Chapter 5
Inside the Panopticon: Studying Academic Reward Systems

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Academic reward systems in the United States have been compared to the panopticon prison in Foucault's (1977) *Discipline and Punish*. In this comparison, the prisoner (or faculty member) is threatened by constant observation. While the gaze is intermittent, the prisoner (or faculty member) never knows if he/she is being watched, and this causes him/her to regulate their behavior (Bass, 1999). The comparison to a prison is ironic given relatively high reported faculty satisfaction in what is widely considered a preferred and privileged profession. Yet, this image of the individual being "disciplined" or socialized toward a certain set of behaviors through an ambiguous set of incentives and constraints serves to remind us of the complexity of the experience of being inside a reward system, and of trying to study it from the outside.

This chapter reviews the research and literature on the inner workings of academic reward systems and is informed by critical theory and standpoint theories. Such theories consider actor's positions in structures of power (e.g., Harding, 1991). This lens is helpful in framing literature on reward systems because most of the major questions that have been asked in this area focus on the fairness of distribution of rewards. Critical theory and standpoint theories are often employed as a foundational set of assumptions from which to ask if other factors (such as gender or race, time spent on certain work activities) advantaged or disadvantaged faculty in their particular organization, with its own structures of power (O'Meara, Terosky, & Neumann, 2008). The prisoner in the panopticon image also relates to a perceived organization and makes choices to maximize their status within it. This review is also influenced by the study of organizational behavior in higher education and the processes by which different aspects of structure and culture interact to produce specific outcomes (Birnbaum, 1988, 1992; Senge, 1990).

The purpose of this chapter is to explore the enigma of the academic reward system, broadly defined as *the many ways in which an institution and field regards faculty—including, but not limited to, how it recruits, sustains, assesses, and*

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advances faculty throughout their careers (O'Meara et al., 2008). The use of the word "regard" as opposed to "reward" in the definition is intentional. The Free Dictionary.com defines a reward as "something given or received in recompense for worthy behavior or in retribution for evil acts" and "the return for performance of a desired behavior" (cited in O'Meara et al., 2008, p. 93). While this definition of "reward" aptly captures the rational, exchange aspect of reward systems (e.g., an individual engages in the desired behavior or not and is granted a favor or penalized) it does not capture (a) the ever-present, ongoing system of participation, action, and consequences represented by Foucault's image of a panopticon or (b) irrational exchanges wherein bias as opposed to merit dictates rewards or (c) more fluid and broader patterns of attention or disregard. The etymology of the word "regard" refers to how something is looked at, cared for, considered, respected, held, or taken into account (O'Meara et al., 2008). Here, system is conceived of as "a group of interacting or interdependent elements forming a complex whole" (Free Dictionary cited in O'Meara et al., 2008, p. 93).

This definition of a reward system as a set of interconnected and interacting elements that work together (and against each other at times) to regard, ignore, or disregard faculty and their contributions presents a broader perspective than the simple exchange of favor and disfavor for particular acts. It acknowledges that reward systems operate as both structure and culture. They operate as a central motivational and cultural force in the academic lives of full-time faculty, socializing, penalizing, rewarding, and shaping faculty behavior. Lest they be understood as the dependent variable in this equation, however (Neumann, 2009), faculty also transform and shape reward systems through their participation in them. This definition presents faculty as regarded in different ways throughout their career, by different institutions and fields, and through different elements of the system and is therefore used to conceptualize reward systems in this chapter. In the remaining sections of this introduction I identify the significance of research on academic reward systems, briefly review major research completed 1975–2010, and outline guiding questions and the organization of the rest of the chapter.

The Significance of Studying Academic Reward Systems

There are four key reasons why it is both timely and significant to review the literature on academic reward systems now. First, academic reward systems are in fact, "the valuing of people's professional lives," (O'Meara, 2002, p. 77), and as such, matter to faculty. A key issue asked by Gaston (1978) in the *Reward System in British and American Science* and again by Park (1996) (with regard to gender) and Fairweather (1996, 2005) (with regard to type of work emphasized) is whether faculty get what they deserve. Are faculty members' reward systems fair? Much literature on organizations shows that individual satisfaction and productivity are affected by perception of justice in the work environment (Daly & Dee, 2006; Martin, 2005). Revealing the ways in which academic reward systems can operate more fairly could benefit organizational climate, faculty morale, and productivity.

Even beyond fairness, reward systems and perceptions of them have been found to be a major source of extrinsic motivation (Austin & Gamson, 1983), influence on behavior and productivity (Blackburn & Lawrence, 1995; Bland, Center, Finstad, Risbey, & Staples, 2006; Schuster & Finkelstein, 2006), and a factor in retention and turnover (Daly & Dee, 2006; Rosser, 2004). Reward systems have been found to shape faculty priorities and decisions with regard to time allocation and workload (Fairweather, 1996, 2005; O'Meara, 2005a). The process by which reward systems shape behavior has been studied in many ways including but not limited to how they serve as cultural socialization, motivation, psychological contract, marketplace, and system. Regardless of how academic reward systems work, we need to study them because they matter in the personal and professional lives of faculty, who are central to the delivery of teaching, research, and service missions.

Second, important decisions are being made within academic reward systems based on assumptions instead of evidence. For example, over the last 30 years academic reward systems have been dramatically shifting toward the non-tenure track (Gappa, Austin, & Trice, 2007; Schuster & Finkelstein, 2006). Yet, there is no significant body of evidence that shows that part-time faculty better serve institutional needs or even necessarily increase flexibility. Faculty unions have repeatedly bargained to maintain tenure track lines, arguing that it is this distinct reward system that protects academic freedom for all and attracts the most talented into the profession. Yet, much has changed regarding what faculty want and need since the traditional tenure process was created, and it is not clear the tenure system is achieving these goals today (Trower, 2008, 2009). As institutions navigate the creation of more diverse kinds of appointments it will be critical to understand the strengths and weaknesses of past reward systems to create options that best meet individual and institutional needs. Mallon (2002) studied similar type campuses with tenure and without tenure and found that both struggled with the same issues of faculty productivity and how to support it in their reward systems. While it has been difficult for researchers to get inside the rooms where promotion and tenure decisions are made, the process by which faculty contracts are renewed or terminated is even more opaque. Researchers could make an important contribution to the major decisions being made within academic reward systems by investigating these areas as questions to be explored, as opposed to unexamined positions to be defended. This chapter takes such an approach by considering the limited extant research on appointment type and performance and the types of questions we need to ask to make better institutional decisions.

Third, the most important questions we might ask remain unanswered, essentially black boxes. In part, this is because of the complexity of the topic, in part because of the limitations of the theories and methods we have used to date, and in part because researchers have not taken them on. For example, despite decades of research, we do not know if the actual (as opposed to assumed) benefits of a particular academic reward system outweigh the known financial and psychological costs to individuals or institutions. Some reward systems may operate in generative ways to improve higher education outcomes, others to maintain the status

quo, while others may end up costing individuals, institutions, and even fields of study more than they contribute. We have some, though very limited evidence that connects aspects of academic reward systems directly with student learning outcomes (e.g., Jaeger, Thornton, & Eagan, 2007; Umbach, 2006, 2007b). Yet, even these studies are more descriptive in nature, creating a picture of the characteristics of faculty who use high impact student learning practices and are most likely to retain students. This is very different than understanding how conditions within a reward system motivate, socialize, incentivize, and work synergistically to facilitate excellent teaching and learning. We have studies that have looked at research productivity within different appointment types, but rarely at whether certain kinds of reward systems are more generative for the quantity and quality of scholarship produced (one exception is Bland et al., 2006). We also have studies that show faculty report community engagement is not rewarded (Abes, Jackson, & Jones, 2002; Aguirre, 2000). Yet, few studies have considered how reward systems have accommodated or encouraged engagement and whether it influences its' quality when they do.

A common refrain from both faculty and administrators is that their institutional missions and reward systems are out of alignment, overly impacted by the status system of higher education, rather than institutional needs and mission. We know many campuses have experienced positive outcomes from revising reward systems to include a broader definition of scholarship (O'Meara, 2006; O'Meara & Rice, 2005), but not whether this change cost them or gave them a competitive advantage back in the national market of institutions. We know that over time, more faculty across 4-year institutional types are engaged in research (Milem, Berger, & Dey, 2000), but less about the short- and long-term consequences of this for institutions. There are obvious difficulties in tracing lines between the way an entire reward system works, and such outcomes, especially because of all of the intervening variables that come into play. There are also challenges in trying to measure aspects of human performance (such as a major scientific breakthrough, excellence in teaching, or superb leadership in shared governance) and rewards for that performance that are in fact immeasurable or at best slippery (e.g., recognition from an esteemed colleague, knowledge that a discovery will improve society). Also, external influences such as those related to the economy, ranking systems, technology, and federal funding for research are changing the landscape of individual campus reward systems faster than scholars can map the territory. Perhaps because of these difficulties, researchers have focused on the aspects of reward systems that can be quantified and more easily analyzed together (e.g., this many courses taught results in this average pay). This chapter reviews research, theory, and methods to identify new questions regarding the relationships between the elements of reward systems and individual and institutional outcomes.

Fourth, academic reward systems send a powerful signal to external actors about what an institution has been, is now, and wants to be. Reward systems present an opportunity (though perhaps rarely taken) for an institution to differentiate itself from other institutions, to mark itself as unique. Reflected in reward systems are the greatest aspirations of its leaders, its greatest insecurities, and a distribution

of power. Every higher education leader with a serious idea about reform at some point has to address the academic reward system in order to institutionalize that reform. As such, academic reward systems, like faculty, are at the heart of higher education. As enacted by participants in a system, they can either pave the way for change, for example, by establishing norms and incentives toward a particular set of activities, they can ignore the change altogether, or they can create disincentives toward it. If understood well, reward systems can be much more than window dressing—they can be central to reform. As such reward systems require greater study to understand how to wield them. This literature review and analysis is intended to help researchers better understand some of the unanswered questions raised in this introduction and to consider new theories and methods to use in future research.

Major Research on Academic Reward Systems 1975–2010

Academic reward systems have been the subject of significant scholarship over the last 35 years. Much of the discussion of reward systems has been embedded in larger examinations of the academic profession more broadly. A recent review of the literature on faculty work-life reviews such book-length work and peer-reviewed articles on faculty more generally (see O'Meara et al., 2008). However, there has also been book-length works with a more specific focus on reward systems which are important to mention as a backdrop for this review. Some of the most comprehensive work on reward systems had focused on faculty in the sciences. For example, in 1978 Gaston wrote *The Reward System in British and American Science*, an examination of whether academic scientists in biology, chemistry, and physics in the United States and Britain get the recognition and esteem that they deserve given their accomplishments. Using Robert K. Merton's theory (1957, 1968) on the norms of science, Gaston wanted to know whether universalism prevailed or whether differences in disciplines and organization of science in particular nations influenced the distribution of rewards. Analysis of career data from 600 scientists revealed ways in which the system operated consistent with the norms of universalism and particularism (or bias). In the last 15 years, as national attention has turned toward US progress in science compared to other developed countries, there has been greater attention to the careers of academic scientists and reward systems, particularly as they relate to gender concerns (e.g., Bystydzienski & Bird, 2005; Hermanowicz, 2009; Rosser & Hermanowicz, 2004; Stewart, Malley, & LaVaque-Manty, 2007; Valian, 1999; Xie & Shauman, 2003). Each of these books considers structural and cultural roadblocks in the careers of scientists and how they differ by faculty of different backgrounds and disciplines in navigating reward systems.

In 1990, Ernest Boyer's Carnegie Foundation Report *Scholarship Reconsidered* introduced a new framework for the evaluation of scholarship. Books and monographs that followed its implementation across colleges and universities (Braxton, Luckey, & Helland, 2002; Glassick, Huber, & Maeroff, 1997; O'Meara & Rice,

2005) have informed further reform of reward systems, particularly in the United States. Along this same line Fairweather's (1996) examination of the relative value of teaching, research, and service in how faculty are rewarded in American institutions built on Gaston's work and revealed the dominant role of research in US reward systems. Following on this theme, there have been many books written to Chief Academic Officers in the practitioner world with cases and recommendations for assessing faculty work in ways that align academic reward systems and mission (e.g., Braskamp & Ory, 1994; Diamond, 1999; McMillan & Berberet, 2002). Creamer's (1998) examination of faculty publication productivity revealed how preference for specific work activities like teaching, as well as discipline, and institutional type relate to how rewards are accumulated. Chait (2002) and colleagues took on what he referred to as the "abortion issue" of the academy with his book, *Questions of tenure* where both survey and case study research informed our knowledge of where and in what cases tenure matters to such issues as faculty recruitment, shared governance, and faculty productivity. As the trend toward non-tenure track appointments gained momentum we have had several books examining the characteristics of non-tenure track versus tenure track faculty, aspects of their work-life, and reward systems (e.g., Baldwin & Chronister, 2001; Gappa & Leslie, 1993; Gappa et al., 2007; Schuster & Finkelstein, 2006).

The subject of how faculty become socialized to norms within reward systems has been studied from a cultural lens by Tierney and Bensimon (1996) and Tierney and Rhoades (1993). Many scholars have explored how such socialization differs for women and faculty of color (e.g., Aguirre, 2000; Cooper & Stevens, 2002; Evans & Chun, 2007; Glazer-Raymo, 2008; Turner & Myers, 1999). In addition, the role academic capitalism plays in academic reward systems has been of increasing concern (Rhoades, 1998; Slaughter & Leslie, 1997; Slaughter & Rhoades, 2004). Austin and Gamson (1983) and Blackburn and Lawrence (1995) both explored the motivational aspect of reward systems. As a counterpoint to these primarily US-based examinations of academic reward systems, Altbach (2003) provided comparative research on the condition of faculty and reward systems in developing and middle-income countries.

This brief review of book and monograph length works over the last 30–35 years in the field of higher education reveals several limitations of extant research. First, most of the research and literature to date has focused on one aspect of reward (e.g., how women and minorities fair in them or how teaching is valued) rather than looking more broadly at the overall condition of reward systems, their elements, and how they work. Second, most of these longer works have looked at their particular issue from either one theoretical perspective or lens, such as socialization theory or from a practitioner perspective of reform, rather than compared perspectives used to study academic reward systems. Third, there is no extant research that assesses the landscape of research on academic reward systems in the United States and considers what we know and where research needs to go next.

Guiding Questions and Organization of the Chapter

This literature review attempts to address the limitations identified above in previous work. The chapter is guided by a set of guiding questions that serve to organize the discussions and conclusions. These guiding questions are as follows:

- What are the key elements of academic reward systems? Where has there been more or less study?
- How do these key elements work together to influence outcomes? What are the primary and secondary outcomes of academic reward systems? How does the evaluation of faculty performance in teaching, research, and service influence these outcomes?
- How have reward systems in the United States changed over the last 30 years?
- What theories and methods have been used most often to study academic reward systems? Where have these theories and methods limited our view and how might they be expanded in future research? What have we learned about academic reward systems that are useful for their reform? What new areas of research are needed?

This literature review builds on previous work by Gaston (1978) by considering issues of reward system among all academics rather than primarily scientists. It extends our general knowledge of reward system by not focusing on one particular issue (such as women and minorities or academic capitalism) but reviews both research and theory relevant to all major issues in reward systems today and in the future. The review was confined to peer-reviewed articles and paper presentations, books, and book chapters completed from 1980 to 2010.

Section "Elements of Academic Reward Systems and How They Work Together" of this chapter examines extant research on the elements of academic reward systems and how they work together. The following section considers dominant theoretical frameworks and methods that have been used to study academic reward systems. Recent trends and reforms in academic reward systems from 1990 to 2010 are presented alongside the problems and opportunities they raise for faculty, departments, chairs, deans, and all those who work to attract, retain, and reward faculty. The last section considers what we have learned over the last 20 years of studying academic reward systems that is useful for reform and suggests new areas for research.

In limiting the scope of the paper, the focus is on academic reward systems and faculty experience of them—rather than on faculty themselves or a broader look at working conditions. This review explores academic reward systems for full-time faculty in 4-year institutions. The focus is on US academic reward systems rather than a comparative examination, given space considerations. Discussion of overall work-life conditions, faculty career stage, and faculty development will only be addressed as they intersect with experience and outcomes of academic reward systems. It is difficult to untangle these, however, as most scholars that have

studied the academic profession have rightly looked at the multiple influences on academic careers, of which reward systems are a major part, but a part of a larger story.

Elements of Academic Reward Systems and How They Work Together

Scholars have studied many different elements of academic reward systems. The purpose of this section is to (a) outline the major elements in an academic reward system and the scholars who have studied them and (b) consider what extant research has found regarding the interactions of these elements as inputs, processes, and outcomes of a system. This is accomplished in three ways. Figure 5.1 visually represents these different elements and categorizes them broadly as inputs, processes, and outcomes. Tables 5.1, 5.2, and 5.3 outline research studies on each of the different elements and aspects of them. Finally, the narrative in this section presents and analyzes major research studies on how academic reward systems work.

The study of college student experience and success has been guided by Astin's (1993) "input-environment-output (IEO) model." This model underscores the importance of entering student characteristics and previous experiences and beliefs on later outcomes and how the college environment (the size, control, and

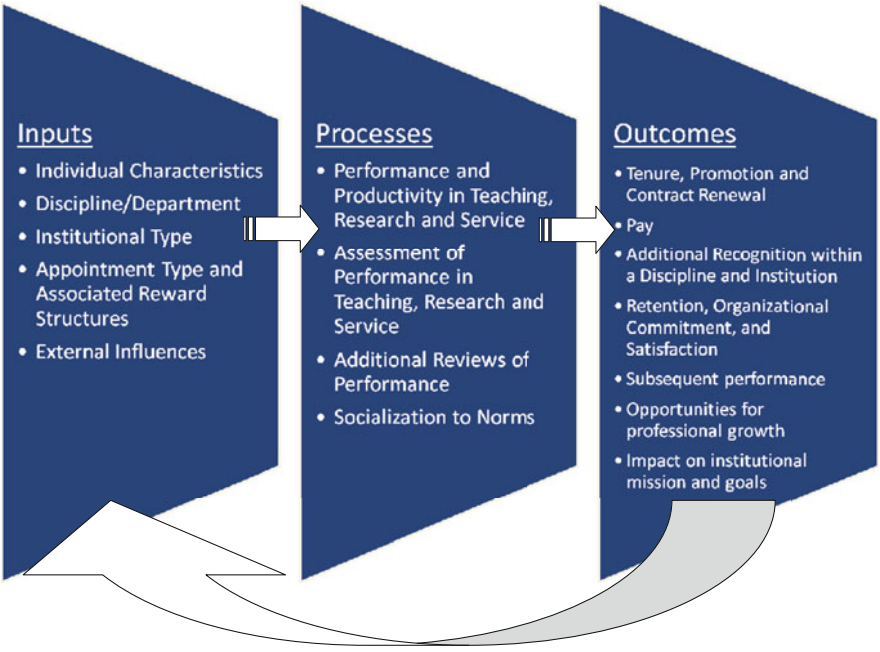

Fig. 5.1 How academic reward systems work

Table 5.1 Elements of a reward system and studies of them: inputs

Elements	Examples of topics studied and citations
Individual characteristics	Characteristics of faculty at first appointment (gender, race, age, professional background, human capital) (Schuster & Finkelstein, 2006); differences in experience by race, ethnicity, and gender (Aguirre, 2000; Perna, 2001a; Smart, 1991) and role of family ties (Perna, 2005)
Appointment type and associated reward structures	Role of appointment type and associated reward structures in productivity and commitment (Bland et al., 2006; Mallon, 2002); departure (Zhou & Volkwein, 2004); non-tenure track faculty recruitment (Trower, 2002); and motivation (Bess, 1998)
Discipline/department	Role of discipline and field in academic reward system structures and cultures (Becher, 1989; Braxton & Hargens, 1996; Gaston, 1978), discipline and productivity (Creamer, 1998), demand and supply (Bowen & Sosa, 1989), salaries (Bellas, 1997b), and turnover (Xu, 2008)
Institutional type	Role of institutional type in reward systems and expectations of faculty (Clark, 1987; Finnegan & Gamson, 1996; Ward & Wolf-Wendel, 2007) and evolution of promotion and tenure rules (Youn & Price, 2009)
External influences	Role of external influences, such as ranking systems and competition (Hazelkorn, 2009; IHEP, 2009) and financial conditions (Bowen & Sosa, 1989; Clotfelter, 1996; Youn, 1989) on the academic labor market and reward systems

Table 5.2 Elements of a reward system and studies of them: processes and experiences

Elements	Examples of topics studied and citations
Performance and productivity in teaching, research, and service	Faculty productivity across roles (Blackburn & Lawrence, 1995; Braxton et al., 2002; Fairweather, 2005; Gappa et al., 2007; Schuster & Finkelstein, 2006; Braxton, 1983; Long, 1992)
Assessment of teaching, research, and service and measurement of overall productivity	Assessment of faculty productivity (Blackburn & Lawrence, 1995, Porter, 2007) scholarship and other faculty work overall (Braxton et al., 2002; Centra, 1993; Diamond & Adam, 1993; Miller, 1994); assessment of engaged scholarship and professional service (Driscoll & Lynton, 1999; O'Meara, 2002; Saltmarsh et al., 2009); assessment of teaching via student evaluations (Centra, 1993); conflicts over promotion and tenure in departments (Hearn & Anderson, 2002)
Additional reviews of performance	Merit pay allocation models (Wenger & Girard, 2000); experience of and outcomes from post-tenure review (Aper & Fry, 2003; Goodman, 1990; Licata & Morreale, 2002, 2006; O'Meara, 2004; Wood & Johnsrud, 2005)
Socialization toward norms	Socialization and experiences on the tenure track (Tierney & Bensimon, 1996; Tierney & Rhoads, 1993)

Table 5.3 Elements of a reward system and studies of them: outcomes

Elements	Examples of topics studied and citations
Promotion and tenure and contract renewal	Promotion and tenure decisions and what matters most in faculty evaluation (Braxton et al., 2002; Fairweather, 2002, 2005; O'Meara, 2002; O'Meara & Rice, 2005; Youn & Price, 2009)
Pay	Pay and equity, especially by gender, race, and marital status (Balzer & Bourdreau, 1996; Barbezat & Hughes, 2005; Becker & Toutkoushian, 2003; Hagedorn, 1996; Luna, 2006; Perna, 2002; Smart, 1991; Snyder & Hyer, 1994; Toutkoushian, 1994, 1998a; Toutkoushian et al., 2007); disciplinary differences and institutional type differences (Bellas, 1997b; Hanley & Forkenbrock, 2006; Bellas, 1997a), salary compression, pay discrimination (Eckes & Toutkoushian, 2006); value of teaching and research in faculty salaries (Fairweather, 2005); satisfaction with salary, pay, and maximization of prestige (Melguizo & Strober, 2007); salary compensation models and goal modeling (Herzog, 2008; Stewart & Dalton, 1996; Toutkoushian, 1994; Twigg, Valentine, & Elias, 2002); effects of rank (Strathman, 2000); loyalty tax (Barbezat, 2004); effect of experience and job tenure on salaries (Barbezat, 2003); effect of visibility and specialization (Leahy, 2007); adjustments based on market (Nichols-Casebolt, 1993)
Recognition within one's institution and field	Role of teaching awards in academic reward systems and what they reward (Chism, 2006; Chism & Szabo, 1997; Menges, 1996; Middleton, 1987; Warren & Plumb, 1999); role of appointments to be editor-in-chief of journals, prestigious disciplinary association research awards and presidencies, visibility and specialization, nominations for science panels and academies (e.g., National Academy of Science, Nobel prize) (Braxton, 1986; Leahy, 2007; Long & Fox, 1995)
Retention, organizational commitment, and satisfaction	Role of reward systems in faculty retention and organizational commitment (Daly & Dee, 2006; Johnsrud & Rosser, 2002; Rosser, 2004) and satisfaction (Gappa et al., 2007; Hagedorn, 2000; Schuster & Finkelstein, 2006)
Subsequent performance	Role of reward system elements in scaffolding performance and productivity (Blackburn & Lawrence, 2005; Bland et al., 2006; Jaeger, 2007; Umbach, 2007b)
Opportunities for professional growth and intrinsic rewards	Role of reward system elements in professional growth and intangible rewards (Gappa et al., 2007; Hagedorn, 2000; Lindholm et al., 2005; O'Meara et al., 2008)
Impact on institutional mission and goals	Promotion and tenure reform and effect on faculty behavior and academic cultures (O'Meara & Rice, 2005; Rice & Sorcinelli, 2002); tenure as a problem and solution to faculty productivity (Mallon, 2002); promotion and tenure and protection of academic freedom (Fossey & Wood, 2004)

diversity of the institution) mediates any student learning outputs. This general concept of inputs, processes, or environmental experiences, and outcomes is also common in many models of organizational change and in systems theory. While the inner workings of academic reward systems are complex, this relatively simple design is useful for mapping the landscape of how academic reward systems work. This is not an exhaustive list of inputs, processes, and outcomes or of studies completed in the last 30 years to study them, but is meant to be illustrative of the major conceptual pieces in the study of academic reward systems.

Four assumptions guide the organization and presentation of extant research on the elements of academic reward systems and how they work in this section. First, academic reward systems act as a source of motivation for faculty. For example, Austin and Gamson (1983) argued that reward systems operate as an important source of extrinsic motivation for faculty. As faculty receive professional development or travel funds, awards, merit pay, contract renewal, and tenure or promotion, they are receiving positive feedback that encourages them to behave in one way or another, such as to continue a specific research agenda or to take on more advisees for the department. Likewise, Blackburn and Lawrence's (1995) research showed that it is the dynamic interaction between social knowledge (what the faculty member sees his/her social environment valuing) and self-knowledge (what the faculty member believes he/she does best and wants to do) that shapes faculty behavior. Such research is consistent with studies on other highly autonomous professionals such as physicians, government personnel, and entrepreneurs who work in complex organizations for whom reward systems act as one of many potential motivators (Bland et al., 2006; Deming, 2000; Senge, 1990).

A second assumption throughout this section is that academic reward systems operate at individual, institutional, and environmental levels across the three kinds of elements. For example, while individuals are socialized in ways that interact with their individual characteristics, they are being socialized simultaneously to a department and discipline, and the socialization process is impacted by external conditions (such as the job market or expectations-related federal funding). A third assumption is that while a particular element and studies of it may have been placed in one part of the figure, most of the studies and topics represented could easily be placed in more than one place. For example, studies of appointment type and turnover could be placed in an outcome section or one focused on input characteristics or appointment type. A fourth assumption is that inputs or starting points in reward systems such as discipline and institutional type, appointment type, and individual demographics influence the processes and environment of the reward system which in turn influence outcomes such as success in promotion and tenure or satisfaction. However, many of the primary and secondary outcomes of a reward system are then cycled back into the reward system to influence the process all over again. An example of this phenomenon is a female chemist who is extremely productive in her research and grant writing and receives tenure and an award from her disciplinary association. Her subsequent performance is excellent and this creates the opportunity for her to be recruited to an institutional type that is more research oriented. She will now have a different environment and sets of expectations for performance and

assessment, which will in turn influence additional outcomes. In each section that follows the element is identified first, followed by discussion of research on how it interacts with other elements in a reward system.

Inputs

Individual characteristics: Individuals bring many things to academic reward systems that interact in complex ways to influence how they fare. Gender, race and ethnicity, sexual orientation, and age are just a few of the demographic characteristics that have been studied with regard to reward systems. At the individual level, academic reward systems are experienced differently by faculty. In addition to these characteristics, the social and human capital individuals bring to their environment will influence processes and outcomes identified in Fig. 5.1 (Aguirre, 2000; Baez, 2000; Tierney & Bensimon, 1996). In addition, the epistemology, personal goals, and commitments that individual faculty bring to their work has been found to influence the work activities they prioritize and as such, their success in the academic reward system (Baez, 2000; O'Meara et al., 2008). They bring not only human capital in the way of credentials but also individual sets of expectations and hopes for their career success. Individuals make decisions (within a set of guidelines set by institutions) for which activities they will prioritize and find they have talents that better suit some activities more than others. Faculty will often reshape their reward system in some ways and be socialized toward its existing priorities in other ways. As will be discussed in the outcomes section, there is evidence that some individual characteristics, such as gender, are associated with fewer rewards, irrespective of the human capital women faculty bring to their reward system because of implicit bias (Lee, in press; Clark & Corcoran, 1986).

Appointment types and associated reward structures: Perhaps one of the most researched and discussed elements of reward systems in higher education today are *appointment types and promotion and tenure systems*. While scholars have illustrated how graduate training, postdoctoral positions, and even undergraduate training prepare and socialize future faculty before they formally enter academic reward systems (Austin & McDaniels, 2006; Weidman, Twale, & Stein, 2001), the appointment process is the official entry point to most academic reward systems. Most appointment processes begin with the development and approval of a job description and selection of a search committee. Being on a search committee and providing feedback to a search process is an important way that academics get to value or regard a certain set of academic priorities over others. For example, members of a search committee can prioritize teaching in the job description which influences the kinds of candidates who apply. External factors like the labor market and economy influence the kinds of appointments offered, the negotiation process, and the final award of pay and resources for work. Appointment type is a defining characteristic of an academic reward system because it defines the work responsibilities, opportunities for growth and criteria for promotion, governance roles, salary ranges, and promotion benefits to which an individual has access (Bland

et al., 2006; Gappa, 2000; Gappa et al., 2007; Schuster & Finkelstein, 2006; Trower, 2002).

With notable deviation across institutions, most promotion and tenure systems work in the following way. Faculty are recruited onto a tenure track, usually into an assistant professor position. They have six or more years "on the tenure track" and then submit their materials for promotion to associate professor. In most institutions, promotion to associate professor comes with tenure, though in some they are separate processes. The tenure decision in the former case is usually an "up or out" decision with successful faculty being tenured and promoted and unsuccessful faculty being given one extra year before their appointments are terminated. If faculty are successful they then wait another 5–8 years and submit materials to be promoted to full professor, although the timing between associate and full professor is highly variable. Also, this last decision is not "up or out" because the person is already tenured. Faculty can usually apply more than once for full professor. Most faculty submit an overall personal statement discussing their professional work, a curriculum vitae, annual faculty reports, teaching evaluations and philosophies, research publications, and documentation of grants, awards, fellowships, and committee assignments as part of their portfolio.

As mentioned previously, a modest share of new faculty appointments are tenure track (Gappa et al., 2007; Schuster & Finkelstein, 2006). Rather, over the last two decades more campuses are offering either 1-year renewable contracts or a ladder system of 1, 3, 5, and 10 years contracts that mirror the assistant, associate, and full professor ladder. Faculty can apply after a specified period of time for a longer contract based on criteria demonstrating excellence in their teaching, research, and service or in some cases one or two of the three. The trend in these new appointments is to "unbundle" faculty work and with the exception of extension faculty, most often focus purely on teaching or purely on research (Schuster & Finkelstein, 2006).

While tenure track appointments remain the preferred appointment type over non-tenure track appointments to most highly sought after Ph.D.'s (Trower, 2002), the prestige of the institution where a faculty member is appointed also factors into the desirability of the position. The appointment to a full-time faculty position itself is a reward for performance in graduate school and postdoctoral positions. After the status of the appointment as tenure track or not, the most desirable reward is to be appointed at an institution with significant prestige in the academic hierarchy and resources to support the faculty member's work (Trower, 2002; Youn, 1989).

Institutional type: Institutional type, mission, resources, norms, and prestige act as a powerful scaffolding for how any given institutional academic reward system works (Clark, 1987; Gappa et al., 2007; Schuster & Finkelstein, 2006; Ward & Wolf-Wendel, 2007). These factors act as frames that define the workload expectations of faculty in terms of balance of teaching, research, and service. They influence the available resources for professional development to meet workload and productivity expectations, and they set the bar for contract renewal and promotion and tenure decisions. Institutional norms are communicated among faculty, often in the form of mentoring and advice (Huber, 2002). Senior faculty in a department will often be instrumental in advising junior faculty not to become involved in this activity or that

based on institutional norms and expectations of unit reward systems. The prestige of the institution (as defined by factors such as student selectivity, ranking systems, age, and endowment) will influence the availability of resources to support faculty inside the reward system and will determine what is expected of faculty in terms of performance for promotion and tenure, annual contract renewal, and merit pay.

Many scholars have explored how expectations for faculty performance in teaching and research differ by institutional type (e.g., Finnegan & Gamson, 1996; Hermanowicz, 2009; Ward & Wolf-Wendel, 2007). A classic, often cited work is Clark's (1987) description of the different worlds and cultures for faculty across institutional types with regard to time spent teaching and value given to research and engagement both on- and off-campus. Two more examples are illustrative of the importance of institutional type on the work activities and assessment of teaching, research, and service in reward systems. Ward and Wolf-Wendel (2007) explored how expectations for promotion and tenure differed by institutional type and the influence of those differences on balance of work and family for women faculty. Faculty at the 2-year and baccalaureate institutions with a teaching mission and those at the research universities felt the clearest about their institution's expectations for their use of time (e.g., teaching in the former case, research in the later), whereas institutions in comprehensive institutions often felt compelled to excel in teaching, research, and service and conflicted in what their institution most wanted from them. Vogelgesang, Denson, and Jayakumar (2010) analyzed data from the 2004 to 2005 Higher Education Research Institute (HERI) Faculty Survey and found that faculty from 2-year institutions, public 4-year colleges, and Catholic 4-year colleges perceived the greatest institutional commitment to community engagement. Recognition within the reward system and institutional support have been found important to faculty in their decisions about work activities (O'Meara, 2002). Therefore, institutional type and sense of institutional priorities clearly matters for faculty involved in community engagement as it will influence how their work is supported and received within a reward system and on some campuses it will be received more favorably than others. Policies and practices unique to an institution have also been found to be important motivators or disincentives within academic reward systems. For example, several studies have been done that show that colleges and universities that put parental leave programs in place for faculty during the pre-tenure years increase faculty satisfaction and overall success of women faculty (O'Meara & Campbell, 2008). As such institutional type remains a key structure and culture influencing the processes and outcomes of reward systems.

Discipline and department: Discipline or field and academic department are critical influences on academic reward systems (Clark, 1987; Gappa et al., 2007; Schuster & Finkelstein, 2006; Ward & Wolf-Wendel, 2007). Clark (1983) observed that the "discipline rather than the institution tends to be the dominant force in the working lives of academics" (p. 30). This point differs significantly by institutional type, however, and, the more research oriented the institution, the more pronounced disciplinary differences become in organizing academic life. Specifically, disciplinary socialization, norms, epistemology, and structure influence many aspects of

faculty work and therefore faculty academic reward systems (Baird, 1991; Becher, 1989; Braxton & Hargens, 1996). For example, disciplines that are high consensus, where there is widespread agreement regarding the important research questions and the major theories and methods (Braxton & Hargens, 1996), tend to also have higher publication rates than disciplines where there is less consensus. In disciplines and fields where there is less equipment and fewer journals and resources to conduct research faculty publication productivity may be less. There are also epistemological differences or ways of viewing knowledge construction that vary between disciplines and influence expectations for research, teaching, and community engagement (Colbeck & Michael, 2006). Departments are the primary location of identification for faculty, the place where organizational socialization occurs and resources are distributed. This is the place for most faculty where the most important decisions within reward systems are made—recruitment decisions, renewal of faculty to contracts and to tenure decision year, promotion to full professor, merit pay, and post-tenure review. They are the locations where compensation is negotiated, workload assigned, and advancement decided. These decisions are usually made by colleagues from the same or related discipline and the department chair. Departments and disciplines are also a place where relationships form and can become a source of recognition and intrinsic satisfaction. As such they have been an important focus for scholars who study reward systems.

External influences: Academic reward systems influence and are influenced by many forces external to their campus borders. Four examples of how the environment operates to influence academic reward systems are illustrative here. The first example is the academic labor market. Research has examined the profound role finances and labor market conditions play in faculty recruitment, hiring, and reward systems (Finnegan, 1996; Youn & Price, 2009). During times of economic expansion when the demand level increases, and supply is lower, there are subsequent changes in the types of appointments and standards for entry (Youn, 1989). Institutions must hire new faculty for mission, with more attractive packages and somewhat lower expectations for performance than in times where there are fewer positions available. In times of less demand, fewer resources, and an oversupply of applicants, institutions will often hire for research ability, even in teaching-oriented institutions because they can get both a candidate pool with teaching and research acumen. Star researchers hired in this last category are likely to then push their new institutions, whether liberal arts colleges or comprehensive universities, to become more centered on research. Such new hires wish their institution to acquire prestige and rankings more similar to the doctoral or research university where they were trained (Finnegan & Gamson, 1996). Such hiring practices, tied to the labor market, often result in an increase in the expectations for research for promotion and tenure, a greater demand by faculty for course release for research, higher faculty salaries, and more autonomy (O'Meara, 2007; O'Meara & Bloomgarden, 2011; Ward & Wolf-Wendel, 2007).

At the same time, when there is less demand many institutions accelerate the shift toward more flexible hiring and appointments. Specifically, the rise in non-tenure track appointments has been linked to declining state and federal funding for higher

education (Baldwin & Chronister, 2002; Bland et al., 2006; Schuster & Finkelstein, 2006). Non-tenure track appointments are generally perceived to be less expensive and more flexible at a time when the costs of higher education have increased and the revenues have decreased (Bland et al., 2006). Faculty in nontraditional appointments are typically paid less than tenure track faculty (Anderson, 2002; Baldwin & Chronister, 2002). Financial factors such as the recession of 2008–2009 have only increased the likelihood that institutions will replace tenure track lines with non-tenure track appointments (Lounder et al., 2010), very much shaping the point of entry and conditions of reward systems for individuals on their campuses. When there are fewer tenure track positions available, individuals have fewer options in terms of getting outside offers to negotiate for higher salaries and there is less opportunity for mobility (Schuster & Finkelstein, 2006). Daly and Dee (2006) found that having alternative job opportunities had a direct negative influence on intent to stay at an institution. In other words, environmental market conditions can limit or advance an individual's bargaining power inside his/her institution.

A second example of the influence of the higher education environment on academic reward systems is academic capitalism. Academic capitalism refers to the ways in which universities and faculty are increasingly influenced by market forces in their decision making over research, teaching, and extension activities (Slaughter & Leslie, 1997). In times of declining revenue, faculty are rewarded for activities that bring in additional revenue in ways that are perceived to fit into mission (Rhoades, 1998; Slaughter & Leslie, 1997; Slaughter & Rhoades, 2004). For example, many non-selective 4-year colleges and community colleges increase distance-learning opportunities, continuing education, and sometimes honors programs in order to acquire additional tuition and fees. Faculty reward systems via merit pay or criteria for contract renewal or tenure, whether spoken or unspoken, begin to reflect those goals. Likewise, Slaughter and Rhoades (2004) and Slaughter and Leslie (1997) explored how doctoral and research universities have pushed faculty to become more entrepreneurial over the last 20 years with incentives and penalties in reward systems for grant seeking and partnerships with industry. Resources shift toward faculty and departments that are perceived to be closest to the market and opportunities for external funding.

A third example of the influence of environmental forces on academic reward systems is ranking systems. Ever since *U.S. News and World Report* (*USNWR)* magazine and related magazines such as *Money Magazine, Princeton Review, Kiplinger,* and *Forbes* began ranking colleges and universities in the 1980s, there has been a movement in US higher education institutions to strive for better rankings to enhance prestige (Bastedo & Bowman, 2009; Ehrenberg, 2003; Meredith, 2004; Morphew & Baker, 2004; O'Meara, 2007; O'Meara & Bloomgarden, 2011; Winston, 2000). Classification systems like those of Carnegie and membership organizations such as the Association of American Universities (AAU) have also contributed toward institutional striving toward greater prestige and placement within the academic hierarchy. This striving occurs across 4-year institutions, though is segmented by different institutional types. In addition, over 40 different nations have some kind of rankings that are regularly published (IHEP, 2009). The

creation of both domestic and world-wide ranking systems such as *Times Higher Education, Shanghai Jiao Tong's* academic ranking of World Universities, and citation-based ranking systems like *Webometrics* has created incentives for many institutions in the United States and universities abroad to reward faculty activities that will improve department, college, and university placement in these rankings (Hazelkorn, 2009; IHEP, 2009; Marginson, 2006). Major components of these ranking systems are publication productivity, external grant revenue, perceived quality of graduate programs, and perceived quality of the faculty. As such, "administrators and faculty in all types of institutions therefore use similar research-oriented criteria in hiring and in rewarding existing faculty" (Fairweather, 1997, p. 43). Striving for better rankings influences a number of important areas in higher education functioning such as resource allocation, admissions, academic planning, and curriculum. In an effort to move up in rankings, academic leaders seek to increase the number of international awards won by faculty, aggressively recruit faculty "stars," and Nobel Laureates, and offset high salaries for these faculty stars by hiring more non-tenure track faculty. Most ranking systems have encouraged institutions to give greater resources to highly productive researchers as opposed to highly productive teachers or faculty involved in community engagement (Hazelkorn, 2009; IHEP, 2009; O'Meara, 2007; O'Meara & Bloomgarden, 2011).

A fourth example of environmental influences on academic reward systems is national movements initiated by the federal government, Washington-based associations, disciplinary associations, and "idea leaders" in higher education. Ernest Boyer's (1990) national efforts from the Carnegie Foundation to redefine scholarship are a prime example of this phenomenon. Kezar (2000) conducted focus groups with practitioners and researchers and asked them to identify the most memorable piece of writing that they had read in the last 5, 10, or more years and almost every focus group member mentioned *Scholarship Reconsidered*. O'Meara and Rice (2005) surveyed 1,452 CAOs of nonprofit 4-year universities and among the 729 responses, 68% observed that they had made some change to their faculty evaluation policies, mission, or planning documents related to the encouragement and assessment of multiple forms of scholarship. While a later section considers the depth of true reform from these policy changes, the point still holds that a national conversation on faculty roles and rewards, instigated by idea leaders such as Ernest Boyer, Gene Rice, Ernest Lynton, and Donald Schon, had an impact "on the ground" in policies that govern reward systems.

There are many other examples of national conversations initiated by invisible colleges, disciplinary associations, and federal government organizations that have influenced campus reward systems. There have been efforts by the National Science Foundation (NSF) and the National Institute of Health (NIH) to encourage campuses to assess the impact of scholarship on communities by requiring plans for such impact and assessment in grant applications. National Science Foundation ADVANCE projects have persuaded research and doctoral universities to change aspects of their academic reward systems to be more accommodating to the lives and careers of women scientists. In recent years, disciplinary associations (e.g., the Modern Language Association (MLA), American Sociological Association

(ASA)) have issued reports and guidelines for evaluating new forms of scholarship (O'Meara, in press). Likewise, national organizations like the American Association of University Professors (AAUP) and faculty unions exert influence through bargaining on workload issues, compensation, and by censuring institutions that have disregarded due process. In sum, the external forces that impact academic reward structures have very concrete influences on processes and outcomes over time. In fact, when considering the diverse number of external influences on academic reward systems and their pervasive impact, it could be argued that never before in history has the regard for faculty been so influenced by actors outside campus borders.

Processes and Experiences

Assessment of teaching, research, service, and overall productivity: In this section, I review research and literature on the process of evaluating productivity and teaching, research and service whereas in the outcomes section, I consider which kinds of faculty activities are ultimately rewarded in promotion and tenure and pay. Productivity was defined by Blackburn and Lawrence (1995) as the "specific outcomes achieved by individuals, that is articles, teaching awards received, grants and fellowships obtained and the like" (pp. 28–29). In fact, productivity is a contested topic within institutions and in the field as it contains both behaviors and outcomes and is difficult to measure as not all faculty work results in measurable products. Regardless, many scholars have studied productivity in the major areas of faculty teaching, research, and service, creating their own measures of performance in each area. The assessment of teaching within reward systems has a long history that predates the standard use of teaching evaluations, peer evaluators, review of syllabi, and teaching portfolios commonly used today (Centra, 1993; Chism, 2006). Teaching evaluations are considered standard elements of faculty evaluation although the results are weighted differently by institutional type and mission. Research has revealed that teaching evaluations often are biased by such factors as gender of faculty and students, faculty personality, student college year, class size, expected grade, reason for taking a course, discipline, and leniency of grading (Centra, 1993). Such bias, when perceived by faculty can act as a motivator toward grade inflation to receive higher student evaluations. At the same time, the lack of uniform standards for teaching may allow faculty to innovate in ways that benefit student learning.

The assessment of research within reward systems is well known but a remarkably small number of scholars have focused on it. Here I differentiate between studies showing research is prioritized in reward systems (e.g., Fairweather, 2005) or that research productivity is influenced by such factors as gender and family status (e.g., Creamer, 1998; Perna, 2002), and instead refer to the actual assessment by department chairs and evaluation committees of the quantity or quality of research. The primary materials submitted in evaluation of research are peer-reviewed journal articles, books, book chapters, and research papers and reports. Because there are established prestige and selection barometers in disseminating

research (e.g., whether a journal or academic press is widely considered top-tier, its rejection rate, disciplinary research awards), there are operating assumptions that these measures equal quality (Creamer, 1998).

The assessment of internal or committee service is also an element of academic reward systems, and depending on institutional and disciplinary norms and career stage, there are expectations that faculty serve on a certain set of committees in order to be granted favor in the reward system (Porter, 2007). Scholars have studied the role faculty demographics play in the number of committees individuals serve on or the pressure they feel to engage in institutional service (Aguirre, 2000; Porter, 2007; Tierney & Bensimon, 1996). A subsequent section considers a new and important area of faculty evaluation and that is the extension of the definition of scholarship to include teaching scholarship, engaged scholarship, and integrative scholarship. Many campuses have set up specific criteria to assess high-quality scholarship in these areas for promotion and tenure and contract renewal (Saltmarsh, Giles, Ward, & Buglione, 2009).

Additional reviews of performance: The widespread use of annual reviews, merit pay, and post-tenure review are relatively recent additions to the reward systems landscape in the last 20 years. The accountability movement of the late 1980s and early 1990s is largely responsible for the addition of annual faculty workload reports which faculty submit to account for their contributions in each major area of faculty activity. If there are funds available, such reports are evaluated by department chairs and personnel committees for merit pay. Merit pay usually takes the form of small salary adjustments (from 1% or less to 5%) for high performance in comparison to department averages and criteria (Engvall, 2010). Post-tenure review will be discussed in a latter part of this chapter, but refers to periodic assessment of faculty performance post-tenure (every 5–7 years). Post-tenure review typically involves some assessment of teaching evaluations, and scholarship via a personal statement and vita. Professional development funds often accompany post-tenure reviews as do expectations for adjusting performance if it is deemed unsatisfactory (Licata & Morreale, 2002).

Socialization toward norms and experiences within reward systems: Many scholars have explored the experiences of tenure track faculty as they are socialized into the traditions and norms of their disciplines and fields, departments, colleges and universities, and academic profession more broadly (Braxton & Hargens, 1996; Clark & Corcoran, 1986; Cooper & Stevens, 2002; Lindholm, 2003; Tierney & Bensimon, 1996; Tierney & Rhoades, 1993; Turner, 2003). With regard to reward systems, a central focus has been how socialization experiences differ for women and minority faculty. Many studies have revealed that women faculty are more likely than male faculty to perceive gender discrimination, leave institutions prior to receiving tenure, take longer to receive tenure for family-related reasons, and to choose not to enter the tenure track at all (Morrison, Rudd, Nerad, & Picciano, 2007; Perna, 2001a, 2005a, 2005b). In fact, a synthesis of research on faculty worklife (O'Meara et al., 2008) showed that in comparison to their male counterparts, women faculty are more likely to have difficulty identifying mentors to guide them in their careers and are disproportionately drawn to student-centered pedagogies,

liberal arts goals, and toward academic mothering roles that pull them away from research (see also Terosky, Phifer, & Neumann, 2008). Women are more likely than male colleagues to experience social isolation, be less satisfied with their positions, and feel more pressure to conform to normative political views, personal behavior, and attire to succeed (see Finkelstein, Seal, & Schuster, 1998; Harlow, 2003; Park, 1996). In fact, a study of new scholars conducted by COACHE, the Collaborative on Academic Careers in Higher Education, revealed that out of 28 measures of workplace satisfaction, many of which were directly related to reward system, junior faculty women were significantly less satisfied than men on 19 measures (Trower & Bleak, 2004a, b).

Studies have also shown faculty of color are more likely to leave institutions before receiving tenure and be dissatisfied with their institution's tenure process (its fairness and their own prospects of achieving tenure). In comparison to their white colleagues, faculty of color are more likely to experience difficulty establishing mentoring relationships in graduate school and throughout their careers, to find support for their scholarly interests, and recognition for their research (O'Meara et al., 2008). Faculty of color have been found more likely to articulate commitments to the holistic development of students, to out of class experiences, to goals for social change and community engagement, and report using student centered pedagogies such as collaborative learning and diversity-related activities (Aguirre, 2000; Baez, 2000; Rosser, 2004; Schuster & Finkelstein, 2006; Umbach, 2006). However, many studies need to be repeated controlling for variables of institutional type, career stage, discipline, and other key intervening variables. Trower and Bleak (2004b) found that when career stage and institutional type were controlled, fewer differences emerged in the experiences of white faculty and faculty of color.

Outcomes

In this section primary and secondary outcomes of reward systems are presented. Primary outcomes are promotion and tenure or contract renewal, pay, and recognition within a field and department, as well as institution. Secondary outcomes are retention, organizational commitment and satisfaction, subsequent performance, opportunities for professional growth, and impact on institutional mission and goals. Both sets of outcomes are very much influenced by the inputs in the reward system, as well as the process and experiences of the faculty member in terms of their performance and productivity in teaching, research, service, and its assessment.

Promotion and tenure or contract renewal decisions: It is important context to consider tenure achievement and contract renewal for full-time faculty in 4-year colleges and universities. In 2002, Chait estimated the chances of achieving promotion and tenure for those who submit applications to be about 3 out of 4. This is an average with it being slightly less in research universities and slightly higher in small 4-year liberal arts colleges. In terms of contract renewal, it is harder to estimate. There is evidence to suggest that in institutions without tenure, non-tenure

track appointments with multiple year contracts offer at least as positive if not better job security as the 3 out of 4 tenure system provides (Chait, 2002; Mallon, 2002; Trower, 2002). Institutions with single year contracts, however, offer much less job security.

The key finding from many studies is that research matters the most in promotion and tenure decisions at 4-year institutions, though expectations for the amount and quality of research differ greatly by institutional type. For example, Braxton, Luckey, and Helland (2002) found that despite evidence that broader definitions of scholarship have begun to permeate reward systems, research remains the coin of the realm for promotion and tenure across most 4-year institutions. This finding holds sway despite teaching being the major faculty activity, even in baccalaureate institutions where course loads are four and five courses per semester. Clearly, teaching is also being rewarded, in that this is what the majority of faculty, who are keeping their jobs, are spending their time doing. However, such findings underscore the reality that even in teaching-focused institutions, when teaching portfolios and research activities are placed side by side, research is disproportionately rewarded. Much evidence shows that there are gender disparities in promotion and tenure outcomes in 4-year institutions, even after controlling for differences in human capital, and holding discipline, institutional type, and rank constant (Park, in press; Perna, 2001a; Smart, 1991; Toutkoushian & Conley, 2005). Some of the reasons why such disparities exist in promotion and tenure and in pay are considered at the end of the Section "Theories and Methods Used to Study Reward Systems."

Pay: Pay is quite simply monies given to an individual in exchange for work provided. Pay (or faculty salary) is usually the major part of a compensation package. Compensation often, but not always, includes benefits such as health care, retirement, funding for summer research, and professional development. Fairweather (2005) observes that pay can be thought of as influenced by two major forces: (a) market competition or (b) institutional forces. Pay is influenced by market competition in that faculty salaries are at least in part dependent on supply and demand (Bowen & Sosa, 1989). If there are more Ph.D. graduates from English than computer science but an equal need for both in a given year, those with the computer science degree will likely receive a higher starting salary as a recruitment tool. Likewise, the degree to which the faculty member has other options that are more profitable is taken into account. As such business, law, and engineering faculty are often compensated better than humanities faculty for which there may be other options, but perhaps not uniformly better compensated ones. The market view also explains why faculty who have stored up more human capital in the areas an institution is hiring for—such as research productivity—will be compensated higher than those who have not. Fairweather (2005) and Hearn (1999) observe that institutional policies also impact pay, in that an institution might decide to value some activities over others.

In terms of whether teaching, research, or service are most rewarded in pay, Fairweather's work has been pivotal (1993, 1996, 2005). Fairweather (2005) observed that prior to his research in this area, while there had been "claims that

we already know that research is highly valued and that teaching is not, the data used to support these claims are often attitudinal and/or based on only one or two institutions" (p. 362). Using data from the 1987–1988 National Survey of Postsecondary faculty (NSOPF), sponsored by the National Center for Education Statistics, Fairweather found that for tenure-track, full-time faculty, the more the time spent on teaching and instruction, the lower the basic salary, whereas faculty who spend the greatest time on research and scholarship receive the highest compensation. While Fairweather found some differences by institutional type and what is emphasized at different career stages, the finding was strong and clear that, "regardless of institutional type or mission, faculty who spend more time on research and who publish the most are paid more than their teaching-oriented colleagues" (p. 374). The findings from this research also suggested that assistant professors "in all types of institutions are socialized early to follow a research and scholarship model" (p. 374). Fairweather was able to break this concept down into concrete actions faculty take that influence compensation. For example, he found that in 1998–1999 "for the vast majority of faculty irrespective of institutional type, teaching an additional hour remained a negative factor in pay and publishing an extra article a positive factor in pay" (p. 412).

In addition to the question of what kinds of faculty work are most rewarded in pay, many scholars have studied the fairness of faculty pay and whether it discriminates based on gender and race and ethnicity. Contingent on institutional type, women faculty in 4-year institutions tend to make lower salaries than their male counterparts and this has not changed significantly over the last few decades. Schuster and Finkelstein's (2006) analysis of surveys and data spanning multiple decades found that in the early 1970s women faculty salaries were at 82.7% of male faculty salaries, and in 1990 they were at 79.6%. *The NEA Advocate* which publishes an analysis of annual trends in salaries shows that in all but one sector (private associate degree institutions) women earn less than men, and the discrepancy is the worst at doctoral and research universities where it is about 80% (NEA Advocate, 2007).

Fairweather (2005) found the most important demographic factors in predicting pay were seniority, gender (e.g., being male), and field of study. Such findings are consistent with previous studies. For example, Creamer (1998) conducted an analysis of publication productivity to provide greater understanding of the factors that might separate faculty in terms of their capacity to perform as highly prolific scholars. Her extensive analysis found that, "race and gender do not have a direct effect on publishing productivity, but an indirect effect through factors such as rank and academic field, institutional factors including work assignment, and by environmental factors such as access to funding and influential collegial networks" (p. 4). A second major conclusion by Creamer (1998) was that one of the four norms of science, universalism, wherein the criteria used for judging scientific merit are impersonal and universal, applied regardless of gender and race, are not being applied with regard to gender. As such, women seem to be at a disadvantage in terms of having equal access or chance of doing the scholarship that receives the greatest rewards in terms of pay and promotion.

As the next section on theoretical frameworks points out, there are many potential explanations for differences between white male faculty and women and minority in pay and promotion and tenure. Here I contrast just a few. One way to frame the problem is structural and to recognize there are fewer women and people of color represented in faculty positions throughout the pipeline toward the professoriate and in climbing the academic ladder. This leads to tokenism and isolation, with few role models for success (Kanter, 1977). Aggressive recruiting, affirmative action, and strengthening of the pipeline are typically presented as solutions from this perspective. From a cultural perspective, the problems are cultural schemas, gender and race stereotyping, and implicit bias within campus cultures that limit advancement (Callister, Hult, & Sullivan, 2006; Valian, 2000, 2005; Williams, Alon, & Bornstein, 2006), and the solutions focus on removing bias from recruitment processes, leadership, and cultural change (O'Meara et al., 2008; Tierney & Bensimon, 1996; Turner, 2003). Relative disadvantage in human capital and concerns about its cumulative effects has been a focus of many studies (Clark & Corcoran, 1986, Park, 1996; Perna, 2001b; West & Curtis, 2006). Cumulative disadvantage in human capital is particularly relevant when considering that Creamer (1998) found that most longitudinal studies of cohorts of male and female scientists consistently show gender differences in productivity where women produce significantly less than male colleagues with the same doctoral origins. Gender affects publication productivity indirectly by virtue of women being less likely to have the characteristics most positively correlated with high productivity: interest in research, teaching graduate over undergraduate courses, and starting in prestigious doctoral programs (Creamer, 1998). This explanation suggests programs attempt to change the structural and organizational conditions that seem to influence the development of human capital, such as access to networks and senior mentors, resources for research, and attraction of women and minorities into the disciplines and institutional types most likely to support research activities. Also, a recent review of the literature on how women and minority faculty fare in reward systems revealed that some of the differential in rewards is generational, with new appointments correcting past bias toward men and white faculty (Lee, in press). Also, Lee (in press) observed that many faculty rewards are distributed based on an "accumulated mixture" (p. 20) of both universalism and particularism, attributable to both genuine merit and opportunities that are less accessible and biased in their selection process.

Additional recognition within a field and institution: A smaller number of studies have examined the role of recognition for one's work via institutional and disciplinary association awards. Chism (2006, p. 589) observes that "teaching awards have become a standard feature of the reward system at most colleges and universities." While most institutions also have research and service awards (Menges, 1996), teaching awards have been among the most studied. Chism (2006) observes that they have become prevalent for three reasons: for institutions to symbolically acknowledge support for teaching, to recognize the accomplishments of excellent teachers, and to encourage other faculty toward similar levels of performance (p. 589). Menges (1996) observed that they may be seen as "an inexpensive way to satisfy an institution's commitment to honor teaching" (p. 6). Appointment to editorial boards,

disciplinary association awards, and award of federal and foundation research funding are also important elements of a reward system. They not only operate more as regard within a discipline but also impact how an institution regards the faculty member (Braxton, 1986; Hermanowicz, 2009; Leahy, 2007).

Retention, organizational commitment, and satisfaction: In recent years scholars have begun to study whether a faculty member stays in their current appointment, indicates a desire to leave, or actually leaves, and the relationship of these to their reward system (Daly & Dee, 2006; Rosser, 2004). Counter-offers also play an important role in academic reward systems as they are one of the only ways to enhance salary without leaving, outside of merit pay and external grant funding (Barbezat, 2004). Researchers have observed several kinds of stressors that contribute to faculty propensity to leave an institution. Many of the factors found important to retention, organizational commitment, and satisfaction are embedded in faculty experience of their reward system—such as dissatisfaction with pay, equity in rewards like merit pay, workload, and course release (Daly & Dee, 2006; Johnsrud & Rosser, 2002; Smart, 1990). For example, Daly and Dee found that a sense of "distributive justice" or that there is fairness in the amount of compensation or other resources employees receive was important in faculty decisions to stay in urban metropolitan universities. If faculty saw the outcomes of personnel decisions as unfair they were less likely to note an intent to stay (Daly & Dee, 2006).

Overall, full-time faculty report being very satisfied with their careers and work-lives (Hagedorn, 2000; Rosser, 2005a). Gappa et al. (2007) observe that 87.5% of faculty show a high degree of satisfaction with their jobs overall and this satisfaction has remained relatively stable for decades, regardless of appointment type, institutional type, gender, and ethnic background. Yet, these authors also chronicle a steady increase over the last few decades in the number of faculty who note that they are very dissatisfied with their work-lives. Among those reward system elements where faculty report being least satisfied are salaries and rising expectations for promotion and tenure (Gappa et al., 2007; Rice, Sorcinelli, & Austin, 2000; Schuster & Finkelstein, 2006). Lindholm, Szelenyi, Hurtado, and Korn (2005) found that 44% of faculty in one survey listed tenure and promotion review as a key area of stress. These findings are consistent across other major studies of tenure track faculty. Barbezat (2002) extensive analysis found that when comparing non-tenure track faculty to tenure track faculty, the former are less satisfied with their organizational status, perquisites, and prospects and more satisfied with their workload and control over their time. Schuster and Finkelstein (2006) observe that it seems non-tenure track faculty "appear to be trading off security and advancement potential for a more manageable workload and time to pursue their own interests" (p. 231). In sum, reward system inputs and processes very much influence outcomes for individual faculty with regard to retention, organizational commitment, and satisfaction.

Subsequent performance: Performance appears twice in Fig. 5.1. First, performance appears in the category of processes wherein faculty prioritize certain work activities and perform them, which is assessed. In the second case, subsequent

performance appears in outcomes as it refers to performance that is motivated by having been rewarded previously for an activity or set of behaviors. In this second case, performance acts as an outcome of the reward system as the rewards granted motivate or incentivize additional behaviors. For example, a faculty member who is non-tenure track may have their teaching assessed and have their contract renewed during that process (a reward). However, the department chair might observe to the faculty member in the course of the evaluation that future contract renewals will be based on good teaching evaluations and one to two published articles. As such his subsequent behavior and performance of pursuing the articles is an outcome of the evaluation process.

Increasingly researchers are trying to make stronger connections between elements of academic reward systems and specific outcomes, controlling for key intervening variables. A particular interest of researchers as the workforce has turned to more contingent labor has been the relationship between appointment type and specific kinds of work performance, productivity, and work products. For example, Finkelstein and Schuster (2001) found that compared to tenured or tenure track faculty, faculty on non-tenure track appointments published fewer articles, worked 5 fewer hours per week, up to 10 hours fewer at research universities, spent less time out of class with students and were less committed to their institutions. An interesting question relates to why this difference might exist and whether it differs by institutional type.

Bland et al. (2006) attempted to answer this question at least among research and doctoral universities and hypothesized that the tenure system (a) acts as a major mechanism for assuring the presence of environmental features essential for productivity, (b) results in increased faculty commitments that facilitate productivity, (c) promotes productivity by increasing motivation and providing a process for the institution to promote and retain only the high performers, (d) requires faculty to commit significant effort to and be productive in at least three areas: teaching, research, and service. Bland et al. (2006) found that in research and doctoral institutions, full-time tenure track faculty were significantly more productive in research, significantly more productive in education, and significantly more committed to staying in academics and their current position. They also worked more hours per week than their non-tenure track colleagues. The authors were able to hold experience constant and showed that even given comparable experience at the beginning of appointment, the differences existed.

Bland et al. (2006) observed that their study did not prove that a tenure system was causing the observed differences in productivity and commitment given other factors at play such as individual choice in non-tenure track and tenure track appointments. The choice for a non-tenure track appointment might be made for lifestyle reasons and in fact Trower's (2002) research on faculty recruitment suggests that is often the case. Yet, Bland et al.'s (2006) research observes that it is likely both the individual and the environment at work in the situation: "a non-tenure track system is likely to be less attractive to highly motivated faculty and even if a faculty member is highly motivated, a non-tenure system may well be less conducive to commitment and productivity" (p. 116).

Additional research has examined the relationship between faculty appointment type and the use of high impact teaching and learning strategies (Benjamin, 2002; Umbach, 2007b) and between type of appointment and student retention in gatekeeper courses (Jaeger et al., 2007). The starkest differences are found between full-time and part-time appointments, although important differences in faculty performance in these areas have also been found between non-tenure track and tenure track faculty. However, most often there are important differences between the professional qualifications and resources offered to these two groups that make it unclear if it is the reward structure or these other factors impacting the differences in performance. In sum, while reward systems distribute regard based on performance, they also shape future faculty performance and productivity.

Opportunities for professional growth and intrinsic rewards: Intrinsic and intangible rewards must also be considered key outcomes of academic reward systems. For example, each year faculty report in significant numbers that they remain satisfied with the autonomy that they experience in their work, the meaningfulness of their work, relationships with students, and the ability to contribute to social change (Gappa et al., 2007; O'Meara et al., 2008; Schuster & Finkelstein, 2006). This is a trend despite faculty dissatisfaction with other elements of their reward system such as pay, recognition from senior colleagues, or the politics of promotion and tenure (Trower, 2009). In particular, autonomy has been widely considered a major source of satisfaction (Hagedorn, 2000) among faculty and though intangible needs to be considered a key reward that motivates faculty behavior.

Another example of intrinsic or intangible rewards or penalties in reward systems is psychological contracts (Huston, Norman, & Ambrose, 2007). Psychological contracts are in part about expectancy. If a faculty member is promised a certain level of resources, workload assignment, and rewards at the time of hire, they develop a psychological contract with their organization that these promises will be kept. If they are then let down by the organization, via academic leaders or colleagues, and they believe that the institution and leaders had the resources to fulfill the promises they made and simply decided not to, the psychological contract has been broken and this will have a negative impact on intent to stay, satisfaction, and productivity (Huston et al., 2007). Reinforcing the idea of a reward system, as a system of structures, cultures, and actions, Rousseau (2008) observes that "the heart of effective contracts is not so much the consistency, but redundancy, lots of supporting practices that provide resources and direction that sustain exchanges and companies over time" (p. 235). In sum, the intangible and intrinsic outcomes of reward system experiences are sewn into many different elements of reward systems and must be considered a critical part of the system.

Impact on institutional mission and goals: A smaller body of research has considered the outcomes of reward systems for society, institutional mission, and goals. One way to view the issue is whether the reward system makes the institution more effective at meeting goals (e.g., Mallon, 2002) or whether changes in reward systems achieve desired outcomes (O'Meara, 2003, 2005a, 2006). Another view is how faculty themselves change reward systems as they move through them. Organizations and thereby their reward system outcomes are changed as significant cadres of

faculty with different perspectives, orientations, and interests move through them (Tierney & Rhoades, 1993). A growing area of research focuses on exemplars in different areas of faculty work and the individual and organizational factors that allow them to be successful when the structures and cultures of reward systems are hostile or unsupportive. Such work has examined faculty development of women's studies programs (Gumport, 1990), faculty making the case for the scholarship of teaching for tenure (Huber, 2001), faculty resisting bias against family care-giving (Colbeck & Drago, 2005), and faculty taking teaching seriously in research cultures (Terosky, 2005). Many faculty figure out other contributions that they can make to their institutional system—other currencies that they could offer—in lieu of the fact that they would prioritize the less accepted work or lifestyle choices they were making (O'Meara, 2011). At the same time, we know many early career faculty have left or are considering leaving their institutions because they feel that the reward system is rigid and unbending to faculty who hold values that differ from the norm (Trower, 2008). Regardless, each time a faculty member follows well-accepted norms in a reward system, and each time they do the opposite, they make a choice that interacts and influences the system—either to reinforce or to challenge those norms and expectations. Thinking of reward systems in this way actually offers faculty the opportunity to position themselves as agents of change within reward systems as opposed to victims of a system of which they are not a part.

While academic reward systems have significant outcomes for faculty and all of the major stakeholders of higher education, rarely has research or theoretical perspectives, outside the lens of efficiency and cost-savings, been the driving factor behind reform. Yet, research and theory have much to offer the study and reform of reward systems and thus will be addressed in the next section.

Theories and Methods Used to Study Reward Systems

Many theoretical frameworks have been used to study academic reward systems and how they work. Most often the theories are applied to understand a particular element of the academic reward system (e.g., pay or achievement of tenure and promotion) rather than considering it as a system. While it is not possible to cover all of the theories that have been used to study academic reward systems, in this section I bundle together four kinds of theories that have been used repeatedly and consider the strengths and limitations of each in helping us understand how academic reward systems work: theories of organizational culture, economic or market approaches, motivational and psycho-social theories, and systems theory.

Organizational Culture and Socialization

The organizational culture perspective considers how values, beliefs, assumptions, and norms are developed, maintained, and passed on in organizations. Socialization is considered the key mechanism through which individuals become part of a

community via rituals, language, symbolic actions, and reward systems. Major theorists in this area are Merton (1957), Geertz (1973), and Schein (1985) whose work has been utilized by many higher education scholars to understand how academic culture works overall (Bensimon & Neumann, 1993; Bergquist, 1992; Birnbaum, 1988, 1992; Kezar, 2001; Kuh & Whitt, 1988) and how academic reward systems work specifically (Aguirre, 2000; Austin, 1994; Clark, 1987; O'Meara, 2002; Tierney & Bensimon, 1996; Tierney & Rhoades, 1993).

Several examples illustrate the application of theories of organizational culture to academic reward systems. Clark (1987) explained the "small worlds, different worlds" of faculty and how work-life and academic reward systems differ by institutional type. Becher (1989) and Biglan (1973) considered differences in disciplinary epistemology and work goals and how they influence interactions between colleagues, and expectations for advancement in academic reward systems. Building on the work by Van Maanen and Schein (1979), Tierney and Bensimon (1996) examined faculty socialization on the tenure track as a cultural process through six dimensions: collective and individual, formal and informal, random and sequential, fixed and variable, serial and disjunctive, and investiture versus divestiture. O'Meara (2002) used Schein's (1985) framework for organizational culture to understand the assessment of engaged scholarship in four different institutional types that had recently changed their promotion and tenure guidelines. O'Meara (2004) also used the cultural frame to reveal values and beliefs that influenced the implementation of post-tenure review across a state system.

Cultural approaches to understanding how academic cultures work have made several unique contributions that illuminate the faculty experience in reward systems. Because of cultural approaches, we better understand what goes wrong in the socialization process of women and minorities to the professoriate, such as weak mentoring, additional demands and expectations (Whitt, 1991), and fewer networking opportunities (Tierney & Rhoads, 1993). Furthermore, drawing on the work of organizational culture, critical theory, postmodern perspectives, and standpoint theories (those emphasizing feminist and black feminist thought; Giroux, 1993; Hill Collins, 1990; Ladson-Billings, 1997; Tierney & Bensimon, 1996) scholars have revealed the positions of individuals vis-a-vis each other in structures of power (e.g., Bensimon, 1992; Talburt, 2000). Such theorists have helped frame the specific aspects of language, ritual, policy, and practice that exclude certain groups and give legitimacy to others. One major example of these approaches is the work of feminist scholars that have used such perspectives to frame the "glass ceilings" and barriers women experience while navigating academic reward systems (Glazer-Raymo, 2008; Gumport, 1990; Romero & Stewart, 1999). In this genre, Bensimon and Marshall (1997) applied feminist perspectives to study work and family policies inside academic reward systems.

One specific cultural theory that has revealed much about reward systems in science is universalism and particularism and the normative structure of science. Based on ideas developed by Robert Merton (1942, 1957, 1968), the theory of the normative structure of science assumes that academics are part of a profession wherein

the community exercises social control to ensure faculty adhere to a set of core norms (Braxton, 1986). The theory is primarily relevant for scientists in research universities in the natural and physical sciences or social sciences. According to this theory, faculty have gained expertise and have committed themselves to serve clients (i.e., students, colleagues, general knowledge in the field) and to the advancement of knowledge. For this service, they are granted autonomy. Formal and informal norms shape codes of conduct and are internalized by faculty (Braxton, 1986). The norms are universalism, communism, disinterestedness, and organized skepticism. Universalism is an assumption that truth claims will be made on the basis of pre-established impersonal criteria or merit rather than particularistic criteria such as race, nationality, class, and personal characteristics. Communism is the value that findings of research should be public and without secrecy. Disinterestedness assumes the needs of science should trump individual motives. Organized skepticism refers to the benefits of systematic questioning of evidence in science. Braxton (1986) concluded through an extensive review of the literature that "both universalism and particularism play a role in the process of allocation of recognition in science" (p. 345).

Particularism intersects with the concept of cumulative advantage that some individuals accrue greater advantages over time that increase the likelihood of success, through the idea of the Matthew effect wherein the scientific reputation of the author influences reception of the scientific findings (Braxton, 1986). Merton (1968) observed that "a scientific contribution will have greater visibility in the community of scientists when it is introduced by a scientist of high rank than when it is introduced by one who has not yet made this mark" (p. 59). As such, those with already established scholarly reputations accrue more accolades than those just establishing themselves. Braxton's (1986) review of the literature and analysis of how this works in academic reward processes further points out that the Matthew effect plays a role across many elements of academic reward systems including first appointments, election to associational offices, postdoctoral fellowships, advisory panel memberships, and membership in honorary societies. Creamer (1994, 1995, 1998) used the concepts of universalism and particularism in explorations of why so few women are among the most prolific scholars.

The cultural perspective, especially when paired as it often is with qualitative interviews, portraits, and case studies, is a particularly effective lens to study academic reward systems because higher education is strongly value-laden (Birnbaum, 1988; Clark, 1987, Kezar, 2001). Values of higher education institutions may include academic freedom, autonomy, specialization, or modes of shared governance. Values influence how any individual will fare in an academic reward system, how they fit within the culture, and how they are more generally regarded. However, the cultural perspective can be criticized for over-emphasizing a particular group's cultural artifacts, values, and beliefs at a particular point in time and not considering change over time in the culture or the malleability of the culture itself (O'Meara et al., 2008). Also, by focusing on a specific group, the role of human and psychological needs and motivations outside of cultural norms may be under-emphasized.

Economic Theories and the Market Approach

Economic theories focus on issues of supply and demand in the higher education market. This perspective considers how environmental forces (e.g., a recession), periods of expansion in higher education, and competition between institutions influence the academic labor market and elements of academic reward systems. Coupled with theories of human capital and social, organizational, and political views, scholars have often used economic theories to understand trends in pay (Eckes & Toutkoushian, 2006; Youn, 1989), recruitment of faculty stars (Clotfelter, 1996), and how shifts in institutional resources impact academic capitalism within reward systems (Slaughter & Leslie, 1997). Market approaches help contextualize how faculty might make decisions to "move up" in the academic hierarchy and the kinds of benefits and incentives they might consider to relinquish tenure (Clotfelter, 2002).

The theory of human capital posits that the experiences, knowledge, and skills individuals bring to their workplaces influence their work experiences, including their success in academic reward systems. It has been used by many scholars to consider salary differentials (Nettles, Perna, Bradburn, & Zimbler, 2000; Perna, 2001b; West & Curtis, 2006). Perna (2001b) and Umbach (2007a) have both found that much—though not all—of differences in salary between genders can be attributed to the relative differences in the market by discipline, institutional type, rank, and experience. For example, if women faculty tend to be attracted to institutions and disciplines that pay less and tend to be among the lower ranks, their salaries are logically lower. Differences in publication productivity, level of classes taught, and other "currencies" they hold also explain differences. In addition, because women tend to have lower salaries at first appointment than male colleagues (Bellas, Ritchey, & Parmer, 2001), merit pay and across the board increases disproportionately advantage men.

A strength of the market and human capital perspectives is that they shine a light on financial and human resource decisions made by institutions and faculty in academic reward systems. They are not useful for explaining more emotional, personal, family-oriented, or intrinsic reasons individuals make decisions within academic reward systems. Market force perspectives also do not explain many societal trends or interactions. For example, Toutkoushian, Bellas, and Moore (2007) studied the impact of gender, race, and marital status on salaries and found that among faculty with similar qualifications, married women earned 7% less than their male married counterparts. Clearly there are interactions between pay and family factors better explained through sociological perspectives in such a case. Other examples include research university faculty taking teaching seriously and spending significant time on it when their reward system clearly does not value that decision (Terosky, 2005), or a faculty member taking a non-tenure track appointment because it is in an area where their partner can find work or is near family (Trower, 2002). Given recent research on the "irrationality" of human beings' decision making and that individuals often respond emotionally rather than rationally to economic incentives (Frey, 1997; Pink, 2009), it is important to complement market-based approaches with psychological ones when studying reward systems.

Motivational Theories

Drawing on organizational psychology, human development, and socio-organizational perspectives, motivational theories consider the internal and external, intrinsic or extrinsic factors that come together to motivate individuals toward specific behaviors. Latham and Pindner (2005) define work motivation as "a set of energetic forces that originate both within as well as beyond an individual being to initiate work related behavior and to determine its form, direction, intensity and duration" (p. 2). Bess (2003) identified four theories or schools of motivation theory that are particularly applicable to faculty: need theories such as those by Maslow (1970) and Herzberg et al. (1959), motive theories (McClelland, 1971), job enrichment theories of Hackman and Oldman (1980), and equity theory (Adams, 1965). Most of these theories assume that individuals have innate needs, acquire other needs, and are motivated by institutions that help them meet needs and achieve personal and professional goals.

Cognitive motivational theories used most often in higher education research have been expectancy theory (Vroom, 1964), self-efficacy (Bandura, 1986), sense making (Weick, 1995), and job characteristics theory (Hackman & Oldham, 1980). Expectancy theory (Vroom, 1964) has been applied by Bess (1998) and Daly and Dee (2006) with the Price–Mueller model of turnover intent. The theory assumes that individuals have certain expectations for the structural aspects of their work, and that when these expectations are met, individuals are more likely to stay at their institution. Job characteristics theory posits that workers, including faculty, will thrive in their jobs and reward systems if they experience three critical psychological states: experienced meaningfulness of the work, experienced responsibility for work outcomes, and knowledge of results (Bess & Dee, 2008a). Higher levels of motivation in these three states are activated by five core characteristics of the job: skill variety, task identity, task significance, autonomy, and feedback from the job itself (Bess & Dee, 2008a). These theories are consistent with research on the satisfaction faculty taken from being given autonomy in their work-lives (Hagedorn, 2000). One of the best interdisciplinary examples of the application of motivational theory to faculty was completed by Blackburn and Lawrence (1995).

A strength of motivational theories is that they help us see all of the possible reasons that an individual faculty member might act as they do. A weakness may be that they over-emphasize the role of individual motivation in the complex ecosystem of academic reward systems. A faculty member may be very motivated by the feedback they receive from their colleagues and department chair, and thereby act in productive ways. Yet, that same faculty member may not receive contract renewal, tenure, or promotion for political or market reasons.

Systems Theory

Perhaps one of the most interesting theoretical frameworks with which to study academic reward systems is systems theory. As Bess and Dee (2008a) observe, "the central theme of systems theory is the notion that a change in any part of a system

has implications for all other parts of the system" (p. 471). Considered a "grand theory" that can be used to explain many biological, sociological, and psychological phenomena (Bess & Dee, 2008a), systems theory has been used extensively to understand the organizational behavior of colleges and universities (Birnbaum, 1988, 1992, 2000). A key concept in systems theory is that of tight or lose coupling between components in a system, that is, how strongly an event in one area affects events in another, and the impact of those relationships on the outputs of the system. For example, system theory assumes that if certain faculty in a department bring in external grant funding, this can have a greater or lesser impact on the remaining faculty going up for tenure or promotion, depending on the tendency to compare cases in the department.

Systems theory has been used to consider change in higher education and overall organizational behavior and has the potential to help us understand the influence of environmental characteristics on elements and outcomes of reward systems. In addition, the subfield of social systems theory focuses on how an individual and their personal characteristics interact with aspects of their social environment to influence behavior (Bess & Dee, 2008b). As such we have two theoretical tools, general systems theory and social systems theory, that can help scholars understand both macro- and micro-level change in any given academic reward system. For example, a general systems perspective might help us map the factors that influence distribution of scarce resources (e.g., merit pay, graduate assistants, and professional development funding) and see how departments and faculty considered closest to revenue generating activities might receive the greatest rewards. At the same time, social systems theory can help us look at how individual characteristics of generation Y faculty (such as a desire for flatter organizational structures, constant feedback, and transparency in decision making) may be interacting with traditional tenure systems in ways that produce frustration and tension. Using systems theory has practical advantages for faculty and academic administrators who want to map what is happening inside reward systems. Senge (1990) observes that when leaders master "systems thinking" or "the use of cognitive frameworks that emphasize seeing the interrelationships rather than things, for seeing patterns of change rather than static snapshots" (p. 68) they are better able to respond to change effectively. However, systems theory is not useful for predicting behavior or direct relationships between an individual and environment.

Critique of Methods Used to Examine Academic Reward Systems

We know much about how faculty experience academic reward systems from national survey data such as the Higher Education Research Institute (HERI) Faculty Survey, the National Survey of Postsecondary Faculty, TIAA-CREFF, the National Science Foundation Survey of Earned Doctorates, and the Collaborative on Academic Careers in Higher Education (COACHE). These sources have revealed

faculty relative satisfaction with the autonomy granted them in their work-lives and the relative dissatisfaction with aspects of reward systems like the tenure process, pay, and department politics. We also know there are significant differences by gender, race, institutional type, discipline, and appointment type in the way that faculty experience academic reward systems. As mentioned earlier, we can likewise see relationships between priority given to specific work activities, such as teaching and research and specific career outcomes.

Yet, there are problems with our framing of faculty experiences in reward systems. Both in the popular press (e.g., *Chronicle of Higher Education*, and education section of major newspapers) and in scholarship, we have tended to focus singularly on how one aspect of the faculty experience (e.g., gender, race and ethnicity, work priority given to teaching, or community engagement) is associated with outcomes of academic reward systems (such as not getting tenure or promotion, pay, national awards, or editorial positions), rather than considering the impact of intersectionality or multiple dimensions of the faculty experience on outcomes. We know that being a woman, or a community engaged scholar, for example, is usually not the only cause of someone's contract not being renewed, or paid less, or less often chosen for editorial appointments. Rather, there tend to be relationships or correlations between these characteristics and others in the ecology of the reward system. At the same time, there might be other factors associated with these outcomes that are out of view. As such, a limitation of extant research relates to the tendency to default to an assumed causation between factors for which at best we have found relationships and to not recognize other potential influencing factors.

Another concern in the study of reward systems is whether much of the data collected is in itself somewhat limited or isolated in perspective. For example, surveys often ask individual faculty if they are satisfied with their salary—without a fuller picture of their organizational milieu. It is rarely clear what backdrop researchers are asking them to evaluate their satisfaction against. Are they satisfied in comparison to other standards—based on their colleagues at their current institution, colleagues in industry, or based on compensation in the last institution? Individuals have complex interactions within their social systems that are all intricately interwoven. Isolating one characteristic and asking for views of it outside of the other key elements of reward systems and overall environment is likely missing critical context that helps to explain those findings. Also, most of this survey data is self-report from very specific vantage points—e.g., faculty member in a department, department chair, and/or chief academic officer. Yet, the panopticon image reminds us that one of the key aspects of academic reward structures is that many faculty, if not most, have no idea what merit pay, compensation packages, terms, or conditions for contract renewal are being negotiated around them with other faculty—they are obstructed from view. Many perceptions of both the overall fairness and unfairness of the system are greatly limited by the faculty member's singular experience, perception of others, and hearsay. Self-report data is also always limited by a potential halo effect of representing oneself in the best light (Yin, 2003). As such, questions about why faculty became involved in any

particular activity always seem to downplay financial incentives in lieu of intrinsic or altruistic motives, even if financial incentives have been shown as an effective recruitment tool.

In fact, the clandestine nature of traditional tenure systems (and by proxy of how individual contracts are negotiated, renewed, and ended) has made study of how they work both complex and difficult. Perna (2001b) observes that there is limited data on promotion and tenure decisions and pay on a national scale. Park (in press) observes that much of the research is cross sectional rather than longitudinal, which is a significant limitation for studies that wish to focus on changes in salaries over time. The COACHE study of Harvard University has perhaps had the most success in getting campuses to share institutional data on their own retention and tenure rates, but only as part of an aggregate for the purposes of benchmarking (Trower, 2009). Both the traditions of the tenure process and the desire to avoid bad press have kept most higher education institutions from sharing critical data about reward systems. For example, many research university deans keep actual faculty salaries in the sciences (where patent monies and start-up companies can be used to boost salaries) secret in locked filing cabinets, not for public disclosure. While national statistics have been able to calculate the overall tenure rate by institutional type or the total number of positions converted to non-tenure track, there are many more instances where individuals are not renewed or advised privately to leave before tenure, or where specific incentives—such as spousal hires or bonus funds are used to retain faculty—that are unknown or not understood in any collective sense.

Qualitative case studies such as those done by Tierney and Bensimon (1996) have provided a rich-in-depth exploration of individual experiences in academic reward systems. At the same time, even in-depth explorations of individuals are often limited by researchers not having access or the ability to interview the colleagues, department chair, and the personnel committees making decisions about an individual's work. In other words, there is little triangulation to verify perspectives. In addition, there have been few studies using direct observation, longitudinal, and historical approaches to understand change in academic reward systems. If we consider reward systems and critical decisions within them to be at the heart of higher education—and representative of an institution's true values and priorities—shouldn't we find better ways to document what factors are actually influencing those decisions? Such methods would include greater triangulation with researchers documenting both individual faculty cases and faculty and department chair decisions via archival document analysis and access to multiple sources of data and vantage points. It would involve looking at changes in the portfolios of individuals over time and changes in decision making and data on resource allocation. It would require approaches that see the connections between actions and decisions and various outcomes, such as relationships between the decision to increase the number of non-tenure track by 20% and external grant funds. In sum, we need more research that brings academic reward systems and the complex web of interactions within them into wider perspective. We need researchers to use more multi-method, mixed method, multi-level, and longitudinal analysis to understand

what is actually prioritized and recognized within institutions and across higher education.

Reform in Academic Reward Systems: New Influences and Contexts

There are many changes occurring in the academic profession that interact intimately with and have significant influences on academic reward systems. However, for the purposes of this section I chose to review recent changes (1990–2010) that were either intentionally put in place to address perceived deficits in previous academic reward systems or have accumulated over time into a major policy shift, as in the case of the move toward contingent labor. These are (1) redefining scholarship, (2) post-tenure review, (3) stop the clock and parental leave, (4) managerial and accountability reform, (5) ranking systems, and (6) the widespread shift from full-time tenure track appointments to non-tenure track and part-time appointments. Considering the known resistance of academic culture to certain kinds of change, it is important to ask whether any of these reforms or changes have permeated the basic set of assumptions guiding the reward system? To what degree have these reforms been "virtually adopted" (Birnbaum, 2000) or adopted at the edges of practice? Which reforms or significant changes in reward systems are conscious policy decisions and which have become unconscious assumptions or operating manuals for practice without the involvement of faculty? Each of the following sections addresses these questions while reviewing research on the prevalence and impact of the reform.

Redefining Scholarship

As is well known to most readers, in 1990, Ernest Boyer advocated in the landmark Carnegie report, *Scholarship Reconsidered*, for campuses to transform their reward systems to align with their missions and to acknowledge multiple forms of scholarship, including discovery, teaching, integration, and application of knowledge. In subsequent work the term application was amended to engagement to consider the reciprocal nature of relationships and knowledge flow. This framework resonated with Provosts, Deans, and department chairs struggling with striving academic cultures that did not seem to be rewarding teaching and service, much less community engagement. Glassick et al. (1997) followed the initial report with *Scholarship Assessed*, which provided actual criteria for assessing excellence in these four forms of scholarship. We know that hundreds of campuses adopted the Boyer framework and put it into their promotion and tenure and related reward system and evaluation policies (Braxton et al., 2002; O'Meara, 1997, 2002; O'Meara & Rice, 2005).

There have only been a few studies that have tried to look comprehensively at the impact of reforms to acknowledge a broader definition of scholarship on institutions

and faculty (Braxton et al., 2002; Huber, 2001, 2002; O'Meara, 2002, 2005b; O'Meara & Rice, 2005). For example, Braxton et al. (2002) explored whether reforms made at the institutional level have trickled down to influence faculty understandings of scholarship or involvements in different forms of scholarship. The authors found that while teaching and discovery (research) remain institutionalized in workload, only discovery was considered fully adopted into faculty values and assumptions. O'Meara (2002) conducted case studies at four colleges and universities that had reformed their promotion and tenure policies as suggested by Boyer (1990). She found that these campuses experienced improvements in balance across reward systems, faculty involvement in alternative forms of scholarship, and faculty satisfaction with institutional work life. Yet, there were specific values and beliefs that worked for and against the assessment of engagement as scholarship, even among its advocates. These had to do with the purposes, products, processes, and audiences of scholarship (O'Meara, 2002). O'Meara and Rice (2005) conducted a 3-year study that included a national survey of chief academic officers (CAOs) at 4-year institutions, regional focus groups with CAOs, and demonstration projects with nine campuses all amending their reward systems as suggested by Boyer (1990). CAOs from reform institutions where changes were made to support and reward multiple forms of scholarship were significantly more likely than CAOs at institutions that had not made similar reforms to observe that innovation was encouraged and rewarded, the primary interests of new faculty hires match the institution's primary goals and direction, that faculty involvement in the scholarships of teaching, integration, and engagement had increased, and that over the previous 10 years their institutions had found a greater balance in the faculty evaluation process (O'Meara, 2005b, 2006). Huber's in-depth anthropological exploration (2004) of faculty crafting careers around the scholarship of teaching complements these other two studies by examining the nature of faculty teaching scholarship and how it has been evaluated in reward systems. As mentioned in the external influences section, there has been significant policy reform and efforts at the disciplinary association and federal level to influence academic reward systems. This recent work of disciplinary associations and interdisciplinary academic partnerships (i.e., Community Campus Partnerships for Health and Imagining America) have also moved the issue forward by better defining engaged scholarship, identifying its benefits in specific disciplines and areas of public life, and providing concrete ways to assess excellence.

In terms of whether this reform was transformative or virtually adopted, the answer lies somewhere in the middle. For academic leaders it has transformed the way scholarship is discussed and has shaped new scholarly opportunities and better promotion and tenure guidelines for many institutions at the middle and lower end of the prestige hierarchy (where most students attend). Research universities, many faculty in the sciences, and striving campuses seem to have been somewhat immune, if not resistant, to these discussions, in part to protect the status quo and in part because of epistemological differences. The culture of research universities may also play a part as contributions to disciplinary knowledge are highly valued in this context.

Post-tenure Review

Perhaps one of the quickest reforms to sweep through academe during the 1990–2010 period was post-tenure review. Post-tenure review was initiated as a response to several concerns by legislators, citizens, and administrators regarding the uncapping of the mandatory retirement age and the potential of faculty extending retirement plans, a lack of accountability for faculty performance following tenure, and a sense that there were not ways to fire faculty for poor performance. In 1983 and again in 1995 the AAUP denounced post-tenure review, or the periodic evaluation of tenured faculty (usually every 5–7 years), as a major threat to academic freedom, creativity, and collegial relationships. Yet, recognizing that the accountability movement and actors pushing for post-tenure review seemed to have won the argument, AAUP put forth minimum standards for good practice and recommendations for implementing formative, as opposed to summative, post-tenure review. By 1999, 37 state systems had engaged in some level of post-tenure review reform or discussion (Licata & Morreale, 2002). Outcomes related to post-tenure review are mixed. Case studies with best practice campuses that engaged in formative, professional growth-focused post-tenure review seem to have provided faculty opportunities for renewal, new career directions, and the strengthening of institutional commitments (Licata & Morreale, 2002). Other surveys and case studies of post-tenure review implementation have found, however, that for a variety of reasons, ranging from antagonistic relationships between unions and administration, to values and beliefs around issues of collegiality and academic freedom, to career stage and specific institutional contexts in implementation that post-tenure review has not had the impact its initiators intended (Bensimon et al., 2003; O'Meara, 2003, 2004; Wood & Johnsrud, 2005). At the same time, it is difficult to tell on a large scale. The implementation of post-tenure review may have encouraged some faculty to retire on individual campuses to avoid undergoing greater scrutiny of their vitas, and some faculty have clearly benefited from professional development funds resulting from their reviews. Interestingly, both advocates and critics of post-tenure review cite the fact that very few faculty were actually fired because of post-tenure review as a sign of success of the program. Critics today argue most post-tenure review programs are just paperwork and have no teeth; proponents herald it as successful accountability reform and opportunity for professional renewal. Few argue that it has revolutionized academic reward systems.

Balance of Work and Family Policies

For some time feminist scholars and scholars of the academic profession have argued that the traditional tenure clock of between 5 and 7 years does not suit the life course of women faculty, many of whom need to balance work and family commitments during this time (Armenti, 2004a, 2004b; Finkel & Olswang, 1996; Mason & Goulden, 2002; Perna, 2005a; Williams et al., 2006). While the issue

has received the most press in studies of women scientists at research universities, there has been widespread conversation and policy reform on the issue over the last two decades. Specifically, many research universities and other campuses have put new policies and support mechanisms in place to help academic parents balance work and family while on the tenure track. For example, the University of California, Berkeley, the University of California, Los Angeles, the University of Michigan, Stanford University, the University of Massachusetts Amherst, and MIT all offer some combination of work family policies. These include stop the tenure clock policies, parental leave, reduced teaching policies, subsidies for childcare, and part-time options. Stop the tenure clock policies allow academic parents to request a one-semester or 1-year extension of the time on their tenure clock for child care reasons and parental leave allows faculty the ability to take time away from campus when a young child joins their family through birth or adoption.

While the advent of these policies has been an important reform of academic reward systems in terms of equity for women and academic parents, there have been several research studies on the implementation of these policies that show that they are under-used. Women faculty fear they will be "mommy-tracked" career wise if they take advantage of them, and men and women experience bias against time off for care-giving in their departments and colleges (Armenti, 2004a, b; Colbeck & Drago, 2005; O'Meara & Campbell, 2008; Ward & Wolf-Wendel, 2007), suggesting that basic assumptions behind the "ideal worker" (Whyte, 1956) have not changed or they have only changed somewhat through these reforms. There have also been structural issues in how these policies are crafted, which can limit participation (e.g., some policies are gender specific, require that the faculty member provide at least 50% of the childcare to be eligible, are not available for same sex parent births and adoptions, and are unpaid making them impossible for faculty who are the family's main bread-winner) (O'Meara & Campbell, 2008). These policies have had a symbolic impact in bringing attention to work and family issues and how they impact life on the tenure track. However, more research is needed to ascertain which of the policies (e.g., stop the clock, parental leave, part-time tenure track, and part-time faculty return options) have positively influenced faculty retention, and climate for balance of work and family in departments, and whether there have been any negative side effects.

Managerial Reform

Over the last 25 years there has been a significant wave of for-profit, business-oriented management techniques introduced to higher education systems in an effort, at least an espoused effort, to increase efficiency, accountability, and to motivate faculty toward high-performance and strategic goals (Birnbaum, 2000). In most cases managerial reform was put in place to "fix" aspects of academic culture and operations that were considered by the public, trustees, and legislators, and administrators to be broken or not working to full capacity. Ironically in 2000, Birnbaum (p. 215) quoted the view that "if we could just run our universities as

General Motors is managed, most of our educational problems would vanquish." Few make this explicit comparison 10 years later as many automobile companies went bankrupt since these words were written. From a political perspective, it can also be argued that many of these reforms were put in place to shift power from autonomous professionals with significant authority over the curriculum, hiring, and evaluation processes back toward administrators (Birnbaum, 2000; Rhoades, 1998; Slaughter & Rhoades, 2004). Three examples of such reforms that have now become a staple on many campuses are illustrative of this theme: merit pay, differentiated workloads, and strategic planning.

Based on the American Association of University Professors (2000) definition, merit pay is the "practice of allocating annual salary increases to individual faculty members based on the quality of their performance" (Euban 2003). Widely considered one of the major influences of the corporate world on higher education, many higher education institutions now have merit pay policies in place. Engvall (2010) observes that some of the fundamental assumptions behind merit pay are embedded in the idea of tournament theory, developed in part by Lazear (1998) who observed, "the salary of the vice president acts not so much as motivation for the vice president as it does motivation for the assistant vice president" (p. 226). As such, in order to create a "performance-oriented culture" (p. 94) in an organization, the leadership must create incentives that tie salary to performance as opposed to providing automatic raises or across the board pay increases, even if they are small. There are many critiques of merit pay systems, outlined well by Engvall (2010), including merit pay assumes all outputs are measurable, merit pay is subject to bias, prejudice, and misjudgment of administrators in making decisions, it curbs free speech by creating incentives for faculty to "stay in line" with what administrators want, it creates a more competitive workplace, and it has the potential to incentivize the wrong things. In his study of merit pay, Heneman (1992) observed that "merit pay is allocated on the basis of subjective ratings of employee performance rather than on the basis of more countable indicators of performance" (p. 12). Nelson and Watt (1999) also argue that merit pay increases disciplinary pay disparities and enhances the negative consequences of academic capitalism.

Boyer (1990) was one of several higher education leaders to suggest the use of "creativity contracts," "an arrangement by which faculty members define professional goals for a 3–5 year period, possibly shifting from one principal scholarly focus to another" (Boyer, 1990, p. 48). More commonly called differentiated workloads, many campuses have put such policies in place to try to better align their mission and goals with the academic reward system and what faculty actually do. Clegg and Esping (2005) described Kansas State University's enactment of such a policy described as "flexible allocation of time and talent." While such policies have made important inroads in helping faculty who want to focus on teaching and community engagement adjust their workloads to do so, it is important to recognize that this policy was yet another fix for a reward system many considered to be "run-away," that is, running away from the mission and goals of the institutions. As such it can be critiqued as not getting at the core issues, and of creating two tracks of

faculty, those who put time toward teaching and service and those who are more highly regarded for emphasizing research.

As managerial reform has swept through higher education, few have studied how one of its main components, strategic planning, has influenced academic reward systems (Birnbaum, 2000). Across the United States, institutions have engaged in strategic planning discussions and exercises that have resulted in program closure (Eckel, 2000), and a shift in resources from instruction to administrative activities (Morphew & Baker, 2004) and from departments judged to be peripheral to core to the academic mission. Often such strategic planning processes have had input from faculty. Yet, many of these major shifts in resources and decision-making processes have had no faculty involvement, and there have been winners and losers as resources have been redistributed (Burgan, 2006). Strategic planning creates incentives for departments to steer future curriculum and grant seeking behavior, faculty hiring plans and related initiatives toward activities perceived to be related to the strategic plan. It is important for future research to explore how these managerial reforms are reshaping reward systems.

Rankings

There has been a widespread shift among doctoral and research universities to connect strategic planning, merit pay, and promotion decisions to the US and world-wide ranking systems. Before recent revision the Carnegie classification system criteria for research universities rewarded shifts in resource allocation toward research and away from instruction (Morphew & Baker, 2004). The creation of *USNWR*, *Money*, and related rankings have significantly influenced admission processes (Ehrenberg, 2003; Meredith, 2004). Striving toward these rankings, including newer world rankings of research universities, influences promotion and tenure standards, as well as recruitment, merit pay, faculty workload, travel monies, department resources, and program accreditation (Hazelkorn, 2009; Marginson, 2006; Morphew & Baker, 2004; O'Meara, 2007; O'Meara & Bloomgarden, 2011; Sweitzer & Volkwein, 2009; Ward & Wolf-Wendel, 2007; Webster, 1992). Thus, the impact of rankings on academic reward systems, particularly in doctoral and research universities and top-tier liberal arts colleges, has been transformative, though the effects understudied.

Shift to Non-tenure Track Appointments

Many faculty unions and national associations have reported the trend from tenure track appointments to non-tenure track appointments, and many scholars have studied it (Benjamin, 2002; Gappa et al., 2007; Schuster & Finkelstein, 2006). Some key statistics from these studies are that tenure ineligible full-time appointments account

for 30% of the academic workforce, and over half of new full-time appointments are in tenure ineligible positions (Schuster & Finkelstein, 2006). This trend has occurred without interruption over the last 30 years with only minimal tracking of outcomes. As higher education state budgets for higher education shrink, it is clear that this trend will continue unless faculty and academic leaders create cost-effective alternative strategies. Gappa et al. (2007) offer key workplace elements that should be embedded in non-tenure track appointments such as equity, academic freedom, flexibility, professional growth, and collegiality. They also observe that "tenure confers an important status on faculty members," and "no better model has been found for academic careers" (p. 193). This shift over time has likely been the most transformative to academic reward systems and has occurred with the least consensus among current faculty. The next section considers some of the implications of this trend for both policy reform and future research.

Summary of Recent Reforms or Shifts in Academic Reward Systems

Returning to the questions introducing these reforms, there is a paradox. Higher education academic reward systems are often critiqued as being one of the hardest things to change about higher education. Yet, the paradox is that considering the issue from another perspective, the US higher education system and its academic reward systems have had more change, more quickly, than almost any other industry imaginable, just in the last 30 years (Rhoades, 2010; Schuster & Finklestein, 2006). The reforms mentioned here reinforce the observation of the intransience of reward systems. Research shows many academic parents want to take advantage of new stop the clock policies but have not because of bias in their departments and fear that taking advantage of the policy would hurt their careers (Colbeck & Drago, 2005; Erskine & Spalter-Roth, 2005; Williams et al., 2006). While broader definitions of scholarship have been integrated into many faculty evaluation policies, they come up against powerful biases toward traditional research when scholars try to use them (O'Meara, 2002). Likewise, post-tenure review has been scorned and virtually ignored at times because of faculty perceptions that it goes counter to valued norms of autonomy, academic freedom, and collegiality (O'Meara, 2003; 2004). Part of the lesson here is that context is key in trying to implement change in reward systems (as implementation has differed by institutional type and discipline). Another lesson is reforms to reward systems are often "virtually adopted" but in real time change very little, or at least change things very slowly. Alternatively, the major shift from full-time tenure track faculty to multi-year or annual contracts has been momentous in terms of impact on reward systems. In addition, major reward system decisions and restructuring are now based on ranking systems that did not exist 30 years ago or have any meaningful influence. Future research needs to keep both perspectives—the major transformation and the intractability of reward systems in view.

Implications for Research on and Reform in Academic Reward Systems

A synthesis of scholarship and commentary on the current condition of academic reward systems in 4-year institutions suggests the following conclusions. After each conclusion I provide examples of studies from which it was drawn.

- A majority of institutional reward systems are not in alignment with institutional mission and rhetoric or time faculty spend on teaching, research, and service (Boyer, 1990; Diamond, 1999; Fairweather, 2002; Finnegan & Gamson, 1996).
- Across academic reward systems in 4-year institutional types there is a bias toward traditional research and cosmopolitan, rather than local, faculty roles (Clark & Corcoran, 1986; Creamer, 1998; Fairweather, 1996, 2005; Gouldner, 1958; Rhoades, Kiyama, McCormick, & Quiroz, 2008).
- While there has been reform of promotion and tenure policies (O'Meara & Rice, 2005), most systems have been slow to acknowledge broader definitions of scholarship, interdisciplinary scholarship, and new venues for dissemination of scholarship (Braxton et al., 2002; Huber, 2002; Rice & Sorcinelli, 2002; Rice et al., 2000).
- Academic reward systems have been inequitable via embedded structures and cultures that disadvantage women and faculty of color (Aguirre, 2000; Finkel & Olswang, 1996; Park, 1996; Terosky et al., 2008; Tierney & Bensimon, 1996; Trower & Chait, 2002; Williams et al., 2006), bias against family care-giving (Armenti 2004a, b; Colbeck & Drago, 2005), and a lack of acknowledgment of engaged, activist, and interdisciplinary scholarship (Baez, 2000; Bloomgarden, 2009; Hale, 2008; O'Meara, 2002; Umbach, 2006; Ward, 2010).
- Academic reward systems have been shifting at an accelerated pace toward part-time appointments and non-tenure track appointments without serious consideration of differences in performance and productivity of tenure versus non-tenure appointments, the working conditions necessary to make non-tenure track appointments effective, or their long-term value over tenure track appointments (Baldwin & Chronister, 2002; Bland et al., 2006; Benjamin, 2002; Gappa et al., 2007; Jaeger et al., 2007; Schuster & Finkelstein, 2006; Umbach, 2007b).
- The academic reward systems of many campuses are fueled by aspiration and striving—that is, they imitate the work expectations, priorities, and standards of campuses more successful in the prestige hierarchy of higher education rather than reflect their own distinctive missions and identities (Morphew & Huisman, 2002; Morphew & Baker, 2004; O'Meara, 2007).

Building from these conclusions, I identify five sets of implications for future research and practice worthy of consideration by researchers, faculty, academic leaders, disciplinary associations, and other external groups that influence and shape academic reward systems. In each case, the research and practice implications are integrated into one statement, followed by discussion of each.

I. We need to better understand the relationships between various elements of academic reward systems and effects on students and institutional outcomes and articulate those outcomes to all major decision-makers and stakeholders in higher education.

Chait (2002) observed that "Despite the academy's standards for what constitutes scholarly research and discourse in the disciplines, questions about tenure are typically answered by impressions, convictions and stories, or not at all" (p. 2). No doubt, the human and organizational systems aspects of this issue, that is, the complexity of tying one particular element of the reward system definitively to higher education outcomes like learning or quality of research, is partly to blame for the lack of research to inform policy. Also, researchers have focused more on what is not equitable and fair about reward systems than on trying to create linkages between different aspects of reward systems and key outcomes. However, this research is emerging and in some important ways. For example, research has begun to link faculty appointment types to productivity in teaching and learning (Umbach, 2007b), research (Bland et al., 2006), retention (Jaeger et al., 2007), and graduation (Ehrenberg & Zhang, 2005).

Case study, longitudinal, and historical research should be done to examine the effect of change in academic reward systems on outcomes for key stakeholders. For example, case studies should be done from a historical perspective on campuses that have moved from mostly tenure track to mostly non-tenure track faculty, from promotion expectations of a limited amount of scholarship to a significant body of scholarship, from expectations for limited to significant external funding, and from a teaching load of four courses per semester to two. Such shifts over time, especially in the context of striving for prestige in college rankings, should be examined for changes in student satisfaction, time spent with faculty out of class, faculty public service commitments, and faculty involvement in educationally enriching activities.

Once these relationships are better understood they need to be shared strategically with campus administrators and with national associations and agencies that exert a powerful external influence on reward systems. For example, if the shift in workload (e.g., four courses to two courses per semester) is found in certain institutional settings to be having a negative impact on important student outcomes, actions might be taken on campuses to curb the trend and experiment with alternatives that meet institutional needs without these negative outcomes. These alternatives, such as differentiated workloads, offering fewer sabbaticals or more joint appointments could be compared for their effects over time in such a way that campuses make more evidence-based decisions about trade-offs, in partnership with faculty. State systems of higher education could use such data about the relationship between elements of reward systems (e.g., merit pay for excellent advising) and student outcomes (e.g., academic performance) to amend reward systems to meet institutional goals. If researchers are able to find tangible, replicable relationship between key elements of reward systems and critical student outcomes, they could become part of accreditation processes and ranking systems, and they could be linked to national studies of high impact practices like the National Survey of Student Engagement.

II. The trend toward non-tenure appointments needs to be examined carefully and interrogated for both short-term and long-term outcomes. Partnerships are needed to study outcomes from a national perspective and on individual campuses. If costs outweigh benefits, alternatives need to be developed that balance faculty and institutional needs.

As Bland et al. observed in their analysis of the shift toward contingent appointments, "unfortunately, most schools' current collection of faculty appointment types have not occurred as a result of thoughtful planning but rather through uncoordinated decisions by individual subunits of the institution" (p. 117). The two most common explanations given for this trend are cost and flexibility. It is widely perceived, rather than proven, that non-tenure track appointments are more flexible because faculty can be fired more easily or their workload adjusted as institutional needs change. Also, part-time appointments are less expensive than full-time appointments. However, in no organization is up-front cost the only consideration. Baldwin and Chronister (2001) observed that because they do not perform the same functions, "simple conversations based on the costs of tenure-track and non-tenure track faculty overstate the compensation savings that accompany the use of lower-salaried full-time, non-tenure track faculty" (p. 118). In fact, most administrators do not seem to track the performance of non-tenure track and part-time faculty in such a way as to be able to compare outcomes (Cross & Goldenberg, 2003).

There are important implications of this issue for research and for policy reform. It is important that institutional researchers begin to ask harder questions that link faculty appointment types and working conditions to retention, time to degree, graduation rates, student learning, and projects of significant public value (such as the creation of interdisciplinary research centers that draw external funding or local economic redevelopment that improves the conditions of the physical locations of colleges and universities). Building on Rhoades's (2008) observation that faculty are value-added assets, not just drags on revenue—and using historical approaches researchers might ask which revenues and other value-added products have faculty in different appointment types brought to an institution over time? How was their motivation to do so influenced by specific elements of reward systems? Are institutions moving toward contingent labor experiencing financial benefits that offset potential costs? Long term, are these appointments really more flexible, or do they become de facto tenure and cost institutions the same or more? For policy, "any proposals for alternative appointments should be considered only if they provide evidence not only of how much they increase financial flexibility but also of how they will improve faculty productivity and commitment and the attractiveness of an academic career" (Bland et al., 2006, p. 117). Simply having evidence that contingent appointments do not save institutions money, or do not provide greater flexibility, will not stop decisions to move to non-tenure track appointments. However, it would provide decision-makers a better understanding of the costs, trade-offs, and consequences of various decisions.

III. We need to better understand the structural and cultural factors likely to induce individual sense of agency and professional growth in navigating reward systems, as well as those factors most likely to foster a sense of learned helplessness. Using these findings, we need to put concrete reforms in place that make departments, colleges, and institutions better academic homes.

For some time, study of the academic profession has focused more on constraints facing faculty than on the conditions within individuals, institutions, and their environment that promote professional growth (O'Meara et al., 2008). The same is true of the extant research on academic reward systems, which has revealed unfair work environments for women and faculty of color, and misalignment between institutional rhetoric and actual rewards. Yet, research rarely focuses on how certain elements of reward systems can be positive influences on faculty professional growth, defined by how faculty learn, assume agency, develop professional relationships, and make commitments and contributions (O'Meara et al., 2008). Such studies could be interdisciplinary and build on new research from the fields of psychology, human development, and sociology to study the new contexts of the academic profession today.

As someone who frequently speaks to faculty senates, faculty, and administrators to assist with reform of faculty evaluation processes, I hear four key complaints often repeated. First, their campus reward system has ambiguous and often-changing expectations for faculty performance. Second, the expectations are both too high and out of line with the mission of the institution. Third, everyone—faculty and administrators—feels largely powerless to change the evaluation system, because they are not in control of all levels of the system and because of the status system of higher education. Fourth, as a result of these frailties the system is dysfunctional for individuals and the institution. Embedded in these policy discussions is usually a strong diagnosis of what is wrong but also a lack of imagination and sense of agency among the individuals involved about how they could influence different conditions (e.g., in faculty themselves and their behavior, in departments and colleges, and at the institutional level).

Amartya Sen defines human agency as "the ability to act on behalf of goals that matter to [oneself]" (Alkire, 2005, p. 218), which he argues is a core ingredient of positive social change. Alkire (2005) observes that agency is a key component of individual well-being. Likewise, I would argue that the degree to which the leaders of an institution feel they can be "actively involved—given the opportunity—in shaping their own [institution's] destiny" (p. 218), as opposed to passive recipients of the influence of the status system of higher education, is critical to institutional well-being. While there is no long tradition of using the concept of agency to study academic reward systems, the concept of agency has been used to study faculty of color service in higher education (Baez, 2000), how faculty balance work and family decisions (O'Meara & Campbell, 2008) or find new opportunities to learn post-tenure (Neumann, Terosky, & Schell, 2006), and as one of four aspects of professional growth (O'Meara et al., 2008). In concert with other interdisciplinary approaches, it is an excellent theoretical tool with which to study

structures and cultures that act as generative incubators for professional growth within reward systems and those structures and cultures that cause frustration and even encourage a sense of learned helplessness (Peterson, Maier, & Seligman, 1993).

One example relates to the issue of transparency in academic reward systems. A major finding of studies from Harvard's COACHE project (Trower, 2008, 2009) has been the distrust that women, faculty of color, and younger faculty feel about the integrity of academic reward system decisions on their campuses. Many studies of organizations have shown the benefits of enhanced transparency to employee trust of their leaders (Bolman & Deal, 1997). Drawing on Foucault's concept of the panopticon, there is the implicit assumption in many reward systems that somehow keeping expectations fluid and ambiguous "keeps everyone on their toes," catalyzing performance. Embedded in the tenure and promotion system especially seems to be a simultaneous understanding by tenured faculty that this process is in fact a sort of hazing that, while not ideal, separates the wheat from the chaff in terms of quality faculty. However, the assumption that the lack of clarity in qualifications for tenure or even for contract renewal fuels performance seems at best unlikely and at most incorrect. There is much research on motivation and drive (Bolman & Deal, 1997; Dweck, 2006; Pink, 2009), particularly of highly educated autonomous workers that detail the benefits of having clear goals and objectives. Likewise, the newest research on generation of X and Y faculty observes that these workers thrive in environments with significant feedback and clarity for their organizational and individuals' goals. Alternatively, there is much research from the higher education community showing that the current system of ambiguous expectations has opened up departments to brutal politics around performance and has been extremely dysfunctional, leaving individuals at half capacity, feeling bruised and taken advantage of (Ward & Wolf-Wendel, 2007). There are efforts underway at many research universities to create "dashboards" or databases with information on faculty pay, merit pay, vita, lab space, and related career information so that women faculty scientists feel that they have the same knowledge or capital in negotiating for resources for themselves and their work in academic reward systems (Quinn & Litzler, 2009). Such efforts to put merit criteria and decisions, personnel statements, and resource distribution decisions online for public scrutiny could enhance faculty sense of transparency and fairness and thereby also enhance their sense of agency in career development. Research is needed to understand which types of interventions are most effective at creating environments where faculty feel agency in their academic reward systems. Such research could also reveal those factors that leave faculty feeling frustrated, abused, or helpless inside their reward system and what kinds of interventions and/or professional development can correct those situations.

IV. The struggle to reward newer forms of scholarship is epistemological and political. It works against the entrenched interests of individuals in power and the existing status system of higher education. It needs to be studied as such and approached as a cultural, not just technical, struggle.

This point—that definitions and epistemologies that surround what we value about scholarship are outdated and need to change—has been made so many times in the last two decades by so many "idea leaders" that the point itself seems dated. The argument has been made based on the rigor and importance of new forms of scholarship (Boyer, 1990; Hale, 2008; Schon, 1983), based on the fact that traditional definitions marginalize the work of women and faculty of color (Baez, 2000; Clark & Corcoran, 1986; Creamer, 1998) and based on changes in the economy and ecology of knowledge production (Hartley & Saltmarsh, 2011). The implication here is not that there is anything wrong with traditional forms of scholarship or that they should not be well regarded in reward systems. The point has been a request for more space at the table.

The issue that has been understudied in research and discussed in policy reform is really the degree to which there is an epistemological and a political struggle underway, one that could benefit from explicit focus on the entrenched interests of individuals in power and assumptions of the existing status system of higher education. Often those who have advocated within the policy community for criteria and methods to evaluate the scholarship of teaching or engagement have approached the issue from a technical perspective, rather than a political and cultural one. For example, efforts have focused on creating criteria for the assessment of multiple forms of scholarship (Glassick et al., 1997), assuming that individuals with vested interests in reward systems for traditional scholarship would use these criteria if they were just placed in promotion and tenure policies. However, given the qualitative nature of these assessments, it is relatively easy for individuals who do not believe in newer forms of scholarship to use both their own assumptions and their own interests as guides rather than the policies (O'Meara, 2002). Lather (1996) observes that "methodology often diverts attention from more fundamental issues of epistemology" (p. 2). Here the issues are larger than how to assess this work.

As such, future research needs to consider campuses where there is struggle to assess broader forms of scholarship from a political or power perspective (Bolman & Deal, 1997) as well as from the lens of epistemology and norms in science. As previously mentioned the normative structure of science and its four norms are very influential in the fields of science and in research universities. For future research, scholars might consider these four norms and Mitroff's (1974) work on counter-norms. Mitroff (1974) identified the counter-norms of solitariness to the norm of communality and of interestedness to the norm of disinterestedness, organized dogmatism to organized skepticism and particularism to universalism, and argued that these, too, have a place in our academic workplaces. Mitroff (1974) suggested future research focus on understanding the conditions that promote the dominance of one set of norms over another. This line of inquiry would be particularly useful in studying the claims by many women and faculty of color whose scholarship focuses on identity, or faculty involved in community engagement with a clear social justice or social change function, that their work is often summarily "disregarded" as not rigorous, not objective, and thus not meritorious. Research might explore how traditional expectations about what constitutes high-quality scholarship overlap with

these norms or counter-norms and how doctoral socialization, disciplinary associations, and entrenched interests in academic departments reinforce and maintain them.

V. Academic reward systems are rarely distinctive aspects of institutional identity, but they could be. Research is needed to explore how and in what circumstances institutions can truly align their reward systems with their mission and succeed in the higher education market.

Many scholars who study academic organizations have observed the importance of institutions being "self-regarding," that is aware of their own organizational goals and processes, in order to be effective (Birnbaum, 1988, 1992; Senge, 1990). Two of the best ways for campuses to become more self-regarding are (a) to study their own academic reward systems more carefully so that they can make data-driven decisions (as was suggested with appointment type) and (b) to consider ways to more creatively use their own internal academic reward systems to become more distinctive. The second point relates to a greater awareness on the part of faculty and administrators on any individual campus that their reward system will always be impacted by external forces. The status system of higher education that privileges cosmopolitan over local roles (Rhoades et al., 2008) is not going away any time soon. However, academic reward systems are an opportunity to affirm institutional values, identity, and mission. They can be used by faculty and other institutional leaders to make a distinctive statement about how their institution is different. This is, in fact, very hard to do, as the forces pushing campuses toward "strategic imitation" (Rhoades, 2010) of each other's reward systems are many. Yet, researchers can play an important role in studying campuses that have attempted to step out of the pack. For example, Syracuse University revised its promotion and tenure process to be in alignment with an institutional focus on "scholarship in action." In the University of North Carolina, Greensboro revised its evaluation policies to be in alignment with its vision as a "student-centered research university." What does this mean in their actual reward systems for who is regarded, for what work, how, and why? Likewise, academic leaders have stepped out of the pack to use retention funds and merit pay to reward faculty loyalty instead of outside offers, to provide bonuses for excellence in service learning, and to reward faculty with the best teaching evaluations. In terms used by Rhoads et al. (2008), this kind of creative use of existing elements of reward systems could provide incentives for "local cosmopolitan" faculty roles and disrupt assumptions that all academic reward systems reward the same things. However, we need to know more about these strategies and whether they work as intended. Using the lens of organizational change, we can examine whether such attempts achieve their intended goals or act as window dressing against more powerful external forces (Birnbaum, 1988, 2000). In sum, researchers can help reveal the advantages and limitations of both imitation and distinction in reward systems. Campuses can use this information to guide reform.

Conclusion

Reward systems are an ever-present, ongoing system of participation, action, and consequences that influence faculty priorities and careers. Among faculty roles, research receives the greatest regard in promotion and tenure decisions, pay, and recognition in the field in 4-year institutions. Research to date has revealed many weaknesses in reward systems such as structures and cultures that thwart the advancement of women and faculty of color and ways in which reward systems are out of alignment with institutional mission and goals. Despite the trend toward non-tenure track appointments, no research has shown alternative appointments are more effective in meeting key goals in higher education. In fact, little research has been able to identify how specific elements of reward systems impact key student, institutional, and societal goals for higher education. This is a critical area for future research.

Returning to the image of Foucault's panopticon, it is wise to observe that academic reward systems today operate as much from misperception as from perception. While research has revealed important context on what matters in reward systems, and how they operate, much of our view, like that of Foucault's prisoner, remains obscured. In the absence of research and evidence that connects elements of academic reward systems to student outcomes and key institutional goals, key decisions in reward systems are made blind to the consequences for most stakeholders. In addition, institutional reward systems are affected now more than ever before by external forces, including the status system of higher education, with significant imitation of institutions higher in the academic hierarchy (Morphew & Huisman, 2002; Rhoades, 2010).

It is critical for higher education researchers to reveal the ecologies of reward systems in ways that offer viable reward system policy alternatives. It will also be important that researchers unpack the aspects of reward systems that while long considered rights and privileges are not connected in meaningful ways in certain contexts to student learning, scholarship, and shared governance. We need to understand how elements of academic reward systems enhance individual agency and professional growth rather than foster learned helplessness. It is because reward systems have the potential to make institutions more distinctive and because they are how institutions value faculty professional lives that scholars owe higher education this wider perspective.

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