in Tables 22 and 23, respectively.

Table 22

Mean overall unmet demand for adjunct faculty in rural, suburban, and urban institutions

	<i>N</i>	<i>M</i>	<i>SD</i>	Adjusted <i>M</i> ^a	<i>SE</i>
Rural	220	110.19	22.65	110.13	1.57
Suburban	65	93.42	23.65	93.51	2.85
Urban	62	103.66	20.55	103.80	2.98

^a Adjusted for unduplicated fall 2009 headcount at 9336.61.

Table 23

Summary of analysis of covariance for overall unmet demand for adjunct faculty by institutional type, holding unduplicated fall headcount constant

Source	<i>df</i>	<i>F</i>	η^2	<i>p</i>
Headcount	1	.03	.00	.87
Institutional type	2	12.54**	.07	.00
Error	343	(506.81)		

Note. Values enclosed in parentheses represent mean square errors; * $p < .05$, ** $p < .01$.

Research Question #3: Discipline-Specific Unmet Demand for Adjunct Faculty

To determine whether significant differences existed in the perceptions of rural, suburban, and urban community college CAOs regarding the discipline-specific unmet demand for adjunct faculty, discipline-specific scores were analyzed separately. Scores on discipline-specific items were summed to provide 12 discipline-specific scores. A one-way multivariate analysis of covariance (MANCOVA) was conducted to relate institutional type and discipline-specific unmet adjunct demand, holding institutional size constant.

Before conducting the MANCOVA, the Box's M test was conducted to evaluate the homogeneity of dispersion. Although the test was significant, $F(156, 84093) = 1.40$, $p < .01$, because the test is impacted by sample size differences and small sample sizes (Field, 2005), the researcher preceded with the analysis. The MANCOVA was

significant, Wilks's $\Lambda = .89$, $F(24, 664) = 1.65$, $p < .05$, although the multivariate η^2 indicated only 6% of the variance of the dependent variables was associated with institutional type. The means and standard deviations on the dependent variables for rural, suburban, and urban community colleges are presented in Table 24.

Follow-up ANOVAs were conducted on each dependent variable to determine where significant differences existed. To control for Type I error across multiple ANOVAs, the Bonferroni method was used by testing each ANOVA at the .004 ($.05/12 = .004$) level. As shown in Table 25, ANOVAs were significant for Arts and Humanities, Social Sciences, Mathematics, Business, and Computer Technologies. Post hoc analyses were conducted to evaluate how the unmet need for adjunct faculty in these disciplines varied among the institutional types. Each pairwise comparison was evaluated at the .001 ($.004/3 = .001$) level. In these five disciplines, rural institutions had statistically greater unmet need than suburban institutions. No significant differences existed between urban institutions and either rural or suburban institutions.

Table 24

Means and standard deviations on the discipline-specific unmet demand for adjunct faculty in rural, suburban, and urban institutions

Discipline-Specific Subscale	Rural		Suburban		Urban	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
English	8.40	3.05	7.05	2.98	7.45	3.00
Natural and Physical Sciences	11.70	2.84	10.37	2.93	10.94	2.90
Arts and Humanities	8.21	2.93	6.65	2.45	7.23	2.26
Social Sciences	8.29	2.84	6.68	2.41	7.42	2.23
Mathematics	11.79	2.71	9.23	3.31	10.16	2.62
Business	8.08	2.56	6.57	2.50	7.55	2.30
Computer Technologies	9.65	2.81	7.78	2.92	8.89	2.62
Education	6.90	3.23	5.60	2.91	6.35	2.84
Engineering and Industrial Technologies	10.08	3.86	8.83	3.04	9.71	3.22
Health Technologies (other than Nursing)	10.40	3.28	9.20	3.16	10.40	3.28
Nursing	11.30	3.19	10.22	3.71	11.34	3.52
Public Service Technologies	5.98	4.21	5.25	3.72	5.89	4.04

Table 25

Summary of ANCOVAs on discipline-specific unmet demand for adjunct faculty assessed at $\alpha < .004$

Dependent Variable	<i>df</i>	<i>F</i>	η^2	<i>p</i>
English	2	4.86	.03	.008
Natural and Physical Sciences	2	4.37	.03	.013
Arts and Humanities	2	6.72*	.04	.001
Social Sciences	2	7.54*	.04	.001
Mathematics	2	13.04*	.07	.000
Business	2	7.09*	.04	.001
Computer Technologies	2	9.45*	.05	.000
Education	2	3.75	.02	.025
Engineering and Industrial Technologies	2	3.15	.02	.044
Health Technologies (other than Nursing)	2	3.51	.02	.031
Nursing	2	3.44	.02	.033
Public Service Technologies	2	1.15	.01	.317

* Significant at Bonferroni correction level of $< .004$.

Research Question #4: Applicant Attraction

To determine the extent to which rural, suburban, and urban community colleges employed elements of the applicant attraction model (Rynes & Barber, 1990) to meet unmet adjunct demand, CAOs were asked to indicate strategies being used in the areas of recruitment, employment inducement, and the consideration of alternate pools.

Recruitment

Recruitment strategies are presented in Table 26. The most commonly reported recruitment strategies were the College website and Word of Mouth/Networking with 96.5% and 93.4% of the total population indicating use of these recruitment sources. While 93.2% of rural respondents also indicated advertisement in the local newspaper, only 16.9% of suburban and 11.3% of urban respondents used this method. Respondents were also given the opportunity to share other recruitment strategies in use in their institutions. These included adjunct job fairs, recommendations from advisory committees, and graduate students from nearby universities. A complete listing of responses is presented in Appendix L.

Table 26

Percent rural, suburban, and urban community colleges using recruitment strategies for the attraction of adjunct faculty

Strategy	Rural	Suburban	Urban	Total
College Website	95	98.5	100	96.5
Word of Mouth/Networking	93.6	93.8	91.9	93.4
Local Newspaper	93.2	16.9	11.3	90.5
Business and Industry	70.9	56.9	66.1	67.4
Partnerships with Institutions	58.6	53.8	59.7	57.9
Career Fairs	26.8	44.6	46.8	33.7
Online Recruitment Sites	25.9	47.7	46.8	33.7
Professional Journals	21.8	30.8	35.5	25.9
TV/Radio	10.5	10.8	8.1	10.1

Employment Inducement

The employment inducement strategies of the participants are reported in Table 27. The most commonly employed methods for making a position more attractive to applicants were advertising expanded opportunities for professional development and future full-time employment, with 49% and 36.3% of the total population reporting these strategies, respectively. Additionally, 31.4% of rural respondents reported the ability to work from home as an employment inducement, while only 15.4% of suburban, and

17.7% of urban respondents used this method. Only 23.3% of the total offered pay differentials for high-demand disciplines, and 21.6% offered benefits. “Other” employment inducements specified in the open-ended item included adjusting compensation, scheduling, and emphasizing support for adjuncts. A complete listing is provided in Appendix M.

Table 27

Percent rural, suburban, and urban community colleges using employment inducement strategies to attract adjunct faculty

Strategy	Rural	Suburban	Urban	Total
Expanded Professional Development Opportunities	42.7	64.6	54.8	49.0
Future Full-time Employment Opportunities	39.5	27.7	33.9	36.3
Ability to Work from Home	31.4	15.4	17.7	25.9
Pay Differential for High-demand Disciplines	22.7	26.2	22.6	23.3
Offering Benefits (health, retirement, tuition)	16.8	24.6	35.5	21.6
Attractiveness of Locale	10.0	16.9	14.5	12.1

Consideration of Alternate Applicant Pools

Participants reported considering a wide range of alternate applicant pools to fill adjunct positions. The most frequently reported strategies were approaching retirees, substituting related occupational experience for education, hiring out-of-area adjuncts to teach online courses, and hiring applicants with sub-optimal experience. In each case, a greater percentage of rural participants reported using the strategy than either their suburban and urban counterparts or the entire population. Only approximately 10.7% of all respondents indicated hiring under-qualified graduate students. The percentage of institutions using these strategies is shown in Table 28. Respondents also provided several “other” alternate pools being considered, as presented in Appendix N. These included strategies such as considering high school dual enrollment faculty, as well as diversity initiative and mentoring program participants.

Applicant Attraction

According to the applicant attraction model (Rynes & Barber, 1990), institutional decisions impact the attractiveness of positions to potential applicants. These decisions include which recruitment sources to use, how to structure a position to induce applicants to apply and accept the position, and which alternate pools will be considered to fill the position. Institutions employing the model use strategies from each category. Data were analyzed to determine the percentage of respondents using strategies from all three applicant attraction categories, only two of the categories, and only one category. As shown in Table 29, 77.2% of all respondents reported using strategies in all applicant attraction categories, including 79.1% rural, 70.8% suburban, and 75.8% urban institutions.

Table 28

Percent rural, suburban, and urban community colleges considering applicants from alternate pools to attract adjunct faculty

Strategy	Rural	Suburban	Urban	Total
Approaching Retirees	79.5	53.8	54.8	70.3
Substituting Related Occupational Experience for Education	50.5	38.5	43.5	47.0
Hiring Out-of-area Adjuncts to Teach Online	51.8	30.8	32.3	44.4
Hiring Applicants with Less-than-optimal Experience	47.3	40.0	30.6	42.9
Approaching Spouses of Faculty	34.1	12.3	9.7	25.6
Sharing Faculty with Other Institutions	16.4	18.5	16.1	16.7
Hiring Graduate Students with Less than Required Graduate Credits	10.9	9.2	11.3	10.7

Table 29

Percent rural, suburban, and urban respondents indicating using strategies from one, two, or three applicant attraction categories

	Rural	Suburban	Urban	Total
Employed Strategies from Three Categories	79.1	70.8	75.8	77.2
Employed Strategies from Two Categories	20.0	24.6	21.0	20.7
Employed Strategies from One Category	0.90	4.6	3.2	2.1

Chapter Summary

Findings indicate rural institutions have lower reliance on adjunct faculty as compared to their suburban and urban counterparts. This was consistent for both measures of reliance: percent credit hours taught by adjuncts and the percent faculty employed on a part-time basis. In both cases, CAOs of rural institutions reported a significantly lower reliance on adjunct faculty as compared to suburban and urban community colleges. No significant differences existed in the reliance on adjunct faculty between suburban and urban institutions.

The level of unmet demand for adjunct faculty was explored on two levels: overall unmet demand and discipline-specific unmet demand. CAOs of suburban institutions reported significantly lower overall unmet demand for adjunct faculty than rural and urban institutions. No significant differences existed between rural and urban institutions. An analysis of discipline-specific unmet demand scores revealed that rural

institutions had statistically greater unmet need than suburban institutions in five discipline clusters: Arts and Humanities, Social Sciences, Mathematics, Business, and Computer Technologies. There were no significant differences between urban institutions and either rural or suburban institutions.

Rural, suburban, and urban community colleges are using elements of the applicant attraction model (Rynes & Barber, 1990) to meet unmet adjunct demand by employing strategies in the areas of recruitment, employment inducement, and the consideration of alternate pools. To recruit adjunct faculty, CAOs of all institutional types indicated frequent use of the College website and Word of Mouth/Networking. Additionally, rural institutions indicated frequently using the local newspapers as a recruitment source. Findings also suggested institutions use employment inducements to increase the attractiveness of position vacancies. Nonpecuniary inducements were more common than pecuniary inducements and included expanded professional development and opportunities for full-time employment. Pecuniary inducements were reported less frequently and included offering differential pay for high-demand disciplines and offering health, retirement, or tuition benefits to adjunct faculty. Fewer rural institutions reported providing benefits than suburban and urban institutions. As part of their efforts to fill adjunct positions, respondents reported considering a wide range of alternate applicant pools, including approaching retirees, substituting related occupational experience for education, hiring out-of-area adjuncts, and hiring applicants with sub-optimal experience. In each case, a greater proportion of rural CAOs reported using the strategy than either then suburban or urban counterparts.

According to the applicant attraction model (Rynes & Barber, 1990), institutional decisions impact the attractiveness of positions to potential applicants. Data indicated 77% of all respondents reported using at least one strategy in each of the three applicant attraction categories: recruitment, employment inducement, and the consideration of alternate pools. The frequency with which these elements of the model are being collectively employed indicates the applicant attraction model is applicable to the attraction of adjunct faculty in community colleges and may be a useful tool for institutions struggling to fill part-time positions.

CHAPTER 5

SUMMARY, RECOMMENDATIONS, AND CONCLUSIONS

Introduction

Rural community college campuses in the United States enroll over three million students. Serving 34% of all community college students, these institutions play a critical role in American higher education (Hardy & Katsinas, 2007). Moreover, rural community colleges face unique challenges associated with serving communities of vast geographies, comprehensive needs, and weakened economies. It is also widely recognized that during fiscal shortfalls, rural institutions are often more significantly impacted than their non-rural counterparts (Katsinas, 2007).

In a climate of ever-tightening budgets, no discussion of resources available to community colleges to meet enrollment demands is complete without considering the role of adjunct faculty members (Christensen, 2008; Levin, 2007; Wallin, 2007). They bring a wealth of practical expertise, enriching the college culture and allowing institutions to offer courses requiring practical specialization (Umbach, 2007; Wagoner, 2007; Wagoner, Metcalfe, & Olaore, 2005). Adjuncts also provide institutions with the flexibility to respond to rapid enrollment changes (Umbach, 2007). As a result “...part-time faculty are central, not peripheral, to the community college enterprise” (Levin, 2007, p. 16).

Understanding the role of adjunct faculty in rural institutions is complicated by the fact that attracting faculty to teach in rural institutions has been a long-standing challenge (Pennington, Williams, & Karvonen, 2006; Vineyard, 1978). For many potential faculty members, the benefits of the pastoral setting and rural lifestyle are offset

by a limited tax base, fewer cultural amenities, and lower education levels of the population (Eddy, 2007; Murray, 2005; Pennington, Williams, & Karvonen). As a result, the recruitment of qualified faculty to teach in rural areas continues to be one of the top challenges facing rural institutions (Maestas, 2005; Murray, 2005; Pennington, Williams, & Karvonen). Despite this understanding, few studies have addressed the attraction of faculty to rural institutions (Murray, 2007), and none have focused on adjunct faculty in particular.

To date, no models have been offered to promote the attraction of adjunct faculty in rural institutions, and the applicant attraction model (Rynes & Barber, 1990) is worthy of consideration. The model provides a broad, theoretical framework for understanding how institutional decisions impact the attractiveness of position vacancies. According to the model, applicants are attracted to positions by variations in (a) recruitment practices, (b) employment inducements, and (c) consideration of non-traditional applicant pools. Additionally, Rynes and Barber recognize the myriad of external conditions influencing applicant attraction to positions. Therefore, the model suggests labor market conditions, vacancy characteristics, and organizational characteristics be considered when making decisions about how to approach applicant attraction. Because rural community colleges often have limited labor pools (Maestas, 2005; Pennington, Williams, & Karvonen, 2006) and unique organizational characteristics (Cejda & Leist, 2006; Eddy & Murray, 2007), this model may be particularly applicable to rural institutions seeking adjunct faculty members.

Despite the importance of adjunct faculty in rural community colleges and the critical need to understand the attraction of adjunct faculty, little research has been

conducted in this area. It is widely accepted that the geographic location of community colleges results in differences in governance and administrative structures, finance and physical plant, economic development, and student issues (Katsinas, 1996). However, much of the scholarly research on community colleges has been limited by the Carnegie Foundation for the Advancement of Teaching's classification system, which historically aggregated all two-year institutions into a single category (McCormick & Zhao, 2005). Katsinas (1993) argued "[t]he lack of precision regarding the identification of two-year institutions has inhibited the general understanding of the diversity among and between community colleges, their missions, functions, curricula, students and faculty, especially since most of the published research related to community colleges is produced at doctoral-granting institutions instead of at two-year colleges themselves" (p. i).

In 2005, a new classification system disaggregated two-year institutions on the basis of geographic service area and institutional size (Carnegie Foundation for the Advancement of Teaching, 2006b). The classification scheme recognizes community colleges are ultimately defined by the populations they serve and clearly defines rural-serving, suburban-serving, and urban-serving institutions. This study utilized the new Carnegie classification system to further the understanding of the role and attraction of adjunct faculty to rural community colleges, as compared to their suburban and urban counterparts.

Purpose and Research Questions

The purpose of this cross-sectional study was to examine the effect of community college institutional type (rural, suburban, and urban) on the reliance on and unmet demand for adjunct faculty members across teaching disciplines and to explore the

applicability of the applicant attraction model (Rynes & Barber, 1990) to meet that demand. A survey was administered to chief academic officers (CAOs) of community colleges to examine their perceptions of the reliance on and unmet demand for adjunct faculty, controlling for institutional size. The independent variable was institutional type (rural, suburban, urban). The degree of reliance on adjunct faculty was examined using two dependent variables: CAOs' perceptions of the percentage of faculty employed on a part-time basis and the percentage of credit hours taught by adjunct faculty. The unmet demand for adjunct faculty was assessed using two dependent variables: overall unmet demand and discipline-specific unmet demand. These variables were based on respondents' perceptions of the degree to which attracting adjuncts is an institutional challenge, the availability of qualified adjunct faculty, and the degree to which the availability of adjunct faculty limits course offerings for 12 discipline clusters.

The survey also explored strategies used by community colleges to attract adjunct faculty within the applicant attraction framework by identifying institutional practices addressing recruitment, employment inducements, and alternate applicant pools (Rynes & Barber, 1990). This information contributes to the understanding of the role of adjunct faculty in rural community colleges and provides institutions with a clear attraction model to enhance their ability to meet the demand for adjunct faculty in the future. The study was guided by the following research questions:

1. Are there statistically significant differences in the perceptions of rural, suburban, and urban community college CAOs regarding the reliance on adjunct faculty as defined by the percentage of faculty employed on a part-time basis and the percentage of credit hours taught by adjunct faculty?

2. Are there statistically significant differences in the perceptions of rural, suburban, and urban community college CAOs regarding the overall unmet demand for adjunct faculty?
3. Are there statistically significant differences in the perceptions of rural, suburban, and urban community college CAOs regarding the discipline-specific unmet demand for adjunct faculty?
4. To what extent are rural, suburban, and urban community colleges using applicant attraction strategies in the areas of recruitment, employment inducements, and consideration of alternate applicant pools to enhance the attraction of adjunct faculty?

Summary of Methodology

A survey instrument was designed to gain an understanding of the reliance on and unmet demand for adjunct faculty in fall 2009, as well as the strategies being used to attract adjuncts to the institution within the applicant attraction framework (Rynes & Barber, 1990). To ensure content validity, the instrument was developed in conjunction with a panel of subject-matter experts and piloted by community college deans. Internal reliability was established by calculating Cronbach's alpha for each subscale and assessing the contribution of each subscale to the reliability of the total. A test-retest procedure was employed to assess external reliability. The final instrument was electronically distributed to 887 CAOs of rural, suburban, and urban community colleges who were publicly-funded members of AACC.

To gain an understanding of the reliance on and unmet demand for adjunct faculty, the instrument included demographic and Likert-type items. Demographic

questions included CAOs self-reporting the institutional size, based on fall 2009 unduplicated headcount (Carnegie Foundation for the Advancement of Teaching, 2006b; Hardy & Katsinas, 2007) and proximity to four-year institutions (Roueche, Roueche, & Milliron, 1998). The degree of reliance on adjunct faculty was examined using two dependent variables: CAOs' perceptions of the percentage of faculty employed on a part-time basis and the percentage of credit hours taught by adjunct faculty. The unmet demand for adjunct faculty was assessed using two dependent variables: overall unmet demand and discipline-specific unmet demand. These variables were based on respondents' perceptions of the degree to which attracting adjuncts is an institutional challenge, the availability of qualified adjunct faculty, and the degree to which the availability of adjunct faculty limits course offerings for each of 12 discipline clusters. As a result, respondents earned both discipline-specific scores ranging from 0-15 in each of 12 discipline clusters, as well as a composite overall unmet demand score, ranging from 0-180. The survey also explored strategies used by community colleges to attract adjunct faculty within the applicant attraction framework by identifying institutional practices addressing recruitment, employment inducements, and alternate applicant pools (Rynes & Barber, 1990).

A series of one-way analyses of covariance (ANCOVA) were conducted to relate institutional type to measures of reliance on adjunct faculty and the overall unmet demand for adjunct faculty while holding institutional size constant. To assess discipline-specific unmet demand, a multivariate analysis of covariance (MANCOVA) was conducted to relate institutional type to discipline-specific unmet demand for adjunct faculty, holding institutional size constant. Finally, descriptive statistics were calculated

on responses to items concerning applicant attraction strategies to determine the applicability of the applicant attraction model (Rynes & Barber, 1990) .

Summary of Findings

Findings indicate rural institutions have lower reliance on adjunct faculty as compared to their suburban and urban counterparts. This was consistent for both measures of reliance: percent credit hours taught by adjuncts and the percent faculty employed on a part-time basis. In both cases, CAOs of rural institutions reported a significantly lower reliance on adjunct faculty as compared to suburban and urban community colleges. No significant differences existed in the reliance on adjunct faculty between suburban and urban institutions.

The level of unmet demand for adjunct faculty was explored on two levels: overall unmet demand and discipline-specific unmet demand. CAOs of suburban institutions reported significantly lower overall unmet demand for adjunct faculty than rural and urban institutions. No significant differences existed between rural and urban institutions. An analysis of discipline-specific unmet demand scores revealed that rural institutions had statistically greater unmet need than suburban institutions in five discipline clusters: Arts and Humanities, Social Sciences, Mathematics, Business, and Computer Technologies. No significant differences existed between urban institutions and either rural or suburban institutions.

Rural, suburban, and urban community colleges are using elements of the applicant attraction model (Rynes & Barber, 1990) to meet unmet adjunct demand by employing strategies in the areas of recruitment, employment inducement, and the consideration of alternate pools. To recruit adjunct faculty, CAOs of all institutional types

indicated frequent use of the College website and Word of Mouth/Networking.

Additionally, rural institutions indicated frequently using the local newspapers as a recruitment source. Findings also suggested institutions use employment inducements to increase the attractiveness of position vacancies. Nonpecuniary inducements were more common than pecuniary inducements and included expanded professional development and opportunities for full-time employment. Pecuniary inducements were reported less frequently and included offering differential pay for high-demand disciplines and offering health, retirement, or tuition benefits to adjunct faculty. Fewer rural institutions reported providing benefits than suburban and urban institutions. As part of their efforts to fill adjunct positions, respondents reported considering a wide range of alternate applicant pools, including approaching retirees, substituting related occupational experience for education, hiring out-of-area adjuncts, and hiring applicants with sub-optimal experience. In each case, a greater proportion of rural CAOs reported using the strategy than either their suburban or urban counterparts.

According to the applicant attraction model (Rynes & Barber, 1990), institutional decisions impact the attractiveness of positions to potential applicants. Approximately 77% of all respondents reported using at least one strategy in each applicant attraction category: recruitment, employment inducement, and the consideration of alternate pools. The frequency with which these elements of the model are being collectively employed indicates the applicant attraction model applies to the attraction of adjunct faculty in community colleges and may be a useful tool for institutions struggling to fill part-time positions.

Findings Related to the Professional Literature

Reliance on Adjunct Faculty

Findings indicated rural community colleges rely less on adjunct faculty than either suburban or urban institutions. These findings were consistently reflected by both measures of adjunct utilization: percent faculty employed on a part-time basis and the percent credit hours taught by part-time faculty. Additionally, because the study controlled for institutional size, this difference cannot be attributed to institutional size and associated funding differences (Hardy & Katsinas, 2007; Roueche, Roueche, & Milliron, 1998; Vineyard, 1978). Rather, the findings clearly suggest institutional type, based on geographic service area, impacts reliance on adjunct faculty and supports previous findings that institutional type influences access to adjunct faculty (Katsinas, 1996; Yackee, 2000). The facts that rural institutions often serve regions with struggling economies (Katsinas, Alexander, & Opp, 2003; Rubin & Autry, 1998) and have limited access to both businesses (Katsinas) and institutions of higher education may limit the labor pool available to teach in community colleges.

The findings support the contention that accurately depicting the degree of adjunct reliance requires consideration of both the percent faculty employed on a part-time basis and percent credit hours taught by adjunct faculty. Although traditional assessment of adjunct utilization has relied on reporting the percentage of faculty employed on a part-time basis, this practice fails to consider factors such as faculty workload (Roueche, Roueche, & Milliron, 1998) and student exposure to adjuncts. As a result, this measure alone is insufficient to accurately reflect a college's dependency on its part-time faculty or estimate the extent of student exposure to adjunct instruction.

The percentage of credit hours taught by adjuncts reflects both institutional dependency on and instructional impact of adjunct faculty. Roueche, Roueche, and Milliron (1998) found that although 54.85% of faculty members in average sized community colleges were employed on a part-time basis, these faculty taught only 30.17% of instructional credit hours. In the current study, while 60% of faculty in rural institutions were employed on a part-time basis, these faculty taught only 39% of the credit hours. A similar trend existed in non-rural institutions, in which 69% of the faculty in suburban institutions taught 50% of the credit hours, and 67% of the faculty in urban institutions taught 48% of the credit hours. Collectively, these data indicate adjunct faculty are responsible for less of the instructional load than employment figures suggest and underscore the importance of assessing adjunct reliance using measures that consider factors such as workload and student impact.

Overall Unmet Demand for Adjunct Faculty

Overall unmet demand for adjunct faculty was assessed by summing CAOs' responses on three subscales for 12 discipline clusters. For each discipline cluster, the subscales addressed the degree to which (a) attracting adjunct faculty was an institutional challenge, (b) a sufficient pool of adjunct faculty existed in the area, and (c) the availability of adjunct faculty was a limiting factor in the design of the course schedule.

CAOs of suburban institutions reported the lowest level of overall unmet demand for adjunct faculty, while rural and urban institutions reported significantly higher unmet demand. The findings are consistent with previous studies suggesting differences in both the labor pools and educational level between rural, suburban, and urban institutions (Castandea, 2002; Katsinas, 1996; Katsinas, Tollefson, & Reamey, 2008; Lowe, 2006).

The finding that suburban institutions reported the lowest level of overall unmet demand for adjunct faculty supports the contention that suburban institutions enjoy generally higher income levels, a preponderance of high technology industry (Katsinas, 1996), and a strong local tax base (Milam, 1995). Additionally, 97% of suburban institutions reported at least one four-year institution within 30 miles of the main campus.

Collectively, these factors suggest suburban institutions have access to a highly educated local labor pool within commuting proximity (Carnegie Foundation for the Advancement of Teaching, 2006b).

The findings also support the long held sentiment that attracting faculty to teach in rural institutions continues to be an institutional challenge (Murray, 2005, 2007; Vineyard, 1978; Yackee, 2000). Researchers cite the combination of personnel exodus due to retirements (Berry, Hammons, & Denny, 2001) and the fact that institutional “fit” is particularly important in rural institutions (Murray, 2005) as contributing to rural community colleges’ struggle to hire faculty and staff (Murray, 2007). Similarly, in Pennington, Williams, and Karvonen’s (2006) study of small, rural community colleges, “[t]he most consistent problem voiced by interviewees was the inability to find qualified people to work at a small, rural community college” (p. 650). According to Lowe (2006), the struggling economies and geographic isolation of many rural areas serve as barriers to educational attainment. Additionally, because the community college may be the only institution of higher education in the region, fewer individuals hold advanced degrees (Murray, 2007), resulting in a small pool of individuals qualified to teach at the college level.

In the current study, rural and urban institutions had similar levels of overall unmet need. This is consistent with previous findings suggesting that urban and rural institutions have several characteristics in common. These characteristics include a large proportion of low income residents (Churilla, 2008), low levels of educational attainment, and high need for academic remediation (Katsinas, 1996). By definition, urban institutions are located in areas containing a large population nucleus with significant community interchange with another metropolitan area (Carnegie Foundation for the Advancement of Teaching, 2006a). This level of opportunity and access to industry and institutions of higher education reflects a highly credentialed and experienced workforce (Wyles, 1998). This does not, however, necessarily result in easy hiring of adjunct faculty. According to Wyles, urban community colleges often cannot provide sufficient salaries and opportunities to compete with business and industry for candidates. As a result, she posited qualified candidates are "...less available and less interested in part-time teaching" (p. 91). This may also explain the apparent conflict between the current study and Yackee's (2000) finding that rural institutions find it more difficult to meet part-time faculty credentialing requirements than do urban institutions. While both rural and urban institutions report a high perception of unmet demand for adjunct faculty, the challenge of finding highly credentialed part-time instructors may be unique to rural institutions.

Discipline-Specific Unmet Demand for Adjunct Faculty

To further understand the unmet demand for adjunct faculty in rural, suburban, and urban community colleges, discipline-specific scores were analyzed. Several disciplines were shown to be universally high-demand, with no significant differences

among the institutional types. These included Natural and Physical Sciences, Engineering and Industrial Technologies, Health Technologies, and Nursing. Identification of these as high-demand disciplines is consistent with previous studies. In Stout's (2008) study of rural community colleges in Appalachia, the same discipline clusters were identified as being the "...the most difficult disciplines to employ part-time faculty" (p. 139). Nursing and health related fields (Logsdon, 2003; Rojas-Guyler, King, & Cottrell, 2004; Winter & Logsdon, 2004) and Engineering (Baillie, 2007; Chesson, 1980) have also been identified as a high-demand disciplines across institutions of higher education.

In addition to these universally high-demand disciplines, several other teaching disciplines emerged as being in significantly higher demand in rural, as compared to suburban, community colleges. No differences existed between rural and urban, or urban and suburban institutions. These rural high-demand disciplines included Arts and Humanities, Social Sciences, Mathematics, Business, and Computer Technologies. While the study did not attempt to determine the cause of the rural differential, it may be related to the lower rate of advanced degree attainment in rural areas (Hardy & Katsinas, 2008). Additionally, the current study did not distinguish between hiring faculty to teach courses intended to transfer to four-year institutions and those designed to meet occupational-technical program needs. Both Benjamin (1998) and Yackee (2000) found significant differences in characteristics of adjunct faculty teaching liberal arts and occupational courses. Moreover, the faculty credentials required to teach transfer-level courses are traditionally higher than those required to teach occupational/ technical courses (Commission on Colleges of the Southern Association of College and Schools, 2005; New England Association of Colleges and Schools, 2009) and may result in differences

in pools of qualified candidates to fill positions in transfer, as opposed to occupational technical fields. Therefore, the topic of whether the unmet demand for adjunct faculty is related to a program being transfer or occupational/technical in nature warrants further investigation.

Attraction of Adjunct Faculty

Recruitment

Community colleges were most likely to advertise vacant adjunct positions through the College's website and Word of Mouth/Networking, with approximately 97% and 93% of the total population indicating use of these recruitment sources, respectively. These strategies were employed consistently across institutional type. Although previous studies have not addressed use of the College's website as a recruitment tool, it emerged as the most commonly reported recruitment source in the current study. The finding that word-of-mouth advertisement is a key recruitment technique is consistent with previous studies focusing on recruitment for full-time positions (Flannigan, Jones, & Moore, 2004). Murray and Cunningham (2004) found many new faculty members had been lured to the rural community college by a colleague. Subsequently, Murray (2007) suggested rural institutions capitalize on faculty networks by involving full-time faculty in the recruitment process to identify potential candidates.

Although Reeves and Galant (1986) identified local newspaper advertisement as an important recruitment source for community colleges in general, the current study found this source to be particularly important in rural institutions. While approximately 93% of rural institutions advertised in the local newspaper, only 17% and 11% of suburban and urban institutions, respectively, reported using this recruitment source.

Additionally, although previous studies indicated advertisement in national publications, such as the *Chronicle of Higher Education*, as critical sources for the recruitment of full-time faculty (Academic Senate for California Community Colleges, 2000; Flannigan, Jones, & Moore, 2004; Fowler-Hill, 2002; Reeves & Galant, 1986), the current study indicated only 26% of reporting community colleges used this method to fill adjunct positions.

Researchers promulgate that adjunct faculty policies should mirror those for full-time faculty (Academic Senate for California Community Colleges, 2000; Wallin, 2004, 2005). The current study suggests most community colleges are, however, not following this advice, as recruitment practices typically used in full-time searches, such as advertisement in professional journals and employing professional placement services (Academic Senate for California Community Colleges, 2000; Flannigan, Jones, & Moore, 2004; Fowler-Hill, 2002; Reeves & Galant, 1986) were reported as having low incidence in the study. Word of mouth advertising/networking is, however, an accepted recruitment technique (Flannigan, Jones, & Moore, 2004; Reeves & Galant, 1986) and its prevalence in the current study's findings suggests some alignment between full-time and part-time faculty searches.

Researchers have also encouraged practitioners to cease reliance on passive methods and adopt active and innovative practices to recruit qualified faculty (Flannigan, Jones, & Moore, 2004; Reeves & Galant, 1986). The current study indicates some administrators are heeding this advice. Regardless of institutional type, over 50% of respondents reported leveraging contacts in business and industry and establishing partnerships with other institutions. Additionally, respondents specified advisory

committees and external partnerships as “other” recruiting sources for adjunct faculty. These findings are consistent with previous studies indicating relationships with business and industry are important recruitment sources to fill faculty positions (Parsons, 1978; Roueche, Roueche, & Milliron, 1998).

Employment Inducement

Job and organizational attributes that are deliberately manipulated to increase the attractiveness of position are considered employment inducements (Rynes & Barber, 1990). Although previous studies suggested employment inducements were uncommon in community colleges (Reeves & Galant, 1986), in the current study, institutions reported using both pecuniary inducements, those with a monetary basis, and nonpecuniary inducements, with some frequency.

Findings indicated manipulating nonpecuniary inducements may provide community colleges with cost-effective opportunities to enhance recruitment efforts in the context of challenging fiscal environments. The most commonly reported strategies were advertising expanded professional development opportunities and the potential for future full-time employment, with roughly 49% and 36% of institutions reporting use of these strategies. These are consistent with the concept that job or organizational attributes that closely match the needs of the applicants increase the attractiveness of the vacancy (Winter, 1996b). Eddy found professional development opportunities to be critical to faculty satisfaction and posited these opportunities are even more important in rural institutions in which faculty face both potential isolation and unique challenges. The finding that the potential for future for full-time employment was used by 36% of

respondents supports the long-held contention that some adjunct faculty seek full-time positions (Jacoby, 2005; Leslie & Gappa, 2002; Monks, 2009).

Other nonpecuniary inducements were reported with varying frequency. While approximately 31% of the rural respondents reported using the ability to work from home as an employment inducement, only 15% of suburban, and nearly 18% of urban respondents used this strategy. While the study did not explore this further, the ability to work from home may be related to rural institutions also reporting a greater likelihood of hiring out-of-area adjunct to teach online. Because institutional “fit” has been found to be important in filling faculty vacancies (Twombly & Townsend, 2008), Murray (2007) suggested institutions promote the characteristics of the locale and the lifestyle afforded by the community. Findings suggest, however, that only 12% of all responding institutions reported using this strategy. Interestingly, despite Murray’s suggestion of this strategy being particularly useful for rural community colleges, only 10% of rural community colleges reported advertising the attractiveness of the locale as an inducement method.

Findings also indicated community colleges are using pecuniary inducements to attract adjunct faculty. Approximately 23% of all respondents employed a differential pay scale for high-demand disciplines, with no discernable differences between rural, suburban, and urban institutions. Additionally, approximately 21% of the respondents indicated offering some form of benefits to adjunct faculty, including health, retirement, or tuition benefits. This strategy was, however, more common in urban and suburban institutions with nearly 36% and 25% of institutions reporting offering benefits, respectively. Only 16.8% of rural institutions offered benefits to adjunct faculty. These

findings suggest monetary inducements are recognized as important considerations in faculty recruitment and are consistent with a Berry, Hammons, and Denny's (2001) study in which CAOs indicated enhanced salary and benefits packages were important to successful recruiting. Not surprisingly, studies have shown applicants to be more attracted to community college teaching positions advertised as having higher starting salaries and employer-paid family health care benefits (Schmidt, 2009; Winter, Petrosko, & Rodriguez, 2007). While the current study did not attempt to elucidate causes of apparent differences among institutional types, it is possible that rural institutions lack the fiscal flexibility to offer benefits to adjunct faculty (Eddy & Murray, 2007; Hardy & Katsinas, 2007; Vineyard, 1979).

Consideration of Alternate Applicant Pools

Applicant pools are often limited based on program type (Reeves & Galant, 1986; Rojas-Guyler, King, & Cottrell, 2004) and geographic location (Katsinas, 1996; Stout, 2008). Rynes and Barber (1990) posited that exploring alternate pools need not result in reduced quality or productivity. CAOs who responded to the current study indicated institutions considered a wide range of alternate applicant pools. Regardless of institutional type, respondents cited retirees as the most commonly considered alternate pool to fill adjunct positions. This supports Leslie and Gappa's (2002) categorization of some adjuncts as "career enders," who are transitioning from a successful career in an alternate field to retirement. These individuals choose adjunct instruction for the benefits that it affords and show a high degree of job satisfaction (Feldman & Turnley, 2001, 2004; Monks, 2009).

Respondents from rural, suburban, and urban institutions indicated they expanded the pool of applicants by substituting relating occupational experience for education and hiring adjuncts with less-than-optimal experience. This suggests institutions of all classifications have some level of unmet need for adjunct faculty. Additionally, consistent with researchers' suggestions to expand the faculty pool to distant areas while enhancing student access through distance learning (Eddy & Murray, 2007; Schnitzer & Crosby, June, 2003), approximately 44% of respondents indicated they hired out-of-area adjuncts to teach online courses. Finally, 25% of the respondents agreed with Murray's (2007) suggestion to consider spouses of faculty as potential nontraditional candidates.

In all cases, rural institutions reported considering these alternate pools with greater frequency than suburban or urban institutions. This supports previous findings that rural institutions struggle to fill both full-time (Pennington, Williams, & Karvonen, 2006) and adjunct vacancies (Roueche, Roueche, & Milliron, 1998; Stout, 2008; Yackee, 2000). Although participants in Roueche, Roueche, and Milliron's study stated rural institutions "...must be satisfied with candidates who hold less than a master's degree, even in transfer education" (p.48), the current study suggested institutions infrequently fill positions with under-qualified candidates.

Collectively, the findings indicate while institutions consider a range of alternate applicant pools, little evidence of innovation and collaboration to fill positions exists. For example, although institutional collaborations to share faculty between colleges within reasonable driving distance from one another have been proposed (Eddy & Murray, 2007), less than 17% of the respondents in the current study indicated exploring this possibility. While the survey did not explicitly inquire about alternatives such as

mentoring (Murray, 2007) or grow-your-own programs (Eddy & Murray, 2007; Harper-Marinick & Solley, 2004), only a few institutions offered such innovative strategies in response to the open-ended “other” prompt.

Unexpected Findings

A great deal of attention has been given to higher education’s increasing dependency on part-time faculty, with community colleges being highlighted as depending most heavily on this group for instruction (American Federation of Teachers, 2009; Cataldi, Fahimi, & Bradburn, 2005; Umbach, 2007). While not the focus of the current study, the findings support the contention that adjunct faculty are prominent in the community college workforce, but suggest a lower degree of reliance on adjunct faculty than previously reported. CAOs of all responding colleges indicated 63% of the faculty at the responding community colleges were employed on a part-time basis. Interestingly, this estimation of adjunct dependency is lower than both that 1994 National Study of Postsecondary Faculty’s indication of 64% of faculty at associate degree granting institutions being employed as adjuncts (Cataldi, Fahimi, & Bradburn, 2005), and the 2007 estimate 68% in 2007 by the American Federation of Teachers (2009). Although the current study relied on CAO perception as opposed to data reported directly to agencies such as the National Center for Education Statistics and the Integrated Postsecondary Data System, consistency would be expected between the perception of the academic officer responsible for instruction and reported data. Additionally, although the current study includes responses from only 45% of community colleges, nonresponse error was determined not to threaten external validity. Comparison of these data is further complicated by the fact that previous studies include all two-year institutions, while the

current study was limited to those two-year institutions that were publicly-funded, comprehensive in nature, and members of AACC. Therefore, although the study suggests lower reliance on adjunct faculty than previously reported, further investigation is warranted to determine whether this difference is due to variation in the population, definition of adjunct instruction, or a true declination in reliance on adjunct faculty.

Conclusions

Implications for Practitioners

The Importance of Adjunct Faculty

Community college leaders have been encouraged to cultivate and support adjunct faculty members to fulfill the mission of their unique institutions (Wallin, 2005). The current study's response rate of 45% serves as affirmation that CAOs are meeting this challenge by their willingness to support research on issues related to adjunct faculty and the critical role they play in the community college mission. Many studies regarding adjunct faculty focus on concern about the academe's increasing dependency on part-time instruction (Christensen, 2008; Umbach, 2007) and the impact on student outcomes (Eagan, 2007; Eagan & Jaeger, 2008; Jaeger & Eagan, 2009). As a result, the tendency exists to portray adjunct faculty in a negative light, overshadowing the critical role they play in higher education. The fact that so many CAOs from rural, suburban, and urban community colleges voluntarily participated in the current study indicates recognition of the important role of adjunct faculty and suggests attraction of this group is a significant institutional concern for all types of institutions. Moreover, several respondents provided unsolicited comments regarding the timeliness of the study, the importance of adjunct faculty to their institutions, or expressed concern about the dependency on adjunct

faculty. Additionally, the fact that approximately 20 respondents indicated interest in reviewing the data collected further emphasizes the level of interest in the topic.

Assessing the Role of Adjunct Faculty

An institution's degree of reliance on adjunct faculty is frequently evaluated as an indication of commitment to instruction. This is illustrated by the fact that some regional accrediting agencies require institutions to address the proportion of faculty employed on a part-time basis as a component of reaffirmation of accreditation (Commission on Colleges of the Southern Association of College and Schools, 2005; Higher Learning Commission of the North Central Association of Colleges and Schools, 2003).

Traditionally, practitioners have reported the number of faculty employed on a part-time basis as the primary indication of adjunct dependency. This measure alone may not, however, accurately describe the role of adjunct faculty in an institution. In the current study, while the percent faculty employed on a part-time basis was shown to exceed 60% for all categories of community colleges, CAOs reported those faculty were responsible for a much smaller proportion of instruction. In rural community colleges, although 60% of the faculty were employed part-time, they were responsible for only 39% of the credit hours of instruction. Similarly, while approximately 69% of the faculty in suburban and urban institutions were part-time, they taught approximately 49% of the credit hours of instruction. Therefore, assessing adjunct dependency on the basis of part-time employment status alone does not accurately reflect the role of adjunct faculty in an institution.

Failing to take workload differences into consideration results in an exaggerated depiction of an institution's reliance on part-time faculty. Furthermore, concerns about

higher education's increasing dependency on part-time instruction tend to overshadow the positive influence of this important group faculty. Therefore, inflating the degree of reliance on adjunct instruction through the use of inadequate measures of assessment has the potential to exacerbate the negative perception of adjunct faculty as a whole.

The Rural Difference

Both practitioners and researchers are acutely aware that rural institutions differ from their non-rural counterparts (Castandea, 2002; Cejda & Leist, 2006; Hardy & Katsinas, 2007; Katsinas, 1996; Yackee, 2000). While researchers have described these differences in terms of funding, full-time and part-time personnel challenge, and student characteristics, the current study demonstrates this diversity impacts institutional philosophy about the reliance on and attraction of one of community colleges' most fundamental resources, adjunct faculty.

Rural institutions are less reliant on adjunct faculty than suburban and urban institutions, confirming that finding personnel to work in rural areas is an ongoing challenge (Pennington, Williams, & Karvonen, 2006; Yackee, 2000). This lower degree of reliance may reflect the importance of "fit" (Twombly, 2005), high levels of faculty satisfaction (Murray & Cunningham, 2004), and high full-time faculty workload (Isaac & Boyer, 2007) in rural institutions. Collectively, these factors may result in full-time faculty accepting a greater proportion of the workload and a subsequent reduction in the need for adjunct faculty. Strategies to increase the proportion of credits taught by full-time faculty are generally viewed as a positive reflection of an institution's prioritization of instruction. However, because rural leaders still perceive the need for adjunct faculty

to be problematic, the lower reliance on adjunct faculty may be an unintended consequence, rather than a deliberate institutional strategy.

While rural and urban leaders share the perception of a high unmet demand for adjunct faculty, institutional philosophy and response to the challenge may differ. Despite similar levels of perceived unmet need for adjunct faculty, urban institutions are more successful in attracting part-time faculty. This difference is less likely to be due to a deliberate philosophy and more likely due to resignation to the long-held contention that rural institutions find it particularly challenging to recruit faculty members (Cejda & Leist, 2006; Pennington, Williams, & Karvonen, 2006). Rural practitioners may simply accept the long-held contention that adjunct faculty are not widely available and adapt to this limitation. One important implication of this study is that it is possible to successfully attract adjunct faculty, even when attraction is perceived to be difficult. This recognition is especially important to rural community colleges, which are more significantly impacted by fiscal challenges than their non-rural sister institutions and may be the only option for students in rural areas. In this context, a robust adjunct constituency is a critical resource in the struggle to meet enrollment demands.

Dual Drivers of Adjunct Attraction Challenge

Although rural and urban community colleges share the perception of high overall unmet need for adjunct faculty, the factors driving this unmet need differ. In urban institutions, this need appears to be focused on those disciplines traditionally considered to be in high-demand, including Natural and Physical Sciences, Engineering and Industrial Technologies, and Health Technologies, and Nursing. The current investigation identified no teaching disciplines as particularly challenging for urban institutions. This

implies that urban institutions enjoy a strong pool of candidates holding advanced degrees in most disciplines. Despite this apparent pool, urban practitioners still perceive the attraction of adjuncts to be a problem. This implies that successful attraction requires more than a plentiful pool of qualified candidates. In urban areas, a preponderance of opportunities for these candidates exists in the public and private sectors. In many cases, community colleges cannot offer the level of compensation and opportunity for advancement of business and industry (Wyles, 1998). Therefore, urban institutions' unmet need for adjunct faculty is likely to be primarily driven by challenges competing for candidates.

Rural practitioners' challenges do not end with traditional high-demand disciplines. Rather, this study illuminates the existence of a previously unreported group of rural-high demand disciplines in which difficulty attracting adjunct faculty may be a uniquely rural issue. These disciplines include Arts and Humanities, Social Sciences, Mathematics, Business, and Computer Technologies. Therefore, in rural areas, dual drivers of unmet adjunct need exist. Filling adjunct vacancies in rural-high demand disciplines is limited by an inadequate pool of candidates with advanced degrees (Yackee, 2000). In traditional high-demand fields, however, the inability to compete for qualified candidates is likely to be a factor.

Applicant Attraction

Community colleges are using elements of the applicant attraction model (Rynes & Barber, 1990) to fill adjunct faculty vacancies. According to the model, applicants are attracted to positions by variations in (a) recruitment practices, (b) employment inducements, and (c) consideration of non-traditional applicant pools. To recruit adjunct

faculty, CAOs of all institutional types indicated frequent use of the College website and Word of Mouth/Networking. Additionally, rural institutions frequently use local newspapers as recruitment sources. Colleges also offer non-monetary employment inducements, such as expanded opportunities for professional development or the possibility of full-time employment, to increase the attractiveness of adjunct position vacancies. Interestingly, despite current fiscal limitations, some colleges employ monetary inducements to enhance success filling position. These include offering differential pay for high-demand disciplines and offering limited health, retirement, or tuition benefits. Finally, as part of their efforts to fill adjunct positions, colleges consider a wide range of strategies to expand the pool of applicants. These include approaching retirees, substituting related occupational experience for education, hiring out-of-area adjuncts, and hiring applicants with sub-optimal experience. In each case, a greater proportion of rural CAOs reported using the strategy than either their suburban or urban counterparts. By demonstrating that colleges are consciously employing strategies for recruitment, employment inducement, and consideration of alternate pools, this study underscores both the unmet need for adjunct faculty and practitioners' willingness to consider creative solutions to meet this need.

America's community colleges are employing elements of the applicant attraction model, as 77% of respondents used at least one strategy from each attraction category. Although there is no indication this model is being intentionally employed by practitioners, the fact that such a large proportion of community colleges are employing its elements is encouraging. The model also considers myriad external conditions influencing applicant attraction. These include labor market conditions, vacancy

characteristics, and organizational characteristics. Given the complex interaction between limited labor pools in rural institutions (Maestas, 2005; Pennington, Williams, & Karvonen, 2006), competition for applicants in urban and rural institutions, and unique organizational characteristics (Cejda & Leist, 2006; Eddy & Murray, 2007), the model provides much needed guidance to institutions struggling to attract adjunct faculty members.

Recommendations for Action

Emphasize the Impact of Institutional Type

Although comprehensive community colleges share the aspiration to achieve the five-component mission of open access, comprehensive curricula, student-centered learning, community orientation, and economic development (Cohen & Brawer, 2003), they do so within varied contexts (Katsinas, 1996). As budgets contract, institutions will be required to increase efficiencies and decrease costs without compromising mission (Cejda & Leist, 2006; Katsinas, Tollefson, & Reamey, 2008). Understanding the diversity of rural, suburban, and urban institutions is critical to community college leaders struggling to meet this challenge.

Leaders must do more than simply acknowledge the intangible influence of geographic service area. The quality of being rural-, suburban-, or urban-serving has been shown to impact students (Katsinas, 1996), faculty (Murray & Cunningham, 2004; Twombly & Townsend, 2008), governance (Katsinas, Alexander, & Opp, 2003), and funding (Fluharty & Scaggs, 2007). As a result, institutional type pervades nearly all aspects of the community college mission. While it is common for leaders to engage in general dialog about institutional mission, regional economy, faculty and students, the

impact of geographic service area is often limited to speculation or dismissed as an afterthought. Leaders should bring this factor to the forefront of the discussion by engaging in thoughtful, data-driven dialog about the meaning of geographic service area to their institution. Adding institutional type to the ever-expanding list of influences on the community college mission is critical to ensure constituencies fully understand the college's mission, culture, community, curricula, students, and faculty.

Although including institutional type in scholarly studies has been hampered in the past, the new Carnegie classification system (Carnegie Foundation for the Advancement of Teaching, 2006b) provides a tool to study issues within the context of geographic service area, recognizing the varying challenges of rural, suburban, and urban community colleges (Hardy & Katsinas, 2007; Katsinas, 2007). The current study adds the attraction of adjunct faculty to the list of community college issues impacted by institutional diversity. This growing body of literature may provide a useful starting point for practitioners beginning an institutional dialog. Additionally, future community college leaders must be well-versed in the impact of geographic service area. Therefore, researchers and educators preparing future community college leaders should consider how to expand the understanding of the diversity among our institutions to better reflect "... the diversity that is well known by practitioners but perhaps overlooked by researchers" (Katsinas, 1996, p. 24).

Recognize the Importance of Adjunct Faculty

It is widely accepted that adjunct faculty are critical to the community college mission. This constituency's role in institutional efforts to meet enrollment demands can, however, be misinterpreted as a negative consequence, rather than a positive influence.

The benefits of adjunct faculty are undeniable (Christensen, 2008; Levin, 2007; Wallin, 2007). They bring a wealth of practical expertise, enriching the college culture and allowing institutions to offer courses requiring practical specialization (Umbach, 2007; Wagoner, 2007; Wagoner, Metcalfe, & Olaore, 2005). Adjuncts also provide institutions with the flexibility to respond to rapid enrollment changes (Umbach). Additionally, employment of part-time instructors is a critical part of the plan to meet enrollment demands in a climate of ever-tightening budgets (Christensen). As a result “...part-time faculty are central, not peripheral, to the community college enterprise” (Levin, 2007, p. 16).

Despite the positive role of adjuncts in community colleges, concern exists about the increasing dependency on part-time instruction (American Federation of Teachers, 2009; Banachowski, 1996; Benjamin, 2000, 2002; Christensen, 2008; Eagan & Jaeger, 2008). While it is important to understand the impact of part-time faculty on student outcomes, these concerns must not overshadow the contributions adjunct faculty make to the institutional mission. Deans, who work most closely with adjunct faculty, and CAOs, who are ultimately responsible for instruction, have the responsibility to advocate for adjuncts, ensuring they continue to be portrayed in a positive light. Failing to do may have the unintended consequence of increasing feelings of unappreciation, making adjunct positions even less attractive. This can exacerbate attraction challenges and further reduce the availability of a critical resource for community colleges.

Recognize Adjunct Faculty Diversity

One of the limiting factors in understanding adjunct faculty has been the tendency to portray them as a single homogeneous group. The current study supports Monks'

(2009) declaration that “[t]here is no such thing as a typical part-timer” (p.22). Adjuncts have been shown to be diverse with respect to motivations (Leslie & Gappa, 2002), goals (Benjamin, 2002), characteristics (Leslie & Gappa, 2002; Tillyer, 2005), satisfaction (Antony & Valadez, 2002; Feldman & Turnley, 2001; Isaac & Boyer, 2007; Jacoby, 2005; Maynard & Joseph, 2008), integration (Feldman & Turnley, 2001; Gordon, 2002; Roueche, 1996; Roueche, Roueche, & Milliron, 1998; Stout, 2008), and inequities (Benjamin, 2002; Gappa, 1984). The current study furthers the understanding of adjunct faculty members by including institutional geographic service area to the list of factors contributing to the diversity of this important instructional group. Although practitioners have long accepted that rural, suburban, and urban institutions differ in mission, student characteristics, funding, and governance (Katsinas, 1996), the impact of this diversity on the role and attraction of adjunct faculty had not been previously investigated. Given the study’s findings, both scholars and practitioners should recognize that adjunct faculty play varying roles in rural, suburban, and urban institutions and resist the temptation to portray them as a homogeneous group.

Understand the Role of Adjunct Faculty

Although rural, suburban, and urban institutions rely on adjunct faculty to meet curricular demands, the extent of this reliance varies considerably. It is critical for leaders to have a clear understanding of the role of adjunct faculty in their institutions to ensure the benefits afforded by this group are part of an intentional strategy to achieve the college’s mission. Additionally, multiple measures are necessary to accurately describe the role of adjunct faculty. To this end, the degree of reliance on adjunct faculty has traditionally been based on the number of faculty employed part-time. However, because

this measure does not consider differences in workload between full-time and part-time faculty, it exaggerates an institution's reliance on part-time faculty. Institutions should, therefore, adopt additional measures that more accurately reflect instructional load and student exposure to adjuncts. Similarly, regional accrediting agencies interested in ensuring instructional quality are advised to recommend multiple measures, including percent credit hours taught by adjuncts, be employed to assess the adequacy of an institution's instructional personnel.

Develop a Strategy to Attract Adjunct Faculty

To ensure that community colleges continue to have access to talented and qualified adjunct faculty, institutions have an obligation to take a strategic and aggressive approach to attraction. To this end, leaders should develop a purposeful, long-term strategy considering factors such as variations in institutional characteristics, the labor pool, and the regional economy. Moreover, policies and practices for the attraction of adjunct faculty should reflect the significant role of adjuncts in community colleges. Practitioners should ensure that the attraction of adjunct faculty is equivalent to that of full-time faculty in terms of rigor, investment, and scrutiny. To this end, it is important that leaders proactively review procedures for the attraction of adjunct faculty, discard ad hoc practices, and implement deliberate strategies designed to meet the unique needs of the institution.

The applicant attraction model (Rynes & Barber, 1990) provides pragmatic guidance for institutions struggling to fill adjunct positions. While community colleges employ a wide range of strategies consistent with the model's definitions of recruitment, employment inducement, and the consideration of alternate applicant pools, there is no

indication that the model is deliberately employed. For many institutions, establishing a plan for the attraction of adjunct faculty will require a significant shift in thought and resource. College leaders must, therefore, play a key role in establishing a culture emphasizing the ongoing investment of time and energy in the cultivation of a robust adjunct constituency.

Community colleges would benefit from deliberately applying the applicant attraction model (Rynes & Barber, 1990) to ensure qualified adjunct faculty are available to further the institution's mission. This process should begin with leaders establishing a strong understanding of the context in which applicants are attracted to the college. A dialog about the relationship between geographic service area and the college's mission provides a strong starting point to elevate the importance of institutional type and lay the groundwork for discussions about the attraction of candidates for adjunct positions. Leaders must also ensure administrators have a clear understanding of forces influencing decisions. According to the model, these include regional labor market conditions, vacancy characteristics, and organizational characteristics, phase of the attraction process, and legal considerations. For example, urban institutions must recognize the challenge of competing with local industry for applicants as a primary challenge in adjunct attraction. On the other hand, it is essential that rural institutions identify both limited labor pools and competition as challenges. Leaders are also advised to have these conversations with some frequency, as institutional needs, resources, and labor market conditions change quickly. Assuming a stagnant landscape for applicant attraction is counterproductive and unlikely to result in success.

Choosing methods for recruitment, employment inducement, and the consideration of alternate pools of applicants must be approached strategically, as the three categories necessarily intersect. For example, efforts to attract particular groups of alternate applicants will determine which recruitment sources are most appropriate. Similarly, recruitment messages must reflect employment inducements to be effective. Therefore, as adjunct position vacancies become available, administrators are advised to purposefully select from a list of recruitment sources and employment inducements, and determine whether alternate pools will be considered. This process should be repeated for each vacancy, as the most effective strategy may vary with teaching discipline, changes in the local workforce, and the resources available to the institution.

Finally, it is essential that implementation efforts be assessed regularly. To this end, administrators should work with human resources departments to identify potential outcomes of attraction efforts. According to the applicant attraction model (Rynes & Barber, 1990), both the quantity and quality of applicants and successful hires should be measured and discussed to guide future efforts. The model also refers to the potential for unintended outcomes, or spillover effects, of attraction efforts. In the case of attracting adjunct faculty, these may include outcomes such as interviewees' impressions of the college and the impact of job advertisements on community members' perception of the college. Because community colleges are committed to maintaining strong community relations, potential spillover effects should be given careful consideration both in the planning and assessment stages of the process.

Invest in the Attraction of Adjunct Faculty in Rural Areas

Rural community colleges are using applicant attraction strategies to fill adjunct positions. The fact that they reported using strategies with greater frequency than their suburban and urban counterparts underscores an awareness of personnel challenges facing rural institutions. The combination of high overall unmet demand for adjunct faculty and the existence of rural-specific high demand disciplines suggests particular attention should be given to the limited labor pool in rural areas. Despite this limitation, because rural institutions are more significantly impacted by fiscal shortfalls than non-rural institutions (Fluharty & Scaggs, 2007), rural practitioners must recognize the importance of working to develop a strong pool of adjunct faculty. Urban institutions provide assurance that it is possible to successfully attract adjunct faculty even in the face of high overall unmet demand. Therefore, rural community colleges should look to sister institutions for guidance about how to successfully attract adjunct faculty.

Some community colleges are using innovative strategies to actively attract adjunct applicants. While these efforts appear to be somewhat isolated, rural practitioners can learn from these approaches as they develop their institutional attraction strategies in the areas of recruitment, employment inducement, and the consideration of alternate pools. Although all institutions rely heavily on advertisement through the College website and basic networking, rural institutions also use the local newspaper as a key recruitment source. Because this particular recruitment source has associated cost, institutions should develop a plan to evaluate the number and quality of applicants gleaned through this source to ensure sufficient return on investment. Rural institutions should also consider additional, low-cost, but proactive recruitment strategies such as holding adjunct job

fairs, soliciting recommendations from advisory committees, and approaching graduate students from nearby universities.

Rural institutions should consider expanding employment inducements as part of the overall strategy to attract adjuncts. Rural community colleges use inducements less frequently than non-rural institutions. This may represent a missed opportunity as these inducements need not be costly and may produce significant results. While the temptation may exist to dismiss monetary inducements due to fiscal limitations, administrators should consider the range of inducements, analyzing the balance between associated costs and potential benefits. Rural institutions would be wise to first consider inducements that can be offered at no incremental cost to the college. Consistent with this philosophy, rural colleges advertise the ability to work from home more frequently than non-rural institutions. Sister institutions also use no-cost inducements such as flexible scheduling and emphasize both commitment to supporting adjuncts and the potential for future opportunities at the college.

Because “fit” has been shown to be particularly important to faculty teaching in rural institutions, Murray (2007) suggested rural community colleges advertise the attractiveness of the rural locale as an employment inducement. The benefits of ensuring position vacancies reflect institutional culture and the rural milieu have been suggested by previous studies (Leist, 2007). The current study’s finding that rural institutions employ this inducement infrequently suggests an additional missed opportunity. Rural community colleges would be well-served to ensure institutional and regional characteristics are reflected in both recruitment sources and subsequent contact with applicants. The benefits may extend well beyond increasing the number of applicants to

include both maximizing the likelihood of fit of new hires and the potential spillover effect of ensuring the community members reading job announcements continue to see the college in a positive light.

Leaders of rural community colleges are encouraged to continue the practice of giving consideration to alternate applicant pools. Community colleges use strategies such as approaching retirees, substituting related occupational experience for education, hiring out-of-area adjuncts to teach online courses, and hiring applicants with sub-optimal experience. In fact, rural community colleges use these strategies more frequently than their suburban and urban counterparts. Because rural institutions are particularly impacted by limited labor pools, they may also consider innovative strategies to develop alternate pools without compromising quality through programs involving mentoring, faculty sharing, and partnerships with other institutions. These strategies are worthy of consideration by rural institutions struggling to fill adjunct positions.

Recommendations for Future Research

This study's findings support the continued exploration of several topics. To further understand the variation in overall unmet adjunct need based on institutional type, regional characteristics including degree attainment and competition in the local labor pool should be investigated. Additionally, interpretation of the data was limited by the additive nature of the overall unmet demand score. Although the construct included dimensions addressing institutional challenge, adjunct faculty pools, and course schedule design, the additive nature of the score precluded discrimination of differences between the dimensions. Future research is warranted to investigate underlying differences in the dimensions contributing to overall unmet demand for adjunct faculty. This analysis

would also further the understanding about the difference in reliance on adjunct faculty between rural and urban institutions. While it may be tempting to assume rural community colleges' low degree of reliance on adjunct faculty is simply due to institutions adapting to an inability to attract adjuncts, the fact that rural and urban institutions have similar levels of unmet need does not support this contention. Despite similar levels of overall unmet demand for adjunct faculty, urban institutions' higher reliance on adjuncts suggests they are more successful in attracting this group of faculty. Further study is, therefore, warranted to evaluate difference in adjunct pools and attraction strategies employed between rural and urban institutions.

Future study to relate the motivation of adjuncts to institutional type would enhance the understanding of the diversity of adjunct faculty in rural, suburban, and urban community colleges and may shed light on the low reliance on adjunct faculty in rural institutions. Leslie and Gappa (2002) categorized adjunct faculty into three groups based on motivation. Because opportunities to piece together full-time employment by holding adjunct positions at several institutions are limited in rural areas, adjuncts may be unlikely to fall into Leslie and Gappa's "freelancer" category. Given the frequency with which respondents in the current study reported approaching retirees as adjunct faculty, adjuncts in rural community colleges may be most likely to be considered "specialists, experts, or professionals," accepting adjunct positions to enrich existing careers, or "career enders," those who are transitioning from a successful career in an alternate field to retirement. Studies have indicated these individuals choose adjunct instruction for the benefits that it affords and show a high degree of job satisfaction (Feldman & Turnley, 2001, 2004). Future research is necessary to examine whether adjunct characteristics may

be correlated with factors such as increased satisfaction, lower turnover, and lower reliance on adjunct faculty in rural institutions.

The study was limited in its exploration of discipline-specific unmet demand for adjunct faculty. While rural institutions reported significantly higher unmet need in Arts and Humanities, Social Sciences, Mathematics, Business, and Computer Technologies, the study did not attempt to elucidate the cause of this challenge. Future studies exploring the relationship between regional prevalence of advanced degrees in these disciplines and proximity to four-year institutions would be illuminating. Additionally, the possibility of differential unmet need between occupational/technical and transfer-oriented courses remains and warrants further investigation.

Although the current study provides evidence that the applicant attraction model is applicable to community college striving to fill adjunct positions, it was limited to assessing the frequency with which recruitment, inducement, and pool enhancement strategies were being used. Further study is warranted to explore additional elements of the model, including the influence of contingency factors such as fiscal limitations, labor market conditions, and accreditation implications as well as human resources practices influencing the attraction process. Additionally, community colleges would benefit from assessing the efficacy of the model in rural, suburban, and urban institutions.

Concluding Remarks

Adjunct faculty are key members of the college community. They have significant contact with students, positively influence the college culture, and allow institutions to meet curricular demands while maintaining fiscal solvency. Practitioners have the responsibility of establishing a strong alliance with adjunct instructors in the quest to

achieve the community college mission. Much has been written about lack of integration, equity, and voice for adjunct faculty. This is especially troubling because the community college mission is inextricably linked to this important group of instructors. As a result, rural, suburban, and urban institutions must cultivate robust adjunct faculty constituencies. Further, as the fiscal landscape contracts, the need for these instructors will only increase.

Community colleges must develop proactive strategies to attract qualified adjunct faculty. This process should begin with data-driven dialog about the present and future role of part-time instruction within the institution. This sets the stage for developing a thoughtful, long-term strategy about how to attract candidates to meet the institutional needs. Practitioners should abandon ad hoc practices to attract adjunct faculty and ensure efforts are deliberate, sustainable and result in positive long-term outcomes for both the institution and the faculty members.

The institutional impact of adjunct faculty is just as profound as that of full-time faculty. Academic leaders must, therefore, recognize investments in adjuncts as investments in their institutions. As the fiscal environment becomes more challenging, practitioners must resist the temptation to restrict resources available for the attraction of adjuncts. Such a decision would be short sighted, as an institution lacking a robust group of adjunct faculty members is likely to be an institution struggling to achieve its mission.

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APPENDIX A

CORRESPONDENCE GRANTING PERMISSION TO REPRODUCE

From: Rynes-Weller, Sara L
Sent: Mon 3/1/2010 11:41 AM
To: Hara D. Charlier
Subject: RE: requesting permission

Dear Hara,

Please feel free to reproduce my model. I am happy that you are finding it to be useful. If at some point you use it again in a published article, at that point you should get permission from the Academy of Management as well. But from my perspective, you are free to use it so long as it is referenced.

All best wishes,

Sara

-----Original Message-----

From: Hara D. Charlier
Sent: Monday, March 01, 2010 7:24 AM
To: Rynes-Weller, Sara L
Subject: requesting permission

Dear Dr. Rynes,

I am a doctoral candidate at Old Dominion University. The title of my dissertation is *The Attraction of Adjunct Faculty to Rural Community Colleges*. As part of my study, I am investigating whether rural, suburban, and urban community colleges are using strategies consistent with your applicant attraction model. I believe the model holds great promise for rural institutions struggling to fill adjunct positions in the context of challenging labor markets and weakened economies.

I would like to ask your permission to reproduce Figure 1 from the article below in my dissertation. Of course, I fully cite the article in the narrative of the literature review, but providing a figure of the applicant attraction process would strengthen the argument. If you are willing to grant permission, I will ensure the full citation is included as a note per APA, 5th edition.

I certainly do appreciate your consideration. I would also love to talk with you about the implications of the study at some point, as I'm very interested in pursuing this inquiry after I complete my doctorate.

Thank you,
Hara Charlier

Rynes, S. L., & Barber, A. E. (1990). Applicant attraction strategies: An organizational perspective. *Academy of Management Review*, 15(2), 286-310.

APPENDIX B
SURVEY INSTRUMENT

Attracting Adjunct Faculty to Community Colleges

Thank you for taking time to participate in this 10-question survey to explore the demand for and attraction of adjunct faculty in community colleges.

As a chief academic officer, you are in a unique position to help us understand this important issue.

Instructions:

- For the purpose of comparison, please provide information based on fall 2009.
- Your efforts to provide answers to all questions are appreciated.
- The survey does not permit returning to previous pages.

Thank you for your participation!

About Your Institution

1. What was your college's approximate unduplicated headcount enrollment in fall 2009?
2. How many 4-year institutions are located within 30 miles of your main campus?
 - ☐ 0
 - ☐ 1-2
 - ☐ 3-4
 - ☐ 5 or more

5. For each of the following disciplines, the availability of adjunct faculty is a limiting factor in the design of the course schedule.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	NA
English	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Natural & Physical Science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Arts & Humanities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mathematics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computer Technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Engineering/Industrial Technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health Technologies (other than Nursing)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nursing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public Service Technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Attracting Adjunct Faculty

The next 3 questions will help us understand the strategies your college uses to fill adjunct positions.

6. Which of the following methods do you use to recruit adjunct faculty (please check all that apply)?

- ☐ Local newspaper advertisement
- ☐ TV/radio advertisement
- ☐ College website
- ☐ Professional journals (i.e. *Chronicle of Higher Education*)
- ☐ Online recruitment sites (Career Builder, Monster, etc.)
- ☐ Career fairs
- ☐ Word of mouth/networking
- ☐ Business and industry
- ☐ Partnerships with other institutions
- ☐ Other (please describe):

7. Which of the following do you use to make adjunct positions more attractive to candidates (please check all that apply)?

- ☐ Pay differentials for high-demand disciplines
- ☐ Offering benefits (e.g. health insurance, retirement, tuition reimbursement)
- ☐ Paying relocation expenses
- ☐ Future, full-time employment opportunities
- ☐ Expanded professional development opportunities
- ☐ Ability to work from home
- ☐ Advertising the attractiveness of the locale
- ☐ Other (please describe):

8. Which of the following do you use to expand the pool of adjunct candidates (please check all that apply)?

- ☐ Hiring graduate students with less than the required number of graduate hours
- ☐ Hiring out-of-area adjuncts to teach online courses
- ☐ Hiring applicants with less than optimal experience
- ☐ Substituting related occupational experience for educational experience
- ☐ Forming agreements with other institutions to share faculty
- ☐ Approaching retirees
- ☐ Approaching spouses of faculty
- ☐ Other (please describe):

About Your Faculty

The final two questions will help us understand faculty employment and teaching at your college.

9. In fall 2009, how many faculty did you employ who were...
 full-time?
 part-time?

10. In fall 2009, what *percent* of credit hours of instruction were taught by...
 full-time faculty?
 part-time faculty?

Thank you for your participation.

APPENDIX C

EMAIL CORRESPONDENCE TO SUBJECT-MATTER EXPERTS

Subject: Dissertation Study Expert Panelist

Dear Dr.<<Last Name>>,

Thank you for agreeing to serve as a subject-matter expert for my dissertation study, entitled *The Attraction of Adjunct Faculty to Rural Community Colleges*. Your input is extremely important, and I appreciate your taking time out of your busy schedule to participate.

Although the literature includes a preponderance of information about adjunct faculty, studies have yet to address the impact of institutional type (rural, suburban, and urban) on the reliance on, demand for, and attraction of this important constituency. Therefore, we believe this study will fill a significant void in the literature.

To investigate these issues, the study will survey chief academic officers of all American Association for Community College member institutions. As a subject-matter expert, you play an important role in assessing the content validity of the proposed survey instrument.

To participate in the expert panel, please:

- review the attached study purpose and research questions;
- click on the Survey Assessment link below to assess the proposed instrument.

In order to ensure your input can be carefully considered, I would appreciate your completing the assessment by <<date>>.

Thank you, once again, for your willingness to participate. If you have questions or concerns, please do not hesitate to contact me at charlierh@brcc.edu or 540-453-2376.

Sincerely,

Hara D. Charlier
Doctoral Candidate, Old Dominion University;
Interim Vice President of Instruction and Student Services, Blue Ridge Community College

Link to Survey Assessment: <<url>>

APPENDIX D

PURPOSE AND RESEARCH QUESTIONS FOR SUBJECT-MATTER EXPERTS

Purpose

The purpose of this cross-sectional study is to examine the effect of community college institutional type (rural, suburban, and urban) on the reliance on and unmet demand for adjunct faculty members across teaching disciplines and explore the applicability of the applicant attraction model (Rynes & Barber, 1990) to meet that demand. A survey will be administered to chief academic officers (CAOs) of community colleges to examine their perceptions of the reliance on and unmet demand for adjunct faculty, controlling for institutional size. The independent variable will be institutional type (rural, suburban, urban). The degree of reliance on adjunct faculty will be examined using two dependent variables: CAOs' perceptions of the percentage of faculty employed on a part-time basis and the percentage of credit hours taught by adjunct faculty. The unmet demand for adjunct faculty will be assessed using two dependent variables: overall unmet demand and discipline-specific unmet demand. These variables will be based on respondents' perceptions of the degree to which attracting adjuncts is an institutional challenge, the availability of qualified adjunct faculty, and the degree to which the availability of adjunct faculty limits course offerings for each of 12 discipline clusters.

The survey will also explore strategies used by community colleges to attract adjunct faculty within the applicant attraction framework by identifying institutional practices addressing recruitment, employment inducements, and alternate applicant pools (Rynes & Barber, 1990). This information will contribute to the understanding of the role of adjunct faculty in rural community colleges and may provide institutions with a clear attraction model to enhance their ability to meet the demand for adjunct faculty in the future.

Research Questions

1. Are there statistically significant differences in the perceptions of rural, suburban, and urban community college CAOs regarding the reliance on adjunct faculty as defined by the percentage of faculty employed on a part-time basis and the percentage of credit hours taught by adjunct faculty?
2. Are there statistically significant differences in the perceptions of rural, suburban, and urban community college CAOs regarding the overall unmet demand for adjunct faculty?
3. Are there statistically significant differences in the perceptions of rural, suburban, and urban community college CAOs regarding the discipline-specific unmet demand for adjunct faculty?
4. To what extent are rural, suburban, and urban community colleges using applicant attraction strategies in the areas of recruitment, employment inducements, and consideration of alternate applicant pools to enhance the attraction of adjunct faculty?

APPENDIX E

EVALUATION INSTRUMENT FOR SUBJECT-MATTER EXPERTS

Thank you for serving as a subject-matter expert. As you proceed through the survey, it is not necessary for you to provide answers to the items, although you are welcome to do so.

Please do, however, answer the "Evaluation" questions which appear after each item and at the conclusion of the survey.

Thank you for your valuable input!

Participant Welcome Page: Attracting Adjunct Faculty to Community Colleges

Thank you for taking time to participate in this 10-question survey to explore the demand for and attraction of adjunct faculty in community colleges.

As a chief academic officer, you are in a unique position to help us understand this important issue.

Instructions:

- For the purpose of comparison, please provide information based on fall 2009.
- Your efforts to provide answers to all questions are appreciated.
- The survey does not permit returning to previous pages.

Thank you for your participation!

About Your Institution

1. What was your college's approximate unduplicated headcount enrollment in fall 2009?

Evaluation: Please indicate your level of agreement with each of the following statements.

	Disagree	Neutral	Agree
This item should be included in the survey instrument.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is representative of the research questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is clear and unambiguous.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. How many 4-year institutions are located within 30 miles of your main campus?

- ☐ 0
- ☐ 1-2
- ☐ 3-4
- ☐ 5 or more

Evaluation: Please indicate your level of agreement with each of the following statements.

	Disagree	Neutral	Agree
This item should be included in the survey instrument.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is representative of the research questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is clear and unambiguous.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Filling Adjunct Positions

The next 3 questions will help us understand your college's need for adjunct faculty. Please indicate your level of agreement with each statement.

3. For each of the following disciplines, employing adjunct faculty is an institutional challenge.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	NA
English	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Natural & Physical Science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Arts & Humanities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mathematics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computer Technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Engineering/Industrial Technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health Technologies (other than Nursing)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nursing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public Service Technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Evaluation: Please indicate your level of agreement with each of the following statements.

	Disagree	Neutral	Agree
This item should be included in the survey instrument.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is representative of the research questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is clear and unambiguous.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. For each of the following disciplines, a sufficient pool of adjunct faculty exists in our area.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	NA
English	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Natural & Physical Science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Arts & Humanities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mathematics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computer Technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Engineering/Industrial Technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health Technologies (other than Nursing)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nursing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public Service Technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Evaluation: Please indicate your level of agreement with each of the following statements.

	Disagree	Neutral	Agree
This item should be included in the survey instrument.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is representative of the research questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is clear and unambiguous.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. For each of the following disciplines, the availability of adjunct faculty is a limiting factor in the design of the course schedule.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	NA
English	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Natural & Physical Science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Arts & Humanities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mathematics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computer Technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Engineering/Industrial Technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health Technologies (other than Nursing)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nursing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public Service Technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Evaluation: Please indicate your level of agreement with each of the following statements.

	Disagree	Neutral	Agree
This item should be included in the survey instrument.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is representative of the research questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is clear and unambiguous.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Attracting Adjunct Faculty

The next 3 questions will help us understand the strategies your college uses to fill adjunct positions.

6. Which of the following methods do you use to recruit adjunct faculty (please check all that apply)?

- ☐ Local newspaper advertisement
- ☐ TV/radio advertisement
- ☐ College website
- ☐ Professional journals (i.e. *Chronicle of Higher Education*)
- ☐ Online recruitment sites (Career Builder, Monster, etc.)
- ☐ Career fairs
- ☐ Word of mouth/networking
- ☐ Business and industry
- ☐ Partnerships with other institutions
- ☐ Other (please describe):

Evaluation: Please indicate your level of agreement with each of the following statements.

	Disagree	Neutral	Agree
This item should be included in the survey instrument.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is representative of the research questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is clear and unambiguous.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Which of the following do you use to make adjunct positions more attractive to candidates (please check all that apply)?

- ☐ Pay differentials for high-demand disciplines
- ☐ Offering benefits (e.g. health insurance, retirement, tuition reimbursement)
- ☐ Paying relocation expenses
- ☐ Future, full-time employment opportunities
- ☐ Expanded professional development opportunities
- ☐ Ability to work from home
- ☐ Advertising the attractiveness of the locale
- ☐ Other (please describe):

Evaluation: Please indicate your level of agreement with each of the following statements.

	Disagree	Neutral	Agree
This item should be included in the survey instrument.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is representative of the research questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is clear and unambiguous.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Which of the following do you use to expand the pool of adjunct candidates (please check all that apply)?

- ☐ Hiring graduate students with less than the required number of graduate hours
- ☐ Hiring out-of-area adjuncts to teach online courses
- ☐ Hiring applicants with less than optimal experience
- ☐ Substituting related occupational experience for educational experience
- ☐ Forming agreements with other institutions to share faculty
- ☐ Approaching retirees
- ☐ Approaching spouses of faculty
- ☐ Other (please describe):

Evaluation: Please indicate your level of agreement with each of the following statements.

	Disagree	Neutral	Agree
This item should be included in the survey instrument.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is representative of the research questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is clear and unambiguous.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

About Your Faculty

The final two questions will help us understand faculty employment and teaching at your college.

9. In fall 2009, how many faculty did you employ who were...

full-time?

part-time?

Evaluation: Please indicate your level of agreement with each of the following statements.

	Disagree	Neutral	Agree
This item should be included in the survey instrument.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is representative of the research questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is clear and unambiguous.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. In fall 2009, what *percent* of credit hours of instruction were taught by...

full-time faculty?

part-time faculty?

Evaluation: Please indicate your level of agreement with each of the following statements.

	Disagree	Neutral	Agree
This item should be included in the survey instrument.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is representative of the research questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This item is clear and unambiguous.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Evaluation:

11. Please share your thoughts about any topics which were insufficiently addressed in the instrument.

12. Please share any general comments to improve the instrument.

I appreciate your taking the time to provide valuable input. Thank you for your participation!

APPENDIX F

INVITATION TO PARTICIPATE IN PILOT GROUP

Subject: Dissertation on Adjunct Faculty

Dear.<<First Name>>,

As a doctoral candidate at Old Dominion University, I am preparing to conduct my dissertation study entitled *The Attraction of Adjunct Faculty to Rural Community Colleges*.

Although the literature includes a preponderance of information about adjunct faculty, studies have yet to address the impact of institutional type (rural, suburban, and urban) on the reliance on and demand for this important constituency. Furthermore, our institutions have little guidance about how to effectively attract qualified adjunct faculty. Therefore, we believe this study will fill a significant void in the literature.

To investigate these issues, I intend to survey all chief academic officers of publicly-supported American Association for Community College member institutions. As an experienced academic administrator, you are in a unique position to provide valuable input. Therefore, I am writing to ask if you would be willing to participant in a brief pilot study to assess the validity and reliability of the survey instrument. In a few days, you will receive another email inviting you to participate and providing the link to the online survey.

Participation will involve two steps:

1. You will be asked to complete the brief online survey which will eventually be administered to CAOs, as well as an evaluation of the instrument's content validity.
2. Approximately 2 weeks later, you will be asked to complete the online survey again. These data will be used to assess instrument's reliability.

I know your schedule is very busy, so I appreciate your consideration. If you have questions or concerns, please do not hesitate to contact me at charlierh@brcc.edu or 540-453-2376.

Thank you,

Hara D. Charlier
Doctoral Candidate, Old Dominion University;
Interim Vice President of Instruction and Student Services, Blue Ridge Community College

APPENDIX G

EMAIL CORRESPONDENCE TO PILOT GROUP

Subject: Dissertation Study Pilot Study

Dear <<First Name>>,

Thank you for considering participating in the pilot study for my dissertation entitled *The Attraction of Adjunct Faculty to Rural Community Colleges*.

The purpose of the study is to investigate reliance on, demand for, and attraction of adjunct faculty in community colleges. To this end, I will survey chief academic officers (CAO) of all publicly-supported American Association for Community College member institutions. You play an important role in assessing the content validity of the proposed survey instrument before it is administered to approximately 1,000 CAOs.

To participate:

- Please complete the survey by clicking survey link below no later than <<date>>.
- At the conclusion of the survey, you will be redirected to an assessment instrument to provide input about content and clarity.
- Please note that you will receive an email in approximately 3 weeks, asking you to complete the survey again for the purpose of test-retest reliability.

Your input is extremely important, and I appreciate your taking time out of your busy schedule to participate. If you have questions or concerns, please do not hesitate to contact me at charlierh@brcc.edu or 540-453-2376.

Sincerely,

Hara D. Charlier
Doctoral Candidate, Old Dominion University;
Interim Vice President of Instruction and Student Services, Blue Ridge Community College

Link to Survey: <<url>>

APPENDIX H
EVALUATION INSTRUMENT FOR PILOT GROUP

1. How long did it take you to complete the survey?

2. Considering the survey you have just completed,

	Yes	No
Were the instructions clear?	<input type="radio"/>	<input type="radio"/>
Were the questions clear and unambiguous?	<input type="radio"/>	<input type="radio"/>
Were there any components that might be construed as offensive?	<input type="radio"/>	<input type="radio"/>

3. Please provide any comments or suggestions to improve the instrument.

Thank you for taking the time to participate!

APPENDIX I

EMAIL CORRESPONDENCE TO PILOT GROUP FOR RETEST

Subject: Dissertation Study Retest

Dear <<First Name>>,

Thank you for agreeing to participate in the pilot study for my dissertation entitled *The Attraction of Adjunct Faculty to Rural Community Colleges*.

Several weeks ago, you provided valuable input to improve the survey instrument to be administered to chief academic officers of AACC member institutions.

As you know, it is also critical to evaluate the reliability of this instrument. To this end, I must ask that you complete survey once again by clicking link below.

I would appreciate your effort to complete the retest no later than <<date>>.

Thank you, again, for your invaluable input. Please do not hesitate to contact me for any reason at charlierh@brcc.edu or 540-453-2376.

Sincerely,

Hara D. Charlier
Doctoral Candidate, Old Dominion University;
Interim Vice President of Instruction and Student Services, Blue Ridge Community College

Link to Retest: <<url>>

APPENDIX J

INVITATION TO PARTICIPATE IN THE SURVEY

Subject: Dissertation on Adjunct Faculty

Dear Dr. <<Last Name>>,

As part of my doctoral dissertation at Old Dominion University, I am conducting a survey of community college chief academic officers to gather data on the impact of institutional type (rural, suburban, and urban) on the reliance on, and demand for adjunct faculty. Additionally, I am investigating strategies used for the attraction of this important constituency. The purpose of the study is to help community colleges meet the growing demand for adjunct faculty.

Your response to the attached survey instrument will make an important contribution to this research. Responding should take less than ten minutes of your time, but your participation is critical to the success of the study. I would, therefore, appreciate your willingness to complete the online survey found below by <<date>>:

<<url>>

Participation is, of course, voluntary, and you may be assured that your response will remain completely confidential. All data will be reported in the aggregate, and it will not be possible to associate you or your institution with your response.

Due to my current position as Interim Vice President of Instruction and Student Services at Blue Ridge Community College in Virginia, I am aware of the demands on your time, and I sincerely appreciate your assistance with this matter. If you have questions or concerns, or if you would like to receive a summary of the study results, please do not hesitate to contact me at charlierh@brcc.edu or 540-453-2376.

Again, thank you for your time and consideration.

Sincerely,

Hara D. Charlier
Doctoral Candidate, Old Dominion University
Interim Vice President of Instruction and Student Services, Blue Ridge Community College, Weyers Cave, Virginia

APPENDIX K

FOLLOW-UP NOTIFICATION TO NONRESPONDENTS

Subject: Dissertation on Adjunct Faculty

Dear Dr. <<Last Name>>,

Several days ago, you received an invitation to participate in my dissertation study, entitled *The Attraction of Adjunct Faculty to Rural Community Colleges*.

If you have already completed the online survey, please accept my most sincere thanks! If you have not yet had the occasion to do so, I would like to take this opportunity to ask for your consideration. Our ability to understand the impact of institutional diversity on the demand for and attraction of adjunct faculty depends on responses from rural, suburban, and urban community colleges across America. Therefore, your participation is critical.

It should take no more than 10 minutes to complete the survey, which will remain open until <<date>>:

<<url>>

Thank you for considering taking time from your busy schedule to participate. If you have questions, concerns, or would like to be informed of the results of the study, please do not hesitate to contact me at charlierh@brcc.edu or 540-453-2376.

Sincerely,

Hara D. Charlier
Doctoral Candidate, Old Dominion University;
Interim Vice President of Instruction and Student Services, Blue Ridge Community College, Weyers Cave, VA

APPENDIX L

RESPONSES TO OPEN-ENDED QUESTION ADDRESSING “OTHER”

RECRUITMENT STRATEGIES

- Adjunct Faculty recruitment fairs
- Adjunct fair
- Adjunct Recruiting Fair
- Advisory committee recommendations
- Advisory Committees
- Annual part-time faculty recruitment event on our campus
- California Community College Job Registry
- California Community College Registry/for GE Faculty NPR is heavily utilized
- Calling sister institution Deans/VP's, Advisory Committee input
- Direct mail
- District website
- Graduate students at nearby University
- Graduate schools at local universities like UT Arlington,TX
- Graduate schools; hospitals
- Higher ed Jobs .com
- Listing on the university-wide job postings
- Local graduate schools
- nearby community colleges
- Online websites for professional organizations and our state board for community and technical colleges

- Our-of-the-area newspapers
- Partnerships with hospitals
- Partnerships with local public schools
- Program advisory committees
- State website
- System Office HR office
- System web postings
- Technical College System website
- We have discussed holding an adjunct fair but have not done so yet
- We interface with grad schools to find doctoral students (must hold a master's)
who might be eligible candidates

APPENDIX M

RESPONSES TO OPEN-ENDED QUESTION ADDRESSING “OTHER”

EMPLOYMENT INDUCEMENT STRATEGIES

- Flexible scheduling, inclusiveness in the institution
- General compensation is quite high, and benefits are pro-rated after 9 credits.
- Good compensation per course; no other requirements that 1/2 office hour per course taught. We have Saturday classes and Distance Learning classes; adjunct faculty teach from whatever location and hold virtual office hours.
- Higher per credit hour pay for longer term adjuncts
- If the adjunct teaches enough hours there is a small health benefit, folks are paid on a regular salary schedule
- Incentives for Nursing only
- Mileage reimbursement if commuting more than 40 miles round trip
- Modest compensation for participating in departmental functions & professional development opportunities (\$25/hr)
- Offer free classes at the college
- Offer more than one course to get placed on the salary schedule
- Opportunities for small pay increases and promotion
- Opportunity to teach on-line classes
- Parking, competitive pay, full access to campus-based professional development
- Pay differential based on advanced coursework completed, etc.
- Pay differential for educational attainment
- Pay differentials based on number of semesters

- Pay/stipends for travel
- Pay incentives for longevity/service
- Pay increments for those who do faculty development; additional hourly pay for department meetings, participation in assessment, etc.
- Pay mileage for all miles over 30/trip
- Pay mileage in some cases
- Pay scale equal to full-time faculty
- Personal attention/mentoring; inclusion in the academic department, e.g., attend meetings; mileage reimbursement to travel to off-campus sites;
- Professional development stipends
- Provide a 70% of FT position for areas/disciplines difficult to fill
- Rehire rights when conditions are met
- Salary and union
- Strong department chair support for adjunct faculty
- Supportive faculty and individual course design opportunities
- Treat with respect, provide a shared office space
- Try to keep salary competitive with area colleges
- Give time/day preferences to hard to find adjuncts in terms of teaching assignments
- Tiered pay scale to reward involvement and seniority
- Discipline coordinators and college professional development coordinators have duties dedicated to the welfare and development of part time faculty
- Pay adjuncts with five or more credits pro rata

APPENDIX N

RESPONSES TO OPEN-ENDED QUESTION ADDRESSING “OTHER”

ALTERNATE APPLICANT POOLS CONSIDERED

- Approaching our high school dual credit faculty
- Chancellor's Faculty Diversity Initiative
- Close equivalents to credentialing
- Current faculty help with recruiting, Advisory Committee contacts
- for technical fields
- Hire credentialed high school faculty and business and industry employees in appropriate areas
- List serve with other deans
- Networking, both faculty & staff with relevant, potential sources of needed adjuncts
- Our district has an internship program graduate students can apply to. If accepted he/she is matched with a faculty member and participates in some or all of the faculty members classes, including lecture/lab presentations under the direct supervision of the mentor.
- Reliance on our educated immigrant population
- Seek out those in nearby businesses
- Sharing adjunct faculty lists with other institutions and them doing the same with us
- Use local business and industry, i.e., hospital RNs for preceptors
- We contact universities in our area.

- We mine our advisory committees for possible candidates/leads
- We only hire out of area if we cannot find a local person who meets our qualifications.

VITA

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EDUCATION

Ph.D., Community College Leadership, Old Dominion University, in progress.
 M.S., Microbiology, Miami University, 1995.
 B.A., Animal Science, Cornell University, 1991.

EXPERIENCE

Blue Ridge Community College, Weyers Cave, VA:

- Interim Vice President of Instruction and Student Services, 2009-present
- Dean, Life Science and Human Services, 2008-2009
- Instructor, Biology, 2005-2008

Synoptics Inc., Frederick, MD

- Operations Director, 2004-2005
- Director of Support Services, 2003-2004
- Scientific Support Manager, 2000-2003

Miami University, Oxford, OH

- Instructor, Microbiology, 1995-2000

PUBLICATIONS AND PRESENTATIONS

Charlier, H., & Duggan, M. (2010). Evaluation of a dual enrollment orientation program: A utilization-focused approach. *The Community College Journal of Research and Practice*, 34(2), 92-110.

Charlier, H., & Duggan, M. (2009, April). Evaluation of a dual enrollment faculty orientation program: A utilization-focused approach. Paper presented at the annual meeting of the Council for the Study of Community Colleges, Phoenix, AZ.

Charlier, H. & Levin, B. (2008, October) Socializing a New Dean. Virginia Community College System Social Science Peer Group Conference, Richmond, VA.

Charlier, H. (2008, April). College Readiness Partnership. ACT Annual Conference, Hilton Head, SC.

SERVICE

Bridging the Valley NSF Grant Internal Advisory Board, 2009-present

Respiratory Therapy Program Advisory Committee, JSRCC, 2009-present

Wind Turbine Technician Program Advisory Committee, DSLCC, 2009-present

VCCS Professional Development Committee, 2007-present

VCCS Developmental Education Task Force, 2008-2009

Faculty Advisor, Phi Theta Kappa, 2006-2008