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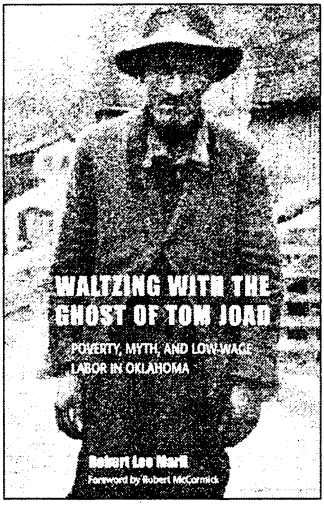

WALTZING WITH THE GHOST OF TOM JOAD

POVERTY, MYTH, AND LOW-WAGE LABOR IN OKLAHOMA

By Robert Lee Maril
Foreword by Robert McCormick

Skillfully combining ethnography with statistical analysis, *Waltzing with the Ghost of Tom Joad* portrays the lives of poverty-stricken Oklahomans, many of them children, minorities, and the elderly. Exploring myths about the poor and the facts behind these myths, Robert Lee Maril discusses the real causes of poverty in the state, especially low-wage labor. He concludes by presenting a public-policy agenda that would benefit the poor directly and, in so doing, improve the lives of all Oklahomans.

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IMPROVING AMERICAN INDIAN HEALTH CARE

THE WESTERN CHEROKEE EXPERIENCE

By C. William Steeler
Edited by Gary W. Shannon and Rashid L. Bashshur

To address the basic health concerns of all Native Americans, this book examines the response of the Cherokee Nation of Oklahoma to critical medical issues. After 1976, the Cherokee Nation aggressively addressed inadequate levels of health services for tribal members and better coordinated efforts to deal with the health problems of their population.

Improving American Indian Health Care shares Western Cherokee experiences so that other tribal governments may adopt or adapt the approaches particularly suitable to their own circumstances.

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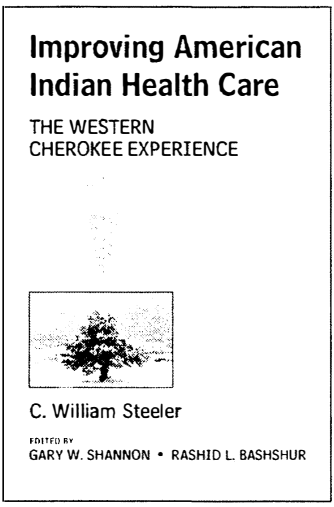

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Profit, Ownership, and the Corporation: Deviance in American Elder Care

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Abstract

Research on the links between organizational type and quality of care in nursing homes has suggested the two affect one another (Jenkins and Braithwaite 1993). All types of nursing homes neglect residents. However, research finds deviation more often exists in facilities that seek profit. In the United States, the Health Care Financing Administration (HCFA) monitors nursing homes. HCFA reports information on nursing home ownership and rates of citations. This analysis of 385 nursing homes shows a connection between profit ownership and deviance. The findings lead us to conclude that organizational type may provide an environment conducive to a lower quality of care in nursing homes. This analysis contributes to research on nursing home deviance in other countries.

Introduction

There are few propositions that analysts continuously report in terms of corporate deviance. However, criminology has repetitive themes indicating a corporate logic can facilitate deviant activity (Jenkins and Braithwaite 1993). Sutherland (1949) was one of the first criminologists to discuss corporate deviance arguing that deviance could involve abnormal acts committed by persons of respectability. Researchers continue to use this perspective (see Coleman 1989). Clinard, Quinney, and Wildeman (1994) imply that corporate deviance involves profit objectives given from actors at the top of the organizational structure. Other analysts explain that these orientations flow to the bottom of the organization contributing to deviance for the purpose of higher revenues (Powell and DiMaggio 1991).

In 1988, the annual combined sales of the Fortune 500, totaled nearly $2 trillion with profits of $115 billion. Clinard (1983) indicates that both middle management and executives make an abundance of unethical decisions based on profit motives on a regular basis in these organizations. A study by Ross (1980) showed that 11 percent of the largest American corporations were guilty of at least one major crime. Moreover, Clinard and Yeager (1980) report that 115 corporations in the Fortune 500 have paid civil penalties for serious illegal behavior often tied to goals of increasing revenue. In recent decades, corporate lawbreaking has been prevalent in many business settings. Deviance has been reported in the pharmaceutical industry (Braithwaite 1984), the birth prevention field (Frank 1985), the automotive industry (Cullen, Maakestad, and Cavender 1987), and the savings and loan sector (Tillman and Pontell 1995). Jenkins and Braithwaite (1993) built upon corporate deviance literature, focusing on nursing home compliance to regulatory laws in Australia. Their study found greater top down pressures for lawbreaking in for-profit facilities. Their review of Australian nursing homes remains intriguing; however, there continues to be a lack of analysis pertaining to corporate deviance in American elder care.

Nursing Homes in the United States

With the elderly population in the United States rising at a rapid rate, caring for the aged has become a lucrative business venture (Glenn 2000). In 1966, the government began subsidizing old-age institutions through Medicare and Medicaid funding. A shift from county-maintained "poor farms"

to institutionalized nursing home care gradually took place (Manard, Kart, and Gils, 1975). Consequently, more individuals in need of intensive long-term care are entering for-profit nursing facilities.

According to Andringa and Engstrom (1997), for-profit facilities driven by monetary gain are required to pay taxes. In these organizations, shareholders may disclose only what the law requires. On the contrary, nonprofit homes have a mission of service. Government agencies and church groups control nonprofit facilities, which are free from tax payments. The Health Care Financing Administration (HCFA) has an essential role in regulating nursing homes dependent on Medicare and Medicaid funding regardless of ownership status.

Nursing Home Ownership

In 1968, approximately 77.4 percent of American nursing homes were for-profit facilities, while 22.6 percent were nonprofit (Manard et al. 1975). In 1985, 75 percent of nursing homes were for-profit, and 25 percent were nonprofit (Forrest, Forrest, and Forrest 1993). Currently 11,400 nursing homes in the United States, 67 percent, are for-profit facilities (Gabrel 2000). In their study of Australian nursing homes, Jenkins and Braithwaite (1993) implied comparable proportions of ownership between for-profit homes (66 percent) and nonprofit facilities (33 percent).

The general intent of this article is to expand the corporate deviance literature by exploring American nursing homes. This research analyzed a sample of elder care facilities in the states of Arkansas, Louisiana, Oklahoma, and Mississippi. Specifically, this research, through secondary analysis of HCFA on-line documents, identified rates of deviance in U.S. nursing homes based on ownership status. With Jenkins and Braithwaite's (1993) research as a model, we expected that for-profit American nursing homes would have higher deficiency rates.

Methods Sample

Using a list taken from HCFA records and random sampling procedures, this project examined 385 nursing homes from four states. States included in the study were Arkansas, Louisiana, Oklahoma, and Mississippi. As Table 1 indicates, HCFA records showed that Arkansas had 269 nursing homes at the time of this study. Data from 93 homes were included in our sample. Louisiana had 388 certified facilities, 119 were included in our sample. Oklahoma had 410 facilities, and 87 were included in this research. Finally, HCFA records indicated Mississippi had 199 nursing homes, 86 of which were included in this analysis. This project stratified all facilities included in the sample based on state variation and ownership type.

Table 1. General Differences in Nursing Homes by State

Item	Arkansas	Louisiana	Oklahoma	Mississippi	Totals
Number of Facilities	269	388	410	199	1266
Facilities in Sample	119	87	86	385	

Note: Facilities in sample based on systematic random sampling procedures.

Instrument

Data sources for this research included secondary information gathered by state survey teams operating under the HCFA. State survey agencies have various contracts with the HCFA to survey homes every 9 to 15 months and report deviations from rules. Citations are categorized into a wide range of acts such as provision of substandard food, maintenance of low staff-resident ratios, and overuse of restraints (HCFA 2000). This research analyzed the total number of citations given to each institution regardless of category.

Procedure

The researchers obtained HCFA information through the Medicare on-line system. The Medicare on-line system provides a database of information relating to nursing home deviance based on HCFA guidelines. The database provides performance information on every Medicare and Medicaid certified nursing home in the United States. To search the database for a nursing home, a researcher can enter a state, city, zip code, or facility name. In turn, information pertaining to that specific home is accessible (HCFA 2000). We obtained both citation and ownership information through this process. By using secondary nursing home data in computer generated form, the ability to use otherwise geographically inaccessible information existed. This provided an advantage in terms of non-reactivity created by direct observation, the possibility to deal with a larger sample size, and lowered cost due to centralized access (Bailey 1978). This research used two-tailed t-tests and multiple analysis of variance (MANOVA) techniques to assess overall differences between state citations and deficiency rates based on ownership type.

Results

This project examined the sample of nursing homes in terms of geographic location, ownership status, and citation frequencies. Overall, it examined infraction rates for each individual state in relation to ownership. In addition, this research examined ownership percentages related to deviation from HCFA regulations while excluding geographic variables. Finally, it compared all four states ignoring the variable of ownership.

Comparison within States

Of the 93 facilities analyzed from Arkansas, 18 were nonprofit. These institutions had citation rates ranging from 1 to 13. As Table 2 indicates, these nonprofit organizations had an average of 4.66 violations per home. Seventy-five of the homes analyzed from Arkansas were for-profit with non-compliance numbers ranging from zero to 20. These facilities had an average of 7.19 deficiencies per home. The mean numbers of citations given to nonprofit (4.66) and for-profit nursing homes (7.19) in the state of Arkansas were significantly different, $t(46) = 2.96$, $p < .05$.

In relation to Louisiana, this research analyzed 119 facilities. Table 2 indicates that the 22 nonprofit institutions had citation numbers ranging from zero to 12 and averaging 2.77 violations per home. Ninety-seven of the homes analyzed from Louisiana were for-profit with citations ranging from zero to 17. These facilities had an average of 4.51 deficiencies per home. Again, a statistically significant difference between the mean numbers of nonprofit (2.77) and for-profit citation rates (4.51) existed, $t(59) = 2.08$, $p < .05$.

Of the 87 facilities from Oklahoma examined, 15 were nonprofit with infraction rates ranging from zero to five. As Table 2 indicates, nonprofit organizations in Oklahoma had an average of 1.86 violations per home. Seventy-two of the homes analyzed from Oklahoma were for-profit with rates of deviation HCFA regulations ranging from zero to 21. These facilities had an average of 4.31 deficiencies. As in the cases of Arkansas and Louisiana, a statistically significant difference between mean numbers of nonprofit (1.86) and for-profit citations (4.31) existed, $t(43) = 3.43$, $p < .05$.

Of the 86 facilities examined from Mississippi, 28 were nonprofit institutions with citations ranging from zero to 15. As Table 2 reveals, these facilities had an average of 4.21 violations per home. Fifty-eight of the homes from Mississippi were for-profit institutions with non-compliance rates ranging from zero to 18 averaging 5.13 deficiencies per home. Though the mean number of infractions in for-profit homes was larger than nonprofit facilities, Mississippi was the only state without a statistically significant difference between the mean number of citations based on ownership, $t(42) = 1.04$, $p < .05$.

Table 2. Precise Differences in Nursing Homes by State

Organization	Arkansas	Louisiana	Oklahoma	Mississippi	Totals
Nonprofit Homes					
Number	18	22	15	28	83
Mean	4.66	2.77	1.86	4.21	3.38
For-profit Homes					
Number	75	97	72	58	302
Mean	7.19	4.51	4.31	5.13	5.28

Organizational Differences and Multi-State Comparisons

Holding geographic status constant, the nonprofit facilities examined averaged 3.38 violations per home, and the for-profit facilities averaged 5.28 violations. Controlling for state variation, the effect of organizational type was statistically significant, $F(1,380) = 10.82$, $p < .05$. Therefore, the overall mean deviance rate for for-profit homes was significantly higher than the rate for nonprofit facilities. For Arkansas, data from this sample indicated that the mean number of infractions was 5.93 controlling for ownership. Louisiana had a mean number of 3.64 infractions. Oklahoma averaged 3.09 citations, the lowest average for all states examined. Mississippi averaged 4.67 violations. Controlling for the variable of ownership, the effect of state variation was statistically significant, $F(3,330) = 8.21$, $p < .05$. Hence, the rates of deviance between states were significantly different as well.

Discussion and Conclusions

For several decades, analysts have discussed the connection between deviance and corporations (Braithwaite 1984; Frank 1985; Cullen, Maakestad, and Cavender 1987; Yeager 1991; Tillman and Powell 1995; Simon 2000). In terms of elder care, Jenkins and Braithwaite (1993) provided knowledge relating to deviance and for-profit nursing homes in Australia, but a void still existed concerning U.S. facilities. The present findings fill this void. Moreover, these findings have the ability to aid in the assessment of HCFA survey processes. As indicated, violation rates from HCFA regulations differ greatly, suggesting perhaps that the surveys performed in different geographic locations are based on unstable measures. Conformity among measures may be needed to increase the quality of care in American institutions for the aged.

Regardless of state variation, the findings of this research build on Jenkins and Braithwaite's (1993) seminal work on corporate lawbreaking and the elder care industry in several ways. First, the findings suggest a consistency in cross-national nursing home ownership. Jenkins and Braithwaite (1993) indicate a large proportion of for-profit homes as compared to nonprofit facilities in Australia. The sample used in this study confirmed similar numbers of ownership in the United States. Second, the findings provide empirical evidence of the importance of ownership in determining patterns of non-compliance to government regulation in the United States nursing home industry. As Jenkins and Braithwaite (1993) argue, Australian for-profit nursing homes are more likely to deviate from government regulations based on corporate ideologies. Third, the findings confirm the contention that for-profit ownership does impede quality of care based on HCFA measures.

Jenkins and Braithwaite (1993) suggest chief executives set a tone of violating regulations for profit maximization. If this is true, the words of a chief executive officer from American nursing home corporations can give us an indication of how their organizational logic legitimizes deviance. In a 1989 interview in Health Week, the President and Chief Operating Officer of the largest nursing home chain in America was asked about

recent violations regarding staff to patient ratios. He excused the company's deviant activities by explaining that the law, and not violations of the law, is the problem. He stated, "The law is unfair and does not direct itself toward this type of problem. It is like a cure for the crime that's much greater than the crime... we're going to fight it all the way" (Mayer 1989:17).

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RETHINKING ETHNICITY AND HEALTH CARE

A Sociocultural Perspective

By

GRACE XUEQIN MA, PH.D.

and

GEORGE HENDERSON, PH.D.

In this book, the authors analyze the cultural and socioeconomic factors affecting the health, health care utilization and health-seeking behaviors of four selected ethnic minority groups: Asian Americans, African Americans, Hispanic Americans, and Native Americans. Four areas are identified for discussion: cultural and socioeconomic perspectives on health, health care services, alternative medicine in health care, and challenges of ethnic health care in the twenty-first century. Part I consists of a series of essays and provides a theoretical foundation for the major themes of this book, introducing the ethnic health care issues as an area of research. Part II focuses on the broad issues of health care service delivery and explores each ethnic group in more detail. Each chapter provides information on factors influencing access to health care, such as immigration status and other systemic-related issues. Part III primarily focuses on traditional health beliefs, practices, and healing of each culture or ethnic group and explores the appropriateness of using traditional techniques in treating certain health problems. Part IV, an integrative part of the book, pulls together the major contents of the book and sociocultural analysis. The book concludes with a discussion of future research in ethnicity and health care. It has been written to meet the needs of health care professionals, health educators, nurses, physicians, sociologists, medical and cultural anthropologists, ethnic minorities and individuals interested in traditional medicine and its integration with Western medicine.

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The Impact Of A Community-based And Privatized Approach To The Provision Of Social Services: Findings From The Emerging South

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David J. Boldt, State University of West Georgia

Abstract

Amid solid advancements in personal income and employment throughout the state, Georgia's former popular Governor, Zell Miller, initiated the politically advantageous policies of privatizing state services and downsizing agencies. With elevated frequencies of infant infirmity, child poverty, teen pregnancy and juvenile crime persisting, however, state social services were targeted for an innovative approach. Agencies would play a partial role as community-based organizations, the private sector and citizens would all collaborate in administering welfare programs. Under this format, Georgia's novel "Family Connection" was created to improve the quality of life of the state's needy children and families. Findings indicate that, despite the political appeal, decentralized social programs such as the Family Connection failed to improve the health of impoverished children and families. Reorganizing social services by increasing reliance on the private sector and philanthropic organizations led to no significant improvements in infant health, teen birth rates, juvenile crime, family poverty and high school dropout rates in the state.

Background: Developing State Policy And Embracing The Private Sector

With consistently robust approval ratings throughout his tenure as Georgia's previous Governor, U. S. Senator Zell Miller sought to leave a legacy of distinctive and successful programs in the areas of education, public administration and social services. In the spirit of President Bill Clinton's National Performance Review, and utilizing past administrations' efforts at reforming government, Miller instituted the politically accepted approach of a downsized government, private sector involvement and volunteerism in the delivery of state services. First, his Lottery for Education program generated some $5 billion extra dollars to the education budget without a raise in taxes. Next, "GeorgiaGain," another popular program, albeit despised by state workers, reorganized Georgia's public personnel structure. A special task force reclassified thousands of positions while revising evaluations, resulting in amended pay scales supposedly comparable with the private sector. Pay would be directly linked to performance. New personnel, along with state bureaucrats who changed positions, were assigned new classifications under the various agencies' organizational structures. Through attrition, the state's civil service and its accompanying rules, regulations and employee protections, was eliminated (GeorgiaGain Task Force 1998).

Although states have been slower to privatize services than local governments (Greene 1996; Koresec, Mead 1996; Warner, Hebdon 2001), Miller, early in his first term, was quick to explore the utilization of private organizations as options to state enterprises. Hoping to take advantage of the perceived cost efficiencies of private firms, the Governor's Commission on Privatization of Government Services recommended that several prisons, parks and social service facilities be privatized. Although few social roles appear more inherently public than those of the police officer, judge and jailer, the state went ahead with plans to privatize prisons. Miller, following recommendations from the Government Finance Officers Association, hoped to establish a benchmark, comparing the state's provision of services with those offered by private companies. About one third of

Georgia's prisons were privatized, thus creating a yardstick for comparison. Contract costs were compared to state operating expenses.

Rehfuss (1989) indicates that the basic reason that government privatizes is to save money. When the federal government decides to contract out a traditional operation, it usually requires that a successful bid be 10 percent lower than the cost of government operation, presumably to allow for a margin of error and to allow for monitoring costs, which could be substantial, sometimes consuming any public savings on a program. When critics argued that private prisons would expose prisoners to corporate purposes which could distance them from the protections of the law, Miller countered by stating that private hospitals had for decades provided public services as delicate as those at stake in incarceration, usually at a lower cost than the public facility. The privatized prisons in Georgia modeled those of nearby Tennessee and Kentucky. While moderate savings ensued, it is important to recognize that the prisons were minimum security. They are run differently than higher security prisons, usually operating at a 20 percent lower cost. For example, low-risk prisoners with medical problems are usually transferred to noncorrectional health care facilities (Donahue 1989; Chabotar 1991). Golf courses at state parks, along with wastewater treatment plants, were also privatized.

Reinventing State Social Services

Miller started privatizing some of the state's social services by turning the Georgia War Veterans' Nursing Home over to a private health care company, a controversial move that garnered some union opposition. Next was an overhaul of Georgia welfare, the GeorgiaWorkFirst! and the Temporary Assistance to Needy Families programs. They became models for national social service policy, establishing time limits for recipients, coordinated service points, privately funded facilities, outcome-based funding and community collaboratives to determine need (Adams, Wassell 1997).

As Georgia's population and economy experienced healthy growth throughout the 1990's, Miller was, however, faced with the daunting task of improving the state's dismal statistics regarding the health and educational performance of its children. Georgia had the highest infant mortality rate in the nation and ranked among the bottom ten states for low birth weight babies, percentage of births to single teens, high school dropout rates, percentage of teens neither working nor in school, percentage of children living in poverty, and percentage of youngsters in single-parent families. It also ranked in the bottom half of states regarding frequencies of child death (ages 1-14), juvenile crime arrests and teen violent death, as well as scholastic achievement. With emerging business and industrial centers developing throughout the South, the Governor sensed a threat to the state's competitive edge in commerce and education if nothing was done about the quality-of-life issues facing the state (Georgia Policy Council 1997). The Governor hoped to remedy the situation by promoting social service programs employing his politically prudent themes of volunteerism, along with community and private sector involvement.

Contracting for social services, however, is somewhat different than for other types of services. Aside from the usual advantages of privatization, particularly cost savings, nonprofit organizations have substantial organizational benefits over public agencies. These organizations, especially charitable agencies, are often widely viewed as making the client's welfare a high priority. Thus, they may attract higher quality volunteer help than those found in public agencies. Nonprofit organizations also tend to have more expertise, resulting in better service. Contracting with these organizations also creates greater community support for a public program because such associations garner contributions from private citizens. They provide some additional flexibility as well, especially in difficult financial times, since the contractor can usually absorb

changes in personnel requirements. The City of Rochester, for example, hoping to limit the growth of city staff, has chosen private agencies to manage federally funded community development, employment and training programs. Also, Philadelphia County has privatized some of its child care services, including foster home placement, day care and institutional care, while Sacramento now contracts out about one third of its mental health projects (Rehfuss 1989).

Creating the Georgia Policy Council for Children and Families

In 1990, Miller established the Georgia Policy Council for Children and Families to assess ways in which the state could enrich the lives of its children. The Council recommended that Georgia focus on five areas for improvement: child health, school readiness, school success, family stress and the economic condition of families.

The Council encouraged a unique approach. It suggested that Georgia become one of the first states to fund, operate and monitor its broad system of social services by employing a coalition of the community, the private sector, nonprofit organizations and state agencies. Asserting that the needs of a community are unique and multi-faceted and cannot be effectively addressed by a single public agency, the Council formed community boards to assess regional social factors impacting the quality of life of children and families. The boards, created to implement social service policy and promulgate improvement strategies, were to be comprised of civic leaders, politicians, state agencies,1 nonprofit organizations,2 private providers, business and consumers. The Governor and his Council emphasized decentralization; social programs would no longer be administered solely from the Capitol and positioned uniformly throughout the state. The Council would recommend grants for counties submitting designs outlining social service missions, objectives, delivery organizations, and components of civic leadership coalitions. Additional annual funding would be provided to counties demonstrating meaningful improvements in the quality of life of its families and children. With citizens of the state in no mood for tax increases, substantial resources for the initiative were to be provided by foundations, corporations and other members of the community collaboratives (Mendonsa 1998).

The Family Connection Program

With the emphasis on delivering social services at the local level, the Governor and the Georgia Policy Council created the "Family Connection" program in 1991. Hoping to achieve measurable improvements in the quality of living for children and families, the Family Connection supported the collaborative approach. Civic, local and state officials, along with citizens, non profit organizations and state agencies would establish data to track progress and provide training and assistance for each county program. The community cooperatives would also manage program budgets. With decreased financial assistance from public coffers, an initial funding of $5 million was provided by the Joseph B. Whitehead Foundation during 1991-93 to establish the Family Connection in an initial fifteen counties.3 During 1993, state funds were appropriated to support continuation of the program in the initial counties, and to allow other counties to establish their own programs. By January 1999, the Family Connection had grown to include 130 out of the state's 159 counties.

The Family Connection program employs the featured community-based approaches to improve outcomes in selected areas, as designated by the Georgia Policy Council. Each community would select measurable benchmarks (e.g., teen pregnancy, child abuse, high school dropout rate) and then design strategies with the intention of improving a particular problem. A primary goal of the program is to improve education in the state. Reading and mathematics scores on the Iowa Test of Basic Skills (ITBS), along with high school graduation rates, were targeted for improve-

ment (GA Policy Council 1996). To facilitate educational goals, social service personnel, substance abuse counselors, case workers and university students were dispatched to needed facilities for mentoring, tutoring and parenting sessions. Ongoing presentations to civic clubs and churches have been instituted to increase civic awareness (Pflum 1994; Argyle, Marlowe 1997).

Further aspirations of the Family Connection are to improve child health and to create functional, stable and economically self-sufficient families. This is to be achieved primarily by reducing the rate of families in poverty, and by escalating the percentage of babies born healthy. Also, the program intends to reduce the rate of child mortality, abuse and neglect, as well as the frequency of teenage pregnancies, births, homicides and arrests. Since the Family Connection has been in effect, mobile health units have been established. Counties have also organized volunteers to conduct home health screenings and drug abuse counseling. There are art enrichment, self-esteem, after school, summer lunch and adult literacy programs, along with mental health support groups. Parental marital counseling, family outreach, legal services, Medicaid eligibility instruction and English-As-a-Second-Language classes are also provided. Another element of the program, "CrossRoads," assists families with transportation to school and employment, while local businesses donated land for supervised athletics (Georgia Policy Council 1996). The program has also coordinated vocational and career training, job referral listings and case worker visits to residences to detect child abuse (Family Connection 1996).

Empirical Results

Decreased welfare subsidies, privatization of social services and community-based social programs may be politically beneficial; however, do they improve the delivery of social services? Has Georgia's distinctive Family Connection program substantially enriched the quality of life of its underprivileged children and families?

As documented in the 1998-99 Georgia Kids Count Factbook,4 a number of quality-of-life indicators improved over the 1992-97 period, including infant mortality, child deaths, teen deaths, high school dropouts, teen births, child abuse, and selected reading and mathematics test scores.

Notes

1 Agencies include the GA Departments of Children and Youth Services, Education, Human Resources, Medical Assistance, and GA Governor's Office of Planning and Budget.

2 Including, but not limited to, the GA Academy for Children and Youth Professionals, and GA Families and Communities.

3 The "first wave" of fifteen Family Connection counties were Carroll (Carrollton), Coffee, Dawson, Dekalb (Decatur), Elbert, Emanuel, Fulton (Atlanta), Hall, Houston, Lowndes, Mitchell, Murray, Muscogee, Richmond and Ware.

Table 1
Georgia Child and Family Well-Being Indicators
(Percent change between 1992-97*)

LOW BIRTH WEIGHT RATE (per 100 live births)	+2.8
INFANT MORTALITY RATE (per 1,000 live births)	-17.3
CHILD DEATH RATE (per 100,000 children, ages 1-14)	-7.3
TEEN DEATH RATE (by accident, homicide or suicide per 100,000 teens, ages 15-19)	-11.3
JUVENILE ARREST RATIO (per 100 population, ages 10-17)	+10.7
HIGH SCHOOL DROPOUT RATE (per 100 public high school students)	-2.5
TEEN BIRTH RATE (per 1,000 females, ages 15-17)	-6.6
FAMILIES STARTING AT RISK OF POVERTY (per 100 first births)	+1.5
CHILD ABUSE & NEGLECT RATE (per 1,000 population under age 18)	-21.7
READING AND MATH SCORES ON THE IOWA TEST OF BASIC SKILLS (ITBS)	
Reading (3rd grade)	0.0
Math (3rd grade)	+18.0
Reading (5th grade)	-1.9
Math (5th grade)	+7.5
Reading (8th grade)	-7.7
Math (8th grade)	+3.8

* High school dropout rate is the percent change between 1996 and 1997; ITBS scores are the percent change between 1993 and 1997.
Source: *1998-99 Georgia Kids Count Factbook*, 1998, Atlanta: Georgians for Children.

The overall improvement in a number of social factors, however, masks the fact that many counties in Georgia are failing to experience much improvement in child and family conditions. For example, although the teen death rate declined overall in the state in the 1990's, as many counties sustained an increase in the teen death rate as those that experienced a decline. For teen births, Georgia as a whole saw the rate decline by 6.6 percent, yet more counties experienced an increase in the teen birth rate compared to the number of counties that experienced a decline.

Notes

4 The Georgia Kids Count Factbook is published by Georgians for Children (1998). The Kids Count Project represents an ongoing effort to describe the conditions of children and families by publishing "outcome measures" on an annual basis. The efforts are funded by the Annie E. Casey Foundation and other private grants.

Table 2
Indicators of Child and Family Well-Being
Changes in Georgia's Counties in the 1990's

LOW BIRTH WEIGHT BABIES	
Counties showing improvement or no change	70
Counties showing a worsening situation	87
Counties in which data was lacking	2
INFANT MORTALITY	
Counties showing improvement or no change	60
Counties showing a worsening situation	34
Counties in which data was lacking	65
CHILD DEATHS	
Counties showing improvement or no change	35
Counties showing a worsening situation	28
Counties in which data was lacking	96
TEEN DEATHS	
Counties showing improvement or no change	25
Counties showing a worsening situation	25
Counties in which data was lacking	109
JUVENILE ARRESTS	
Counties showing improvement or no change	56
Counties showing a worsening situation	92
Counties in which data was lacking	11
HIGH SCHOOL DROPOUT RATE	
Counties showing improvement or no change	92
Counties showing a worsening situation	59
Counties in which data was lacking	8
BIRTHS TO TEENS	
Counties showing improvement or no change	75
Counties showing a worsening situation	84
Counties in which data was lacking	0
FAMILIES STARTING AT RISK OF POVERTY	
Counties showing improvement or no change	67
Counties showing a worsening situation	92
Counties in which data was lacking	0

Source: *1998-99 Georgia Kids Count Factbook*, 1998, Atlanta: Georgians for Children.

To test if the Family Connection program had an impact on children and family well-being, we conducted a statistical analysis of county data in Georgia. Our study attempts to examine the effect of the Family Connection program on child/family well-being, as measured by various quality-of-life outcome measures. Specifically, we attempted to determine if counties which established Family Connection programs in the early 1990's (1992 or 1993) were more likely to see improvement in well-being outcome measures relative to counties which do not have Family Connection programs, or counties which established such programs after 1993. The first wave of Family Connection counties generally received larger grants than later counties to establish their programs. In addition, the programs have now been in existence long enough (six to seven years) to test for any perceivable impact on social outcome indi-

Table 3
Data Definitions

Dependent Variables:	Definition and Source:
Infant Mortality	Percentage change in infant deaths between 1992-94 and 1995-97; Georgia Kids Count Factbook, 1998-99
Births to Teens	Percentage change in births to teen rate between 1992-94 and 1995-97; Georgia Kids Count Factbook, 1998-99
Juvenile Arrests	Percentage change in juvenile arrest rate between 1992-94 and 1995-97; Georgia Kids Count Factbook, 1998-99
High School Dropout	Percentage change in the high school dropout rate between 1991-92 and 1996-97; GA County Guide, College of Agricultural and Environmental Sciences, University of Georgia
Low Birth Weight	Percentage change in low birth weight rate between 1992-94 and 1995-97, Georgia Kids Count Factbook, 1998-99
Family Starting at Risk of Poverty	Percentage change in families starting at risk of poverty between 1992-94 and 1995-97. To be "at risk," a first birth is from a mother who is either less than 20, a high school dropout or unmarried; Georgia Kids Count Factbook, 1998-99
Independent Variables:	
Family Connection County	"1" indicates the county started a Family Connection program in 1992 or 1993; "0" for all other counties; Georgia Policy Council for Families & Children. Fifteen counties established Family Connection programs in 1992 or 1993.
Per Capita Income	Percentage change in per capita income between 1991 and 1996; Bureau of Economic Analysis, Dept. of Commerce
Urban/Rural	"1" indicates the county is part of a metropolitan area, "0" for other counties
Score	Fifth grade Iowa Test of Basic Skills (ITBS) reading percentile score in 1997; Georgia Kids Count Factbook 1998-99
African American	African American percentage of the total county population in 1990; U.S. Census Bureau

cators. The state has 159 counties, which offers a relatively large sample to investigate whether or not the presence of a Family Connection program impacts social outcomes. The model we tested, using linear regression, was of the form:

$$SI = aFC + bX1 + cX2 + \ldots + zXz$$

where the dependent variable SI was a child/family social indicator. The independent variables included a Family Connection (FC) variable and other control variables (X1 to Xz). We collected a cross-sectional data set for all 159 counties in Georgia. Six alternative measures of child/family well-being were considered as dependent variables: infant mortality, births to teens, juvenile arrests, low birth weight babies, families starting at risk of poverty, and the high school dropout rate. All the dependent variables were measured in per-

cent change form. The FC variable was measured as a "dummy variable," "1" indicating the presence of a Family Connection program in the county, "0" indicating the absence of such a program. Control variables included the percentage change in per capita income in the 1990's, an urban/rural dummy variable, a measure of educational achievement, and the percentage of minority population (% of the African American population in 1990). These dependent and independent variables are more fully described in Table 3.

The regression results suggest very little relationship between the existence of a Family Connection program in a county and changes in social indicators. In all six models, FC was not significantly related to the dependent variable based on the t-test for significance in a regression (.05 level of significance). All the models had a relatively low coefficient of determinations (r-squared values), suggesting that only a small percentage of the variation in the dependent variables can be explained by variability in the independent variables.

Table 4
Regression Results

	Coefficient of Determination (r-squared value)	Family Connection Variable (FC)
High School Dropout	.07	Not significant
Infant Mortality	.03	Not significant
Births to Teens	.04	Not significant
Juvenile Arrests	.05	Not significant
Low Birth Weight	.02	Not significant
Family Poverty Risk	.01	Not significant

Implications Of The Study

In the past decade, Georgia has experienced some hopeful decreases in infant, teen and child mortality rates, along with percentages of births to teens and child abuse/neglect cases. High school dropout rates and overall ITBS scores on primary school math and reading also improved moderately, due possibly to an influx of resources from Georgia's Lottery for Education program. However, elementary school reading scores declined, while the percentage of families in poverty and low birth weight babies increased, as well as frequencies of juvenile arrests. Despite improvement in a number of areas, a majority of Georgia's counties have experienced a worsening situation with regard to a number of social indicators, such as the percentage of low birth weight babies, juvenile arrests, births to teens and families starting at risk of poverty.

For social indicators with available county-level data, regression analysis demonstrated no significant relationships between the Family Connection and the dependent variables considered in this study: infant mortality, low birth weight babies, births to teens, juvenile arrests, the high school dropout rate and families starting at risk of poverty. Thus, counties which established Family Connection programs in 1992 and 1993 were no less or no more likely to experience measurable improvement in the quality of life for children and families than counties which have never established such programs or initiated such programs at a later date. Any modest improvements in these social health indicators may be attributed to the state's robust economy, other public policy changes, demographics or other factors not considered in this analysis.

Conclusions: Community Control And Private Sector Involvement, The True Panacea?

It appears that a clear limitation of the Family Connection program has been the limited funding provided to support this approach. The policies of downsized government, community involvement, volunteerism and private sector responsibility have proven to be politically beneficial for government officials and political candidates. However, when these principles were employed in the delivery of a social service program such as the Family Connection, no significant improvements in relevant public health indicators became apparent.

State officials are not inclined to discard programs like the Family Connection, however. Termination, at this time, would likely be premature, as well as politically damaging. Its involvement of the community and aspirations of improving social well-being are sound concepts. Advocates of less government involvement in welfare endeavors undeniably embrace the Program's utilization of the private sector. However, Kolderie (1986) indicates that governments often contract to only one supplier, replacing one sole source with another (in essence, replacing one monopoly with another). Expectations of efficiency through capitalistic competition may be lost, the main reason for privatization in the first place. Often this leads to the concept of "creaming," the delivery of services by the private sector only when it is easy and profitable. This becomes critical in the delivery of social services, whose clients are the impoverished and children who possess little political clout. If, say, all medical services were to truly privatize, the market would then dictate that the indigent would receive no care other than, perhaps, the assistance provided by purely charitable societies.

Consequently, a realistic assessment of the impact of privatization on the Program and its services must occur. The Family Connection needs to continue in order for analysts to determine its ultimate legitimacy. It also requires additional assets from the state for services and monitoring, more than the private sector and community nonprofit organizations are able and willing to commit. After all, when private agencies operate a program, oversight must occur in order to deter corruption and mismanagement. Government has greater control when it owns an operation. Hatry's (1991) findings at the Urban Institute affirm that privatization is not necessarily more economical. New York's privatization of its parking bureau has become a classic example of contracting corruption and incompetence that lead to greater expenses for the city (Bailey 1991). Even the Supreme Court made it abundantly clear in two recent rulings, West v. Atkins and Lebron v. National Railroad Passenger Corporation: "Governments cannot shed their constitutional responsibilities to clients or customers by privatizing" (Shafritz, et al. 2001 p.127). As Daley (1996 p. 631) reminds us, "the failure to put programmatic success first can only relegate privatization to obsolescence."

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Identifying Possible Impediments To Fair Housing In Tulsa, Oklahoma, Using Less-than-perfect Home Mortgage Disclosure Act Data

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Abstract

Studies that utilize Home Mortgage Disclosure Act (HMDA) data reveal more problems than they resolve. HMDA data includes limited variables used by lenders. Even when supplemented with additional information, researchers question their results by hypothesizing additional variables that might account for race. Criteria of adequacy for utilizing HMDA data are proposed that are adequate to the planning task of identifying the effects of impediments to fair housing. While HMDA data provides questionable evidence for discrimination, it provides adequate evidence to determine if a minority population experiences impediments to fair housing. A methodology is derived from a literature review.

Purpose Of The Study

Units of government that submit a Consolidated Plan for Community Development Block Grant, Home, and Emergency Shelter Grant funds are required to certify that they are affirmatively furthering fair housing. This certification requires the unit of government to conduct an analysis of impediments to fair housing choice and to take appropriate actions to overcome the effects of any identified impediments.

One data source recommended by the Department of Housing and Urban Development to test for impediments to lending is Home Mortgage Disclosure Act (HMDA) data. Yet, as one examines studies of impediments to lending that utilize HMDA data, one encounters problems and limitations that appear to render HMDA data inadequate to the task. The HMDA data set includes only a fraction of the variables that lenders appear to use in making lending decisions. Even when researchers have the ability to supplement HMDA data with all remaining variables that seem to be used by lenders, researchers still tend to question the results by hypothesizing additional variables that might be responsible for the significance of race in lending decisions. Moreover, statistical models based on data from natural settings can only reveal patterns of association. They cannot prove the existence of discriminatory intent on the part of individuals or institutions.

The principal purpose of this study is to address these apparent problems and limitations by specifying criteria of adequacy for utilizing HMDA data that are adequate to the task of identifying the effects of impediments to fair housing as defined by federal housing regulations. A critical review of HMDA literature was conducted in order to specify criteria of adequacy and in order to build a model to explore whether or not there are differential lending outcomes based on race. This model was then utilized to test for evidence of the effects of impediments to fair housing based on race in the City of Tulsa, Oklahoma. The HMDA Public Transmittal Sheets for the Tulsa MSA for 1990 through 1994 and census tract information from the 1990 U.S. Census for Tulsa were utilized. Finally, the results for housing policy will be discussed.

Developing Criteria Of Adequacy For Identifying Effects

Many concepts and procedures of measurement in natural and social science were invented to solve practical problems rooted in social purposes (Duncan, 1984). In a like manner, the conceptualization and measurement of lending discrimination evolved in the political conflict between lending

institutions and community activists over lending disclosure.

In the original Home Mortgage Disclosure Act in 1975, HMDA data consisted of census tract level reports of the number of mortgages and the aggregate dollar amounts of lending. Instead of enabling a well-defined test for lending discrimination, this approach expanded the universe of alternative explanations that could be used to discount any findings of racial discrimination that might be found in a community.

First, lending data reported as the aggregate number of loans or dollar amounts in a census tract forces researchers (Casey, 1980; Shlay, 1989, 1989; Hula, 1991; Galster, 1992; Galster and Hoopes, 1993; Shlay et al., 1992; Perele et al., 1994; and Turner and Skidmore, 1999) to conceive of differential lending outcomes as redlining — discrimination based on the racial or economic characteristics of an area. However, Munnell et al. (1996) and Tootell (1996) have argued that redlining so conceived and measured confounds discrimination based on the racial or economic make-up of an area with discrimination based on the characteristics of individual loan applicants. If one treats the census tract as one's unit of analysis and tests for evidence of redlining, one is left with the problem of trying to interpret the evidence for redlining as discrimination against an area, a loan applicant, both, or possibly neither.

Second, discrimination in lending is probably best tested as a rate of loan approval (Benston, 1981; Ingram and Frazier, 1982; Leven and Sykuta, 1994; Munnell et al., 1996; Tootell, 1996). By reporting only the number and aggregate dollar amount of loans, the total number of loan applications required to calculate a loan rate is missing. Typically, Casey (1980), Shlay (1988, 1989), Hula (1991), Galster (1992), Shlay et al. (1992), and Perle et al. (1994) used either the quantity of lending in number of loans originated or aggregate dollars of loans originated as the dependent variable in their studies. As they noted in various ways, the quantity of lending in a census tract must be standardized by the number of housing units or the number of owner-occupied units in a census tract. Notably, Shlay (1989) found that most studies used the log of the standardized lending volume because such models better fit the data in terms of the R^2 criterion. This would point to a rate embedded in lending volume as a dependent variable. Without a loan rate, a low loan volume found in a minority area could be countered by the argument that few persons applied for loans rather more loan applications were rejected.

Third, if lending volume is reported by census tract, a model to test whether the racial composition of a census tract affects lending must control for the housing and population characteristics that might affect lending decisions (Shlay, 1988, 1989; Hula, 1991; Galster and Hoopes, 1993; Perle et al., 1994). The problem with interpreting the effects of these variables is created by confounding the effects of characteristics of loan applicants and of areas of applicant properties when both are embedded in variables that are measures of characteristics of census tracts. Some variables — such as the percent of vacant or vacant for sale single family detached units — seem to be most related to the characteristics of an area. Other variables — such as the median household income of a census tract — are characteristics of both an area and individual loan applicants. This creates an indeterminacy that opens the interpretation of findings to challenge. As Tootell (1996) notes, this indeterminacy can only be resolved by including in the same model both variables measuring characteristic of census tracts and variables measuring characteristics of individuals.

Finally, if one uses HMDA data organized by census tracts and fits models of lending outcomes utilizing population and housing characteristics by census tract to make inferences about individual discrimination, one immediately is open to being challenged on the grounds of an ecological fallacy.

In 1989, Congress passed amendments to the HMDA that required lenders to re-

port the following: the location of properties for which loans were applied; the location of properties for which loans were approved; type, purpose, and amount of loan; race, sex, and income of applicant; race and sex of coapplicant; and reason for loan denials. On the one hand, the new HMDA data set allows one to calculate loan approval rates for areas and to model the odds of loan approval for individual applicants. It provides some individual loan applicant variables as well as census tract information to allow one to test for both redlining and individual discrimination in lending. On the other hand, the data set provided in HMDA data still does not provide a comprehensive set of variables used by lenders to assess the loan worthiness of a loan applicant (Casey, 1980; Benston, 1981; Ingram and Frazier, 1982; Leven and Sykuta, 1994; Turner and Skidmore, 1999). Two articles (Munnell et al., 1996; Tootell, 1996) published from a Boston Federal Reserve Bank study conducted in 1992 included over forty variables used by lenders obtained from the Boston Federal Reserve Bank's own survey to supplement HMDA data. Although both of these studies found differential outcomes based on race, they represent studies that cannot be conducted from HMDA data alone. A researcher using HMDA data is still left with an incomplete data set that leaves a finding of differential outcomes based on race still open to challenge on the basis of a spurious relationship between race and lending practices.

In response to the Boston Federal Reserve Bank study, Becker (1993) questioned the validity of studies of loan approval or denial rates by noting that underwriters determine lending criteria based on loan default rates. In response, Ross and Yinger (107-127 in Turner and Skidmore, 1999) observed that the default approach would still have potential problems of biased findings if all variables that influenced default were not included in the study. Furthermore, there are no guarantees that the factors included in underwriting criteria are necessarily used by the lender at the time of loan approval or denial. They conclude that the loan denial approach can yield an acceptable test of the hypothesis that discrimination exists in the mortgage market.

Every study is open to methodological challenge. One can always claim that there might be some variable missing from a model that renders the resulting relation between dependent and independent variables spurious. Within the universe of available methods and data, methodological criticism makes practical sense. However, one often hears or reads methodological challenges that ask for additional data or modifications to methods that are beyond what is practically available to a researcher. At some point, such lines of questions become what Toulmin (1970, p. 205) called a limiting question:

> . . . the way of answering suggested by the form of words employed will never completely satisfy the questioner, so that he continues to ask the question even after the resources of the apparent mode of reasoning have been exhausted.

By continuing methodological criticism in the mode of a limiting question, the questioner is asking for a level of certainty that does not exist within practical parameters. At that point, the criticism becomes an ad hominem argument.

In Cosmopolis, Toulmin (1990, p. 137) suggested a different level of adequacy in the following statement:

> Our revised account may or may not stand up to further factual examination, but at least it is based on circumstantial observations and plausible interpretations.

Here, Toulmin claims that, although always open to challenge in the face of further evidence, a study is adequate if it is consistent with the available evidence and if the interpretation of the available evidence is plausible. While such criteria of adequacy cannot guarantee certainty, they provide guidelines for the practical use of experience.

For the purpose of this study, Toulmin's criteria of adequacy means that one can test for the possible presence of differential lending activity based on race, sex, and other characteristics using the best data available to any researcher: the HMDA Public Transmittal Sheet records. Most researchers would not be able to use the methodology used in the Boston Federal Reserve Bank study either because they might not be able to get the cooperation from lending institutions in the same manner as a branch of the Federal Reserve Bank or because they might not be able to fund such a survey. While there are methodological reasons for believing that studies based on HMDA and census data alone might overstate the presence of differential lending activity based on race, there are no studies that conclusively demonstrate that the overstatement is directionally an incorrect statement (Turner & Skidmore, 1999). Furthermore, Toulmin's approach obligates the researcher to use the best approach of modeling and testing available to one. Beyond this, a reasonable methodological challenge to a study is practically moot.

The real challenge to a study alluded to by Toulmin is a substantial challenge to the adequacy of a study provided by further factual examination. In this case, it would mean that someone would have to conduct another study and argue that it provided evidence of a different outcome. Within the limits of plausible interpretations and circumstantial evidence proposed by Toulmin, one can review studies of redlining for plausible interpretations and use HMDA data as evidence to build a test model for differential outcomes in lending based on race.

As noted earlier, statistical models can only demonstrate association among variables. Even if all practically available variables are used to model lending decisions, only statistical relations are demonstrated. One is not proving discrimination — intentional or unintentional — on the part of lending institutions. However, it is not necessary to demonstrate discrimination or even the source of an impediment to fair housing to meet the certification to affirmatively further fair housing because the purpose of the analysis is to overcome the effects of impediments. All one must do is provide evidence of an effect of an impediment to fair housing by demonstrating that a statistically significant differential lending outcome associated with race, sex, or other indicators of protected populations exists.

This finding may be spurious or caused by intervening variables. But if all relevant variables are appropriately included in a model, one can control for such prior or intervening variables. Given the limited variables in HMDA data and U. S. Census data, all relevant variables are probably not available. But, if one is simply testing for differential outcomes or effects associated with indicators of populations, it is not necessary to control for all possible spurious or intervening variables. Even if one assumes that the relation between an indicator of a protected class and lending outcome is cause by an unknown prior or intervening variable not included in the model, the prior or intervening variable and the indicator of a protected class are associated. The effect of prior or intervening variables on lending outcomes is tied to the indicator of a protected class. Whether indicators of a protected class or other associated variables are the truly significant factors associated with differential lending outcomes, the effect is that the protected class experiences an impediment to lending. Having established that, it is still important to identify the nature of the impediments to fair housing affecting a population as accurately as possible in order to develop policies that are effective in furthering fair housing.

Building the Model

To build a model based on HMDA data, Munnell et al. (1996) and Tootell (1996) have identified two categories of independent variables to test for differential outcomes based on race: (1) those associated with characteristics of census tracts containing properties for which loan applications

are being made and (2) those associated with the individual characteristics of loan applicants and their households. Studies (Shlay, 1988, 1989; Hula, 1991; Galster and Hoopes, 1993); Perle et al., 1994) that examined the characteristics of census tracts most often found the following variables to be statistically significant in predicting loan approval: the median family income, the percent of owners who had lived in a different house five years ago, the percent of vacant or vacant for sale single family detached units and condominiums, the percent of households composed of married families with children under eighteen years of age, and the percent of owner occupied units. Less often median home value was found statistically significant. Another variable that could have relevance for a census tract is the median age of housing. Several researchers (Casey, 1980; Benston, 1981; Ingram and Frazier, 1982; Leven and Sykuta, 1994) treated the age of a house in terms of depreciation and housing condition. However, the age of a house could also be considered in terms of taste. These independent variables for census tract characteristics were included in the model in this study.

Two approaches have been developed to define the racial composition of a census tract for purposes of testing for differential lending outcomes. Most studies based on data organized by census tracts define race as the percent of minority population in a census tract. However, Shlay (1989), Galster (1992), and Masset et al. (1994) have argued for the importance of reflecting racial tipping and transitional neighborhoods. In Tulsa, the percent of owner occupied units in which African Americans reside gradually increases from none to fifteen percent. Then, the distribution jumps to thirty-three percent and rapidly increases to one hundred percent. The census tracts containing thirty-three percent or more African American households among owner-occupied units are contiguous and will be entered in the model as a categorical independent variable assigned a value of 1 if the census tract is in the African American area and 0 if it is not.[1] Surrounding the African American area is a boundary area containing four of the five census tracts with ten to fifteen percent African American households among owner-occupied units and 23 of the 39 non-African American census tracts with median household incomes in the same income range as the African American area ($8,583 to $22,773). Census tracts in the boundary area are contiguous and will be entered in the model as a categorical independent variable assigned a value of 1 if the census tract is in the boundary area and 0 if it is not.[2]

Studies (Casey, 1980; Benston, 1981; Ingram and Frazier, 1982; Leven and Sykuta, 1994; Munnell et al., 1996; Tootell, 1996) that examined the characteristics of individual loan applicants and their households tended to focus on loan-to-income, loan-to-value, credit history, consumer history, mortgage history, tenure in current employment, tenure of coapplicant in current employment, occupation, years to loan maturity, annual rate of loan, life of the dwelling without major rehabilitation, first time buyer, private mortgage insurance approval, special programs, and secondary market loan. However, most of these variables are not available in HMDA data. Therefore, an indicator variable for the applicant's race (1 if African American, 0 if not), sex (1 if female, 0 if not), and number of applicants (1 if an applicant and coapplicant, 0 if applicant only) and continuous variables for the applicant's income and loan to income ratio were used to model loan approval for the individual applicant.

Since the decision to originate a loan is a dichotomous, categorical outcome, a logistic regression model (Nester et al., 1989; Agresti, 1990; Menard, 1995; Long, 1997) was developed to test for differential outcomes based on race with lending outcome as the dependent variable. If a loan was originated or approved but not accepted, the loan outcome variable was assigned a value of 1. If the loan was denied by the financial institution, the loan outcome variable

was assigned a value of 0. Rather than using the ordinary least squares method of fitting a model that is common with continuous, normally distributed dependent variables, logistic regression models — including the models fitted in this study — tend to use maximum likelihood estimators to fit a model because of the distribution of the dichotomous outcome variable.

In a critique of redlining studies, Shlay et al. (1992) observed that housing markets are local in nature. Galster and Hoopes (1993) demonstrated this by showing that different models fit lending behavior in different cities. Therefore, a model cannot necessarily be fully specified before the fact of the study. Accordingly, a comparative approach to the study of redlining that explores all suggested approaches to modeling the relation between race and lending outcomes needs to be used to explore the exact nature of the distribution of lending effects by race, sex, and other areas covered by the requirement for an analysis of impediments to fair housing choice. Therefore, four different models in which the natural logarithm of the odds of loan approval are a function of independent variables were fitted and are reported in Table 1. First, a model with the racial composition of a census tract defined as the percent of minority population in the census tract, with no interactions, and with all other dependent variables was fitted. Next, a similar model was fitted, but it used the racial composition of a census tract defined by an indicator variable for census tracts in the African American area and an indicator variable for census tracts in the boundary area. Finally, using these two schemes, two more models were fitted with additional independent variables reflecting the interaction of the area racial composition variable(s) with other census tract variables and the interaction of the race of the loan applicant with other variables associated with individual loan applicants.

Several adjustments were made to the data to control for variables not included in the model, to increase comparability between African American loan applicants and non-African American loan applicants, and to ensure the linear nature of continuous independent variables. First, to control for the possible effects of census tracts being in the central city versus suburbs and to control for the natural growth of areas of new construction versus areas of existing housing, only census tracts and loan applications in the City of Tulsa in census tracts with fewer than ten building permits issued for new residential construction in either 1990 or 1991 were included in the data set.[3] Second, since the middle four standard deviations of income of African American loan applicants were contained under $70,000, only loan applicants with incomes under $70,000 were included in the data set. Since the loan to income ratio increased geometrically for loan applicants with incomes of $10,000 or less, only loan applicants with incomes over $10,000 were included in the data set. Since loans originated or approved but not accepted and loan applications denied are the only lending actions that clearly imply an active lending decision, loan applications withdrawn by applicants or closed for incompleteness were excluded. Finally, only loan applications to purchase homes that were owner-occupied as principal dwellings were considered. The final data set included 2,270 cases.

Findings

From Table 1, the measure of multiple association between independent variables and the dependent variable, R_L^2, is relatively weak. The proportional reduction in the absolute value of the log-likelihood measure is as follows: 0.073 for Models 1 and 2, 0.080 for Model 3, and 0.095 for Model 4. If one were to select the best fitting model based on R_L^2, it would be Model 4. The measure of the proportion each model reduces error of classification of cases, (p, is moderate. The proportional reduction in the error of classification of cases is 0.371 for Model 1, 0.378 for Model 2, 0.392 for Model 3, and 0.405 for Model 4.

TABLE 1
Four Logistic Regress Models of Factors Affecting the Lending Decision

CHARACTERISTICS OF APPLICANTS							
Model 1		MODEL 2		MODEL 3		MODEL 4	
Variable	Re-gression Coefficient	Variable	Re-gression Coefficient	Variable	Re-gression Coefficient	Variable	Re-gression Coefficient
African Am. Appli cant indicator	-0.7472*	African Am. Appli cant indicator	-0.6878*	African Am. Appli cant indicator	-0.2774	African Am. Appli-cant indicator	-0.4217
				Interaction of African Am. applicant indicator with.		Interaction of African Am. applicant indicator with.	
				Sex Ind.	-1.3365*	Sex Ind.	-1.3367*
				Two app. Ind.	-1.7217*	Two app. Ind.	-1.9376*
				Income	0.0358	Income	0.0524*
				Loan to inc.	-0.1894	Loan to inc	-0.2386
Sex Indicator	0.2737*	Sex Indicator	0.2664	Sex Indicator	0.3863*	Sex Indicator	0.3857*
Two applicants indicator	-0.2716*	Two applicants indicator	-0.2692*	Two applicants indicator	-0.1582	Two applicants indicator	-0.1734
Income	0.0380*	Income	0.0378*	Income	0.0369*	Income	0.0368*
Loan to income	0.3480*	Loan to Income	0.3312*	Loan to Income	0.3707*	Loan to Income	0.3565*
Minorities per thou-sand hse	-0.0005	African Am. census tract indicator	-0.4660	Minorities per thou-sand hse.	-0.0029	African Am. census tract indicator	5.5216
				Interaction of Minorities per thousand hse. with:		Interaction of African American indicator with:	
				Median family income	-0.0000	Median family income	0.0000
				Owners	-0.0000	Owners	-0.0144

If one were to select the model that most improved the efficiency of classification of cases as approved or rejected loans, it would be Model 4. While the magnitude of the measure of multiple association and of efficiency of classification are similar for all four models, the ordering of the four models by goodness of fit and by efficiency of classification is the same. Therefore, Model 4 will be deemed to be the best fitting model.

The variables in Model 4 that are statistically significant at the .05 level or better as assessed by the Wald statistic are: sex, loan to income, income, owners per thousand households in the census tract containing the property, families per thousand households in the census tract containing the property, median age of housing in the census tract containing the property, the boundary census tract indicator, and interactions

TABLE 1
(continued)

				Movers	0.0000	Movers	0.0069
				Median age of housing	0.0000	Median age of housing	-0.0622
				Median value of hse	0.0000	Median value of hse	0.0002
				Families	0.0000	Families	-0.0047
				Vacant for sale	-0.0000	Vacant for sale	0.0047
		Boundary census tract indicator	-0.1312			Boundary census tract indicator	10.8959*
						Interaction of Boundary Indicatory with:	
						Median family income	-0.0000
						Owners	-0.0067
						Movers	-0.0160*
						Median age of housing	-0.0044
						Median value of hse	0.0000
						Families	-0.0048
						Vacant for sale	-0.0008
Median family income	-0.0000	Median family income	-0.0000	Median family income	-0.0000	Median family income	-0.0000
Owners	0.0022*	Owners	0.0022*	Owners	0.0024*	Owners	0.0039*
Movers	0.0005	Movers	0.0005	Movers	0.0005	Movers	0.0011
Median age of housing	0.0121	Median age of housing	0.0144*	Median age of housing	0.0091	Median age of housing	0.0150*
Median value of hse	0.0000	Median value of hse	0.0000	Median value of hse	-0.0000	Median value of hse	-0.0000
Families	-0.0019*	Families	-0.0018*	Families	-0.0020*	Families	-0.0023*
Vacant for sale	-0.0011	Vacant for sale	-0.0005	Vacant for sale	-0.0011	Vacant for sale	-0.0025
R_L^2: 0.073 ρ: 0.371		R_L^2: 0.073 ρ: 0.378		R_L^2: 0.080 ρ: 0.392		R_L^2: 0.095 ρ: 0.405	

* Wald statistic is significant at the .05 level.

of African American applicant indicator by the applicant sex indicator, African American applicant indicator by the indicator for two applicants, African American applicant indicator by the applicant's income, and the boundary census tract indicator by the number of owners in the census tract containing the property who had lived in a different house five years ago per thousand owners.

As Munnell et al. (1996) and Tootell (1996) found, the race of the applicant rather than the racial composition of the area in which a property is to be purchased is the racial variable that affects loan outcome. However, unlike Munnell and Tootell, the race of the applicant interacts with the sex of the applicant, the number of persons making the application, and the income of the applicant. These interactions could reflect some of the other variables from the Boston Federal Reserve Bank study used by Munnell et al. (1996) and Tootell (1996). All other variables being equal, sole loan applicants that are African American females are predicted to be more likely than any non-African American applicant to receive loan approval with incomes over $25,510 and less likely with incomes less than $25,510. African American applicants that have two persons applying for the loan with a male as the principal applicant — all other variables being equal — are predicted to be more likely than any non-African American applicant to receive loan approval with incomes over $36,980 and less likely under that income. African American male applicants who are sole applicants are predicted to be more likely than any non-African American applicant to receive loan approval over the entire income range in this study. They are predicted to be almost twice as likely as any non-African American to receive loan approval at the lowest income ($11,000) and thirty-seven times more likely at the highest income ($69,000). These findings are in the opposite direction of the findings of Cloud and Galster (1993) and Yinger (1995), who found that African Americans have comparable loan approval rates to non-African Americans in lower income ranges and lower loan approval rates in higher income ranges. However, Turner and Skidmore (1999) report that reversed results were found between two different regions of the country even when paired tester methods were used.

If one examines the African American population of loan applicants, thirty-two percent are sole male applicants, thirty percent are sole female applicants, thirty-four percent are two applicants with the male as the principal applicant, and four percent are two applicants with the female as the principal applicant. All other variables being equal, sole-African American male applicants are predicted to be almost four times more likely than sole-African American female applicants to receive loan approval. Sole-African American female applicants are predicted to be almost twice as likely to receive loan approval as two applicants with the male as the principal applicant. Since none of the models in Table 1 include variables measuring credit history or debt to income and since households with more persons at the same income level tend to have more expenditures (U. S. Department of Labor, Bureau of Labor Statistics, 1993), this ordering is possibly reflective of increased debt associated with children and increased household size.

All of the studies reviewed for this study and the interpretation of the findings of this study to this point have adopted a ceteris paribus strategy to test for the unique contribution of race to loan approval rates. However, when one examines the significant variables other than race for Model 4, one finds that the mean level of several variables for African Americans and for non-African Americans are not similar. While African American loan applicants have average incomes of $27,920, non-African American loan applicants have average incomes of $34,280. In African American census tracts, there is an average of 595 owner occupied units per thousand occupied. In non-African American census

tracts, there is an average of 696 owner occupied units per thousand occupied households.

For African American loan applicants and for applicants for housing in African American census tracts, these differences in the average level of these variables are significant. If the average income of African American applicants were the same as non-African American applicants, the predicted odds of loan approval for African American loan applicants would be seventy-six percent higher. If home ownership were as concentrated in African American census tracts as in non-African American census tracts, the predicted odds for loan approval for a property in an African American census tract would be fifty percent higher.

Policy Implications And Conclusion

The populations that seem to experience diminished lending outcomes in this study cannot be described by single variables alone. Therefore, housing policies cannot be built on simple income or racial categories. To address the situation in Tulsa, one would need to target housing assistance for home ownership to female, African American sole loan applicants with incomes less than $25, 510 and to African American applicants that have two persons applying for the loan with incomes less than $36,980. Depending on the number of persons in the household, assistance provided under the definition of low to moderate income families under Department of Housing and Urban Development guidelines may not be available to those applicants on the upper end of these income categories.

Although a policy addressed to these two populations of loan applicants might resolve the problem of diminished lending outcomes for these populations ceteris paribus, these populations of loan applicants do not exist ceteris paribus as individuals alone. They exist in racially and economically segregated communities (Shevsky and Bell, 1955; Berry and Kasarda, 1977). As noted above, African Americans as a population have lower mean incomes than non-African

Americans. Home ownership in predominantly African American census tracts is lower than in predominantly non-African American census tracts. To address the problem of diminished lending outcomes in the predominantly African American area, one would need to develop policies to increase the income levels of African Americans or to offset the lower income levels with lending programs to address the problem of lower incomes. Similarly, home ownership programs need to be targeted for the predominantly African American area to addressed the diminished lending outcomes associated with lower concentrations of home ownership in that area.

Finally, the approach of this study implies a different policy approach to addressing effects of impediments to fair housing choice than that implied in the literature reviewed for this study. Most of the literature reviewed for this study focused on finding evidence for discrimination in lending. Focusing on this legally threatening issue invites a demand for a level of certainty that is not practically possible. It encourages a proliferation of speculation about potential variables not included in a model as alternative hypotheses explaining evidence of discrimination. It leads to a ceteris paribus approach that ignores differences in populations that have real effects on racially and economically segregated neighborhoods. In its extreme form, it leads to a possible justification of differential lending treatment by identifying default rates uniquely attributable to race. The approach suggested in this study shifts the emphasis to identifying populations that experience differential outcomes or effects with respect to lending. Policies and programs can be crafted to assist populations overcome effects without necessarily addressing causes that are difficult to specify. By adopting this approach, the problems of unattainable levels of certainty and limited access to variables can be addressed.

Notes

1 The census tracts excluded from consideration for this reason in this study, using the 1980 census tract numbering configuration, are: 10, 50.02, 67.04, 73.06, 73.07, 74.03, 75.05, 76.01, 76.03, 76.04, 76.05, 76.06, 76.07, 90.05, and 101.

2 The predominantly African American area includes census tracts 2, 5, 6, 7, 8, 9, 57, 61, 62, 79, 80.02, and 91.01.

3 The census tracts include (in 1980 configuration): 1, 3, 4, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 46, and 80.01. The exceptions falling outside of the edge of the predominantly African American area are census tracts 31, 34, 35, 48, 49, 50.01, 59, 67.01, 68.01, 69.05, 71.01, 81, 86, 88, 90.02, and 90.04.

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Rational Choice Among Koreans Immigrants And Mexican Americans In South Texas

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Abstract

The immigration of Koreans into the United States has been steady since changes in the immigration policies beginning in the middle of the 1960s. Most literature on the Korean immigrants centers on their social and economic adaptation to American urban life and their strained relations with African Americans. This paper examines the Koreans in a predominantly rural South Texas community and their relations with Mexican Americans. Rational choice theory best explains why the Koreans immigrated to a destination to which they have traditionally avoided. For the Korean immigrants it was simply weighing the advantages against the disadvantages. The Mexican origin population, which comprises more than 80 percent of the population has suffered endemic unemployment and extreme poverty. For the Koreans this population is essential because it will always provide a large pool of cheap labor. Since Koreans are engaged in small business, labor cost increases would be detrimental to their economic viability. What could be perceived as exploitation by some is the only way small business entrepreneurs can survive.

Introduction

Koreans are one of the fastest growing ethnic groups in the United States. As Takaki notes since the passing of the Immigration Reform Act of 1965, Koreans have increased their population dramatically (1990). He states,

> Before the Immigration Act of 1965, Koreans were so small numerically and so spread out geographically they were a hidden minority. But the new Korean immigration has led to the dramatic emergence of Koreans as a very visible group in America, the Korean population having jumped from 10,000 in 1960 to half a million in 1985 (1990:436-437)

As the literature on economic sociology, particularly ethnic economies, suggest, "large and lucrative ethnic economies require strong entrepreneurial capacity. Entrepreneurial capacity means a group's ability to exploit demand conditions" (Light and Karageogis 1994:663-64). It is generally assumed that economic expansion and search of new markets is a main feature of capitalist economies.

Thus, I suggest that Korean entrepreneurs must seek new market locations to expand in order for their businesses to remain lucrative. Following this line of thought, Korean entrepreneurs will depend on earlier successful economic practices when searching for new markets.

This paper provides an illustration of the economic sociology perspective on ethnic economies by investigating a small community where Korean entrepreneurs have settled and developed successful businesses. This paper relies on rational choice theory to explain the selection of this small community along the U.S. Mexico border. The focus of this paper, then, centers on Korean entrepreneurs in McAllen, in the County of Hidalgo, Texas. In particular, social interactions between Korean entrepreneurs and the community are explored, primarily through their interactions with their employees and customers. I suggest that the tenets of rational choice theory provide an excellent theoretical framework and lens through which to analyze the social and economic relationships that have developed between Koreans and the local Mexican and Mexican American population.

Background: Early Korean Settlement In Hidalgo County

According to an interview with one of the Korean community leaders, the first Koreans began immigrating to Hidalgo County in the mid-1980s. Relatively isolated South Texas would appear to be an unsuitable destination for migration with high unemployment and poverty levels. The local population is primarily Mexican American/Mexican national with 13.6 percent non-Hispanic whites (U.S. Census Bureau, 2000).

The Koreans in South Texas are recent newcomers to the area and due to the relative geographic isolation of the region in deep South Texas the population has had little contact with East Asians (with the exception of a growing East Indian professional group). Racially, culturally and linguistically they stand apart from the native population.

Research Focus

The central question guiding this research is: why did the Koreans choose to migrate to a vastly different area from the major urban centers to which they customarily migrate? It is noted that San Antonio, the largest city in South Texas, is 250 miles away. For purposes of this exploratory research I suggest that McAllen, the city in Hidalgo County where the study was conducted, for Korean economic purposes is no different from other economically disadvantaged areas such as South Central Los Angeles or Harlem where the Koreans were able to develop flexible economic structures capable of successfully adjusting to the economic conditions of the area. A cursory review of the socio-economic conditions of South Texas (Maril 1989) suggests that three significant factors account for the attractiveness of the area to the Koreans: a) a large pool of unemployed workers; b) inexpensive (when compared to Los Angeles or New York) rental properties in the old commercial center of McAllen (Texas Department of Economic Development 1997); and c) close proximity to Mexico which provides a large market of shoppers looking for inexpensive merchandise. Eighteen percent of the four million Mexican tourists that visit Texas shop in McAllen (Texas Department of Economic Development 1996). They spend millions in retail sales, food and entertainment (Texas Department of Economic Development 1996).

Koreans have demonstrated ability in recruiting local minority populations to work at low income, usually minimum wage jobs, generated by their business investments (Ableman and Lie 1995, Freer 1994, Light and Bonacich 1991, Min 1991. Korean relations with their local employees and customers have been, at times, fraught by ill feelings, that sometimes have led to violence as for example happened during the Rodney King riots in Los Angeles (Johnson et al. 1999).

Based on the above findings from Abelman and Lie (1995), Light and Bonacich (1991) and Min (1991) a second question is posited for investigation: what is the local perception of Korean-run businesses among the South Texas population? I recognize two plausible situations. First, the local South Texas population could indicate some level of resentment, as their counterpart did in Los Angeles, about Korean Businesses. Or, second, the local population may perceive the Korean businesses of South Texas as providing employment for an economically depressed area.

Rational choice theory is employed here to provide the conceptual basis of analysis. Following the central tenets of this theory it is argued that South Texas provides a good location for Korean immigrant businesses. Since rational choice is based upon weighing the advantages against the disadvantages in making choices (Collins 1994), it is assumed that in finding the right area for a business investment, Korean immigrants will weigh the advantages and disadvantages of the business location.

It is suggested in particular, the city of McAllen provides a very suitable location because of its geographical centrality and economic importance to the region. Accord-

ing to the statistics of the Census Bureau, McAllen has the largest population among all the cities of Hidalgo County (U.S. Census Bureau, 2000). Retail sales amount to more than a billion dollars with more than three hundred business establishments. I assume that these conditions did not go unnoticed by the Korean entrepreneurs since according to the Census Bureau, the city has the largest number of Koreans in deep South Texas (U.S. Census Bureau, 2000).

Research Design And Method

The research design employed in investigating the questions of the study relies on ethnographic methods. The ethnographic technique of data collection has been an important part of the social sciences and has produced some remarkable urban studies (example, Gans 1982[1962], Liebow 1967, Suttles 1968, Whyte 1993 [1943],etc.). As Suttles notes, participant observation allows for a sense of intimacy with the community. He states, "When observing from a great distance, one is apt to invent all sorts of irrational mental mechanisms to account for the behavior..."(Suttles 1968:12). It was my desire to observe first-hand the interaction between the Koreans and Mexicans.

Prior to the collection of the data, the entire downtown area was mapped to ascertain the extent of the Korean businesses. The store location in relation to each other was important because the closer the store the greater facility for mutual cooperation. The mapping showed that all the stores were in close proximity to each other (See Appendix).

Participant observation and informal interviews were the main data collection techniques. A questionnaire was developed to elicit responses specifically dealing with Korean relations with the Mexican population. Included as part of the interview schedule were demographic information concerning the Korean migrants to McAllen, unavailable through other sources.

As mandated by the objectives of the study, informal interviews were also conducted with the Mexican origin population. This is in line with the second postulated objective, which aims at investigating attitudes and perceptions by the local population concerning Korean businesses in their community. It follows that the overall purpose was to find not only what the Koreans think of the Mexicans but also what the Mexicans thought of the Koreans. The collection of this type of information was important because it relates to the main research questions.

Inventories were made of the type of goods the Korean merchants had for sale. It was important to discover what kinds of goods were offered for sale, their origin of manufacture, and price. Based on my review of the literature (Hurh, Kim and Kim 1979; Jo 1992 and Kim 1981) I hypothesized, that the profitability of the Korean stores is dependent on the sale of inexpensive goods.

Setting: The City

The location of the study was conducted in Hidalgo, county, located in the Lower Rio Grande Valley, twenty miles north of the Mexican border. Eighty five percent of the 569,463 residents of Hidalgo County are Mexican origin (U.S. Census Bureau, 2000). According to 2000 U. S. census figures, Hidalgo County had 253 Koreans.

Hidalgo County is a traditionally disadvantaged area. It is one of the most economically depressed areas in the United States (Maril 1989). There is little if any industry on the American side of the border. On the Mexican side of the border there are maquiladoras, or assembly plants established by American industrial giants which benefit from Mexican low wages (Texas Department of Economic Development 1997). The economy is geared towards agribusiness, tourism and retail. During the winter months, thousands of elderly visitors from the northern states converge on the area to take advantage of the weather and lower cost of living (Texas Department of Economic Development 1997).

The unemployment rate in Hidalgo

County continuously hovers about 18%, one of the highest in Texas (U.S. Census Bureau). Maril states, "The Mexican Americans of the Lower Rio Grande Valley of Texas are among the poorest people in the United States"(1989:4). The per capita income level, $10,085, (U.S. Census Bureau 1996), makes the area one of the most economically deprived areas in the country. According to the 1990 U.S. Census statistics, half of the children 5 years and under live below the poverty line. It is a part of the United States characterized by economic deprivation and for those living in the colonias their standard of living is closer to the third world than the first (Texas Natural Resource Conservation Commission 1997).

The educational attainment of the local population is one of the lowest in the country. Less than fifty percent of the persons 25 years and over in 1990 had a high school diploma (U.S. Census Bureau 1996).

Rational/Utilitarian Model

I have chosen what Collins calls the rational/ Utilitarian tradition (1994, p.121) to guide the inquiry and illustrate the findings. Klandermans commenting upon the importance of the model states, "A rational-choice framework...provides a device for the systematic analysis of the variety of beliefs, expectations and attitudes..."(1984:585). This perspective includes the work of scholars like, Homans (1961), Blau (1964), Hechter (1983) and Coleman (1992). Although there is some disagreement concerning the focus and tenets of rational choice theory, the underlying bond is exchange. Coleman emphasizes Münch's writing when noting that, "...basically an economic transaction that is guided by the actor's rational choice between alternative outcomes of an outcome taken in terms of its benefits and costs..."(1992:138). The rational/utilitarian model rests on the belief that human beings attempt to make choices they expect will maximize their rewards and/or minimize their costs. In other words people will always try to increase their advantages and decrease their disadvantages.

Exchange is key to understanding this theoretical perspective. Collins states "Exchange operates according to an underlying principle: if I give something to you, you should give something of equal value in return" (1994:139). Exchange is not limited to just the choice of individuals but groups as well. Blau states, "Social exchange, broadly defined, can be considered to underlie relations between groups as well as individuals..." (1964:4). The action is predicated on the belief that it is beneficial to the individual or groups involved. Based then on the idea of exchange, I have assumed that Koreans migrating to such an isolated and disadvantaged area must be receiving something of value in return. Following this perspective allows us to explore the two major questions raised by this investigation, to wit, the exchange patterns that have been established and that constantly re-establish themselves in a dynamic exchange between Koreans and the Mexican origin population.

Korean And Mexican Relations

According to interviews, Koreans in McAllen had lived in the U.S. on the average about 15 years, yet their average stay in McAllen was only 6 years. The discrepancy between the number of years in the U.S. and their shorter period of residence in McAllen can be explained by the fact that most Koreans first migrated to areas with large Korean populations like Chicago (Yoon 1997) or Los Angeles (Light and Bonacich 1991). Barringer states, "Asian Americans were the most urban of any group, with almost 94 percent living in urban areas" (1995:109).

According to data collected in interviews with Korean study participants, here limited to small business owners of variety stores in the "old downtown of McAllen", most of the Koreans living in McAllen are married with an average of two children per family. The average age of the children is 11 years, which means most of the children were born in the United States.

As the literature indicates (Hurh and Kim 1984, Kim 1981), children are an important part of traditional Korean culture and in the context of small businesses they become a source of unpaid labor.

Detailed record reviews at the McAllen Chamber of Commerce showed that there were 40 Korean owned businesses in the downtown area. Although for the purposes of this study, only Korean owned variety stores were the focus of the study, Koreans also engage in the restaurant business and fingernail salons. The same above records indicate that the location of all Korean businesses is in the older southern part of the city where property values are less expensive. The city is rapidly expanding northward where the more up-scale housing subdivisions are located.

Several key factors are important in understanding Korean and Mexican American economic relations in McAllen. The kinds of work Koreans do emphasize self-employment, long hours, and family involvement. Yoon states,

> Korean immigrant businesses are labor intensive. Korean merchants put in extremely long hours and usually even work on Sundays. The average working hours of Korean merchants in our sample is 62 hours a week. Faced with small profit margins and severe competition from fellow Koreans, Korean merchants work very long hours and use unpaid family labor to survive (1991:313).

As is well documented in the literature (Ableman and Lie 1995, Choy 1979, Lee 1992 and Light and Bonacich 1991), for Koreans their day begins early in the morning and ends late at night.

According to interviews with their paid sales staff and others doing menial work at these variety stores all of whom were of Mexican origin, the Koreans of McAllen also work very long hours and are reluctant to leave their stores. According to the Mexican workers, their perception of the Korean view of hard work is a point of contention. This perception of the Mexican employees was supported in interviews with the Korean employers who expressed concern about their Mexican workers unwillingness to work as hard as they do.

Lack Of Empathy With The Local Population

According to the Korean participants, they took their business very seriously. One Korean participant noted, "I am in the business to make money." The Mexican employees perceive this business attitude and express resentment towards it. This desire to make a profit at times brings them into conflict with the sensibilities of the local population. On one occasion I asked an employee why the owner had so many "Don't Touch" signs and she said he did not trust the customers. Interviews and observations at the variety stores indicated that the Koreans expressed practically no connection to the Mexican and Mexican American workers and customers. This sense of distance and disconnection was repeatedly expressed by customers and workers alike.

Following the tenets of rational choice theory it is obvious to the Koreans that this is an area of high unemployment with a large pool of cheap labor willing to take practically any available job. In part this is one of the strongest reasons in support of Korean settlement. The availability of a large pool of inexpensive labor is attractive to recent immigrant entrepreneurs with limited capital.

Furthermore, Interviews with Mexican employees indicates they feel lucky when receiving minimum wage from their Korean employers. One informant stated:

"I am surprised my boss trusts me. I know that other Koreans do not trust anyone. A friend that I have that works across the street has told me she works 48 hours a week and that they pay her $125 flat out. A lot of Koreans take advantage of their employees."

Benefits like health care, social security or insurance are not part of the employment package of the workers. Yet, Mexican work-

ers feel they are lucky to have a job even if the flat rate a week when counting the hours worked for the wages paid, brings their hourly wage below minimum wage. Several informants noted that a job is "always better than being unemployed," also it was noted, that such is always better if they are undocumented Mexican nationals. As an informant noted, "whatever the Koreans pay a Mexican without papers is always more money than they can make in Mexico."

Many hours of observations at the Korean run variety stores indicate that the Koreans do little to make themselves liked by their Mexican American/Mexican customers. For example, they are abrasive to the point of being rude, in one episode with an elderly Mexican American woman who stated that the prices of the merchant's wigs was more expensive than another stores she was abruptly told by the Korean owner, "to go to the other store." This could be judged as poor business tactics but in reality their prices are very competitive, and offended or not most customers will buy their merchandise.

Most stores have signs concerning the expected behavior in the store (e.g. If you break it-you buy it or Pay before you play). The extreme vigilance gives the impression that the customer is not trusted. Mexican culture is traditionally polite which contrasts with the direct business approach of the Korean merchants.

Small Business And Trade

The choice of business for most Korean immigrants in the United States depends on the amount of capital they possess or can obtain, the amount of capital needed to run the business, location of the store and the price of the store.

For example, Yoon states that Koreans in Chicago concentrate their businesses in black neighborhoods where they sell general merchandise (26%), apparel (38%), shoes (12%), beauty supplies (10%), and wigs (9%) (1991:309).

And Kim reports that Koreans in New York concentrate in the grocery stores and the selling of cheap wigs (1981). Kim also notes that they were able to establish a monopoly in the selling of cheap wigs from Korea. No other ethnic group could compete with the Koreans because the mainly black clientele was looking for bargains not quality (Kim 1981:140).

Detailed observations at the Korean stores in McAllen indicate that these stores sell a variety of items such toys, costume jewelry, flowers, dinnerware, cooking items, novelties, and other inexpensive items directed at low income Mexican and Mexican American consumers. The merchandise for the most part simulates other more expensive and brand-name items but are real enough to satisfy their customers. For example, in one shop I was momentarily fooled into believing they were selling "Hello Kitty" products but upon closer inspection the merchandise said "Hello Mary." According to one informant they are able to purchase the merchandise inexpensively from Korea through Los Angeles and sell the items for a lot less than the department stores in the area. There is rarely any merchandise over ten dollars in the stores. Most items sell for between one to five dollars. Kim reports a similar phenomenon in New York to what was observed in McAllen, he notes, "...the price of any one item rarely surpasses ten dollars" (1981:107).

Korean stores sell the same items at the same mutually agreed upon prices. The inexpensive prices that Korean merchants have for their merchandise makes them attractive even if they are rude to customers. Hechter states, "Rational traders will choose to participate in the least costly type of trading network. They are likely to choose ethnically homogeneous trading networks because these economise on coordination and enforcement costs" (1996:92). Cooperation with each other is essential for their success. As noted by Hechter, "A group can only obtain high compliance of its members if they are dependent on it to achieve preferred goals. Dependence is maximized when members

strongly value, or need the benefits provided by their group, and when their prospects of receiving these benefits outside the group are bleak (1983:24).

According to data collected from Korean informants in the business sector, Koreans in McAllen have incomes ranging from $31,000 to $50,000, an average considerably higher than the local population's income.

Family Orientation

Koreans in Chicago (Hurh, Kim and Kim 1979; Yoon 1991), Los Angeles (Hurh and Kim 1983; Light and Bonacich 1991) and New York (Kim 1981) rely on family members to cut labor costs. Yoon states "Korean immigrant businesses rely heavily on family labor. About 60 percent have family members who work in their stores at least part time" (1991:313). Many of the Korean businesses would be economically unfeasible if family members did not provide free labor. According to observations and interviews with key informants, Korean businesses in Hidalgo County also rely heavily on family members. For example as noted by these employees during the recent economic reverse in the Mexican economy, Mexican and Mexican American employees were terminated and replaced by family members.

The importance of family is further illustrated in the names that Korean merchants give their stores, such as Casa Julie or Casa Sharon. When I was mapping the area, my interest was piqued by the names of the Korean stores. Key informants and some of the Korean entrepreneurs indicated that it was a custom to name the stores for their children.

Hechter has pointed out that there is a problem keeping children interested in the community enterprise because they did not join out of their own volition (1996:96). This especially problematic for Koreans because like other Asian Americans they have the legacy of Confucian ideology of their homelands (Rozman 1991:25). Confucianism holds in very high esteem the educated man. Korean Americans have one of the highest levels of education among immigrants to the United States. Hurh and Kim state, "Slightly more than half (male 61%; female 53%) of our respondents had already received college degrees in Korea before their immigration" (1984:58). According to interviews with the Korean entrepreneurs, they feel that the educational opportunities in the local area are inferior and will have to send their children away for higher education. One Korean male with two daughters said the educational opportunities were "so-so" and the "schools are a little bit poorer than average." The Korean's emphasis on education is in conflict with the educational attainment of the local population. Although only twenty percent of the Koreans of McAllen have college degrees this contrasts with the local population where only two percent have graduate or professional degrees (U.S. Census Bureau, 1990)

Ethnic Economies

In describing the Korean economic situation it is useful to use Light and Karageorgis' discussion of ethnic group self-employment and the employment of fellow ethnics (1994:648). The Korean merchants band together to form close-knit ethnic economies that undercut the Mexican and Jewish businesses in the area. When informally interviewed a Mexican American merchant in the downtown area noted "the Koreans will not help anyone outside their group." Another business owner, a Mexican American informant that owns an auto parts store in the same location, indicated that sometimes she felt "something very uncomfortable concerning what went on in those businesses." She went on to suggest that she thought that some kind of underworld organization was in control of the Korean stores and that these serve as, "a front for money laundering." Detailed observations in the downtown area indicated that during Christmas, Koreans sell cheap Christmas lights in all their stores, but their prices do not vary from store to store. An

employee informant indicated, "They will not undercut one another." The economic and entrepreneurial drive of the Koreans was indeed surprising. Observations indicate that during the early phases of the fieldwork while preparing for the ethnographic work that was to follow, most of the Korean businesses were confined to the side streets intersecting with Main Street. However, toward the conclusion of the fieldwork, they had rapidly expanded taking over the commercial enterprises on Main Street.

There are now twelve Korean stores on Main Street when compared to none at the beginning of the study. Observations further indicated that the number of non-Korean stores are closing at a fast rate. Old established stores are closing in response to changing economic conditions and the Koreans demonstrate eagerness to replace them, since observations indicate that they rent these locales almost immediately after the old stores closed down.

The fact that Koreans coming to the United States arrive with capital to invest helps them to establish their ethnic economies. Since 1981, the Korean government has allowed Koreans to take up to $100,000 out of the country (Takaki 1990:440).

When personal capital and business loans are insufficient for a new business, Koreans can use the rotating credit networks known as Kye for additional support. Light and Bonacich state, "Koreans in Los Angeles were familiar with kye and continued to use it for social and business purposes" (1991:247). Fieldwork interviews suggest a similar network in the McAllen area. For example, several key employee informants and Mexican business owners agreed on the existence of these rotating credit institutions in the area. A Mexican store owner whose store neighbors a Korean variety store noted that the Koreans, "have a business pool where they all contribute money in order to buy at bulk rate prices from abroad."

Following the exchange theory, it is assumed that not only is capital necessary for starting a business but also the knowledge of where to locate your business. It is important to know where you can maximize your profits with little capital expenditure. Recent Korean immigrants ask already established Koreans where to locate their stores, what to sell, who to buy their stores from. For example, Kim (1981) points out that the advice given to new immigrants is to buy their stores from older Jewish businessmen. He further notes that Koreans assume that the Jewish businessmen want to get out of the neighborhood and that the Jewish children are not going into the business. The Korean will be able to have a clean and profitable establishment for a fair price (Kim 1981:111). According to one important Korean entrepreneur in McAllen Korean newcomers to McAllen establish their businesses there because they had either family or friends who advised them on where to lease the stores.

Conclusion

The purpose of this paper was to explain the settling of Korean entrepreneurs and their social relations with the local community in a relatively isolated city in South Texas along the Mexico border. Rational choice theory was used in framing the study's main assumptions and in determining the focus of study. In general, findings from studies conducted on Koreans residing in Major urban centers suggest that distrust, fear and suspicion color the relationships between Koreans and local minorities (Light and Bonacich 1991). Sometimes these relationships end in violence, such as the New York boycotts (Min 1991:14) Empirical data obtained for this study reveal a degree of ambivalence in the feelings of Mexican and Mexican American employees and business owners of neighboring stores who both admire and distrust Koreans. There have never been any reports of violence directed against Korean merchants by the local Mexican and Mexican American population. However, the Korean business relationships with their employees, customers and non-business neighbors frequently generate negative perceptions and

attitudes toward Korean business practices.

Koreans and Hispanics did not have hostile relations in Los Angeles, but Ableman and Lie report that the Korean stores were looted mostly by Hispanics (1995:161). The negative feelings were hidden but palpable. According to Johnson et al. "...Hispanics' negative rating of Asians...was one of the touchstones for the burning, looting and violence that took place in Koreatown..."(1999:396)

Empirical research conducted for this paper indicates that Koreans were fully aware of the economic advantages afforded to their investments in South Texas. Repeatedly, they commented on the low property prices in the downtown, the large pool of workers and a market for their goods. Hence, empirical results point to the usefulness of rational choice theory in explaining why Korean entrepreneurs chose McAllen as a place suitable for their economic investment. The relationship that results from such structural conditions ultimately leads to an exploitative relationship between employers and employees, since long daily hours are demanded in return for a flat low weekly salary. Thus, results form this analysis generally support Freer's work in Los Angeles. For example, she comments on a similar situation when she states, "They are simultaneously exploiting and are exploited participants in the economy of impoverished areas like South Central Los Angeles" (1994:183). Given the Koreans' work ethics what is perceived as good business practice in terms of generating income may, and does, create at times tensions because of the stereotypes and ill feelings that workers are likely to develop when they perceive their working conditions as exploitative. Jo cogently states, "Misconceptions and misrepresentations abound among both minority groups and serve only to aggravate the situation" (1992:398). Jo's observations may be aptly applied to the relationships that have developed in this region between Koreans and their employees and general perceptions of their business practices that have aroused from the community at large, but in particular their neighboring merchants and customers.

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Start Spreading the News: Understanding the Drug Problem in the Mid-American States with the Arrestee Drug Abuse Monitoring Program

Kelly R. Damphousse, University of Oklahoma

Abstract

This paper examines efforts by the National Institute of Justice (NIJ) to expand our understanding of drug use among the arrestee population in largely rural states located the western portion of the country. The model for this new effort was the Drug Use Forecasting (DUF) program that was initiated by NIJ in the late 1980s. This program collected interview and urine data from recent arrestees in 23 large urban cities. The DUF program was enhanced to create a better understanding of the drug problem among arrestees in relatively smaller cities located in theoretically interesting areas. The new program (the Arrestee Drug Abuse Monitoring program [ADAM]) has involved the addition of 15 new sites and changes to the survey instrument, sampling design, and outreach that have helped show more clearly how the drug use patterns among arrestees differ from region to region. In this paper, specific attention is shown to one of the new sites (Oklahoma City) and regional comparisons.

Introduction.

Before policy makers can institute programs to fix social problems, they need information about the scope and extent of the problem (Rossi, Freeman, and Lipsey 1999). In addition, while programs are being implemented, the policy makers need to know how the problem is changing over time (either on its own accord or in response to the programs that have been put in place). Gaining this important type of information on America's drug problem was the catalyst for the Drug Use Forecasting (DUF) program in the late 1980s. The project was funded by the National Institute of Justice (NIJ). The goal of the program was to gather reliable and valid data from among the arrestee population in large urban cities to identify new drug problems and to monitor the existing situation. The data were collected in the local jails of these large cities on a quarterly basis through a simple 3-page survey and the collection of a urine sample. Additional data were sometimes collected through the use of an addendum instrument. These addenda include specialized drug instruments (cocaine, marijuana, heroin, etc.), gang involvement, and gun procurement surveys. The DUF program has also spawned similar data collection efforts in other settings such as prisons and juvenile detention facilities (Lo and Stephens 2000). The reports that were generated from these data collection efforts informed drug policy at both the national and local level over the course of the following decade.

Unfortunately, there were several problems with the DUF data. First, many researchers complained (or at least worried) that the data were flawed by poor collection procedures and practices. There was little effort to standardize data collection practices from site-to-site and some sites were less attuned to the rigor of the scientific process. Also, the protocol of the original DUF sample selection process excluded "drug offenders" from the sample, thereby eliminating an important group from the sample. In addition, most sites were operated by the agencies that administrated the jail. This resulted in ethical problems concerning the confidentiality of the data that were being collected. Perhaps the biggest problem, however, was that even if the data had been perfectly collected, it still failed to represent areas of the United States that were encountering unique drug problems. This was especially the case for the middle of the country and toward the west coast. This area was experiencing a major increase in the use of Methamphetamine during this period, but there were precious few data collection efforts available to learn about the problem.

The solution to this problem began in the late 1990s as researchers and funding agencies attempted to correct these problems

with DUF. The resulting program was called the Arrestee Drug Abuse Monitoring program. This paper discusses the change from DUF to ADAM and the impact of the change on efforts to deal with the drug problem in the mid-American states.

Background.

The NIJ began collecting data from a random sample of new arrestees using the Drug Use Forecasting (DUF) program in 1987. For over a decade, the DUF program collected vital information from recent arrestees about the drug use patterns and treatment needs in 23 large jurisdictions located in 17 states. These cities included Atlanta, Miami, New York City, New Orleans, Chicago, Fort Lauderdale, Denver, Cleveland, Philadelphia, Birmingham, Washington, DC, Los Angeles, Houston, Indianapolis, Dallas, Phoenix, San Antonio, Detroit, Portland, Omaha, St. Louis, San Diego, and San Jose. Of these, only Omaha, Denver, and St. Louis marginally represented the mid-American states (the latter two are also major cities), while five of the sites were located on the west coast or in the desert.

The DUF project changed its scope and mission in 1997, when the NIJ announced that DUF would change its name to ADAM and expand to twelve new data collection sites (Samuels 2000). The new sites included Albuquerque, Laredo, Tucson, Seattle, Las Vegas, Minneapolis, Anchorage, Salt Lake City, Spokane, Des Moines, Sacramento, and Oklahoma City. These new sites are all located west of Chicago and represent areas with unique drug problems and populations. Most of the new cites are also relatively smaller than the original DUF cities. The Oklahoma City ADAM (OKC-ADAM) began collecting data from new arrestees at the Oklahoma County Jail in September 1998. The county jail is the intake for all of the arrestees in Oklahoma County. The project staff has since collected data in 14-day periods in each of the successive quarters.

Previous Use of DUF Data

While millions of federal dollars have been spent collecting DUF/ADAM data since 1987, surprisingly few studies have been published in academic journals using the data. This is not to say that efforts were not made to disseminate the data. On the contrary, the NIJ has steadily published specialized papers and annual reports about the DUF data from the beginning. In addition, the raw data were made available to any researcher who desired access (through ICPSR and then through the Internet). Still, reports written by a funding agency in Washington, DC (NIJ) probably had little impact in the local community. The studies that were published in the past decade can be categorized as (1) reflective of national trends, (2) reporting city specific findings, or (3) methodological in nature.

1. National Trends. Several reports and articles have been written about the national trends in drug use by arrestees using the DUF/ADAM data. Most of these reports have been the results of efforts by the NIJ to disseminate their data. Others, however, are traditional research articles that use data from all of the sites to discuss the national picture of drug use or on the national treatment needs. One study, for example, examines the incidence of drug abuse and need for drug treatment among offenders and the extent to which this need is being met by looking at the 1992 DUF data (Falkin, Prendergast, and Anglin 1994). They showed that 50-80 percent of the DUF arrestees tested positive for 1 or more drugs after arrest and that rates of drug use were higher for minorities and women. They suggested that the need for treatment (an effective government response) was not being met.

In a unique study that combined DUF data and city level rates of homicide, robbery, and burglary in the 24 DUF cities, Baumer (1994) found that arrestee cocaine use had a positive and significant effect on city robbery rates, net of other predictors. Cocaine use had a more modest effect on homicide rates and no effect on burglary. The study shows how community-level indicators of drug use can be used in formulating theories to explain inner-city violence.

Other studies have examined changes over time. For example, Wish (1991) used the DUF data to show that while drug use by casual users and those in the middle class had dramatically dropped, a hard core of drug using criminals remained active. He used this finding to suggest that the country needs to seek a humane method of treating users by taking advantage of the access to these persons that the criminal justice system affords to address their drug use and associated problems.

More recently, Golub (2000) showed that marijuana use nationwide had continually dropped from a peak around 1979 until the early 1990s. Specifically, he showed that most of the 23 DUF/ADAM locations had experienced a rapid increase in use among young arrestees from an average percent positive of 25 percent in 1991 up to 57 percent in 1996. Compared with two other national surveys, this increase was more dramatic and happened two years earlier. The use of marijuana stabilized from 1996 to 1998 at a relatively high rate for young offenders.

2. City Specific Studies. Some of the DUF sites (e.g., Denver, New York, Los Angeles, San Diego) were operated by research organizations that have been very active in writing about their specific cities. The New York site (operated by the National Development and Research Institutes, Inc.) has been perhaps the most prolific publisher of findings from the DUF/ADAM data.

Golub and Johnson (1994), for example, examined youthful drug use by arrestees using Manhattan DUF data, focusing on first use of "gateway" drugs (alcohol, tobacco, and marijuana), age at first use of each, and changes among more recently born individuals. They later identified three inner-city cohorts differing by birth year and preferred drugs that routinely passed through Manhattan's criminal justice system from 1987-1997 (Golub and Johnson 1999). These groups were defined as the Heroin Injection Generation born 1945-1954, the Cocaine/Crack Generation born 1955-1969, and the Blunts (marijuana plus tobacco) Generation born since 1970. Their analysis of the ADAM data suggested that the future prospects for the Blunts Generation might be modestly enhanced by their continued avoidance of the other drugs, despite the fact that many of the arrestees had experienced distressed households and had few job skills.

These researchers also examined the extent to which heroin use increased from 1987 to 1993 in the DUF population (Johnson, Thomas, and Golub 1998). They found no evidence to document increases or sustained upswings in heroin use among booked arrestees in Manhattan, but instead, there were actually substantial declines over this period. This finding was contrary reports by the Drug Enforcement Administration in the supply, availability, and purity of heroin sold on the street during this period. Finally, they showed that cocaine use among arrestees under age 21 declined from 69 percent in 1987 to 17 percent in early 1993 (Golub and Johnson 1994).

Feucht (1991) used DUF data to examine the drug use patterns among female arrestees in Washington, DC. He found that the rates of recent cocaine use were similar among women arrested for prostitution, drug offenses, and income-generating property crimes. The use of other drugs in addition to cocaine, however, was significantly lower for those arrested for prostitution. Most of the women arrested for prostitution tested positive for recent use of cocaine only. Another study examined a sample of 1,580 St. Louis ADAM subjects to examine the drug-using classifications between criminal and non-criminal populations (Yacoubian 2000).

Data from the Philadelphia site examined the extent to which the use of "gateway" substances, alcohol and tobacco for example, are an early step in a drug-using pathway (Kane and Yacoubian 1999). Their analyses lend support for the controversial finding among non-criminal populations that patterns of drug use tend to display an escalation from "soft," and "alternative," to "hard" central-nervous-system-modifying drugs.

One final study examined the determinants of perceived risk for getting HIV/AIDS Los Angeles ADAM arrestees who admitted lifetime injection drug use (Henson, Longshore, Kowalewski, Anglin,

and Annon 1998). Arrestees reporting celibacy in the past year, having an injection-drug-using sexual partner, having had more than 20 sexual partners, engaging in sex while high, knowing someone with AIDS, and having been tested for HIV were more likely to perceive themselves at greater risk for AIDS. Even though the usefulness of the ADAM data for a serious health issue like HIV had been established by Wish, O'Neil, and Baldau (1990) a decade earlier, very few studies have investigated this phenomenon.

3. Methodological Studies. Many studies rely exclusively on the use self-report surveys to determine drug use by respondents. This requires the researcher to rely on the truthfulness of the respondents. Social desirability and confidentiality concerns, however, result in a lack of truthfulness by the respondent when discussing deviant behavior (Czaja and Blair 1996). According to this, the more deviant the behavior, the more likely a person is to lie. One way to test the extent to which a person is lying is to measure a concept with a self-report survey and then confirm the information through another source (Calsyn, Morse, Klinkenberg, and Trusty 1997). The ADAM survey is a natural vehicle for testing the validity for self-report of drug use because the arrestees are asked if they have used drugs recently and then they are drug tested immediately after the survey (Adams 2000).

One early study of the truthfulness of self-reported drug use examined DUF arrestees in Cleveland, OH during 1989-1993 (Stephens and Feucht 1993). The researchers found that self-report data were fairly reliable for most of the 10 drug categories tested, though this was attributed to the low rates of use of these drugs. Of those who tested positive for the most frequently used drugs (cocaine and marijuana), more than half denied any use within the previous 72 hours. They concluded that a substantial number of DUF arrestees lie about drug use, even though they are told the information is confidential and anonymous.

A more recent study of the ADAM data showed that that many subjects underreport recent drug use (Wish, Gray, Sushinsky, Yacoubian, and Fitzgerald 2000). The experiment tested whether modifying data collection procedures could enhance self-reporting without adversely affecting study response rates. One experimental condition involved administering either the standard or an enhanced informed consent form. Another condition involved collecting the urine specimen either before or after the interview. The findings suggested that none of the experimental conditions affected the correspondence between interview responses and the urine results. Specifically, the type of informed consent form did not affect the truthfulness of self-reported drug use in any of the sites. When the urine was collected first, the rates of truthful self-reporting increased in only one site.

More recently, researchers have begun to examine the extent to which the data collected by ADAM sites can be used to provide estimates of the numbers of users in the community. Hser (1993), for example, examined ADAM drug treatment data to estimate the number of intravenous drug users in Los Angeles County in 1989. Using the five percent HIV prevalence rate currently found among intravenous drug users, he estimated that number of HIV-infected intravenous drug users approached 9,500. This number differs from estimates obtained using other techniques currently in use (e.g., county health department self-report monitoring programs).

The Creation of ADAM

The previous brief review suggests that there have been several efforts to report on the findings from the DUF/ADAM data. Still, the relatively insignificant quantity is surprising given the length of time that the data have been collected, the ready availability of the data, and the scope of the data collection sites. More troubling, perhaps, is the lack of local use of the data (except in rare settings).

There were several barriers to local dissemination during the DUF period. One problem, for example, was the fact that the local site directors were not trained in

sociological data analysis. Many DUF sites were operated by the local law enforcement agencies that operated the correctional facility. Thus, local agencies relied upon the posting of simple frequency tables that merely described the percent of arrestees who tested positive for drugs in the previous quarter. Little effort was made to pass the information on to local treatment agencies, government officials, or university researchers (except by NIJ).

Another problem was the quality of the data that were collected. During DUF, there was very little consistency between the different sites in how the data were collected. Some sites collected data from certain kinds of inmates while others did not. Some sites collected for 14 days straight, while other collected in a much more erratic manner. Thus, even if someone was willing to use the data to make policy decisions, the validity of the data was always an issue. Even more problematic was the fact that the three-page survey that was used in the interview part of the study was very limited. While arrestees were asked if they felt like they were addicted, there were no scales that allowed social scientists to measure the addiction objectively, such as a recognized addiction severity scale.

In addition, very few resources were expended at the local level to encourage local use of the data. As a result, many local sites without an established research wing collected the data and sent the data to NIJ for the report writing. Finally, because the data were only collected in relatively large cities, the information was not very useful for smaller jurisdictions. It was difficult to apply the data collected in New York, Los Angeles, and Chicago to what was going on in Oklahoma City and Salt Lake City. ADAM was designed to overcome many of these problems.

1. Converting from DUF to ADAM. Addition of the new sites began in 1998 and changes to how the data were collected were phased in over the next two years. A standardized sampling design was implemented that forced all sites to follow the same procedure to select arrestees into the sample. Each site would now use a probability-based sampling procedure that would allow for greater ability to infer to the population and would eventually be capable of adding the dimension of data weighting to the analyses.

A new 24-page survey was designed and

TABLE 1. OKC-ADAM LOCAL COORDINATING COUNCIL (1999-2000)

Richard Kirby, Deputy General Counsel, Office of the Governor
Ben Brown, State Senator, State of Oklahoma
Darrel Wilkins, Division Director of Criminalistics, Oklahoma State Bureau of Investigation
Marc Pate, Oklahoma County District Attorney Office
Rana Bohan, Office of the Mayor, City of Oklahoma City
David Wright, Director, Oklahoma Statistical Analysis Center
Suzanne McClain Atwood, Executive Coordinator, District Attorney's Council
Sam Davis, Administrator, Oklahoma Office of Juvenile Affairs
Fran Ferrari, Researcher, Oklahoma Department of Corrections
Nancy Galloway, TRIAD Coordinator, Oklahoma County Sheriff's Department
R.A. "Bob" Jones, Deputy Chief, Oklahoma City Police
Dr. Steven Davis, Director of Evaluation and Data Analysis, DMHSAS
Dr. N. Ann Lowrance, Deputy Commissioner, Domestic Violence &Sexual Assault Service
John Walsh, Jr., Executive Director, Oklahoma Sheriff's Association
Jim Cox, Director, Oklahoma Association of Chiefs of Police
Robert Surovec, U.S. Drug Enforcement Administration
Major Russell Dear, Jail Administrator, Oklahoma County Sheriff's Department

put in the field in 2000. The new survey asks questions that are comparable to other surveys ("crosswalks") like the National Household Survey on Drug Abuse, the Treatment Episodes Data Set, and the Uniform Crime Report. The new survey also allows for more complex data analysis by asking for more detailed information about treatment experience (in-patient, out-patient, and mental health) and the local drug market (Samuels 2000).

New site directors were selected that had experience/interest in analyzing and disseminating the data. In addition, NIJ and its national contractor (Abt Associates) implemented an individualized sampling plan for each site that allows for the selection of a much more representative sample. The sample also expanded to include the entire county, not just the city. Also, ADAM sites collected data from a sample of all arrestees, instead of only the non-drug offenders as DUF had done previously. The biggest change, perhaps, was the decision to encourage local site directors to create a forum for sharing the data with local agencies and policy makers. The result is the creation of the Local Coordinating Council (LCC) concept.

2. Local Coordinating Council. In addition to the reinvigorated data collection practices from the time of DUF, each ADAM site was encouraged to create a Local Coordinating Council (LCC). The goal of the LCC is to generate local research initiatives that can be executed concurrently with the ADAM data collection. The Council is also to play a lead role in the dissemination of the local ADAM findings to policy makers, practitioners, and the general public. The ideal LCC would include members of law enforcement and correctional agencies, state and local treatment agencies, university researchers, and state and local government agencies. One successful example of the LCC concept is the organization that was formed at the Oklahoma City ADAM site.

The Oklahoma City LCC was formed in September 1999. It was relatively small (less than 20 members) and was composed of representatives of federal, state and local government, the Oklahoma Sheriff's Office, the Oklahoma City Police Department, the Department of Mental Health and Substance Abuse Services, the District Attorney's Council. The current members of the OKC-ADAM LCC are shown in Table 1. Most of the members of the council were invited directly by the site director, while others heard about the committee by word-of-mouth and requested membership.

TABLE 2. SCHEDULE OF DATA COLLECTION FOR OKC-ADAM.

Date	# Male Interviews	# Female Interviews	# Interviews
September 1998	129	0	129
December 1998	248	0	248
February 1999	264	105	369
June 1999[1]	255	95	350
September 1999[2]	198	95	293
November 1999	231	109	340
February 2000[3]	180	48	228
June 2000	179	85	264
September 2000	178	84	262
December 2000	174	87	261
February 2001	179	107	286
Total	2,215	815	3,030

[1]Pre-tested marijuana addendum.
[2]Moved to booking area and implemented new sampling plan.
[3]Implemented new survey.

The council meets twice per year. At the meetings, findings from the previous 6 months of OKC-ADAM data are presented and current local drug issues are discussed. Comparisons of Oklahoma City to other nearby ADAM sites are also discussed. Special analysis topics are presented by request. For example, because of the increase in the number of Methamphetamine lab seizures in the state, the police agencies requested information about the extent of Methamphetamine use by the arrestees and what the Methamphetamine users looked like (in comparison to other drug users). An interesting aspect of the LCC concept is that the dialogue is not meant to be one-way. That is, the meetings are intended to foster communication between the various agency representatives and the site director (and among the representatives themselves).

During the first meeting, the LCC members were encouraged to consider the kinds of data that they would like to have collected in an addendum project. The committee suggested an interest in domestic violence as a key topic for the community. Additional funds were gained from the NIJ and additional data were collected on this "special topic". This experience shows how uniquely the ADAM project responds to the needs of the local jurisdiction.

The LCC site is funded by modest support from NIJ and is directed by the local Site Director (a professor at the University of Oklahoma). The Director is responsible for initiating and hosting the meetings, preparing reports, presenting findings, and facilitating the sharing of information. Along with the biannual meetings, the data are shared with the LCC by the Site Director in three other ways. First, a quarterly newsletter is published to keep members up-to-date on OKC-ADAM happenings as much as possible. In addition to the quarterly newsletters, OKC-ADAM annual reports are published each year to provide specific local information that is not possible in a national publication. The local report supplements the annual report published by the NIJ each year. Finally, the OKC-ADAM has created a website (www.ou.edu/soc/okcadam) that allows access to reports, working papers, site information, and data. This site makes the data available to people outside of the LCC "loop". More information about the national ADAM project is available at the NIJ website (www.adam-nij.net/adam/). In the following section, I present some of the data that are shared with the LCC.

Data Collection

The data collection schedule is determined six months in advance by the local Site Director and the Jail Administrator in coordination with Abt Associates. In the weeks before the data are collected, the interviewers are trained (or re-trained), supplies are ordered from Abt Associates, and arrangements are made with the Jail Administrator to provide security and to escort inmates to and from the interview area. Two off-duty detention officers are used each shift. Surveys, fact sheets, bar code stickers, and urine bottles are received from the national contractor (Abt Associates). The interview staff go through two days of training (for new staff) and five hours of refresher training each quarter for the experienced staff. All the interviewers are female. About half of the interviewers are students (graduate and undergraduate) from the University of Oklahoma and the other half are not associated with the university.

Data collection for the OKC-ADAM project began in the third quarter of 1998. Because the ADAM staff was initially denied access to the jail because of internal logistical problems (the State Fair and a computer malfunction), they were only able to collect data for eight days in September. They also only collected data from male arrestees at that time. The data were collected in a gymnasium on the eighth floor of the jail. In December 1998, they collected their first full 14-day sample of males and they added female arrestees starting in February 1999.

During the first four quarters of data collection, OKC-ADAM used four interviewers at a time to collect data from 10 AM to 2 PM, interviewing arrestees who had been booked during the previous 24-hour period. These respondents are termed "stock" arrestees. Unfortunately, many arrestees who had been booked in the previous 24

hours had already been released, resulting in a less than representative sample. Starting in the third quarter of 1999, Abt Associates devised a new sampling plan that was designed to eliminate the bias caused by missing so many arrestees. To facilitate this change, the interview process was moved to the booking area of the jail. Thus, the data from the third quarter of 1999 and following is much more representative than the data collected in the previous four quarters.

The new plan required OKC-ADAM staff to use two interviewers to collect data from a random sample of male and female arrestees who are booked during the interview shift (in addition to a random sample of "stock" arrestees). These new respondents are called "flow" arrestees. Thus, the OKC-ADAM data represents a random sample of stock and flow inmates booked into the Oklahoma County Jail. The data collection time changed to 2:00 PM until 10 PM, the eight-hour period with the greatest number of bookings. The ADAM interviews take place as soon as the jail's booking process is completed.

To facilitate the data collection, the Oklahoma County Jail provides the OKC-ADAM staff with access to the booking computer system. This allows the ADAM staff to select the appropriate respondents and to locate the respondent in the jail. Some of the respondents are still in the booking area during the survey time while other have already been moved up to a cell. A census of all the people who are booked in the jail (including the OKC-ADAM sample) is also collected and sent to Abt Associates at the end of the data collection period so that the sample can be compared to the population for weighting purposes. The weighting adjustments to the sample are made so that the sample approximates the population as closely as practical.

With the new sampling plan, the quota of respondents dropped from 250 men and 100 women (once a national standard) to 168 men and 84 women (252 total). The actual number of respondents from whom data are collected, however, varies from quarter to quarter. This is because the new sampling plan requires OKC-ADAM staff to stop collecting "flow" data only when time runs out, not when the quota is met. As a result, data are collected at a rate only slightly less than in previous quarters.

Procedures

At the beginning of each day of data collection, the jail staff prepares a list of people who have been booked into the County Jail from 10:00 PM the previous evening to 1:59 PM on the current day. This group of arrestees is called the "stock" population. The on-site coordinator then randomly selects five males and 3 females from this list to be interviewed. The remaining respondents are randomly selected from the people who are booked into the jail from 2:00 PM to 9:59 PM that day (these are called the "flow" arrestees).

One interviewer is assigned to interview male flow inmates and one interviewer is assigned to female flow arrestees and the stock arrestees. When the site coordinator selects an arrestee for an interview, he/she writes the person's name and cell number on a Post-It Note. Then, the on-site coordinator initiates a "face sheet" on the arrestee. This face sheet contains information about the arrestee (race, sex, age, charge, etc.).

The Post-It Note is then given to a security officer who brings the inmate to the interviewers. When the arrestee arrives at the interview site, the Post-It Note is given to the on-site coordinator, who sticks it back on the face sheet. The interviewer then reads a detailed informed consent form to the respondent. If the arrestee agrees to participate, the interview starts immediately. After the interview, the arrestee is given a plastic bottle and asked to provide a urine sample. After a useable sample is provided, the arrestee is given a chocolate bar. A bar-coded sticker is attached to the urine bottle, the face sheet, and the survey so that they can be matched later on. The completed survey is then edited by the on-site coordinator to assure no errors have been made.

Within two days of data collection, the urine samples are mailed off to Pharm-Chem Laboratories (the national contractor) for the drug screen. The completed surveys and face sheets are mailed to Abt

TABLE 3. PERCENT OF MALE ARRESTEES WHO TEST POSITIVE FOR DRUGS IN OKLAHOMA CITY.

Type of Drug	1998 Q3 N=129	1998 Q4 N=248	1999 Q1 N=264	1999 Q2 N=255	1999 Q3 N=198	1999 Q4 N=232
Any Drug	69.8	70.1	71.2	76.6	67.7	63.4
Multiple Drugs	31.0	29.1	28.4	21.6	29.3	25.4
Marijuana	51.2	54.0	47.0	49.4	47.0	47.8
Methamphetamine	7.8	8.5	5.3	7.5	13.6	9.5
Cocaine	31.8	25.0	29.5	23.5	24.2	23.3
Opiates	2.3	1.6	1.1	1.2	1.0	3.0
Phencyclidine (PCP)	3.1	2.4	6.8	1.6	4.0	4.3
Benzodiazepines (Valium)	9.3	6.9	8.7	7.8	8.6	4.7

Yearly Summary

Type of Drug	1998 Q3-Q4 N=377	1999 Q1-Q4 N=950	2000 Q1-Q3 N=536
Any Drug	69.0	72.2	71.6
Multiple Drugs	26.8	25.9	28.5
Marijuana	53.1	47.8	55.2
Methamphetamine	8.0	8.6	11.0
Cocaine	27.3	25.3	23.1
Opiates	1.9	1.6	3.5
Phencyclidine (PCP)	2.7	4.2	4.1
Benzodiazepines (Valium)	7.6	7.5	9.0

TABLE 4. PERCENT OF FEMALE ARRESTEES WHO TEST POSITIVE FOR DRUGS IN OKLAHOMA CITY.

Type of Drug	1998 Q3 N=0	1998 Q4 N=0	1999 Q1 N=105	1999 Q2 N=95	1999 Q3 N=95	1999 Q4 N=110
Any Drug	N/A	N/A	63.8	81.0	64.2	60.9
Multiple Drugs	N/A	N/A	30.5	28.4	33.7	21.8
Marijuana	N/A	N/A	40.0	43.2	46.3	29.1
Methamphetamine	N/A	N/A	9.5	8.4	10.5	15.5
Cocaine	N/A	N/A	34.3	42.1	32.6	29.1
Opiates	N/A	N/A	2.9	2.1	3.2	4.5
Phencyclidine (PCP)	N/A	N/A	2.9	0.0	7.3	1.8
Benzodiazepines (Valium)	N/A	N/A	9.5	8.4	7.3	10.0

Yearly Summary

Type of Drug	1998 Q3-Q4 N=0	1999 Q1-Q4 N=405	2000 Q1-Q3 N=216
Any Drug	N/A	72.2	68.5
Multiple Drugs	N/A	30.9	33.3
Marijuana	N/A	39.3	45.8
Methamphetamine	N/A	11.1	16.7
Cocaine	N/A	34.3	26.9
Opiates	N/A	3.2	4.6
Phencyclidine (PCP)	N/A	3.0	5.1
Benzodiazepines (Valium)	N/A	8.9	11.1

Associates immediately after the last day of data collection. The data are entered by Abt Associates and matched to the urine results via the bar-codes. All the data are then made available for download via the Internet by the Site Director.

Study Participants

The Oklahoma City ADAM project is located at the population center of the state of Oklahoma. The Oklahoma City MSA population was just under one million in 1990, accounting for over 30 percent of the state total. The arrestee sample is ethnically diverse: approximately 38 percent of arrestees are African American, 51 percent are White, five percent are Hispanic, and six percent are Native American.

During data collection, ADAM participants are randomly selected from among eligible arrests. Refusal rates are low: about 90 percent of selected arrestees agree to be interviewed, and about 95 percent of those interviewed agree to provide a urine specimen. Because of the sensitive nature of the data that are collected, the OKC-ADAM staff goes to great lengths to protect the confidentiality of the participants. Once the arrestee is brought to the interviewer, his/her name is permanently removed from the survey. A unique identifier is assigned to each survey and urine sample so that data can be matched at a later time. Only research personnel at the OKC-ADAM project and others approved by the NIJ have access to the data. The study protocol has been approved by the Institutional Review Board of the University of Oklahoma on the Norman campus as an addendum to the original ADAM protocol.

At the OU IRB's request, the OKC-ADAM staff has created an additional informed consent form unique to their site that further informs the arrestee about his/her rights as a research participant. Each of the arrestees is given a copy of the form. The OU IRB also requires that each respondent be provided a list of treatment agencies in the Oklahoma City area. They are allowed to keep the list if they desire. There is no other post-survey counseling provided by the OKC-ADAM staff.

The Findings

A unique aspect of the ADAM project is that it allows researchers, the police, and treatment personnel to know what kinds of drugs arrestees in the population are using. Of course, it is tempting to imply that this reflects drug use by criminal offenders in the community as well. It is important to realize, however, that the results of the OKC-ADAM project do not represent drug use patterns by citizens of Oklahoma City. Instead, the data represent information about arrestees. Thus, the results refer to people who have been arrested in Oklahoma County.

Even though the OKC-ADAM staff do not interview every person who is arrested in the county, the sampling procedures allows for relatively confident statements about the level of drug use by criminal offenders in the county (especially since the third quarter of 1999). Another interesting aspect of the data is an ability to compare the findings with other findings in the country. There are 34 other NIJ ADAM sites being guided by the same national contractor (Abt Associates) and collecting the same kind of data throughout the country. This allows us to compare Oklahoma City findings regionally (e.g., to Dallas, St. Louis, and Omaha) and nationally (e.g., to the Northeast and the West). It is important to keep in mind that these arrestees were randomly selected. That is, while there are some people in the data that were arrested for drug offenses, we did not only select drug offenders. About one-quarter of our participants had been arrested for drug offenses (possession/use or drug sales). Thus, a large majority of our arrestees had been arrested for non-drug offenses.

The data presented in this section include all of the quarters of data, even though data after the second quarter data 1999 are more representative. This decision was made because of the relatively short window of data collection with the new sampling plan (only four quarters) and because of the consistency between the data collected under the previous sampling plan and the data collected under the new sampling plan.

Finally, it is important to be aware that not all of the participants were arrested in

TABLE 5. COMPARISON OF MARIJUANA USE IN OKLAHOMA CITY WITH OTHER CITIES IN THE NATIONAL ADAM PROJECT.

City (1999 Data)	% Males Positive for Marijuana	% Females Positive for Marijuana
Omaha*	51	36
Oklahoma City*	**48**	**39.3**
Detroit*	48	26
Indianapolis*	48	38
Chicago*	45	27
Tucson	45	24
Minneapolis*	44	29
Sacramento	44	33
Spokane	44	32
Denver	44	34
Atlanta	44	34
Des Moines*	43	34
Cleveland	43	28
Philadelphia	41	26
New York City	41	26
New Orleans	40	25
Fort Lauderdale	39	29
Dallas*	39	27
Birmingham	39	26
Seattle	39	28
Houston*	38	23
Anchorage	38	31
Albuquerque	37	24
San Antonio*	36	16
San Diego	36	29
Phoenix	36	26
Miami	36	-
Washington, D.C.	35	-
Portland	35	23
Salt Lake City	35	23
San Jose	34	26
Laredo*	33	9
Los Angeles	32	21
Las Vegas	28	23
Median not including OKC	**39.6**	**30**

* City located within 200 miles of the I-35 corridor.

Oklahoma City. About 75 percent of the sample was arrested by the Oklahoma City Police Department, while the remaining arrestees were brought into the jail by the Oklahoma Sheriff's Department, Midwest City, Edmond, and a variety of other small cities in the metropolitan area. Thus, even though the project refers to Oklahoma City, we are really referring to Oklahoma County.

Overall, the findings are interesting because they tell, for the first time, what the level of drug use is like for arrestees in

TABLE 6. COMPARISON OF COCAINE USE IN OKLAHOMA CITY WITH OTHER CITIES IN THE NATIONAL ADAM PROJECT.

City (1999 Data)	% Males Positive for Cocaine (Crack and powder)	% Females Positive for Cocaine (Crack and powder)
Atlanta	51	62
Miami	49	-
New York City	44	65
New Orleans	44	41
Albuquerque	43	56
Chicago*	42	64
Laredo*	42	21
Fort Lauderdale	41	52
Denver	41	51
Tucson	40	41
Cleveland	40	50
Philadelphia	39	60
Birmingham	39	26
Washington, D.C.	38	-
Los Angeles	36	37
Houston*	36	23
Indianapolis*	34	45
Dallas*	34	40
Seattle	33	48
Phoenix	32	43
Las Vegas	30	50
San Antonio*	29	36
Detroit*	27	46
Minneapolis*	27	29
Anchorage	26	36
Oklahoma City*	**25.5**	**34.5**
Portland	23	33
Omaha*	22	32
Salt Lake City	22	26
Spokane	18	31
San Diego	17	23
Des Moines*	16	22
Sacramento	16	30
San Jose	14	20
Median not including OKC	**32.9**	**40**

* City located within 200 miles of the I-35 corridor.

TABLE 7. COMPARISON OF METHAMPHETAMINE USE IN OKLAHOMA CITY WITH OTHER CITIES IN THE NATIONAL ADAM PROJECT.

City (1998 Data)	% Males Positive for Methamphetamine	% Females Positive for Methamphetamine
Sacramento	28	32
San Diego	26	33
Salt Lake City	25	34
San Jose	24	32
Portland	20	25
Spokane	20	27
Phoenix	17	14
Las Vegas	16	18
Des Moines*	14	22
Los Angeles	9	12
Seattle	9	10
Oklahoma City*	**8.7**	**11.3**
Omaha*	8	11
Tucson	6	10
Albuquerque	5	9
Denver	3	2
Dallas	3	3
San Antonio*	2	1
Indianapolis*	1	1
Minneapolis	1	3
Washington, D.C.	0.9	-
Anchorage	0.5	0
Atlanta	0.4	0.8
Fort Lauderdale	0.4	0
Philadelphia	0.2	0
Laredo*	0.2	0
Houston*	0.1	0.1
New Orleans	0.1	0
Birmingham	0.1	1
Chicago*	0	0
Detroit*	0	0
Miami	0	-
Cleveland	0	0
New York City	0	0
Median not including OKC	**7.3**	**9.7**

* City located within 200 miles of the I-35 corridor.

Oklahoma County. Among the male arrestees in our sample, shown in Table 3, more than two-thirds tested positive for at least one kind of drug (69 percent in 1998, 72.2 percent in 1999, and 71.6 percent in 2000). Data for the females in our sample are shown in Table 4. Female arrestees appeared to be using at about the same rate as the men in 1999 (72.2 percent) and 2000 (68.5 percent). More interesting, perhaps, is the fact that many of the arrestees test positive for multiple drugs. Over one-quarter of male arrestees tested positive for more than one drug over the nine quarters, while almost a third of the female arrestees tested positive for more than one drug. In the following sections, I address the findings for marijuana, cocaine, Methamphetamine, other drugs, treatment, and race for the OKC-ADAM project.

1. Marijuana. The most popular drug among the Oklahoma City arrestees is marijuana. This is similar to findings in about half of the other ADAM sites as well. In 1998, 53.1 percent of the OKC male arrestees tested positive for marijuana. In 1999, about 48 percent of the males tested positive, while 55 percent tested positive in 2000. About 39 percent of the women in our sample tested positive for marijuana in 1999, while 45.8 percent tested positive in 2000.

These numbers are particularly interesting when we note that Oklahoma City led the nation in the percentage of arrestees who tested positive for marijuana in 1998. While the rest of county averaged about 38 percent of male arrestees testing positive for marijuana, Oklahoma City has hovered right around 50 percent from 1997-2000. A comparison of Oklahoma City to other ADAM cities by gender is presented in Table 5. The order is ranked from highest to lowest (for the male arrestees).

The numbers are even more dramatic for females. While the average ADAM site in the country has about 24 percent testing positive for females, about 40 percent of Oklahoma City female arrestees have tested positive for marijuana. Obviously, Oklahoma City has a unique marijuana situation concerning arrestees.

If you consider Table 5 from a geographical perspective, many of the mid-American sites are very similar to the Oklahoma City site. Consider especially the "percent positive for marijuana" in 1999 for the sites along the I-35 corridor: Laredo (33 percent), San Antonio (36 percent), Dallas (39 percent), Oklahoma City (48 percent), Omaha (51 percent), Des Moines (43 percent), and Minneapolis (44 percent). There is an almost linear progression from the south to the north, dropping only slightly for the most northern cities. Interestingly, the northern-most cities on this corridor make up one-third of the top twelve ADAM-marijuana cities in the country. Expanding the boundaries of the corridor by 200 miles to the east, we would also pick up the Detroit, Indianapolis, and Chicago sites. Thus, over half of the top twelve ADAM marijuana sites are located along a 200-mile corridor east of I-35. This information will inform scholars interested in the transportation of marijuana from Mexico to the mid-northern states. As an aside, three other new ADAM sites are also represented in the top twelve ADAM marijuana sites.

2. Cocaine. About one-quarter of the male arrestees and about one-third of the female arrestees tested positive for cocaine in Oklahoma City. A comparison of cocaine use for men and women arrestees is presented in Table 6. It is important to note that our data do not distinguish between "crack cocaine" and "powder cocaine" use. The NIJ has developed a technique to test for the differences between the two types, but the test is not yet available. Nationally, cocaine use by arrestees tends to be focused in large cities in the North and Southeast. The national average was about 33 percent of men testing positive for cocaine in 1999. This suggests that cocaine use is not as big of a problem among male arrestees in Oklahoma City (at least compared to other cities).

It is interesting to note where cocaine is a problem. Table 6 shows that five of the I-35 corridor cities are above the median for the country, but only three new sites (Laredo, Albuquerque, and Tucson) are in the top 15 of the list. Their proximity to each other and to the Mexican border have

TABLE 8. TREATMENT EXPERIENCE FOR PARTICIPANTS IN OKC-ADAM PROJECT.

Females	**In Treatment**	**Past Treatment**	**Need Treatment**
Alcohol	3.2	14.1	14.3
Marijuana	1.0	4.9	7.9
Cocaine	0.5	3.5	4.7
Crack	2.0	12.8	14.3
Methamphetamine	0.2	3.7	5.7
Heroin	0.2	2.0	2.5
LSD	0	1.0	0.5
Valium	0.2	1.5	1.5
Males	**In Treatment**	**Past Treatment**	**Need Treatment**
Alcohol	3.4	22.2	20.8
Marijuana	1.1	7.4	10.8
Cocaine	0.7	4.4	0.6
Crack	0.6	6.1	7.8
Methamphetamine	0.3	3.6	5.7
Heroin	0.2	2.2	0.7
LSD	0.7	0.9	1.3
Valium	0.2	1.3	2.1

TABLE 9. RACE AND POSITIVE DRUG TEST IN 2000 (BY GENDER)

Female	**White**	**Black**	**Hispanic**	**Indian**
Marijuana (N=99)	48.5%	44.4%	0.0%	7.1%
Cocaine (N=58)	36.2%	53.4%	1.7%	8.6%
Methamphetamine ((N=36)	94.4%	5.6%	0.0%	0.0%
Heroin (N=10)	80.0%	20.0%	0.0%	0.0%
PCP (N=11)	9.1%	90.9%	0.0%	0.0%
Valium (N=24)	75.0%	20.8%	0.0%	4.2%
Male	**White**	**Black**	**Hispanic**	**Indian**
Marijuana (N=296)	53.4%	38.9%	4.4%	3.4%
Cocaine (N=124)	40.3%	50.0%	8.9%	0.8%
Methamphetamine (N=59)	94.9%	5.1%	0.0%	0.0%
Heroin (N=19)	89.5%	5.3%	5.3%	0.0%
PCP (N=22)	0.0%	90.9%	0.0%	9.1%
Valium (N=48)	81.3%	12.5%	4.2%	2.1%

TABLE 10. POSITIVE DRUG TEST AND RACE IN 2000 (BY GENDER)

Female	**Marijuana**	**Valium**	**Cocaine**	**Meth**	**Heroin**	**PCP**
White (N=110)	43.6%	16.4%	19.1%	30.9%	7.3%	0.9%
Black (N=86)	51.2%	5.8%	36.0%	2.3%	2.3%	11.6%
Hispanic (N=4)	0.0%	0.0%	25.0%	0.0%	0.0%	0.0%
Indian (N=16)	43.8%	6.3%	31.3%	0.0%	0.0%	0.0%
Male	**Marijuana**	**Valium**	**Cocaine**	**Meth**	**Heroin**	**PCP**
White (N=294)	53.7%	13.3%	17.0%	19.0%	5.8%	0.0%
Black (N=189)	60.8%	3.2%	32.8%	1.6%	0.5%	10.6%
Hispanic (N=26)	50.0%	7.7%	42.3%	0.0%	3.8%	0.0%
Indian (N=27)	37.0%	3.7%	3.7%	0.0%	0.0%	7.4%

strong implications about the source of cocaine for these respondents.

The national comparison is a similar story for female arrestees in Oklahoma City, except that the OKC women approach the national average. The national average in 1999 of female arrestees testing positive for cocaine was about 40 percent. The OKC-ADAM findings in 1999 show that about 35 percent of female arrestees in Oklahoma City test positive for cocaine, while the percentage dropped to about 27 percent in 2000 (see Table 4).

3. Methamphetamine. Oklahomans are very interested in amount of Methamphetamine use in the state due to heavy media coverage of the "Meth labs" throughout the state. This concern is highlighted by the recent "Meth Summit" hosted by the Governor in November 1999. Tracking changes in Methamphetamine use in Oklahoma using the OKC-ADAM data is difficult because the variation from quarter has been very dramatic. Still, when you look at the data from year to year, there appears to be a relatively consistent rate of between eight and 11 percent testing positive for Methamphetamine.

The ADAM data in Table 7, however, allow us to compare Oklahoma City to other locations. The data suggest that Methamphetamine use by Oklahoma City arrestees is relatively high compared to other cities in the nation. In general, Methamphetamine use is almost non-existent in the Northeast and the Deep South. The highest rate of Methamphetamine use in the country is found in the West. About 28 percent of arrestees in Sacramento, for example, test positive for Methamphetamine. Other west coast cities hover around 20 percent , while the percentage drops as you move east. The importance of the new ADAM sites is especially illustrated in this table. In fact, ten of the top 14 sites listed here are new ADAM sites while only one of the bottom 12 sites is a new ADAM site. If you eliminate the new ADAM sites from this analysis, the median rate for the sites drops from 7.3 percent to 4.3 percent.

In comparison, about nine percent of male Oklahoma City arrestees test positive for Methamphetamine (about 3 times the rate of Dallas, but about the same as Omaha). This figure has not been stable over the course of data collection. In the first quarter of 1999, only about five percent of the males tested positive for Methamphetamine (Table 3). By the third quarter, that figure more than doubled to 13.6 percent. The percent testing positive was down to about nine percent in the fourth quarter 1999 and has stabilized in 2000 at around 11 percent.

It is difficult to determine if the fluctuations from quarter to quarter represent a real changes or if they are a result of sampling error. In addition, data collection process (sampling, time of day, and location) changed almost every quarter until the third quarter of 1999, so some of the fluctuation could have resulted there. Thus, it is important to rely more on the yearly estimates than by the quarter-by-quarter estimates until the data collection had stabilized. Indeed, in the four quarters of 2000, the percent of males testing positive for Methamphetamine were 10.6 percent, 12.9 percent, 9.6 percent, and 9.2 percent. These differences are not statistically significant.

The percent of female Methamphetamine users stayed relatively stable at about 9.5 percent over the first three quarters of 1999, but then increased by more than 50 percent. Over 15.5 percent of the women from whom we received urine samples tested positive for Methamphetamine. For all of 1999, about 11 percent of the sample of female arrestees tested positive for Methamphetamine. Almost 17 percent of the women in the OKC-ADAM sample tested positive for Methamphetamine in 2000. In the four quarters of 2000, the percent of males testing positive for Methamphetamine were 22.9 percent, 17.7 percent, 13.1 percent, and 14.9 percent. Since the sample size was extremely small in the first quarter due to the implementation of the new instrument (n=48), these differences are not statistically significant.

4. Other Drugs. The other drugs that are tested by the drug screen are listed in Tables 3 and 4. Notice that just a slightly

higher percentage of women test positive for Valium (9-11 percent) compared to male arrestees (8-9 percent). PCP positive tests are also very similar for males and females (less than five percent for each). There is almost no heroin use by arrestees in Oklahoma City. Less than two percent of the arrestees in our data tested positive for heroin in 1999. This figure significantly increased to about 3.5 percent in 2000 ($p. < .05$). Females in OKC-ADAM data test positive at a significantly higher rate for heroin than do men ($p. < .05$). This is similar to findings in all but five other ADAM sites nationally (Washington, DC, New Orleans, Miami, Laredo, and Anchorage).

5. Treatment. In Table 8, I have presented a brief comparison of treatment experiences (as defined by the respondent) for each gender. The data reported here are from the old instrument since the survey data from the new instrument are not yet available for analysis. Still, these data suggest the extent to which the arrestees report being in treatment, if they have been involved in treatment in the past, or if they felt like they needed treatment. The questions were asked for alcohol and each of the drugs on the drug panel. Very few of the offenders were currently in treatment, with the greatest proportion being in treatment for alcohol abuse (about three percent). Several of the arrestees had been involved in treatment in the past, again with alcohol being the largest category. Almost 13 percent of the females claimed to have been treated for addiction to crack cocaine. Many of the arrestees claimed to need drug treatment. For women, alcohol treatment was the most desired treatment (14 percent), followed by crack (14 percent) and marijuana (eight percent). For men, alcohol treatment was also the most desired treatment (21 percent), followed by marijuana (11 percent) and crack (eight percent).

6. Race. Finally, we examine the relationship between race and testing positive for drugs. There are two ways to address the question. First, we could ask what the racial breakdown was among all the arrestees who tested positive for a specific type of drugs. This is done in Table 9 for each gender. Second, we can examine each race/ethnic group in the sample and measure the percent that test positive for each drug. This is done in Table 10.

In Table 9, we observe fairly similar patterns for both males and females. Among those women who test positive for marijuana (N=99), for example, the majority are white arrestees (49 percent) followed closely by African-American arrestees (44 percent). The numbers are a little more stark for males, where a greater proportion of the males who test positive for marijuana are white (53 percent) compared to only 39 percent who are African-American. This pattern is similar for Methamphetamine, Heroin, and Valium, where whites compose the highest proportion of users. The most dramatic case is Methamphetamine, where almost 95 percent of the women and men arrestees who test positive for Methamphetamine are white. African-Americans, on the other hand, make up the highest proportion of those who test positive for cocaine and PCP. The self-report data (not shown here) suggest that African-Americans in the sample are using crack cocaine more than powdered.

In Table 10, we show that white arrestees are dramatically different from African-American arrestees in their drug use patterns. The patterns are fairly similar by gender. Almost half of the white female arrestees and over half of the white male arrestees tested positive for marijuana, while a higher percentage of African-Americans tested positive (females = 51 percent and males = 61 percent). White arrestees are also much more likely to test positive for Methamphetamine than are African-Americans. In fact, almost one-third of the white females tested positive for Methamphetamine compared to two percent of the African-American females. About one in five white males tested positive for Methamphetamine compared to two percent of the African-American males. Whites also seem to be more likely to engage in Valium and heroin use than minorities. Hispanics and African-Americans, on the other hand, are more likely to test positive for cocaine. About one in ten African-American arrestees tested positive for PCP.

The data presented here represent only a small proportion of the types of results that are being made available to local government, treatment, and law enforcement officials through the use of the LCC.

Discussion

The goals of data collection for public policy evaluations generally can be divided into four categories: assessment of needs, assessment of program process, assessment of impact, and assessment of efficiency (Rossi, Freeman, and Lipsey 1999). The ADAM project can be described as a special sort of needs assessment, in that the professed goal is to inform public policy about the drug problem at the local and national level (Samuels 2000). In the real world, unfortunately, decisions about public policy are often made without the benefit of empirical data for support (Weiss 1998). Even more troubling, however, is the situation where the data have been collected, but are ignored by the policy makers. This lack of a reliance on research results is often the result of political context of the policy makers. Still, some responsibility lies on the hands of the researchers themselves (Gredler 1996).

To be sure, most researchers want policy makers to use their data. Writing reports that nobody reads is not what most researchers want to do. On the other hand, much of the work that is done by researchers is located in academic journals that are not read (nor understood) by decision makers (Petersilia 1987). This is not so much the case in situations where an agency funds an assessment of some issue and the product of the research is a report that is provided to the agency at the end of the funding period. Instead, the problem is more evident in the situation where the data could be of interest to more than the funding agency itself. Efforts to "get the word out" in this situation require much more deliberate efforts by the researcher.

This paper describes a major effort by a federal agency to collect data that can be used to better understand the national drug problem, while at the same time, providing information at the local and regional level to assist in local programming and policy making. The transition from the DUF program to the ADAM program over a two year period has resulted in extremely interesting data that is certain to make an impact if the data are used by policy makers. The LCC portion of the ADAM program is the key ingredient to getting the word out.

Importantly, data that have can inform public policy needs to taken to the policy arena in a format that is easy for policy makers to understand. The use of unique structures like the Local Coordinating Council and the Internet greatly increase the likelihood that a researcher's findings will be implemented. As Cooley and Bickel (1986) suggest, face-to-face interaction between researchers and policy makers may hold more sway than written reports (see also Cronbach, Ambron, Dornbusch, Hess, Hornik, Phillips, Walker, and Weiner 1980). The LCC acts to facilitate the kind of intensive interaction that Weiss (1988) described when she says that successful communication of results depends on (1) including potential users of the data in the research process, (2) making the transfer of information two-way, and (3) sustained interaction over long periods of time.

The Oklahoma City experience is informative. For the first year of data collection, the data were collected and maintained in the office of the Site Director. Efforts to inform the public and policy makers through the use of the media proved futile and frustrating. When the LCC money and motivation evolved in the second year of the project, the Site Director was, for the first time, given an opportunity to directly impact policy formation using the ADAM data. At the first meeting, member of the LCC were presented with information about the ADAM project and told about the changes that were about to take place. Their input on the local process was evident in the beginning, when the council decided to implement a domestic violence addendum into the data collection process. One of the council members was the director of the state domestic violence agency and was instrumental in helping coordinate the addendum selection.

In addition, several other state agencies (e.g., Department of Corrections and the Department of Mental Health and Substance Abuse Services) used the data in annual reports and their needs assessment reports. Another agency, the Statistical Analysis Center is using ADAM data to create a profile of the Oklahoma County offender. In the following meetings, members of the council that represent law enforcement agencies (federal, state, and local) have assisted in the interpretation of findings and have begun to present their own findings at the meeting. The most remarkable outcome so far is that the council is expanding its borders so as to not only become an "ADAM sounding board", but to become the center of the state's understanding of its drug problem. The council decided in its 2001 meeting to use the OKC-LCC concept as the basis for a biannual meeting about "Drugs in Oklahoma".

Thus, it appears that at least one of the goals of the move from DUF to ADAM (informing the local policy makers about drugs in the mid-American states) has been accomplished. The national reports by NIJ have begun to implement the data collected from the new sites as well and, as evidenced in this paper, can begin to tell a more interesting story about drugs in America. At the same time, the survey data appear to be much more representative and will soon be available for much more sophisticated analysis than was possible in the past.

Finally, the findings in this paper have shown how the "drug problem" in America is not monolithic. Specifically, what takes place on the border states in the nation is not very similar at all what takes place in the mid-American states. Our findings suggest that a defined "marijuana corridor" runs north-to-south through the middle of the county along I-35, perhaps signifying for the first time a path from Mexico to the mid-northern states. In addition, we are able to see the extent of Methamphetamine use from the western states to the mid-American states (where it stops its eastern movement). The ADAM data set provides rich information about a particularly interesting population of drug users in the country. Hopefully, this information will be used to inform policy makers and program developers.

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Who Gets the Ink? A Page-Coverage Analysis of the Most Influential Scholars in Criminology and Criminal Justice Journals

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Abstract

A study of criminology textbooks recently proposed an alternative to citation analysis as a measurement of the influence of scholars. Drawing on techniques developed in content analysis, the study used inches-of-print and pages devoted to scholars to assess their influence. This paper extends the page-coverage technique to an analysis of six leading criminology and criminal justice journals published from 1991 to 1995. The 100 most influential scholars in the journals are reported, as measured in page-coverage. A comparison of these findings to a recent study listing the most-cited scholars in the same journals for the same years showed some interesting differences in the rival procedures. Specifically, the citation analysis seemed to underestimate the influence of earlier theorists and scholars known mostly for one work, while perhaps overestimating the influence of prolific contemporary quantitative researchers. Because these findings are similar to the ones reported in the earlier comparison of citation and page-coverage techniques in textbooks, page-coverage measurement appears to be an important alternative to citations in evaluating the influence of scholars.

Introduction

During the past 25 years in the social sciences, citation analysis has emerged as one of the most venerable ways to judge the influence of different scholars, works, and academic departments and programs (Cole and Cole, 1973; Thomas, 1987). Although a handful of citation analysis studies were done years ago in criminology and criminal justice (see Cole, 1975; Shichor, 1982; Wolfgang, Figlio, and Thornberry, 1978), a steady stream of these studies has appeared in the last decade (see Cohn and Farrington, 1990, 1994a, 1994b, 1996, 1998a, 1998b, 1998c; Cohn, Farrington, and Wright, 1998; Wright, 1995a, 1996a, 1997a, 1997b, 1998; Wright and Carroll, 1994; Wright and Cohn, 1996; Wright and Friedrichs, 1998; Wright and Miller, 1998a; Wright and Rourke, 1998; Wright and Sheridan, 1997; Wright and Soma, 1996). This research uses simple counts of citations in various criminology and criminal justice publications (journals, research books and monographs, and textbooks) to measure the influence of particular scholars, works, and academic departments.

Cohn, Farrington, and Wright (1998) recently proposed an alternative procedure to measure the influence of scholars and works, through the use of techniques developed in the content analysis of themes and topics in print media. Specifically, they examined the amount of coverage—in inches-of-print and pages—devoted to 2,076 scholars in 23 introductory criminology textbooks published from 1989 to 1993. Using page-coverage as a unit of analysis, they ranked the 100 most influential scholars in the textbooks. A comparison of the page coverage findings with an earlier citation analysis that ranked the 47 most-cited scholars in the same 23 criminology textbooks (Wright, 1995a) revealed some important differences in the results yielded by the two procedures.

This paper extends the page-coverage procedure to an analysis of "who gets the ink" in periodicals. Through an examination of the amount of coverage devoted to 2,011 scholars in all the articles and research notes appearing in six leading criminology and criminal justice journals published from 1991 to 1995, we report the 100 most influential scholars. A comparison of the page-coverage findings with a study listing the most-cited scholars in the same six journals for the same years (Cohn and Farrington, 1998b) again shows some interesting differences in the results pro-

duced by the rival procedures. Specifically, citation analysis seems to underestimate the influence of earlier theorists and scholars known mostly for one work, while perhaps overestimating the influence of prolific, contemporary quantitative researchers. We conclude with some thoughts about the relative merits of measuring the influence of scholars and works through the page-coverage procedures used here and traditional citation analysis.

Units of Content Analysis

Despite the large number of citation analysis studies to appear in criminology and criminal justice in recent years, some commentators do not consider citation analysis to be a valid measure of the influence of scholars and works. Critics have argued that citation patterns: 1) may reflect the attempts by authors to curry favor with journal editors and reviewers; 2) might be influenced by authors who use citations to boost the careers of their friends and colleagues; 3) ignore whether the subsequent discussions of scholars and/or works are favorable, unfavorable, or neutral; and 4) may reflect past rather than current contributions to the field (Cohn, Farrington, and Wright, 1998; Cole and Cole, 1973; Green, 1997).

The defenders of citation analysis have countered that high citation counts are strongly correlated with other indicators of influence in a discipline, such as the receipt of prestigious awards and elections to offices in professional associations (Cohn, Farrington, and Wright, 1998). Cohn and Farrington (1994b:531) conclude that "large numbers of citations ... provide an imperfect but nevertheless reasonably valid measure of influence on a field."

Still, Cohn, Farrington, and Wright (1998) note that as a type of "manifest" (or quantitative) content analysis of print media (see Berelson, 1952; Budd, Thorp, and Donahew, 1967; Carney, 1979; Wright, 1988)[1], citation analysis relies on somewhat unusual units of analysis to measure and to tabulate influence. The key elements are names (in the analysis of the influence of particular scholars) and titles (in the analysis of the influence of particular works) that are accompanied by references. One possible problem with these units of analysis is that they measure influence by how often scholars and works are cited, rather than by the amount of space that is devoted to the discussion of these scholars and works. Traditionally in the manifest content analysis of print media, length of coverage—measured in inches-of-print or in pages—is considered to be a superior unit of analysis when studying the importance of themes or topics (Berelson, 1952; Budd, Thorp, and Donahew, 1967; Carney, 1979; Wright, 1988).

To offer a hypothetical example of the potential differences between citations and length of coverage as measurements of influence, consider an article that cites two scholars. In this article, Scholar A has one study cited in a five-inch review of his/her work, while scholar B has five studies cited in a one-inch discussion of his/her work. Using citations as a unit of analysis, B would be ranked as more influential in this article than A; using inches-of-print as a unit of analysis, A would be ranked as much more influential than B. In this circumstance, length of coverage may offer a more realistic measure of the relative influence of these scholars.

Manifest content analysis researchers in the areas of deviance, criminology, and criminal justice have made extensive use of length of coverage measurements (for example, see Bollen and Phillips, 1981; Chermak, 1994, 1995, 1998; Phillips, 1979, 1980; Stack, 1987; Wright, 1987, 1988, 1992, 1994, 1995b, 1995c, 1995d, 1996a; Wright and Friedrichs, 1991; Wright and Miller, 1998b). For example, research relating crime, victim, and offender characteristics to coverage in print media has measured the amount of space devoted to crime stories in inches-of-print in newspapers (Chermak, 1994, 1995, 1998). Studies of major newspapers that have linked suicide stories to subsequent motor vehicle accidents (Bollen and Phillips, 1981; Phillips, 1979), or publicized executions to subsequent homicides

(Phillips, 1980; Stack, 1987), also have used inches-of-print in newspaper columns as the unit of analysis for measuring the amount of publicity devoted to news stories.

In a series of articles critical of introductory criminology textbooks, Wright and his associates used both inches-of-print and page-coverage to argue that textbooks devoted insufficient attention to biological theories and research (Wright and Miller, 1998b), career criminal studies (Wright, 1994), deterrence research (Wright, 1996b), the free will/determinism controversy (Wright, 1995c), white-collar crime (Wright and Friedrichs, 1991), and women and crime topics (Wright, 1987, 1988, 1992, 1995d). In these studies, Wright followed the standard convention in the manifest content analysis of print by assuming that the length of coverage devoted to a topic like deterrence is a more valid indicator of the importance of this research than the number of times that authors mention key words like deterrence (see Wright, 1996b). The same reasoning can be used to argue that length of coverage might be a more valid indicator than simple citations when measuring the influence of particular scholars and works.

To date, only one study—Cohn, Farrington, and Wright (1998)—has used length of coverage in publications as a unit of analysis to examine the influence of scholars. By converting inches-of-print into page coverage, these authors measured the amount of space devoted to 2,076 scholars in 23 introductory criminology textbooks published from 1989 to 1993. The total numbers of pages devoted to these scholars were tabulated to rank the 100 most influential scholars; these rankings were compared to a recent analysis (see Wright, 1995a) of the 47 most-cited scholars in the same 23 textbooks. Notable differences emerged when the results of the two studies were compared; in particular, the citation analysis appeared to underestimate the influence of earlier theorists and scholars known mostly for one celebrated work, while overestimating the influence of prodigious contemporary quantitative researchers. Cohn, Farrington, and Wright (1998:111) argue that it is important to determine if the differences found between page-coverage analysis and citation analysis: "are idiosyncratic to textbooks or also affect journals. The next step in evaluating the potential of page-coverage analysis as a technique for studying the influence of scholars is to extend this research to criminology and criminal justice journals."[2]

Here, we take this next step by measuring the page coverage devoted to 2,011 scholars in all the articles and research notes appearing in six criminology and criminal justice journals published from 1991 to 1995. After compiling a list of the 100 most influential scholars, we compare our page-coverage findings to Cohn and Farrington's (1998b) analysis of the 49 most-cited scholars in the same six journals for the same five years. Our findings show that the differences that Cohn, Farrington, and Wright (1998) observed when comparing page-coverage and citation techniques in criminology textbooks persist in the study of influential scholars in the journals.

Research Design

We examined the amount of coverage devoted to various scholars in all the articles and research notes appearing in three leading criminology journals (*Criminology*, *Journal of Quantitative Criminology*, and *Journal of Research in Crime and Delinquency*) and three leading criminal justice journals (*Criminal Justice and Behavior*, *Journal of Criminal Justice*, and *Justice Quarterly*) published from 1991 to 1995.[3] For comparison purposes, the periodicals and time frame selected for the study were chosen to duplicate exactly the publications analyzed in Cohn and Farrington's (1998b) study of the most-cited scholars in recent leading criminology and criminal justice journals.

Inches-of-print and page coverage were the units of analysis used in the study. When a scholar[4] was mentioned in an article/research note (either in sentences, in citations within the text, or in footnotes), careful records were kept of how much

coverage—in continuous inches-of-print—was devoted to the scholar.[5] Because Cohn and Farrington's (1998b) analysis excluded the self-citations of authors, we followed this example by deleting self-discussions in our data collection. All scholars receiving at least one inch of print coverage in one article/research note (that they themselves did not write) were included in the study; scholars receiving peripheral attention (less than one inch of print coverage in at least one article/research note) were excluded. This research design required reading and analyzing a total of 773 articles/research notes, comprising a total of 15,210 pages.

Records were kept of how many inches-of-print each journal included on a typical page. Once the data were collected on the inches-of-print coverage for every scholar, these measurements were reconfigured so that page-lengths were the reported units of analysis for ranking the most influential scholars (for additional examples of the use of these procedures in manifest content analysis, see Wright, 1994, 1996b; Wright and Miller, 1998b).

Findings

Altogether, 2,011 different scholars were covered in at least one inch of print in one of the 733 articles/research notes that we analyzed. Most of these scholars, though, received minimal attention; when inches-of-print measurements were reconfigured into coverage in total pages, only 209 scholars (or 10.39%) were discussed in one or more pages.

Table 1 reports the 100 most influential scholars in the six journals that were analyzed, ranked by how much page-coverage each received. Travis Hirschi (1st place) and Michael R. Gottfredson (2nd) were at the top of the rankings, largely due to the intense theoretical and research interest generated by the self-control perspective, proposed in *A General Theory of Crime* (Gottfredson and Hirschi, 1990). Hirschi and Gottfredson impressively outdistanced other scholars who ranked high in the study: over ten pages of coverage separated Gottfredson from Cesare Beccaria in third place. This difference is especially noteworthy, considering that only five scholars in Table 1—Hirschi, Gottfredson, Beccaria, Delbert S. Elliott (4th), and Alfred Blumstein (5th)—received more than ten pages of coverage in the journals. David Huizinga (6th), Lawrence W. Sherman (7th), Jacqueline Cohen (8th), Robert J. Sampson (9th), and Marvin E. Wolfgang (10th) were the other scholars who ranked among the top ten in page-coverage.

There is considerable intellectual diversity in the 100 scholars ranked in Table 1. Besides Hirschi and Michael R.Gottfredson, other authors who are closely associated with particular theoretical perspectives are John L. Hagan (12th), Austin Turk (32nd), and Jurgen Habermas (37.5th) for conflict/critical approaches, Sampson, David P. Farrington (41st), Terrie E. Moffitt (41st), and John H.Laub (52nd) for developmental/life course theories, Beccaria, Kirk R. Williams (26th), and Richard Hawkins (28th) for rational choice/deterrence arguments, Lawrence E. Cohen (30.5th) and Marcus Felson (45th) for the routine-activities approach, Edwin H. Sutherland (13.5th) and Ronald L. Akers (46th) for social learning perspectives, and Richard Rosenfeld (25th), Robert K. Merton (27th), Steven F. Messner (47th), and Robert Agnew (53rd) for strain theory. Scholars in Table 1 who are prominent criminal justice systems analysts and policy researchers rather than theorists include Blumstein, Jacqueline Cohen, Sherman, Marcia Chaiken (13.5th), Jan M. Chaiken (16th), and Joan Petersilia (30.5th).

Other indicators of intellectual diversity are the varied methodological orientations and educational backgrounds of the influential scholars. Although most authors listed in Table 1 are renowned for quantitative research, some are known mostly for qualitative/ethnographic studies (e.g., Jack Katz, 34th; Martin Sanchez Jankowski, 41st; Malcolm W. Klein, 49th; and Elijah Anderson, 68.5th). Most scholars ranked in Table 1 were trained as sociologists, but a number are associated with other disciplines, including philosophers Beccaria and Habermas, political scientists James

TABLE 1. THE 100 MOST INFLUENTIAL SCHOLARS IN MAJOR AMERICAN CRIMINOLOGY AND CRIMINAL JUSTICE JOURNALS, 1991 TO 1995, MEASURED IN PAGE COVERAGE

Rank	Scholar	Pages Devoted to the Scholar
1	Travis Hirschi	35.65
2	Michael R. Gottfredson	29.50
3	Cesare Beccaria	19.26
4	Delbert S. Elliott	10.79
5	Alfred Blumstein	10.17
6	David Huizinga	8.09
7	Lawrence W. Sherman	7.22
8	Jacqueline Cohen	6.98
9	Robert J. Sampson	6.35
10	Marvin E. Wolfgang	6.19
11	Wesley G. Skogan	5.58
12	John L. Hagan	5.05
13.5	Marcia Chaiken	4.95
13.5	Edwin L. Sutherland	4.95
15	Mark Warr	4.86
16	Jan M. Chaiken	4.80
18	Suzanne S. Ageton	4.50
18	Mark Stafford	4.50
18	Charles R. Tittle	4.50
20	Kenneth C. Land	4.47
21	Thorsten J. Sellin	4.43
22	Eric D. Poole	4.24
23.5	David F. Greenberg	4.23
23.5	Christy A. Visher	4.23
25	Richard Rosenfeld	4.14
26	Kirk R. Williams	4.13
27	Robert K. Merton	4.00
28	Richard Hawkins	3.99
29	Bruce J. Arneklev	3.96
30.5	Lawrence E. Cohen	3.90
30.5	Joan Petersilia	3.90
32	Austin Turk	3.74
33	Robert M. Figlio	3.71
34	Jack Katz	3.68
35	Scott Menard	3.66
36	James Q. Wilson	3.65
37.5	Robert J. Bursik	3.53
37.5	Jurgen Habermas	3.53
39	Harold G. Grasmick	3.37
41	David P. Farrington	3.13
41	Martin Sanchez Jankowski	3.13
41	Terrie E. Moffitt	3.13
43.5	Richard A. Berk	3.09
43.5	H. Laurence Ross	3.09
45	Marcus Felson	3.02
46	Ronald L. Akers	3.01
47	Steven F. Messner	2.98
48	Lloyd E. Ohlin	2.83
49	Malcolm W. Klein	2.82

TABLE 1. CONTINUED

Rank	Scholar	Pages Devoted to the Scholar
50	David Matza	2.81
51	Darrell J. Steffensmeier	2.73
52	John H. Laub	2.65
53	Robert Agnew	2.64
54	Richard B. McCleary	2.49
55	Francis T. Cullen	2.39
56.5	Donald J. Black	2.31
56.5	John J. DiIulio, Jr.	2.31
58.5	John Braithwaite	2.28
58.5	Cathy Spatz Widom	2.28
60	David McDowall	2.19
61	Murray A. Straus	2.18
62	Herman Goldstein	2.17
63.5	Soumyo D. Moitra	2.14
63.5	Karl-Dieter Opp	2.14
65	Michael J. Hindelang	2.13
68.5	Elijah Anderson	2.00
68.5	Bruce Levin	2.00
68.5	Ross L. Matsueda	2.00
68.5	Douglas A. Smith	2.00
68.5	S. S. Tomkins	2.00
68.5	Gerald S. Weinstein	2.00
72	Hans Toch	1.97
73	Gary D. Hill	1.96
74	Albert J. Reiss, Jr.	1.89
78.5	Judith V. Becker	1.86
78.5	Denise C. Gottfredson	1.86
78.5	Gary D. Gottfredson	1.86
78.5	J. Thomas Grisso	1.86
78.5	Y. Lavee	1.86
78.5	David H. Olson	1.86
78.5	J. Portner	1.86
78.5	Vernon L. Quinsey	1.86
83	Richard A. Cloward	1.84
84	Raymond Paternoster	1.82
85	Mercer L. Sullivan	1.81
86.5	David Cantor	1.76
86.5	Renee Hoffman Steffensmeier	1.76
89	Gerben J. N. Bruinsma	1.71
89	James Heckman	1.71
89	A. Tomkins	1.71
91	D. Wayne Osgood	1.69
93	Jerald G. Bachman	1.68
93	Richard A. Hay, Jr.	1.68
93	Terance D. Miethe	1.68
95	Irving A. Spergel	1.65
96	Irving Piliavin	1.64
97	John M. Hagedorn	1.61
98	Susan Ehrlich Martin	1.60
99.5	David Weisburd	1.58
99.5	Helene Raskin White	1.58

Q. Wilson (36th) and John J. DiIulio, Jr. (56.5th), psychologists Farrington, Moffitt, and Judith V. Becker (78.5th), and statisticians Bruce Levin (68.5th) and Gerald S. Weinstein (68.5th).

There is less gender, generational, and cultural diversity among the names appearing in Table 1. For example, only twelve women ranked among the 100 most influential scholars in page-coverage: Jacqueline Cohen, Marcia Chaiken, Suzanne S. Ageton (18th place), Christy A. Visher (23.5th), Petersilia, Moffitt, Cathy Spatz Widom (58.5th), Becker, Denise C. Gottfredson (78.5th), Renee Hoffman Steffensmeier (86.5th), Susan Ehrlich Martin (98th), and Helene Raskin White (99.5th). Furthermore, most of the scholars listed in Table 1 are contemporary researchers, and only six are deceased: Beccaria, Wolfgang, Sutherland, Thorsten J. Sellin (21st), H. Laurence Ross (43.5th), and Michael J. Hindelang (65th). Finally, virtually all of the most influential scholars in page-coverage were from the United States: Exceptions are Beccaria from Italy, Habermas and Karl-Opp Dieter (63.5th) from Germany, Farrington from England, John Braithwaite (58.5th) from Austrilia, and Gerben J. N. Bruinsma (89th) from the Netherlands.

Table 2 reports the 50 most influential scholars in our page-coverage analysis of six leading criminology and criminal justice journals published from 1991 to 1995, alongside the list of the 49 most-cited scholars from Cohn and Farrington's (1998) study of the same journals during the same period.[6] This table permits a direct comparison of the results produced by the rival citation and page-coverage procedures.

In their studies, Cohn and Farrington (1994a, 1994b, 1996, 1998) found that leading journals in criminology and criminal justice vary conspicuously in the average number of references listed in articles/research notes. In particular, publications in criminology journals tend to have more references than those appearing in criminal justice journals. To assign equal importance to the citations in different periodicals, Cohn and Farrington (1994a, 1994b) devised a weighting procedure, where the 50 most-cited scholars are compiled for each journal before aggregating these data for all journals. This weighting system involves reversing the rankings for the 50 most-cited scholars in each journal (so that the author ranked first in citations receives a score of 50, the author ranked second in citations receives a score of 49, and so on). The weighted scores are then added for every author who appeared as one of the 50 most-cited scholars in at least one of the journals; the authors with the highest scores are ranked as the most-cited scholars (see Cohn and Farrington, 1994b, 1998).[7]

Because Cohn and Farrington (1998) only report citation rankings based on weighted scores, we were forced to copy this procedure. We recoded our page-coverage data to tabulate the 50 most influential scholars in each of the six journals, in order to calculate aggregate, weighted rankings. For the most influential scholars, Table 2 reports Cohn and Farrington's (1998) weighted citation rankings (column 1), our weighted page-coverage rankings (column 2), and from Table 1, the unweighted page-coverage rankings (column 3).

When comparing the data in Table 2, there are some agreements among the lists of influential scholars. Twenty-seven of the 49 most-cited scholars appeared in the weighted page-coverage rankings ($r = .55$); 26 of the 49 most-cited scholars placed in the unweighted page-coverage rankings ($r = .53$).[8] The weighted correlation is identical to the association that Cohn, Farrington, and Wright (1998) observed when they first compared the results of citation and page-coverage techniques in criminology textbooks; these authors reported 26 matches in lists of 47 prominent scholars ($r = .55$). This suggests that the two techniques for measuring the influence of scholars produce roughly equivalent results.

Still, Cohn, Farrington, and Wright's (1998) study of textbooks noted some important differences in the results of the two techniques: Earlier theorists and scholars primarily known for one renowned work

TABLE 2. A COMPARISON OF THE MOST INFLUENTIAL SCHOLARS IN MAJOR AMERICAN CRIMINOLOGY AND CRIMINAL JUSTICE JOURNALS, 1991 TO 1995, AS MEASURED IN CITATIONS AND PAGE-COVERAGE

Rank in Citations[a]	Rank in Page Coverage		Scholar
	Weighted[b]	Unweighted[c]	
1	1	1	Travis Hirschi
2	2	2	Michael R. Gottfredson
3	7	9	Robert J. Sampson
4	3	5	Alfred Blumstein
5	35	30.5	Lawrence E. Cohen
6	48	41	David P. Farrington
7	5	6	David Huizinga
8	14	12	John L. Hagan
9	4	4	Delbert S. Elliott
10	9	10	Marvin E. Wolfgang
11	8	8	Jacqueline Cohen
12	23	36	James Q. Wilson
13	—	—	Michael J. Hindelang
14	20	—	Francis T. Cullen
15	6	7	Lawrence W. Sherman
16	—	—	Douglas A. Smith
17	11	30.5	Joan Petersilia
18	—	46	Ronald L. Akers
19	19	18	Suzanne S. Ageton
20	—	45	Marcus Felson
21	17	23.5	Christy A. Visher
22	—	—	Marvin D. Krohn
23	—	—	Raymond Paternoster
24	—	—	Murray A. Straus
25	27	11	Wesley G. Skogan
26	22	43.5	Richard A. Berk
27	—	—	Daniel S. Nagin
28	21	18	Charles R. Tittle
29	25	37.5	Robert J. Bursik
30	—	—	Rolf Loeber
31	33	39	Harold G. Grasmick
32	10	20	Kenneth C. Land
33	—	—	Albert J. Reiss, Jr.
34	—	—	Terence P. Thornberry
35	47	23.5	David F. Greenberg
36	—	—	John H. Laub
37	—	—	Jeffrey A. Fagan
38	—	—	Don A. Andrews
39	—	—	Michael H. Tonry
40	—	—	William L. Marshall
41	13	13.5	Edwin H. Sutherland
42	39.5	—	Vernon L. Quinsey
43	—	—	Paul Gendreau
44	—	—	Howard E. Barbaree
45	—	—	Martha A. Myers
46	39.5	—	Judith V. Becker

TABLE 2. CONTINUED

Rank in Citations[a]	Rank in Page Coverage		Scholar
	Weighted[b]	Unweighted[c]	
47	—	—	Hans Toch
48.5	—	—	Gene G. Abel
48.5	—	—	Dante V. Cicchetti
—	12	16	Jan M. Chaiken
—	15	13.5	Marcia Chaiken
—	16	32	Austin Turk
—	18	41	Terrie E. Moffitt
—	24	49	Malcolm W. Klein
—	26	15	Mark Warr
—	30	29	Bruce J. Arneklev
—	30	3	Cesare Beccaria
—	30	37.5	Jurgen Habermas
—	30	—	Darrell J. Steffensmeier
—	30	—	S. S. Tomkins
—	34	27	Robert K. Merton
—	36	22	Eric D. Poole
—	39.5	—	J. Thomas Grisso
—	39.5	—	Y. Lavee
—	39.5	—	David H. Olson
—	39.5	—	J. Portner
—	43.5	25	Richard Rosenfeld
—	43.5	—	Renee Hoffman Steffensmeier
—	45.5	34	Jack Katz
—	45.5	—	Karl-Dieter Opp
—	49.5	—	John J. DiIulio, Jr.
—	49.5	—	Soumyo D. Moitra
—	—	21	Thorsten J. Sellin
—	—	33	Robert M. Figlio
—	—	35	Scott Menard
—	—	41	Martin Sanchez Jankowski
—	—	43.5	H. Laurence Ross
—	—	47	Steven F. Messner
—	—	48	Lloyd E. Ohlin
—	—	50	David Matza

[a] From Cohn and Farrington (1998). Ranks in citations were weighted to give equal representation to each of the six journals analyzed in the study.

[b] Weighted page-coverage ranks assigned equal representation to each of the six journals analyzed in the study.

[c] From Table 1.

ranked higher in page-coverage; prolific modern quantitative researchers ranked higher in citations. On closer inspection, these same differences are apparent when comparing the citation rankings with the weighted and unweighted page-coverage rankings in the journals (see Table 2).

Four established theorists—Austin Turk (16th place), Cesare Beccaria (30th), Jurgen Habermas (30th), and Robert K. Merton (34th)—appeared among the most influential scholars in the weighted page-coverage rankings, but not in the citation rankings. In addition, Edwin H. Sutherland ranked considerably higher in page-coverage (13th) than in citations (41st). Although these scholars were cited only occasionally, their works were extensively discussed when they were cited. This supports Cohn, Farrington, and Wright's (1998) conclusion that citation analysis disfavors established theorists.

Several authors known mostly for one famous work in criminology and criminal justice—including Beccaria ([1764] 1963), Merton (1938), Renee Hoffman Steffensmeier (Steffensmeier and Steffensmeier, 1980) in 43.5th place, and Jack Katz (1988) in 45.5th place—also appeared in the weighted page-coverage rankings, but not among the most-cited scholars. For example, Merton parsimoniously articulated strain theory in one famous early article ("Social Structure and Anomie"; Merton, 1938); he seldom returned to the analysis of crime in his subsequent illustrious career as a sociologist. Although a number of journal articles/research notes in our study extensively discussed strain theory, and the authors of these publications dutifully cited Merton's acclaimed article, these citations were insufficient for Merton to rank as one of the 49 most-cited scholars. Apparently, citation rankings disadvantage authors renowned mostly for one work, regardless of the influence of this work.

While citation analysis may underestimate the influence of earlier theorists and scholars known mostly for one celebrated work, it may overestimate the influence of modern, quantitative researchers who are more prolific. Some contemporary quantitative scholars who ranked among the 30 most-cited scholars, but failed to rank among the 50 page-coverage influentials (weighted and unweighted, see Table 2), include Michael J. Hindelang, Marvin D. Krohn, Rolf Loeber, Daniel S. Nagin, Raymond Paternoster, Douglas A. Smith, and Murray A. Straus. In addition, Lawrence E. Cohen (respectively, 5th in citations and 35th in weighted page-coverage) and David P. Farrington (6th and 48th) ranked much higher in citations.[9] These researchers were widely cited in recent journals, but their works were discussed only briefly.

In general, Tables 1 and 2 seem to support Cohn, Farrington, and Wright's (1998) claim that citation analysis as a measure of the influence of scholars has certain disadvantages that may not be shared by the page-coverage technique. Our page-coverage analysis of recent leading criminology and criminal justice journals suggests that a content analysis of the same publications (Cohn and Farrington, 1998) slighted the influence of established theorists and scholars known mostly for one famous work, but perhaps exaggerated the influence of more prolific contemporary quantitative researchers. The data reported here confirm that page-coverage is a promising alternative to citations for measuring the influence of scholars.

Summary and Discussion

Citation analysis has emerged as an important way to measure the influence of scholars and works in criminology and criminal justice, despite some persistent doubts about the validity of these studies. Recently, Cohn, Farrington, and Wright (1998) proposed another procedure to measure the influence of scholars that relies on units of analysis other than citations: inches-of-print and page-coverage. They compared the findings from a citation analysis of influential scholars in 23 introductory criminology textbooks published from 1989 to 1993 (Wright, 1995a) to a page-coverage analysis of "who gets the ink" in the same books. The authors reported that page-coverage analysis corrected for certain citation analysis short-

comings. Nevertheless, Cohn, Farrington, and Wright (1998) were cautious in their endorsement of the page-coverage approach. Noting that these findings might be idiosyncratic to textbooks, they strongly recommended comparing the page-coverage procedure and citation analysis in a study of journals.

Here, we extended page-coverage research to an examination of the most influential scholars in six leading criminology and criminal justice journals published from 1991 to 1995—the same journals studied in a recent citation analysis conducted by Cohn and Farrington (1998). A list of the 100 most influential scholars, as measured in page-coverage, was compiled from the journals. These scholars were characterized by much intellectual diversity (in theoretical perspectives, methodological approaches, and disciplinary backgrounds), but by less cultural diversity (most were contemporary, male scholars from the United States).

More importantly, a comparison of the page-coverage and citation analysis findings from the journals supported the earlier conclusions in Cohn, Farrington, and Wright's (1998) study of textbooks. Specifically, the page-coverage technique seemed to compensate for the tendencies in the citation analysis to underestimate the influence of certain established theorists and scholars known mostly for one renowned work, while overestimating the influence of some recent prodigious quantitative researchers. These findings support the continued use of the page-coverage procedure as an alternative to citation analysis in the study of the influence of scholars.

It is important to conclude by noting that the page-coverage technique for measuring the influence of scholars certainly offers no quick and easy solutions to problems in citation analysis.

The chief drawback is the immense commitment of time and effort needed to conduct a page-coverage analysis. The current study demanded the tedious and painstaking tracking of the coverage of 2,011 scholars in 15,210 pages of text; coding the accumulated data alone took over two months. Our estimate is that the analysis reported here required approximately 650 hours of research time. Any researcher who considers pursuing a similar study must be warned about the arduous task ahead.

Notes

1. The other general type of content analysis is called "latent" (or qualitative). Latent content analysis "requires the researcher to draw inferences regarding deeper, contextual meanings," while manifest content analysis simply counts "surface meanings" (e.g., names, words, sentences, paragraphs, and/or pages; Wright, 1988:41; also, see Berelson, 1952; Budd, Thorp, and Donahew, 1967; Carney, 1979).

2. Special problems may affect the validity of citation studies of textbooks as measures of scholarly influence (Wright and Miller, 1998a). Allen (1983) and Green (1997) argue that publishers and reviewers may pressure textbook authors into deleting "cutting edge" citations to recent, important studies written by lesser-known researchers, in favor of standard citations to well-established scholars. Because these factors also could jeopardize Cohn, Farrington, and Wright's (1998) page-coverage study of textbooks, it is especially important to extend this technique to the analysis of leading criminology and criminal justice journals.

3. Cohn and Farrington (1998b) selected these six periodicals for analysis because various studies that rank the prestige of journals suggested that these were the leading journals in criminology and criminal justice (see Cohn, Farrington, and Wright, 1998). Because Cohn and Farrington's (1998b) analysis included comments and replies published in the journals, these also were examined in our study. Like Cohn and Farrington, we excluded book review essays, book reviews, journal editor's comments, and miscellaneous other items (e.g., obituaries and notes).

4. Names of nonacademics (e.g., novelists, politicians, and criminals) were excluded from the study.

5. Any discussion of scholars, including critical assessments and biographical treatments, were included in the data analysis.

We assumed *prima facie* that these were important indicators of the influence of scholars.

6. Apparently because there were ties for 50th place, Cohn and Farrington (1998) only reported the 49 most-cited scholars in their citation analysis of six leading criminology and criminal justice journals.

7. In a study of six journals, the maximum weighted score that an author could receive is 300 (if he/she ranked as the most-cited scholar in every journal). The minimum score that a scholar could receive is 1 (if he/she ranked 50th, as the most-cited scholar in only one journal).

8. Thirty-six of the 49 most-cited scholars appeared in the unweighted rankings of the 100 most influential scholars in page-coverage (r = .43; cf., Tables 1 and 2). In this study, we used a special formula devised by North et al. (1963) to calculate correlations on interval-level, nonlinear data. Because this formula violates the conventional assumptions associated with correlation, we chose a cautious interpretation of our coefficients, foregoing the usual F tests of statistical significance used in correlation (see Cohn, Farrington, and Wright, 1998).

9. There are a few notable exceptions to the claim that prolific, contemporary quantitative researchers ranked higher in citations than in page-coverage (see Table 2). These exceptions are Jan M. Chaiken (12th place in the weighted page-coverage rankings), Terrie E. Moffitt (18th), and Mark Warr (26th), all of whom were unranked in Cohn and Farrington's (1998) citation study.

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Gender And Job Satisfaction In A Self-managed Work Team Environment

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Abstract

This study examines the determinants of job satisfaction for women and men working in self-managed work teams. The data used are from a 1990 survey sample of 99 production employees in an electronics manufacturing plant. A model that integrates past theories using factors from job design, interpersonal and personal levels is tested. Workers' positions in the organizational hierarchy were controlled in order to clarify gender differences in predictors of job satisfaction. The model explained 67% of the variance for men and 55% of the variance for women. Women and men were found to have two predictors in common: Cooperation and commitment. Additionally, women's job satisfaction was affected by task significance and task identity. Men's job satisfaction was also affected by role clarity and skill variety.

Introduction

Job satisfaction has been studied for decades and gender differences have been noted for at least 25 years. However, most job satisfaction models have focused either on job design, interpersonal factors, or on personal factors. Few studies have combined all of these areas for a more holistic analysis. A model that includes job characteristics as well as personal and interpersonal factors is particularly relevant today as new management approaches such as self-managed work teams (SMWTs) place increasing emphasis on these workplace characteristics. SMWTs typically consist of 5 to 15 workers who are collectively responsible for making decisions and performing all the tasks related to a defined piece of work or project. The team may be responsible for scheduling its work, interacting with customers, disciplining team members, participating in hiring, and many other responsibilities previously left to management in traditional job designs (Stanley-Stevens, Yeatts, and Seward 1995). The growth in SMWTs has been attributed to a variety of positive impacts on the organization's performance including lower turnover and absenteeism, increased flexibility and productivity, improved communication and cooperation (Boyett and Conn 1988; Lawler, 1986; Yeatts, Beyerlein and Thibodeaux 1991). The purpose of this study is to examine the relationship between several workplace characteristics and job satisfaction within a SMWT environment and, in particular, determine whether the importance of these characteristics varies by gender.

Several researchers have discussed the need for integrated models for studying work attitudes, such as job satisfaction, for both men and women (Feldberg and Glenn 1979; Izraeli 1983; Lambert 1991; Lorence 1987; Neil and Snizek 1987; Pearson and Kahn 1980). Such an integrated model would include aspects of previous models with regard to organizational, job design, interpersonal and personal factors. Even though it is reasonable to assume that gender socialization has a significant influence on a person's values and expectations and consequently his/her satisfaction, limiting the factors related to men's job satisfaction to job characteristics, as has traditionally been done (eg. Hackman and Oldham 1975, 1976, 1980) and factors related to women's job satisfaction to interpersonal factors, as reflected by past studies (Clark 1997; Lambert 1991; Mason 1995) is inadequate. Additionally, women can be expected to be affected by job characteristics and men can

be expected to be affected by interpersonal factors, especially in SMWTs where interaction and teamwork are emphasized. Other factors such as age and position in the hierarchy also need to be considered. The following is a discussion of the integrated model to be tested.

Position In The Organization's Hierarchy

Position in the hierarchy is expected to be an important organizational variable affecting job satisfaction. Kanter (1976) argues that job satisfaction differences between the sexes are a "function of location in organizational structures" rather than of gender. In hierarchical systems, women are disadvantaged with regard to opportunity and power which results in behaviors and attitudes (limited aspirations, concern with co-worker friendships) that are also likely true for men in disadvantaged positions. Position in the hierarchy has covaried with gender in the past (Kanter 1976,1977; Izraeli 1983; Glass, 1984). Lambert (1991) found comparable levels of job satisfaction among men and women when controlling for job conditions. Also, Neil and Snizek (1988) found no significant gender difference in job satisfaction when hierarchical position in the organization was controlled. On the other hand, Mason (1995) found similar levels of job satisfaction for women and men at the same clerical level but found women managers to be more satisfied than men managers. These findings suggest the following propositions:

1) When position in the organizational hierarchy is controlled, the model which measures job, interpersonal and personal characteristics will provide similar levels of explanatory power for both men's and women's job satisfaction.

2) When position in the organizational hierarchy is controlled, men and women will have similar levels of job satisfaction.

Job design factors

The job characteristics model has often been tested and supported by previous research. Common job characteristics include skill variety, task identity, task significance, autonomy, and role clarity (Hackman and Oldham 1975, 1976, 1980 and see Loher, Noe, Moeller and Fitzgerald 1985, for meta analysis). Some differences have been reported regarding the effects of job characteristics on men's and women's job satisfaction. Specifically, the factor found to be more related to women's satisfaction than men's is skill variety (Miller 1980). More important predictors for men include task significance (Rosenbach, Daily and Morgan 1979) and autonomy (D'Arcy, Syrotuik and Siddique 1984; Keith and Glass 1977; Jurgensen 1978; McCarrey, Edwards, and Jones 1977; Miller 1980; Mottaz 1986; Murray and Atkinson 1981). The job model was originally designed for men and some studies have found more factors related to men's satisfaction than to women's. But with all respondents working in SMWTs, at the same organizational level, these findings suggest the following proposition:

3) Job characteristics will be significantly related to both men's and women's job satisfaction.

Interpersonal Factors

Interpersonal level explanations of job satisfaction suggest that women's job satisfaction is linked to social relationships, including cooperation, coworker support, supervisor support, feedback and recognition from other workers (Abdel-Halim 1982; Blau 1981; Cummins 1989; Drory and Shamir 1988; Karasek, Triantis, and Chaudhry 1982; Manning and Fullerton 1988; Mottaz 1986; Schnake 1983; Skaret and Bruning 1986; Zalesny, Farace, and Kurchner-Hawkins 1985). Since SMWT environments emphasize cooperation and teamwork, this view would contend that women will experience higher job satisfaction in a SMWT environment. But since the level of hierarchy is controlled, it is expected that the gender differences found in past studies would be reduced here, suggesting the following proposition:

4) Interpersonal characteristics will provide similar explanation for women's and men's job satisfaction.

Personal Factors

Regarding personal factors, commitment has been found to affect job satisfaction but not necessarily differently for women and men (Bateman and Strasser 1984; Robinson, Roth and Brown 1993; Vandenberg and Lance 1992; and for a meta-analysis, Blegen 1993). Age and education have been examined before with mixed results and no indication that they affect job satisfaction differently for women than for men (Hackman and Oldham 1980; Kalleberg and Loscocco 1983; Loscocco and Bose 1998; Neil and Snizek 1988; Smith, Smits and Hoy 1998). Satisfaction with pay has also had contradictory effects, with some researchers finding it positively related to job satisfaction (Hogan and Mantell 1987) and some, negatively (Hackman and Oldham 1980); but again, no differences between women and men. These findings suggest the following proposition:

5) Personal factors have similar effects on both men's and women's job satisfaction.

In sum, an integrated model of job satisfaction involves a variety of predictors including job characteristics, interpersonal factors, and personal factors. Gender differences in the predictors of job satisfaction may be caused by differences in the positions in the organizational hierarchy of the jobs held by men and women. The following study examines the predictors of job satisfaction for workers in self-managed work teams where both men and women occupy positions at the same level of in the organizational hierarchy.

Method

A survey instrument was developed in early 1990, using existing literature as a basis for including questions that could be later used to develop indices for the concepts of interest (e.g. job characteristics) (See Appendix A). In June 1990, the instrument was distributed to approximately 400 workers at an electronics manufacturing facility in the southwest United States. This plant is subsidiary of a large, national firm which has been in operation since 1987. From this survey, 313 instruments (78%) were completed.

Of the instruments completed, 120 were from employees classified as production workers, employees organized into self-managed work teams, where all workers, both male and female, performed the same tasks and held the same responsibilities. Of the 120 respondents from the production division, 99 answered the question asking their sex (52 women and 47 men). These respondents are used for the analysis. Having both men and women in comparable jobs allows for a control of the hierarchical position since they are all in the same position. Such control has rarely been used in previous research because in most studies the men and women hold traditional job positions, i.e. a higher percentage of males in management positions and a high percentage of females in lower paying positions.

Data Analysis

Factor analyses and reliability tests were run in order to determine the consistency of the items used to measure a single concept. Separate multiple regressions were performed for women and men using job satisfaction as the dependent variable. Only testing respondents who worked in self-managed work teams as production employees controlled position in the organizational hierarchy. The independent variables measuring job characteristics included skill variety, task significance, task identity, autonomy and role clarity. Interpersonal independent variables measuring interpersonal relationships included cooperation, and feedback/recognition. Personal characteristics measured included age, education, and satisfaction with pay.

The application of theory, the correlation coefficient ($R2$) and partial coefficients of each variable were used to identify any

variables that could be eliminated from the equation (Cohen and Cohen 1983). This was preferable to stepwise regression because it is based on theoretical understanding of variables where stepwise regression allows the computer to select the variables independent of causal priority or logical relevance (Cohen and Cohen 1983). The regression analyses revealed education and satisfaction with pay as two factors that could be removed from the analysis. This was further indicated by minimal support from past research. Therefore education and satisfaction with pay were removed from the analysis.

Limitations And Delimitations

While this study provides insight into factors that affect women's and men's job satisfaction, there are several limitations. First, the data were collected solely from a cross-sectional, self-report questionnaire of employee attitudes. Such a format subjects itself to a number of biases. First, common method variance, measuring the dependent and independent variables within the same instrument, can result in inflated correlations between the dependent and independent variables. Unfortunately, using a different method to measure job satisfaction would have required additional data collection and this was not practical given our time and financial constraints. To reduce the effects of common method variance such as respondents' marking answers consistently high or low, concepts were measured by using several questions, some of which were in a reversed format.

Concerning clarity of the questions, the questionnaire was pretested with a small group of employees and, consequently, some questions were reworded in order to improve understanding. Also, interviews were conducted following the survey in order to insure questions were understood the way the researchers intended. Using multiple questions to measure a single concept also reduced problems of question misunderstanding since questions that did not correlate highly with others measuring the same concept were removed. Finally, selection bias may also be an issue with the 21 production associates who did not mark their sex.

Findings

The first proposition states: The model will provide similar levels of explanatory power for both men's and women's job satisfaction.

To compare the fit of the model for men and women, two multiple regressions were performed (see Tables 1 and 2). These analyses calculated both the variance explained by the hypothesized determinants and the relative strength of each determinant toward the overall explanatory power (Lewis Beck 1980). The model appears to provide moderate explanatory power for both men and women, supporting proposition 1. However, the model explains over 11 percent more of the variance for men (adjusted R2=. 67) than for women (adjusted R2=. 55). Thus, proposition 1 is supported.

T-tests revealed no significant difference between men's and women's job satisfaction (see Table 3). This finding supports proposition 2, which states: Men and women have similar levels of job satisfaction when controlling for position in the organizational hierarchy. However considering the other factors in the model revealed that there were significant differences in the mean scores of men and women for task significance and skill variety. Women scored higher on task significance and men scored higher on skill variety.

Proposition 3 states: Job characteristics will be significantly related to both men's and women's job satisfaction. Both men and women had two job characteristics that were significant determinants of job satisfaction. For women, task significance (Beta=.30, $p < .01$) and task identity (Beta=.29, $p < .01$) were significant predictors. For men, skill variety (Beta=.37, $p < .01$) and role clarity (Beta= .36, $p < .01$) were significant predictors. Thus, proposition 3 is not supported because men's and

Table 1
Multiple Regression Analysis for Women

Variable	B	SE B	Beta	T	Sig T
Job Design Factors					
skill variety	.42	.42	.11	.99	.328
task signif.	.61	.21	.30	2.93	.006**
task identity	.31	.11	.29	2.85	.007**
autonomy	.07	.16	.05	.41	.684
role clarity	-.13	.22	-.07	-.57	.571
Interpersonal Factors					
cooperation	.31	.14	.27	2.08	.044*
feedback/rec.	.03	.11	.03	.28	.779
Personal Factors					
commitment	.57	.14	.44	3.94	.000***
age	.11	.08	.13	1.31	.196

Adjusted R Square .55
n = 52
* Significant at the .05 level
** Significant at the .01 level
*** Significant at the .001 level

Table 2
Multiple Regression Analysis for Men

Variable	B	SE B	Beta	T	Sig T
Job Design Factors					
skill variety	1.30	.45	.37	2.89	.008**
task signif.	.33	.19	.21	1.68	.107
task identity	-.12	.16	-.12	-.90	.376
autonomy	-.13	.14	-.14	-.99	.333
role clarity	-.60	.21	.36	-2.89	.008**
Interpersonal Factors					
cooperation	.38	.19	.33	2.06	.050*
feedback/rec.	-.07	.12	-.08	-.56	.579
Personal Factors					
commitment	.74	.16	.58	4.59	.000***
age	-.04	.08	-.07	-.56	.579

Adjusted R Square .67
n = 47
* Significant at the .05 level
** Significant at the .01 level
*** Significant at the .001 level

Table 3
Mean Scores Comparing Women and Men

	Men (n=47)	Women (n=52)
job satisfaction	25.87	26.35
Job Design Factors		
skill variety	5.70	5.04*
task significance	18.04	19.21*
task identity	13.68	13.94
autonomy	13.87	14.59
role clarity	15.96	15.80
Interpersonal Factors		
cooperation	20.96	21.49
feedback/recognition	16.91	18.41
Personal Factors		
commitment	13.81	14.57
age	31.56	29.38

* Significant at the .05 level

women's job satisfaction were not significantly affected by the same job characteristics.

Proposition 4 states: Interpersonal characteristics will provide similar explanation for women's and men's job satisfaction. Cooperation was the significant interpersonal factor for both women (Beta=.27, $p < .05$) and men (Beta=.33, $p < .05$). Feedback/Recognition was not a significant variable for women nor for men. Thus, proposition 4 is supported.

Proposition 5 states: Personal characteristics are similar for men and women in explaining job satisfaction. Commitment is the strongest determinant of satisfaction for both women (b=.44, $p < .001$) and men b=.58, $p < .001$) Age was not significant for women nor men. Thus, proposition 5 is supported.

Discussion

This research has endeavored to provide a model that helps explain both men's and women's job satisfaction and to identify factors related to men's and women's job satisfaction when working in self-managed work teams. The R2s indicate that the model has been successful in explaining both men's and women's job satisfaction. The significance levels of individual factors identify similarities and differences in predictors of men's and women's job satisfaction. Discussed below are the effects identified for each group of factors considered.

Position In The Organizational Hierarchy

With the analysis relieved of bias caused by differing hierarchical positions within the organization, the results of the t-tests comparing men and women were particularly interesting. In support of Kanter's theory and several studies (Neil and Snizek 1988; Northcott and Lowe 1987; Lambert 1991, Mason 1995), when organizational hierarchy was controlled, there was no significant difference in the self-reports of men's and women's job satisfaction.

Job Design Factors

This study supports the findings of de Vaus and McAllister (1991) who found gender differences only among job design (not social) factors. Women's job satisfaction was affected by task significance (beta=.30) and task identity (beta=.29). These findings support Hackman and Oldham's (1980) contention that when workers view their work as important and see how their work fits into the "big picture," they are more satisfied. Interestingly, this is contradictory to the findings of Rosenbach et al. (1979) who found women's job satisfaction related to all job dimensions except task significance. Also Miller (1980), and McNeely (1986) found "substantive complexity" (akin to this study's "skill variety") to be an important predictor.

Job characteristics related to men's satisfaction included skill variety (beta=.37) and role clarity (beta=-.36) which are the two factors Glisson and Durick (1988) found to be the most important predictors for job satisfaction. Other studies that have noted a positive effect of role clarity on job satisfaction include Abdel-Halim (1981) and Fry and Hellriegel (1987). The betas for men's significant job characteristics indicate that job characteristics have a larger effect on job satisfaction for men than for women. The presence of a negative relationship of role clarity together with a positive relationship of skill variety and cooperation to job satisfaction probably is reflective of the self-managed work team environment. These men expect the opportunity to work on complex tasks and to not have everything clearly defined for them. They defined these work assignments within their team. To have their roles clarified for them, presumably by management, was viewed as a sign of team incompetence. Autonomy was not found to be a significant predictor for men nor women which is contrary to many past studies (D'Arcy et al. 1984; Keith and Glass 1977; Jurgensen 1978; McCarrey, Edwards, and Jones 1977; Mottaz, 1986; Murray and Atkinson 1981). These studies suggested that more choice in work provides more job satisfaction. Perhaps autonomy is taken for granted in this self-managed work team environment.

The job characteristics model has traditionally ignored role clarity as well as relational and personal elements, which were all found significant for both men and women in this study. Clearly, the model studied would be less adequate if these elements were excluded. However, the job characteristics do not explain work satisfaction as well in this study as in those of the past. One explanation could be that the self-managed work teams or the type of technology employed at this plant affect the importance of these factors. Also, it is possible that relational and personal factors have become more important to workers' satisfaction in recent years.

Interpersonal Factors

Among interpersonal factors, cooperation had significant explanatory power for both men (beta=.33) and women (beta=.27) while feedback/recognition did not. The lack of finding feedback/recognition a significant predictor for both women and men contradicts past studies where supervisor support and feedback have been significant predictors of job satisfaction (Abdel-Halim 1982; Blau 1981; Cummins 1989; Drory and Shamir 1988; Karasek, Triantis, and Chaudhry 1982; Manning and Fullerton 1988; Mason 1995; Mottaz 1986; Schnake 1983; Skaret and Bruning 1986; Zalesny et al. 1985). For women, these results partially support the assumptions of the "gender model" where women's attitudes are expected to be derived from their wife/mother roles (Feldberg and Glenn 1979). Since these roles are often considered "thankless jobs," perhaps it is not surprising that feedback/recognition was not a significant predictor for women. The "gender model" posits that women's job satisfaction can be explained entirely through relational variables. Yet it is clear that, with the inclusion of job characteristics and personal factors, women's job satisfaction is better explained. In general, the perspective of the gender

model is not supported because women's job satisfaction was only partially explained by interpersonal variables and, as indicated by the betas, the interpersonal variables did a better job explaining men's satisfaction. Also, the value hypothesis (Lambert 1991) predicts that men's satisfaction would be significantly affected by autonomy, which was not the case. The importance of cooperation on men's satisfaction could indicate that cooperation is particularly important in self-managed work teams. Without cooperation, the team could not perform well. A second explanation is that men's attitudes are changing, where relationships have become more important to them than in the past.

Personal Factors

Of the personal factors, commitment had strong explanatory power for both men (beta=.58) and women (beta=.44). This finding supports past studies by Bateman and Strasser (1984), Cummings and Molloy (1977), Robinson et al. (1993) and Vandenberg and Lance (1992). Commitment's positive effect on job satisfaction suggests that a worker's positive affectivity for the organization results in general positive affectivity for the job itself. Applying exchange theory to this situation, a worker probably weighs the benefits and costs of working for the organization and is committed to the organization because s/he feels the benefits outweigh the costs. Being committed to the organization allows the worker the freedom to enjoy his/her present situation. Also, committed workers feel a sense of "ownership" in the organization which leads to satisfaction. Persons not committed to the organization might give significant emotional energy to thoughts of leaving. Such feelings would reduce job satisfaction.

Contrary to the findings of Loscocco and Bose (1998) and Smith et al. (1995) both of which found a relationship with age and job satisfaction, no significant differences and low betas (.13 for women and -.07 for men) were found in this study. Loscocco and Bose's (1998) study was of Chinese workers where gender stratification is considerably higher than in the United States and Smith et al.'s (1998) study does not control for position in the organizational hierarchy. The current study's finding confirms earlier suggestions that having position in the hierarchy controlled considerably reduces the effect of age (Kanter 1976, 1977; Northcott and Lowe 1987; Mason 1995).

Summary

Both men and women reported positive work satisfaction (25.87 and 26.35 out of 30, respectively). What is particularly interesting about the findings of this study is the lack of emphasis on monetary or other recognition as the cause of people's work satisfaction. Satisfaction with pay had such little effect in the model that it was removed. Also, feedback/recognition was not found to be significant. Instead of depending on organizational rewards, both men and women appear to have made their jobs satisfying for themselves. Men, whose work satisfaction is affected by skill variety, have found variety in their work to a greater extent than women. Women, whose work satisfaction is affected by task significance, have found ways to view their work as more significant than men have.

Additionally interesting is the importance of commitment and cooperation to both men's and women's job satisfaction. Again, it is the workers' initiative that is making the job satisfactory to them. They are committed to the organization, which, as in all relationships, helps it be more satisfying to them. And, unlike the typical opinion of life in American companies, workers' satisfaction is affected by cooperation, not competition. These workers appear to be making quality-of-life decisions (one of which is to work in a company that has self-managed work teams) which have led to work satisfaction.

Implications For Application

Employers can increase their competitiveness by reducing their organization's

turnover and absenteeism ratio. Satisfaction has been linked to both lower turnover and absenteeism (Yeatts, Stanley-Stevens and Ruggiere 1992). Therefore, employers can help keep their employee turnover and absenteeism to a minimum by doing what they can to have satisfied employees. The present research suggests that with employees in SMWTs, whether male or female, commitment and cooperation are predicting factors of job satisfaction. Employer efforts, such as the installation of systems that provide rewards for team performance, rather than for individual performance, may help reduce competition and strengthen cooperation. Also, employee relationship seminars and communication training, may help improve cooperation.

The job characteristics that were found to affect job satisfaction in this study are task significance and task identity for women and role ambiguity and skill variety for men. The link of satisfaction with skill variety and task identity dates back to Marx (alienation) and Weber (bureaucracy's "iron cage"). Employers can help workers feel like their work is significant by fully explaining the purposes and effects of the work they do. Skill variety and task identity are achieved by letting employees participate in as much of the process of creating the product as possible (Hackman and Oldham 1980). The traditional assembly-line approach, where a worker tightens the same nut on a number of products all day long, is not satisfying (Hackman and Oldham 1980). Again, self-managed work teams are of value here because they allow workers to participate in a number of parts of the creation process. This is achieved by having teams of 8 to 15 people who each do a number of tasks. On a regular basis, these tasks are rotated. Consequently, the workers are familiar with a variety of tasks and have a greater understanding of the product they are creating.

The role of role clarity in predicting satisfaction is probably not a generalizable finding from this study. As stated earlier, role ambiguity is probably an indicator of the self-managed work team environment, which, in turn has a positive effect on satisfaction.

Implications For Theory And Suggestions For Further Study

T-tests reveal that women scored significantly higher on task significance and men scored significantly higher on skill variety. These findings are similar to those of Neil and Snizek (1988) and McNeely (1986) where there were differences in the predictors of job satisfaction as well as differences in the mean scores of these predictors. The differences in scoring could be attributed to a number of reasons. Such reasons include: 1) Women and men could merely perceive their jobs differently despite the fact that they are doing the same thing. Or 2) The gender distribution of teams varies so that there might be teams that are all women doing different tasks than teams with all men. Or 3) Since these are self-managed work teams, it could be that the people in these teams are segregating their tasks by gender. Certainly a topic for further research is to study the interpersonal dynamics and work distribution within self-managed work teams. Perhaps some type of self-imposed gender segregation of work tasks in the work teams is taking place.

Another explanation for the gender differences among job characteristics affecting work satisfaction can be attributed to socialization. Males are raised to be independent and self-directed. Consequently, an environment that allows men the opportunities to do a variety of tasks without clear explanation of what to do compliments their gender socialization. Females, on the other hand, are often raised with fewer options and are encouraged to be relational. Consequently, this relational orientation is even evident in the women's desires to participate in a complete piece of work and to feel that their work is important.

Lastly, this study only addresses one level of the organizational hierarchy (production associates). Further study on gender differences within other levels (e.g.

Managers or clerical workers) would enhance the body of knowledge on job satisfaction.

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Ranking Sport Card Certification Companies: A Sociological Study on the Importance of Hierarchies

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Abstract

Baseball card collecting has changed in many ways over the past 100 years. One significant development is the emergence of card certification companies. These companies provide buyers and sellers with an independent opinion of the condition of cards. What is sociologically interesting about this development is that collectors have produced an informal ranking of the certification companies. The consequence of them doing so is that today the value of a baseball card depends in large measure on what company authenticated it. What is not known, however, is whether any of the companies provide a more accurate assessment of cards. Nor is it known whether variability exists among the ratings assigned to cards by the companies. This research provides strong evidence that the ratings companies assign to cards are remarkably similar. Our principal conclusion is that the informal ranking of certification companies that presently exists rests on a foundation of sand and is likely to be unstable and volatile.

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Many people enjoy observing and participating in sports. Countless others add to their enjoyment by collecting sports memorabilia. Of all the sports memorabilia people collect, the most widely collected are sport cards (*EBAY Magazine*, 2000). The more than one million people who collect cards contribute financially to the multi-billion dollar sport card industry (Williams, 1995).

The sport card industry is complex. It consists of many different types of companies. The most significant are companies who pay a licensing fee to major league Players Associations for the right to produce merchandise bearing the names and resemblances of players, team mascots, and logos. Billion dollar companies such as, Topps, Fleer, and Upper Deck are examples.

Many other companies in the industry do not pay fees. They provide support services by offering collectors assistance and merchandise that advances their involvement in the hobby and thus, indirectly enrich the coffers of player associations through the purchases of collectors.

Sport card collectors of 100 years ago would not recognize what the hobby has become. Today, there are numerous card manufacturers, scores of hobby publications, hundreds of card shows annually, and more product being produced than any person only a decade ago could have possibly imagined.

The first sport cards appeared in the late nineteenth century. The only cards of professional athletes that were available to collectors then were those of baseball players. The great majority of these early cards were of the comic variety, suggesting that in the late 1800s people did not take baseball seriously. A typical card from this era showed players with skinny bodies, large heads, and foolish facial expressions (Voight, 1989; Lipset, 1983). People who collected these early cards typically compiled sets, trying to obtain one card of each player. While this was difficult to do (particularly for non-smokers, since cards were only available as inserts in cigarette packs), it was possible, inasmuch as only one or two card sets were manufactured each year. In 1886, for instance, the only card set produced was offered by Goodwin & Company, a New York cigarette maker. The following year, two cigarette manufacturers—Charles Gross & Co. of Philadelphia and

Allen & Ginter of Richmond, Virginia—each created a set of trading cards that included baseball players (Bloom, 1997; Lipset, 1983).

Until July 1980, when U.S. District Court Judge Clarence C. Newcomer ruled that the then only manufacturer of trading cards (the Topps Company) had "restrained trade in the baseball card market in violation of the Sherman Antitrust Act," only a single baseball card set was manufactured yearly (Williams, 1995:37). Immediately following the judgment, a plethora of sets produced by a variety of companies became available.

Today, four companies (Fleer/Skybox, Pacific Trading Cards, Topps/Bowman, and Upper Deck) manufacture baseball cards and each produces more than one set of cards annually. In 2000, for example, nearly 350 different baseball card sets were produced (Beckett, 2000). These and other companies (e.g., Playoff) also produce sets of cards for other sports, including, basketball (NBA and WNBA), football, golf, hockey, and racing. Because of the glut of card sets available today, coupled with the fact that many sets can be purchased in their entirety (no collecting is involved), relatively few modern collectors put sets together. Most modern hobbyists collect a player's rookie card[1] regardless of the athlete's sport. Since modern collectors are more likely to collect single cards, they also are more concerned with the condition of their cards than were earlier hobbyists. Contemporary collectors are not satisfied simply to own the rookie cards of their favorite players; they want cards in pristine condition.

The preoccupation of collectors with card condition is a recent phenomenon, emerging only during the past two decades. While early sport card collectors were mindful of card condition, they were not preoccupied with it, and thus the practice of formally placing a grade on a card to denote its condition was infrequently done. One of the first attempts to establish a set of standards for sport card grading can be traced to James Beckett, who, in his 1984 publication *Beckett's Baseball Card Monthly*, provided collectors with a "Condition Guide." Beckett identified five grades or condition of cards based on their physical properties:

- Mint: A card with no defects. A card that has sharp corners, even borders, original gloss or shine on the surface, sharp focus of the picture, smooth edges, no signs of wear, and white borders.
- Excellent: A card with very minor defects. Any of the following would lower a card to Excellent: very slight rounding or layering, minor wear on edges, slight unevenness of borders. These minor defects are so minimal as to be only visible on close inspection; an Excellent card looks Mint unless closely examined.
- Very Good: A card that has been handled but not abused. Some rounding at the corners, slight layering or scuffing, slight notching on the edges. A Very Good card may have a very light, barely noticeable crease.
- Good: A well-handled card, rounding and layering at the corners, scuffing at the corners and minor scuffing at the face, notching at the edges.
- Fair: Round and layering corners, brown and dirty borders, frayed edges, noticeable scuffing on the face. A heavily creased card can be classified as Fair at best (Beckett, 1984).

In reaction to criticisms, complaints, and suggestions from collectors, Beckett has periodically revised and modified the Condition Guide. Today, the number of condition categories in the Guide has increased from five to nine.[2]

In spite of the precise criteria Beckett and others recommend to evaluate the condition of sport cards, there is generally little agreement between sellers and buyers on the condition of a card. Compared to buyers, sellers usually see fewer and less serious flaws on cards. If the indisputable economic conflicts inherent in buyer-seller relationships are put to the side, it is evident that grading sport cards is less about applying strict, unwavering, objective stan-

TABLE 1
GRADED CARDS SOLD ON EBAY

CARD	GRADING COMPANY	GRADE[a]	SOLD FOR
1985 Topps Mark McGwire	BGS	9	$1,528.00
1985 Topps Mark McGwire	PSA	9	$ 425.00
1985 Topps Mark McGwire	SGC	96	$ 404.99
1989 UD Randy Johnson	BGS	9.5	$ 600.00
1989 UD Randy Johnson	PSA	10	$ 480.00
1989 UD Randy Johnson	SGC	98	$ 340.05
1995 Bowman Vladimir Guerrero	BGS	9	$ 310.00
1995 Bowman Vladimir Guerrero	PSA	9	$ 200.00
1995 Bowman Vladimir Guerrero	SGC	96	$ 160.00
1989 Bowman Ken Griffey Jr.	BGS	9	$ 261.69
1989 Bowman Ken Griffey Jr.	PSA	9	$ 54.55
1989 Bowman Ken Griffey Jr.	SGC	96	$ 56.01
1992 Fleer Update Mike Pizza	BGS	9.5	$1,500.00
1992 Fleer Update Mike Pizza	PSA	10	$ 609.00
1992 Fleer Update Mike Pizza	SGC	98	$ 332.03

[a]There is no standard set of designations used by the certification companies. Comparable designations are reported in this table.
Source: Ebay auctions that closed April-May 2000.

dards than it is about the meaning each observer attaches to the physical properties of the card. For example, referring to Beckett's classification scheme:

1. When is a border uneven?
2. What constitutes a blurred picture?
3. When do edges change from being smooth to rough?
4. When does a sharp corner become a fuzzy one?
5. What is the difference between a light and a moderate crease?

Among card collectors, these are hotly debated issues for both the experienced and beginning hobbyist. Unlike other collectible hobbies, in the baseball card hobby there is no formal organization like the American Numismatic Association is for coins, that imposes a uniform set of standards for collectors to follow. Therefore, card collectors are free to grade however they wish (Rosen, 1991; Green and Pearlman, 1989). To put it differently, there are no absolute, correct answers to any of the questions raised in the preceding paragraph. Moreover, there also is no implied or suggested ranking system for specifying which of the defects are the most significant when determining the grade assigned to a card. For example, is it more or less detrimental for a card to have one fuzzy corner or to have a light crease? To have an uneven border or to have a rough edge? To have a blurred picture or to be slightly off center?

For years, much confusion has surrounded grading sport cards. The chaos that besets this facet of the hobby has led to the development of certification or grading services. These companies provide buyers and sellers with an independent, third party opinion of the condition, authenticity, and originality of sport cards. Today, three companies dominate the certification market: Beckett Grading Service (BGS), Professional Sports Authenticators (PSA), and Sportscard Guaranty Corporation (SGC). Collectively, these companies

grade more than 350,000 cards monthly, with PSA grading the overwhelming majority of cards (Forman, 2000).[3]

What is sociologically interesting is that collectors have informally established a hierarchial ranking of the card certification companies. Data for this conclusion were derived from a content analysis of sport card hobby discussion and chat room groups found on the internet for a 12 month period, from January 1-December 31, 1999. Information culled from these public forums lead us to conclude that in the minds of collectors, the opinion of some certification companies is more valued than the opinion of others. This observation not only speaks to the social organization of the baseball card hobby, but the creation of a ranking affects (1) what companies collectors are likely to submit cards to and (2) the amount of money collectors will pay for cards certified by specific companies. As shown in Table 1, collectors will spend varying amounts of money for sport cards in comparable condition depending on what company authenticated the condition of the card.

The data in Table 1 illustrate that collectors value cards graded by BGS more highly than they do cards graded by PSA or SGC.

Presumably, collectors believe that BGS offers a more valid and accurate evaluation of the condition of cards than any of the other companies. However, whether BGS provides a more correct assessment of cards is not objectively known; collectors only assume it to be true. Nor is it known whether there exists variability among the grades assigned to cards by the companies. In other words, is BGS more or less likely to grade sport cards higher or lower than PSA or SGC? The research reported here will examine these issues.

Methods

Data for the project are evaluations of five sport cards by four card certification companies. The cards selected were those of "common players", picked from the 1990 O-Pee-Chee Premier hockey set (the O-Pee-Chee Company, which is located in Canada, is a division of the United States based Topps Company). It was important that the cards be selected from the same set because card design and peculiarities of the manufacturing process may inadvertently affect judgments made about card condition. There is considerable variability among card sets both in their physical appearance and the production process. While some card designs are perceived to be attractive, other card sets are plagued with persistent problems such as, off-centering (e.g., 1961 Fleer Basketball), chipping (1994 SP Baseball), and poorly registered photographs (e.g.,

Table 2
Card Condition and Grades Assigned by the Certification Companies

	Certification Company				Expert	
Player	BGS	CSA	PSA	SGC[a]	Time 1	Time 2
Berthiamue	9	8.5	8	92 (8.5)	9	9
Gaetz	9	9	9	96 (9)	8	9
Ing	8	9	9	96 (9)	9	9
Sillinger	9	9	9	92 (8.5)	8	8
Stanton	8	8	8	92 (8.5)	9	8
Total	43	43.5	43	43.5	43	43

[a]SGC uses a grading scale ranging from 10 (poor) to 100 (pristine). To make comparisons among the certification companies, for SGC we show the SGC grade received and in parentheses the comparable grade from other companies.

TABLE 3
FRIEDMAN TEST RESULTS FOR CARD RATINGS BY CERTIFICATION COMPANIES

COMPANY	MEAN RANK	STANDARD DEVIATION
BGS	2.50	.548
CSA	2.60	.447
PSA	2.30	.548
SGC	2.60	.273

N= 5; Chi Square= .333; df= 3; Significance= .954; tau= .022

TABLE 4
WILCOXON SIGNED RANKS TEST RESULTS FOR CARD RATINGS BY CERTIFICATION COMPANIES

COMPARISON	Z SCORE	SIGNIFICANCE LEVEL
CSA-BGS	-.447[a]	.655
PSA-BGS	.000[b]	1.000
PSA-CSA	-1.000[c]	.317
SGC-CSA	.000[b]	1.000
SGC-PSA	-.577[a]	.564

[a]Based on negative ranks.
[b]The sum of negative ranks equals the sum of positive ranks.
[c]Based on positive ranks.

1987 Donruss Baseball). To control for the impact of card design, production, and manufacturing on the evaluation of card condition, the cards selected for inclusion in the study were drawn from a set with no reported peculiarities.

The players selected for inclusion in the study were: Daniel Berthiaume, Link Gaetz, Peter Ing, Mike Sillinger, and Paul Stanton. These players were selected for the following reasons:

1. To control for the possibility that the assessment of card condition may be influenced by an athlete's status, all of the players are "common players," which means they are not "semi-star" or "star" performers. Common players are the most ordinary of professional athletes; their cards generally have little monetary value. By including only common players, we were able to control for the impact (if any) of player's reputation on the evaluation of card condition.

2. Players selected were males to control for the influence (if any) of sex on judgments made about card condition.

3. The players selected were Caucasian to control for the impact (if any) of race/ethnicity on the evaluation of card condition.

The certification companies participating in the study were BGS, PSA, and SGC, and, one of the ten smaller companies—Certified Sports Authentication (CSA)— that was selected randomly from the group of ten.

Before the cards were mailed to the certification companies, they were examined by an independent card grader, who documented his findings in detail for the researcher. Next, the cards were mailed to the first card certification company (SGC) for grading. When the cards were returned by SGC, (1) the grades assigned to the cards were recorded, (2) the cards were "cracked" from their case, and (3) the cards were packaged and mailed to the next com-

pany. This procedure was followed until the cards had been rated by all of the companies. After the last company (PSA) graded and returned the cards, the cards were "cracked" from their cases, and examined a second time by the independent grader[4].

Findings

The study's findings are presented in Table 2. Of foremost importance is that the independent expert's evaluation of the five cards at the beginning and at the conclusion of the study were unchanged.[5] This finding confirms that the cards were not damaged in the data production phase of the project or by the certification companies (a complaint often made against certification companies by disgruntled collectors who are dissatisfied with the ratings of their cards). Had the expert grader reported a significant difference in the condition of the cards at the beginning and conclusion of the study, the validity of the reported findings would be problematic.

Next, we assessed the issue of whether there were statistically significant differences in the ratings assigned to the cards by the certification companies. To determine whether significant differences were present, first we analyzed the data with a Friedman test for repeated measures. Based on the information shown in Table 3, it can be firmly concluded that the ratings of the cards by the four companies are comparable. The chi square value of .333 (df=3; N=5) indicates the differences in the ratings assigned to the cards by the companies are not statistically different from one another. Further support for this finding comes from the Kendall coefficient of concordance (tau) of .022, which suggests immeasurably weak differences among the ratings.

To more fully examine the data, pairwise comparisons for each combination of companies were conducted using a Wilcoxon Sign test and controlling for the Type 1 errors across the comparisons at the .05 level. As illustrated in Table 4, in not one instance was the difference in ratings of cards between companies found to be statistically significant.

Discussion

There are few things known with certainty in an interpretive world. Something that is known is in every social group there exists a social organization that consists of norms, roles, hierarchies, and mechanisms of social control. This study examined one of the several hierarchies present today in the world of sport card collecting. We were curious to know whether the informal ranking of card certification companies developed by collectors was valid. Particularly, we wanted to determine whether the informal ranking of companies was a function of performance differences among the companies or whether it could be traced to unmeasurable, subjective factors.

We found no statistically significant differences among the companies with respect to the grades assigned to sport cards. We also did not uncover any evidence to suggest that one company graded cards more or less rigorously than any of the others. Our data lead to the conclusion that the certification companies grade cards similarly.

Some people will undoubtedly be surprised by this conclusion, while others may contest it. We expect this inasmuch as collectors have hundreds of thousands of dollars invested in cards graded by the certification companies. For us to suggest there is no difference among the ratings assigned to cards by the certification companies is akin to questioning the sensibility of many different investment decisions made by countless hobbyists. But we cannot ignore what the data tell us. Namely, that the informal ranking of certification companies that now exists is not the result of performance differences among the companies. The present ranking system rests on a foundation no more firm than sand, is highly unstable and could collapse without warning.

We are left to explain why the informal ranking of the certification companies in its present form exists. Card certification companies aim to make objective some-

thing that is not. They do this by assigning a score or grade to a card, placing it in a fancy holder, and affixing a computer generated label to it. But let us not forget that in the first instance the rating assigned to a card comes from the interpretation of its physical properties by a grader regardless of what company he or she works for.

Card grading is not a pure, exact science. While there are rules to follow, more salient is how the guidelines are interpreted. Grades assigned to cards are as variable as the people who judge them. Only if one presumes that graders who work for one company are more expert than graders employed by another company, would differences in the ratings of card condition be expected. There is no evidence to suggest that one company employs more skilled talent than the others. What competence does a more superior card grader possess? Does he or she have more years of formal education? Possess a more keen appreciation for detail? If, for the moment, we assume the more highly ranked companies do employ more skilled graders, how much more expert are they? What standard are card graders measured against? Do more accurate graders have access to and know better how to handle complex equipment, such as a stereo microscope? A 10x magnifying class? How much training is required for an interested person to make the determination that a card has a sharp or fuzzy corner? To conclude that the edge on a card warrants calling it Mint and not Gem Mint?

If the informal ranking of certification companies is not related to characteristics of a company's graders, then what explains a company's reputation among collectors? We propose that a company's reputation is a consequence of several factors, including its longevity in the hobby, experiences with customer service, size of its advertising budget, representation among the hobby elite, the nature and extent of its presence at national and notable regional card shows, and gimmickry, such as, attractiveness of its card holder, the issuing of a "report card" to clarify for collectors the rating assigned to a card, and on-line population reports showing the scores of all cards graded by the company. The informal ranking of certification companies is less a reflection of the quality of the card inside the holder than it is a statement about what collectors believe to be true about the company that graded it. This conclusion is consistent with the theorizing of W.I. Thomas (1928) who wrote that "if people believe a situation is real, it will produce real consequences." This is precisely what is occurring in the ranking of card certification companies. The differences presumed to exist among the companies, exist only in the minds of collectors; not in the reality of the ratings of cards.

This is not the final word on the informal ranking of certification companies. One reason is that our research is afflicted with limitations that restrict its usefulness. The most noticeable limitation is the size of the sample, consisting of only five cards submitted to four certification companies. Second, the research design did not allow us to measure the reliability of the card ratings we received. Ideally we would want to resubmit the cards to the companies, two or possibly three times to determine whether the ratings were consistent. Third, more information on card graders is needed. We are particularly interested in knowing whether differences exist among graders within and between companies. If differences do exist, what are the differences and which differences affect the rating of cards? Finally, information is needed regarding the decision-making process collectors use when deciding what company to submit cards to and how much money to spend for cards graded by specific certification companies. Without this information we may only speculate as to why collectors value the grades of cards offered by one company differently than the ratings of another company.

Until additional evidence is forthcoming, we advise collectors to pay careful attention to what they buy. The decision to pur-

chase a card should be based on the card inside the holder, not on the present reputation of the company that certified it. In an industry where a company's rating is derived from unknown, subjective elements and not from measurable objective differences, the certification company regarded highly today, may not be so well respected tomorrow.

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Notes

1. A player's rookie card is designated by his or her first appearance in a set that is nationally (not regionally) distributed.

2. Today, Beckett's Condition Guide includes nine categories.

- Pristine: Centering 50/50 all around (top/bottom; left/right) corners perfect to the naked eye and Mint under magnification, no print sports, perfect gloss, devoid of any surface flaws.
- Gem Mint: Centering 50/50 one way, 55/45 the other. Corners Mint to the naked eye but subtle wear is allowed under magnification, smooth edges, a few extremely minor print sports detectable under intense scrutiny.
- Mint: four sharp corners (a tiny speck of wear is allowed), 55/45 or better centering, smooth edges, original color borders and gloss, a handful of specks or one minor spot.
- Near Mint-Mint: Must have 60/40 or better centering, relatively smooth edges, original color borders and gloss. One of the following very minor flaws is allowed: corners sharp to the naked eye but slight imperfections under intense scrutiny, a handful of minor print spots, subtle color or focus imperfections.
- Near Mint: Centering of 65/35 or better. In addition one of the following minor flaws is allowed: a slight touch of wear on two or three corners, slightly rough edges, a few noticeable print sports or speckling, color or focus imperfections.
- Excellent-Mint: Centering no worse than 70/30. No more than two of the following flaws are allowed: two or three fuzzy corners, slightly rough edges, very minor border discoloration, noticeable print spots, color or focus imperfections.
- Excellent: Centering no worse than 75/25 with four fuzzy corners (a touch of notching or a minor ding is allowed). May also have rough edges, minor border discoloration and noticeable print spots, color or focus imperfections.
- Very Good: Handled, but not abused. Centering 80/20 or better. Slightly rounded corners with slight layering, slight notching or noticeable chipping on edges, moderate border discoloration, some gloss lost from the surface, very minor scuffing. May have hairline creases.
- Good, Fair, Poor: Well-worn or abused.

Badly rounded and layered corners, scuffing, no original gloss, major border discoloration, and serious creases.

3. In addition to the companies that dominate the market, there are ten smaller companies that certify sport cards: Accugrade Sportscard Authentication, Advanced Grading Specialists, Certified Express, Certified Sports Authentication, CTA Grading Experts, Kanadian Sportscard Authentication, Professional Grading Service, Pro Sports Grading Inc., Ultimate Sportscard Authority, and William Tell Research. Cards graded by these companies command less money on the secondary market than do cards graded by BGS, PSA, or SGC.

4. On the card of Stanton, the independent grader's evaluation dropped from 9 to 8. We asked him about this and were told: "Frankly, the card could just as easily been graded a 9. It is a 'tweener.' It could have gone either way."

5. It is possible to damage a card when "cracking" it from the holder it was placed in by the certification company.

Liberal Tolerance Among Honors College Students: A Regional Comparison

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Abstract

Attitudes of liberal tolerance among honors college students and regular students attending a Northern and Southern university were surveyed to test an attraction-accentuation model of higher education. At both institutions honors college students were more tolerant of communists, atheists and homosexuals than were other students. But progressive accentuation of tolerant attitudes by cohort comparisons only occurred in the honors college of the Southern university, which emphasized a sequentially structured humanistic curriculum in a residential college environment that promoted close social ties.

Introduction

In recent years, as both public and private schools increasingly compete to recruit the country's brightest students, there has been a substantial increase in the amount of institutional support given to honors colleges and/or honors programs in American higher education (Christian Science Monitor 1997). Surprisingly, however, very little research has been done on the characteristics of such programs and the impact they have on students' education. Only a handful of disconnected references to honors programs can be found in the literature on higher education published over the past decade (see for example Byrne 1998; Greer et al. 1997; Haas 1992; Mack 1996; Wade and Walker 1994). What kinds of students, with what kinds of academic interests and backgrounds, are attracted to the kinds of curricula typically sponsored by honors college programs? And, in addition to their intellectual capacities and academic development, in what ways and to what extent are students' values and social attitudes shaped by their participation in such programs?

In a recent study of these sorts of questions we surveyed students enrolled at the University of Central Arkansas (UCA) to investigate whether or not honors students were more liberal in their social views than other students (Shepherd and Shepherd 1998). Our data demonstrated that honors students in general were not only more tolerant in their attitudes toward selected stigmatized groups (communists, atheists, and homosexuals) than their student peers, but that freshmen honors students were already more liberal in their social views than other UCA students as they began their college careers and were progressively more liberal by class cohort comparisons (i.e., sophomores were more liberal than freshmen, juniors more liberal than sophomores, and seniors most liberal of all). In contrast, UCA students who were not enrolled in the honors college were not only less liberal in social tolerance as a whole, they did not become significantly more liberal from one class cohort to the next. We also discovered that, based on their own assessments, the social views of honors students were much more influenced by their college classes than was the case for UCA students outside the honors college.

The Attraction-accentuation Model Of College Influence

These findings supported hypotheses derived from an attraction-accentuation model of college influence, which proposes that students' initial attitudes are reinforced by participation in programs that advocate values with which they already agree (Feldman and Newcomb 1969: 328-335; Feldman and Weiler 1976; Pascarella and Terenzinzi 1991: 610; Shepherd and Shep-

herd 1996, 1998). Whatever the factors or personal characteristics are that selectively propel students toward a particular academic setting or major, they are likely to be reinforced and extended by experience incurred in those selected settings. Thus, initial intellectual and attitudinal differences among students typically are accentuated by their college experience as they pursue different educational career paths. At the same time, the attraction-accentuation model suggests that the more incongruent students' initial dispositions are relative to the intellectual settings in which they find themselves, the more likely they are to change majors, withdraw from school, or switch their enrollment to a different program or institution.

Assuming that students admitted into honors colleges are no different than other college students in this regard, we hypothesize that honors colleges and programs tend to recruit and select bright undergraduates who are not only academically qualified but also are predisposed to the critical thinking, liberal arts curriculum emphasized in honors programs. Astin's (1993) empirical typology of college students based on national CIRP survey data showed that students most likely to enroll in honors programs were those identified as "scholarly" or "artistic" types, which in turn correlated positively with critical thinking ability and interest in discussing political/social issues. The honors college liberal arts emphasis not only appears to appeal more strongly to certain types of students, but also to those members of the faculty who are attracted to active involvement and leadership positions as directors of honors programs, a majority of whom also tend to express liberal values. This was demonstrated in a national survey of college professors' reactions to the Persian Gulf war, in which the war attitudes and political values of honors directors were significantly more liberal than those of any other faculty status group surveyed, even when controlling for academic disciplines and pre-Vietnam, Vietnam and post-Vietnam age cohorts in contemporary academia (Shepherd and Shepherd 1996). In turn, honors directors' relatively liberal values are reinforced in their roles as student mentors and primary advocates of the honors liberal arts curriculum.

As with any student subpopulation, there is bound to be a range of aptitudes, values, varying interests and character traits among honors students. We would hypothesize, however, that intellectual differences among honors students are significantly less great than corresponding differences between honors students as a group and other students enrolled at the same institution. Similar to their honors faculty mentors, many students attracted to honors programs tend to be idealistic, responsive to humanistic values, and open to intellectually questioning the cultural trends and social practices of their society. Even though they themselves are educationally privileged in American higher education, they often are prone to sympathize with minority struggles rather than advocate or support elite privileges. Those students recruited to honors programs least open to these emphases are the ones, we hypothesize, most likely to drop out of the program.

In our UCA survey we investigated what Pascarella and Terenzini (1991:7) refer to as "within college effects" at a particular institution. They point out, however, that researchers must also ask if there are any "between college effects" when comparing students at different institutions. Do our conclusions about the accentuation of honors versus nonhonors students' social views at UCA also hold true at other universities and colleges in different regions of the country?

Institutional Comparisons Of Honors College Programs

As a preliminary investigation of regional differences in the tolerance attitudes of honors students, we replicated the University of Central Arkansas survey at Oakland University-Michigan (OU).

Because we are faculty members at UCA and OU respectively, we were able to ob-

tain the permission and cooperation of both institutions' honors directors and faculty colleagues in administering surveys to their students. In addition to data collection convenience, these two schools also offered meaningful comparisons that were relevant to our theoretical concerns.

Institutionally similar in many respects, Oakland University and the University of Central Arkansas also manifest institutional differences, not the least of which is their location in two very different cultural regions of the country. OU competes with other institutions of higher education in a populous, highly industrialized northern state while UCA competes for students in a small southern state. At the same time, both are mid-sized state universities situated in suburban areas approximately 30 miles from their states' principle cities (Detroit and Little Rock respectively) and both institutions primarily recruit in-state residents. Both schools maintain dormitories for on campus living but depend heavily on commuter student enrollments. Both schools actively recruit top students to apply to their honors programs and honors admissions are highly competitive. However, while Oakland's student body population (approximately 14,000) is somewhat larger than UCA's (approximately 9,000), the OU Honors College is only about half the size of UCA's, with 136 students enrolled at the time of our study and a cap set at 200. In comparison, UCA enrolled approximately 300 students in its honor college, with a projection cap of 400 students by the Fall of 2001. Additionally, UCA honors students are housed in their own separate dormitory and over 70 percent reside on campus. In contrast, at OU only 25 percent of honors students live on campus and, of those who do, only a modest number room together in a dorm that is not exclusively set apart for honors college residence. Thus, residence in a designated honors college dormitory is the norm at UCA but not at Oakland.

At both universities honors students are required to complete a special set of core honors courses, which are designed to meet general education requirements, and they must also work closely with an academic advisor in carrying out an independent research project which results in the writing of an honors thesis. The UCA honors curriculum, however, is more standardized every semester and features more programmatic group activities. OU honors students must demonstrate second year proficiency in a foreign language (not required of UCA honors students) but are also given a considerable amount of latitude in taking a minimum of four honors courses, which they are allowed to choose, for meeting university general education requirements. The particular honors courses included in the Oakland curriculum vary from one semester to the next, as different participating OU faculty are asked to develop courses that reflect their specialty interests. In contrast, UCA honors students are required to take a cumulative series of four specially designed honors courses in their freshman and sophomore years, and then, in their junior and senior years, they must complete a prescribed, 15 hour minor in honors disciplinary studies which is only open to honors students. Finally, in addition to major outside speaker events, which both colleges sponsor, the UCA honors program also includes freshmen and senior banquets, parties and dances, sophomore lectures and senior thesis presentations, field trips, conferences, weekly discussion series, movie series, and a monthly op-ed/news letter that, along with residential campus living, puts UCA honors students into more frequent contact than their OU peers and encourages more systematically the development of primary group attachments within the honors college.

Student Samples And Survey Questionnaire Items

We designed a brief questionnaire to assess students' tolerance toward three groups which often have been stigmatized in American society (atheists, communists, and homosexuals), as well as the degree of

influence which they thought their college classes had on their social views. Questionnaires were distributed to all students enrolled in honors classes at UCA and Oakland University by the honors college directors at both institutions. From a total of 136 honors students enrolled in OU's Honors College, 77 returned the questionnaire for a response rate of 57 percent. At UCA, 259 out of 297 honors students returned their questionnaires for a response rate of 87 percent. We also administered the same questionnaire to 176 OU students and 205 UCA students, representing a range of students outside the honors college, who were enrolled in lower and upper division sociology classes taught by our departmental colleagues.

As measures of tolerance, all students were asked to indicate on four-point likert scales how strongly they agreed or disagreed that atheists, communists, or homosexuals should be allowed to teach in American public schools. Tolerance responses to each of these questions were scored as follows: Strongly disagree = 0. Disagree with some reservations = 1. Agree with some reservations = 2. Strongly agree = 3. Questions concerning these three groups were intended primarily as indicators of liberal values rather than as measures of a general attitude of tolerance toward the rights of all groups or ideologies to be represented in public schools. We did not include attitude questions in our survey, for example, toward white supremacists, male supremacists, or advocates of creation science, who represent ideologies that individuals with liberal values might prefer were discouraged or suppressed rather than tolerated in American education. Honors students also were asked to indicate on a four-point scale how much influence their honors college classes had on their social views while students not enrolled in the honors college were asked the same question with respect to the degree of influence that their university classes had on their social views. College influence responses were scored in the following way: No influence = 0. Little influence = 1. Moderate influence = 2. Major influence = 3.

In addition to these basic questions for measuring tolerance and degree of college influence, students also were asked on the questionnaire to indicate their age, sex, race, religious affiliation, frequency of church attendance, current student status, academic major, high school and college GPAs, ACT scores, whether or not they planned to further their education by going on to receive professional or graduate degrees, and what proportion of their current friends were also college students at the university where they attended. Honors students were asked to indicate what proportion of their friends were other students in the honors college. These items all represented supplementary variables that we used in comparing students from Oakland and UCA and for testing hypotheses about student tolerance at both institutions.

Hypotheses

The institutional differences between the two schools' honors programs led us to hypothesize that the social views of UCA honors students would be more influenced by their participation in the honors program than was true for Oakland's honor students. This hypothesis is consistent with earlier research on the greater accentuating effects of small college environments, which are more closely approximated in UCA's honors program than at OU, and related literatures on residential colleges in university settings and the relative impact of peer influence on student attitudes.

We surmise that for many honors students, matriculation in honors programs puts them into close association for the first time with a concentration of peers who share their intellectualism and liberal tendencies. Research on college peer influence typically has shown that students' values and social attitudes are more likely to be affected by their association with fellow students than by the instruction they receive in academic courses at the university (Dey 1997; Milem 1998; Newcomb and Wilson 1966).

At the same time, however, the institutional conditions conducive for faculty in-

fluence on students' values are typically found in small residential colleges that feature the relative homogeneity of both faculty and student interests, coupled with the opportunity for regular, informal interaction between students and their instructors (Newcomb 1943; Feldman and Newcomb 1969; Feldman and Weiler 1976; Pascarella and Terenzini 1991). Research related to the institutional conditions for maximizing the intellectual impact of faculty-student relations is currently being incorporated in the residential college movement, which emphasizes the cultivation of peer attachments in an academic setting and closer contact with faculty mentors in order to bolster student retention and improve academic success rates at larger institutions (Golde and Pribbenow 2000; Johnson and Romanoff 1999; Pike et al. 1997). All of this is congruent with the attraction-accentuation model of student learning, which predicts that students who are attracted to programs that sponsor ideas to which they are already predisposed are reinforced in their views through close association with both peers and faculty who share their academic interests.

Because Oakland's honors curriculum is less structured than UCA's and is not implemented in the same kind of intimate residential environment, we hypothesized that the social views of OU honors students would be less influenced by their participation in the honors program compared to their UCA counterparts. At the same time, we anticipated that their association with the honors college would have a greater accentuating effect on liberal values than was true for other students enrolled at Oakland University. Thus we hypothesized that OU honors students would be more tolerant in their attitudes toward communists, atheists, and homosexuals than regular OU students, more influenced in their social views by their honors classes than other students taking conventional university classes, and progressively more tolerant through class-cohort comparisons. Finally, we also anticipated that the potentially countervailing influence of religious attachments affecting OU students' liberal tolerance would be less pronounced than at UCA, where conservative Protestantism is a major element of the region's cultural environment.

Sample Profile Comparisons

Differences among honors students and regular students at Oakland were not as pronounced as those which showed up in the UCA survey. At the same time, comparisons of Oakland students with UCA students reveal a number of profile similarities as well as differences between the two institutions, as indicated in the following summary.

1. Honors students at both universities predictably had greater academic aptitude (as measured by high school and college GPA and ACT scores) than other students at their institutions, but aptitude differences were greatest among students at UCA. For example, the mean ACT score for Honors students at UCA was 28.9 compared to a mean of 22.1 for other UCA students, while the mean ACT score for Oakland honors students was 26.3 compared to a mean of 22.7 for the regular students at Oakland surveyed in our study. And while a large majority (two-thirds) of OU honors students definitely planed to pursue post-graduate schooling after completing their baccalaureate degrees, an even larger proportion (three-quarters) of UCA's honors students planned to do so.

2. The gender and racial composition of honors college students sampled at both institutions was very similar: females represented a substantial majority (about three-quarters at OU and approximately two-thirds at UCA) and honors students in both colleges were overwhelmingly white (95 percent and 93 percent respectively). At the same time, there was greater racial diversity in the regular student sample at UCA, where one-quarter of the respondents were racial minorities, most of whom were African Americans (17 percent). In comparison, only 15 percent of the OU regular student sample was comprised of racial mi-

norities (6 percent of whom were African Americans).

3. Honors college students were significantly younger, with an average age of 19.5 at both OU and UCA, than other students in the survey, whose average age ranged between 22 and 23. Similarly, 44 percent of honors students responding to the survey at both OU and UCA were freshmen, while class cohort distributions among regular student samples at both institutions included a greater proportion of older, upper division students who were either juniors or seniors (47 percent at OU and 67 percent at UCA).

4. At both OU and UCA, approximately one-third of honors students were enrolled as science/math majors, a significantly greater proportion than their regular student counterparts. At OU in particular a greater proportion (20 percent) of honors students majored in humanities disciplines. In contrast, as a consequence of sampling sociology classes to which we had access, close to 50 percent of regular students sampled at both institutions were social science majors.

5. Religious affiliation and church attendance questions revealed some interesting patterns of variation both within and between our student samples. Honors students at both institutions were less likely than their regular student peers to claim a particular religious affiliation. This was especially true at UCA where only 7 percent of the regular student sample said they were unaffiliated. At the same time, when comparing schools, OU honors students were even less likely to claim a religious affiliation than UCA honors students (27 percent vs. 20 percent). Among OU students who were affiliated, however, there were virtually no differences in the distribution of different religious groups with which honors and regular students identified. Catholicism was the single, most commonly specified affiliation in our OU sample, accounting for approximately one-quarter of both honors and nonhonors students surveyed, with almost equal numbers of denominational Protestants and unspecified Christians. In contrast, denominational Protestants represented by far the dominant religious affiliation at UCA, but significantly less so in the honors college (47 percent) compared to other students on campus (62 percent). Overall, church attendance among Oakland students was considerably less than at UCA, but at Oakland a surprisingly larger fraction of honors students were regular church attenders than were other OU students (40 percent compared to only 24 percent). At UCA, honors students were more likely than their peers to never attend religious services, but the percentage of UCA honors students who went to church regularly (41 percent) was virtually identical to other UCA students and OU honors students. Of all groups sampled, it was Oakland's conventional students who were least likely to be regular church attenders, with 44 percent reporting that they rarely or never attended religious services.

6. Finally, as an indicator of primary group ties in a college environment, students at both universities were asked to estimate what proportion of their current friends were college students. The response to this question suggested that OU students were, as we anticipated, less well integrated in campus friendship networks than UCA students. This was particularly true for OU honors students, over one-quarter of whom said that none of their friends were honors college students, with only 9 percent indicating that a majority of their current friends were in the honors college. In contrast, only 4 percent of UCA honors students surveyed said that they had no friends in the honors college and over half said that a majority of their friends were other honors college students. Among regular students at OU, only 20 percent had a majority of friends who were college students at OU, in contrast to UCA where over 50 percent of the regular students said that a majority of their friends were other UCA students.

To summarize our profile comparisons: Honors students at both Oakland University and the University of Central Arkansas

TABLE 1. INFLUENCE OF COLLEGE CLASSES ON STUDENTS' SOCIAL VIEWS

	OU HONORS STUDENTS (N=77)	OU REGULAR STUDENTS (N=176)			UCA HONORS STUDENTS (N=255)	UCA REGULAR STUDENTS (N=205)		
	Percent	Percent	Chi-sq	Sig.	Percent	Percent	Chi-sq	Sig.
CLASS INFLUENCE			1.75	.626			47.13	.000
0. None	11.9	7.4			2.3	8.8		
1. Little	31.3	28.4			13.6	34.3		
2. MODERATE		41.8			47.7	51.0	41.7	
3. Major	14.9	16.5			33.1	15.2		
	Mean	Mean	t-score	Sig.	Mean	Mean	t-score	Sig.
	1.60	1.73	1.13	.261	2.15	1.63	6.99	.000

had high academic aptitude, were predominantly young and white, disproportionately female, more inclined to major in science/math related fields or the humanities compared to other students, and a large majority at both schools expected to pursue post-baccalaureate professional or graduate training. Both OU and UCA honors students were less likely to be religiously affiliated than other students but, compared to each other, OU students in general were more likely to be Catholics while UCA students were more likely to be denominational Protestants. Honors students at both universities were more likely to never attend religious services than their peers, but a sizeable minority (two-fifths) of both groups were frequent church attenders. At the same time, OU honors students were much less likely than their UCA counterparts to have close friendship ties with other honors students at the university.

INFLUENCE OF COLLEGE CLASSES ON STUDENTS' SOCIAL VIEWS

Institutional differences in honors curriculum requirements, extra curricular activities, and residential living norms contributed to stronger student attachments at UCA and led us to predict that the social values of Oakland honors students would be less influenced by their honors classes when compared to their UCA counterparts. Consistent with the basic assumptions of our attraction-accentuation analysis, however, we also expected OU honors students to be more influenced by their classes when compared with other Oakland students. Data pertinent to these hypotheses are shown in Tables 1 and 2.

As hypothesized, UCA honors students were the most likely of all students surveyed to say that their college classes influenced their social views. We were surprised, however, by the magnitude of the difference. UCA honors students were twice as likely as OU honors students (33 percent compared to 15 percent) to say their classes had a major impact on their social values. At the same time, Oakland honors students were almost three times more likely to say that their honors classes had little or no influence on how they thought about social issues (43 percent compared to only 16 percent of UCA honors students surveyed). And contrary to what we expected, OU honors students were not more strongly influenced by their honors college classes than other students were by their classes at Oakland University. T-tests based on mean comparisons of college class influence included in Table 1 support these conclusions by showing a statistically significant difference in the mean influence of college classes between honors and nonhonors students at UCA, but no significant difference between honors and regular students at OU.

Because of the profile similarities in our university samples, these results cannot easily be explained by sample variations in

TABLE 2. PREDICTING THE INFLUENCE OF COLLEGE CLASSES ON STUDENTS' SOCIAL VIEWS (OAKLAND AND UCA SAMPLES COMBINED, N=717, WITH T-SCORES AND SIGNIFICANCE LEVELS FOR PARTIAL R AND BETA)

variable	zero-order r	partial r	beta	t-score	sig.
UCAHONORS	.28	.26	.341	6.65	.000
COHORT	.02	.05	.062	1.24	.215
ACT	.12	-.07	-.093	-1.77	.077
GRADPLAN	.13	.08	.079	1.94	.053
AGE	.01	.03	.035	0.69	.488
SEX	-.06	-.05	-.049	-1.23	.219
RACE	.02	.01	.014	0.35	.729
CHURCH	-.01	.00	.000	0.01	.993

Multiple R =.32 Adjusted R square =.09
F-value = 8.23 Significance of R = .000

student class standing or academic majors. Younger students might be expected to report less influence on their thinking by their classes as they are just getting started in their college careers, and social science majors might be expected to have their social views more strongly shaped by their course of study compared to students majoring in other disciplines, especially physical science fields. However, the distribution of students according to class standing and academic majors was very similar at Oakland and UCA. Thus, for example, the same, disproportionate number of honors students in both samples were freshmen (44 percent). Nonetheless, UCA honors respondents were still much more likely to report being influenced by their classes than were other students. And at both institutions, 50 percent of the conventional student samples consisted of social science majors. However, in spite of the survey's bias in sampling regular students at both universities who were routinely exposed to social issues in their majors, their views were much less influenced by their classes than were UCA honors students (only 14 percent of whom were social science majors).

We are led to the tentative conclusion that the key factor in whether or not college classes played a significant role in shaping students' social views in our study was the type of honors program instituted at UCA, with its emphasis on a sequentially structured humanistic curriculum in a residential college that promotes close social ties. This conclusion is supported by the multiple regression analysis displayed in Table 2, which combines the Oakland and UCA surveys in order to measure the relative influence of UCA's honors program in conjunction with students' academic aptitude, demographic characteristics, and religious participation in predicting college class influence on students' social views. Specific independent variables in the model are as follows:

UCAHONOR - type student (UCA honors students = 1, all other OU/UCA students = 0)
COHORT - cohort class standing (freshman = 1, sophomore = 2, junior = 3, senior = 4)
ACT - ACT Score
GRADPLAN - plans for post-baccalaureate training (no = 0, not sure = 1, yes = 2)
AGE - student's age
SEX - student's sex (male = 0, female = 1)
RACE - student's race (white/non-Hispanic = 0, other = 1)

CHURCH - frequency of church attendance (never = 0, rare = 1, occasional = 2, regular = 3)

Neither cohort class standing, age, sex, race, or religious involvement were significant predictors of the influence of college classes on students' thinking about social issues. Two academic measures (students' ACT scores and plans for graduate school) were weakly correlated with college class influence. But the only variable that really made any difference in predicting the impact of college classes on students' social views at OU and UCA was whether or not the respondent was a member of the UCA Honors College. All eight variables in the analysis combined to produce a modest multiple correlation coefficient of .32. Of this amount, controlling for all other variables in the equation, UCA honors status produced a partial correlation of .26 and a beta weight of .34.

Liberal Tolerance Of Stigmatized Groups

Our analysis of the attraction-accentuation process of student learning in higher education led us to hypothesize that honors students, attracted to and reinforced in their social views by programs that emphasize humanistic values, would be more liberal in their attitudes of social tolerance than other students. This expectation was supported by findings organized in Table 3, which show the reaction of honors students compared to other students, at both Oakland and UCA, to the proposition that communists, atheists, and homosexuals should be allowed to teach in public schools.

A majority of all students in both university samples expressed liberal tolerance by agreeing or strongly agreeing that the groups specified in the survey should be allowed to teach in the public school system. Generally speaking, however, a significantly greater proportion of honors students at both Oakland and UCA were more likely to express agreement than their student peers, especially at UCA. Thus, between 40 and 46 percent of UCA honors students strongly agreed in favor of all three stigmatized groups, compared to a range of 11 percent to 28 percent of regular UCA students who were in strong agreement. At Oakland, honors students were significantly more tolerant of atheists than other students, with 53 percent in strong agreement compared to 37 percent of other OU students. With regard to communists, 26 percent of OU honors students were strongly tolerant compared to 16 percent of their peers, a difference that was not quite statistically significant at the .05 level of significance. But with regard to tolerance of homosexual teachers, there were no statistically significant differences between Oakland honors and non-honors student categories, with large proportions of both groups in strong agreement (57 and 48 percent respectively).

Students' separate responses to atheists, communists, and homosexuals were combined and summed to form an overall tolerance scale that ranged in value from zero (indicating that a respondent strongly disagreed that any of the three groups should be allowed to teach in public schools) to nine (indicating that a respondent strongly agreed that all three groups should be allowed to teach in public schools). As with UCA honors students in our previous survey, Oakland honors students had a significantly higher mean tolerance rating of 6.72 compared to a mean of 5.81 for regular students at the same institution. At the same time, t-score comparisons between universities showed that OU and UCA honors students were not statistically different in their overall attitudes of tolerance for communists, atheists, and homosexuals (t=0.45, sig.=.651). Students not enrolled in the honors college at OU, however, were significantly more tolerant of those groups than their regular student counterparts at UCA (t=2.99, sig.=.003).

In addition to predicting that honors students would express a greater overall degree of tolerance than other students, we also anticipated that they would be progressively more tolerant from one class cohort to the next as a consequence of the accen-

TABLE 3. LIBERAL TOLERANCE FOR ALLOWING COMMUNISTS, ATHEISTS, AND HOMOSEXUALS TO TEACH IN PUBLIC SCHOOLS

	OU HONORS STUDENTS (N=77) percent	OU REGULAR STUDENTS (N=176) Percent	Chi-sq	Sig.	UCA HONORS STUDENTS (N=259) Percent	UCA REGULAR STUDENTS (N=205) Percent	Chi-sq	Sig.
ALLOW COMMUNISTS			7.21	.065			56.15	.000
0. Strongly Disagree	9.5	19.0			8.5	22.7		
1. Disagree	17.6	24.7			14.7	22.7		
2. Agree	47.3	40.2			36.8	43.8		
3. Strongly Agree	25.7	16.1			39.9	10.8		
ALLOW ATHEISTS			9.67	.022			51.17	.000
0. Strongly Disagree	1.4	10.3			5.4	12.4		
1. Disagree	8.1	12.6			8.1	17.4		
2. Agree	37.8	40.2			36.8	43.8		
3. Strongly Agree	52.7	36.8			46.3	15.9		
ALLOW HOMOSEXUALS			2.62	.453		16.96		.000
0. Strongly disagree	5.4	9.1			8.1	12.7		
1. Disagree	5.4	9.1			8.5	0.8		
2. Agree	32.4	33.7			37.5	49.0		
3. Strongly Agree	56.8	48.0			45.9	27.5		

Summed Tolerance Scale	Mean 6.72	Mean 5.81	t-score .98	Sig. .003	Mean 6.58	Mean 5.10	t-score 6.65	Sig. .000

t-score Comparisons of Student Tolerance Between Universities	t-score	Sig.
OU Honors Students Compared to UCA Honors Students	0.45	.651
OU Regular Students Compared to UCA Regular Students	2.29	.003

tuation of liberal values in an honors college environment. Panel studies would be the ideal way to test accentuation hypotheses and should be pursued in more systematic research on the impact of honors college programs. With the data at hand, however, we categorized students by class cohorts and compared the mean tolerance scores of freshmen, sophomores, juniors, and seniors. In our UCA survey we found progressive tolerance differences between honors cohort groups, but, as shown in Table 4, this result was not replicated among Oakland honors students.

As predicted, OH honors freshmen already had significantly higher tolerance means than their counterparts in the regular student sample (6.33 compared to 5.12) and sophomore honors students were even more tolerant (7.18 compared to 5.65). But among upper division students—especially seniors—there were no statistically significant differences between honors students and regular students at Oakland University. Though still high, tolerance means for junior and senior honors students declined slightly to 6.93 and 6.90 respectively, while simultaneously rising to 5.68 and 6.67 for OU juniors and seniors in the regular student sample. Thus, contrary to our expectations, progressive differences in liberal tolerance between honors students and their Oakland peers were not maintained from one class cohort comparison to the next, as they were at UCA. This conclusion is reinforced when looking at the ANOVA results,

TABLE 4. MEAN TOLERANCE SCALE DIFFERENCES BY COLLEGE CLASS COHORTS

	FRESHMEN		SOPHOMORES		JUNIORS		SENIORS			
	N	Mean	N	Mean	N	Mean	N	Mean	F-value	Sig.
OU Honors Students	33	6.33	18	7.18	14	6.93	10	6.90	0.88	.456
UCA Honor Students	113	6.05	82	6.84	30	7.03	34	7.26	3.39	019
OU Regular Students	52	5.12	40	5.65	34	5.68	47	6.67	3.86	.011
UCA Regular Students	23	4.64	42	4.76	68	5.06	67	5.41	1.03	.382
Totals	221	5.74	182	6.13	146	5.79	158	6.28		
F-value		3.87		10.42		5.88		7.18		
Sig.		.010		.000		.001		.000		

which indicate statistically significant cohort differences among regular OU students (f=3.86, sig.=.011) but no overall significant cohort differences in the honors sample (f=0.88, sig.=.456).

One obvious caveat to attach to these findings is the relatively small number of upper division honors students obtained in the Oakland sample (14 juniors and only 10 seniors), which substantially attenuates the ability to make confident generalizations. In contrast, 30 juniors and 34 seniors in the UCA honors college responded to our earlier survey, making statistical generalizations somewhat easier. Nonetheless, while the Oakland survey supported the "attraction" side of our hypothesis (freshmen attracted to the OU Honors College were already more liberal in their tolerance than other freshmen students), it did not confirm the "accentuation" side (OU honors students were not progressively more tolerant by class cohort comparisons). In our UCA survey (Shepherd and Shepherd 1998), multiple-regression analysis demonstrated that honors college status was a statistically significant predictor variable of students' liberal tolerance, even when controlling for other measures of academic aptitude that might be correlated with tolerant attitudes in a university environment, independent of whether students were enrolled in the honors college. Among the academic measures employed in the regression analysis, ACT scores and influence of college classes also proved to be modestly correlated with student tolerance at UCA. None of the other variables in the model (age, sex, and race) had significant predictive value, with the notable exception of students' religious participation. Frequency of church attendance was negatively correlated with students' liberal tolerance and was by far the best predictor variable of UCA students' social attitudes, independent of their academic status in or out of the honors college.

We replicated the UCA regression analysis using Oakland data and the results are summarized in Table 5. The variable designations employed in Table 5 are the same ones used earlier in Table 2, with the exception that OUHONORS has replaced UCAHONORS in the model (OUHONORS = honors vs. regular student status; COHORT = cohort class standing; ACT = ACT score; GRADPLAN = plans for post-baccalaureate training; CLASSTHINK = influence of college classes; AGE = student's age; SEX = student's sex; RACE = student's race; and CHURCH = frequency of church attendance).

Overall, the variables used in the regression analysis of the Oakland data were not as strongly predictive of students' liberal tolerance as they were at UCA. Thus, comparing adjusted R square values, the same mutivariate model explained 28 percent of the variance in tolerance scores at UCA but only 13 percent at Oakland. Nonetheless, as was the case at UCA, honors student sta-

TABLE 5. PREDICTING LIBERAL TOLERANCE OF OAKLAND UNIVERSITY STUDENTS FOR ALLOWING ATHEISTS, COMMUNISTS, AND HOMOSEXUALS TO TEACH IN PUBLIC SCHOOLS (N=253, WITH T-SCORE AND SIGNIFICANCE LEVELS FOR PARTIAL R AND BETA)

variable	zero-order r	partial r	beta	t-score	sig.
OUHONORS	.17	.15	.16	1.98	.049
COHORT	.21	.04	.07	0.53	.594
ACT	.17	.13	.14	1.75	.082
GRADPLAN	.11	.07	.06	0.88	.381
CLASSTHINK	.01	-.02	-.02	-0.32	.748
AGE	.21	.09	.16	1.13	.262
SEX	.18	.21	.20	2.84	.005
RACE	-.02	-.04	-.04	-0.58	.561
CHURCH	-.16	-.20	-.19	-2.67	.008
multiple R = .42		adjusted R square = .13			
f-value = 4.05		significance of R = .000			

tus at Oakland showed a modest but statistically significant correlation with student tolerance (partial r = .15 and beta = .16) when controlling for all other variables in the equation. Also similar to the UCA survey, religious attendance was negatively correlated with liberal tolerance and proved to be a reliable predictor variable with partial r= .-20 and beta = .-19. Unlike the results at UCA, however, student ACT scores and the influence of college classes on their social views were not significant predictors of tolerance at Oakland University.

Perhaps the most striking new finding in the Oakland survey was the emergence of gender as a predictor of student tolerance. Whereas gender was not a significant variable at UCA, females were significantly more tolerant at OU than their male counterparts. With a partial correlation of .21 and a beta weight of .20, gender was a better predictor of student tolerance than any OU academic measures, including honors college status, and equal in predictive value to OU students' degree of religious involvement.

DISCUSSION

The data examined in this study represents an effort to test hypotheses about the impact of an honors college education on students' social values. It represents both a replication and an extension of our earlier research on this subject by comparing honors students enrolled at two institutions that exhibit certain program differences situated in very different regions of the country. The attraction-accentuation model of educational development led us to predict that students attracted to the liberal arts honors curriculum at Oakland University and the University of Central Arkansas would be more liberal in their attitudes of social tolerance than other students. This was in fact a core finding replicated at both schools. However, accentuation hypotheses, predicting that honors students would be more strongly influenced by their college classes and progressively more tolerant from one class cohort to the next when compared to other students, were only confirmed at UCA and not at Oakland. Our explanation for these contrasting findings revolves around curriculum and program differences at the two schools. At UCA the honors curriculum is more standardized and sequentially structured and there is a greater range and frequency of social activities sponsored by the honors college that brings students and faculty together, encouraging closer social ties and, we would argue, more strongly reinforcing a set of shared values among students in a residential college environ-

ment. Clearly, institutional variations in honors college accentuation patterns are empirical issues that require considerably more comparative study.

In addition to institutional differences in college programs, we anticipated there would be variations in students' social views linked to regional differences between the two schools, especially with regard to religious influence. Thus, while OU and UCA honors students were not significantly different from one another in overall liberal tolerance, regular students at OU were significantly more tolerant than their UCA counterparts. This latter finding may in part be attributed to the religious backgrounds of a majority of UCA students who grow up in a religiously conservative state. Our survey data in fact confirmed that UCA students were more likely to claim a denominational affiliation and attend church regularly than most students at Oakland. What we failed to anticipate, however, were sizable minorities among honors students at Oakland, as well as UCA, who had strong religious attachments and were frequent church attenders. Religious attendance among students at both universities, including honors college students, proved to be a significant independent variable for predicting opposition to communists, atheists, and homosexuals teaching in public schools. Thus, contrary to our expectations, we found no regional differences with regard to religious influence. In both Michigan and Arkansas, church attendance was negatively correlated with students' liberal tolerance. In comparing the two regions we should not forget that, historically, Roman Catholicism has often exerted a conservative influence in response to certain social issues in northern industrial states (including crusades against atheistic communism and opposition to gay rights) that is analogous to the influence of denominational Protestantism in the American South (Dinges 1991; Hitchcock 1991; Greeley 1977).

We did not anticipate that gender would be a significant predictor of liberal tolerance at Oakland but not at UCA, and we do not have a ready explanation for why it was. Conceivably this is another potentially important regional difference that requires much more comparative study. It might be the case, for example, that identification with contemporary feminist values is more widespread among college females in northern states like Michigan than in the South, where traditional gender attitudes are arguably more pronounced. Regional differences in students' gender attitudes could, in turn, be correlated with a greater or lesser degree of liberal tolerance toward the stigmatized groups identified in our survey.

In conclusion, we have begun to accumulate comparative data that support the proposition that honors students are more liberal than their peers in social tolerance and that certain kinds of religious attachments transcend regional differences and academic program variations as a countervailing influence on many students' attitudes of tolerance. In addition, our data suggest that the accentuation of liberal tolerance among honors students depends on the type of program instituted by the honors college, while gender differences in tolerance may be associated primarily with regional cultural variations in American society.

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