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Exploring Faculty Retirement Issues in Public 2–year Institutions

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As the age of the population continues to increase, faculty retirement issues are becoming more central to campus-level planning and management. Academic planners and senior administrators recognize that there are positive, negative, and unintended consequences associated with various retirement programs and policies, whether they are early retirement incentive programs or policies that stipulate standard program benefits that accrue to individuals who retire. Much of the research that sets the tone for these conversations focuses on 4-year institutions (e.g., Lozier & Dooris, 1991; Montgomery, 1989; Rees & Smith, 1991). This study focuses on faculty retirement issues in public 2–year institutions.

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Furthermore, Gibson-Harman, Rodriguez, and Haworth (2002) assert that "a shortage of qualified faculty to meet growing student demand" is one of the three most critical human resource challenges community colleges are facing. Indeed, several authors have suggested there will be extensive faculty retirements in the community college sector in the early part of the 21st century (e.g., Berry, Hammons, & Denny, 2001; Keim, 1994; Miller, 1997; Milliron & Leach, 1997). The "double-barreled challenges of mass faculty retirements and growing student enrollments" may be at the crux of current campus-level planning and management decisions in community colleges today and may remain so for several years to come (Gibson-Harman, Rodriguez, & Haworth, 2002, p.78). Given these challenges, a study focusing on retirement issues in public 2-year

institutions is particularly timely.

Literature Review

Milliron and Leach (1997) described responses from community college Chief Executive Officers (CEOs) regarding the impact of impending "retirement waves" (Milliron & Leach, 1997, p.4). They found an overwhelming majority (84%) of CEOs "agreed that more faculty would retire in the next ten years than have retired in the last twenty years" (Milliron & Leach, 1997, p.4). Shults (2001) included a profile of community college faculty in a research brief published by the American Association of Community Colleges (AACC) entitled *The Critical Impact of Impending Retirements on Community College Leadership*. He noted results from an online survey which indicated "36% of presidents expect at least one-fourth of their faculty to retire by 2006" (Shults, 2001, p.6). While the "graying of the professoriate" is most certainly contributing to the retirement waves, another contributing factor is the age of community colleges in general. Many community colleges opened their doors during the 1960s and 1970s, a period of expansion for higher education, and many of the core full-time faculty members who were hired during that time are approaching retirement age (Milliron & Leach, 1997; Shults, 2001).

Interestingly, although the community college sector is being confronted with mass faculty retirements, much of the faculty retirement literature exclusively considers 4-year institution settings (e.g., Hammond & Morgan, 1991; Holden & Hansen, 1989; Lozier & Dooris, 1991; McGuire & Price, 1989; Montgomery, 1989). Part of the reason for the sole focus on 4-year institutions may be that many of the studies designed to explore faculty retirement issues in general, and the retirement decision-making process

in higher education in particular, occurred in response to changes in legislation eliminating mandatory retirement ages for faculty (uncapping) as part of the amendments to the Age Discrimination in Employment Act (ADEA). The ADEA amendments eliminated mandatory retirement ages for tenured faculty members as of January 1, 1994. The primary questions driving much of the research at that time were aimed at determining the effects of eliminating mandatory retirement for faculty, predicting the number of faculty retirements in an uncapped environment, and determining the likelihood that *tenured* faculty would continue to work into their seventies and beyond. Tenure systems, however, are far less prevalent in community colleges than in research or doctoral institutions. Sixty-one percent of public 2-year institutions had tenure systems in the fall of 1998 compared with approximately 100% of public research, private research, and public doctoral institutions (Berger, Kirshstein, & Rowe, 2001).

Many of the more highly visible studies were conducted with a group of institutions that regularly shared data and information. For example, McGuire and Price (1989) projected faculty retirements in participating member institutions of the Higher Education Data Sharing (HEDS) consortium. This approach was, and continues to be appropriate because the context of the higher education setting (i.e., the environment) in which the retirement decision takes place is an important factor related to the retirement process. Faculty retirement studies have included variables designed to measure actual characteristics of the position as well as attitudes about the work environment. Both kinds of variables describe the characteristics of the position since the context of the work environment is defined in some ways by employee's perceptions of it (Graebner, 1980; Hanisch & Hulin, 1990; Lozier & Dooris, 1991; Monahan & Greene, 1987). But, again

these studies focused only on 4-year institutions.

There have been retirement studies conducted in individual public 2-year institutions or across systems however. For example, the Office of Institutional Research of Northern Virginia Community College (NVCC) analyzed data for each of the campuses related to faculty members' age, years of service, and retirement patterns. Results of the study indicated there were two campuses, Alexandria and Annandale, which may be harder hit with retirement waves than the other campuses (NVCC, 1999).

While a few researchers (e.g., Chronister, Baldwin, & Conley, 1997) have examined faculty retirement issues among a sample of faculty employed at both 4-year and public 2-year institutions, the purpose of the research was to highlight differences in retirement plans of faculty at different types of institutions rather than to explore the possibility that the context of the retirement decision making process is different for faculty employed in public 2-year institutions than for faculty employed in 4-year institutions.

Similarly, Dey, Vander Putten, Han, & Coles (1997) found differences in the factors that distinguish mobility decisions for faculty members in research institutions and for faculty members in two-year institutions, respectively. They examined mobility in general, assuming that it provides information about retirement decisions based on issues such as opportunity to move, career stage, and institutional context (Dey, et. al., 1997).

But, in her study of the status of women and minorities among community college faculty, Perna (2003) noted that "merely including a dichotomous variable for employment at a public 2-year institution ignores the likely possibility that, because of

differences in mission and structure, the process for determining such rewards as salary and rank is different for faculty employed at public 2-year colleges than for faculty employed at 4-year colleges and universities" (Perna, 2003, p.207). The same thing may also be said of the retirement decision making process, suggesting the need for analysis which focuses on faculty employed at public 2-year institutions specifically nationwide.

A notable exception to the lack of research on faculty retirement issues in public 2-year institutions nationwide was a study conducted on community college faculty retirement turnover during the fall and spring semesters of 1997-98 (Berry, Hammons, & Denny, 2001). The study stated several purposes including determining (a) the expected turnover rate of community college faculty in the next decade, (b) the factors affecting community college faculty retirement decisions, (c) the characteristics of early and phased retirement programs in community colleges, (d) the steps institutions are taking to prepare for predicted large-scale turnover in community colleges as a result of faculty retirement, and (e) the views of community college faculty nearing retirement about the skills and characteristics needed by their replacements (Berry, Hammons, & Denny, 2001).

While the study design used a stratified random sample of 302 institutions using the membership database of the American Association of Community Colleges (AACC), the response rate from these institutions was only 16%. However, in spite of the low institution participation rate, Berry, Hammons, & Denny (2001) were able to collect responses from 330 faculty members from the participating institutions. They estimated that between 25,850 and 30,040 faculty members were likely to retire in the next ten years.

The current study will contribute to our knowledge and hopefully add to the discussion Berry, Hammons, & Denny (2001) began not only by examining faculty retirement issues in public 2–year institutions using a nationally representative dataset with a high response rate, but also by developing a conceptual framework for examining the retirement decision making process in the context of the community college work environment.

Theoretical Framework

Theoretical approaches to understanding faculty retirement issues focus on the push and pull factors associated with the retirement decision making process (Daniels & Daniels, 1992) and the late career period of the life cycle (Salamone, 1996; Schein, 1992). For example, a desire for increased leisure time is expected to pull individuals toward retirement while low satisfaction from scholarly activity pushes them to do so (Daniels & Daniels, 1992). Others argue individual retirement decisions may be influenced by a trade-off between increased leisure time and greater wealth (Lewis, 1996). From a purely economic point of view, the retirement decision is a financial decision. It is a rational choice between work and leisure. At the heart of the decision is whether or not the expected retirement income is sufficient to meet the individual's needs at the time of retirement and over the remaining life cycle (Hurd, 1990). Put simply: Can the person afford to retire?

Social scientists have found that many non-financial factors affect the decision about when to retire (e.g., Keefe, 2001). In general, faculty members who choose to retire early are in poorer health and stand to lose a smaller proportion of their income upon retirement than those who choose not to retire early. In addition, faculty members

who choose to retire early may be less satisfied with their teaching assignments, rate themselves lower in research productivity, and experience a poorer sense of fit in their department (Monahan & Green, 1987). In other words, the context of the work environment and informal norms about work influence an individual's decision to retire (Atchley, 1976; Ekerdt, DeViney, & Kosloski, 1996; Szinovacz & De Viney, 2000).

Age and years of service are often used as primary criteria underlying theoretical approaches to understanding retirement issues. As employees age and accrue years of service, their opportunity structure expands to include retirement as a possibility for escaping dissatisfying work situations. Conversely, employees who find their jobs especially gratifying may find it more difficult to retire from their positions (Hanisch & Hulin, 1990, 1991).

Retirement is generally thought of as career exit. According to career development theorists adult workers gradually move from an "Establishment Stage" (approximately ages 25-44) where career growth and advancement are the norm to a "Maintenance Stage" (approximately 45-64) where work becomes stable and routine (Solomone, 1996). Workers eventually reach "Career Exit Stage" and retire. The concept of "Career Recycling" has been added to the theoretical framework to account for a return to stage issues from earlier in the life cycle (Smart & Peterson, 1997).

Aware of the non-sequential nature of careers, Ekerdt, DeViney, and Kosloski (1996) focus on retirement generally as a process, rather than as a single event. They criticized research regarding retirement in general because it has focused on the outcome in "an end-game election of practicable alternatives" (Ekerdt, DeViney, & Kosloski, 1996, p.S140). There is growing evidence to suggest that individuals prefer a gradual

transition to retirement and may be "retiring" multiple times. For example, in fall 1998, about ten percent of faculty nationwide had previously retired from another position (Conley, 2002).

An important element of gradual transition to retirement is the ability to "gear down" by shifting from full-time to part-time employment. Bridge jobs are becoming commonplace in private industry (Ruhm, 1990) and there is some evidence to suggest that bridge jobs are becoming the norm in academe as well. Conley (2002) found that three-quarters of faculty and instructional staff who had previously retired from another position were employed part time. Therefore while complicating the analysis, theoretical considerations as well as the prevalence of part-time faculty employed in public 2-year institutions (64%) necessitates the inclusion of both full- and part-time faculty in the study in order to more fully understand the context of the environment in which the decision making process is taking place. Specifically, this study includes both full- and part-time faculty in public 2-year institutions in an effort to recognize (a) the complexity of the retirement process, (b) life cycle theory suggesting workers would prefer to gradually enter retirement, and (c) the career recycling concept.

Research Method

The context for retirement decision making in public 2-year institutions is analyzed for full- and part-time faculty, as well as to determine if the context is different for the two groups. Specifically, this study examines the following questions:

1. What are the recent retirement patterns in public 2-year institutions?
2. What is the average age of faculty in public 2-year institutions?
3. How likely is it that faculty employed in public 2-year institutions will

retire in the next three years?

4. At what age do faculty members employed in public 2-year institutions intend to retire from all paid employment?
5. How receptive are faculty members employed in public 2-year institutions to early and phased retirement programs?

Data and Sample

The data for this study come from the 1999 National Study of Postsecondary Faculty (NSOPF: 99) sponsored by the U.S. Department of Education's National Center for Education Statistics (NCES). NSOPF: 99 is a nationally representative sample of full- and part-time faculty and instructional staff employed in public and private not-for-profit 2- and 4-year institutions in fall 1998. It includes data from approximately 18,000 faculty (83% weighted response rate) and 865 institutions (90% response rate). About one-third of the participating institutions in NSOPF: 99 were public 2-year institutions. The overall weighted faculty response rate (institution list participation rate multiplied by the faculty questionnaire response rate) was 73.4% (Abraham, Steiger, Montgomery, et. al, 2002).

Data Analysis

A combination of descriptive statistics and multivariate techniques were used to answer the research questions. Statistics relevant to 2-year institutions regarding retirement were produced using the NSOPF: 99 Data Analysis System (DAS), SAS, and SAS callable SUDAAN. The DAS produces weighted estimates, standard errors that take into account the complexity of the sampling procedures using the Taylor series method, and weighted sample sizes for the estimates. SAS is a statistical analysis

software package. SUDAAN is a specialty software package that has routines for analyzing complex survey data. To test for differences between estimates produced using the DAS, the researcher calculated adjusted t-tests using the Bonferoni technique to correct for appropriate family size. Univariate and multivariate techniques were also used to explore the extent to which variances in community college faculty members' age of expected retirement can be explained by general employment and personal characteristics. SAS and SAS callable SUDAAN routines were used to generate ordinary least squares (OLS) and logistic regression models (Allison, 1999; Research Triangle Institute, 2001).

SUDAAN adjusts the variances based on the sample design. The complex sample design used in NSOPF:99 included both unequal probabilities of selection (oversampling) and clustering of lower level units (faculty) within higher level units (institutions). This sample design calls for corrective strategies including using weighted estimates and specialized software packages or routines to analyze the data (Abraham, Steiger, Montgomery, et. al, 2002; Thomas & Heck, 2001). Thomas and Heck (2001) note using special software packages such as SUDAAN "is by far the most accurate and preferable" (p.530) method for analyzing these kind of data. The NSOPF: 99 weight (WEIGHT) is appropriate for approximating the population of faculty and instructional staff from the sample.

Care was taken to identify those items available on NSOPF: 99 that are particularly relevant to community colleges. For example, NSOPF: 99 included several items that were aimed at providing information about the nature of instructional activity that faculty and instructional staff engaged in during the fall of 1998 including (a)

number of remedial classes/sections taught, (b) number of remedial classes not creditable toward a degree, (c) non-credit classes, and (d) total students enrolled in non-credit classes. These items may be particularly helpful in understanding the various aspects associated with the work environment in the community college setting that may influence when community college faculty choose to retire. In the final stage of analysis, key comparisons between 2-year and 4-year institutions will inform a discussion about faculty retirement issues that are applicable regardless of institutional context and those which may benefit from more exploration within institutional context.

Limitations

Large national datasets offer several strengths including large sample sizes, generalizability, sophisticated pilot tests, built-in mechanisms to address measurement error (e.g., re-interview studies), complex editing and data cleaning strategies, and large budgets that allow maximum nonresponse follow-up. However, broad research interests and policy concerns, rather than specific research questions or hypotheses guide the development of national surveys. Individual survey items are designed to answer general questions on many topics, not to definitively address any one-research topic. As a result, variables important for the analysis may not be included, or concepts may not be measured exactly as the researcher would have liked.

The present study is not a complete analysis of the factors that affect a faculty members' decision to retire because there were no variables in the data set measuring important personal characteristics including, for example, health and accumulated wealth. Another important construct missing from the study is any information on types of retirement programs in which faculty members are participating. The institution survey

asks about the types of retirement programs that are offered, but because of the likelihood that institutions offer multiple options from which faculty may choose, the data provide little usefulness for researchers. Estimates of attrition ratios are crude at best, being predicated on calculations of the number of full-time retired faculty and instructional staff divided by the number of reported full-time faculty for each institution post-hoc. Another limitation is the use of cross-sectional data to examine faculty retirement issues. Faculty retirement research based on cross-sectional data is generally limited to analyses of retirement plans, rather than actual behavior.

Perna (2003) identified several other limitations of using NSOPF to study 2-year institution issues in particular. For example, she noted an inability to identify faculty members employed in public 2-year institutions based on the mission of the institution (e.g., vocational technical or transfer) or the extent to which individual faculty members were teaching courses for transfer.

Findings

Weighted univariate analyses show that on average 4.5 full-time faculty members retired from public 2-year institutions between the fall of 1997 and the fall of 1998 (Table 1). The number of retirees ranged from a minimum of 1 to a maximum of 30. The ratio of the number of retirees to the total number of full-time faculty and instructional staff on average provides some measure of attrition in public 2-year institutions nationwide. The median attrition rate for public 2-year institutions was 3.3%. However, the small number of retirees and calculated attrition rates on average should not be interpreted to mean that retirement issues are not a serious concern in some institutions. Most public 2-year institutions had at least one faculty member retire between the 1997 and 1998 fall terms.

Furthermore, understanding retirement issues in public 2-year institutions requires more than looking at the total number of retirees. On average, 13 faculty members per institution elected early retirement incentives (Table 1) and about one-third of public 2-year institutions had at least one faculty member take early retirement.

Table 1. Institutional Retirement Characteristics: NSOPF:99

	Mean	SD	Median	Mode	Range
FT Faculty (A1A)	97.2	180.7	73	85	3 – 633
Total Retired (A5D4>0)	4.5	8	3	1	1 – 30
Early Retirees (A8F2>0	13.18	25.52	7	1	1 – 92
Ratio	4.20%	6.50%	3.30%	3.30%	0.50% - 34%

Note: Data weighted using institution base weight.

Table 2 provides weighted univariate statistics by region, size of the full-time equivalent (FTE) student enrollment, and urbanicity of the campus. Regardless of size or location, only about 4% of full-time faculty at public 2-year institutions retired between the 1997 and 1998 fall terms. But, again the number of early retirees was larger on average, and in some instances may be a substantial portion of the faculty, especially if the retirements (full or early) occur in one discipline or academic unit. Figure 1 shows the number of faculty and instructional staff in public 2-year institutions that elected early retirement, by urbanicity, size of FTE enrollment, and region. Unfortunately, institutions were not asked to provide a breakdown of the retirements by academic unit. The next section provides more detailed analyses of retirement issues in public 2-year institutions by examining faculty responses related to their age and retirement plans.

Age

In the fall of 1998, community college faculty members were 48 years old on

Table 2. Institutional Retirement Characteristics, by Region, Size, and Urbanicity: NSOPF:99

WEIGHTED	Mean	SD	Median	Mode	Range
Region					
Northeast/Plains					
FT Faculty	91.4	180.0	67.0	142.0	3-593
Retired	4.9	8.5	3.0	1.0	1-30
Early Retired	16.3	27.4	16.0	4.0	1-82
Ratio	4.40%	5.70%	3.90%	1.30%	.006-.337
Southeast					
FT Faculty	82.0	168.2	61.0	113.0	16-633
Retired	3.8	6.9	2.0	1.0	1-17
Early Retired	7.4	18.6	5.0	7.0	1-32
Ratio	4.50%	10.00%	2.70%	1.20%	.009-.232
Rocky Mountain/Southwest					
FT Faculty	115.2	184.9	84.0	136.0	18-614
Retired	4.7	8.1	3.0	3.0	1-25
Early Retired	13.0	24.4	7.0	1.0	1-92
Ratio	3.80%	4.70%	3.10%	3.30%	.005-.141
Size - FTE Enrollment					
Small (1-1423)					
FT Faculty	40.8	111.0	40.0	50.0	3-302
Retired	2.3	6.5	1.0	1.0	1-12
Early Retired	8.9	33.0	6.0	4.0	1-24
Ratio	4.70%	13.20%	3.10%	2.00%	.013-.232
Medium (1424-3574)					
FT Faculty	95.2	75.7	91.0	85.0	32-259
Retired	3.7	5.4	3.0	1.0	1-12
Early Retired	9.3	18.3	5.0	3.0	1-32
Ratio	3.80%	5.60%	3.30%	3.30%	.007-.141
Large (> 3574)					
FT Faculty	200.2	152.5	178.0	142.0	18-633
Retired	7.8	7.5	7.0	3.0	1-29
Early Retired	21.6	23.9	16.0	15.0	1-92
Ratio	4.10%	4.40%	3.30%	1.20%	.005-.337
Urbanicity					
Urban					
FT Faculty	126.7	197.6	98.0	85.0	10-633
Retired	6.8	8.2	6.0	3.0	1-30
Early Retired	17.0	28.2	15.0	15.0	1-92
Ratio	4.40%	5.30%	3.50%	3.30%	.005-.337
Suburban					
FT Faculty	107.0	164.1	91.0	120.0	18-443
Retired	4.6	7.2	4.0	5.0	1-29
Early Retired	13.5	21.3	15.0	24.0	1-34
Ratio	4.30%	4.80%	3.60%	1.30%	.006-.106
Rural					
FT Faculty	64.9	126.3	51.0	34.0	3-389
Retired	2.7	5.9	2.0	1.0	1-12
Early Retired	6.2	9.6	6.0	7.0	1-17
Ratio	4.00%	10.30%	2.80%	1.00%	.009-.232

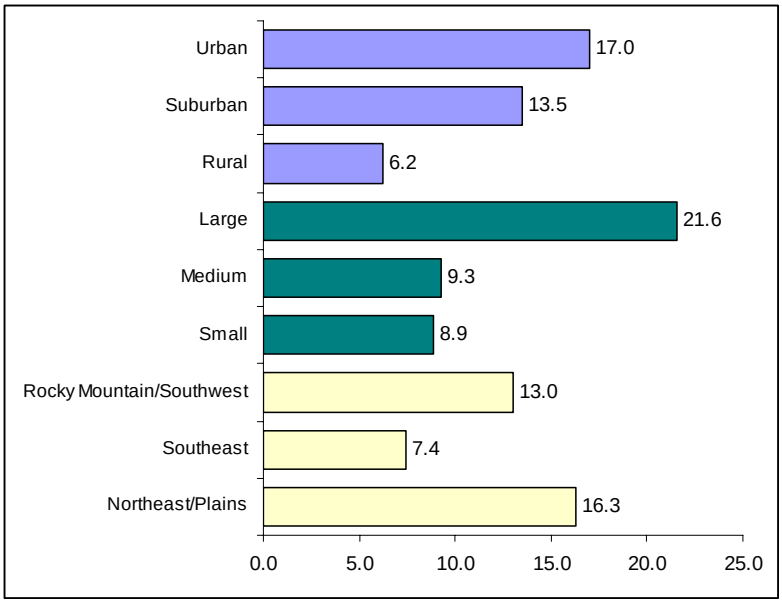

Figure 1. Number of faculty and instructional staff electing early retirement from public 2-year institutions between the 1997 and 1998 fall terms, by enrollment and location: NSOPF 1999.

average. Figure 2 shows the age distribution of full- and part-time instructional faculty and staff in public 2-year institutions for the three years that NSOPF data have been collected. Part-time faculty members in public 2-year institutions were on average younger than full-time faculty, but the average age of part-time faculty has increased more rapidly than their full-time counterparts between fall 1987 and fall 1998. While the average age of full-time faculty increased from 47 to 49 years old, the average age for those employed part time increased from 44 to 48 years old.

These data suggest part-time faculty members in public 2-year institutions are not, as is generally assumed, young faculty working part time in order to gain teaching experience so that they may be better positioned to compete for full-time faculty positions. Figure 3 shows a higher percentage of faculty members less than 35 and

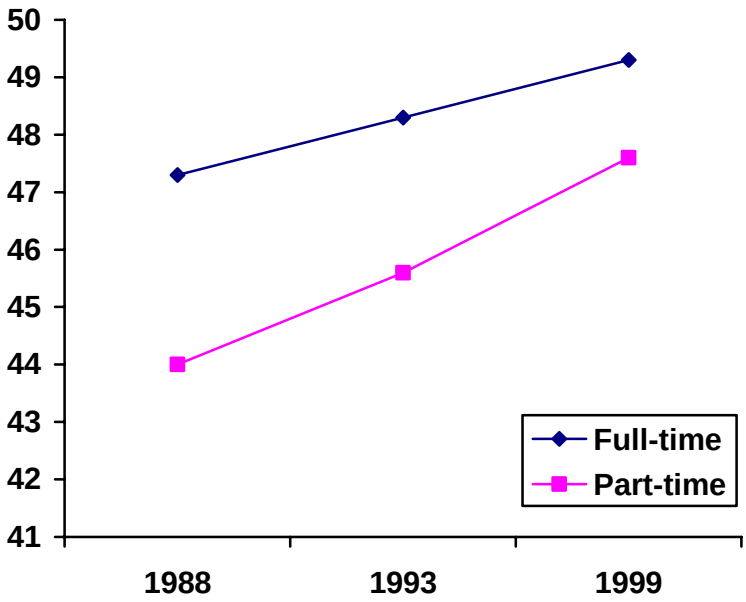

Figure 2. Age of instructional faculty and staff in public 2-year institutions, by employment status: 1988, 1993, and 1999.

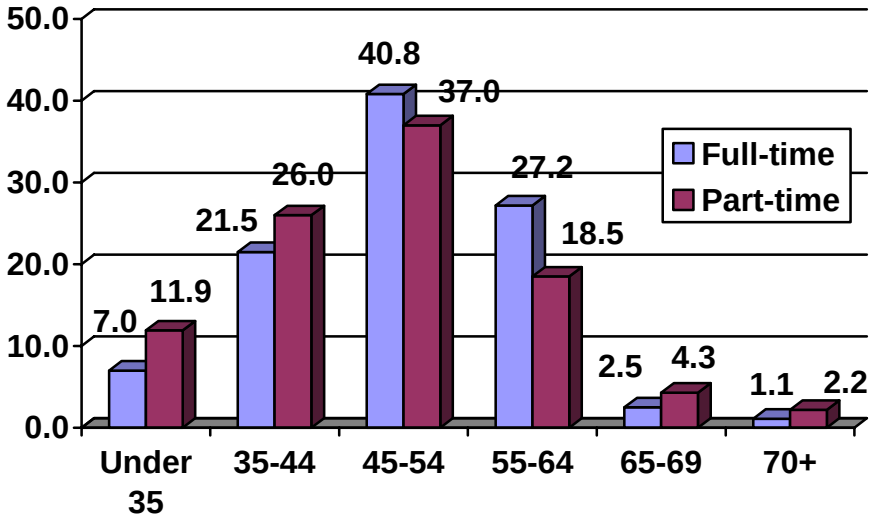

Figure 3. Age distribution of instructional faculty and staff in public 2-year institutions, by employment status: 1999.

between the ages of 35-44 were employed part time than were employed full time. But the figure also shows a higher percentage of faculty members between the ages of 65-69 and 70 years old or older were employed part time than were employed full time. The majority of faculty members were between the ages of 45-54 or 55-64 regardless of whether they were employed part time or full time in public 2-year institutions.

Another indicator of the graying of the professoriate is the relationship between age and years of service. As can be seen in Table 3, about one-half (52%) of faculty between the ages of 65-69 had held their current position for more than 25 years.

Table 3. Years held current job, by age group: 1999

	Years Held Current Job			
	25 Years or Less		More than 25 Years	
	Full-time	Part-time	Full-time	Part-time
Under 35	100.0	100.0	0.0	0.0
35-44	100.0	100.0	0.0	0.0
45-54	94.1	99.3	5.9	0.7
55-64	68.2	94.9	31.8	5.1
65-69	47.6	84.4	52.4	15.6
70+	---	92.3	---	7.7

Source: NSOPF: 99 Data Analysis System

While a much smaller percentage of part-time faculty members (16%) than full-time faculty (52%) in this age group had held their current position for more than 25 years, the data suggest that community colleges should consider both full- and part-time faculty when addressing retirement issues. When the percentage of part-time faculty between the ages of 65-69 and 70 years old or older are combined, a full 20% have held their jobs for more than 25 years. An additional five percent of part-time faculty between the ages of 55-64 had held their current position for more than 25 years, bringing the total to more than one-quarter. The graying of the professoriate applies to both full- and part-time

faculty members at least in some public 2-year institutions.

Figures 4 and 5 compare the percentage each program area contributes to the total for each of six age groups for part-time and full-time faculty respectively. Taken together these results indicate the "age" of academic programs in public 2-year institutions nationwide.

Retirement Plans

Both full- and part-time faculty and instructional staff expressed considerable interest in retiring in the next three years. While it is somewhat intuitive that very small percentages of faculty less than 35 years old or between the ages of 35-44 expressed interest in retiring in the next three years, ten percent of part-time and 14% of full-time faculty between the ages of 45-54 said they were either somewhat likely or very likely to do so (Table 4). A general labor market trend towards earlier retirement suggests these data should be monitored carefully in an effort to determine if it will impact public 2-year institutions in a significant way. About one-third of older part-time faculty (i.e., 65-69 and 70+) indicated they were not at all likely to retire in the next three years, suggesting perhaps that many of the part-time faculty have either retired from another position already or have adequate leisure time as a result of their part-time position and are thus less pulled toward retirement than their full-time counterparts. Of course this may also indicate that older part-time faculty in public 2-year institutions are continuing to work because of financial reasons. Regardless of the reason for their plans for continued employment, however, these analyses highlight the importance of examining both part-time and full-time faculty members' plans for retirement in public 2-year institutions particularly.

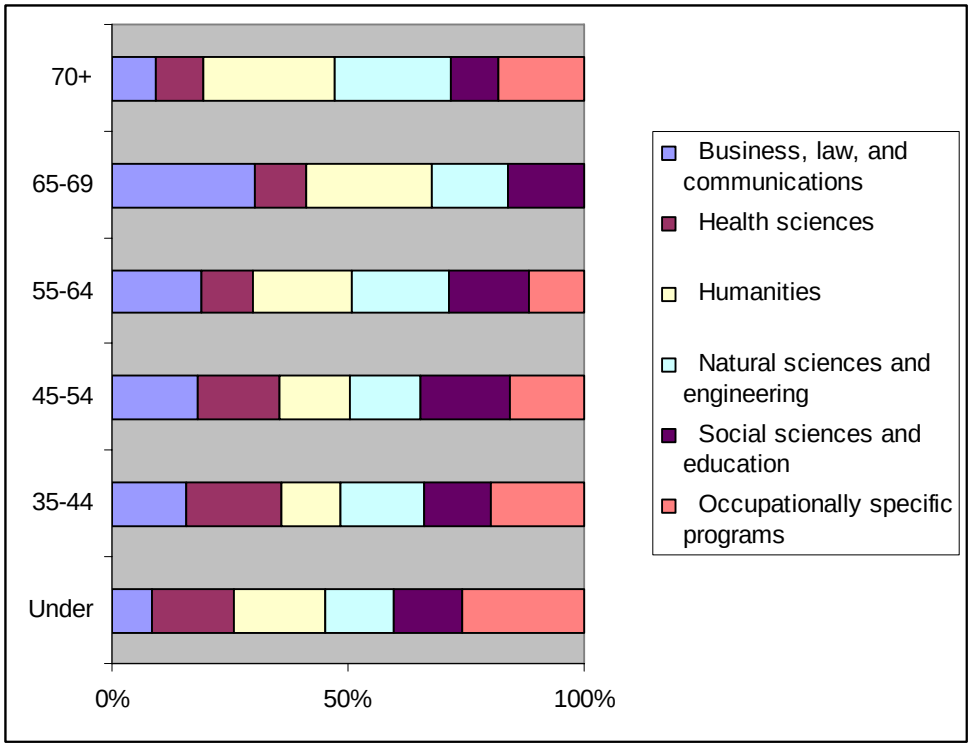

Figure 4. Part-time

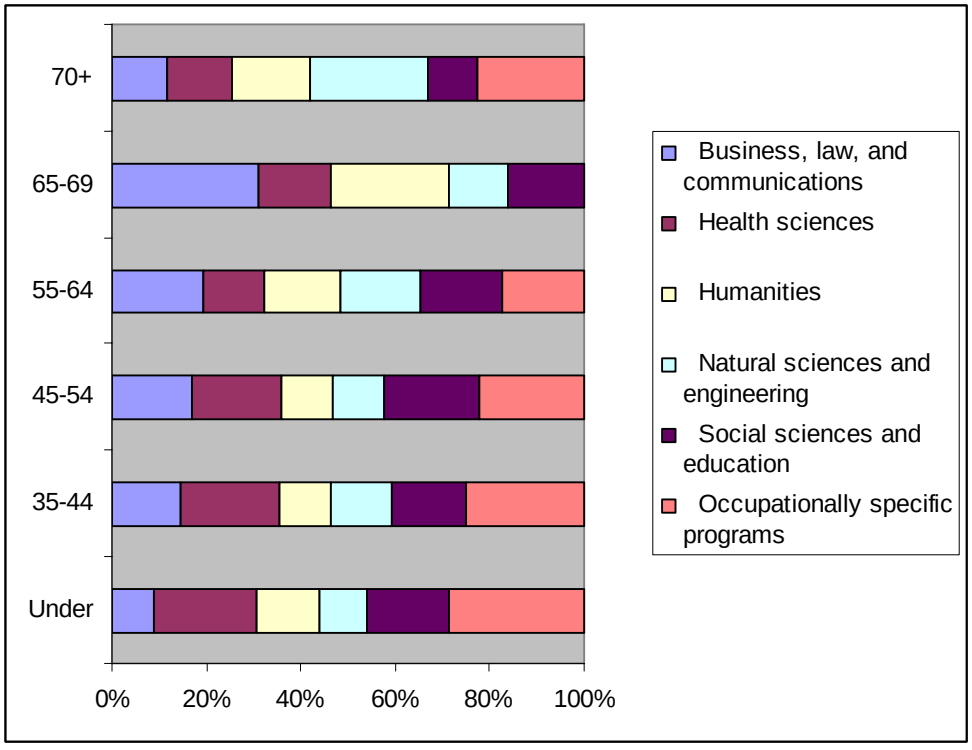

Figure 5. Full-time

Table 4. How likely retire in the next three years

Age	Not at all Likely	Somewhat likely	Very Likely
Part-time			
Under 35	97.5	1.6	0.9
35-44	94.4	4.8	0.8
45-54	89.3	7.5	3.1
55-64	52.5	28.3	19.2
65-69	43.6	24.4	32.0
70+	31.8	30.2	38.0
Full-time			
Under 35	99.3	0.7	0.0
35-44	98.1	1.1	0.8
45-54	86.5	9.6	3.9
55-64	50.0	24.6	25.3
65-69	18.4	23.7	57.9
70+	---	---	---

Source: NSOPF: 99 Data Analysis System

On average, faculty in public 2-year institutions said they expected to retire at age 65. About 30% indicated they would work between 1–10 more years before retiring (NSOPF: 99 Data Analysis System). Figure 6 shows 16% of full-time faculty in public 2-year institutions said they expected to retire between 61-64 years of age. A higher percentage of part-time faculty members than full-time faculty expressed their desire to work beyond the traditional retirement age (65), yet nearly one-third of both part-time and full-time faculty said they expected to retire at age 65 (Figure 6).

The Retirement Decision Making Process

The age of expected retirement was specified using a model of the form

(1) $$Y_i = X'_i \beta + \varepsilon_i$$

where Y_i = the age of expected retirement for the i-th faculty member, X'_i = set of independent variables that may influence when faculty members expect to retire, β = set of coefficients for the variables in X', and ε = random error term. The model was

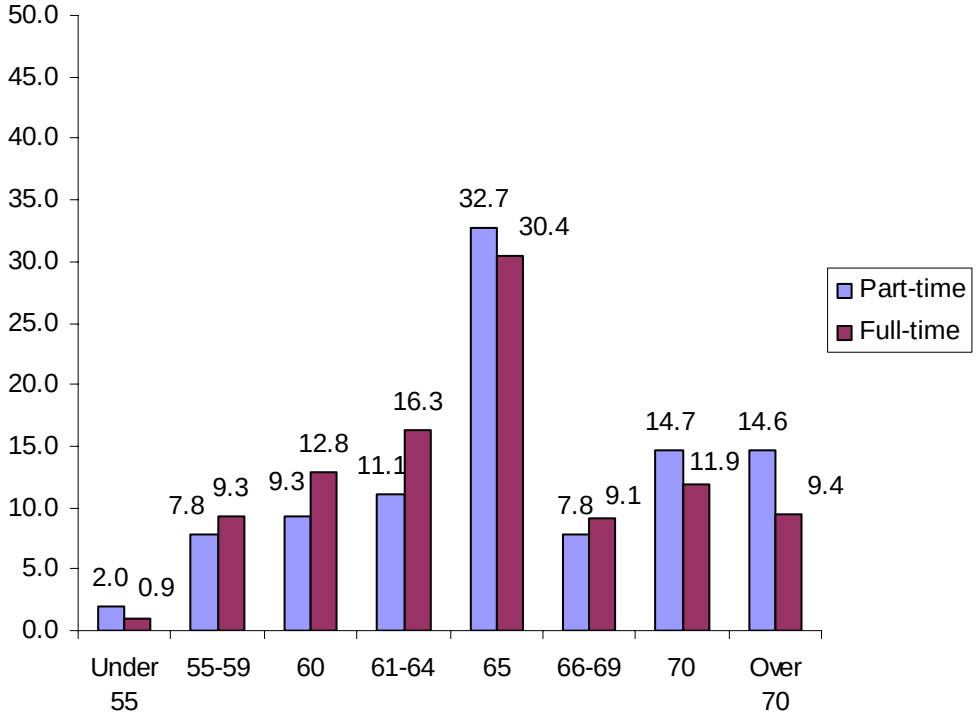

Figure 6. Age of expected retirement by employment status: NSOPF: 99

specified separately for full-time and part-time faculty respectively.

Current age, number of years faculty held their current job, and employment in a rural institution were significantly related to the age of expected retirement of full-time faculty in public 2-year institutions. Current age and basic salary were significantly related to the age of expected retirement of part-time faculty. None of the independent variables that were included in the analysis because they were thought to be related to the context of the public 2-year institution work environment (teaching remedial courses, the number of remedial students, and teaching noncredit courses) were significantly related to the age faculty in public 2-year institutions expected to retire, regardless of employment status (Table 5).

Table 5. Age of Expected Retirement

	Model 1 Full-time		Model 2 Part-time	
Independent Variable	**B**	**S.E.**	**B**	**S.E.**
Age	0.47***	0.07	0.41***	0.06
Years in current job	-0.11*	0.06	-0.06	0.09
Basic salary	0.00	0.00	0.00***	0.00
Small institution	2.56	1.57	-2.25	2.23
Medium institution	0.11	1.21	-1.17	1.32
(Large Institution)				
Southeast region	-0.80	1.34	-0.21	1.46
Rocky mountain/southwest region	0.06	1.12	-1.50	1.25
(Northeast/plains region)				
Rural	-3.41*	1.47	0.50	1.82
Suburban	-1.34	1.14	0.35	1.23
(Urban)				
Business, law and communications	-0.61	2.27	0.42	2.09
Health sciences	1.81	1.91	-0.19	2.45
Humanities	-0.34	2.03	1.77	1.85
Natural sciences and engineering	-1.30	2.01	-2.22	2.18
Social sciences and education	0.88	2.00	0.60	1.91
Other or unknown field	2.03	1.93	3.13	1.86
(Occupationally specific programs)				
Taught remedial courses	-1.59	1.95	0.63	2.66
Taught noncredit courses	1.61	2.40	0.67	3.01
Total students in remedial courses	-0.01	0.01	-0.02	0.01
Constant	34.11	4.11	39.78	3.02
Number of cases in analyses	2301		2138	
R^2	0.050		0.052	

Source: 1999 National Study of Postsecondary Faculty

Receptivity to Early and Phased Retirement

Logistic regression analysis was used to examine faculty members' receptivity to early and phased retirement options. Logistic regression is an appropriate multivariate technique when the dependent variable is dichotomous. DesJardins (2001) explains, "the dependent variable in a logistic regression model is the logarithm of the odds of the occurrence of a particular outcome or event" (p.2). Mathematically:

$$(1) \qquad \log \frac{P_i}{1 - P_i} = a + BX_i$$

In this case, there are two outcomes or events of interest including (a) receptivity to early retirement and (b) interest in drawing on retirement while continuing to work part time for the institution. Using the first outcome as an example, P_i is the probability that a faculty member is willing to take an early retirement option and $1 - P_i$ is the probability that the faculty member is not willing to take an early retirement option. The factors related to the retirement decision making process form a set of independent variables, X_i, and a and B are the intercept and the estimated coefficients of each of the independent variables included in the model, respectively. Each model was specified separately for full- and part-time faculty in public 2-year institutions (Table 6).

The first model examined the receptivity of full-time faculty to early retirement. Years in current position and employment in an institution located in a rural area distinguished faculty members who would be willing to accept early retirement from those who would not be willing to accept it. The beta coefficient for years in current position is 0.04. This coefficient estimate indicates that increases in the number of years

Table 6. Logistic Regression Results for Receptivity to Early and Phased Retirement

	Model 1 Early Retirement/ Full-time		Model 2 Phased Retirement/ Full-time		Model 3 Early Retirement/ Part-time		Model 4 Phased Retirement/ Part-time	
Independent Variable	B	S.E.	B	S.E.	B	S.E.	B	S.E.
Age	-0.00	0.01	0.01	0.01	0.01	0.01	0.03*	0.01
Years in current job	0.04***	0.01	0.01	0.01	0.01	0.01	-0.00	0.01
Basic salary	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Small institution	0.34	0.21	-0.12	0.19	-0.19	0.25	-0.07	0.24
Medium institution	0.27	0.15	-0.18	0.14	-0.34	0.19	-0.20	0.15
(Large Institution)								
Southeast region	-0.12	0.15	0.39**	0.14	0.08	0.21	0.12	0.17
Rocky mountain/southwest region	-0.28*	0.13	-0.02	0.13	0.06	0.18	-0.19	0.15
(Northeast/plains region)								
Rural	-0.29	0.17	-0.37*	0.16	0.17	0.25	0.09	0.20
Suburban	-0.07	0.14	-0.01	0.14	0.36	0.18	-0.12	0.15
(Urban)								
Business, law and communications	0.08	0.26	0.06	0.26	-0.71	0.34*	-0.21	0.30
Health sciences	-0.34	0.26	-0.02	0.24	-0.54	0.37	-0.60	0.31
Humanities	-0.31	0.25	-0.35	0.24	-0.47	0.30	-0.58*	0.27
Natural sciences and engineering	-0.21	0.23	-0.14	0.22	-0.59	0.30*	-0.35	0.27
Social sciences and education	-0.23	0.24	-0.09	0.24	-0.56	0.36	-0.59*	0.3
Other or unknown field	-0.31	0.25	-0.15	0.24	-0.45	0.31	-0.70**	0.27
(Occupationally specific programs)								
Taught remedial courses	-0.06	0.21	0.18	0.19	-0.08	0.29	0.03	0.24
Taught noncredit courses	0.25	0.26	0.01	0.25	-0.22	0.37	-0.42	0.30
Total students in remedial courses	-0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-0.82	0.48	-0.58	0.43	-1.18	0.43	-0.45	0.38
Number of cases in analyses	2301		2301		2138		2138	
χ^2, *df*	109.70		68.72		35.90,18		94.68,18	
Pseudo R^2	0.046		0.029		0.017		0.043	

Source: 1999 National Study of Postsecondary Faculty

faculty members have held their current position increases the chances that they would be receptive to early retirement. The odds ratio associated with this result is 1.04, so for each additional year a faculty member held their current position, the odds of being willing to accept early retirement increases by about 4%.

One of the dummy variables coded to indicate the region of the country where the faculty member was employed was significant. The coefficient for being located in the Rocky Mountain/Southwest region was –0.28. Interpreting this coefficient and the corresponding inverse odds-ratio relative to the reference category (Northeast/Plains region) indicates that the odds of being willing to accept early retirement was lower for faculty in the Rocky Mountains and the Southwest than for faculty in the Northeast and the Plains ($p < .05$).

The second model examined the receptivity of full-time faculty in public 2-year institutions to phased retirement. Employment in the Southeast region and in an institution located in a rural area distinguished faculty members who would be willing to accept phased retirement from those who would not be willing to accept it.

The third and fourth models examined the same questions for part-time faculty. Two of the coefficients for dummy variables coded to indicate the faculty members' program area were significant in the model specified to distinguish receptivity to early retirement. The beta coefficient for business, law, and communications was –0.71 and the coefficient for natural sciences and engineering was –0.59. These coefficients and the corresponding odds ratios indicate that the odds of being willing to accept early retirement was lower for faculty in these disciplines than for faculty in occupationally specific programs (the reference category) ($p < .05$).

The final model specified examined the receptivity of part-time faculty in public 2-year institutions to phased retirement. Age and program area were significantly related to part-time faculty members' receptivity to retiring and continuing to work part-time at their institution.

Discussion

The challenges academic planners and senior administrators face in public 2-year institutions are often distinctly different from those in either public 4-year or private not-for-profit 4-year institutions; and may even be more similar to issues faced by private industry or K–12 education in some cases depending on the size of the institution, its location (i.e., urban or rural area), and the discipline mix or the programs that are offered by the institution.

Although generally similar percentages of public 2-year institutions and other types of public institutions took at least some action to reduce the number of full-time faculty between 1993 and 1998, the types of actions public 2-year institutions took were different than might be expected. For example, a smaller percentage of public 2-year institutions than public research institutions replaced full-time with part-time faculty (19% vs. 23%), increased faculty course load (6% vs. 14%), or increased class sizes (14% vs. 19%) (Berger, Kirshstein, & Rowe, 2001). In addition, there was a higher percentage of new full-time faculty members who were previously part time in public 2-year institutions (23%) than in public research institutions (10%), suggesting that planners and academic managers in public 2-year institutions are meeting the "double-barreled challenges" of mass faculty retirements and growing student demand head-on in an environment of increasing fiscal constraints.

Some researchers have suggested that community college administrators should consider transitioning part-time faculty to full-time positions as full-time faculty retire

(Gibson-Harman, Rodriguez, & Haworth, 2002). Recognizing that many workers may prefer to transition to retirement rather than face career exit all at once, community colleges may be able to offer a unique opportunity for staffing swirl– allowing part-time faculty to transition to full-time positions and full-time faculty to transition to retirement by holding more flexible part-time positions for some period of time. There are several potential advantages to staffing swirl, including an obvious emphasis on human resources development and maintaining institutional knowledge and mission focus. There is some evidence to suggest that the community college sector is already capitalizing on these opportunities. There are some potential disadvantages to this practice, however. Many institutions have not considered equity issues such as differences between overload and adjunct pay, for example. It will also be necessary for institutions to be fully aware of the impact these arrangements may have on retirement benefits, including an in-depth knowledge of the rules and regulations regarding participation for part-time faculty. In certain fields, (e.g., technical training programs) there may be questions about the currency of skills and the ability to keep up with the field that staffing swirl practices would need to take into account. Nonetheless, the potential advantages may outweigh the disadvantages in some institutions. At a minimum, being aware of faculty retirement patterns and plans for both full- and part-time faculty in public 2-year institutions is warranted.

Faculty retirement issues in the community college context are multi-faceted and deserve further exploration. The current study emphasized the importance of examining the context of the community college work environment separately from the 4-year institution setting by region, size of full-time equivalent (FTE) enrollment, and urbanicity. In discussions with community college administrators, location was mentioned as a particularly

salient indicator of the context of the community college work environment (i.e., institutional setting). Region matters because of cultural differences. For example, peoples' aspirations vary by region. People also have specific ideas about where they want to be physically when they retire (e.g., in a warmer climate).Whether or not the institution is in an urban, suburban, or rural area makes a difference because it means among other things that people's financial needs for retirement are different. Because of the high percentage of faculty employed part time in public 2-year institutions, the current study also emphasized the importance of including part-timers in analyses in order to more fully understand faculty retirement issues in these institutions. Further research should examine other variables related to the retirement process, to determine their importance in the retirement decision for faculty in public 2-year institutions. For example, there has been heightened interest since around the 1980s in women's retirement and recognition that women and men probably approach and experience the retirement process differently (Calasanti, 1996; Calasanti, 1993; Szinovacz & DeViney, 2000). Future research should consider the role of gender and family issues in the retirement decision making process in the community college setting.

At the time these data were collected the economy had not yet plummeted into the recession we may be recovering from now. The next cycle of NSOPF is being conducted at the time of this writing. NSOPF: 04 will provide further opportunities to analyze retirement issues in general and in public 2-year institutions in particular.

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