

# The Organizational Demography of Faculty Tenure: 1980–2000

By Henry Lee Allen

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Rapid, systemic changes in the academy have caught most analysts of tenure policies off guard. Proposals for viable tenure policies are therefore more often based on ideology than on observation. Some analysts advocate a market-oriented approach: modify or terminate the usual tenure protocols.<sup>1</sup> Others revisit past AAUP glories, and reiterate legal precedents and union notions of job security.<sup>2</sup> Neither camp looks beyond ideology to examine the effect of organizational variables on tenure policies.

Here are the key analytical questions affecting faculty tenure:

- Are the institutional effects of tenure separable from their specific social and organizational contexts?
- Can we devise universal, effective tenure policies, given the organizational demographics and market niches of each institution in a differentiated postsecondary education system?
- Can we suggest tenure policies without understanding the contingencies endemic to complex systems?<sup>3</sup>

Based on our research, the answer to each question is *no*. It is foolhardy, even disingenuous, to advocate systemic tenure reforms without noting the organizational demographics—how an organization is populated and situated within a social system—and market niches—where a college attracts its base clientele and its operational resources—affecting specific colleges and universities.<sup>4</sup>

American colleges and universities organize creativity to nurture cognitive rationality<sup>5</sup> and to produce, legitimate, certify, and disseminate expertise.<sup>6</sup> These institutions also process information<sup>7</sup> and act as social networks.<sup>8</sup> Colleges affect the life chances of members of social groups possessing different levels of social capital, and functioning within different opportunity structures.<sup>9</sup> Many constituencies—including students, professors, administrators, staff, governors, legislators, and benefactors—interact to pursue their interests.<sup>10</sup> Decisions made by professional associations, unions, industry, and government affect the academy.<sup>11</sup> In turn, higher education affects social structure, culture, industry, and government.<sup>12</sup> What happens to

higher education—the key repository of expertise and culture—affects the nation.

Scholars have yet to dissect the webs of affiliation and interaction occurring in the American academic system.<sup>13</sup> But recent history demonstrates fertile ground. In the 1960s, rapid demographic change led colleges to expand and confront diversity. During the 1970s, colleges adapted to ethnic studies, affirmative action, and inflationary budgets. The 1980s saw the rise of the consumerism among benefactors and constituents; administrative rhetoric focused on accountability and assessment. Technological change—computerization and distance education—predominated during the 1990s; polemics on tenure, cost containment, and performance measurement followed.<sup>14</sup>

These societal transformations *differentially* affected the norms and professional practices, and the organization, processes, and adaptive capabilities of the postsecondary education “industry.”<sup>15</sup> Scholars may explain how these transformations affect a given college by probing the *organizational demographics* of higher education institutions.<sup>16</sup>

## RESEARCH QUESTIONS

Colleges and universities share many structural and social features of complex, bureaucratic organizations.<sup>17</sup> They are resource-dependent: they must acquire resources to survive, and are subject to the same social forces—laws and technology, for example—and social changes—diversity, consumerism, and accountability—as other complex organizations. Universities and colleges also contain departments—institutional “outposts” of the academic professions.<sup>18</sup>

These complexities lead us to analyze academic institutions using the concepts and methods of organizational science.<sup>19</sup> Some analysts focus on metaphor; others disentangle contradictory processes, outcomes, and procedures; still others emphasize cultural issues—how meanings and perceptions affect organizational actors.<sup>20</sup> Even attitudes and identity, though intangible, may affect organizations.<sup>21</sup> Organizations evolve and learn over time.<sup>22</sup> *Contingencies* matter.<sup>23</sup> *Ecology* (or demography) matters.<sup>24</sup> *Linkages* matter.<sup>25</sup> *Stresses* and *justice* matter.<sup>26</sup> *Climate* matters.<sup>27</sup>

*Systems* matter.<sup>28</sup> *Unions* matter.<sup>29</sup> *Markets* matter.<sup>30</sup> Academic organizations, like other complex entities, evolve within an academic system in flux, and must respond to their environments to survive.<sup>31</sup> Failure tempts disaster!

Tenure is an organizational and systemic outcome of the academic division of labor, though some observers question its cultural legitimacy.<sup>32</sup> But debates about tenure rarely address systemic complexities that may affect its use at a specific institution. This article examines how organizational features, traits, and conditions interact with or mediate the dynamics of tenure. We focus on three questions:

- What is the effect of unions on tenure policies?
- What disparities in the tenure process exist between the public and private sectors?<sup>33</sup>
- How does institutional type or mission affect tenure?

## METHODOLOGY

We compiled the requirements for tenure from a stratified random sample of 216 institutions from the academic universe, classified by Carnegie code.<sup>34</sup> Our source: documents in the Faculty Appointment and Policy Archive (FAPA) database, released by the Harvard Graduate School of Education.

The FAPA database ranked institutions by the number of “hits” on an issue or term—in this case tenure—in the policy documents. But by itself, FAPA did not permit analysis of the relationship between tenure policies and organizational contexts. Fortunately, *American Universities and Colleges*, published by the American Council on Education, includes data for 17 key organizational features.<sup>35</sup> To track change over time, we used data from the 12<sup>th</sup> (1980-81) and 15<sup>th</sup> (1996-97, the year FAPA was created) editions.

We performed a statistical analysis for each feature. Was institutional location salient for sampled institutions? How did faculty composition affect tenure policies? Did governance patterns differ significantly by type of control? How did unionization—unionized campuses had more codified procedures—affect tenure policies? In each case, we

examined organizational data for 1996–97, moved to 1980–81 data, and then compared relevant variables to understand changes within a college across time.<sup>36</sup> We calculated mean scores and ranges for the Carnegie types and for the public and private sectors.

### RATIONALE AND SIGNIFICANCE OF THE STUDY

Faculty composition—via its proximate nature and scope—affects faculty recruitment, socialization, professionalization, and retention—including the award or denial of tenure.<sup>37</sup> The composition of the faculty, for example, affects the culture displayed in departments and in the institution.<sup>38</sup> The less bureaucratic the organizational culture, some observers hypothesize, the more collegial the faculty.<sup>39</sup> Composition includes the configuration of faculty within academic departments, and the distribution of faculty among academic ranks.<sup>40</sup> Faculty quality, suggest some observers, increases with the proportion of full-timers and with the proportion of doctorates, especially if the doctoral credentials emanate mainly from elite research universities.<sup>41</sup> A faculty composed of a large proportion of tenured colleagues implies a major investment that may constrain budgets. It also affects the faculty replacement process since incumbents strongly influence subsequent recruitment and retention.<sup>42</sup> Understanding the nuances of faculty composition is key to organizational planning and leadership.<sup>43</sup>

Table 1 illustrates organizational traits related to faculty composition at selected FAPA colleges during 1996–97.<sup>44</sup> Using a secondary analysis of variables such as total instructional faculty, total full-time faculty, proportion of faculty having doctorates, and proportion of tenured faculty, we examined the impact of faculty size, employment status, and professionalization on tenure status. Below we summarize key findings.<sup>45</sup>

### DATA COLLECTION AND ANALYSIS

An organizational demography of academic institutions should begin by chronicling the origins of each college.<sup>46</sup> It should then specify how and why subsets of particular kinds of

organizations are found in particular domains, according to their *population densities*. It should also specify the key traits that typify the population of organizations under study, especially the demographic characteristics vital for development and survival. This means examining conditions, markets, units, groups, social networks, tasks, purposes, and actors that interact with the organization. Ideally, it also means studying the social structure—norms, roles, governance, social controls, and rewards—and social processes, programs, and outcomes. A daunting task indeed.

An organizational demography should investigate change over time, and explore the relationship between discrete parts of organizations and the ecological niches they depend upon for survival. On a grander scale, an organizational demography of higher education should explore connections with the division of labor, including occupations, industries, technologies, and politics.<sup>47</sup> That's the ideal, at least, but we still await a formulation that takes these factors into account when assessing tenure.

Last year, we glimpsed the potential of an organizational demography for colleges and universities in the FAPA database by noting the most frequent hits related to faculty workload and tenure policies.<sup>48</sup> We targeted items related to operating budgets, faculty composition, and enrollments for 1980–81 and 1996–97, respectively. This article expands the analysis by focusing on unionization, sector, and institutional type.<sup>49</sup>

The FAPA database alone did not permit comparisons between, say, the organizational demography of unionized and non-unionized campuses.<sup>50</sup> We therefore imported the needed data from *American Colleges and Universities*. We first compared the spatial location of FAPA colleges and universities to national norms.<sup>51</sup> This step alerted us to the ecological conditions from which sampled institutions were drawn. Table 2 shows the regional distribution of FAPA colleges and universities.

Several patterns emerged from examining the effects of the ecological distribution of FAPA institutions by region. Of the included colleges, 36 percent were located in the South and 27 percent of schools were located in the Midwest. Thus, 63 percent of sampled institutions are biased to social conditions in just

**Table 1****Organizational Traits for First Ten Carnegie Bachelors-1 Institutions in FAPA, 1996**

| College                        | Agnes Scott | Austin  | Beloit     | Bethany | Birmingham | Central    | Coe        | C. of the Atlantic | Conn.Coll. | Davidson   |
|--------------------------------|-------------|---------|------------|---------|------------|------------|------------|--------------------|------------|------------|
| State                          | GA          | TX      | WI         | WV      | AL         | IA         | IA         | ME                 | CT         | NC         |
| Region                         | South       | South   | Midwest    | South   | South      | Midwest    | Midwest    | East               | East       | South      |
| Mode of governance             | private     | private | private    | private | private    | private    | private    | private            | private    | private    |
| No. of trustees                | 31          | 31      | 30         | 30      | 50         | 24         | 40         | 27                 | 40         | 49         |
| Age-institution                | 92          | 144     | 147        | 154     | 99         | 137        | 114        | 24                 | 79         | 158        |
| Budget expense                 | 22,809,847  | -       | 32,624,588 | -       | 8,788,217  | 28,130,175 | 23,613,614 | 5,240,000          | 48,473,049 | 56,720,043 |
| Enrollment                     | 715         | 1184    | 1272       | 751     | 1492       | 1299       | 1247       | 254                | 1918       | 1613       |
| Percent faculty with doctorate | 94          | 85      | 92         | 65      | 81         | 81         | 70         | 80                 | 75         | 93         |
| Total faculty                  | 84          | 89      | 112        | 75      | 91         | 96         | 153        | 30                 | 155        | 147        |
| Full-time faculty              | 66          | 87      | 86         | 63      | 100        | 82         | 85         | 24                 | 0          | 143        |
| No. tenure faculty             | 47          | 56      | 57         | 35      | 64         | 131        | 58         | 0                  | 106        | 91         |
| Budget revenue                 | 22,811,268  | -       | 33,454,102 | -       | -          | 29,489,348 | 25,440,639 | 5,300,000          | 56,836,707 | 56,736,202 |
| Verbal SAT score               | 622         | 589     | 630        | 470     | 601        | ACT=24     | 600        | 610                | 587        | 657        |
| Math SAT score                 | 574         | 605     | 590        | 490     | 575        | ACT=24     | 586        | 590                | 581        | 581        |
| No. admin.                     | 3           | -       | 75         | 28      | 38         | 10         | 9          | 23                 | 41         | 26         |
| Religious affiliation          | Yes         | Yes     | No         | Yes     | Yes        | Yes        | Yes        | No                 | No         | Yes        |
| Ad/faculty ratio               | 0.05        | -       | 0.87       | 0.44    | 0.38       | 0.12       | 0.11       | 0.96               | 0.26       | 0.18       |
| Degree-BA                      | 114         | 247     | 243        | 164     | 315        | 232        | 288        | 56                 | 392        | 390        |
| Degree-MA                      | 0           | 0       | 0          | 0       | 0          | 0          | 0          | 0                  | 0          | 0          |
| Degree-Doc                     | 0           | 0       | 0          | 0       | 0          | 0          | 0          | 0                  | 0          | 0          |
| No. library volumes            | 198,514     | 216,401 | 235,435    | 205,000 | 239,318    | 191,030    | 187,326    | 34,000             | 808,925    | 434,165    |
| Carnegie classification        | BA-1        | BA-1    | BA-1       | BA-1    | BA-1       | BA-1       | BA-1       | BA-1               | BA-1       | BA-1       |

Source: American Council on Education, American Universities and Colleges, 15th ed. Washington, D.C.: ACE, 1997.  
 Note: Data may contain some inconsistencies.

**Table 2****FAPA Institutions by Region and Carnegie Classification**

| Carnegie Classification | Total | East | South | Midwest | West |
|-------------------------|-------|------|-------|---------|------|
| Bachelors I             | 26    | 8    | 10    | 8       | 0    |
| Bachelors II            | 50    | 5    | 19    | 14      | 12   |
| Masters I               | 59    | 18   | 17    | 16      | 8    |
| Masters II              | 13    | 2    | 5     | 4       | 2    |
| Doctoral I              | 11    | 1    | 4     | 3       | 3    |
| Doctoral II             | 17    | 5    | 5     | 3       | 4    |
| Research I              | 21    | 4    | 8     | 6       | 3    |
| Research II             | 14    | 2    | 7     | 4       | 1    |
| TOTALS                  | 211   | 45   | 75    | 58      | 33   |

two regions. In contrast, 21 percent of schools were located in the East and 16 percent located in the West.

These parameters—along with the absence of documents from community colleges—affected inferences about unionization.<sup>52</sup> The large proportion of colleges located in the South—a region not usually hospitable to unionization—helped to explain why colleges and universities with unionized faculty were in the minority among FAPA institutions: only 26 schools. Table 3, first column, lists the total number of collective bargaining agents per Carnegie classification code. The remaining columns show the distribution of unionized colleges among the three most prominent bargaining agents.<sup>53</sup>

Table 4 gives the regional location of colleges and universities with collective bargaining agents in the FAPA database. Unionized campuses in the East outnumber all other regions by about three to one. The small number of unionized institutions made it difficult to compare operating budgets, enrollments, faculty composition, and tenure rates. Nor did the FAPA pattern represent the ecology of higher education—a reason for caution in drawing policy inferences.<sup>54</sup>

The disproportionate location of unionized campuses in the East limited our ability to make valid, reliable inferences about the

impact of unions upon tenure. But using the data to focus a qualitative analysis of the documents in FAPA permits some speculations.

Unions have a salutary effect on faculty composition and tenure.<sup>55</sup> Union protocols streamline the tenure process by ensuring accountability and equity. Union representatives and procedures act as intercessors for faculty, ensuring their legitimate interests receive attention via bargaining or grievance procedures. Unions act as bulwarks against organizational and market instability.<sup>56</sup> Unions, by upholding tenure, help to control institutional behavior. Unions enhance collegiality by prescribing, codifying, and institutionalizing norms upholding academic freedom.

Unions help to bring order out of chaos at large, differentiated campuses. Unions structure leadership and opinion, and channel faculty power towards advocacy and policy determination, along with remuneration and benefits. Unions can also destabilize institutions when authorities act antithetically to collective faculty interests and welfare.

Do public and private institutions differ with respect to the dynamics of the tenure process? Somewhat. FAPA, used in conjunction with ACE data, suggests how type of control affects tenure. Table 5 presents the distribution of institutions by Carnegie code and type of governance.

**Table 3****FAPA Institutions by Union Affiliation and Carnegie Classification**

| Carnegie Classification | Total | CB total | NEA | AAUP | AFT |
|-------------------------|-------|----------|-----|------|-----|
| Bachelors I             | 26    | 1        | *** | ***  | 1   |
| Bachelors II            | 50    | 2        | 1   | 1    | *** |
| Masters I               | 59    | 13       | 5   | 4    | 4   |
| Masters II              | 13    | 1        | *** | 1    | *** |
| Doctoral I              | 11    | 1        | *** | 1    | *** |
| Doctoral II             | 17    | 3        | 2   | ***  | 1   |
| Research I              | 21    | 2        | *** | 1    | 1   |
| Research II             | 14    | 3        | *** | 3    | *** |
| TOTALS                  | 211   | 26       | 8   | 11   | 7   |

**Table 4****FAPA Institutions by Bargaining Status, Region, and Carnegie Classification**

| Carnegie Classification | Total | Institutions with Bargaining |       |         |      |
|-------------------------|-------|------------------------------|-------|---------|------|
|                         |       | East                         | South | Midwest | West |
| Bachelors I             | 26    | 1                            | ***   | ***     | ***  |
| Bachelors II            | 50    | 1                            | ***   | ***     | 1    |
| Masters I               | 59    | 9                            | ***   | 4       | ***  |
| Masters II              | 13    | 1                            | ***   | ***     | ***  |
| Doctoral I              | 11    | 1                            | ***   | ***     | ***  |
| Doctoral II             | 17    | 1                            | 1     | 1       | ***  |
| Research I              | 21    | ***                          | 1     | ***     | 1    |
| Research II             | 14    | 2                            | ***   | 1       | ***  |
| TOTALS                  | 211   | 16                           | 2     | 6       | 2    |

Over half the institutions in FAPA were private and were concentrated at the bachelors and masters levels. The distribution for public institutions was nearly bimodal when we compared all universities with all masters institutions. At least 16 of 26 Bachelors I, 34 of 50 Bachelors II, and 9 of 13 Masters II schools had religious affiliations. Conversely, only 3

of 35 research universities and 6 of 28 doctoral universities had religious affiliations. In every Carnegie classification, smaller governing boards were found at public than at private institutions.

Table 6 presents tenure rates for public and private institutions as a proportion of *total full-time faculty*. The mean tenure rates:

**Table 5****Distribution of FAPA Institutions, by Carnegie Classification and Control**

| Carnegie Classification | Total | Public | Private |
|-------------------------|-------|--------|---------|
| Bachelors I             | 26    | 2      | 24      |
| Bachelors II            | 50    | 9      | 41      |
| Masters I               | 59    | 35     | 24      |
| Masters II              | 13    | 3      | 10      |
| Doctoral I              | 11    | 6      | 5       |
| Doctoral II             | 17    | 12     | 5       |
| Research I              | 21    | 14     | 7       |
| Research II             | 14    | 8      | 6       |
| TOTAL                   | 211   | 89     | 122     |

public = 62 percent; private = 57 percent. But the similar aggregate tenure rates across the sectors obscure variance within each category. Private Research I universities had the lowest tenure rates (46 percent). The highest: Bachelors I (69 percent) and Doctoral I (69 percent) institutions among the privates, and Research II universities (70 percent) among the publics—though note the small samples.

We next estimated compositional effects by faculty quality by matching possession of doctorates—one agreed-upon measure—with institutional control, across Carnegie categories. Private institutions had proportionately more faculty with doctorates. One obvious implication: private colleges may be more rigorous in requiring possession of the doctorate for tenure. One less obvious implication: private colleges may also be more rigorous in assessing other measures of quality when making tenure decisions.

How does institutional type affect tenure? Organizational mission perpetuates itself in faculty composition and tenure. The Carnegie classifications attempt to identify these differences among institutions, though institutions can also differ within a classification. We examined differences in faculty size by type of institution. The mean faculty size for all institutions was 625; the range in size of faculty

between universities and masters and bachelors-level colleges, suggests substantially different organizational dynamics at work (Table 8). Tenure protocols are subject to these dynamics; larger institutions, for example, may demonstrate more formality and may rely more heavily on outside evaluations.

To fulfill their missions, academic organizations require resources from constituents, benefactors, clients, and sponsors. Table 9 gives the mean revenues for FAPA institutions by institutional type and control.<sup>57</sup> FAPA colleges and universities differed greatly in the resources they utilized; differences existed within and across categories. For instance, revenue budgets ranged from \$5 million to \$125 million among Bachelors I colleges. How may different revenue streams affect tenure?<sup>58</sup> One answer: Wealthier institutions may be more willing to sustain a tenure system.

## CONCLUSION

Probing the effects of unions, control, and institutional type suggests the need to include context in the debate over tenure. A policy solution devoid of organizational context might result in unintended consequences. The academic system is composed of social networks and engaged in information-processing

**Table 6****Tenure Rates at FAPA Institutions as a Proportion of Full-time Faculty, by Carnegie Classification and Control**

| Carnegie Classification | Public |             | Private |             |
|-------------------------|--------|-------------|---------|-------------|
|                         | Number | Tenure Rate | Number  | Tenure Rate |
| Bachelors I             | 2      | 61%         | 24      | 69%         |
| Bachelors II            | 9      | 58          | 41      | 54          |
| Masters I               | 35     | 57          | 24      | 61          |
| Masters II              | 3      | 52          | 10      | 49          |
| Doctoral I              | 6      | 64          | 5       | 69          |
| Doctoral II             | 12     | 63          | 5       | 57          |
| Research I              | 14     | 69          | 7       | 46          |
| Research II             | 8      | 70          | 6       | 52          |

**Table 7****Percent of Faculty at FAPA Institutions with Doctorates, by Carnegie Classification and Control**

| Carnegie Classification | Percent Doctorates-<br>All Institutions | Percent Doctorates-<br>Public | Percent Doctorates-<br>Private |
|-------------------------|---|-------------------------------|--------------------------------|
| Bachelors I             | 81                                      | 63                            | 82                             |
| Bachelors II            | 55                                      | 48                            | 54                             |
| Masters I               | 66                                      | 66                            | 64                             |
| Masters II              | 64                                      | 60                            | 65                             |
| Doctoral I              | 76                                      | 70                            | 85                             |
| Doctoral II             | 76                                      | 74                            | 79                             |
| Research I              | 81                                      | 80                            | 85                             |
| Research II             | 76                                      | 79                            | 72                             |

among clientele.<sup>59</sup> Scholars and practitioners must engage in systems thinking to understand the dynamics of these complex adaptive organizations.<sup>60</sup> By absorbing relevant ideas from organizational science, we may connect the organizational demography of colleges and universities to markets and to the community.<sup>61</sup> This agenda is especially appropriate

for unions and observers of labor markets or occupational structures.<sup>62</sup>

What about future research? Higher education research must account realistically for social transformations and their policy implications. Anecdotal case and study data must be placed in context of organizational cultures *and* dynamics prior to policy formation. In



**Table 8****Total Instructional Faculty at FAPA Institutions by Carnegie Classification**

| Carnegie Classification | Total Instructional Faculty |
|-------------------------|-----------------------------|
| Bachelors I             | 138                         |
| Bachelors II            | 106                         |
| Masters I               | 450                         |
| Masters II              | 135                         |
| Doctoral I              | 808                         |
| Doctoral II             | 660                         |
| Research I              | 1633                        |
| Research II             | 1071                        |

**Table 9****Mean Operating Revenues at FAPA Institutions by Control and Carnegie Classification**

| Carnegie Classification | Mean Operating Revenues |              |               |
|-------------------------|-------------------------|--------------|---------------|
|                         | All                     | Public       | Private       |
| Bachelors I             | \$40,846,715            | \$28,713,599 | \$41,558,079  |
| Bachelors II            | 19,487,513              | 29,189,602   | 18,948,508    |
| Masters I               | 78,113,374              | 90,098,965   | 57,338,351    |
| Masters II              | 30,243,557              | 23,728,471   | 59,561,444    |
| Doctoral I              | 18,881,681              | 213,490,779  | 139,468,886   |
| Doctoral II             | 175,585,034             | 165,373,131  | 203,667,766   |
| Research I              | 797,392,162             | 630,905,009  | 1,130,366,468 |
| Research II             | 342,760,105             | 251,071,871  | 480,292,457   |

turn, organizational science must examine individual colleges and universities as well as academic systems, and must recognize the academic division of labor as an analytical gateway to general studies of the division of labor and society. We also need a social network study of American higher education.

The ability to pinpoint organizational changes over two decades in FAPA institutions—or in another institutional sample—enables scholars to move research on academic work from its anecdotal, individualistic focus to an adventure in exploring organizational dynamics.<sup>63</sup>

## NOTES

- <sup>1</sup> Allen 2001.
- <sup>2</sup> Finkin 1996.
- <sup>3</sup> Axelrod and Cohen, 1999.
- <sup>4</sup> Bailey 1994; Carroll and Hannan 2000; Ziman 1991; Breneman and Youn 1988; Brown 1965.
- <sup>5</sup> Parsons and Platt 1973; Collins 1979.
- <sup>6</sup> Clark 1983, 1987a,b.
- <sup>7</sup> March and Simon 1958.
- <sup>8</sup> Blau and Schwartz 1984; Nohria and Eccles 1992; Pattison 1993. Over prolonged interactions, this author has directly observed these social networks (and their effects) operating within the organizational cultures at Southern Illinois University, Wheaton College, The University of Chicago, Bethel College (Minnesota), Calvin College, Hope College, The University of Rochester, Monroe Community College, Rochester Institute of Technology, Carnegie Mellon University, and the College of DuPage. A social network study across the spectrum of academic organizations is needed.
- <sup>9</sup> Jencks and Riesman 1977; Coleman 1990; Blau and Duncan 1967; Blau 1994.
- <sup>10</sup> Coleman 1990; Abbot 1988.
- <sup>11</sup> Coleman 1986.
- <sup>12</sup> Craig 1984; Van De Graff 1978; Jencks and Riesman 1977; Ben-David and Zloczower 1962.
- <sup>13</sup> Blalock and Wilken 1979.
- <sup>14</sup> Allen 1999.
- <sup>15</sup> Ben-David 1972; Blau 1973; Jencks and Riesman 1977; Riesman 1980; Noble 1984; Nader 1984; Minsky 1984; Bowen and Schuster 1986; Bok 1993; Slaughter and Leslie 1997; Rhoades 1998; Clark 1983; Gross 1968; Blau 1973; Axelrod and Cohen 1999.
- <sup>16</sup> Carroll and Hannan 2000.
- <sup>17</sup> Gross 1968; Bess 1982; Nowak 1998.
- <sup>18</sup> Mullins and Mullins 1973; Nohria and Eccles 1992; Pattison 1993.
- <sup>19</sup> Davidson and Harel 1989.
- <sup>20</sup> Morgan 1997; Hall 1999; Schein 1987, Harrison 1987, and Weick 1995.
- <sup>21</sup> Brief 1998; Whetten and Godfrey 1998.
- <sup>22</sup> Carley and Prietula 1994; Lawler and Carley 1996; Liebrand, Nowak, and Hegselmann 1998; Prietula, Carley, and Gasser 1998. Scott 1997 classified the rational, open, and natural tendencies of organizations. Rational system organizations are typified by predominant concerns with information processes. Open system organizations solicit and adapt themselves to their environments. Natural system organizations are typified by the dominance of their organizational cultures and internalized interests or perceptions.
- <sup>23</sup> Donaldson 2001.
- <sup>24</sup> Carroll 1988; Bidwell and Kasarda 1985, 1987.
- <sup>25</sup> Goodman 2000.
- <sup>26</sup> Cooper, Dewe, and O'Driscoll 2001; Folger and Cropanzano 1998.
- <sup>27</sup> Spector 1997.
- <sup>28</sup> Senge 1990.
- <sup>29</sup> Kerchner, Koppich, and Weeves 1997; Gray and Seeber 1996; Finkin 1996.
- <sup>30</sup> Frank and Cook 1995; Ziman 1991; Berg 1981. Simon (1996) called for exploring organizations and markets to account for transformations in the division of labor.
- <sup>31</sup> Casti 1994; Scott 2001; Steele, Hauser, and Hauser 1999; Gabriel, Fineman, and Sims 2000; Schmuck and Runkel 1994.
- <sup>32</sup> Allen 2001. In the mid-1990s, I appeared at a symposium on the future of tenure with Richard Chait and Matthew Finkin at Baruch College, City University of New York. Chait stressed viable alternatives to tenure, using anecdotal data from case studies. Finkin surveyed the legal history of academic tenure. I argued that we must scrutinize the organizational settings in which tenure occurs before we can make valid inferences about tenure policies; the resulting study and preliminary findings are presented here.
- <sup>33</sup> As suggested by Bok (1993).
- <sup>34</sup> Bachelors I, Bachelors II, Masters I, Masters II, Doctoral I, Doctoral II, Research I, and Research II. In five cases, the policy documents came from state boards of higher education, military institutions, or schools that could not be located in the supplemental databases.
- <sup>35</sup> Allen 2001. My thinking was influenced by sociologist Peter Blau's analysis, *The Organization of Academic Work* (1973). Blau used institutional data collected by the American Council on Education.
- <sup>36</sup> Casti 1992a,b; Chambers 2001. The next logical step: conceptualizing a series of genetic algorithms and simulated annealing models; the algorithms and models will be used to probe organizational changes throughout the academic system.
- <sup>37</sup> Caplow and McGee 1958; Blau 1973; Jencks and Riesman 1977; Burt 1992; Nohria and Eccles 1992; Schmitt and Chan 1998.
- <sup>38</sup> Beach 1997.
- <sup>39</sup> Rhoades 1998; Bess 1989.
- <sup>40</sup> Lawler and Carley 1996.
- <sup>41</sup> Jencks and Riesman 1977.
- <sup>42</sup> Blalock 1991; Barber 1998.
- <sup>43</sup> Floyd and Woodridge 2000; Hickman 1998; Lipman-Blumen 2000; Morgan 1988.

<sup>44</sup> Two caveats: First, since the FAPA database does not include community colleges, they are omitted here also. A similar study should to probe these strategic institutions. Second, multivariate analyses were unavailable at the deadline for this article.

<sup>45</sup> We did not obtain from faculty complementary qualitative data on organizational culture. Unless stated otherwise, the tabulations included herein are based on the FAPA 1.1 database of 216 colleges and universities.

<sup>46</sup> Sociologists seem to define an institution as a social structure that provides cultural, symbolic, normative, and regulative jurisdictions within a social system, while tangible collectivities with social actors pursuing instrumental tasks and goals in actual status positions as well as roles are depicted as organizations. See Scott (2001).

<sup>47</sup> An ideal study of organizational demography would explore macrolevel, mesolevel, and microlevel changes in the U.S. higher education system between 1950 and 2000.

<sup>48</sup> Allen 2001.

<sup>49</sup> The data have been adjusted to handle minor methodological complications. The figures exclude colleges and universities that did not report data. In some cases, institutions reported data on a select number of basic items, while ignoring items on revenues and faculty composition. The data were rounded off where feasible. Figures should be regarded as tentative approximations—subject to measurement error—of organizational conditions.

<sup>50</sup> The original database of 216 colleges and universities is referred to as FAPA 1.1. FAPA 2.1, issued a year later, added 25 institutions to the database. This essay features empirical results based on 211 colleges and universities in FAPA 1.1.

<sup>51</sup> There were a few minor discrepancies between the institutions listed in FAPA 1.1. and the colleges reporting data to the American Council on Education. In this table, the totals refer to colleges and universities concurrently listed in the 1996–97 database I compiled from *American Colleges and Universities*, 15<sup>th</sup> edition.

<sup>52</sup> According to National Center for Education Statistics (NCES) data, New York ranked first in the number of four-year colleges and universities with 212 institutions; California (199), Pennsylvania (146), Illinois (107), Texas (98), and Ohio (92) follow. *American Universities and Colleges*, 15<sup>th</sup> ed., p. 11.

<sup>53</sup> A few institutions had two distinct or combined collective bargaining agents; these colleges were counted twice.

<sup>54</sup> Allen 2001 examined a set of organizational traits of colleges and universities with the most hits regarding workload and tenure policies. Comparing the institutions included above with

the FAPA colleges and universities having the most frequent hits on tenure-related matters shows that only four of the top 15 institutions had collective bargaining. Of these four colleges, two were located in western states, with one each in the Midwest and the East.

<sup>55</sup> Allen 2001; Willis 2001.

<sup>56</sup> Finkin 1996.

<sup>57</sup> These mean calculations obscure the range of differences in the operating revenues as well as complexity among the institutions within each classification.

<sup>58</sup> Space does not permit a report on the correlation between faculty compositional variables and revenues, costs, and student test scores. Nor did we analyze the relations between these variables and organizational outcomes such as the number of degrees conferred. The wide range of mean enrollments in sampled institutions suggests substantial variations in tenure policies as well as in workload: Bachelors I (n=1,614), Bachelors II (n=1,599), Masters I (n=8,231), Masters II (n=2,812), Doctoral I (n=14,254), Doctoral II (n=12,575), Research I (n=21,995), and Research II (n=14,299). Even more critical is to trace organizational developments over time (Allen, 1991).

<sup>59</sup> March and Simon 1958.

<sup>60</sup> Axelrod and Cohen 1999; Senge 1990.

<sup>61</sup> Glenn and Carroll 2000. We should connect institutional fates to social changes within the division of labor (Durkheim 1933). Community colleges merit special scrutiny since this sector is vulnerable to anecdotal analysis.

<sup>62</sup> Blau and Duncan 1967.

<sup>63</sup> Assuming that we have collected valid and reliable data.

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