



Gendered Patterns of Resource Deprivation in Higher Education

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Abstract

This paper illustrates the gender biases that pervade public policy narratives, funding patterns, and practices within higher education in the United States and which accumulate against women faculty, students, and traditionally female disciplines. The status of women in academia with regard to the consequences of policy initiatives, program funding, division of labor, salaries, and costs of research within traditionally female disciplines is addressed. Competing models of resource allocation, rational/political and critical/political are reviewed and applied as they relate to the evidence suggested by recent higher education finance literature. Research that provides evidence for and describes the dominant higher education policy narratives, the effects of stratified resource allocation, stereotyped expectations of responsibilities, and diminished valuation of traditionally female disciplines is reviewed and synthesized to explore the ways in which these systems of devaluation have interacted to create barriers to status attainment for women in higher education as well as in traditionally female professions.

Public finance of higher education in the United States assumes numerous and occasionally conflicting responsibilities. The foundation of U.S. higher education finance policy is grounded in principles of democracy that emphasize meritocracy, equality of opportunity, and the promotion of social returns via individual achievements. These concerns exist within an economic theoretical framework that employs principles such as market forces of supply and demand, rates of return, measures of quality, productivity, and accountability.

State and federal education finance policies are guided by the following assumptions:

(a) a meritocratic, predictable course to social mobility can be provided by education; (b) individual successes can be collectively quantified and translated into social returns; and (c) economic forces of demand are reliable and equitable mediators of each of the above mechanisms (Leslie & Brinkman, 1988). Each of these assumptions invites debate. However, what has been demonstrated reliably is that individuals are better off with an education than they are without (Grubb, 1992). Though the rewards of an education are clear, the level of distribution has been markedly uneven across gender lines. Despite the increasing levels of participation by women in higher education, the related economic and social rewards pre-sumed by higher education finance policy have not been realized. Women in higher education, in general, earn less than men, and in some cases, earn less than men with only high school diplomas (Blau, 1986; Treiman & Hartmann, 1981). In the 25 years since the passage of anti-discrimination legislation in the U.S. – Title IX of the Education Amendments, Title VII of the 1964 Civil Rights Act, and the Equal Pay Act and Executive Order 11246 – the salary gap between women and men in academia has in many circumstances, widened (Bellas, 1994, 1997; Billard, 1994).

This paper considers the cumulative impact of gender biases in the policies and process of resource allocation to higher education in the United States. In this paper, I provide a broad survey of the implications of gender on issues of public finance to higher education and the promotion of economic equality for women by means of advanced education. I discuss the status of women in academia with regard to the consequences of policy initiatives, program funding, divisions of labor, salaries, and costs of research within traditionally female disciplines. I review the literature that provides evidence for and descriptions of the dominant higher education policy narratives, the effects of stratified resource allocation, stereotyped expectations of responsibilities, and diminished valuation of disciplines characterized by a female majority at the undergraduate level and in the professional fields. Further, I examine the ways in which these systems of evaluation have interacted to create barriers to status attainment for women in higher education as well as in traditionally female professions.

Two competing models of resource allocation, rational/political and critical/political (Volk, 1995), are reviewed and applied as they relate to the evidence suggested by recent higher education finance literature. The discussion is organized from the broad to the specific, addressing the narratives of higher education policy, federal and state funding policies, institutional resource allocation, and the specific mechanisms by which academic labor is divided and devalued according to gender. This paper argues that, as resources are appropriated and channeled through institutions to departments and individual faculty, at each point of distribution there is a gender related penalty or

interaction of penalties that accumulate to the detriment of traditionally female disciplines, women faculty and students.

The theoretical frameworks used to interpret higher education finance policy are feminist, Marxist-feminist and an extension of professionalization theory that includes a greater reliance on power to explain the evolution of a stratified reward system for academic disciplines and higher education professionals.

Finance Policy: A Brief History of Higher Education Narratives

Finance policy is shaped by the discourse of education which has, over time, shifted to meet the needs and expectations of a changing society. Narratives weave assumptions that most often go unquestioned into the fabric of speeches, research, position papers, and official testimony that creates policy (Haraway, 1989). University leaders and political stakeholders construct narratives or stories concerning the purpose and benefits of higher education which tend to reproduce the existing power structures and enhance the legitimacy of higher education as an American social institution.

Democracy, Leadership and Utility

The narratives generated by university officials regarding the purpose of higher education have historically centered around quality, utility, and access (Veysey, 1965). Prestigious university presidents and political leaders have cultivated descriptive accounts about the promise of education to meet any variety of outcomes parallel to the concerns of powerful political actors and beneficial to the perpetuation of higher education. One example is the frequent use of various constructions of democracy in the rhetoric of university leaders in the late 1800s. President Angell of Michigan stated, “A great university like this is thus in one sense the most democratic of all institutions and so best deserving of the support of the state” (cited in Veysey, 1965, p. 62). In his discussion of the rhetoric of the period Veysey wrote, “As the idea of democracy developed and was applied to higher education, it came to have at least half a dozen distinct meanings, some of them potentially contradictory” (p. 63). A consistent theme generated by university presidents, trustees, and powerful alumni appropriately centered around active leadership in the promotion of democracy. A professor at Lafayette College in 1869 commented, “It is often urged that scholars should take up politics to purify them” (p. 72). Sentiments reflecting a “Jeffersonian aristocracy of talent and virtue” (p. 64) supported by a university education were common in this era.

Despite lofty democratic ideals, a liberal education remained the prerogative of wealthy, white young men who were to follow in their fathers’ footsteps as leaders in politics and industry.

Enrolment in college courses was confined to white males, mostly from established, prosperous families. There was little expectation for college to provide social mobility. Rather, college attendance tended to ratify or confirm existing social standing. . . . In plain terms, the college mission was to insure the preparation and disciplined seasoning of a future leadership cohort. Certainly this was an ‘elite’ student group. (Thelin, 1996, p. 7)

Several major changes occurred after the Civil War to revise these narratives, including land grant funding, the expansion of higher education institutions, a shortage of college age men, and the emergence of an industrial economy in need of trained

employees (Rosenberg, 1982; Solomon, 1985; Thelin, 1996). The Morrill Land Grant Act of 1862, which provided funds to build state public institutions, promoted access and the concept of service within educational institutions. While elite institutions remained so, state public universities entertained populist narratives as they competed for students and carried out utilitarian efforts to train teachers, advance agricultural research, and prepare students for then emergent categories of professional and industrial employment (Thelin, 1996; Veysey, 1965). After the turn of the century, the president of the University of Illinois conceived of the state university as “a great civil service academy, preparing the young men and women of the state for the civil service of the state, the country, the municipality, and the township” (Veysey, 1965, p. 73).

Narratives of Women in Higher Education

The ‘stories’ of the purpose of higher education were class stratified by type of institution, but typically included elements of democracy, prestige, education for its own sake, and social utility (Thelin, 1996; Veysey, 1965). While access was a part of the narratives of the time, access was constructed as a means to social good, not necessarily to individual returns. Women were given entrance to some colleges out of the dire need for teachers as well as the need for tuition revenues after the loss of so many traditional college age men in the Civil War. Once these crises had passed, active attempts were made to segregate male students from female or to remove women from many colleges and universities entirely. Often, it was only the threats of legislative sanctions and the withdrawal of public funds that allowed co-education to continue (Rosenberg, 1982; Solomon, 1985).

As university leaders began to rely heavily on various concepts of democracy to enhance the legitimacy of higher education, other much less democratic stories of the place for women in education began to emerge from a variety of academic, scientific, and political fronts. Sociologists, psychologists, anthropologists, and physicians of the Victorian era began to debate the proper scope of intellectual pursuits for women based on a broad consensus that sex differences were innate. These evolutionary perspectives idealized feminine values, assuming a moral superiority (and often an intellectual inferiority) of women and proposed that it was the suppression of female values that was responsible for the perceived escalation in social problems in urban public life. This perspective suggested that women be free to pursue higher learning in order to promote the public good. While there was a general consensus that women should be educated, with notable exception similar arguments were advanced to either promote or discourage co-education (Rosenberg, 1982; Solomon, 1985).

G. Stanley Hall, an influential psychologist of the time, opposed advanced education for women, and co-education in particular. Hall was convinced that co-education was harmful to girls and predicted that girls educated alongside boys would “become functionally castrated, unwilling to accept the limitations of married life” (quoted in Solomon, 1985, p. 60). Further, he believed boys were harmed by co-education by “feminizing them when they need to be working off their brute animal element. Boys are eager for specialized knowledge, while girls are not suited to it” (quoted in Rosenberg, 1982, p. 42). Harvard’s Dr. Edward Clarke added scientific authority to this viewpoint by his claims that too much study drew blood away from the

ovaries to the brain, endangering women's health and reproductive futures (Gordon, 1990).

While some institutions, such as Stanford University, stemmed the tide of so-called feminization by freezing the enrolment of women, others relied upon the emergence of specialization and professionalization of fields such as medicine, law, and engineering to attract men and legitimize academia (Rosenberg, 1982). Despite active discouragement of co-education, women's enrolment in colleges and universities continued to expand, as did higher education in the United States in general. The concepts of utility and applied science, particularly with regard to agricultural research, promoted the expansion of public higher education through land grant funding. The second Morrill Act of 1890, which provided federal allocations to create the historically black public institutions but did not specifically refer to women, served as a reminder of the social functions of higher education. The infusion of public funds allowed for the vertical and horizontal expansion of public education, and greater participation by previously excluded groups (Solomon, 1985; Thelin, 1996).

Expansion and Access

After World War II, access to education became a policy initiative of the Federal government and the GI Bill served to move returning soldiers into education who would otherwise have found it necessary to compete with each other for secure employment. The post-war era, characterized by the baby boom and a healthy economy, provided higher education with what has been referred to as a golden age (Thelin, 1996). Between 1945 and 1970, advanced education became both accessible and affordable. Several trends converged to promote university building: (a) President Truman's explicit public policy to provide access to higher education; (b) escalation of government and foundation sponsored research; (c) proliferation of statewide college systems, including the expansion of community colleges; and (d) legislation such as the 1964 Civil Rights Act and the Higher Education Facilities Act (Thelin, 1996).

Politics, policy, and the budgeting process are inextricably linked (Wildavsky, 1992). Policy narratives that emphasized the social uses of knowledge to promote the ideals of democracy, service, social mobility, and quality served higher education well within the context of a strong post-war economy. Federal mission agency and university partnerships to fight the Cold War and compete in the race to space promoted enormous expansion of higher education into the 1970s. In the post-war era federal research funds channeled through mission agencies such as the Department of Defense were heavily concentrated among the established top tier institutions (Geiger & Feller, 1993).

In an effort to increase the number of research institutions, the federal government initiated policies directed to disperse funds more widely. Although the second tier of institutions had made gains in the share of federal research dollars (Geiger & Feller, 1993), dispersion of funds has been limited in recent years in part due the influences of policy groups such as the President's Council of Advisors on Science and Technology (PCAST), the Business-Higher Education Forum, and the Government-University-Industry Research Roundtable (GUIRR). Couched within an imperative of economic development, these groups voiced concerns that research funds were spread too thinly, with too many researchers competing for limited resources. Reports from PCAST and GUIRR made recommendations to provide established research programs with greater

flexibility and to eliminate or downsize areas with less than world class activities (GUIRR, 1992; PCAST, 1992). At issue is the degree to which limited funds remain concentrated with proven performers from elite universities to the exclusion of female researchers located disproportionately at lower tier institutions (Slaughter, 1990).

Conflict and Economic Crisis

Conflicts between politics, policy, and the purpose of higher education began to emerge within the larger context of the social turmoil of the Vietnam era. Finance policy conflicted with the established higher education stories of social good and the pretense of political neutrality during the Vietnam era when students and faculty began to question university involvement in the development of weapons technology. The core values of higher education were scrutinized, but reinforced as students and faculty publicly voiced their concerns. In response to student protest, the 1970 Mansfield Amendment prohibited Department of Defense support for research not directly related to defense needs (Slaughter, 1990)¹. At the same time the civil rights movements had gained prominence on university campuses, allowing the social good agenda of higher education to resurface, if only temporarily.

The 1980s brought the alarm of economic crisis. As federal and state commitment to higher education declined in response to threats of economic disaster, the traditional narratives employed by higher education leaders were destabilized and rewritten to address the concern at the forefront of the collective American mind: the economy. Coalitions of university and industry leaders, such as the Business-Higher Education Forum and the Committee for Economic Development (CED) promulgated policy documents touting the advantages of partnerships for the purpose of global economic dominance. Ironically, while these groups projected considerable benefit to the national economy – a public good – by incorporating government, industry, and university partnerships, advanced education was constructed to a greater degree than it had been in the past as a private benefit, quantifiable in economic rates of return to graduates (Business-Higher Education Forum, 1983; CED, 1973; Slaughter, 1998). Based on this policy shift, specific recommendations to achieve solvency for public institutions were to increase tuition fees (Slaughter, 1991).

The valorization of the business perspective is showcased in the following testimony of Michael Sovern, president of Columbia University, delivered to the Congressional Committee on Education and Labor in 1982. Ideas such as human capital, productivity, and competition used to support the legitimacy of higher education were typical of the university president's testimony to the committee in the 1980s.

We are increasingly challenged by international competitors... If we are to succeed in international economic competition, we must increase our productivity. The two principal means to this objective are improved technology and more highly skilled manpower [sic]. These in turn are the products of research and teaching, the central missions of higher education. One sure way to lose the international economic race is to invest too little in the human capital developing in our universities and in the basic research being conducted on our campuses. (Slaughter, 1991, p. 67)

Shifts in higher education funding policy which emphasize economic development as a legitimate role of higher education represent an unsettling

transformation from the traditional stories of education that operated within the realm of quality and individual achievement and social progress. Without completely overshadowing these functions and concerns of quality and access, global economic competitiveness has taken a principal and likely permanent place among the production functions of higher education (Feller, 1993; Slaughter & Leslie, 1997). While this policy transformation has enabled some disciplines, such as those directly engaged in technology transfer to industry, to secure new sources of support, it has done so at the expense of traditionally female disciplines, such as education and humanities, and consequently, at the expense of women faculty and students (Slaughter, 1993). The goal of economic development, as it has been constructed to benefit industry as well as higher education institutions, creates additional layers of bias against women that traditional goals of quality and access did not. As the market model is applied to educational functions, gender biases occur and accumulate at each point of distribution in the federal and state funding processes and via institutional internal resource allocation.

Federal Research Support

Although the states remain the primary source of support for public institutions, federal research grants provide an increasing proportion of the discretionary funds to research institutions. As these institutions seek to offset the decline in commitment from state legislatures, competition for federal grants and contracts has heightened considerably in recent years (Feller, 1995). The increased competition has promoted the practice of giving priority to applicants who can secure matching funds from either the institutions or the private sector to limit the share of contribution by the federal government. This trend has resulted in an increase of university-industry partnerships in the pursuit of patentable ventures (GUIRR, 1992; PCAST, 1992; Slaughter & Leslie, 1997). A shift away from basic to applied research tends to privilege institutions and academic science, which can easily be perceived as positioned close to the market. What is overlooked in the market model approach is the degree to which the government creates the markets in which the private sector and universities participate (Slaughter, 1990, 1993)¹.

Dispersion and Retrenchment

Despite federal policy directives to disperse research money to a greater number of institutions, 80% of the funds accrues to the top 100 research institutions (Geiger & Feller, 1993). Considering that women faculty have made the greatest gains in the lower ranked institutions, relatively few women scientists and graduate students, even those in the hard sciences, are positioned to benefit from these public funds (National Center for Educational Statistics (NCES), 1995; Volk & Slaughter, 1998). Within the elite research institutions, women faculty and students continue to be concentrated in the social sciences, humanities, and education. These fields have not successfully been positioned close to the market and do not easily lend themselves to externally profitable alliances (Slaughter, 1993).

Because higher education policy has assumed an economic theoretical framework from which to evaluate educational productivity, the inability of disciplines such as humanities and social sciences to generate external resources has elicited the perception that these areas are welfare functions of the academy, despite high student demand and alignment with the mission of teaching. 'Supply side economics', popular in the 1980s,

assumed that if resources were channeled to the producers of higher education, more resources would be generated and would trickle down to the less productive areas. Unfortunately, this did not occur and, based on similar business models, higher education institutions began to restructure themselves for even greater productivity, selectively cutting back the welfare functions which disproportionately included women (Slaughter, 1998).

State Funding Policy

Despite an overall decline in support, state governments continue to be the major source of funding for public universities. Though accountability is not a new concern for the state with regard to the use of tax revenues, the economic development agenda for higher education has heightened the tensions between state legislatures and universities with regard to accountability, productivity, and efficiency in the assessment of institutional outcomes.

Productivity and Accountability

Attempts to increase productivity and efficiency are frequently viewed as simple cost-cutting exercises couched within a larger narrative of bloated, inefficient, dependency-promoting organizations. University administrators and scholars of higher education may have been hasty to accept this account, as well as to accept the business models to gauge efficiency and productivity models, which do not adequately measure the outcomes of educational activities.

Two business models of productivity that have been appropriated for the use of higher education institutions in response to state pressures for proof of positive outcomes are costcutting and innovation. In the cost-cutting model of productivity, goals are quantified, prioritized and cut accordingly. Attention is focused on structural changes and incentives to halt the spiraling cost disease of a labor intensive educational system. This cost-cutting model analogizes research institutions to private corporations in order to discuss (a) the downsizing and streamlining of missions, (b) the creation of incentives – and the elimination of existing disincentives – to cut costs, and (c) the propagation of cheap experiments for the continuous assessment of productivity within the organization (Levin, 1991). The innovation approach to productivity focuses not on reducing inputs, but on increasing the quality of the outputs. The maxim, “Build a better mousetrap and the world will beat a path to your door”, accurately reflects this interpretation of a productive, entrepreneurial organizational goal (Best, 1990).

One can apply this approach to higher education by examining institutions with regard to expectations, goals, and future needs in order to imagine possibilities and best case scenarios. If the expectations are low enrolments due to sluggish economy and changing demographics, and the goal is profit, an institution that equates productivity with the generation of resources may position itself competitively by providing virtual classrooms, flexible schedules, and market driven programs. If the institution is successful in fulfilling student need while others lag behind, cost will be irrelevant. Both of these strategies for improving productivity are derived from a rational planning model and fail to adequately address the ways in which productivity as a measure has been shaped in organizations by existing formal structures, culture, and political agencies.

Gender and Productivity

Feminist perspectives are absent from either of these models of productivity. Both fail to address the ways in which dominant male-centered values are embedded within institutional hierarchies, in perceptions of leadership and competitiveness, and in the definition of productivity (Gutek, 1989). The interests of women and minorities are easily swept aside by perceptions of what services are too costly and less central to an institution's mission. Often in times of financial difficulties, institutions may begin their cost-cutting exercises with student services, an area typically dominated by women (Fenske & Hughes, 1989; Woodard, 1993; Zusman, 1994), and may simultaneously innovate by directing funds to resource-generating units and increased administration (Leslie & Rhoades, 1995). Stereotypes persist regarding the abilities of women, their leadership skills, competitiveness, and their capacity to make the tough decisions (Deaux, 1984). Discrimination and cultural biases would have an impact on even the best intentions of innovative competition. Although the innovation model takes a pluralist approach, it disregards the unequal standing of women and minorities, as well as the political agency of more and less powerful constituent groups. Those who can mobilize political power will seek to gain or maintain privilege, limiting the degree and scope of change, as well as the organizational structures that will be open to change (Slaughter, 1993).²

Gender and Resource Generation

Existing gender and power structures are supported by the state's use of tools that are inappropriate to measure productive educational functions. Recent literature regarding funding patterns within institutions suggests that external grants and contracts, gender, and ethnicity are highly significant determinants of state allocations to academic units (Volk, 1995). Using extensive regression analyses, comparisons among academic units of a large public research university demonstrated that state expenditures vary positively with a unit's ability to obtain external grants and contracts and negatively by percentage of women and/or minority faculty. This finding is particularly pertinent to the apparent division of faculty labor by gender and its effects on the production of research.

It seems likely that the association of these two opposing variables – external funding sources and women and minority faculty – is not coincidental. Because female faculty and students tend to be concentrated in the traditionally female fields, and the presence of female faculty tends to attract more female students regardless of major field (Hayes, 1990; Park, 1996; Volk, 1995), it can reasonably be predicted that the gap between men and women, and male and female traditional fields, will continue to widen. Stated another way, if high profile research attracts more funding – external and state – and the presence of female, minority, or minority female faculty attracts less, the base capacity of these higher female and minority fields to produce high profile research should diminish measurably over time. The effects could be long-term and far reaching, degrading the prestige of disciplines, if not their viability, undermining their associated professions, and reinforcing a cycle of lowered rewards for women faculty and future women professionals.

The assumptions that underpin state funding policy may be inaccurate or inappropriate when examined in this context. An example is the unquestioned acceptance of economic theory as an appropriate framework within which to discuss the productivity

of higher education. Costs, markets, and property rights are not the first things that come to mind when considering the goals and expectations of higher education. While these considerations may be meaningful, they should not go unquestioned as accurate reflections of productivity with regard to higher education.

Institutional Resource Allocation

Higher education as an institution has traditionally claimed three essential functions: (a) the creation of knowledge through research, (b) the transmission of knowledge by teaching, and (c) the utilization of knowledge via training and service (Brubacher & Rudy, 1976; Jencks & Reisman, 1977; Trow, 1970; Veysey, 1965). These are the means by which higher education successfully reproduces itself.

Resources to institutional units for the purpose of teaching, research and service can be imagined as tangible assets, such as faculty and administrative salaries, provisions for graduate assistants, equipment, facilities, and operating funds. Institutional resources may also be assessed in the form of intangible capital toward the performance of institutional goals to include perceptions of security, satisfaction, value, marketability, and prestige.

The inequitable distribution of material resources to academic disciplines not only produces undue budgetary constraints, but diminishes the intangible assets (perceptions of security and prestige) necessary to reproduce and advance a discipline and its corresponding profession. Further, the deficient resource bases divide and reduce faculty time and labor along gender lines, ultimately providing fewer resources for women from which to originate quality research. This concern is particularly meaningful in light of the assertion that research activity is the most privileged in the tenure/promotion process as well as closely related to the capacity to generate future resources (Hayes, 1990; Park, 1996; Volk, 1995). The patterns of disparate resource allocation interact and compound to systematically degrade the activities, research, teaching, and professions typically engaged in by women.

Rational/Political and Critical/Political Models of Resource Allocation

From a rational model perspective, the distribution of resources hinges upon a foundation of meritocracy, an idea that is particularly valued in higher education. Levels of funding are determined by productive or positive functions. Concepts such as centrality to the institutional mission, quality, and productivity based on this model should in part, predict the financial support to a unit. Alternatively, a critical lens through which resource allocation may be viewed suggests that the distribution of funds within institutions is mediated by variables such as gender, ethnicity, and associations with powerful internal and external constituencies (Volk, 1995).

Numerous interdependent themes emerge from the growing literature that focuses upon women in academia. Feminist commentary often refers to the chilly climate experienced by women attempting to move up the faculty or administrative ranks or break into traditionally male fields (Johnsrud, 1994; Sylvia, 1991). This amorphous climate is often described in terms of its character, citing instances of insensitivity, discrimination, and harassment, but it is rare to find a clear picture of this collective experience with an emphasis on its cumulative and self-perpetuating effects. While each

act or category of discrimination is debilitating, their interaction is deadly. In other words, the whole is far greater than the sum of its parts.

From a feminist theoretical orientation, attention is drawn to salary inequities between male and female faculty of equal rank within and among disciplines, to large differences in time to promotion, to the concentration of women in traditionally female domains, and to the few women in high administrative posts (Hayes, 1990; Sylvia, 1991). Even the proportionately few female full professors earn considerably less than their male counterparts (Billard, 1994; Hagedorn, 1995; Hayes, 1990; Johnsrud, 1994; Park, 1996; Smart, 1991).

This phenomenon has been explained in numerous ways with an all too frequent theme: the problem resides with women, either by choice or socio/biological design (Whelehan, 1995). One explanation describes the disparities between women and men in higher education as a function of the 'far from the market' fields that women choose to enter (Manning, 1993; Neal, 1991). Gender inequities have also been attributed to the caring orientation of women that disadvantages their ability or desire to compete effectively with men (Manning, 1993). Related issues are the over-representation of women in part-time academic employment (Hagedorn, 1995) as well as the circumstance that women are still relatively new to the profession and therefore have less seniority than a certain proportion of men (Hayes, 1990).

Each of these explanations deserves further inquiry. A seemingly unbiased market approach to pay scales and promotion practices seems quite plausible when applied to a rational/political framework, yet the construct of a tight coupling between higher education and the external marketplace is highly debatable. A rational model could legitimize claims to market proximity in higher education from a variety of angles, including high enrolments, favorable employment opportunities, and strong connections to resource-providing external agencies. However, these dimensions do not appear to predict the level of resources to a field (Slaughter, 1993). Slaughter challenges the socially constructed arguments through which established disciplines made claims to positions close to the market, concluding that the university conception of market behaves as a proxy for existing privilege and powerful political allegiances.

Although enrolment in traditionally female majors such as education and nursing has encountered declines in recent years, interest in the allocation of resources to these fields has fluctuated sharply over the past two decades. While it is unclear which came first, the decreased support to female majority fields or the decline in enrolments, it is clear that student enrolment is not a complete explanation for the lower salaries of female faculty and reduced funds to typically female disciplines. Also at issue is the marketability of a particular degree in terms of the likelihood of employment. If majors such as nursing and education do not merit resources equal to that of engineering and business based on their intrinsic social and educational value, why not then based on the high demand for nurses and teachers?

Division of Academic Labor

Gender stereotypes regarding women's natural ability to nurture have no doubt shaped the division of faculty time and labor. In fact women professors do spend more time than men professors teaching, advising students and commenting on papers (Park, 1996). Although the gap between men and women has narrowed over time,

43% of all male faculty, as compared to 36% of female faculty, spent eight or fewer hours per week in the classroom in 1989-90. Eleven percent of female faculty, but only eight percent of male faculty, taught seventeen or more hours per week (Park, 1996). In addition to heavier teaching loads, women are more apt to find themselves teaching undergraduate and remedial courses, which are likely to require more time and attention. Moreover, given the low number of women, particularly minority women academic professionals, it is likely that they are more often sought out by students and less experienced colleagues to serve as mentors, and by political or professional organizations to serve as representatives.

The enormous expansion of higher education in the 1960s and 1970s, the rapid increase of women entering higher education, as well as equal pay and Title VII legislation in the U.S., should have overcome the effects of seniority for male faculty. That pay differentials still exist can largely be attributed to the low real number of women earning doctorates and the recent heavy reliance on part-time faculty, a status within which women are twice as likely to be employed (Hagedorn, 1995)³. Hagedorn has also shown that wage differentials have been shown to greatly reduce the overall job satisfaction and intent to remain in academia of female faculty.

Inequities in pay and promotion can also be attributed to the effects of unequal participation in domestic labor on the employment histories of women (Johnsrud, 1994). While it is true that many women assume the primary responsibilities for child rearing, housekeeping, and extended family obligations, many do not. A plausible, if partial interpretation of this explanation of employment disparities between men and women is that the stereotype precedes the actual event. Women are perceived to be the primary caretakers of the family and may be offered fewer or different employment opportunities based on this perception regardless of their personal circumstances. These relevant, if not confounded, limitations on equity do not begin to explain wage differentials between faculty members within departments once prejudicing variables have been controlled. Studies of salary inequity suggest that institutions conduct internal audits using institution-specific regression analyses to determine if particular faculty are comparatively under-compensated and if so, take steps to redress the situation (Bellas, 1994,1997; Hagedorn, 1995; Smart, 1991). Unfortunately, economic constraints along with prior retrenchment – which disproportionately affected women faculty and corresponding fields – provide all the requisite justification to simply avoid action altogether.⁴

Despite many gains, as well as legislative actions for equal educational opportunities, the social and economic returns proffered for women by a meritocratic educational system have not yet equaled that for men. Park (1996) writes:

Educational cutbacks combined with fewer tenure-track positions and more restrictive criteria for tenure and promotion have given rise to a revolving door phenomenon, wherein adjunct and junior faculty are rotated through entry level positions without serious consideration for tenure. This has created a new class of gypsy scholars, an intellectual ‘proletariat’ – in order to eke out a living – move from one lowpaying, dead-end teaching post to another. This proletariat is disproportionately female. (p. 46)

The use of the word ‘proletariat’ is particularly appropriate due to the consistently

unequal divisions of faculty labor and diminished rewards to women that can be interpreted effectively through a Marxist feminist framework (Whelehan, 1995). By means of gender stereotypes, the dependence upon women's unpaid labor based on these stereotypes, and the inequitable distribution of rewards, an underclass determined by gender has been perpetuated in academia.⁵ It is commonly understood that tenure and promotion are disproportionately, if not solely, dependent upon research. "If a candidate's research is inadequate, no amount of teaching or service will compensate for this" (Park, 1996, p. 48). A faculty person may successfully fulfill academic obligations without quality teaching or service, and in practice reap long-term benefits for minimizing the teaching and service aspects of his/her career. It is for this reason that I refer to the teaching/service aspect of faculty labor as essentially unpaid. It is the uncompensated re-productive labor of teaching, mentoring, advising, and serving that women engage in that provides the privileged class of male faculty with the time and resources to focus on activities which will further enhance their gender/class privilege.

Legitimacy of Purpose

Professionalization theory as it applies to the power and prestige of a particular clientele may also be helpful to explain the apparent devaluation of traditionally female disciplines and corresponding professions. It would seem that as women participate in care and clean-up activities without due compensation, these activities consequently surrender any value that they might have had. In essence, the work becomes part of women's expected, natural activities and those who are simply doing what comes naturally in their workplace should not expect to be evaluated or compensated for these aspects of their careers (England, 1992; Whelehan, 1995)!

The type of clientele that these natural activities serve is an important factor with regard to overall value as well. Professionalization theory asserts that the power and prestige of a profession are determined in part by the power and prestige of the clientele it serves. For female professions that clientele would be children, sick people, and other women (England, 1993; Nicolson, 1996; Wear, 1997). This concept bears an important relationship to the type of research that women generally produce and how it is perceived. Women have tended to concentrate in academic areas such as education, nursing, home economics, and women's studies, just as minority men and women have concentrated in the relatively new areas of ethnic and minority studies (Hayes, 1990). Consequently, when research is undertaken by women and ethnic minorities in these areas it attends to children, care giving, family relationships, culture, and of course, other women. These research topics do not specifically relate to the generation of revenues, nor do they garner any particular source of power or prestige, but they certainly perform a function of the stated mission of any given educational institution. Nevertheless, questions are raised about the foci and quality of publishing research concentrating on minorities or women, and particularly in journals focused on such scholarship, is often viewed as peripheral or secondary inquiry" (Hayes, 1990, p. 13). The cumulative impact of lack of time and support for research combined with the more subtle dismissal of research produced within female majority fields appears to greatly influence the patterns of diminished resources to these fields.

Because research is so critical to the maintenance and advancement of a discipline, obstacles to its production will affect future assets such as prestige, salaries,

and access to funding sources. Resource dependency theory addresses the ways in which organizations will adapt and be shaped by their ability to access resources. The greater the perceived dependency, the more the institution will respond. Universities have become dependent upon research as a source of economic rewards and will promote those areas with proven success above all others. Although it is difficult to estimate the costs and rewards of university research projects, research can be operationalized as an academic 'production function' (Feller, 1995). Faculty time engaged in research can be constructed as a resource toward a given project's productivity, which holds value for both the researcher and the institution. As the faculty time is spent elsewhere or divided away from the project, it becomes more costly. The cost of women's research grows once measures of competition and the necessary academic commitment or cost sharing are factored into the equation. The evidence regarding diminished state funds to academic units with high percentages of female faculty (Volk, 1995) compounds the already limited research capacity and subsequent external sources of funding apparently related to future state allocations (Volk, 1995). Finally, the evaluation of research, if truly biased against women (Hayes, 1990), may prove simply not worth the effort.

Conclusion

In this paper I have focused on the patterns of resource allocation to higher education by which gender inequities are perpetuated and reinforced. I argue that the current finance policy, which elevates the role of higher education in economic development, erodes the gains made by women and exacerbates the existing gender bias in academia. The privileging of institutions and academic units that are perceived to have external market value reproduces, or more accurately renegotiates gender bias into the new agenda. From the initial policy narratives to the funding support as means to these ends, gender biases accumulate, widening the gap of economic benefits between men and women.

This paper has outlined several examples of the inequitable distribution of resources to women in higher education. Political narratives that have shifted the focus of education from teaching, research, and service to promote higher education as an agent in the global economy have stratified fields and professional rewards by gender. There is an unequal allocation of the critical resource of time to women faculty in the form of heavier teaching loads, fewer graduate assistant hours, and heightened obligations to service. Unequal allocations also exist in the form of restriction of resources from the institutions, and consequently from state and external agencies, to traditionally female fields. Traditionally female disciplines have disproportionately been the targets of retrenchment (Slaughter, 1993) and were likely operating with comparatively fewer resources prior to retrenchment. Given these circumstances, one could speculate that the survival of female majority fields has relied heavily upon the steadily increasing influx of female students.

Although women make up over 55% of total enrolments in higher education (NCES, 1995), they are vastly under-represented in the highest ranks of faculty and administration. This phenomenon has been explained in a number of ways, focusing on one central theme that places the responsibility for unequal outcomes on women and their individual and collective choices, rather than on entrenched institutional structures (Gutek, 1985; England, 1993; Kanter, 1977). If higher education is to maintain a credible foundation based on principles of meritocracy, particularly when utilizing government

funds, it must be restructured to provide professional and economic rewards for female scholars and adequate resources to female majority fields commensurate with those afforded to men and male majority fields.

Parity for women in academia must include a redistribution of resources toward disciplines that have traditionally attracted women so that quality research may be increased, and in turn, enhance the prestige of these programs and their associated professions. In order to have female role models in the prestigious and higher paying sciences there must first be female science students. Further research is needed to assess the conditions of traditionally male academic fields that act as deterrents to potential female students, and action must be taken to improve what has been described as a chilly climate.

Given the heightened obligations of higher education to U.S. economic development, policy agenda setting by women academics as well as men in traditionally female disciplines should include a greater attention to resource generation and research activity, and should consider the construction of market arguments and the promotion of competitiveness agendas for traditionally female disciplines. Tenure and promotion decisions must be evaluated with sensitivity to the heightened demands placed on female faculty for caring activities such as teaching and advising which have consistently carried less weight in promotion decisions than activities centered around research. Institutions must not ignore evidence that outlines the disparities within budgeting policies and practices, and should maintain consistent institutional audits to address and compensate for unequal treatment. Informed, more sensitive means of distributing resources are necessary to provide adequate foundations and fair competition for the advancement of traditionally female disciplines.

Endnotes

1. This amendment was reinterpreted during the Carter Administration to allow greater flexibility.
2. Slaughter (1993) points out that monies distributed by federally funded mission agencies such as the Department of Defense and National Institutes of Health can hardly be considered a free market.
3. It has been assumed that women voluntarily choose part-time work, ostensibly to balance domestic obligations. It is unclear as to whether full-time positions are declined or simply not offered (Hagedorn, 1995).
4. The psychological term 'denial' as it applies to institutions is probably more accurate, but difficult to prove.
5. Economic rewards can be real or perceived in the forms of commitment, competitiveness, or prestige.

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